Infor EAM User Guide

Release 11.2

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About this guide

Objectives

This guide contains procedures for basic operations, asset management, materials management, data collection, purchasing management, work management, budget management, inspections management, project management, reports, and call center management within Infor EAM.

Intended audience

This guide is intended for the Infor EAM user.

Organization of this guide

This table describes the chapters of this guide:

Chapter	Description
Basics	Instructions on basic operation of Infor EAM
Asset management	Instructions on how to control the organization and use of equipment
Materials management	Instructions on how to maintain materials inventory using an online catalog of parts, stores, manufacturers, and suppliers
Purchasing management	Instructions on how to facilitate the process of purchasing goods
Work management	Instructions on how to manage work by creating, planning, and scheduling work orders
Inspection management	Instructions on how to control preventive maintenance (PM) functions within your organization
Calibration management	Instructions on how to maintain calibration data to ensure the accuracy of your equipment
Project management	Instructions on how to define special projects in addition to the work defined in the work management and asset management modules

Chapter	Description
GIS integration	Instructions on how to show equipment spatially via maps to better locate the equipment, directions to the equipment, work history of the equipment, and the surrounding area of the equipment
Fleet management	Instructions on how to manage fleet motor pools and the fleet billing process
Infor EAM Microsoft Project interface	Instructions on how to facilitate work order scheduling and resource assignment in MS Project and the Infor EAM database
Asset management services	Instructions on how to operate as a business unit and charge the cost of maintenance work to the customers for whom the work is performed
Budgets	Instructions on how to define budgets to track expenses and set spending limits for specified time periods or items
Contracts	Instructions on how to define purchasing contracts for details on agreements for parts
Call Center	Instructions on how to handle incoming customer requests for action, information, or comments
Web service prompt execution	Instructions on how to create user-defined screens that utilize web services on which the system is architected

Related documents

This guide references other documents. See these documents for more information about how to work within Infor EAM.

- *Infor EAM System Administrator Guide*
- *Infor EAM Installation Guide*

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal.

If we update this document after the product release, we will post the new version on this website. We recommend that you check this website periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

Basics

1

This chapter describes Infor EAM features and outlines the procedures for basic operation.

Starting the application

Infor EAM is a Web-architected, Internet-based application.Infor EAM can only be accessed through the Internet Explorer (version 6.0 or higher) browser. Additionally, your browser must be set up to allow cookies and enable JavaScript before accessing the login page.

To start Infor EAM:

1 Choose **Start > Programs > Internet Explorer** from the Windows taskbar.

2 Specify this information:

Address
Specify the URL provided by your system administrator.

User ID
Specify your user ID.

Password
Specify your password.

Note: Users can change passwords at any time.

Periodically, you are required to change your password.

3 Click **Log In**.

If you have query rights for the Start Center home page, work orders, purchase requisitions, and service requests assigned to you are displayed. To see the record details, double-click the selected record.

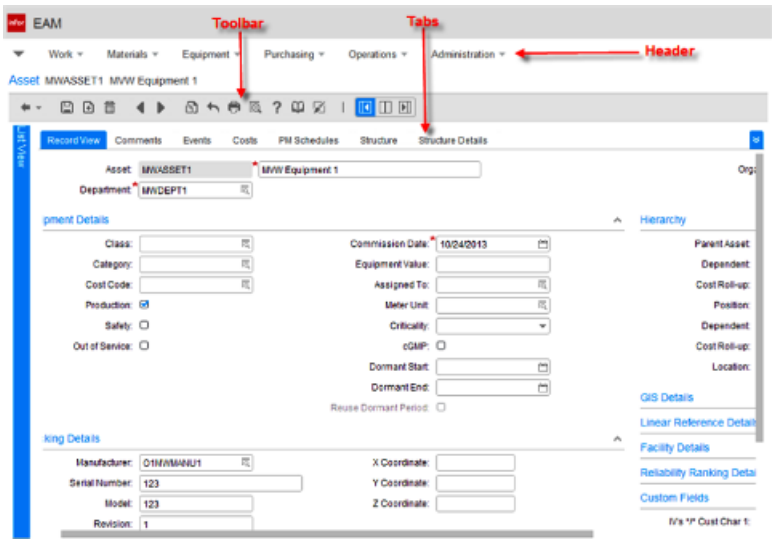
Note: To log out and return to the login page, click **Logout** on the header.

If you want to bookmark the login page as a shortcut link, you may provide the User ID in the URL http://YourServer/web/base/logindisp?userid=YourUserID. If your User ID contains a "+" symbol, then you must substitute "%2B" for the "+" symbol.

Navigating the user interface

Infor EAM includes several navigation options that allow you to quickly and easily find the pages and information you need. Navigate through the system by clicking icons, menus, buttons, tabs, and hyperlinks on each page.

See the following sample screen, which details the user interface:



Accessing options on the header

Access basic functions on the header drop-down, which is displayed in the left-hand pane on all pages. Additionally, click on the navigation tabs to access the major functional areas or modules within the system.

See the following descriptions when accessing options on the header:

Option	Function
START CENTER	Displays the **Start Center home** page
MY ACCOUNT	Displays the **My Account** page, which allows you to view and change your e-mail address, system language, login password, and success message information
HELP	Displays help topics covering system procedures and a link to the User's Guide
ABOUT	Displays system application information, such as application name, version number, schema name, and user ID

LOGOUT	Logs out of the system

Accessing the menu bar

The system displays functions and menus that apply to a form or page on the menu bar. When you position your mouse over the navigation menus on the menu bar, the system displays a "drop-down" menu that lists the forms that apply to that navigation menu. Select an item from the drop-down menu to open the corresponding form.

Click the drop-down menu to view the screens currently in the history queue. This includes most recently viewed screens during a session, and the cached screen folder, with cached screens displaying alphabetically. The entire history is cleared when you log out and therefore won't be available when you log back in.

Using the toolbar

Access basic system functions on the toolbar. Hover the cursor over a button to view a pop-up description of the button’s function.

See the following descriptions when accessing buttons on the toolbar:

Button	Function	Shortcut
	Previous Screen returns to the previous page	CTRL+Left Arrow or F11
	Save Record saves the current record	CTRL+S or F10
	New Record inserts a new record	CTRL+N or F6
	Delete Record deletes the record	CTRL+D or CTRL+F6
	Next Record displays the next record	CTRL+Down Arrow
	Previous Record displays the previous record	CTRL+Up Arrow
	Copy Record copies the current record. See "Copying records" on page 42.	CTRL+F or F4
	Reset Screen clears changes to the current record	CTRL+R

	Print Record prints the current record	ALT+P
	Print Preview displays a preview of the current report	
	Help displays online help for the current page	ALT+H
	Screen Designer displays the page in designer mode, for system administrators only	ALT+E
	EPAK opens a link to Infor's Education Performance Accelerator Kit (EPAK), an end-user training and support application to help you get up and running quickly.	ALT+K
	Expand Left closes the summary grid and displays the full record view layout.	
	Split View restores the split view layout with a summary grid of records on the left-pane and a record view layout on the right-pane.	
	Expand Right closes the record view and displays a full list view layout.	

Understanding tabs

Some forms within the system include multiple tabs. Each tab displays a page on the form. Some tabs are displayed by default, and others must be manually added to the form.

To add a tab to a form, click **More**, and then choose the tab to add. The added tab will not be saved by default after you log out of the system. Permanently adding a tab is a security function performed by your system administrator. Contact your system administrator for more information.

Understanding the message bar

The system uses the message bar at the top of the window to quickly display messages, errors, and options you must view or select after performing an action. The message bar can include any of the following message types:

Error
Indicates an error (e.g., a requisition must contain line items or the record has been modified by another user)

Warning
Warns the user of an impending action (e.g., password expiration or overwriting an existing record)

Question
Requires the user to select an option before taking an action (e.g., enter a reason for rejection prior to rejecting a requisition or work request)

Success
Indicates the action was successfully completed (e.g., clicking Submit successfully created a requisition)

Information
Displays informational text that is not the result of a user's action (e.g., a system message)

Using the keyboard shortcuts

Keyboard shortcuts are keys or key combinations for functions within Infor EAM.

System keyboard shortcuts

The following keyboard shortcuts allow easy access to the system-level functions available on the header:

Function	Shortcut
My Account	CTRL+F9
Help	CTRL+H
About	CTRL+F10
Log Out	CTRL+Q
Opens first listing in the Main Menu	CTRL+M

Screen-level keyboard shortcuts

The following keyboard shortcuts allow easy access to screen-level functions:

Function	Shortcut
Next record	CTRL+Down Arrow
Previous record	CTRL+Up Arrow
Copy record	CTRL+F or F4

Function	Shortcut
New record	CTRL+N (not supported for Chrome) or F6
Save record	CTRL+S or F10
Reset screen	CTRL+R
Back/Previous screen	CTRL+Left or F11
Delete record	CTRL+D or CTRL+F6
Help (toolbar button)	ALT+H
EPAK	ALT+K
Open lookup	F9
Screen-level help	F1
Print screen	CTRL+P
Open/close the multi-field search on List View and Record View screens	F7
Execute a multi-field search	F8
Open the Jump to Screen popup	CTRL+F2
Clear the filter values and reset the operators in the multi-field search	ALT+C

Screen designer keyboard shortcuts

Keyboard shortcuts are keys or key combinations for system functions. The following keyboard shortcuts allow easy access to screen designer functions while in designer mode:

Function	Shortcut
Save layout	CTRL+S
Open group selection	CTRL+G
Switch to preview mode	CTRL+W
Switch to screen designer mode	ALT+E
Exit screen designer mode	CTRL+I

Date keyboard shortcuts

The following keyboard shortcuts allow easy access to enter dates. Position the cursor in the date field prior to entering the shortcut steps.

Function	Shortcut
Enter the current date	Press SPACEBAR

Function	Shortcut
Enter a specific date or partial date in the date field	Press numeric keys to enter the desired date and then press TAB to exit the field. The date is evaluated and displays the closest match in the required format. For example, if youenter 070102, the system displays Jul/01/2002.

Note: Use the "+" and "-" keys to change the date when the cursor is in the date field. Press the "+" key to add one day to the date. Press the "-" key to subtract one day from the date.

Accessing right-click options

The system includes two types of right-click menu options: system-level and screen-level. Right-click menu options are available when inserting or updating records.

Screen-level options

Screen-level options are displayed at the top of the right-click menu. The screen-level options change based on which screen is being accessed. A right-click menu option is displayed for each button that appears on the screen.

System-level options

System-level options are displayed at the bottom of the right-click menu. System-level options are common functions that are available on most screens, such as audit trail. See the following table for more information on right-click functionality at the system level:

Feature	Function
Audit Trail	Monitors attribute changes to records. See "Auditing Attributes" in the *Infor EAM System Administrator Guide*.
Add to Screen Cache	Adds the name of the screen as a tab at the bottom of the application.
Remove from Screen Cache	Removes the name of the screen as a tab at the bottom of the application.

Updating fields

A field is a single topic of information in a record. Required fields (noted by a shaded color) must be completed for a record to be valid.

Right-click in a field within a grid to update selected rows. Updating fields in Infor EAM follows the standard Windows controls for selecting rows:

- **CTRL+CLICK**
  Individually selects and unselects rows.

- **SHIFT+CLICK**
  Selects all rows between the clicked row and the most recently selected row. Shift+Click also unselects all rows that do not meet the criteria above.

The header at the top of the form will not update for subsequent selections; it will always show the first record selected. Therefore, if the **List View** page has multiple records selected, the system remains on the record displayed in the header. The multi-selection is lost when you leave the page.

If you click off the record that is currently being displayed in the header, the system displays the top-most selected record in the header.

Note: The update fields feature is available only on the following List View pages: Work Orders, Parts, Equipment, Requisitions, Purchase Orders, and User ID.

To update fields:

1. Select the records to update.
2. Right-click on a selected record, and then select **Update Field**.
3. Specify this information:

   Field
   Select the field to update.

   Note: Not all fields are available for update in the right-click options. If a field is Protected or Hidden, it is not included in the list. In addition, some fields with associated special business rules, i.e., prompting the user with a yes/no question, are excluded.

   New Value
   Specify the new value for the field.

   Set Value to Null
   Select to set the field to null.

4. Click **Submit**.

Entering information into fields with the equipment lookup

The equipment lookup enables you to search for assets, positions, systems, and locations and retrieves them to fields and forms within the system. You can filter the list of records in the lookup based on the key fields and many attributes of the equipment. You can also view an equipment's hierarchy using the equipment lookup and retrieve equipment records to fields and forms within the system from the Structure Details.

Note: When invoked from some forms within the system, the equipment lookup enables you to retrieve multiple equipment records to forms at once.

Entering equipment with the equipment lookup

To enter equipment with the equipment lookup:

1 From any form containing the equipment lookup, click the equipment lookup icon.

Note: Enter the first few characters of the value for which you are searching, and then click the equipment lookup icon.

If you entered the first few characters of the piece of equipment and only one equipment record that begins with those characters exists in the database, the system automatically displays the equipment record on the **Structure** page. The system does not display any equipment records until you conduct a search.

2 Choose one of the following options:

- **Dataspy**
  Select an existing Dataspy or edit an existing dataspy.

- **Quick Filter**
  Define a quick filter to filter the list of records in the lookup based on the key fields and many attributes of the equipment, and then click **Run**. The system displays equipment records that are not Out of Service or Withdrawn.

3 Choose one of the following options:

- Double click the row containing the equipment to retrieve.
- Select for each equipment record to retrieve, and then click **OK**.

4 Click **OK**.

Viewing equipment hierarchies with the equipment lookup

View equipment hierarchies of parent/child relationships between equipment. Select records within the hierarchy to retrieve equipment forms and fields within the system.

To view equipment hierarchies with the equipment lookup:

1 From any form containing the equipment lookup, click the equipment lookup.
2 Enter the Dataspy and Quick Filter details to query for the equipment for which to view a hierarchy.
3 Select the record for which to view the equipment hierarchy, and then click the **Structure** tab.
4 Choose one of the following options as necessary:

Display as Focal Point
The system sets the focus of the **Structure** tab to the selected record.

Show Details
The system returns to the **Search** page and updates the Equipment list with only the selected record.

Note: Click the **Search** tab to return to the **Search** page without selecting a specific record from the equipment hierarchy.

5 Select the record(s) to retrieve, and then click **OK**.

Entering custom fields

Further define records with custom fields.

Note: Define custom fields on the **Custom Fields** form and the **Associate Custom Fields** form. Contact your system administrator for more information.

To enter custom fields:

1 From any form, click the **Record View** tab.
2 Enter information in the fields as necessary.
3 Click **Save Record**.

Entering user defined fields

Enter user defined fields as an alternative to custom fields. User defined fields are stored in the parent table of each record (rather than in a separate table as with custom fields).

Note: Fields types available are text, date/time, number, and checkbox.

To enter user defined fields:

1 From any form containing user defined fields, click the **Record View** tab.
2 Enter information in the fields as necessary.
3 Click **Save Record**.

Defining options for user defined text fields

To define options for user defined text fields:

1 Click the **Record View** tab.
2 In Screen Designer mode, right-click in a user defined text field, and then select **User Defined Field Options**.
3 Specify this information:

Lookup Type
Select one of the following options:

- **None**
- **Code**
- **Code and Description**
- **Entity**

Lookup Entity
Specify the entity to be used for the lookup.

Note: Lookup Entity is available only for **Lookup Types** of Entity.

Minimum Value
Specify the minimum value for the field.

Maximum Value
Specify the maximum value for the field.

4 Select the **Validate Against Lookup** check box to validate this field against the lookup.
5 Select the **Print UDF on Supported Reports** check box to print this field on reports with the Print UDF option.
6 Select the **Enable UDF for Add-ons** check box to enable this field for add-ons.
7 Click **Submit**.

Defining options for user defined date/time fields

To define options for user defined date/time fields:

1 Click the **Record View** tab.
2 In Screen Designer mode, right-click in a user defined date/time field, and then select **User Defined Field Options**.
3 Specify this information:

Minimum Value
Specify the minimum value for the field.

Maximum Value
Specify the maximum value for the field.

Display Time Element
Select to display the time element adjacent to the date.

4 Select the **Print UDF on Supported Reports** check box to print this field on supported reports.
5 Select the **Enable UDF for Add-ons** check box to enable this field for add-ons.
6 Click **Submit**.

Defining options for user defined number fields

To define options for user defined number fields:

1. Click the **Record View** tab.
2. In Screen Designer mode, right-click in a user defined number field, and then select **User Defined Field Options**.
3. Specify this information:

   Minimum Value
   Specify the minimum value for the field.

   Maximum Value
   Specify the maximum value for the field.

   Number Type
   Choose one of the following options:

Option
Number
Currency
Integer

   UOM Value
   Specify the unit of measure for the field.

4. Select the **Print UDF on Supported Reports** check box to print this field on supported reports.
5. Select the **Enable UDF for Add-ons** check box to enable this field for add-ons.
6. Click **Submit**.

Defining options for user defined checkbox fields

To define options for user defined checkbox fields:

1. Click the **Record View** tab.
2. Enter information in the fields as necessary.
3. In Screen Designer mode, right-click in a user defined check box field, and then select **User Defined Field Options**.
4. Select the **Print UDF on Supported Reports** check box to print this field on reports with the Print UDF option.
5. Select the **Enable UDF for Add-ons** check box to enable this field for add-ons.
6. Click **Submit**.

Managing lists

The system often displays information in tabular format, such as list view pages, the **Asset Warranties** page containing a list of items, and any lookup. Select a row in a list to view record details or select data from a list view. You can also quickly sort, filter, re-arrange or resize fields if the system defaults do not suit your needs.

Selecting rows in a list

Select rows in a list to view the record associated with the row, to copy the row data from a lookup to fields on a page, or to specify records on which to perform an action

To select rows in a list:

1. Open any page or lookup containing a list of records.
2. Click anywhere in the row to select the row.
3. Choose one of the following options:

Option	Description
Perform an action on the selected row	Click the button corresponding with the action.
If the row is in a list view, view the details of the record associated with the row	Double-click the row.
If the row is in a lookup list view, copy the row data to fields on the original page	Double-click the row (or select the row, and then click **OK**).

Defining quick filters on forms

Filter a list of records on forms to display only those records that meet your specified criteria.

Note: The system applies the filter in addition to any filter criteria specified in a Dataspy that is applied to the list.

Note: To filter multiple fields simultaneously on the list view, click **Grid Menu**, and then select **Show Filter Row**. The system displays the filter row on the list view. Select the operators for multiple fields, click **Filter Menu**, and then click **Run Filter**. The system displays the records matching the filter criteria.

To define quick filters on forms:

1. Open any form containing a list of records.

   Note: On list views, the system displays the number of records that were located using the specified Dataspy on the filter bar.

2. Select the **Filter** field on which to filter from the first drop-down list.

Note: For forms that include custom fields, the custom fields are displayed at the end of the filter drop-down list. Only custom fields associated to the entity of the screen AND associated to a class with an organization for which the user has query rights will be displayed. If more than one entity exists for the screen, then only the primary entity will be used.

The field being queried, which is the first field of the three, defaults to the first column in the grid unless the first column is a non-data bound select checkbox. To change the default quick filter, modify the grid layout then save the changes.

See "Saving the list layout" on page 42.

The operator of the quick filter, which is the second field of the three, can default to Starts With or Contains. Set the value of the QUICKDEF install parameter to S or C.

3 Select an operator from the second drop-down list. See the following table for operator options:

Operator	Definition
Starts With	Search for items with a description that begins with the entered value.
Equals	Search for items with a value equal to the entered value.
Does Not Equal	Search for items with a description that does not equal the entered value.
Contains	Search for items with a description that contains the entered value.
Does Not Contain	Search for items with a description that does not contain the entered value.
Ends With	Search for items with a description that ends with the entered value.
Is Empty	Search for items with a description that has no entered value.
Is Not Empty	Search for items with a description that has any entered value.
Less Than	Search for items with a value less than the entered value.
Greater Than	Search for items with a value greater than the entered value.
Less Than or Equals	Search for items with a value less than or equal to the entered value.
Greater Than or Equals	Search for items with a value greater than or equal to the entered value.
Selected	Search for items where the checkbox is selected. This applies to checkbox fields only.

Operator	Definition
Not Selected	Search for items where the checkbox is not selected. This applies to checkbox fields only.
Either Selected or Not Selected	Search for items where the checkbox is either selected or not selected. This applies to checkbox fields only.

4 Enter the value for which to filter in the third field.

Note: If the field on which you are filtering is displayed on a Record View page, the third field in the quick filter will display according to that field type: text box, drop-down list, lookup, checkbox, or calendar.

5 Click **Run**.

Defining quick filters on lookups

Filter a list of records on lookups to display only those records that meet your specified criteria.

Note: The system applies the filter in addition to any filter criteria specified in a Dataspy that is applied to the list.

To define quick filters on lookups:

1 Open any lookup containing a list of records.

2 Select the **Filter** field on which to filter from the first drop-down list.

Note: For forms that include custom fields, the custom fields are displayed at the end of the filter drop-down list. Only custom fields associated to the entity of the screen AND associated to a class with an organization for which the user has query rights will be displayed. If more than one entity exists for the screen, then only the primary entity will be used.

3 Select an operator from the second drop-down list. See the following table for operator options:

Operator	Definition
Starts With	Search for items with a description that begins with the entered value.
Equals	Search for items with a value equal to the entered value.
Does Not Equal	Search for items with a description that does not equal the entered value.
Contains	Search for items with a description that contains the entered value.
Does Not Contain	Search for items with a description that does not contain the entered value.

Operator	Definition
Ends With	Search for items with a description that ends with the entered value.
Is Empty	Search for items with a description that has no entered value.
Is Not Empty	Search for items with a description that has any entered value.
Less Than	Search for items with a value less than the entered value.
Greater Than	Search for items with a value greater than the entered value.
Less Than or Equals	Search for items with a value less than or equal to the entered value.
Greater Than or Equals	Search for items with a value greater than or equal to the entered value.

4 Enter the value for which to filter in the third field.

Note: If the field on which you are filtering is displayed on a **Record View** page, the third field in the quick filter will display according to that field type: text box, drop-down list, lookup, checkbox, or calendar.

5 Click **Add Line** to add additional lines to the filter.

6 Click the **AND/OR** hyperlink to select one of the following join operators:

Option	Description
Include records that include all joined conditions	Select **AND**.
Include records that contain one or the other condition	Select **OR**.

7 Click **(** or **)** to add a parenthesis to the highlighted row. These parentheses are used when running a query to group statements together when mixing AND and OR statements.

8 Specify additional conditions by which to filter as necessary.

9 Select the **Default Dataspy** check box to make the Dataspy the default Dataspy for the form.

10 Click **Run**.

Note: You can also press **ENTER** to display the records matching the filter criteria.

Sorting lists

Sort a list of records by any column in the list in ascending or descending order.

To sort lists:

1 Open any page or lookup containing a list of records.
2 Choose one of the following options:

- **Sort the records in ascending (A-Z) order**
  Double-click the column header of the column by which to sort the list.

- **Sort the records in descending (Z-A) order**
  Double-click the column header of the column by which to sort the list, and then double-click the column header again.

Arranging columns in a list

Arrange the order in which columns in a list are displayed.

To arrange columns in a list:

1 Open any page or lookup containing a list of records.
2 Click and hold the column header of the column to move.
3 Holding the mouse button down, drag the header on top of the column header next to which you want the column to appear until the target column header is highlighted.

   Note: If the column header is dragged from left to right, the column header is placed after the target column. If the column header is dragged from right to left, the column header is placed before the target column.

4 Release the mouse button. The column is arranged in the specified order.

   Note: To save the order and sizes of the columns, click **Save Record** in the upper-right part of the list view.

Resizing columns in a list

Specify the widths of columns in a list.

To resize columns in a list:

1 Open any page or lookup containing a list of records.
2 Position your mouse over the right-hand border of the column to resize.
3 Click and hold the column border, and then drag the border in the desired direction to increase or decrease the width of the column.
4 Release the mouse button.

   Note: To save the order and sizes of the columns, click **Grid Menu** in the upper-right part of the list view. Select **Save Grid Layout**.

Saving the list layout

After arranging the columns in the list view, save the layout to be used each time you return to that screen.

To save the list layout:

1. Open the form for which to save the layout.
2. Modify the page layout as necessary.
3. Click **Grid Menu** in the upper-right part of the list view.
4. Click **Save Grid Layout**.
5. Click **OK**.

Copying records

Use the Copy Record toolbar button to copy information from one record to another record within the same form. Copying a record creates an editable copy of the record that contains the same base data. The **Copy Record** button is only available on forms that have List View and Record View pages, and it is only enabled on the **List View and Record View** pages.

Note: To copy a record, you must have insert rights for the organization of the record you are copying.

To copy records:

1. Open the form for which to copy records.
2. Select the record to copy, and then click **Copy Record**. The system copies values from the previously selected record to the new record, including custom fields, and displays the form in insert mode.

   Note: To maintain certain business and security rules, some displayed fields may not copy over to the new record. Verify all copied data before saving the record.

3. Modify the record as necessary.
4. Click **Save Record**.

Exporting records

Export records from to a Microsoft Excel file to extract information from the database without making an external connection, e.g., from outside of the system, to the database. The file can be viewed using Microsoft Excel.

Note: The export to Excel function exports a maximum of 64,000 records.

To export records:

1. Open the form from which to export records.

Note: The system will export the results of the last query performed, even if you are not currently viewing those records (e.g., if you cleared the form or if this exceeds the limit of what is displayed on the grid).

2 Click **Grid Menu**.

3 Click **Save Grid to Excel**.

4 Save the file as necessary.

Displaying the total record count

All list views have the ability to display the total record count, even if this count exceeds the current maximum number of records that can be displayed in the list view.

To display the total record count:

1 Open the form for which to display the total record count.

2 Click **Show Total Record Count**.

3 Click **OK**.

Associating documents

Associate documents with records using the **Documents** page and specify whether the system copies and/or prints document attachments linked to work orders. For example, a technician who created an equipment record needs to attach a document to the record, such as schematics, drawings, warranties, etc. You may also associate documents to task plan jobs on the **Jobs** and **Documents** tabs of the **Task Plans** form.

The copy and print options displayed on the Documents popup change dynamically depending on the record to which you are linking a document. Documents can be of any file type. The documents being associated must have already been created using the **Documents** form.

Note: You can only print document attachments that are Adobe Acrobat Portable Document Format (.PDF) files for work orders.

To associate documents:

1 From any form, click the **Documents** tab.

2 Click **Add Document**.

3 Specify this information:

Document
Enter the document to associate. The system automatically populates the **Document Description** and other document details.

Choose one or more of the following options as necessary:

- **Print with Work Order/Print with Purchase Order**
  Select to enable the system to print document attachments when you print the work order or purchase order. If selected, the system prints the .PDF attachments from the purchase order or work order.

  Print with Work Order is only displayed for document attachments associated with assets, systems, positions, categories, profiles, work orders, and preventive maintenance schedules. **Print with Purchase Order** is only displayed for documents associated with parts and purchase orders.

- **Copy to Work Order/Copy to Purchase Order**
  Select to enable the system to copy any document attachments associated with a part on a purchase order line to the purchase order or to copy any document attachments associated with a piece of equipment on a work order to the work order. If selected, the system copies the document attachments from the part, equipment, PM, or standard work order to the purchase order or new work order.

  Copy to Work Order is only displayed for document attachments associated with the OBJ, STWO, or PPM entities. **Copy to Purchase Order** is only displayed for document attachments associated with the PART entity.

  Note: You can only select to copy a document attachment to a purchase order or work order when you originally create the purchase order or work order. After saving a purchase order or work order to the database, modifying the copy settings for document attachments for a part, equipment, PM, or standard work order will not roll down and affect any existing purchase orders or work orders. Any changes made to the copy settings for document attachments after initially saving them to the database will only affect any purchase orders or work orders for the part, equipment, PM, or standard work order when a new purchase order or work order is generated for the modified part, equipment, PM, or standard work order.

  Choose one of the following options:

  - **Copy Link**
    Select to copy the link to the document.

  - **Copy Document**
    Select to make a copy the document and link the copy to the work order.

- **Print with Report**
  Select to enable the system to print document attachments when you print reports. If selected, the system prints the .PDF attachments from the report.

  Print with Report is not displayed for document attachments associated with assets, systems, positions, work orders, parts, purchase orders, or customer requests.

  Note: Although the **Print with Report** check box is available on all entities, only some reports support the Print Attachments option.

4 Click **Save**.

Note: To view a document before you save the record, click **View Document**.

Note: To upload a document after you save the document association, click **Upload Document**.
See "Uploading documents" on page 45.

Uploading documents

Upload a document from your local system to the web server. The system uploads the document and creates a new document record. If the new document record is created from the Documents tab of a form, the system associates the new document record to the selected record on the specific form. For example, a foreman may create a piece of equipment and attach a document such as a drawing, a warranty, or other schematic to the equipment by uploading the document to the equipment record.

To upload documents:

1. From any form, click the **Documents** tab.
2. Click **Create/Upload Document**.
3. Specify this information:

   Document Code
   Specify a unique code identifying the document, and then enter a description of the document in the adjacent field code.

   Organization
   Specify a document organization.

   Choose one of the following options as necessary:

   - **Create File System Document**
     Select to create a file system document.

   - **Upload Document**
     Select to upload a document.

   File Name
   Specify the file name, or click **Browse**.

   File Path
   Specify the file path.

4. Click **Submit**.

Entering comments

Enter comments for most modules in the system using the **Comments** page. You can also specify whether the comment should print with the specified record.

Access the **Add/Edit Comments** page via the Add/Edit Comments link on certain forms. The procedures for entering comments are the same, regardless of how you access the **Add/Edit Comments** page.

Adding comments

Enter comments on records.

To add comments:

1 From any form which supports comments, select the record for which to add comments, and then choose one of the following options:

- **Using the Comments tab**
  Click the **Comments** tab. The **Comments** page is displayed. Click **Add Comment**. The Add/Edit Comments popup is opened with HTML Editor Capabilities.

- **Using the Add/Edit Comments link**
  Click **Add/Edit Comments** for a selected record on the details tab of a form that supports adding comments, and then click the **Activities** tab of the **Work Orders** form. The Add/Edit Comments popup is opened with HTML Editor Capabilities.

Note: Set HTMLCOMM to ON to view the HTML Editor toolbar. Contact your system administrator for more information on installation parameters.

Crystal Clear Reports and Cognos Reports do not support HTML formatting. For Cognos Reports, the system will display comments as text without formatting.

To access spell check functionality within the HTML Editor, download and install iSpell at www.iespell.com.

2 Specify this information:

Language
Select the language of the comment.

Comments
Enter the comments on the form.

Note: Format comments using the HTML Editor toolbar.

3 Optionally, select the **Print with Document** check box to indicate that the comments print on the associated report.

4 Click **Save**.

Modifying comments

Modify comments on records.

Note: The **Work Order Quick Close** form does not support modifying HTML formatted comments.

To modify comments:

1 From any form which supports comments, select the record for which to modify comments, and then choose one of the following options:

- **Using the Comments tab**
  Click the **Comments** tab. The system displays the **Comments** page. Click the comment to modify. At the bottom of the page, the system expands the Add/Edit Comments section with HTML Editor Capabilities.

- **Using the Add/Edit Comments link**
  Click **Add/Edit Comments**. The system displays the **Comments** page. Click **Expand/Collapse** on Add/Edit Comments. At the bottom of the page, the system expands the Add/Edit Comments section with HTML Editor Capabilities.

Note: To view or edit comments entered in another language, select the desired **Language**. The system displays that language's **Comments**. If no comments were entered for the selected language, the system displays the comments for the user's default language.

2 Modify the existing comments as necessary.

3 Click **Save**.

Note: On the **Comments** page, the system does not display a link for the original Created comment after the comment is modified. To preserve all comments, do not delete any previous comment text when modifying comments.

To save a comment, click **Save Record**.

To clear a comment, click **Clear Comment**.

To delete a comment, click **Delete Comment**.

Viewing audits for comments

View audits in order to monitor changes in comments.

To view audits for comments:

1 Open any entity form.

2 Select the record for which to view the audit, and then click the **Comments** tab.

3 Click **View Audit Trail**.

4 View the audit information.

Note: You can only view audit information if you have established audit control and changes have been made to the fields under audit. Contact your system administrator for more information.

Recorded in Mobile indicates when comments are updated or deleted in Mobile. The date and time reflect updates in Mobile.

5 Click **Close**.

Entering description translations

Enter description translations for languages. For example, when an asset is created, the description becomes the record's description for every language. If the asset's description is entered in English, it will appear in English to all users.

Use the **Translations** tab to translate the description into specific languages. This feature only applies to multilingual installations.

Note: When you update a description on the **Record View** page of any entity record, if that description has previously been translated, the translation becomes invalid and the system unselects **Translated**.

To enter description translations:

1 From any form associated with an entity, select the record you wish to translate, and then click the **Translations** tab.
2 Select the description to translate.
3 Specify this information:

Translated Description
Specify the translated description for the language. The system automatically selects **Translated**.

4 Select the **Translated** check box to indicate that you have entered a translated description.
5 Click **Submit**.

Viewing electronic records and signatures

View electronic records and signatures for entities. The system stores information concerning snapshots and signatures, including the date and type of the snapshot or signature, name of the person who signed or updated the record, the type of the signature entered, and the new status of the record.

To view electronic records and signatures:

1 Open any form requiring electronic signatures for status changes.
2 Select the record for which to view the eRecord, and then click the **eRecords** tab.
3 View the snapshot and electronic signature information.

Note: You can also print the electronic records directly from the eRecords page. Click **Print All eRecords** to print all records in the list for that entity, or click **Print Selected eRecord** to print only a specific record for the entity.

Associating addresses

Associate mail, invoice, and delivery addresses with records and functions. Enter contact information such as address, telephone, fax, and e-mail address.

To associate addresses:

1. From any form associated with an entity, select the record with which to associate or edit the address, and then click the **Addresses** tab.
2. Click **Add Address**.
3. Specify this information:

   Address Type
   Select one of the following options:

   - **Mail**
     Select to create a mailing address.
   - **Invoice**
     Select to create an invoice address.
   - **Delivery**
     Select to create a delivery address.

   Specify the appropriate contact information.

   Full Address
   Specify the full address as well as any comments.

4. Click **Submit**.

Associating parts

Associate parts with records and functions. For example, associate specific parts to an asset, position, system, or location. You can also modify the quantity of an existing part or remove a part from the **Parts Associated** page.

Note: Define parts on the **Parts** form.

To associate parts:

1. From any form associated with an entity, select the record with which to associate parts, and then click the **Parts Associated** tab.
2. Click **Add Part**.
3. Specify this information:

Part
Specify the part to associate with the record. The system automatically populates the part description, **Part Org.**,**Primary Manufacturer**, **Primary Manufacturer Part Number** and **Component Location**.

Note: Click **Stock Info** to view stock information.

Click **Substitutes** to view alternate part information.

Click **Suppliers** to view supplier information for the part.

Click **Manufacturers** to view manufacturer information.

Click **Where Used**to view information on where the part is used.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system automatically populates **Condition**.

Quantity
Specify the number of parts to associate with the record. This number must be greater than zero.

4 Enter additional comments as necessary.

5 Click **Submit**.

Using a Dataspy

A Dataspy is a named, predefined view of a list of records or set of data that can be used on any page, lookup, or data area that contains that same list of records.

A Dataspy consists of the following four basic components:

- **Filter**
  Contains the conditional statements that make up a filter. For example, a Dataspy might filter for all requisitions that have a **Status** "equal to" Approved, and a **Creation Date** "greater than" last Friday.

- **Sort**
  Specifies the order in which the records should be sorted. For example, a Dataspy might sort the requisitions so that the most recently created requisitions are displayed at the top of the list in descending order.

- **Layout**
  Specifies the fields that are displayed in the list and the order in which those fields should be displayed. For example, a Dataspy might specify that the **Requisition Description** column is displayed to the left of the **Requisition Number** column and that the **Storeroom** field is not displayed in the list.

- **Advanced**
  Specifies an additional Where clause used for filtering data. The Where clause is appended to the Where clause generated by the Dataspy Filter.

Note: You can also specify column order by arranging the columns in a list view.

If a custom field saved in a Dataspy is ever unassociated, then that custom field will no longer appear in the Dataspy nor will it impact the Dataspy. If the same custom field is ever associated again, the relationship in the Dataspy will automatically be restored.

Editing an existing Dataspy

Edit the values in an existing Dataspy.

Note: The system automatically includes a number of predefined public Dataspies. Only a system administrator can modify the public Dataspies.

To edit an existing Dataspy:

1. On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.

   Note: You can select a different Dataspy name from the drop-down list on the Dataspy editor header.

2. Edit the Dataspy criteria as necessary.

   Note: Click **Run** to apply the Dataspy to the list without saving changes.

   Select the **Default Dataspy** check box to save the selected Dataspy as the default.

3. Click **Save**. The system applies the Dataspy to the list view from which the Dataspy editor was launched.

   Note: You can only edit and save Dataspies that you created. If you edit a system-delivered Dataspy, the system goes into Copy mode.

Creating and saving a new Dataspy

To create and save a new Dataspy:

1. Open an existing Dataspy from a list view, and then click **New**.
2. Enter a title for the Dataspy in the text box.
3. Edit the Dataspy criteria as necessary.

   Note: Click **Run** to apply the Dataspy to the list without saving changes.

   Click **Cancel New** to cancel the creation of a new Dataspy and return to the previous view.

   Select **Default Dataspy** to save the selected Dataspy as the default.

   You can also press **ENTER** to display the records matching the filter criteria.

4 Click **Save**. The system applies the Dataspy to the list view from which the Dataspy editor was launched.

Creating a copy of an existing Dataspy

Copy the values from an existing Dataspy into a new Dataspy and edit the criteria as necessary.

To create a copy of an existing Dataspy:

1 On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.
2 Click **Copy**.
3 Modify the title for the Dataspy in the text box as necessary.
4 Edit the Dataspy criteria as necessary.

Note: Click **Cancel Copy** to cancel the creation of a new Dataspy and return to the previous view.

Select **Default Dataspy** to save the selected Dataspy as the default.

5 Click **Save**. The system applies the Dataspy to the list view from which the Dataspy editor was launched.

Deleting a saved Dataspy

To delete a saved Dataspy:

1 On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.
2 Click **Delete**.

Note: You can only delete Dataspies that you created.

Specifying Dataspy criteria

Specify the filter, sort, layout, and advanced criteria when creating, editing, or copying a Dataspy. When the Dataspy is applied to a list, the system displays only the records that match the specified filter criteria in the sort order and layout specified.

Specifying Dataspy filter criteria

Select the fields, conditions, and values upon which to filter a list of records.

To specify Dataspy filter criteria:

1 On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.
2 Click **Filter** from the left-hand column of the Dataspy editor.
3 Select a field on which to filter from the first drop-down list.
4 Select an operator from the second drop-down list.

See the following table for operator options:

Operator	Definition
Starts With	Search for items with a description that begins with the entered value.
Equals	Search for items with a value equal to the entered value.
Does Not Equal	Search for items with a description that does not equal the entered value.
Contains	Search for items with a description that contains the entered value.
Does Not Contain	Search for items with a description that does not contain the entered value.
Ends With	Search for items with a description that ends with the entered value.
Is Empty	Search for items with a description that has no entered value.
Is Not Empty	Search for items with a description that has any entered value.
Less Than	Search for items with a value less than the entered value.
Greater Than	Search for items with a value greater than the entered value.
Less Than or Equals	Search for items with a value less than or equal to the entered value.
Greater Than or Equals	Search for items with a value greater than or equal to the entered value.
Selected	Search for items where the checkbox is selected. This applies to checkbox fields only.
Not Selected	Search for items where the checkbox is not selected. This applies to checkbox fields only.

5 Enter a value for which to filter in the third field.

Note: Enter relative dates by specifying + or – with units in days. For example,"-1" is one day back, and last week would be >="-7".

6 Click the **AND/OR** hyperlink to select one of the following join operators:

- **Include records that include all joined conditions**
  Select **AND**.

- **Include records that contain one or the other condition**
  Select **OR**.

7 Click **(** or **)** to add a parenthesis to the highlighted row. These parentheses are used when running a query to group statements together when mixing AND and OR statements.

8 Enter additional conditions by which to filter as necessary.

Note: Click **Add Line** to add additional lines to the filter.

To remove a filter line, choose the blank selection from the first drop-down list.

Specifying Dataspy sort criteria

Select the order in which to sort a list of records.

To specify Dataspy sort criteria:

1 On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.

2 Click **Sort** from the left-hand column of the Dataspy editor.

3 Specify this information:

1st
Select the first field by which to sort the records.

Click to select one of the following sort orders:

- **Sort Ascending**
  Select to sort records either alphabetically or numerically by the selected field (ascending).

- **Sort Descending**
  Select to sort records in either reverse alphabetical or reverse numerical order by the selected field (descending).

4 Enter additional fields by which to sort as necessary.

Note: To remove sort criteria, choose the blank selection from the drop-down lists.

5 Click **Save**.

Specifying Dataspy layout criteria

Select the columns to display when the Dataspy is applied to a list of records, and then specify the order in which the fields will be displayed.

Additionally, the system allows you to specify the number of records that the system will retrieve before it retrieves another set of records from the database in a list view. This setting does not affect the height of a table (i.e., the number of rows that are shown without scrolling the table). This setting is important because it will affect the speed at which the system downloads and displays a list containing a large number of records.

For example, if the value is set at 100 (the default), the system will only download the first 100 records that match the criteria specified in the selected Dataspy. When you scroll to the end of the 100 records, the system will download and display the next 100 records that match the criteria specified in the Dataspy. If the value is set to 300, then the system will not display any of the records until it has downloaded all 300 records.

To specify Dataspy layout criteria:

1 On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.

2 Click **Layout** from the left-hand column of the Dataspy editor.

Available Fields lists all fields that are available but not visible in the list of records, while **Visible Fields** lists all fields displayed as columns in the list of records.

See the following table when selecting or ordering fields:

Function	Procedure
Add a field	Select the field in **Available Fields**, and then click **Add a field**.
Remove a field	Select the field in **Visible Fields**, and then click **Remove a field**.
Add all fields	Click **Add all fields**.
Remove all fields	Click **Remove all fields**.
Reorder fields	Select the field in **Visible Fields**, and then click either **Reorder up** or **Reorder down** to move the field up or down in the order.

3 Specify this information:

Number of data rows to retrieve
Enter the number of rows that the system will retrieve in the list view before it downloads another set of rows.

4 Click the field to select, and then see the table above when selecting or ordering fields.

5 Click **Save**.

Specifying Dataspy advanced criteria

To specify Dataspy advanced criteria:

1. On any list view page, select the Dataspy to edit from the drop-down list on the filter bar, and then click **Edit**.
2. Click **Advanced** from the left-hand column of the Dataspy editor.
3. Specify this information:

   Where Clause
   Enter an additional Where clause as necessary. The Where clause is appended to the Where clause generated by the Dataspy Filter. The Where clause will be appended with an "AND" statement if a Filter has been specified.

4. Click **Test Where Clause**.

   Note: Click **Display SQL Statement** to view the entire SQL statement. The **SQL Statement** field is read-only.

Hiding global Dataspies

Choose to hide global Dataspies from selected user groups on specific screens or tabs.

To hide global Dataspies:

1. Select **Administration > Security > User Groups**.
2. Select the user group for which to hide Dataspies, and then click the **Screen Permissions** tab.
3. Select the screen or tab for which to hide Dataspies, and then click **Hide Global Dataspies**. The system automatically populates **Dataspy Name** and **Global Default**.
4. Select the **Hide Dataspy** check box to hide specific Dataspies from the selected user group.
5. Click **Submit**.

Viewing the Start Center

View inbox entries, KPIs, and charts on the **Start Center** page.

To view the **Start Center**:

1. Log in to Infor EAM.

   Note: To return to the **Start Center** from any other form, click **Start Center** on the header.

2. View the **Inbox**, **Chart Controls** and **KPIs** sections.

   Note: The system automatically recalculates the values of inbox entries and the KPI data that have **Auto Refresh** activated when you open the **Start Center** page.

   To manually refresh the inbox entries and KPIs, click **Refresh**.

Understanding the Start Center inbox

The inbox displays pending actions or activities (inbox entries) for users on the **Start Center** page. You can call screens necessary to complete actions or activities associated with inbox entries directly from the inbox. Inbox entries can either be user-group specific or public and can be assigned to specific user groups or defined as public entries that are displayed for all users.

Access the inbox by invoking the **Start Center**, or the system administrator can set up the inbox to open automatically when you log in to the system. Configure the inbox to refresh completely or selectively every time it is accessed.

The system administrator associates SQL select statements with inbox entries. These statements define inbox entries that query the database for the appropriate instances of an entry to retrieve to your inbox.

Depending on your system privileges, you can also modify the inbox by adding and/or deleting entries. You can also modify the order and sequence in which entries are displayed.

The system displays a description and value for each entry in the inbox. If a screen is selected for an entry during definition, the system administrator enters a Dataspy for the inbox entry to automatically query for and retrieve the records associated with an inbox entry to the called screen when it is invoked.

For example, the system administrator sets up an inbox entry to approve work orders for your company's maintenance manager. When the maintenance manager accesses the **Start Center**, the SQL statement defined for the work order approval inbox entry queries the system database and displays an inbox entry to approve work orders in the inbox. The inbox entry indicates that there are three outstanding work orders to approve. The maintenance manager calls the **Work Orders** form directly from the work order approval entry on the inbox by double-clicking, and the Dataspy defined for the screen automatically retrieves the three work orders requiring approval on the **Work Orders** form.

The Inbox includes three tabs and pages of information: Operations, Maintenance, and Management. You can modify the text that appears on the three **Start Center** Inbox tabs. Contact your system administrator for more information.

Setting up the Start Center inbox

Set up the **Start Center** Inbox to display inbox entries specific to your job. Specify the default inbox tab and modify the sequence in which inbox entries are displayed in the inbox. You can also delete inbox entries.

Specifying the default Start Center inbox tab

The **Start Center** Inbox contains three tabs and pages of information: Operations, Maintenance, and Management. Specify which of the **Start Center** Inbox tabs you wish to display by default whenever you access the **Start Center**.

To specify the default **Start Center** Inbox tab:

1 Open the **Start Center** page.

2 Select the inbox tab to set as the default.
3 Click **Save as Default**.

Adding entries to the Start Center inbox

Add entries to the **Start Center** inbox to display entries that are specific to your job.

To add entries to the **Start Center** inbox:

1 Open the **Start Center** page.
2 Click **Personalize**.
3 Click **Insert Inbox Entry**.
4 Specify this information:

Sequence Number
Enter the sequence in which the inbox entry will be displayed in the inbox.

Inbox Code
Enter the inbox entry to add to the inbox. The system automatically populates the inbox description.

Folder
Select the folder on which to place the inbox entry.

5 Select the **Auto Refresh** check box to enable the system to automatically refresh the inbox every time the **Start Center** is invoked.
6 Click **Submit**.
7 Click **Close**.

Modifying the sequence of inbox entries

Modify the sequence in which inbox entries are displayed in the inbox.

To modify the sequence of inbox entries:

1 Open the **Start Center** page.
2 Click **Personalize**.
3 Select the inbox entry for which to modify the display sequence, and then enter a new value for **Sequence Number**.
4 Click **Submit**.
5 Click **Close**.

Accessing screens from the Start Center inbox

Access screens associated with inbox entries directly from the inbox.

To access screens from the **Start Center** inbox:

1. Open the **Start Center** page.
2. Locate the inbox entry for which to call a screen, and then double-click the entry.

   Note: The system automatically queries for and retrieves the records associated with the inbox entry to the called screen if you defined a Dataspy for the called screen when defining the inbox entry.

Understanding the Start Center KPIs

The **Start Center** displays key performance indicators (KPIs) and their scores. KPIs are user-defined parameters that measure productivity or efficiency. The system displays an icon and a score for each KPI on the **Start Center**. The **Start Center** enables you to view the status of your work environment with respect to the KPIs specific to your job, as well as your current score for each KPI. The scores for KPIs are calculated at regular intervals based on the KPI definition.

The system administrator defines and grants access to the KPIs. KPIs can either be user-group specific or public. Public KPIs can be displayed for all users.

Access KPIs on the **Start Center** or have the system administrator set up the Start Center to open automatically when you log on to Infor EAM. Depending on system privileges, you can configure the **Start Center** to display KPIs based on your preferences.

Note: The system only supports .gif files for the images displayed for KPIs on the **Start Center**.

Setting up the Start Center KPIs

Set up the KPIs specific to your job. Modify the sequence in which KPIs are displayed in the inbox. You can also delete KPIs.

Adding KPIs to the Start Center

Add KPIs to the **Start Center** to display the KPIs that are specific to your job.

To add KPIs to the **Start Center**:

1. Open the **Start Center** page.
2. Click **Personalize**.
3. Click **Insert KPI Entry**.
4. Specify this information:

   Sequence Number
   Specify the sequence in which the KPI will be displayed in the **Start Center**.

KPI Code
Specify the KPI to add to the **Start Center**. The system automatically populates the KPI description.

5 Select the **Auto Refresh** check box to enable the system to automatically refresh the KPI every time the **Start Center** is invoked.
6 Click **Submit**.
7 Click **Close**.

Modifying the sequence of KPIs

Modify the sequence in which KPIs are displayed on the **Start Center**.

To modify the sequence of KPIs:

1 Open the **Start Center** page.
2 Click **Personalize**.
3 Select the KPI for which to modify the display sequence, and then enter the new value for **Sequence Number**.
4 Click **Submit**.
5 Click **Close**.

Accessing screens from Start Center KPIs

Access screens associated with KPIs directly from the **Start Center**.

To access screens from **Start Center** KPIs:

1 Open the **Start Center** page.
2 Locate the KPI entry for which to call a screen, and then double-click the entry.

A parent arrow in the KPI entry title indicates that the entry is a parent KPI. The arrow only appears when children have been added to the parent. The arrow does not automatically appear by selecting **Parent** during KPI setup.

To access the children KPIs, click the parent arrow. The KPIs are refreshed and all child KPIs are displayed. Double-click the child KPI for which to call a screen.

Note: The KPI entry to the called screen and the associated records are automatically queried and retrieved if you defined a Dataspy for the called screen when defining the KPI entry.

Managing your account

Change your e-mail address, system language, and/or login password as necessary.

Note: If you change your user password and have any report schedules in Infor EAM Advanced Reporting, you must renew your credentials in Infor EAM Advanced Reporting. Contact your system administrator for more information.

To manage your account:

1 Click **MY ACCOUNT** on the header.

2 Specify this information:

Success Msg. Timeout
Select the time frame for which you want the message bar to display success messages.

E-mail
Specify a new e-mail address as necessary.

Language
Select the language to use for your account.

Note: If you modify **Success Msg. Timeout** or **Language**, you must log out, close all browser sessions, and then log in to see the changes.

Current Password
Specify the password you used to log in.

New Password
Specify the new password.

Confirm Password
Re-enter the new password.

Note: If LDAP is enabled, the **Current Password**, **New Password**, and **Confirm Password** fields are not displayed.

3 Click **Save Record**.

Asset management

2

The equipment module controls the organization and use of material equipment. Track equipment and their associated costs by defining them as assets, positions, systems, or locations; create equipment profiles to use as templates when defining new equipment records, and place equipment in hierarchical relationships. Define equipment records as vehicles, linear equipment, and/or VMRS equipment to thoroughly track information pertinent to each distinct equipment record.

In addition, define meter information, and then associate a logical meter with a piece of equipment. Meter readings allow you to track equipment usage and more effectively manage preventive maintenance.

Manage equipment warranties, file claims when necessary, and schedule preventive maintenance to safeguard against costly equipment failures. Finally, track the value of your equipment's depreciation expense.

Understanding equipment

Pieces of equipment are entities for which you store data and create work orders. Equipment can be of many different types, but the four main types are locations, systems, positions, and assets.

Type	Description
Locations	Physical locations of systems, positions, and assets. For example, a pumping system is located in Room 104.
Systems	Collections of positions and/or assets that work together so that when one part goes down, all parts are affected. For example, if a pump stops working, you must turn off the entire water line to repair it.
Positions	Functions performed by a general kind of asset. For example, the pump that moves water from one tank to another is a functional position, which can be filled by any number of actual, physical pumps (assets). Positions are also called "functional positions."

Type	Description
Assets	Generally, physical objects. Assets are the base unit of equipment information and the smallest tracking unit for capital investments.

Locations, systems, positions, and assets form a hierarchy of equipment information, with locations at the top of the hierarchy and assets at the bottom. Data is shared among the levels of the equipment hierarchy. For example, data for a work order performed on an asset is also stored in the position, system, and location equipment to which the asset belongs. This data sharing allows you to track assets and their performance in detail and under differing conditions, to evaluate the performance of entire systems, and to assess the effect that locations and positions have on systems and assets.

For example, you might have a pump (PU-9476-96) working in a functional position (PUMP-03) in a system on the first floor (FLOOR-01). The pump fails, and you remove it from the system to repair it and place another pump (PU-4854-93) in that position. The work order data for the failed pump is stored not only with the pump equipment (PU-9476-96) but also with the position equipment (PUMP-03) and the location equipment (FLOOR-01). When the pump is repaired, you place it in a different functional position (PUMP-02) on the second floor (FLOOR-02). After the pump is in that position for a while, you can compare the following:

- the performance of PU-9476-96 to the performance of PU-4854-93 in position PUMP-03 in location FLOOR-01 and
- the performance of PU-9476-96 in position PUMP-03 at location FLOOR-01 to its performance in position PUMP-02 at location FLOOR-02.

Setting up initial equipment information

Set up initial equipment information before using the equipment module.

Setting up equipment categories

Categories provide a way to further organize pieces of equipment. For example, if a class is defined for motors, create a category for motor types and sizes.

Note: If you created custom attributes for equipment classes, those attributes roll down to the category level and are visible in the **Custom Fields** section of the **Record View** page.

To set up equipment categories:

1. Select **Equipment > Setup > Categories**.
2. Click **New Record**.
3. Specify this information:

Category
Specify a unique code identifying the category, and then specify a description of the category in the adjacent field.

4 Specify the **Equipment Class** and **Manufacturer**.
5 Click **Save Record**.

Setting up closing codes

The system contains four types of closing codes: action codes, cause codes, failure codes, and problem codes. Action codes describe the steps necessary to correct the problem. For example, a code can specify to add lubricant to a pump. Cause codes identify what caused the component or type of component to fail, in other words the root cause of the problem. Failure codes identify the reason the equipment failed. Finally, problem codes identify the observed equipment failure, such as a leak from a faucet or the overheating of a pump.

To set up closing codes:

1 Select **Equipment > Setup > Closing Codes**.
2 Click **New Record**.
3 Specify the **Closing Code**, **Type**, and **Group**.
The closing code will display in a tree of closing codes in lookups grouped by selected type
4 Select the **Out of Service** check box to mark the closing code out of service so that the closing code will not display in lookups.
5 Select the **Valid for all Equipment Classes** check box to make the closing code available to associate with any equipment regardless of the class defined for the equipment. General closing codes apply to general terms.

Note: If classes have been created for the closing code, you cannot select **General**.

6 Select the **Enable for Work Orders** check box to display closing codes for work orders.
7 Select the **Enable for Part Failures** check box to display this closing code for part failures.
8 Click **Save Record**.

Associating closing codes with classes

Associate closing codes with classes. For example, equipment with a class of HVAC can have different closing codes than equipment with a class of MOTOR. A closing code can be associated with multiple classes.

Note: You cannot associate classes with general closing codes.

To associate closing codes with classes:

1 Select **Equipment > Setup > Closing Codes**.
2 Select the closing code with which to associate classes, and then click the **Classes** tab.

3 Click **Add Class**.
4 Specify the **Class** to associate with the closing code. The system automatically populates the class description and **Class Org.**
5 Click **Submit**.

Defining closing code hierarchies

Define parent/child hierarchy details for closing codes.

To define closing code hierarchies:

1 Select **Equipment > Setup > Closing Code Hierarchy**.
2 Click **Add Relationship**.
3 Specify the **Parent Closing Code**, **Child Closing Code**, and **Equipment**.
4 Click **Submit**.

Setting up departments

A department is the center or area that is responsible for the maintenance of equipment, such as an asset, a position, a system, or a location. The department coordinates the work, assigns the appropriate crew, plans the work, and approves respective work orders.

When defining equipment, assign it to a department. The department can be modified if needed on work orders. When creating work orders for maintenance or repairs to equipment, the system rolls up the associated costs to the department of the work order. Set up a default store for each department as well as a default supervisor. When reserving parts for a work order, the system stores them in the specified store.

Note: You cannot delete departments if they have already been used elsewhere in the system.

To set up departments:

1 Select **Equipment > Setup > Departments**.
2 Click **New Record**.
3 Specify the **Organization**, **Department**, **Class**, **Default Supervisor**, and **Default Store**.
4 Specify this information:

Screener
Specify the user responsible for screening work requests for the department.

Account Segment Value
Specify the general ledger account code segment that represents the department in your accounting structure. See your chart of accounts for more information.

5 Select the **Out of Service** check box to indicate the department is no longer in use.
6 Click **Save Record**.

Associating tools with departments

Associate tools with departments for scheduling purposes. Once you have associated a tool with a department, the system allows you to schedule the tool on a work order for the department.

To associate tools with departments:

1 Select **Equipment > Setup > Departments**.
2 Select the department with which to associate a tool, and then click the **Tools** tab.
3 Click **Add Tool**.
4 Specify the **Organization** and the **Department** to which the tool belongs.
5 Specify this information:

Quantity
Specify the available quantity of the tool.

Rate
Specify the hourly rate for the tool.

Hours
Specify the number of hours the tool is available.

Currency
The system displays the base currency of the organization

6 Specify the **Quantity** of the tool, and the hourly **Rate**
7 Click **Submit**.

Creating equipment profiles

Create equipment profiles to use as equipment templates. After creating a profile, use it to quickly create equipment records that require the same information as is contained on the profile.

To create equipment profiles:

1 Select **Equipment > Setup > Profiles**.
2 Click **New Record**.
3 Specify the unique **Profile** code, and then specify the **Organization**, **Department**, **Status**,**Type**, **Class**, **Class**, **Equipment Value**, **Meter Unit**, **Manufacturer**, **Revision**, **Model**, **Part**, and **Store**.
4 Select the **Out of Service** check box if the equipment is not in service.
5 Select the **GIS Profile** check box to flag the profile as a GIS profile.

Note: Once you create a GIS profile, associate it with a GIS layer. GIS and Infor EAM use the GIS profile and layer information to create equipment records in the respective systems.

See the *System Administrator's Guide*.

6 Specify this information:

Variable 1, Variable 2, Variable 3, Variable 4, Variable 5, Variable 6
Specify any additional information to be included on the equipment to define with this profile.

7 Click **Save Record**.

Defining details for risk matrix setup

Define consequence categories, probabilities, and risk levels for the risk matrix.

To define details for risk matrix setup:

1 Select **Equipment > Setup > Risk Matrix Setup**.
2 Click **New Record**.
3 Specify the unique **Code** for the consequence category, probability, or risk level and then specify a description in the adjacent field.
4 Specify the **RCM Project**, **Type**, **Rating/Threshold**, **Color** that will be used for risk levels, and **Icon**for the probability and risk levels.
5 Click **Save Record**. The system automatically populates **Created By** and **Date Created**.

Defining consequences for risk matrix setup

Define consequences for the Risk Matrix.

To define consequences for risk matrix setup:

1 Select **Equipment > Setup > Risk Matrix Setup**.
2 Select the consequence category for which to add consequences, and then click the **Consequences** tab.
3 Click **Add Consequence**.
4 Specify this information:

Consequence Code
Specify a unique code to identify the consequence and then specify a description of the consequence in the adjacent field. Click **Translations** to translate the description text into a different language.

Severity
Specify a value to identify the severity of the consequence.

Icon
Select an icon that will identify the Consequence. If Other is selected for **Icon**, select the **Icon Path**.

5 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

Defining equipment

Define your organization's assets, positions, systems, and locations as equipment.

Note: You can only delete equipment records that do not have histories or other associated records.

If you have purchased the GIS integration, automatically define ESRI GIS features as you define Infor EAM assets, positions, or systems. In addition, view equipment on a GIS map from the Assets, Positions, or Systems forms.

See these references:

- *Defining GIS features (Infor EAM)*
- *Viewing GIS maps from equipment records (Infor EAM)*

As you define an equipment record, specify that it is subject to the United States Food and Drug Administration (FDA) Current Good Manufacturing Practices (cGMP) standards as necessary. Depending on your system configuration, the system creates electronic records or requires signatures for any work performed on cGMP equipment. Contact your system administrator for more information.

Create a large number of identical equipment records quickly with equipment profiles.

See "Defining Equipment Using Profiles" on page 88.

Define linear equipment records for equipment that spans a length of space, for example a bridge.

See "Defining Linear Equipment" on page 86,

Define Vehicle Maintenance Reporting System (VMRS) equipment as necessary.

See "Defining VMRS Equipment" on page 87.

Define equipment before associating parts or permits with that equipment or before setting up parent/child relationships.

See "Defining Equipment Hierarchies" on page 108.

Note: When the selected equipment is dependent on a parent, the equipment inherits its location from that parent. Equipment cannot be dependent on more than one parent.

When equipment is directly associated with a location, the relationship is automatically a dependent one.

Multiple system parents can exist for assets, positions, and systems. Therefore, this relationship cannot be established or maintained on the **Record View** pages of these forms.

Because equipment records are central to all functionality, the system allows you to perform a number of functions directly from the Assets, Positions, or Systems forms. Right-click to access the functionality. See the following table, which displays the functionality available from the Assets, Positions, and Systems forms and directs you to the section and chapter within this guide that provides instructions for use:

Right-Click Option	See
Create GIS Feature	"Defining GIS features (Infor EAM)" on page 784
View GIS Map	"Viewing GIS maps from equipment records" on page 813

Right-Click Option	See
View GIS Attributes	"Identifying features (Infor EAM)" on page 804
Create WO	"Defining regular work order headers" on page 488 and "Defining regular work order activities" on page 495
Transfer Equipment	"Transferring equipment between organizations" on page 140
Linear Equipment Search	"Searching for references" on page 115
Calculate Reliability Ranking Values	"Creating reliability rankings" on page 176

Defining assets

Define your organization's assets as equipment.

The installation parameter ASSETASS determines whether assets are recognized at purchase order creation or upon receipt.

See "Defining installation parameters" in the *Infor EAM System Administrator Guide*.

To define assets:

1 Select **Equipment > Assets**.
2 Click **New Record**. The system automatically populates **Type**, **Status**, **Production**, **Commission Date**, and **State** if available.
3 Specify the **Organization**, **Department**, **Type**, **Operational Status**
4 Specify this information:

Asset
Specify a unique code identifying the asset, and then specify a description of the asset in the adjacent field.

Note: If the AUTOANUM installation parameter is set to YES, the asset number is automatically assigned if the **Asset** code is not specified.

Loaned to Department
Specify the department to which the asset is loaned.

PM WO Department
Specify the department responsible for the PM work order.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
Select the status of the asset. The default status values include these options:

Option	Description
Awaiting purchase	Interacts with the purchasing module. If assets are recognized at purchase order creation, then an asset must be created at time of purchase order generation. The ASSETASS installation parameter determines when assets are recognized: at receipt (R) or at purchase order creation (P).
In store	Reserved for new assets received into a firm's store. Select the **Status** value In store only when defining an asset in the inventory store.
Installed	Assigned when an asset is in place and operating within the business organization.
Withdrawn	Assigned when an asset is no longer available for use. This status is not available during initial asset creation. The system automatically populates **Withdrawal Date**.

5 Specify the **Class**, **Category**, **Cost Code**, **Profile**, **System Level**, **Assembly Level**, **Component Level**, **Commission Date**, **Equipment Value**, **Withdrawal Date**, **Sold/Scrap Date, Original Receipt Date**, **Latest Receipt Date**, **Original Install Date**, and **Latest Install Date**.

6 Specify this information:

Production
Select this check box if the asset is used in production.

Safety
Select this check box to observe safety precautions when working with this asset.

Out of Service
Select this check box if the asset is not used.

Prevent WO Completion
Select this check box to indicate that work orders for this asset should not be closed.

Current Workspace
Optionally, specify the current workspace of the asset.

Assigned To
Specify the person responsible for the asset.

Meter Unit
Specify the asset's primary unit of measure.

Criticality
Specify a criticality code to indicate the relative importance of the asset to the overall production of goods or services for your organization.

Note: Criticality proceeds to work orders when the asset requires maintenance.

State
Select the state of the asset.

Note: If you select CN pending, CN In Process, or CN Completed, the system requires a value for **Change Notice** be specified. If you select Good or Defective, the system clears **Change Notice**

Change Notice
Specify the change notice for the asset.

Note: If you specify or change the value for **Change Notice**, the system will change **State** to CN Pending if **State** is not populated. If you clear **Change Notice**, the **State** changes to Good.

cGMP
Select this check box to indicate that the equipment is subject to cGMP standards.

Dormant Start
Specify the date on which the dormant period for any PM work orders for the equipment begins.

Dormant End
Specify the date on which the dormant period for any PM work orders for the equipment ends.

Reuse Dormant Period
Select this check box to use the same specified dormant period for any PM work orders for the equipment on an annual basis.

Track Resources
Select this check box to track the resources directly related to this equipment.

Set
Specify a set with which to associate the asset.

Set Position
Specify the position of the set.

Documoto Book ID
Specify a specific Documoto Book with which to associate the asset.

7 Specify the **Manufacturer**, **Serial Number**, **Model**, and **Revision**.

8 Specify the **Part**, **Store**, **Bin**, and **Lot**.

Note: Only specify parts that are tracked by asset. You can specify a **Store** and **Bin** only if the equipment's **Status** is Awaiting purchase or In store.

9 Specify this information:

Vehicle
Select this check box if the asset is a vehicle.

Reservable Equipment
Select this check box if the asset can be reserved.

Vehicle Status
Specify the status of the vehicle.

Vehicle Type
Specify the vehicle type.

Reservation Calendar Owner
Select this check box if the asset can be reserved.

Rental Template
Specify the template used for the rental reservation.

Contract Equipment
Select the check box if the asset is contract equipment.

Contract Template
Specify the template used for the contract.

Customer
Specify the rental customer.

Availability Status
Specify the availabilty of the asset.

Issued To
Specify to whom the asset is issued.

10 Specify the **Fleet Customer**, **Billing Code**, **Markup Code**, and **Vehicle Status**.

Note: If a **Billing Code** and/or a **Markup Code** are associated directly to the asset, the ticketing process will always assign these codes to the ticket, regardless of the **Billing Codes** associated with the fleet customer on the **Billing Codes** form.

The **Fleet Customer**, **Cost Code**, **Vehicle Status**, and **Issued To** values should be controlled primarily through the ticketing process for vehicles. The **Vehicle Status** must be Available to be issued via a ticket.

See "Fleet management" on page 819.

11 Specify the **Calendar Group**, **Penalty Factor**, and **Minimum Penalty**.

12 Select the **Service Delivery Matrix** check box to restrict work orders for this equipment to a pre-defined service delivery matrix.

Note: Service Delivery Matrix must be selected for **Service Problem Code Validation** on the **Call Center Setup** tab.

13 Specify the **Parent Asset**, and then select the **Dependent** check box if the asset is dependent on the parent asset and select the **Cost Roll-up** check box if the costs should roll up to the parent asset.

14 Specify the **Position**, and then select the **Dependent** check box if the asset is dependent on the position and select the **Cost Roll-up** if the costs should roll up to the position.

15 Specify the **Location**, **Equipment Length**, **Equip. Length UOM**, **Linear Ref. UOM**, **Ref. Precision**, **Geographical Ref.**, **Inspection Direction**, and **Flow**.

Note: The values of the FCI details should be specified based on the planning budget and investment figures from a third party audit.

16 Specify this information:

Cost of Needed Repairs
Specify the cost of necessary repairs. The system automatically populates the currency, and defaults **Eligible for Energy Star Label** to unselected.

Replacement Value
Specify the current replacement value for the equipment. The system automatically populates the currency.

Facility Condition Index
Specify the resultant FCI based on the maintenance details. `Cost of Needed Repairs/Current Replacement Value=FCI`

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Track Utility Bills
Select this check box to mark the asset as having capabilities to record utility bills.

Track Gas
Select this check box to set the equipment as GAS (Global Asset Sustainability) Tracked.

Note: If data exists on the **Design Consumption** or **Actual Consumption** tabs, the equipment must remain as GAS Tracked.

17 Specify the **Estimated Revenue**, **Region**, **Primary Use**, **Year Built**, and **Service Life (years)**.

18 Select the **Lock Reliability Ranking Values** check box to lock the reliability ranking values for the equipment on the Reliability Survey tab of the Equipment screen.

Note: If **Lock Reliability Ranking Values** is selected, the system will not allow the user to modify the reliability survey answers and calculate reliability ranking values for the equipment. The system also prevents the selection of equipment for update on the **Batch Update Reliability Ranking Values** tab.

19 Specify this information:

Reliability Ranking
Specify the reliability ranking code for the equipment. The system automatically populates **Reliability Ranking Index**, **Reliability Ranking Score**, **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated**, after answering the reliability survey.

Target Power Factor
Specify the target power factor that has been determined for the asset.

Target Peak Demand (W)
Specify the target peak demand in watts for the asset.

Start Billing Period
Specify the date that the billing period begins. The Peak Demand measurements are relevant after this date.

Note: The Peak Demand alert will update this field based on the specified **Bill Every**, but manual changes may be required depending on the actual utility invoices received.

Bill Every
Specify the length of the interval of time to pass before the system expects the next bill, and then select the unit of measure in the adjacent field.

Eff. Loss 1% Phase Imb.
Specify the efficiency loss per 1 percent imbalance.

Eff. Loss 2% Phase Imb.
Specify the efficiency loss per 2 percent imbalance.

Eff. Loss 3% Phase Imb.
Specify the efficiency loss per 3 percent imbalance.

Eff. Loss 4% Phase Imb.
Specify the efficiency loss per 4 percent imbalance.

Eff. Loss 5% Phase Imb.
Specify the efficiency loss per 5 percent imbalance.

Performance Manager
Specify the energy performance manager who is responsible for the equipment.

Electric Sub-meter Interval
Specify the length of the interval of time in minutes indicating how frequently the electric sub-meter is read.

Electric Usage Threshold
Specify the current in amps above which the equipment is considered running or on.

20 Click **Save Record**.

The system automatically populates **Equipment Configuration**, **Equipment Configuration Org.**, and **Equipment Configuration Revision**

Note: If a review has been performed on the **Safety** tab, the system automatically populates **Safety Date Review Required** and **Safety Reviewed By**.

If a review has been performed on the **Permits** tab, the system automatically populates **Permit Date Review Required** and **Permit Reviewed By**.

If a review has been performed on the **LOTO** tab, the system automatically populates **LOTO Date Review Required** and **LOTO Reviewed By**.

Defining positions

Define your organization's functional positions as equipment.

To define positions:

1 Select **Equipment > Positions**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the position belongs if you use multi-organization security. The system automatically populates **Transfer Date** and **Org.**

Position
Specify a unique code identifying the position, and then specify a description of the position in the adjacent field.

Note: If the AUTOANUM installation parameter is set to YES, the system automatically assigns the position number if the **Position** code is not specified.

Department
Specify the position's department. The system automatically populates **GIS ID**, **Layer**, **Location X**, **Location Y**, **Map**, and **Map Org.**

Type
Specify the equipment type.

Operational Status
Specify the operational status of the posititon.

Loaned to Department
Specify the department to which the\ position has been loaned.

PM WO Department
Specify the department responsible for the PM work order.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
The system defaults **Status** to Installed. This value cannot be changed.

4 Specify the **Class**, **Category**, and **Cost Code** for the position.

Note: If you specify a category for which calibration data has been defined, the system copies the calibration and test point data to the position.

5 Specify this information:

Production
Select this check box if the position is used in production.

Safety
Select this check box to observe safety precautions when working with this position.

Profile
Specify the profile on which to base this equipment record.

Out of Service
Select this check box if the position is not used.

Prevent WO Completion
Select this check box to indicate that work orders for this position should not be closed.

Current Workspace
Optionally, specify the current workspace of the position.

6 Specify the VMRS codes for the **System Level**, **Assembly Level**, and **Component Level**.

7 Specify this information:

Commission Date
Specify the installation date for the position.

Note: The **Commission Date** defaults to the current date when you create a position.

Assigned To
Specify the person responsible for the position.

Meter Unit
Specify the position's primary unit of measure.

Criticality
Specify a criticality code to indicate the relative importance of the position to the overall production of goods or services for your organization.

cGMP
Select this check box to indicate that the equipment is subject to cGMP standards.

Sold/Scrap Date
Specify the date on which the asset is sold or scrapped.

Dormant Start
Specify the date on which the dormant period for any PM work orders for the equipment begins.

Dormant End
Specify the date on which the dormant period for any PM work orders for the equipment ends.

Reuse Dormant Period
Select this check box to use the same specified dormant period for any PM work orders for the equipment on an annual basis.

Track Resources
Select this check box to track the resources directly related to this position.

Set
Specify a set with which to associate the position.

Set Position
Specify the position of the set.

8 Specify the **Original Receipt Date**, **Latest Receipt Date**, **Original Install Date**, and **Latest Install Date**.

9 Specify this information:

Documoto Book ID
Specify a specific Documoto Book with which to associate the position.

Manufacturer
Specify the manufacturer of the position.

Serial Number
Specify the serial number of the position.

Model
Specify the model of the position.

Revision
Specify the revision of the position.

Variable 1, Variable 2, Variable 3, Variable 4, Variable 5, Variable 6
Specify the variables of the position.

Calendar Group
Specify the calendar group for the position. The system automatically populates **Calendar Group Org.**

Penalty Factor
Specify the penalty factor for the position.

Minimum Deduction/Currency
Specify the minimum deduction allowed.

Asset
Specify the asset for the position.

Dependent
Select the check box if the position is dependent upon the Asset.

Cost Roll-up
Select the check box if costs should roll up to the Asset.

Location
Specify the location of the position.

Parent Position
Specify the parent position.

Dependent
Specify if the position is dependent upon the Parent Position.

Cost Roll-up
Select this check box if costs should roll up to the Parent Position.

10 Specify the **Equipment Length**, **Equip. Length UOM**, **Linear Ref. UOM**, **Ref. Precision**, **Geographical Ref.**, **Inspection Direction**, and **Flow**.

Note: The values of the FCI details should be specified based on the planning budget and investment figures from a third party audit.

11 Specify this information:

Cost of Needed Repairs
Specify the cost of necessary repairs. The system automatically populates the currency.

Replacement Value
Specify the current replacement value for the equipment. The system automatically populates the currency.

Facility Condition Index
Specify the resultant FCI based on the maintenance details. Cost of Needed Repairs/Current Replacement Value equals FCI.

Utility Bill Level
Select this check box to mark the asset as having capabilities to record utility bills.

GAS Tracked
Select this check box to set the equipment as GAS (Global Asset Sustainability) Tracked.

Note: If data exists on the **Design Consumption** or **Actual Consumption** forms, the equipment must remain as GAS Tracked.

Facility
Select this check box to add the facility record in the ENX Suite list of facilities.

Note: Facility is available for Oracle installations only.

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Estimated Revenue
Specify the estimated revenue the piece of equipment can generate.

Region
Specify the region for the equipment. The system automatically populates **Region Org.**

Country
Specify the country.

Note: Country is available for Oracle installations only.

Primary Use
Specify the primary use for the equipment.

Year Built
Specify the year built for the equipment.

Service Life (years)
Specify the service life of the equipment.

Lock Reliability Ranking Values
Select the check box to lock the reliability ranking values for the equipment on the Reliability Survey tab of the Equipment screen.

Note: If **Lock Reliability Ranking Values** is selected, the system will not allow the user to modify the reliability survey answers and calculate reliability ranking values for the equipment. The system also prevents the selection of equipment for update on the **Batch Update Reliability Ranking Values** form.

Reliability Ranking
Specify the reliability ranking code for the equipment. The system automatically populates **Reliability Ranking Index**, **Reliability Ranking Score**, **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated**, after answering the reliability survey.

Vehicle Type
Specify the vehicle type.

Reservable Equipment
Select this check box if the position can be reserved.

Contract Equipment
Select this check box if the position is contract equipment.

Contract Template
Specify the template used for the contract.

Customer
Specify the rental customer.

Availability Status
Specify the availabilty of the position.

Issued To
Specify to whom the position is issued.

Reservation Calendar Owner
Specify the reservation calendar owner who can edit equipment reservations.

Rental Template
Specify the template used for the rental reservation.

Target Power Factor
Specify the target power factor that has been determined for the asset.

Target Peak Demand (W)
Specify the target peak demand in watts for the asset.

Start Billing Period
Specify the date that the billing period begins. The Peak Demand measurements are relevant after this date.

Note: The Peak Demand alert will update this field based on the specified **Bill Every**, but manual changes may be required depending on the actual utility invoices received.

Bill Every
Specify the length of the interval of time to pass before the system expects the next bill, and then select the unit of measure in the adjacent field.

Eff. Loss 1% Phase Imb.
Specify the efficiency loss per 1 percent imbalance.

Eff. Loss 2% Phase Imb.
Specify the efficiency loss per 2 percent imbalance.

Eff. Loss 3% Phase Imb.
Specify the efficiency loss per 3 percent imbalance.

Eff. Loss 4% Phase Imb.
Specify the efficiency loss per 4 percent imbalance.

Eff. Loss 5% Phase Imb.
Specify the efficiency loss per 5 percent imbalance.

Performance Manager
Specify the energy performance manager who is responsible for the equipment.

Electric Sub-meter Interval
Specify the length of the interval of time in minutes indicating how frequently the electric sub-meter is read.

Electric Usage Threshold
Specify the current in amps above which the equipment is considered running or on.

12 Click **Save Record**.

The system automatically populates **Equipment Configuration**, **Equipment Configuration Org.**, and **Equipment Configuration Revision**.

If a review has been performed on the **Safety** tab, the system automatically populates **Safety Date Review Required** and **Safety Reviewed By**.

If a review has been performed on the **Permits** tab, the system automatically populates **Permit Date Review Required** and **Permit Reviewed By**.

If a review has been performed on the **LOTO** tab, the system automatically populates **LOTO Date Review Required** and **LOTO Reviewed By**.

Note: Click **Linear Equipment Search** to locate linear equipment for the selected position.

Defining systems

Define your organization's systems as equipment.

To define systems:

1 Select **Equipment > Systems**.

2 Click **New Record**.

3 Specify the **Organization**, **System** and a description, **Department**, **Type**, and **Operational Status**.

4 Specify this information:

Loaned to Department
Specify the department to which the system has been loaned.

PM WO Department
Specify the department responsible for the PM work order.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
The system defaults the Status to Installed, and this value cannot be changed. Specify the Equipment Details.

5 Specify the **Class**, **Category**, **Cost Code**, **Profile**, **System Level**, **Assembly Level**, **Component Level**,

Note: If you specify a category for which calibration data has been defined, the system copies the calibration and test point data to the system.

6 Specify this information:

Production
Select this check box if the system is used in production.

Safety
Select this check box to observe safety precautions when working with this system.

Out of Service
Select this check box if the system is not used.

Prevent WO Completion
Select this check box to indicate that work orders for this system should not be closed.

Current Workspace
Optionally, specify the current workspace of the system.

Assigned To
Specify the person responsible for the system.

Meter Unit
Specify the system's primary unit of measure.

Criticality
Select a criticality code to indicate the relative importance of the system to the overall production of goods or services for your organization.

Dormant Start
Specify the date on which the dormant period for any PM work orders for the equipment begins.

Dormant End
Specify the date on which the dormant period for any PM work orders for the equipment ends.

Reuse Dormant Period
Select to use the same specified dormant period for any PM work orders for the equipment on an annual basis.

cGMP
Select this check box to indicate that the equipment is subject to cGMP standards.

Sold/Scrap Date
Specify the date on which the asset is sold or scrapped. Specify the following Tracking Details:

Documoto Book ID
Specify a specific Documoto Book with which to associate the part.

Track Resources
Select this check box to track the resources directly related to this equipment.

Set
Specify a set of equipment to associate with the system.

Set Position
Specify the position of the set of equipment.

7 Specify the **Original Receipt Date**, **Latest Receipt Date**, **Original Install date**, and **Latest Install Date**.

8 Specify the **Manufacturer**, **Serial Number**, **Model**, and **Revision**.

9 Specify this variables of the system.

10 Specify the **Calendar Group**, **Penalty Factor**, **Minimum Deduction/Currency**, and **Penalty Factor**.

11 Select the **Service Delivery Matrix** check box to restrict work orders for this equipment to a pre-defined service delivery matrix.

12 Specify the **Location** and **RCM Level**

13 Specify the **Equipment Length**, **Equip. Length UOM**, **Linear Ref. UOM**, **Ref. Precision**, **Geographical Ref.**, **Inspection Direction**, **Linear Cost Weight**, and **Flow.**

See "Defining Linear Equipment" on page 86.

14 Specify the **Cost of Needed Repairs**, **Replacement Value**, **Estimated Revenue**, **Region**, **Primary Use**, **Year Built**, and **Service Life (years)**.

Note: The values of the FCI details should be specified based on the planning budget and investment figures from a third party audit.

15 Specify this information:

Facility Condition Index
Specify the resultant FCI based on the maintenance details.

```
Cost of Needed Repairs/Current Replacement Value=FCI
```

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

16 Select the **Utility Bill Level** check box to mark the asset as having capabilities to record utility bills.

17 Select the **Gas Tracked** check box to set the equipment as GAS (Global Asset Sustainability) Tracked.

Note: If data exists on the **Design Consumption** or **Actual Consumption** tabs, the equipment must remain as **GAS Tracked**.

18 Specify the **Lock Reliability Ranking Values** to lock the reliability ranking values for the equipment on the Reliability Survey tab of the Equipment screen.

Note: If **Lock Reliability Ranking Values** is selected, the system will not allow the user to modify the reliability survey answers and calculate reliability ranking values for the equipment. The system also prevents the selection of equipment for update on the **Batch Update Reliability Ranking Values** form.

19 Specify **Reliability Ranking**, **Vehicle Type**, **Rental Equipment**, **Rental Template**, **Contract Equipment**, and **Contract Template**.

The system automatically populates **Reliability Ranking Idex**, **Reliability Ranking Score**, **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated**, after answering the reliability survey.

20 Specify this information:

Vehicle Type
Specify the vehicle type.

Vehicle Status
Specify the status of the vehicle.

Reservation Calendar Owner
Select this check box if the system can be reserved.

Rental Template
Specify the template used for the rental reservation.

Contract Equipment
Select the check box if the asset is contract equipment.

Contract Template
Specify the template used for the contract.

Customer
Specify the rental customer.

Availability Status
Specify the availabilty of the system.

Issued To
Specify to whom the system is issued.

Reservable Equipment
Select this check box if the system can be reserved.

21 Click **Save Record**.

Note: Equipment Configuration, **Equipment Configuration Org.**, and **Equipment Configuration Revision** are automatically populated.

If a review has been performed on the **Safety** tab, the system automatically populates **Safety Date Review Required** and **Safety Reviewed By**. If a review has been performed on the **Permits** tab, the system automatically populates **Permit Date Review Required** and **Permit Reviewed By**.

If a review has been performed on the **LOTO** tab, the system automatically populates **LOTO Date Review Required** and **LOTO Reviewed By**.

Defining locations

Locations are the top level of the equipment hierarchy and, like other equipment, can have parents and children with many sublevels. For example, a facility can be a parent to children such as wings, floors, and levels.

Locations can also mean two different things. One location can tell you a piece of equipment's physical location, such as the pump in Boiler Room 2. Another location can be equipment itself such as Boiler Room 2. Keep in mind that equipment keeps its location until it is move. In other words, it can only be in one place at one time.

Note: Set up parent locations before setting up child locations. You cannot delete parent locations if child locations exist.

To define locations:

1 Select **Equipment > Locations**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the location belongs if you use multi-organization security.

Location
Specify a unique code identifying the location, and then specify a description of the location in the adjacent field.

Calendar Group
Specify the calendar group for the location. The system automatically populates **Calendar Group Org.**

4 Specify the **Department**, **Class**, **Cost Code**, **Penalty Factor**, **Minimum Deduction/Currency**, and **Parent Location**.

5 Specify this information:

Safety
Select this check box to observe safety precautions when working at this location.

Out of Service
Select this check box if the location is not used.

Current Workspace
Optionally, specify the current workspace of the location.

cGMP
Select this check box to indicate that the equipment is subject to cGMP standards.

Reservation Calendar Owner
Select this check box if the system can be reserved.

6 Click **Save Record**.

If a review has been performed on the **Safety** tab, the system automatically populates **Safety Date Review Required** and **Safety Reviewed By**.

If a review has been performed on the **Permits** tab, the system automatically populates **Permit Date Review Required** and **Permit Reviewed By**.

If a review has been performed on the **LOTO** tab, the system automatically populates **LOTO Date Review Required** and **LOTO Reviewed By**.

Defining linear equipment

Linear equipment occupies a length of space such as an interstate or bridge. Create work orders for specific points or segments of linear equipment records, allowing you to track work orders, costs, and events along the equipment.

After you define a linear equipment record, add linear references.

See "Adding References to Linear Equipment" on page 116.

Note: You can edit **Equipment Length** or **Equip. Length UOM** for an existing equipment record as long as there are no linear references that fall outside of the newly specified length in the **Linear Ref. UOM**.

If you edit the length of a linear equipment record, the system may automatically edit associated PM records when installation parameter PMRVCTRL is set to No. If the new equipment length falls on or within the length of the PM, the system automatically updates the **To Point** of the PM record based on the new equipment length. If the new equipment length falls outside of the length of the PM, the system does not update the PM record.

To define linear equipment:

1. Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2. Click **New Record**.
3. Specify the information necessary to define the piece of equipment.

   See these references:
   - "Defining Assets" on page 70
   - "Defining Positions" on page 75
   - "Defining Systems" on page 81
4. Specify this information:

   Equipment Length
   Specify the length of the equipment.

   Equip. Length UOM
   Specify the unit of measure for the **Equipment Length**.

   Linear Ref. UOM
   Specify the unit of measure for linear references. The system populates the from and to point unit of measure for work orders based on the **Linear Ref. UOM**. Linear references can have a different UOM than the **Equipment Length**. For example, if the system is integrated with ESRI's GIS, the equipment's map units may be in feet, but linear references like mile posts may be defined in miles.

   Ref. Precision
   Specify the number of decimal places to include in linear reference measurements.

   Note: If you do not specify a **Reference Precision**, the system automatically sets the precision to 0.

Geographical Ref.
Specify a geographical reference for the equipment.

Inspection Direction
Specify the typical direction in which an equipment inspection is performed.

Flow
Specify the typical direction in which the process flows.

For example, you can specify the traffic direction of a street or the direction in which oil flows through a pipe.

Linear Cost Weight
Specify a number for the weighted cost of the equipment. This weight attribute determines the percentage of the work order costs the equipment is assigned when costs roll up from the child to the parent.

For example, a railway asset in a city is shared by two different rail lines, and the maintenance costs of the railway asset must be applied to both lines. Without the weight attribute, the system would roll up all costs to both lines. If you want to split the costs evenly over both lines, you can enter a weight of 1 for both lines.

5 Click **Save Record**.

Defining VMRS equipment

Define equipment records as VMRS equipment as you specify the equipment information on the Assets, Positions, or Systems form. Before you can define VMRS equipment, you must define VMRS codes.

See "Defining VMRS Codes" on page 476.

Once you define VMRS equipment records, track work orders and warranties associated to the piece of equipment based on the specified VMRS codes.

See "Associating VMRS Codes with Warranties" on page 100.

To define VMRS equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Click **New Record**.

3 Specify the information necessary to define the piece of equipment.

- "Defining Assets" on page 70
- "Defining Positions" on page 75
- "Defining Systems" on page 81

4 Specify the **System Level**, **Assembly Level**, and **Component Level**.

The system automatically populates **VMRS Description** based on the **System Level**, **Assembly Level**, and **Component Level** combination.

Note: You cannot specify a **Component Level** unless you specified an **Assembly Level**.

5 Click **Save Record**.

Defining equipment using profiles

Before defining equipment records using profiles, create profiles.

See "Creating Equipment Profiles" on page 67.

To define equipment using profiles:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Click **New Record**.

3 Enter the information necessary to define the piece of equipment.

See these references:

- "Defining Assets" on page 70
- "Defining Positions" on page 75
- "Defining Systems" on page 81

4 Specify this information:

Profile
Specfiy the profile.

The system automatically populates the description, **Department**, **Class**, **Category**, **Equipment Value**, **Meter Unit**, **Manufacturer**, **Model**, **Revision**, **Part**, **Variable 1** through **Variable 6**, and any custom fields on the **Record View** page.

The system automatically populates **Part** and its description, **Part Org.**, **Quantity** and its unit of measure, and **Comments** on the **Parts Associated** page of the record.

5 Click **Save Record**.

Defining healthcare assets

Define your organization's healthcare equipment as assets. Assets and properties work together to create a system. When assets and properties are linked to define a system then the entire system is

affected by actions or movements of one individual piece. For example, if one piece of equipment breaks down, the entire system must be taken offline.

To define healthcare assets:

1 Select **Equipment > Assets Healthcare**.

2 Click **New Record**.

3 Specify the **Organization** and a description, **Asset** and a description, **Department**, **Operational Status**, and **Type**.

4 Specify this information:

Loaned to Department
Specify the department to which the asset has been loaned.

PM WO Department
Specify the department responsible for the PM work order if different than Department.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
Specify the system status. The default status values include:

Option	Description
Awaiting purchase	Interacts with the purchasing module. If assets are recognized at purchase order creation, then an asset must be created at time of purchase order generation. The ASSETASS installation parameter determines when assets are recognized: at receipt (R) or at purchase order creation (P).
In store	Reserved for new assets received into a firm's store. Select the **Status** value In store only when defining an asset in the inventory store.
Installed	Assigned when an asset is in place and operating within the business organization.
Withdrawn	Assigned when an asset is no longer available for use. This status is not available during initial asset creation. The system automatically populates **Withdrawal Date**.

Criticality Code
Specify a criticality code to indicate the relative importance of the equipment to the overall production of goods or services for your system.

Meter Unit
Specify the asset's primary unit of measure.

Assigned To
Specify the person responsible for the asset.

Safety
Select this check box to observe safety precautions when working with this equipment.

Temperature Monitored
Select this check box if it is necessary or required to monitor the equipment's temperature.

Out of Service
Select this check box if the asset is not used. The system automatically populates **Withdrawal Date**.

Current Workspace
Optionally, specify the current workspace of the asset.

Reservation Calendar Owner
Specify the reservation calendar owner who can edit equipment reservations.

5 Specify the **Class**, **Category**, **Profile**, and **Cost Code**.

6 Specify the **Manufacturer**, **Model**, **Serial Number**, **Hardware Version**, **Software Version**, **Purchasing Asset ID**, **Biomedical Asset ID**, **Revision**, and **Vendor**.

7 Specify this information:

UMDNS Code
Specify the code identifying the asset in the Universal Medical Device Nomenclature System™ (UMDNS) which is a standard international nomenclature and computer coding system for medical devices.

OEM Site/System ID
Specify the site and/or system identification for service companies and original equipment manufacturer for the asset.

Coverage Type
Select the maintenance coverage type for the asset. Select Calendar to indicate that the warranty is based on number of days used or Usage to indicate that the warranty is based on actual usage.

8 Specify the **X Coordinate**, **Y Coordinate**, and **Z Coordinate** for which GIS features should appear.

9 Select the **Vehicle** check box if the asset is a vehicle.

10 Specify the **Part**, **Store**, **Bin**, and **Lot**

Note: Only specify parts that are tracked by the asset.

11 Specify this information:

Logout/Tagout
Select this check box if the asset equipment complies with OSHA regulations on lockout/tagout procedures. This regulation ensures machines are properly shut down and that they do not start again until service or maintenance on the machine is completed.

Personal Protective Equipment
Select this check box if OSHA requires the use of personal protective equipment when operating the equipment to reduce exposure to hazards or injury.

Confined Space
Select this check box if the equipment is located in an area defined as a confined space per OSHA regulations.

Statement of Conditions
Select this check box to indicate the asset's equipment relates to the Statement of Conditions as required by The Joint Commission.

Building Maintenance Program
Select this check box to indicate the asset equipment is inventoried in the building maintenance program.

HIPPA Confidentiality
Select this check box to indicate the asset equipment contains confidential patient health information and the equipment must comply with regulations.

12 Specify the **Parent Asset**, and then select the **Dependent** check box if the asset is dependent on the parent asset and select the **Cost Roll-up** check box if costs should roll up to the parent asset.

13 Specify the **Cost Roll-up**, and then select the **Dependent** check box if the asset is dependent on the property and select the **Cost Roll-up** check box if the costs should roll up to the parent property of the child asset.

14 Specify the **Ownership Type**, **Inventory Verification Date**, **Equipment Value**, **External PO No.**, **Purchase Date**, **Original Receipt Date**, **Latest Receipt Date**, **Original Install Date**, **Latest Install Date**, **Purchase Cost**, **Commission Date**, **Cost of Needed Repairs**, **Replacement Value**, **Disposal Type**, **Disposal Date**

15 Specify this information:

Facility Condition Index
Specify the resultant FCI based on the maintenance details. `Cost of Needed Repairs/Current Replacement Value=FCI`

Primary Use
Specify the primary use for the asset.

Year Built
Specify the year the asset was built.

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Service Life (years)
Specify the service life of the asset.

Risk Assessment
Specify the risk assessment code for the equipment.

Note: The system automatically populates **Risk Assessment Index**, **Risk Assessment Score**, **Risk Assessment Values Out of Sync**, **Risk Assessment Values Last Calculated**, **Risk Assessment Survey Last Updated**, and **Risk Assessment Setup Last Updated**, after answering the risk assessment survey.

Lock Risk Assessment Values
Select this check box to lock the reliability ranking values for the equipment on the Risk Assessment tab of the Equipment screen.

Note: If **Lock Risk Assessment Values** is selected, the system will not allow the user to modify the risk assessment survey answers and calculate risk assessment values for the equipment. The system also prevents the selection of equipment for update on the Batch Update Risk Assessment Values form.

16 Click **Save Record**.

Defining healthcare properties

Define a property or a collection of properties and assets that work together to create a system. When assets and properties are linked to define a system then the entire system is affected by actions or movements of one individual piece. For example, if one piece of equipment breaks down, the entire system must be taken offline.

To define properties for healthcare:

1 Select **Equipment > Properties Healthcare**

2 Click **New Record**.

3 Specify the **Organization**, **Property** and a description, **Department**, **Operational Status**, **Type**, **Class**, **Category**, **Profile**, and **Cost Code**.

4 Specify this information:

Loaned to Department
Specify the department to which the property has been loaned.

PM WO Department
Specify the department responsible for the PM work order.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
The system defaults **Status** to Installed. This value cannot be changed.

Criticality
Specify a criticality code to indicate the relative importance of the equipment to the overall production of goods or services for your property.

Meter Unit
Specify the equipment's primary unit of measure.

Assigned To
Specify the person responsible for the equipment.

Safety
Select this check box to observe safety precautions when working with this equipment.

Temperature Monitored
Select this check box if it is necessary or required to monitor the equipment's temperature.

Out of Service
Select this check box if the equipment is not used. The system automatically populates **Withdrawal Date**.

Current Workspace
Optionally, specify the current workspace of the property.

Reservation Calendar Owner
Specify the reservation calendar owner who can edit equipment reservations.

5 Specify the **Manufacturer**, **Model**, **Serial Number**, **Hardware Version**, **Software Version**, **Purchasing Asset ID**, **Biomedical Asset ID**, and**Vendor.**

6 Specify this information:

UMDNS Code
Specify the code identifying the asset in the Universal Medical Device Nomenclature System™ (UMDNS) which is a standard international nomenclature and computer coding system for medical devices.

OEM Site/System ID
Specify the site and/or system identification for service companies and original equipment manufacturer for the property.

Coverage Type
Select the maintenance coverage type for the equipment. Select Calendar to indicate that the warranty is based on number of days used or Usage to indicate that the warranty is based on actual usage.

7 Specify the **X Coordinate**, **Y Coordinate**, and **Z Coordinate** for which GIS features should appear.

8 Specify this information:

Lockout/Tagout
Select this check box if the property equipment complies with OSHA regulations on lockout/tagout procedures. This regulation ensures machines are properly shut down and locked so that they do not start again until service or maintenance on the machine is completed.

Personal Protective Equipment
Select this check box if OSHA requires the use of personal protective equipment when operating the equipment to reduce exposure to hazards or injury.

Confined Space
Select this check box if the equipment is located in an area defined as a confined space as per OSHA regulations.

Statement of Conditions
Select this check box to indicate the property relates to the Statement of Conditions as required by The Joint Commission.

Building Maintenance Program
Select this check box to indicate the property equipment is inventoried in the building maintenance program.

HIPAA Confidentiality
Select this check box to indicate the property equipment contains confidential patient health information and the equipment must comply with regulations.

9 Specify the **Parent Property**, and then select the **Dependent** check box if the property is dependent on the parent property and select the **Cost Roll-up** check box if costs should roll up to the parent property.

10 Specify the**Asset** to categorize as a child of the property in the parent/child hierarchy, and then select the **Dependent** check box if the asset is dependent on the property and the **Cost Roll-up** check box if the costs should roll up to the parent property of the child asset.

11 Specify the **Location**, **Ownership Type**, **Inventory Verification Date**, **Equipment Value**, **Purchase Order #**, **Purchase Date**, **Purchase Cost**, **Original Receipt Date**, **Latest Receipt Date**, **Original Install Date**, **Latest Install Date**, **Commission Date**, **Cost of Needed Repairs**, **Replacement Value**, **Disposal Type**, and **Disposal Date**.

12 Specify this information:

Facility Condition Index
Specify the resultant FCI based on the maintenance details. `Cost of Needed Repairs/Current Replacement Value=FCI`

Primary Use
Specify the primary use for the equipment.

Year Built
Specify the year the equipment was built.

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Service Life (years)
Specify the service life of the equipment.

Risk Assessment
Specify the risk assessment code for the equipment.

Note: The system automatically populates **Risk Assessment Index**, **Risk Assessment Score**, **Risk Assessment Values Out of Sync**, **Risk Assessment Values Last Calculated**, **Risk Assessment Survey Last Updated**, and **Risk Assessment Setup Last Updated**, after answering the risk assessment survey.

Eligible for Energy Star Label
Select this check box if the facility is eligible for the Energy Star label.

Lock Risk Assessment Values
Select this check box to lock the reliability ranking values for the equipment on the Risk Assessment tab of the Equipment screen.

Note: If **Lock Risk Assessment Values** is selected, the system will not allow the user to modify the risk assessment survey answers and calculate risk assessment values for the equipment. The

system also prevents the selection of equipment for update on the **Batch Update Reliability Ranking Values** tab.

13 Click **Save Record**.

Note: To create a work order for the property, right-click on the form, and then click **Create WO**.

Defining healthcare systems

Define a system consisting of a collection of properties or assets that work together to create a system. When assets and properties are linked to define a system then the entire system is affected by actions or movements of one individual piece. For example, if one piece of equipment breaks down, the entire system must be taken offline.

To define systems for healthcare:

1 Select **Equipment > Systems Healthcare**

2 Click **New Record**.

3 Specify the **Organization**, **System** and a description, **Department**, **Operational Status**, **Type**, **Class**, **Category**, **Profile**, and**Cost Code**.

4 Specify this information:

Loaned to Department
Specify the department to which the system has been loaned.

PM WO Department
Specify the department responsible for the PM work order.

Note: If the Department for the PM Schedules and Maintenance patterns work orders are blank, the PM WO Department will be used to generate works orders. Otherwise, the Department will be used.

Status
The system defaults the Status to Installed, and this value cannot be changed.

Criticality
Specify a criticality code to indicate the relative importance of the equipment to the overall production of goods or services for your system.

Meter Unit
Specify the equipment's primary unit of measure.

Current Workspace
Optionally, specify the current workspace of the system.

Assigned To
Specify the person responsible for the equipment.

Safety
Select this check box to observe safety precautions when working with this equipment.

Temperature Monitored
Select this check box if it is necessary or required to monitor the equipment's temperature.

Out of Service
Select this check box if the asset is not used. The system automatically populates **Withdrawal Date**.

Reservation Calendar Owner
Specify the reservation calendar owner who can edit equipment reservations.

5 Specify the **Manufacturer**, **Model**, **Serial Number**, **Hardware Version**, **Software Version**, **Purchasing Asset ID**, **Biomedical Asset ID**, **Revision**, and **Vendor**.

6 Specify this information:

UMDNS Code
Specify the code identifying the asset in the Universal Medical Device Nomenclature System™ (UMDNS) which is a standard international nomenclature and computer coding system for medical devices.

OEM Site/System ID
Specify the site and/or system identification for service companies and original equipment manufacturer for the system.

Coverage Type
Select the maintenance coverage type for the asset. Select Calendar to indicate that the warranty is based on number of days used or Usage to indicate that the warranty is based on actual usage.

7 Specify the **X Coordinate**, **Y Coordinate**, and **Z Coordinate** for which the GIS features should appear.

8 Specify this information:

Lockout/Tagout
Select this check box if the system equipment complies with OSHA regulations on lockout/tagout procedures. This regulation ensures machines are properly shut down and that they do not start again until service or maintenance on the machine is completed.

Personal Protective Equipment
Select this check box if OSHA requires the use of personal protective equipment when operating the equipment to reduce exposure to hazards or injury.

Confined Space
Select this check box if the equipment is located in an area defined as a confined space as per OSHA regulations.

Statement of Conditions
Select this check box to indicate the system relates to the Statement of Conditions as required by The Joint Commission.

Building Maintenance Program
Select this check box to indicate the system equipment is inventoried in the building maintenance program.

HIPAA Confidentiality
Select this check box to indicate the system equipment contains confidential patient health information and the equipment must comply with regulations.

9 Specify the **Ownership Type**, **Inventory Verification Date**, **Equipment Value**, **Purchase Order #**, **Purchase Date**, **Purchase Cost**, **Original Receipt Date**, **Latest Receipt Date**, **Original Install Date**, **Latest Install Date**, **Commission Date**, **Cost of Needed Repairs**, **Replacement Value**, **Disposal Type**, and **Disposal Date**.

10 Specify this information:

Facility Condition Index
Specify the resultant FCI based on the maintenance details. `Cost of Needed Repairs/Current Replacement Value=FCI`

Primary Use
Specify the primary use for the equipment.

Year Built
Specify the year the equipment was built.

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Eligible for Energy Star Label
Select if the facility is eligible for the Energy Star label.

Service Life (years)
Specify the service life of the equipment.

Risk Assessment
Specify the reliability ranking code for the equipment.

Note: The system automatically populates **Risk Assessment Index**, **Risk Assessment Score**, **Risk Assessment Values Out of Sync**, **Risk Assessment Values Last Calculated**, **Risk Assessment Survey Last Updated**, and **Risk Assessment Setup Last Updated**, after answering the risk assessment survey.

Lock Risk Assessment Values
Select this check box to lock the reliability ranking values for the equipment on the Risk Assessment Survey tab of the Equipment screen.

Note: If **Lock Risk Assessment Values** is selected, the system will not allow the user to modify the risk assessment survey answers and calculate risk assessment values for the equipment. The system also prevents the selection of equipment for update on the Batch Update Risk Assessment Values form.

11 Click **Save Record**.

Creating warranties

Define warranty documents to set up supplier and/or manufacturer information for the warranty and specify general warranty information. Specify the duration of the warranty and the percentages indicating how much the warranty covers for different material and labor expenses.

You may view documents previously associated with the warranty. Click **View Document** to open and view the document.

To set up warranties:

1. Select **Equipment > Warranty > Warranties**.
2. Click **New Record**.
3. Specify the **Organization**, **Warranty** and description, **Warranty Type**.
4. Specify this information:

   Control Number
   Specify the control number to track the warranty through the manufacturer or supplier.

5. Specify the **Manufacturer**, **Supplier**, **Class**, **Agreement Type**, **Agreement Start Date**, **Agreement End Date**
6. Select the **On-site Repair** check box to indicate the warranty covers an on-site repair.
7. Select the **Loaner Provided** check box to indicate the warranty provides loaner equipment.
8. Specify this information:

   Renewal Alert Email
   Specify an email address to which to send an email message alert when the warranty approaches the expiration or agreement end date.

   Start Date Basis
   Select Commission Date, Original Receipt Date, Latest Receipt Date, Original Install Date, Latest Install Date, or Agreement Start Date to indicate at which date the warranty coverage should begin.

9. Specify the **Default Duration** and **Default Renewal Threshold**.
10. Specify this information:

    Labor %
    Specify the percentage of labor costs covered by this warranty.

    Hired Labor %
    Specify the percentage of hired labor costs covered by this warranty.

    Services %
    Specify the percentage of service costs covered by this warranty.

    Stock Items %
    Specify the percentage of stock material costs covered by this warranty.

    Direct Purchases %
    Specify the percentage of direct purchase material costs covered by this warranty.

Tools %
Specify the percentage of tool costs covered by this warranty.

11 Specify the **Fixed Labor Rate**, **Fixed Labor Amount**, **Fixed Stock Amount**, **Max. Labor Amount/Claim**, and **Max. Stock Amount/Claim**.

12 For the document details, specify the **File** name, **File Type**, **Revision Number**, **Revision Date**, **File Location**, and number of **Pages**.

13 Select the **Exclude PM Work Order** check box to exclude preventive maintenance work orders from being covered by this warranty.

14 Select the **Part List Required for Warranty Claim** check box to indicate that a part list is required before it will be covered by this warranty.

15 Select the **RMA Required** check box to require a return merchandise authorization coverage for this warranty.

16 Click **Save Record**.

Associating parts to warranties

To associate parts to warranties:

1 Select **Equipment > Warranty > Warranties**.

2 Select the warranty with which to associate parts, and then click the **Parts** tab.

3 Specify this information:

Part
Select the part to associate with the warranty.

Warranty Period
Specify the number of days that the part is under warranty once the part is issued.

Reimbursement Type
Specify if the warranty covers a cash reimbursement or a replacement of the part.

4 Select **Active** if the part is currently active.

5 Click **Submit**.

Associating components with warranties

Associate components like VMRS codes with warranties based on system level and assembly level, and specify costs associated with the warranty.

To associate components with warranties:

1 Select **Equipment > Warranty > Warranties**.

2 Select the warranty with which to associate a component, and then click the **Components** tab.

3 Specify the **System level**, **Assembly level**, and **Component level**.

Note: You can specify the System level or the System level and the Assembly level. If you only specify the System level, the warranty will be associated with all assemblies and components in the selected system. If you only specify the System level and the Assembly level, the warranty will be associated with all components in the selected assembly.

4 Optionally, select the **Use Cost Coverage Values on Header** check box to automatically populate the cost coverage fields with information from the **Warranty** screen. Otherwise, you can manually populate these fields. The cost coverage fields include:

Labor %
The percentage of labor costs covered by this warranty.

Hired Labor %
The percentage of hired labor costs covered by this warranty.

Services %
The percentage of service costs covered by this warranty.

Stock Items %
The percentage of stock material costs covered by this warranty.

Direct Purchases %
The percentage of direct purchase material costs covered by this warranty.

Tools %
The percentage of tool costs covered by this warranty.

Fixed Labor Rate
Specify the fixed labor rate costs covered by this warranty

Fixed Labor Amount
Specify the fixed labor amount covered by this warranty.

Fixed Stock Amount
Specify the fixed stock amount covered by this warranty.

Max. Labor Amount/Claim
Specify the maximum labor amount per claim covered by this warranty.

Max. Stock Amount/Claim
Specify the maximum stock amount per claim covered by this warranty.

5 Click **Submit**.

Associating VMRS codes with warranties

Associate VMRS codes with warranties to track warranty information for vehicle components. If you do not associate any VMRS codes with a warranty, the warranty covers all components of referenced vehicles.

The system allows you to associate multiple VMRS codes with each warranty.

Define VMRS codes before associating them with warranties.

See "Defining VMRS codes" on page 476.

To associate VMRS codes with warranties:

1. Select **Equipment > Warranty > Warranties**.
2. Select the warranty with which to associate VMRS codes, and then click the **VMRS Codes** tab.
3. Click **Add VMRS Code**.
4. Specify the **System Level**, **Assembly Level**, and **Component Level**.

   Note: You cannot specify an **Assembly Level** unless you specified a **System Level**. You cannot specify a **Component Level** unless you specified an **Assembly Level**.

   The system automatically populates **Description** based on the **System Level**, **Assembly Level**, and **Component Level** combination.
5. Click **Submit**.

Printing warranty claim vs. settlement chart

Before you can set the parameters to generate the warranty claim vs. settlement chart, you must update the system Status of the warranty claim to Response Received. The system does not display this status as an option until the warranty claim has been given a system Status of Approved.

To print warranty claim vs. settlement chart:

1. Select **Equipment > Warranty > Warranties**.
2. Select the warranty for which to generate the warranty claim vs. settlement chart, and then click the **Warranty Claim vs. Settlement Chart** tab.
3. Specify the **Start Date** and **End Date**.
4. Click **Submit**.
5. Click **Print**.

Creating warranty claims

Create warranty claims to recoup faulty parts or material and labor costs incurred when warranty-related repair work has to be performed in-house.

Note: The system does not display the work order costs on the warranty claim unless you specified that the piece of equipment listed on the work order activity is under warranty.

See these references:

- "Defining regular work order headers" on page 488
- "Associating warranties with equipment" on page 126

Associate your warranty claim with a piece of equipment, a work order, or an activity on a work order to track warranty claim costs.

The system automatically assigns the **Status** of Unfinished to new claims. After creating and specifying all of the information for the claim, update the claim status to indicate its progress throughout the claim process.

To create warranty claims:

1 Select **Equipment > Warranty > Warranty Claims**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the warranty claim belongs if you use multi-organization security.

Claim
Specify a description of the claim in the adjacent field. The system assigns a claim number after you save the record.

Note: If you do not specify a description, the system automatically populates the description defined on the work order with which you associate this warranty claim.

Work Order
Specify the work order with which to associate the warranty claim.

The system automatically populates **Equipment** based on the information provided on the **Work Orders** page and **Serial Number**, **Commission Date**, **Part Details**, and **VMRS Code Details** based on the equipment record.

The system automatically populates **WO Labor**, **WO Hired Labor**, **WO Services**, **WO Stock Items**, **WO Direct Purchases**, **WO Tools**, **WO Claim Amount**, and **Total Claim Amount** based on the warrantable costs for the selected work order.

Note: If the selected **Work Order** is a multiple equipment or MEC work order, then the system automatically populates **Equipment** with the equipment on the work order, and it is protected. The system enables you to create warranty claims for the parent multiple equipment work order or any related work order(s).

See "Adding Equipment To Work Orders To Split Work Order Costs" on page 502.

Equipment
Specify the piece of equipment with which to associate the warranty claim. The system automatically populates **Serial Number**, **Commission Date**, **Part Details**, and **VMRS Code Details**.

If no **Equipment** is selected, the system displays all work orders, including MEC work orders.

If an **Equipment** is selected, then the system displays only the work orders for which the work order equipment is the same as the equipment on the claim.

Status
Select the status of the claim if you are authorized to do so. Changing the status of a warranty claim may affect additional system checks and field changes:

Option	Description
Approved	The system verifies that an attached work order has a system status of Completed. If the work order does not have a system status of Complet-

Option	Description
	ed, the system verifies whether you want to continue. Click **Yes** to change the status to Approved. Any future costs added to or subtracted from the work order will not reflect on the warranty claim.
Canceled	The system protects all fields on the **Claims** form except **Status**.
Completed	The system protects all fields on the **Claims** form except **Status**.
Response received	The system allows you to specify Settlement Details. See "Entering Settlement Details for Warranty Claims" on page 104.
Unfinished	The system refreshes **WO Labor**, **WO Hired Labor**, **WO Services**, **WO Stock Items**, and **WO Direct Purchases** based on an attached work order each time the unfinished claim record is selected for display on the **Record View** tab.

RMA Number
Specify the return material authorization (RMA) number.

Top Parent
Specify the highest-level parent of the equipment associated with this warranty claim.

Top Parent Usage
Specify the usage value of the highest-level parent piece of equipment.

4 Specify the **Commission Date**, **Commissioning WO**, **Warranty**, **Usage**, **UOM**,**Class**, **Date Filed**, and **Date Reported**.

5 Click **Save Record**.

Viewing warranty claims for equipment

View the warranty claims associated with assets, positions, and systems.

To view the warranty claim for a piece of equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to view warranty claim lines, and then click the **Warranty Claims** tab.
3 View the warranty claims for the equipment.
4 Optionally, click the **Claim** hyperlink to view details about the warranty claim.

Entering settlement details for warranty claims

Enter settlement details for a warranty claim after the claim has been settled. Enter monetary values according to the amount of money you are able to recoup through the claim process. The system automatically calculates **WO Cost Settlement** based on the monetary values you enter in **Labor**, **Hired Labor**, **Stock Items**, and/or **Direct Purchases**. If you specified a percentage to be recouped on the **Warranty** form, the system calculates **WO Cost Settlement** based on the percentage.

Before you can enter settlement details, the system status of the warranty claim must be Response Received. The system does not display this status as an option until the warranty claim has been given a system status of Approved.

To enter settlement details for warranty claims:

1 Select **Equipment > Warranty > Warranty Claims**.
2 Select the claim for which to enter settlement details, and then click the **Record View** tab.
3 Specify this information:

Status
Select Response received as the status of the warranty claim. The system enables Settlement Details.

Date Resolved
Specify the date the warranty claim was resolved.

Labor
Specify a monetary value for labor.

Hired Labor
Specify a monetary value for hired labor.

Services
Specify a monetary value for services.

Stock Items
Specify a monetary value for stock items.

Direct Purchases
Specify a monetary value for direct purchases.

Tools
Specify a monetary value for tools.

WO Cost Settlement
Specify a monetary value for the cost settlement of the work order.

Other Settlement
Specify a monetary value for expenses not accounted for in WO Cost Settlement. The system automatically populates **Total Settlement**.

4 Click **Save Record**.

Associating activities with warranty claims

Associate activities and jobs to warranty claims and have their corresponding cost lines associated to claim lines. The activities tab cannot be modified if the Warranty Claim Status is Approved, Response Received, Completed, or Cancelled.

To associate activities and jobs to warranty claims:

1 Select **Equipment > Warranty > Warranty Claims**.
2 Select the warranty claim with which to associate activities and jobs, and then click the **Activities** tab.
3 Select the **Activity** and **Job** to associate with the warranty claim.
4 Click **Submit**.

Adding claim lines to warranty claims

Add claim lines to warranty claims that are associated to a work order but need more description of the claim.

Note: You cannot edit this screen if the warranty claim status is changed to Approved, Response Received, Completed, or Cancelled.

You cannot delete claim line records if the **System** check box is selected.

To add claim lines:

1 Select **Equipment > Warranty > Warranty Claims**.
2 Select the warranty to which to add claim lines, and then click the **Claim Lines** tab.
3 Click **Add Claim Line**.
4 Specify information for the claim line, such as the **Activity**, **Job**, **Type**, **Description**, **Amount**, and **Notes**.
5 Optionally, clear the **Include on Claim** check box exclude the claim line and cost amount on the warranty claim.
6 Click **Submit**.
7 Optionally, click **Recalculate System Records** to recalculate all claim line amounts where the **System** check box is selected.

Evaluating equipment

Evaluate equipment to present a side-by-side comparison of potential equipment and existing equipment. Equipment evaluations allow you to compare the cost of retaining existing equipment versus the capital costs and resulting savings of acquiring the potential equipment.

Creating equipment evaluations

Create records to represent potential new equipment that will be evaluated as possible replacements for existing equipment.

To create equipment evaluations:

1. Select **Equipment > Procurement Evaluation > Equipment Evaluations**.
2. Click **New Record**.
3. Specify the **Organization**, **Description**, **Evaluation Status**, **Potential Manufacturer**, **Potential Model Number**, **Estimated Cost of Materials**, **Major Group**, **Group**, **Individual**, **Priority**, and **Additional Information.**
4. Specify this information:

   Commodity-1
   Select a commodity. The system automatically populates **Commodity-1 UOM**.

   Note: If **Commodity-1** is blank, the system protects **Design Consumption Rate-1** and **Design Usage UOM-1**.

   Once **Commodity-1** is populated, the system enables **Design Consumption Rate-1** and **Design Usage UOM-1** .

   Design Consumption Rate-1
   Specify a design consumption rate. The system automatically populates **Design Consumption Rate UOM**.

   Design Usage UOM-1
   Select a unit of measure.

5. Specify the **Manufacturer**, **Model Number**, **Class**, **Category**, **Equipment Type**, and **Equipment Status**.
6. Select the **Gas Tracked** check box if the equipment is GAS tracked.
7. Select the **Include Out of Service Equipment** check box if the equipment evaluation will include out of service equipment.
8. Click **Save Record**.

   Note: To populate the equipment list with equipment matching the search criteria, click **Create/Refresh Equipment List**. The system deletes records from the Equipment Equivalency page with **Status** of Not Evaluated, and then refreshes the equipment list.

Evaluating equipment equivalency

Select records of existing equipment for which to compare to potential equipment.

To evaluate equipment equivalency:

1. Select **Equipment > Procurement Evaluation > Equipment Evaluations**.
2. Select an evaluation record for which to create an equipment equivalency, and then click the **Equipment Equivalency** tab.
3. Select one or more equipment records to be evaluated for the potential equipment.
4. Click **Mark as Equivalent**.

   Note: To add equipment records for which to evaluate, click **Add Equipment**. Select the equipment to add, and then click **OK**. The system inserts the new record into the Equipment Equivalency list, and updates **Equipment Status** to Not Evaluated.

   To delete equipment records, select the equipment records for which to delete, and then click **Delete Selected Equipment**.

   To designate equipment records as not equivalent, select the equipment records for which to designate as not equivalent, and then click **Mark as Not Equivalent**.

   To designate equipment records as not evaluated, select the equipment records for which to designate as not evaluated, and then click **Mark as Not Evaluated**.

Evaluating cost analysis for equipment

Select potential equipment records from which capital planning requests may be created. Capital planning requests provide capital expenditure information based on forecasted labor costs, forecasted material costs, and expected cost avoidance.

To evaluate cost analysis for equipment:

1. Select **Equipment > Procurement Evaluation > Equipment Evaluations**.
2. Select a record for which to evaluate equipment, and then click the **Cost Analysis** tab.
3. Select one or more records for equipment that is considered for replacement.
4. Click **Create Capital Planning Requests**. The system creates capital planning requests for each potential equipment record selected. The system automatically populates **Capital Planning Request**.

   Note: To refresh cost data for selected equipment records, select the records, and then click **Refresh Cost Data for Selected Record**.

Creating equipment hierarchies

Define parent/child relationships among equipment to link costs and meter readings.

Defining equipment hierarchies

Define parent/child relationships among equipment. Define parent records before child records. If you add a third level, the child becomes a parent, and the added piece of equipment is its child.

Note: Equipment hierarchies must be consistent with the hierarchy rules described in "Understanding Equipment" on page 63 earlier in this chapter. For example, a system cannot be the parent of a location because locations are at the top of the hierarchy of equipment information. Assets, however, are the exception to this rule. Although assets are at the bottom of the hierarchy of equipment information, an asset can be the parent of a position.

To define equipment hierarchies:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to define a hierarchy, and then click the **Structure** tab.

3 Query for the equipment for which to define a hierarchy by specifying the **Dataspy** and **Filter**.

4 Choose one of the following options:

Option	Description
Define a parent for a piece of equipment	Drag and drop the equipment record from the grid to the Add Parent drop point in the Structure Details.
Define a child for a piece of equipment	Drag and drop the equipment record from the grid to the selected parent equipment record in the Structure Details. The system indicates the piece of equipment is a child with the blue flag icon.

Note: Drag and drop an equipment record from the grid to the blue flag icon next to an existing record. The system adds the record from the grid as a sibling immediately below the record next to the blue flag icon.

5 Click **Save Record**.

Reorganizing equipment hierarchies

Drag and drop equipment records within an equipment hierarchy to reorganize its structure.

To reorganize equipment hierarchies:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

- **Equipment > Setup > Locations**

2 Select the equipment for which to reorganize a hierarchy, and then click the **Structure** tab.

3 Choose one of the following options:

Option	Description
Change the order in which child equipment records appear	Drag and drop an equipment record from its current location in the Structure Details to the blue flag icon next to the sibling record under which you want the equipment to appear.
Move a piece of equipment under a new parent	Drag and drop the equipment record from its current location in the Structure Details to its new parent record. The system transfers cost and meter roll-up data for the equipment record to its new parent.

4 Click **Save Record**.

Viewing equipment hierarchies

The system displays the hierarchical structure of a piece of equipment.

To view equipment hierarchies:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to view the hierarchy, and then click the **Structure** tab.

3 Specify the **Dataspy** and **Filter** to query for the equipment for which to define a hierarchy.

4 View the equipment hierarchy on the left side of the form under Structure Details.

- A number, such as `2003001`, followed by the equipment type, such as `A`, `P`, indicates that this is the highest level for that equipment type.
- A plus sign (`+`) indicates that the equipment may have children, but they are not displayed. To display an equipment's children, click the plus sign.
- A minus sign (`-`) indicates that the equipment has children and the children are visible. Click the minus sign to hide the children.
- Click on a piece of equipment to make it active; the equipment then becomes highlighted in blue. The children of the active row on the hierarchical area (on the left) are shown in detail on the right side of the form.
- To change the focus of the Structure Details, select an equipment record in the tree view, and then click Display as Focal Point. The system updates the Structure Details.
- To view the record details, select an equipment record in the tree view, and then click **Go to Selection**. The system displays the **Record View** page for the selected equipment.

Unlinking equipment

Unlink equipment records from the Structure Details tree view by unlinking the equipment record from other equipment records.

To unlink equipment:

1 Select one of the following:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to unlink the structure, and then click the **Structure** tab.

3 Select the parent or child equipment record to unlink, and then click **Un-Link**.

Toggling cost rollup

Roll up costs and history to a particular parent piece of equipment for assets, positions, and systems only.

To toggle cost rollup:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to toggle cost rollup, and then click the **Structure** tab.

Note: If an equipment record has a toggle equipment cost icon next to it, the equipment's costs do not roll up to the parent equipment. Toggle the cost rollup to modify the equipment record.

3 Select the parent or child equipment record for which to toggle cost rollup, and then click **Toggle Cost Rollup**.

Viewing the parents of assets, positions, or systems

View a list of all immediate parents defined for equipment.

To view a list of parent equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**

- **Equipment > Systems**

2 Select the equipment for which to view parents, and then click the **Structure** tab.
3 Select the equipment record for which to view parents, and then click **Show Parents**.
4 Select the **Dependent** check box if the child is dependent on the parent.

Note: You can only select **Dependent** for one parent. You can also specify that no parent is **Dependent**.

When the selected equipment is an asset, position, or system, and a location is listed as a parent of the equipment, the **Dependent** check box is unchecked for all parents listed.

Selecting the check box for one of the other parents listed will result in the removal of the direct relationship with the location.

5 Click **Submit**.

Viewing the parent of a location

View the immediate parent location of another location.

To view the parent location:

1 Select **Equipment > Setup > Locations**.
2 Select the equipment for which to view the parent, and then click the **Structure** tab.
3 Select the location record for which to view the parent, and then click **Show Parents**.
4 The **Dependent** check box is always selected when both the parent and the child are locations. You cannot change the setting of the **Dependent** checkbox in this case.
5 Click **Submit**.

Replacing child equipment

Replace child equipment record in the equipment hierarchy with another child equipment record.

To replace child equipment:

1 Select **Equipment > Process > Child Equipment Replacement**.
2 Specify this information:

Parent Equipment
Specify the parent equipment of the child equipment to be replaced. The system automatically populates the equipment description and **Organization**.

Child Equipment
Specify the child equipment to be replaced in the hierarchy. The system automatically populates the equipment description, **Organization**, **Status**, **Class**, **Category**, **Location**, **Department**, **Manufacturer**, **Serial Number**, and **Model**.

New Equipment
Select a new child equipment to replace the old child. The system automatically populates the equipment description, **Organization**, **Status**, **Class**, **Category**, **Location**, **Department**, **Manufacturer**, **Serial Number**, **Model Number**, **Store**, **Bin**, and **Lot**.

3 Select the **Core Return** check box to designate the child equipment a repairable spare.
4 Select the **Withdraw/Scrap** check box to withdraw or scrap the child equipment.
5 Select the **Return to Storeroom** check box to return the child equipment to the storeroom.

Note: If you selected **Return for Repair** or **Return to Storeroom**, specify **Store** and **Bin**.

6 Select one of the options for the cost details:

Option	Description
Apply Structure Change Cost to Parent	Select to apply the cost of the equipment structure change to the parent equipment.
Apply Structure Change Cost to Child	Select to apply the cost of the equipment structure change to the child equipment.

7 Select the **Create New WO** check box to create a new work order for the child equipment replacement.
8 Specify the **Work Order Org.** and **Standard WO**.
9 Select one of the options for work order details:

Option	Description
Create WO Before Structure Change	Select to create the work order before the equipment structure change.
Create WO After Structure Change	Select to create the work order after the equipment structure change.

10 Click **Replace**.

Note: To detach the child equipment from the hierarchy without replacing it with another child equipment, click **Detach**.

Creating work orders

You can create a work order for any piece of equipment or location in the hierarchy.

See "Defining regular work order headers" on page 488.

To create work orders:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**

- **Equipment > Systems**
- **Equipment > Locations**

2 Select the equipment for which to create a work order, and then click the **Structure** tab.

3 Select the equipment record for which to create a work order, and then click **Create WO**.

4 Specify this information:

WO Description
Specify the description of the work order.

Note: If you leave this field blank and select a **Problem Code**, the system will populate the **Problem Code** as the **Work Order Description**.

WO Organization
Specify the organization to which the equipment or location belongs.

Type
Select one of the options for the type of work order:

Option	Description
Breakdown	Select to create a work order in response to an equipment breakdown or failure.
Preventative maintenance	Select to create a preventive maintenance work order.
Project	Select to create a work order as part of a project.
Work	Select to create a general work order.

Status
Select one of the options for the status of the work order:

Option	Description
Released	Select to create a work order for release.
Work Request	Select to create a work order request.

5 Specify the **Priority**, **Problem Code**, **Class**, **Department**, **Location**, **Cost Code**, **Sched. Start Date**, **Sched. End Date**, **Assigned To**, **Standard WO**, **Trade**, **Task Plan**, **Material List**, **Activity Start Date**, **Activity End Date**, **Estimated Hours**, and **People Required**.

Note: The system automatically populates the work order description, **Type**, **Class**, **Problem Code**, **Priority**, and **Scheduled End Date** if available. The system also copies the standard work order activities to the current work order. If the standard work order is a template, the system creates child work orders as defined on the standard work order.

6 Click **Submit**.

7 Specify this Linear Reference Details information:

Note: The system only displays Linear Reference Details if the equipment record for which to create the work order is a linear equipment record.

From Point
Specify the starting point or from point on the linear equipment record from which to perform the work order.

Ref. Description
Specify a description for the **From Point**.

Geographical Ref.
Specify a geographical reference for the **From Point**.

To Point
Specify the ending point or to point on the linear equipment record to which to perform the work order.

Ref. Description
Specify a description for the **To Point**.

Geographical Ref.
Specify the geographical reference to the **To Point** .

8 Click **Submit**.

Printing the WO repair costs chart for equipment

Print the work order repair costs chart report for equipment. The report displays a list of all work orders with a status of Released and Completed, and the costs associated for selected equipment.

To print the work order repair costs chart for equipment:

1 Select **Equipment > Assets**.
2 Click the **Work Order Repair Costs Chart** tab.
3 Specify the **Start Date** and **End Date**.
4 Click **Submit**.
5 Click **Print**.

Printing the PM repair costs chart for equipment

Print the PM work order repair costs chart report for equipment. The report displays a chart that breaks down total PM costs by cost type. The report also contains a detail section that lists individual PM work orders and the costs associated for selected equipment.

To print the PM repair costs chart for equipment:

1 Select **Equipment > Assets**.
2 Open the **Assets** form.
3 Click the **PM Repair Costs Chart** tab.
4 Specify the **Start Date** and **End Date**.
5 Click **Submit**.
6 Click **Print**.

Associating references with linear equipment

Associate linear references with linear equipment and specify the point or segment at which the reference is located.

See "Defining Linear Equipment" on page 86.

Linear references enable you to dynamically segment work orders and equipment costs based on meaningful reference descriptions.

Searching for references

Select an equipment record, and then search for linear references or linear equipment records within a defined linear distance of the equipment record.

Note: The system cannot accurately calculate the point of intersection of two linear equipment records unless you define the point of intersection as a linear reference on each equipment record. For example, if you add Main St. as a linear reference on Washington Ave. but do not add Washington Ave. as a reference on Main St., the system assumes that Washington Ave. crosses Main St. at point 0 on Main St.

See "Adding References to Linear Equipment" on page 116.

To search for references:

1 Select one of these options: .
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2 Select the asset, position, or system from which to begin your search, and then click the **Record View** tab.

   Note: The selected equipment record must be a linear equipment record or a linear reference.

   See these references:

   - "Defining Linear Equipment" on page 86
   - "Adding References to Linear Equipment" on page 116

3 Right-click, and then select **Linear Equipment Search**.

The system automatically populates **Originating Point** with the midpoint of the equipment record. For example, the midpoint is the length of the equipment record divided by 2 and rounded to the defined precision of the equipment record. The system automatically populates the Search Parameters with the class of the equipment record for which you are searching for linear references.

Note: If the equipment record on which you are basing your search does not contain a **Linear Reference UOM**, the system protects and populates **Originating Point** with 0 and the **Linear Distance** unit of measure with Feet.

4 Specify this information:

Originating Point
Specify the point on the **Originating Equipment** from which to begin your search.

Linear Distance
Specify the distance from the **Originating Point** of the **Originating Equipment** within which to search.

UOM
Specify the unit of measure for the specified **Linear Distance**.

5 Specify filter criteria, and then click **Run**.

The system displays linear references that fall on or within the specified distance and meet the filter criteria. The system calculates each linear reference's distance from the **Originating Point** in the unit of measure of the **Linear Distance** and displays the linear distance in the list.

Note: The system displays each linear reference's linear parent, linear parent organization, and linear parent description if the linear parent equipment also falls on or within the specified distance. The linear parent is the linear equipment record on which the equipment record is a reference.

6 Select a linear reference, and then click **Go To**.

Note: The system cannot display the **Record View** page of a Linear reference system or Point of Interest because they are not defined as equipment records.

Click the **Structure** tab to view equipment hierarchy information.

Adding references to linear equipment

Add linear references to linear equipment records. A linear reference is a point or line along a linear equipment record and serves as a reference point.

Note: If two linear equipment records intersect, you must define the point of intersection as a linear reference on each equipment record. For example, if Main St. and Washington Ave. intersect, define Main St. as a linear reference on Washington Ave.'s equipment record and define Washington Ave. as a linear reference on Main St.'s equipment record. If you do not define the point of intersection as linear references on both equipment records, the system will calculate linear distance incorrectly when searching for equipment.

To add references to linear equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Systems**
- **Equipment > Positions**

2 Select the asset, system, or position for which to add a linear reference, and then click the **Linear References** tab. The system automatically populates **Equipment Length** and the unit of measure in the adjacent field.

3 Click **Add Reference**.

4 Specify this information:

Type
Select one of these options:

Option	Description
Linear reference system	Select to indicate that this reference denotes the measurement system by which to locate a point, line, or piece of equipment along the linear equipment record. Mile markers on an interstate are one example.
Related equipment	Select to indicate that this reference denotes equipment that is located along the linear equipment record. Exit ramps along an interstate are one example. Related equipment must be specified to display the reference on the map on the **Linear Overview** tab. **Note:** If you select Related equipment, the system enables **Equipment**.
Point of interest	Select to indicate that this reference denotes any point along the linear equipment record that is important to track, but is not defined as an equipment record within the system. Road signs are one example.

Note: Reference types are linked to the LRTP entity for which you must define your reference type codes. Depending on your system configuration, the codes listed below are not the codes that appear in the dropdown. Contact your system administrator for more information.

Class
Specify the class of the linear reference. This is required for the linear reference to display on the map on the **Linear Overview** screen.

Equipment
Specify the equipment record to add as the reference if you selected Related equipment as the **Type**. The system automatically populates **Ref. Description**, **Equipment Org.**, and **Geographical Reference**.

Ref. Description
Specify a description of the reference.

From Point
Specify the point on the linear equipment record from which to begin the reference.

To Point
Specify the point on the linear equipment record to end the reference.

Geographical Reference
Specify a geographical reference point for the reference.

5 Select the **Display on Overview** check box to display the reference on the map on the **Linear Overview** tab.
6 Click **Submit**.

Splitting linear reference records

Split a linear reference record into different segments. Enter the split point where the record must be split and a description for the segments.

To split a linear reference record:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset to modify, and then click the **Linear References** tab.
3 Select a linear reference record to split, and then select **Split**.
4 Specify the **Date Effective**, **Split Point**, **Description Segment 1**, and **Description Segment 2**.
5 Select **Submit**.

Note: You can also split a linear reference record into three parts. Select the linear reference to split, and then select **Insert Inside**. Specify the **Date Effective**, **From Point**, **To Point**, and **Description**.

For example, dirt was the original surface of a 12 mile long road. After January 1st, gravel is used to cover mile 4, 5, and 6. For this example, specify January 1 as the **Date Effective**, specify 4 as the **From Point**, specify 7 as the **To Point**, and specify that the dirt is being replaced with gravel for the **Description**.

Viewing linear overview for equipment

View linear reference types for equipment. The **Linear Overview** tab displays a line graph for information found in the **Linear References** tab, including linear reference types, points of interest, related equipment, and related parts of the linear equipment.

When the tab is loaded the system will attempt to display a map showing the selected header equipment and any related equipment. You must have the GIS module installed to view the map. All equipment to be displayed on this map must have a GISOBJID and be integrated to the GIS. You must also select **Show Block** in Screen Designer mode. On the **Linear References** tab of the equipment, the **Type** must be specified as Related Equipment and the equipment must have a specified **Class**. The **Display on Overview** preference must be selected on the **Linear Overview** tab as well.

To view linear overview for equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset for which to view the linear overview, and then click the **Linear Overview** tab.

3 Specify this information:

Range Selector
Click the **Range Selector** button and select the range to view by placing the sliders on the view from points and view to points.

Note: For example, to view the linear overview of equipment between the values 50 and 100, place the first slider at 50 and the second at 100.

Effective
Specify the effective date for the linear overview.

Note: The system defaults this to the system date. If you change the effective date, the system refreshes the View From Point and the View To Point.

4 View the linear overview for the selected asset.

Note: Rest on a record to view the reference description, range, effective dates, inspection direction, flow, relationship type, equipment, equipment description, part, part description, part condition, and work orders. When resting on work orders, checklists, and inspection results, the system will display the first 10 fields of the selected dataspy.

5 Select **Zoom In** or **Zoom Out** to view a smaller or larger section of the range.

Editing linear overview preferences

Edit preferences for **Linear Overview**.

To edit the preferences:

1 Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2 Select the equipment for which to change the preferences for the linear overview, and then click the **Linear Overview** tab.
3 Select **Preferences** to specify the display options.
4 Specify these options for the Show Features:
   - Select the **Linear References** check box to view the linear references in the linear overview display.
   - Select the **Points of Interest** check box to view the points of interest in the linear overview display.
   - Select the **Related Equipment** check box to view the related equipment in the linear overview display.
   - Select the **Related Parts** check box to view the related parts in the linear overview display.
   - Optionally, specify the **Default Color** display for the records if no specific color is specified.
5 Specify these options for the Filters:
   - Select the **Default Filter** for the linear overview display.
   - Select the **Include Related Equipment in Applied Filter** check box to include any related equipment in the filtered display.
6 Click **Submit**.

Viewing keys associated with equipment

View keys that are associated for equipment.

1 Select one of these options:
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
   - **Equipment > Assets Healthcare**
   - **Equipment > Properties Healthcare**
   - **Equipment > Systems Healthcare**
   - **Equipment > Facilities**
   - **Equipment > Rooms**
   - **Equipment > Vehicles**

2 Select the equipment for which to view associated keys, and then click the **Keys** tab.
3 View the keys that are associated with the equipment.

Defining meter information

A physical meter is a tangible device, such as a car odometer, that measures a particular usage of a piece of equipment. Physical meters have limits on how much usage you can track before the meter resets to zero. Define physical meters on the **Meters** form.

Logical meters record the accumulative usage of a piece of equipment throughout its operational life. In the system, the meter due value of a preventive maintenance work order is always based on a logical meter. Use logical meters to monitor equipment usage. Plan preventive maintenance in response to logical meter levels. Define logical meters on the **Meters** page of the **Assets**, **Positions**, **Systems**, or **Locations** form.

Defining physical meters

To define physical meters:

1 Select **Equipment > Setup > Meters**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the meter belongs if you use multi-organization security.

Meter
Specify a unique code identifying the meter, and then specify a description of the meter in the adjacent field.

Meter Unit
Specify the meter's unit of measure.

Maximum Value
Specify the maximum value the meter can reach before it exceeds its physical count limit and resets to zero. Leave **Maximum Value** blank if the meter cannot reset to zero when it reaches its physical count limit.

Last Value
Specify the last meter reading as necessary.

Class
Specify the class of the meter. The classes shown belong to the MET entity.

Note: When defining a physical meter, **Service Point** is a read-only field. You can specify the **Service Point**of a piece of equipment when editing a meter record.

4 Click **Save Record**.

Defining logical meters

Define logical meters by linking meters with equipment.

To define logical meters:

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment with which to link a meter, and then click the **Meters** tab.

3 Click **Add Meter**.

4 Specify this information:

Unit of Measure
Specify the unit of measure for the logical meter.

Type of Meter
Select one of the following meter types:

Option	Description
Standalone	Select so that the equipment will not receive meter readings based on its established parent equipment meters of the same UOM, nor will it send meter readings to any of its established child equipment meters of the same UOM.
Parent	Select to send the equipment's meter readings down to child equipment. If you have parent/child relationships among equipment, specify meter readings for the parent piece of equipment only when adding meter readings.
Child	Select to enable the child equipment to receive usage information from a higher-level piece of equipment. The child equipment's unit of measure (UOM) must match that of the parent.
Parent & Child	Select to receive meter readings based on entries made for its parent equipment meters of the

Option	Description
	same UOM, and it will send meter readings to its children.

Total Usage
Specify the total usage of the logical meter. The system automatically updates **Usage Since Install** and **Usage Since Last WO**.

Usage Since Install
Specify the usage of the logical meter since the last change in the equipment hierarchy.

Est. Daily Usage
Specify the estimated amount of the daily usage.

Readings for Calc.
Specify the number of readings used to calculate the average daily usage. The system automatically updates **Avg. Daily Usage**.

Physical Meter
Specify the code of the physical meter, if any.

Last Reading Date
Specify the date of the last meter reading.

5 Select the **Up/Down Meter** check box to allow new meter readings to be less than the last meter readings. If this check box is not selected, an error message will be displayed when you specify a new meter reading that is less than the last meter reading.

6 Click **Submit**.

Entering meter readings for logical meters

To enter meter readings for logical meters:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to enter meter readings, and then click the **Meters** tab.

3 Select the meter for which to enter a reading, and then click **Enter Meter Reading**.

Note: You can enter a reading for a date that is earlier than the last reading date. The value for the new reading must be between the prior and subsequent readings. For example, if there are previous readings for August and October, you can enter a new reading for September. If the reading in

August was 100 and the reading in October was 200, then the reading entered for September must be between 100 and 200.

4 Specify this information:

Entry Type
Choose one of the entry types:

Option	Description
Reading	Specify the current meter reading for **Value**.
Difference	Specify the difference between the last reading and the current reading for **Value**.
Date/Time	Specify the date and time of the meter reading.
Value	Specify the meter reading value.

Date/Time
Specify the date and time for the meter reading.

New Value
Specify the new value for the meter reading.

Work Order
Specify the work order. The system automatically populates **Related Work Order** if a related work order exists.

5 Click **Submit**.

Viewing meter history

To view meter history:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to view meter history, and then click the **Meters** tab.
3 Select the meter, and then click **View Meter History**.
4 View the meter history details and then click **Cancel**.

Deleting meter readings from history

You may only delete the most recent meter reading.

To delete meter readings from history:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to delete meter readings from history, and then click the **Meters** tab.

3 Select the meter, and then click **View Meter History**.

4 Select the meter reading to delete, and then click **Delete Reading**.

5 Click **Cancel**.

Entering batch meter readings

Enter meter readings or meter differences on the **Batch Meter Readings** form.

Note: In some cases, the default UOM is a parent meter attached to one or more Child ("Receiving") meters of the same UOM. In such cases, the new meter reading must roll down the hierarchy.

See "Creating equipment hierarchies" on page 107.

To enter batch meter readings:

1 Select **Equipment > Process > Batch Meter Readings**.

2 Specify this information:

Equipment
Specify the equipment for which to enter meter readings. The system automatically populates **Equipment Org.** if you selected **Equipment**.

UOM
Specify the unit of measure.

Meter
Specify the meter code.

Difference
Select to calculate the difference between the last meter reading and the current reading.

Note: The system calculates **Difference** by adding the new value entered to the last meter reading.

Date/Time
Specify the date and time of the meter reading.

Note: The date entered must occur between the date of the last meter reading and the current date. The system automatically populates the current date.

New Value
Specify the meter reading value.

Work Order
Specify the work order. The system automatically populates **Related Work Order**.

3 Click **Update Meters**.

Note: The system updates the meter readings unless an error message is generated. In this case, the system lists the error in the **Error Message** field, and the row remains in the grid to be edited.

Associating warranties with equipment

Associate warranty documents with specific pieces of equipment or with other equipment. Define warranty terms based on equipment usage or by date.

One or more warranty coverage records may be established for a piece of equipment for tracking purposes to ensure that stipulations of the warranty are adhered to both internally and externally. In general, there are two types of warranty coverage records that can be tracked for equipment: calendar-based and usage-based. Warranty coverage records can be associated with an asset, position, or system.

Calendar-based coverage records require a duration value expressed in days. The start and expiration of this type of warranty for a given piece of equipment is expressed in terms of calendar dates. Usage-based warranty coverage records require a duration value expressed in some unit of measure other than days. The warranty's unit of measure has to be defined as a logical meter for the equipment. The start and expiration of this type of warranty for a given piece of equipment is expressed in terms of usage.

Note: If you are using the COVDURUP installation parameter, you may modify the **Duration** field of any warranty coverage record.

If you are using the COVDUPAC installation parameter, equipment can only have one active warranty coverage at any given time.

Adding calendar-based warranty coverage to equipment

Note: To manage warranties from the perspective of the warranty record, select **Equipment > Warranty > Warranties**.

To add calendar-based warranty coverage to equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to add a warranty, and then click the **Warranties** tab. The system automatically populates **Coverage Type**, **Active**, **Date Entered**, and **Entered By**.

3 Click **Add Warranty Coverage**.

4 Specify this information:

Warranty
Specify the warranty document to associate with the equipment. The system automatically populates the warranty description, **Duration**, **Threshold**, **Manufacturer**, and **Supplier**

Coverage Type
Select Calendar to indicate that the warranty is based on number of days used.

Duration
Specify the length of the warranty, in days.

Threshold
Specify the number of days prior to expiration at which the system should notify you that the warranty is about to expire.

Start Date
Specify the start date of the warranty.

Expiration Date
Specify the **Expiration Date**. The system automatically populates **Expiration Date** based on **Start Date** plus **Duration**. Modify the **Expiration Date** as necessary.

Note: The system automatically adjusts **Duration** if you modify the **Start Date** or **Expiration Date**.

Active
Select to indicate that the warranty is currently active.

Duration UOM
Specify the usage length of the warranty and the usage unit of measure. The system automatically populates **Last Value** with the most recent meter reading of this equipment record and unit of measure. If there is no meter reading, the system populates **Last Value** with the **Total Usage** of the equipment record and unit of measure.

Threshold UOM
Enter the amount of usage quantity prior to expiration at which the system should notify you that the warranty is about to expire.

Starting Usage
Enter the amount of usage that occurred prior to the warranty start date.

Expiration Usage
Enter the amount of usage at which the warranty expires. The system automatically populates this field based on **Starting Usage** plus **Duration UOM**. Modify the **Expiration Usage** as necessary.

5 Click **Submit**.

Adding usage-based warranty coverage to equipment

Note: To manage warranties from the perspective of the warranty record, select **Equipment > Warranty > Warranties**.

To add usage-based warranty coverage to equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to add a warranty, and then click the **Warranties** tab. The system automatically populates **Coverage Type**, **Active**, **Date Entered**, and **Entered By**.

3 Click **Add Warranty Coverage**.

4 Specify this information:

Warranty
Specify the warranty document to associate with the equipment. The system automatically populates the warranty description, **Duration**, **Threshold**, **Manufacturer**, and **Supplier**.

Coverage Type
Select Usage to indicate that the warranty is based on actual usage.

Active
Select to indicate that the warranty is currently active.

Duration UOM
Specify the usage length of the warranty and the usage unit of measure. The system automatically populates **Last Value** with the most recent meter reading of this equipment record and unit of measure. If there is no meter reading, the system populates **Last Value** with the **Total Usage** of the equipment record and unit of measure.

Threshold UOM
Specify the amount of usage quantity prior to expiration at which the system should notify you that the warranty is about to expire.

Starting Usage
Specify the amount of usage that occurred prior to the warranty start date.

Expiration Usage
Specify the amount of usage at which the warranty expires. The system automatically populates this field based on **Starting Usage** plus **Duration UOM**. Modify the **Expiration Usage** as necessary.

5 Click **Submit**.

Generating the OEE metrics report

Shows the overall efficiency of equipment based on the availability, performance, and quality of the equipment.

To generate the OEE metrics report:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset, position, or system for which to display the OEE metrics report, and then click the **OEE Metrics** tab.

3 Specify this information:

Type
Choose one of the following options:

Option	Description
OEE Summary	Select to display the availability, performance, quality, and overall equipment efficiency charts
Selected vs. Prior	Select to display a chart comparison of the availability, performance, quality, and overall equipment efficiency for a selected date range versus a prior date range.

Availability
Specify a threshold value for the availability of the equipment.

Performance
Specify a threshold value for the performance of the equipment.

Quality
Specify a threshold value for the quality of the equipment.

Red Max. Limit (%)
Specify the maximum value for the red limit. The system defaults the value to 50.

Yellow Max. Limit (%)
Specify the maximum value for the yellow limit. The system defaults the value to 75.

Green Max. Limit (%)
Specify the maximum value for the green limit. The system defaults the value to 100.

Start Date

End Date
Specify the date range for which to generate the report.

4 Click **Submit**.

Adding parts associated to equipment

Associate parts to assets, positions, systems, or locations.

To add parts associated to equipment:

1 Select one of these options:**Equipment > Assets**.

- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**
- **Equipment > Setup > Categories**

2 Select the equipment, work order, or part for which to add associated parts, and then click the **Parts Associated** tab.

3 Specify the **Part** to associate and the **Condition**, **Quantity**, **System Level**, **Assembly Level**, **Component Level**, **Component Location**, and **Comments** of the part associated.

Note: Condition can only be specified if the part is tracked by a condition.

4 Click **Submit**.

Associating permits with equipment

Associate permits with equipment records.

Note: You must first define permits on the Permits form.

See "Defining permits" on page 434.

To associate permits with equipment:

1 Select one of the following: **Equipment > Assets**.

- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**
- **Equipment > Setup > Profiles**
- **Equipment > Setup > Categories**

2 Select the equipment for which to associate permits, and then click the **Permits** tab.

3 Click **Add Permit**.

4 Specify the **Permit** to associate with the equipment and the **PTW Type** for the permit type.

5 Specify the **Type of Work** and **Priority** to attach to the created permit to work, the **Risk** the permit poses, and the **Isolation Type** required on the lockout/tagout procedure of equipment associated with the permit to work.
6 Click the **Auto Create PTW** check box to automatically create a permit to work.
7 Click the **Apply to Children** check box to have the permit details applied to all child records.
8 Click the **Mandatory** check box to indicate that the permit is mandatory to complete work.
9 Click the **LOTO Required** check box to require a lockout/tagout permit.
10 Click the **Delete Pending** check box to delete the pending permit record during the next review.
11 Click **Submit**.

Adding PM schedules to equipment

View and modify the list of PM schedules for equipment like assets, positions, or systems on the **PM Schedules** tab of the respective Equipment form.

Add a new PM schedule to the equipment record, change the due date, deactivate an existing PM schedule, and delete a PM schedule altogether from the list of existing PM schedules for the equipment. When adding a new PM schedule to an equipment record, the **Work Order Org.** will default to the organization of the equipment if the organization is not common. If the organization is common, you must choose the specific organization for which to generate PM work orders.

PM revision control cannot be active because changing equipment PM schedule relationships demands a new revision of the PM schedule. If PM revision control is active, the **PM Schedule** tab is for informational purposes only.

Note: If you edit the length of a linear equipment record, the system may automatically edit associated PM records when installation parameter PMRVCTRL is set to No. If the new equipment length falls on or within the length of the PM, the system automatically updates the **To Point** of the PM record based on the new equipment length. If the new equipment length falls outside of the length of the PM, the system does not update the PM record.

To add PM schedules to equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to add a PM schedule, and then click the **PM Schedules** tab.
3 Click **Add PM**.

The system automatically populates **Work Order Org.**, **Department**, **Location**, **Loc. Org.**, **Cost Code**, **Dormant Start**, **Dormant End**, **Reuse Dormant Period**, and **Assigned To** if available.

Note: If the system does not automatically populate **Work Order Org.**, you must specify a **Work Order Org.** to activate the other fields on the form.

The system automatically populates **Date of Last Work Order** with the **Due Date** of the current work order for the PM. If the work order is a duplicate PM, the system displays the latest date.

4 Specify the **PM**, **Department**, **Location**, **Route**, **WO Class**, **Cost Code**, **Assigned To**, and **Supervisor**.

5 Specify this information:

Perform Every
Specify the length of the interval of time to pass before the system generates the next PM routine work order, and then select the unit of measure in the adjacent field.

Due Date
Specify the due date of the first work order.

Note: Each work order determines the due date of the following work order. If you update the **Due Date** on the **PM Schedules** tab, the system updates the work order **Due Date** so that this due date is later than the last work order completion date. The system adds the interval to the specified **Due Date** on the **PM Schedules** tab until a date later than the last completion date is reached. Future due dates are accepted without validation.

Dormant Start
Specify the date on which the dormant period for any PM work orders for the equipment begins.

Dormant End
Specify the date on which the dormant period for any PM work orders for the equipment ends.

Reuse Dormant Period
Select to use the same specified dormant period for any PM work orders for the equipment on a yearly basis. The system automatically updates the specified **Dormant Start** and **Dormant End** dates to future dates after the dormant period for the equipment has elapsed. Additionally, the specified dormant period will be the default dormant period for any new PM equipment records.

Test Point Set
Specify the test point set for calibration of the equipment.

Note: If the work order is a calibration work order, the system copies the test points for the specified equipment record to the work order when it is released. The system copies the test points related to the selected **Test Point Set**.

PM Type
Select one of these options:

Option	Description
Fixed	Select to issue the PM based on a fixed schedule such as based on date or reading when the last PM was originally due.
Variable	Select to issue the PM based on a variable schedule such as based on the date or reading on which the last PM was completed.

Option	Description
Duplicate	Select to allow multiple PM work orders to be open at the same time. **Note:** Selecting Duplicate as the PM type enables you to create an exception to the rule that a PM equipment may have only one work order for the PM work order at a time.

Date Deactivated
Specify a date beyond which to discontinue generation of future PM Work Orders.

Meter Interval
Specify the length of the interval of time indicating how frequently the PM is to be performed, and then specify the unit of measure for the meter interval.

Meter Due
Specify the reading due value for the first work order.

Note: Each work order determines the due reading of the following work order. If you update **Meter Due** on the **PM Schedules** tab, the system updates the work order **Meter Due**so that this due reading is higher than the reading on the last work order completed. The system adds the interval to the specified **Meter Due** on the **Equipment** tab until a reading higher than the reading on the last work order completed is reached. Future due readings are accepted without validation.

Meter # 2 Interval
Specify the length of the interval of time indicating how frequently the PM is to be performed, and then specify the unit of measure for the meter interval.

Meter # 2 Due
Specify the reading due value for the first work order.

Note: Specify more than one meter interval for a PM. For example, change the oil in a truck every 3,000 miles, according to **Meter Interval** and change the oil in the same truck after 720 hours of running time according to **Meter #2 Interval**. You must specify a value for Meter Interval to specify a value for **Meter #2 Interval**.

Perform On
Specify the week of the month and the day of the week on which to perform the work on the equipment, such as the second Tuesday of the month due. Select **Last** to handle scenarios in which there are five weeks in a month. The system sets the due date to the last week of the month.

Note: Perform On is only available for duplicate PMs, and is not available for daily or weekly frequencies.

6 Specify the Linear Reference Details.
See "Defining standard work order headers" on page 480.

7 Click **Submit**.

Defining functions for RCM Project and equipment

Define functions for an equipment as part of the RCM assessment or RCM analysis for that equipment. The **RCM Level** for the equipment must be set before defining a function. You can also edit and delete functions on the **Functions** popup. After defining functions, use the **Functional Failures** popup to define functional failures for functions.

To define functions for RCM Project and equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to define functions, and then click the **RCM** tab.

3 Click **Add/Edit Functions**.

4 Specify this information:

Description
Specify a description of the function. Click **Translations** to translate the description text into a different language.

Sequence
Specify the sequence number for the functional failure to order the failures in the tree. If the sequence is not specified, the sequencing is listed in alphabetical order by the description.

Note
Specify note details as necessary.

5 Click **Submit**.

Defining functional failures for functions

Define functional failures for previously defined functions of an equipment as part of the RCM assessment or RCM analysis for that equipment. You can also edit and delete functional failures on the **Functional Failures** popup. When you delete functional failures, all associated children are deleted.

To define functional failures for functions:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Location**

2 Select the equipment for which to define functional failure details, and then click the **RCM** tab.

3 Click **Add/Edit Functional Failures**.

4 Specify this information:

Function
Select the function.

Description
Specify a description of the functional failure. Click **Translations** to translate the description text into a different language.

Probability
Select the probability of the failure.

These are defined on the Risk Matrix screen. The probability is protected for the Risk Analysis but can be specified for the Risk Assessment.

Sequence
Specify the sequence number for the functional failure to order the failures in the tree. If the sequence is not specified, the sequencing is listed in alphabetical order by the description.

Note
Specify note details as necessary.

5 Click **Submit**.

Editing consequences for functional failures

Edit consequences for previously defined functional failures defined for an equipment as part of the RCM assessment or RCM analysis for that equipment.

To edit consequences for functional failures:

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to edit functional failure consequences, and then click the **RCM** tab.

3 Click **Edit Functional Failure Consequences**.

4 Select a **Functional Failure** for which to edit consequences.

5 Specify this information:

Consequence
Select the consequence for the functional failure.

Sequence
Specify the sequence number for the consequence.

Note
Specify note details as necessary.

6 Click **Submit**.

Defining failure modes

Define failure modes of equipment as part of the RCM analysis for that equipment. When you delete failure modes, the associated functional failures will also be deleted.

To define failure modes:

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to define failure modes, and then click the **RCM** tab.

3 Click **Add/Edit Failure Modes**.

4 Specify this information:

Description
Specify a description of the failure mode. Click **Translations** to translate the description text into a different language.

Probability
Select the probability of the failure.

These are defined on the Risk Matrix screen. The probability is protected for the Risk Analysis but can be specified for the Risk Assessment.

Sequence
Specify the sequence number for the functional failure to order the failures in the tree. If the sequence is not specified, the sequencing is listed in alphabetical order by the description.

Note
Specify note details as necessary.

5 Click **Submit**.

Defining functional failures for failure modes

Define functional failures for previously defined failure modes of equipment as part of the RCM analysis for that equipment. You can also edit and delete functional failures for failure modes on the **Functional Failures for Failure Modes** popup.

To define functional failures for failure modes:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to define functional failures for failure modes, and then click the **RCM** tab.
3 Click **Add/Edit Functional Failures for Failure Modes**.
4 Specify the **Failure Mode**, **Functional Failure**, **Sequence** number, and **Note** details.
5 Click **Submit**.

Viewing RCM for equipment

View the Reliability Centered Maintenance (RCM) for equipment. Functions, functional failures, and consequence categories are displayed on this screen. If you set the **RCM level** as Risk Analysis, failure modes and associated functional failures are also displayed on this screen.

To view RCM for equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the piece of equipment for which to view the RCM, and then click the **RCM** tab.
3 Select **Action** and then select **Expand All** to view all of the details or the functions and failure modes.

Note: You can also expand Functions or Failure Modes individually to view specific details.

4 Select **Action** and then select **Collapse All** to close the details for the functions and failure modes.
5 Optionally, select **Action** and then select one of these actions:

Option	Description
Add/Edit Functions	Define functions for a RCM Project and equipment combination.

Option	Description
Add/Edit Functional Failures	Define functional failures for previously defined functions of a RCM Project and equipment combination.
Edit Functional Failure Consequence	Edit consequences for previously defined functional failures of a RCM Project and equipment combination.
Add/Edit Failure Modes	Define failure mode details for a RCM Project and equipment combination. **Note:** You can only add and edit failure modes if the RCM level is specified as Risk Analysis.
Add/Edit Functional Failure for Failure Modes	Define functional failures for previously defined failure modes of a RCM Project and equipment combination. **Note:** You can only add and edit functional failures for failure modes if the RCM level is specified as Risk Analysis.

Associating service codes with equipment

To associate service codes with equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Locations**
- **Equipment > Assets Healthcare**
- **Equipment > Properties Healthcare**
- **Equipment > Systems Healthcare**
- **Equipment > Work Orders Healthcare**
- **Equipment > Facilities**
- **Equipment > Rooms**
- **Equipment > Vehicles**

2 Select the equipment with which to associate service codes, and then click the **Service Codes** tab.

3 Click **Add Service Code**.

4 Specify the one or more service codes to associate with the equipment.

5 Select the **Apply Service Code to Children** check box to apply the service code to all of the children of the equipment.

6 Select the **Skip this Level** check box to not associate the service code to the equipment on this level.

7 Click **Submit**.

Associating suppliers with equipment

To associate suppliers that service equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Locations**

2 Select the equipment with which to associate suppliers, and then click the **Suppliers** tab.
3 Click **Add Suppliers**.
4 Specify a supplier to associate with the equipment.
5 Select the **Apply Supplier to Children** check box to apply the supplier to all of the children of the equipment.
6 Select the **Skip this Level** check box to not associate the supplier to the equipment on this level.
7 Click **Submit**.

Viewing suppliers and services associated with equipment

View the suppliers and their associated services for equipment, and exclude a service for a supplier if that service is not available from that supplier for that equipment..

To view suppliers and their associated services for equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Locations**
- **Equipment > Assets Healthcare**
- **Equipment > Properties Healthcare**
- **Equipment > Systems Healthcare**
- **Equipment > Facilities**
- **Equipment > Rooms**

- **Equipment > Vehicles**

2 Select the equipment for which to view suppliers and their associated services, and then click the **Supplier Service Codes** tab.
3 View the suppliers and their services.
4 Select the **Exclude** check box to exclude the supplier and service combination for that equipment.
5 Click **Submit**.

Transferring equipment between organizations

Transfer equipment between organizations within your company if you use multi-organization security.

You can only transfer equipment records with a system **Status** of Installed. You cannot transfer equipment records with any other **Status**. In addition, you cannot transfer any equipment record that meets the following criteria:

- It is flagged as Out of Service.
- It is associated with a change notice.
- It has work orders with a system **Status** of Work Requested or Released.
- It has work orders with a system **Status** of Bypassed or Awaiting Execution and for which there are open purchase orders, purchase requisitions, or items being held in store.
- It has a parent record within an equipment hierarchy.
- It has a child record that has a second parent record.
- It has a child record that belongs to a different organization.
- It has non-superseded PM work orders and PM Revision Control is On.
- It has a child equipment record that already exists in the new organization.
- It already exists in the new organization, but its children do not.
- It already exists in the new organization with a system **Status** of Awaiting Purchase, Installed, In Store.

Note: You can transfer an equipment record that has child records in an equipment hierarchy; however, the child equipment records must meet the same criteria as noted above.

Understanding equipment transfer

See the following list of processing rules that the system follows when an equipment record is transferred between organizations:

- The system maintains a record of the equipment in the originating organization with a system **Status** of Withdrawn, flags the equipment record as Out of Service, and automatically populates the equipment record's **Transfer Date**.

- The system transfers child equipment records and retains the equipment hierarchy in the new organization.
- The system creates an event record of the transfer in both the originating organization, for which the event type is ATT, and new organization, for which the event type is ATF. The system maintains the event history of the equipment record in the originating organization, and then copies the event history to the equipment record in the new organization.
- The system automatically converts currency-based fields from the currency of the originating organization to the currency of the new organization if an exchange rate exists.
- The system completes any PM work orders associated with the transferred equipment that have a system **Status** of Awaiting Execution or Bypassed. The system adds a comment to the work order to indicate it was automatically completed because of the organization transfer.
- The system automatically copies depreciation setup data defined on the **Depreciation** page of the Assets, Positions, or Systems form, and then recalculates the depreciation of the equipment record within the new organization based on the **Commission Date** of the equipment record.
- The system removes the transferred equipment record from any shutdown lists on which it is referenced.

The system automatically copies equipment information defined on the **Record View** page of the Assets, Positions, or Systems form to the equipment record within the new organization.

Note: The system only copies information that is valid within the equipment record's new organization. If the equipment record contains information that is not valid within the new organization, the system completes the transfer without copying the invalid information.

See the following list of additional data that is copied during the transfer if applicable:

- Addresses
- Calibration data (except for **Next Cal. Due**)
- Comments
- Custom Fields
- Depreciation setup data
- Documents
- Equipment Details for Monitored Equipment
- Logical Meters
- Parts Associated
- Permits
- Physical Meters that belong to common organizations
- Test Point Data
- Translations
- Warranties

The system does not automatically copy all data associated with an equipment record during the transfer. See the following list of data that the system does not copy to the equipment record within the new organization:

- Account Details
- Electronic signatures

- Electronic records
- Audit trail information
- Preventive Maintenance records
- Inspections data
- Physical Meters that belong to specific organizations

Transferring equipment

To transfer equipment:

1. Select one of these options:
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2. Select the equipment record to transfer, and then click the **Record View** tab.
3. Right-click, and then select **Transfer Equipment**. The system automatically populates the Equipment Details and the Current Org. Details.
4. Specify this information:

   Organization
   Specify the organization to which to transfer the equipment. The system enables **Status** and automatically populates **Department**, **Part**, **Cost Code**, and **Manufacturer** if the information defined on the equipment record is valid within the new **Organization**.
5. Specify the **Status**, **Department**, **Part**, **Cost Code**, and **Manufacturer**.
6. Click **Transfer**.

Creating equipment configurations

Create equipment configurations to use as equipment templates. After creating an equipment configuration, use it to quickly define assets, positions, and systems that require the same information as is contained on the equipment configuration template.

To create equipment configurations:

1. Select **Equipment > Equipment Configuration > Equipment Configurations**.
2. Click **New Record**.
3. Specify this information:

Equipment Configuration
Specify a unique code identifying the equipment configuration, and then specify a description in the adjacent field.

Status
Select the equipment configuration status.

Organization
Specify the organization to which the equipment configuration belongs if you use multi-organization security.

Department
Specify the equipment's department.

Class
Specify the class of the equipment. The system automatically populates **Class Org.**

Category
Specify the category for the equipment.

Cost Code
Specify the equipment’s cost code.

Equipment Value
Specify the value of the equipment (generally, purchase price).

Assigned To
Specify the person responsible for the equipment.

Meter Unit
Specify the meter unit of the equipment to define with this equipment configuration.

Criticality
Specify a criticality code to indicate the relative importance of the equipment to the overall production of goods or services for your organization.

Dormant Start
Specify the date on which the dormant period for any PM work orders for the equipment begins.

Dormant End
Specify the date on which the dormant period for any PM work orders for the equipment ends.

Reuse Dormant Period
Select to use the same specified dormant period for any PM work orders for the equipment on an annual basis.

Production
Select if the equipment is used in production.

Safety
Select to observe safety precautions when working with this equipment.

cGMP
Select to indicate that the equipment is subject to cGMP standards. The system automatically populates **Created By**, **Date Created**, **Updated By**, and **Date Updated**.

Prevent non-PM WO Completion
Select to prevent non-PM WO completion.

System Level
Specify the VMRS codes identifying the system level for the equipment.

Assembly Level
Specify the VMRS codes identifying the assembly level for the equipment.

Component Level
Specify the VMRS codes identifying the component level for the equipment.

Note: The system automatically populates **EMRS Description**.

Vehicle
Select if the equipment is a vehicle.

Component Location
Specify the component location for the equipment.

Alias
Specify an alias for the equipment.

Out of Service
Select to prevent the equipment configuration from being displayed in the lookups.

Manufacturer
Specify the equipment's manufacturer.

Model
Specify the equipment's model number.

Model Revision
Specify the equipment’s model revision number.

Part
Specify the part to associate with this equipment configuration. The system automatically populates **Part Org.** You cannot specify a part if **Equipment Type** is position or system.

Equipment Type
Specify the equipment object type for the equipment.

Equipment Prefix
Specify a unique prefix code for the equipment. The system automatically populates **Sample Code**.

Equipment Suffix
Specify a unique suffix code for the equipment.

Sequence Length
Specify the sequence length that will be used when **Auto Number** is unselected.

Equipment Status
Specify the default status you want generated with the equipment.

Create as Specific
Select to indicate that the organization of the equipment during the generation process will be set to a specific organization.

Auto Number
Select to have the system automatically assign the next available equipment number as the new equipment number. The system automatically clears **Sample Code**.

Commissioning WO
Specify the commissioning WO.

Key 1 through Key 6
Specify additional information that can be used to identify the configuration if you use the data collection interfaces.

Equipment Length
Specify length of the equipment.

Equipment Length UOM
Select the unit of measure (UOM) for the length of the equipment.

Linear Reference UOM
Select the unit of measure (UOM) for the linear reference.

Reference Precision
Select the reference precision for the linear reference.

Geographical Reference
Specify the geographical reference for the linear reference

Rental Equipment
Select to indicate that the equipment is rental equipment.

Rental Template
Specify the template to associate with the rental equipment. The system automatically populates **Rental Template Org.**

Contract Equipment
Select to indicate that the equipment is contract equipment.

Contract Template
Specify the template to associate with the contract equipment. The system automatically populates **Contract Template Org.**

Customer
Specify the customer code. The system automatically populates **Customer Org.**

Calendar Group
Specify the calendar group for the equipment. The system automatically populates **Calendar Group Org.**

Penalty Factor
Specify the penalty factor for the equipment.

Minimum Penalty
Specify the minimum penalty amount that must be met before a penalty can be deducted from the maintenance fee.

Service Delivery Matrix
Select to restrict work orders for the equipment to a pre-defined service delivery matrix.

Replacement Value
Specify the current replacement value for the equipment.

Utility Bill Level
Select to mark the equipment as having capabilities to record utility bills.

GAS Tracked
Select to set the equipment as GAS (Global Asset Sustainability) Tracked.

Floor Area
Specify the floor area, and then specify the unit of measure for the floor area.

Estimated Revenue
Specify the estimated revenue the piece of equipment can generate.

Region
Specify the region for the equipment. The system automatically populates Region Org.

Primary Use
Specify the primary use for the equipment.

Year Built
Specify the year built for the equipment.

Service Life (years)
Specify the service life of the equipment.

Lock Reliability Ranking Values
Select to lock the reliability ranking values for the equipment on the **Reliability Survey** tab of the **Equipment** screen.

Reliability Ranking
Specify the reliability ranking code for the equipment.

Target Power Factor
Specify the target power factor that has been determined for the equipment.

Target Peak Demand (W)
Specify the target peak demand in watts for the equipment.

Start Billing Period
Specify the date that the billing period begins. The Peak Demand measurements are relevant after this date.

Bill Every
Specify the length of the interval of time to pass before the system expects the next bill, and then select the unit of measure in the adjacent field

Eff. Loss 1% Phase Imb.
Specify the efficiency loss per 1 percent imbalance.

Eff. Loss 2% Phase Imb.
Specify the efficiency loss per 2 percent imbalance.

Eff. Loss 3% Phase Imb.
Specify the efficiency loss per 3 percent imbalance.

Eff. Loss 4% Phase Imb.
Specify the efficiency loss per 4 percent imbalance.

Eff. Loss 5% Phase Imb
Specify the efficiency loss per 5 percent imbalance.

Performance Manager
Specify the energy performance manager who is responsible for the equipment.

Electric Sub-meter Interval
Specify the length of the interval of time in minutes indicating how frequently the electric sub-meter is read.

Electric Usage Threshold
Specify the current in amps above which the equipment is considered running or on.

Revision Reason
Specify the reason for revision. The system automatically populates the revision number, **Requested By**, **Date Requested**, **Approved By**, and **Date Approved**.

4 Click **Save Record**.

Associating child equipment with equipment configurations

Associate child equipment with equipment configurations if you want to break down the configuration structure of the parent. Child equipment records may also have children of their own. Create equipment configurations before associating child equipment with equipment configurations. If the equipment configuration status is not Unfinished, you cannot associate child equipment with equipment configurations.

To associate child equipment with equipment configurations:

1 Select **Equipment > Equipment Configuration > Equipment Configurations**.
2 Select the equipment configuration for which to associate child equipment, and then click the **Configurations Associated** tab.
3 Click **Add Configuration**.
4 Specify this information:

Configuration
Specify the equipment configuration. The system automatically populates the description, **Configuration Org.**, **Revision**, **Description**, and **Status**.

System Level
Specify the VMRS codes identifying the system level for the equipment configuration.

Assembly Level
Specify the VMRS codes identifying the assembly level for the equipment configuration.

Component Level
Specify the VMRS codes identifying the component level for the equipment configuration

Note: The system automatically populates the **EMRS Description**.

Component Location
Specify the component location for the equipment.

5 Select the **Use Approved Revision** check box to indicate that the current approved revision should always be used for the equipment configuration.
6 Select the **Dependent** check box to generate the child as a dependent of the parent.
7 Select the **Cost Roll-up** check box to roll costs collected for equipment up the tree and to have the charges applied to the parents of the equipment.
8 Click **Submit**.

Viewing equipment configuration hierarchies

View structure details for equipment configuration hierarchies. The structure will display equipment configuration records, component locations, and system, assembly, and component levels. Select equipment configuration or part records within the hierarchy to retrieve the forms within the system.

To view equipment configuration hierarchies:

1 Select **Equipment > Equipment Configuration > Equipment Configurations**.
2 Select the record for which to view the equipment configuration hierarchy, and then click the **Structure** tab.
3 View the equipment configuration hierarchy.

Defining PM Schedules for equipment configurations

Define PM Schedule details to attach to equipment generated based on the equipment configuration. The equipment configuration header record system status must be Unfinished to define PM Schedules for equipment configurations.

To define PM schedules for equipment configurations:

1 Select **Equipment > Equipment ConfigurationEquipment Configuration**.
2 Select the equipment for which to define PM schedules for equipment configurations, and then click the **PM Schedules** tab.
3 Click **Add PM**.
4 Specify the **PM Schedule**, **PM Type**, **WO Class**, **Dormant Start**, **Dormant End**, and **Calibration Test Point Set**.
5 Specify this information:

Perform Every
Specify the length of time to elapse before the system releases the PM work order, and then select the unit of measure for the PM period in the adjacent field.

Meter Interval
Specify the length of the interval and the unit of measure for the first meter that prompts the release of the PM work order on usage of the equipment.

Meter #2 Interval
Specify the length of the interval and the unit of measure for the second meter that prompts the release of the PM work order on usage of the equipment.

Perform On
Specify the week of the month on which to perform the work on the equipment.

Perform On Day
Specify the day of the week on which to perform the work on the equipment.

6 Select the **Use PM Schedule Setup** check box to use the PM Schedule setup.

7 Select the **Reuse Dormant Period** check box to use the same specified dormant period for the PM on a yearly basis. If you select **Reuse Dormant Period**, the system automatically updates the specified **Dormant Start** and **Dormant End** dates after the dormant period has elapsed.

8 Click **Submit**.

Associating maintenance patterns with equipment configurations

Associate maintenance patterns with equipment configurations. The equipment configuration header record system status must be Unfinished to define PM Schedules for equipment configurations.

To associate maintenance patterns with equipment configurations:

1 Select **Equipment > Equipment Configuration > Equipment Configurations**.

2 Select the equipment configuration for which to associate maintenance patterns, and then click the **Maintenance Patterns** tab.

3 Specify this information:

Maintenance Pattern
Specify the maintenance pattern to associate with the equipment. The system automatically populates the maintenance pattern description and **Maintenance Pattern Org.**

Initial Sequence
Specify the sequence number that the pattern will use to create the first work order.

Test Point Set
Specify the test point set for the calibration of the equipment.

Dormant Start

Dormant End
Specify the date on which the dormant period for the equipment begins and the date on which it ends.

4 Select the **Reuse Dormant Period** check box to use the same specified dormant period for the equipment on a yearly basis.

5 Click **Submit**.

Defining logical meters for equipment configurations

If the equipment configuration status is not Unfinished, you cannot define logical meters for equipment configurations.

To define logical meters for equipment configurations:

1. Select **Equipment > Equipment Configuration > Equipment Configurations**.
2. Select the equipment configuration with which to link a meter, and then click the **Meters** tab.
3. Click **Add Meter**.
4. Specify this information:

   UOM
   Specify the unit of measure for the logical meter.

   Type of Meter
   Select one of the meter types:

Option	Description
Standalone	Select so that the equipment will not receive meter readings based on its established parent equipment meters of the same UOM, nor will it send meter readings to any of its established child equipment meters of the same UOM.
Parent	Select to send the equipment's meter readings down to child equipment. If you have parent/child relationships among equipment, specify meter readings for the parent piece of equipment only when adding meter readings.
Child	Select to enable the child equipment to receive usage information from a higher-level piece of equipment. The child equipment's unit of measure (UOM) must match that of the parent.
Parent & Child	Select to receive meter readings based on entries made for its parent equipment meters of the same UOM, and it will send meter readings to its children.

5. Click **Submit**.

Adding calendar-based warranty coverage to equipment configurations

If the equipment configuration status is not Unfinished, you cannot add calendar-based warranty coverage.

Note: To manage warranties from the perspective of the warranty record, select **Equipment > Warranty > Warranties**.

To add calendar-based warranty coverage to equipment configurations:

1. Select **Equipment > Equipment Configuration > Equipment Configurations**.
2. Select the equipment configuration for which to add a warranty, and then click the **Warranties** tab. The system automatically populates **Date Entered**,and **Entered By**.
3. Click **Add Warranty Coverage**.
4. Specify this information:

   Warranty
   Specify the warranty document to associate with the equipment configuration. The system automatically populates the warranty description, **Duration UOM**, **Threshold UOM**, **Manufacturer**, and **Supplier**.

   Coverage Type
   Select Calendar to indicate that the warranty is based on number of days used.

   Duration
   Specify the length of the warranty in days.

   Threshold
   Specify the number of days prior to expiration at which the system should notify you that the warranty is about to expire.

   Active
   Select to indicate that the warranty is currently active.

5. Click **Submit**.

Adding usage-based warranty coverage to equipment configurations

If the equipment configuration status is not Unfinished, you cannot add calendar-based warranty coverage.

Note: To manage warranties from the perspective of the warranty record, select **Equipment > Warranty > Warranties**.

To add usage-based warranty coverage to equipment configurations:

1. Select **Equipment > Equipment Configuration > Equipment Configurations**.
2. Select the equipment configuration for which to add a warranty, and then click the **Warranties** tab. The system automatically populates**Date Entered** and **Entered By**.
3. Click **Add Warranty Coverage**.

4 Specify this information:

Warranty
Specify the warranty document to associate with the equipment configuration. The system automatically populates the warranty description, **Duration**, **Threshold**, **Manufacturer**, and **Supplier**.

Coverage Type
Select Usage to indicate that the warranty is based on actual usage.

Active
Specify to indicate that the warranty is currently active.

Duration UOM
Specify the usage length of the warranty and the usage unit of measure.

Threshold UOM
Specify the amount of usage quantity prior to expiration at which the system should notify you that the warranty is about to expire.

5 Click **Submit**.

Generating equipment using equipment configurations

Generate equipment quickly in a central location using equipment configurations.

To generate equipment using equipment configurations:

1 Select **Equipment > Equipment Configuration > Equipment Generation**.
2 Click **New Record**.
3 Specify the **Session** description, **Organization**, **Configuration**, **Equipment Department**, **Commission Date**, **Equipment Status**, **Store**
4 Specify this information:

Generate Count
Specify the number of equipment you want to generate from the selected configuration.

5 Select the **All Specific** check box to indicate that the equipment will be generated in the specific organization of the session. If **All Specific** is not selected, the equipment will be generated in the organization of the selected configurations and its children.
6 Specify the **Equipment Location**, **Equipment Cost Code**, **Equipment Assigned To**, **Bin**, and **Lot**.
7 Select the **Top Level Only** check box to generate equipment records for the top-level of the equipment configuration structure only.
8 Select the **All Dependent** check box to generate an equipment structure where all of the children are dependent on their parent.
9 Select the **All Cost Roll-up** check box to generate an equipment structure where all of the children roll up their costs to their parent.
10 Select the **Create Commissioning WO** check box to create a commissioning work order.

11 Specify the **Commissioning WO Status**, **Commissioning WO Department**, **Commissioning WO Location**, **Commissioning WO Cost Code**, **Commissioning WO Assigned To**, and **Commissioning WO Assigned By**.

12 Specify this information:

Due Date Reference
Specify a due date to offset the due date for the equipment.

For example, if the PM frequency is 1 month, the first due date will be one month after the **Due Date Reference**.

13 Select the **Comments** check box to copy the comments added to the equipment configuration.

14 Select the **Documents** check box to copy the documents attached to the equipment configuration.

15 Select the **Custom Fields** check box to copy the custom fields added to the equipment configuration.

16 Select the **PM Schedules** check box to copy the PM schedules added to the equipment configuration.

17 Select the **Maintenance Patterns** check box to copy the maintenance patterns added to the equipment configuration.

18 Select the **Safety** check box to copy the safety data added to the equipment configuration.

19 Select the **Permits** check box to copy the permits added to the equipment configuration.

20 Select the **Meters** check box to copy the meters added to the equipment configuration.

21 Select the **Parts Associated** check box to copy the parts associated with the equipment configuration.

22 Select the **Warranties** check box to copy the warranties added to the equipment configuration.

23 Select the **Depreciation** check box to copy the depreciation data added to the equipment configuration.

24 Select the **Calibration** check box to copy the calibration data added to the equipment configuration.

25 Select the **Test Points** check box to copy the test points added to the equipment configuration.

26 Click **Save Record**. The system automatically populates **Created By**, **Date Created**, and **Updated By**.

Defining equipment details for equipment generation

Define details for the equipment on all levels in the structure. Details relate to equipment attributes such as department, cost code, and the person assigned to the equipment. You can assign different attributes to the children and the parent equipment.

To define equipment details for equipment generation:

1 Select **Equipment > Equipment Configuration > Equipment Generation**.

2 Select the record for which to define equipment details, and then click the **Details** tab.

3 Specify the **Equipment Location**, **Equipment Department**, **Equipment Cost Code**, and **Equipment Assigned To**.

4 Click **Submit**.

5 Click **Create/Refresh Preview** if the tab is empty.

Previewing equipment generations

Preview a list of equipment that will be created during the equipment generation session. After verifying the equipment data, click **Generate Equipment** to have the record added to the database.

To preview equipment generations:

1. Select **Equipment > Equipment Configuration > Equipment Generation**.
2. Select the record for which to preview for the equipment generation, and then click the **Preview** tab .
3. View the equipment data.
4. Click **Create/Refresh Preview** if the tab is empty.
5. Click **Generate Equipment**.

Tracking asset depreciation

Depreciation enables you to calculate equipment depreciation expense, which is the value of the wear and deterioration of a piece of equipment based on an accounting period and the useful life of the piece of equipment.

Note: The system does not roll up depreciation costs within an equipment hierarchy. Maintain individual depreciation records for all assets, positions, or systems for which you need to maintain depreciation data.

The system provides four depreciation methods for your equipment. See "Understanding depreciation methods and daily calculations" on page 155

Create depreciation types based on the agency to which the depreciation data must be reported, e.g., create depreciation types for generally accepted accounting practices (GAAP) and/or a local, federal, state, or international government agency.

Note: Depreciation types are linked to the DETP entity for which you must define your depreciation type codes. Contact your system administrator for more information.

For all depreciation methods and types, the system can calculate depreciation data based on months or fiscal years of the asset's organization. The system begins calculating the depreciation of a piece of equipment on its **Commission Date** and continues calculating the equipment's depreciation until the piece of equipment reaches its **Sold/Scrap Date** or its end of life date.

Note: The system calculates an asset's end of life date based on the following equation:

```
End of Life Date = Commission Date + (Est. Useful Life – 1 day)
```

Specify the **Commission Date** and **Sold/Scrap Date** on the Assets, Positions, or Systems form.

See these references:

- "Defining assets" on page 70
- "Defining positions" on page 75
- "Defining systems" on page 81

Specify the **Est. Useful Life**on the **Depreciation** page of the **Assets** form.

See "Entering depreciation data" on page 160.

Base depreciation calculations on an estimated useful life of days, weeks, months, quarters, or years. Regardless of the unit of measure you select, the system calculates a daily depreciation expense upon which all depreciation and book value calculations are based. The system calculates the annual depreciation expense based on the depreciation method you select, and then calculates a daily depreciation expense. See "Understanding depreciation methods and daily calculations" on page 155.

Once the system calculates a piece of equipment's daily depreciation expense, it can calculate periodic depreciation expenses and book values.

See "Understanding periodic depreciation and book value calculations" on page 157.

Understanding depreciation methods and daily calculations

Not all calendar years consist of 365 days because some are leap years that consist of 366 days. Therefore, the system must calculate a daily depreciation expense upon which periodic depreciation expense and book values are calculated.

The system calculates the annual depreciation rate based on the depreciation method you select, and then calculates the daily depreciation rate based on the following equation:

```
Daily Depreciation Rate = Annual Depreciation Rate / Number of Days in
 the Year
```

Specify the depreciation method that the system should use to calculate the annual depreciation expense on the **Depreciation** page of the Assets, Positions, or Systems form.

See "Entering Depreciation Data" on page 160 for more information.

The system provides four asset depreciation methods: Straight Line, Sum of Years Digits, Double Declining Balance, and Units of Output.

Note: The ASDEPTYP installation parameter determines the default depreciation method for the system; however, you can also set the depreciation method on the organization or equipment level. Setting the depreciation method at the organization level supersedes the setting of the ASDEPTYP installation parameter. Setting the depreciation method at the equipment level supersedes the setting of ASDEPTYP and/or the depreciation method specified for the organization.

Calculating straight line depreciation

Straight Line depreciation, the most commonly used method, calculates depreciation based on the principle that an asset loses an equal amount of value each fiscal year.

The system calculates annual Straight Line depreciation expense based on the following equation:

```
(Original Value - Residual Value) / Estimated Useful Life = Annual
Depreciation Expense
```

Calculating sum of years digits depreciation

Sum of Years Digits depreciation is an accelerated depreciation method, which assumes that assets incur greater depreciation during the early years of the asset's life.

To calculate the Sum of Years Digits depreciation, the system must first calculate the Sum of Years Digits and the remaining years of life.

The system calculates the Sum of Years Digits using the following equation:

```
Est. Useful Life in Years x [(Est. Useful Life in Years + 1) / 2] = Sum of Years Digits
```

Using this equation, the Sum of Years Digits for an asset with an expected useful life of five years is calculated as follows:

```
5 years x [(5 years + 1) / 2] = 15 years
```

Note: Quickly determine the Sum of Years Digits value by adding together the numbers representing the years of an asset's useful life. For example, if an asset is expected to have a useful life of five years, the digits representing that useful life are 1, 2, 3, 4, and 5. To determine the Sum of Years Digits value, add the digits: 1 + 2 + 3 + 4 + 5 = 15.

The system determines an asset's remaining years of life based on its expected useful life. For example, for an asset whose expected useful life is five years, the remaining years of life is 5 for the first year, 4 for the second year, 3 for the third year, etc.

The system then calculates the Sum of Years Digits depreciation based on the following equation:

```
(Original Value - Residual Value) x Remaining Years of Life / Sum of Years Digits = Annual Depreciation Expense
```

Calculating double declining balance depreciation

Double Declining Balance depreciation is the most accelerated method of depreciation. Using the Double Declining Balance method, an asset depreciates twice the rate of the Straight Line depreciation method rate each year.

To calculate the Double Declining Balance depreciation, the system must first calculate the annual Straight Line depreciation rate.

The system calculates the annualized Straight Line depreciation rate based on the following equation:

```
1 / Est. Useful Life in Years = Annual Straight Line Depreciation Rate
```

The system then calculates the Double Declining Balance depreciation expense based on the following equation:

```
Book value x (2 x Annual Straight Line Depreciation Rate) = Annual Depreciation Expense
```

Calculating units of output depreciation

The Units of Output method is also known as the productive output, units of production, or units of activity method. It calculates depreciation based on equipment output during a period of time, while considering the equipment's estimated lifetime units of output. Companies commonly use the Units of Output method when usage varies dramatically from period to period.

Note: The Units of Output method cannot project depreciation over the remaining asset life. The Units of Output must be entered before the system can calculate period depreciation.

To calculate Units of Output depreciation, the system must calculate a depreciation cost per unit based on this equation:

```
(Original Value – Residual Value) / Estimated Lifetime Output = Depreciation Expense per Unit
```

The system then calculates the units of output depreciation expense for a period based on this equation:

```
Depreciation Expense per Unit x Units of Output = Depreciation Expense
```

Understanding periodic depreciation and book value calculations

The system calculates depreciation expenses based on a depreciation period, a generic term that refers to an organization's fiscal years or calendar month. Select to view depreciation expenses based on the depreciation period you prefer.

See "Viewing Depreciation Details" on page 162.

To calculate an asset's periodic depreciation expense and book value, the system must first calculate the daily depreciation expense of the asset.

See "Understanding Depreciation Methods and Daily Calculations" on page 155.

The system must also calculate the number of days in the period before calculating an asset's periodic depreciation expense or book value.

Note: When calculating the number of days in a period, the system includes the first and final day in its tally. For example, the system counts the time between July 1, 2004 and July 2, 2004 as 2 days.

For most periods of an asset's life, the number of days in the period equals the number of days in the calendar month or fiscal year defined for your organization. For example, if you view depreciation expenses based on calendar month, the number of days in the period is 30 or 31. If you view depreciation expenses based on fiscal year and the fiscal year for your organization contains 365 days, the number of days in the period is 365.

The number of days falling in the first and last period of an asset's life, however, usually does not equal a full 365, 30, or 31 days. The system calculates the number of days in the first period based on the following equation:

- `Number of Days in First Period = Number of Days Between Commission Date and Period End Date`

The system calculates the number of days in the last period based on one of the following equations:

- `Number of Days in Last Period = Number of Days Between Period Start Date and Sold/Scrap Date`
- `Number of Days in Last Period = Number of Days Between Period Start Date and the Asset's End of Life Date`

Once the system calculates the number of days in each period, it can calculate the asset's depreciation expense and book values. See the sections below for examples.

Calculating periodic depreciation expense

The system calculates the periodic depreciation expense based on the following equation:

```
Periodic Depreciation Expense = Daily Depreciation Rate x Number of Days in Period
```

Note: If you view depreciation calculations based on fiscal years, the system may have to further divide each period into two segments to calculate the depreciation expense. If an asset's year of life, as defined by its **Commission Date**, and fiscal year do not coincide, the system must calculate two periodic depreciation expenses for each year of the asset's life. For example your asset's **Commission Date**is 5/1/02, therefore, its first year of life runs from 5/1/02 through 4/30/03. The fiscal year of the asset runs from 11/1 through 10/31. Therefore, the system must calculate the asset's depreciation expense from 5/1/02 to 10/31/02 and then again from 11/1/02 to 4/30/03.

If you select Double Declining Balance as your **Depreciation Method**, the calculated periodic depreciation expense for the last period of an asset's life may cause the **Book Value** of the asset to be less than its **Residual Value**. In this case, the system adjusts the depreciation expense of the last period so the asset's **Book Value** equals its **Residual Value**.

Example:

See the following information to determine an asset's periodic depreciation expense for the years 2003, 2004, and 2005:

- The fiscal year of the asset's organization begins September 1 and ends August 31.
- The **Commission Date** for the asset is 02-JUL-2003.
- The **Sold/Scrap Date** of the asset is 02-SEP-2005.
- The daily depreciation expense of the asset is 17.60 USD.

To determine the depreciation expense for the year 2003, the system performs the following calculation:

```
2003 Depreciation Expense = Daily Depreciation Expense x Number of Days Between Commission Date and Period End Date
```

```
2003 Depreciation Expense = 17.60 USD * 61
```

```
2003 Depreciation Expense = 1,073.60 USD
```

To determine the depreciation expense for the year 2004, the system performs the following calculation:

```
2004 Depreciation Expense = Daily Depreciation Expense x Number of Days in Period
```

```
2004 Depreciation Expense = 17.60 USD * 366

2004 Depreciation Expense = 6,441.60 USD
```

Note: Because 2004 is a leap year and February 2004 occurs within the organization's 2004 fiscal year, the number of days in the period is 366.

To determine the depreciation expense for the year 2005, the system performs the following calculation:

```
2005 Depreciation Expense = Daily Depreciation Expense x Number of Days
Between Period Start Date and Sold/Scrap Date

2005 Depreciation Expense = 17.60 USD * 2

2005 Depreciation Expense = 35.20 USD
```

Calculating book values

The first time the system calculates the book value of an asset, it calculates based on the following equation:

```
Book Value = Original Value - Periodic Depreciation Expense
```

For all subsequent book value calculations of the asset, the system uses the following equation:

```
Book Value = Book Value from Previous Period - Periodic Depreciation Expense
```

Example

See the following information to determine an asset's book value at the end of the 2003, 2004, and 2005:

- The Original Value of the asset is 10,000 USD.
- The depreciation expense for 2003 is 1,073.60 USD. The depreciation expense for 2004 is 6,441.60 USD. The depreciation expense for 2005 is 35.20 USD as taken from the example in "Calculating Periodic Depreciation Expense" earlier in this chapter.

To determine the asset's book value at the end of 2003, the system performs the following calculation:

```
2003 Book Value = Original value - 2003 Periodic Depreciation Expense

Book Value = 10,000 USD - 1073.60 USD

Book Value = 8,926.40 USD
```

To determine the asset's book value at the end of 2004, the system performs the following calculation:

```
2004 Book Value = 2003 Book Value - 2004 Periodic Depreciation Expense

Book Value = 8,926.40 USD - 6,441.60 USD

Book Value = 2,484.80 USD
```

To determine the asset's book value at the end of 2005, the system performs the following calculation:

```
2005 Book Value = 2004 Book Value - 2005 Periodic Depreciation Expense
```

```
Book Value = 2,484.80 USD - 35.20 USD

Book Value = 2,449.60 USD
```

Entering depreciation data

Enter basic depreciation data for your equipment. The system calculates depreciation rates based on the information you enter.

See these references:

- "Understanding Depreciation Methods and Daily Calculations" on page 155
- "Understanding Periodic Depreciation and Book Value Calculations" on page 157

Create multiple depreciation schedules for a single piece of equipment as necessary. For example, you need to create report depreciation information to GAAP and a state agency for a CHILLER. GAAP requires that you use the Straight Line method, but the state agency requires that you use the Double Declining Balance method. Create one depreciation schedule for the CHILLER using the GAAP type and Straight Line method and a second depreciation schedule using the state agency type and the Double Declining Balance method.

If you update **Starting Value**, **Rem. Useful Life**, the unit of measure, or **Residual Value**, the system automatically recalculates depreciation values.

Note: You can also manually recalculate depreciation values for all the equipment records in an organization for which you have defined depreciation data by clicking the **Recalculate Depreciation Details** on the **Fiscal Years** page of the **Organizations** form.
See the *System Administrator's Guide*.

To enter depreciation data:

1. Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2. Select the asset, position, or system for which to enter depreciation data, and then click the **Depreciation** tab.
3. Click **Add Depreciation Type**.
4. Specify this information:

   Depreciation Method
   Select the depreciation method for the depreciation schedule.

   See "Understanding Depreciation Methods and Daily Calculations" on page 155.

   Starting Value
   Specify the starting value of the asset.

Rem. Useful Life
Specify the remaining useful life of the asset, and then select the unit of measure of the remaining useful life in the adjacent field. If you select Days or Months or as the unit of measure, you must specify the remaining useful life as a positive integer. If you select Weeks, Months, Quarters, or Years, you can specify the remaining useful life as a decimal.

Note: If you select Weeks, Months, Quarters, or Years as the unit of measure, the system must convert the remaining useful life into number of days in order to calculate depreciation expenses. The system is able to automatically convert months into the appropriate number of corresponding days without performing any calculations. If you select Weeks, Quarters, or Years, the system must convert the unit of measure into days or months in order to determine the corresponding number of days.

See these terms for more information:

Option	Description
Weeks	The system must convert the remaining useful life into days. The system multiplies the number you specify by 7 to determine the equivalent number of days, and then rounds the result to the nearest positive integer. For example, .1 weeks multiplied by 7 equals .7 days, which the system rounds to 1 day.
Quarters	The system must convert the remaining useful life into months. The system multiplies the number you specify by 3 to determine the number of months, and then rounds to the nearest positive integer. For example, .4 quarters multiplied by 3 equals 1.2 months, which the system rounds to 2 months.
Years	The system must convert the remaining useful life into months. The system multiplies the number you specify by 12 to determine the number of months, and then rounds to the nearest positive integer. For example, .4 years multiplied by 12 equals 4.8 months, which the system rounds to 5 months.

Relative Start
Specify the relative start for the amount of time between the commission date and when the depreciation event occurs.

UOM Relative Start
Specify the unit of measure (UOM) for the relative start date.

For example, if **Relative Start** is set to 5 and the **UOM Relative Start** is set to years, then the depreciation event occurs five years after the commission date for the equipment.

Residual Value
Specify the estimated value of the asset at the end of its useful life.

Est. Lifetime Output
Specify the units of output you estimateT the equipment will produce over its lifetime if you selected Units of output as the Depreciation Method.

Depreciation Category
Select the depreciation category.

Depreciation Type
Select a depreciation type.

Note: Depreciation types are linked to the DETP entity for which you must define your depreciation type codes. Contact your system administrator for more information.

From Date
Specify the starting date to calculate deprecation.

Change Value
Specify an amount by which to change the **Starting Value** of the asset if the **Depreciation Category** is Increase Value or Decrease Value.

Change Life
Specify an amount by which to change the **Rem. Useful Life.** of the asset if the **Depreciation Category** is Increase Life or Decrease Life.

Change Estimated Lifetime Output
Specify an amount by which to change the **Est. Lifetime Output** of the asset if the **Depreciation Category** is Increase Estimated Lifetime Output or Decrease Estimated Lifetime Output.

Notes
Specify additional detail about the depreciation of the equipment.

5 Click **Submit**.

Viewing depreciation details

View depreciation details based on the fiscal year defined for your organization or for each month of the fiscal year defined for your organization.

See "Understanding Periodic Depreciation and Book Value Calculations" on page 157 for an explanation of how the system calculates depreciation expense and book value.

If you update an asset's **Original Value**, **Est. Useful Life**, the unit of measure, **Residual Value**, or **Commission Date**, the system recalculates depreciation values.

Note: If you update an asset's values, the system displays the new depreciation calculations. You cannot access the asset's former depreciation calculations. Likewise, if you transfer an asset to a new organization, the system calculates depreciation based on the fiscal year of the asset's new organization. You cannot access the asset's former depreciation calculations.

To view depreciation details:

1 Select one of these options:

- **Equipment > Assets**

- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset, position, or system for which to view depreciation details, and then click the **Depreciation** tab.

3 Select the depreciation record for which to view depreciation details, and then click **View Depreciation Details**.

4 Select **Fiscal Years** or **Months** to view the depreciation details based on fiscal years or months. The system automatically populates **Depreciation (To Date)**, **Depreciation (Period To Date)**, and **Book Value (To Date)** based on the following equations:

	Straight Line, Sum of Years Digits, and Double Declining Balance	**Units of Output**
Depreciation (To Date)	Daily Depreciation Rate x Number of Days Between Commission Date and Current Date	Depreciation Per Unit * Units of Output in the period through n (where n= fiscal year prior to current fiscal year) + Depreciation for the Current Fiscal Year through Today's Date Depreciation Per Unit = (starting value - residual value) / estimated lifetime output. See "Calculating Units of Output Depreciation" on page 157 **Note:** For the current fiscal year, depreciation uses the following equation: Average Number of Units Produced per Day * Number fiscal through today's date * Depreciation per Unit where: Average Number of Units per day = entered Units of Output total days in Fiscal Year Number of Fiscal Year days through Today's Date = Today's Date – Commission Date or Fiscal Year Start Date, whichever is greater + 1 Depreciation Per Unit = (Original Value – Residual Value) / Estimated Lifetime Value
Depreciation (Period To Date)	Daily Depreciation Rate x Number of Days Between First Day	See equation in Depreciation (To Date) above fore more infor-

	Straight Line, Sum of Years Digits, and Double Declining Balance	Units of Output
	in the Current Period and the Current Date	mation on calculating depreciation in current period.
Book Value (To Date)	Original Value – Depreciation (To Date)	Original Value – Depreciation (To Date)

5 Click **Close**.

Entering units of output

Enter units of output information for equipment if you are tracking its depreciation based on the Units of Output depreciation method.

To enter units of output:

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset, position, or system for which to enter units of output, and then click the **Depreciation** tab.

3 Select the depreciation record for which to enter units of output, and then click **Units of Output**.

4 Click **Add Units of Output**.

5 Specify this information:

Start Date
Specify the fiscal year for which to enter units of output. The system automatically populates **End Date**.

Note: If the fiscal year's **End Date** is later than today's date, the system calculates **Depreciate (To Date)**, **Depreciation (Period To Date)**, and **Book Value (To Date)** based on the entire length of the fiscal year.

See "Viewing Depreciation Details" on page 162.

Units of Output
Specify the number of units produced by the piece of equipment.

6 Click **Submit**.

7 Click **Close**.

Defining and managing change notices

Vendors use change notices to notify their customers of possible defects in their equipment or to recommend changes to previously documented maintenance plans. Change notices can be recorded in the system once they are issued from the vendor. Identify equipment affected by the change notices, reference change notices on work orders, and track transactions and events associated with change notices.

Defining change notices

Define change notices, setting up selection criteria for the assets to which to associate the change notice.

To define change notices:

1. Select **Equipment > Additional Features > Change Notices**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the change notice belongs if you use multi-organization security.

   Change Notice
   Specify a unique number identifying the change notice, and then specify a description of the reason for the change notice in the adjacent field.

   Status
   Select the status for the change notice.

   Note: You can only create change notices in an Unfinished status.

   Class
   Specify the class of the change notice. The system automatically populates **Class Org.**

   Manufacturer
   Specify the manufacturer of the assets affected by the change notice.

   Start Date

   End Date
   Specify the dates during which the manufacturer repairs or replaces assets affected by the change notice. The system automatically populates **Close Date** when **Status**changes to Closed.

4. Select the **Filer Assets by Manufacturer** check box to include only equipment with the specified manufacturer on the list of equipment for the change notice.
5. Click **Save Record**.

Adding lines for change notices

Details on this form specify which assets to be included on a change notice. You can specify ranges for asset numbers, serial numbers, and part numbers.

To add lines for change notices:

1. Select **Equipment > Additional Features > Change Notices**.
2. Select the change notice for which to add a line, and then click the **Lines** tab.
3. Click **Add Line**.
4. Select one of these options:

Option	Description
From Asset **To Asset**	Specify the starting number and ending number for the range of assets to include.
From Serial Number **To Serial Number**	Specify the starting number and ending number for the range of serial numbers to include.

5. Specify this information:

   Part
   Specify the part number for the part affected by the change notice. The system automatically populates **Part Org.**

6. Click **Submit**.

Viewing assets for change notices

View a list of assets associated with a specific change notice.

To view assets for change notices:

1. Select **Equipment > Additional Features > Change Notices**.
2. Select the change notice for which to view assets, and then click the **Assets** tab.
3. View the asset information.

Defining locations for change notices

Change notice locations filter the types of equipment that can be added to change notices. If Location is populated, assets are restricted to valid locations.

To define locations for change notices:

1. Select **Equipment > Additional Features > Change Notices**.
2. Select the change notice for which to define locations, and then click the **Locations** tab.

3 Click **Add Location**.

4 Specify this information:

Location
Specify the location for which assets can be included. The system automatically populates the location description.

5 Click **Submit**.

Designing energy consumption for equipment

Design energy consumption information for equipment that are flagged as **GAS Tracked**. Record the equipment manufacturer's energy efficiency specifications to indicate the level of energy efficiency the equipment should maintain while operating when using specific energy commodities, such as electricity, gas, etc.

You can also link equipment with a utility bill source to tie the equipment to the utility billing information/rates for the utility bill source, such as a building in which the equipment is located.

Note: The link between the equipment and utility bill source established on the **Design Consumption** page is simply a link between the equipment related to energy consumption and is not a structural link as defined in an equipment hierarchy.

To design energy consumption for equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to add design consumption, and then click the **Design Consumption** tab. The system automatically populates **Date Effective** with the current date and **Date Expired** with 12/31/2199. You can modify **Date Effective** as necessary.

3 Specify this information:

Utility Bill Source
Specify the utility bill source to associate with the equipment. The **Utility Bill Source** represents the billing structure established to calculate a daily rate for utility/energy consumption for invoice vouchers. .

See "Defining utility bills for invoice vouchers" on page 415.

Note: If **Utility Bill Level** is not selected for the equipment, then a **Utility Bill Source** is required.

Commodity
Specify the commodity to associate with the equipment. The system populates the **Commodity UOM** from the selected **Commodity**.

If a record is inserted and the **Date Effective** and **Date Expired** of the new record overlap with the **Date Effective** and **Date Expired** of another record with the same **Commodity**, the system updates the **Date Expired** of the new record with the oldest **Date Effective** to avoid having an overlap.

See "Understanding Effective and Expiration Date Calculations for Design Consumption" on page 170.

Design Usage UOM
Specify the unit of measure to be used for the energy consumption design. The system populates **Design Consumption Rate UOM** in the format **Commodity UOM**/**Design Usage UOM**.

Default Load Factor
Specify the number to default for the maximum factor for the load ranges. This value is used as the default when specifying records on the Actual Consumption page. The system automatically populates **Range-1 Low**.

Range-1 High
Specify the maximum load range for range 1.

Range-1 Design Consumption Rat
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-2 Low
Specify the minimum load range for range 2.

Range-2 High
Specify the maximum load range for range 2.

Range-2 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-3 Low
Specify the minimum load range for range 3.

Range-3 High
Specify the maximum load range for range 3.

Range-3 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-4 Low
Specify the minimum load range for range 4.

Range-4 High
Specify the maximum load range for range 4.

Range-4 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-5 Low
Specify the minimum load range for range 5.

Range-5 High
Specify the maximum load range for range 5.

Range-5 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-6 Low
Specify the minimum load range for range 6.

Range-6 High
Specify the maximum load range for range 6.

Range-6 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-7 Low
Specify the minimum load range for range 7.

Range-7 High
Specify the maximum load range for range 7.

Range-7 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-8 Low
Specify the minimum load range for range 8.

Range-8 High
Specify the maximum load range for range 8.

Range-8 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-9 Low
Specify the minimum load range for range 9.

Range-9 High
Specify the minimum load range for range 9.

Range-9 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Range-10 Low
Specify the minimum load range for range 10.

Range-10 High
Specify the maximum load range for range 10.

Range-10 Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

Design Consumption Rate
Specify the energy consumption rate for the equipment. This indicates the amount of the commodity that is consumed in the **Design Usage UOM**. For example, an equipment can be designed to use 10KW of electricity per hour.

4 Click **Submit**.

Note: Click **Clear** to clear the design consumption details for the selected record.

Setting the GDRV installation parameter to FULL enables the system to purge and recalculate all energy efficiency data, including actual energy consumption records. However, if you are updating a design consumption record, the system does not update data displayed on the **Actual Consumption** page of the Assets, Positions, or Systems forms.

See "Entering Actual Energy Consumption Information for Equipment" on page 171.

Understanding effective and expiration date calculations for design consumption

When entering multiple design consumption records on the **Design Consumption** page of the Assets, Positions, or Systems forms, the **Commodity** specified for a record is tied to a **Date Effective** and **Date Expired** . This association establishes the valid date ranges for the energy efficiency specifications established for the **Commodity**. By necessity, these date ranges must be flexible in the ways in which they connect the equipment and the Commodities to which they are linked. Therefore, if you must specify multiple design consumption records on the **Design Consumption** page for same **Commodity**, the system must calculate the date ranges for **Date Effective** and **Date Expired** based on the existing record(s) and the **Date Effective** specified for an additional record when there is an overlap between the **Date Effective** of the existing record and the **Date Effective** of the additional record(s). Likewise, the same is true for the expiration dates of the existing and additional records. See the following example for more information.

Example 1

In this example, there are two existing design consumption records, and you are inserting a new record. At the time of insert, the date information for the design consumption records is as follows:

	Date Effective	Date Expired
Existing record one	01/01/2006	06/30/2006
Existing record two	07/01/2006	12/31/2199
Record to be inserted	01/01/2007	12/31/2199

Note: Date Expired is protected. The system defaults 12/31/2199 as the **Date Expired** for the record to be inserted.

The record to be inserted shares the same **Commodity** as the existing records, and the **Date Effective** of the record to be inserted overlaps with the **Date Effective** and **Date Expired** of the existing records. The system locates the existing record with the same **Commodity** based on the **Date Effective** and updates the **Date Expired** for the second existing record with a new **Date Effective** as follows:

	Date Effective	Date Expired
Existing record one	01/01/2006	06/30/2006
Existing record two	07/01/2006	12/31/2006
Record inserted	01/01/2007	12/31/2199

Example 2

In this example, there are two existing design consumption records, and you are inserting a new record. At the time of insert, the date information for the design consumption records is as follows:

	Date Effective	Date Expired
Existing record one	01/01/2006	12/31/2006
Existing record two	01/01/2007	12/31/2199
Record to be inserted	06/01/2006	12/31/2199

Note: Date Expired is protected. The system defaults 12/31/2199 as the **Date Expired** for the record to be inserted.

The record to be inserted shares the same **Commodity** as the existing records, and the **Date Effective** of the record to be inserted overlaps with the **Date Effective** of the existing records. The system locates the existing record with the same **Commodity** based on the **Date Effective** and updates the **Date Expired** of existing record one and the **Date Effective** of existing record two and the data inserted is as follows:

	Date Effective	Date Expired
Existing record one	01/01/2006	05/14/2006
Existing record two	01/01/2007	12/31/2199
Record inserted	06/01/2006	12/31/2006

Entering actual energy consumption information for equipment

Enter details related to the actual energy consumption levels for equipment that are flagged as **GAS Tracked**. The energy consumption information is recorded to track the actual energy usage levels

maintained during a given time period while operating equipment using specific types of energy commodities, such as electricity, gas, etc.

To enter actual energy consumption information for equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to add actual consumption, and then click the **Actual Consumption** tab. The system automatically populates **Reading Date** with the current date.

Note: If you clear **Reading Date**, the system automatically clears **Actual Usage UOM** and **Actual Consumption UOM**.

3 Specify this information:

Commodity
Specify the commodity to associate with the actual consumption reading. The system populates the **Actual Consumption UOM** from the selected **Commodity** and the **Actual Usage UOM** from the **Design Usage UOM** on the **Design Consumption** page.

See "Designing Energy Consumption for Equipment" on page 167.

Note: When the **Commodity** is updated for the actual consumption reading, the system automatically updates **Actual Consumption UOM**, **Actual Usage UOM**, and **Actual Consumption Rate UOM** by searching for a date range on the **Design Consumption** page.

Actual Consumption
Specify the actual energy consumed.

Note: If **Utility Bill Level** is not selected for the equipment on the **Record View** page, you must specify a value for **Actual Consumption**. If **Utility Bill Level**is selected, the system uses the actual consumption from the utility bill when generating the asset sustainability calculations.

Actual Usage
Specify the actual usage. This indicates the amount time that was used to consume the value specified for **Actual Consumption**. The system automatically calculates the **Actual Consumption Rate**.

Load Factor
Specify the load factor for this actual consumption record, overriding the default value defined on the **Design Consumption** page.

4 Click **Save Record**.

Understanding Energy Star

Infor is a partner of Energy Star, a joint program between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) to monitor and improve energy efficiency efforts.

Infor EAM works with the customer by sending the customer's energy consumption data to Energy Star's Portfolio Manager system (PM) via web services of the Automated Benchmarking System (ABS). The customer receives Energy Star ratings in return from PM thru the ABS.

Infor EAM helps commercial businesses monitor energy efficiency ratings through four of eight total web services through which data is exchanged with the EPA:

1. Get Pending Authorizations

   Infor EAM receives ID information on the customer's facilities and meters.

2. Confirm Pending Authorizations

   Complete mapping of the customer's Infor EAM IDs to facilities and meter IDs in PM.

3. Manage Meter Information

   Send energy consumption data from Infor EAM to PM.

4. Rating Exchange Service

   Retrieve Energy Star Ratings for historical 12 month periods.

Setting up Energy Star

Map Portfolio Manager facilities and meters with Infor EAM facilities and meters to collect and transmit the correct energy consumption data to Portfolio Manager thru the Automated Benchmarking System (ABS). ABS will send all facility and/or meter data previously defined in PM to Infor EAM.

Next, select the Infor EAM Equipment ID or Infor EAM Meter ID for each facility or meter within that facility. Once the system matches some or all of the facilities/meters to their PM counterparts, click Confirm Pending Authorizations to initiate the web service message thru ABS to PM.

To set up Energy Star:

1. Select **Equipment > Additional Features > Energy Star > Energy Star Setup**.
2. Click **Get Pending Authorizations**.
3. Specify the **Energy Start Customer ID**.

   Note: The **Energy Star Customer ID** is the same as the Portfolio Manager username used to log in to Portfolio Manager.

4. Click **Submit**.

   The system closes the popup, sends a Get Pending Authorization message to ABS by web service, and receives a response from ABS by web service.

   The system displays the **Energy Star Setup** page.

   The system automatically populates **Energy Star Customer ID**, **Energy Star Building ID**, **Energy Star Building Name**, **Energy Star Building Address**, **Energy Star Building City**, **Energy Star**

Building State, **Energy Star Building Zip Code**, **Energy Star Building Year Built**, **Energy Star Meter ID**, **Energy Star Meter Name**, **Confirmed**, and **Energy Star Energy Type**.

5 Specify the **EAM Building ID** and **EAM Meter ID**.

Note: You must indicate that this facility is Utility Bill Level in the Facility Details section of the asset record.

6 Click **Submit**. The system matches the records.

7 Click **Confirm Pending Authorizations**. The system opens the Customer Lookup popup.

8 Specify the **Energy Start Customer ID**.

9 Click **Submit**.

Viewing Energy Star ratings

The Energy Star Portfolio Manager system hosts the EPA national energy performance rating system. PM stores customer information on buildings, space utilization, and energy meters. Infor EAM utilizes web services to provide PM with energy consumption data thru the ABS. PM calculates and Energy Star Rating or value from 1-100, viewable on the Energy Star Ratings tab on the Equipment screen. The higher the value, the more efficient and less pollutant a facility is.

On this form, view Energy Star ratings and associated information on energy consumption and greenhouse gas emissions.

Note: Energy Star's service level commitment states that the response may take up to 24 hours for asynchronous messages to be viewable; however, the response time from Energy Star may be considerably less.

To view Energy Star ratings:

1 Select **Equipment > Assets**.

2 Click the **Energy Star Ratings** tab.

3 Click **Get Energy Star Ratings**.

4 Specify the **Start Date** and **End Date**.

5 Click **Submit**.

Viewing Energy Star messages

View and purge asynchronous messages sent to the Energy Star Portfolio Manager (PM) thru the Automated Benchmarking System (ABS). View messages acknowledged by ABS with a transaction ID.

To view Energy Star messages:

1 Select **Equipment > Additional Features > Energy Star > Energy Star Message Viewer**.

2 Select the transaction for which to view messages, and then choose one of the options:

Option	Description
To view messages	Click **View Message**. The system displays the information.
To purge message records	Click **Purge Messages**. Select the time period from which to purge messages, and then click **Submit**.

Printing the Energy Star ratings chart report

Print the energy star ratings chart report.

To print the energy star ratings chart report:

1. Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2. Click the **Energy Star Ratings Chart** tab.
3. Specify the **Start Date** and **End Date**.
4. Click **Submit**.
5. Click **Print**.

Understanding reliability rankings

Create reliability rankings for equipment to determine the criticality or risk a piece of equipment poses to your operation. If the machine fails, could it have safety or environmental implications, or will it result in production shutdown? Reliability rankings will help formalize the process to determine this risk based on your answers to the reliability questions you have configured.

Reliability rankings allow users to assign a Reliability Ranking Index (RRI) and Reliability Ranking Score to assess equipment risk. Users must first define criteria by which to assess the reliability risk.

Use the Decision Tree and develop the formula to calculate the Reliability Ranking Score, and use the assigned score ranges to determine which RRI should be applied.

To utilize the reliability ranking functionality, perform the following tasks:

1. Create a reliability ranking record.
2. Add levels to the decision tree structure.
3. Add answers to the decision tree.
4. Add formulas to the decision tree.
5. Add normalization values to the decision tree.

6 Order questions for the decision tree.
7 Assign ranking scores to reliability ranking index values.
8 Associate equipment to a reliability ranking.
9 Answer the reliability survey.
10 Calculate reliability ranking values.

Creating reliability rankings

To create a reliability ranking:

1 Select **Equipment > Setup > Reliability Ranking**.
2 Click **New Record**.
3 Specify this information:

Reliability Ranking
Specify a unique code identifying the reliability ranking, and then specify a description of the reliability ranking in the adjacent field.

Class
Specify the class of the reliability ranking. The system automatically populates **Class Org.**.

Out of Service
Select to exclude the reliability ranking in the lookup on the Equipment page record.

4 Click **Save Record**. The system automatically populates **Created By** and **Date Created**.

Creating decision tree for reliability rankings

Create, view, or modify a decision tree for a reliability ranking to calculate a reliability ranking score. A decision tree is comprised of four levels which include a reliability ranking level and up to three sub-levels, answers, formulas, and normalization values.

Note: All levels must be used. Different branches in the tree may use varying numbers of levels.

To create decision tree for reliability rankings:

1 Select **Equipment > Setup > Reliability Ranking**.
2 Select the reliability ranking for which to create a decision tree, and then click the **Decision Tree** tab.

Adding levels

Add levels to the decision tree to create a structure for calculating reliability rankings.

A level can be a node in the tree where a formula is executed or it can be a question. A question always means the lowest level in the tree has been reached. If the level is a question, one or more answers must be supplied for the question level. Levels that are not questions may have child levels.

To add levels:

1 On the **Decision Tree** tab, expand the tree, select the level for which to add to, and then click **Add Level**.
2 Specify this information:

Level
Specify the unique code identifying the level, and then specify a description in the adjacent field.

Question Level
Select to indicate the level is a question with which an answer will be associated.

Question
Specify the question the system will ask if this level is a question level.

3 Click **Submit**.

Note: To translate the selected level description and/or question, select the level, and then click **Translations** or **Question Translations**. The system opens the Translations popup. Select the language record, specify the **Translated Description**, and then select **Translated**.

Adding answers

Add answers to a selected question level in the decision tree to create a structure for calculating reliability rankings.

To add answers:

1 On the **Decision Tree** tab, select a question level, and then click **Add/Edit Answers**.
2 Click **Add Answer**.
3 Specify this information:

Answer
Specify a unique code identifying the answer, and then specify the answer in the adjacent field.

Note: Specify as many answers as necessary for a selected **Question Level**.

Value
Specify the value for the answer.

Note: The system will use this value in the formula to determine the Reliability Ranking Score.

4 Click **Submit**.

Note: To translate the selected answer description, select the answer, and then click **Translations**. Select the language record, specify the **Translated Description**, and then select **Translated**.

Adding formulas

Add, edit, or delete a formula for a selected non-Question level.

Note: The system does not allow formula associations to question levels.

To add formulas:

1. On the **Decision Tree** tab, select a non-question level for which to add a formula, and then click **Add/Edit Formula**. The system automatically populates **Level** and the level description of all the children.
2. Specify this information:

   Formula
   Specify the formula. Use the child levels in the formula by adding a colon ":" in front of the level code. The formula also supports any SQL numeric functions.

   Example: Where the score for the level is determined by the average of the environmental level and 2 times the safety level:

```
(:ENVIRONMENT + 2* :SAFETY) / 2
```

3. Click **Submit**.

Adding normalization values

Add, edit, or delete normalization values for a selected level.

You can normalize a level if the outcome for that level fluctuates between a certain range of values. However this is not the range you want to pass along to the higher level in the tree. Identify the outcome range and the normalized outcome range you want to use moving forward.

Note: A question level cannot be normalized.

To add normalization values:

1. On the **Decision Tree** tab, select a non-Question level, and then click **Normalize Level**.
2. Click **Add Value**.
3. Specify this information:

   Minimum Value
   Specify the minimum value for the range.

   Maximum Value
   Specify the maximum value for the range.

   Normalized Value
   Specify the normalized value for the range.

4. Click **Submit**.

Ordering questions

Update the sequential order of questions for reliability rankings.

To order questions:

1. On the **Decision Tree** tab, click **Order Questions**. The system automatically populates **Question**, **Description**, and **Level**.

2 Specify this information:

Sequence Number
Specify the number for each **Question** to define the sequential order in which the questions should appear on the reliability ranking survey.

3 Click **Submit**.

Assigning reliability ranking index

Assign a reliability ranking index to a range of values. The system uses the assigned value when a reliability ranking score has been calculated for equipment using the decision tree formulas.

To assign a reliability ranking index:

1 Select **Equipment > Setup > Reliability Ranking**.
2 Select the reliability ranking for which to assign a reliability ranking index, and then click the **Ranks** tab.
3 Click **Add Reliability Rank**.
4 Specify this information:

Minimum Value
Specify a minimum score for the selected index for the reliability ranking score.

Maximum Value
Specify a maximum score for selected index for the reliability ranking score.

Reliability Ranking Index
Specify the reliability ranking index. The system automatically populates the reliability ranking index description.

Note: Reliability Ranking Index is created on the System Codes screen. Codes for Entity equals OBRI.

5 Click **Submit**.

Viewing equipment associated to reliability rankings

View the list of equipment associated to selected reliability rankings.

To view equipment for reliability rankings:

1 Select **Equipment > Setup > Reliability Rankings**.
2 Select the reliability ranking for which to view associated equipment, and then click the **Equipment** tab.
3 View the equipment.

Completing the reliability survey

Answer the questions on the reliability survey for selected equipment to calculate the Reliability Ranking Score and the Reliability Ranking Index (RRI).

The system calculates the Reliability Ranking Score using the formula of the reliability ranking levels and the answers specified on the reliability survey. If a range has been defined for normalization, the system normalizes the output for the reliability ranking formula during the formula calculation roll-up process.

To complete the reliability survey:

1. Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
2. Select the asset for which to complete the reliability survey, and then click the **Reliability Survey** tab. The system automatically populates **Question** and **Value**.

   Note: Questions are based on the selected reliability ranking associated to the selected asset
3. Select the **Question**, and then specify the **Answer**.
4. Click **Calculate Reliability Ranking Values** when the survey is complete.

   The system calculates and automatically populates **Reliability Ranking Score** and associated **Reliability Ranking Index** for the selected asset.

   The system also automatically populates **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**,**Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated** for the selected asset.

Updating reliability ranking values in a batch

Save selection information to calculate and assign Reliability Ranking Score and Reliability Ranking Index (RRI) values to an equipment class, category, or to selected equipment.

Once a new batch record is created for the equipment class, category, or selected equipment and reliability ranking values are calculated, the system applies the reliability ranking values to all records in the selected equipment class, category, or type.

To update reliability rankings values in a batch:

1. Select **Equipment > Process > Batch Update Reliability Ranking Values**.
2. Click **New Record**.
3. Specify a description for the reliability ranking batch update record.
4. Specify the **Organization**, **Equipment Class**, **Equipment Category**, **Equipment**, and **Reliability Ranking**.

5 Select the **Include Children** check box to include the child equipment of the selected equipment in the reliability ranking values.

6 Click **Save Record**. The system automatically assigns a **Record ID**.

Completing the reliability survey in a batch

Answer all questions related to the reliability survey for the selected reliability ranking and equipment. Once all questions are answered, the system calculates the Reliability Ranking Score and associated Reliability Ranking Index (RRI).

To complete the reliability survey in a batch:

1 Select **Equipment > Process > Batch Update Reliability Ranking Values**.

2 Select a reliability ranking batch update record, and then click the **Reliability Survey** tab. The system automatically populates **Sequence Number**, **Question**, **Level**, the level description, and **Value**.

3 Specify this information:

Answer
Select the answer to the question.

4 Click **Submit**.

Note: To calculate the reliability ranking value after the survey is complete, click **Calculate Reliability Ranking Values**. The system calculates the values and automatically populates **Reliability Ranking Index**, **Reliability Ranking Score**, **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, **Reliability Ranking Setup Last Updated**, **Date Created**, and **Created By** on the **Record View**.

Copying reliability ranking values to equipment in a batch

Copy reliability ranking values to selected equipment.

To copy reliability ranking values to selected equipment in a batch:

1 Select **Equipment > Process > Batch Update Reliability Ranking Values**.

2 Select the reliability ranking batch update record for which to copy reliability ranking values, and then click the **Equipment** tab.

Note: Equipment that would be selected based on the class, category, or equipment identified on the reliability ranking batch update record will not display if **Lock Reliability Ranking Values** is selected for that equipment.

3 Select the equipment records for which to copy reliability ranking values.

4 Click **Copy Reliability Ranking Values to Selected Equipment**. The system updates the Equipment list and automatically populates **Reliability Ranking Index**, **Reliability Ranking Score**, **Reliability**

Ranking Values Out of Sync, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated**.

Copying reliability rankings

Copy reliability rankings to quickly create a new reliability ranking by copying information from an existing reliability ranking to a new reliability ranking.

To copy reliability rankings:

1. Select **Equipment > Setup > Reliability Rankings**.
2. Select a reliability ranking record for which to copy reliability rankings, and then click the **Record View** tab.
3. Right-click anywhere on the **Reliability Rankings** form, and then select **Copy Reliability Ranking**.
4. Specify this information:

   New Reliability Ranking
   Specify a unique code identifying the new reliability ranking, and then specify a description of the reliability ranking in the adjacent field.

5. Select which related details to copy to the new reliability ranking. These include:
   - **Custom Field Values**
   - **Comments**
   - **Decision Tree**
   - **Documents**
   - **Ranks**
6. Click **Submit**.

Printing the reliability calculations reports

Print the reliability calculations chart, hazard chart, probability density chart, or unreliability chart.

To print the reliability calculations reports:

1. Select one of these options:.
   - **Equipment > Assets**
   - **Equipment > Positions**
2. Click the **Reliability Calculations** tab.
3. Specify this information:

Type
Specify the type of chart to generate for the report. Specify H for Hazard Chart, P for Probability Density Chart, R for Reliability Chart, or U for Unreliability Chart.

4 Specify the **Problem Code**, **Failure Code**, **Cause Code**, **Action Code**, **Sequence Number**, **Start Day**, and **Scale Multiplier**.

5 Click **Submit**.

6 Click **Print**.

Creating rooms

Create rooms that are accessible in Infor EAM and Infor HMS when the two products are integrated.

Note: If the rooms were created in Infor EAM you may edit the rooms on this form. However if the rooms were created in Infor HMS you cannot edit the rooms on this form. To edit the rooms access the room records on the Rooms form in Infor HMS.

To create rooms:

1 Select **Equipment > Rooms**.

2 Click **New Record**.

3 Specify the **Room Type**, **Unit Type**, **Maximum Guest Count**, **Phone Number**, **Key Number**, **Square Footage**, **Number of Beds**, **Number of Baths**, and **Facility** for the room.

4 Specify this information:

Property
Specify the property to which the room belongs.

Room
Specify a room number to identify the room, and then specify a description of the room in the adjacent field. The system automatically populates **Building**, **Wing**, **Floor**, and **Exposure**.

Note: Location information (**Building**, **Wing**, **Floor**, and **Exposure**) is only available when Infor EAM is integrated with Infor HMS. It is not possible to track this information in a stand-alone Infor EAM environment.

Status
Select the status of the room.

Option	Description
In Service	Assigned when a room is in place and operating within the business organization.
Withdrawn	Assigned when a room is no longer available for use. The system automatically populates **Withdrawal Date**.

Commission Date
Select the room's installation date, or date the room will be counted in inventory.

Assigned To
Specify the person responsible for the room, which is typically housekeeping or building maintenance personnel.

Kitchen
Select the type of kitchen the room includes. Your options are Central, None, Shared, or Private.

Living Room
Select the type of living room the room includes. Your options are Central, None, Shared, or Private.

Out of Service
Select this check box to prevent the room from being displayed in lookups.

Accessible
Select this check box if the room is accessible to persons with disabilities.

Non-Smoking
Select this check box if the room is designated as a non-smoking room.

Reservation Calendar Owner
Select this check box if the room can be reserved.

Cost Roll-up
Select this check box if the costs should roll up to the facility.

Open Bay
Select this check box if this room is designated as an open bay.

5 Specify the **Name**, **VIP Status**, **Email Address**, and **Guest Phone Number** for the guest.

Note: Guest information such as **Name**, **VIP Status**, **Email Address**, and **Guest Phone Number** is only editable from Infor HMS when operating in an integrated environment with Infor EAM. This guest information cannot be manually specified when operating in standalone Infor EAM.

6 Click **Save Record**.

Creating facilities

Create facilities to identify and maintain buildings, floors, elevators, HVAC units, etc. for associated properties.

To create facilities:

1 Select **Equipment > Facilities**.
2 Click **New Record**.
3 Specify this information:

Property
Specify the property to which the facility belongs.

Facility
Specify a unique code identifying the facility, and then specify a description of the facility in the adjacent field.

Facility Parent
Specify the parent facility.

Type
Select the facility type.

Status
Select the status of the facility. For example, select In Service to designate the facility as available for use. The system automatically populates **Withdrawal Date** when **Status** is Withdrawn.

Year Built
Specify the year the facility was built or purchased.

Commission Date
Specify the date the facility was commissioned.

Assigned To
Specify the person responsible for maintaining the facility, typically the maintenance personnel.

Out of Service
Select to exclude the facility from lookups.

FCI Calculation
Select to calculate the **Facility Condition Index (FCI)** for the facility.

Service Life (years)
Specify the service life of the facility.

Facility Condition Index (FCI)
Specify the resultant FCI based on the maintenance details of the facility. `Cost of Needed Repairs/Current Replacement Value=FCI`

Cost of Needed Repairs
Specify the cost of necessary repairs. The system automatically populates the currency and selects **Eligible for Energy Star Label**.

Replacement Value
Specify the current replacement value for the equipment. The system automatically populates the currency.

Reservation Calendar Owner
Select this check box if the facility can be reserved.

Cost Roll-up
Select if costs should roll up to the parent facility.

Track Utility Bills
Select to mark the facility as having capabilities to record utility bills.

Track GAS
Select to set the facility as GAS (Global Asset Sustainability) Tracked.

Manufacturer
Specify the facility's manufacturer.

Serial Number
Specify the facility's serial number.

Model
Specify the facility's model number.

Lock Reliability Ranking Values
Select to lock the reliability ranking values for the facility on the Reliability Survey tab of the Equipment screen.

Note: If **Lock Reliability Ranking Values** is selected, the system will not allow the user to modify the reliability survey answers and calculate reliability ranking values for the facility. The system also prevents the selection of facility for update on the Batch Update Reliability Ranking Values form.

Reliability Ranking
Specify the reliability ranking code for the facility.

The system automatically populates **Reliability Ranking Index**, **Reliability Ranking Score**, **Reliability Ranking Values Out of Sync**, **Reliability Ranking Values Last Calculated**, **Reliability Survey Last Updated**, and **Reliability Ranking Setup Last Updated**, after answering the reliability survey.

4 Click **Save Record**.

Creating vehicles

Create and maintain vehicles for hospitality properties.

To create vehicles:

1 Select **Equipment > Vehicles**.
2 Click **New Record**.
3 Specify the **Vehicle**, **Property**, **Status**, **Vehicle Value**, **Facility**,**Commission Date**, **Driver**, and **Driver Phone Number**.
4 Specify this information:

Assigned To
Specify the person responsible for the vehicle, typically the maintenance personnel.

Documoto Book ID
Specify a specific Documoto Book with which to associate the vehicle.

Accessible
Select this check box if the vehicle is handicap accessible.

Non-Smoking
Select this check box if the vehicle is a non-smoking vehicle.

Out of Service
Select this check box to prevent the vehicle from displaying in lookups.

Reservation Calendar Owner
Select this check box if the vehicle can be reserved.

Cost Roll-up
Select this check box if costs should roll up to the vehicle's associated facility.

5 Specify the **Manufacturer**, **Serial Number**, and **Model** of the vehicle.

6 Click **Save Record**.

Defining policies

Define your organization's corporate initiatives as policies. For example, a policy can be a corporate initiative to improve energy performance.

To define policies:

1 Select **Equipment > Additional Features > Asset Management Policy > Policies**.

2 Click **New Record**.

3 Specify this information:

Policy
Specify a unique code identifying the policy, and then specify a description of the policy in the adjacent field.

Policy Statement
Specify a policy statement that explains how your organization plans to achieve the goal. The policy statement cannot contain more than 4,000 characters.

Approved By
Specify the name of the person responsible for approving the policy.

Date Approved
Specify the date the policy was approved.

Out of Service
Select if the policy is currently not being used. If you select **Out of Service**, the policy will not display in the lookups for policies on other forms.

4 Click **Save Record**.

Viewing strategies for policies

View a list of strategies associated with a policy.

To view strategies for policies:

1 Select **Equipment > Additional Features > Asset Management Policy > Policies**.

2 Select the policy for which to view strategies, and then click the **Strategies** tab.
3 View the strategies.

Defining strategies

Strategic initiatives help organizations meet long-term goals. For example, a strategic initiative can be your organization's corporate commitment to reducing electrical consumption. Define your organization's strategic initiatives as strategies.

To define strategies:

1 Select **Equipment > Additional Features > Asset Management Policy > Strategies**.
2 Click **New Record**.
3 Specify this information:

Strategy
Specify a unique code identifying the strategy, and then specify a description of the strategy in the adjacent field.

Policy
Specify the policy to associate with the strategy. A policy can be associated with multiple strategies. The system automatically populates the policy description.

Strategy Statement
Specify a strategy statement that explains how your organization plans to achieve the goal. The strategy statement cannot contain more than 4,000 characters.

Approved By
Specify the name of the person responsible for approving the strategy.

Date Approved
Specify the date the strategy was approved.

4 Select the **Out of Service** check box if the strategy is currently not being used. If you select **Out of Service**, the strategy will not display in the lookups for strategies on other forms.
5 Click **Save Record**.

Viewing objectives for strategies

View a list of objectives associated with a strategy.

To view objectives for strategies:

1 Select **Equipment > Additional Features > Asset Management Policy > Strategies**.
2 Select the strategy for which to view objectives, and then click the **Objectives** tab.
3 View the objectives.

Defining objectives

Define your organization's tactical initiatives as objectives. Tactical initiatives are short-term goals that help an organization achieve its strategic, long-term goals. The expected results and when the results are expected will be specifically stated. For example, an objective can be a tactical initiative to reduce electrical consumption at a facility by a specific amount and by a particular date.

To define objectives:

1. Select **Equipment > Additional Features > Asset Management Policy > Objectives**.
2. Click **New Record**.
3. Specify this information:

Organization
Specify the organization to which the objectives belongs.

Objective
Specify a unique code identifying the objective, and then specify a description of the objective in the adjacent field.

Strategy
Specify the strategy to associate with the objective. A strategy may be associated with multiple objectives. The system populates the strategy description.

Objective Statement
Specify an objective statement that explains how your organization plans to achieve the goal. The objective statement cannot contain more than 4,000 characters.

Currency
Specify the currency for the objective.

Approved By
Specify the name of the person responsible for approving the objective.

Date Approved
Specify the date the objective was approved.

Out of Service
Select if the objective is currently not being used. If you select **Out of Service**, the objective will not appear in the lookups for objectives on other forms.

Target Type
Select the target type for the objective.

Target Subtype
Select the target subtype. You can select target subtypes for these target types: asset performance, energy, and waste.

Reliability Calculations
Select the reliability calculations. If the target subtype is reliability, you can select the reliability calculations.

Parameters
Select the parameters. You can select parameters for these reliability calculations: Crow-AMSAA Individual Events, Crow-AMSAA Cumulative Events, Weibull Individual Events, and Weibull Cumulative Events.

Conversion Type
Select one of the conversion type options:

Option	Description
EPA 2007	Select if the objective was designed to help reduce factors that contribute to environmental damage as a result of the EPA 2007 plan.
Defra 2009	Select if the objective was designed to help reduce factors that contribute to environmental damage as a result of the Defra 2009 plan.

UOM
Specify the unit of measure for the objective.

Category Options
Select the category option.

Baseline Date Range From Date/To Date
Specify the beginning and ending dates with which to compare the final results to determine if an improvement was made.

Kickoff Date
Specify the date the objective begins.

Goal Date
Specify the date the objective ends.

Baseline Amount
Specify the baseline amount before the objective is implemented.

Change Amount
Specify the expected change in the amount after the objective is completed. The system calculates **Days**, **Target Amount**, and **Target Change %**.

4 Click **Save Record**.

Defining energy targets for objectives

Define energy targets used to support selected objectives.

To define energy targets for objectives:

1 Select **Equipment > Additional Features > Asset Management Policy > Objectives**.
2 Select the objective for which to define an energy target, and then click the **Energy Targets** tab.
3 Click **Add Energy Target**.

4 Specify the **Scope**, **Activity**, and **Emission Source** for the energy target.
5 Click **Submit**.

Viewing capital planning requests for objectives

View a list of capital planning requests that are associated with a specific objective. For each objective, the system displays the capital planning request which includes the financial aspects of the project.

To view capital planning requests for objectives:

1 Select **Equipment > Additional Features > Asset Management Policy > Objectives**.
2 Select the objective for which to view capital planning requests, and then click the **CPRs (Plans)** tab.
3 View the capital planning requests.

Defining parameters for asset inventory

Perform asset audits to compare the physical location of the asset in the system with the actual physical location of the asset. Define the parameters for the asset inventory on the **Parameters** tab, and then perform the asset inventory manually or using a handheld device.

To define parameters for asset inventory:

1 Select **Equipment > Asset Inventory > Asset Inventory**.
2 Click the **Parameters** tab.
3 Select the **Parameter List**, and then specify the **Asset Organization**, **Department**, **Asset Class**, **Asset Status**, **Parent Store**, and **Standard WO**.

   The **Session ID** will be created after you click **Create/Update Session**. Specify a description of the session in the adjacent field.

4 Specify this information:

   Assigned To
   Specify to whom the asset counting is assigned.

   Physical Location Parent
   Specify the physical location parent for the asset. The system automatically populates **Physical Location Parent Org.**

   Physical Location Type
   Select the physical location type for the asset.

5 Select the **Blind Inventory** check box if the **Inventory Results** tab should not be synced to the mobile device.
6 Select the **Allow Move WO(s)** check box to give the iPad user permission to create **Move WO(s)**.

7 Select the **Allow Physical Location Updates** to give the iPad user permission to make structural changes.
8 Click **Create/Update Session**. The system displays the results on the **Inventory Results** tab for the selected Physical Location Parent and asset children with a status of "I" if a specific status is not specified.

Note: When **Create/Update Session** is clicked, the system saves and protects all fields except **Standard WO**.

Viewing inventory results for assets

View a list of assets generated based on data specified on the **Parameters** tab.

To view inventory results for assets:

1 Select **Equipment > Asset Inventory > Asset Inventory**.
2 Click the **Inventory Results** tab. The system displays the asset records generated based on the settings on the **Parameters** tab or the **Session ID**.
3 View the asset records.

Adding assets to list

Add assets that were not a part of the asset inventory session.

To add assets to list:

1 Select **Equipment > Asset Inventory**.
2 Click the **Inventory Results** tab.
3 Click **Add Asset to List**.
4 Specify this information:

Asset
Specify the asset to add to the list. The system automatically populates **Description** and **Asset Org.** Assets with a status of installed, also known as "I", and to which you have organization rights and department security rights will be shown.

5 Click **Submit**.

Updating observed physical location of assets

Update the observed physical location of an asset when it is determined that the system indicates that the asset is in a different location. The observed physical location can only be updated if the Asset Inventory Status is Unfinished.

To update the observed physical location of assets:

1. Select **Equipment > Asset Inventory**.
2. Click the **Inventory Results** tab.
3. Select the asset record for which to update the observed physical location, and then click **Update System with Observed Physical/Bin Location**.
4. Specify the **Observed Physical Location**, **Observed Physical Location Org.**, **Observed Bin Location**, and **Inventory Verification Date**.
5. Click **Save**.

Creating work orders for assets

Create work orders for assets that need to be moved to a new location.

To create work orders for assets:

1. Select **Equipment > Asset Inventory**.
2. Click the **Inventory Results** tab.
3. Select the asset record for which to create a work order, and then click **Create Move WO(s)**. If the **Observed Physical Location** is not equal to the **System Physical Location**, the system updates the **Resolution** to Move WO Created <WO Number>.

   Note: When creating work orders for assets, specify **Inventory Verification Date**. Otherwise, they system automatically updates **Inventory Verification Date** to the current system date.

Approving sessions for asset inventory

Approve an existing asset inventory session.

To approve sessions for asset inventory:

1. Select **Equipment > Asset Inventory > Asset Inventory**.
2. Select the **Session ID** to approve.
3. Click the **Inventory Results** tab.
4. Click **Approve Session**.

Canceling sessions for asset inventory

Cancel an existing asset inventory session if the **Session ID** is populated and **Status** is Unfinished.

To cancel sessions for asset inventory:

1. Select **Equipment > Asset Inventory > Asset Inventory**.

2 Specify this information:

Session ID
Select the session to cancel.

3 Click **Cancel Session**.

Adding safety data to equipment

Add safety data to equipment to inform your employees of any hazardous situation that can cause bodily harm and of the precautions to take to protect themselves from these hazards. For example, you can add a precaution to turn equipment off and remove the power cord from the power outlet before performing repairs on electrical equipment. After adding the safety data, review and verify the record by clicking the **Reviewed By** icon. The review fields will be automatically populated after you review the record.

To add safety data to equipment:

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**
- **Equipment > Setup > Categories**
- **Equipment > Equipment Configuration > Equipment Configurations**

2 Select the equipment for which to add safety data, and then click the **Safety** tab.

3 Specify this information:

Hazard
Specify the hazard to add to the equipment. The system automatically populates **Hazard Org.**, **Hazard Type**, and the hazard description.

Precaution
Specify the safety measure to protect your employees from the hazard. The system automatically populates **Precaution Org.** and the precaution description.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can specify the timing of pre-work to alert the employee that they should wear fire-resistant clothing before beginning the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number specified.

4 Select the **Apply to Children** check box to have the safety details applied to all of the child records. A safety record attached to a production line will now be visible on all equipment in that production line.

5 Select the **Delete Pending** check box to delete the pending safety record during the next review.

6 Click **Submit**. The system automatically populates **Created By**, **Date Created**, **Updated By**, **Date Updated**, **Reviewed By**, **Reviewed By Name**, **Date Reviewed**, and **Review Type**.

Defining lockout/tagout details for equipment

Define the steps your employees must take to isolate equipment from its energy sources so that your employees can complete maintenance work on the equipment without suffering bodily harm or other potential dangers in the event of the unexpected startup of the equipment or the release of stored energy. For example, define the steps necessary to isolate a jammed conveyor system from its energy sources so that the work performing maintenance and clearing the jam is not injured by the unexpected startup or release of the conveyor system.

To define lockout/tagout details for equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the asset, position, system, or location for which to define lockout/tagout details, and then click the **LOTO** tab.

3 Click **Add LOTO Record**.

4 Specify this information:

Sequence
Specify the sequence in which to implement lockout/tagout procedures.

Isolation Type
Select the isolation type or method for isolating or disconnecting equipment, such as a water valve, from its energy source in order that work can be performed without risk or injury.

Isolation Step
Select to indicate this procedure is an isolation step and not a de-isolation step.

Isolation Point
Specify the isolation point or area the equipment can be isolated from its energy sources to prevent injury from unexpected startup. The system automatically populates the description of the isolation point, **Isolation Point Org.**, **Equipment**, the description of the equipment, **Equipment Org.**, **Location**, and **Location Org.**

Location Note
Specify any additional notes on the location of the equipment as necessary.

Energy Source
Select the equipment's source of energy such as electrical power.

Isolation Method
Specify the method by which to isolate the equipment from its energy source. The system automatically populates the description of the isolation method.

Number of Tags
Specify the number of tags required to properly lock and tag the equipment so that automatic startup of the equipment is prevented.

Residual Energy
Select the source of residual energy to the equipment if any.

Secondary Residual Energy
Select the secondary source that stores residual energy for the equipment. This source supplies energy to the equipment when the equipment is disconnected from its primary energy and secondary energy sources.

Delete Pending
Select to delete the lockout/tagout details record during the next review.

5 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

To add or edit comments to the lockout/tagout details record, select an isolation record, and then click **Add/Edit Comments**. Specify or edit comments as necessary.

To add or edit documents to the lockout/tagout details record, select an isolation record, and then click **Add/Edit Documents**. View, associate, or edit documents to the record.

To copy lockout/tagout details from equipment, click **Import From Equipment**.

See "Importing lockout/tagout details from equipment" on page 196.

To copy lockout/tagout details from a permit to work, click **Import from PTW**.

See "Importing lockout/tagout details from permits to work" on page 197.

Importing lockout/tagout details from equipment

When defining lockout/tagout details for equipment, you can import the details from existing equipment records.

To import lockout/tagout details from equipment:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the asset, position, system, or location for which to define lockout/tagout details, and then click the **LOTO** tab.

3 Click **Import from Equipment**.

4 Specify this information:

Equipment
Specify the equipment from which to copy lockout/tagout details. The system automatically populates **Equipment Org.**

Isolation Type
Select the isolation type from which to copy lockout/tagout details. To copy all available isolation types, leave this field blank.

Note: If records already exist for an isolation type, the system deletes the records prior to copying the new records.

5 Click **Submit**.

Importing lockout/tagout details from permits to work

When defining lockout/tagout details for equipment, you can import the details from existing permit to work records.

To import lockout/tagout details from permits to work:

1 Select one of these options:.

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the asset, position, system, or location for which to define lockout/tagout details, and then click the **LOTO** tab.

3 Click **Import from PTW**.

4 Specify this information:

Permit to Work
Specify the permit to work from which to copy lockout/tagout details.

Isolation Type
Select the isolation type to assign to the new lockout/tagout details.

Note: If records already exist for an isolation type, the system deletes the records prior to copying the new records.

5 Click **Submit**.

Viewing the reservation calendar

View equipment reservations on the **Reservation Calendar**. Unscheduled equipment can be scheduled on the calendar by double clicking on an empty time period or dragging and dropping a to create a time period on the calendar. Reserved equipment can be modified by authorized users by moving the reservation to a different time period.

You can set up the default settings for the calendar on the **Reservation Calendar** tab of the **Screen Setup** screen.

To view the reservation calendar:

1. Select **Equipment > Additional Features > Reservation Calendar**.
2. Vew the **Reservation Calendar**.
3. Select **Go To Day** to select a day for which to view reserved equipment.
4. Rest on an equipment reservation record in the calendar grid to view the title and description of the equipment reservation.

   Note: You can only view and edit the reservation details if you created the reservation or if you are the Reservation Calendar owner.

5. Optionally, double-click a piece of equipment in the equipment grid to view all of the calendar reservations for that equipment.

Setting up defaults for reservation calendar

Setup defaults for the **Reservation Calendar** screen. These values are used when displaying the scheduling calendar for a piece of equipment.

To setup defaults for the **Reservation Calendar** screen:

1. Select **Administration > Screen Configuration > Screen Setup**.
2. Select the equipment for which to setup defaults for the **Reservation Calendar** screen, and then click the **Reservation Calendar** tab.
3. Specify this information:

   Schedule Setting
   Select Minute, Hour, or Day for the schedule setting.

   If you do not specify a **Schedule Setting**, the screen will show the Minute based calendar by default.

   Block Duration
   Select the duration of the block of time. The block duration is dependent on the **Schedule Setting** that you selected.

   For example, if you select Minute for **Schedule Setting**, you can select 15, 30, or 45 for the **Block Duration**. If you select Hour for **Schedule Setting**, you can select any whole number between 0 and 24.

Working Start Time Hours
Select the hour that work starts.

Working Start Time Minutes
Select the minute that work starts.

Working End Time Hours
Select the hour that work ends.

Working End Time Minutes
Select the minute that work ends.

4 Specify the **Default Reservation Type**. Select Pool if the equipment is marked as Reservable Equipment, Loaner if the equipment marked as Contract Equipment on the header, or Other if the equipment is equipment not marked as Reservable or Contract.
5 Select the check boxes for the working days.
6 Select the **Popup Function** which denotes the popup and its clones.
7 Click **Save Record**.

Creating equipment reservations

Create and modify equipment reservations in a calendar. Equipment reservations can be viewed in increments of minutes, hours, and days.

You should define defaults on the **Reservation Calendar** tab of the **Screen Setup** screen before reserving equipment on the **Reservation Calendar** screen.

You can only request or reserve equipment on this screen. All other status changes have to be done on the **Reservations** screen. If the equipment status is Issued, you can only change the **End Date**.

To create an equipment reservation:

1 Select **Equipment > Additional Features > Reservation Calendar**.
2 Select **Go To Day** to select a day for which to view reserved equipment.
3 Double-click a specific time period on the calendar to schedule the equipment.

Note: You can also create an equipment reservation by clicking on an empty grid on the calendar and dragging to the side to specify the duration. You can move existing reservations by clicking and dragging them to empty spaces on the grid.

4 Specify the **Title**, **Start Date**, **Start Time**, **End Date**, **End Time**, and **Status** of the reservation.
5 Specify this information:

Travel From (Minutes)

Travel To (Minutes)
Specify the amount of travel time needed for the equipment reservation.

Setup Time (Minutes)
Specify the amount of time needed for setting up the equipment.

Tear Down Time
Specify the amount of time needed for dismantling the equipment.

6 Select the **Private** check box to prevent users who did not create the equipment reservation from editing and seeing the details of the equipment reservation.
7 Select the **All Day** check box to change the **Start Date** and **End Dates** to midnight so the reservation will last all day.
8 Specify the **Work Order**, **Work Address**, and **Project** for the equipment reservation.
9 Optionally, specify the **Instruction 1** for **Supplier 1**. Repeat this step for **Supplier 2** and **Supplier 3.**
10 Optionally, specify the **Building Services**, **Building Services Email**, **Building Services Instruction**, and **Invitees** for the equipment reservation.
11 Specify **Vehicle Type**, **Issue To**, **Customer**, **Customer Contact**, **Reference**, **Cost Code**, **Phone Number**, **Work Phone Number**, **E-mail**, and **Driver's License No.** for the rental details.
12 Click **Submit**.

Note: To delete an equipment reservation, right-click on the reservation record and then select **Delete Reservation**.

Managing keys

Manage keys and rings of keys for equipment. Rings and rings of keys are assigned holders who are the individuals to whom those keys have been issued.

To manage a key or ring of keys:

1 Select **Equipment > Additional Features > Key Management**.
2 Click **New Record**.
3 Specify the **Key/Ring**, **Key Description**, and **Organization**.
4 Specify this information:

Type
Select K for key or R for ring of keys.

Access Level
Optionally, select the access level for the key or ring of keys. Choose one of the following options:

Option	Description
C	Change
D	Department
M	Master
G	Grand Master

Cabinet
Specify the cabinet in which the key is stored.

Position
Specify the position within the cabinet in which the key is stored.

5 Select the **Lost** check box if the key or ring of keys is lost.
6 Select the **Out of Service** check box if the key or ring of keys is out of service.
7 Optionally, specify the **Parent Key**, **Supplier**, **Supplier Key Number**, **Manufacturer**, and **Key Type** of the key.
8 Specify this information:

Key Decode
Specify the code or number that identifies the depths of the cut for a key.

Employee
Specify the employee who is the holder of the key or ring of keys.

Issue Expiration Date
Specify the expiration date for the issue of the key or ring of keys to the holder.

Holder Notes
Optionally, specify any notes for the holder of the key or ring of keys.

9 Click **Save Record**.

Managing locks for keys

Manage locks for keys and rings of keys, and specify the equipment that is locked or accessed using a specified key.

To manage a lock for a key or ring of keys:

1 Select **Equipment > Additional Features > Key Management**.
2 Select the key or ring of keys for which to associate locks, and then click the **Locks** tab.
3 Click **Add Lock**.
4 Specify the **Lock** name and description.
5 Optionally, specify the **Equipment**, **Department**, **Location**, and **Cylinder Number** for the lock.
6 Select the **Out of Service** check box if the lock is out of service.
7 Click **Submit**.

Associating keys with rings of keys

To associate keys with a ring of keys:

1. Select **Equipment > Additional Features > Key Management**.
2. Select the ring key record with which to associate keys, and then click the **Ring Keys** tab.
3. Select a **Key** to associate to the ring and then specify a description.
4. Click **Submit**.

Viewing transactions for keys

View the transactions or issue and return of keys and rings of keys.

To view the transactions for keys and rings of keys:

1. Select **Equipment > Additional Features > Key Management**.
2. Select the key or ring of keys for which to view transactions, and then click the **Transactions** tab.
3. View the transactions.

Creating sets and consists

A set is a group of equipment, such as train cars, that are physically attached each other. A consist is one or more sets of these equipment, such as a fully functional train.

To create a set or consist:

1. Select **Equipment > Sets/Consists**.
2. Click **New Record**.
3. Specify this information:

   Set/Consist
   Specify the name and description of set or consist.

   Organization
   Specify the organization associated with the set or consist.

   Type
   Specify whether the equipment is a set or a consist.

   Class
   Specify the class of the set or consist.

   Start Date

   End Date
   Specify the start and end dates for the consist. These fields cannot be specified for sets.

   Note: You can create duplicate consists but not duplicate sets. For duplicate consists, the **Start Date** and **End Date** for the duplicate consists cannot overlap.

4. Click **Save Record**.

Adding equipment to sets and consists

Build sets and consists by adding equipment and defining the position of the equipment within the sets and consists.

To add equipment to set or consist:

1. Select **Equipment > Sets/Consists**.
2. Select the set or consist to which to add equipment, and then click the **Equipment** tab.
3. Click **New Record**.
4. Specify this information:

   Equipment
   Select one or more pieces of equipment to be part of the set or consist.

   Set Position
   Specify the position of the equipment within the set.

   Consist Position
   Specify the position of the equipment within the consist.

5. Click **Submit**.

Copying a consist

To copy a consist record:

1. Select **Equipment > Sets/Consists**.
2. Select a Consist record, and click **Copy Consist**.
3. Specify the **New Consist Description**, **New Start Date**, and **New End Date**.
4. Optionally, specify this information:

   Custom Field Values
   Select this check box to copy custom field values associated with the consist.

   Equipment
   Select this check box to copy equipment associated with the consist.

   Addresses
   Select this check box to copy addresses associated with the consist.

   Comments
   Select this check box to copy comments associated with the consist.

   Documents
   Select this check box to copy documents associated with the consist.

5. Click **Submit**.

Defining workspaces

Define the space or area where work is completed. Examples of a workspace include an office, a cubicle, and a meeting room.

1. Select **Equipment > Additional Features > Workspaces**.
2. Specify the **Workspace** name and description.
3. Specify the **Organization**, **Department**, **Status**, **Type**, and **Class**.
4. Specify this information:

   Location
   Specify the location of the workspace.

   Seating Designation
   Specify the seating designation for the workspace, such as room or cubicle number.

   Floor
   Specify the floor on which the workspace is located.

   Floor Area
   Specify the size of the floor area and specify the UOM for the area.

   Employee
   Specify the employee assigned to the workspace.

   If multiple employees are specified, the **Multiple Employees** check box will be selected. All specified employees are added to the **Employees** tab for this workspace record.

   Parent Equipment
   Specify any parent equipment associated with the workspace.

5. Select the **Out of Service** check box if the workspace cannot be used.
6. Click **Save Record**.

Associating furnishings with workspaces

Associate furnishings or parts, such as desks and chairs, with a workspace. This tab is the same as the **Parts Associated** tab found on other screens.

To associate furnishings with a workspace:

1. Select **Equipment > Additional Features > Workspaces**.
2. Select the workspace with which to associate furnishings, and then click the **Furnishings** tab.
3. Specify the **Part** to associate and the **Condition**, **Quantity**, **System Level**, **Assembly Level**, **Component Level**, **Component Location**, and **Comments** of the part associated.

   Note: Condition can only be specified if the part is tracked by a condition.

4. Click **Submit**.

Associating employees with workspaces

To associate an employee with a workspace:

1. Select **Equipment > Additional Features > Workspaces**.
2. Select the workspace for which to associate employees, and then click the **Employees** tab.
3. Select an **Employee** to associated with the workspace.

   You can only associate employees that have the **Workspace Occupant** check box on the **Employees** screen selected.
4. Click **Submit**.

Viewing equipment associated with workspaces

To view equipment associated with a workspace:

1. Select **Equipment > Additional Features > Workspaces**.
2. Select the workspace for which to view associated equipment, and then click the **Equipment** tab.
3. View the associated equipment.

Viewing workspaces associated with equipment

To view workspaces associated with equipment:

1. Select one of these options:
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
   - **Equipment > Assets Healthcare**
   - **Equipment > Properties Healthcare**
   - **Equipment > Systems Healthcare**
2. Select the equipment for which to view associated workspaces, and then click the **Workspaces** tab.
3. View the associated workspaces.

Creating workspace moves

Move equipment, furnishings, and employees from one workspace to another. For example, move specific employees and their computers from one floor of the office building to another.

To create a workspace move:

1. Select **Equipment > Additional Features > Workspace Moves**.
2. Click **New Record**.
3. Specify a description of the workspace move.
4. Specify this information:

   Organization
   Specify the organization of the workspace.

   From Campus
   Specify the campus from which you are moving.

   From Building
   Specify the building from which you are moving.

   From Floor
   Specify the floor from which you are moving.

   From Room/Unit
   Specify the room from which you are moving.

   From Workspace
   Specify the workspace from which you are moving.

   To Campus
   Specify the campus to which you are moving.

   To Building
   Specify the building to which you are moving.

   To Floor
   Specify the new floor to which you are moving.

   To Room/Unit
   Specify the room to which you are moving.

   To Workspace
   Specify the workspace to which you are moving.

   Status
   Specify the status of the workspace move.

   Note: If changes are made to the **Associations** tab after the workspace move is originally created, a warning message will appear when changing the status from Open or Approved to Completed. If you accept these changes, then update the status of the workspace as Completed and click **Submit** again.

   Work Order-Activity
   Specify the work order-activity associated with the workspace move.

   Notes
   Specify any notes associated with the workspace move.

5. Click **Save Record**.

Viewing associations for workspace moves

Employees, furnishings, and equipment associated with a From Workspace location for a Workspace Move are copied to this tab. The selected Employees, Furnishings, and Equipment are moved to the new workspace when the workspace move is completed.

To associate employees, furnishings, and equipment with a workspace move:

1. Select **Equipment > Additional Features > Workspace Moves**.
2. Select the workspace move for which to edit associations, and then click the **Associations** tab.
3. Select the **Include in Move** check box for all employees, furnishings, and equipment to include in the workspace move.
4. Click **Save Record**.

Viewing and modifying equipment information

Search for equipment records, and view and modify equipment information as necessary.

Viewing equipment costs

To view equipment costs:

1. Select one of these options:
   - **Equipment > Assets**
   - **Equipment > Positions**
   - **Equipment > Systems**
   - **Equipment > Setup > Locations**
2. Select the asset, position, or system for which to view costs, and then click the **Costs** tab.
3. Click **Refresh Cost Data**.
4. View the cost information.

   Note: If the selected equipment is on the parent work order and a child work order, then the system duplicates the child work order costs by rolling the child work order costs up to the parent work order. Therefore, the system does not display the child work order costs when viewing the costs for the parent work order on the **Maintenance Costs** page.

   Click **Refresh Cost Data** to see the most up-to-date cost information.

   For linear equipment records, the system populates **From Point** and **To Point** based on the entire length in the linear reference unit of measure of the equipment.

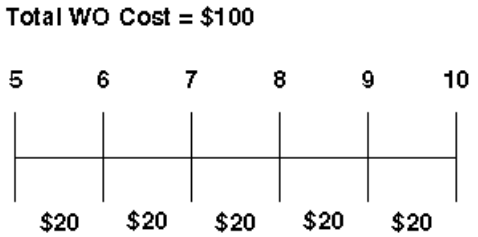
   To view costs for a segment of the linear equipment record:

5. Specify this information:

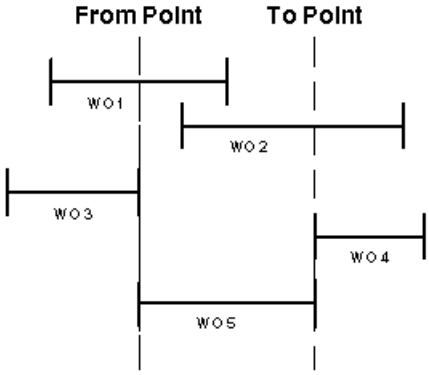
From Point
Specify the point of the linear equipment record from which to view costs.

To Point
Specify the point of the linear equipment record to which to view costs.

6 Click **Run**. The system calculates and displays only those event costs that apply to the entered segment. When calculating segment cost, the system assumes that costs were accrued equally over the length of the work order. See the following example. WO 1657 was completed for I-85 from mile marker 5 to 10, and you want to view costs for I-85 from mile marker 5 to 6. The system displays WO 1657 in the list of equipment costs for I-85, but displays its cost as $20. The system cannot calculate segmented work order costs at a single point. See the following example:



You want to view costs for a segment of I-85. WO 1, WO 2, WO 3, WO 4, and WO 5 all fall on or within the defined **From Point** and **To Point**. Therefore, the system displays all five work orders on the **Costs** page. The system displays WO 3 and WO 4 because they intersect at some point with the segment's **From Point** and **To Point**; however, the system displays their costs as $0. The system calculates and displays the segmented costs for WO 1 and WO 2. The system displays the full cost of WO 5 because its length coincides exactly with the segment's length.



Viewing equipment reservations

View equipment reservations for an asset, position, system, or location.

1 Select one of these options: .

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the equipment for which to view equipment reservations, and then click the **Reservations** tab.

3 View the reservations for the equipment.

4 Select a reservation and then click the reservation number to view the **Reservation** details.

Viewing events and work orders for equipment

View the list of work orders and other events related to the equipment.

To view events and work orders for equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to view equipment work orders, and then click the **Events** tab.

3 View the equipment work order and events information.

Note: When you select a record in the grid, the system populates the associated work order number next to **Event**. The work order number is a hyperlink to the actual work order on the **Work Orders** screen.

Double-click on a record in the grid to hyperlink to the **Work Orders** form.

For linear equipment records, the system populates **From Point** and **To Point** based on the entire length in the linear reference unit of measure of the equipment.

4 Specify this information:

From Point
Specify the point of the linear equipment record from which to view events.

To Point
Specify the point of the linear equipment record to which to view events.

5 Click **Run**. The system displays events that intersect at any point with the segment. For example, the system displays a work order if its **To Point** intersects with the segment's **From Point** or if its **From Point** intersects with the segment's **To Point**.

Viewing material usage

To view material usage:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the equipment for which to view material usage, and then click the **Material Usage** tab.

3 View the material usage information.

Viewing purchase orders for equipment

View purchase orders for equipment to review a list of all purchase order lines for parts associated with work orders for the equipment.

To view purchase orders for equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**

2 Select the asset, system, or position for which to view purchase orders, and then click the **Purchase Orders** tab.

Note: By default the system displays all purchase order lines for the equipment that have not been completely received.

If a purchase order line contains a multiple equipment work order, the system also displays information about how the purchase order is split among the equipment and related work order(s).

3 View the purchase order information.

See "Creating purchase order headers" on page 388.

Viewing structure details for equipment

View structure details for equipment. The structure will display assets, positions, systems, locations, component locations, and system, assembly, and component levels.

To view structure details for equipment:

1 Select one of these options:

- **Equipment > Assets**
- **Equipment > Positions**
- **Equipment > Systems**
- **Equipment > Setup > Locations**

2 Select the record for which to view the structure details, and then click the **Structure Details** tab.

3 View the structure details.

Updating operational status for equipment

Identify the equipment that should be taken out of rotation for maintenance. This screen shows equipment which have overdue preventive maintenance records, meaning maintenance that should be performed has not yet been performed. Modify the operational status of the equipment.

To update operational status for equipment:

1 Select **Equipment > Additional Features > Equipment Operational Status**.

2 Select the equipment for which to update the operational status, and then click the **Record View** tab.

3 Specify the **Operational Status**.

4 Click **Save**.

Viewing work orders for equipment in need of preventive maintenance

View and verify details of work orders attached to equipment that should be taken out of operations for preventive maintenance.

To view work orders for equipment in need of preventive maintenance:

1 Select **Equipment > Additional Features > Equipment Operational Status**.

2 Select the equipment for which to view the work orders, and then click the **Work Orders** tab.

3 View the information.

When you select a record in the grid, the system populates the associated work order number next to **Work Order**. The work order number is a hyperlink to the actual work order on the **Work Orders** screen. However this screen displays all work orders regardless of the status so if the work order has a status of Awaiting Release, the hyperlink functionality will not work.

Double-click on a record in the grid to link to the **Work Orders** form.

Materials management

3

The materials management module maintains materials inventory by providing an online catalog of parts, stores, manufacturers, and suppliers. You can issue and return materials, create pick tickets, perform physical inventories, manage the entire purchase order process from creating requisitions to receiving parts, and automatically generate requisitions and purchase orders based on low stock levels.

Setting up initial materials information

Set up initial materials information before using the materials management module.

Defining commodity codes

Define commodity codes to establish a method of classifying materials for purchasing and inventory. Commodity codes can identify specific types of goods, such as fiber optics, fuses, switches, etc., that can then be used to categorize specific parts in your inventory. Buyers can then associate particular suppliers with these different commodities and send out requests for quotes for the particular commodities. Storeroom and maintenance personnel can also use commodity codes to quickly access stock information.

After defining a commodity, you can update the commodity record as necessary; however, you cannot modify the **Commodity** or **Organization** for an existing commodity record.

To define commodity codes:

1 Select **Materials > Setup > Commodities**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the commodity belongs if you use multi-organization security.

Commodity
Specify a unique code identifying the commodity, and then enter a description of the commodity in the adjacent field.

Class
Specify the class of the commodity. The classes shown belong to the COMM entity. The system automatically populates **Class Org.**

UOM
Specify the unit of measure of the commodity.

Greenhouse Gas Emission Category
Select the greenhouse gas emission category for the commodity.

Out of Service
Select to indicate that the commodity code is no longer in use. If you select **Out of Service**, the system retains the commodity record, but it will no longer appear in the lookups for commodities on other forms.

4 Click **Save Record**.

Defining currencies

In international markets, organizations are required to monitor the various currencies used and the different exchange rates. The system contains many predefined currencies. Define additional currencies as necessary.

Note: Various parts of the system rely upon currency for computing transactions. Therefore, even if you do not intend to use the system to calculate currencies for international markets, you must at least enter a base currency and attach an exchange rate of "1" to it.

To define currencies:

1 Select **Materials > Setup > Currencies**.
2 Click **New Record**.
3 Specify this information:

Currency
Specify a unique code identifying the currency, and then enter a description of the currency in the adjacent field.

Class
Specify the class of the currency. The classes shown belong to the CURR entity. The system automatically populates **Class Org.**

Out of Service
Select to remove this currency from the currency lookups.

4 Click **Save Record**.

Defining exchange rates for currencies

Define the exchange rate for a currency by entering a base currency and exchange rate for the currency.

Note: Define the base currency in the DEFCURR parameter of the **Install Parameters** form.

The system uses exchange rates to convert foreign currency amounts to base currency using the following equation:

base currency amount=foreign currency amount/exchange rate

Example:

Your base currency is USD. You have created a purchase order for 50 filters at 9 EUR. The price of the air filters must now be converted to USD. Assuming that the exchange rate is 1.2 EURO-USD, the system calculates the following conversion:

50 air filters @ 9 EUR = 450 EUR;

450 EUR/1.2 = 375 USD

To define exchange rate for currencies:

1. Select **Materials > Setup > Currencies**.
2. Select the currency with which to associate an exchange rate, and then click the **Exchange Rates** tab.
3. Click **Add Exchange Rate**.
4. Specify this information:

   Base Currency
   Specify the base currency against which to calculate the selected foreign currency. The system automatically displays the currency associated with the organization of the current session. The system displays only those currencies associated with organizations to which you have access.

   Note: You can only define exchange rates for multiple currencies if the MULTIORG installation parameter is set to YES.

   Exchange Rate
   Specify the exchange rate for the currency.

   Start Date
   Specify the date for which the exchange rate is effective. The system automatically displays the current date.

   End Date
   Specify the date for which the exchange rate is no longer effective.

5. Click **Submit**.

   Note: Because exchange rates change frequently, update currency information often.

Defining lots

Define lots for materials as necessary. Manufacturers often produce items in volume batches, called lots. Lots are a numeric or alphanumeric method of indicating that an item is a member of a group of items that are produced at the same time.

Depending on the setting of the LOTNRG installation parameter, the system can automatically generate lot numbers when you receive items. Set the installation parameter LOTNRG to one of the following values:

- `T`

  The system generates a lot code for each receipt (Transaction).

- `P`

  The system generates a lot code for each part checked by lot. These items are designated by having **Track by Lot** selected on the **Parts** form.

Note: The SHOWLOT installation parameter determines whether lots are used for stock information for parts. The default setting for SHOWLOT is Y. If SHOWLOT is set N, the system disables Lot and it is not displayed on forms.

A dash indicates that no parts are lot-controlled.

The default setting for lot numbering is P. In most cases, this is the ideal lot number method. Items requiring lot tracking receive your lot assignment; those items that do not need lot tracking are simply placed in the stock system as is. Infor EAM recommends setting the value to T for companies whose incoming parts and supplies should be lot-tracked at all times for safety, regulatory, and quality control purposes.

The lot numbers assigned by the system are internal numbers. Cross-reference the internal numbers assigned by the system to the manufacturer's lot numbers to track defective parts when notified by the manufacturer.

Define lot codes to identify the exact lot or batch number when stocking parts in stores.

After defining a lot, you can update the lot record as necessary. You cannot modify the **Lot** or **Organization** for an existing lot record.

To define lots:

1. Select **Materials > Setup > Lots**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the lot belongs if you use multi-organization security.

   Lot
   Specify a unique code identifying the lot, and then enter a description of the lot in the adjacent field.

   Class
   Specify the class of the lot. The classes shown belong to the LOT entity.

   Expiration Date
   Specify the expiration date of the lot.

Manufacturer Lot
Specify the manufacturer's lot number.

4 Click **Save Record**.

Defining tax codes

Define tax codes to apply to materials and purchases. Tax codes represent the definition of tax coding structure that consists of a tax rate type, a tax rate code, a value for tax rate code, a tax code, and a value for the tax code.

Tax code records represent the combination of tax rate codes and tax code information that establish a structure that will apply all of the applicable taxes to materials and purchases based on transaction dates and the established tax structure created within a tax code. You can create any number of tax codes to fit any tax situation. You can also enter multiple rate codes for each tax code, as necessary.

Define tax codes by creating a tax code structure in the following order.

Step 1. Defining tax rate types

Define tax rate types to specify tax rate classifications corresponding to base tax rates, such as taxable and nontaxable. Use tax rate type codes to identify the type of tax, such as sales tax, internal tax, excise tax, or an import tax.

To define tax rate types:

1 Select **Materials > Setup > Tax Rate Types**.
2 Click **New Record**.
3 Specify this information:

Tax Rate Type
Specify a unique code identifying the tax rate type, and then specify a description of the tax rate type in the adjacent field.

4 Click **Save Record**.

Step 2. Defining tax rates

Define tax rates to build the second level of tax coding. Before creating a tax rate, create tax rate types on the **Tax Rate Type** form.

Create a tax rate, such as "SC TAX" to represent a South Carolina state tax, and then associate that tax rate with a tax rate type, such as a sales or excise tax rate type. The combination of a tax rate type and a tax rate represent the definition of a tax rate code. You can also indicate whether to include the tax rate code in stock valuation.

To define tax rates:

1. Select **Materials > Setup > Tax Rates**.
2. Click **New Record**.
3. Specify this information:

   Tax Rate
   Specify a unique code identifying the tax rate, and then specify a description of the tax rate in the adjacent field.

   Type
   Specify the type of tax rate.

   Include Part Taxes in Stock Value
   Select to include tax in inventory calculations of stock value.

   Include Service Taxes in WO Cost
   Select to include tax in service calculations of work order costs.

4. Click **Save Record**.

Step 3. Defining values for tax rates

Define values for tax rates to specify the tax rate percentage and the dates on which the tax period begins and ends.

To define values for tax rates:

1. Select **Materials > Setup > Tax Rates**.
2. Select the tax rate for which to define values and then click the **Values** tab.
3. Click **Add Value**.
4. Specify this information:

   Start Date
   Specify the tax rate's effective date.

   End Date
   Specify the tax rate's expiration date.

   Percentage
   Specify the tax percentage.

5. Click **Submit**.

   Note: To delete a value, select the value to delete, and then click **Delete Value**.

Step 4. Defining tax codes

Define tax codes to specify a code under which to group tax rates together to simplify taxing materials.

Tax code records represent the combination of each of the applicable tax rates and their values. To define a tax code, specify a code and description for the tax code, and then associate all of the tax

rates that are applicable for the tax code. You can create tax codes to fit any tax situation as necessary, and you can associate multiple tax rates for each tax code.

To define tax codes:

1 Select **Materials > Setup > Tax Codes**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the tax code belongs if you use multi-organization security.

Tax Code
Specify a unique code identifying the tax, and then specify a description of the tax code in the adjacent field.

Class
Specify the class of the tax code. The classes shown belong to the TAX entity.

4 Click **Save Record**.

Step 5. Defining rates for tax codes

Define rates for tax codes to specify the tax rate(s) to include in the tax code. For example, a tax code for South Carolina might include a federal sales tax, state sales tax, and city sales tax.

The system calculates the sum of all the tax rates specified for the tax code and displays the value in **Total Tax %** on the **Record View** page of the **Tax Code** form.

To define rates for tax codes:

1 Select **Materials > Setup > Tax Codes**.
2 Select the tax code for which to define rates, and then click the **Rates** tab.
3 Click **Add Rate**.
4 Specify this information:

Rate
Specify the rate used with this tax. The system automatically populates the rate description and **Percentage**.

5 Click **Submit**.

Note: Currently, taxes cannot be applied on a per piece basis. Taxes are determined as a percentage of the purchase price.

To remove a rate, select the rate to remove, and then click **Remove Rate**.

Defining reasons for return

Define reasons for return based on the most common reasons for which you must return parts. When returning parts to the supplier, the system allows you to select a reason for return. Predefined reasons for returns enable you to track return trends.

To define reasons for return:

1. Select **Materials > Setup > Reasons for Return**.
2. Click **New Record**.
3. Specify this information:

   Reason for Return
   Specify a unique code identifying the reason for return, and then enter a description of the reason for return in the adjacent field.

   Class
   Specify the class of the reason for return. The system automatically populates **Class Org.**

4. Click **Save Record**.

Defining units of measure

Measurements for storing and issuing stock items can depend on the item itself or on the supplier. Cable, for example, is generally measured in feet. Liquids can be measured by the bottle, barrel, or gallon. Screws might be measured according to box or pound.

Measurements can vary within your own organization. Perhaps you must order widgets from a vendor in 24-item cases (the purchase unit of measure). Inventory, on the other hand, stocks widgets as single items (the inventory or stock-keeping unit of measure).

Define various measurements for different purchasing and inventory items. All system store transactions are based on inventory units of measure (how the items are actually stored). All quantities referred to on the bill of materials are also based on inventory units of measure.

When purchasing items in units of measure different from that in which you stock them, convert the unit of measurement. When the inventory unit of measure and the purchase unit of measure are exactly the same, the conversion factor is 1. If they are not the same, use the following formula:

```
purchase UOM x conversion = issue UOM

(1 box of widgets x 10 = 10 widgets)
```

When the buyer sends out requests for quotes to suppliers, the supplier might provide a price based on a unit of measure that is different than the purchase unit of measure (which could be true due to volume discounts, for instance). This is the quotation UOM, and you then need to supply a conversion factor between the quotation UOM and the purchase UOM when creating the purchase order or requisition.

Note: The system follows ISO recommendations and comes with many units of measure installed.

To define units of measure:

1 Select **Materials > Setup > Units of Measure**.
2 Click **New Record**.
3 Specify this information:

UOM
Specify a unique code identifying the measurement, and then enter a description of the measurement in the adjacent field.

Class
Specify the class of the unit of measurement.

SOA UOM
Specify the Infor SOA unit of measurement for which to associate to this unit of measurement.

Out of Service
Select to prevent the UOM from being displayed in lookups.

Note: You cannot delete a unit of measurement if it is being used elsewhere in the system. If you want to hide the UOM in the system lookups, select **Out of Service**. This feature is especially useful for discarding many of the predefined ISO units that you may never use.

4 Click **Save Record**.

Defining conversion for UOM

Define the conversion factor for a selected UOM. A UOM may have multiple Conversion Factor assignments.

```
From UOM = Conversion Factor * To UOM
```

To define conversion for UOM:

1 Select **Materials > Setup > Units of Measure**.
2 Select the UOM for which to define conversion, and then click the **Conversion** tab.
3 Click **Add Conversion Factor**. The system automatically populates **From UOM**.
4 Specify this information:

Conversion Factor
Specify the conversion factor.

To UOM
Specify the UOM to which to apply the conversion factor.

5 Click **Submit**.

Note: To delete a conversion factor for a UOM, select the **Conversion Factor** to delete and then click **Delete Conversion Factor**.

Understanding time-based inventory valuation (LIFO/FIFO)

You can set up and initialize stock using the last in first out (LIFO) and first in first out (FIFO) inventory valuation methods. LIFO and FIFO are both time-based price types. FIFO inventory pricing mandates that you will consume the materials purchased first before using the most recently purchased materials. LIFO pricing mandates that you will consume the most recently purchased materials before using the materials that were purchased first.

LIFO and FIFO are both storeroom price types that require you to set your pricing level on the store level. Pricing level is defined by the PRICELEV installation parameter, which must be set to S for store-level pricing.

You can set LIFO or FIFO as your pricing method for each store created on the **Stores** form; however, you can still modify price types for parts within a LIFO/FIFO store using a price type other than LIFO/FIFO, such as average price, last price, or standard price. The default price type for a store is determined by the PRICETYP installation parameter.

Note: You can set PRICETYP on the **Install Parameters** form; however, the parameter only determines the default price type that the system automatically displays for **Price Type** when you are creating a store on the **Stores** form. Modify the price type for each store as necessary.

When you create stock with any price type using the **Parts** form or the **Equipment** forms (for equipment defined with In store status), the system updates the **R5BINSTOCK** table with the increase in quantity, and it also creates a receipt transaction in the **R5TRANSACTIONS and R5TRANSLINES** tables. You can view the receipt transaction on the **PO Receipts** form. Because all receipt transactions require a supplier, the system automatically inserts an asterisk (*) as the supplier for the receipt, and the default description for each of these receipt transactions is ‘Stock initialization.’ If you are using LIFO/FIFO as your pricing method, the system also creates a record for all stock initialization in the **R5FIFO** table to ensure that it uses the appropriate price for all future issues of stock items from stores.

The **R5FIFO** table stores the part, price, quantity, store, and transaction date for each receipt transaction, as well as the purchase order and purchase order line for all LIFO/FIFO stock received from a purchase order. The transaction date indicates the date the stock is inserted into inventory upon which future LIFO/FIFO transactions are based. For every transaction that increases stock, the system inserts a new record in the **R5FIFO** table. For every transaction that decreases stock, the system locates the appropriate record(s) to update or delete based on the transaction date. For FIFO pricing, the system locates the record that was inserted into inventory first. For LIFO pricing, the system locates the record that was most recently inserted into inventory.

The system revalues the price of materials based on LIFO/FIFO pricing as transactions involving stock occur. The system displays the current price for LIFO/FIFO stock in **Stock Value** on the **Store** page of the **Parts** form. See the following scenarios for more information about how the system prices for different types of inventory transactions for the LIFO/FIFO pricing methods.

Note: FIFO pricing is used in the examples for each of the following scenarios. If you are using LIFO pricing, the system handles LIFO pricing for each example in the same manner; however, it locates the record that was inserted into inventory most recently to calculate the appropriate price, rather than locating the record that was inserted into inventory first.

Scenario 1: Issuing parts to work orders (LIFO/FIFO)

When issuing parts from stores to work orders using the Work orders form, and when you are using LIFO/FIFO as your pricing method, the system calculates the transaction price of issued parts using the **R5FIFO** table, rather than retrieving the base price from the **R5PARTS or R5STOCK** table.

If you have selected FIFO as your pricing method, the system locates the oldest part with the earliest insertion date in the **R5FIFO** table and attempts to fulfill the demanded quantity of the part on the work order. If the quantity of the first record is not sufficient to fulfill the demanded quantity of the part on the work order, the system issues the available quantity of the first record to the work order, and then locates the next record inserted into inventory in the **R5FIFO** table. The system continues to locate and issue the parts from the **R5FIFO** table, issuing the oldest parts first until the requested quantity of the part is fulfilled for the work order.

The system records the transaction price of the LIFO/FIFO issue to the work order using the price of the appropriate part inserted into the **R5FIFO** table. If the system uses more than one record from the **R5FIFO** table to fulfill the quantity of the issue, then it calculates the price of the issue using the weighted average of the price of the R5FIFO records used to fulfill the issue. However, the system inserts a record of the original issue price and quantity of the part issued in the **R5ISSUES** table to preserve a record of the original issue price of a part should the issued part need to be returned to store in the future. See the example below for more information about how the system handles LIFO/FIFO pricing for issuing parts to work orders.

Example:

Your pricing method is FIFO. You have created a work order that creates demand for 10 air filters. Presently you have 19 air filters in stock with different insertion dates and prices. At the time of issue, the **R5FIFO** table contains the following information:

Insertion date	Quantity in store	Price
1-APR-2002	4	7 USD
7-MAY-2002	3	8 USD
10-JUN-2002	8	16 USD
25-JUN-2002	4	18 USD

Note: The Insertion date column in the table above indicates the date the stock was received into inventory.

To fulfill the requested quantity of the air filters for the work order, the system locates the 4 parts inserted into stock on 1-APR-2002 at 7 USD each, inserts a record of 4 parts at 7 USD into the **R5ISSUES** table, and then deletes the record of the 4 parts at 7 USD from the **R5FIFO** table. The system then locates the 3 parts inserted into stock on 7-MAY-2002 at 8 USD each, inserts a record of the 3 parts at 8 USD into the **R5ISSUES** table, and then deletes the original record of the 3 parts from the **R5FIFO** table. The system then locates the 8 parts inserted into stock on 10-JUN-2002 at 16 USD, inserts a record of 3 parts into the **R5ISSUES** table, and updates the quantity of the 10-JUN-2002 record to 5 in the **R5FIFO** table. The system then creates the issue to the work order and calculates the transaction price of the issue using the following equation:

```
[(4 air filters @ 7 USD) + (3 air filters @ 8 USD) + (3 air filters @ 16
USD)] / 10 = 10 USD
```

After completing the issue to the work order, the **R5ISSUES and R5FIFO** tables contain the following information:

R5ISSUES	R5FIFO
4 air filters @ 7 USD	5 air filters @ 16 USD
3 air filters @ 8 USD	4 air filters @ 18 USD
3 air filters @ 16 USD	

Scenario 2: Receiving parts (LIFO/FIFO)

When receiving parts into inventory using LIFO/FIFO as your pricing method, the system automatically inserts a record for the received part into the **R5FIFO** table upon approval of the receipt.

When creating and approving a receipt using the **PO Receipts** form, the system associates the stock record inserted in the **R5FIFO** table with the part on the appropriate purchase order line. Associating the stock record with the purchase order line in the **R5FIFO** table records the quantity of the part received at the purchased unit price. The purchase unit price includes tax and/or any additional charges for the part if you have set the part price to include tax and/or additional charges.

Scenario 3: Returning parts from a work order to a store (LIFO/FIFO)

When returning parts from work orders to stores using the Work orders form, and when you are using LIFO/FIFO as your pricing method, the system attempts to locate an equivalent issue in the **R5ISSUES** table for the same store and part from which to make the return. The system also attempts to locate the same work order and activity or equipment or project to which the part was originally issued. If the equivalent issue exists in the **R5ISSUES** table, the system uses the issue price as the price of the return. If the equivalent issue does not fulfill the entire return, the system returns the remaining quantity of the part using its current average price.

As the system locates issues to fulfill the return, it deletes the used issues from the **R5ISSUES** table and inserts a record into the **R5FIFO** table using the date and time of the original receipt stored in the record in the **R5ISSUES** table. If the system cannot fulfill the return quantity using records from the **R5ISSUES** table, it inserts a new record in the **R5FIFO** table using the current system date and time as the transaction date. If the system locates the issues to fulfill the return quantity, it deletes or reduces the quantity of the issues used for the return from the **R5ISSUES** table.

The system calculates the transaction price of the LIFO/FIFO return from a work order, equipment, or project to store using the weighted average of the prices of the parts used from the **R5ISSUES** table. If equivalent issues exist to fulfill the return quantity, the system uses the date of the original R5FIFO records stored in the ISS_FIFODATE column of the **R5ISSUES** table as the transaction date recorded for the record(s) inserted into the **R5FIFO** table for the return. If no equivalent issues exist to fulfill the return, the system uses the current date. See the example below for more information about how the system handles LIFO/FIFO pricing for returning parts from a work order to a store.

Example:

Your pricing method is FIFO. You need to return 10 air filters from a work order to store. At the time of the return, the **R5ISSUES and R5FIFO** table contain the following information:

R5ISSUES (for this work order)	R5FIFO
3 air filters @ 8 USD 4-MAY-2002	1 air filter @ 8 USD 7-MAY-2002
5 air filters @ 10 USD 1-APR-2002	2 air filters @ 7 USD 29-MAY-2002
	2 air filters @ 9 USD 1-JUN-2002

Note: The date displayed in the R5ISSUES column in the table above indicates the date the stock was received into inventory.

To cover the return quantity, the system locates the 5 parts inserted into R5ISSUES on 1-APR-2002 at 10 USD each, returns them from the work order to store, inserts a record of 5 parts at 10 USD into the **R5FIFO** table, and deletes the record of the 5 parts at 10 USD from the **R5ISSUES** table. The system then locates the 3 parts inserted into R5ISSUES on 4-MAY-2002 at 8 USD each, returns them from the work order to store, inserts a record of the 3 parts at 8 USD into the **R5FIFO** table, and deletes the original record of the 3 parts from the **R5ISSUES** table.

There are no equivalent issues remaining from which to fulfill the return quantity, and 2 parts are still needed to fulfill the return quantity of 10, so the system then locates the records that existed in the **R5FIFO** table before the return and calculates the weighted average price of the parts using the following equation:

```
[(1 air filter @ 8 USD) + (2 air filters @ 7 USD) + (2 air filters @ 9 USD)]
/ 5 = 8 USD
```

The system returns the remaining 2 parts using the price of 8 USD and inserts a new record of 2 parts at 8 USD in the **R5FIFO** table.

The system calculates the transaction price of the return using the following equation:

```
[(5 air filters @ 10 USD) + (3 air filters @ 8 USD) + (2 air filters @ 8
USD)] / 10 = 9 USD
```

After completing the return from work order to store, the **R5ISSUES and R5FIFO** tables contain the following information:

R5ISSUES	R5FIFO
	5 air filters @ 10 USD 1-APR-2002
	3 air filters @ 8 USD 4-MAY-2002
	1 air filter @ 8 USD 7-MAY-2002
	2 air filters @ 7 USD 29-MAY-2002
	2 air filters @ 9 USD 1-JUN-2002
	2 air filters @ 8 USD 4-JUN-2002 (The transaction date for this record is updated to the current system date and time.)

Scenario 4: Pricing store-to-store transactions (LIFO/FIFO)

When moving parts between stores, you can do so using the following forms: the **Quick Store-to-Store Transfers** form, the **Store-to-Store Issues** form, the **Store-to-Store Requisitions** form, and the **Store-to-Store Receipts** form. The system creates two transaction lines for the store-to-store transaction. Initially, the system creates an issue transaction in the issuing store of the parts to transfer. The system also creates a receipt transaction in the receiving store. If you are using LIFO/FIFO as your pricing method when moving parts between stores; the system also creates a record in the **R5FIFO** table for the receiving store; however, this issue transaction does not create a record in the **R5ISSUES** table for the issuing store.

To avoid creating transactions that result in a price of zero for store-to-store materials movements, you must specify a value for Price when you issue a part using the **Quick Store-to-Store Transfer** form.

The system automatically populates **Price** with the average LIFO/FIFO price of the part in the issuing store. You can modify **Price** as necessary. The price of the issue transaction in the issuing store is equal to the average price of the records in the **R5FIFO** table that are affected by the transfer.

If the part being transferred does not already exist in the receiving store, then the system inserts a new record of the part and the receiving store in the **R5FIFO** table priced at the value specified for **Price** on the **Quick Store-to-Store Transfer** form or on the **PO Receipts** form. The system also creates a receipt transaction for the quantity transferred and the value specified for Price.

Scenario 5: Pricing returns to suppliers (LIFO/FIFO)

When returning parts purchased on a purchase order from a store to a supplier using the **Supplier Returns** form, and when you are using LIFO/FIFO as your pricing method, the system attempts to locate a record of the same part on the original purchase order line from which to calculate the return price of the part in the **R5FIFO** table. If the system locates a record of the part on the purchase order line in the **R5FIFO** table, then the system uses the original price of the part on the purchase order line as the return price. If the return quantity cannot be completely covered by the quantity of the part located on the purchase order line in the **R5FIFO** table, the system continues to attempt to locate matching records of the part to return on purchase order line records in the **R5FIFO** table until the return quantity is completely covered.

If the system cannot locate enough matching records to fulfill the return quantity, then the outstanding quantity of the return is fulfilled using other available records of the same part in the **R5FIFO** table that are not associated with the original purchase order line for which you are returning the parts. However, the system still uses the appropriate first or last record depending on whether your price type is LIFO or FIFO. The system deletes or reduces the quantity of all the records used to fulfill the return quantity from the **R5FIFO** table.

See the example below for more information about how the system handles LIFO/FIFO pricing for pricing returns to suppliers.

Example:

Your pricing method is FIFO. You need to return 10 air filters that were originally purchased on purchase order number 10003 at 8 USD each. At the time of the return, the **R5FIFO** table contains the following information:

Insertion date	Quantity in store	Price	Purchase order number
1-APR-2002	2	18 USD	
7-MAY-2002	9	8 USD	10003
10-JUN-2002	8	9.50 USD	10004

Note: The Insertion date column in the table above indicates the date the stock was received into inventory.

The system locates the 9 parts at 8 USD from the original purchase order 10003 for the return and deletes this record from the **R5FIFO** table, because there is no remaining quantity of this part for this R5FIFO record.

There are no matching records of the part on a purchase order line from which to fulfill the return quantity, and 1 part is still needed to fulfill the return quantity of 10, so the system then locates the first record of 2 parts at 18 USD that were received into inventory and inserted into the **R5FIFO** table on 1-APR-2002. The system updates the quantity from 2 to 1 for the return. The last part is returned at the price of 18 USD.

The system calculates the price of the return using the following equation:

```
[(9 air filters @ 8 USD each) + (1 air filter @ 18 USD each)] / 10 = 9 USD
```

After completing the return from store to the supplier, the **R5FIFO** table contains the following information:

Insertion date	Quantity in store	Price	Purchase order number
1-APR-2002	1	18 USD	
10-JUN-2002	8	9.50 USD	10004

Scenario 6: Pricing internal repair receipts (LIFO/FIFO)

The system handles pricing of internal repair receipts in much the same manner as a normal receipt from a vendor. See Scenario 2. Repairable spares can be repaired internally and externally. The forms used to receive repairable spares and the receipt process will vary depending on whether the part is being repaired externally or internally. When creating receipts for parts repaired internally, use the **Internal Repair Receipts** form. When creating receipts for parts repaired externally, use the **PO Receipts** form. See the examples below for more information about how the system handles LIFO/FIFO pricing for parts repaired internally and externally.

Example 1:

You are receiving a part repaired internally. The system updates the available quantity of the part in inventory by the received quantity and inserts a record of the part and the Repair Price in the **R5FIFO** table when the internal repair receipt is approved.

Example 2:

You are receiving a part repaired externally. The system updates the available quantity of the part in inventory by the received quantity and inserts a record of the part and the receipt unit price in the **R5FIFO** table when the PO receipt is approved.

Note: You can view and/or edit stock value information created by transactions for all LIFO/FIFO stock on the **Stock Value** page of the **Parts** form.

Scenario 7: Pricing positive and negative adjustments (LIFO/FIFO)

When signing off stocktake and updating quantities using the **Physical Inventory** form, the system handles LIFO/FIFO pricing of negative adjustments the same way that it handles regular issues.

For positive adjustments, the system calculates the average price of the part in the store that is adjusted by the stocktake. Then the system inserts a record of the positive adjustment quantity at the calculated average price and a transaction record of the positive adjustment in the **R5FIFO** table.

Note: For scrapped repairable spare parts, the system does not update the price for external or internal repairs.

Creating stores

Create stores to define specific locations for storing parts. When creating stores, the system automatically populates the **Price Type** for the store with the value specified for the PRICETYP installation parameter, but you can modify the price type for each store as necessary.

You can set the store pricing method to Average price, Last price, Standard price, first in first out (FIFO), or last in first out (LIFO). However, you can only set **Price Type** to FIFO or LIFO if the PRICELEV installation parameter is set to S.

To create stores:

1. Select **Materials > Setup > Stores**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the store belongs if you use multi-organization security.

   Note: Stores cannot belong to common organizations.

   Store
   Specify a unique code identifying the store, and then enter a description of the store in the adjacent field.

   Class
   Specify the class of the store. The classes shown belong to the STOR entity.

   Enterprise Location
   Specify an enterprise location for the store.

Note: You can only associate **Enterprise Location** to one **Store**.

Price Type
Select the price type for the store.

Note: If the PRICELEV installation parameter is set to P, **Price Type** is hidden, and the system sets the price type for the store based on the setting of the PRICETYP installation parameter.

Location
Specify the store's location within the facility.

Auto. Req. Status
Select the status code for a part requisition when quantities fall below a specified minimum. **Auto. Req. Status** determines the status that is automatically assigned to the system-generated requisitions. You may want to set **Auto. Req. Status** to automatically assign a status of Approved to requisitions with set reorder points and approved reorder quantities.

Parent Store
Specify the parent store.

Copy Parent's Reorder Details
Select to copy stock management information from the parent store to the child store when creating a stock record in the child store.

If you select a parent store, the system automatically populates **Minimum Level**, **Reorder Level**, **Order Quantity**, and **Preferred Supplier** or **Preferred Store** for the new stock record with the values from the stock record of the parent store.

Note: Copy Parent's Reorder Details is enabled only if you have selected a value for **Parent Store**. Additionally, a stock record must already exist for the store selected as the parent store from which to copy the parent reorder details, and the DEFSTOCK installation parameter must be set to YES.

Out of Service
Select to indicate that the store is no longer in use. If you select **Out of Service**, the system retains the store record, but it will no longer appear in the lookups for stores on other forms. However, you can continue to modify information on the store record as necessary.

Note: Selecting **Out of Service** will not affect any unfinished transactions for the store, such as requisitions, purchase orders, purchase order receipts, part issues and returns, etc.

Parts Tax Code
Specify the tax code for the part used on the Parts tab of the PO line.

Services Tax Code
Specify the tax code for the service used on the Services tab of the PO line.

Sun., Mon., Tues., Wed., Thurs., Fri., Sat.
Select to indicate the working days for the store that are to be included when the system is counting the number of days for which to generate demand-based requisitions based on the **Reserved Parts Buffer (Days)**.

For example, if you select **Mon.**, **Tues.**, **Wed.**, **Thurs.**, and **Fri.** as the working days for the store, then the system will only count those days, and Saturdays and Sundays will be excluded from the count. If the **Reserved Parts Buffer (Days)** is set to 60 and you select **Mon.**, **Tues.**, **Wed.**, **Thurs.**,

and **Fri.** as the working days for the store, the system will actually be including part-demand on generated requisitions for a period that is longer than 60 days in actuality but only 60 days in terms of the selected working days for the store.

Lead Time (Days)
Specify the number of days needed internally for inventory deliveries or transfers at the store. **Lead Time (Days)** is only used for store-to-store requisitions.

Note: If you also define or have defined **Lead Time (Days)** on the **Stores** page of the **Parts** form, that value overrides the value entered here on the **Record View** page of the **Stores** form.

Internal Lead Time (Days)
Specify the number of days needed internally for inventory deliveries or transfers at the store. **Internal Lead Time (Days)** is used for store-to-store requisitions that have automatically generated from a batch report.

Specifying an **Internal Lead Time (Days)** enables you to factor in an additional lead time required for approvals or processing that must be considered when calculating the time needed to receive inventory. The value specified for **Internal Lead Time (Days)** will be considered in conjunction with the **Lead Time (Days)** specified for the supplier on the **Record View** page of the **Suppliers** form. If you know that you require three days for a purchase order to be approved internally for this store, you can enter 3 as the value for **Internal Lead Time (Days)** to accommodate the lead time when generating demand-based requisitions for this store.

Reserved Parts Buffer (Days)
Specify the maximum number of days for the system to consider when generating requisitions for reserved parts. **Reserved Parts Buffer (Days)** is only used for automatic requisition generation.

For example, if you specify 60 as the value for **Reserved Parts Buffer (Days)**, then the system will only include parts for which there is demand within 60 days of the date on which the requisitions are generated.

To further illustrate the function of the **Reserved Parts Buffer (Days)**: A scheduler within your organization creates and releases a preventive maintenance work order on which there are part reservations that create demand for the parts on the work order. However, because the due date for the work order is six months from the date on which you are generating requisitions, the demand for the parts will also be six months. Therefore, since the **Reserved Parts Buffer (Days)** is set to 60, the system will not consider the part demand created by the released preventive maintenance work order when generating requisitions even though the released work order has already created demand for the parts required for the work order, because the demand for the parts on the work order extends beyond the specified buffer of 60 days.

Label Printer
Specify the default printer for printing barcoding labels.

Label Template (Issue)
Specify the default label template for printing barcoding labels for issues.

Label Template (Receipt)
Specify the default label template for printing barcoding labels for purchase order receipts.

Label Template (Non-PO Receipt)
Specify the default label template for printing barcoding labels for non-purchase order receipts.

Label Server
Specify the server for printing barcoding labels.

4 Click **Save Record**.

Creating bins for stores

Create bins for stores to identify specific locations where parts can be stored. Bins are useful for locating and issuing parts and for supporting physical inventory counts of part holdings.

To create bins for stores:

1 Select **Materials > Setup > Stores**.
2 Select the store for which to create bins, and then click the **Bins** tab.
3 Click **Add Bin**.
4 Specify this information:

Bin
Specify a unique code identifying the bin.

Description
Specify a description of the bin.

Out of Service
Select to indicate that the bin is no longer in use.

Note: You can only select **Out of Service** if there is no quantity of a part/parts on hand in the bin.

5 Click **Submit**.

Note: To delete a bin, select the bin to delete, and then click **Delete Bin**. You can only delete a bin if there are no existing part records associated with the bin.

Viewing part reservations for stores

View part reservations for parts in store that are reserved or allocated.

To view part reservations for stores:

1 Select **Materials > Setup > Stores**.
2 Select the store for which to view part reservations, and then click the **Reservations** tab.
3 View the reservations for the part in the selected store.

Creating and managing parts information

Creating and managing parts information for a business has far-reaching effects. Once you include this information in the database, it is used time and time again by buyers, storeroom employees, planners, managers, and other individuals throughout the organization.

One of the primary considerations associated with creating and managing parts information is choosing and establishing your pricing method for parts. The system enables you to set up and initialize stock using different price types and pricing methods. Average price reflects a calculated average of part prices throughout the life cycle of the part. Last price is the last price paid for a part in purchasing. Standard price is a periodically adjusted fixed price that is usually taken from the supplier's catalog. You can enter the initial prices; however, the system readjusts these prices as the part begins to record transactions. Base price is the default price used for purchasing if the part is not listed in the supplier's catalog. It is also the price used for work orders, stock issues, and direct purchases that involve the part. Base price is always average price, last price, or standard price depending on the value set for the price type.

The system also enables you to set up and initialize stock using the last in first out (LIFO) and first in first out (FIFO) inventory valuation methods. LIFO and FIFO are both time-based price types. FIFO inventory pricing mandates that you consume the materials purchased first before using the most recently purchased materials. LIFO pricing mandates that you consume the most recently purchased materials before using the materials that were purchased first. Class codes, categories, units of measure, suppliers, and other information must be defined before adding parts information to the database.

Creating parts

Create parts to identify parts, assets, and tools that can be entered into inventory. When creating parts, you can classify and categorize parts; identify serialized parts; and specify tax codes, warranty information, tracking methods, buyers, and preferred suppliers to facilitate the requisition and purchasing process. You can also designate parts as core tracked parts. Core tracked parts are issued and returned like regular parts; however, a core tracked part can also be repaired or reconditioned like a piece of equipment. When a part is flagged as core tracked, you can set up repair details on the **Parts** form to indicate how the part is to be repaired. Core tracked parts can be repaired internally on work orders or externally on purchase orders.

The pricing level of a part is set at either the part level or the stock level, but the prices are always set on the **Part** form. Price level determination is defined by the PRICELEV installation parameter. If the PRICELEV installation parameter is set to P, then define prices on the part level. If PRICELEV is set to S, then define prices on the store level.

If PRICELEV is set to P and you are not using multi-organization security (MOS), you can set prices on the **Record View** page of the **Parts** form. If you have set the PRICELEV installation parameter to P and you are using MOS, you must set prices on the **Prices** page of the **Parts** form.

If the PRICELEV is set to S, you must set prices on the **Stores** page of the **Parts** form regardless of whether you are using MOS.

If you are using FIFO or LIFO as your pricing method, PRICELEV must be set to S. For LIFO/FIFO pricing, the system creates a receipt transaction that automatically updates and inserts records into

the R5BINSTOCK and R5FIFO tables when you receive a part to store to ensure that the appropriate unit price is used for each subsequent issue transaction. Because receipt transactions require a supplier, the system automatically inserts an asterisk (*) as the supplier for the receipt.

See "Understanding time-based inventory valuation (LIFO/FIFO)" on page 222.

The PRICETYP installation parameter is a fixed parameter that determines the default price type that the system uses to process storeroom transactions for parts. The default value for PRICETYP is A (Average price). The system administrator can set PRICETYP to S (Standard price), L (Last price), LIFO (last in first out price), or FIFO (first in first out price) depending on the setting of the PRICELEV installation parameter.

To create parts:

1. Select **Materials > Parts**.
2. Click **New Record**.
3. Specify this information:

Organization
Enter the organization to which the work order belongs if you use multi-organization security.

Part
Specify a unique code identifying the part, and then enter a description of the part in the adjacent field. The system automatically populates **Primary Manufacturer** and **Primary Manufacturer Part Number** if the selected part has a record with **Primary** selected on the **Manufacturers** page.

Note: If the AUTOPNUM installation parameter is set to YES, the system automatically assigns a part number after you save the record if no Part code is entered.

If you need to change the Part number, click **Change Part Number**.

Class
Specify the class of the part. The classes shown belong to the PART entity.

Category
Specify the category.

Tool
Specify a tool for the part to identify the part as a tool. Identifying a part with a **Tool** enables you to issue and return tools and track tool usage for the part. Tools are defined on the **Tools** form.

Note: If **Track by Asset** is selected for the part, then the tool is also equipment. If **Track by Asset** is not selected, then the tool is only considered a part.

UOM
Specify the part's unit of measure.

Commodity
Specify the commodity if the part is considered a commodity. Entering a commodity code for a part enables you to segregate parts into broad groups for purchasing and inventory. These groups can include wiring, office supplies, and safety equipment.

Secondary Commodity
Specify the secondary commodity if the part is considered a commodity within more than one commodity group. Entering a secondary commodity code for a part enables you to further segregate

parts into multiple groups for purchasing and inventory. These groups can include wiring, office supplies, and safety equipment.

Documoto Book ID
Specify a specific Documoto Book with which to associate the part.

Documoto Part ID
Specify a unique Documoto part number.

Track by Asset
Select to track parts by asset number or serial number. Tracking parts by asset indicates that parts are pieces of equipment.

Note: If you select **Track by Asset**, you must first receive the part and then enter a unique serial number for each part upon receiving the part.

Track by Lot
Select to track parts by lot number. If you select a Lot, then a lot number will be required for all material transactions involving the part.

Track as Kit
Select to track the part as a kit part.

Track as Kit must be selected to include the part on a kit template.

Calibration Standard
Select to indicate the part is used as a standard for calibration.

Track Cores
Select this checkbox if the part is a core tracked part. Core tracked parts can be repaired internally on work orders or externally on purchase orders.

Note: If **Track Cores** is selected, **Track as Kit** and **Fugitive Gas** cannot also be selected.

Out of Service
Select if you do not want the part to appear in the parts lookup elsewhere in the system.

Tax Code
Specify the tax to apply to the part. The values in this lookup come from a previously defined tax structure.

Insp. Method
Specify the inspection method for the part.

Insp. Required
Select to indicate that an inspection is required for the part when it is received on the **PO Receipts** form.

System Level
Specify the VMRS code identifying the system level for the part.

Assembly Level
Specify the VMRS code identifying the assembly level for the part.

Note: You cannot enter an **Assembly Level** unless you entered a **System Level**.

Component Level
Specify the VMRS code identifying the component level for the par

Note: You cannot enter a **Component Level** unless you entered an **Assembly Level**.

Tracking Method
Select one of the tracking options:

Option	Description
Stock	Use stocked, quantity tracked, and amount tracked for normal, stocked parts.
Expense	Use stocked, quantity tracked, and amount not tracked for devalued spare parts. These parts are issued at no cost.
Non-stock	Use non-stock, not tracked, expedited ordering for expediting the parts procurement process.

Warranty Days
Enter the number of days the part is under warranty.

Save History
Select to capture historical inventory valuation data for the part in the parts daily snapshot (PDS).

Prevent Reorders
Select to prevent this part from being reordered.

Fugitive Gas
Select to track gas emissions for the part.

Part Hierarchy
Specify the part code hierarchy level to attach to the part.

Profile Name
Specify the profile to attach to the part.

Department
Specify the department to attach to the part.

Equipment Class
Specify the equipment class to attach to the part.

Manufacturer
Specify the manufacturer of the part.

Model
Specify the model of the part.

Revision
Specify the revision number for the part.

Variable 1, Variable 2, Variable 3, Variable 4, Variable 5, Variable 6
Specify any additional information about the part as necessary.

Buyer
Specify the part's buyer. Buyer assigns a particular person to buying functions for the part.

Preferred Supplier
Specify the part's primary supplier if the system automatically generates requisitions for this part. The system automatically populates **Supplier Price**, **Supplier UOM**, and **Qty. per UOP** if they have been added to the supplier's catalog. If you enter a **Preferred Supplier** with no catalog records, the system automatically creates a record of the part in the supplier's catalog. You can update part details for the supplier on the **Suppliers** page.

Note: If the MULTIORG installation parameter is set to YES, part pricing is organization specific, and **Price Type**, **Average Price**, **Last Price**, **Standard Price**, and **Core Value** are read-only.

If the PRICELEV installation parameter is set to S, part prices are recorded at the stock level on the **Stores** page of the **Parts** form, and **Price Type**, **Core Value**, **Average Price**, **Standard Price**, and **Last Price** are read-only. Part pricing at the stock level enables you to maintain different prices for the same part in different stores.

If the PRICELEV installation parameter is set to P, part prices are recorded at the part level. Complete steps 32-36.

Price Type
Select the price type for the part. The system automatically populates **Price Type** depending on the setting of the PRICETYP installation parameter.

Note: If PRICETYP is set to LIFO or FIFO, the system does not display last in first out or first in first out as a price type because LIFO/FIFO is not available for part pricing when prices are set at the part level. You must select Average price, Last price, or Standard price as the price type for the part.

Core Value
Enter the value of the part when it needs repair.

Average Price
Specify the average price paid for the part if prices are based on the average price paid.

Standard Price
Specify the standard price for the part if prices are based on standard price.

Last Price
Specify the last price paid for the part if prices are based on last price paid.

Track by Condition
Select this checkbox if the part should be tracked by condition. If **Track by Condition** is not selected when the part is created, you cannot select the checkbox after the part has been created.

Note: When creating parts, you cannot select **Track as Kit** or **Fugitive Gas** if **Track by Condition** is selected. However, it is possible to build a kit then add the parts that you have designated as track by condition to the kit template.

Part Condition Template
Specify the part condition template for the part. The system automatically populates **Part Condition Template Org.**.

4 Click **Save Record**. If a review has been performed on the **Safety** tab, the system automatically populates **Safety Date Review Required** and **Safety Reviewed By**.

Defining multiple prices of parts (MOS)

With multi-organization security (MOS), centrally maintain prices of parts used across organizations. Often companies have multiple organizations with different currencies for each organization.

When you are using MOS, you can enter multiple prices for a part that belongs to a common organization. However, you can only enter one price for a part that belongs to a specific organization.

If PRICELEV is set to P and MULTIORG is set to NO, then set prices on the **Record View** page of the **Parts** form. If PRICELEV is set to S, set prices on the **Stores** page of the **Parts** form regardless of the setting of the MULTIORG parameter. The PRICELEV installation parameter is fixed.

To define multiple prices of parts (MOS):

1 Select **Materials > Parts**.
2 Select the part for which to define prices, and then click the **Prices** tab.
3 Click **Add Price**.
4 Specify this information:

Organization
Specify the organization to which the part price belongs.

Note: The system only displays organizations to which you have access. If the part belongs to a common organization, the system displays all valid specific organizations for the logged in user. If the part belongs to a specific organization, the system displays only that organization.

Price Type
Select the price type for the part.

Condition
Specify the condition if the part is a condition tracked parent part. The system automatically populates **Part** and **Part Org.** If the part is a condition tracked child part, the system automatically populates **Condition**, **Part**, and **Part Org.**

Core Value
Specify the value of the part when it needs repair.

Average Price
Specify the average price of the part if prices are based on average price.

Standard Price
Specify the standard price of the part if prices are based on standard price.

Last Price
Specify the last price paid for the part if prices are based on last price paid. The system automatically populates the currency in the field adjacent to **Average Price**, **Last Price**, and **Standard Price** with the currency of the part's organization.

5 Click **Submit**.

Note: To delete a price, select the price to delete, and then click **Delete Price**.

To modify the part number, click **Change Part Number** on the **Record View** page.

Associating manufacturers with parts

Associate manufacturers with parts. You can have multiple manufacturers for a part within an organization.

You must define manufacturers on the **Manufacturers** form before associating them with parts.

To associate manufacturers with parts:

1. Select **Materials > Parts**.
2. Select the part for which to associate manufacturer information, and then click the **Manufacturers** tab.
3. Click **Add Manufacturer**.
4. Specify this information:

   Manufacturer
   Specify the manufacturer for the part. The system automatically populates **Manufacturer Org.**

   Manufacturer Part Number
   Specify the manufacturer's part number for the part

   Condition
   Specify the condition if the part is a condition tracked parent part. The system automatically populates **Part** and **Part Org.** If the part is a condition tracked child part, the system automatically populates **Condition**,**Part**, and **Part Org.**

   Drawing Number
   Specify the drawing number if a drawing of the part is available.

   Documoto Book ID
   Specify a specific Documoto Book with which to associate the manufacturer.

   Documoto Part ID
   Specify a unique Documoto part number.

   Out of Service
   Select if you do not want the system to display the manufacturer part number in the manufacturer part number lookups.

   Primary
   Select to indicate that the manufacturer is the primary manufacturer of the part.

5. Click **Submit**.

   Note: To delete a manufacturer, select the manufacturer to delete, and then click **Delete Manufacturer**. The system does not delete the record if the manufacturer and the manufacturer part number are selected on the **Stores** page of the **Parts** form as the **Primary Manufacturer** or **Primary Manufacturer Part Number**.

Associating suppliers with parts

Associate suppliers with parts. You can have multiple suppliers for a part within an organization. Additionally, suppliers may also have different methods for distributing parts, such as their own unique units of measure. If a supplier's unit of measure for selling a part is different than the unit of measure of the part in inventory, you must establish the conversion factor for the part to create the appropriate unit of measure for an issue. You can also identify the supplier's catalog number for the part, supplier's part description, as well as other information pertaining to supplier's price, currency, and minimum order quantity.

The reference between suppliers and parts is created automatically when generating purchase orders. The system verifies the supplier and notifies you if a supplier is not recorded for a specific part. You may still proceed with a transaction after such a warning. If you do proceed, the system automatically creates a new reference for the part with the supplier.

You must define suppliers on the **Suppliers** form before associating them with parts.

To associate suppliers with parts:

1. Select **Materials > Parts**.
2. Select the part for which to define supplier information, and then click the **Suppliers** tab.
3. Click **Add Supplier**.
4. Specify this information:

   Supplier
   Specify the supplier for the part. The system automatically populates **Supplier Org.** and **Tax Code**.

   Supplier Part Desc.
   Specify the supplier's description of the part.

   Condition
   Specify the condition if the part is a condition tracked parent part. The system automatically populates **Part** and **Part Org.** of the part associated to the selected **Condition**. If the part is a condition tracked child part, the system automatically populates **Condition**,**Part**, and **Part Org.**

   Catalog Reference
   Specify the supplier's part number. It may be identical to the existing part number.

   Cost Code
   Specify the cost code with which to associate the cost of the part.

   Gross Price
   Specify the supplier's price for the part without discounts or additional fees.

   Repair Price
   Specify the supplier's repair price for the part if the part is core tracked.

   Note: Repair Price is only enabled if the **Part** for which you are entering a supplier record is core tracked.

   If you entered an **Internal Repair Price** for a part on the **Repair Details** page of the **Parts** form, the system retrieves the **Repair Price** from the repair details for the part. If you did not specify an Internal **Repair Price**, the system retrieves the **Base Price** of the part for the **Repair Price**.

Preferred
Select to indicate that the supplier is the preferred supplier of the part.

Minimum Order Qty.
Specify the supplier's minimum order quantity for the part.

UOP
Select the supplier's unit of purchase for the part.

Qty. per UOP
Specify the conversion factor if the purchase unit of measure is different from the inventory unit of measure.

Lead Time (Days)
Specify the average number of days that the supplier needs to provide the ordered goods.

Repair Part Number
Specify the supplier's repair part number for the part if the part is core tracked.

Note: Repair Part Number is only enabled if the **Part** for which you are entering a supplier record is core tracked.

Documoto Book ID
Specify a specific Documoto Book with which to associate the supplier.

Documoto Part ID
Specify a unique Documoto part number.

Expiration Date
Specify the expiration date for the part and supplier. This is just a "catalog" date, and the date entered indicates the date on which the supplier's catalog information for the part should be replaced with a new catalog entry (new price, number, etc.).

Tax Code
Specify the tax code for the supplier.

5 Click **Submit**. The system automatically populates **Net Price**.

Note: The system calculates the **Net Price** by adjusting the **Gross Price** for any discounts or additional fees for the part.

The system inserts the current date in **Date Last Updated** and calculates **Local Price** based on the currency of your organization with the following equation:

```
(Gross Price / Exchange Rate) / Qty. per UOP = Local Price
```

To delete a supplier, select the supplier to delete, and then click **Delete Supplier**.

To add iProcure item association, click **Add iProcure Item Association**.

To update iProcure items in the parts catalog, click **Update iProcure Items**.

To update selected iProcure items in the parts catalog, click **Update Selected iProcure Items**.

To view iProcure sync errors, click **View iProcure Sync Errors**. View the errors, and then click **Close**.

Associating alternate supplier catalog references for parts

Alternate supplier catalog references allow customers to keep a record of past catalog reference numbers for a specific part.

To associate alternate supplier catalog references for parts:

1. Select **Materials > Parts**.
2. Select the part for which to create an alternate catalog reference of parts, and then click the **Suppliers** tab.
3. Click **Alternate Catalog of References**.
4. Click **Add Catalog Reference**.
5. Specify this information:

   Catalog Reference
   Specify the supplier catalog reference to which to associate to the supplier.

   Notes
   Specify notes for the catalog reference as necessary.

6. Click **Submit**.

   Note: To delete an alternate catalog reference, select the alternate catalog reference to delete, and then click **Delete Catalog Reference**.

Adding safety data to parts

Add safety data to parts to inform your employees of any hazardous situation that can cause bodily harm and of the precautions to take to protect themselves from these hazards. For example, you can add a precaution to wear a safety harness when you identify a working at heights hazard. After adding the safety data, review and verify the record by clicking the **Reviewed By** icon. The review fields will be automatically populated after you review the record.

To add safety data to parts:

1. Select **Materials > Parts**.
2. Select the part for which to add safety data, and then click the **Safety** tab.
3. Specify this information:

   Hazard
   Specify the hazard to add to the part. The system automatically populates **Hazard Org.**, **Hazard Type**, and the hazard description.

   Precaution
   Specify the safety measure to protect your employees from the hazard. The system automatically populates **Precaution Org.** and the precaution description.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can enter the timing of pre-work to alert the employee that they should wear fire-resistant clothing before beginning the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number entered.

Health Hazard
Specify the health hazard for the part.

Flammability
Specify the flammability safety measure for the part.

Instability
Specify the instability safety measure for the part.

Special Hazards
Specify the special hazards for the part.

4 Click **Submit**. The system automatically populates **Created By**, **Date Created**, **Updated By**, **Date Updated**, **Reviewed By**, **Reviewed by Name**, **Date Reviewed**, and **Review Type**.

Creating repair details for core tracked parts

Create repair details for core tracked parts to enter detailed information about repairing or reconditioning a part. The repair details for a core tracked part specify whether a part is to be repaired internally or externally, and they include additional information used to generate repair work orders or external repair requisition lines.

Understanding the auto-assignment processes for core tracked parts

The assignment process for a core tracked part denotes a bin location from which the system is to take a part for repair, not a location in which to place a part for repair. The system can either automatically assign repair details or you can manually assign repair details. The manner in which the system auto-assigns core tracked parts will vary depends on the **Auto-Assign** setting and quantities available for repair in bin locations.

If you specify a **Store** and set up a **Default Core Bin**, the system assigns the **Qty. to Repair** from the **Default Core Bin** (from which the **Bin**, **Lot**, and **Asset** are specified for the repair parts), and updates the **Qty. Assigned**. The system updates the **Repair Details** page of the **Parts** form and moves the **Core Qty.** to the **Qty. at Shop**. If the system cannot find enough parts for repair in the **Default Core Bin** or if no parts are located in the **Default Core Bin** or if you do not select a **Default Core Bin** on the **Repair Details** page of the **Parts** form, the system assigns details from other bin locations.

Creating repair details for core tracked parts to be repaired internally

Create repair details for core tracked parts to be repaired internally on **Repairable Spare Type** work orders. If you select to generate work orders for repairable cores on the **Generate/Release WOs** form, the system checks to see if there is a **Core Qty.** specified for any parts in inventory for which you have entered repair details. If so, the system generates a work order for the repairable core part based on the specified repair details for the part.

The system updates the stock record for the part in the selected store with the repair details.

To create repair details for core tracked parts to be repaired internally:

1. Select **Materials > Parts**.
2. Select the part for which to create repair details, and then click the **Repair Details** tab.
3. Select the store for which to create repair details for this core tracked part.
4. Specify this information:

   Internal Repair
   Select to repair the part internally.

   Note: If you select **External Repair** after saving the repair details as an **Internal Repair**, the system displays a confirmation message asking whether you wish to continue. If you select to continue, the system clears **WO Equipment**, **Department**, and **Standard WO**. The system enables **Supplier**, **Lead Time (Days)**, and **Min. Repair Qty**.

   WO Equipment
   Specify the work order equipment for the core tracked part.

   Department
   Specify the department for the repair work order.

   Note: If you enter a value for **WO Equipment**, the system automatically populates **Department**. Modify **Department** as necessary.

   Standard WO
   Specify the standard work order for repairing the part.

   Internal Repair Price
   Specify the cost of repairing the part internally. The system automatically populates **Core Value** with the value entered on the **Stores** tab.

   Default Core Bin
   Specify the default core bin to which to return the broken core tracked part.

   If you specify a **Default Core Bin**, the system automatically returns the broken core tracked part to the specified bin location when you return it for repair from any form on which you can return a part for repair.

   Note: Infor strongly recommends using the **Default Core Bin** feature to reduce the number of manual steps required to manage your core tracked data. Specifying a **Default Core Bin** in the repair details eliminates the need to manually enter a bin location for returning the broken part when you actually return the part for repair.

Use Stock Method
Select to generate the quantity to repair based on the default stock method specified for the part in the store.

If you select **Use Stock Method**, the system calculates the **Qty. to Repair** based on the stock replenishment method specified for the part in the holding store. For example, you selected Min/Max as the stock method for the part and you specified 5 as the **Minimum Qty.** and 10 as the **Maximum Qty.** for the part. The current **Quantity** of the part on hand is 4 and the **Core Qty.** is 9. When you generate an internal repair work order for the part, the system calculates the **Core Qty.** as 6 parts rather than 9 to update the **Qty. on Hand** of the part in stock to the specified maximum of 10.

The**Core Qty.** represents the total number of core parts that are currently in a store. The system calculates the **Qty. to Repair**, which is the total number of parts that must be repaired and can be less than the **Core Qty.** depending on the current stock/repair levels for the part.

Auto-Assign
Select to indicate that the system automatically assign parts for repair from the specified **Default Core Bin** when generating a repairable core work order or requisition.

If you select **Auto-Assign**, the system attempts to assign the number of parts in **Qty. to Repair** from the specified **Default Core Bin** when generating repair work orders or requisitions. If there are parts to be repaired in the **Default Core Bin**, the system automatically assigns the parts from the bin location to the work order or requisition first. When the system assigns all of the parts for repair located in the **Default Core Bin** or if no parts are located in that bin, the system then checks other bin locations for the parts to assign to the work order or requisition.

Note: The assignment process for a core tracked part denotes a bin location from which a part is to be taken for repair, not a location in which to place a part for repair.

5 Click **Submit**.

Note: If you are using LIFO/FIFO as your pricing method and the RPPRCCAL installation parameter is set to NO, the system protects the internal repair price and records the base price of the part in the **R5FIFO** table.

Creating repair details for core tracked parts to be repaired externally

Create repair details for core tracked parts to be repaired externally. External repairs are initiated using external repair requisitions submitted to a supplier who will repair the part. If you select to generate external repair requisitions on the **Generate Requisitions** form, the system checks to see if there is a **Core Qty.** specified for any parts in inventory for which you have entered repair details. If so, the system generates a requisition for the core tracked part based on the specified repair details for the part.

The system updates the stock record for the part in the selected store with the repair details.

To create repair details for core tracked parts to be repaired externally:

1 Select **Materials > Parts**.
2 Select the part for which to create repair details, and then click the **Repair Details** tab.
3 Select the store for which to create repair details for this core tracked part.

4 Specify this information:

External Repair
Select to send the part to an external supplier for repair.

Note: If you select **Internal Repair** after saving the repair details as an **External Repair**, the system displays a confirmation message asking whether you wish to continue. If you select to continue, the system clears **Preferred Supplier**, **Lead Time (Days)**, and **Min. Repair Qty**. The system enables **WO Equipment**, **Department**, and **Standard WO**.

The system automatically populates **Core Value** with the value entered on the **Stores** tab.

Default Core Bin
Specify the default core bin to which to return the broken core tracked part.

If you specify a **Default Core Bin**, the system automatically returns the broken core tracked part to the specified bin location when you return a broken core tracked part from any form from which you can return a part for repair.

Note: Infor strongly recommends using the **Default Core Bin** feature to reduce the number of manual steps required to manage your core tracked data. Specifying a **Default Core Bin** in the repair details eliminates the need to manually enter a bin location for returning the broken core tracked part when you actually issue/return the part for repair.

Preferred Supplier
Enter the preferred supplier for which to generate the requisition for repair.

Lead Time (Days)
Specify the lead time for the core tracked part in days. The specified lead time is added to the date requested (system date) to determine the amount of additional lead time necessary for processing the repair.

Min. Repair Qty.
Specify the minimum quantity for repair that will trigger the generation of a requisition for the core tracked part.

Auto-Assign
Select to indicate that the system automatically assign parts for repair from the specified **Default Core Bin** when generating a repairable cores work order or requisition.

If you select **Auto-Assign**, the system attempts to assign the number of parts in **Qty. to Repair** from the specified **Default Core Bin** when generating repair work orders or requisitions. If there are parts to be repaired in the **Default Core Bin**, the system automatically assigns the parts from the bin location to the work order or requisition first. When the system assigns all of the parts for repair located in the **Default Core Bin** or if no parts are located in that bin, the system then checks other bin locations for the parts to assign to the work order or requisition.

Note: The assignment process for a core tracked part denotes a bin location from which a part is to be taken for repair, not a location in which to place a part for repair.

5 Click **Submit**.

Note: If you are using LIFO/FIFO as your pricing method and the RPPRCCAL installation parameter is set to NO, the system protects the internal repair price and records the base price of the part in the **R5FIFO** table.

Scrapping parts

Scrap parts that are beyond repair.

Note: Parts must be repairable spares to scrap.

To scrap parts:

1. Select **Materials > Parts**.
2. Select the part to scrap, and then click the **Stock** tab.
3. Select the specific stock to scrap, and then click **Scrap Part**. The system automatically populates **Part**, **Description**, **Qty. for Repair/UOM**, and **Asset ID** if the part is tracked by asset.
4. Specify this information:

   Scrap Qty.
   Specify the quantity of parts to scrap.

5. Click **Submit**.

Defining substitute parts

Define parts that can be substituted for other parts. Parts do not have to be substituted in a one-to-one relationship. You cannot add a substitute part to a condition tracked parent part. However, you can associate substitute parts to condition tracked child parts.

To define substitute parts:

1. Select **Materials > Parts**.
2. Select the part for which to define a substitute, and then click the **Substitutes** tab.
3. Click **Add Substitute**.
4. Specify this information:

   Substitute Part
   Specify the part to serve as a substitute. The system automatically populates the part description and **Substitute Part Org.**

   Condition
   Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

   Fully Compatible
   Select to indicate the original and substitute parts that can serve as substitute parts for each other. For example, if you define Part A as a substitute for Part B and select **Fully Compatible**, the system automatically displays Part B as a substitute for Part A as well.

   Note: To remove a substitute, select the substitute to remove, and then click **Remove Substitute**.

   If you remove a substitute that was specified as Fully Compatible, the system removes the association for both parts. For example, Part A is not a substitute for Part B and Part B is not a substitute for Part A.

Changing part numbers

Modify part numbers/codes for temporary part numbers or existing parts.

During the requisition and purchase order process, the system assigns a temporary part number to a part to prevent the part from appearing in the parts catalog several times with different part numbers. System-generated part numbers begin with the character "N." Allocate a new part number to one of the system-generated temporary part numbers or change the temporary number to an existing part number. The system retains the part information from the purchase order and creates a new part record.

Additionally, many companies assign part codes to parts in their part catalog based on a supplier's catalog number for the part. Frequently, a supplier's catalog is updated or changes over time, so an existing part in your part catalog may lose its association with the supplier catalog number. Therefore, you may need to update an existing part code to retain the purchasing history and historical information for the part, rather than creating a new part to associate with the updated supplier catalog numbers.

When you modify condition tracked parent part numbers, the system automatically changes the part numbers for the condition tracked child parts. The last two characters (**Suffix Separator** and **Suffix Code**) of the child part number must remain unchanged.

Note: If installation parameter AUTOPNUM is set to Yes, you may change a temporary or existing part number; however, the system automatically changes the part number to the next available part number within the system.

To change part numbers:

1. Select **Materials > Parts**.
2. Select the part for which to modify the part number, and then right-click on the form in the **Record View**.
3. Select **Change Part Number**.
4. Specify this information:

   Class
   Specify the part class. The system automatically populates **Class Org.**

   New Part
   Specify the new part number. The system automatically populates **New Part Org.** and **New Part Description** based on the current organization and description of the part.

   Note: You may either enter an existing part number or enter a part number that does not exist currently in the system by typing the number in **New Part**.

   The new part number cannot begin with the character "N" followed by a number.

   Use Auto-number
   Select to have the system automatically assign the next available part number as the new part number.

   Note: If you select **Use Auto-number**, the system protects **New Part**. You cannot enter a new part number.

5. Click **Submit**.

Viewing part number history

View all modifications of part numbers.

To view part number history:

1. Select **Materials > Overview > Part Number History**.
2. Specify this information:

   Dataspy
   Select an existing Dataspy or edit an existing Dataspy to view records. The system applies the Dataspy to the list view, and displays the records.

3. View the part number history.

Viewing part reservations for stores

View part reservations for parts in store that are reserved or allocated.

To view part reservations for stores:

1. Select **Materials > Setup > Stores**.
2. Select the store for which to view part reservations, and then click the **Reservations** tab.
3. View the reservations for the part in the selected store.

Defining and managing manufacturer information

Manufacturer information is more than a listing of manufacturers of parts. You can associate manufacturers with parts in a concise and organized manner and attach other relevant information relating to manufacturers and parts, e.g., drawing numbers, manufacturer part numbers, and local part numbers. Complete supplier information on the **Supplier** form prior to defining manufacturers and parts information.

Defining manufacturer information

To define manufacturer information:

1. Select **Materials > Setup > Manufacturers**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the manufacturer belongs if you use multi-organization security.

Manufacturer
Specify a unique code identifying the manufacturer, and then enter a description of the manufacturer in the adjacent field.

Class
Specify the class of the manufacturer. The classes shown belong to the MANU entity. The system automatically populates **Class Org.**

Supplier
Specify the manufacturer's supplier. The system automatically populates **Supplier Org.**

Out of Service
Select if the manufacturer is out of service.

4 Click **Save Record**.

Associating parts with a manufacturer

Associate parts with a manufacturer record. If you have multiple parts for one manufacturer, the system allows you to associate each of them with that manufacturer. For each part that you associate with a manufacturer, enter your part code and the manufacturer's part code. The system will automatically cross-reference the manufacturer's part codes with your part codes based on the information you provide.

To associate parts with a manufacturer:

1 Select **Materials > Setup > Manufacturers**.
2 Select the manufacturer for which to associate parts, and then click the **Parts** tab.
3 Click **Add Part**.
4 Specify this information:

Part
Specify your part code. The system automatically populates the part description and **Part Org.**

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Manufacturer Part Number
Specify the manufacturer part code

Out of Service
Select if you do not want the system to display the manufacturer part number in the manufacturer part number lookups.

Drawing Number
Specify the drawing code if a drawing of the part is available.

Documoto Book ID
Specify a specific Documoto Book with which to associate the manufacturer.

Documoto Part ID
Specify a unique Documoto part number.

5 Click **Submit**. Add additional parts as necessary.

Note: To delete a part from the Parts list, select the part to delete from the list, and then click **Delete Part**.

The system does not delete the record if the manufacturer and the manufacturer part number are selected on the **Stores** page of the **Parts** form as the **Primary Manufacturer** or **Primary Manufacturer Part Number**.

Defining and managing supplier information

Large maintenance organizations deal with many suppliers. There are suppliers for parts, equipment, services, rentals, office supplies, and more. The **Suppliers** form is the primary form for setting up a supplier network. Within this form, establish a list of suppliers, create a catalog of parts provided by specific suppliers, and list contacts for suppliers. You can also associate addresses for suppliers.

You can also create a supplier hierarchy to establish parent/child relationships between suppliers. When creating a supplier hierarchy, you cannot designate a supplier as a parent supplier if the supplier is already designated as a child in a supplier hierarchy. Additionally, a supplier cannot have multiple parent suppliers, nor can a supplier be parent supplier to itself within a supplier hierarchy. For example, you create supplier records for the following three suppliers: AMG INC, HARTFORD BOILERS, and SOUTHEASTERN. To create a supplier hierarchy, you select AMG INC as the parent supplier for both HARTFORD BOILERS and SOUTHEASTERN. Because HARTFORD BOILERS and SOUTHEASTERN are designated as children of AMG INC, neither can be selected as a parent supplier in any other supplier hierarchy, nor can they be designated as a child to any other supplier in another supplier hierarchy.

After defining supplier information, you can update information for both suppliers and their catalogs as necessary; however, you cannot delete a supplier record or a record from a supplier's catalog if they have been associated with another record within the system.

Defining suppliers

Define suppliers to create records for the suppliers in your supplier network.

Purchase Site and **Service Provider** indicate whether you can purchase materials and/or services from the supplier. If you unselect **Purchase Site**, you cannot select the supplier for purchase orders for materials. Likewise, if you unselect **Service Provider**, you cannot select the supplier for purchases for services or labor.

Additionally, you can specify minimum and maximum order values for the supplier to establish limits for purchasing from this supplier. The system prevents you from creating purchase orders or requisitions

for the supplier if you exceed the specified maximum or fail to meet a minimum order value for purchasing materials or services.

To define supplier:

1 Select **Materials > Setup > Suppliers**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the supplier belongs if you use multi-organization security.

Supplier
Specify a unique code identifying the supplier , and then enter the supplier's name in the adjacent field.

Language
Select the supplier's language.

Currency
Specify the supplier's currency.

Class
Specify the class of the supplier. The classes shown belong to the COMP entity.

Out of Service
Select to indicate that you no longer wish to use this supplier. If you select **Out of Service**, the system retains the record; however, it will no longer display the supplier in the lookups from which you select suppliers on any other forms within the system.

Status
Specify a status to categorize the supplier by status. Define the status field for any purpose (e.g., enter AC if the supplier is being actively used). The status is for your informational use only.

iProcure Vendor
Specify the vendor to associate with the supplier for use with iProcure transactions.

Account Number
Specify the supplier's iProcure account number.

Purchase Site
Select to indicate that you purchase goods from this supplier. Selecting **Purchase Site** inserts the supplier into the lookup from which you select suppliers on any other forms within the system. Unselect to indicate that the supplier is only for purchasing labor or services.

Parent Supplier
Specify the parent company. Using the "Parent" attribute, you can indicate whether a supplier is part of a larger organization. Parent/child supplier relationships can be established for information only.

Note: You cannot designate a supplier as a parent supplier if the supplier is already designated as a child in a supplier hierarchy. Additionally, a supplier cannot have multiple parent suppliers, nor can a supplier be a parent supplier to itself within a supplier hierarchy.

Lead Time (Days)
Specify the average number of days the supplier needs to provide the ordered goods or services.

Real-time Info
Select to indicate that the supplier provides real-time information for the items they supply via iProcure.

Service Provider
Select to indicate that the supplier provides services. Unselect to indicate that the supplier is only for purchasing materials. If unselected, the supplier cannot be selected for purchasing or requisitioning labor.

Min. Order Value
Specify the minimum order amount.

FOB Point
Specify the supplier's free on board shipping point.

Ship Via
Specify the supplier's method of shipping.

Payment Method
Specify the supplier's preferred method of payment.

Max. Order Value
Specify the maximum order amount.

Payment Terms
Specify the supplier's payment terms.

Freight Terms
Specify the supplier's freight terms.

Buyer
Specify the primary buyer for this supplier.

Contact Name
Specify the primary supplier contact.

Telephone, Fax Number
Specify the supplier's phone and fax numbers.

E-mail Address
Specify the supplier contact's e-mail address.

Our Contact
Specify the supplier's primary contact for your organization, which is generally the corporate buyer.

EDI Number
Specify the supplier's electronic data interchange (EDI) number for processing electronic transaction information.

Customer
Select to indicate the supplier is a customer. Selecting **Customer** inserts the supplier into the lookup from which you select customers on any other forms within the system. If **Customer** is unselected, the supplier cannot be selected for customer contracts or rentals.

Customer Account Code
Specify the supplier's customer account code.

Customer Cost Center
Specify the supplier's customer cost center.

Tax Code
Specify the supplier's tax code.

4 Click **Save Record**.

Defining contacts for suppliers

Define contacts to have a reference library of contacts for each supplier. Maintain a list of supplier contacts for various purposes such as customer service, shipping, and billing, in addition to the primary contact specified on the **Record View** page of the **Suppliers** form.

To define contacts for suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier for which to define contacts, and then click the **Contacts** tab.
3 Click **Add Contact**.
4 Specify the **Sequence** number to associate with the contact.
5 Specify the contact's **Name**, **Address 1**, **Address 2**, **City**, **State**, **Zip Code**, **Primary Email**, **Secondary Email**, **Primary Phone**, **Secondary Phone**, **THird Phone**, **Primary Fax**, **Secondary Fax**, **Email Fax**, and **Preferred Contact Method**.
6 Select the **Out of Service** check box if the contact is out of service.
7 Click **Submit**.

Copying suppliers

Copy a supplier including all details to a new supplier.

To copy suppliers:

1 Create a supplier.
See "Defining suppliers" on page 250.
2 Right-click anywhere on the **Suppliers** form, and then select **Copy Supplier**.
3 Specify this information:

New Supplier
Specify the name of the new supplier. The system automatically populates the **New Supplier** description.

4 Select the record types to copy, and then click **Submit**.

Creating a supplier catalog

Create a supplier catalog to establish and maintain a list of the materials provided by a supplier.

To create a supplier catalog:

1. Select **Materials > Setup > Suppliers**.
2. Select the supplier for which to create a catalog of parts, and then click the **Parts** tab.
3. Click **Add Part**.
4. Specify this information:

Part
Specify the part to add to the requisition. The system automatically populates **Part Org.**, **Exchange Rate**, and **Date Last Updated**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Supplier Part Desc.
Specify the supplier's description of the part.

Catalog Reference
Specify the supplier's part number. It may be identical to the existing part number.

Cost Code
Specify the cost code with which to associate the cost of the part.

Gross Price
Specify the supplier's price for the part without discounts or additional fees. After adjusting gross price for discounts and additional fees, the system updates **Net Price** and calculates **Local Price** based on the currency of the organization with the following equation:

```
(Price / Exchange Rate) / Qty. per UOP = Local Price
```

Repair Price
Specify the supplier's price for repairing the part.

Note: Repair Price is only enabled if the **Part** is core tracked.

Tax Code
Specify the tax code for the part that identifies the tax structure to apply all of the applicable taxes to purchases of this part

Preferred Supplier
Select to indicate that this supplier is the preferred supplier of the part.

Expiration Date
Specify the expiration date indicating the date on which the supplier's catalog information should be replaced with a new catalog entry such as new price, part number, etc.

Comments
Specify comments for the supplier/part combination as necessary.

Minimum Order Qty.
Specify the minimum quantity of the part that you can order from this supplier.

UOP
Specify the unit of measure of purchase for the part.

Qty. per UOP
Enter the conversion factor if the purchase unit of measure is different from the inventory unit of measure.

Lead Time (Days)
Enter the average number of days that the supplier needs to provide the ordered goods.

Repair Part Number
Enter the number/code for the supplier who will actually be repairing the part.

Note: Repair Part Number is only enabled if the **Part** is core tracked.

Documoto Book ID
Specify a specific Documoto Book with which to associate the part.

Documoto Part ID
Specify a unique Documoto part number.

5 Click **Submit**.

Note: To delete a part, select the part to delete, and then click **Delete Part**.

The system automatically populates the **Date Last Updated** with the system date of the most recent changes to the part record.

To add iProcure item association, click **Add iProcure Item Association**.

To update iProcure items in the parts catalog, click **Update iProcure Items**.

To update selected iProcure items in the parts catalog, click **Update Selected iProcure Items**.

To view iProcure sync errors, click **View iProcure Sync Errors**.

To create an alternate supplier catalog reference, click **Alternate Catalog Reference**.

Associating alternate catalog references for suppliers

Alternate supplier catalog references allow customers to keep a record of past catalog reference numbers for a specific part.

To associate alternate catalog references for suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier for which to create an alternate catalog reference of parts, and then click the **Parts** tab.
3 Click **Alternate Catalog of References**.
4 Click **Add Catalog Reference**.
5 Specify this information:

Catalog Reference
Specify the catalog reference number to which to associate to the supplier.

Notes
Specify notes for the catalog reference as necessary.

6 Click **Submit**.

Note: To delete an alternate catalog reference, select the alternate catalog reference to delete, and then click **Delete Catalog Reference**.

Associating commodities with suppliers

Define commodity codes before associating commodities with suppliers.

The system allows you to associate multiple commodities with each supplier.

To associate commodities with suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier with which to associate a commodity, and then click the **Commodities** tab.
3 Click **Add Commodity**.
4 Specify this information:

Commodity
Specify the commodity to associate with the supplier. The system automatically displays the commodity description and **Commodity Org.**

5 Click **Submit**.

Note: To remove a commodity, select the commodity to remove, and then click **Remove Commodity**.

Recording fuel mixes for associated commodities

Record the fuel mix for each commodity associated with a supplier.

To record fuel mixes for associated commodities:

1 Select **Materials > Setup > Suppliers**
2 Select the supplier for which to record fuel mixes, and then click the **Fuel Mix** tab.
3 Click **Add Record**.
4 Specify this information:

Commodity
Specify the commodity for which to record fuel mixes.

Fuel Type
Select the type of fuel used for the associated commodity.

Daily Capacity
Specify the amount for the daily capacity. The system automatically populates the daily capacity **UOM** and **% of Total Capacity**.

Date Effective
Specify the date this record will become effective. The system automatically populates **Date Expired**.

5 Click **Submit**.

Associating account numbers to suppliers

Associate an account number to a supplier for a specific store.

To associate account numbers to suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier for which to associate an account number, and then click the **Account Number** tab.
3 Click **Add Account Number**.
4 Specify this information:

Account Number
Specify a unique code identifying the supplier account.

Store
Specify the store to associate to the supplier account.

Payment Method
Specify the supplier's method of payment for this account.

5 Click **Submit**.

Associating equipment with suppliers

Associate equipment that is serviced by a supplier.

To associate equipment with a supplier:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier with which to associate equipment, and then click the **Equipment** tab.
3 Click **Add Equipment**.
4 Specify this information:

Equipment
Specify the equipment to associate with the supplier.

5 Select the **Apply Supplier to Children** check box to apply the supplier to all of the children of the selected equipment as well.
6 Select the **Skip this Level** check box to indicate that the supplier is not relevant for the selected equipment but may be for its children.
7 Click **Submit**.

Viewing purchase order history for suppliers

To view purchase order history for suppliers:

1 Open the **Business Partners** form.
2 Select the supplier for which to view purchase order history, and then click the **PO History** tab.
3 View the purchase order history for the supplier. The **PO History** page displays the same information as the **Purchase Orders** form.

Defining rates for suppliers

Define and update rates for suppliers. Define multiple rates for each supplier as necessary.

Note: When automatically populating **Hourly Rate** on any form, the system populates the field based on the information entered on the **Rates** page of the **Suppliers** form. If you do not define a rate for a supplier, the system populates **Hourly Rate** based on the information entered on the **Rates** page of the **Trades** form if applicable.

To define rates for suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier for which to define rates, and then click the **Rates** tab.
3 Click **Add Rate**.
4 Specify this information:

Organization
Specify the organization to which the rate belongs if you use multi-organization security.

Note: If the supplier is assigned to a specific organization, the system automatically displays the organization. You cannot modify **Organization**.

Trade
Specify the trade.

Hourly Rate
Specify the hourly rate of the trade.

Tax Code
Specify the tax code to associate to the rate for the supplier.

Start Date, End Date
Specify the beginning and ending dates to which the rate applies.

Note: Dates for the same trade and rate combination cannot overlap. For example, the MAINT trade cannot have a rate of 20 to start 01-01-2004 and to end on 01-01-2005 and another rate of 25 to start on 06-01-2004.

5 Click **Submit**.

Note: To delete a rate, select the rate to delete, and then click **Delete Rate**.

Adding services to suppliers

To add services to suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier to which to add a service, and then click the **Services** tab.
3 Click **Add Service**.
4 Specify this information:

Task
Specify the work order task that corresponds with the supplier's service. The system automatically populates the task description, **Task Org.**, and **Exchange Rate**.

Catalog Reference
Specify the supplier's catalog reference number for the service.

Price
Specify the supplier's cost and currency for the service.

Tax Code
Specify the tax code for the service and supplier.

Preferred Supplier
Select if the supplier is the preferred supplier for the service.

Expiration Date
Specify the expiration date for the service and supplier. This is just a "catalog" date, and the date entered indicates the date on which the supplier's catalog information for the service should be replaced with a new catalog entry (new price, number, etc.).

Purchase UOM
Specify the supplier's unit of measure for the service.

Qty. per UOP
Specify the quantity per unit of purchase for the service.

Note: If you enter **Purchase UOM**, enter **Qty. per UOP** to indicate the unit of purchase in relation to the unit of measure that the supplier has defined for the service. For example, if you hire a supplier to landscape, the supplier defines his services in hours, and it will take the supplier 5 hours to landscape, then enter the code for hours in **Purchase UOM**. Then enter 5 in **Qty. per UOP**.

Lead Time (Days)
Specify the average number of days that the supplier needs to provide the service.

5 Click **Submit**.

The system inserts the current date in **Date Last Updated** and calculates **Local Price** based on the currency of your organization with the following equation:

```
(Price / Exchange Rate) / Qty. per UOP = Local Price
```

Note: To remove a service, select the service to remove, and then click **Remove Service**.

Associating service codes with suppliers

To associate service codes with suppliers:

1 Select **Materials > Setup > Suppliers**.
2 Select the supplier with which to associate service codes, and then click the **Service Codes** tab.
3 Select a **Service Code** to associate with the supplier.
4 Click **Submit**.

Creating service code exclusions for suppliers

Specify service codes that are not delivered by the supplier for specified equipment.

To create service code exclusions for a supplier:

1 Select **Materials > Setup > Suppliers**.
2 Select the suppliers for which to specify service code exclusions, and then click the **Service Code Exclusions** tab.
3 Click **Add Record**.
4 Specify this information:

Equipment
Specify the equipment for which to exclude a service.

Service Code
Specify the service code for the excluded service.

5 Click **Submit**.

Managing stock information

Stock refers to the basic information on items contained within a store (or group of stores in the same company). Think of stock as a subset of parts. Every item in stock must be a part, but not every part must be in stock. Stock is a list of items held; a parts list is your list of items available for purchase from outside sources or items that you generally do not stock.

You can associate stores with parts and enter automatic reorder information for parts. Consider how the stock item is reordered. The inventory unit of measure may be 'each' but the purchasing unit of measure may be based on item, case, or gross. If the maximum level is 20 and your minimum level is 10, but you reorder the item by the case (with 24 items per case), you need to adjust levels.

Consider the vendor lead time. Some stock items may be reordered every 60 days and others may be reordered every 30 days. You may want to order a higher quantity of items for those 60-day periods. Also, some items take longer to procure and you may have to increase reorder amounts to have enough on hand.

Specify the stock replenishment method for the part. You can set the stock method to Min/Max, Reorder Level, or On-Demand.

If you are using LIFO/FIFO as your pricing method for stock, the system records the unit price of each receipt transaction for stock so that each subsequent inventory transaction is recorded at the appropriate unit price.

See "Understanding time-based inventory valuation (LIFO/FIFO)" on page 222.

Associating stores with parts

Associating stores with parts enables you to specify detailed inventory information for specific parts, such as minimum stock levels and reorder quantities that determine how your company’s stock levels are maintained.

Additionally, you can also define part prices at the stock level enabling you to enter and update pricing information for each store in which the part is held.

Additionally, if you select Last in first out price (LIFO) or First in first out price (FIFO) as the **Price Type** for the part in the store, the system inserts a record for the part in the **R5FIFO** table when the part is received to stock that includes the part, price, quantity, store, and transaction date. The transaction date indicates the date the stock is inserted into inventory upon which all future LIFO/FIFO transactions for the part are based. For FIFO pricing, the system locates the record that was inserted into inventory first. For LIFO pricing, the system locates the record that was most recently inserted into inventory.

Depending on your system configuration, set the stock replenishment method for the part in stock and specify minimum and maximum quantities, a reorder level, and/or an order quantity as necessary.

The INVMETH installation parameter determines the default stock method for new parts in stock in all stores as Reorder Level (-). Modify the stock method for a part in stock in any store as necessary. If you have not modified the INVMETH parameter or do not specify a stock method for a stock record, the system automatically sets the stock method to Reorder Level.

Additionally, the system does not implement any of the stock methods for a part until you enter the information required to implement the stock method for the part. For example, if you set the stock method of a part in stock to Min/Max, you must enter a value **Minimum Qty.** and **Maximum Qty.** to implement the stock method for the part.

To associate stores with parts:

1. Select **Materials > Parts**.
2. Select the part for which to define store information, and then click the **Stores** tab.
3. Click **Add Store**.
4. Specify this information:

Store
Specify the store for the part. The system automatically populates the store description, **Store Org.**, **Stock Date** with the current system date, and **Base Price** with the appropriate price of the part. The system also populates **Stock Value** with the current value of the quantity on hand for the part using the base price of the part in stock. The system populates **Credit Balance** with the amount of credit associated with the part for an invoice line.

Note: Credit Balance is applied to the **Average Price** of the part based on the INCREDIT installation parameter upon approval of a new invoice and/or a credit or debit note applied to an invoice or an invoice line.

Core Value
Specify the core value of the part at the store level. The core value is the value of the part while it is in stock awaiting repair (for both external and internal repairs). For example, you have a part CS-ST-SPROCKET-249x284 IN part that is a carbon steel skip tooth sprocket .249" x .284" thickness valued at $200. The core value of CS-ST-SPROCKET-249x284 IN is $70. You issue one CS-ST-SPROCKET-249x284 IN valued at $200 to a piece of equipment. You also return one CS-ST-SPROCKET-249x284 IN taken off of the piece of equipment for repair. Because the CS-ST-SPROCKET-249x284 IN must be sent to the machine shop for repair, the system does not issue an inventory credit of $200. Instead, the system issues a credit of the $70 core value to your inventory.

Stock Class
Specify the stock class for the part.

Preferred Supplier
Specify the preferred supplier for the part.

Preferred Store
Specify the preferred store for the part.

Note: You cannot enter a value for both **Preferred Supplier** and **Preferred Store**. **Preferred Supplier** and **Preferred Store** are both used for automatically generating requisitions from low stock to provide different information for the requisition. Entering a **Preferred Supplier** for the part in store indicates that the requisition type for the part is Goods Requested. Entering a **Preferred Store** indicates that the requisition type for the part in store is a Store-to-Store transfer.

Lead Time (Days)
Specify the average number of days that the store needs to provide the part. The **Lead Time (Days)** indicates a number of days that are needed internally for inventory deliveries or transfers of the part from the store. **Lead Time (Days)** is only used for store-to-store requisitions.

Note: You can also enter **Lead Time (Days)** on the **Record View** page of the **Stores** form. The setting of **Lead Time (Days)** on the **Stores** page of the **Parts** form overrides the setting of **Lead Time (Days)** on the **Record View** page of the **Stores** form.

ABC Class
Select the class (A, B, or C) with which to associate the stock items. The system uses this information to perform ABC analysis.

Stock Method
Select one of the following stock method types:

Option	Description
Min/Max	Select to replenish low stock based on a specified minimum and maximum quantity of a part to keep in stock. When the quantity of a part in stock reaches a level that is less than the specified minimum level, the system reorders the necessary quantity of the part to replenish the quantity to the specified maximum level. **Reorder Level** and **Order Qty.** are read-only when **Stock Method** is Min/Max.
Reorder Level	Select to replenish low stock based on a specified reorder level and order quantity. When the quantity of a part in stock reaches the reorder level, the system reorders the part in increments of the specified order quantity until the quantity of the part in stock reaches a level that is greater than or equal to the reorder level. **Maximum Qty.** is read-only when **Stock Method** is Reorder Level.
On Demand	Select to replenish low stock only when there is a demand for it on a work order or store-to-store requisition. **Reorder Level** and **Maximum Qty.** are read-only when **Stock Method** is On Demand.

Reorder Level
Specify the quantity at which the system is to reorder the part. The value entered for **Reorder Level** specifies the quantity of a part that, when reached, triggers a purchase action for acquiring more of that part.

Prevent Issue from Default Return Bin
Select this checkbox to prevent the part from being issued from the default return bin.

Order Qty.
Specify the standard quantity of this part ordered at one time.

Condition
Specify the condition if the part is a condition tracked parent part. The system automatically populates **Part** and **Part Org.** If the part is a condition tracked child part, the system automatically populates **Condition**,**Part**, and **Part Org.**

Note: If the asterisk (*) condition is entered, store records will be created for each condition tracked child associated with the part. Also, the system will automatically populate **Part** and **Part Org.** for each store record with the values of the condition tracked child part and part organization. The condition for each store record will be the same as the condition for each condition tracked child. If the condition entered is not an asterisk (*), **Part** and **Part Org.** will be automatically populated with the part and part org. of the child part condition associated with the selected condition.

Conditions to Include in Reorder
Specify the conditions to include when the part is reordered if the part is tracked by condition. Only **Qty. on Hand** for part conditions listed in the **Conditions to Include in Reorder** will be considered.

Record Stockouts
Select to enable the system to create a record of the part, store, and date on which the inventory level for this part reached zero. You can view this information on a separate form.

Label Printer
Specify the default printer for printing barcode labels.

Label Template (Issue)
Specify the default label template for printing barcode labels for issues.

Label Template (Receipt)
Specify the default label template for printing barcode labels for purchase order receipts.

Label Printing Default
Select the default method for printing labels when the part is received to the selected store.

Default Bin
Specify the default bin for the part. The system automatically populates the **Default Bin Qty.** with the quantity of the parts located in the selected bin.

Label Template (Non-PO Receipt)
Specify the default label template for printing barcode labels for non-purchase order receipts.

Label Template (Core Return)
Specify the default label template for printing barcode labels for core returns.

Label Template (Warranty Return)
Specify the default label template for printing barcode labels for warranty returns.

5 Click **Submit**.

Note: You cannot delete a store associated with a part if a stock record exists for the part in that store.

Click **Add/Edit Comments** to enter comments.

To add, edit, view, or associate a document to the STOC entity, click **Add/Edit Documents**.

Entering stock information for parts

When you enter stock information for parts, you can select the **Store**, **Bin**, and **Lot** for the part in store. The system automatically enters the price based on the calculated base price of the part, and you can modify the price as necessary.

If you do not enter a **Qty. on Hand** for the part when entering a stock record, the system creates a new stock record for the part but does not create a stock transaction.

If you are using LIFO/FIFO as your pricing method, the system creates a record for the part in the **R5FIFO** table and creates a receipt transaction for the stock initialization of the part.

To enter stock information for parts:

1 Select **Materials > Parts**.

2 Select the part for which to define stock information, and then click the **Stock** tab.

3 Click **Add Stock Record**.

4 Specify this information:

Store
Specify the store for the part. The system automatically populates the store description and the **Store Org.**

Condition
Specify the condition if the part is a condition tracked parent part. The system automatically populates **Part** and **Part Org.** If the part is a condition tracked child part, **Condition** will be automatically populated with the condition of the selected part.

Note: If the asterisk (*) condition is entered, store records will be created for each condition tracked child associated with the part. Also, the system will automatically populate **Part** and **Part Org.** for each store record with the values of the condition tracked child part and part org. The condition for each store record will be the same as the condition for each condition tracked child. If the condition entered is not an asterisk (*), **Part** and **Part Org.** will be automatically populated with the part and part org. of the child part condition associated with the selected condition.

Bin
Specify the bin number storing the part.

Lot
Specify the lot number or batch of the part.

Note: The SHOWLOT installation parameter determines whether lots are used for stock information for parts. The default setting for SHOWLOT is Y. If SHOWLOT is set to N, the system disables **Lot**, and it is hidden.

Qty. on Hand
Specify the available quantity of the part.

Core Qty.
If the part is core tracked, specify the number of core parts that are currently in this **Bin** location. These are parts that you plan to repair on internal repair work orders or to send to a supplier on external repair requisitions. The value of **Core Qty.** is available for work orders and requisitions. The system automatically populates **UOM**.

Note: You can only specify a value for **Core Qty.** when inserting a stock record. You cannot edit or modify **Core Qty.** after saving the record.

The system does not create a stock transaction for the part when you specify a value for **Core Qty.**, nor does it make any price updates until the part is repaired and received back to **Qty. on Hand**.

If you attempt to delete the stock record for the part, the system verifies both the **Qty. on Hand** and the **Core Qty.**. If both the **Qty. on Hand** and the **Core Qty.** are not equal to 0, the system will not allow you to delete the stock record for the part.

5 Click **Submit**.

Note: If you specify a value greater than zero for **Qty. on Hand**, the system also creates a receipt transaction of type RECV for the part. However, if you specify zero as the quantity or do not specify a value for **Qty. on Hand**, the system creates a stock record for the part but does not create a receipt transaction for the part.

The system does not create a receipt transaction for the part when you specify a value for **Core Qty.**, nor does it make any price updates.

The system treats the stock information specified for this part as a stock receipt and updates the **Last Price** of the part.

To delete a stock, select the stock to delete, and then click **Delete Stock Record**. You cannot delete a stock record for a part if the quantity on hand of the part is greater than zero.

The system displays an **Asset ID** if the part is tracked by asset.

The system populates **Price** based on the setting of the PRICELEV installation parameter. If PRICELEV is set to **P**, the system populates **Price** with the base price of the part from the **Prices** tab of the Parts form. If PRICELEV is set to S, the system populates **Price** with the base price of the part from the **Stores** tab of the Parts form, and you can change the price as necessary.

To record a stockout for a store, select the store, and then click **Record Stockouts**.

Recording stockouts for parts

Record a stockout when the part's **Qty. on Hand** is not enough to fill the demanded **Part Qty.**

To record stockouts for parts:

1 Select **Materials > Parts**.
2 Select the part for which to record a stockout, and then click the **Stock** tab.
3 Select a store, and then click **Record Stockout**. The system automatically populates **Store**, **Part**, and **Part Org.**
4 Specify this information:

Stockout Qty.
Specify the number of parts missing that are required to complete the transaction.

Date/Time
Specify the date and time the stockout occurred, i.e., the day there was not enough of the part in inventory to issue to fill the demand.

5 Click **Submit**.

Calculating economic order quantity (EOQ)

Calculate the EOQ for a store to determine the most efficient quantity to order for inventory items. EOQ represents the ideal balance between ordering costs and inventory holding costs for items being demanded annually at a constant rate. EOQ helps manage inventory by minimizing order costs and holding costs for each item.

To calculate EOQ:

1 Select **Materials > Process > Calculate EOQ**.
2 Specify this information:

Organization
Specify the organization for which to calculate EOQ if you use multi-organization security.

Date From
Specify the date of the item's first analysis.

Date To
Specify the date of the item's last analysis.

Store
Specify the store for which to calculate EOQ.

Part
Specify the part for which to calculate EOQ.

Stock Class
Specify the class of the stock for which to calculate EOQ.

ABC Class
Select the class of the stock (A, B, or C) for which to calculate EOQ.

3 Choose one of these options:

Option	Description
% of Average Price	Select to calculate EOQ with a percentage of average price. Skip step 11. **Note:** The system uses this equation to calculate EOQ based upon % of Average Price. **Holding Cost %** is required. **Holding Cost** % is required. $EOQ = \sqrt{\frac{2 * Annualized\,Qty.Demanded * OrderCost}{AveragePrice * (HoldingCost\% / 100)}}$ If Average Price = 0 then EOQ = 0. EOQ=
Fixed Value	Select to calculate EOQ with a fixed value. Skip step 10. **Note:** The system uses this equation to calculate EOQ based upon Fixed Value. **Holding Cost** is required. **Holding Cost** is required. $EOQ = \sqrt{\frac{2 * Annualized\,Qty.Demanded * OrderCost}{HoldingCost}}$ EOQ =

4 Specify the following:

Holding Cost %
Specify the cost for the holding percentage.

Holding Cost
Specify the holding cost.

Fixed Order Cost
Specify the fixed order cost.

Print Calculated EOQ
Select to print the EOQ report.

5 Click **Process**.

6 Select each store for which to update the order quantity.

7 Click **Update Order Qty.** The system updates the order quantity on the **Stores** page of the **Parts** form for each selected parts record with the value in **New Order Qty.**

Transferring parts between bins

Transfer parts between bins within the same store. Transferring parts between bins does not create a stock transaction, because inventory levels for the part remain the same.

To transfer parts between bins:

1. Select **Materials > Parts**.
2. Select the part to transfer between bins, and then click the **Stock** tab.
3. Select the store, bin, and lot from which to transfer the part, and then click **Transfer Part between Bins**.
4. Specify this information:

   New Bin
   Specify the bin receiving the item.

   Transfer Qty.
   Specify the number of parts to transfer from the sending bin to the receiving bin. If the part to issue is tracked by asset, the system automatically selects **Track By Asset**, specifies 1 as the **Transaction Quantity** and **Available Quantity**, and displays the asset number by which the part is tracked for **Asset ID**.

   Note: You cannot specify a **Transaction Quantity** greater than 1 when issuing parts tracked by asset. If you want to issue multiple quantities of a part tracked by asset, you must transfer the part with a **Transaction Quantity** of 1 until you have transferred the total number of the part tracked by asset that you wish to transfer from the sending bin to the receiving bin.

5. Click **Submit**. The system transfers the specified quantity of the part from the sending bin to the receiving bin, and updates the **Qty. on Hand** of the selected bins in the Stock list.

Transferring parts without requisitions

Transfer parts from store to store without requisitioning them. Parts transferred using the **Quick Store-to-Store Transfer** form never achieve in-transit status. Since this tracking feature is not used for this type of transfer, store-to-store transfers should be reserved for very quick material movements. Quantities available both in the sending and receiving warehouses are adjusted immediately after the system saves the transaction.

When you transfer parts from store-to-store, the system creates a stock record for the transferred part in the receiving store for which the price type defaults to the price type of the receiving store. By default, the price type for a store is defined by the PRICELEV installation parameter; however, you can modify the price type for each store as necessary

Using the **Quick Store-to-Store Transfer** form, define a transfer header and then add as many part records as there are parts to transfer. Before submitting your transaction, you can edit part records by selecting the part in the Transaction Details list. The system displays the part record in the detail section where you can edit information related to the transfer as necessary.

Note: If you are using multi-organization security, you can only transfer parts between stores without requisitions using the **Quick Store-to-Store Transfer** form if the stores you are transferring the parts between are in the same organization, if the parts belong to the common organization, and the organizations have the same currency.

To transfer parts without requisitions:

1 Select **Materials > Transactions > Quick Store-to-Store Transfer**.

2 Specify this information:

Transfer Desc.
Specify a description of the transfer.

From Store
Specify the store from which to transfer parts.

Note: If a **Default Bin** is defined for the **From Store**, the system populates **From Bin** with the **Default Bin**, and the system populates the **On Hand Qty.** and **Core Qty.** based on the **From Bin**. The system will also populate the **Bin**.

To Store
Specify the store to which to transfer parts.

3 Click **Add Part**.

4 Specify this information:

Part
Specify the part to transfer. The system automatically populates **From Bin**, **To Bin**, **Lot**, **Price**, and **On Hand Qty.** If the selected **Part** is core tracked, the system enables **Transfer Core Qty.** and populates **Core Qty.** with the number of parts designated as for repair in the **From Bin**.

Note: The value displayed for **On Hand Qty.** indicates the current quantity of the part that is available for the specified **To Bin** and **Lot**, which is equal to the **On Hand Qty.** minus any quantity of the part that is currently allocated to any work orders.

If you delete the **From Bin**, the system clears **Lot** and then calculates the **On Hand Qty.** and **Core Qty.** for the **From Store**, which is the sum of the quantities of the part in all the bins in the **From Store**.

The system calculates the **Core Qty.** as the difference between quantity for repair in the **From Bin** and the number parts that are assigned on the **Repair Parts** page of a Repairable Core work order and the number of parts that are currently on External Repair requisitions.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

From Bin
Modify the bin from which to transfer the part if necessary. If you modify **From Bin**, the system removes the part.

To Bin
Modify the bin to which to transfer the part if necessary. If you modify **To Bin**, the system removes the part.

Lot
Modify the lot of the part to transfer if necessary. If you modify **Lot**, the system removes the part.

Price
Modify the price of the part to transfer if necessary. If you modify **Price**, the system removes the part.

Note: When PRICELEV is set to S, the system automatically populates **Price** with the base price of the part in the receiving store.

Asset ID
Specify the code identifying the asset associated with the part to transfer. If the part is tracked by asset, the system enables **Asset ID** and you must specify an asset ID number for the part before you can specify values for **Transfer On Hand Qty.** or **Transfer Core Qty.**

Transfer On Hand Qty.
Specify the number of parts to transfer from the quantity of the parts available in the **From Store**.

Note: If the part is an asset part, you can only transfer one part at a time. The system automatically displays a transfer quantity of "1" for asset parts. **On Hand Qty.** shows how many parts are available in the store or store, bin, and lot.

Transfer Core Qty.
Specify the number of parts to transfer from the quantity of the parts designated for repair in the **From Store**.

Note: You can only specify a value for **Transfer On Hand Qty.** or **Transfer Core Qty.**, but not both. When you specify a value for either **Transfer On Hand Qty.** or **Transfer Core Qty.**, the system protects the other field.

If you specify a **Transfer Core Qty.**, the system clears the **From Bin**, **To Bin**, **Asset ID**, **Serial Number**, **Lot**, and **Expiration Date**, and you must specify values for these fields manually.

If a **Default Bin** is defined for the **To Store** and you have not specified a value for **Transfer Core Qty.**, the system populates **To Bin** with the **Default Bin**.

If no **Default Bin** is defined for the part in the **To Store** and you have not specified a value for **Transfer Core Qty.**, the system populates **To Bin** depending on whether more than one bin stock record is defined for the part in the **To Store**. If more than one bin-stock record is defined for the part in the **To Store**, the system leaves the **To Bin** blank. If only one bin-stock record is defined for the part in the **To Store**, the system populates **To Bin** with the **Bin** from the bin-stock record.

5 Click **Add to List**.

6 Click **Submit Transaction**. The system immediately adjusts quantities available in the sending and receiving warehouses.

Generating requisitions

Generate requisitions from low stock levels to automatically create requisitions based on a stock replenishment method and specified generation options. The system provides three stock replenishment

methods: Min/Max, Reorder Level, and On-Demand. The system also enables you to generate requisitions for external repairs of core tracked parts.

To generate requisitions from low stock, the system examines current stock levels in stores, reserved parts, and parts specified on requisitions, purchase orders, and in transit. The system then generates a default requisition for all parts below the acceptable level to reach the specified stock level for the parts. The system will either generate a requisition for a standard order quantity until the specified stock level is reached, or it will simply order the necessary number of parts depending on the information you have specified for the stock record.

Note: If you are using the On-Demand method, there is no minimum quantity of the part to maintain. The system generates a requisition for the part when there is demand for the part, such as when there is a reservation for the part, but there is not enough of the part in stock to fill the reservation. If you make reservations for an event in the distant future, the system generates a requisition for the required materials. Infor EAM recommends the implementation of company policies to restrict reservation usage to a reasonable time frame in order to minimize excessive inventory.

To implement a stock replenishment method, you must specify a stock method for the part and specify a **Minimum Qty.**, **Maximum Qty.**, **Order Qty.**, and/or a **Reorder Level** on the stock record, depending on the stock method you have selected. You also must specify a **Preferred Supplier**.

Set **Auto Req. Status** on the **Stores** form to Approved, and all stock requisitions automatically generated for that store are created with a status of Approved. Otherwise, you must manually approve all purchase requisitions generated with a status of Unfinished.

When generating requisitions, the system may generate more than one requisition. Based on the parameters you specify on the **Generate Requisitions** form, the system may select part lines with multiple store, supplier, and/or buyer combinations. When you click **Generate**, the system generates a different requisition for each individual store/supplier/buyer combination. The following table illustrates this concept.

Store	Supplier	Buyer	Req. Created
Store 1	Supplier 1		10000
Store 1	Supplier 2		10001
Store 2	Supplier 1		10002
Store 2	Supplier 1	Buyer 1	10003
Store 2	Supplier 1	Buyer 2	10004

Note: User limits do not apply on the **Generate Requisitions** tab.

To generate requisitions:

1. Select **Materials > Process > Generate Requisitions**.
2. Select the saved selection parameters from the **Parameter List**.
3. Specify this information:

   Organization
   Specify the organization from which to generate the requisition if you use multi-organization security.

Requesting Store
Specify the store for which requisitions should be generated.

Note: To generate requisitions for all stores that begin within a specific letter, specify the letter followed by a percentage sign. For example, if you want to generate requisitions for all of your Houston locations, you specify 'H%' in **Store**.

Supplier
Specify the supplier for which requisitions should be generated.

Buyer
Specify the buyer of the parts for which requisitions should be generated.

Preferred Store
Specify the store for which requisitions should be generated if the part in store is a store-to-store transfer.

ABC Class
Select the A, B, or C class of the parts for which requisitions should be generated.

Part Class
Specify the class of the parts for which requisitions should be generated.

Note: To generate requisitions for all part classes that begin within a specific letter, specify the letter followed by a percentage sign.

Requested By
Specify the name of the person requesting the requisitions.

Default Approver
Specify the name of the person approving the requisitions.

Note: The system uses the information you supply in **Default Approver** to populate **Approved By** on the **Requisitions** form. If **Auto Req. Status** on the **Stores** form is set to A (Approved) and you do not specify a default approver, the system will populate **Approved By** on the **Requisitions** form with your **User ID**.

Cost Code
Specify the cost code for the requisition.

Consignment Items
Select to generate requisitions for consignment items only.

Non-consignment Items
Select to generate requisitions for non-consignment items only.

All Items
Select to generate requisitions for both consignment and non-consignment items.

Generate Purchase Requisitions
Select to generate purchase requisitions.

Note: To generate a requisition for parts that need to be purchased, you must set up a **Preferred Supplier** on the **Stores** page of the **Parts** form or a **Preferred Supplier** on the **Record View** page of the **Parts** form.

Generate External Repair Requisitions
Select to generate external repair requisitions.

Note: If you select both **Generate Purchase Requisitions** and **Generate External Repair Requisitions**, the system processes the external repair requisitions first so that the core tracked parts will be repaired, rather than ordering new parts. Also, if you have selected both **Generate Purchase Requisitions** and **Generate External Repair Requisitions** and you need more than the quantity designated for repair, the system generates one requisition with both a repair line and a purchase line.

To generate external repair requisitions for core tracked parts, the core tracked parts must meet the specified parameter criteria. The following information must also be true or set up for a core tracked part on the **Repair Details** page of the **Parts** form to generate a requisition for the part: **Core Qty.** must be greater than 0, **External Repair** must be selected, you must have specified a **Supplier** for the part, and the **Core Qty.** must be greater than or equal to the **Min. Repair Qty.**

If you set up a **Preferred Supplier** on the **Repair Details** page of the **Parts** form, but you have not on the **Stores** page of the **Part** form, the system only generates lines of type **External Repair** regardless of whether you selected both **Generate Purchase Requisitions** and **Generate External Repair Requisitions**. If you have set up a **Preferred Supplier** on the **Stores** page of the **Parts** form, but not on the **Repair Details** page of the **Parts** form, the system only generates lines of type Stock Purchase regardless of whether you selected both **Generate Purchase Requisitions** and **Generate External Repair Requisitions**.

If you specified a **Min. Repair Qty.** on the **Repair Details** page of the **Parts** form, the system only generates repair requisitions if the **Core Qty.** is greater than the **Min. Repair Qty.**

If you selected **Auto-Assign** for a part on the **Repair Details** page of the **Parts** form, the system will assign repair details for external repair parts automatically.

Generate Store-to-Store Requisitions
Select to generate store-to-store requisitions.

Note: If you selected **Generate Store-to-Store Requisitions**, the system uses the same formula used to calculate **Requested Qty.** for purchase requisitions.

Include Child Store(s) Qty.
Select to include the quantities for all child stores of the selected Store in the requisition generation process.

Print Requisition
Select to print the generated requisitions.

4 Click **Process**. Depending on the generation options you have selected, the system retrieves part lines for low stock items and/or core tracked parts to be repaired externally that are not listed on an existing requisition.

The system calculates the parts to be added to the requisition based on the following equation and the generation options you have selected:

```
(Qty. on Hand + Qty. at Shop + Qty. at Supplier + the quantity of the part
on requisitions + the quantity of the part on purchase order without
requisitions + in transit Qty. without requisitions) – (Reserved Qty. +
Qty. Requisitioned from store) = Quantity
```

If you are using the reorder level method
The system generates a requisition if the **Quantity** is less than or equal to the Reorder Level. The system calculates the **Requested Qty.** as a multiple of the **Order Qty.** that is necessary for the **Quantity** to reach a stock level greater than the **Reorder Level**.

If you are using the min/max method
The system generates a requisition if the **Quantity** is less than the **Minimum Qty.** The system calculates the **Requested Qty.** as the difference of the **Maximum Qty.** and the **Quantity**.

If you are using the on-demand method
The system generates a requisition if the **Quantity** is less than the quantity demanded. The system calculates the **Requested Qty.** as being equal to the difference of the qty. demanded and the **Quantity**.

5 Select the part lines for which to generate requisitions. The system automatically selects all of the part lines. You may remove individual lines from the list by unselecting the line. The system does not generate requisitions for unselected lines. The system automatically selects all of the part lines. You may remove individual lines from the list by unselecting the line. The system does not generate requisitions for unselected lines.

Note: The system never generates a requisition line for parts if **Prevent Reorders** is selected on the **Parts** form.

6 Click **Generate**.

Note: Depending on your system configuration, the system may require an electronic signature to authorize status initiations for requisitions. The system displays the eSignature popup when assigning a status for each requisition created.

Creating requisitions

Create requisitions on the **Requisition** form to request materials or services from outside vendors. A requisition consists of a requisition header and requisition lines. You can create a requisition for stock items, direct materials, or services. Stock items are materials that are kept in store and are tracked for inventory. Direct materials are items that you requisition specifically for work orders.

The life cycle of a requisition is controlled by the requisition status. When you create a requisition, the system assigns Unfinished as the status of the requisition. After adding all of the necessary line items to the requisition, you can update requisition status as necessary based on your status change authorization privileges. Status change authorizations are set up on the **Status Authorizations** form.

When updating requisition status, you can also update other information on the requisition. However, the system enables and/or protects the fields available for update based on whether or not lines have been added to the requisition, as well as the status to and from which you are updating.

In addition to having the appropriate status change authorization to change the status of a requisition, a user must also be granted sufficient monetary approval limits for requisitions on the **User** form to approve a requisition. The LIMITLEV installation parameter determines whether the system validates requisition approval limit authorizations on the header level or at the line level, and if the total value of

a requisition exceeds a user's requisition approval at either the header or the line level, then the user cannot approve the requisition.

The system automatically sets the currency of the requisition header and lines based on the currency of the organization for which the requisition is being created. You can modify the currency of a requisition line to enable you to requisition specific materials in a different currency than the organization of the requisition header, as long as a valid exchange rate has been defined for the currency to which you are changing the requisition line.

Once the requisition has been reviewed and updated as necessary, change the status to Ready for printing and print the requisition if necessary. Then, change the status to Approved/active to make the requisition available for purchasing. After the requisition is approved, you can add it to a purchase order to be forwarded to a supplier.

Creating requisition headers

Create requisition headers to specify the supplier(s) from which to requisition parts.

To create requisition headers:

1. Select **Materials > Requisitions**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization for which to create the requisition. The organization you select must be a specific organization to which you belong. The system automatically populates **Entered By** with the **User ID** of the logged in user and inserts the current date in **Date Requested**.

   Requisition
   Specify a description of the requisition in the adjacent field. The system assigns a requisition number after you save the record.

   Status
   Specify the status of the requisition.

   Store
   Specify the receiving store for the requisition if necessary.

   Note: If a **Default Store** is associated with the logged in user, the system will automatically populate the **Store**. You can assign a **Default Store** to a **Department** record. The **Default Store** can then be associated to a **User ID** by assigning a user to a **Department**, which will then associate a **Default Store** with the **User ID**. However, if no **Default Store** is associated with the logged-in user, then the system does not automatically populate **Store**, and you must enter the **Store** manually.

   Requested By
   Specify the employee requesting the items on the requisition.

Attention To
Specify the name or department that is receiving the part.

Delivery Address
Specify the address to which to deliver the items.

Supplier
Specify the supplier for the requisition. The system automatically populates **Supplier Org.**

Note: When you select a supplier on the requisition header, the system automatically assigns the selected supplier to each of the requisition lines, but you can modify the supplier for requisition line items as necessary.

Class
Specify the class of the requisition. The classes shown belong to the REQ entity.

Cost Code
Specify the cost code with which to associate the cost of the requisition.

Work Order–Activity
Specify the work order and activity for which the items are being requisitioned.

Note: When you specify a work order and activity at the requisition header level, the system automatically assigns the selected work order and activity to each of the requisition lines, and you cannot modify the work order or activity for requisition line items.

Additionally, you can only select work orders of type JOB or PPM with a status of Released or Closed for which the **Date Completed** on the work order is earlier than the number of days set in the REQDAYS installation parameter.

If the selected **Work Order–Activity** is a multiple equipment work order, the system enables **Equipment** and it is required.

Job
Enter the job for the selected work order-activity.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Specify a specific equipment to which to distribute the cost of the requisition.
- Specify All Equipment to evenly distribute the cost of the requisition to each equipment record on the work order.
- Specify WO Header Equipment to distribute the cost of the requisition to the equipment on the work order header only.

Default Approver
Specify the name of the person who will approve the requisition.

4 Click **Save Record**.

Note: The system populates and/or updates the following fields as parts and services are added to the requisition, or when the status of the requisition is changed or approved: **Part Lines**, **Service**

Lines, **Requisition Lines**, **Total Part Value**, **Total Service Value**, **Total Req. Value**, **Approved By**, and **Date Approved**.

If the status of the requisition is set to **Rejected**, **Reject Reason** becomes required, and you must enter a reason for why the requisition was rejected.

After you have added the requested parts/services to the requisition, click **Generate PO** to manually generate a requisition.

The system automatically selects **Printed** if you print the requisition.

Adding parts to requisitions

Add parts to requisitions after creating the requisition header.

If you do not know the part number of the part(s) to add to the requisition, you can search for the part(s) using the supplier catalog reference number or the manufacturer part description.

The system automatically populates some fields on the requisition line with information entered on the requisition header. For example, if a supplier is entered on the requisition header, the system automatically designates that supplier as the supplier for each requisition line. While the status of an individual requisition line is Unfinished, you can complete or update information on the requisition line as necessary. However, the system protects some fields that can be automatically populated from the requisition header.

Additionally, when you requisition a part cataloged on the **Part** form, the system also retrieves information from the part record and automatically populates many fields. If you need to requisition a part you have not yet created on the **Part** form, you can manually create a new part as necessary. After adding all of the necessary parts to the requisition, update the Status of the requisition as necessary based on your status change authorization privileges. Status change authorizations are set up on the Status Authorizations. However, the system enables and/or protects the fields available for update based on the status from which you are updating the requisition.

To add parts to requisitions:

1. Select **Materials > Requisitions**.
2. Select the requisition to which to add parts, and then click the **Parts** tab.
3. Click **Add Part Line**.

   Note: If the requisition line is generated from an RFQ, the system populates **RFQ**, **RFQ Org.**, **Quotation**, **Quotation Org.**, and **Quotation Line** when the line is created.

   If an RFQ is generated from the requisition, the system populates **RFQ**, **RFQ Org.**, and **RFQ Line** once the RFQ line is created. When a Quotation line is awarded for an associated RFQ line, the Quotation information is populated.

4. Specify this information:

   Supplier
   Specify the supplier for the part.

Manufacturer
Specify the manufacturer for the part.

Supp. Catalog Reference
Specify the reference number for the part from the supplier catalog. If you enter a **Supp. Catalog Reference**, the system populates the **Part**, the part description, **Supplier**, **Exchange Rate**, and the **Price** from the supplier's catalog.

Note: If the part has no price in the supplier's catalog, the system retrieves the price from the stock record of the part.

If you have entered a **Supplier** and you also enter a new **Supplier Catalog Reference**, the system creates a new record of the part in the supplier's catalog.

Manufacturer Part Number
Specify the manufacturer part number for the part. If you enter a **Manufacturer Part Number**, the system populates the **Manufacturer** and the part description.

Note: If you have entered a **Manufacturer** and you also enter a new **Manufacturer Part Number**, the system creates a new part record for the manufacturer.

Part
Specify the part to add to the requisition. The system automatically populates the part description and **Part Org.** and **New Orders Not Allowed** if the system is flagged to prevent reorders of this part. If the part has been flagged to prevent reorders, select a substitute part to continue.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Type
Select the part type for the requisitioned line.

Note: If you select Direct materials as the **Type** for the requisition line, you must enter a value for **Work Order-Activity**.

Line
Modify the line number of the part on the requisition if necessary. The system automatically assigns the next incremental line number based on the setting of the INCRLINO installation parameter.

Note: You can only edit the **Line** number when inserting a record. After the record is saved, the system protects **Line** and it is read only.

Requested Qty.
Specify the requested quantity part of the part.

Price
Specify the price of the part. The system automatically populates the currency of the organization on the requisition header in the adjacent field.

Note: If you select a supplier on either the requisition line or header, the system automatically populates **Price** with the part price from the supplier's catalog. Update the supplier on the requisition line as necessary.

Additionally, if the EXRTUPDT installation parameter is set to YES, you can also update the exchange rate for a requisition line when you modify the currency of the requisition line. If you update the exchange rate for a requisition line, the system recalculates the value of the requisition header based on the value of the new exchange rate.

Status
Specify the status of the part. The system automatically assigns Unfinished as the status of the part, or the equivalent user code status.

Requested Before
Specify the date before which the requisitioned part must be received.

Attention To
Specify the name or department that is receiving the part.

Exchange Rate
Specify the exchange rate for the part on the requisition.

Cost Code
Specify the cost code with which to associate the cost of the requisition.

Work Order–Activity
Specify the work order and activity for which the items are being requisitioned.

Note: If a work order and activity are entered on the requisition header, the system also populates **Work Order-sActivity** with the work order and activity from the requisition header and automatically set the **Type** for the requisition line to **Direct Purchase (PD)**. However, you can change the **Type** to **Stock Purchase (PS)**, and the system automatically clears the **Work Order-Activity**.

If the selected **Work Order-Activity** is a multiple equipment work order, the system enables **Equipment** and it is required.

Job
Specify the job for the selected work order-activity.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Specify a specific equipment to which to distribute the cost of the part.
- Specify All Equipment to evenly distribute the cost of the part to each equipment record on the work order.
- Specify WO Header Equipment to distribute the cost of the part to the equipment on the work order header only.

Note: If the selected **Part** is tracked by asset, then the system clears **Equipment**, **Equipment Org.**, and **Related Work Order** because you cannot distribute a part tracked by asset across multiple equipment.

Blanket Order–Line
Specify the blanket order line to associate with the part.

Note: If you select a **Blanket Order-Line**, the system automatically populates the **Supplier**, **Supplier Catalog Reference**, **Part**, **Description**, **Part Org.**, **Requested Qty.**, **Price**, **UOM**, **Currency**, and **Buyer** from the blanket order line. **Part** and **Description** are protected.

If you enter a **Part** and then select a **Blanket Order-Line**, the system overwrites the selected **Part** with the part from the blanket order line.

Quotation Indicator
Select one of the following options to indicate whether a supplier quotation is required for requisitioning the part:

Option	Description
Price quote not requested	Select if a quotation is not required prior to requisitioning the part.
Request a price quote	Select if a quotation is required prior to requisitioning the part.
Price quote requested before PO	Select if a quotation is preferred but not required prior to purchasing the part.

Comments
Specify comments as necessary.

5 Specify the **Buyer**, **Delivery Address**, **Expense Type**, **Commodity**, and **Comments**.
6 Select the **Inspection** check box to indicate that the part requires inspection.
7 Select the **Warranty** check box to indicate that the part is covered under warranty.
8 Select the **Track by Asset** check box to indicate that the part is tracked by asset.
9 Click **Submit**. The system calculates the cost of the part line and populates **Part Line Total** with the cost of the total value of the line.

Note: To manually create a part for a requisition when the part isn't listed in the supplier catalog reference, or cataloged on the **Parts** form, click **Create Part**.

To add multiple parts to a requisition, click **Select Parts**.

To add an iProcure part, click **Add Parts (iProcure Items)**.

To update iProcure Items in the parts catalog, click **Update iProcure Items**.

To view iProcure sync errors, click **View iProcure Sync Errors**.

To select a substitute part for a part that has been prevented from reordering, click **Select Substitute Part**.

Manually creating parts for requisitions

Manually create parts for requisitions when parts aren't listed in the supplier catalog reference or cataloged on the **Parts** form.

To manually create parts for requisitions:

1. Select **Materials > Requisitions**.
2. Select the requisition for which to create parts, and then click the **Parts** tab.
3. Click **Create Part**. The system automatically populates **Part** with a sequential Part number.
4. Specify this information:

   Part Description
   Specify a description for the part.

   Part Org.
   Modify the part organization as necessary.

   Type
   Select the part type for the requisitioned line.

   Line
   Specify the line number for the part.

   Note: Line type cannot be External Repair.

   Requested Qty.
   Specify the requested quantity part of the part.

   Price
   Specify the price of the part. The system automatically populates the currency of the organization on the requisition header in the adjacent field.

   Requested Before
   Specify the date before which the requisitioned part must be received.

   Attention To
   Specify the name or department that is receiving the part.

   Work Order-Activity
   Specify the work order and activity for which the items are being requisitioned.

   Note: If a work order and activity are specified on the requisition header, the system also populates **Work Order-Activity** with the work order and activity from the requisition header and automatically set the **Type** for the requisition line to Direct Purchase (PD). However, you can change the **Type** to Stock Purchase (PS), and the system automatically clears the **Work Order-Activity**. If the selected **Work Order-Activity** is a multiple equipment work order, the system enables **Equipment** and it is required.

   Equipment
   Choose one of the equipment options if the work order is a multiple equipment work order:

   - Specify a specific equipment to which to distribute the cost of the part.
   - Specify All Equipment to evenly distribute the cost of the part to each equipment record on the work order.
   - Specify WO Header Equipment to distribute the cost of the part to the equipment on the work order header only.

Note: If the selected **Part** is tracked by asset, then the system clears **Equipment**, **Equipment Org.**, and **Related Work Order** because you cannot distribute a part tracked by asset across multiple equipment.

Exchange Rate
Specify the exchange rate for the part on the requisition.

Cost Code
Specify the cost code with which to associate the cost of the requisition.

Blanket Order-Line
Specify the blanket order line to associate with the part.

Note: If you select a **Blanket Order-Line**, the system automatically populates the **Supplier**, **Supplier Catalog Reference**, **Part**, **Description**, **Part Org.**, **Requested Qty.**, **Price**, **UOM**, **Currency**, and **Buyer** from the blanket order line. **Part** and **Description** are protected.

If you specify a Part and then select a **Blanket Order-Line**, the system overwrites the selected **Part** with the part from the blanket order line.

Buyer
Specify the buyer for the part.

Delivery Address
Specify the delivery address for the part.

Inspection
Select to indicate that the part requires inspection.

Warranty
Select to indicate that the part is covered under warranty.

Track by Asset
Select to indicate that the part is tracked by asset.

Expense Type
Specify the expense type for the part.

Commodity
Specify the commodity for the part.

Quotation Indicator
Select one of the options to indicate whether a supplier quotation is required for requisitioning the part:

Option	Description
Price quote not requested	Select if a quotation is not required prior to requisitioning the part.
Request a price quote	Select if a quotation is required prior to requisitioning the part.
Price quote requested before PO	Select if a quotation is preferred but not required prior to purchasing the part.

Comments
Specify comments as necessary.

5 Click **Submit**. The system calculates the cost of the part line and populates **Part Line Total** with the cost of the total value of the line.

Note: To delete a part, select the part to delete, and then click **Delete Part Line**.

To add a comment, click **Add/Edit Comments**.

To add an iProcure part, click **Add Parts (iProcure Items)**.

To update iProcure Items in the parts catalog, click **Update iProcure Items**.

To view iProcure sync errors, click **View iProcure Sync Errors**. View the errors, and then click **Close**.

Selecting substitute parts

Select a substitute part for a requisition.

Note: The system only displays parts that have been associated as substitutes on the **Parts** form. The system does not display parts with **Prevent Reorders** selected on the **Parts** form.

To select substitute parts:

1 Select **Materials > Requisitions**.
2 Select the requisition to which to add parts, and then click the **Parts** tab.
3 Select the part line for which to substitute the part, and then click **Select Substitute Part**.
4 Select the part to substitute, and then click **OK**. The system replaces the value for **Part** with the newly selected part.

Adding services to requisitions

Add services to requisitions when your organization needs to hire external labor.

Note: You can only add services to requisitions that have a status of Unfinished.

Requisition entry limits apply to adding services. Contact your system administrator if you do not have sufficient requisition entry limits.

To add services to requisitions:

1 Select **Materials > Requisitions**.
2 Select the requisition to which to add a service, and then click the **Services** tab. The system automatically populates **Requested Before** with the current date, **Status** with Unfinished, and **Type with Hours** from service.

Note: The system automatically populates **Work Order-Activity** if a work order and activity were entered on the selected requisition record.

If the system populates **Work Order-Activity**, it also populates **Trade**, **Price**, **Task**, and **Hours Requested** based on information entered for the selected **Work Order-Activity** and associated **Task**.

3 Click **Add Service Line**.

Note: If the requisition line is generated from an RFQ, the system populates **RFQ**, **RFQ Org.**, **Quotation**, **Quotation Org.**, and **Quotation Line** when the line is created.

If an RFQ is generated from the requisition, the system populates **RFQ**, **RFQ Org.**, and **RFQ Line** once the RFQ line is created. When a Quotation line is awarded for an associated RFQ line, the Quotation information is populated.

4 Specify this information:

Supplier
Specify or modify the supplier for the service if necessary. If a supplier is entered on the requisition header, the system automatically populates **Supplier** with the designated supplier from the header. Specifying a supplier adds more detail to the search criteria for assigning lines to requisitions.

Note: The system automatically populates **Supplier Org.** with the organization of the selected supplier. The system also populates **Supplier Catalog Reference** if a catalog reference exists for the supplier.

Work Order-Activity
Specify the work order and activity for the service. If **Work Order-Activity** is entered on the requisition header, the system automatically populates **Work Order-Activity** with the designated work order/activity from the header.

Note: The system can only automatically populate the requisition line with both the work order/activity on the requisition header if **Hired Labor** is selected for the activity on the work order. If the activity is not authorized for hired labor services, the system leaves **Activity** blank, and you must either create or enter a valid activity.

To create a work order and activity, click **Create Work Order/Activity**.

If you select or create a **Work Order-Activity**, the system can automatically populate a number of fields from the work order/activity depending on the data entered on the work order/activity, such as the **Equipment**, **Trade**, **Task Qty.** (and the unit of measure), **Price** (from the task record), **Requested Before**, **Equipment Org.**, **Department**, **Task**, **Buyer**, **Warranty**, and **Commodity**. The system also automatically populates the Service Line Total with the total cost of the services on the service line. If the work order/activity is associated with a project and budget, the system populates the **Project** and **Budget** from the work order/activity.

If the selected **Work Order-Activity** is a multiple equipment work order, the system enables **Equipment** and it is required.

Job
Specify the job attached to the work order activity.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Enter a specific equipment to which to distribute the cost of the services.

- Enter All Equipment to evenly distribute the cost of the services to each equipment record on the work order.
- Enter WO Header Equipment to distribute the cost of the services to the equipment on the work order header only.

Note: When associating an order line with a multiple equipment work order, the system copies the purchase order line to only the parent multiple equipment work order activity. The system does not populate the purchase order line for the related work order activities.

Line
Modify the line number of the service on the requisition if necessary. The system automatically assigns the next incremental line number based on the setting of the INCRLINO installation parameter.

Note: You can only edit the **Line** number when inserting a record. After the record is saved, **Line** is protected.

Price
Specify the price of the service.

Note: If a supplier and work order/activity is associated with a trade but not a task, the system populates **Price** with the supplier rate for the specified **Trade**. If a supplier does not exist, the system populates **Price** with the rate specified for the trade and department.

Requested Before
Specify the date before which the requisitioned service must be completed.

Status
Select the status of the service.

Cost Code
Select the cost code for the service. If a **Cost Code** is entered on the requisition header, the system automatically populates **Cost Code** with the designated cost code from the header.

Delivery Address
Select the delivery address for the service. If a **Delivery Address** is entered on the requisition header, the system automatically populates **Delivery Address** with the designated delivery address from the header.

Expense Type
Select the expense type of the service.

Quotation Indicator
Select one of the following options to indicate whether a supplier quotation is required for requisitioning the service:

Options	Description
Price quote not requested	Select if a quotation is not required prior to requisitioning the service.

Options	Description
Request a price quote	Select if a quotation is required prior to requisitioning the service.
Price quote requested before PO	Select if a quotation is preferred but not required prior to purchasing the service.

Type
Select one of the following options:

Options	Description
Contractor hire	Select if the requisitioned service is under contract. If you select Contractor hire, you must enter a **Trade**. You cannot enter **Work Order-Activity**.
Fixed price	Select if the requisitioned service is to be paid at a fixed price. If you select Fixed price, you must enter a **Work Order-Activity**. The system automatically populates **Hours Requested** with 1 and **Price** based on the rate entered for the selected **Trade**. **Note:** If you enter a **Supplier**, the system populates **Price** based on the supplier's catalog rate entered for the selected **Task**. If you do not enter a **Task**, the system populates **Price** based on the supplier's rate entered for the selected **Trade**.
Hours from service	Select if the requisitioned service is to be paid at an hourly rate. If you select Hours from service, you must enter a **Work Order-Activity**.

Hours Requested
Specify the number of estimated hours to complete the service.

Note: If **Estimated Hours** have been specified for the task, the system establishes a ratio enabling you to enter **Task Qty.**, which will then adjust the **Hours Requested**. This ration is always based on the **Task**, never the activity. Likewise, if you enter a value for **Hours Requested**, then the reverse will be true, and the system will adjust the **Task Qty.** If there are no **Estimated Hours** specified for the **Task**, then the **Task Qty.** and **Hours Requested** are not connected. The system calculates the ratio between the **Task Qty.** and **Hours Requested** based on the following formula:

```
Hours Requested / Task Qty. = Ratio
```

For example, if the **Hours Requested** are 1.5 and the **Task Qty.** is 1, the system calculates the ratio between the two as follows:

```
1.5 / 1 = 1.5
```

If you update the **Hours Requested** to 4, then the system calculates the **Task Qty.** as follows:

```
4 / 1.5 = 2.67
```

Since the reverse is true if you update the **Task Qty.**, if you update **Task Qty.** to 4, then the system calculates the **Hours Requested** as follows:

```
4 x 1.5 = 6
```

If you clear **Hours Requested**, the system retains the current value for **Task Qty.**

Buyer
Specify or modify the buyer of the service.

Warranty
Select if the service is covered under warranty.

Commodity
Specify or modify the commodity of the service.

5 Click **Submit**.

Copying requisitions

Copy requisition details to a new requisition.

To copy requisitions:

1 Create a requisition.
See "Creating requisitions" on page 275.

2 Right-click anywhere on the **Requisitions** form, and then select **Copy Requisition**.

3 Specify this information:

New Requisition
Specify the name of the new requisition. The system automatically populates the **New Requisition** description.

4 Select the record types to copy, and then click **Submit**.

Creating work orders and activities on the Services page

Quickly create a work order and activity on the **Services** page of the **Requisitions** form without having to open the **Work Order** form.

To create work orders and activities on the **Services** page:

1 Select **Materials > Requisitions**.

2 Select the requisition for which to create a work order and activity, and then click the **Services** tab.

3 Click **Create Work Order/Activity**.

4 Specify the information necessary to create the work order.

Note: If you enter a linear equipment record, the system displays Linear Reference Details. Enter the linear equipment information.

5 Specify the information necessary to add the first activity to the work order.

6 Click **Submit**. The system populates Work Order-Activity on the **Services** page of the **Requisitions** form.

Note: Click **Reset** to clear all of the fields on the form.

Manually assigning repair details for core tracked parts on requisitions

Manually assign repair details for core tracked parts on requisitions. If you did not select **Auto-Assign** on a core tracked part record, you must manually assign repair details for the repair parts on requisitions. Manually assigning repair details for parts enables you to designate the store, bin, lot, and asset information to identify the parts to repair and their location.

You can also change repair details that were created during the system's automatic assignment process using the Repair Details popup.

To manually assign repair details for core tracked parts on requisitions:

1 Select **Materials > Requisitions**.

2 Select the requisition to which to assign repair details, and then click the **Parts** tab.

3 Select the part to which to manually assign repair details. The system populates the **Part Details** with the part information.

Note: You can modify **Requested Qty.** for a repair part if necessary. If you make any changes to **Requested Qty.**, you can use the Repair Details popup to edit **Qty. Assigned** as necessary.

You can only assign repair parts for Approved requisition lines.

4 Click **Assign Repair Details**. The system displays the Repair Details popup.

The system displays the **Part** and **Part Org.** of the selected part. **Track by Asset** is selected if the part is tracked by asset. The system automatically populates **Total Qty. to Repair** and **Total Qty. Assigned**. **Total Qty. to Repair** indicates the quantity of the part that is currently in stock for repair. The **Total Qty. Assigned** indicates the quantity of the part that is in stock for repair and has already been assigned to a repair bin location.

5 Select the store, bin, lot, and asset from which to assign a quantity of the part to repair.

6 Specify this information:

Qty. Assigned
Specify the quantity of the part to assign for repair.

Note: The value specified for **Qty. Assigned** cannot be greater than **Core Qty.**.

7 Click **Submit**.

Note: To delete a repair part line from the Parts on a requisition, select the repair part line to delete, and then click **Delete Repair Part**.

Viewing transactions for requisitions

View return transactions for the selected requisition.

To view transactions for requisitions:

1. Select **Materials > Requisitions**.
2. Select the requisition for which to view transactions, and then click the **Transactions** tab.
3. View the transactions information.

Generating RFQs from requisitions

From a requisition, generate a request for quotations for parts and services.

To generate RFQs from requisitions:

1. Select **Materials > Requisitions**.
2. Select the requisition for which to request quotations, and then click the **Record View** tab.
3. Right-click anywhere on the form, and then select **Generate RFQ**. The system automatically populates **Organization**, **Status**, and **Store**.
4. Specify this information:

   RFQ Description
   Specify a description of the RFQ.

   Currency
   Specify the currency for the quotation.

   Populate Suppliers
   Select to have all requisition suppliers populated on the RFQ.

   Requested By
   Specify the employee requesting the quotation.

   Requested Response Date
   Specify the date by which to receive the quotation.

   Buyer
   Specify the buyer for the quotation.

   Delivery Address
   Specify the delivery address for the quotation.

5 Click **Generate**. The system stores **RFQ**, **RFQ Org.**, and **RFQ Line** on the requisition line for the RFQ line created from that Requisition line. The system also updates the **Requisition System** to Q (Quoting), populates **RFQ** with the newly created RFQ number, and selects **RFQ Required**.

Note: If **Populate Suppliers** is selected when a RFQ is being generated, the supplier associated with the requisition line is added to the RFQ on the **Suppliers** tab. If the same supplier is associated with multiple requisition lines, the supplier is added to the RFQ only once.

Approving and rejecting purchasing requisitions

View a list of requisitions awaiting approval, and then either accept or reject the requisitions.

Note: You must have sufficient status change authorizations to approve and reject requisitions, and you cannot approve requisitions that exceed your requisition approval limit.

Approving requisitions

To approve requisitions:

1 Select **Materials > Review/Approve Requisitions**.

2 Select the requisitions to approve, and then click **Approve**. The system removes the approved requisitions from the list, and sets the system status of the requisitions to Approved.

Note: To select all the lines at once, check **Select**. To unselect all the lines at once, uncheck **Select**.

Double-click a requisition to view its details.

Rejecting requisitions

To reject requisitions:

1 Select **Materials > Review/Approve Requisitions**.

2 Select the requisitions to reject, and then click **Reject**.

3 Specify the reason for rejection.

4 Specify this information:

Use Reason for All
Select if you are rejecting multiple requisitions and the reason for rejection applies to all of the requisitions.

5 Click **OK**. The removes the rejected requisitions from the list, and sets the system status of the requisitions to Rejected.

Understanding automatic purchase order generation

Users set up as buyers with the proper authorization can automatically generate purchase orders with Unfinished, Ready for printing, or Approved status (or equivalent user codes) from existing requisitions on the **Generate POs** form.

To grant users the authorization to generate and/or approve purchase orders from existing requisitions, you must create the appropriate status change authorizations for generation for the PORD entity on the **Status Authorization** form. You can also create equivalent user codes for Unfinished, Ready for printing, or Approved status to which to assign to generated purchase orders.

You must also have sufficient monetary approval limits for the purchase order line or header level for **Purchase Order** or for **PO Approval** on the **Users** form to generate or approve the purchase order.

The LIMITLEV installation parameter determines whether approval limits are set at the header or line level. The system administrator can set LIMITLEV for **Purchase Order** and**PO Approval** at either the header level or the line level on the **Installation codes** form.

If you attempt to create a purchase order that exceeds your monetary approval limits for the purchase order line or header level, the system does not generate the purchase order.

Note: The scenarios for automatic purchase order generation apply to both the purchase order header and lines, and they are the same whether LIMITLEV is set to the header or line level for Purchase Order Limit.

Additionally, if the ASSETASS installation parameter is set to P and any of the approved requisition lines include parts tracked **By Asset** that have not been associated with objects, you must create an asset for each part tracked **By Asset**.

When generating automatic purchase orders, the system may generate more than one purchase order. Based on the search criteria you specify on the **Generate PO** form, the system may return requisition lines with multiple store and/or supplier combinations. When you select Create PO, the system generates a different purchase order for each individual store/supplier combination. The following table illustrates this concept.

Requisition Number	Line	Store	Supplier	PO to be Created
10000	1	Store 1	Supplier 1	10000
10000	2	Store 1	Supplier 1	10000
10001	1	Store 2	Supplier 1	10001
10002	1	Store 1	Supplier 2	10002
10002	2	Store 2	Supplier 2	10003

If a requisition line contains a repairable spare part to be repaired externally and there are no repair details assigned for the part via either the auto-assignment process or the Repair Details popup, the system processes external repair lines as follows:

- If **PO Status** is Unfinished in Purchase Order Options, the system adds the external repair part to a new or existing purchase order

- If the status of the purchase order is Ready for Printing, the system adds the external repair part to a new purchase order
- If the status of the purchase order is Approved, the system does not add the external repair part to either a new or existing purchase order, because a purchase order cannot be Approved without repair details.

If an external repair part line has repair details assigned, the system adds the external repair line to a new or existing purchase order when you generate the purchase order(s). When the purchase order is Approved, the **Requested Qty.** of the part is moved from **Qty. for Repair** to **Qty. at Supplier** on the stock record of the part, and it is also removed from the **Qty. for Repair** on the bin stock record of the part.

Creating a new purchase order from requisition line items

Create a new purchase order from existing approved requisition line items to quickly move the requisition to the purchasing module. Approved requisition lines can be generated using the **Requisitions** form.

Note: If the installation parameter POCURR is set to NO, the system requires that all requisition lines reference the same currency before it generates a purchase order.

Only users with the proper authorization can create purchase orders from existing requisitions with an Unfinished status or equivalent user code.

Note: To grant users the authorization to create purchase orders from existing requisitions with Unfinished status, you must create the appropriate status authorizations for the PORD entity on the **Status Authorization** form. You can also create an equivalent user code for the Unfinished status to which to assign to generated purchase orders.

You may set monetary approval limits for the purchase order line or header level for **Purchase Order** or for **PO Approval** on the **Users** form to generate and/or approve the purchase order. Purchase order limits are specified per user if you do not use multi-organization security. If you do use multi-organization security, purchase order limits are specified per user and organization. If your system administrator does not set monetary approval limits, users with proper authorization will be able to generate and/or approve purchase orders of any amount.

Note: The LIMITLEV installation parameter determines whether approval limits are set at the header or line level. The system administrator can set **Purchase Order** for generation and/or **PO Approval** for approval at either the header level or the line level using the LIMITLEV installation parameter on the **Install Parameters** form.

To create a new purchase order from requisition line items:

1 Select **Purchasing > Process > Generate POs**

2 Specify this information:

Organization
Specify the organization to which the requisition belongs if you use multi-organization security.

Supplier
Specify the supplier for which purchase orders should be created.

Store, Buyer, Requested By, Requisition
Specify the store, buyer, originator, and/or requisition for which to create the purchase order.

Note: To generate purchase orders for all stores, buyers, originators, and/or requisitions that begin within a specific letter, enter the letter followed by a percentage sign. For example, if you want to generate purchase orders for all of your Houston stores, you enter 'H%' in **Store**.

Create PO
Select to create a new purchase order from the requisition lines.

Note: You may also select **Add to Existing PO**.

PO Status
Select the status of the purchase order to be created.

Originator
Specify the originator of the purchase order to be created.

Delivery Address, Buyer
Specify a delivery address and/or buyer for the purchase order to be created.

Print PO
Select to print a new purchase order from the requisition lines.

3 Click **Process**.

4 Select the requisition lines to associate with the PO. The system automatically selects all of the requisition lines for which a supplier is specified. You may remove individual lines from the list by unselecting the line. The line remains outstanding, and you can assign it to a future purchase order.

Note: To select all the lines at once, check **Select**. To unselect all the lines at once, uncheck **Select**.

5 If a supplier is not specified for a part, select a supplier for the part. Press F9 to display the supplier lookup. The system automatically populates **Supplier Org.**

Note: If the part does not currently exist in the supplier's catalog, the system creates a record for the part in the supplier's catalog.

For parts that are included in a supplier's catalog but do not have a **Gross Price** (for purchases) or **Repair Price** (for repairs) recorded in the supplier catalog, the system updates/inserts the **Gross Price** or **Repair Price** for the part in the supplier catalog when the purchase order line is generated.

6 Click **Generate**. The system generates a purchase order, assigns the appropriate system status, and assigns the organization of the purchase order based on the organization of the store on the requisition.

Note: Depending on your system configuration, the system requires an electronic signature to authorize status initiations for purchase orders. The system displays the eSignature popup when assigning a status for the purchase order.

Adding requisition line items to an existing purchase order

Add requisition line items to an existing purchase order to quickly move the requisition to the purchasing module. Requisition lines must be approved before they can be added to purchase orders.

Note: If the installation parameter POCURR is set to NO, the system requires that all requisition lines reference the same currency before it generates a purchase order.

To add requisition line items to an existing purchase order:

1 Select **Purchasing > Process > Generate POs**.

2 Specify this information:

Organization
Specify the organization to which the requisition belongs if you use multi-organization security.

Supplier
Specify the supplier for which purchase orders should be created.

Store, Buyer, Requested By, Requisition
Specify the store, buyer, originator, and/or requisition for which to create the purchase order.

Note: To generate purchase orders for all stores, buyers, originators, and/or requisitions that begin within a specific letter, enter the letter followed by a percentage sign,. For example, if you want to generate purchase orders for all of your Houston stores, you enter ‘H%’ in **Store**.

Add to Existing PO
Select to add the requisition lines to an existing purchase order.

Note: You may also select **Create PO**.

Existing PO
Specify the PO number of the PO for which to add requisition lines.

Print PO
Select to print a new purchase order from the requisition lines.

3 Click **Process** to retrieve the requisition lines.

4 Select the requisition lines to associate with the PO. The system automatically selects all of the requisition lines for which a supplier is specified. You may remove individual lines from the list by unselecting the line. Unselected lines remain outstanding, and you can assign them to a future purchase order.

Note: To select all the lines at once, check **Select**. To unselect all the lines at once, uncheck **Select**.

5 If a supplier is not specified for a part, select a supplier for the part. Press F9 to display the supplier lookup. The system automatically populates **Supplier Org.**

Note: If the part does not currently exist in the supplier’s catalog, the system creates a record for the part in the supplier’s catalog.

For parts that are included in a supplier's catalog but do not have a **Gross Price** for purchases or **Repair Price** for repairs recorded in the supplier catalog, the system updates or inserts the **Gross Price** or **Repair Price** for the part in the supplier catalog when the purchase order line is generated.

6 Click **Generate**.

Note: Depending on your system configuration, the system requires an electronic signature to authorize status initiations for purchase orders. The system displays the eSignature popup when assigning a status for the purchase order.

Receiving parts

Receive parts against existing purchase orders or for items purchased without a purchase order such as credit card purchases.

Receiving parts against purchase orders

Receive parts against existing purchase orders. First, create purchase order receipt headers so you can receive purchase orders to your location. Create your receipt header based on an outstanding purchase order or for a specific supplier.

Once you create a receipt header, the system allows you to retrieve outstanding PO lines on the **Active Lines** page. If you entered a purchase order on the receipt header, the system displays all outstanding part lines for the selected purchase order. If you entered a supplier and store on the receipt header, the system displays all outstanding part lines on all purchase orders for that supplier.

From the **Active Lines** page, select which parts to receive and identify bin and/or lot locations to which to receive them.

When you approve lines on a PO receipt, the system moves the lines from the **Active Lines** page to the **Processed Lines** page, changes the status of the receipt from Unfinished to Approved, and adds the received parts to stock unless otherwise indicated.

Note: An automatic update for requisitions and purchase orders assigns a status of Complete when all lines of the requisition or purchase order are received. If there are subsequent returns affecting the requisition or purchase order, the system opens the affected record and automatically changes the status accordingly. Four installation parameters apply to this automatic update: RQSTRECV, RQSTALLR, POSTRECV, and POSTALLR.

Step 1: Create a non-purchase order receipt

To create non-purchase order receipts:

1 Select **Materials > Transactions > Non-PO Receipts**.

2 Click **New Record**.

Note: The system automatically populates **Date** with the current date.

3 Specify this information:

Organization
Select the organization for which to create the non-purchase order receipt if you use multi-organization security. The organization you select must be a specific organization to which you belong.

Non-PO Receipt
Specify a description of the non-PO receipt in the adjacent field. The system automatically assigns a number to the non-PO receipt after you save the record.

Status
Select the status of the non-PO receipt. The system automatically assigns an Unfinished status to the non-PO receipt, or the equivalent user code status.

Supplier
Specify the supplier from which the materials were purchased.

Store
Specify the store to which the materials were received.

Reference Number
Specify the reference number for the receipt transaction. The reference number can be a credit card approval number, a verification code, a transaction reference number, etc.

4 Click **Save Record**.

Step 2: Record packing slip information for PO receipts

Record the packing slip information for PO Receipts when the packing slip contains lines for a specific purchase order or contains lines from multiple purchase orders from the same supplier. Once the packing slip information is recorded, the system automatically populates the **Active Lines** page with the lines so that the lines may be received into inventory.

Note: If your company procedure does not use packing slips, skip the packing slip step.

To record packing slip information for PO Receipts:

1 Select **Materials > Transactions > PO Receipts**.
2 Select the PO Receipt for which to record the packing slip, and then click the **Packing Slip** tab.
3 Click **Retrieve Lines**. The system populates the Packing Slip list with outstanding part lines based on the information you specified on the PO receipt header. The system automatically populates **Part**, **Part Description**, **Outstanding Qty. (UOP)**, and **Condition**.
4 Specify this information:

Receipt Qty. (UOP)
Specify the number of items received in the unit of purchase.

Receipt Qty. (UOM)
Specify the number of the parts that were actually received.

Delivery Qty. (UOD)
Specify the number of delivery items, and then specify the unit of measure per unit of delivery.

UOP per Delivery UOD
Specify the unit of purchase for the part per the unit of delivery.

5 Click **Record Packing Slip**. The system records the packing slip lines, changes the system status of the PO Receipt header to R (Packing Slip Recorded), and creates active lines for the packing slip lines.

Note: The packing slip **Receipt Qty. (UOM)** is the value recorded for **Receipt Qty. (UOM)** on the **Active Lines** page.

To remove a packing slip line, select the line to remove, and then click **Remove Line**.

To remove all packing slip lines, click **Remove All Lines**.

To remove multiple packing slip lines, click **Remove Multiple Lines**. Select the lines to remove, and then click **Remove Selected Lines**.

Step 3: Retrieve outstanding PO lines (skip packing slip)

Retrieve outstanding PO lines on the **Active Lines** page after you create the PO receipt header. If you specified a purchase order on the receipt header, the system displays all outstanding part lines for the selected purchase order. If you specified a supplier and store on the receipt header, the system displays all outstanding part lines on all purchase orders for that supplier and store combination.

If you are receiving a part tracked by asset, the system displays the part in quantities of one. For example, you receive five motors that are tracked by asset, so the system displays the motor on five separate lines.

To retrieve outstanding PO lines:

1 Select **Materials > Transactions > PO Receipts**.

2 Select the PO receipt for which to retrieve PO lines, and then click the **Active Lines** tab.

3 Click **Retrieve Parts (Skip Packing Slip)**. The system populates the Active Lines list with outstanding part lines based on the information you specified on the PO receipt header.

Note: If the purchase order line for which you are receiving parts is associated with a multiple equipment work order, then the system populates **Equipment**, **Equipment Org.**, and **Related Work Order** from the values on the purchase order line, and they are protected.

To remove individual lines from the Active Lines list, select the line from the Active Lines list, and then click **Cancel Line**. The system cancels the record and updates the Active Lines list. The line remains outstanding and you can add it to a future PO receipt.

To undo an individual line removal from the Active Lines list, click **Undo Cancel Line**. The system changes the status of the line to Unfinished if the line has a system status of Cancelled.

4 Select the part line for which to specify line details. The system populates the part information including the **Condition** from the purchase order in Active Line Details.

Note: If the PDRCPTTO installation parameter is set to EVENT, the system automatically selects **Direct** for each direct material part, and it is updateable. If PDRCPTTO is set to STORE, the system automatically selects **Direct**, and it is updateable.

If the part is tracked by lot, **By Lot** is selected and protected.

5 Verify the number of parts received for each line and edit the information for each part on the receipt as necessary.

6 Specify this information:

Repair Condition
Specify the repair condition if the part is for an external repair and condition tracked.

Bin
Edit the bin number for the part.

Note: If you specified a default bin for the part in store on the part record, the system automatically populates **Bin** with the default bin.

If the part is for an external repair and tracked by condition, the system automatically populates **Bin** with the default bin for the part associated with the repair condition.

Receipt Qty. (UOM)
The system automatically populates **Receipt Qty. (UOM)** with the number of the parts that were actually received. The system populates **Receipt Qty. (UOP)** with the actual number of items received in the unit of purchase, and it is protected.

For example, if you received one case of the item, and each case contains 12 items, then the system displays 12 as the **Receipt Qty. (UOM)** and 1 as the **Receipt Qty. (UOP)**.

Note:

If you received fewer or more parts than you ordered, edit the received quantity. To edit **Receipt Qty. (UOM)**, select the line to edit on the Active Lines list. The system populates the line information in the Active Line Details.

If you receive only a partial order, receive the materials, and then save the record. When the rest of the order comes in, create a new PO receipt to close the purchase order. You cannot modify the first PO receipt.

If the part to receive is tracked by asset, the system creates a separate line for each by asset part, populates the **Receipt Qty. (UOM)** with 1, and you must specify an **Asset ID** for each part to receive.

If you are receiving or scrapping core tracked parts from an external supplier repair that were assigned from the same lot in a core bin, the system creates one line for each part on the receipt and populates **Receipt Qty. (UOM)** with the outstanding quantity of the part from the purchase order. If the external repair parts were assigned from more than one lot in a core bin, the system also creates one line for each part/lot combination on the receipt, but the system does not populate **Receipt Qty. (UOM)**.

The system automatically populates the **Qty. per UOP** with the quantity of the part per unit of purchase from the purchase order line.

For parts tracked by asset, the **Receipt Qty. (UOM)** cannot be greater than the outstanding quantity of the part on the purchase order. However, for parts that are not tracked by asset, the **Receipt Qty. (UOM)** can be greater than the outstanding quantity of the part on the purchase order if the OVERRECV installation parameter is set to YES. If OVERRECV is set to NO, the **Receipt Qty. (UOM)** cannot be greater than the outstanding quantity on the purchase order.

Repair Price
If the part is a core tracked part to be repaired externally by a supplier, specify the supplier's price for repairing the part.

Note: Repair Price is only enabled if the RPPRCCAL installation parameter is set to YES and the part selected is a core tracked part from an external repair purchase order line. If the RPPRCCAL installation parameter is set to NO, **Repair Price** is protected regardless of whether the part is core tracked.

If a part is core tracked, the system enables **Scrapped Qty.** and protects **Lot**.

Asset Type
If the part is tracked by asset, specify the asset type for the part to receive.

Department
Specify the department for the part to receive.

Note: For parts tracked by asset, an **Asset ID** and **Department** must be specified. The system may automatically populate these fields depending on the ASSETASS and AUTOANUM installation parameters.

If the ASSETASS installation parameter is set to P for "Purchase Order", assets are created for parts tracked by asset at the time you create the purchase order of the parts to receive, and the assets are already associated with the parts to receive. So, when you click **Retrieve Parts**, the system automatically populates **Asset ID**, **Asset Type**, **Asset Org.**, and **Department** and they are protected. However, if the ASSETASS installation parameter is set to R for "Receipt", you must create the assets to associate with each part tracked by asset at the time of receipt, and you must specify **Asset ID**, **Asset Org.**, and **Department**. **Asset Type** is also required, and the system automatically populates **Asset Type** with the Asset system type.

If the AUTOANUM installation parameter is set to YES, the system will automatically specify an asset number for each **Asset ID** when you click **Approve Parts**.

Manfacturer Lot
Specify the manufacturer lot for the part to receive.

Expiration Date
Specify the expiration date for the part to receive.

Return Qty.
Specify a return quantity for the part to create a return transaction for the part on the receipt. If you specify a **Return Qty.**, the system enables **Reason for Return**. If you specify a **Return Qty.** and **Reason for Return**, the system creates an approved return transaction for the supplier for all line types (direct materials, parts tracked by asset, and/or core tracked parts) when you click **Approve All Parts**.

Lot
Specify the lot for the part to receive as necessary.

Note: If LOTNRG is set to P, generate lot numbers for each receipt, or T, only generate lot numbers for parts tracked by asset, the system does not automatically populate **Lot** when you receive parts, and you can either specify a lot or select an existing lot for the part. If you do not specify a lot, the system generates a lot for the part when you click **Approve Parts**.

If you specify a new lot, the system creates a new lot record for the specified lot, and the lot will be available for future selection in the **Lot** lookups.

If LOTNRG is set to "-", the system validates the lot based on the existing lots lookup. However, if the SHOWLOT installation parameter is set to N, the system does not generate any lot numbers regardless of the setting of the LOTNRG installation parameter. **Lot** is hidden, and the system automatically populates **Lot** with an asterisk (*) in the database.

If the part to receive is core tracked, **Lot** is protected.

Asset ID
If the part is tracked by asset, specify the code identifying the asset to associate with the part. The system automatically populates **Asset Org.**

Scrapped Qty.
If the part is core tracked, you can specify the quantity of the parts to scrap because they cannot be repaired.

Print Qty.
Specify the quantity of the label(s) to print for the part to receive.

Note: The system automatically sets the **Print Qty.** based on the setting of **Label Printing Default** on the **Stores** tab of the **Parts** form:

Option	Description
If set to No Labels	**Print Qty.** is null.
If set to Single Labels	**Print Qty.** is set to 1.
If set to Label for Each Item	**Print Qty.** is equal to the **Receipt Qty. (UOM)**, but you can modify the **Print Qty.** as necessary. Updating **Print Qty.** does not affect the **Receipt Qty. (UOM)**.

Click **Print Label(s)** to print labels for the part(s) to receive, and the system will print labels based on your system configuration and the specified **Print Qty.**

7 After editing the part details for the part(s) on the receipt, click **Submit**.

8 Review the Active Lines list, and then click **Approve All Parts**.

Note: When you approve the receipt for external repair lines, the system moves **Receipt Qty.** from the **Qty. at Supplier** to **Qty. on Hand** on the stock record of the part. **Scrapped Qty.** is subtracted from **Qty. at Supplier** on the stock record, but it is not added to **Qty. on Hand**.

If the part is tracked by asset, the status of the associated asset is updated to Purchased/In Store. If you scrap the part tracked by asset, the status of the associated asset is updated to Withdrawn, and the status of any child assets in a hierarchy are also updated to Withdrawn.

If both **Receipt Qty.** and **Scrapped Qty.** are specified, the system creates one transaction line of type RECV for both a receipt and the scrap transactions.

If All Equipment is selected for **Equipment** on a line, the system creates a header and line transaction for each **Related Work Order** activity associated with the multiple equipment work order. Each transaction is used to receive the appropriate number of parts for each equipment on the multiple equipment work order. The quantity for each transaction is equal to the quotient of the **Receipt Qty (UOM)** and the number of equipment on the multiple equipment work order. The system automatically

applies any remainder of the receipt quantity that cannot be evenly distributed to the last equipment record on the **Equipment** page of the **Work Orders** form.

If a specific **Equipment** record is selected, then the system creates a transaction for the **Related Work Order** associated with the selected **Equipment** and activity.

If **WO Header Equipment** is selected for **Equipment** on a line, then the system creates a transaction for only the work order on the purchase order line.

When you approve the receipt for external repair lines and the part is condition tracked, the system updates **Qty. at Supplier** for the purchase order line part instead of the repair condition part. **Qty. on Hand** is updated for the repair condition part instead of the purchase order line part. In addition, if the part is tracked by asset and received, the status of the associated asset is updated to Purchased/In Store. If you scrap the part tracked by asset, the status of the associated asset is updated to Withdrawn.

Viewing processed lines for PO receipts

View processed lines for PO receipts to see purchase order lines that have already been approved on a PO receipt. Once you approve a line on a PO receipt, the line cannot be used with any other PO receipt. The system automatically moves lines from the **Active Lines** page to the **Processed Lines** page when they are approved.

To view processed lines for PO receipts:

1. Select **Materials > Transactions > PO Receipts**.
2. Select the PO receipt for which to view processed lines, and then click the **Processed Lines** tab.
3. View the processed lines information.

   The system displays the following information for each processed line in the Processed Lines list:

Field	Description
Line	Line number of the part on the receipt
Part	Code of the received part
Description	Description of the **Part**
Part Org.	Organization of the **Part**
Type	Type of part, such as Stock Items, Direct Materials, and External Repairs
Received Qty.	Quantity of the part that was received
Scrapped Qty.	If the part is a repairable spare part, the system displays the quantity of the part that was scrapped because it could not be repaired.
Repair Price	If the part is a repairable spare part, the system displays the price of repairing the part.

Field	Description
Originator	The **User ID** of the user from whom the stock transaction originated
Bin	Bin into which the part was received for the receipt transaction
Lot	Lot of the received part
Asset ID	Identification number of the associated asset
Asset Type	Type of the associated asset
Asset Description	Description of the associated asset
Asset Org.	Organization of the associated asset
Department	Department of the part/asset
Serial Number	Serial number of the part/asset
Manufacturer Lot	Lot of the part assigned by the manufacturer
Expiration Date	The date the price for the part expires
Purchase Order	Purchase order for which the part was received
Purchase Order Org.	Organization of the **Purchase Order**
Receipt Trans.	System-generated number identifying the part receipt
Return Trans.	System-generated number identifying the part return
Return Qty.	Number of the part that was returned for the receipt
Reason for Return	Explanation of why the part that was specified during the receipt/return transaction was returned
Work Order	Work order for which the part was purchased/received
Activity	Activity on the work order for which the part was purchased/received
Direct	Indicates that the received part was for a purchase order line type of Direct Materials
Equipment	The equipment for which the part was purchased/received if the associated **Work Order** and activity is a multiple equipment work order
Equipment Org.	Organization of the **Equipment** if the associated **Work Order** and activity is a multiple equipment work order

Field	Description
Related Work Order	Number identifying the system-generated MEC work order created for the **Equipment** if the associated **Work Order** and activity is a multiple equipment work order
Direct	Indicates that the received part was for a purchase order line type of Direct Materials
By Lot	Indicates that the part received is tracked by lot
Supplier Catalog Reference	Number of the part in the supplier's part catalog
Assigned To	Employee code of the employee to whom the work order is assigned
Name	Name of the employee to whom the work order is assigned

Creating non-purchase order receipts

Create non-purchase order receipts to receive parts into store without a purchase order to facilitate credit card purchases or any other type of purchase made without using a purchase order.

After creating a non-purchase order receipt, you can update the receipt status as necessary based on your status change authorization privileges. Status change authorizations are set up for the TRAN entity on the **Status Authorizations** form. However, the system enables and/or protects the fields available for update based on the status from which you are updating the receipt.

Step 1: Create a non-purchase order receipt

To create non-purchase order receipts:

1 Select **Materials > Transactions > Non-PO Receipts**.

2 Click **New Record**.

Note: The system automatically populates **Date** with the current date.

3 Specify this information:

Organization
Select the organization for which to create the non-purchase order receipt if you use multi-organization security. The organization you select must be a specific organization to which you belong.

Non-PO Receipt
Specify a description of the non-PO receipt in the adjacent field. The system automatically assigns a number to the non-PO receipt after you save the record.

Status
Select the status of the non-PO receipt. The system automatically assigns an Unfinished status to the non-PO receipt, or the equivalent user code status.

Supplier
Specify the supplier from which the materials were purchased.

Store
Specify the store to which the materials were received.

Reference Number
Specify the reference number for the receipt transaction. The reference number can be a credit card approval number, a verification code, a transaction reference number, etc.

4 Click **Save Record**.

Step 2: Add parts to a non-purchase order receipt

To add parts to a non-purchase order receipt:

1 Select **Materials > Transactions > Non-PO Receipts**.
2 Select the non-PO receipt for which to add parts, and then click the **Parts** tab.
3 Click **Add Part**.

Note: To automatically create a new part record while adding the part to the Parts list, click **Create Part**. The system inserts a new Part Details record, creates a part record, assigns the part record a part number beginning with 'N', and protects the **Part** field from update.

4 Specify this information:

Part
Specify the part to add to the non-PO receipt. The system automatically populates the part description and **Part Org.**, and **Bin** based on the information you specified on the **Stores and Stock** pages of the **Parts** form.

Note: The system automatically selects **Track by Asset** for parts tracked by asset, and you must specify an **Asset ID**, **Asset Type**, and **Asset Org.**

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Receipt Qty.
Specify the quantity of the part that you received.

Note: For parts tracked by asset, the system only receives the part in quantities of 1. The system automatically assigns 1 as the **Receipt Qty.** You must manually add lines for each asset to receive if you want to receive more than one asset.

Bin
Specify the bin where the part should be stocked.

Lot
Specify the lot for the part.

Expiration Date
Specify the expiration date for the lot.

Department
Specify the department of the asset if the part is tracked by asset.

Manufacturer Lot
Specify the manufacturer lot for the part.

Print Qty.
Specify the quantity of the label(s) to print.

Note: The system automatically sets the **Print Qty.** based on the setting of **Label Printing Default** on the **Stores** tab of the **Part** form:

Option	Description
If set to No Labels	**Print Qty.** is null.
If set to Single Labels	**Print Qty.** is set to 1.
If set to Label for Each Item	**Print Qty.**is equal to the **Receipt Qty.**, but you can modify the **Print Qty.** as necessary. Updating **Print Qty.** does not affect the **Receipt Qty.**

5 Click **Print Label(s)** to print labels for the part(s) to receive, and the system will print labels based on your system configuration and the specified **Print Qty.**

6 Specify this information:

Price
Specify the price of the part.

Asset ID
Specify the asset ID number for the part if the part is tracked by asset.

Asset Type
Specify the asset type for the part if the part is tracked by asset.

Asset Org.
Specify the organization for the asset for the part if the part is tracked by asset.

Note: If the ASSETASS installation parameter is set to P, a by asset part must already be associated with an asset with a status of Awaiting Purchase to receive the part. If you want to receive a part tracked by asset, you must specify an **Asset ID**, but all other asset-related fields are protected. After selecting an **Asset ID**, the system automatically populates **Asset Type**, **Asset Org.**, **Description**, **Department**, and **Serial Number** (if applicable).

If the ASSETASS installation parameter is set to R, you can create assets when you are receiving a part tracked by asset. You can either associate an existing asset with the part, or you can manually specify asset information to create new assets. If you select an existing asset as the Asset ID, the system automatically populates the **Asset Type**, **Asset Org.**, **Department**, and **Serial Number** (if applicable) from the asset record. If you choose to manually specify the asset information, you must

specify an **Asset ID**, **Asset Type**, **Asset Org.**, and **Description** for each asset. The system automatically populates **Asset Type** with type A (or the system equivalent); however, you can update the **Asset Type** as necessary.

If the AUTOANUM installation parameter is set to YES and the ASSETASS installation parameter is set to R, the system automatically generates asset numbers for parts tracked by asset, but you must specify an **Asset Type**, **Asset Org.**, and **Description** for each asset. You can also update **Asset ID** if necessary. The system automatically populates **Asset Type** with type A (or the system equivalent); however, you can update the **Asset Type** as necessary. When you save the record, the system saves the asset information on the receipt; however, the system does not actually create any assets until the receipt **Status** is Approved. Upon approval of the receipt, the system creates all of the new assets using the part descriptions.

Serial Number
Specify the serial number for the part if the part is tracked by asset.

7 Click **Submit**.

Note: To remove a part line, select the part line to remove, and then click **Remove Part**.

Issuing and returning parts

Issue parts from stores to work orders, equipment, or projects. Return unused parts and parts needing repair to stores.

Issuing parts to work orders, equipment, or projects

Issue parts to stores to work orders, equipment, or projects.

Note: If you have selected FIFO or LIFO as your pricing method, the system calculates the transaction price of issues to work orders, equipment, or projects using the **R5FIFO** table, rather than retrieving the base price from the **R5PARTS or R5STOCK** table.

To issue parts to work orders, equipment, or projects:

1 Select **Materials > Transactions > Issue/Return Parts**.
The system automatically populates **Transaction Type** with Issue to enable issue functionality.

2 Specify this information:

Store
Specify the store from which to issue parts. The system automatically populates **Date** with the current system date. If a default store is defined for the current user, the system automatically populates **Store** with the user's default store.

Choose one of the following options to issue to a work order, piece of equipment, or project:

Option	Description
Issue to a work order	Specify the **Work Order-Activity**. The system automatically populates **Equipment**, **Equipment Org.**, **Project-Budget**, **Cost Code**, and **Department** from the work order, as well as the **Material List** or **Pick Ticket** if they have been associated with the **Activity**.
Issue to a piece of equipment	Specify the **Equipment**. The system automatically populates **Cost Code** and **Department** **Note:** If the selected **Equipment** is associated with a multiple equipment work order, then the system also populates **Equipment Org.** and **Related Work Order**. If you select All Equipment for **Equipment** and you are issuing a **By Asset** part, then the system clears the Transaction Details.
Issue to a project	Specify the **Project-Budget** and **Department**.

Issue To
Specify the code of the employee to whom to make the issue.

Reference Number
Specify a reference number for the issue. The reference number is simply an internal reference number that is not used by the system for any validation.

Material List
Specify the material list from which to issue. If a material list is already attached with the selected work order/activity, the system automatically populates **Material List** in the Issue From / Return To section and enables the **Material List** hyperlink in the **Transaction Details** section. You can modify **Material List** as necessary when the parts on the material list have been added to the Transaction Details list.

Pick Ticket
Specify the pick ticket from which to issue. If a pick ticket is already attached with the selected work order/activity, the system automatically populates **Pick Ticket** in the Issue From / Return To section and enables the **Pick Ticket** hyperlink in the **Transaction Details** section. You can modify **Pick Ticket** as necessary when the parts on the pick ticket have been added to the Transaction Details list.

Note: Pick tickets are not available for issuing parts to a project/budget.

If the selected **WO-Activity** associated with the **Pick Ticket** is a multiple equipment work order, then the system automatically populates **Equipment** with WO Header Equipment.

Department
Specify the department of the store, work order/activity, project/budget, or equipment. The system automatically populates **Department** if you have selected a work order/activity or piece of equipment.

Date
Modify the date on which to make the issue. The system automatically populates **Date** with the current date and time.

Choose one of the following options:

- If the parts have been included on a material list, click **Material List**
- If the parts have been included on a pick ticket, click **Pick Ticket**.
- If purchased parts were delivered and are ready for distribution, click **Held Items**.
- If stock parts are reserved for this work order, click **Reserved Items**.

Note: If none of these options apply, specify the part information manually. See the next step.

Part
Specify the part to issue. The system displays the available quantity, the bin location, and the lot number. Change the bin location and lot number as necessary. The system populates **Available Qty.** with the sum of the quantities of the part in all the bins in the selected Store minus any quantity of the part that is currently allocated to any work orders.

If the part to issue is tracked by asset, the system automatically selects **Track by Asset** and specifies 1 as the **Transaction Qty.**, and you must specify a value for **Asset ID** for the part. The system populates **Available Qty.** with the total quantity of the part that is currently available.

The system automatically populates **Available Qty. UOM** and **Transaction Qty. UOM**.

Note: You cannot specify a **Transaction Qty.** greater than 1 when issuing parts tracked by asset. If you want to issue multiple quantities of a part tracked by asset, you must add the part tracked by asset to the Transaction Details list on individual lines with a **Transaction Qty.** of 1 until you have reached the number of the part tracked by asset that you wish to issue for the transaction. **Track by Asset** is hidden by default.

If the part to issue is tracked as part of a kit, the system creates a single transaction line for the kit.

Bin
Select the bin from which to issue the part. The system specifies the default bin for the part if applicable.

Note: When you select a **Bin**, the system updates the **Available Qty.** with the quantity of the part in the selected **Bin** minus any quantity of the part that is currently allocated to any work orders from that **Bin**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Lot
Select the lot from which to issue the part. The system automatically populates **Expiration Date**, **Serial Number**, and **Manufacturer Lot**.

Transaction Qty.
Specify the number of parts to issue. The system automatically specifies the **Available Qty.** of the part if applicable.

Print Qty.
Specify the quantity of the label(s) to print. The system automatically sets the **Print Qty.** based on the setting of **Label Printing Default** on the **Stores** tab of the **Part** form:

Option	Description
If set to No Labels	**Print Qty.** is null.
If set to Single Labels	**Print Qty.** is set to 1.
If set to Label for Each Item	**Print Qty.** is equal to the **Receipt Qty.**, but you can modify the **Print Qty.** as necessary. Updating **Print Qty.** does not affect the **Receipt Qty.**

Print Core Return Qty.
Specify the quantity of the core return label(s) to print.

Failed Qty.
Specify the quantity of the part that failed.

Note: The system does not allow part failures on an Issue for parts tracked by asset.

Date Failed
Specify the date the part failed.

Problem Code
Specify the code of the problem for the failed part.

Failure Code
Specify the reason that the part failed.

Action Code
Specify the action taken to correct the problem.

Cause Code
Specify the problem cause code.

Failure Notes
Specify comments about the failure.

3 Click **Add to List**.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to issue without actually issuing them until the transaction is submitted. You can add/remove parts for the issue as necessary before submitting the transaction and saving the information to the database. Click **Add Part** to add additional parts to the issue. To remove a part from the Transaction Details list, select the part record to remove from the issue, and then click **Remove from List**.

Additionally, you can also update information in the Issue To/Return From and the Issue From/Return To sections for the transaction as necessary before adding records to the Transaction Details list.

4 Click **Submit Transaction**. The system issues the part(s) and creates a stock transaction of type I for the issuing store with a negative quantity for the issue.

Note: To print labels for the issue transaction, click **Print Label(s)**.

To print labels for the core return transaction, click **Print Core Return Label(s)**.

To record a stockout for a part, select the part, and then click **Record Stockouts**.

Issuing parts to multiple equipment work orders

Issue parts from stores to multiple equipment work orders.

To issue parts to multiple equipment work orders:

1 Select **Materials > Transactions > Issue/Return Parts**.

2 Specify this information:

Store
Specify the store from which to issue the part(s). If a default store is defined for the current user, the system automatically populates **Store** with the user's default store.

The system automatically populates **Date** with the current system date and **Transaction Type** with **Issue** to enable issue functionality.

WO-Activity
Specify the multiple equipment work order/activity to which to issue the part.

The system automatically populates **Equipment** with All Equipment. The system also populates **Related Work Order**, **Cost Code**, and **Department** from the selected **WO-Activity**. **Equipment** is required and **Related Work Order** is protected.

If the selected multiple equipment **WO-Activity** is associated with a project/budget, then the system automatically populates **Project–Budget**, and it is protected.

If the selected **WO-Activity** is associated with a pick ticket, the system automatically populates **Pick Ticket** from the associated **WO-Activity** or **Equipment** record.

Note: The system does not display work orders in the **WO-Activity** lookup for which the value specified for the ISSDAYS installation parameter has been exceeded.

If the selected multiple equipment **WO-Activity** has reserved parts and not all parts have been issued, then the system enables the **Reserved Items** hyperlink. Click **Reserved Items** to retrieve the relevant part information to the Transaction Details list.

If the selected multiple equipment **WO-Activity** or any of its related work orders have direct material parts that have been purchased and All Equipment is selected for **Equipment**, then the system enables the **Held Items** hyperlink. Click **Held Items** to retrieve the relevant part information to the Transaction Details list.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Specify a specific equipment to which to issue the **Transaction Qty.**
- Specify All Equipment to evenly to issue the **Transaction Qty.** to each equipment record on the work order.

- Specify WO Header Equipment to issue the **Transaction Qty.** to the equipment on the work order header only.

Note: The system automatically applies any remainder of the **Transaction Qty.** that could not be distributed evenly to the last equipment record on the **Equipment** page of the **Work Orders** form.

If you select All Equipment and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to distribute the cost of the issue against all equipment or against only open related work orders regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

Cost Code
Specify the cost code for which to issue the part. The system populates the description in the adjacent field.

Issue To
Specify the code of the employee to whom to make the issue.

Reference Number
Specify a reference number for the issue. The reference number is simply an internal reference number that is not used by the system for any validation.

Material List
Specify the material list from which to issue parts for the multiple equipment work order.

Pick Ticket
Specify the pick ticket from which to issue parts for the multiple equipment work order. The system automatically selects WO Header Equipment for **Equipment** and enables the **Pick Ticket** hyperlink in the Transaction Details.

Note: If a pick ticket is associated with the selected multiple equipment **WO-Activity**, then you cannot select another value for **Equipment** other than WO Header Equipment. Pick tickets cannot be used to issue parts across all equipment on a multiple equipment work order or to a specific equipment on a work order.

Department
Modify the department of the work order.

Date
Modify the date on which to make the issue.

Part
Specify the part to issue. The system displays the available quantity, the bin location, and the lot number. Change the bin location and lot number as necessary.

The system populates **Available Qty.** with the sum of the quantities of the part in all the bins in the selected **Store** minus any quantity of the part that is currently allocated to any work orders. **Asset ID** and **Tool Hours** are protected.

Note: You cannot distribute issues of parts tracked by asset to All Equipment on a multiple equipment work order. If All Equipment is selected for **Equipment**, then the lookup for **Part** displays only unique parts issued to the work order header or any of the related work orders.

If you are issuing a part tracked by asset to a specific **Equipment** on a multiple equipment work order, the lookup for **Part** displays only the parts issued to the individual equipment record on the **Related Work Order**.

Bin
Specify the bin from which to issue the part.

The system specifies the default bin for the part if applicable. When you select a **Bin**, the system updates the **Available Qty.** with the quantity of the part in the selected **Bin** minus any quantity of the part that is currently allocated to any work orders from that **Bin**.

The system automatically populates **Available Qty. UOM** and **Transaction Qty. UOM**.

Lot
Specify the lot from which to issue the part.

The system automatically populates **Expiration Date**, **Serial Number**, and **Manufacturer Lot**.

Transaction Qty.
Specify the quantity of the part to issue.

If the part to issue is tracked by asset, the system automatically selects **Track by Asset** and specifies 1 as the **Transaction Qty.**, and you must specify a value for **Asset ID** for the part. The system populates **Available Qty.** with the total quantity of the part that is currently available.

Note: You cannot specify a **Transaction Qty.** greater than 1 when issuing parts tracked by asset. If you want to issue multiple quantities of a part tracked by asset, you must add the part tracked by asset to the Transaction Details list on individual lines with a **Transaction Qty.** of 1 until you have reached the number of the part tracked by asset that you wish to issue for the transaction. **Track by Asset** is hidden by default.

When issuing parts to a multiple equipment work order for which All Equipment is selected, parts tracked by asset are not available for issue, and the system splits the **Transaction Qty.** equally among all the related work orders.

Print Qty.
Specify the quantity of the label(s) to print.

The system automatically sets the **Print Qty.** based on the setting of **Label Printing Default** on the **Stores** tab of the **Parts** form:

- If set to No Labels, **Print Qty.** is null.
- If set to Single Labels, **Print Qty.** is set to 1.
- If set to Label for Each Item, **Print Qty.** is equal to the **Receipt Qty.**, but you can modify the **Print Qty.** as necessary.

  Updating **Print Qty.** does not affect the **Receipt Qty.**

3 Click **Add to List**.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to issue without actually issuing them until the transaction is submitted. You can add/remove parts for the issue as necessary before submitting the transaction and saving the information to the database. Click **Add Part** to add additional parts to the issue.

To remove a part, select the part record to remove, and then click **Remove from List**. The system updates the Transaction Details list.

4 Click **Submit Transaction**. The system issues the part(s) and creates a stock transaction of type I for the issuing store with a negative quantity for the issue.

Note: To print labels for the issue transaction, click **Print Label(s)**.

If the AUTOPART installation parameter is set to AUTO, then the system determines whether each part is associated with the equipment's Parts Associated list. If any of the parts are not associated with the equipment's Parts Associated list, the system updates the list with the parts and assigns the **Transaction Qty.** as the part's associated **Quantity**. If a part is already associated but the **Transaction Qty.** is greater than the existing associated **Quantity**, then the system updates the associated **Quantity** with the **Transaction Qty.** The system does not update the existing associated **Quantity** if the **Transaction Qty.** is not greater.

Adding parts on a material list to an issue

Add parts on a material list to an issue on the Issue/Return Parts form. If you enter a **Material List** on an issue header, the system enables the **Material List** hyperlink in the Transaction Details enabling you to add the parts on the material list to the issue. You can select which parts to add, and you can also modify the **Bin**, **Lot**, and **Transaction Qty.** for the part(s) to add to the issue.

You can issue parts on a defined material list to a **WO–Activity** multiple times. However, you can only issue parts on a temporary material list created by selecting parts for a work order to the work order for which the temporary list is created.

If the material list includes parts that are associated with equipment codes or equipment categories, the system only adds part records to the Transaction Details list that are associated with the equipment on the header or the equipment category or parts that are not associated with any equipment or equipment category.

Example:

You create MATERIAL LIST 1 with the following parts:

Line Number	Part	Quantity	Equipment
1	PART1	1	EQUIP1
2	PART2	1	EQUIP2
3	PART3	1	
5	PART4	2	EQUIP4
6	PART4	3	EQUIP1
7	PART4	4	
8	PART5	1	CATEGORY1
9	PART6	1	CATEGORY2

You then create a work order WO1 for EQUIP1 of CATEGORY1. After creating the WO1, you open the Issue/Return Parts form to issue parts to WO1. You enter MATERIAL LIST 1 as the **Material List** on the issue header and then click the **Material List** hyperlink, and then the system retrieves the following parts and quantities:

Part	Quantity
PART1	1
PART3	1
PART3	1
PART4	3
PART4	4
PART5	1

Note: If a part on a material list is tracked by asset, then each by asset part on the material list is entered on a separate line regardless of the **Available Qty.** and the system automatically enters 1 as the **Transaction Qty.**

To add parts on a material list to an issue:

1 Select **Materials > Transactions > Issue/Return Parts**.

2 Specify a **WO–Activity**, **Project–Budget**, or **Equipment** as necessary.

3 Specify this information:

Material List
Specify the material list from which to issue parts.

Department
Specify the department against which to issue the parts from the material list.

Date
Modify the date as necessary.

4 Click **Material List**.

5 Select the part on the material list for which to update the transaction details.

6 Modify this information as needed:

Bin
Modify the bin from which to issue the parts on the material list if necessary.

Lot
Modify the lot from which to issue the parts on the material list if necessary.

Transaction Qty.
Update the number of parts to issue from the pick ticket as necessary.

7 Click **Add to List**.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to issue without actually issuing them until the transaction is submitted. You can add and remove parts for the issue before submitting the transaction and saving the information to the database.

To remove a part from the pick ticket from the Transaction Details list, select the part record to remove from the issue, and then click **Remove from List**.

8 Update additional parts from the material list as necessary.

Adding parts on a pick ticket to an issue/return

Add parts on a pick ticket to an issue/return on the **Issue/Return Parts** form. To issue parts from a pick ticket, the status of the pick ticket must be Approved, and a pick ticket can only be used for the work order or equipment for which it was created.

If you enter a **Pick Ticket** on an issue header, the system enables the **Pick Ticket** hyperlink in the Transaction Details for adding the parts on the pick ticket to the issue. You can select which parts to add, and you can also modify the **Bin**, **Lot**, and **Transaction Qty.** for the part(s) to add to the issue.

The setting of the PICKONCE installation parameter determines whether you can issue parts on a pick ticket for multiple transactions for the same **WO-Activity**. If PICKONCE is set to YES, the system will not automatically enter a **Pick Ticket** for the **WO-Activity** in the issue header if an issue transaction for the pick ticket already exists for the **WO-Activity**; and you cannot select the pick ticket from the **Pick Ticket** lookup. If PICKONCE is set to NO, then you can reuse the same pick ticket for more than one transaction for a **WO-Activity**, but the system will only retrieve parts to the issue transaction that were not previously issued.

Note: You can only issue more parts than the specified **Required Qty.** for the part on a pick ticket if there is a sufficient **Available Qty.** for the part.

Once a pick ticket has been fully issued and fully returned, the system sets the status of the pick ticket to Closed and the pick ticket is no longer available for use, even if PICKONCE is set to NO.

If a part on a pick ticket is tracked by asset, then each by asset part on the pick ticket is entered on a separate line regardless of the **Available Qty.** and the system automatically enters 1 as the **Transaction Qty.**

To add parts from a pick ticket to an issue:

1. Select **Materials > Transactions > Issue/Return Parts**.
2. Specify this information:

   Pick Ticket
   Specify the pick ticket from which to issue parts. The system enables the **Pick Ticket** hyperlink in the Transaction Details.

3. Click **Pick Ticket**. The system populates the Transaction Details list with the **Parts** on the pick ticket and protects all the information on the issue header.
4. Select the part on the pick ticket for which to update the transaction details. The system populates the Transaction Details.

   The system automatically populates **Bin**, **Lot**, and **Transaction Qty.** The **Transaction Qty.** is equal to the **Required Qty.** specified for the part on the pick ticket.

   The system automatically populates**Part**, **Part Description**, **Asset ID**, **Available Qty.**,**Transaction Qty. UOM**, and **Available Qty. UOM**; they are protected.

5. Modify this information as necessary:

   Bin
   Modify the bin from which to issue the parts on the pick ticket if necessary.

   Lot
   Modify the lot from which to issue the parts on the pick ticket if necessary.

Transaction Qty.
Modify the number of parts to issue from the pick ticket as necessary.

6 Click **Add to List**. The system updates the Transaction Details list.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to issue without actually issuing them until the transaction is submitted. You can add/remove parts for the issue before submitting the transaction and saving the information to the database.

To remove a part from the pick ticket from the Transaction Details list, select the part record to remove from the issue, and then click **Remove from List**.

7 Update additional parts from the pick ticket as necessary.

Returning parts from work orders, equipment, or projects

Return unused parts issued to work orders, equipment, or projects to stores.

Note: If you have selected FIFO or LIFO as your pricing method, the system calculates the transaction price of returns from work orders, equipment, or projects using the R5FIFO table, rather than retrieving the base price from the R5PARTS or R5STOCK table.

See "Understanding time-based inventory valuation (LIFO/FIFO)" on page 222.

To return parts from work orders, equipment, or projects:

1 Select **Materials > Transactions > Issue/Return Parts**.

2 Specify this information:

Transaction Type
Select **Return** to enable return functionality.

Store
Specify the store from which to return the parts. The system automatically populates **Date** with the current system date. If a default store is defined for the current user, the system automatically populates **Store** with the user's default store.

3 Choose one of the return options:

Option	Description
Return from a work order	Specify the **Work Order-Activity**. The system automatically populates the **Equipment**, **Project-Budget**, **Cost Code**, and **Department** from the work order, as well as the **Material List** or **Pick Ticket** if they have been associated with the **Activity**. **Note:** The system will only display work orders in the **WO-Activity** lookup for which the value specified for the RTNDAYS installation parameter has been exceeded. If selected **WO-Activity** is a multiple equipment work order, then the system also populates **Related Work Order** and it is protected.

Option	Description
Return from a piece of equipment	Specify the **Equipment**. The system automatically populates **Description**, **Department**, and **Cost Code** from the equipment record. If selected **Equipment** is associated with a pick ticket, the system automatically populates **Pick Ticket** from the associated **Equipment** record. **Note:** If the selected **Equipment** is associated with a multiple equipment work order, then the system automatically populates **Equipment Org.** and **Related Work Order**. See "Returning parts from multiple equipment work orders" on page 321. If you select All Equipment for **Equipment** and you are issuing a **By Asset** part, then the system clears the Transaction Details.
Return from a project	Select the **Project-Budget** and **Department**.

4 Specify this information:

Reference Number
Specify a reference number for the return.

Material List
Specify the material list from which to return.

Pick Ticket
Specify the pick ticket if a pick ticket is associated with the return. If you are returning parts from a work order or piece of equipment that is associated with a pick ticket and the PICKONCE installation parameter is set to YES, then the system does not display the associated pick ticket in the **Pick Ticket** lookup.

If you are returning parts from a work order or piece of equipment that is associated with a pick ticket and the PICKONCE installation parameter is set to NO, the system enables you to select the associated pick ticket from the **Pick Ticket** lookup. However, once you have selected a value for **Pick Ticket**, the system only displays parts issued for the pick ticket in the **Part** lookup, and you can only return the parts issued from the pick ticket.

Note: If there are no parts on the selected pick ticket, or if no parts on the pick ticket are held in store, the system displays an error message when you click **Pick Ticket** hyperlink.

If the work order associated with the selected **Pick Ticket** is a multiple equipment work order, then the system automatically populates **Equipment** with the WO Header Equipment.

Department
Specify the department from which to return parts. The system automatically populates **Department** if you have selected a work order/activity or piece of equipment.

Date
Modify the date on which to make the return. The system automatically populates **Date** with the current date and time.

Part
Specify the part to return. The system displays parts in the **Part** lookup based on the setting of the RTNANY installation parameter and whether you are returning to a work order, a piece of equipment, or a project.

Note: If the **Work Order** selected for the return is a multiple equipment work order, the system displays only parts issued to the header work order or any of the related MEC work orders in the list of values, because **Equipment** is automatically populated with All Equipment. When you select the part to return, the system automatically populates **Transaction Qty.**, **Bin**, and **Lot**. The **Transaction Qty.** is the difference of the total quantity issued to all equipment on the work order and the quantity already returned from all equipment on the work order. You can modify the **Transaction Qty.**, **Bin**, and **Lot** as necessary and add additional equipment to the Parts list.

If the part to return is tracked by asset, the system automatically selects **Track By Asset**, specifies 1 as the **Transaction Qty.**, and you must specify a value for **Asset ID** for the part. The system automatically populates **Available Qty.** of 1 until you have reached the number of the part tracked by asset that you wish to return for the transaction.

If the part is a core tracked part, the system enables **Core Return**. If you select **Core Return**, the system populates **Bin** with the **Default Core Bin**. If the **Default Core Bin** overwrites a different bin, then the system clears the **Lot**, **Expiration Date**, and **Manufacturer Lot**.

If you unselect **Core Return**, the system populates **Bin** with the **Default Bin**. If the **Default Bin** overwrites a different bin, then the system clears the **Lot**, **Expiration Date**, and **Manufacturer Lot**.

If the part is tracked by asset and you unselect **Core Return**, the system also clears the **Asset ID** and **Serial Number**.

The system automatically populates **Transaction Qty. UOM**.

Note: If you submit a return transaction for a core tracked part with **Core Return** unselected, the system processes the return as a normal return.

Bin
Specify the bin to which to return the part.

Return Condition
Specify the return part condition.

Lot
Specify the lot to which to return the part. The system automatically populates **Bin** and **Lot** with the bin and lot numbers associated with the original issue transaction for the part. You can change the bin location and lot number as necessary, and then click **Add to List**.

Transaction Qty.
Specify the number of parts to return. The system automatically populates **Transaction Qty.** with the original issue quantity of the part. If you have already returned a partial quantity of the part from the original issue, the system populates **Transaction Qty.** with the original quantity of the part issued minus the quantity for the part that has already been returned.

Note: Transaction Qty. can be limited based on the setting of the RTNANY installation parameter. If RTNANY is set to YES, you can return any quantity of any parts to any store for which there is a part record on the Stores tab of the Parts form (the system requires that a part record exists for the part in the store, not that a bin-stock record exists for the part in the store). If RTNANY is set to NO, you can only return the quantity of the part that was originally issued to that entity to the same store.

When issuing a part, you issue to an entity (work order, equipment, etc.) from a store. When returning a part, you return from an entity (work order, equipment, etc.) to a store.

If you select a work order on the header, the system displays only the parts that were previously issued to the work order in the **Part** lookup. When you select a part, the system automatically calculates the **Transaction Qty.** based on the difference of the quantity of the parts issued and the quantity of the part that has already been returned.

Print Qty.
Specify the quantity of the label(s) to print.

The system automatically sets **Print Qty.** based on the setting of **Label Printing Default** on the Stores tab of the Parts form:

Option	Description
If set to No Labels	**Print Qty.** is null.
If set to Single Labels	**Print Qty.** is set to 1.
If set to Label for Each Item	**Print Qty.** is equal to the **Receipt Qty.**, but you can modify the **Print Qty.** as necessary. Updating **Print Qty.** does not affect the **Receipt Qty.**

5 Click **Add to List**. The system adds the record to the Transaction Details list.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to return without actually returning them until the transaction is submitted. You can add/remove parts for the return as necessary before submitting the transaction and saving the information to the database. Click **Add Part** to add additional parts to the return. To remove a part from the Transaction Details list, select the part to remove from the return, and then click **Remove from List**.

Additionally, you can also update information in the Issue To/Return From and/or Issue From/Return To sections for the transaction as necessary before adding records to the Transaction Details list.

6 Click **Submit Transaction**. The system returns the part(s) and creates a stock transaction of type I for the return store with a positive quantity for the return.

When you submit a return transaction for a core tracked part with **Core Return** selected, the system adds the transaction quantity to the repair quantity of the part held in bin stock. The returned parts are added to **Core Qty.** on the **Repair Details** tab of the **Parts** form rather than **Qty. on Hand** on the **Stores** tab of the **Parts** form.

If the part is core tracked and is also tracked by asset, the asset status is changed to **To Be Repaired**, and the system also updates the status of all dependent children and grandchildren of the asset if the part tracked by asset is the parent in an asset hierarchy.

Note: If the returned part is a LIFO/FIFO part, the system determines the price for the return based on the original issue transaction. LIFO/FIFO pricing does not assign a LIFO/FIFO price to a core tracked part returned for repair. The transaction price for the return will be the **Core Value** of the part.

See "Understanding time-based inventory valuation (LIFO/FIFO)" on page 222.

To print labels for the return transaction, click **Print Warranty Return Label(s).**

If you are creating a return for a multiple equipment work order and the RTNANY installation parameter is set to NO and All Equipment is selected for **Equipment**, you can only return a part that was previously issued and for which there is a sufficient quantity issued to the equipment.

Returning parts from multiple equipment work orders

Return unused parts from multiple equipment work orders.

To return parts from multiple equipment work orders:

1 Select **Materials > Transactions > Issue/Return Parts**.

2 Specify this information:

Store
Specify the store from which to return the part(s). If a default store is defined for the current user, the system automatically populates **Store** with the user's default store. The system automatically populates **Date** with the current system date and **Transaction Type** with Issue to enable issue functionality.

Transaction Type
Select Return to enable return functionality.

WO-Activity
Specify the multiple equipment work order/activity to which to return the part. The system automatically populates **Equipment** with All Equipment. The system also populates **Related Work Order**, **Cost Code**, and **Department** from the work order/activity. **Equipment** is required and **Related Work Order** is protected.

If the selected multiple equipment **WO-Activity** is associated with a project/budget, then the system automatically populates **Project–Budget**, and it is protected.

If the selected **WO-Activity** is associated with a pick ticket, the system automatically populates **Pick Ticket** from the associated **WO-Activity** or **Equipment** record.

Note: The system does not display work orders in the **WO-Activity** lookup for which the value specified for the RTNDAYS installation parameter has been exceeded.

Equipment
Choose one of these options if the work order is a multiple equipment work order:

- Specify a specific equipment to which to distribute the **Transaction Qty.**
- Specify All Equipment to evenly distribute the **Transaction Qty.** to each equipment record on the work order.
- Specify WO Header Equipment to distribute the **Transaction Qty.** to the equipment on the work order header only.

  Note: The system automatically applies any remainder of the return quantity to the last equipment record on the **Equipment** page of the **Work Orders** form.

  If you select All Equipment and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to distribute the cost of the return against only open related work orders or against all equipment,

regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

Reference Number
Specify a reference number for the return.

Material List
Specify the material list from which to return.

Pick Ticket
Specify the pick ticket if a pick ticket is associated with the **WO-Activity** and **Equipment**. Because the **WO-Activity** is a multiple equipment work order, the system automatically selects WO Header Equipment for **Equipment**. If the PICKONCE installation parameter is set to YES, then the system does not display the associated pick ticket in the **Pick Ticket** lookup. If PICKONCE installation parameter is set to NO, the system enables you to select the associated pick ticket from the **Pick Ticket** lookup. However, once you select a value for **Pick Ticket**, the system only displays parts issued for the pick ticket in the **Part** lookup, and you can only return the parts issued from the pick ticket.

Department
Specify the department from which to return parts.

Date
Modify the date on which to make the return if necessary.

Part
Specify the part to return. The system displays parts in the **Part** lookup based on the setting of the RTNANY installation parameter and whether you are returning to a work order, a piece of equipment, or a project.

Note: Because the selected **WO-Activity** is a multiple equipment work order, **Equipment** is automatically populated with All Equipment, and the system displays only parts issued to the work order header or any of the related MEC work orders in the **Part** lookup. When you select the part to return, the system automatically populates **Transaction Qty.**, **Bin**, and **Lot**. The **Transaction Qty.** is the difference of the total quantity issued to all equipment on the work order and the quantity already returned from all equipment on the work order. You can modify the **Transaction Qty.**, **Bin**, and **Lot** as necessary and add additional equipment to the Parts list.

If the part to return is tracked by asset, the system automatically selects **Track By Asset**, specifies 1 as the **Transaction Qty.**, and you must specify a value for **Asset ID** for the part. The system populates **Available Qty.** with the total quantity of the part that is currently available.

The system automatically populates **Transaction Qty. UOM**.

Note: You cannot specify a **Transaction Qty.** greater than 1 when returning parts tracked by asset. If you want to return multiple quantities of a part tracked by asset, you must add the part tracked by asset to the Transaction Details list on individual lines with a **Transaction Qty.**of 1 until you have reached the number of the part tracked by asset that you wish to return for the transaction.

When returning parts to a multiple equipment work order for which All Equipment is selected, parts tracked by asset are not available for return, and the system splits the **Transaction Qty.** equally among all the related work orders.

If you submit a return transaction for a repairable spare part with **Return for Repair** unselected, the system processes the return as a normal return.

If you submit a return transaction for a repairable spare part with **Return for Repair** unselected, the system processes the return as a normal return.

If the Part is designated as a Tool, then the system enables **Tool Hours**.

Bin
Modify the bin to which to return the part if necessary.

Lot
Modify the lot to which to return the part if necessary. The system automatically populates **Bin** and **Lot** with the bin and lot numbers associated with the original issue transaction for the part.

Transaction Qty.
Specify the number of parts to return.

The system automatically populates **Transaction Qty.** with the original issue quantity of the part. If you have already returned a partial quantity of the part from the original issue, the system populates **Transaction Qty.** with the original quantity of the part issued minus the quantity of the part that has already been returned.

Note: Transaction Qty. can be limited based on the setting of the RTNANY installation parameter. For returns from multiple equipment work orders, if RTNANY installation parameter is set to Yes and All Equipment is selected for **Equipment**, then the system evenly distributes the return quantity to all equipment records on the work order.

If RTNANY installation parameter is set to No and All Equipment is selected for **Equipment**, you can only return a part that was previously issued and for which there is a sufficient quantity issued to the equipment.

Tool Hours
If the part you are returning is identified as a tool, specify the number of hours the tool was in use. The system applies the **Tool Hours** to the equipment on the multiple equipment work order based on the value specified for **Equipment**.

Print Qty.
Specify the quantity of the label(s) to print.

The system automatically sets the **Print Qty.** based on the setting of **Label Printing Default** on the **Stores** tab of the **Parts** form:

Option	Description
If set to No Labels	**Print Qty.** is null.
If set to Single Labels	**Print Qty.** is set to 1.
If set to Label for Each Item	**Print Qty.** is equal to the **Receipt Qty.**, but you can modify the **Print Qty.** as necessary. Updating **Print Qty.**does not affect the **Receipt Qty.**

3 Click **Add to List**.

Note: The Transaction Details list acts as a buffer to temporarily store the parts to return without actually returning them until the transaction is submitted. You can add/remove parts for the return before submitting the transaction and saving the information to the database. Click **Add Part** to add additional parts to the return.

To remove a part, select the part to remove, and then click **Remove from List**.

Additionally, you can also update information in the Issue To / Return From and/or Issue From / Return To sections for the transaction as necessary before adding records to the Transaction Details list.

4 Click **Submit Transaction**. The system returns the part(s), and creates a stock transaction of type I for the return store with a positive quantity for the return.

Note: To print labels for the return transaction, click **Print Label(s)**.

Issuing parts from a stock record of a part

Issue parts from a stock record of a part on the **Stock** page of the **Parts** form using the Issue Part popup.

Note: If you have selected FIFO or LIFO as your pricing method, the system calculates the transaction price of issues using the **R5FIFO** table, rather than retrieving the base price from the **R5PARTS or R5STOCK** table.

To issue parts from a stock record of a part:

1 Select **Materials > Parts**.

2 Select the part to issue, and then click the **Stock** tab.

3 Select the store, bin, and lot from which to issue the part, and then click **Issue Part**.

Note: If the part selected to issue is a core tracked part and the RRISSWAR installation parameter is set to Yes, the system displays a message indicating that the part is a core tracked part and that a part may also need to be returned for repair.

4 Specify this information:

Work-Order Activity, Project-Budget, Equipment, Job
Specify the work order/activity, project-budget, equipment, or job against which to issue parts.

Note: You must select a valid combination for **Work Order–Activity**/**Equipment** or for **Work Order–Activity**/**Project–Budget** to submit the issue. You can also select to make the issue to an individual piece of **Equipment** or an individual **Project–Budget**.

Department
Specify the department from which to issue parts.

Issue To
Specify the code of the employee for which to make the issue.

Issue Qty.
Specify the number of parts to issue.

If the part to issue is tracked by asset, the system automatically populates **Issue Qty.** with 1 and it is protected. You must specify the asset by which the part is tracked for **Asset ID**. You cannot modify the **Issue Qty.** when issuing a part tracked by asset from a stock record.

5 Click **Submit**.

Returning parts from a stock record of a part

Return parts from a stock record of a part on the **Stock** page of the **Parts** form using the Return Part popup.

Note: If you have selected FIFO or LIFO as your pricing method, the system calculates the transaction price of returns using the **R5FIFO** table, rather than retrieving the base price from the **R5PARTS or R5STOCK** table.

To return parts from a stock record of a part:

1 Select **Materials > Parts**.
2 Select the part to return, and then click the **Stock** tab.
3 Select the store, bin, and lot to which to return the part, and then click **Return Part**.
4 Specify this information:

Return Condition
Specify the condition of the part you are returning.

Work Order-Activity, Project-Budget, Equipment, Job
Specify the work order/activity, project/budget, equipment, or job against which to return parts.

Note: You must select a valid combination for **Work Order-Activity**/**Equipment** or for **Work Order-Activity**/**Project-Budget** to submit the return; or you can select to make the return to an individual piece of **Equipment** or an individual **Project-Budget**.

Department
Specify the department from which to return parts.

Return Qty.
Specify the number of parts to return. If the part to return is tracked by asset, the system automatically populates the **Return Qty.** with 1 and it is protected. You must specify the asset by which the part is tracked for **Asset ID**. You cannot modify the **Return Qty.** when returning a part tracked by asset from a stock record.

5 Click **Submit**.

Returning parts to a supplier

Return damaged or incorrect parts to a supplier.

Note: Before you can return parts, receive them using the **PO Receipts** form and assign them a status of Approved/Complete.

The system does not allow you to return goods received via the **Non-PO Receipts** form because you have no purchase order number or requisition as a reference. To return such items, you need to make an arrangement between your company and your supplier.

Once satisfied with the contents of the return, change the **Status** on the **Record View** page of the return to Ready for Printing and then Approved. You must save the record after each change of status to commit the status change. The system does not update the inventory records until the return has been approved.

Step 1: Create a supplier return header

To create a supplier return header:

1 Select **Materials > Transactions > Supplier Returns**.

2 Click **New Record**. The system automatically populates **Status** and **Return From**.

3 Specify this information:

Organization
Specify the organization to which the supplier return belongs if you use multi-organization security.

Supplier Return
Specify a description of the supplier return in the adjacent field. The system assigns a supplier return number after you save the record.

Purchase Order
Specify the purchase order number of the return. The system automatically populates **Supplier**, **Supplier Org.**, and **Store**.

Return From
Choose on these options:

Option	Description
Store	Select to return the parts from a store. The system selects **Store** by default. **Note:** If you are returning parts from a store, then all received part lines are available for return. If a part is related to a purchase order line associated with a multiple equipment work order, then the system populates **Equipment**, **Equipment Org.**, and **Related Work Order**, and they are protected.
Work Order	Select to return the parts from a work order. If you choose **Work Order**, the system removes **Store** and displays **Work Order**. **Note:** If you are returning parts from a work order and the work order is a multiple equipment work order, then the system automatically populates the return with all of the part lines from the purchase order that were received directly to the work order.

Store
If you selected **Store** for **Return From**, update the store from which to return the materials if necessary. If you update **Store**, the system clears **Purchase Order**.

Work Order
If you selected **Work Order** for **Return From**, specify the work order from which to return materials.

Note: If the selected **Work Order** is a multiple equipment work order, the system populates **Equipment**, **Equipment Org.**, and **Related Work Order** from the Purchase Order line. If the work order is not a multiple equipment work order, then the system populates **Equipment** and **Equipment Org.** from the work order.

The system does not display MEC work orders in the **Work Order** lookup.

Also, the system does not allow you to specify the manner in which the return is distributed to the work order equipment. The system determines the cost distribution method for the work order costs based on the value specified for **Equipment** on the purchase order line.

Class
Specify the class of the return. The classes shown belong to the TRAN entity. The system automatically populates **Class Org.**

Reference Number
Specify a reference number for the issue. The reference number can be a return authorization number, a verification code, a transaction reference number, etc.

4 Click **Save Record**.

Step 2: Add parts to a supplier return

To add parts to a supplier return:

1 Select **Materials > Transactions > Supplier Returns**.
2 Select the supplier return for which to add parts, and then click the **Parts** tab.
3 Click **Retrieve Parts**. The system populates the Parts list with part lines that have been received against the purchase order specified on the **Record View** page.

Note: You can also click **Add Part** to add a single part to the supplier return rather than retrieving all the lines that have been received to a purchase order. Adding a single part to a supplier return is helpful in return situations for which you may have had a purchase order with a large number of items against which you only need to return a few parts.

For externally repaired parts to be returned from a purchase order and store, the system retrieves part lines received against the purchase order and store on the header. **Available Qty.** is calculated as the number of parts received for this purchase order that are in the selected store and are not for repair. If the part is also tracked by asset, the system only retrieves the part that match the specified **Asset ID**. If the part was scrapped at the time at which it was received, the part cannot be returned.

For parts to be returned from a work order, the system retrieves only direct material parts that have been received directly to the work order against the purchase order on the header.

4 Select the part to be returned from the Parts list. The system populates the part information in the **Part Details** section. The system automatically populates **Return Qty.** with the quantity of the part received against the purchase order and available in a specific bin and lot for return, **Order Qty.** with the original quantity of the part ordered, **Available Qty.** with the number of parts in stock in a specific bin and lot, and **Price** with the price at which the part was received. The system selects **Direct** if the part has been received to a work order and **Track by Asset** if the part is tracked by asset.

5 Specify this information:

Return Qty.
Specify the quantity of the part to be returned.

Note: If you are returning a part tracked by asset, the system displays the part in the Parts list in quantities of one. For example, you received five motors that are tracked by asset, so the system displays the motor on five separate lines. The system automatically populates **Return Qty.** with one if you are returning a part tracked by asset, and the system also protects the field from update.

Bin
Specify the bin from which to return the part.

Lot
Specify the lot from which to return the part.

Reason for Return
Specify the reason for returning the part.

Asset ID
Specify the asset ID for the part tracked by asset. If the selected part is tracked by asset, the system automatically populates **Bin**, **Lot**, **Department**, **Asset Type**, **Asset Org.**, and **Serial Number** from the equipment record.

6 Click **Submit**.

Note: To remove a part, select the part to remove, and then click **Remove Part**.

Defining part condition templates

Define part condition templates when your organization reuses parts and needs to track the parts by their condition. Part condition templates define which conditions you can use to track parts. You can track parts throughout their life cycle. For example, the part condition can be new, used, rebuilt less than five times, or rebuilt more than five times.

When creating parts, **Tracked by Condition** must be selected. When a part is tracked by condition, the system creates a child record for each condition that is added to the part condition template.

To define part condition templates:

1 Select **Materials > Setup > Part Condition Templates**.

2 Click **New Record**.

3 Specify this information:

Part Condition Template
Specify a unique code identifying the part condition template, and then enter a description in the adjacent field.

Organization
Specify the organization of the part condition template.

Suffix Separator
Specify a unique suffix separator code for the part condition template. The suffix separator is used in the child part code. For example, if the parent part code is TIMBEAR12, the suffix separator is a dash (-), and the condition suffix code is an A, the child part code would be TIMBEAR12-A.

Out of Service
Select this checkbox if you do not want the part condition template to appear in the lookups.

4 Click **Save Record**.

Adding conditions to part condition templates

Add conditions after defining part condition template details. Multiple conditions can be added to part condition templates.

To add conditions to part condition templates:

1 Select **Materials > Setup > Part Condition Templates**.
2 Select the part condition template for which to add conditions, and then click the **Conditions** tab.
3 Click **Add Condition**.
4 Specify this information:

Condition
Specify a unique code identifying the condition, and then enter a description in the adjacent field.

Suffix Code
Specify a unique suffix code for the condition. The suffix code is used in the child part code. For example, if the parent part code is BEARINGAXL, the suffix separator is a dash (-), and the condition suffix code is an A, the child part code would be BEARINGAXL-A.

5 Specify the **Return to Store Condition List**, **Return to Store Condition Default**, **Core Return Condition List**, **Core Return Condition Default**, **Receive Repairs Condition List**, and **Receive Repairs Condition Default**.
6 Select the **Prevent Reorders** check box to prevent the part from being reordered
7 Select the **Prevent Issues** check box to prevent the part from being issued.
8 Click **Submit**.

Changing conditions for parts

Modify conditions for parts when it is determined that the part condition in the system does not match the actual physical condition of the part. For example, use the **Change Part Condition** popup if the actual physical condition of the part on hand is poor or fair, but the condition in the system is good.

To change conditions for parts:

1. Select **Materials > Parts**.
2. Select the part for which to change the condition, and then click the **Stock** tab.
3. Select the stock record for which to change the condition, and then click **Change Part Condition**. The system automatically populates **Part**, **Part Org.**, **Condition**, **Qty. on Hand**, and **Asset ID**.
4. Specify this information:

   New Condition
   Specify the new condition for the part.

   Change Qty.
   Specify the number of parts the change will affect.

   Note: When changing the condition for **Tracked by Asset** parts, the system will automatically update **Change Qty.** to 1. The only valid change quantity is 1.

5. Click **Submit**.

Defining kit template parts

Define a combination of parts and quantities of those parts to create a kit.

To define kit templates:

1. Select **Materials > Parts**.
2. Select the part kit for which the kit template will be defined, and then click the **Kit Template** tab.

   Note: Part must be **Track as Kit** on the **Parts** form to add to the kit template.

3. Click **Add Part**.
4. Specify this information:

   Part
   Specify the part to add to the kit. The system automatically populates **Organization** and the part description.

   Quantity
   Specify the quantity of the part to add to the kit. When a kit is built from this template, the system will require this quantity of the part specified to build the kit. The system automatically populates the quantity UOM.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Notes
Specify any notes regarding the part or kit.

5 Click **Submit**.

Building kits

Build a kit from a stock of parts within a store using a pre-defined kit template.

To build a parts kit:

1 Select **Materials > Kits > Build Kit**.
2 Specify this information:

Store
Specify the store from which to pull the parts and build the kit. The system automatically populates the store description in the adjacent field.

Session ID
Specify the session ID if this was a previously saved session.

Kit Part
Specify the part that identifies the kit to be built. The system automatically populates the kit part description, kit part organization, **Condition**, and **Max Kits Available** based on the parts required and the availability of stock in all bins in the store.

Note: This part must be designated as a kit part on the **Parts** form.

Kit Lot Description
Specify a description of the kit lot where the part is stored. The system automatically populates **Kit Lot Description** based on the value of Organization Option KITLDESC, if defined.

Kit Bin
Specify the bin into which to the newly built kit will be stored.

Number of Kits to Build
Specify the number of kits to build.

Note: If any of the parts defined in the kit template are **Track by Asset** parts, **Number of Kits to Build** must be set to 1.

Kit Lot Expiration Date
Specify the expiration date of the kit lot.

3 Click **Retrieve Parts**. The system creates a **Session ID** if this is a new session. The system populates the Parts list with relevant parts.
4 Specify this information:

Pulled
Select to pull parts to satisfy quantity required to build the kit.

Note: The system defaults the value of **Pulled** to selected or unselected based on the value in the Organization Option KITPPULD.

Part Bin
Specify the bin that contains the part. The part will be pulled from this bin.

Note: Click F9 to invoke the BIN list of values.

Part Lot
Specify the lot that contains the part from which to pull the part.

Note: Click F9 to invoke the LOT list of values.

Asset ID
Specify the asset ID if the part is **Track as Asset**.

Note: Click F9 to invoke the Asset list of values.

Issue Qty.
Specify the quantity of the part to issue to build the kit.

5 Click **Build Kit**. The system assigns a unique kit lot number.

Breaking up kits

Return parts allocated to a kit. Once the parts or kit is received, inspect the component parts and return the kit to stock or return the parts to stock and/or repair and account for usage.

To break up kits:

1 Select **Materials > Kits > Breakup Kit**.
2 Specify this information:

Store
Specify the store to which to return the kit part to stock.

Kit Part
Specify the kit part to be broken up.

Kit Lot
Specify the specific kit to which to return the kit part.

Work Order - Activity
Specify the work order and activity to which the kit lot was last issued.

Job
Specify the job to which the kit lot was last issued.

Default Full Qty. to Qty. to Store
Select to default the full quantity of parts retrieved to the quantity to issue back to the store (**Qty. to Store**).

Default Full Qty. to Qty. Used
Select to default the full quantity of parts retrieved to the quantity used or consumed (**Qty. Used**).

3 Click **Retrieve Parts**.

4 Select the part, and then specify this information:

Qty. Used
Specify the quantity of the part consumed.

Qty. to Store
Specify the quantity of the part to reissue to the store.

Store Bin
Specify the store bin to which to return the part.

Note: Click **F9** to invoke the Bin list of values.

Qty. to Repair
Specify the quantity of the part to be repaired.

Repair Bin
Specify the repair bin to which to return the parts for repair.

Note: Click **F9** to invoke the Repair Bin list of values.

5 Click **Breakup Kit**. The system dismantles the kit and returns the parts to inventory into the designated areas. A transaction line of type Issue is created for each parts line. The system deletes the kit lot.

6 Click **Print Restock List** to print a list of parts retrieved and returned after the kit was broken up.

Creating store groups

A store group is a group of stores that share the same transfer fees. Create store groups to determine if transfer fees apply for transferring parts between stores in situations where shipping fees may or may not apply.

To create store groups:

1 Select **Materials > Setup > Store Groups**.

2 Click **New Record**.

3 Specify this information:

Store Group
Specify a unique name identifying the store group, and then enter a description in the adjacent field.

Class
Specify the class to which the store group belongs. The system automatically populates **Class Org.**

Out of Service
Select to indicate the store group is no longer in service.

4 Click **Save Record**.

Defining transfer fees for store groups

Define the percentage to charge for a part transfer between two stores. The transfer fee is accessed when a part is transferred using the Store-to-Store Issues, Store-to-Store Receipts, and Quick Store-to Store-Transfer forms.

The fee is a percentage of the base price of the part. For example, for a part with a base price of $100 and a **% of Base Price** of 10 (%), the system accesses a $10 transfer fee to transfer the part between stores.

You may enter a transfer fee for stores that belong to the same store group.

To define transfer fees for store groups:

1 Select **Materials > Setup > Store Groups**.
2 Select the store group for which to define transfer fees, and then click the **Transfer Fees** tab.
3 Click **Add Transfer Fee**. The system automatically populates **From Store Group**.
4 Specify this information:

To Store Group
Specify the store group to which to transfer the part.

Transaction Class
Specify the class of the transaction. The system automatically populates **Transaction Class Org.**

% of Base Price
Specify the charge percentage.

5 Click **Submit**.

Note: To delete a transfer fee, select the transfer fee to delete, and then click **Delete Transfer Fee**.

Creating store-to-store requisitions

Create store-to-store requisitions to transfer stock parts from one store to another, including stores within different organizations. A store-to-store requisition consists of the requisition header and requisition lines. Create the requisition header first, and then add part lines.

A typical store-to-store requisition goes through a number of status changes during the lifecycle of the requisition. User status change authorizations are established on the **Status Authorizations** form. See the following list for a description of store-to-store requisition statuses:

Option	Description
Unfinished	The status of the store-to-store requisition at creation. The status of the store-to-store requisition header must remain Unfinished until lines are added to the requisition.
Request Approval	Lines have been added to the store-to-store requisition, and it is ready for approval.
Approved	The store-to-store requisition is approved and ready for fulfillment. Upon approval, all fields on the store-to-store requisition are protected, except **Status**, and all of the lines that are not Cancelled or Rejected are set to Approved. **Note:** You cannot approve a requisition if any store-to-store issues have been made against the requisition and the parts are still in-transit (issued but not yet received).
Cancelled	The entire store-to-store requisition is cancelled.
Rejected	The store-to-store requisition is rejected. The system protects all fields on the requisition, and you must enter a **Reject Reason** for the requisition.

Note: You can also change the status of individual store-to-store requisition lines.

Creating store-to-store requisition headers

Create store-to-store requisition headers to specify information related to the entire requisition.

The status of the requisition header indicates the progress of the requisition through its cycle. You may change the status of the requisition based on your status authorization and requisition approval limits. You can only delete requisitions with a status of Unfinished.

Note: Requisition approval limits can be set at the header or the line level depending on the setting of the LIMITLEV installation parameter.

The system enforces several business rules that prohibit changing the status of a requisition header from Unfinished to any status other than Cancelled before adding any lines to the requisition. Additionally, the system enables or protects certain fields based on the requisition status. The system also populates fields on the requisition header with values from the requisition lines.

The system assigns a requisition number.

To create store-to-store requisition headers:

1. Select **Materials > Store-to-Store Requisitions**.
2. Click **New Record**.
3. Specify this information:

To Organization
Specify the organization to which to send the parts on the store-to-store requisition. The organization you enter must be a specific organization to which you belong.

Requisition
Specify a description of the requisition in the adjacent field. The system automatically enters a default requisition description based on the setting of the REQDESC installation parameter. The system assigns a requisition number after you save the record.

Status
Select the status of the requisition.

From Store
Specify the store from which to issue the materials on the requisition.

To Store
Specify the store to which to issue the materials on the requisition.

Requested By
Specify the employee requesting the items on the requisition.

Note: The system automatically populates **Entered By** with the login ID of the user entering the requisition. If the user assigned for **Entered By** has a corresponding employee record, the system will automatically populates **Requested By** with the employee code of the user.

Delivery Address
Specify the address to which to deliver the items.

Class
Specify the class of the requisition. The classes shown belong to the REQ entity.

Note: The system automatically populates **Date Requested** with the system date.

Cost Code
Specify the cost code with which to associate the cost of the requisition.

Reject Reason
Specify an explanation of the reason that the requisition is being rejected if necessary. **Reject Reason** is protected when the status of the requisition is Unfinished or Cancelled. However, the system enables **Reject Reason** and it becomes required if you change the status of the requisition to Rejected.

Note: The system automatically selects **Printed** when this requisition is printed.

Default Approver
Specify the name of the person who will approve the requisition.

Note: The system automatically populates **Approved By** with the employee code identifying the person who approves the requisition and **Date Approved** with the system date when the requisition **Status** is Approved.

The system displays the total number of the lines containing parts on the requisition in **Requisition Lines** and populates **Total Req. Value** with the total cost of the items on the requisition in the default currency of the **Organization**.

4 Click **Save Record**.

Adding parts to store-to-store requisitions

Add the requested parts to the requisition after creating the requisition header.

You may change the status of the requisition line based on your status authorization and requisition approval limits. You can only delete a requisition line if the status of the requisition header is Unfinished.

Note: Requisition approval limits can be set at the header or the line level depending on the setting of the LIMITLEV installation parameter.

The system enforces several business rules that prohibit changing the status of a requisition header from Unfinished to any other status but Cancelled before adding any lines to the requisition. However, if the status of the requisition header is set to Cancelled, all the lines on the requisition are also cancelled. The system enables or protects certain fields based on the requisition status. The system also populates fields on the requisition header with certain values from the requisition lines.

To add parts to store-to-store requisitions:

1 Select **Materials > Transactions > Store-to-Store Requisitions**.

2 Select the requisition to which to add parts, and then click the **Parts** tab. The system automatically populates **Requested Before** with the current system date. The system automatically populates **Delivery Address** and **Cost Code** from the requisition header.

3 Click **Add Part**.

4 Specify this information:

Part
Specify the part to add to the requisition. The system automatically populates the part description, **Part Org.**, **Price**, **UOM**, **Buyer**, **Commodity**, **Tax Code**, and **Expense Type**.

The system populates **Line** with the next incremental line number of the part on the requisition.

If the part is tracked by asset, the system automatically selects **Track by Asset**.

If the **Part** is a core tracked part, the system enables **Core Qty.** You can either enter a value for **Quantity** or **Core Qty.**, but not both. When you enter a value for either **Quantity** or **Core Qty.**, the system protects the other field. The system populates **Price** with the **Core Value** of the part (not the **Repair Price**). The origin of the **Core Value** price is determined by the setting of the PRICELEV installation parameter.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Line
Specify the line number for the part on the requisition line. The system automatically assigns the next incremental number to the line based on the setting of the INCRLINO installation parameter.

Status
Specify the status of the requisition line.

Note: You can update the status of a requisition line at any time unless the status of the header is set to Rejected or Cancelled.

If the requisition contains more than one line, changing the status of a line does not affect the status of the header. However, if the requisition contains only one line, and you change the status of the line, then the system sets the status of the header to the status of the line.

You cannot update any field on the requisition line other than **Status** if the status of the line is anything other than Unfinished.

Quantity
Specify the requested quantity of the part.

Requested Before
Specify the date by which you are requesting to receive the part.

Exchange Rate
Modify the exchange rate for the part if necessary. The system automatically populates **Exchange Rate** with the exchange rate specified on the **Exchange Rate** tab of the **Currency** form.

Note: If the EXRUPDT installation parameter is set to YES and you modify the exchange rate, the system recalculates the header value based on the updated exchange rate.

Buyer
Specify the employee code identifying the buyer of the part.

Delivery Address
Specify the address to which to deliver the item.

Cost Code
Specify the cost code with which to associate the cost of the requisition.

Note: If applicable, the system automatically populates **Tax Code** and **Receipt Qty.** for the part. The system populates **Price** with the base price of the part in the From Store.

If no **Cost Code** is selected for the line and a **Cost Code** is either added or updated on the header, then the system updates the **Cost Code** on the line with the **Cost Code** of the header. Updating the **Cost Code** on a requisition line does not affect the header.

Expense Type
Select the expense type for the requisitioned line.

Commodity
Specify the commodity code for the requisitioned line.

Note: The system displays the total cost of the item on the requisition in **Part Line Total**. The **Part Line Total** is the product of the **Requested Qty.** and the **Price**.

Core Qty. is protected unless the selected part is a core tracked part to be issued for repair or reconditioning. If the part is core tracked, you can select and unselect **Core Qty.** as necessary. If

Core Qty. is selected, the **Price** of the part is the **Core Value** of the part on the part record rather than the **Base Price**.

5 Click **Submit**.

Creating store-to-store issues

Create store-to-store issues to create electronic records of the issue of stock part transfers from one store to another, including stores within different organizations. You can create a store-to-store requisition before creating a store-to-store issue.

The **Store-to-Store Issues** form enables you to create and manage transactions to transfer parts such as stock parts, repairable spare parts, and parts tracked by asset between stores, including stores within different organizations.

Note: You can create multiple issues for the same store-to-store requisition as necessary.

After creating and approving the store-to-store issue transaction, the issuing store then physically issues the requested parts to the receiving store, in which the parts must be received.

Note: The **Store-to-Store Receipts** form enables you to create and manage transactions to receive parts, repairable spare parts, and parts tracked by asset from other stores, including stores within different organizations.

Creating store-to-store issue headers

Create store-to-store issue headers to specify information related to the entire issue transaction. The status of the issue header indicates the progress of the issue transaction through its cycle.

The system assigns a store-to-store issue number.

To create a store-to-store issue header:

1 Select **Materials > Transactions > Store-to-Store Issues**.
2 Click **New Record**. The system automatically populates **Date Issued** with the current system date and time.
3 Specify this information:

From Organization
Specify the organization from which to send the parts for the issue. The organization you enter must be a specific organization to which you belong.

Store-to-Store Issue
Specify a description of the store-to-store issue in the adjacent field. The system automatically enters a default store-to-store issue description based on the setting of the TRANDESC installation parameter. The system also assigns a store-to-store issue number after you save the record.

Status
Select the status of the issue. The system automatically assigns a Status of Unfinished.

Changing the status of a store-to-store issue may affect additional system checks and field changes in these ways:

Option	Description
Unfinished	While the store-to-store issue has an Unfinished status, most of the fields on the header are editable. However, when you save the issue with Unfinished status, the system protects the **From Organization** and **From Store**. The issue must maintain Unfinished status until lines are added to the issue on the **Parts** tab.
Cancelled	Change the status of the issue to Cancelled to cancel the issue and all of the part lines. The system protects all fields on the issue when you change the status to Cancelled.
Ready for Printing	Change the status of the issue to Ready for Printing after adding the parts to issue on the **Parts** tab. When the status of the issue is Ready for Printing , only **Status**, **Description**, **Class**, and **Reference Number** are editable.
Approved	The system populates **Approved By** and **Date Issued** with the **User ID** of the approver and the date and time that the store-to-store issue **Status** is set to Approved, moves parts in-transit, and changes the status of any asset(s).

Requisition
Specify the store-to-store requisition for which to issue the parts. If you select a **Requisition**, the system automatically populates **From Store**, **To Store**, and **To Organization**.

From Store
Specify the store from which to issue the part.

To Store
Specify the store to which to issue the part. The system automatically populates **To Organization**.

Reference Number
Specify a reference number for the store-to-store issue transaction.

Class
Specify the class of the requisition. The classes shown belong to the TRAN entity.

4 Click **Save Record**.

Adding parts to store-to-store issues

Add parts to store-to-store issues to designate the parts to issue from one store to another.

To add parts to store-to-store issues:

1 Select **Materials > Transactions > Store-to-Store Issues**.

2 Select the issue to which to add parts, and then click the **Parts** tab.

3 Click **Add Part**.

4 Specify this information:

Part
Specify the part to add to the store-to-store issue. The system automatically populates the part description, **Part Org.**, and **Track by Asset**. The system populates **On Hand Qty.** with the quantity of the part from the **From Bin** and **Lot**.

If the selected **Part** is core tracked, the system calculates **Core Qty.** as the quantity of parts that are designated for repair in **From Store** on the issue header, **From Bin**, and **Lot** minus any parts that are allocated to repair work orders and parts assigned to external repair requisitions.

Note: If you entered a **Requisition** on the store-to-store issue header, you can click **Retrieve Parts** to retrieve all the part lines from the selected **Requisition**.

If you attempt to retrieve all the part lines from a requisition and the specified **Issue Qty.** is greater than the **On Hand Qty.**, or if the **Issue Core Qty.** is greater than the **Core Qty.**, the system sets the **Issue Qty.** equal to the available **On Hand Qty.** or sets the **Issue Core Qty.** equal to the available **Core Qty.** If there are no parts or core tracked parts to issue, the system does not add the line from the requisition.

If you have already issued some parts for a requisition but you have not added the complete quantity of the parts requested, click **Retrieve Parts** to create a new line for the remaining quantity of the parts to issue from the selected **Requisition**.

The system populates **Price** and **Currency** with the **Base Price** of the selected **Part** in the **From Store**. The **Base Price** in the **From Store** is determined by the setting of the PRICETYP and PRICELEV installation parameters. The system populates the currency of the price in the adjacent field with the **Currency**.

Note: If the part is a core tracked part, the transaction price for the core tracked part is the **Core Value** of the part, rather than the price of a new part.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Line
Specify the line number for the part on the issue. The system automatically assigns the next incremental number to the line based on the setting of the INCRLINO installation parameter.

Issue Qty.
Specify the quantity of the part(s) to issue.

Note: If you selected a **Requisition** on the store-to-store issue header, the system populates **Issue Qty.** with the **Quantity** of the part from the store-to-store requisition minus any of the quantity of

the part that has been received, scrapped, and any parts that are currently in-transit or that are on an unfinished store-to-store issue for the selected **Requisition** and **Part**.

Issue Core Qty.
Specify the quantity of the for repair part(s) to issue.

Note: If the selected **Part** is core tracked, the system enables **Issue Core Qty.** and populates **Core Qty.** with the quantity of the parts available to be issued for repair.

You cannot issue parts that have already been assigned to work orders or external repair requisitions, even if the parts have not yet been moved to the **Qty. at Shop** or **Qty. at Supplier**. Also, you cannot issue parts that are on any Unfinished store-to-store issues (including the current issue).

From Bin
Modify the bin from which to issue the part if necessary. If you modify **From Bin**, the system removes the part.

Note: If you clear **From Bin**, the system also clears **Lot** and recalculates **On Hand Qty.** and **Core Qty.** for the **From Store**, which is the sum of all the parts in all of the bins in the **From Store**.

When only **From Store** is entered and **From Bin** is blank, the system calculates **On Hand Qty.** and **Core Qty.** as the sum of the quantities of the **Part** in all the bins in the **From Store**.

If you defined a **Default Bin** or **Default Core Bin**, the system populates **From Bin** with that bin.

Note: If you select a **From Bin**, the system updates **On Hand Qty.** and **Core Qty.** for the **Store** and **From Bin**. Likewise, if you select a **Lot**, the system updates **On Hand Qty.** and **Core Qty.** for the selected **Store**, **Bin**, and **Lot** combination.

If a **Default Core Bin** is defined for the **Part** in the **From Store**, and you have not entered a value for **Issue Core Qty.**, then the system populates **From Bin** with the **Default Core Bin**. If more than one bin-stock record is defined for the **Part** in the **From Store**, the system also populates **Lot** from the bin-stock record. If the **Default Bin** for the part does not have a bin-stock record in the **From Store**, the system leaves **From Bin** blank.

Lot
Specify the lot from which to issue the part if necessary.

The system automatically populates the **Manufacturer Lot** and **Expiration Date**.

Note: If you clear **Lot**, the system recalculates **On Hand Qty.** and **Core Qty.** for all lots in the selected **From Bin**.

Asset ID
Specify the code identifying the asset associated with the part to transfer. If the selected **Part** is tracked by asset, the system enables **Asset ID**, and you must enter an **Asset ID** for the part.

If the selected **Asset ID** has a status of In Store or Purchased/In Store, the system enters 1 as the issue **On Hand Qty.** If the selected **Asset ID** has a status of To Be Repaired, the system enters 1 as the **Issue Core Qty.** To issue multiples of a by asset part, you must add an individual line for each part to issue.

If the selected **Asset ID** is tracked by serial number, the system populates **Serial Number** with the serial number of the equipment. The system also populates the **From Bin** and **Lot** from the **Asset ID**, and if you clear the **From Bin** or the **Lot**, the system automatically clears the **Asset ID**.

Note: You can use the **Quick Store-to-Store Transfer** form to transfer equipment with child equipment in an equipment hierarchy within the same organization.

5 Click **Submit**.

Note: You can add and delete parts on the issue as necessary, as long as the status of the issue is Unfinished.

Creating store-to-store receipts

Create store-to-store receipts to create electronic records for receiving stock part transfers from one store to another.

After creating the store-to-store issue transaction, the issuing store then physically issues the requested parts to the receiving store, in which the parts must be received. The receiving store then creates a store-to-store receipt transaction to receive the parts from the issuing store.

The **Store-to-Store Receipts** form enables you to create and manage transactions to receive parts (stock parts, repairable spare parts, and parts tracked by asset) from stores, including stores within different organizations.

Note: You can create multiple receipts for the same store-to-store requisition as necessary.

Creating store-to-store receipt headers

Create store-to-store receipt headers to specify information related to the entire receipt transaction.

The status of the receipt header indicates the progress of the receipt transaction through its cycle.

The system assigns a store-to-store receipt number.

To create store-to-store receipt headers:

1 Select **Materials > Transactions > Store-to-Store Receipts**.
2 Click **New Record**. The system automatically populates the **Date Received** with the current system date and time.
3 Specify this information:

To Organization
Specify the organization to which to receive the parts. The organization you select must be a specific organization to which you belong.

Store-to-Store Receipt
Specify a description of the store-to-store receipt in the adjacent field. The system automatically enters a default store-to-store receipt description based on the setting of the TRANDESC installation parameter.

The system also assigns a store-to-store receipt number after you save the record.

Status
Select the status of the receipt.

Changing the status of a store-to-store receipt may affect additional system checks and field changes in these ways:

Option	Table
Unfinished	While the store-to-store receipt has an Unfinished status, the fields on the header are editable. The receipt must maintain Unfinished status until lines are added to the receipt on the **Parts** tab.
Cancelled	Change the status of the receipt to Cancelled to cancel the receipt and all of the part lines. The system protects all fields on the receipt when you change the status to Cancelled.
Ready for Printing	Change the status of the receipt to Ready for Printing after adding the parts to receive on the **Parts** tab. When the status of the receipt is **Ready for Printing**, only **Status**, **Description**, **Class**, and **Reference Number** are editable.
Approved	The system populates **Approved By** with the **User ID** of the approver of the store-to-store receipt when the status is set to Approved, and all of the fields on the receipt are protected except Status.

The system also updates store quantities based on the receipt as follows: parts that are not for repair are moved from In Transit Qty. to Qty. on Hand; received parts that are for repair are moved from In Transit Qty. to Qty. for Repair; and all scrapped parts are moved out of the In Transit Qty., but the parts are not added back to inventory. The costs for the receipt transaction are updated for the To Store based on by the setting of the PRICETYP and PRICELEV installation parameters.

Note: The system does not update the price of repair parts. The price for the receipt transaction of the repairable spare part is the Core Value of the part.

If the PRICETIM installation parameter is set to I, the system updates prices at the time an invoice is created rather than at the time of a receipt. However, for a store-to-store receipt, the system updates prices as though PRICETIM is set to R because invoices do not apply to store-to-store transfers. Therefore, for store-to-store transfers, price updates always take place at the time the store-to-store receipt is approved.

For parts that are tracked by asset that are being transferred within the same organization, the system updates the Store on the asset to the new Store in the receiving organization, and the asset Status is set to In Store. If the by asset part needs repair, the asset is transferred to the new store with a Status of To Be Repaired.

For parts tracked by asset that are being transferred between different organizations, the system makes updates in almost the same manner that it does when transferring assets between organizations using the Transfer Equipment popup, with the following exceptions: electronic

signatures are only required for the transfer if a signature is configured for inserting an asset with **In Store** or **To Be Repaired** status; the system copies all of the fields from the existing asset to a new record for the asset in the new organization, unless they are not valid in the new organization (in which case, the fields will remain null); and if the Department is not valid in the new organization, the system populates the **Department** with an asterisk (*).

Requisition
Specify the store-to-store requisition for which to receive the parts.

The system automatically populates **To Store**, **From Store**, and **From Organization**.

Note: If you update the **Requisition** with a different requisition number, the system overwrites **To Store**, **From Store**, and **From Organization** with the values from the new **Requisition**. Likewise, if you clear the **Requisition**, the system also clears **To Store**, **From Store**, and **From Organization**.

To Store
Specify the store to which to receive the materials.

From Store
Specify the store from which to receive the materials. The system automatically populates the **From Organization** with the organization of the **From Store**.

Reference Number
Specify a reference number for the store-to-store receipt transaction.

Class
Specify the class of the receipt. The classes shown belong to the TRAN entity.

4 Click **Save Record**.

Note: After approving a store-to-store receipt, click **Create Return Requisition** to generate a return requisition for issuing parts between stores for repairable spare parts and their replacement parts more efficiently.

Adding parts to store-to-store receipts

Add parts to store-to-store receipts to designate the parts to receive from one store to another.

Note: The **Parts** page of the **Store-to-Store Receipts** form enables you to create multiple lines for the same part on the receipt, but the sum of the quantities of the duplicate parts cannot be greater than the In **Transit Qty.** or **In Transit Core Qty.**

To add parts to store-to-store receipts:

1 Select **Materials > Transactions > Store-to-Store Receipts**.
2 Select the receipt to which to add parts, and then click the **Parts** tab.
3 Click **Add Part**.
4 Specify this information:

Part
Specify the part to add to the store-to-store receipt. The system automatically populates the part description, **Part Org.**, and **Track by Asset**.

Note: If you entered a Requisition on the store-to-store receipt header, click **Retrieve Parts** to retrieve all the part lines from the selected Requisition.

If you attempt to retrieve all the part lines from a requisition and all the parts have not been issued, the system sets the **Receipt Qty.** equal to the available **In Transit Qty.** (or the requested **Quantity** from the requisition, whichever is least) or sets the **Core Receipt Qty.** equal to the available **In Transit Core Qty.** (or the requested **Core Qty.** from the requisition, whichever is least). If there are no parts to receive, the system does not add the line from the requisition.

If you created a part line for a partial quantity of the parts to receive from a requisition, clicking **Retrieve Parts** will create a new line for the remaining quantity of the parts to receive from the selected Requisition.

The system populates **Price** with the price of the part at the time of the issue for the part.

Note: If the **Part** is core tracked, the transaction price for the receipt transaction for the core tracked part is the **Core Value** of the part.

The system populates the **To Bin** with the **Default Bin** from the stock record of the part on Stores page of the **Parts** form, or the **Default Core Bin** from the **Repair Details** tab of the **Parts** form if the part is core tracked.

The system populates **In Transit Qty.** with the quantity of the part that is currently in transit (not for repair) minus any parts that are on any unfinished store-to-store receipt (including the current receipt).

If the selected **Part** is core tracked, the system populates **In Transit Core Qty.** with the quantity of the part that is currently in transit for repair minus any parts that are received, scrapped, or on an unfinished store-to-store receipts (including the current receipt).

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Line
Specify the line number for the part on the issue if necessary. The system automatically assigns the next incremental number to the line based on the setting of the INCRLINO installation parameter.

Receipt Qty.
Specify the quantity of the part to receive.

Note: If you selected a Requisition on the store-to-store receipt header, then the system populates **Receipt Qty.** with the **In Transit Qty.** of the part from the store-to-store requisition minus any quantity of the part that is already on any unfinished store-to-store receipts for the selected **Requisition** and **Part**.

Core Receipt Qty.
Specify the quantity of the part to receive for repair.

Note: If the selected **Part** is core tracked, the system enables **Core Receipt Qty.** and populates **Core Receipt Qty.** with the **In Transit Core Qty.** for the selected **Requisition** and **Part**.

Scrap Qty.
Specify the quantity of the part to scrap rather than receive because the part could not be repaired.

Note: If the selected **Part** is core tracked, the system enables **Scrap Qty.**

To Bin
Modify the bin into which to receive the part if necessary.

Note: If you enter **Receipt Qty.**, the system populates the **To Bin** with the **Default Bin** for the part.

If the part is core tracked, the system populates the **To Bin** with the **Default Core Bin** for the part.

Lot
Modify the lot for which to receive the part if necessary. The system automatically populates **Manufacturer Lot** and **Expiration Date**.

Department
Specify the department of the asset.

Asset ID
Specify the code identifying the asset associated with the part to receive. If the selected **Part** is tracked by asset, and you must enter an **Asset ID** for the part.

If the selected **Asset ID** is in-transit and not for repair, the system enters 1 as the **Receipt Qty.** If the selected **Asset ID** is in-transit and for repair, the system enters 1 as the **Core Receipt Qty.** To receive multiple quantities of a by asset part, you must add individual lines for each part to receive.

If the selected **Asset ID** is tracked by serial number, the system populates **Serial Number** with the serial number of the equipment.

5 Click **Submit**.

Note: You can add and delete parts on the receipt as necessary, as long as the status of the receipt is Unfinished.

Creating a return requisition for core tracked parts from a store-to-store receipt

Create a return requisition for core tracked parts from a store-to-store receipt to create a requisition for sending good parts back to the store from which the parts for repair were received. A return requisition is used when a store needs to immediately send equivalent parts in good working order to the store from which core tracked parts requiring repair were received, or when a store requests good parts first and then sends the broken parts for repair.

A return requisition is basically a reverse mirror image of the receipt on which the system will reverse the **Status** of the part lines. For example, parts with a **Status** of For Repair will be regular parts, or regular parts will become For Repair parts.

See the following scenario for an illustration of how a return requisition can be used:

STORE1 creates a store-to-store requisition for STORE2 for a quantity of 10 PUMP-MOTOR(s) that are for repair, and then STORE1 issues the parts to STORE2. STORE2 receives 8 of the PUMP

MOTOR(s), and scraps two of the PUMP MOTOR(s) because they are beyond repair. STORE2 creates a return requisition, and the system adds lines for 10 PUMP MOTOR(s) that are in good working order. STORE2 then issues the 10 parts to STORE1. STORE1 can then receive the 10 good PUMP MOTOR(s) against the return requisition created by STORE2.

This scenario could also be reversed and STORE2 could initiate the store-to-store transfer by creating a store-to-store requisition for issuing the 10 good PUMP MOTOR(s), in which case STORE1 could then create a return requisition to send the 10 broken PUMP MOTOR(s) to STORE2.

To create a return requisition for core tracked parts from a store-to-store receipt:

1 Select **Materials > Transactions > Store-to-Store Receipts**.
2 Select the receipt for which to create a return requisition, and then click the **Record View** tab.
3 Click **Create Return Requisition**. The system populates the following fields on the return requisition header:

Field	Description
Description	Populated based on the setting of the `REQDESC` installation parameter
Status	The system sets the **Status** of the return requisition to Unfinished.
Requested By	Populated with the value of **Requested By** from the original requisition. However, if the original employee code is not valid in the organization of the return requisition, the system populates **Requested By** with the user who creates the return requisition.
Entered By	Populated with user ID of the logged in user
Date Requested	Current system date and time

The system populates the following fields on the requisition lines:

Field	Description
Status	The system sets the **Status** of the return requisition line to Unfinished.
Requested Before	Current system date and time
Part	**Part** from the receipt line
Qty.	**Receipt Qty.** for regular parts, or the **Core Receipt Qty.** for core tracked parts
Core Qty.	Only for core tracked parts and populated with the **Receipt Qty.**
Price	**Price** from the original requisition
Exchange Rate	**Exchange Rate** from the original requisition

4 To view or update the return requisition, open the **Store-to-Store Requisitions** form, select the return requisition, and then view/update the **Record View and Parts** pages as necessary.

Creating internal repair receipts

Create internal repair receipts for fixed or scrapped repairable spare parts to record and update inventory information associated with repairing parts internally. An internal repair receipt consists of both a header and lines containing the parts to receive from an internal repair work order.

When repairing a part internally, a part to repair is taken from a store location to the shop to be repaired. During the repair process, either complete the repairs on a part, or scrap the part because you cannot repair the part to a usable state. You must receive the parts back into a store, which does not have to be the same store from which they were originally taken for repair.

Create an internal receipt header first, and then add part lines to the receipt. Update the **Status** of an internal repair receipt to indicate its progress through the receipt process and to initiate system actions based on receipt statuses.

Note: For parts tracked by asset, the system automatically changes the **Status** of the equipment by which the part is tracked to In Store when the part is received, or it changes the status to Withdrawn if the part is scrapped. If the equipment by which the part is tracked is part of an equipment hierarchy, the system cascades the status change for the parent equipment to all the dependent child equipment in the hierarchy.

If RPPRCCAL is set to YES, the system updates part prices in the same manner as it does a normal receipt. If RPPRCCAL is set to NO, internal repair receipts do not affect part prices.

Creating internal repair receipt headers

Create internal repair receipt headers for core tracked parts received for internal repair.

To create internal repair receipt headers:

1 Select **Materials > Transactions > Internal Repair Receipts**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the internal repair receipt belongs if you use multi-organization security.

Internal Repair Receipt
Specify a description of the internal repair receipt in the adjacent field. The system assigns an internal repair receipt number after you save the record.

Status
Select one of the options for the status:

Option	Description
Approved	When you approve an internal repair receipt, the system automatically updates store quantities and moves the repaired parts from **Qty. at Shop** to **Qty. on Hand** of the part in the store into which the part is received. The system also updates **Qty. Received** and **Qty. Scrapped** on the **Repair Parts** tab of the **Work Orders** form. The system updates the repair details assignments by matching the work order and lot and then by ordering by store and bin. If a part is tracked by asset, the system also matches the asset by which the part is tracked. **Note:** When you approve an internal repair receipt and the part is condition tracked, the system updates **Qty. at Shop** and **Qty. Completed** for the work order repair part instead of the repair condition part. **Qty. on Hand** is updated for the repair condition part instead of the work order repair part. In addition, if the part is tracked by asset and received, the status of the associated asset is updated to Purchased/In Store. If you scrap the part tracked by asset, the status of the associated asset is updated to Withdrawn, and the status of any child assets in a hierarchy are also updated to Withdrawn.
Cancelled	Select to indicate that the internal repair receipt is cancelled. If you select Cancelled, the system does not update any system quantities for parts or work orders.
Request Approval	After you have added part lines to the receipt, change the status to **Request Approval**. The system protects all fields except **Status**, **Description**, and **Class**.
Unfinished	The system automatically sets the Status of the receipt to Unfinished. Unfinished status indicates that the internal repair receipt is still in progress, and you cannot modify the **Status** of the receipt from Unfinished to anything but Cancelled until part lines have been added.

Work Order
Specify the work order for the internal repair receipt.

Store
Specify the store for the internal repair receipt.

Class
Specify the class of the commodity. The classes shown belong to the TRAN entity.

4 Click **Save Record**.

Adding parts to internal repair receipts

Add parts to internal repair receipts after creating the internal repair receipt header. Part lines on an internal receipt contain parts that have been repaired internally using work orders.

To add parts to internal repair receipts:

1 Select **Materials > Transactions > Internal Repair Receipts**.
2 Select the internal repair receipt for which to add a part, and then click the **Parts** tab.
3 Click **Add Part**.
4 Specify this information:

Part
Specify the part to add to the internal repair receipt. If the part is condition tracked, the system automatically populates **Condition**.

Note: You can add parts from the repair work order to the receipt individually, or you can retrieve all the parts from the repair work order to the receipt at once.

If you add or retrieve a core tracked part that is tracked by asset, the system automatically creates a line for each individual part and enters 1 as the **Outstanding Qty.** and **Receipt Qty.** for each line. You can change the **Receipt Qty.** to 0 and enter 1 as the **Scrapped Qty.** if necessary.

Repair Condition
Specify the repair condition if the part is condition tracked.

Repair Price
Specify the repair price of the part.

Note: You can only update the **Repair Price** for the part if the RPPRPCCAL installation parameter is set to YES.

If you entered an **Internal Repair Price** for a part on the **Repair Details** page of the **Parts** form, the system retrieves the **Repair Price** from the repair details for the part. If you did not specify an **Internal Repair Price**, the system retrieves the **Base Price** of the part for the **Repair Price**.

When you return a core tracked part to a store for repair, the internal repair return does not trigger a price update like a regular return. The system does not update the inventory price until the part has been repaired or scrapped on an internal repair receipt. The system uses the **Repair Price** to determine what cost should be used for the cost update. For example, if a LIFO part was originally issued at 10 USD, the part was returned for repair and repaired on a work order, and then the part was received on an internal repair receipt with a **Repair Price** of 5 USD, the system inserts a new cost record for the part into the **R5FIFO** table valued at 5 USD.

Bin
Specify the bin number storing the part.

Lot
Specify the lot number or batch of the part.

Note: The SHOWLOT installation parameter determines whether lots are used for stock information for parts. The default setting for SHOWLOT is Y. If SHOWLOT is set to N, the system disables **Lot**.

If parts were assigned from more than one lot in the assigned repair details, the system creates a line on the receipt for each lot associated with each line on the order. For example, if the work order contains a line with a quantity of 3 for which there are 3 different lots assigned in the assigned repair details for the work order, the system creates three lines with a quantity of 1 for each line. The system calculates the **Outstanding Qty.** as each line is added and then applies it to the **Qty. Assigned** for that lot in all stores and bins. The system then groups the assignments by lot, takes the assigned records sorts, them by store and then by bin.

Receipt Qty.
Specify the quantity of the part received for repair.

Scrapped Qty.
Specify the quantity of the part to be scrapped rather than repaired.

Note: The sum of the values entered for **Receipt Qty.** and **Scrapped Qty.** must be greater than 0; however, their sum cannot exceed the value of **Outstanding Qty.**

5 Click **Submit**. The system updates the internal repair receipt record with the part details. The system also creates a transaction of type RECV (goods received) for the parts on the receipt.

Creating pick tickets

Create pick tickets to identify a set of parts that are required for a work order activity. Pick tickets facilitate the acquisition of materials needed for a pending work order activity by enabling the worker assigned to a work order to create and print a list of parts required for the work order activity. The worker can then take the ticket to the store and have the parts waiting for pick-up in a short period of time, which makes a pick ticket different than a material list. You can also associate multiple pick tickets with a work order activity or piece of equipment.

After creating a pick ticket, you can update the pick ticket status as necessary based on your status change authorization privileges. **Status** change authorizations are set up on the **Status Authorizations** form.

Once the pick ticket has been reviewed and updated as necessary, change the status of the pick ticket to Approved. You can only issue parts listed on the pick ticket after the pick ticket is Approved.

Defining pick ticket headers

Define pick ticket headers to specify the store and supplier information for the pick ticket and the work order-activity or equipment for which the pick ticket is required. You must select either a work order-activity or equipment to create a pick ticket header.

To define pick ticket headers:

1 Select **Materials > Pick Tickets**.

2 Click **New Record**.

3 Specify this information:

Pick Ticket
Specify a description of the pick ticket in the adjacent field. The system assigns a pick ticket number after you save the record.

Store
Specify the store for which to create the pick ticket. The system automatically populates **Originator** with the **User ID** of the logged in user.

Status
Select the status of the pick ticket. The system automatically assigns Unfinished as the status of the pick ticket, or the equivalent user code status.

Date Required
Specify the date by which the list of parts is needed.

Class
Specify the class of the pick ticket. The classes shown belong to the PICK entity.

4 Choose one of the pick ticket options:

Option	Description
Define the pick ticket for a work order	Specify the **Work Order-Activity** for which to define a pick ticket. The system automatically populates **Equipment** with the equipment on the work order header.
Define the pick ticket for a piece of equipment	Specify the **Equipment** for which to define the pick ticket.

5 Specify this information:

Deliver to Supplier
Specify the supplier to whom to deliver the parts.

Delivery Address
Specify the address to which to deliver the parts.

Deliver to Employee
Specify the employee to whom to deliver the parts.

Default Approver
Specify the individual responsible for approving the pick ticket.

6 Click **Save Record**.

Note: The system populates and/or updates the **Total Value** of the pick ticket as parts are added to the pick ticket. The system also populates **Approved By** and **Date Approved** with the **User ID** of the approver and the date and time that the pick ticket **Status** is set to Approved.

Adding parts to a pick ticket

Add parts to a pick ticket to create the actual list of items needed for a work order–activity or piece of equipment.

After creating the parts list for the pick ticket, you can edit the parts list on the pick ticket as necessary to add or delete parts and update the **Required Qty.** if the status of the pick ticket is Unfinished. You cannot update the parts list for a pick ticket with a status other than Unfinished.

To add parts to a pick tickets:

1. Select **Materials > Pick Tickets**.
2. Open the **Pick Tickets** form.
3. Select the pick ticket for which to define parts, and then click the **Parts** tab.
4. Click **Add Part**.
5. Specify the **Part**, **Condition**, **Required Qty.**, and **Manufacturer**.
6. Specify this information:

   Manufacturer Part Number
   Specify the primary manufacturer's part number.

   Note: The system may automatically populate **Manufacturer** and **Manufacturer Part Number** depending on the MANUPART installation parameter. The system only displays **Manufacturer** and **Manufacturer Part Number** when MANUPART=Yes.

7. Click **Submit**.

   Note: When you save the record, the system automatically populates the **Unit Price** and the **Available Qty.** for each item on the pick ticket. The system also displays the **Qty. Issued** of the part on the pick ticket, as well as the **Available Qty.** of the part in the store.

   To delete a part, select the part to delete, and then click **Delete Part**.

Importing a parts list for a pick ticket

Import a parts list for a pick ticket to retrieve an existing list of parts defined elsewhere in the system to the parts list for the pick ticket. The source of the parts list can be a material list or parts associated with a piece of equipment on the equipment record.

The system verifies whether any of the parts to import already exist on the pick ticket and does not import any of the duplicate parts to the pick ticket.

To import a parts list for a pick ticket:

1. Select **Materials > Pick Tickets**.
2. Select the pick ticket for which to add parts, and then click the **Parts** tab.
3. Click **Import Parts List**.
4. Specify this information:

   From
   Select to import the parts list from an equipment record or a preplanned material list, and then specify the piece of equipment or material list from which to import the parts in the adjacent field. The system automatically populates the parts list with the parts associated with the selected equipment or material list.

5. Select the parts to import.

   Note: To select all lines at once, click **Select All**.

6. Click **Submit**. The system retrieves all of the parts displayed in the parts list to the pick ticket.
7. Add or delete additional parts for the pick ticket as necessary.

Performing a physical inventory

Performing a physical inventory involves physically counting the materials you have in store and comparing the inventory data that you gather during count with the data stored in your online inventory. The physical inventory process enables you to reconcile your online inventory with the actual stock on the shelves and in bins in your stores. This practice is commonly referred to as a cycle count.

After you finish the physical count, you can enter the actual physical quantities found in your cycle count. If you find that there are discrepancies between the **Expected Qty.** and the **Physical Qty.** of inventory items, you can reconcile all of the inventory discrepancies, and then approve the physical inventory record.

Generating a physical inventory counting sheet

Generate a physical inventory counting sheet to create a snapshot of the data in your online inventory that you will use to compare with the data you gather during your cycle count. Creating a physical inventory enables you to specify the store and inventory parameters that identify the materials for which you will perform your cycle count.

Specify inventory parameters as necessary to generate a more narrow or specific list of part data captured by the physical inventory snapshot. You can also specify a **Physical Inventory Date**. If you specify a date, the system only includes items in the physical inventory that have been specified into stock prior to the date specified.

Note: You can also specify wildcards for the **Part**, **Part Class**, **Stock Class**, **From Bin**, and **To Bin** inventory parameters as necessary to generate data. If you know all but one character, you can specify the characters you know, and substitute _ for the unknown character. If you only know a portion, you can specify the portion of the parameter that you know, and substitute % for the remaining portion. For example, if you specify P% for **Part**, the system retrieves all parts that begin with the letter "P." If you specify %PIP% for **Part**, the system retrieves all parts with codes that include the letters "PIP."

When you generate a physical inventory record, the system only saves the snapshot of your online inventory data generated by the physical inventory. It does not save the parameters you specify. You must specify the parameters upon which to base generation of a physical inventory record each time you want to generate a physical inventory record.

After you physically count your inventory, you can update your online inventory data on the **Parts** page of the **Physical Inventory** form to reconcile any discrepancies in your physical and online inventory. After reconciling any differences in your inventory data, you can update the status and/or approve the physical inventory based on your status change authorization privileges. However, the system enables and/or protects the fields available for update based on the status from which you are updating the physical inventory. Status changes for physical inventory Status change authorizations are set up for the TRAN entity on the **Status Authorizations** form.

If you create a physical inventory record and are unable to perform the actual cycle count immediately, the system also enables you to refresh an existing physical inventory to update the expected quantities in the physical inventory data snapshot.

To generate a physical inventory counting sheet:

1. Select **Materials > Transactions > Physical Inventory**.
2. Click **New Record**.
3. Specify this information:

   Store
   Select the store for which to create the physical inventory.

   Physical Inventory
   Specify a description of the physical inventory in the adjacent field. The system assigns a physical inventory number after you save the record. The system automatically populates **Created By** and **Date Created**.

   Status
   Select the status. The system automatically assigns Unfinished status to the physical inventory, or the equivalent user code status.

   Note: If the SDATE installation parameter is set to YES, the system updates the **Physical Inventory Date** to the current date when the status of the physical inventory is set to Approved.

   Part
   Specify the part for which to create the physical inventory.

   Part Class
   Specify the part class for which to create the physical inventory.

   Stock Class
   Specify the stock for which to create the physical inventory.

ABC Class
Select the ABC class for which to create the physical inventory.

Include Consignment Item(s)
Select to include stock records for consignment items, or items in stock that haven't been paid for, in the physical inventory.

From Bin
Specify the bin from which to create the physical inventory.

To Bin
Specify the bin to which to create the physical inventory.

Note: Use **From Bin** and **To Bin** to indicate a bin range for which to create a physical inventory for numbered bins. For example if you have numbered your bins consecutively, such as 001, 002, 003, 004, 005, and you want to create a physical inventory taken from the inventory contained in bins 001 through 005, specify 001 for **From Bin** and 005 for **To Bin** to capture a physical inventory for the stock contained in bins 001 through 005.

Physical Inventory Date
Specify the reference date for the physical inventory. If you specify a date, the system selects only those parts whose **Stock Date** (the date the part is specified into stock) is before the date specified for **Physical Inventory Date**.

Include Child Store(s)
Select to include stock records for all child stores of the selected **Store** in the physical inventory.

Include Out of Service Item(s)
Select to include stock records for out of service parts in the physical inventory.

4 Click **Save Record**.

Note: After generating the physical inventory and printing the counting sheet, transactions such as issues, returns, and receipts may occur before the database is updated. To update the expected quantities to reflect the current levels in the database, you can select a physical inventory record to update, right-click on the form, and then select **Refresh Inventory**. The system updates the expected quantity of the parts on the physical inventory record on the **Parts** tab of the **Physical Inventory** forms to the current levels. However, you can only refresh the physical inventory if the **Status** is Unfinished.

Entering physical inventory quantities

Enter physical inventory quantities to update the actual physical quantities of inventory items found during your cycle count. You can only enter physical inventory quantities for physical inventory records with Unfinished status.

The setting of the STTKDISC installation parameters determines the manner in which the system handles discrepancies between the expected quantities and physical quantities of parts tracked by asset.

Note: Regardless of the setting of the STTKDISC installation parameter, the system cannot update the stock level for a part tracked by asset for which there is a discrepancy because parts tracked by asset are tracked individually and their movements and quantities must be accurately recorded.

To enter physical inventory quantities:

1. Select **Materials > Transactions > Physical Inventory**.
2. Select the record for which to enter physical inventory quantities, and then click the **Parts** tab.
3. Select the part for which to enter a physical inventory quantity, and then enter the actual quantity of the part found during the cycle count in **Physical Qty.** Specify the physical quantity for additional parts as necessary.
4. Click **Save Record**.

Refreshing existing physical inventory data

Refresh existing physical inventory data to update the expected quantities in the physical inventory data snapshot as necessary. Refreshing existing physical inventory data enables you to update an existing physical inventory if you have been unable to perform the actual cycle count for some time following creating the physical inventory record. You can only refresh physical inventory data for records with Unfinished status.

After refreshing existing physical inventory data, you can view the updated expected quantities for the physical inventory on the **Parts** page.

To refresh existing physical inventory data:

1. Select **Materials > Transactions > Physical Inventory**.
2. Select the record for which to refresh existing physical inventory data, and then click the **Record View** tab.
3. Right-click on the form, and then select **Refresh Inventory**. The system updates the quantities for the physical inventory on the **Parts** page.

Generating ABC analysis

Generate ABC analysis to create an ABC analysis report for reference purposes and/or to update the class assignments for part.

ABC inventory analysis is an inventory method that enables you to divide your stock inventory items into three groups or classes: A, B, and C. ABC class assignments are used as selection criteria for a number of material management functions, such as EOQ calculations, stock replenishment, repairable spares, and physical inventory counts.

To generate ABC analysis, specify a percentage value as the cutoff point for each of the three classes. The system then assigns parts to one of the ABC classes by comparing the part's value to the value of other parts. Parts assigned to class A represent the largest percentage of your total inventory value.

Parts assigned to class B represent a moderate percentage of your total inventory value. Parts assigned to class C represent a small percentage of your total inventory value.

Depending on your preference, the system determines a part's ABC class based on either part value or part usage value. The system arranges the parts in descending order so that the part with the largest **Percentage of Value** is first, with other parts following in descending order according to their **Percentage of Value**. The system then assigns a class to each part based on the percentages specified for **A Cutoff Point %**, **B Cutoff Point %**, and **C Cutoff Point %**.

Note: The system determines part value percentages using the **Price Type** specified for each part. The system enables you to perform ABC Analysis for reference purposes without affecting the current class assignments of a store's parts, or you can click **Update ABC Class** to automatically update part ABC classes.

To generate ABC analysis:

1 Select **Materials > Process > Generate ABC Analysis**.

2 Specify this information:

Organization
Specify the organization for which to generate ABC analysis if you use multi-organization security.

Store
Specify store for which to perform ABC analysis.

Note: You can also specify "wildcards" for **Store** necessary to generate data. If you know all but one character, you can specify the characters you know, and substitute _ for the unknown character. If you only know a portion, you can specify the portion of the parameter that you know, and substitute % for the remaining portion. For example, if you specify P% for **Store**, the system retrieves all stores that begin with the letter "P." If you specify %PIP% for **Store**, the system retrieves all stores with codes that include the letters "PIP."

A Cutoff Point %
Specify the value of the cutoff point for A. The system automatically specifies 70 as the default value.

B Cutoff Point %
Specify the value of the cutoff point for B. The system automatically specifies 20 as the default value.

C Cutoff Point %
Specify the value of the cutoff point for C. The system automatically specifies 10 as the default value.

Note: The sum of the values specified for **A Cutoff Point %**, **B Cutoff Point %**, and **C Cutoff Point %** must equal 100%, and you must specify a value for all three points.

3 Select one of the following options:

Option	Description
Usage Based	Select to calculate ABC analysis based on usage. If you select Usage Based, the system displays the **Quantity** as the number of parts issued within the specified **From Date** and **To Date** range from the store minus the returns to store. The system calculates **Total Value** as the product of the **Price** and the **Quantity**. The

Option	Description
	Cumulative Percentage and **ABC Class** are determined based on the usage value for the part rather than the value on hand.
Value Based	Select to calculate ABC analysis based on values. If you select Value Based, the system displays the **Quantity** as the number of parts currently on hand in the store. The **Total Value** is the product of the **Price** and the **Quantity**. The **Percentage of Value**, **Cumulative Percentage**, and **ABC Class** are determined by the actual value of the parts currently in stock. The system arranges the parts so that the part with the largest percentage of total inventory value is on top with other parts following in descending order according to their percentage of total inventory value.

4 Specify this information:

From Date

To Date
Specify the starting and ending dates for the usage based analysis.

Print ABC Analysis
Select to print an ABC analysis report.

5 Click **Process**. The system displays the **Preview** page listing all of the parts for which to generate ABC analysis.

6 Select each part line for which you wish to generate ABC analysis. The system automatically selects all of the part lines. You may remove individual lines from the list by unselecting the line. The system does not update the class assignments for unselected lines.

7 Select **Print ABC Analysis** to print an ABC analysis report.

8 Click **Update ABC Class** to update the class assignments for parts. The system updates the class assignments and stores the calculated values for each selected part record in the **R5STOCK** table. If any errors occur during the updates, the system highlights the record in red and displays the error in **Error Message**.

Viewing and modifying materials information

View and modify materials information as necessary.

Viewing and modifying parts information

View and modify part information as necessary and specify revalued price information for parts.

You can change the default **Price Type** for a specific part and update the average, last, and standard pricing information for a part. However, you can only update **Average price**, **Last price**, and **Standard price** for parts if the PRICELEV installation parameter is set to P. **Price Type** defaults to the value

specified for PRICETYP, but you can also update and specify default price types for individual parts as necessary.

When PRICELEV is S, prices are always set and updated on the **Stores** page of the **Parts** form. When PRICELEV is set to P, prices are set and updated on the **Record View** page of the **Part** form. However, if you are using multi-organization security (MOS) and PRICELEV is P, then part prices are set and updated on the **Prices** page of the **Part** form.

Revaluation of price information for parts is calculated either at the time of the approval of a receipt for a part or at the time of the approval of an invoice for a part, depending on the setting of the PRICETIM installation parameter. Part revaluation is also calculated according to the PRICETYP installation parameter, which specifies whether the system prices storeroom materials based on the average, last, or standard price.

Any update of price information specified for the average, last, or standard price for a part is copied to the base price of the part, which is the price of the part to be used as the basis for all transactions for the part.

Note: When updating price information, the system does not record a stock transaction for a part if there is no quantity of the part on hand in store or if the updates do not affect the base price of the part.

Delete part records as necessary. However, you cannot delete a part record after:

- it has been associated with a piece of equipment;
- parts have been recorded into stock;
- the part has been used in a pick ticket;
- the part is referenced by a purchase requisition;
- store transactions have been made against it; or
- the part has been allocated or reserved.

To view and modify part information:

1. Select **Materials > Parts**.
2. View the list of parts, and then double-click the row containing the part to view or modify.
3. View and modify part information as necessary.

   Note: Track by Asset can only be unselected when no asset or profile is associated with the part.
4. Click **Save Record**.

Viewing and modifying associated documents

View or edit documents associated to the entity.

Note: This popup is used when an entity does not have a Documents tab.

To view and modify associated documents:

1. Select **Materials > Parts**.
2. Select the part for which to view or modify a document, and then click the **Stores** tab.
3. Select a store, and then click **Add/Edit Documents**.

4 Choose one of these options as necessary:

Option	Description
To view or modify a document	Click **View/Edit Document**. Follow steps 5-10.
To associate a document to an entity	Click **Add Document**. Follow steps 5-10.
To create or upload a document	Click **Create/Upload Document**. See "Uploading documents" on page 45.

5 Specify this information:

Document
Specify the document to view or edit. The system automatically populates **Document Description**.

Print with Work Order
Select to print the document with the work order.

Copy to Work Order
Select to copy the document to the work order.

Print with Purchase Order
Select to print the document with the purchase order.

Copy to Purchase Order
Select to copy the document to the purchase order.

6 Click **Save**.

Note: To view the document, click **View/Edit Document**. Click **View Document**.

To remove or modify the document link, click **View/Edit Document**. Click **Remove Document Link**.

See the *Infor EAM System Administrator's Guide*.

Viewing and modifying store information

View and modify store information as necessary.

When modifying store information, you can update the **Price Code** for a store. When updating **Price Code** for a store, the system verifies whether there are any outstanding store-to-store transactions, including receipts, for the store. If there are any outstanding store-to-store transactions, you must approve or cancel any outstanding store-to-store transactions before you can update **Price Code**.

You can also update the **Price Type** for the store to average, last, standard, last in first out, or first in first out as necessary if the PRICELEV installation parameter is set to S. If you modify the **Price Type** for the store, the system uses the **Price Type** for the store as the default value for **Price Type** on the **Stores** page of the **Parts** form. If PRICELEV is set to P, you cannot change the price type for the store and **Price Type** is hidden.

If you modify the **Parent Store** for store for which **Copy Parent's Reorder Details** is selected, the system automatically unselects **Copy Parent's Reorder Details**. Additionally, you can only select a

Parent Store for the store that is not already designated as a child store in the store hierarchy for the store.

Delete stores as necessary. However, you cannot delete a parent store for which child stores exist, and you cannot delete a store when there is quantity on hand for a stock record within the store.

To view and modify store information:

1. Select **Materials > Setup > Stores**.
2. View the store list, and then double-click the row containing the store to view or modify.
3. View and modify store details as necessary.
4. Click **Save Record**.

Viewing and modifying stores associated with parts

View and modify stores associated with parts to review or update store information for a part.

The PRICELEV installation parameter determines the manner in which the system records prices for parts. The default value for PRICELEV is P, which indicates that prices are recorded at the part level, enabling you to specify the price for a part at the parts level on either the **Record View** page of the **Parts** form or the **Prices** page of the **Parts** form depending on whether you are using MOS. If PRICELEV is set to S, part prices are recorded at the stock level on the **Stores** page, enabling you to specify different prices for the same part in different stores.

Note: If PRICELEV is P, the system disables **Price Type**, **Average Price**, **Last Price**, **Standard Price**, and **Base Price** fields and hides them on the **Stores** page of the **Parts** form.

You can change **Price Type** for a part as necessary. However, if there is a quantity of the part on hand and changing the price type affects the base price of the part, the system records a MPTC stock transaction for the part. If there is no quantity of the part on hand or if changing the price type does not change the base price of the part, the system does not record a transaction for the price type change.

If there is a current quantity of the part on hand and you update the price type to last in first out (LIFO) or first in first out (FIFO), the system creates a stock record for the part in the **R5FIFO** table part and sets **Average Price** to the **Base Price**. The stock record includes the quantity of the part on hand and the price. If there is no quantity on hand, the system does not insert a record into the **R5FIFO** table.

If you change the price type from LIFO or FIFO to average, last, or standard, the system deletes the record of the part from the **R5FIFO** table. If any of the price fields are null, the system considers the price to be zero.

Additionally, if there is a current quantity of the part on hand and you change the price type to standard or last and then specify a **Standard Price**, the system records both a MPTC and CORR stock transaction.

Preferred Store and **Preferred Supplier** are used for automatic requisition generation for low stock items. Selecting a **Preferred Store** indicates that the requisition type for the part in store is a Store-to-Store transfer. Because Preferred Store and Preferred Supplier provide different information for a requisition, you can specify either a **Preferred Supplier** or **Preferred Store**. You cannot specify a value for both. Selecting a **Preferred Supplier** indicates that the requisition type for the part is Goods

Requested. Selecting a **Preferred Store** indicates that the requisition for the part should be Store-to-Store.

To view and modify stores associated with parts:

1. Select **Materials > Parts**.
2. Select the part for which to modify store information, and then click the **Stores** tab.
3. Select the store for which to view or modify information.
4. Modify store information for the part as necessary.
5. Click **Submit**.

Viewing and modifying stock information for parts

View and modify stock information for parts to update the quantity of a part in stock. You can only update the **Qty. on Hand** when modifying stock information for parts. **Store**, **Bin**, **Price**, and **Lot** are protected. If you specify a new **Qty. on Hand** for the part, the system creates an approved stock transaction for the difference between the old quantity and the new quantity.

Note: You cannot delete a stock record for a part if the **Qty. on Hand** of the part is greater than zero.

If you set the **Price Type** for parts in the store to last in first out price or first in first out price, then the system inserts a stock record in the **R5FIFO** table for the parts. If you change the **Price Type** for parts in store from last in first out price or first in first out price to Average, Last, or Standard, then the system deletes the stock records for any parts in the store from the **R5FIFO** table.

To view and modify stock information for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view and modify stock information, and then click the **Stock** tab.
3. Specify this information:

   Qty. on Hand
   Specify the new quantity of the part in stock.

4. Click **Submit**.

Viewing and modifying multiple prices of parts (MOS)

View and modify multiple prices of parts as necessary.

You can change the default **Price Type** for a specific part in its organization and update the average, last, and standard pricing information for the part. However, you can only update **Average price**, **Last price**, and **Standard price** for parts if the PRICELEV installation parameter is set to P.

Any update of price information specified for the average, last, or standard price for a part is copied to the base price of the part in its organization, which is the price of the part to be used as the basis for all transactions for the part in its organization.

Note: When updating price information, the system does not record a stock transaction for a part if there is no quantity of the part on hand in store or if the updates do not affect the base price of the part in its organization.

You can change **Price Type** for a part as necessary. However, if there is a quantity of the part on hand and changing the price type affects the base price of the part, the system records a MPTC stock transaction for the part. If there is no quantity of the part on hand or if changing the price type does not change the base price of the part, the system does not record a transaction for the price type change.

If there is a current quantity of the part on hand and you update the price type to last in first out (LIFO) or first in first out (FIFO), the system creates a stock record for the part in the **R5FIFO** table part and sets **Average Price** to the **Base Price**. The stock record includes the quantity of the part on hand and the price. If there is no quantity on hand, the system does not insert a record into the **R5FIFO** table.

If you change the price type from LIFO or FIFO to average, last, or standard, the system deletes the record of the part from the **R5FIFO** table. If any of the price fields are null, the system considers the price to be zero.

Additionally, if there is a current quantity of the part on hand and you change the price type to standard or last and then specify a Standard Price, the system records both a MPTC and CORR stock transaction.

Revaluation of price information for parts is calculated either at the time of the approval of a receipt for a part or at the time of the approval of an invoice for a part, depending on the setting of the PRICETIM installation parameter. Part revaluation is also calculated according to the PRICETYP installation parameter, which specifies whether the system prices storeroom materials based on the average, last, or standard price.

To view and modify multiple prices of parts (MOS):

1. Select **Materials > Parts**.
2. Select the part for which to view or modify prices, and then click the **Prices** tab.
3. View and modify the price information as necessary.
4. Click **Submit**.

Viewing and modifying part inspections

View and modify records for incoming part inspections.

To view and modify part inspections:

1. Select **Materials > Transactions > Part Inspections**.
2. Select the part inspection record to view or modify, and then click the **Record View** tab.
3. Specify this information:

   Status
   Select one of these options:

Option	Description
Unfinished (U)	Indicates that parts have not been inspected.

Option	Description
Fully rejected (FJ)	Indicates that, after inspection, all parts have been rejected.
Partially Rejected (PJ)	Indicates that, after inspection, only some parts have not been rejected.
Approved (A)	Indicates that all parts have been approved or that no parts for this order require inspection.

Part Location
Specify the code identifying the receiving location as necessary.

Inspection Qty.
Specify the number of parts inspected.

Rejected Qty.
Specify the number of parts rejected, if any.

Reason for Return
Specify the reason for rejecting or returning the part.

Class
Specify the class of the inspection.

Inspected By
Specify the employee who inspected the parts.

Date Inspected
Specify the date of the inspection.

4 Click **Save Record**. The system automatically populates **Updated By** and **Date Updated**.

Viewing instructions for part inspections

View the instructions and comments associated with the selected inspection method on the PO receipt line.

To view instructions for part inspections:

1 Select **Materials > Transactions > Part Inspections**.
2 Select the part inspection record for which to view instructions, and then click the **Instructions** tab.
3 View the instructions for the part inspection.

Viewing usage and demand of parts

View usage and demand of parts stocked in stores within your organization. For each part, the system identifies each store to which the part has been issued or from which store the part has been returned,

the day through which the part usage occurred, demand, and usage. To know how the system determines usage and demand, see the following formulas:

```
Usage = Issues - Returns

Demand = Quantity of Outgoing Parts – Quantity of Incoming Parts +/- Physical Inventory

(Outgoing Parts = Issues + Transfers Out + Supplier Returns)

(Incoming Parts = Returns, Transfers In, Receipts, and Stock Initializations)
```

To view usage and demand of parts:

1. Select **Materials > Parts**.
2. Select the part for which to view usage information, and then click the **Usage** tab.
3. Click **Generate Usage**.
4. View the part usage information.

   The system displays the following information for each part in the Usage list:

Field	Description
Store	The store for which usage transactions, such as issues and returns, have occurred
Month	The last day through which the usage occurred **Note:** The date displayed can never be the current date, because transactions can still occur or be occurring for the current date.
Usage	The difference between the total issues and the returns for the selected part and store during the given month
Demand	The difference between the quantity of incoming parts, such as receipts, returns, and incoming part transfers, and the quantity of outgoing parts, such as issues, transfers, returns to vendors, etc. **Note: Demand** also reflects part additions or subtractions due to physical inventories and stock initialization.

Viewing part details

View a list of stores where a part is currently in stock. The Part Details popup will display part quantities and availability.

To view part details:

1. Select **Materials > Parts**.
2. Select the part for which to view details, and then right-click on the form in the **Record View**.
3. Select **View Part Details**.
4. Specify this information:

   Store
   Specify the store for which to view part details.

5. View the part details information.
6. Click **Close**.

Viewing stock levels by part

To view stock levels by part:

1. Select **Materials > Parts**.
2. Select the part for which to view stock levels, and then click the **Overview** tab.
3. View the stock level information.

Viewing purchasing contracts for parts

To view purchasing contracts for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view the purchasing contract, and then click the **Contracts** tab.
3. View the purchasing contract information.

Viewing requisitions for parts

View requisitions for parts as necessary. The system displays all requisitions, including store-to-store requisitions.

To view requisitions for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view requisitions, and then click the **Requisitions** tab.
3. View the requisition information.

Viewing purchase orders for parts

View purchase orders for parts that have not been fully received.

To view purchase orders for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view purchase orders, and then click the **Purchase Orders** tab.
3. View the purchase order information.

Viewing purchase order history for parts

View purchase order history for parts for both open and completed purchase orders.

To view purchase order history for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view purchase order history, and then click the **PO History** tab.
3. View the purchase order history.

Viewing stock values for LIFO/FIFO parts

To view stock values for LIFO/FIFO parts:

1. Select **Materials > Parts**.
2. Select the part for which to view stock values, and then click the **Stock Value** tab.
3. View the stock value information.

Viewing when and where a part has been used

View when and where a part has been used on the **Where Used** page of the **Parts** form. When you associate one part with another part via a **Parts Associated** page, the system keeps a record of the association and displays the information on the **Where Used** page.

Note: The system only shows associations of equipment records.

To view when and where a part has been used:

1. Select **Materials > Parts**.
2. Select the part for which to view usage information, and then click the **Where Used** tab.
3. View when and where the part was used.

   The system displays the following information for each part in the Where Used list:

Field	Description
Entity	The entity to which the part was associated
Code	The code of the record, to which the part was associated such as an asset ID, part number, work order
Organization	The organization record to which the part was associated
Description	The description of the **Code** to which the part was associated
Quantity	The quantity of the part that was associated to the entity, code, etc.
Component Location	The component or part location to which the part was associated
Comments	The comments entered when the part was associated
Type	The object type of the record to which the part was associated

Viewing stock transactions for parts

View stock transactions for parts within the past 30 days.

To view stock transactions for parts:

1. Select **Materials > Parts**.
2. Select the part for which to view stock transactions, and then click the **Transactions** tab.
3. View the stock transaction information.

   The system displays the following information for each part in the Transactions list:

Field	Description
Part	The code of the part associated with the part transaction
Part Org.	The organization of the part associated with the part transaction
Type	The type of transaction with which the part was associated such as Stock take, Issue or return, Goods received, etc.
Store	The code of the store with which the part transaction was associated

Field	Description
Description	The description of the **Store** associated with the part transaction
Store Org.	The organization of the **Store** associated with the part transaction
Condition	The condition of the part associated with the part transaction
Issued Part	The part associated to the condition for which it was originally issued
Transaction Qty.	The quantity of the part involved in the transaction. Positive quantities designate an increase in the quantity of the part in inventory, such as a receipt. Negative quantities indicate a decrease in the quantity of the part in inventory, such as an issue or return.
Date	The date on which the part transaction occurred
Price	The price of the part the system used for the transaction
Issued By	If the part transaction is an issue, the system displays the **User ID** of the user who issued the part.
Issued To	If the part transaction is an issue, the system displays the **Employee** code of person to which the part was issued.
Class	The class of the part
Class Org.	The organization of the **Class**
Transaction Number	The transaction number assigned to the transaction
Line	The line number of the part on the transaction involving the part such as the line number on the requisition, purchase order, work order, etc.
Status	The current status of the transaction involving the part
Pick Ticket	If the part was added to a pick ticket, the system displays the number.
Work Order	If the part was added to a work order, the system displays the number.
Activity	If the part was added to a work order, the system displays the work order number for which the part transaction occurred.

Field	Description
Purchase Order	If the part was added to a purchase order, the system displays the number.
PO Org.	The organization of the purchase order associated with the part transaction
Requisition	If the part was added to a requisition, the system displays the number.
Supplier	The supplier for the requisition associated with the part transaction
Bin	The bin involved in the part transaction. For issue transactions, the system displays the bin location from which the part is issued. For receipts, the system displays the bin location into which the part is received.
Lot	The lot of the part involved in the transaction
Asset ID	The code of the equipment associated with the transaction
Asset Org.	The organization of the **Asset ID** associated with the part transaction
Parent Work Order	If the transaction for the part is associated with a MEC work order, then the system displays the number identifying the parent multiple equipment work order associated with the transaction. **Note:** The system enables you to search for all transactions associated with a multiple equipment work order by defining a Quick Filter using Parent Work Order as part of the filter criteria.
Warranty	Indicates whether the part involved in the transaction is covered under warranty
Consignment	Indicates whether the part involved in the transaction is a part under consignment
Direct	Indicates whether the part involved in the transaction is a direct purchase item received directly to a work order, purchase order, etc.

Viewing stock in-transit for parts

View stock information for parts held in stores that are in-transit between stores.

To view stock in-transit for parts:

1 Select **Materials > Setup > Stores**

2 Select the store for which to view stock in-transit information, and then click the **Stock In-transit** tab.

3 View the stock information for the parts held in the selected store that currently have In-transit status.

The system displays the following information for each part in the Stock In-transit list:

Field	Description
Part	The code of the part that is in-transit
Part Description	The description of the part that is in-transit
Part Org.	The organization of the part that is in-transit
Quantity	The quantity of the part that is in-transit
For Repair Qty.	The quantity of a repairable spare part that is currently in-transit for repair. Repairable spare parts have repair details associated on the part record that specify whether a part is to be repaired internally or externally, and they include additional information about the system uses to generate repair work orders or requisitions for repairing the part. Therefore, a value displayed for **For Repair Qty.** indicates that the part is in-transit for repair internally or externally.
Destination	The entity of the destination such as PART, STOR
Destination Code	The code identifying the destination such as the part code or store code
Purchase Order	The purchase order associated with the transaction for which the part is in-transit
PO Org.	The organization of the purchase order associated with the transaction for which the part is in-transit
Requisition	The requisition associated with the transaction for which the part is in-transit
Equipment	The equipment associated with the transaction for which the part is in-transit
Equipment Org.	The organization of the equipment associated with the transaction for which the part is in-transit
Lot	The lot of the part that is in-transit

Viewing part reservations

View part reservations for parts in store that are reserved or allocated for work orders.

To view part reservations:

1. Select **Materials > Parts**.
2. Select the part for which to view part reservations, and then click the **Stores** tab.
3. Select the store for which to view part reservations, and then click **View Parts Reserved**.
4. View the work order reservations for the part in the selected store.

   Note: Part reservations can be initiated by material lists or reservations initiated on a work order.
5. Click **Close**.

Viewing parts associated with manufacturers

To view parts associated with manufacturers:

1. Select **Materials > Overview > Manufacturer Parts Numbers**.
2. View the parts information.

Viewing parts associated with suppliers

To view parts associated with suppliers:

1. Select **Materials > Overview > Supplier Parts Numbers**.
2. View the part information.

Viewing stock for stores

View stock for stores to view information about parts held in specific stores, such as the part number, the bin/lot combination for the part, and the quantity of the part on hand.

To view stock for stores:

1. Select **Materials > Setup > Stores**.
2. Select the store for which to view stock, and then click the **Stock** tab.
3. View the stock information for the parts held in the selected store.

Viewing stock levels by store

To view stock levels by store:

1. Select **Materials > Setup > Stores**.
2. Select the store for which to view stock levels, and then click the **Overview** tab.
3. View the stock level information.

Viewing stock transactions per store

View stock transactions per store. The system maintains a history of every stock transaction per store. View information such as when a specific part was received to stock, how much the part cost, and to what purchase order the part belonged.

To view stock transactions per store:

1. Select **Materials > Setup > Stores**.
2. Select the store for which to view stock transactions, and then click the **Transactions** tab.
3. View the stock transactions.

   The system displays the following information for each stock transaction in the Transactions list:

Field	Description
Type	The type of transaction with which the part was associated such as Stock take, Issue or return, Goods received, etc.
Part	The code of the part with which the transaction was associated
Description	The description of the **Part** associated with the stock transaction
Part Org.	The organization of the **Part** associated with the stock transaction
Transaction Qty.	The quantity of the part involved in the stock transaction. Positive quantities designate an increase in the quantity of the part in inventory, such as a receipt. Negative quantities indicate a decrease in the quantity of the part in inventory, such as an issue or return.
Date	The date on which the stock transaction occurred
Price	The price of the part the system used for the transaction
Originator	If the part transaction is an issue, the system displays the **User ID** of the user from whom the stock transaction originated.

Field	Description
Issued To	If the part transaction is an issue, the system displays the **Employee** code of the person to which the part associated with the stock transaction was issued.
Class	The class of the part the system used for the stock transaction
Class Org.	The organization to which the class used for the stock transaction belongs
Transaction Number	The number identifying the stock transaction
Line	The line number of the part on the stock transaction involving the part such as the line number on the requisition, purchase order, work order, etc.
Status	The current status of the stock transaction involving the part
Pick Ticket	If the stock transaction was associated with a pick ticket, the system displays the number.
Work Order	If the stock transaction was associated with a work order, the system displays the number.
Activity	If the stock transaction was associated with a work order, the system displays the activity on the work order for which the part transaction occurred.
Purchase Order	If the stock transaction was associated with a purchase order, the system displays the number.
Purchase Order Org.	The organization of the purchase order associated with the part transaction
Requisition	If the stock transaction was associated with a requisition, the system displays the number.
Supplier	The supplier for the requisition associated with the part transaction
Bin	The bin involved in the part transaction. For issue transactions, the system displays the bin location from which the part is issued. For receipts, the system displays the bin location into which the part is received.
Lot	The lot of the part involved in the transaction
Asset ID	The code of the equipment associated with the transaction

Field	Description
Asset Org.	The organization of the **Asset ID** associated with the stock transaction
Parent Work Order	If the transaction for the store is associated with a MEC work order, then the system displays the number identifying the parent multiple equipment work order associated with the transaction. **Note:** The system enables you to search for all transactions associated with a multiple equipment work order by defining a Quick Filter using Parent Work Order as part of the filter criteria.
Scrapped Qty.	The number of repairable spare parts that were scrapped for the stock transaction
Warranty	Indicates whether the part involved in the transaction is covered under warranty
Consignment	Indicates whether the stock transaction was associated with a part under consignment
Direct	Indicates whether the stock transaction was associated with a direct purchase item received directly to a work order, purchase order, etc.

Viewing bin stock

View bin stock per lot. For each lot, the system displays parts contained within that lot and specifies their store and bin location.

To view bin stock:

1. Select **Materials > Setup > Lots**.
2. Select the lot for which to view bin stock, and then click the **Bins Per Store** tab.
3. View the bin stock information.

Managing iProcure items in the Infor EAM application

iProcure allows customers to plan work, track parts usage, manage stock levels, and replenish stock via the Internet. Now Infor EAM customers with iProcure can manage part information in Infor EAM.

Note: This section covers functionality available in iProcure. If you have not purchased iProcure, you do not have access to all of the functionality covered in this section.

Creating iProcure vendors

Create iProcure vendors in Infor EAM.

To create iProcure vendors:

1. Select **Materials > Setup > iProcure Vendors**.
2. Click the **Record View** tab.
3. Click **Download iProcure Vendors**.
4. Click **OK**.

   Note: To create Infor EAM suppliers, click **Create Infor EAM Suppliers**.

Creating Infor EAM suppliers for iProcure vendors

Create a new supplier for each iProcure vendor that currently does not have an associated supplier record.

To create Infor EAM suppliers for iProcure vendors:

1. Select **Materials > Setup > iProcure Vendors**.
2. Click the **Record View** tab.
3. Click **Create Infor EAM Suppliers**. The system creates a new supplier record for each vendor record that currently does not have an associated supplier record.
4. Click **OK**.

Associating Infor EAM suppliers with iProcure vendors

Associate an Infor EAM supplier with a iProcure vendor in Infor EAM.

To associate Infor EAM suppliers with iProcure vendors:

1. Select **Materials > Setup > iProcure Vendors**.
2. Select the iProcure Vendor with which to associate an Infor EAM supplier, and then click the **Infor EAM Suppliers** tab.
3. Click **Add Supplier**.
4. Specify this information:

   Supplier
   Specify the supplier with which to associate the iProcure vendor. The system automatically populates **Supplier Description**, **Supplier Org.**, and **Payment Method**.

5. Click **Submit**. The system updates the Infor EAM Suppliers list.

Associating iProcure items with parts

Associate iProcure items with parts on the **Suppliers** page of the **Parts** form.

To associate iProcure items with parts:

1. Select **Materials > Parts**.
2. Select the part with which to associate iProcure items, and then click the **Suppliers** tab.
3. Select the supplier for which to update the parts catalog, and then click **Add iProcure Item Association**.
4. Specify the **Part #**.
5. Select the item, and then enter the number of items.
6. Click **Add to Cart** to add the item to the shopping cart.
7. Click **RETRIEVE PART**. The part information is retrieved, the iProcure item is associated with the part for the associated Infor EAM supplier, and then the supplier catalog is updated.

Updating iProcure items

Update iProcure items in the parts catalog.

To update iProcure items:

1. Select **Materials > Parts**.
2. Select the part to update, and then click the **Suppliers** tab.
3. Choose one of these options:

Option	Description
Update iProcure Items	Click to update the parts catalog for all suppliers associated with the selected part. The system updates **Gross Price**, **Lead Time**, and **iProcure Date Last Updated** in the parts catalog for all suppliers.
Update Selected iProcure Item	Click to update the parts catalog for selected suppliers associated with the selected part. The system updates **Gross Price**, **Lead Time**, and **iProcure Date Last Updated** in the parts catalog for the selected suppliers.

Adding iProcure part items to requisitions

Add iProcure part items to requisitions.

To add iProcure part items to requisitions:

1. Select **Materials > Requisitions**.
2. Select the requisition for which to add iProcure part items, and then click the **Parts** tab.

   Note: The requisition must have a status of Unfinished to add iProcure part items.

3 Click **Add Parts (iProcure Items)**.
4 Specify the **Part #**.
5 Select the item to add, and then enter the number of items.
6 Click **Add to Cart** to add the item to the shopping cart.
7 Click **Add Parts (iProcure Items)**. The iProcure part item is added to the selected requisition, the supplier's catalog is updated, and **iProcure Date Last Updated** is automatically populated.

Viewing iProcure sync errors

View iProcure sync errors for part catalog records.

To view iProcure sync errors:

1 Select **Materials > Requisitions**.
2 Select the requisition for which to view iProcure sync errors, and then click the **Parts** tab.

Note: You may also view iProcure sync errors on the **Suppliers** tab of the Parts page, the **Parts** tab of the Suppliers page, and the **Parts** tab of the Purchase Orders page.

3 Click **View iProcure Sync Errors**.
4 View the errors.
5 Click **Close**.

Managing warranty claims for parts

Add, modify, delete, or view warranty claims for parts.

To manage warranty claim for parts:

1 Select **Materials > Part Warranty Claims**.
2 Click the **Record View** tab.

Note: If you are modifying a warranty claim, select the claim to modify, and then click the **Record View** tab.

3 Specify a description of the warranty claim.
4 Specify this information:

Organization
Specify the organization for the claim.

Status
Select the status of the claim.

Note: Once the **Status** is set to Approved, the system automatically populates **Date Approved**.

Warranty
Specify the warranty with which the claim is associated. The system automatically populates **Warranty Org.**, **Manufacturer**, **Supplier**, and **Supplier Org.**

Class
Specify the class of the warranty claim. The system automatically populates **Class Org.**

RMA Number
Specify the return merchandise authorization (RMA) number.

Date Filed
Specify the date the warranty claim is filed.

Date Resolved
Specify the date the warranty claim is resolved.

Date Reported
Specify the date the warranty claim is reported.

5 Click **Save Record**.

Associating parts to part warranty claims

Associate a part with a warranty claim after creating a new warranty claim.

To associate parts with warranty claims:

1 Select **Materials > Part Warranty Claims**.
2 Select the warranty claim with which to associate parts, and then click the **Parts** tab.
3 Specify this information:

Part
Specify the part to associate with the warranty claim.

Note: The system automatically populates **Part Description**, **Part Org.**, and **Manufacturer**.

Quantity
Specify the total number of parts associated with the part.

Reimbursement Type
Specify the reimbursement type for the part warranty claim.

Claim Cash Amount
Specify the total cost for the parts.

Claim Replacement Qty.
Specify the number of parts to be replaced.

Settlement Cash Amount
Specify a monetary value for the settlement of the part warranty claim.

Settlement Replacement Qty.
Specify the number of parts replaced.

Settlement Receiving Store
Specify the store that receives the settlement from the part warranty claim.

Settlement Receiving Bin
Specify the bin that receives the settlement from the part warranty claim.

Settlement Receiving Lot
Specify the store that receives the lot from the part warranty claim.

Note: If the status of the part warranty claim is Unfinished, the system protects **Settlement Cash Amount**, **Settlement Replacement Qty**, **Settlement Receiving Store** , **Settlement Receiving Bin**, and **Settlement Receiving Lot**.

4 Click **Submit**.

Importing parts for part warranty claims

The import parts screen shows parts that are not associated with a warranty claim and parts already associated with the selected part warranty claim.

To import a part:

1 Select **Materials > Part Warranty Claim**.
2 Select the warranty claim for which to import parts, and then click the **Parts** tab.
3 Select **Import Parts**.
4 Select one or more of the parts to import, and then click **Submit**.

Note: If the part you select to import is already assigned to the selected part warranty claim, the new quantity is added to the existing quantity.

Viewing imported parts

View parts that have been imported for a part warranty claim.

To view imported parts:

1 Select **Materials > Part Warranty Claim**.
2 Select the part warranty claim for which to view imported parts, and then click the **Imported Parts** tab.
3 View imported parts.

Purchasing management

4

The purchasing management module corresponds with the materials management module to facilitate the process of purchasing goods. Use the purchasing management module to create and revise purchase orders. You can also add existing parts or create new parts to add to purchase orders, enter extra charges or discounts, and associate purchasing clauses.

Defining initial purchase information

Define initial purchase information before using the purchasing management module.

Defining purchase order terms

Define purchase order terms to use in purchase order activities. Various suppliers might have different types of purchase terms. The system has five predefined types of purchase order terms. You can also edit purchase order terms as necessary.

For example, select Freight Terms as the type for an individual purchase order term. This purchase order term appears in the Freight Terms lookup on the **Suppliers** form. Set up the individual codes for each of these types of order terms:

Term	Description
FOB (Free On Board) point (FOB)	Define where to take possession of an item such as a receiving dock.
Freight terms (FRTR)	Establish how different freight charges are paid and who pays them.
Payment terms (PAY)	Specify how a supplier is paid for a purchase such as COD.
Payment method (PYMT)	Specify what method is used to pay the supplier.
Ship via (SHIP)	Define how the supplier ships an item such as overnight, regular mail, etc.

To define purchase order terms:

1. Select **Purchasing > Setup > PO Terms**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the purchase order term belongs if you use multi-organization security.

   PO Term
   Specify a unique code identifying the purchase order term, and then specify a description of the purchase order term in the adjacent field.

   Type
   Select the type of purchase order term.

4. Click **Save Record**.

Defining purchasing clauses

Define purchasing clauses to create a list of legal agreements. Attach purchasing clauses to contract classes, purchase orders, or blanket purchase orders. Use the International Standards Organization (ISO) purchasing clauses predefined in the system, or define purchasing clauses to suit your organization's needs. You can also edit purchasing clauses after creating them as necessary.

Finally, you can create hierarchies with a general purchasing clause as a parent and more specific purchasing clauses set up as children.

To define purchasing clauses:

1. Select **Purchasing > Setup > Purchasing Clauses**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the purchasing clause belongs if you use multi-organization security.

   Clause
   Specify a unique code identifying the purchasing clause, and then specify a description of the purchasing clause in the adjacent field.

   Class
   Specify the class of the purchasing clause.

   Sequence Number
   Specify a number to indicate the order of the child purchasing clause in relation to the parent purchasing clause, if applicable. The sequence number determines the hierarchy of the child purchasing clauses.

Parent Clause
Specify the parent purchasing clause, if applicable.

Out of Service
Select to prevent the purchasing clause from being displayed in the lookups.

4 Click **Save Record**.

Defining children for purchasing clauses

Children can be added to purchasing clauses as additions to existing clauses.

To define children for purchasing clauses:

1 Select **Purchasing > Setup > Purchasing Clauses**.
2 Select the clause for which to define children, and then click the **Children** tab.
3 Click **Add Child Clause**.
4 Specify this information:

Sequence Number
Specify the sequence number for the clause.

Child Clause
Specify the child clause to associate with the contract class of the header clause. The system automatically populates the child clause description and **Child Clause Org**.

5 Click **Submit**.

Note: To remove a child clause from the header clause, select the child clause to remove, and then click **Remove Child Clause**.

Viewing purchasing clause hierarchies

View the existing relationship between ISO purchasing clauses as well as newly created purchasing clauses.

To view purchasing clause hierarchies:

1 Select **Purchasing > Setup > Purchasing Clauses**.
2 Select the purchasing clause for which to view the hierarchy, and then click the **Children** tab.
3 View the purchasing clause information.

Defining delivery addresses

Define and maintain delivery addresses for purchasing and materials.

To define delivery addresses:

1. Select **Purchasing > Setup > Delivery Addresses**.
2. Click **New Record**.
3. Specify this information:

   Delivery Address
   Specify a unique code identifying the delivery address, and then specify a description of the delivery address in the adjacent field.

   Address 1
   Specify the first line of the delivery address.

   Address 2
   Specify the second line of the delivery address.

   Address 3
   Specify the third line of the delivery address.

   City
   Specify the city for the delivery address.

   State
   Specify the state for the delivery address.

   Telephone
   Specify the telephone number at the delivery address.

   Extension
   Specify the telephone number extension at the delivery address.

   Zip Code
   Specify the zip code for the delivery address.

   Country
   Specify the country for the delivery address.

   Fax/Telex
   Specify the fax or telex number at the delivery address.

   E-mail Address
   Specify the e-mail address for the delivery address.

   Full Address
   Specify the full delivery address.

   Out of Service
   Select to prevent the delivery address from being displayed in lookups.

4. Click **Save Record**.

Defining credit cards

Define credit cards for use as payment on purchase orders.

To define credit cards:

1. Select **Purchasing > Setup > Credit Cards**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization of the credit card if you use multi-organizational security.

   Last 4 of Credit Card
   Specify the last four digits of the credit card number, and then enter a description of the credit card in the adjacent field.

   Type
   Specify the type of the credit card.

   Expiration (Month/Year)
   Specify a two-digit number for the month, and then enter a four-digit number for the year.

   Class
   Specify the class of the credit card.

   Class Org.
   Specify the organization of the class.

   Expiration Date
   Specify the expiration date for the credit card. The system defaults **Expiration Date** to the month entered as the **Expiration** month, the last day of the **Expiration** month, and the year of **Expiration**.

   Name
   Specify the name that appears on the credit card.

   Out of Service
   Select to set this credit card record to out of service.

4. Click **Save Record**.

Defining users for credit cards

Define users authorized to charge purchase orders to a specific credit card.

To define users for credit cards:

1. Select **Purchasing > Setup > Credit Cards**.
2. Select the credit card number for which to define users, and then click the **Users** tab.
3. Specify this information:

   User
   Specify the name of the user to associate with the credit card number. The system automatically populates the user description.

   Default
   Select to set the user as the default user for the credit card number.

4 Click **Submit**.

Creating and revising purchase orders

Create and revise purchase orders. The purchase order creation process has several steps. First, create the purchase order header and then add line items for parts and services. At this stage, you can also adjust part charges, associate clauses, create work orders and activities from service lines, and associate assets for parts tracked by asset. Next, change the status to Ready for printing to print the purchase order for approval. Finally, approve the purchase order and send it to the supplier. To change the status of a purchase order, specify a new status on the **Record View** page of the **Purchase Orders** form. See the following descriptions when changing the status:

Option	Description
Unfinished	The purchase order is at the creation stage. Create the purchase order header and add parts.
Ready for printing	The purchase order is ready for approval and printing.
Cancelled	The purchase order is cancelled.
Approved/completed	The purchase order is approved and ready to be sent to a supplier.

Note: When you approve a purchase order containing lines with repairable spare parts of **Type** External Repair, the system moves the **Requested Qty. (UOM)** of the part from the **Qty. for Repair** to the **Qty. at Supplier** on the **Stores** page of the **Parts** form. If the is part tracked by asset, the system changes the status of the asset associated with the part to In Repair. If the asset is a parent in an asset hierarchy, the system changes the status of any dependent child assets to In Repair.

If you cancel a purchase order containing lines with repairable spare parts of **Type** External Repair, the system gives you the option to cancel the requisition. If you select to also cancel the requisition, the system deletes the repair detail assignments for the part, and if the parts have been moved from **Qty. to Repair** to **Qty at Supplier**, the system moves the parts back to the **Qty. for Repair**.

Creating purchase order headers

Create purchase order headers for new purchase orders.

Note: If you are the originator of a purchase order, you might have an approval limit. This limit defines the total maximum value of all the line items on a purchase order. The approval limit may be set up at either the purchase order header level or the line item detail level. If the total exceeds your limit, you might need to have someone else (typically a manager) approve the amount.

To create purchase order headers:

1 Select **Purchasing > Purchase Orders**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the purchase order belongs if you use multi-organization security. The system automatically populates the purchase order description, **Status**, **Store**, **Buyer**, and **Due Date**.

Purchase Order
Specify a description of the purchase order in the adjacent field. The system assigns a purchase order number after you save the record. If the purchase order has numerous revisions, the system automatically populates **Revision Number**.

Status
Select the status value of the purchase order.

Note: Your authorization level determines the values available for **Status**.

Store
Specify a storeroom.

Originator
Specify the employee requesting the purchase order.

Due Date
Specify the expected arrival date for the items.

Buyer
Specify the buyer responsible for the purchase order.

Delivery Address
Specify the delivery address for the purchase order.

Class
Specify the class of the purchase order. The system automatically populates **Class Org.**

Package Tracking Number
Specify the unique number by which to track the delivery of the shipment for the purchase order.

Supplier
Specify a supplier. The system automatically populates the supplier's default **Currency**, the current **Exchange Rate**, **Language**, and **Lead Time (Days)**.

If the items are covered under a specific contract with a supplier, the system displays **Contract** and **Discount** information after you add lines to the purchase order. **Contract** and **Discount** apply only to individual orders.

Currency
Specify the currency you use to purchase the item.

Exchange Rate
Specify the current exchange rate.

Note: You can update the Currency if there is an exchange rate defined for the currency. You can update the **Exchange Rate** when the EXRTUPDT installation parameter is set to YES.

Default Approver
Specify the employee responsible for approving the purchase order.

Ship Via
Specify the manner in which the supplier ships the specific item.

Payment Terms
Specify the manner in which the supplier is paid for the purchase.

Freight Terms
Specify the manner in which the freight charges are paid and who pays them.

FOB Point
Specify where you take possession of the item.

Payment Method
Specify the method used to pay the supplier.

Note: Click **Default Terms**. The system automatically populates **Ship Via**, **Payment Terms**, **Freight Terms**, **FOB Point**, and **Payment Method** with the values specified on the **Suppliers** form.

After the purchase order is approved, the system displays **Approved By** and **Date Approved**.

After lines are added to the purchase order, the system displays **Part Lines**, **Service Lines**, **PO Lines**, **Total Tax**, **Total Extra Charges/Discounts**, **Total Part Value**, **Total Service Value**, and **Total PO Value**.

4 Click **Save Record**.

Note: Click **Create New Revision** to create a new revision of the purchase order.

Click **Receive All Parts** to create a receipt for all outstanding parts.

Adding part details to purchase orders

Add specific line items to the purchase order. You can add both cataloged and non-cataloged parts, and you can add items from an existing requisition. You can also create new parts to add to purchase orders.

Note: You can only add part details to a purchase order if the purchase order header status is Unfinished.

You can only update part details if the part line status is Unfinished.

To add part details to purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order for which to add part details, and then click the **Parts** tab.
3 Click **Add Part Line**.
4 Specify this information:

Requisition-Line
Specify the requisition and line number from which to add the part(s) to the purchase order. If you select a **Requisition-Line**, the system populates and overwrites these fields from the requisition: **Due Date**, **Requested Qty.**, **Part**, **Description**, **Part Org.**, **Supp. Catalog Reference**, **Requested Qty. (UOM)**, **Price**, **Work Order-Activity**, **Cost Code**, **Inspection**, **Line Type**, and **Assigned Qty.**

Note: If the selected **Requisition-Line** contains parts related to a multiple equipment work order, then the system populates **Work Order-Activity**, **Equipment**, **Equipment Org.**, and **Related Work Order** from the requisition/line.

Part
Specify the part to add to the purchase order. If the part is cataloged, the system automatically populates the part description, **Purchase Qty. (UOP)**, **Requested Qty. (UOM)**, **Price**, **Qty. per UOP**, **Contract Discount**, **Part Line Subtotal**, **Total Tax Amount**, **Total Extra Charges/Discounts**, and **Part Line Total**.

Note: The **Assigned Qty.** for a core tracked part is equal to the number of parts for which repair details are assigned for the requisition line.

The system performs a search to find an approved contract for the selected part. If an approved contract is found, the system populates **Contract** with the contract that was found.

The system searches for an approved contract for the selected PO header supplier, store, and currency.

Type
Select the type of materials to order.

Line
Specify the line number of the purchase order.

Purchase Qty. (UOP)
Specify the amount and UOP in which the supplier provides the part.

Requested Qty. (UOM)
Specify the amount in which you receive the part to stock. The system automatically populates the UOM.

Price
Specify the price of a single part and the currency you use to purchase the part in the adjacent field.

Work Order-Activity
Specify the work order and activity if you are ordering this item for a work order activity. When you select a **Work Order–Activity**, the system automatically populates **Type** with Direct Materials and populates **Equipment** from the work order and it is protected.

Note: If the selected **Work Order–Activity** is a multiple equipment work order, the system enables **Equipment**, and it is required.

Equipment
Specify the equipment associated with the purchase order if you have not entered a **Work Order–Activity** and want to associate an equipment record with the purchase order. The system populates **Type** with Direct Materials.

Choose one of these if the work order is a multiple equipment work order:

- Specify a specific equipment to which to distribute the cost of the part.
- Specify All Equipment to evenly distribute the cost of the part to each equipment record on the work order.
- Specify WO Header Equipment to distribute the cost of the part to the equipment on the work order header only.

Note: If the selected **Part** is tracked by asset, then the system clears **Equipment**, **Equipment Org.**, and **Related Work Order** because you cannot distribute a part tracked by asset across multiple equipment.

Delivery Address
Specify the address to which to deliver the part.

Tax Code
Specify any additional taxes to apply to the part line as necessary.

Status
Select the status of the part line.

Note: The system does not move core tracked parts for which there are repair detail assignments from **Core Qty.** to **Qty. at Supplier** until the **Status** of the purchase order header is Approved, regardless of the status of the part line.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Qty. per UOP
Specify the conversion factor.

Note: For example, if the supplier's UOM for the part is a case of 12 parts but your UOM for the part is each, **Purchase Qty. (UOP)** will be 1 for one case, but **Requested Qty. (UOM)** will be 12 (1 case = 12 parts). If you enter 2 for the **Purchase Qty. (UOP)**, the system uses **Qty. per UOP** to update the **Requested Qty.** to 24.

Due Date
Specify the expected arrival date of the items.

Package Tracking Number
Specify the unique number by which to track the delivery of the shipment for the purchase order.

Track by Asset
The system displays whether or not the part is tracked as an asset.

5 Click **Submit**. The system automatically creates a new line number for each new part line added. If you wish to update a line number, use Screen Designer to display **Line** and enter a new part line manually.

Note: If you have a preset monetary limit established for purchase orders, the system will not allow you to save any amount greater than this limit. If MOS is set to YES, the limit is determined on the **Organizations** page of the **Users** form. If MOS is set to NO, the limit is determined on the **Users** form.

To delete a part, select the part to delete, and then click **Delete Part**.

Creating new parts to add to purchase orders

Create new parts to add to purchase orders. When you need to add a part that has not been previously created in the system, create the new part on the **Parts** page of the **Purchase Orders** form.

Note: You cannot create a new part for an existing part line.

To create new parts to add to purchase orders:

1. Select **Purchasing > Purchase Orders**.
2. Select the purchase order for which to create new parts, and then click the **Parts** tab.
3. Click **Create Part**. The system automatically populates **Part** with a number that starts with N. Specify a description of the part in the adjacent field.
4. Specify this information:

Type
Select the type of materials to order.

Purchase Qty. (UOP)
Specify the amount and UOP in which the supplier provides the part.

Requested Qty. (UOM)
Specify the amount in which you receive the part to stock. The system automatically populates the UOM.

Price
Specify the price of a single part and the currency you use to purchase the part.

Work Order-Activity
Specify the work order and activity if you are ordering this item for a work order activity. The system automatically populates **Type** with Direct Purchase.

Tax Code
Specify any additional taxes to apply to the part line as necessary.

Status
Select the status of the part line.

Qty. per UOP
Specify the conversion factor.

Note: For example, if the supplier's UOM for the part is a case of 12 parts but your UOM for the part is each, **Purchase Qty. (UOP)** will be 1 for one case, but **Requested Qty. (UOM)** will be 12 (1 case = 12 parts). If you specify 2 for the **Purchase Qty. (UOP)**, the system uses **Qty. per UOP** to update the **Requested Qty.** to 24.

Due Date
Specify the expected arrival date of the items.

Track by Asset
The system displays whether or not the part is tracked as an asset.

5 Click **Submit**.

Note: To add an iProcure part, click **Add Parts (iProcure Items)**. To update iProcure items in the parts catalog, click **Update iProcure Items**. To view iProcure sync errors, click **View iProcure Sync Errors**.

Adding multiple parts to purchase orders

Select and retrieve multiple parts for purchase orders.

To add multiple parts to purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select a purchase order for which to add multiple parts, and then click the **Parts** tab.
3 Click **Select Parts**.
4 Specify this information:

Select
Select the parts to add to the purchase order.

Purchase Qty.
Specify the purchase quantity parts for each selected part.

5 Click **Submit**.

Note: Select **Planned Part** to add the parts to the WO-Activity as planned parts. **Planned Part** is available only when parts are defaulted as Direct Materials.

Adding iProcure part items to purchase orders

Add iProcure part items to purchase orders.

To add iProcure part items to purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order to which to add iProcure part items, and then click the **Parts** tab.

Note: The purchase order must have a status of Unfinished to add iProcure part items.

3 Click **Add Parts (iProcure Items)**.
4 Specify the Part #.
5 Select the item, and then enter the number of items.
6 Click **Save Record**.
7 Click **Add Parts (iProcure Items)**.The system automatically populates **iProcure Date Last Updated**.

Updating iProcure items

Update iProcure items in the parts catalog.

To update iProcure items:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the purchase order, and then click the **Parts** tab.
3. Click **Update iProcure Items**. The system updates the parts catalog for PO suppliers and only parts on the selected PO record. The system automatically populates **Gross Price**, **Lead Time**, and **iProcure Date Last Updated** in the parts catalog for all suppliers.

Entering extra charges or discounts

Enter extra charges or apply special discounts to a purchase order line.

Note: You can only apply extra charges or discounts to a saved part line with a status of Unfinished.

To enter extra charges or discounts:

1. Select **Purchasing > Purchase Orders**.
2. Select the purchase order for which to enter extra charges or discounts, and then click the **Parts** tab.
3. Select the part line for which to enter extra charges or discounts.
4. Click **Extra Charges/Discounts**.
5. Click **Add Charge/Discount**. The system automatically populates **Sequence Number** based on the next incremental line number.
6. Specify this information:

   Sequence Number
   Specify the sequence number of the part line.

   Type
   Select the type of charge/discount.

   Amount
   Specify the amount of the charge/discount. Specify a positive number for an extra charge or a negative number for a discount.

   Percentage
   Specify the percentage of the charge/discount. Specify a positive number for an extra charge or a negative number for a discount.

   Note: You must specify either an amount or a percentage. You cannot specify both values.

   Cumulative
   Select to apply the charge/discount to the record after all other charges/discounts have been applied.

   Include
   Select to always include extra charges and discounts.

Note: If the installation parameter EXTCHG is set to Y, the system always includes extra charges and discounts; therefore, **Include** is selected and protected. If EXTCHG is set to M, **Include** is updateable. If EXTCHG is set to N, **Include** is unselected and protected.

7 Click **Submit**.

Note: To delete a charge/discount, select the charge/discount to delete, and then click **Delete Charge/Discount**. The system deletes the record and updates the Extra Charges/Discounts list.

8 Click **Close**.

Creating assets for purchase order items

Order parts tracked by asset that are not yet defined in the database. Create new asset records and associate them with purchase order items. The system only requires that you create assets for purchase order items if the installation parameter ASSETASS is set to P.

Define an asset for each individual part. For example, associate three assets with the order line if the ordered quantity is three. You cannot set the order status to Ready for printing on the **Purchase Orders** form until you associate all parts tracked by asset.

To create assets for purchase order items:

1 Select **Purchasing > Assets for PO**.

2 Specify this information:

Purchase Order-Line
Specify the purchase order and line number for which to create assets. The system automatically populates **PO Org.**, **Requisition**, **Store**, **Supplier**, **Part**, **Order Qty.**, and **Price**.

Note: You must create an asset for the total quantity of the asset-parts you order. For example, if the **Order Qty.** is 2, you must create only two asset lines. You cannot create more than two assets. If you create less than two assets, the purchase order cannot be approved.

3 Click **Add Asset**.

Note: If the ASSETASS installation parameter is set to R, you can add an asset if the purchase order has a status of Unfinished, Ready for Printing, or Approved. If the ASSETASS installation parameter is set to P, you can only add an asset if the purchase order has a status of Unfinished.

4 Specify this information:

Asset ID
Specify a code identifying the asset, and then specify a description of the asset in the adjacent field. If you select an existing asset, the system automatically populates the asset ID description, **Department**, and **Asset Org.**

Note: If you do not specify an asset ID and the AUTOANUM installation parameter is set to YES, the system automatically generates an asset number after you save the record. You may also select

an existing asset ID with a status of Awaiting Purchase. When you select an existing asset ID, the system automatically populates the asset ID description, **Type**, **Asset Org.**, and **Department**.

Type
Specify the type of the asset.

Asset Org.
Specify the organization of the asset.

Department
Specify the department responsible for the asset.

5 Click **Submit**.

Note: To remove an asset, select the asset to remove, and then click **Remove Asset**.

Adding service details to purchase orders

Add service details to purchase orders. Create a service line for a set quantity and certain number of hours and at a defined price and rate.

Note: You can only add service details to a purchase order if the status of the purchase order is Unfinished.

You can only modify service details if the service line status is Unfinished.

If the installation parameter POCURR is set to NO, the system copies the currency of the purchase order header to all purchase order lines and protects the **Currency**. The currency of the service lines must match the currency of the purchase order header. However, if the installation parameter POCURR is set to YES, the currency of the service lines may be different than the currency on the purchase order header.

If you have a preset monetary purchasing limit for specifying purchase orders, you cannot save any amount that exceeds your limit.

To add service details to purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order to which to add service details, and then click the **Services** tab. The system automatically populates **Type**, **Status**, the currency, and **Due Date**.
3 Click **Add Service Line**.
4 Specify this information:

Type
Select one of these service details options:

Option	Description
Fixed Price or Hours from Service	Select if the service line references a work order activity that is flagged for external service. If you select Fixed Price or Hours from Service, you

Option	Description
	must specify a **Work Order-Activity** or create a work order or work order activity.
Contractor Hire	Select if the service line will be completed by contract. If you select Contractor Hire, you must specify a **Trade**. You cannot specify a **Work Order-Activity** if you select Contractor Hire.

Status
Select the status of the service line.

Note: Once you change the **Status** to a value other than Unfinished and the status of the purchase order header is Accepted, Cancelled, or Rejected, you cannot change the status back to Unfinished.

If the service line is associated with a work order/activity with a project-budget, you must be an approver for the project-budget to approve the service line. However, if there are no users listed on the **Authorizations** page of the **Projects** form, every user can approve the line.

Requisition-Line
Specify a requisition and line to add services to the service line from an existing service requisition.

Note: If you manually specify a **Requisition**, the system automatically populates the line number if there is only one line that meets the lookup requirements on the requisition and if the line is valid. If there are multiple lines that meet these criteria on the requisition, the system leaves the field null.

If the selected **Requisition–Line** contains parts related to a multiple equipment work order, then the system populates **Work Order–Activity**, **Equipment**, **Equipment Org.**, and **Related Work Order** from the requisition/line.

Work Order-Activity
Specify the work order number and activity if the service line is designated for external service. If there is no work order or activity assigned to the service line, click **Create Work Order/Activity**. The system creates a new work order number and/or activity. Modify the work order on the **Work Orders** form, and then modify the activity on the **Activities** tab of the **Work Orders** form.

Note: If you manually specify a **Work Order-Activity**, the system automatically populates the line number if there is only one line that meets the lookup requirements on the work order/activity and if the line is valid. If there are multiple lines that meet these criteria on the work order/activity, the system leaves the field null.

You can only add service details to a purchase order that is associated with a work order-activity with a status of Completed.

You cannot create a multiple equipment work order on the **Services** page; however, if the selected **Work Order–Activity** is a multiple equipment work order, the system enables **Equipment** and it is required.

Job
Specify the job

Equipment
Choose one of these options if the work order is a multiple equipment work order:

- Specify a specific equipment to which to distribute the cost of the service.
- Specify All Equipment to evenly distribute the cost of the service to each equipment record on the work order.
- Specify WO Header Equipment to distribute the cost of the service to the equipment on the work order header only.

Note: When associating an order line with a multiple equipment work order, the system copies the purchase order line to the parent multiple equipment work order activity only. The system does not populate the purchase order line for the related work order activities.

Trade
Specify a trade if the service will be contracted.

Task Plan
Specify a task if the service will be contracted. The system automatically populates **Trade**, **Hours Requested**, **Price**, and the currency.

Hours Requested
Specify the number of hours required to perform the service.

Price
Specify the cost of the service, and then specify the currency in the adjacent field.

Note: If the POCURR installation parameter is set to YES, you can change the currency.

Due Date
Specify the date by which the service must be complete.

Tax Code
Specify the tax code associated with the service.

Freeze Rate
Select to freeze the exchange rate throughout the purchase order approval process.

Note: If you do not select **Freeze Rate**, the system updates the exchange rate when you approve the purchase order.

5 Click **Submit**.

Note: To delete a service line, select the service line to delete, and then click **Delete Service Line**. You can only delete service lines from a purchase order if the status of the purchase order header is Unfinished.

Click **Add/Edit Comments** to add comments to the language.

Associating clauses with purchase orders

Include contract clauses in purchase orders. For example, state that for each day the contractor finishes ahead of schedule, he or she receives a bonus. Set up contract clauses before associating them with purchase orders.

To associate clauses with purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order for which to associate clauses, and then click the **Clauses** tab.
3 Click **Add Clause**.

Note: You can only access the **Clauses** tab and add or delete a clause if the purchase order has a status of Unfinished.

4 Specify this information:

Order Clause
Specify a predefined ISO clause or a user-defined clause. You can associate multiple clauses with a purchase order. The system automatically populates **Description**.

5 Click **Submit**.

Note: To remove a clause, select the clause to remove, and then click **Remove Clause**.

Copying purchase orders

The copy purchase order feature copies a purchase order, including all details.

To copy purchase orders:

1 Create a purchase order.
See "Creating purchase order headers" on page 388.
2 Right-click anywhere on the **Purchase Orders** form, and then select **Copy Purchase Order**.
3 Specify this information:

New PO Description
Specify a description for the new purchase order.

4 Select the record types to copy, and then click **Submit**. The system copies all purchase order details to the new purchase order.

Note: Some exceptions apply to the header, service, part, and comment details copied.

The system does not copy **Status** because all copied purchase orders are reset to **Status** Unfinished.

Select **Use the Parts Catalog Price if no Contract Price Exists** to indicate the prices will be pulled from Parts Catalog if available.

Viewing transactions for purchase orders

View receipt and return transactions for the selected purchase order.

To view transactions for purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order for which to view transactions, and then click the **Transactions** tab.
3 View the transactions information.

Viewing tracking for purchase orders

View tracking information for the selected purchase order. Tracking information is available only for purchase orders that have been transmitted to iProcure, and all information displayed on the page is from iProcure.

To view tracking for purchase orders:

1 Select **Purchasing > Purchase Orders**.
2 Select the purchase order for which to view tracking, and then click the **Tracking** tab.
3 View the tracking information.

Viewing purchase order history

View the purchase order histories of purchase orders using the **PO Revision History** form. The **PO Revision History** form enables you to select a specific purchase order and view the purchase order history for the current revision and all previous revisions of the purchase order.

The **PO Revision History** form displays the same information and includes the same tabs as the **Purchase Orders** form.

To view purchase order history:

1 Select **Purchasing > PO Revision History**.
2 Select the purchase order for which to view history, and then click the Record View, Parts, Services, or Clauses tabs to view different pages containing specific information related to the purchase order history. The system displays the corresponding page. See the following table for details about the information displayed on each page of the **PO Revision History** form.

Tab	Description
List View	Displays a list of all purchase orders
Record View	Displays detailed header information for the selected purchase order
Parts	Displays detailed information about parts on purchase order lines **Note:** You can also view comments and extra charges or discounts associated with the part. Click **Comments** to view comments. Click **Extra**

Tab	Description
	Charges/Discounts to view extra charges or discounts.
Services	Displays any services added to the purchase order **Note:** You can also view comments associated with the service. Click **Comments** to view comments.
Clauses	Displays any contract clauses included on the purchase order

Updating purchase orders

Update purchase order details in a batch.

To update purchase orders:

1. Select **Purchasing > Process > PO Update**.
2. Run the default dataspy. The system displays a list of purchase orders with a system status of "Unfinished" or "Awaiting Approval" in the editable grid.
3. Select the purchase orders to update and make changes to the following fields as necessary:
   - **Description**
     Specify the description of the updates.
   - **Status**
     Update the status of the purchase order.
   - **Buyer**
     Specify the buyer responsible for the purchase order.
   - **Class**
     Specify the class of the purchase order.
   - **Default Approver**
     Specify the employee responsible for approving the purchase order.
4. Click **Update POs**.

   Note: To print purchase order updates, select the purchase orders to print, and then click **Print Selected PO**.

Creating and using blanket orders

Use blanket orders to order a fixed number of items for a predetermined price or over a specific period of time. First, create blanket order headers, and then add line items. You can generate purchase orders from a blanket order, associate clauses with blanket orders, and set up user authorization for blanket order releases. When satisfied with the blanket order, approve the blanket order by changing the status to Approved. You must have authorization to create or update blanket orders. You must be a buyer for your organization with sufficient purchasing limit permissions to create blanket orders.

Creating blanket order headers

To create blanket order headers:

1. Select **Purchasing > Blanket Orders**.
2. Click **New Record**. The system automatically populates the blanket order description, **Status**, **Date Created**, and **Number of Lines**.
3. Specify this information:

   Organization
   Specify the organization to which the blanket order belongs if you use multi-organization security. The system automatically populates **Date Created**.

   Blanket Order
   Specify a description of the blanket order in the adjacent field. The system assigns an order number after you save the record.

   Status
   Select the status value of the blanker order.

   Note: Your authorization level determines the values available for **Status**.

   You must add line items to the blanket order before you approve it. After lines are added to the blanket order, the system populates **Remaining Value**.

   Store
   Specify the storeroom to which to deliver parts.

   Buyer
   Specify the buyer responsible for the blanket order.

   Maximum Value
   Specify the maximum value for the blanket order. The system displays the total monetary amount released against the blanket order to date in **Released Value**. You cannot update this field.

   Note: The **Maximum Value** of the header may be less than the total of all lines, but it cannot be less than the **Maximum Value** or **Price** of an individual line.

   Class
   Specify the class of the blanket order. The system automatically populates **Class Org.**

Start Date, End Date
Specify the dates between which purchase orders can be generated from the blanket order. The system displays the number of purchase orders released from this blanket order in **Number Released**. You cannot update this field.

Supplier
Specify the supplier from whom to order the parts. The system automatically populates **Supplier Org.**, **Currency**, and **Exchange Rate**.

Currency
Specify the currency you use to purchase the parts.

Exchange Rate
Specify the current exchange rate.

Note: You can update **Currency** if there is an exchange rate defined for the currency and if the installation parameter POCURR is set to YES. If the installation parameter POCURR is set to NO, you can update the currency, and the system automatically populates **Exchange Rate** with `1`. You can update **Exchange Rate** if the EXRTUPDT installation parameter is set to YES.

Approve Order
Select to automatically approve a purchase order generated from the blanket order.

4 Click **Save Record**.

Note: Click **Create Complete PO** to create a purchase order from the blanket order.

You cannot delete a blanket order. If you no longer need the blanket order, change the **Status** to Cancelled. Once cancelled, you cannot change the status of a blanket order.

Creating purchase orders from a blanket order

After you approve the blanket order, create a new purchase order from the blanket order.

Note: You cannot create a purchase order if the system date is outside the range of blanket order Start Date and **End Date**; if the **Release Value** of the new purchase order will be greater than the **Remaining Value**; if the **Currency** for the blanket order is different than the currency on parts lines; if the purchase order value exceeds your purchase order limit permissions; if you are not an authorized user with specific permissions to crate purchase orders; or if the purchase order value exceeds your authorization for purchase order approval.

To create purchase orders from a blanket order:

1 Select **Purchasing > Blanket Orders**.
2 Select the blanket order from which to create a purchase order, and then click the **Record View** tab.
3 Click **Create Complete PO**. The system automatically populates and protects **Store** if you specified a store on the **Blanket Order Record View** page.
4 Specify this information:

Originator
Specify the employee requesting the blanket purchase order.

Store
Specify the storeroom to which to deliver parts.

5 Click **Submit**.

Adding part details to blanket orders

Set up items in the parts catalog before adding them to blanket orders.

Note: You can only add part details to a blanket order if the status of the blanket order is Unfinished.

You can only modify part details if the part line status is Unfinished.

Parts tracked as kit cannot be added to blanket orders.

To add part details to blanket orders:

1 Select **Purchasing > Blanket Orders**.
2 Select the blanket order to which to add part details, and then click the **Parts** tab. The system automatically populates the price currency and **Qty. per UOP**.

Note: You can unhide **Line** and manually enter a new line number. Line sequences increase by the number entered for the installation parameter INCRLINO.

3 Click **Add Part Line**.
4 Specify this information:

Part
Specify the part with which to associate the blanket order. The system automatically populates the part description, **UOM**, and **Price**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Line
Specify the line number of the blanket order.

Purchase Qty. (UOP)
Specify the amount and UOP in which the supplier provides the part.

Price
Specify the cost of a single part and the currency you use to purchase the part in the adjacent field.

Qty. per UOP
Specify the conversion factor.

Note: For example, if the supplier's UOM for the part is a case of 12 parts but your UOM for the part is each, **Purchase Qty. (UOP)** will be 1 for one case, but the system will issue and measure12 parts (1 case = 12 parts). If you enter 2 for the **Purchase Qty. (UOP)**, the system uses **Qty. per UOP** to update the number of parts measured and issued to 24.

Exchange Rate
Specify the current exchange rate.

5 Choose one of these options:

Option	Description
If the blanket order is for a maximum number of items	Specify the number of items for **Maximum Qty.**
If the blanket order is for a total monetary amount	Specify the amount for **Maximum Value**.

Note: You cannot enter a **Maximum Value** that exceeds the **Maximum Value** on the blanket order header.

6 Specify this information:

Inspection Required
Select for inspections to be required.

Commodity
Specify the commodity associated with the blanket order.

Supp. Catalog Reference
Specify the reference number of the part, if the part is located in the supplier's catalog.

7 Click **Submit**.

Adding service details to blanket orders

Add service details to blanket orders. Create a service line for a set quantity and certain number of hours and at a defined price and rate.

Note: You can only add service details to a blanket order if the status of the blanket order header is Unfinished.

You can only modify service details if the blanket order status is Unfinished.

If the installation parameter POCURR is set to NO, the system copies the currency of the blanket order header to all blanket order lines and protects **Currency**. The currency of the service lines must match the currency of the blanket order header. However, if the installation parameter POCURR is set to YES, the currency of the service lines may be different than the currency on the blanket order header. Contact your system administrator for more information.

To add service details to blanket orders:

1 Select **Purchasing > Blanket Orders**.
2 Select the blanket order to which to add service details, and then click the **Services** tab. The system automatically populates **Line**, **Type**, **Status**, the currency, and **Exchange Rate**.
3 Click **Add Service Line**.
4 Specify this information:

Line
Specify a line number.

Type
Select one of the service detail options:

Option	Description
Fixed Price or Hours from Service	Select if the service line references a work order activity that is flagged for external service. **Note: Hours Requested** for a line type of **Fixed Price** must be 1.
Contractor Hire	Select if the service line will be completed by contract. If you select **Contractor Hire**, you must specify a **Trade**.

Trade
Specify a trade if the service will be contracted.

Price
Specify the cost of the service. The system automatically populates the currency of the price.

Note: If the POCURR installation parameter is set to YES, you can change the currency. Contact your system administrator for more information.

Exchange Rate
Specify the exchange rate for the currency.

Task Qty.
Specify the amount of units of service, and then specify the unit of measure in the adjacent field.

Task
Specify a task if the service will be contracted. The system automatically populates **Price**, the currency, and the unit of measure. If the **Task** is associated with a **Trade** on the Task record, the system automatically populates **Trade**. Also, if **Hours Requested** has not been specified, the system automatically populates **Hours Requested** from the Task record's **Estimated Hours**.

Hours Requested
Specify the number of hours required to perform the service.

Delivery Address
Specify the address to which to deliver any needed items.

Maximum Hours
Specify the maximum amount of hours allowed for the service.

Note: Maximum Hours must be greater than or equal to **Hours Requested**.

Maximum Value
Specify the maximum monetary value allowed for the service.

Note: You must specify either **Maximum Hours** or **Maximum Value**. You cannot specify both values.

The **Maximum Value** of the line must be less than or equal to the **Maximum Value** of the header.

5 Click **Submit**.The system automatically populates **Number Released** with the number of times the service line has been released by the blanket order, **Released Hours**with the total number of released hours for the service line released to the blanket order, **Released Value** with the total monetary value of units released by the blanket order, and **Last Order** with the number of the last purchase order that was released for the service line.

Note: To delete a service line, select the service line to delete, and then click **Delete Service Line**. You can only delete service lines from a blanket order if the status of the blanket order header is Unfinished.

Associating clauses with blanket orders

Associate existing clauses with blanket orders so that the printed purchase order includes the contract clauses.

Note: You can only associate clauses with a blanket order with a system status of Unfinished.

To associate clauses with blanket orders:

1 Select **Purchasing > Blanket Orders**.
2 Select the blanket order with which to associate clauses, and then click the **Clauses** tab.
3 Click **Add Clause**.
4 Specify this information:

Clause
Specify the contract clause to add to the blanket order. The system automatically populates the clause description and **Organization**.

5 Click **Submit**.

Note: To remove a clause, select the clause to remove, and then click **Remove Clause**. You can only remove clauses from a blanket order with a system status of Unfinished.

Associating purchase order terms with blanket orders

Associate existing purchase order terms with blanket orders to ensure correct purchase order activities.

Note: Depending on your system configuration, **Ship Via**, **Payment Terms**, **Freight Terms**, **FOB Point**, and **Payment Method** may not be displayed. Contact your system administrator for additional information.

To associate purchase order terms with blanket orders:

1 Select **Purchasing > Blanket Orders**.
2 Click **New Record**.

3 Specify the information as necessary to create a blanket order.

Note: You must enter **Supplier** before clicking **Default Terms**.

4 Click **Default Terms**. The system automatically populates **Ship Via**, **Payment Terms**, **Freight Terms**, **FOB Point**, and **Payment Method** with the values specified on the **Suppliers** form.

5 Specify this information:

Ship Via
Specify the manner in which the supplier ships the specific item.

Payment Terms
Specify the manner in which the supplier is paid for the purchase.

Freight Terms
Specify the manner in which the freight charges are paid and who pays them.

FOB Point
Specify where you take possession of the item.

Payment Method
Specify the method used to pay the supplier.

6 Click **Save Record**.

Defining blanket order user authorizations

Define which users can create purchase orders from blanket orders. Only users on the list of authorized users can create purchase orders from blanket orders. If the Users list is empty, then all users with the appropriate screen permissions (based on the user group of the user) will be able to create purchase orders from blanket orders.

To define blanket order user authorizations:

1 Select **Purchasing > Blanket Orders**.

2 Select the blanket order for which to define user authorizations, and then click the **Users** tab.

3 Click **Add User**.

4 Specify this information:

User
Specify each user who can issue releases against the blanket order. The system automatically populates the user description.

5 Click **Submit**.

Note: To remove a user, select the user to remove, and then click **Remove User**.

Creating partial order blanket orders

Create a partial order blanket order and indicate the quantities of the part or service to be added for each generated purchase order line.

Note: You can only create partial order blanket orders when the blanket order has a system status of Approved and when there are no line-level errors.

To create partial order blanket orders:

1. Select **Purchasing > Blanket Orders**.
2. Select the blanket order from which to create a partial order, and then click the **Partial Order** tab. The system automatically populates **Maximum Value**, **Released Value**, and **Remaining Value**.
3. Specify this information:

   Select
   Select to add the blanket order line item to the purchase order.

   Purchase Qty.
   Specify the quantity of parts/hours of service to be purchased.

   Work Order
   Specify the work order to associate with the blanket order line.

   Activity
   Specify the activity to associate with the blanket order line.

   Note: If the line type is SF (Fixed price) or ST (Hours from service), then **Work Order** and **Activity** are required.

   Equipment
   Choose one of these options if the work order is a multiple equipment work order:

   - Specify a specific equipment to which to distribute the cost.
   - Specify All Equipment to evenly distribute the cost to each equipment record on the work order.

     Note: The system does not allow you to select All Equipment for parts on the blanket order line that are tracked by asset.

   - Specify WO Header Equipment to distribute the cost to the equipment on the work order header only.

4. Click **Create Purchase Order**.

   See "Creating purchase orders from a blanket order" on page 404

   Note: You must select at least one blanket order line item to create a purchase order.

   You cannot create a purchase order that exceeds your preset monetary limits for creating and approving purchase orders. You cannot create a purchase order from a blanket order with service lines without a work order.

Recording invoice vouchers

Record invoice vouchers received from suppliers to verify invoices against purchase order-lines and received quantities. Create credit and debit notes to apply credits to invoices and inventory. Create non-purchase order invoice vouchers to record invoices for items or services received without associated purchase orders.

Creating regular invoice vouchers

Regular invoice vouchers are used to create a record of a supplier's bill. Creating invoice vouchers creates a business process by which suppliers are paid for parts and services.

Regular invoice vouchers verify that the cost of the invoice lines matches the cost of the associated order lines within a specified range of tolerance. The range of tolerance can be based on an absolute dollar amount or on a percentage, as defined on the **Organizations** form. Specify Match Tolerance Absolute, Match Tolerance %, and Match Quantity Tolerance % to establish the amount or percentage allowed as the difference between the purchase order-line cost and the invoice voucher line cost when matching line costs. Upon approval of the invoice voucher, the system captures the price, freezes the exchange rate if foreign currencies are used, and updates prices.

Occasionally suppliers' prices for items vary, causing discrepancies between an invoice voucher and projected costs for that invoice.

Note: Set the MATCHAPP installation parameter to YES to enable the system to automatically assign the Approved status to vouchers matched by the invoice process. Contact your system administrator for more information.

Creating invoice voucher headers

Create invoice voucher headers for purchased materials.

Note: You cannot delete an invoice voucher unless the status is Unfinished or if it is an invoice voucher with lines associated.

To create invoice voucher headers:

1. Select **Purchasing > Invoice Vouchers**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the invoice voucher belongs if you use multi-organization security.

   Invoice Voucher
   Specify a description of the invoice voucher in the adjacent field. The system automatically generates a voucher number when you save the record.

   Registration Date
   Specify the date of the registration of the invoice voucher.

Note: Registration Date cannot be before **Invoice Date**.

Status
Select the status of the invoice voucher.

Note: If lines have not been added to the invoice voucher, then the status of the invoice voucher can only be Unfinished or Cancelled. However, this does not apply to Non-PO invoice vouchers.

Invoice vouchers with the type Invoice can only be approved after matching.

Debit Note or Credit Note invoice vouchers can only be approved if the **Original Invoice Voucher** is approved and if the invoice voucher does not exceed your approval limits.

If you update the status of the invoice voucher to Unfinished, every associated line will reset to Not Matched.

Type
Select the invoice voucher type. Choose one of these options:

Option	Description
Credit note	Select to indicate a credit has been added to the invoice voucher.
Debit note	Select to indicate a debit has been added to the invoice voucher.
Invoice	Select to indicate the invoice voucher is for an invoice.
Non-PO	Select to indicate the invoice voucher is a bill from a supplier that should not have lines associated such as a utility bill.

Supplier Invoice
Specify the supplier's invoice number.

Invoice Date
Specify the supplier's invoice date.

Supplier
Specify the supplier from whom the invoice has been received. The system automatically populates **Supplier Org.**, **Currency**, and **Exchange Rate**.

Note: In order to specify a value in**Supplier** and **Purchase Order**, the supplier on the **Purchase Order** must be the same as the value specified in **Supplier**.

Currency
Specify the currency used for the invoice voucher.

Exchange Rate
Specify the exchange rate for the currency.

Class
Specify the class of the voucher. The system automatically populates **Class Org.**

Return
Select to indicate a return.

Original Invoice Voucher
Specify the original voucher. The system automatically populates **Original Supplier Invoice**

Note: Invoice vouchers with the types Credit Note or Debit Note must specify an **Original Invoice Voucher**.

Purchase Order
Specify the purchase order from which to create voucher lines.

Note: You can choose to not specify a value in **Supplier** and instead only specify a **Purchase Order**. This restricts the lines of the invoice voucher to only the lines for the purchase order on the invoice voucher header. Therefore, **Supplier**, **Supplier Org.**, **Currency**, and **Exchange Rate** will populate from the supplier of the purchase order.

You cannot specify a **Purchase Order** for Non-PO invoice vouchers.

Payment Due Date
Specify the date by which the invoice voucher is to be paid.

Note: Payment Due Date cannot be before **Registration Date**.

Pay To
Specify the supplier to whom to pay the invoice voucher.

Note: Pay To must be the same supplier or an associated child or parent of the supplier that was specified in **Supplier**.

Paid Date
Specify the date on which the invoice was actually paid.

4 Click **Save Record**.

Note: After the invoice voucher is approved, the system displays **Approved By**, and the purchase order line for each invoice voucher line is updated with the invoice voucher line's invoice quantity and invoice value.

After costs have been added to the invoice voucher, the system displays **Voucher Total**.

Adding line items to invoice vouchers

Note: You cannot add line items to the invoice voucher unless the invoice voucher **Type** is Invoice, Debit Note, or Credit Note. **Supplier** is specified on the invoice voucher header, and **Purchase Order** is not specified on the invoice voucher header.

The **Assign GL Codes**, **Extra Charges/Discounts**, and **Match** hyperlinks are protected unless the invoice voucher type is Invoice.

To add line items to invoice vouchers:

1 Select **Purchasing > Invoice Vouchers**.
2 Select the invoice voucher to which to add line items, and then click the **Lines** tab.

3 Click **Add Invoice Voucher Line**. The system automatically populates **Invoice Voucher Line** and **Status**.

4 Specify this information:

Invoice Voucher Line
Specify a line number.

Purchase Order-Line
Specify the purchase order and line number to invoice. The system automatically populates **Qty. Invoiced**, **Qty. Returned**, **Price**, **Currency**, **Tax Code 1**, **Tax Code 2**, **Exchange Rate**, **Type**, **Work Order-Activity**, **Cost Code**, **Part/Trade**, **Ordered**, **Received**, and **Invoiced**.

If the work order associated with the selected Purchase Order-Line is a multiple equipment work order, then the system populates the **Equipment**, **Equipment Org.**, and **Related Work Order** from the information on the purchase order line. The system distributes any invoice differences as defined by the purchase order line.

Qty. Invoiced
Specify the amount to be invoiced.

Qty. Returned
Specify the amount to be returned.

Price
Specify the unit price for parts or the hourly rate for services. The system automatically populates the currency of the price.

Tax Code 1, Tax Code 2
Specify any additional taxes to apply to the line. The system adds the tax charges to the total for the invoice voucher line and displays the updated totals in **Tax Amount** and **Line Total**.

Note: Tax codes do not affect the purchase order-line record.

Exchange Rate
Specify the exchange rate for the currency

5 Click **Match** to simulate the voucher match process without actually changing the status of the header. This action verifies the following information:

- Absolute tolerance and percentage have not been exceeded.
- The voucher quantity does not exceed a specified percentage above the amount ordered.
- The quantity invoiced does not exceed the quantity received.

6 Click **Submit**. The system automatically populates **Subtotal**, **Extra Charges/Discounts**, **Adjusted Costs**, **Tax Amount**, and **Line Total**.

Note: You cannot delete an invoice voucher line unless the status of the invoice voucher header is Unfinished.

Creating costs for invoice vouchers

Create and edit costs for the invoice voucher header. The **Extra Charges/Discounts** button on the **Lines** page of the **Invoice Voucher** form applies costs to specific invoice voucher lines. The **Costs** page applies costs to the invoice voucher header.

Note: You cannot apply costs to the invoice voucher unless the status of the header is Unfinished.

To create costs for invoice vouchers:

1 Select **Purchasing > Invoice Vouchers**.

2 Select the invoice voucher for which to apply costs, and then click the **Costs** tab.

3 Click **Add Cost**.

4 Specify this information:

Type
Specify the type of additional charge or discount to apply to the invoice voucher. The system automatically populates the type description. If you specify Pre-tax extra charge/discount (PRT), the system enables **Tax Code 1**.

Amount
Specify an absolute value for the amount of the extra charge or discount to apply to the invoice voucher.

Note: You must specify a negative value for discounts.

Accounting Flexfield Desc.
Specify the accounting flexfield description. The system automatically populates **GL Code**.

Tax Code 1
Specify the tax rate to be applied to the cost amount. If you specify **Tax Code 1**, the system enables **Tax Code 2**.

Note: The system calculates **Tax Amount** and **Line Total** based on the selected tax code.

Tax Code 2
Specify the second tax rate to be applied to the cost amount.

Note: If you specify **Tax Code 2**, the system applies each tax and then adds the amounts to calculate Tax Amount and Line Total.

5 Click **Submit**.

Note: To delete a cost, select the cost to delete, and then click **Delete Cost**. You cannot delete a cost unless the status of the invoice voucher header is Unfinished.

Defining utility bills for invoice vouchers

Create and edit utility bill information for the invoice voucher header. The **Utility Bills** page applies costs to the invoice voucher header and allows you to calculate a daily rate for utility/energy consumption.

To define utility bills for invoice vouchers:

1. Select **Purchasing > Invoice Vouchers**.
2. Select a non-PO invoice voucher for which to apply utility bills, and then click the **Utility Bills** tab.
3. Click **Add Utility Bill**. The system automatically populates **Line**.
4. Specify this information:

Utility Bill Source
Specify the utility bill source object. **Utility Bill Source** is the level at which the utility bill is recorded (usually building level). The system automatically populates **Utility Bill Source Org.** and **UOM**.

Meter
Specify the meter that is attached to the Utility Bill Level Object. The system automatically populates **Meter Org.**

Commodity
Specify the commodity that represents the type of energy being consumed such as electricity or gas.

UOM
Specify the unit of measure of the usage of the utility bill.

Cycle
Specify the cycle for the utility bill.

Rate Code
Specify the code of the rate to charge for the utility bill.

Correction Factor
Specify the number for the correction factor. **Correction Factor** is a value the utility company sets to ensure proper usage calculation. This value will be used as a multiplier when calculating utility bill rates.

From Date
Specify the begin date of the billing period. The system automatically populates **To Date** with the same date.

End Date
Specify the end date of the billing period.

Start Reading
Specify the reading at the start of the utility bill period.

Note: If you clear Start Reading, the system automatically clears **End Reading** and vice versa. It will not adjust **Usage** based on edits to either field.

End Reading
Specify the reading at the end of the utility bill period.

Note: If you specify **End Reading** when **Usage** is null and **Start Reading** is not null, the system automatically populates `Usage = End Reading – Start Reading`.

Usage
Specify the usage for the utility bill period. If **Start Reading** is not null when you specify **Usage**, the system automatically populates `End Reading = Start Reading + Usage`.

Total Bill Amount
Specify the cost amount for the utility bill period. The system automatically populates **Currency**.

Multiplier
Specify a multiplier to calculate usage from the meter reading. This value will be used as a multiplier when calculating utility bill rates.

Meter Type
Select the type of meter for the utility bill period.

Option	Description
Energy and Demand	Measures KWh and kW
Reactive Energy	Measures kVARh to bill power factor less than 95%
Energy, Demand, and Power Factor	Measures all KWh, kW, and kVARh

Peak Demand
Specify the peak demand for the utility bill period. The system automatically populates the peak demand UOM.

Billed Demand
Specify the demand rate billed for the utility bill period.

Power Factor (%)
Specify the power factor percentage of the commodity for the utility bill period.

Service Charge
Specify the monthly service charge for the utility bill period. The system automatically populates **Currency**.

Unit Charge
Specify the unit charge or rate being charged for the rate code for the utility bill period. The system automatically populates **Currency**.

Load Factor
Specify the load factor for the utility bill period.

5 Click **Submit**.

Viewing invoice voucher line item information

To view invoice voucher line item information:

1 Select **Purchasing > Overview > Invoice Lines per Buyer**.
2 Run the default Dataspy or create a personalized Dataspy to filter results by user.

Note: Unlike other forms within the system, you must first run a Dataspy to view invoice voucher line item information.

3 View the invoice voucher line item information.

Booking invoice allocations

Book invoice allocations to assign costs to work orders invoice vouchers and invoice voucher lines.

To book invoice allocations:

1 Select **Purchasing > Invoice Allocations**.

2 Select the invoice number for which to book an allocation. The system populates the Invoice Allocation Details.

The system automatically populates **Total Unallocated Amount** and **Qty. to Allocate**. The system calculates the Total Unallocated Amount based on the following formula:

```
Total Unallocated Amount = Unallocated Qty. x Unallocated Unit Cost
```

3 Specify this information:

Qty. to Allocate
Update the quantity to allocate if necessary.

Note: If the **Qty. to Allocate** specified is greater than 0 but less than or equal to the **Unallocated Qty.**, then the system will recalculate the **Unallocated Qty.** as the difference between the existing **Unallocated Qty.** and the **Qty. to Allocate**.

If you specify a negative number for the **Qty. to Allocate**, then the system will create a correction transaction of type INVA and adds the absolute value of the negative value to **Unallocated Qty.** for the correction. For example, if you specify -2 as the **Qty. to Allocate**, then the system will add 2 to the **Unallocated Qty.**

The INVADAYS installation parameter determines the number of days that invoice allocations can be booked for a completed work order. The system does not display work orders for which the completion date exceeds the number of days specified by the setting of the INVADAYS installation parameter.

Work Order-Activity
Specify the work order and activity for which to book the invoice allocation.

Note: If you select a work order with a system work order type of IS, or Direct issue, then the system clears and protects **Activity**. No **Activity** is required for the work order type IS.

If you manually specify a **Work Order** of a type other than IS, the system will automatically populate the **Activity** from the work order if there is only one activity on the work order.

The system enables you to search for all transactions associated with a multiple equipment work order by defining a Quick Filter on the Work Order lookup using **Parent Work Order** as part of the filter criteria.

4 Click **Submit**. The system creates an invoice allocation transaction against the work order.

Note: Upon saving the invoice allocation, the system deactivates the invoice allocation if the **Unallocated Qty.** is zero as a result of the allocation.

To activate an inactive invoice line, select the invoice line to activate, and then click **Activate Line**. The system activates the line and selects Active.

To inactivate an invoice line, select the invoice line to inactivate, and then click **Inactivate Line**. The system inactivates the line and unselects **Active**. The system also clears and protects the **Qty. to Allocate**, **Work Order**, and **Activity** for the selected invoice line.

Defining requests for quotations

Requests for quotations (RFQs) are records of parts and services that are presented to suppliers to solicit bids on pricing. Define request for quotation information before submitting requests to suppliers.

To define requests for quotations:

1 Select **Purchasing > Quotes > Requests for Quotations**.

2 Click **New Record**. The system automatically populates **Currency**,**Requested Response Date**, **Created By**, and **Requested Date**.

3 Specify this information:

Organization
Specify the organization to which the request for quotation belongs if you use multi-organization security.

RFQ description
Specify a description of the request for quotation.

Specify the RFQ Details.

Status
Choose one of these options:

- Unfinished
- Ready to Send
- Sent to Supplier

  Note: When **Status** is set to Sent to Supplier, the system creates quotation records for each supplier on the **Suppliers** page and copies the parts and services to the **Parts and Services** pages, respectively, for the quotation record.

- Receiving Quotations

  Note: System automatically assigns this **Status** when the first quotation is updated with pricing and its **Status** is changed to Received.

- All Quotations Received
- Awarded

  Note: If **Status** is set to Awarded, the system automatically populates **Awarded By** and **Awarded Date** and then calculates cost values.

- Cancelled

Currency
Specify the currency for the quotation.

Store
Specify the store to which the request for quotation applies.

Requested By
Specify the employee requesting quotations.

Response Date
Specify the date by which quotations should be received.

Project
Specify the project to which the request for quotation applies.

Project-Budget
Specify the project-budget to which the request for quotation applies.

Note: Specify either **Project** or **Project-Budget**. Both fields cannot be populated simultaneously.

Work Order
Specify the work order associated with the request for quotation. The system automatically populates **Equipment**.

Work Order-Activity
Specify the work order-activity associated with the request for quotation.

Note: Specify either **Work Order** or **Work Order-Activity**. Both fields cannot be populated simultaneously.

Equipment
Specify the equipment for which you are requesting a quotation if MEC work order is specified. The system automatically populates **Equipment Org.** and **Related Work Order**.

Buyer
Specify the buyer for the request for quotation.

Delivery Address
Specify the delivery address for the request for quotation.

Class
Specify the class for the request for quotation. The system automatically populates **Class Org.**

Specify the RFQ Print Options:

Individual Lines
Select to have the system create a line for each line listed.

Sum Quantities with Earliest Due Date
Select to have the system create quotation lines for each part and each trade-task combination assigning the earliest **Due Date** for the grouping.

Sum Quantities by Due Date
Select to have the system create quotation lines for each part and trade-task combination grouping by **Due Date**.

Auto-print RFQ
Select to print the record automatically when **Status** is Sent to Supplier.

Specify the RFQ Terms.

Ship Via
Specify the ship via code for the request for quotations.

Payment Terms
Specify the payment terms for the request for quotations.

Freight Terms
Specify the freight terms for the request for quotations.

FOB Point
Specify the freight on board point for the request for quotations.

Payment Method
Specify the method of payment for the request for quotations.

Specify the e-mail Information.

Email Subject Line
Specify the e-mail subject line.

Email Body Text
Specify the e-mail body text.

4 Click **Save Record**.

Calculating costs for RFQs

To calculate cost values for RFQs that have Awarded lines:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to calculate costs, and then click the **Record View** tab.
3 Click **Calculate Costs**.
The system automatically populates these fields:

Field	Description
Part Lines	Count of part lines awarded on the Selections page
Service Lines	Count of service lines awarded on the Selections page
RFQ Lines	Count of awarded lines on the Selections page
Total Tax	Total tax on the awarded RFQ Lines (Parts and Services) on the Selections page
Total Part Value	Total price of all awarded part lines with positive part line totals
Total Service Value	Total price of all awarded service lines on the Selections page
Total RFQ Value	Total value based on this equation: `Total Part Value + Total Service Value`
Date Last Refreshed	Date and time calculations were refreshed

Defining clauses for RFQs

To define clauses for RFQs:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to define clauses, and then click the **Clauses** tab.
3. Click **Add Clause**.
4. Specify this information:

   RFQ Clause
   Specify the purchasing clause to be associated with the RFQ. The system automatically populates the RFQ description.

5. Click **Submit**.

Associating parts with RFQs

To associate parts with RFQs:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to define parts, and then click the **Parts** tab.
3. Click **Add Part Line**.
4. Specify this information:

   Manufacturer
   Specify the manufacturer of the part.

   Manufacturer Part Number
   Specify the manufacturer part number.

   Part
   Specify the part, and then enter the part description in the adjacent field. The system automatically populates **Part Org.**, **Part Description**, **UOM**, **Inspection**, **Tracked by Asset**, **Preferred Supplier**, **Preferred Supplier Org.**, **Preferred Supplier description**, and **Requested Qty.**

   Part Org.
   Specify the organization for the part.

   Condition
   Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

   Type
   Choose one of these options:

   - PD (Direct Materials)
   - PS (Stock Items)
   - RE (External Repair)

Line
Specify the line number for the part.

Requested Qty.
Specify the number of units requested for the part.

Due Date
Specify the date the parts are due.

Delivery Address
Specify the address to which the parts should be delivered.

Inspection
Select to request a part inspection.

Track by Asset
Select to track parts.

Work Order-Activity
Specify the work order and activity for which the part is needed.

Comments
Specify any additional comments regarding the service.

5 Click **Submit**.

Creating parts for RFQs

To create parts for RFQs:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to define parts, and then click the **Parts** tab.
3 Click **Add Part Line**. The system automatically populates **Line**, **Type**, **Due Date**, and **Delivery Address**.
4 Click **Create Part**.
5 Specify this information:

Part Org.
Specify the organization for which to create a part.

UOM
Specify the unit of measure for the part.

Requested Qty.
Specify the number of units requested for the part.

6 Click **OK**.

Selecting multiple parts

Select and retrieve multiple parts to be associated with an RFQ.

To select multiple parts for an RFQ:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to add multiple parts, and then click the **Parts** tab.
3. Click **Select Parts**.
4. Select the parts to add to the RFQ, and then click **Submit**.

   Note: Requested Quantity and **Due Date** can be entered on the popup or on the **Parts** page.

Retrieving WO parts

To retrieve work order parts:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to retrieve parts, and then click the **Parts** tab.
3. Click **Add Part Line**. The system automatically populates **Line**, **Type**, **Due Date**, and **Delivery Address**.
4. Click **Retrieve WO Parts**.
5. Select the parts to retrieve, and then click **OK**.

Selecting substitute parts

To select substitute parts for RFQs:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to select substitute parts, and then click the **Parts** tab.
3. Click **Add Part Line**. The system automatically populates **Line**, **Type**, **Due Date**, and **Delivery Address**.
4. Click **Select Substitute Part**.
5. Select the part to substitute for the RFQ part, and then click **OK**.

Selecting items on RFQs

Select items on a request for quotation. You may award selected items on an RFQ, update the supplier part catalog with items on quotations, create or update a requisition, or create or update a purchase order.

To select items on RFQs:

1. Select **Purchasing > Quotes > Requests for Quotations**.
2. Select the record for which to select items, and then click the Selection tab.

   Note: The lines displayed are the received Quotation lines associated with the RFQ.

3 Select either **Parts** or **Services**. The system displays the parts or services.

4 Select items for the RFQ, and then choose one of these options:

Option	Description
Award Items	The system awards selected items to the quotation and others in the item group to **Not Awarded**. **Note: System Status** must be Undecided. Multiple items with the same Line may not be Awarded.
Cancel Awarded Items	The system cancels the **Award** status for selected items and changes the items' **System Status** to Undecided. **Note: System Status** must be Awarded.

5 Specify this information:

Update Supplier Catalog
The system updates the supplier parts catalog with data from selected items.

Generate Requisition
The system generates a requisition for selected items.

Generate POs
The system generates purchase orders for selected items.

View Totals for All Suppliers
The system displays totals by supplier in view-only mode.

Updating a supplier catalog

To update a supplier catalog:

1 Select **Purchasing > Quotes > Requests for Quotations**.

2 Select the record for which to update a supplier catalog, and then click the **Selection** tab.

3 Select **Parts**.

4 Select items for which to update the supplier catalog, and then click **Update Supplier Catalog**.

5 Select the part with which to update the supplier catalog, and then click **Update**.

Note: If the item type is parts, the system inserts a Parts Catalog Record for the selected supplier.

Generating requisitions for RFQs

To generate requisitions for RFQs:

1 Select **Purchasing > Quotes > Requests for Quotations**.

2 Select the record for which to generate a requisition, and then click the **Selection** tab.

3 Select either **Parts** or **Services**.

4 Select the items for which to generate a requisition, and then click **Generate Requisition**.

5 Specify this information:

Create Requisition
Select to create a new requisition.

Requisition Description
Specify a description for the requisition.

Store
Specify the store to which the requisition should be issued.

Requested By
Specify the name of the employee requesting the requisition.

Default Approver
Specify the name of the employee who should approve the requisition.

Add to Existing Requisition
Select to add items to an existing requisition.

Buyer
Specify the name of the employee purchasing the items.

Planned Part
Select to add the item to the selected WO-Activity if the item is not already a **Planned Part**.

Print Requisition
Select to print the requisition to which the quotation lines have been associated when the system generates or updates the requisition.

6 Click **Generate**.

Generating POs for RFQs

To generate purchase orders for RFQs:

1 Select **Purchasing > Quotes > Requests for Quotations**.

2 Select the record for which to generate a purchase order, and then click the **Selection** tab.

3 Select either **Parts** or **Services**.

4 Select the items for which to generate a purchase order, and then click **Generate POs**.

5 Specify this information:

Create PO
Select to create a new purchase order.

PO Description
Specify a description for the purchase order. You must enter a **PO Description** if **Use Quotation Description** is unselected.

Store
Specify the store to which the purchase order should be issued.

Originator
Specify the name of the employee generating the PO.

Delivery Address
Specify the address to which the items should be delivered.

Use Quotation Description
Select to use the quotation description as the PO description.

Buyer
Specify the name of the employee purchasing the items.

Add to Existing PO
Select to add items to an existing purchase order.

Planned Part
Select to add the item to the selected WO-Activity if the item is not already a Planned Part.

Print PO
Select to print the purchase order(s) to which the quotation lines have been associated when the system generates or updates the purchase order(s).

6 Click **Generate**.

Note: The system generates a separate purchase order for each supplier.

Viewing totals by supplier

To view totals by supplier:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to view totals, and then click the **Selection** tab.
3 Click **View Totals for All Suppliers**.
4 View the totals by supplier information.

Defining suppliers for RFQs

To define suppliers for RFQs:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to define suppliers, and then click the **Suppliers** tab.
3 Click **Add Supplier**.
4 Specify this information:

Supplier
Specify the supplier. The system automatically populates the supplier description.

5 Click**Save Record**.

Defining services for RFQs

Define services for RFQs. The system copies values to each new part line.

To define services for RFQs:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to define services, and then click the **Services** tab.
3 Click **Add Service Line**. The system automatically populates **Line**, **Type**, and **Delivery Address**.
4 Specify this information:

Work Order-Activity
Specify the work order and activity for the service.

Equipment
Specify the equipment to be used for the service if work order is MEC. The system automatically populates **Equipment Org.**, **Project-Budget**, **Related Work Order**, and **Department**.

Line
Specify the line number for the service.

Type
Choose one of these options:

Option	Description
ST (Hours From Service)	The system protects **Task Plan** and **Job Plan**, and makes **Work Order-Activity** required.
SF (Fixed Price Service)	The system protects **Trade** and **Task**, sets **Hours Requested** to 1 and protects the field.
SH (Contractor Hire)	The system clears and protects **Work Order**, **Activity**, **Equipment**, **Equipment Org.**, **Related Work Order**, **Department**, **Project**, and **Budget**, makes **Trade** required, and makes **Task** optional.

Trade
Specify the trade associated with the service.

Task
Specify the task for the service. The system automatically populates **Trade**, **UOM**, **Hours Requested**, and **Task Qty.**

Task Qty.
Specify the number of units required for the service.

Hours Requested
Specify the number of hours necessary to perform the service.

Due Date
Specify the date by which the service should be complete.

Delivery Address
Specify the location for the service.

Comments
Specify any additional comments regarding the service.

5 Click **Submit**.

Retrieving WO services for RFQ service

When retrieving WO services for RFQ service, the system copies values to each new part line.

To retrieve work order services for RFQ service:

1 Select **Purchasing > Quotes > Requests for Quotations**.
2 Select the record for which to define services, and then click the **Services** tab.
3 Click **Add Service Line**. The system automatically populates **Line**, **Type**, and **Delivery Address**.
4 Click **Retrieve WO Services**.
5 Select the services to add to the RFQ, and then click **OK**.

Copying RFQs

The copy RFQ feature copies an RFQ, including all details.

To copy RFQs:

1 Create an RFQ.
See "Generating RFQs from requisitions" on page 290.
2 Select **Purchasing > Quotes > Requests for Quotations**
3 Right-click anywhere on the **Requests for Quotations** form, and then select **Copy RFQ**.
4 Specify this information:

New RFQ Description
Specify the description for the new RFQ.

Due Date
Specify the due date for the new RFQ.

5 Select the record types to copy, and then click **Submit**. The system copies all RFQ details to the new RFQ.

Note: Some exceptions apply to the header, service, part, and comment details copied.

Editing quotations

The system automatically creates a quotation record when a quotation is received via an RFQ and the RFQ header status is changed to Sent to Supplier. Update the record details as long as the quotation is in the status of Unfinished.

To edit quotations:

1 Select**Purchasing > Quotes > Quotations**.

2 Select the quotation to edit, and then click the **Record View** tab.

3 Specify this information:

Quotation Description
Specify a description for the quotation.

Status
Choose one of these options:

- Unfinished
- Received
- Cancelled

Currency
Specify the currency accepted by the supplier for this quotation.

Specify the Supplier Contact Info details.

Contact Name
Specify the name of the individual to contact for the supplier.

Telephone
Specify the telephone number for the supplier.

Fax Number
Specify the fax number for the supplier.

E-mail Address
Specify the e-mail address for the supplier.

Note: If you change any contact information on this form, the system updates the contact information for the associated supplier on the **Suppliers** page of the **RFQ** form.

4 Click **Save Record**.

Defining services price information for quotations

Edit services information on a quotation.

To define services price information for quotations:

1 Select **Purchasing > Quotes > Quotations**.

2 Select the quotation for which to define services, and then click the **Services** tab. The system automatically populates **Type**, **WO-Activity**, **Task**, **Trade**, **HoursRequested**, and **Due Date**.

3 Specify this information:

Not Offered
Select if the service is not offered by the supplier.

Price
Specify the price of the service, and then update the currency of the price in the adjacent field.

Exchange Rate
Specify the exchange rate for the currency.

Freeze Rate
Select to set the **Exchange Rate** as permanent.

Delivery Date
Specify the requested delivery date for the service.

Tax Code
Specify the tax code that applies to the service.

Tax Code 2
Specify a secondary tax code that applies to the service.

Note: If there are two tax codes, the system calculates the total tax based on the two tax codes specified by adding the amount to be taxed for each code to the price of the service.

4 Click **Submit**.

Defining parts price information for quotations

Edit parts information on a quotation.

To define parts price information for quotations:

1 Select **Purchasing > Quotes > Quotations**.

2 Select the quotation for which to define parts, and then click the **Parts** tab. The system automatically populates **Response Date**, **Part**, **Part Description**, **Part Org.**, **Line**, **Type**, **Inspection**, **Track by Asset**, Work Order Details information, **Purchase Quantity**, **Part Quantity**, **Due Date**, **Delivery Address**, **Contract**, **Total Tax Amount**, and **Part Line Total**.

Note: If there is an active, approved contract for the selected supplier and store defined on the RFQ header, the system displays the contract for the selected part. The part exists on the **Parts** page of the **Contracts** form.

3 Specify this information:

Supp. Catalog Reference
Specify the associated supplier catalog information for the part.

Lead Time (Days)
Specify the necessary lead time for the part.

Not Offered
Select if the part is not offered by the supplier.

Purchase Qty. (UOP)
Specify the unit of measure for the part.

Price
Specify the price of the part, and then update the currency of the price in the adjacent field.

Exchange Rate
Specify the exchange rate for the currency.

Freeze Rate
Select to set the **Exchange Rate** as permanent.

Qty. per UOP
Specify the number of parts per unit of measure.

Delivery Date
Specify the requested delivery date for the part.

Tax Code
Specify the tax code that applies to the part.

Tax Code 2
Specify a secondary tax code that applies to the part.

Note: If there are two tax codes, the system calculates the total tax based on the two tax codes specified by adding the amount to be taxed for each code to the price of the part.

4 Click **Submit**.

Work management

5

Managing work involves creating, planning, and scheduling work orders. The work management life cycle begins when a person, department, or company identifies a work order that the maintenance department must complete. Before using the work management module, define initial work information such as supervisors, permits, qualifications, trades, employees, shifts, tasks, tools, material lists, and VMRS codes.

You may create standard work orders, and then apply the information from standard work orders to regular work orders. Next, create regular work orders to repair broken equipment, modify equipment to meet safety and environmental standards, perform work orders during a normal workday, and record information concerning equipment problems. Enter header information on the **Work Order Record View** page, and then add activities to the work order, schedule labor, associate qualifications with work order activities, book labor and vendor hours, associate parts, enter meter readings, create child work orders, add permits, and request tools as necessary. You may also view the status of work orders and view work order information such as work order cost and service request details. Finally, close the work order after the work is complete.

Create preventive maintenance (PM) work orders to generate periodic work orders for specified frequencies or meter readings. PM work orders apply to single pieces of equipment or systems that include several pieces of equipment.

On the **Work Order Scheduling** form, you may view the current work order schedule, calculate labor availability, and view labor utilization. Schedule unscheduled or backlogged work orders. Reschedule work orders as necessary. Additionally, you can view work order comments, change the work order status, and freeze or unfreeze activity schedules. You may balance the workload on the **WO Load Balancing** form.

You may also create service requests using the work management module. Define initial service request information such as customers, properties, and service codes before creating service requests. Then, create service requests, assign personnel to service requests, and close service requests after the work is complete. You may also book hours, issue and return parts, and enter additional charges for service requests.

Defining initial work information

Define initial work information before using the work management module.

Defining supervisors

Define codes to represent employee supervisors.

To define supervisors:

1. Select **Work > Setup > Supervisors**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the supervisor belongs if you use multi-organization security.

   Supervisor
   Specify a unique code identifying the supervisor, and then enter a description of the supervisor in the adjacent field.

   Class
   Specify the class of the supervisor. The system automatically populates **Class Org.**

4. Click **Save Record**.

Defining permits

Define permits to link safety and permitting information to equipment, locations, categories, PM schedules, standard work orders and work orders. For example, you may define a "hot" work permit regarding welding in a restricted area; a "confined space entry" permit when workers must complete the work in an enclosed production space such as a tank or vessel; or a "lockout-tagout" permit when the equipment involved must be cut off from operational power supplies.

Note: Define equipment, locations, categories, PM schedules, standard work orders and work orders before associating permits with these. Describe any necessary permit information and instructions on the **Permit Body** tab.

To define permits:

1. Select **Work > Permit to Work > Permits**.
2. Click**New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the permit belongs if you use multi-organization security.

   Permit
   Specify a unique code identifying the permit, and then enter a description in the adjacent field. Leave it blank and the system assigns an identifying code.

   Status
   Select the status of the permit to work, e.g. select **Unfinished** if the permit to work is not yet finished.

Class
Specify the class of the permit. The classes shown belong to the PERM entity. The system automatically populates **Class Org.**

Auto Create PTW
Select to automatically create the permit to work.

PTW Type
Select the type of work to be performed on the permit, e.g., **Confined space entry** if the work to be performed must be completed in an enclosed space.

Type of Work
Select the type of work to be performed on the permit to work.

Priority
Select the priority of the work to be performed on the permit to work.

Risk
Select the risk the permit to work poses to your organization.

LOTO Required
Select to require a lockout/tagout permit.

Isolation Type
Select the isolation type or method for isolating or disconnecting equipment (e.g., water valve) from its energy source in order that work can be performed without risk or injury.

Date Review Required
Specify the date a review is required for the permit.

Out of Service
If selected the permit will not display in the **Permits** lookups.

4 Click **Save Record**.

The system automatically populates **Created By** and **Date Created**.

Note: The system automatically populates **Created By** and **Date Created**. To create a new revision of the permit, select a permit record for which to create a new revision, and then click **Create New Revision**.

Adding permit body comments

Add specific permit body comments, and then specify whether the comments should print with the specified record.

To add permit body comments:

1 Select **Work > Permit to Work > Permits**.

2 Select the permit for which to enter permit body comments, and then click the **Permit Body** tab.

3 Click **Add Comment**.
4 Specify this information:

Language
Select the language of the comment.

5 Enter comments as necessary.
6 Optionally, select the **Print with Document** check box to print the comments on the associated report.
7 Click **Save**.

Deleting permit body comments

Delete permit body comments as necessary.

To delete permit body comments:

1 Select **Work > Permit to Work > Permits**.
2 Select the permit for which to delete permit body comments, and then click the **Permit Body** tab.
3 Click the header of the permit body comment to delete.
4 Click **Delete**.

Modifying permit body comments

Modify permit body comments as necessary.

To modify permit body comments:

1 Select **Work > Permit to Work > Permits**.
2 Select the permit for which to modify permit body comments, and then click the **Permit Body** tab.
3 Click the header of the permit body comment to modify.
4 Modify the existing comments as necessary.
5 Click**Save**.
The system displays the modified comment on the **Permit Body** page.

Note: The system does not display a link for the original Created comment after the comment is modified. To preserve all comments, do not delete any previous comment text when modifying comments.

Defining qualifications

Define qualifications to establish a set of occupational standards and/or required job-related training for personnel, tasks, trades, and/or work order activities. After defining a qualification, associate the qualification with personnel, tasks, trades, and/or work order activities to establish your criteria for

qualification enforcement of work activities. Qualification enforcement is determined by the WOQUAL installation parameter.

See in the *Infor EAM System Administrator Guide*.

If you are using qualification enforcement, you can only assign/schedule an employee who has the necessary qualification(s) to perform the work for which a qualification is required. If a qualification is associated with a trade, task, or work order activity, the employee must have that qualification on their personnel record. Employee qualifications are active if the employee has completed the necessary training course/requirements for the qualification and the qualification duration has not expired.

You can also define qualifications as training records to create a historical record of job-related training employees receive that does not need to be tracked for qualification enforcement.

To define qualifications:

1 Select **Work > Setup > Qualifications**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the qualification belongs if you use multi-organization security.

Qualification
Specify a unique code identifying the qualification, and then enter a description of the qualification in the adjacent field.

Class
Specify the class of the qualification. The classes shown belong to the QUAL entity.

Active
Select to indicate whether the qualification is active.

Note: If you unselect **Active** for a qualification, then you can no longer associate the qualification with any subsequent personnel, tasks, trades, and/or work order activities. However, if the deactivated qualification is already associated with any personnel, tasks, trades, and/or work order activities, the qualification will still be required for any existing personnel, tasks, trades, and/or work order activities.

You can also select and unselect **Active** to temporarily activate and deactivate a qualification as necessary.

Training Record
Select to indicate whether the qualification is associated with a training record. By defining a qualification as a training record, the system does not track the qualification for qualification enforcement, and the qualification cannot be associated with tasks, trades, and/or work order activities.

4 Click **Save Record**.

Defining trades

Define codes for the types of employees performing maintenance work. The system charges the cost of the trade, based on an hourly rate, back to the appropriate work order, asset, or project, ensuring correct cost accounting. A single trade may have multiple rates based on the type of work performed or the department associated with the trade for a specific work order. Define standard trade rates for suppliers on the **Supplier Rates** page of the **Trades** form. On the **Qualifications** page, you may associate qualifications with trades to establish the minimum qualifications for an employee belonging to a trade to perform work for which the trade is selected.

When scheduling work, you can select to assign the work to an employee and/or a trade. When booking hours for the work, the system calculates the labor cost of the hours to book based on the trade rate defined for either the employee or the trade rate defined for the trade.

See "Defining Trade Rates" on page 438.

To define trades:

1. Select **Work > Setup > Trades**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the trade belongs if you use multi-organization security.

   Trade
   Specify a unique code identifying the trade, and then enter a description of the trade in the adjacent field.

   Class
   Specify the class to further subdivide the trade as necessary. For example, specify apprentice, journeyman, or master. The system automatically populates **Class Org.**

4. Click **Save Record**.

Defining trade rates

Define rates for trades. When booking hours, the system first checks to see if an **Hourly Rate** is defined for the employee. If so, the hours are booked at that rate. However, if you have not defined trade rates for the employee, the system assigns the **Hourly Rate** defined for the trade on the trade **Rates** tab.

Note: Define trades on the Trades page.
See "Defining Trades" on page 438.

To define trade rates:

1. Select **Work > Setup > Trades**.
2. Select the trade for which to define rates, and then click the **Rates** tab.
3. Click **Add Rate**.
4. Specify this information:

Organization
Specify the organization to which the rate belongs if you use multi-organization security.

Type of Hours
Specify hour occupation type for this work, e.g., select **N** for normal hours or **O** for overtime hours.

Department
Specify the department associated with this rate. If the rate applies to all departments, enter*.

Hourly Rate
Specify the hourly rate for this trade.

Start Date

End Date
Specify the beginning and ending dates to which the rate applies.

Note: Dates for the same trade type/department combination cannot overlap. For example, the MAINT department of ORG1 cannot have an overtime hourly rate of 20 to start 01-01-2004 and end 12-31-2004 and another overtime hourly rate of 30 to start 05-01-2004.

Currency
The system displays the currency of the organization.

5 Click **Submit**.

Defining supplier trade rates

First define trades and trade rates. Then, define standard trade rates for suppliers. You can also define rates on the **Rates** tab of the Suppliers page.

To define supplier trade rates:

1 Select **Work > Setup > Trades**.
2 Select the trade for which to define supplier rates, and then click the **Supplier Rates** tab.
3 Click **Add Supplier Rate**.
4 Specify this information:

Supplier
Specify the code identifying the supplier. The system automatically populates the description of the supplier, the **Organization**, the **Supplier Org.**, and the currency.

Hourly Rate
Specify the hourly rate for the supplier trade.

Organization
Specify the organization for the supplier rate if the organization of the selected trade is common. The system displays only those organizations to which you have access. Otherwise, **Organization** defaults to the organization of the trade.

Start Date

End Date
Specify the beginning and ending dates to which the rate applies.

5 Click **Submit**.

Associating qualifications with trades

Associate qualifications with trades to establish the minimum qualifications for an employee belonging to a trade to perform work for which the trade is selected. Qualifications are defined on the **Qualifications** form.

See "Defining Qualifications" on page 436.

After defining a qualification, you can associate it with a trade. If an employee is associated with a trade for which there is a qualification, the employee must have an active record of that qualification on their personnel record. Employee qualifications are active if the employee has completed the necessary training course/requirements and the training has not expired as indicated by the **Start Date** and **Expiration Date** for the qualification on the employee's personnel record. Employees can also be **Temporarily Disqualified** for qualifications as necessary on their personnel record.

If you have associated a qualification with a trade, and you associate a trade with a work order activity, you can only schedule employees associated with the selected trade who have the active qualifications required for that trade to be assigned/scheduled to perform the work.

Note: If you delete a qualification previously associated with a trade, then the deleted trade qualification will no longer be required for any subsequent work order activities to which the trade is assigned.

Likewise, if you add a new qualification to a trade or update an existing qualification associated with a trade, the new/updated trade will not affect any existing work order activities to which the trade is assigned. However, the added/updated qualification will be required for any subsequent work order activities to which the trade is assigned, and the system displays a message indicating the number of open work orders for the trade.

To associate qualifications with trades:

1 Select **Work > Setup > Trades**.
2 Select the trade with which to associate qualifications, and then click the **Qualifications** tab.
3 Click **Add Qualification**.
4 Specify this information:

Qualification
Specify the qualification to associate with the trade. The system automatically populates the description of the qualification and the **Organization**.

5 Click **Submit**.

Defining employee information

Define employee information to track full-time, part-time, and seasonal employees, and then define wage rates for employees to establish a specific hourly pay rate for an employee. Also, you may record labor availability exceptions for individual employees and for groups. You may associate qualifications with employee codes to establish qualifications for personnel. Finally, associate specific employee positions with certain functions on the **Types** page.

Defining employee codes

Define codes to represent individual employees, and then use the employee codes to track full-time, part-time, and seasonal personnel.

To define employee codes:

1. Select **Work > Setup > Employees**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the employee belongs if you use multi-organization security.

   Employee
   Specify a unique code identifying the employee, and then enter a description of the employee code in the adjacent field.

   Department
   Specify the employee's department.

   Select the **Out of Service** check box to prevent the employee code from being displayed in lookups. **Out of Service** is automatically populated if the employee has been transferred to another organization.

   Transferred To Employee and **Transferred To Employee Org.** are automatically populated when an employee is transferred between company organizations.

   See "Transferring Employees Between Organizations" on page 447.

   Class
   Specify the class of the employee.

   Trade
   Specify the employee's trade or craft.

   Job Title
   Specify the employee's job title.

   Supervisor
   Specify the employee's supervisor.

   Associated User
   Specify the Infor EAM Mobile user to associate with this employee.

Tradeperson
Select this check box to indicate this employee belongs to a trade profession.

Workspace Occupant
Select this check box to indicate this employee occupies a physical workspace.

Hire Date
Specify the date the employee was hired.

Date of Birth
Specify the employee's date of birth.

Terminated Date
Specify the date the employee is terminated.

Payroll No.
Specify a payroll number to which to associate the employee.

Security Badge No.
Specify the employee's security badge number.

License No.
Specify the employee’s driver’s license number.

Alias
Specify an alias to associate to the employee.

Notification Preference
Select the employee's preference for receiving notifications.

Specify the employee's **Address**, **City**, **State**, **Zip Code**, and **Country**.

Specify the employee's **Emergency Contact** and the **Emergency Contact Phone No.**

Specify the employee's **Work Phone No.**, **Mobile Phone No.**, and **Home Phone No.**

E-mail Address
Specify the employee’s e-mail address as necessary.

Fleet Customer
Specify the fleet customer with which to associate the employee.

URL
Specify the employee's URL address.

Cost Code
Specify the fleet cost code with which to associate the employee.

Customer
Specify the contract rental customer with which to associate the employee.

4 Click **Save Record**.

Scheduling Session and **Scheduling Session Type** are automatically populated.

Defining wage rates for employees

Define wage rates for employees to establish a specific hourly pay rate for an employee. Rates for employees can be defined based on the employee's level of experience, training, etc. Therefore, employees belonging to a designated trade can have different pay rates than other employees belonging to the same trade.

Note: You must designate a **Trade** for an employee when you define the employee code.

See "Defining Employee Codes" on page 441.

When scheduling work, you can select to assign the work to an employee and/or a trade. When booking hours for the work, the system calculates the labor cost of the appropriate work order, asset, or project based on the hourly pay rate defined for the employee or the trade. Therefore, when booking hours, the labor cost for performing work can be based on the rate defined for either the employee or the trade.

To define wage rates for employees:

1. Select **Work > Setup > Employees**.
2. Select the employee for whom to define wage rates, and then click the **Rates** tab.
3. Click **Add Rate**.
4. Specify this information:

   Organization
   Specify the organization to which the rate belongs if you use multi-organization security.

   Type of Hours
   Specify the occupation type for this work, e.g., enter **N** for normal hours or **O** for overtime hours. The values listed belong to the OCTP entity.

   Department
   Specify the department associated with this rate. If the rate applies to all departments, enter `*`.

   Hourly Rate
   Specify the hourly rate for this employee.

   Start Date
   Specify the beginning date to which the rate applies.

   Note: Dates for the same type of hours/department/organization combination cannot overlap. For example, the MAINT department of ORG1 cannot have an **Hourly Rate** of 20 for overtime **Type of Hours** to start 01-01-2004 and end 12-31-2004 and another **Hourly Rate** of 30 for the overtime **Type of Hours** to start 05-01-2003.

   End Date
   Specify the ending date to which the rate applies.

   Note: End Date must be later than or equal to **Start Date**.

5. Click **Submit**.

Recording labor availability exceptions for individual employees

The system uses labor availability records to calculate the available hours for employees.

To record labor availability exceptions for individual employees:

1. Select **Work > Setup > Employees**.
2. Click the **Availability Exceptions** tab.
3. Click **Add Exception**.
4. Specify this information:

   Date
   Specify the date the employee will be absent. If the employee will be absent for multiple days, create multiple, separate date records.

   Hours
   Specify the number of hours for each day the employee will be present. If the employee is available for two hours, enter `2`. You cannot enter more than 24 hours per day.

   Start Time
   Select the time work begins for the employee, even for days on which no work occurs, for each day in the shift. Enter the time in HH:MM format, e.g., 08:00 for 8:00 AM.

   Comments
   Enter any additional comments.

5. Click **Submit**.

Recording labor availability exceptions for groups

Create labor availability exceptions for a group of employees. For example, create an exception for all employees on Christmas day.

Note: Create exceptions for individual employees using the **Availability Exceptions** page of the **Employees** form.

See "Recording Labor Availability Exceptions for Individual Employees" on page 444.

When recording a labor availability exception for a group, the selected employee record is not affected.

To record labor availability exceptions for groups:

Associating qualifications with employee codes

Associate qualifications with employee codes to establish qualifications for personnel. By associating qualifications with an employee, you can establish the criteria to determine whether an employee is qualified to perform work. Qualifications are defined on the **Qualifications** form.

See "Defining Qualifications" on page 436.

After defining a qualification, you can associate the qualification with an employee record to add detailed information about the qualification, including whether the employee has completed the necessary

training courses for a qualification, continuing education units (CEU), course cost, the duration of an employee's certification/qualification period, and the dates by which the system validates whether an employee's qualification is current or expired.

If you are using qualification enforcement for work, which is determined by the WOQUAL installation parameter, and an employee has not completed the necessary training courses required for a qualification, their certification/qualification is expired, or if you have disqualified them for any reason, you cannot schedule the employee to perform the work for which the qualification is required.

Note: You can also define qualifications as training records to create a record of any job-related training employees receive that does not need to be tracked for qualification enforcement.

See "Defining Qualifications" on page 436.

Associating qualifications with employee codes also enables you to create qualification history that allows you to maintain current qualification records, old or expired qualification records, and any subsequent re-qualifications for a qualification record. If you are re-qualifying a specific qualification record, simply enter new qualification dates for the existing code, or enter a new record with the same code as the existing qualification; however, you must enter new qualification dates for the re-qualification.

To associate qualifications with employee codes:

1. Select **Work > Setup > Employees**.
2. Select the employee with which to associate qualifications, and then click the **Qualifications** tab.
3. Click **Add Qualification**.
4. Specify this information:

   Qualification
   Specify the qualification to associate with the employee. The system automatically populates the description of the qualification and the **Organization**.

   Start Date
   Specify the date on which the duration of the qualification begins.

   Duration
   Specify the duration of the qualification, and then select the unit of measure for the duration of the qualification in the adjacent field. The system calculates the expiration date of the qualification for the employee based on the values entered for **Start Date** and **Duration** and then populates **Expiration Date** with the appropriate date. If no value is entered for **Duration**, you must enter the **Expiration Date** for the qualification manually.

   Note: The system immediately validates whether the qualification is current based on the **Start Date** and **Expiration Date** for the qualification. If the qualification is current, the system selects **Qualified**. If the duration of the qualification has expired or is not current, the system automatically unselects **Qualified**.

   The system unselects **Qualified** if you select **Temporarily Disqualified**. You can select to disqualify an employee's qualification as necessary by selecting **Temporarily Disqualified**. Selecting **Temporarily Disqualified** overrides the qualification **Expiration Date**, and the qualification is no longer valid even if the qualification has not expired.

   Comments
   Specify comments about the qualification.

Course Start
Specify the start date of the course.

Course Finish
Specify the finish date of the course.

Course Cost
Specify the cost of the course, and then select the currency for the course cost in the adjacent field.

Completed
Select to indicate whether the employee has completed the course.

Certification Type
Select the type of certification. Certification types are linked to the certification type entity, for which you must define certification type codes as user codes on the **System Codes** form.

Certification Number
Specify the certification number for the qualification.

Hours
Specify the number of hours for the course.

CEU
Specify the number of continuing education units for the course.

Purpose
Specify the purpose of the course.

5 Click **Submit**.

Associating employee types

Associate employee types with employees. An employee can have multiple employee types.

Note: Define employee types on the **System Codes** form. See "Defining system codes" in the *Infor EAM System Administrator Guide*.

To associate employee types:

1 Select **Work > Setup > Employees**.
2 Select the employee with whom to associate the employee type, and then click the **Types** tab.
3 Click **Add Type**.
4 Specify this information:

Type
Specify the type of the employee.

5 Click **Submit**.

Transferring employees between organizations

Transfer employees from one organization to another organization within your company if you use multi-organization security.

When you transfer an employee between organizations, the system:

- Creates a new record with the employee's new organization, and a historical record with the employee's old organization.
- Automatically populates fields in the new employee record based on the historical record.
- Validates information in the new employee record against the employee's new organization.

If a conflict exists with the employee's **Class**, **Fleet Customer**, and **Cost Code**, the system clears these fields when you submit the transfer.

Additionally, when you transfer an employee into an organization of which he or she was previously a member, the system automatically updates fields in the new employee record based on the historical record for the original organization. The system copies child records and updates associated records.

To transfer employees between organizations:

1. Select **Work > Setup > Employees**.
2. Select the employee to transfer, and then click the **Transfers** tab.
3. Click **Add Transfer**.
4. Specify this information:

   New Organization
   Specify the organization to which the employee is being transferred. The system automatically populates **New Department** and **New Trade** if the employee's current department and trade are valid for the new organization.

   Historic Employee Code
   Specify a unique employee code to assign to the employee's historical record.

   New Department
   Specify the employee's new department.

   New Trade
   Specify the employee's new trade.

5. Click **Submit**.
   The system automatically populates **Transferred By** and **Date Transferred**.

Viewing outstanding issues for employees

View the list of parts issued to an employee that remain outstanding and have not been returned to stock.

To view outstanding issues for employees:

1. Select **Work > Setup > Employees**.

2 Select the employee for which to view outstanding part issues, and then click the **Outstanding Issues** tab.
3 View the outstanding issues for employees.

Defining shift information

Define shifts, days per shift, and associate employees with shifts.

Defining shifts

Define the shifts used within the organization.

To define shifts:

1 Select **Work > Setup > Shifts**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the shift belongs if you use multi-organization security.

Shift
Specify a unique code identifying the shift, and then enter a description of the shift in the adjacent field.

Days in Rotation
Specify the number of days in the shift.

Note: Days in Rotation must be an integer between 1 and 999.

If you edit the number of days in a rotation to a value less than the original value, one or more of the days may be deleted. For example, if you previously defined 5 as the number of **Days in Rotation** and then change the number to 4, one of the days will be deleted.

See "Defining Days for Shifts" on page 449.

Shift Start Date
Specify the date the shift goes into effect. For example, if the workweek begins on Monday, ensure that this date is a Monday.

Class
Specify the class of the shift.

4 Click **Save Record**.

Defining days for shifts

Define the days for established shifts.

To define days for shifts:

1. Select **Work > Setup > Shifts**.
2. Select the shift for which to define days, and then click the **Days** tab.
3. Click **Add Day**.
4. Specify this information:

   Day Number
   Enter a new record for each day in the shift, numbered 1, 2, 3, etc.

   Number of Hours
   Enter the number of hours worked in the shift for each day. For days on which no work occurs, enter 0.

   Start Time
   Select the time work begins, even for days on which no work occurs, for each day in the shift. Enter the time in HH:MM format, e.g., 08:00 for 8:00 AM.

5. Click **Submit**.

Defining shift personnel

Assign employees to a specific shift.

Note: Define employees on the **Employees** form.
See "Defining Employee Codes" on page 441.

To define shift personnel:

1. Select **Work > Setup > Shifts**.
2. Select the shift with which to associate the employee, and then click the **Employees** tab.
3. Click **Add Employee**.
4. Specify this information:

   Employee
   Specify the employee working on the shift. The system automatically populates the description of the employee code.

   Start Date

   End Date
   Specify the first and last dates the employee works on the shift.

   Note: You can assign an employee to multiple shifts, but the dates of the shifts cannot overlap.

5. Click **Submit**.

Defining crews

Define and edit crew records.

To define crews:

1. Select **Work > Setup > Crews**.
2. Click **New Record**.
3. Specify this information:

   Crew
   Enter a unique code identifying the crew, and then enter a description in the adjacent field.

   Organization
   Enter the organization to which the crew belongs.

   Class
   Enter the class to which the crew belongs. The system automatically populates **Crew Org.**

   Supervisor
   Enter the supervisor of the crew.

4. Optionally, select the **Out of Service** check box to choose to not display the crew.
5. Click **Save Record**.

Adding employees to crews

Add employees or update employee information for crews.

To add employees to crews:

1. Select **Work > Setup > Crews**.
2. Select the crew to which to add employees, and then click the **Employees** tab.
3. Click **Add Employee**.
4. Specify this information:

   Employee
   Specify the employee code. The system automatically populates **Name**.

   Start Date
   Specify the shift start date for the employee.

   End Date
   Specify the shift end date for the employee.

5. Click **Submit**.

Defining task plan information

A task plan is a predefined set of work order activity details that may be referenced on an activity of a work order, PM schedule, or standard work order to minimize data entry and ensure consistent planning for jobs.

Define the cost of the task plans for each supplier on the **Suppliers** tab, and then define prices for common task plans on the **Prices** tab if you are using multi-organization security. Finally, associate qualifications with task plans to establish the minimum qualifications for an employee to perform task plans associated with work on the **Qualifications** tab.

To define task plan information:

1 Select **Work > WO Planning > Task Plans**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the task plan belongs if you use multi-organization security.

Task Plan
Specify a unique code identifying the task plan, and then enter a description of the task plan in the adjacent field.

Class
Specify the class of the task plan. The classes shown belong to the TASK entity.

Trade
Specify the trade with which to associate the task plan.

Estimated Hours
Specify the number of hours estimated to complete the task plan.

People Required
Specify the number of people required to complete the task plan.

UOM
Specify the unit of measure for the task plan.

Specify this information only if you use the Electronic Medical Record reporting System (EMRS):

Note: Depending on your system configuration, the **EMRS-related** fields may not be displayed. Contact your system administrator for more information.

EMRS-related information you enter on this form is copied to all standard work order activities, PM activities, and work order activities with the selected task plan.

Reason For Repair
Specify the reason for the repair.

Work Accomplished
Specify the work performed.

Technician Part Failure
Specify the reason the technician or supplier thinks the equipment failed.

Manufacturer
Specify the Manufacturer/Supplier Code to associate with the equipment.

System Level
Specify the EMRS code identifying the system needing repair.

Assembly Level
Specify the EMRS code identifying the subsystem needing repair. The values available are based on the system-level code.

Component Level
Specify the EMRS code identifying the specific component or part needing repair. The values available are based on a combination of the system-level code and the assembly-level code. The system automatically populates **EMRS Description** based on the combination of the system, assembly, and component descriptions.

Isolation Method
Select if the task plan is used as part of a lockout/tagout procedure (LOTO).

Out of Service
Select to indicate the task plan should not display in lookups on the Standard WO page.

Workspace Moves
Select to indicate the task plan is used as part of a workspace move procedure.

Preferred Supplier
Specify the preferred supplier for the task plan.

Total Price
Specify the total cost of the task plan per unit of measure. The system automatically populates **Hourly Rate** as the **Total Price** divided by the number of **Estimated Hours**, and the **Currency**.

Commodity
Specify the commodity to associate with the task plan.

Buyer
Specify the buyer (user) responsible for the task plan.

Active Checklist
Select if the task plan contains active checklist items.

Performed By Required
Select to indicate the identification of person performing the checklist on the task plan is required.

Reviewed By Required
Select to indicate the identification of the person reviewing the checklist results on the task plan is required.

Revision Status
Specify the revision status for the route. The system automatically populates **Revision**.

Note: You can enter a **Revision Status** only if the PMRVCTRL installation parameter is set to **Yes**. Contact your system administrator for more information.

WO Description
Specify the description of the follow-up work order the system will create when checklist items are selected for follow-up.

WO Type
Select the work order type of the task plan checklist.

WO Class
Specify the work order class of the task plan checklist.

WO Status
Select the work order status of the follow-up work order.

WO Priority
Select the work order priority of the follow-up work order.

4 Specify this Permit to Work Tags information to define your unique tags:

Tag Header
Specify a unique name for the tag.

Tag Line 1
Specify a unique tag for line 1.

Tag Line 2
Specify a unique tag for line 2.

Tag Line 3
Specify a unique tag for line 3.

Tag Line 4
Specify a unique tag for line 4.

5 Click **Translate WO Description** to translate the follow-up work order description.

6 Click **Save Record**.

Adding and modifying task plan instructions

Add specific task plan instructions, and then specify whether the instructions should print with the specified record.

Modify task plan instructions as necessary.

Add and view task plan job instructions on the **Jobs** tab of the **Task Plans** form. You cannot edit those instructions on this form, you can only view the instructions.

To add or modify task plan instructions:

1. Select **Work > WO Planning > Task Plans**.
2. Select the task plan for which to enter instructions, and then click the **Instructions** tab.

   Note: If you are modifying task plan instructions, click the header of the instruction to modify, and then specify the information below.

3. Click **Add Instructions**.
4. Specify this information:

   Language
   Select the language of the instruction.

   Print with Document
   Select to print the instructions on the associated report.

5. Enter instructions or modify existing instructions as necessary.

   Note: Format comments using the HTML Editor Toolbar.

6. Click **Save**.

Planning labor for task plans

Plan and view the labor necessary to complete the task plan or specific jobs on a task plan.

Note: SHOWJOB installation parameter must be set to **YES** and **Planning Level** must be set to **Task Plan** to plan at the job level.

To plan and edit labor on this page **Enabled for Enhanced Planning** must be selected for the task plan regardless of planning level settings.

It is not possible to create planned labor records for the task plan and create planned labor records for a job on the same task plan. Planned labor records can be performed at one level or the other, but not both.

To plan labor for task plans:

1. Select **Work > WO Planning > Task Plans**.
2. Select the task plan for which to plan labor, and then click the **Plan Labor** tab.
3. Optionally, select the specific job for which to plan labor for the task plan, or select **Show All Records** to display all of the records for the task plan, including pre-planned jobs or a job created specifically for the task plan.

   Note: If the task plan **Planning Level** is set to **Job Plan**, select the job for which to create a planned labor record.

   Alternately, if the task plan **Planning Level** is set to **Task Plan** and **Job** is set to **Show All Records** all of the records for the selected task plan are displayed.

   If a pre-planned job plan is selected all associated records are displayed, however changes cannot be made on this page. All changes must be made on the **Job Plans** form.

4. Click **Add Labor Line**.

5 Specify this information:

Trade
Specify the trade that will perform the labor for the task plan. The system automatically populates the trade description.

Estimated Hours
Specify the number of hours estimated to complete the job.

People Required
Specify the number of people required to perform the job.

Hired Labor
Select to indicate that the job will be completed by an external source.

6 Click **Submit**. **Total Estimated Hours** and **Total People Required** are calculated for the selected task plan.

Planning parts for task plans

Plan the parts required to complete a task plan, or to complete specific jobs on a task plan. You may associate the parts to the task plan by populating an existing material list on the **Record View** page of the **Task Plan** form, or by directly entering the parts required on this tab.

Note: The **SHOWJOB** installation parameter must be set to **YES** and **Planning Level** for the task plan must be set to **Job Plan** to plan at the job level.

The **Enabled for Enhanced Planning** check box must be selected for the task plan to use this tab.

It is impossible to create planning records for the task plan and to create planning records for a job on that same task plan. Planning can be done at one level or the other, but not both.

To plan parts for task plans:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to plan parts, and then click the **Plan Parts** tab.
3 Click **Add Part Line**.
4 Specify this information:

Part
Specify the part to add to the task plan. The part description, **Part Org.**, **Long Description**, **UOM**, **Primary Manufacturer**, and **Primary Manufacturer Part Number** are automatically populated.

Condition
Specify the condition if the part is a condition tracked parent part.

Quantity
Specify the quantity of the part required to complete the job or task plan.

Planned Source
Select the planned source for supplying the part, e.g., enter **Stock** if the part will be supplied from the stock inventory.

Line Number
Specify the line number for the part on the task plan.

Equipment
Specify the equipment required to complete the job or task plan. **Equipment Org.**, **Equipment Type**, **Primary Manufacturer**, and **Primary Manufacturer Part Number** are automatically populated.

5 Optionally, select the **Reserve** check box to reserve this part for the material list of the task plan when this material list is requested on a new task plan.
6 Optionally, select the **Critical** check box to indicate the part is critical to all task plan jobs requiring the material list.
7 Click **Save Record**.

Planning tools for task plans

Plan the tools necessary to complete a task plan by adding, deleting, or modifying the lists of tools associated to task plans. Alternately you may view the tools associated to task plans.

To plan tools for tasks plans:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to plan tools, and then click the **Plan Tools** tab.
3 Click **Add Tool**.
4 Specify this information:

Tool
Specify the tool to add to the task plan. The tool description is automatically populated.

Hours Requested
Specify the number of hours estimated to use the tool to complete the task plan.

Qty. Required
Specify the tool quantity estimated complete the task plan. **Total Hours Required** is automatically populated.

5 Click **Submit**.

Planning jobs for task plans

Create and plan the jobs necessary to complete a task plan by associating pre-planned jobs to task plans. Alternately, create a specific job for a task plan on this form.

To plan jobs for tasks plans:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to plan jobs, and then click the **Jobs** tab.
3 Click **Add Job**.

4 Specify this information:

Sequence
Specify the sequential order in which the job should be performed during the task plan.

Job Plan
Specify the job plan to add to the task plan. The job plan description is automatically populated.

Description
Specify a description of the job to complete for the task plan.

Type
Select the type of job plan to be performed.

Class
Specify the class of the job plan. **Class Org.** is automatically populated.

Equipment Type
Specify the equipment type.

Equipment Class
Specify the class of the equipment. **Equipment Class Org.** is automatically populated.

Material List
Specify the material list the system will assign to the job plan.

Trade
Specify the trade to associate to the job plan. **Multiple Trades** is automatically populated.

UOM
Specify the unit of measure for the job plan.

Estimated Hours
Specify the number of hours estimated to complete the job.

People Required
Specify the number of people required to complete the job.

Reason For Repair
Specify the reason a repair is required for the job plan.

System Level
Specify the VMRS code identifying the system needing repair.

Assembly Level
Specify the VMRS code identifying the subsystem needing repair. The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair. The values available are based on a combination of the system-level code and the assembly-level code. **VMRS**

Description is automatically populated based on the combination of the system, assembly, and component descriptions.

Component Location
Specify the location the check will be performed on the equipment.

Preferred Supplier
Specify the preferred supplier for the job plan.

Total Price
Specify the total cost of the job per unit of measure.

Commodity
Specify the commodity to associate to the job plan.

Buyer
Specify the buyer responsible for the job.

Active Checklist
Select if the tasks contains active checklist items.

Performed By Required
Select to indicate that the identification of the person performing the checklist on the task is required.

Reviewed By Required
Select to indicate that the identification of the person reviewing the checklist results on the task is required.

WO Description
Specify the description of the follow-up work order the system will create when checklist items are selected for follow-up.

WO Type
Select the work order type of the task checklist.

WO Class
Specify the work order class of the task checklist. **WO Class Org.** is automatically populated.

WO Status
Select the work order status of the follow-up work order.

WO Priority
Select the work order priority of the follow-up work order.

5 Click **Submit**.

Adding checklists to task plans

Add a checklist to a task plan to track the completion of one step of the task plan instruction, or to collect qualitative and quantitative data for the task plan.

To add checklists to task plans:

1. Select **Work > WO Planning > Task Plans**.
2. Select the task plan for which to add a checklist, and then click the **Checklist** tab.
3. Click **Add Checklist Item**. **Checklist Item** is automatically populated.
4. Enter a description of the checklist item.
5. Specify this information:

Sequence
Specify the sequence in which the checklist item should be answered for the task plan.

Type
Select the type for the checklist item, e.g., enter **Quantitative**, **Inspection**, or **Meter Reading**.

Required Entry
Select if completion of the checklist item is required to close the associated work order.

Equipment Level
Select the equipment level. A checklist item can be attached to the work order header equipment, equipment, or the route or linear referenced equipment.

Equipment Class
Specify the equipment class with which the checklist item is associated. The system automatically populates **Equipment Class Org.**

Equipment Category
Specify the equipment category with which the checklist item is associated.

UOM
Specify the unit of measure for the measurement. **UOM** is required for inspections, meter readings, and quantitative checklist items.

Aspect
Specify the inspection aspect measured during an inspection. **Aspect** is required for inspection checklist items.

Point Type
Specify the inspection point type. **Point Type** is required for inspection checklist items.

Repeating Occurrences
Select to indicate the measurement recorded with this checklist item is recorded more than one time during the execution of the task.

Follow-up Task Plan
Specify the task plan the system will assign to the follow-up work order activity.

Follow-up Job Plan
Specify the job plan the system will assign to the follow-up job plan.

Material List
Specify the material list the system will assign to the follow-up work order activity.

System Level
Specify the EMRS code identifying the system requiring the check.

Assembly Level
Specify the EMRS code identifying the subsystem needing repair. The values available are based on the system-level code.

Component Level
Specify the EMRS code identifying the specific component or part needing repair. The values available are based on a combination of the system-level code and the assembly-level code. The system automatically populates **EMRS Description**.

Component Location
Specify the location the check will be performed on the equipment.

Condition
Specify the condition of the equipment required to perform the check.

Findings
Specify the possible findings the user can select when entering results. This is necessary for qualitative and inspection checklist items.

6 **Click Submit**. **Updated By** and **Date Updated** are automatically populated.

Importing checklists from task plans

To import checklists from task plans:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to copy a checklist, and then click the **Checklist** tab.
3 Click **Import Checklist**.
4 Specify this information:

Task Plan
Specify the task plan from which to copy the checklist. The task plan description and **Task Revision** are automatically populated.

5 Click **Submit**.

Associating qualifications with task plans

Associate qualifications with task plans and task jobs to establish the minimum qualifications for an employee to perform tasks associated with work. Qualifications are defined on the **Qualifications** form.

See "Defining Qualifications" on page 436.

After defining a qualification, you can associate it with task plans.

When you select a task plan to which you have associated qualifications for a work order activity, you can only assign/schedule an employee that has an active record of the required qualification(s) for that task plan on their personnel record to perform the work order activity. Employee qualifications are active if the employee has completed the necessary training course/requirements and the training has not expired as indicated by the **Start Date** and **Expiration Date** for the qualification on the employee's personnel record. Employees can also be **Temporarily Disqualified** for qualifications as necessary on their personnel record.

Note: If you delete a qualification previously associated with a task plan, then the deleted task plan qualification will no longer be required for any subsequent work order activities for which the task plan is selected. However, the deleted task plan qualification will still be required for any existing work order activities for which the task plan is selected.

Likewise, if you add a new qualification to a task plan or update an existing qualification associated with a task plan, the new/updated task plan will not affect any existing work order activities for which the task plan is selected. However, the added/updated qualification will be required for subsequent work order activities for which the task plan is selected, and a message is displayed indicating the number of open work orders for the task plan.

To associate qualifications with task plans:

1. Select **Work > WO Planning > Task Plans**.
2. Select the task plan with which to associate qualifications, and then click the **Qualifications** tab.
3. Click **Add Qualification**.
4. Specify this information:

   Job
   Specify the job to associate with the qualification on the task plan. **Job Plan** is automatically populated.

   Qualification
   Specify the qualification to associate with the task plan. The description of the qualification and the **Organization** are automatically populated.

5. Click **Submit**.

Viewing estimated costs for task plans

View the estimated costs for a task plan, including the estimated costs of all jobs or a single job on the task plan.

The following cost categories are estimated based on the information provided: internal labor, external labor, stock items, direct purchases, and tools. The total cost is then calculated.

To view estimated costs for task plans:

1. Select **Work > WO Planning > Task Plans**.
2. Select the task plan for which to view estimated costs, and then click the **Estimated Costs** tab.
3. Optionally, select the specific job for which to view the estimated costs for the task plan.

Note: If **Job** is set to **Show All Records** the cost for the task plan is displayed including all associated jobs.

4 Specify this information:

Organization
Specify the organization of the task plan. The organization of the selected task plan is defaulted if it is a specific organization.

Department
Specify the department of the task plan.

Store
Specify the store of the task plan to calculate estimated costs per store.

Note: This field is hidden unless `PRICELEV` is set to `S` for store level. If `PRICELEV` is set to `P`, prices are retrieved from the Prices tab for the part of the selected organization.

Supplier
Specify the supplier of the task plan to calculate estimated costs per supplier. The preferred supplier of the selected task plan is defaulted.

5 View the estimated costs.

Defining prices for common task plans

With multi-organization security, you can centrally maintain prices of tasks and jobs created specifically for task plans used across all of your organizations. Enter multiple prices per organization for the same task or job plan when companies have multiple organizations with different currencies in each organization

Note: Define common task plan prices for organizations only if the MULTIORG installation parameter is set to YES.

See in the *Infor EAM System Administrator Guide*.

You can view but you cannot modify price records associated to a pre-planned job on this screen.

To define prices for common task plans:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to define prices, and then click the **Prices** tab.
3 Select the specific job on the task plan for which to define prices. The system automatically populates **Job Plan**.
4 Click **Add Price**.
5 Specify this information:

Organization
Specify the organization for the task price.

Note: If the organization of the selected task plan is common, the system displays only those organizations to which you have access. If the organization of the selected task plan is specific, the system displays only the organization of the task.

Price
Specify the price for the task per unit of measure.

6 Click **Submit**.

Defining supplier task plan prices

First define task plans. Then, define the cost of the task plans for each supplier.

To define supplier task plan prices:

1 Select **Work > WO Planning > Task Plans**.
2 Select the task plan for which to define supplier prices, and then click the **Suppliers** tab.
3 Select the specific job of the task plan if you choose to define the supplier catalog for the supplier. **Job Plan** is automatically populated.
4 Click **Add Supplier**.
5 Specify this information:

Supplier
Specify the supplier for which to define task plan prices. The system automatically populates the description of the supplier, **Supplier Org.**, and the currency.

Catalog Reference
Specify the supplier's catalog reference number.

Price
Specify the supplier's cost and base currency for the task plan.

Tax Code
Specify the tax code for the task plan.

Purchase UOM
Specify the supplier's unit of measure for the task plan.

Qty. per UOP
Specify the quantity per unit of purchase for the task plan if the purchase unit of measure is different from the inventory unit of measure.

Lead Time (Days)
Specify the average number of days that the supplier needs to provide the task plan.

Expiration Date
Specify the date the price expires.

Preferred
Select if the supplier is the preferred supplier for the task plan.

Note: Only one supplier may be the preferred supplier for a specific task plan. If you have already selected **Preferred** for another supplier and then add an additional supplier and mark it as **Preferred**, the system clears this designation from the previous supplier and marks the new supplier as **Preferred**.

6 Click **Submit**. The system also automatically populates **Exchange Rate** as defined in the exchange rates table to convert the specified **Currency** to the **Local Currency**. **Local Price** is populated by calculating **Price** divided by **Exchange Rate** divided by **Qty. per UOP**. **Date Last Updated** is populated with the current system date.

Defining sales prices for task plans

Define sales prices for task plan. Use the sales prices defined here for sales transactions on the task plan. Sales prices can be defined for specific task plans to create invoice lines using a fixed sales price rather than use the actual work order costs tracked by the system, like part issues, time sheets, tool costs, etc.

To define sales prices for task plans:

1 Select **Work > WO Planning > Task Plans**.

2 Select the task plan for which to define sales prices, and then click the **Sales Prices** tab.

3 Click **Add Sales Price**.

4 Specify this information:

Job
Specify the job associated with the task plan for which to define sales prices. **Job Plan** is automatically populated.

Organization
Specify the organization of the task plan.

Sales Price
Specify the sales price to specify for the selected task plan.

Date Effective
Specify the date this sales prices will become effective.

Date Expired
Specify the date this sales price will expire.

5 Click **Submit**.

Defining tools

Define tools for departments. Tools are pieces of equipment that a department uses to carry out maintenance work, e.g., scaffolding or excavators. The department is usually the "owner" of a tool, so the department's store keeps the tools.

Note: Tool refers to a type of tool, rather than an individual item. For example, if the organization has several drills, create a general Tool code called DRILL. Then create individual parts for each drill and track them as assets using the drills' serial numbers.

See the following table to determine the best method for defining tools in the organization:

Type of Tool	Importance to the Organization	Define Tool as a…
Hammer	**Low** Tool can be replaced easily and inexpensively	Simple tool
Ratchet	**Medium** Tool should be ordered and kept in stock	Tool and a part
Calibration Gauge	**High** Tool can be ordered and kept in stock and is also valuable	Tool, part, and asset

Defining simple tools

To define simple tools:

1 Select **Work > Setup > Tools**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the tool belongs if you use multi-organization security.

Tool
Specify a unique code identifying the tool, and then enter a description of the tool in the adjacent field.

Class
Specify the class of the tool. The system automatically populates **Class Org.**

4 Click **Save Record**.

Viewing transactions for tools

View all issue and return transactions for tools. Only those tools associated to a part will display in the transaction records.

Once the transaction records are displayed, click the work order hyperlink. The system opens the **Work Orders** form and queries for the selected work order.

Note: If a common tool is associated with a common part, the transaction price will reflect the actual currency, e.g., the currency of the organization fo the transaction.

To view transactions for tools:

1. Select **Work > Setup > Tools**.
2. Select the tool for which to view transactions, and then click the **Transactions** tab.
3. View the information.

Defining job plans

Define tasks on a detailed level to create a job plan. Predefine labor, parts, tools, and qualifications for jobs to minimize data entry and to standardize work. A job plan can exist anywhere a task plan exists, for example a job plan can be referenced on a task plan, PM schedule, standard work order, work order, purchase requisitions, or purchase order.

Alternately a task plan can be developed by associating one or more job plans.

To define job plans:

1. Select **Work > WO Planning > Job Plans**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization for the job plan.

   Job Plan
   Specify a unique code identifying the job plan, and then enter a description in the adjacent field.

   Type
   Select the type of job plan you are defining.

   Class
   Specify the class. The system automatically populates **Class Org.**

   Equipment Type
   Select the type of equipment.

   Equipment Class
   Specify the class of the equipment. The system automatically populates **Equipment Class Org.**

Material List
Specify the material list the system will assign to the job plan.

Trade
Specify the trade. The system automatically populates **Multiple Trades**.

UOM
Specify the unit of measure for the task.

Estimated Hours
Specify the number of hours estimated to complete the job.

People Required
Specify the number of people required to complete the job.

Reason For Repair
Specify the reason a repair is required for the job plan.

System Level
Specify the VMRS code identifying the system needing repair.

Assembly Level
Specify the VMRS code identifying the subsystem needing repair. The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair. The values available are based on a combination of the system-level code and the assembly-level code. The system automatically populates **VMRS Description** based on the combination of the system, assembly, and component descriptions.

Component Location
Specify the location the check will be performed on the equipment.

Active Checklist
Select if the tasks contains active checklist items.

Performed By Required
Select to indicate that the identification of the person performing the checklist on the task is required.

Reviewed By Required
Select to indicate that the identification of the person reviewing the checklist results on the task is required.

WO Description
Specify the description of the follow-up work order the system will create when checklist items are selected for follow-up.

WO Type
Select the work order type of the task checklist.

WO Class
Specify the work order class of the task checklist. The system automatically populates **WO Class Org.**

WO Status
Select the work order status of the follow-up work order.

WO Priority
Select the work order priority of the follow-up work order.

WO Status
Select the work order status of the follow-up work order.

Revision Status
Specify the revision status for the job plan. The system automatically populates **Revision**.

Approval List
Specify the approval list for the job plan.

Revision Reason
Specify an explanation of any revisions to the job plan.

Hours Requested
Specify the number of hours estimated to complete the job.

Preferred Supplier
Specify the preferred supplier for the job plan.

Total Price
Specify the total cost of the job per unit of measure.

Commodity
Specify the commodity to associate to the job plan.

Buyer
Specify the buyer responsible for the job.

4 Optionally, select the **Out of Service** check box to indicate the job plan does not display in job plan lookups.
5 Click **Submit**.

Planning labor for job plans

Plan the labor necessary to complete a job plan.

To plan labor for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to plan labor, and then click the **Plan Labor** tab.
3 Click **Add Labor Line**.

4 Specify this information:

Trade
Specify the trade for the labor.

Estimated Hours
Specify the hours estimated to complete the labor.

People Required
Specify the number of people required to complete the labor.

Hired Labor
Select to indicate that the labor for the job plan will be completed by an external source.

5 Click **Submit**.

Planning parts for job plans

Plan the parts required to complete a job plan. Associate the parts for the plan by populating on an existing material list on the **Record View** page of the **Job Plan** form or by directly entering the parts required on this tab.

To plan parts for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to plan parts, and then click the **Plan Parts** tab.
3 Click **Add Part Line**.
4 Specify this information:

Part
Specify the part to add to the job plan.

Condition
Specify the condition if the part is a condition tracked parent part.

Quantity
Specify the quantity of the part needed to complete the job plan.

Planned Source
Select the source for the part, e.g., **Direct Purchase** for a part ordered from an external source, or **Stock** for a part ordered from internal stock.

Reserve
Select to indicate the part is a part reserved for a work order.

Critical
Select if the part is critical or integral to complete the job plan.

Line Number
Modify the line number as necessary.

Equipment
Specify the equipment associated with the part.

5 Click **Save Record**.

Managing tools for job plans

Plan the tools necessary to complete a job plan. Add, delete, modify, or view lists of tools associated to job plans.

To manage tools for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to manage tools, and then click the **Plan Tools** tab.
3 Click **Add Tool**.
4 Specify this information:

Tool
Specify the tool to add to the job plan. The system automatically populates the tool description.

Hours Requested
Specify the number of hours estimated to use the tool to complete the job plan.

Qty. Required
Specify the tool quantity estimated complete the job plan. The system automatically populates **Total Hours Required**.

5 Click **Submit**.

Adding checklists to job plans

Add a checklist to a job plan to track the completion of one step of the job instruction, or to collect qualitative and quantitative data for the job plan.

To add checklists to job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to add checklists, and then click the **Checklist** tab.
3 Click **Add Checklist Item**. Checklist Item is automatically populated.
4 Enter a description of the checklist item.
5 Specify this information:

Sequence
Specify the sequence in which the checklist item should be answered for the job plan.

Type
Select the type for the checklist item, e.g., Quantitative, Inspection, or Meter Reading.

Required Entry
Select if the completion of the checklist item is required to close the associated work order.

Equipment Level
Select the equipment level. A checklist item can be attached to the work order header equipment, equipment, or the route or linear referenced equipment.

Equipment Class
Specify the equipment class with which the checklist item is associated. **Equipment Class Org.** is automatically populated.

Equipment Category
Specify the equipment category with which the checklist item is associated.

Out of Service
Select

UOM
Specify the unit of measure for the measurement. **UOM** is required for inspections, meter readings, and quantitative checklist items.

Aspect
Specify the inspection aspect measured during an inspection. **Aspect** is required for inspection checklist items.

Point Type
Specify the inspection point type. **Point Type** is required for inspection checklist items.

Follow-up Task Plan
Specify the task plan to be assigned to the follow-up work order activity.

Follow-up Job Plan
Specify the job plan to be assigned to the follow-up job plan.

Repeating Occurrences
Select to indicate the measurement recorded with this checklist item is recorded more than one time during the execution of the job.

6 Click **Submit**.

Managing and adding qualifications for job plans

Add, view, or delete the list of qualifications for a job plan.

To manage and add qualifications for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to manage qualifications, and then click the **Qualifications** tab.
3 Click **Add Qualification**.
4 Specify this information:

Qualification
Specify the qualification to manage. The system automatically populates the qualification description and **Organization**.

5 Click **Save**.

Defining prices for job plans

With multi-organization security, you can centrally maintain prices for job plans used across all of your organizations with different currencies. Enter and maintain multiple prices per organization for the same job plan.

Note: Define common prices for organizations only if the MULTIORG installation parameter is set to YES and PMRVCTRL is set to NO and the **Revision Status** of the job plan is **Unfinished**.

See in the *Infor EAM System Administrator Guide*.

To define prices for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to define a price, and then click the **Prices** tab.
3 Click **Add Price**.
4 Specify this information:

Organization
Enter the organization of the job plan for which to define a price.

Price
Enter the price for the job plan per unit of measure.

5 Click **Submit**.

Defining supplier prices for job plans

First define job plans. Then, define the cost of the job plans for each supplier.

To define supplier prices for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to define supplier prices, and then click the **Suppliers** tab.
3 Click **Add Supplier**.
4 Specify this information:

Supplier
Specify the supplier for which to define job plan prices. The system automatically populates the description of the supplier, **Supplier Org.**, and the currency.

Catalog Reference
Specify the supplier's catalog reference number.

Price
Specify the supplier's cost and base currency for the job plan.

Tax Code
Specify the tax code for the job plan.

Purchase UOM
Specify the supplier's unit of measure for the job plan.

Qty. per UOP
Specify the quantity per unit of purchase for the job plan if the purchase unit of measure is different from the inventory unit of measure.

Lead Time (Days)
Specify the average number of days that the supplier needs to provide the task plan.

Expiration Date
Specify the date the price expires.

Preferred
Select if the supplier is the preferred supplier for the job plan.

Note: Only one supplier may be the preferred supplier for a specific job plan. If you have already selected **Preferred** for another supplier and then add an additional supplier and mark it as **Preferred**, the system clears this designation from the previous supplier and marks the new supplier as **Preferred**.

5 Click **Submit**. The system also automatically populates **Exchange Rate** as defined in the exchange rates table to convert the specified **Currency** to the **Local Currency**. **Local Price** is populated by calculating **Price** divided by **Exchange Rate** divided by **Qty. per UOP**. **Date Last Updated** is populated with the current system date.

Defining sales prices for job plans

Define sales prices for a job plan. Use the sales prices defined here for sales transactions on the job plan. Sales prices can be defined for specific job plans to create invoice lines using a fixed sales price rather than use the actual work order costs tracked by the system, like part issues, time sheets, tool costs, etc.

To define sales prices for job plans:

1 Select **Work > WO Planning > Job Plans**.
2 Select the job plan for which to define sales prices, and then click the **Sales Prices** tab.
3 Click **Add Sales Price**.
4 Specify this information:

Task Plan
Specify the task plan associated to the job for which to define sales prices.

Organization
Specify the organization of the job plan.

Sales Price
Specify the sales price to specify for the selected job plan.

Date Effective
Specify the date this sales prices will become effective.

Date Expired
Specify the date this sales price will expire.

5 Click **Submit**.

Defining material lists

Certain work orders always require the same materials. A material list is a predefined list of parts that may be referenced on an activity of a work order, PM schedule, or standard work order to minimize data entry and ensure consistent material planning for jobs. First, define the material list header information, and then add part line items to the material list. Material lists must contain at least one part line item.

To define material lists:

1 Select **Work > WO Planning > Material Lists**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the material list belongs if you use multi-organization security.

Material List
Specify a unique code identifying the material list, and then enter a description of the material list in the adjacent field.

Note: Do not use the prefix "V-" in the **Material List** code. Material list codes with this prefix are reserved for system use only.

Class
Specify the class of the material list. The classes shown belong to the MATL entity.

Revision Status
Specify the revision status for the route. The system automatically populates **Revision**.

Note: You can enter a **Revision Status** only if the PMRVCTRL installation parameter is set to Yes. Contact your system administrator for more information.

4 Click **Save Record**.

5 Click the **Parts** tab.

6 Click **Add Part Line**. The system automatically populates **Line Number** with the next consecutive number according to the INCRLINO installation parameter.

7 Specify this information:

Part
Specify the part to add to the material list. The system automatically populates the part description, **Part Org.**, **Primary Manufacturer** and **Primary Manufacturer Part Number**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Quantity
Specify the quantity needed. The system displays the unit of measure in the adjacent field.

Reserve
Select to reserve the part when this material list is requested on a new work order. If you mark the part line as **Reserve**, this setting will carry over to any work order activity on which the material list is selected, and the system will automatically reserve the part for the work order activity by creating a part reservation record in the indicated store for all material list parts flagged for reserve.

Critical
Select if the part is critical to all work activities requiring the material list.

Line Number
Modify the line number as necessary.

Equipment
Specify the equipment associated with the part. The system displays the part for issue only when you associate the material with a work order that has the specified equipment. The system automatically populates **Equipment Type** and **Equipment Org.**

8 Click **Submit**.

Copying material lists

The copy material list feature copies a material list, including all details.

To copy material lists:

1 Create a material list.
See "Defining Material Lists" on page 474.

2 Right-click and then select **Copy Material List**.

3 Specify this information:

New Material List
Specify the name of the new material list. The system automatically populates the **New Material List** description.

4 Select the record types to copy, and then click **Submit**.

Defining VMRS codes

The American Trucking Association's Vehicle Maintenance Reporting System (VMRS) is a set of codes used to track equipment and maintenance within the fleet/transportation industry. VMRS provides a "universal language" so that the various industry segments (e.g., maintenance employees, management, suppliers, and manufacturers) can communicate more easily and accurately. Values for all Code Keys are installed in the database.

When defining VMRS codes, you must first define a system-level code before you can define assembly-level or component-level codes.

To define VMRS codes:

1 Select **Work > Setup > VMRS Codes**.
2 Click **Add VMRS Code**.
3 Specify this information:

Description
Specify the description of the VMRS code.

System Level
Specify the VMRS code identifying the system, e.g., brakes, frame, or suspension, associated with the vehicle (Code Key 31).

Assembly Level
Specify the VMRS code identifying the associated subsystem (Code Key 32). The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

Icon
Select the color of the icon to indicate the importance of the user code.

Icon Path
Specify the URL path to the image you would like to use for the icon. Accepted icon paths begin with**http://**, **//**, or ****, or **https://**.

4 Click **Submit**.

Approving and rejecting work requests

View a list of work requests awaiting approval, and then either accept or reject the work requests.

Note: You must have sufficient status change authorizations to approve and reject work requests, and you cannot approve work requests that exceed your work requests approval limit.

Approving work requests

To approve work requests:

1. Select **Work > Review Work Requests**.
2. Select one or more work requests to approve, and then click **Approve**.

   Note: Double-click a work request to view its details.

Rejecting work requests

To reject work requests:

1. Select **Work > Review Work Requests**.
2. Select one or more work requests to reject, and then click **Reject**.

   Note: Double-click a work request to view its details.

3. Enter the reason for rejection.
4. Specify this information:

   Use Reason for All
   Select if you are rejecting multiple work requests and the reason for rejection applies to all of the work requests.

5. Click **OK**.

   The system removes the rejected work requests from the list, and then sets the system status of the work requests to **Rejected**.

Creating incident requests

Create and update hospitality-based incident request records.

To create incident requests:

1. Select **Work > Verticals > Hospitality > Incident Requests**.

2 Click **New Record**.

3 Specify this information:

Find Guest By
Choose one of the following options to search for a guest:

- **Room**
  Select to locate guests by their room assignment.
- **Employee**
  Select to locate the hospitality employees by their employee codes.
- **Employee Name**
  Select to locate the hospitality employees by their names.
- **Last Name**
  Select to locate guests by their last names.
- **First Name**
  Select to locate guests by their first names.
- **Phone**
  Select to locate guests by their phone numbers.

4 Enter data in **that contains**, e.g., if you chose to search by **Phone**, enter the phone number, and then click **Search** to begin the search process.

Note: If exactly one match is found by the room, the system populates **Room**, the room description, and **Room Property**.

If exactly one match is found by the guest's last name, first name, or phone number, the system populates the information in the Guest Information section.

5 Enter the guest's first, middle, and last name.

6 Specify this information:

VIP Status
Select the guest's VIP status.

Employee
Specify the employee responsible for the incident request. The system automatically populates the employee description.

Enter the guest's **E-mail Address** and **Phone Number**.

Room
Specify the room where the incident occurred. The system automatically populates **Room**, the room description, and **Room Property**.

Problem Code
Specify the code identifying the incident problem. The system automatically populates the service problem code description and **Problem Code Property**.

Incident Details
Specify details of the incident as necessary.

Copy to WO Comments
Select to copy the work order comments to the incident request.

Property
Specify the property of the request.

Status
Select the status for the request.

Source
Select the request source.

Type
Select the request type.

Assigned To
Specify the person responsible for the property, this is typically the property manager, housekeeping, or building maintenance personnel. The system automatically populates **Request Date** and **Request Taken By**.

Work Order
Specify the work order for the incident request. The system automatically populates **Standard WO** and **Duplicate**.

WO Priority
Select the work order priority.

WO Property
Specify the property at which to perform the incident work.

7 Click **Save Record**.

The system automatically populates **Incident Request**.

Note: To create a work order based on the incident request, enter the room and problem code for the incident, and then click **Create WO**.

To email the guest, click **Email Guest**.

To create another guest request based on the guest information and another incident, click **Create Another Guest Request**.

Creating standard work orders

A standard work order is a predefined set of details and activities that may be referenced on a work order to facilitate entry of repair jobs that are performed repeatedly over time, but not according to a definable schedule as is the case with periodic preventive maintenance. A basic standard work order defines a simple repair job consisting of one or more activities.

A basic standard work order consists of a header and one or more activity lines. **Standard WO**, **Description**, and **Organization** frame the header of any standard work order, while two additional required fields, **WO Type** and **Duration**, and two optional fields, **WO Class** and **Priority**, house data that transfers to any work order on which the standard work order is selected. Any activities that are defined for the standard work order are copied to the work order as a result of selecting a standard work order.

To restrict the list of standard work orders available on a given work order to only those defined as applicable for the equipment and/or problem indicated on the work order at the time the standard work order selection is made, enter **Equipment Class**, and/or **Category**.

Create standard work orders, and then apply the information from standard work orders to regular work orders.

Note: You can only insert, update, or delete work orders if you are authorized to do so.

Defining standard work order headers

Create headers for standard work orders. Headers include basic information about the work orders.

To define standard work order headers:

1. Select **Work > WO Planning > Standard WOs**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the standard work order belongs if you use multi-organization security.

   Standard WO
   Specify a unique code identifying the standard work order, and then enter a description of the work in the adjacent field.

   Problem Code
   Specify the code identifying the problem.

   Equipment Class
   Specify the class of the equipment on which to perform the work. The classes shown belong to the OBJ entity.

Category
Specify the equipment category to which the standard work order applies.

Class
Specify the class of the work. The classes shown belong to the STWO entity.

Template
Select to create a standard work order template with which to associate children.

Note: If you are creating a template work order, you must specify a **Duration** greater than the total duration of all child work orders.

WO Type
Select the work order type of the standard work order.

Duration
Specify the duration of the standard work order, in days.

WO Class
Specify the work order class of the standard work order.

Priority
Select the priority of the standard work order.

4 Click **Save Record**.

Defining standard work order activities

Set up activities for standard work orders. Associate specific task plan lists and material lists to standard work orders.

To define standard work order activities:

1 Select **Work > WO Planning > Standard WOs**.
2 Select the standard work order for which to define an activity, and then click the **Activities** tab.
3 Click **Add Activity**.
4 Specify this information:

Activity
Specify an activity number for the first activity. If you do not provide this number, the system automatically enters a number based on the INCRLINO installation parameter. For example, if INCRLINO = 1, then the system enters the number "1" for **Activity** and increases by 1 for each new record. However, if INCRLINO = 5, then the system enters the number "5" for **Activity** and increases by 5 for each new record.

Trade
Specify the trade of the activity.

Task Plan
Specify the task plan list of the activity.

Task Plan Qty.
Specify the required number of units of the task plan to associate with the activity, and then select the unit of measure for the **Task Plan Qty.** in the adjacent field. For example, a work order activity to pave 100 miles of highway today will indicate a **Task Plan Qty.** of "100" and a unit of measure of "Miles", whereas the same task plan on another day will indicate only 80 miles due to the steep inclines of the stretch of highway being paved on that day.

Material List
Specify the material list to include for the activity.

Estimated Hours
Specify the number of hours estimated to complete the activity.

People Required
Specify the number of people needed to complete the activity.

Start
Specify a 1 if the activity is to start on the same day that the standard work order starts. Enter a 2 if the activity should start on day 2 of the standard work order, etc.

Duration
Specify the duration of the activity in days.

Hired Labor
Select to indicate that the activity will be completed by an external source.

Specify this information only if you use the American Trucking Association's Vehicle Maintenance Reporting System (VMRS).

Note: Depending on your system configuration, the VMRS-related fields may not be displayed. Contact your system administrator for more information.

Reason For Repair
Specify the reason the vehicle needs repair (Code Key 14).

Work Accomplished
Specify the work performed on the vehicle (Code Key 15).

Technician Part Failure
Specify the reason the technician or supplier thinks the vehicle failed (Code Key 18).

Manufacturer
Specify the Manufacturer/Supplier Code (Code Key 34) to associate with the vehicle.

System Level
Specify the VMRS code identifying the system, e.g., brakes, frame, suspension, needing repair (Code Key 31).

Assembly Level
Specify the VMRS code identifying the subsystem needing repair (Code Key 32). The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

Activity Comments
Enter comments or instructions for the activity.

5 Click **Submit**.

Copying standard work orders

Copy standard work orders to create new standard work orders.

To copy standard work orders:

1 Select **Work > WO Planning > Standard WOs**.
2 Select the standard work order to copy, and then click the **Record View** tab.
3 Right-click on the form, and then choose **Copy Record**.
4 Specify this information:

New Standard WO
Specify a unique code identifying the new standard work order, and then enter a description of the work order in the adjacent field.

5 Select the related details to copy to the new standard work order:

- **Custom Field Values**
- **Comments**
- **Documents**
- **Translations**
- **WO Custom Field Values**
- **Activities**
- **Activity Comments**
- **Children**

6 Click **Submit**.

Assigning child work orders to standard work orders

First define standard work order headers, and then define child standard work orders. You can only define child work orders if you selected **Template** on the standard work order header. If you define child work orders using a standard work order template, the system automatically creates a work order for each child assigned to the template.

See "Defining Standard Work Order Headers" on page 480.

You can also set up child work orders to change the status of a work order depending on another work order, and you can calculate the requested start and end dates for each work order when the new work order is created from the template.

To assign child work orders to standard work orders:

1. Select **Work > WO Planning > Standard WOs**.
2. Select the standard work order for which to define children, and then click the **Children** tab.
3. Click **Add Child Standard WO**.
4. Specify this information:

   Child Standard WO
   Specify the child standard work order to assign to the standard work order template. The system automatically populates the child standard WO description, **Duration**, and**Priority** if available.

   Sequence
   Specify the sequence number in which to perform the child work order.

   Step
   Specify the step number (in the sequence of steps) in which to perform the child standard work order.

   Trigger Sequence - Step
   Specify the sequence/step number combination of the child standard work order that triggers the selected child work order.

   Old Status
   Specify the existing status of the child standard work order to be changed.

   New Status
   Specify the new status to assign to the child standard work order upon completion of the triggering event.

5. Click **Submit**.

Managing tools for standard work orders

Add, delete, modify, or view lists of tools associated to standard work order activities and jobs. Using the tool records, create planned tools for work orders, scheduled tools for work orders, or both.

Manually add tools to standard work order activities that do not have an associated task plan, or to standard work order activities for which the task plan is not enabled for enhanced planning.

View tools associated to the standard work order task plan if the task plan is enabled for enhanced planning.

To manage tools for standard WO:

1. Select **Work > WO Planning > Standard WOs**.
2. Select the standard work order for which to manage tools, and then click the **Plan Tools** tab.
3. Select the **Activity** for which to manage tools.

   Note: If **Job** is set to **Show All Records**, **Job** is automatically populated, protected, and set to **Show All Records**.
4. Select the **Job** of the activity for which to manage tools.
5. Click **Add Tool**.
6. Specify this information:

   Activity
   Select the activity for which to manage tools. **Job** is automatically populated.

   Tool
   Enter the tool to add to the standard work order. The system automatically populates the tool description and **Tool Org.**

   Hours Requested
   Enter the number of hours estimated to use the tool to complete the activity.

   Qty. Required
   Enter the tool quantity estimated to complete the activity. The system automatically populates **Total Hours Required** and **Activity Duration**.
7. Click **Submit**.

Associating permits with standard work orders

Associate permits with standard work orders. The permits will be copied to the work order when work orders are created that reference the standard work order.

To associate permits with standard work orders:

1. Select **Work > WO Planning > Standard WO's**.
2. Select the standard work order with which to associate a permit, and then click the **Permits** tab.
3. Click **Add Permit**.
4. Specify this information:

Permit
Select the permit with which to associate the standard work order. The system automatically populates the description and **Permit Org.**

Auto Create PTW
Select the check box to automatically create a permit to work when the a new work order is created and the permit is copied to the work order.

PTW Type
Select the type of permit to work to create when the work order is created.

Type of Work
Select the type of work to attach to the created permit to work.

Priority
Select the priority to attach to the created permit to work.

Risk
Select to indicate the risk to attach to the created permit to work.

Activity
Specify the activity of the work order.

Mandatory
Select the check box to indicate that the permit is mandatory to complete the work.

LOTO Required
Select the check box to require a lockout/tagout procedure of equipment associated to the permit to work.

Isolation Type
Select the type of isolation required on the lockout/tagout procedure of equipment associated to the permit to work.

5 Click **Submit**.

Adding safety hazards and precautions to standard work orders

Add hazards and precautions to standard work orders that inform your employees on how to use equipment safely when working in hazards that can cause bodily harm and alert them in advance of the precautions to take to protect themselves from the hazard. For example, you can add a precaution to turn equipment off and remove the power cord from the power outlet before performing repairs on electrical equipment.

To add safety hazards and precautions to standard work orders:

1 Select **Work > WO Planning > Standard WOs**.
2 Select the standard work order for which to add safety precautions and hazards, and then click the **Safety** tab.

3 Click **Add Safety Record**.

4 Specify this information:

Hazard
Specify the hazard to add to the standard work order. The system automatically populates a description of the hazard, **Hazard Org.**, and **Hazard Type**.

Precaution
Specify the safety measure to protect your employees from the hazard. The system automatically populates a description of the precaution, **Precaution Org.**. **Timing**, and **Sequence**.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can enter the timing of pre-work to alert the employee that they should wear fire-resistant clothing before beginning the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number entered.

5 Select the **Delete Pending** check box to delete the pending safety record during the next review.

6 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

Viewing estimated costs for standard work orders

View the estimated costs for a standard work order, a specific activity, or a specific job for an activity.

The system estimates the following cost categories based on the information provided: internal labor, external labor, stock items, direct purchases, tools, and total costs.

To view the estimated costs for standard work orders:

1 Select **Work > WO Planning > Standard WOs**.

2 Select the standard work order for which to view estimated costs, and then click the **Estimated Costs** tab.

3 Optionally, select the **Activity** for which to view the estimated costs for the standard work order.

Note: If **Activity** is set to **Show All Records** the cost for the work order is displayed including all associated activities.

4 Optionally, select the **Job** for which to view the estimated costs for the standard work order.

Note: If **Job** is set to **Show All Records** the cost for the work order is displayed including all associated jobs.

5 Specify this information:

Organization
Specify the organization of the standard work order.

Department
Specify the department of the standard work order.

Store
Specify the store of the standard work order to calculate estimated costs per store.

Supplier
Specify the supplier of the standard work order to calculate estimated costs per supplier.

6 View the estimated costs.

Creating regular work orders

Create regular work orders to repair broken equipment, modify equipment to meet safety and environmental standards, perform work orders during a normal workday, and record information concerning equipment problems. Work orders can either be independent or part of a much larger project. First, enter header information on the **Record View** tab of the Work Orders page. Then add activities to the work order, schedule labor, associate qualifications with work order activities, book labor and vendor hours, associate parts, enter meter readings, create child work orders, add permits, and request tools as necessary. Add additional equipment to work orders for which similar work will be done to distribute costs across the equipment on the work order. You may also view the status of work orders and view work order information such as work order cost and service request details. Finally, close the work order after the work is complete.

Note: View and attach GIS maps to work orders scheduled for GIS-integrated equipment. To attach a GIS map to a work order, associate the GIS map to the work order via the Work Orders page.

You may also configure the system to link a specific equipment record's GIS map to work orders as they are released via the Assets, Positions, or Systems pages.

Defining regular work order headers

Enter work order header information on the **Record View** tab of the Work Orders page.

Note: To create an editable copy of the record that contains the same base data, right-click on the **Record View** tab, and then choose **Copy Record**.

You may also associate inspection routes to work orders from the Work Orders page.

Note: The form contains collapsible sections.

To define regular work order headers:

1 Select **Work > Work Orders**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the work order belongs if you use multi-organization security.

Work Order
Specify a description of the work needed in the adjacent field. A work order number is assigned after you save the record.

Equipment
Specify the equipment on which to perform the work.

Note: Safety is selected if it is selected on the **Location** record.

Multiple Equipment is selected if you add additional equipment to the work order and it is protected.

Type
Choose one of the following options:

Type	Description
Breakdown	Select to create a work order in response to an equipment breakdown or failure.
Calibration	Select to create a calibration work order.
PM	Select to create a preventive maintenance work order.
Repairable Spare	Select to create a work order for repairable spare parts. If you are creating a work order for repairable spare parts, you must also add the parts to repair on the **Repair Parts** tab.
Standard WO	Select to create a standard work order.

Note: The previously listed work order types are standard types in the system. You can also create user-defined work order types.

Department
Specify the department.

Print
Select to print the work order when work orders are batch printed.

Note: Once the work order is printed, the system automatically selects **Printed** and unselects **Print**.

Status
Select one of the following options:

Released
Select to create a work order.

Work request
Select to create a work request.

Note: If you select a **Status** of **Work request**, the work request must be approved and assigned a status of **Released** before defining activities, scheduling labor, booking labor, etc.

Safety
Select if this work requires special safety precautions.

Warranty
Select if the equipment is under manufacturer warranty.

Dependent
Select to keep the work order open until all child work orders are completed.

4 Specify this Linear Reference Details information:

From Point
Specify the point on the linear equipment record from which to perform the work order. The system automatically populates **Ref. Description** and **Geographical Ref.** if available.

Ref. Description
Specify a description of the **From Point**.

Geographical Ref.
Specify a geographical reference for the **From Point**.

To Point
Specify the point on the linear equipment record to which to perform the work order.

Ref. Description
Specify a description of the **To Point**.

Geographical Ref.
Specify a geographical reference for the **To Point**.

Inspection Direction
Specify the direction in which to begin the inspection on the linear equipment.

Flow
Specify the direction in which the travel flows along the linear equipment, e.g., cars traveling on the linear equipment record for Highway 185 are traveling in the North-South flow direction.

5 Specify this Production Details information:

Production Priority
Specify the priority of production for the work order.

6 Specify this Work Order Details information:

Location
Specify the location of the work to be completed.

Class
Specify the class of the work order.

Problem Code
Specify the code to identify the type of problem.

Note: If the selected **Equipment** is linked with a **Criticality** code, the system populates **Problem Code** based on the **Criticality** code.

Parent Work Order
Specify the code identifying the parent work order for the work order. The system automatically populates the following fields:

Criticality identifies the equipment in the work request. The system only populates **Criticality** if you selected an **Equipment** for which a criticality code is linked, and it is protected.

PM Code identifies the PM work order from which the work order was generated. The system only populates **PM Code** if the work order was generated from a PM work order.

CN Number indicates the change notice number of the equipment on the work order.

Scheduling Session indicates the MS Project planning session associated with the equipment on the work order.

Customer indicates the asset management customer associated with the equipment on the work order.

Property indicates the asset management property associated with the equipment on the work order.

Caller Name indicates the name of the person who called in to report the problem.

Reject Reason indicates the reason that the work order was rejected.

The system automatically selects **Reopened** if the work order is closed and then reopened.

Standard WO
Specify the standard work order if it has been stored in the system library. The system automatically populates the work order description, **Type**, **Class**, **Scheduling Session**, **Scheduling Session Type**, **Maintenance Pattern-Sequence**, **Problem Code**, **Priority**, **Scheduled End Date**, **Campaign-Campaign Event** and **Campaign Status** if available. The system also copies the standard work order activities to the current work order. If the standard work order is a template, the system creates child work orders as defined on the standard work order.

Priority
Specify the priority of the work order.

Cost Code
Specify the cost code of the work order.

Target Value
Specify the estimated maximum cost for the work order.

Failure Code
Specify the cause of failure for the equipment.

Action Code
Specify the action taken to resolve the problem.

Cause Code
Specify the cause code identifying the cause of the problem. The system automatically populates the following fields:

Route identifies the inspection route of which the equipment is a part.

Inspection Status indicates the current status of the inspection route of which the equipment is a part.

Downtime Cost
Specify the cost that resulted from the equipment being out of operation due to failure.

Downtime Hours
Specify the number of hours that the equipment was out of operation due to failure. The system automatically populates the following fields:

The system populates **Last Meter Reading** with the value of the last meter reading and the unit of measure of the reading in the adjacent field.

Trigger Event indicates the MS Project planning session associated with the equipment on the work order.

The system automatically populates **Customer Contract** if there is a contract associated with the work order or if customer charges have been calculated using the asset management services module.

The system automatically populates **Original PM Due Date** if the work order originated from a PM.

Note: If applicable, the system also populates **Customer Contract** from a project, equipment, and location associated with the work order. The system first determines whether the work order is associated with a customer contract; then checks for customer contracts associated with a project that is associated with the work order (including child projects); then for the equipment of the work order (and child equipment); and finally for the location of the work order (and child locations)

7 Specify this Call Center Details information:

Equipment Usability
Specify the code identifying the equipment's usability factor.

Temporary Fix Promise Date
Specify the date the work will be fixed temporarily, if a date was promised to the customer.

Provider
Specify the provider.

Service Category
Specify the service category.

Permanent Fix Promise Date
Specify the date the work will be fixed permanently, if a date was promised to the customer.

Temporary Fix Date Completed
Specify the date the temporary fix was completed.

Service Problem Code
Specify the service problem code.

Work Address
Specify the address or intersection where work is requested.

8 Specify this Activity information:

Activity
Specify a value if you want to create a new activity to associate with the work order.

Trade
Specify the trade required to perform the activity.

Note: If you enter a **Trade**, **Estimated Hours**, or **People Required** in the Activity section of the page, an activity will automatically be created for this work order.

An activity record can be deleted when you remove the **Trade** value.

Task Plan
Specify the task plan code for the activity.

Material List
Specify the material list code for the material list containing the parts needed for the work order.

Estimated Hours
Specify the estimated number of hours required to complete the activity. The system automatically populates **Hours Remaining** with the estimated number of hours remaining for the activity. You may update this field at any time during the life cycle of the work order.

Activity Start Date

Activity End Date
Enter the starting and ending dates for the activity associated with the work order.

People Required
Specify the number of people required to perform the activity.

9 Specify this Scheduling information:

Reported By
Specify the employee requesting the work.

Date Reported
Specify the date and time that the problem was reported.

Note: If the BOOKDATE installation parameter is set to ON, the system does not allow you to book hours for labor for a date that is earlier than the **Date Reported**. If BOOKDATE is set to OFF, then you can book hours without any date restrictions related to the **Date Reported**.

See the following for a list of constraints related to booking hours:

- The system verifies that **Date Worked** is not less than **Date Reported** for the work order
- The system verifies that **Date Worked** is less than or equal to **Date Completed** (if populated) for the work order
- The system verifies that **Date Worked** is not greater than the current system date and time
- The system also verifies whether **Date Worked** is within the date range defined by **Scheduled Start Date** and **Scheduled End Date** on the work order activity

Assigned By
Specify the supervisor who assigned the work order.

Assigned To
Specify the person responsible for the work order.

Sched. Start Date

Sched. End Date
Specify the starting and ending dates for the work order.

Req. Start Date

Req. End Date
Specify the requested starting and ending dates for the work order.

Start Date
Specify the actual date on which the work order is started.

Date Completed
Specify the actual date on which the work order is completed.

Shift
Specify the shift during which the work is requested to be performed.

Project-Budget
Specify the project and the project budget to associate with the work order.

Note: You cannot select a frozen project/budget.

Service Request
If populated, the value displayed for **Service Request** is a hyperlink to the service request associated with the work order. Click the number to view the associated service request.

10 Click **Save Record**.

Note: To view a GIS map and associate it with the work order, right-click on the form, and then choose **View GIS Map**.

If the work order is for a linear equipment record integrated with GIS, right-click, and then choose **View GIS Map** to adjust **From Point** or **To Point** via the work order's map.

To create a customer invoice for the work order (for a asset management services customer contract), right-click, and then select **Create Customer Invoice**. The system then calculates all customer charges for the work order that are associated with the customer contract and generates a customer invoice record.

To create a standard work order from any general work order for easy duplication, right-click on any existing work order, and then click **Create Standard WO**. The system displays the Create Standard WO popup. Enter **New Standard WO**, and then enter a description for the new standard work order. Enter **Organization**, and then click **Submit**.

To view the progress of a work order, right-click on the form, and then choose **Event Log**.

To create a warranty claim for the work order, right-click, and then select **Create Warranty Claim**.

To create a production request with an Unfinished **Status**, enter **Work Order** and **Production Priority**, and right-click on the form, and then choose **Create Production Request**. The system creates a production request with an Unfinished **Status**.

To create a production request with an Approved **Status**, enter **Work Order** and **Production Priority**, and right-click on the form, and then choose **Create Production Order**. The system creates a production request with an Approved **Status**. ERP retrieves the production request.

Defining regular work order activities

After creating work order headers, define the specific work order activities to perform.

Define the trades necessary to perform the work, the specific steps involved, the materials required, and the work duration. Create a labor requisition as necessary. After task completion, indicate that an activity is completed.

If you previously specified a standard work order, the system automatically displays the activities of the standard work order. Modify the information as necessary.

To define regular work order activities:

1. Select **Work > Work Orders**.
2. Select the work order for which to define activities, and then click the **Activities** tab.
3. Click **Add Activity**.

   The system automatically populates **Activity** with the next available activity number, populates **Start Date** and **End Date** with the scheduled start date of the work order, and populates **People Required** with a default value of "1."
4. Specify this information:

   Activity
   Modify the activity number as necessary.

   Trade
   Specify the trade required to perform the activity.

Estimated Hours
Specify the estimated number of hours required to complete the activity. The system automatically populates **Hours Remaining** with the estimated number of hours remaining for the activity. You may update this field at any time during the life cycle of the work order.

Specify this information only if you use the American Trucking Association's Vehicle Maintenance Reporting System (VMRS):

Reason For Repair
Specify the reason the vehicle needs repair (Code Key 14).

Work Accomplished
Specify the work performed on the vehicle (Code Key 15).

Technician Part Failure
Specify the reason the technician or supplier thinks the vehicle failed (Code Key 18).

Manufacturer
Specify the Manufacturer/Supplier Code (Code Key 34) to associate with the vehicle.

System Level
Specify the VMRS code identifying the system, e.g., brakes, frame, suspension, needing repair (Code Key 31).

Assembly Level
Specify the VMRS code identifying the subsystem needing repair (Code Key 32). The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

Warranty
Select if the equipment is under manufacturer warranty. The system automatically selects **Warranty** if there is a warranty associated with the work order header or if there is an active warranty for the code key combination for the work order equipment.

Completed
Select if the activity is completed.

Start Date

End Date
Modify the starting date and ending date for the activity as necessary.

Task Plan
Specify the task plan code for the activity. The system updates the value for **People Required** to correspond with the **Task Plan** as necessary.

Material List
Specify the code identifying the material list that contains the parts needed for the activity.

Percent Complete
Specify the percentage of work that has been completed for the activity.

People Required
Modify the number of people required to perform the activity as necessary.

Task Plan Qty.
Specify the required number of units of the task plan to associate with the activity, and then select the unit of measure for the **Task Plan Qty.** in the adjacent field. For example, a work order activity to pave 100 miles of highway today will indicate a **Task Plan Qty.** of "100" and a unit of measure of "Miles", whereas the same task plan on another day will indicate only 80 miles due to the steep inclines of the stretch of highway being paved on that day.

Hired Labor
Select to indicate that the activity will be completed by an external source.

Note: If the work order is a multiple equipment work order and you select **Hired Labor**, the system enables **Equipment** and it is required.

Labor Type
Select the type of labor needed if you selected **Hired Labor**.

Note: Activity lines only appear on the Create Labor Requisition popup if you have established one or more activities to be hired from an external source by selecting **Hired Labor** and by selecting a valid **Labor Type** on the **Activities** tab.

Supplier
Specify the supplier for the activity.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Enter a specific equipment to which to distribute the hired labor.
- Enter All Equipment to evenly distribute the hired labor to each equipment record on the work order.
- Enter WO Header Equipment to distribute the hired labor to the equipment on the work order header equipment.

Activity Comments
Enter comments or instructions for the activity.

5 Click **Submit**. **Total People Required**, **Total Estimated Hours**, and **Total Hours Remaining** are automatically populated.

Note: If the work order is a multiple equipment work order, the system creates the activity for each **Related Work Order**.

Note: Choose any of the following **Actions**.

- To add and edit comments, click **Add/Edit Comments**.

- To view comments entered for an activity, select the activity for which to view comments, and then click **View PM Activity Comments**.
- To create a labor requisition, click **Create Labor Requisitions**.
- To add deferred activities for equipment, the work order must have equipment with deferred maintenance activities. Click **Add Deferred Activities**.
- To reallocate direct materials, select the activity for which to reallocate direct materials, and then click **Reallocate Direct Materials**.
- To create a warranty claim for the work order activity, select the activity for which to create the warranty claim, and then click **Create Warranty Claim**.
- To view task plan instructions, select the activity for which to view task plan instructions, and then click **View Task Plan Instructions**.
- To add a part line or multiple part lines to a work order by accessing technical documents and drawings stored in Documoto, click **Add Documoto Details**.

  See "Adding Documoto details to work order activities and jobs" on page 517.

Defining additional costs for work orders

Define additional costs for work orders. Additional costs are charges related to the work order but not to a specific part of service, i.e., non-inventory parts. These records do not affect purchasing.

To define additional costs for work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to define additional costs, and then click the **Additional Costs** tab.
3. Choose one of the following options for **Activity**:
   - Select to display the work order activity or activities in the grid.
   - **Show All Records**
     Select this option if you want to define additional costs for multiple activities on the work order.
4. Choose one of the following options for **Job**:
   - Select to display the job or jobs in the grid.
   - **Show All Records**
     Select this option if you want to define additional costs for multiple jobs on the work order.
5. Click **Add Additional Cost**.
6. Specify this information:

   Cost Description
   Specify a cost description.

Activity
Select an activity. The system automatically populates **Activity** if the work order has only one associated activity and it is not deferred.

Job
Select a job. The system automatically populates **Job** if the work order has only one associated job.

Cost Type
Select one of the following options:

- **Part**
- **Own Labor**
- **Hired Labor**

Date
Specify the date of the additional cost if you use multiple equipment.

Equipment
Specify the equipment for the additional cost if this is a multiple equipment work order. The system automatically populates **Equipment Org.** and **Related Work Order**.

7 Click **Submit**.

Note: Records cannot be deleted on the **Additional Costs** page. Therefore, enter negative costs to make corrections. The negative costs are not validated against the positive posts, i.e., there may be a part cost of 10 and another part cost of -15.

Creating a labor requisition

Create a labor requisition from a work order activity to hire labor for an activity from an external source. To create a labor requisition for a work order activity, select **Hired Labor**for the **Activity** and specify a **Labor Type**. The system then displays each hired labor activity on the Create Labor Requisition popup enabling you to select the activities for which to create a labor requisition.

To create a labor requisition:

1 Select **Work > Work Orders**.
2 Select the work order for which to create a labor requisition, and then click the **Activities** tab.
3 Click **Create Labor Requisition**.
4 Specify this information:

Requisition Description
Enter a description of the requisition.

Store
Enter the **Store** requesting the labor.

Requested By
Enter the employee requesting the labor.

5 Select the activity for which to create a labor requisition. You may select multiple activities as necessary.

6 Click **Create Requisition**. **Equipment** is populated with All Equipment (on the requisition header), **Activity**, **Labor Type**, **Task Plan**, **Supplier** and **Supplier Org.**

Note: If you are creating a labor requisition for a multiple equipment work order, the system creates a requisition line for each selected activity and copies the **Equipment** value selected for the hired labor activity to the requisition line.

The requisition/line information is applied only to the activity lines on the multiple equipment header and not to the **Related Work Order** activities.

7 Click **Cancel**.

Scheduling labor for work orders

Schedule labor hours for each work order activity by trade, by shift, and/or by employee.

Note: Hours can only be scheduled for work orders with activities.

To schedule labor for work orders:

1 Select **Work > Work Orders**.

2 Select the work order for which to schedule labor, and then click the **Schedule Labor** tab.

3 Click **Add Schedule**.

The system automatically populates **Activity-Trade** with the activity-trade performing the work for the selected work order. The system populates **Scheduled Date** with the scheduled start date of the work order activity; **Scheduled By** with the name of the current user; **Completed** with the current setting of the **Completed** checkbox for the selected **Activity-Trade**; **Act. Est. Hours** with the number of hours planned for the work order activity; **Act. Sched. Hours** with the number of hours scheduled for the work order activity; and **Act. Actual Hours** with the total hours booked to date for the work order activity. When the work order activity is defined as requiring tools, the system automatically selects **Tools** for new and existing labor schedules.

Note: If the work order has multiple activities, you must select the **Activity-Trade** to schedule from the drop-down list.

If the project on the work order header is flagged as **Frozen**, you may not add or delete labor schedules, and the system displays all fields as read-only.

4 Enter one of the following:

- **Employee**
  Specify the personnel to schedule to perform the work. The system automatically populates the employee description and **Department**.

- **Crew**
  Specify the crew to schedule to perform the work.

- **Scheduled Date**
  Specify the date on which to schedule the work. You cannot schedule work for any date earlier than today's date.

- **Scheduled Hours**
  Specify the estimated number of hours to complete the work. The number of hours must be between 0 and 24.

- **End Time**
  Specify the scheduled start time and end time of the work order activity.

- **Shift**
  Specify the shift to perform the activity on the scheduled date.

5 Specify this information:

Maintenance Equipment
Enter the auxiliary equipment needed for the task, i.e., the equipment is not used in production. The system automatically populates **Equipment Org.**

6 Enter additional comments about the schedule.

7 Click **Submit**.

Note: You may delete an existing labor schedule that is scheduled for the current date or later if you have made an error entering the data and if you have access rights for deleting the labor schedule. Also, you may only delete labor schedules that have not been frozen or completed.

Copying an existing labor schedule

You may copy an existing labor schedule and update it as necessary.

To copy an existing labor schedule:

1 Select **Work > Work Orders**.

2 Select the work order for which to copy a labor schedule, and then click the **Schedule Labor** tab.

3 Select the labor schedule to copy, and then click **Copy Schedule**.

Note: The system automatically populates **Employee** and **Activity-Trade** with the employee and activity-trade performing the work for the selected work order. The system also populates **Act. Est. Hours** with the number of hours planned for the work order activity; **Act. Sched. Hours** with the number of hours scheduled for the work order activity; and **Act. Actual Hours** with the total hours booked to date for the work order activity.

4 Specify this information:

Employee
Specify the personnel to schedule to perform the work. The system automatically populates the employee description to correspond with the selected employee.

Scheduled Date
Specify the date on which to schedule the work. You cannot schedule work for any date earlier than today's date.

Scheduled Hours
Specify the estimated number of hours to complete the work. The number of hours must be between 0 and 24.

5 Click **Submit**.

Adding equipment to work orders to split work order costs

Add equipment to work orders to split costs across equipment on the work order. When creating a work order, you must specify an equipment on the work order header. However, you can add additional equipment to the work order (including the equipment on the header) to which to distribute work order costs.

When applying work order costs to multiple equipment work orders (for booked labor, issue parts, etc.), specify a value for **Equipment** on forms within the system where work order costs are accrued to indicate whether the costs should be distributed evenly across all work order equipment, a specific equipment, or only the work order header equipment.

There are two types of work orders related to the addition of multiple equipment records to work orders for distributing work order costs: a "multiple equipment work order" and a "multiple equipment child (MEC)" work order. There are many references to these two types of work orders in the user documentation. See the following descriptions for clarification of the two types:

- **Multiple equipment work orders**
  Multiple equipment work orders are work orders to which at least one equipment has been added on the **Equipment** page of the **Work Orders** form to distribute the work order costs across the equipment records. When the first equipment record is added to the **Equipment** page of the **Work Orders** form, **Multiple Equipment** is automatically selected on the work order header.

- **Multiple equipment child (MEC) work orders**
  An MEC work order is the work order type that is assigned to a **Related Work Order** that is automatically created for each equipment record added to the **Equipment** page of the **Work Orders** form. Upon saving the equipment to the work order, the **Related Work Order** (of type Multiple Equipment Child) is generated for the equipment. The **Related Work Order**, which can be viewed on many forms within the system, then enables you to track work order costs at both the work order and equipment level.

For example, if you add EQUIP-001 and EQUIP-002 to the **Equipment** page of the **Work Orders** form, a **Related Work Order** of type MEC is generated for both EQUIP-001and EQUIP-002 when you save the work order, e.g., work order numbers 50001 for EQUIP-001 and 50002 for EQUIP-002.

Note: In the user documentation, all references to "MEC work order" or "related work order" are to the type of work order that is automatically created for equipment records added to the **Equipment** page of the **Work Orders** form.

By default MEC work orders are not displayed on the **List View** page of the **Work Orders** form. You must use the Dataspy to access MEC work orders.

To add equipment to work orders to split work order costs:

1 Select **Work > Work Orders**.

2 Select the work order for which to add equipment, and then click the **Equipment** tab.

Note: If you selected a work order that already has child work orders on the **Children** page of the **Work Orders** form and are not MEC work orders, all of the information on the **Equipment** page is protected.

If the PMRVCTRL installation parameter is set to YES and the work order on the header is a PM work order, then all of the fields on the **Equipment** page are protected. You cannot add or remove a PM work order equipment from the work order if PM Revision Control is in use.

If the ROUTEEOB installation parameter is set to Y, and the parent work order is associated with an equipment route, then all of the route equipment and corresponding work orders are displayed in the grid, and they are protected.

3 Click **Add Equipment**.

4 Specify this information:

Equipment
Specify the equipment to add to the work order.

Note: You can retrieve multiple equipment to the work order using the **Equipment** lookup.

Click **Add WO Header Equipment** to add the equipment on the work order header to the Equipment list to distribute costs to the header equipment. The work order costs are not automatically distributed to the equipment on the work order header. You must add the header equipment to the Equipment list to include the header equipment in the work order cost distribution.

Click **Import Route Equipment** to select an existing equipment route from which to populate equipment.

Warranty is automatically selected on each MEC work order and each activity if the **Equipment** on the MEC work order is under warranty.

Duplicate equipment records are only allowed to be added to the Equipment list if the parent work order is route-based and the ROUTEEOB installation parameter is set to Y.

Department
Specify the department of the equipment.

Location
Specify the location of the work to be performed.

Cost Code
Specify the cost code of the work order.

From Point
Specify the point on the linear equipment record from which to begin the reference.

Ref. Description
Specify the description for the **From Point** reference.

Geographical Ref.
Specify the geographical reference for the **From Point** reference.

To Point
Specify the point on the linear equipment record from which to end the reference

Ref. Description
Specify the description for the **To Point** reference.

Geographical Ref.
Specify the geographical reference to the **To Point** reference.

Inspection Direction
Specify the direction in which to begin the inspection on the linear equipment.

Flow
Specify the direction in which the travel flows along the linear equipment, e.g., cars traveling on the linear equipment record for Highway 185 are traveling in the North-South flow direction.

5 Optionally, select the **Safety** check box if this work requires special safety precautions.

6 Optionally, select the **Warranty** check box to indicate the equipment is covered under manufacturer warranty.

7 Click **Submit**.

- The following fields are populated on the MEC work order(s) from the parent work order: **Organization**, **Description**, **Type**, **Status**, **Duration**, **Priority**, **Problem Code** , **Entered By** , **Sched. Start Date**, **Date Reported**, **Class**, and **Class Org.**
- The following fields are populated on each MEC work order from the **Equipment** on the MEC work order: **Equipment**, **Type**, **System Status**, **Equipment Type**, **Equipment System Type**, **Equipment**, **Equip. Organization**, **Location**, **Location Organization**, **Department**, **Cost Code** , **Criticality**, and **Safety**.
- **Parent Work Order** and **Route Parent** (in the database only) are automatically populated with the work order number (on the header).
- The following fields are populated from the activities on the parent work order to each MEC work order: **Activity**, **Start Date**, **Trade**, **Task**, **Hired Labor** , **People Required**, **Duration**, **Task Qty. (UOM)**, **Reason for Repair**, **Work Accomplished**, **Technician**, **Part Failure**, **Manufacturer**, **System Level**, **Assembly Level**, **Component Level**, **Supplier**, and **Supplier Org.**

Note: Work order planning information is not copied to related work orders. Therefore, **Estimated Hours**, **Hours Remaining**, and **Task Qty.** are set to 0 for all the activities on any created related work order(s).

Add additional equipment to the work order as necessary.

If the AUTODMEC installation parameter is set to YES, then the MEC work order is deleted from the system altogether.

Importing equipment from an existing equipment route to work orders

Import route equipment to quickly add equipment to a work order.

To import equipment from an existing equipment route to work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to import route equipment, and then click the **Equipment** tab.
3. Click **Import Route Equipment**.
4. Select the route from which to import the route equipment, and then click **OK**.

   Note: If the equipment on the selected equipment route already exists in the list of equipment added to the work order, the system does not retrieve the duplicated equipment record to the work order.

   See "Adding Equipment to Work Orders to Split Work Order Costs" on page 502.

   If the equipment on the selected equipment route is duplicated within the route itself, the system only retrieves one record for the duplicated equipment to the equipment list for the work order.

   If no equipment are associated with the selected equipment route, the system will not add any equipment records to the list of equipment on the work order.

Associating qualifications with work order activities

Associate qualifications of trades and tasks with work order activities to establish the qualifications required for employees performing work. Qualification enforcement is determined by the WOQUAL installation parameter.

See the *Infor EAM System Administrator Guide*

When you select a trade and/or a task code for a work order activity, any qualifications associated with the selected trade and/or task to the work order activity are automatically retrieved. You can also associate qualifications directly with the work order activity to enforce additional qualification requirements for the work order activity that are not inherited from the trade or task.

To associate qualification with work order activities:

1. Select **Work > Work Orders**.
2. Select the work order with which to associate qualifications, and then click the **Qualifications** tab.

   Note: You must enter an activity for the work order before you associate a qualification.

   See "Creating Regular Work Orders" on page 488.

3. Click **Add Qualification**.

   Activity-Trade, **Task**, and **Source** are automatically populated.

   Note: The activity-trade is only populated if one activity-trade exists. When two or more exist, **Activity-Trade** is empty.

4. Specify this information:

Activity-Trade
Select the appropriate activity-trade for the work order.

Qualification
Specify the qualification to associate with the work order activity. The description of the qualification and the qualification **Organization** are automatically populated.

Note: Removed is selected for any qualifications that are retrieved to the work order activity from a task/trade to indicate that the qualification is no longer associated with its original **Source** (the trade record on the **Trades** form or the task record on the **Tasks** form). You can only delete work order activity qualifications inherited from a trade/task for which **Removed** is selected or that are activity specific (not inherited from a trade/task).

5 Click **Submit**.

Importing unlinked qualifications

Import additional trade and task qualifications that are not already linked to the work order activity.

To import unlinked qualifications:

1 Select **Work > Work Orders**.
2 Select the work order for which to import unlinked qualifications, and then click the **Qualifications** tab.

Note: You must enter an activity for the work order before you associate a qualification.

3 Click the **Actions** button, and then select **Import Unlinked Qualifications**.
4 Specify this information:

Activity
Select the activity defined for the selected work order.

Job
Select the job defined for the activity.

5 Choose one of the following options:

- **Import From Trade**
  Click to import trade qualifications. Any qualifications for the trade that are not already linked to this work order activity are retrieved and **Source** is populated with Trade for each retrieved qualification. **Unlinked Trade Qualifications** is automatically populated with the number of qualifications associated with the trade selected for the work order activity that are not already linked to the work order activity.

- **Import From Task Plan**
  Click to import task qualifications. Any qualifications are retrieved for the task that were not previously linked to this work order activity and **Source** is populated with Task Plan for each retrieved qualification. **Unlinked Task Qualifications** is populated with the number of

qualifications associated with the task selected for the work order activity that are not already linked to the work order activity.

Booking labor for work orders

Record the number of hours that employees worked for each work order activity. You may book labor hours before closing work orders or until a specified number of days after closing work orders.

Note: Hours can only be booked against work orders with activities.

To book labor for work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to book labor, and then click the **Book Labor** tab.
3. Click **Add Labor**.
4. Specify this information:

   Activity-Trade
   Select the activity-trade performing the work for which to book labor hours.

   Note: You can also select the task for which the work is performed to differentiate between multiple activities on the work order that may be assigned to the same trade.

   Specify one of the following:

   - **Employee**
     Specify the personnel performing the work for which to book hours.
   - **Crew**
     Specify the crew performing the work for which to book hours.
   - **Department**
     Specify the department where the activity was performed.
   - **Trade**
     Specify the trade that performed the activity.
   - **Date Worked**
     Specify the date on which the work was performed.
   - **Type of Hours**
     Select the type of hours worked (e.g., normal rate, overtime rate, etc.).

   Rate
   Specify or modify the hourly pay rate for the employee, trade, or crew performing the work. If you defined a trade rate for the selected employee or trade, the system automatically populates **Rate**

with the appropriate hourly rate. If you selected a **Crew**, the system does not populate **Rate**; when you submit the booked labor, the system looks up the trade rate for each employee on the crew.

If you defined a trade rate for the selected **Employee**, the system populates **Rate** with the employee trade rate. However, if you did not define trade rates for the selected **Employee**, the system populates **Rate** with the trade rate defined for the selected **Trade**. If you enter a **Rate** for the selected **Crew**, the system overrides the trade rate defined for each employee on the crew if the calculated rate is zero.

Hours Worked
Specify the number of hours spent performing the work.

End Time
Specify the scheduled start time and end time of the work order activity.

Equipment
Specify one of the following options if the work order is a multiple equipment work order:

- Specify a specific **Equipment** record to apply the booked labor to the selected **Equipment** and its corresponding related work order. The system also populates **Equipment Org.** and **Related Work Order** from the selected **Equipment** record.

  Note: If you are making corrections to booked labor for a multiple equipment work order and you select All Equipment or a specific equipment record for **Equipment**, the system also splits the booked hours and applies the correction to all the equipment on the work order or the selected equipment.

- Specify All Equipment to evenly split the booked labor to each equipment record on the work order for the selected work order and activity. Upon saving the transaction, the system creates labor booking records and applies them to each related work order and selected activity. The system divides the number entered for **Hours Worked** by the number of equipment records added on the **Equipment** tab of the Work Orders page to determine the booked labor to apply to each equipment. The **Rate** applicable to the multiple equipment work order is also applied to all of the MEC work orders.

  Note: The system automatically applies any remainder of the **Hours Worked** to the last equipment record on the **Equipment** tab of the Work Orders page.

  If you select All Equipment for **Equipment** and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to split the labor hours against only equipment with open related work orders or against all equipment, regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

  Also, the system disregards the setting of the COMDAYS installation parameter when posting labor booking transactions related work orders if you select All Equipment.

- Specify WO Header Equipment to apply the booked labor to the work order header only.

5 Click **Submit**.

Note: After submitting the transaction, the system does not display the original booked labor transaction entered when the **Hours Worked** are split across multiple equipment records. Instead, the system displays the booked labor transactions for each equipment to which the labor was split.

Booking vendor hours for work orders

Record the number of hours that vendors worked for each work order activity. You may book vendor hours before closing work orders or until a specified number of days after closing work orders.

Note: Hours can only be booked against work orders with activities.

Hours cannot be booked against work orders with a system status of Q (Work Request) or work orders that are part of a scheduling session.

The setting of the COMDAYS installation parameter indicates the number of days you can book hours after a work order is completed. If the number of days between the completion date of the work order and the current system date is greater than the value specified for COMDAYS, you are not allowed to book hours for a work order.

To book vendor hours for work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to book vendor hours, and then click the **Book Vendor Hours** tab.
3. Click **Add Vendor Time**.
4. Specify this information:

   PO-Line
   Specify the PO-line for which to book vendor hours. The system automatically populates the purchase order description, **Type**, **Ordered**, and **Received To Date** to correspond with the selected purchase order line item.

   Depending on the **Type** of the purchase order line, the system also automatically populates or protects the following additional fields.

   If **Type** is ST (Hours from service), the system automatically populates **Activity-Trade**, **Act. Estimated Hours**, and **Act. Hours Remaining**. The system automatically protects **% Received** and **Received**. The system automatically populates **Rate** based on the selected **PO-Line**. You may modify **Date Worked** and **Hours Worked** as necessary.

   If **Type** is ST (Hours from service) and the work order is a multiple equipment work order, the system protects and populates **Equipment**, **Equipment Org.**, and **Related Work Order** from the selected **PO-Line**.

   If **Type** is SF (Fixed price), the system automatically populates **Activity-Trade**, **Act. Estimated Hours**, and **Act. Hours Remaining**. The system automatically clears and protects **Hours Worked** and **Rate**. The system automatically populates **Received** based on the selected **PO-Line**. You may modify **Date Worked**, **% Received**, and **Received** as necessary.

   If **Type** is SF (Fixed price) and the work order is a multiple equipment work order, the system protects and populates **Equipment**, **Equipment Org.**, and **Related Work Order** from the selected **PO-Line**.

   If **Type** is SH (Contractor hire), the system automatically clears and protects **% Received**, **Received**, and **Rate**. The system automatically populates **Received** based on the selected **PO-Line**. You may modify **Date Worked**, **Hours Worked**, and **Activity-Trade** as necessary.

   If **Type** is SH (Contractor hire) and the work order is a multiple equipment work order, the system enables **Equipment** and it is required. The system automatically selects **All Equipment** for **Equipment**, and protects **Equipment Org.** and **Related Work Order**. If you select **WO Header Equipment** for **Equipment**, the system populates **Related Work Order** with the selected work

order. If you select a specific **Equipment**, then the system populates **Equipment Org.** and **Related Work Order** from the selected **Equipment**.

Employee
Specify the personnel performing the work for which to book vendor hours. The system automatically populates the employee description in the adjacent field.

Note: The setting of the BOOPLAN installation parameter determines the manner in which the system populates information from employee records and activity-trade records for booked hours.

Date Worked
Specify the date the hours were worked.

Type of Hours
Specify the type of hours worked (e.g., normal rate, overtime rate, etc.).

Hours Worked
Specify the number of hours spent performing the work.

If you enter a positive value for **Hours Worked**, the system populates **Start Time** and **End Time**. If you enter a negative value or delete the **Hours Worked**, then the system clears **Start Time** and **End Time**.

Note: You can only book vendor labor hours against an MEC work order from the parent multiple equipment work order.

Rate
Specify the hourly pay rate for the vendor performing the work.

Units
Specify the quantity of the task being ordered. For example, if you entered 3 hours as the **Estimated Hours** for the **Task**, then the 3 hours represents one unit.

If no value is entered for **Hours Worked**, then the system calculates the **Hours Worked** based on the **Units** entered as follows:

If **Type** is SH and you enter a value for **Units**, the system populates **Hours Worked** based on the following equation:

Hours Worked = (Units/Act. Units) x **Act. Estimated Hours**

If **Type** is **SF** and you enter a value for **Units**, then the system populates **Hours Worked** based on the following equation:

Hours Worked : Received = (Units/Act. Units) x Ordered

Enter the scheduled **Start Time** and **End Time** of the work order activity.

Activity-Trade
Select the activity-trade performing the work for which to book vendor hours.

The system automatically populates **Act. Units** and the corresponding unit of measure, **Act. Estimated Hours**, **Act. Hours Remaining**, **Department**, and **Trade**.

Equipment
Specify one of the following options if the work order is a multiple equipment work order:

All Equipment
Select **All Equipment** to evenly split the booked vendor hours to each equipment record on the work order for the selected work order and activity. Upon saving the transaction, the system creates labor booking records and applies them to each related work order and selected activity. The system divides the number entered for **Hours Worked** by the number of equipment records added on the Equipment page to determine the booked labor to apply to each equipment. The **Rate** applicable to the multiple equipment work order is also applied to all of the MEC work orders.

Note: Equipment is populated with **All Equipment** if the **Type** is SH, otherwise the system populates **Equipment** from the associated **PO-Line**.

The system automatically applies any remainder of the **Hours Worked** to the last equipment record on the **Equipment** tab of the Work Orders page.

If you select **All Equipment** for **Equipment** and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to split the labor hours against only equipment with open related work orders or against all equipment, regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

Also, the system disregards the setting of the COMDAYS installation parameter when posting labor booking transactions on related work orders if you select All Equipment.

WO Header Equipment
Select **WO Header Equipment** to distribute the booked vendor hours to the selected **Work Order** only.

Enter a specific **Equipment** record to distribute the booked vendor hours to the selected **Equipment** and the corresponding **Related Work Order** only.

Note: Although **Equipment** is only editable when the **Type** is SH, the system still distributes costs for the booked vendor hours to the **Equipment** populated from the **PO-Line** for Type SF and ST.

If you are making corrections to booked labor for a multiple equipment work order and you select All Equipment or a specific equipment record for **Equipment**, the system also splits the booked hours and applies the correction to all the equipment on the work order or the selected equipment.

See "Adding equipment to work orders to split work order costs" on page 502.

% Received
Specify the percentage of time received. You may only enter this percentage if the **Type** is SF (Fixed price).

When you enter a value for **% Received**, **Received** is populated based on the following equation:

Received = (% Received/100) x Ordered

Received
Specify the value of time received.

5 Click **Submit**.

Booking labor by employee

Book labor by employee to record the hours required for an employee to perform work orders and non-WO time.

To book labor by employee:

1. Select **Work > Process > Book Labor By Employee**.
2. Specify the employee code for which to book hours.

   The system automatically populates the employee's name in the adjacent field, **WO Organization**, **Date Entered**, **Equipment**, **Equipment Org.**, **Related Work Order**, **Act. Estimated Hours**, **Act. Hours Remaining**, **Act. Regular Hours Worked**, and **Act. OT Hours Worked**.
3. Click **Add Labor**.
4. Specify this information:

   WO-Activity
   Specify the work order performed by the employee and then enter the work order activity in the adjacent field. The system automatically populates the description for the selected work order.

   Note: The system cannot book hours for work requests or PMs.

   Department
   Specify the department associated with the work order.

   Trade
   Specify the trade associated with the work order.

   Date Worked
   Specify the date the work order was performed.

   Type of Hours
   Specify the type of hours completed for the work order.

   Note: Use Non-WO Time to record sick, vacation, or travel time.

   Rate
   Specify or modify a pay rate for the employee performing the work order. The system automatically populates **Rate** for the employee if a trade rate or employee rate are established in the system.

   Note: Rate can only be modified if the default rate is 0 or null.

   If you make changes to **Department**, **Trade**, or **Type of Hours**, the system edits the value of **Rate**.

   Hours Worked
   Specify the number of hours the work order was performed.

   Start Time
   Specify a start time for the work order.

   End Time
   Specify an end time for the work order.

5 Click **Submit**.

Note: If the work order is a multiple equipment child work order, the system automatically populates **Equipment**, **Equipment Org.**, and **Related Work Order**.

Booking labor for work orders in a batch

Book labor to work orders during batch work order updates.

To book labor for work orders in a batch:

1 Select **Work > Process > Batch Work Order Updates**.

2 Specify this information:

Organization
Specify an organization for the work orders to update.

Allow Trade Rate to be Zero
Select to allow the system to apply a zero trade rate if the system does not find a value for trade rate.

Include Transactions on Completed Multiple Equipment Child Work Orders
Select to include transactions on multiple equipment child work orders that are both released and completed.

Work Order
Specify the code identifying the work order for which to book labor.

Activity
Specify the activity.

Employee
Specify the employee.

Department
Specify the department.

Trade
Specify the trade.

Date Worked
Specify the date the work order was performed.

Type of Hours
Specify the type of hours completed for the work order.

Hours Worked
Specify the number of labor hours performed for the work order.

Equipment
Specify the equipment used for the work order. The system automatically populates **Equipment Org.** and **Related Work Order** if you selected **Equipment**.

Note: If you edit **Equipment**, the system clears the values for **Equipment Org.** and **Related Work Order**.

Start Time
Specify the start time for the work order.

End Time
Specify the end time for the work order.

3 Click **Update Work Order**. The system automatically populates **Error Message**.

Note: Click **Copy Line** to copy the information from the currently selected row to the next available row.

Click **Clear Line** to delete the information from the selected row.

Managing tools for work orders

Add, delete, modify, or view lists of tools associated to work order activities and jobs. Using the tool records, create planned tools for work orders, scheduled tools for work orders, or both.

Manually add tools to work order activities that do not have an associated task plan, or to work order activities for which the task plan is not enabled for enhanced planning.

View tools associated to the work order task plan if the task plan is enabled for enhanced planning.

To manage tools for regular work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to manage tools, and then click the **Plan Tools** tab.
3 Select the **Activity** for which to manage tools.

Note: If **Job** is set to **Show All Records**, **Job** is automatically populated, protected, and set to **Show All Records**.

4 Select the **Job** of the activity for which to manage tools.
5 Click **Add Tool**.
6 Specify this information:

Activity
Select the activity for which to manage tools. **Job** is automatically populated.

Tool
Enter the tool to add to the work order. The tool description and **Tool Org.** are automatically populated.

Hours Requested
Enter the number of hours estimated to use the tool to complete the activity.

Qty. Required
Enter the tool quantity estimated to complete the activity. **Total Hours Required** and **Activity Duration** are automatically populated.

7 Click **Submit**.

Viewing and entering results of checklists for work orders

View a checklist for a work order activity to verify the progress or completion of the checklist. Alternately you may enter results for a checklist of a work order activity. To enter results for checklist items associated to the work order, the work order must have a status of **Released**.

To view and enter results of checklists for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to view checklists, and then click the **Checklist** tab.
3 Optionally, select the work order activity for the checklist item, or select **Show All Records** to display all of the work order activity records that are not flagged as deferred but that have an associated checklist.
4 Optionally, select the specific job of the work order activity for the checklist item, or select **Show All Records** to display all of the job records for the work order activity that are not flagged as deferred but that have an associated checklist.
5 Specify this information:

Activity
Specify the work order activity for which to view checklists.

6 View the information.
7 Enter results of the checklist based on the checklist item:

Completed
Select the check box if **Type** is **Checklist Item**.

Select **Yes** or **No** if **Type** is **Question**.

Enter **Finding** if **Type** is **Qualitative**.

Enter **Value** if **Type** is **Quantitative** or **Meter Reading**.

Enter **Finding** and **Value** if **Type** is **Inspection**.

Notes
Specify any relevant notes for the checklist item results.

Final Occ.
Select the check box if the results entered represent the final occurrence of the specific checklist item. This only applies to repeating checklist items.

Follow-up
Select the check box for specific checklist items to later generate follow-up work orders for the checklist item.

8 Click **Create Follow-up WO** to generate follow-up work orders for previously entered results, where **Follow-up** is selected.
9 Click **Submit**.

Planning labor for work orders

Plan the labor necessary to complete a work order and it's activities and jobs. Plan both internal and external labor.

Note: The work order must have at least one activity to plan labor on this page. Use this page to plan labor for work order activities or activity jobs but not both.

To plan labor for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to plan labor, and then click the **Plan Labor** tab.
3 Choose one of the following options for **Activity**:

- Select to display the work order activity or activities in the grid.
- **Show All Records**
  Select this option if you want to plan labor for multiple activities on the work order.

4 Choose one of the following options for **Job**:

- Select to display the job or jobs in the grid.
- **Show All Records**
  Select this option if you want to plan labor for multiple jobs on the work order.

5 Click **Add Plan Labor**.
6 Specify this information:

Activity
Select the activity for which to plan the labor. The system automatically populates **Activity** if the work order has only one associated activity and it is not deferred.

Job
Select the job for which to plan the labor. The system automatically populates **Job** if the work order has only one associated job.

Trade
Specify the trade required to perform the activity or job.

Estimated Hours
Specify the hours estimated to complete the labor.

People Required
Specify the number of people required to complete the labor.

Hours Remaining
Specify the estimated number of hours remaining for the activity.

Hired Labor
Select to indicate that the job will be completed by an external source.

Labor Type
Select the type of labor needed if you selected **Hired Labor**.

Supplier
Specify the supplier for the activity or job. The system automatically populates **Supplier Org.**

7 Click **Submit**.

Note: To create a labor requisition for the work order activity to hire labor for the activity from an external source, click **Create Labor Requisition**.

See "Creating a labor requisition" on page 499.

Adding Documoto details to work order activities and jobs

Add a part line or multiple part lines to a work order activity or job by accessing technical documents and drawings that are stored in Documoto.

Note: To access Documoto on this screen you must first perform the following steps:

- Define the work order equipment's **Documoto Book ID**, **Documoto Part ID**, and the **Documoto URL** on the equipment record. (**Assets**, **Positions**, **Systems**, or **Vehicles** forms.)
- Set the organization options for DOCUMURL, DOCUMKEY, and DOCUMUSR on the **Options** tab of the **Organizations** form.

To add Documoto details:

1 Select the activity associated to the specific work order for which to add Documoto details on the **Activities** tab of the **Work Orders** form.
2 Click **Actions**, and then select **Add Documoto Details**.
3 Select one or more parts from the Documoto technical documents and drawings and add them to the Documoto shopping cart.
4 Return the shopping cart to Infor EAM. A pick ticket is automatically created for the selected work order activity.

For each part selected in Documoto, a part line is created for the work order activity specified. The Infor EAM parts flagged as **Out of Service** will not be available.

The planned quantity for the part line of the work order is populated based on the quantity requested in the Documoto data.

Entering work orders on the quick entry form

Create, update, and complete work orders on the **WO Quick Entry** form. When you create a work order, the system automatically enters a status of **Released** on the work order header. Insert and update activities, book labor for existing activities, and issue parts to an activity. Add or view work order comments and activity comments.

Creating, updating, and completing work orders

To create, update, and complete work orders:

1. Select **Work > WO Quick Entry** form.
2. Specify this information:

   Organization
   Enter the organization.

3. Choose one of the following options:

   - **Create a new work order**
     Specify for the **work order description**, a description of the work to be done.

   - **Update or complete an existing work order**
     Specify for **Work Order**, the work order number for which to update or complete.

4. Specify this information:

   Equipment
   Specify the equipment on which the work will be performed.

   Status
   Specify the status of the work order.

   Type
   Specify the work order type.

   Location
   Specify the location of the work to be completed.

   Class
   Specify the class of the work order.

   Problem Code
   Specify the code to identify the type of problem.

Shift
Specify the shift during which the work is requested to be performed.

Project-Budget
Specify the project and the project budget to associate with the work order.

Department
Specify the department.

Safety
Select if this work requires special safety precautions.

Warranty
Select if the equipment is under manufacturer warranty.

Print
Select to print the work order when work orders are batch printed.

Standard WO
Specify the standard work order if it has been stored in the system library. The standard work order activities are copied to the current work order. If the standard work order is a template, child work orders are created as defined on the standard work order.

Priority
Specify the priority of the work order.

Cost Code
Specify the cost code of the work order.

Failure Code
Specify the cause of failure for the equipment.

Action Code
Specify the action taken to resolve the problem.

Cause Code
Specify the cause code identifying the cause of the problem.

Downtime Cost
Specify the cost that resulted from the equipment being out of operation due to failure.

Downtime Hours
Specify the number of hours that the equipment was out of operation due to failure.

Last Meter Reading is populated with the value of the last meter reading and the unit of measure of the reading in the adjacent field.

Trigger Event is populated which indicates the MS Project planning session is associated with the equipment on the work order.

Reported By
Specify the employee requesting the work.

Date Reported
Specify the date and time that the problem was reported.

Note: If the BOOKDATE installation parameter is set to ON, you are not allowed to book hours for labor for a date that is earlier than the **Date Reported**. If BOOKDATE is set to OFF, you can book hours without any date restrictions related to the **Date Reported**.

Assigned By
Specify the supervisor who assigned the work order.

Assigned To
Specify the person responsible for the work order.

Sched. Start Date
Specify the starting date for the work order.

Sched. End Date
Specify the date the work is scheduled to be complete.

Req. Start Date
Specify the requested starting date for the work order.

Req. End Date
Specify the requested ending date for the work order.

Start Date
Specify the actual date on which the work order is started.

Date Completed
Specify the actual date on which the work order is completed.

Target Value
Specify the estimated maximum cost for the work order.

Service Request
If populated, the value displayed for **Service Request** is a hyperlink to the service request associated with the work order. Click the number to view the associated service request.

5 Click **Save Record**.

Note: Click **Add/Edit Activity Comments** to add or edit work order comments.

Click **Save and Create Another Work Order** to save the work order and create a new work order.

Click **Clear** to clear the **Work Order Header** section.

Click **Create Work Order** to create a new work order.

You may also click **Create Activity** to add an activity.

Creating activities for work orders on the WO Quick Entry form

Insert and update activities as necessary.

To create activities for work orders:

1 Select **Work > WO Quick Entry**.

2 Choose one of the following options:

- **Create a new activity**
  Specify for **Work Order**, the work order number for which to create a new activity. Go to **Organization**.

- **Update an existing activity**
  Enter for **Work Order**, the work order number for which to update an existing activity. Go to **Trade**.

3 Specify this information:

Organization
Specify the organization.

Work Order Description
Specify a description for the work order.

Equipment
Specify the equipment.

Status
Specify the status of the work order.

Type
Specify the work order type.

Department
Specify the department.

Activity
Specify an activity number for the activity. **Original Deferred WO-Activity** and **Direct Materials** are shown on **Deferred Activity**.

Trade
Specify the trade required to perform the activity. The system automatically populates **Type of Hours**. The system automatically populates **Activity** with the next available activity number, Start Date and **End Date** with the scheduled start and end dates of the work order, and **People Required** with a default value of "1."

Estimated Hours
Specify the estimated hours for the activity.

Hours Remaining
Specify the estimated number of hours remaining for the activity.

Specify this information only if you use the American Trucking Association's Vehicle Maintenance Reporting System (VMRS).

Reason for Repair
Specify the reason the vehicle needs repair (Code Key 14).

Work Accomplished
Specify the work performed on the vehicle (Code Key 15).

Technician Part Failure
Specify the reason the technician or supplier thinks the vehicle failed (Code Key 18).

Manufacturer
Specify the Manufacturer/Supplier Code (Code Key 34) to associate with the vehicle.

Warranty
Select if the equipment is under manufacturer warranty.

Completed
Select if the activity is completed.

Task Plan
Specify the task plan code for the activity.

Percent Complete
Specify the percentage of work that has been completed for the activity.

People Required
Specify the number of people required to complete the activity.

Task Plan Qty.
Specify the required number of units of the task to associate with the activity, and then select the unit of measure for the **Task Plan Qty.** in the adjacent field. For example, a work order activity to pave 100 miles of highway today indicates a **Task Plan Qty.** of "100" and a unit of measure of "Miles", whereas the same task plan on another day indicates only 80 miles due to the steep inclines of the stretch of highway being paved on that day.

Hired Labor
Select to indicate that the activity will be completed by an external source.

System Level
Specify the VMRS code identifying the system, e.g., brakes, frame, suspension, needing repair (Code Key 31).

Assembly Level
Specify the VMRS code identifying the subsystem needing repair (Code Key 32). The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

4 Click **Save Record**.

Note: Click **Clear** to clear the **Activity** section.

Viewing and entering results of checklists for work orders

View a checklist for a work order activity to verify the progress or completion of the checklist. Alternately you may enter results for a checklist of a work order activity. To enter results for checklist items associated to the work order, the work order must have a status of **Released**.

To view and enter results of checklists for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to view checklists, and then click the **Checklist** tab.
3 Optionally, select the work order activity for the checklist item, or select **Show All Records** to display all of the work order activity records that are not flagged as deferred but that have an associated checklist.
4 Optionally, select the specific job of the work order activity for the checklist item, or select **Show All Records** to display all of the job records for the work order activity that are not flagged as deferred but that have an associated checklist.
5 Specify this information:

Activity
Specify the work order activity for which to view checklists.

6 View the information.
7 Enter results of the checklist based on the checklist item:

Completed
Select the check box if **Type** is **Checklist Item**.

Select **Yes** or **No** if **Type** is **Question**.

Enter **Finding** if **Type** is **Qualitative**.

Enter **Value** if **Type** is **Quantitative** or **Meter Reading**.

Enter **Finding** and **Value** if **Type** is **Inspection**.

Notes
Specify any relevant notes for the checklist item results.

Final Occ.
Select the check box if the results entered represent the final occurrence of the specific checklist item. This only applies to repeating checklist items.

Follow-up
Select the check box for specific checklist items to later generate follow-up work orders for the checklist item.

8 Click **Create Follow-up WO** to generate follow-up work orders for previously entered results, where **Follow-up** is selected.

9 Click **Submit**.

Booking labor for work orders

Record the number of hours that employees worked for each work order activity. You may book labor hours before closing work orders or until a specified number of days after closing work orders.

Note: Hours can only be booked against work orders with activities.

To book labor for work orders:

1 Select **Work > Work Orders**.

2 Select the work order for which to book labor, and then click the **Book Labor** tab.

3 Click **Add Labor**.

4 Specify this information:

Activity-Trade
Select the activity-trade performing the work for which to book labor hours.

Note: You can also select the task for which the work is performed to differentiate between multiple activities on the work order that may be assigned to the same trade.

Specify one of the following:

- **Employee**
  Specify the personnel performing the work for which to book hours.

- **Crew**
  Specify the crew performing the work for which to book hours.

- **Department**
  Specify the department where the activity was performed.

- **Trade**
  Specify the trade that performed the activity.

- **Date Worked**
  Specify the date on which the work was performed.

- **Type of Hours**
  Select the type of hours worked (e.g., normal rate, overtime rate, etc.).

Rate
Specify or modify the hourly pay rate for the employee, trade, or crew performing the work. If you defined a trade rate for the selected employee or trade, the system automatically populates **Rate** with the appropriate hourly rate. If you selected a **Crew**, the system does not populate **Rate**; when you submit the booked labor, the system looks up the trade rate for each employee on the crew.

If you defined a trade rate for the selected **Employee**, the system populates **Rate** with the employee trade rate. However, if you did not define trade rates for the selected **Employee**, the system populates **Rate** with the trade rate defined for the selected **Trade**. If you enter a **Rate** for the selected **Crew**, the system overrides the trade rate defined for each employee on the crew if the calculated rate is zero.

Hours Worked
Specify the number of hours spent performing the work.

End Time
Specify the scheduled start time and end time of the work order activity.

Equipment
Specify one of the following options if the work order is a multiple equipment work order:

- Specify a specific **Equipment** record to apply the booked labor to the selected **Equipment** and its corresponding related work order. The system also populates **Equipment Org.** and **Related Work Order** from the selected **Equipment** record.

  Note: If you are making corrections to booked labor for a multiple equipment work order and you select All Equipment or a specific equipment record for **Equipment**, the system also splits the booked hours and applies the correction to all the equipment on the work order or the selected equipment.

- Specify All Equipment to evenly split the booked labor to each equipment record on the work order for the selected work order and activity. Upon saving the transaction, the system creates labor booking records and applies them to each related work order and selected activity. The system divides the number entered for **Hours Worked** by the number of equipment records added on the **Equipment** tab of the Work Orders page to determine the booked labor to apply to each equipment. The **Rate** applicable to the multiple equipment work order is also applied to all of the MEC work orders.

  Note: The system automatically applies any remainder of the **Hours Worked** to the last equipment record on the **Equipment** tab of the Work Orders page.

  If you select All Equipment for **Equipment** and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to split the labor hours against only equipment with open related work orders or against all equipment, regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

  Also, the system disregards the setting of the COMDAYS installation parameter when posting labor booking transactions related work orders if you select All Equipment.

- Specify WO Header Equipment to apply the booked labor to the work order header only.

5 Click **Submit**.

Note: After submitting the transaction, the system does not display the original booked labor transaction entered when the **Hours Worked** are split across multiple equipment records. Instead, the system displays the booked labor transactions for each equipment to which the labor was split.

Booking labor automatically for fleet work orders

Automatically post a book labor record for an employee and a fleet work order.

To book labor automatically for fleet work orders:

1. Enter the employee for which to book labor for the fleet work order. The system automatically populates the employee name.
2. Specify this information:

   Work Order
   Enter the fleet work order for which to book labor. The system automatically populates work order header information for the selected work order.

   Type of Hours
   Enter the type of hours worked, e.g., normal rate, overtime rate, etc.

   User Password
   Enter the password for the current session.

3. Optionally, select the **Auto Book Hours** check box to automatically book hours for the selected employee and fleet work order.
4. Click **Start**. The system records the time the labor begins.

   Note: Once the system begins recording the book labor record, the system books the hours without any notification or prompting when the work is stopped.

   To manually stop the book labor process, click **Stop**.

Issuing parts to work orders

Issue parts to work orders.

To issue parts to work orders:

1. Select **Work > WO Quick Entry**.
2. Specify this information:

   Work Order
   Specify the work order for which to issue parts. The system automatically populates work order header information for the selected work order.

   Part
   Specify the part to issue to the work order. The system automatically populates **Part Description**, **Part Org.**, **Available Qty.**, and **Track by Asset**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Store
Specify the store from which to issue parts.

Bin
Specify the bin from which to issue the parts.

Lot
Specify the lot from which to issue the parts.

Failed Qty.
Specify the quantity of the part that failed.

Note: The system does not allow part failures on an Issue for parts tracked by asset.

Date/Time
Specify the desired date and time of the transaction.

Date Failed
Specify the date the part failed.

Failure Notes
Enter comments about the part failure.

Transaction Qty.
Specify the number of parts to issue to the work order. The number must be greater than zero.

Asset ID
Specify the asset ID if the part is tracked by asset. The system automatically populates **Asset Org.**

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the part failed.

Action Code
Specify the action taken to correct the part failure.

Cause Code
Specify the problem cause code, i.e., the root cause of the part failure.

3 Click **Save Record**.

Note: Click **View Part Details** to view part details for the selected work order.

Managing parts for work orders

Use the **Parts** page to add parts to work orders, reserve parts for work orders, import a preplanned parts list, delete a planned part, delete a reservation, or create a parts requisition. You may also issue or return parts to a work order on the **Parts** page.

Adding planned parts to work orders

To add planned parts to work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to add parts, and then click the **Parts** tab.
3. Click **Add Part**.

   The system automatically populates **Activity-Trade** with the activity-trade performing the work for the selected work order and populates **Store** with the store defined for the department of the work order if available.
4. Specify this information:

   Part
   Specify the part to add to the work order. The system automatically populates the part description, **Part Org.**, **UOM**, **Track By Asset**, **Track By Lot**, **Total Qty. Available**, and **Available**.

   Available indicates the quantity of the part available in the selected store for the work order activity. **Total Qty. Available** indicates the quantity of the part available in the selected store for the work order activity, as well as the quantity of the part available in any child stores of the selected store.

   Condition
   Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

   Planned Qty.
   Specify the quantity of the part planned for the work order activity.
5. Click **Submit**.

Viewing planned part availability for work orders

View planned part availability for work orders to display a list of parts that have been planned for a work order on the **Parts** tab of the Work Orders page.

See "Managing Parts for Work Orders" on page 528.

To view planned part availability for work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to view planned part availability, and then click the **Record View** tab.

3 Right-click on the form, and then choose **View Planned Part Availability**. **Store** is automatically populated with the default store of the department of the work order.

4 Specify this information:

Store
Specify a different store for which to view part availability information as necessary.

See the following table when viewing the planned part availability information:

Field	Description
Work Order	The number identifying the selected work order
Activity	The number identifying the activity on the selected work order for which the part is planned
Trade	The trade to which the work is assigned for completion
Part	The code identifying the part on the work order
Part Org.	The organization of the part
Part Description	The description of the part
Planned Qty.	The **Planned Qty.** of the part entered on the **Parts** tab of the Work Orders page
Reserved Qty.	The **Reserved Qty.** of the part entered on the **Parts** tab of the Work Orders page
Allocated Qty.	The **Allocated Qty.** of the part entered on the **Parts** tab of the Work Orders page
Used Qty.	The **Used** quantity of the part entered on the **Parts** tab of the Work Orders page
Available Qty.	The system calculates the **Available Qty.** of the part as the difference between the **Qty. on Hand** of the part in the selected **Store** and any allocations of the part that have been allocated to other work orders, which is displayed in **Allocated Qty.** on the **Parts** tab of the Work Orders page. **Note: Available Qty.** normally displays the **Qty. on Hand** in the selected **Store** minus the **Allocated Qty.** of the part for all work order/activity combinations except the selected **Work Order** and **Activity** for which you are viewing the **Available Qty.** However, on the Planned Part Availability popup, the system displays the **Available Qty.** for multiple activities on the same work order at the same time. Therefore, the system calculates the **Available Qty.** without subtracting the **Allocated**

Field	Description
	Qty. for other activities on the same work order and the **Available Qty.** for a given part is the same for every activity on the selected **Work Order**.
Total Available Qty.	The system calculates the **Total Available Qty.** as the sum of the **Available Qty.** of the part in the selected **Store** and the **Available Qty.** in all child stores of the selected **Store**.
UOM	The unit of measure of the part
Direct	Indicates whether the part is designated as a **Direct Purchase** part on the **Parts** tab of the Work Orders page
Held Qty.	The system calculates **Held Qty.** as the total quantity of the part(s) that are being held for the selected **Store**. **Note:** A part is "held" if the part is on a purchase order. If no purchase order exists for the part, then the "held" quantity corresponds with a store-to-store issue transaction.
On Order Qty.	The system calculates the **On Order Qty.** as the total remaining quantity (the quantity ordered minus the **Receipt Qty.**) on approved purchase order lines. **Note:** The system only considers approved receipts in the calculation. However, the system considers **Scrapped Qty.** as a received quantity of the part in the calculation of the number of parts that still needs to be received for the **On Order Qty.** For parts for which **Direct** is not selected, the system only includes purchase order lines of type Stock Purchase. For parts for which **Direct** is not selected, the system only includes purchase order lines of type Direct Purchase that are associated with the same **Work Order** and **Activity**.
Shortage Qty.	The system calculates the **Shortage Qty.** based on the following equation: Shortage Qty. = Used + Held Qty. + Available Qty. + On Order Qty. – Planned Qty. If there is no shortage of the part, then the system displays 0 as the **Shortage Qty.** If there is a shortage of the part, then the system displays

Field	Description
	the quantity of the part shortage as the **Shortage Qty.**and highlights the value in red.

5 Click **Close**.

Adding core tracked parts to work orders for repair

A repairable spare work order is a work order for core tracked parts to be repaired internally. Designate a repairable spare work order as such by selecting Repairable Spare as the work order **Type** on the header, and then add the parts to repair on the **Repair Parts** tab.

If you selected **Auto-Assign** for a part on the **Stores** tab of the **Parts** form, the system will follow the auto-assignment process for the part.

To add core tracked parts to work orders for repair:

1 Select **Work > Work Orders**.

2 Select the work order to which to add a core tracked part, and then click the **Repair Parts** tab.

3 Specify this information:

Part
Specify the part to add. The system automatically populates the **Condition**. The system automatically calculates **Qty. to Repair** based on the **Core Qty.** entered for the part on the **Repair Details** tab of the **Parts** form.

Store
Specify the store holding the part for repair.

Note: The system automatically calculates the default **Qty. for Repair** when you enter a **Store**.

You must enter a **Store** if you want to utilize the auto assignment feature.

If you modify the **Store** entered for the repair part on the **Repair Parts** tab of the **Work Orders** form, the system automatically recalculates the default **Qty. for Repair**. If you clear the **Store** for the repair work order, the system does not clear the **Qty. for Repair**. If the **Qty. Assigned** is greater than 0, then **Store** is protected.

Qty. to Repair
Specify the quantity of the part to repair.

Note: After submitting the record, you can update **Qty. to Repair** based on the following conditions:

- **Qty. to Repair** is greater than 0.
- **Qty. to Repair** is less than or equal to the **Qty. for Repair**.
- You have received or scrapped parts for this work order.

Qty. Completed
Specify the quantity of the parts on which repairs are completed.

Note: If the RSPCOMP installation parameter is set to NO, **Qty. Completed** is hidden. If the RSPCOMP installation parameter is set to YES, you can modify the **Qty. Completed** based on the following conditions after submitting the record:

- You must assign repair details for the full **Qty. to Repair**.
- **Qty. Completed** is greater than or equal to 0.

4 Click **Submit**.

Manually assigning repair details for core tracked parts on work orders

Manually assign repair details for core tracked parts on work orders. If you did not select **Auto-Assign** on a core tracked part record, you must manually assign repair details for the repair parts on work orders. Manually assigning repair details for parts enables you to designate the store, bin, lot, and asset information to identify the parts to repair and their location.

You can also change repair details that were created during the system's automatic assignment process using the Repair Details popup.

See "Understanding the auto-assignment processes for core tracked parts" on page 242 .

To manually assign repair details for core tracked parts on work orders:

1 Select **Work > Work Orders**.
2 Select the work order to which to assign repair details for core tracked parts, and then click the **Repair Parts** tab.
3 Select the part to which to manually assign repair details. The system automatically populates the Repair Part Details with the part information.

Note: You can modify **Qty. to Repair** and **Qty. Completed** for a repair part if necessary. If you make any changes to **Qty. to Repair** or **Qty. Completed**, you can use the Repair Details popup to edit **Qty. Assigned** as necessary.

4 Click **Assign Repair Details**.

The system displays the **Part** and **Part Org.** of the selected part. **Track by Asset** is selected if the part is tracked by asset. The system automatically populates **Total Qty. to Repair** and **Total Qty. Assigned**. **Total Qty. to Repair** indicates the **Qty. to Repair** for the part from the **Repair Parts** tab of the **Work Orders** form. The **Total Qty. Assigned** indicates the quantity of the part to repair on this work order that has already been assigned from a repair bin location.

5 Select the store, bin, lot, and asset from which to assign a quantity of the part to repair.
6 Specify this information:

Qty. Assigned
Specify the quantity of the part to assign for repair.

Note: The value entered for **Qty. Assigned** cannot be greater than the quantity of the part that is in stock for repair.

7 Click **Submit**.

Manually adding part failure details to work orders

Add, view, modify, and delete part failures on the **Part Failures** tab. Record details are normally displayed on the **Part Failures**tab as the result of an issue or return part being flagged as a failure. You can also manually add part failure details to work orders.

To manually add part failure details to work orders:

1 Select **Work > Work Orders**.

2 Select the work order for which to add part failure details, and then click the **Part Failures** tab.

3 Click **Add Part Failure**.

4 Specify this information:

Part
Specify the part that failed. The system automatically populates the part description and **Part Org.**

Failed Qty.
Specify the quantity of the part that failed.

Asset ID
Specify the asset ID if the part is tracked by asset. The system automatically populates the description and **Asset Org.**

Component Location
Specify the component location.

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the part failed.

Failure Notes
Enter comments about the part failure.

Date Failed
Specify the date the part failed.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Action Code
Specify the action taken to correct the part failure.

Cause Code
Specify the problem cause code, i.e., the root cause of the part failure.

5 Click **Submit**.

Reserving parts for work orders

To reserve parts for work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to add parts, and then click the **Parts** tab.
3. Click **Add Part**.

   The system automatically populates **Activity-Trade** with the activity-trade performing the work for the selected work order and populates **Store** with the store defined for the department of the work order.
4. Specify this information:

   Part
   Specify the part to reserve for the work order. The system automatically populates the part description, **Part Org.**, **UOM**, **Track By Asset**, **Track By Lot**, **Total Qty. Available**, and **Available**.

   Available indicates the quantity of the part available in the selected store for the work order activity. **Total Qty. Available** indicates the quantity of the part available in the selected store for the work order activity, as well as the quantity of the part available in any child stores of the selected store.

   Reserved Qty.
   Specify the quantity of the part to reserve for the work order activity. The number must be greater than 0 (zero).
5. Click **Submit**.

Importing a parts list for a work order

To import a parts list for a work order:

1. Select **Work > Work Orders**.
2. Select the work order for which to import a parts list, and then click the **Parts** tab.
3. Click **Import Parts List**.
4. Specify this information:

   From
   Select one of the following options:

   - **Work Order EQ**
     Select to import the part from work order equipment.
   - **Material List**
     Select to import a material list.
   - **Equipment**
     Select to import the part from an equipment record.

Activity-Trade
Select the activity-trade performing the work for which to import a parts list.

5 Select the parts to import.
6 Click **Submit**.

Creating a parts requisition

Create a parts requisition to order a part from an external source if the **Planned Source** of the part is Direct Purchase.

To create a parts requisition:

1 Select **Work > Work Orders**.
2 Select the work order for which to create a parts requisition, and then click the **Parts** tab.
3 Click **Create Parts Requisition**.
4 Specify this information:

Description
Specify a description of the requisition.

Store
Specify the **Store** requesting the part.

Requested By
Specify the employee requesting the part.

Supplier
Specify the supplier for the part.

5 Select the activity/part for which to create a parts requisition.

Note: Select multiple activities as necessary.

6 Click **Create Requisition**.

Note: Click **Cancel** to close the Create Parts Requisition popup without saving changes.

Creating a pick ticket

Create a pick ticket to identify a set of parts that are required for a work order activity.

To create a pick ticket:

1 Select **Work > Work Orders**.
2 Select the work order for which to create a pick ticket, and then click the **Parts** tab.
3 Click **Create Pick Ticket**.
4 Specify this information:

Description
Specify a description of the pick ticket.

Store
Specify the store for which to create the pick ticket.

Date Required
Specify the date by which the list of parts is needed.

Status
Select the status of the pick ticket. The system automatically assigns Unfinished as the status of the pick ticket.

Class
Specify the class of the pick ticket.

Delivery Address
Specify the address to which to deliver the parts.

Deliver to Supplier
Specify the supplier to whom to deliver the parts.

Deliver to Employee
Specify the employee to whom to deliver the parts.

Default Approver
Specify the individual responsible for approving the pick ticket.

5 Select the parts to add to the pick ticket, and then click **Create Pick Ticket**.

Note: Click **Refresh Part List** to update the **Available Qty.** for the selected store and to reset **Required Qty.**

Creating a parts requisition

Create a parts requisition to order a part from an external source if the **Planned Source** of the part is Direct Purchase.

To create a parts requisition:

1 Select **Work > Work Orders**.
2 Select the work order for which to create a parts requisition, and then click the **Parts** tab.
3 Click **Create Parts Requisition**.
4 Specify this information:

Description
Specify a description of the requisition.

Store
Specify the **Store** requesting the part.

Requested By
Specify the employee requesting the part.

Supplier
Specify the supplier for the part.

5 Select the activity/part for which to create a parts requisition.

Note: Select multiple activities as necessary.

6 Click **Create Requisition**.

Note: Click **Cancel** to close the Create Parts Requisition popup without saving changes.

Viewing unreturned core parts

View and track core parts issued to a work order, equipment, project-budget or employee for which a corresponding core was never returned to the store after failing. When core parts remain outstanding, the value of the core part remains charged against the work order, or to whatever it was issued. Once the core part is returned the core value is removed from the work order.

Note: The total value of cores which remain unreturned for a work order can be seen on the **Cost Summary** page of the **Work Orders** form.

To view unreturned core parts:

1 Select **Work > Overview > Unreturned Cores**.
2 View the unreturned core parts.

Entering monitored data results for work orders

Enter a new work order inspection point (location) for a monitored data object (equipment) or modify an existing work order inspection point.

To enter monitored data results for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to enter monitored data results, and then click the **Monitored Data Results** tab.
3 Click **Add Result**.
4 Specify this information:

Monitored Equipment
Specify the equipment to monitor. The system populates the description in the adjacent field. The system automatically populates **Monitored Equipment Org.**

Aspect
Specify the inspection aspect with which to associate the monitored data object.

Point Type
Specify the inspection type to associate with the equipment or equipment category.

Point
Specify the inspection point number.

Date
Specify the date of the inspection.

5 Click **Submit**.

Issuing and returning parts for work orders

You may issue or return parts to a work order on the **Parts** page.

Issuing parts to work orders

Issue parts to work orders.

To issue parts to work orders:

1 Select **Work > WO Quick Entry**.

2 Specify this information:

Work Order
Specify the work order for which to issue parts. The system automatically populates work order header information for the selected work order.

Part
Specify the part to issue to the work order. The system automatically populates **Part Description**, **Part Org.**, **Available Qty.**, and **Track by Asset**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Store
Specify the store from which to issue parts.

Bin
Specify the bin from which to issue the parts.

Lot
Specify the lot from which to issue the parts.

Failed Qty.
Specify the quantity of the part that failed.

Note: The system does not allow part failures on an Issue for parts tracked by asset.

Date/Time
Specify the desired date and time of the transaction.

Date Failed
Specify the date the part failed.

Failure Notes
Enter comments about the part failure.

Transaction Qty.
Specify the number of parts to issue to the work order. The number must be greater than zero.

Asset ID
Specify the asset ID if the part is tracked by asset. The system automatically populates **Asset Org.**

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the part failed.

Action Code
Specify the action taken to correct the part failure.

Cause Code
Specify the problem cause code, i.e., the root cause of the part failure.

3 Click **Save Record**.

Note: Click **View Part Details** to view part details for the selected work order.

Returning parts from work orders

Return unused parts issued to work orders back to stores.

To return parts from work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to return parts, and then click the **Parts** tab.
3 Specify this information:

Part
Specify the part to return. The system automatically populates the part description, **Part Org.**, **UOM**, **Track By Asset**, **Track By Lot**, **Total Qty. Available**, **Available**, **New Orders Not Allowed**, **Primary Manufacturer**, and **Primary Manufacturer Part Number**.

Available indicates the quantity of the part available in the selected store for the work order activity. **Total Qty. Available** indicates the quantity of the part available in the selected store for the work order activity, as well as the quantity of the part available in any child stores of the selected store.

Activity-Trade
Specify the activity-trade performing the work for the selected work order.

Store
Specify the store to which to return parts.

Transaction Type
Select **Return**.

Date
Specify the desired date of the transaction.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Enter a specific equipment to which to distribute the return **Quantity**.
- Enter **All Equipment** to evenly distribute the return **Quantity** to each equipment on the work order.
- Enter **WO Header Equipment** to distribute the return **Quantity** to the work order header only.

Note: The system automatically applies any remainder of the return quantity that cannot be evenly split to the last equipment record on the **Equipment** page of the **Work Orders** form.

If you select All Equipment and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to distribute the cost of the return against only open related work orders or against all equipment, regardless of whether the related work orders are Open or Completed (or their user-status equivalents).

The value displayed for **Used** in the Parts list displays the quantity of the part issued/returned for the header work order and all related MEC work orders for the activity.

The setting of the RTNANY installation parameter can also affect returns for which there is an insufficient issue quantity against which to make a return when returning against All Equipment. If RTNANY is set to Yes, the system distributes the return **Quantity** evenly across all equipment on the work order. If RTNANY is set to No, the system does not allow you to make the return if there is an insufficient quantity of the part.

Quantity
Specify the number of parts to return to the work order. The number must be greater than 0 (zero).

Note: If the part is tracked by asset, **Quantity** must be equal to 1.

Asset ID
Specify the asset ID if the part is tracked by asset.

Bin
Specify the bin to which to return the parts.

Lot
Specify the lot to which to return the parts.

Tool Hours
If the part you are returning is identified as a tool, specify the number of hours the tool was in use.

Note: If the work order is a MEC work order, then the system splits the tool hours based on the selected **Equipment**.

Manufacturer
Specify the manufacturer of the part.

Return for Repair
Select if the part to return is a repairable spare and you want to return the part to the store for repair. The system adds the return quantity to the **Qty. for Repair** in the store to which the part is returned when you submit the return.

Note: If you select Return as the **Transaction Type** and the selected **Part** is a repairable spare part, the system enables **Return for Repair**. If you select **Return for Repair**, the system allows part failures and populates **Bin** with the **Default Repair Bin**. If the **Default Repair Bin** overwrites a different bin, then the system clears **Lot**.

If the **Part** is a repairable spare part that is also tracked by asset and you unselect **Return for Repair**, the system clears **Asset ID**.

If you submit a return transaction for a repairable spare part and you unselect **Return for Repair**, the system processes the return as a normal return.

Manufacturer Part Number
Specify the part number as identified by the manufacturer.

Failed Qty.
Specify the quantity of the part that failed.

Note: The system does not allow part failures on a Return for parts tracked by asset or repairable spare.

Date Failed
Specify the date the part failed.

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the part failed.

Action Code
Specify the action taken to correct the problem.

Cause Code
Specify the problem cause code, i.e., the root cause of the problem.

Failure Notes
Enter comments about the failure.

4 Click **Submit**.

Adding child work orders to a parent work order

Create one or more work orders that are considered children of another work order to identify the work orders as children of the parent. In some cases, the child work orders are dependent on the parent work order, which means that the parent work order cannot be completed until all child work orders have a system **Status** of Completed.

To add child work orders to a parent work order:

1 Select **Work > Work Orders**.
2 Select the work order for which to add child work orders, and then click the **Children** tab.

Note: If the selected work order is a multiple equipment work order or MEC work order, then the system protects all fields on the page, and they cannot be updated.

3 Click **Add Child WO**.
4 Specify this information:

Child WO
Specify the work order number to associate with the parent work order. The system automatically populates the child work order description, **Type**, **Status**, **Equipment**, **Equipment Org.**, and **Equipment Type**.

Dependent
The system automatically selects **Dependent**. Unselect to indicate that the child work order is not dependent on the parent.

Note: If **Dependent** is selected and the installation parameter EVTCASCD is set to NO, the parent Work Order cannot be completed unless all of its child work orders are completed.

If **Dependent** is selected and the installation parameter EVTCASCD is set to YES, completing the parent work order will also complete the Child WO.

5 Click **Submit**. The system automatically populates **Parent Work Order** with the work order header number.

Adding permits to work orders

You may associate permits with a work order on the **Permits** page. You may also view permits associated with work order equipment.

Note: A work order may not have two active permit lines that refer to the same permit code.

To add permits to work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to add permits, and then click the **Permits** tab.
3 Click **Add Permit**. The system automatically selects the **Active** check box.

Note: The system automatically flags a new permit as **Active**, and this setting cannot be changed while adding the permit reference to the work order. You may deactivate permits after adding the permit if necessary.

4 Specify this information:

Permit
Select the permit to associate with the work order. The system automatically populates the permit description, **Permit Org.**, **Date Printed**, **Permit Reference**, and **Permit Comments** to correspond with the selected permit.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Specify a specific equipment with which to associate the permit.
- Specify WO Header Equipment to associate the permit with the equipment on the work order header only.

5 Click **Submit**.

Note: You cannot delete work order permits after they have been added as a permit reference for the work order.

To deactivate a permit, select the permit to deactivate, and then click **Deactivate Permit**.

Scheduling tools for work orders

Schedule tools from a department for specified work order activities. Record tool requirements of multiple activities of a specified work order.

To schedule tools for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to request tools, and then click the **Schedule Tools** tab.

Note: You must enter an activity for the work order before you schedule a tool.

3 Click **Add Tool**. The system automatically populates **Qty. Required** and **Department**.
4 Specify this information:

Activity-Trade
Select the appropriate activity-trade for the work order.

Tool
Specify the tool to request. The system automatically populates the description of the tool.

Date Required
Specify the date when you need the tool.

Scheduled Hours
Specify the number of hours required to complete the activity.

Qty. Required
Specify the number of tools you need.

Activity-Trade
Select the appropriate activity-trade for the work order.

Note: The system only displays the activity-trade if one activity-trade exists. When two or more exist, **Activity-Trade** is empty.

Hours Required
The system calculates and displays the number of tools required times the number of hours required to complete the activity.

Available Hours
The system displays the hours that the tool is available.

Activity Start Date
The system displays the beginning date for which you need the tool.

Activity End Date
The system displays the final date of the activity.

Department
Specify the department associated with this tool. If the tool applies to all departments, enter *.

Daily Capacity
The system calculates and displays the quantity of tools times the hours the tool is available to the department.

5 Click **Submit**.

Recording tool usage for work orders

Record tool usage for work orders to enter the quantity, usage hours, and departmental information for equipment/parts defined as tools. The costs associated are automatically calculated with the use of the tool based on the usage and the rates defined for the tool, department, and organization.

To record tool usage for work orders:

1 Select **Work > Work Orders**.

2 Select the work order for which to record tool usage, and then click the **Tools Usage** tab.

Note: If the status of the work order is Completed (or equivalent user status), the setting of the TOOLDAYS installation parameter determines whether you can add/update tool usage for the work order.

3 Click **Add Tool Usage**.

The system automatically populates **Activity-Trade** (if there is only one activity on the work order), **Department**, **Date Used**, **Quantity**, **Hours Used**, **Scheduled Qty.**, **Scheduled Hours**, **Rate**, and **Costs**. **Rate** is the default rate for the **Department**, **Organization** (of the work order), and **Tool**. **Costs** is calculated as the product of the **Quantity**, **Hours Used**, and the **Rate**.

4 Specify this information:

Tool
Specify the tool for which to add usage information.

Date Used
Specify the date of the tool usage.

Quantity
Specify the quantity of the tool that was used.

Hours Used
Specify the number of hours the tool was used.

Note: The BOOKDATE installation parameter indicates the manner in which the system handles entries for **Date Used** and **Hours Used** when booking hours for the tool.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- Enter a specific equipment to which to distribute the **Hours Used**.
- Enter **All Equipment** to evenly distribute the **Hours Used** to each equipment record on the work order.
- Enter **WO Header Equipment** to distribute the **Hours Used** to the equipment on the work order header only.

Note: The system automatically applies any remainder of the **Hours Used** to the last equipment record on the **Equipment** page of the Work Orders page.

If you select **All Equipment** for **Equipment** and at least one of the related work orders has a Completed status (or equivalent user status), the system displays a message enabling you to select whether to distribute the cost of the tool usage against all equipment or only open related work orders.

Also, the system disregards the setting of the TOOLDAYS installation parameter when posting tool usage transactions if you select **All Equipment**.

The value displayed for **Used** in the Tools Usage list displays the quantity of the tool issued for the header work order and all related work orders for the activity.

Activity-Trade
Specify the activity and trade for the work order for which the tool was used.

Department
Specify the department of the work order for which the tool was used.

5 Click **Submit**.

Note: To import a scheduled tool, click **Import Scheduled Tools**. The system imports any tools that are scheduled for the work order. If the work order is a multiple equipment work order, the system creates a record for the work order header for 0 **Hours Used**, creates a tool usage record for each of the MEC work orders, and divides the **Hours Used** for the tool equally between each of the MEC work orders.

Adding safety hazards and precautions to work orders

Add hazards to work orders to alert your employees to of all the dangers (bodily harm, environmental issues like spills) they face when performing required maintenance. Attach precautions to these hazards so they can safeguard themselves and their surroundings from these potential dangers. For example, if you must maintain electrical equipment, electrocution is a hazard. Add a precaution to turn that equipment off and remove from the power outlet before performing repairs on that electrical equipment.

To add safety hazards and precautions to work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to add safety precautions and hazards, and then click the **Safety** tab.
3 Click **Add Safety Record**.
4 Specify this information:

Hazard
Specify the hazard to add to the work order.

Precaution
Specify the safety measure to protect your employees from the hazard.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can enter the timing of "during" to alert the employee that they should wear fire-resistant clothing during the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number entered.

Select the **Delete Pending** check box to delete the pending safety record during the next review. This checkbox is enabled when organization option **SAFERREQ** is set to **YES**.

Health Hazard
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used poses a hazard to the health of the employee.

Flammability
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used are flammable.

Instability
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used can detonate or explode.

Special Hazards
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates any special hazards related to the materials used.

Equipment
Specify the equipment for which to observe the hazards and precautions for multi-equipment work orders.

5 Click **Submit**.

Viewing and modifying work orders

Review the status of work orders and/or modify work orders.

To view and modify work orders:

1 Select **Work > Work Orders**.

Note: Apply a Dataspy or filter, and/or sort work orders as necessary.

See these topics:

- "Managing lists" on page 37
- "Using a Dataspy" on page 50

2 View the list of work orders, and then double-click the row containing the work order to view or modify.

3 View and modify work order details as necessary.

See "Creating Regular Work Orders" on page 488.

4 Click **Save Record**.

Updating work orders

Update details on a work order in a batch.

To update work orders:

1. Select **Work > Process > WO Update**.
2. Run the default dataspy. The system displays a list of work orders with a system status of "R" or "Q" in the editable grid.
3. Select the work orders to update, and then make changes to the following fields as necessary:

   - **Description**
     Update the description of the work order.
   - **Equipment**
     Update the equipment on which to perform work.
   - **Type**
     Update the work order type.
   - **Department**
     Update the department.
   - **Status**
     Update the status of the work order.
   - **Class**
     Specify the class of the work order.
   - **Problem Code**
     Specify the code to identify the type of problem.
   - **Cost Code**
     Specify the cost code of the work order.
   - **Failure Code**
     Specify the cause of failure for the equipment.
   - **Action Code**
     Specify the action taken to resolve the problem.
   - **Cause Code**
     Specify the cause code identifying the cause of the problem.
   - **Priority**
     Specify the priority of the work order.
   - **Assigned To**
     Specify the person responsible for the work order.

- **Sched. Start Date**
  Specify the starting date for the work order.

4 Click **Update WOs**.

Note: To print work order updates, select the work orders to print, and then click **Print Selected WO**.

Viewing work order costs

View a list of all existing costs for the selected work order and all of its children.

Note: If the work order is a multiple equipment work order, then the system distributes the costs to any MEC work order(s) associated with the work order based on the value entered for **Equipment** on the work order header and the equipment records added to the **Equipment** page of the **Work Orders** form.

See "Adding Equipment to Work Orders to Split Work Order Costs" on page 502.

Estimated costs are not copied to related MEC work orders. Therefore, the system determines the estimated costs for MEC work orders by calculating the quotient of the estimated costs of the parent work order and the number of equipment records added to the **Equipment** page of the **Work Orders** form.

To view work order costs:

1 Select **Work > Work Orders**.
2 Select the work order for which to view costs, and then click the **Cost Summary** tab.
3 See the following table when viewing work order cost information:

Cost Type	Explanation
Estimated Labor Cost	Activity lines' estimated hours multiplied by trade rate when hired labor is unchecked
Estimated Hired Labor	Activity lines' estimated hours multiplied by trade rate when hired labor is checked
Estimated Stock Items	Parts associated with the work order that are not tools or direct purchase
Estimated Services	Price on the purchase order line associated with the work order
Estimated Direct Purchases	Parts associated with the work order when direct is checked
Estimated Tool Cost	Tool quantity multiplied by hours multiplied by price for the department
Estimated WO Totals	Sum of all estimated costs

Cost Type	Explanation
Planned Labor Cost	Remaining hours unless remaining hours is null; then = 0
Planned Hired Labor	Rate multiplied by estimated hours when hired is checked, ordered is unchecked, PLNDRQPO installation parameter is ON, and is an ST (hours from service) line type or is undefined and the work order activity is not associated with a requisition or purchase order with a line order type of ST (hours from service). If the PLNDRQPO parameter is OFF, then the same information as above applies except the work order activity is not associated to a purchase order that is approved. **Note:** Line types of SH (contractor hire) would never be part of the planned cost because they are recorded as the work is done.
Planned Stock Items	Material list quantity minus quantity of parts already issued plus quantity returned (net issued) that is not line type of PD (direct purchase) and is not a tool
Planned Services	The same as Planned Hired Labor except the line order type is SF (fixed price)
Planned Direct Purchases	Requisition line minus received quantity minus scrap quantity multiplied by price on the requisition line when the requisition is not in a status of cancelled, the requisition line type is PD (direct purchase) and active, and is not on a purchase order. If it is on a purchase order, then the value is the order quantity minus the received quantity minus the scrap quantity multiplied by price on the purchase order line plus total extra charges multiplied by the order quantity minus the received quantity minus the scrap quantity divided by the order quantity when the purchase order is not in a status of cancelled or approved and the purchase order line type is PD (direct purchase) and active.
Planned Tool Cost	Estimated Tool Cost minus Actual Tool Cost
Planned WO Totals	Sum of all planned costs
On Order Labor Cost	N/A
On Order Hired Labor	Order quantity minus received quantity minus scrap quantity when the order line type is ST

Cost Type	Explanation
	(hours from service), the line is active, and the purchase order is approved.
On Order Stock Items	N/A
On Order Services	Order quantity minus received quantity minus scrap quantity when the order line type is SF (fixed price), the line is active, and the purchase order is approved
On Order Direct Purchases	Remaining quantity multiplied by price plus remaining extra charges when the purchase order is approved, the order line type is PD (direct purchase), and the order quantity is greater than zero
On Order Tool Cost	N/A
On Order WO Totals	Sum of all on order costs
Invoice Differences Labor Cost	Difference of actual cost and the invoiced cost for labor
Invoice Differences Hired Labor	Difference of actual cost and the invoiced cost for hired labor
Invoice Differences Stock Items	N/A
Invoice Differences Services	Difference of actual cost and the invoiced cost for services
Invoice Differences Direct Purchases	Difference of actual cost and the invoiced cost for direct purchases
Invoice Differences Tool Cost	N/A
Invoice Differences WO Totals	Sum of all invoice difference costs
Actual Labor Cost	Sum of booked hours cost when order line type is ST (hours from service) or SH (contractor hire)
Actual Hired Labor	Sum of booked hours costs that are not hired labor
Actual Stock Items	Sum of transaction line quantity multiplied by transaction price when the transaction line is a stock issue, return, or return for repair and is not a direct purchase
Actual Services	Sum of booked hours costs when order line type is SF (fixed price)
Actual Direct Purchases	Quantity multiplied by price plus the proportional amount of extra charges plus the proportional amount of taxes when the transaction status is

Cost Type	Explanation
	approved and is a direct purchase minus any proportional return cost. Proportional is the transaction line quantity divided by the order line quantity, returning a fraction that is used as a pro rata multiplier.
Actual Tool Cost	Sum of all tool costs
Actual WO Totals	Sum of all actual costs
Total Cost Labor Cost	Sum of Invoice Differences Labor Cost, Actual Labor Cost, and Planned Labor Cost
Total Cost Hired Labor	Sum of Invoice Differences Hired Labor, Actual Hired Labor, Planned Hired Labor, and On Order Hired Labor
Total Cost Stock Items	Sum of Remaining Balance Stock Items and Actual Stock Items
Total Cost Services	Sum of Planned Services, Invoice Differences Services, Actual Services, and On Order Services
Total Cost Direct Purchases	Sum of Planned Direct Purchases, Invoice Differences Direct Purchases, Actual Direct Purchases, and Remaining Balance Direct Purchases
Total Cost Tool Cost	Sum of Planned Tool Cost and Actual Tool Cost
Total Cost WO Totals	Sum of all WO Totals
Remaining Balance Labor Cost	Estimated Labor Cost minus Total Cost Labor Cost
Remaining Balance Hired Labor	Estimated Hired Labor minus Total Cost Hired Labor
Remaining Balance Stock Items	Estimated Stock Items minus Total Cost Stock Items
Remaining Balance Services	Estimated Services minus Total Cost Services
Remaining Balance Direct Purchases	Estimated Direct Purchases minus Total Cost Direct Purchases
Remaining Balance Tool Cost	Estimated Tool Cost minus Total Cost Tool Cost
Remaining Balance WO Totals	Estimated WO Totals minus Total Cost WO Totals
Unreturned Core Charges	Total Quantity Issued minus Total Quantity Returned multiplied by the core value for all core tracked parts issued to the selected work order.

Viewing child work orders on a parent work order

View a list of child work orders on a parent multiple equipment work order.

To view child work orders on a parent work order:

1. Select **Work > Work Orders**.
2. Select the work order for which to view child work orders, and then click the **Children** tab.
3. Select the child work order for which to view details.
4. View the child work order detail information.

Viewing service request details

To view service request details:

1. Select **Work > Work Orders**.
2. Select the work order for which to view service request details, and then click the **Service Request Details** tab.
3. View the service request details.

Viewing equipment custom fields from a work order

View the Equipment Custom Fields popup from the **Work Orders** form to see custom fields associated with equipment on the work order.

To view equipment custom fields from a work order:

1. Select **Work > Work Orders**.
2. Select the work order for which to view equipment custom fields, and then click the **Record View** tab.
3. Right-click on the form, and then choose **View Equipment Custom Fields**.
4. View the equipment custom fields information.

Viewing purchasing for work orders

View purchasing information for a work order to access a list of detailed information about requisition and purchase order lines for a specific work order. The system displays information about Direct Purchase materials on purchase order lines associated with the work order and/or requisition lines that are associated with the work order that are not yet associated with purchase order lines.

To view purchasing for work orders:

1. Select **Work > Work Orders**.

2 Select the work order for which to view purchasing, and then click the **Purchasing** tab.

3 View the purchasing history for the work order.

See "Creating Requisitions" on page 275 and "Creating and Revising Purchase Orders" on page 388.

Note: If a purchase order line contains a multiple equipment work order, the system also displays information about how the purchase order is split among the equipment and related work order(s).

Booking labor for purchase orders

Receive vendor labor for purchase orders.

To book labor for purchase orders:

1 Select **Work > Process > Book PO Labor**.

2 Specify this information:

Purchase Order
Specify the purchase order for which to book labor. The system automatically populates the purchase order description in the adjacent field and the **Organization**.

When Date Worked Outside Activity-Date Range
Select to allow labor bookings for purchase orders when the date worked falls outside the activity date range.

To be Applied to Completed Multi-Equipment WOs where Equipment is All Equipment
Select to allow labor bookings for purchase orders to be applied to completed multi-equipment work orders where Equipment=All Equipment.

PO Line
Specify the line number of the purchase order.

Employee
Specify the personnel performing the work for which to book hours. The system automatically populates the employee description.

Equipment
Specify the equipment on which to perform labor.

Hours Worked
Specify the number of hours spent performing the work.

Start Time
Specify the scheduled start time of the work order activity.

Booked Labor Description
Specify the description of the booked labor.

Date Worked
Specify the date the labor was performed.

Received
Specify the number of the parts received.

End Time
Specify the scheduled end time of the work order activity.

Work Order-Activity
Specify the work order-activity for the selected PO line.

Type of Hours
Specify the type of hours for the labor.

% Received
Specify the percentage of the lines received on the purchase order.

Task Qty.
Specify the number of units required for the service.

3 Click **Book Labor**.

Managing repairs for work orders

Add, modify, or delete repairs for work order activities and jobs. Specify the reason for the repair, the work performed, and the components repaired.

To manage repairs for work orders:

1 Select **Work > Work Orders**.
2 Select the work order for which to manage repairs, and then click the **Repairs** tab.
3 Click **Add Repair**.
4 Specify this information:

Activity
Select the activity for which to add repairs.

Job
Select the job of the activity for which to add repairs if applicable.

Reason for Repair
Specify the reason the repair is necessary.

Work Accomplished
Specify the work performed towards the repair.

Include on Warranty Claim
Select if the repair is covered under warranty.

Completed
Select if the repair has been completed.

Percent Complete
Specify the percentage of completion for the repair.

System Level
Specify the system on which the repair is to be completed.

Assembly Level
Specify the assembly on which the repair is to be completed.

Component Level
Specify the component on which the repair is to be completed.

Component Location
Specify the component location on which the repair is to be completed.

Repair Comments
Enter any comments on the repair as necessary.

5 Click **Submit**.

Creating capital planning requests

Create capital planning requests to request a capital expenditure. Capital planning requests are based on forecasted labor costs, forecasted material costs, and expected cost avoidance.

To create capital planning requests:

1 Select **Work > Capital Planning Request**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the purchase order belongs if you use multi-organization security.

CPR
Specify a description of the capital planning request in the adjacent field. A capital planning request number is assigned after you save the record.

Status
Select the status value of the capital planning request.

Note: Authorized By and **Authorization Date** are populated when the capital planning request **Status** is Approved.

Equipment
Select the equipment for which to make the capital planning request.

WO Type
Choose one of the following options:

- **Breakdown**
  Select to create a work order in response to an equipment breakdown or failure.

- **PM**
  Select to create a preventive maintenance work order. .

  See "Creating Preventive Maintenance Work Orders" on page 560

- **Scheduled**
  Select to create a scheduled work order.

- **Repairable Spare**
  Select to create a work order for repairable spare parts. If you are creating a work order for repairable spare parts, you must also add the parts to repair on the **Repair Parts** page.

  See "Adding Repairable Spare Parts to Work Orders for Repair" on page 531.

- **Standard WO**
  Select to create a standard work order.

  See "Creating Standard Work Orders" on page 480.

  Note: The previously listed work order types are standard types in the system. You can also create user-defined work order types.

  See "Defining system codes" in the *Infor EAM System Administator Guide*.

Department
Specify the department.

Requested By
Specify the employee making the capital planning request.

Assigned To
Specify the person responsible for the work to be completed for the capital planning request.

Priority
Select the priority level of the capital planning request.

Sustainability
Select if the capital planning request is related to asset sustainability features.

Class
Specify the class of the capital planning request.

Objective
Specify the objective to associate with the capital planning request.

Assigned By
Specify the supervisor who assigned the work order.

Estimated Labor Cost
Specify the estimated labor costs for the capital planning request. **Total Estimated Cost** is automatically calculated with the sum of the **Estimated Labor Cost** and **Estimated Material Cost**.

Estimated Material Cost
Specify the estimated material costs of the capital planning request. **Total Estimated Cost** is automatically calculated with the sum of the **Estimated Labor Cost** and **Estimated Material Cost**.

Cost Avoidance
Specify the estimated cost avoidance for the capital planning request.

Appropriation Date
Specify the date by which the capital request must be appropriated.

Requested Appropriation Date
Specify the date by which you are requesting the appropriation of the capital request.

ROI % (Return on Investment)
Specify the return on investment percentage for the capital planning request.

NPV (Net Present Value)
Specify the net present value for the capital planning request.

IRR % (Internal Rate of Return)
Specify the internal rate of return percentage for the capital planning request.

Major Group
Specify the major group for the capital planning request.

Group
Specify the group for which the capital request must be appropriated.

Individual
Specify the individual element for the capital request.

Additional Information
Specify additional information for the capital request as necessary.

Default Authorizer
Specify the default authorizer for the capital request.

4 Click **Save Record**.

Note: To create a work order for the capital planning request, right-click on the **Capital Planning Request** form, and then click **Create WO**. **Work Order** is automatically populated with the generated work order number.

To create a project to associate to a capital planning request, right-click on the Capital Planning Request form, and then click **Create Project**.

See "Associating Projects to Capital Planning Requests" on page 559.

Associating projects to capital planning requests

Create a project to associate to a capital planning request.

To associate a project to a capital planning request:

1. Select **Work > Capital Planning Requests**.
2. Select the capital planning request for which to associate a project, and then click the **Record View** tab.
3. Click **Create Project**.

   The system automatically populates **Capital Planning Request**.
4. Specify this information:

   Project
   Specify a unique code identifying the project, and then enter a description of the project in the adjacent field.

   Organization
   Specify the organization of the project.

   Parent Project
   Specify the parent project if applicable.

   Shutdown
   Specify a shutdown identification code to associate with the project if the project requires the shutdown of equipment.

   Status
   Select the status of the project.

   Note: All projects start with a **Status** of **Awaiting Approval**.

   Class
   Specify the class of the project. The system automatically populates **Class Org.**

   Coordinator
   Specify the employee code of the project coordinator.

   Estimated Start Date
   Specify the intended starting date for the project.

   Estimated End Date
   Specify the intended ending date for the project.

Actual Start Date
Specify the actual starting date for the project.

Actual End Date
Specify the actual ending date for the project.

Current Budget
Specify the total budget amount for the project. Budgets of child projects do not roll up to the budget of the parent project.

Labor
Specify the estimated internal labor costs.

Stock Items
Specify the estimated stock material costs.

Services
Specify the estimated services costs.

Budget Date
Specify the date the budget was established.

Note: You must enter a **Budget Date** that is before or equal to the current date.

Hired Labor
Specify the estimated hired external labor costs.

Direct Purchases
Specify the estimated amount of money needed to purchase materials not normally stocked in house.

Tool Cost
Specify the estimated cost of the tools.

5 Click **Submit**.

Creating preventive maintenance work orders

Create preventive maintenance (PM) work orders to generate periodic work orders for specified frequencies or meter readings.

Preventive maintenance work orders apply to single pieces of equipment or to systems that include several pieces of equipment.

Note: You can only insert, update, or delete work orders if you are authorized to do so.

When you are creating PM schedules to generate periodic work orders, you can establish a "nesting reference" between major and minor PMs to bypass a minor PM that coincides with the release of a

major PM. For example, you create a major PM for 90,000-mile service on a truck, for which the PM work order activities include changing the oil. You have also created a minor PM for changing the oil every 3000 miles. You can establish a nesting reference between the major PM for 90,000-mile service and the minor PM for changing the oil after 3000 miles to enable the system to bypass the PM for changing the oil after 3000 miles if its release coincides with the release of the PM for 90,000-mile service.

The system can only bypass a minor PM if it is currently associated with a major PM with a status of **Released**.

When bypassing a nested minor PM, the system assigns a status of Bypassed to the minor PM until the major PM is completed. Upon completion of the major PM, the system automatically assigns the status specified for **Complete Status** on the **Record View** page of the **PM Schedules** form to the minor PM, e.g., **Completed** or **Rejected**.

Additionally, if you change the status of a released major PM to **Awaiting release**, the system also sets the status of any related bypassed minor PMs to **Awaiting release**.

Note: If you have set up the system to require an electronic signature to authorize status changes to PM work orders, the system will display the eSignature popup when status changes occur for major and minor PM work orders associated with each other through a nesting reference.

Defining PM routes and equipment within routes

A route is a list of equipment that may be associated with a work order or preventive maintenance equipment record as an indication of the scope of work to be performed, i.e., number of repetitions. Several pieces of equipment that are serviced together often follow a particular route. Identify these routes and give them a route code.

Note: If you have purchased the GIS integration, you may view routes on a GIS map from the Routes form.

See "Viewing GIS maps from equipment records" on page 813.

If installation parameter ROUTEEOB is set to Y, the system creates MEC work orders when their parent work order is released, assuming the parent work order is associated with an equipment based route. Additionally, if the child equipment is configured to associate its map with work orders when they are released, the system associates the appropriate map with each MEC work order.

See "Adding Equipment to Work Orders to Split Work Order Costs" on page 502.

To define PM routes and equipment within routes:

1. Select **Work > WO Planning > Routes**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the route belongs if you use multi-organization security.

Route
Specify a unique code identifying the route, and then enter a description of the route in the adjacent field.

Equipment Class
Specify the class of the equipment to inspect. The classes shown belong to the OBJ entity.

Category
Specify the category of equipment or route to associate with a regular route inspection.

Template
Select to associate categories with the route. Unselect to associate equipment with the route.

Routing templates apply to similar equipment requiring the same maintenance action and to equipment that moves so frequently that updating routes may be impractical. When you select **Template**, the system generates a dynamic list of all equipment that might apply to that work order, regardless of where you move the equipment. When you unselect **Template**, the system lists only the specific equipment listed on the work order. When you select **Template**, you may not specify a **Category**. If you select **Template** after entering a **Category**, the system clears the **Category** you entered.

Revision Status
Specify the revision status for the route.

The system automatically populates **Revision**.

Note: You can enter a **Revision Status** only if the PMRVCTRL installation parameter is set to Yes. Contact your system administrator for more information.

4 Click **Save Record**.

5 Click the **Equipment** tab.

6 Click **Add Equipment**.

The system automatically populates **Sequence Number** with the next consecutive number according to the INCRLINO installation parameter.

7 Specify this information:

Equipment
Enter the equipment to include in the route. The system automatically populates the equipment description, **Equipment Type**, and **Equipment Org.**

Sequence Number
Modify the sequence number as necessary.

8 Click **Submit**.

Defining preventive maintenance schedules

Define the PM work order and its schedule. Define PM work orders based on meter readings (readings are taken after a certain amount of usage), frequency of use (readings are taken at certain time intervals), or both.

Define PM generation "windows." Establish **Ok Window %**, **Near Window %**, and **Release Window %** values based on a percentage of the meter or frequency interval. For example, assume that the **Ok Window %** is set to 25% and the frequency of the PM schedule is 60 days. This indicates that during the 15 days (25% of 60) after closing a PM work order, none of the work needs to be redone when the equipment breaks down. The **Near Window %** indicates that when a breakdown occurs in this window, it may be worthwhile to execute the PM together with the breakdown maintenance. The work order is generated as soon as the **Release Window %** is reached.

Note: You can only insert, update, or delete work orders if you are authorized to do so.

To define preventive maintenance schedules:

1 Select **Work > WO Planning > PM Schedules**.

2 Click **New Record**.

Requested By is automatically populated with the **User ID** of the logged in user and the current date is inserted in **Date Requested**. **Date Approved** is automatically populated with the system date and time that the status of the PM is set to Approved. A **Revision** number is also entered each time the PM schedule is released/updated.

3 Specify this information:

Organization
Specify the organization to which the PM schedule belongs if you use multi-organization security.

PM Schedule
Specify a unique code identifying the PM schedule, and then enter a description of the PM schedule in the adjacent field.

Type
Specify the PM schedule type. See the following list for default status values:

- **Fixed**
  Select for the system to issue the PM based on a fixed schedule, e.g., based on date or reading when the last PM was originally due.

- **Variable**
  Select for the system to issue the PM based on a variable schedule, e.g., based on the date or reading on which the last PM was completed.

- **Duplicate**
  Select to allow multiple PM work orders to be open at the same time.

  Note: Selecting **Duplicate** as the PM type enables you to create an exception to the rule that a PM equipment may have only one work order for the PM work order at a time.

Out of Service
Select to restrict the system from displaying the PM schedule in lookups.

Class
Specify the class of the PM. The classes shown belong to the PPM entity.

Work Package
Select to indicate that this PM schedule can be associated with a work package. The system automatically populates **Plan** with the PM plan.

4 Specify one of the following options:

- **Perform Every**

  If the PM schedule is based on the passage of a period of time
  Specify the length of time to elapse before the system generates the PM work order, and then select the unit of measure for the PM period in the adjacent field. The unit of measure for the PM period can be days, weeks, months, quarters, or years.

- **Meter Interval**

  If the PM schedule is meter-based
  Specify for **Meter Interval** and/or **Meter #2 Interval**, the interval(s) between PM work orders, and then enter the corresponding unit(s) of measure in the adjacent field.

  Note: You can specify more than one meter interval for a PM. For example, you may want to change the oil in a truck every 3000 miles, which is **Meter Interval**. However, you may also want to change the oil in the same truck after 720 hours of running time, which is **Meter #2 Interval**. Enter values for **Meter Interval**, **Meter # 2 Interval**, and the meter units of measure as necessary; however, you must enter a value for **Meter Interval** to enter a value for **Meter #2 Interval**.

5 Specify one of the following options for **Nesting Reference**:

- **To create a nesting reference to an existing PM**
  Specify a previously scheduled PM.

- **To create a name by which to identify the PM schedule you are creating for nesting**
  Specify a name for the PM schedule to use for nesting references. After saving the PM schedule to the database, the name you enter will appear in the lookup for **Nesting Reference**, enabling you to create a nest between this PM schedule and other PM schedules.

6 Specify this information:

Complete Status
Specify the status to assign to minor work orders automatically bypassed and closed by the release of this PM through a nesting reference.

Est. Workload
Specify the estimated number of hours required to complete the work order.

Nest Buff. (-/+)
Specify the percent value of the nesting buffer. This value is multiplied by the value specified for **Perform Every** for a period-based minor PM. This value is multiplied by the value specified for **Meter Interval** and/or **Meter # 2 Interval** for a meter-based PM.

For both period-based and meter-based PMs, the product of this equation is applied to the associated major PM to determine the backward nesting window of the due date for the major PM. This field is automatically populated with 25; however, you can enter any value between 0 and 99999.

Note: The **Nest Buff. (-/+)** is only related to time-based preventive maintenance schedule setup.

M1 Nest Buff. (-/+)
Specify the percent value of the nesting buffer for the first meter. This value is multiplied by the value specified for **Perform Every** for a period-based minor PM. This value is multiplied by the value specified for **Meter Interval** and/or **Meter # 2 Interval** for a meter-based PM.

For both period-based and meter-based PMs, the product of this equation is applied to the associated major PM to determine the forward nesting window of the due date for the major PM. This field is automatically populated with 25; however, you can enter any value between 0 and 99999.

M2 Nest Buff. (-/+)
Specify the percent value of the nesting buffer for the second meter. This value is multiplied by the value specified for **Perform every** for a period-based minor PM. This value is multiplied by the value specified for **Meter Interval** and/or **Meter # 2 Interval** for a meter-based PM.

For both period-based and meter-based PMs, the product of this equation is applied to the associated major PM to determine the nesting window of the due date for the major PM. This field is automatically populated with 25; however, you can enter any value between 0 and 99999.

Note: You can enter a backward and forward nesting buffer for **Perform Every** or for one or both **Meter Interval** and **Meter #2 Interval**. Enter values for **Nesting Nest Buffer (- / +)**, **M1 Nest Buffer (- / +)**, and **M2 Nest Buffer (- / +)** for each PM interval as necessary.

Ok Window
Specify the value to use for the Ok window.

Near Window
Specify the value to use for the near window.

Release Window
Specify the value to use for the release window.

Perform On
Specify the week of the month and the day of the week on which to perform the work on the equipment, e.g., 2nd Tuesday of the month due. Select **Last** to handle scenarios in which there are five weeks in a month. The due date is set to the last week of the month.

Note: Perform On is only available for duplicate PMs, and is not available for daily or weekly frequencies.

Production Priority
Specify the production priority to assign to resulting work orders.

Note: Production Priority Desc. is populated on resulting PM work orders whose equipment have **Track Resources** selected.

Req. Start Date Buff. (Days)
Specify the number of days for which to buffer the requested start date.

Note: Req. Start Date is populated on resulting PM work orders, based on this buffer, whose equipment have **Track Resources** selected.

Req. End Date Buff. (Days)
Specify the number of days for which to buffer the requested end date.

Note: Req. End Date is populated on resulting PM work orders, based on this buffer, whose equipment have **Track Resources** selected.

Revision Status
Specify the status for the current revision of the PM schedule.

Revision Reason
Specify an explanation of any revisions to the PM schedule.

Revision Status
Specify the revision status for the route.

Note: You can enter a **Revision Status** only if the PMRVCTRL installation parameter is set to Yes. Contact your system administrator for more information.

WO Type
Specify the work order type for the PM schedule.

Duration
Specify the duration of the work order for the PM schedule.

Approval List
Specify the approval list for the PM schedule.

WO Class
Specify the class of the work order. The classes shown belong to the EVNT entity.

Supervisor
Specify the supervisor for the PM schedule.

Priority
Specify the priority level of the PM schedule.

7 Click **Save Record**.

Defining activities of PM work orders

To define activities of PM work orders:

1 Select **Work > WO Planning > PM Schedules** .

2 Select the PM schedule for which to define activities, and then click the **Activities** tab.

3 Click **Add Activity**.

The system automatically populates **Activity** with the next available line number, and it also populates **People Required**, **Start**, and **Duration** with a default value of 1.

4 Specify this information:

Activity
Enter a unique code identifying the activity number. If you do not provide a number, the system enters a number, starting at 1 and increasing by 1 for each record.

Trade
Enter the trade to perform this activity.

Task
Enter the task code for this activity.

Task Qty.
Enter the required number of units of the task to associate with the activity, and then select the unit of measure in the adjacent field.

Material List
Enter the material list for this activity.

Estimated Hours
Enter the number of estimated hours for the activity.

People Required
Enter the number of people needed to complete the activity.

Start
Enter `1` if the activity is to start on the same day that the standard work order starts. Enter `2` if the activity should start on day 2 of the standard work order, etc.

Duration
Enter the duration of the activity in days.

Hired Labor
Select to indicate that the activity will be completed by an external source.

Specify this information only if you use the American Trucking Association's Vehicle Maintenance Reporting System (VMRS):

Note: Depending on your system configuration, the **VMRS-related** fields may not be displayed. Contact your system administrator for more information.

Reason For Repair
Enter the reason the vehicle needs repair (Code Key 14).

Work Accomplished
Enter the work performed on the vehicle (Code Key 15).

Technician Part Failure
Enter the reason the technician or supplier thinks the vehicle failed (Code Key 18).

Manufacturer
Enter the Manufacturer/Supplier Code (Code Key 34) to associate with the vehicle.

System Level
Enter the VMRS code identifying the system, e.g., brakes, frame, suspension, needing repair (Code Key 31).

Assembly Level
Enter the VMRS code identifying the subsystem needing repair (Code Key 32). The values available are based on the system-level code.

Component Level
Enter the VMRS code identifying the specific component or part needing repair (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

Activity Comments
Enter any comments relevant to the activity.

5 Click **Submit**.

Defining equipment for PM schedules

Define equipment for PM schedules on the **Equipment** tab of the PM Schedules page.

Note: If you edit the length of a linear equipment record, the system may automatically edit associated PM records when installation parameter PMRVCTRL is set to No. If the new equipment length falls on or within the length of the PM, the system automatically updates the **To Point** of the PM record based on the new equipment length. If the new equipment length falls outside of the length of the PM, the system does not update the PM record.

To define equipment for PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule for which to define equipment, and then click the **Equipment** tab.
3 Click **Add Equipment**.

The system automatically populates **Equip. Org.**, **Work Order Org.**, **Perform Every**, **Work Order**, **WO Class**, **Supervisor**, and **Meter Interval**.

The system automatically populates **Date of Last Work Order** with the **Due Date** of the current work order for the PM. If the work order is a duplicate PM, the system displays the latest date.

4 Specify this Equipment Details information:

Equipment
Specify the equipment for which to define a PM schedule. The system automatically populates the equipment description, **Department**, **Cost Code**, and **Assigned To**.

Work Order Org.
Specify the organization to which the work order belongs if you use multi-organization security.

Department
Specify the department of the work order.

Location
Specify the location.

Route
Specify the route for the PM equipment. If the ROUTEEOB installation parameter is set to Y, a **Route** is specified on the PM schedule, and the PM schedule **Type** is either Fixed or Variable, then the system will also create MEC work orders for the route equipment (as indicated by the setting of the MEROUTWO installation parameter). The system generates the MEC work orders in addition to the initial PM work order when the PPMSTAT installation parameter is set to R (Released), and the system automatically selects **Multiple Equipment** on the PM work order header.

Note: Updating the **Route** for an existing PM equipment does not affect the creation or deletion of MEC work orders for any existing PM work orders that are pending for the PM equipment.

Perform Every
Specify the length of the interval of time to pass before the system generates the next PM routine work order. You can enter any value between 0 and 99999, and then select the unit of measure in the adjacent field. The unit of measure for the PM period can be days, weeks, months, quarters, or years.

Due Date
Specify the due date of the first work order.

Note: Each work order determines the due date of the following work order. If you update the **Due Date** on the **Equipment** tab, the system updates the work order **Due Date** so that this due date is later than the last work order completion date. The system adds the interval to the entered **Due Date** on the **Equipment** tab until a date later than the last completion date is reached. Future due dates are accepted without validation.

After a work order is generated for a PM, the system automatically updates **Due Date** and **Meter Due** on the **Equipment** tab of the PM Schedules page to reflect the next anticipated time that the PM will be performed on the associated equipment. The system automatically synchronizes the **Due Date** on the **Work Orders** tab of the PM Schedules page with a generated work order when a new work order is completed or when the **Due Date** is updated on a work order, which includes any minor work orders that are awaiting release when a major PM work order is completed.

Dormant Start
Specify the date on which the dormant period for the PM begins.

Dormant End
Specify the date on which the dormant period for the PM ends.

Reuse Dormant Period
Select to use the same specified dormant period for the PM on a yearly basis. If you select **Reuse Dormant Period**, the system automatically updates the specified **Dormant Start** and **Dormant End** dates after the dormant period has elapsed.

Test Point Set
Specify the test point set for calibration of the equipment.

Note: Depending on your system configuration, **Test Point Set** may not be displayed. Contact your system administrator for more information.

If the work order is a calibration work order, the system copies the test points for the specified equipment record to the work order when it is released. The system copies the test points related to the selected **Test Point Set**.

PM Type
Choose one of the following PM routine types:

PM routine type	Description
Fixed	Select for the system to issue the PM based on a fixed schedule, e.g., based on date or reading when the last PM was originally due.
Variable	Select for the system to issue the PM based on a variable schedule, e.g., based on the date or reading on which the last PM was completed.
Duplicate	Select to allow multiple PM work orders to be open at the same time. **Note:** Selecting **Duplicate** as the PM type enables you to create an exception to the rule that a PM equipment may have only one open work order for the PM work order at a time.

WO Class
Specify the class of the work order.

Cost Code
Specify the cost code associated with the PM.

Assigned To
Specify the person responsible for the equipment.

Supervisor
Specify the supervisor for the equipment.

Date Deactivated
Specify the date after which work order generation stops.

Meter Interval
Specify the length of the interval of time indicating how frequently the first meter is used/read, e.g., 30 to indicate that the first meter is read every 30 days, and then enter the unit of measure for the first meter that triggers release on usage in the adjacent field.

Meter Due
Specify the reading due value for the first meter.

Note: Each work order determines the due reading of the following work order. If you update **Meter Due** on the **Equipment** tab, the system updates the work order **Meter Due** so that this due reading is higher than the reading on the last work order completed. The system adds the interval to the entered **Meter Due** on the **Equipment** tab until a reading higher than the reading on the last work order completed is reached. Future due readings are accepted without validation.

Meter # 2 Interval
Specify the length of the interval of time indicating how frequently the second meter is used/read, e.g., 30 to indicate that the second meter is read every 30 days.

Meter #2 Due
Specify the reading due value for the second meter.

Perform On
Specify the week of the month and the day of the week on which to perform the work on the equipment, e.g., 2nd Tuesday of the month due. Select **Last** to handle scenarios in which there are five weeks in a month. The system sets the due date to the last week of the month.

5 Specify this Linear Reference Details information:

From Point
Specify the point on the linear equipment record from which to begin the reference.

Ref. Description
Specify the description for the **From Point** reference.

Geographical Ref.
Specify the geographical reference for the **From Point** reference.

To Point
Specify the point on the linear equipment record from which to end the reference

Ref. Description
Specify the description for the **To Point** reference.

Geographical Ref.
Specify the geographical reference to the **To Point** reference.

6 Click **Submit**.

Viewing work orders per PM schedule

View work order information associated with each PM Schedule.

To view work orders per PM Schedule:

1. Select **Work > WO Planning > PM Schedules**.
2. Select the PM schedule for which to view work orders, and then click the **Work Orders** tab.
3. View the work orders per PM Schedule.

   Note: The PMCRPAST installation parameter specifies whether or not a new fixed PM work order can be released with a due date in the past.

   See the *Infor EAM System Administrator Guide*.

Viewing jobs for PM schedules

View jobs for PM schedules if the PM has one or more activities that reference a task plan with associated jobs.

Note: `SHOWJOB` must be enabled to access this tab.

To view jobs for PM schedules:

1. Select **Work > WO Planning > PM Schedules**.
2. Select the PM schedule for which to view jobs, and then click the **Jobs** tab.
3. View the information.

Viewing planned labor for PM schedules

View planned labor for PM schedules if the PM has one or more activities that reference a task plan with associated jobs.

To view planned labor for PM schedules:

1. Select **Work > WO Planning > PM Schedules**.
2. Select the PM schedule for which to view planned labor, and then click the **Plan Labor** tab.
3. View the information.

Viewing planned parts for PM schedules

View the planned parts required to complete a PM schedule. Planned parts are displayed on this tab if the PM schedule work order has one or more activities referenced.

To view planned parts for PM schedules:

1 Select **Work > WO Planning > PM schedules**.
2 Select the PM schedule for which to view planned parts, and then click the **Plan Parts** tab.
3 View the information.

Viewing estimated costs for PM schedules

View the estimated costs for a PM schedule, including the estimated costs of all jobs or a single job on the PM schedule.

The following cost categories are estimated based on the information provided: internal labor, external labor, stock items, direct purchases, and tools. The total cost is then calculated.

To view estimated costs for PM schedules:

1 Select **Work > WO Planning > PM schedules**.
2 Select the PM schedule for which to view estimated costs, and then click the **Estimated Costs** tab.
3 Optionally, select the specific job for which to view the estimated costs for the PM schedule.

   Note: If **Job** is set to **Show All Records** the cost for the PM schedule is displayed including all associated jobs.

4 Specify this information:

   Organization
   Specify the organization of the PM schedule. The organization of the selected PM schedule is defaulted if it is a specific organization.

   Department
   Specify the department of the PM schedule.

   Store
   Specify the store of the PM schedule to calculate estimated costs per store.

   Note: This field is hidden unless `PRICELEV` is set to `S` for store level. If `PRICELEV` is set to `P`, prices are retrieved from the Prices tab for the part of the selected organization.

   Supplier
   Specify the supplier of the PM schedule to calculate estimated costs per supplier. The preferred supplier of the selected PM schedule is defaulted.

5 View the estimated costs.

Managing tools for PM schedules

Request tools from a department for specified PM schedule activities and jobs. Record tool requirements of multiple activities for a specified PM schedule. View tools for all activities and all jobs associated to

the PM schedule. Alternately you can view tools for a selected activity and all jobs for that activity, or view tools for a selected activity and a selected job for that activity.

To request tools for PM schedules:

1 Select **Work > WO Planning > PM Schedules** form.

2 Select the PM schedule for which to request tools, and then click the **Plan Tools** tab.

Note: You must enter an activity for the work order before you request a tool.

See "Defining Activities of PM Work Orders" on page 567.

3 Optionally, select the specific activity for which to plan tools, or select **Show All Records** to display all of the activity records for the PM schedule.

Note: You may use this selector to view all activities and all jobs, or view tools for a selected activity and all jobs for that activity if you select **Show All Records** for **Job**.

4 Optionally, select the specific job for which to plan tools, or select **Show All Records** to display all of the job records for the PM schedule.

Note: You may use this selector to view all activities and all jobs if you selected **Show All Records** for **Activity** in the previous step, and then select **Show All Records** for **Job**. Alternately you may view tools for a selected activity and a selected job but you must select that specific job here.

5 Click **Add Tool**.

6 Specify this information:

Activity
Specify the appropriate activity for the PM work order. **Activity Duration** is automatically populated.

Note: The activity value is automatically populated if only one activity exists for the selected PM schedule. When two or more exist, **Activity** must be selected from the list.

Tool
Specify the tool required to complete the activity. The system automatically populates the description of the tool and **Tool Org.**

Hours Requested
Specify the number of hours the tool is needed for the activity.

Quantity Required
Specify the number of tools needed to complete the activity.

7 Click **Submit**.

Defining sales prices for PM schedules

Define sales prices for PM schedule. Use the sales prices defined here for sales transactions on the PM schedule. Sales prices can be defined for specific PM schedules to create invoice lines using a

fixed sales price rather than use the actual work order costs tracked by the system, like part issues, time sheets, tool costs, etc.

To define sales prices for PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule for which to define sales prices, and then click the **Sales Prices** tab.
3 Click **Add Sales Price**.
4 Specify this information:

Job
Specify the job associated with the PM schedule for which to define sales prices. **Job Plan** is automatically populated.

Organization
Specify the organization of the PM schedule.

Sales Price
Specify the sales price to specify for the selected PM schedule.

Date Effective
Specify the date this sales prices will become effective.

Date Expired
Specify the date this sales price will expire.

5 Click **Submit**.

Breaking down work on linear equipment for PM schedules

Enter and view preventive maintenance work for linear equipment. If necessary break down that work into manageable, linear segments for easier planning and scheduling of the work. For more information on linear equipment, see

"Defining linear equipment" on page 86.

To break down work on linear equipment for PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule for which to break down work on linear equipment, and then click the **Breakdown Linear Work** tab.
3 Specify this information:

Equipment
Specify the PM equipment for which to break down the work into linear segments. The system automatically populates the equipment description, **Equip. Org.**, **Equipment Length**, and the equipment length UOM.

Note: You must first define this equipment on the **Equipment** tab. Only one record may exist.

Precision
Select the precision in which the system calculates **From Point** and **To Point**. Default is 0.

Breakdown Into
Specify the number of segments into which to break down the linear work, e.g., enter 12 if you plan to break down the work into a one year (twelve month) cycle with work performed each month in that year.

Breakdown From/To
Specify the starting **From Point** and the ending **To Point** on the linear equipment record to determine where and how to break down or divide the work on the equipment.

Start Date
Specify the date to begin the work for the first segment.

Perform Every
Specify the intervals at which time to perform the work on the segments, e.g., enter 1 and then select **Years** if work should be performed on an annual basis or once every year.

4 Click **Create/Refresh Preview**. Adjust individual segments as necessary once the grid is populated.
5 See the linear overview section to view the breakdown records.
6 Click **Submit**.

Associating permits to PM schedules

You may associate permits with a PM schedule on the **Permits** tab. The permits will be copied to the work orders released against the specified PM schedule.

To associate permits to PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule to which to associate permits, and then click the **Permits** tab.
3 Click **Add Permit**.
4 Specify this information:

Permit
Select the permit to associate to the PM schedule. The permit description and **Permit Org.** are automatically populated.

Mandatory

Activity

Auto Create PTW

PTW Type

Type of Work

Priority

Risk

LOTO Required

Isolation Type

Delete Pending

5 Click **Submit**.

Associating ERP resources to PM schedules

Associate ERP resources to selected PM schedules for specific equipment. The system copies these ERP resources to planned work orders in order to communicate equipment downtime for any resources impacted when the selected equipment is taken out of service for the specific work order.

A resource is a line of products, equipment, or materials used to complete a job.

To associate ERP resources to PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule with which to associate ERP resources, and then click the **Resources** tab.
3 Click **Add Resource**.
4 Specify this information:

Equipment
Select an equipment to associate resources.

Note: Equipment must be associated to the PM schedule prior to associating resources.

Resource
Select the resource to associate to the selected PM schedule equipment. The system automatically populates **Resource Name** and **Accounting Entity**.

Operation Sequence
Specify the order in which the resource will be impacted when the equipment is taken down for maintenance.

Cool-down Time (Hours)
Specify the time it takes in hours for the resource line to cool down before performing maintenance work.

Warm-up Time (Hours)
Specify the time it takes in hours for the resource line to warm up before normal use.

Downtime (Hours)
Specify the expected downtime in hours for the selected PM schedule and equipment.

Active
Select to designate this resource line as active to display the resources on the PM work order.

Offset
Select to designate this resource line as offset, or that the resource impacted by down equipment will overlap with the previous resource.

Offset Value
Specify the amount of time in hours in which the resource impacted by down equipment, overlaps the previous resource.

5 Click **Submit**.

Note: When deleting a resource, the system deletes the resource if the resource is not indirectly related to the selected equipment by parent equipment.

To associate resources to the PM schedule not associated with the selected equipment, click **All Resources**. Select a resource, and then click **Submit**.

To refresh resources associated, select the resource record to refresh, and then click **Refresh Resources**.

To view the resource history for the selected PM schedule, click **View Resource History**.

Adding safety hazards and precautions to PM schedules

Add hazards and precautions to PM schedules that inform your employees on how to use equipment safely when working in hazards that can cause bodily harm and alert them in advance of the precautions to take to protect themselves from the hazard. For example, you can add a precaution to turn equipment off and remove the power cord from the power outlet before performing repairs on electrical equipment.

If PMRVCTRL is set to YES, existing safety records can only be modified when the PM schedule **Revision Status** is **Unfinished**.

To add safety hazards and precautions to PM schedules:

1 Select **Work > WO Planning > PM Schedules**.
2 Select the PM schedule for which to add safety precautions and hazards, and then click the **Safety** tab.
3 Click **Add Safety Record**.

4 Specify this information:

Hazard
Specify the hazard to add to the PM schedule. The system automatically populates a description of the hazard, **Hazard Org.**, and **Hazard Type**.

Precaution
Specify the safety measure to protect your employees from the hazard. The system automatically populates a description of the precaution, **Precaution Org.**, **Timing**, **Sequence**, and **Precaution Revision**.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can enter the timing of pre-work to alert the employee that they should wear fire-resistant clothing before beginning the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number entered.

5 Select the **Delete Pending** check box to delete the pending safety record during the next review.

6 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

Releasing PM work orders

Release PM work orders awaiting execution in a batch. Select the work orders to be released by changing the **WO Status** and updating the **Scheduled Start Date**.

After the system completes the batch release process, the system retains the records that have been successfully updated in the Release PMs list enabling you to print the released PM work orders individually or in a batch.

If you have established a nesting reference between major and minor PMs to bypass a minor PM that coincides with the release of a major PM, the system bypasses the minor PM as indicated by the nesting reference.

See "Creating Preventive Maintenance Work Orders" on page 560.

Note: The system can only bypass a minor PM if the minor PM is currently associated with an existing major PM with a status of Released, regardless of a specified back or forward nesting tolerance.

To release PM work orders:

1 Select **Work > Process > Release Individual PM Work Orders**.

The system retrieves all PM work orders with a **WO Status** (system status or user status equivalent) of **Awaiting Release**.

The system automatically populates **WO Status**, **Scheduled Start Date**, **Work Order**, **PM**, **Equipment Type**, **Equipment**, **Equipment Description**, **Equipment Org.**, **WO Type**, **WO Due**

Date, **Department**, **Location**, **Location Org.**, **Priority**, **Period**, **Interval**, **Reading Due**, and **Error Message** (for updates) for each record.

2 Select the PM work order to release.

3 Specify this information:

WO Status
Change the status of the PM work order to `R` (`Released`).

Scheduled Start Date
Update the scheduled start date for the PM work order if necessary. Any changes made to the start date shifts the activity start date but does not affect the duration for the work order.

Print All Released PMs
Select to release all PM work orders with a **WO Status** of Released.

Note: To print all PMs, select **Print All Released PMs** and then click **Update PMs**. The system updates the PM work orders, and then prints all of the released PM work orders.

4 Update additional PM work orders as necessary.

5 Click **Update PMs**.

The system generates the PM work orders for the selected records. The system also retains the records that have been successfully updated in the Release PMs list enabling you to print the released PM work orders individually.

Note: To print individual PMs, select the PM work order, and then click **Print Selected Released PM**. If the selected PM work order has a WO Status of Released and there are no unsaved changes for the record, then the system prints the selected PM work order based on the report definition for the **Release PMs** form.

If a PM work order is associated with a **Route** and the ROUTEEOB installation parameter is set to Y, then the system creates MEC work orders for each equipment on the route as indicated by the setting of the MEROUTWO installation parameter.

See "Adding Equipment to Work Orders to Split Work Order Costs" on page 502.

If the route equipment on the work order header is associated with calibration data/test points, the system only copies the calibration data/test points to the related MEC work orders created by the system and not to the work order header.

The MEROUTWO installation parameter identifies which equipment to copy to route-based PM work orders created by the system for multiple equipment records on the work order.

See the *Infor EAM System Administrator Guide*.

If the AUTOPMCL installation parameter is set to YES, the system automatically closes all released minor PM work orders when the major PM with which they are associated is released.

Viewing comments for PM work order activities

View comments for PM work order activities to access comments entered for PM work order activity records.

See "Defining Activities of PM Work Orders" on page 567.

To view comments for PM work order activities:

1. Select **Work > Work Orders**.
2. Select the PM work order for which to view comments, and then click the **Activities** tab.
3. Select the activity for which to view comments, and then click **View PM Activity Comments**. **Print with Document** is automatically selected if the comments are selected for printing on the work order activity.

   See "Entering Comments" on page 46.
4. Specify this information:

   Language
   Select the language for which to view the comments.
5. View the comments.
6. Click **Close**.

Understanding PM work packages

A PM work package consists of PM work orders of the same period that have been grouped together under a single "umbrella" work order. PM work packages function similarly to batch processes, and they can be released together at the same time. Before creating a PM work package, gather an inventory of period-based PMs that have been flagged for use in work packages.

Creating and editing PM work packages

Create multiple PM work orders for equipment, and then package them together so that they release at the same time.

To create and edit PM work packages:

1. Select **Work > WO Planning > PM Work Packages**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the work package belongs.

   PM Work Package
   Specify a unique code identifying the work package, and then enter a description of the work package in the adjacent field.

Class
Specify the class of the work package. The system automatically populates **Class Org.**

WO Type
Select the work order type of the work package.

Parent Equipment
Specify the equipment on which to perform the work package. The system automatically populates **Parent Equipment Org.**and **Department**.

Department
Specify the department to which the work package belongs.

WO Status
Select the work order status of the umbrella work order under which the work package is created.

Trade
Specify the trade performing the work package.

WO Class
Specify the work order class of the work package. The system automatically populates **WO Class Org.**

PM Type
Select the PM type of the work package.

Due Date
Specify the date that the work package should begin.

Perform Every
Specify the length of the interval of time to pass before the system generates the next PM routine work order. You can enter any value between 1 and 99999, and then select the unit of measure in the adjacent field. The unit of measure for the PM period can be days, months, quarters, or years.

Duration
Specify the estimated number of days needed to complete the entire work package.

People Required
Specify the number of people required to complete the work package.

Est. Workload
Specify the estimated number of hours needed to complete the work package. The system automatically populates **Calc. Workload**, **Last Parent WO**, and **Changed**.

Note: The system calculates **Calc. Workload** based on the sum of the estimated workload for each PM work order.

4 Click **Save Record**.

Defining equipment for PM work packages

Define and specify equipment to include on PM work packages.

To define equipment for PM work packages:

1. Select **Work > WO Planning > PM Work Packages**.
2. Select the PM work package for which to define equipment, and then click the **Equipment** tab.
3. Click **Add Equipment**.
4. Specify this information:

   Equipment
   Enter the equipment to add to the PM work package. The system automatically populates the equipment description.

   Note: The system displays PM equipment for selection if the PM equipment is marked as work package on the PM header, the PM equipment is a child or grandchild of the parent equipment on the work package header, and meets the following criteria:

   - the status of the PM schedule is **Approved**
   - the PM equipment's period UOM and type match the period UOM and type of the work package header
   - PM equipment **Perform Every** and **Perform On** match the work package header
   - the PM equipment is not currently assigned to another PM work package
   - the PM equipment record is not locked by a scheduling or forecasting session
   - If DEPTSEC=ON, the system displays equipment records if the department of the equipment has corresponding records on the Department Security tab of the logged in user and is not marked read-only
   - the PM equipment is a child or grandchild of the parent equipment on the work package header

5. Click **Submit**.

Scheduling employees for PM work packages

Schedule employees to accomplish all of the activities of all the PM equipment listed on a work package.

To schedule employees for PM work packages:

1. Select **Work > WO Planning > PM Work Packages**.
2. Select the PM work package for which to schedule employees, and then click the **Employees** tab.
3. Click **Add Employee**.
4. Specify this information:

   Employee
   Specify the employee to assign to the PM work package. The system automatically populates **Name**.

5 Click **Submit**.

Defining equipment parameters for PM forecasting

Define parameters to select the equipment and PMs for which to forecast preventive maintenance.

To define equipment parameters for PM forecasting:

1 Select **Work > WO Planning > PM Forecasting**.

2 Specify this information:

Parameter List
Select the saved selection parameters.

Forecast Start Date
Specify the estimated start date for the forecasting session.

Forecast End Date
Specify the estimated end date for the forecasting session.

Session ID
Specify the ID for the session.

Note: Specify **Session ID** if you are working on an existing session. If you are creating a new session, the system automatically populates **Session ID**after you click **Process**.

Equipment
Specify the equipment for which to forecast preventive maintenance.

Top Level
Specify the top level equipment. The system does not display on the **Preview** page any equipment above the selected equipment in the structure.

Type
Specify the type of equipment.

Class
Specify the class of the equipment.

Category
Specify the category of the equipment.

Criticality
Specify the criticality code to indicate the relative importance of the equipment to the overall production of PM.

Specify this information to define PM parameters:

PM Schedule
Specify the PM schedule.

Class
Specify the class of the PM schedule.

Nesting Reference
Specify the nesting reference for the PM schedule.

Priority
Specify the priority of the PM schedule.

WO Type
Specify the work order type of the PM.

Specify this information to define PM equipment parameters:

Work Order Org.
Specify the work order organization of the PM.

WO Class
Specify the class of the work order of the PM.

Department
Specify the department of the PM equipment.

Location
Specify the location of the PM equipment.

Assigned To
Specify the person responsible for the PM equipment.

Cost Code
Specify the cost code of the PM equipment.

Supervisor
Specify the supervisor for the PM equipment.

Specify this information to select the options for generating PM work orders:

Parent Equipment Type
Select the check box to display **Parent**, **Parent Org.**, and **Parent Description** for each equipment displayed on the **Preview** page.

Include Children
Select the check box to include the children of the selected equipment in the list of equipment for which to forecast PMs.

Minimum PM Frequency (Days)
Specify a number to determine whether the system will include or exclude PMs for equipment with periods less than the number of days specified.

Enable Child Equipment Tab
Select the check box to enable the **Child Equipment** page so that the system displays the page.

Specify this information to select the forecasting options:

Work Order Background Color
Specify the background color for the work order.

Actual Due Date Background Color
Specify the background color for the actual due date.

Forecast PM Background Color
Specify the background color for the forecasted PMs.

Weekend Background Color
Specify the background color for weekends.

Locked PM Due Date Text Color
Specify the text color for locked PM due dates.

Perform On Day Text
Select one of the following options for the text type for which to display the value for **Perform On Day**:

Select **Underscore** to display the text value for **Perform On Day** as Underscore type.
Select **Italics** to display the text value for **Perform On Day** as Italics type.

Yearly Designator
Specify a value to designate a year, e.g., **Y** for Yearly.

Quarterly Designator
Specify a value to designate a quarter, e.g., **Q** for Quarterly.

Monthly Designator
Specify a value to designate a month, e.g., **M** for Monthly.

Weekly Designator
Specify a value to designate a week, e.g., **W** for Weekly.

Daily Designator
Specify a value to designate a day, e.g., **D** for Daily.

Work Hours per Day
Specify the number of hour per workday.

Note: The system automatically populates **Work Hours per Day** based on the WORKDAY installation parameter. **Work Hours per Day** is used by the View Resource Load popup and the Resource Load Graph on the **Forecasting** page.

Maximum Rows per Page
Specify the maximum number of rows of equipment to display on the **Forecasting** page. Specifying a value greater than 20 may cause the system to delay the performance.

Prevent Separation Greater than 1 Period Between Forecast Start Date and new PM Due Dates
Select the check box to prevent the due date from being greater than 1 frequency after the forecasted start date.

Prevent new PM Due Dates prior to Forecast Start Date
Select the check box to prevent new PM due dates prior to the forecasted start date when no work orders exist for the PM. If a work order exists for the PM the system prevents the separation between the work order and the first PM due date from exceeding the frequency.

Allow Session Approval with Active Warnings
Select the check box to allow the system to approve sessions with active warnings.

3 Click **Process**. The system displays the **Preview** page listing all of the equipment for which to forecast PMs.

Note: When **Process** is clicked, the fields are protected and editing of these values is not allowed for the current session.

When **Process** is clicked, only the Equipment parameters are considered, work order organization, and the **Include Children** checkbox to present equipment on the **Preview** tab. The remaining parameters are not considered when building the Preview list.

Understanding PM forecasting

Forecast preventive maintenance for equipment beyond creating PM work orders. Define parameters to gather a group of selected equipment for which to forecast preventive maintenance. Forecasting PMs allows you to view the preventive maintenance on equipment for a selected period of time as much as one year in advance. Adjust the due dates for preventive maintenance as necessary to balance the resource workload.

Note: Due dates can only be updated for forecasted PMs. For existing PM work orders, the due date cannot be changed.

The system will not forecast preventive maintenance for equipment used in a PM work package.

The system supports only frequency-based PMs on the **PM Forecasting** form. Meter-based PMs are not supported.

The system supports only duplicate PMs on the **PM Forecasting** form. Fixed and variable PMs are not supported.

Defining equipment parameters for PM forecasting

Define parameters to select the equipment and PMs for which to forecast preventive maintenance.

To define equipment parameters for PM forecasting:

1 Select **Work > WO Planning > PM Forecasting**.

2 Specify this information:

Parameter List
Select the saved selection parameters.

Forecast Start Date
Specify the estimated start date for the forecasting session.

Forecast End Date
Specify the estimated end date for the forecasting session.

Session ID
Specify the ID for the session.

Note: Specify **Session ID** if you are working on an existing session. If you are creating a new session, the system automatically populates **Session ID**after you click **Process**.

Equipment
Specify the equipment for which to forecast preventive maintenance.

Top Level
Specify the top level equipment. The system does not display on the **Preview** page any equipment above the selected equipment in the structure.

Type
Specify the type of equipment.

Class
Specify the class of the equipment.

Category
Specify the category of the equipment.

Criticality
Specify the criticality code to indicate the relative importance of the equipment to the overall production of PM.

Specify this information to define PM parameters:

PM Schedule
Specify the PM schedule.

Class
Specify the class of the PM schedule.

Nesting Reference
Specify the nesting reference for the PM schedule.

Priority
Specify the priority of the PM schedule.

WO Type
Specify the work order type of the PM.

Specify this information to define PM equipment parameters:

Work Order Org.
Specify the work order organization of the PM.

WO Class
Specify the class of the work order of the PM.

Department
Specify the department of the PM equipment.

Location
Specify the location of the PM equipment.

Assigned To
Specify the person responsible for the PM equipment.

Cost Code
Specify the cost code of the PM equipment.

Supervisor
Specify the supervisor for the PM equipment.

Specify this information to select the options for generating PM work orders:

Parent Equipment Type
Select the check box to display **Parent**, **Parent Org.**, and **Parent Description** for each equipment displayed on the **Preview** page.

Include Children
Select the check box to include the children of the selected equipment in the list of equipment for which to forecast PMs.

Minimum PM Frequency (Days)
Specify a number to determine whether the system will include or exclude PMs for equipment with periods less than the number of days specified.

Enable Child Equipment Tab
Select the check box to enable the **Child Equipment** page so that the system displays the page.

Specify this information to select the forecasting options:

Work Order Background Color
Specify the background color for the work order.

Actual Due Date Background Color
Specify the background color for the actual due date.

Forecast PM Background Color
Specify the background color for the forecasted PMs.

Weekend Background Color
Specify the background color for weekends.

Locked PM Due Date Text Color
Specify the text color for locked PM due dates.

Perform On Day Text
Select one of the following options for the text type for which to display the value for **Perform On Day**:

Select **Underscore** to display the text value for **Perform On Day** as Underscore type.
Select **Italics** to display the text value for **Perform On Day** as Italics type.

Yearly Designator
Specify a value to designate a year, e.g., **Y** for Yearly.

Quarterly Designator
Specify a value to designate a quarter, e.g., **Q** for Quarterly.

Monthly Designator
Specify a value to designate a month, e.g., **M** for Monthly.

Weekly Designator
Specify a value to designate a week, e.g., **W** for Weekly.

Daily Designator
Specify a value to designate a day, e.g., **D** for Daily.

Work Hours per Day
Specify the number of hour per workday.

Note: The system automatically populates **Work Hours per Day** based on the WORKDAY installation parameter. **Work Hours per Day** is used by the View Resource Load popup and the Resource Load Graph on the **Forecasting** page.

Maximum Rows per Page
Specify the maximum number of rows of equipment to display on the **Forecasting** page. Specifying a value greater than 20 may cause the system to delay the performance.

Prevent Separation Greater than 1 Period Between Forecast Start Date and new PM Due Dates
Select the check box to prevent the due date from being greater than 1 frequency after the forecasted start date.

Prevent new PM Due Dates prior to Forecast Start Date
Select the check box to prevent new PM due dates prior to the forecasted start date when no work orders exist for the PM. If a work order exists for the PM the system prevents the separation between the work order and the first PM due date from exceeding the frequency.

Allow Session Approval with Active Warnings
Select the check box to allow the system to approve sessions with active warnings.

3 Click **Process**. The system displays the **Preview** page listing all of the equipment for which to forecast PMs.

Note: When **Process** is clicked, the fields are protected and editing of these values is not allowed for the current session.

When **Process** is clicked, only the Equipment parameters are considered, work order organization, and the **Include Children** checkbox to present equipment on the **Preview** tab. The remaining parameters are not considered when building the Preview list.

Forecasting PMs

View and adjust the due dates for selected equipment in a forecasted PM session to balance the PM workload. Drag and drop dates as necessary to change due dates and balance the workload.

Note: The system displays existing PM work orders with a **Released** or **Completed** status on this form; however, their due dates cannot be changed.

To forecast PM's:

1 Select **Work > WO Planning > PM Forecasting**.
2 Choose one of the following options:

- **For a new session**
  Enter the appropriate parameters.

  Note: You must select equipment for which to forecast PMs on the **Preview** page. To begin PM forecasting, click **Start PM Forecasting** on the **Preview** page.

  To view the **Preview** page, select **Tab Available** on the **Child Equipment** page for your user group, and then select **Enable Child Equipment Tab** on the **Parameters** page of the **PM Forecasting** form. Contact your System Administrator for more information.

- **For an existing session**
  Enter the **Session ID**.

3 Click the **Forecasting** tab.
4 Select the equipment for which to forecast PMs on the **Preview** page, and then click the **Forecasting** tab, or click **Start PM Forecasting** on the **Preview** page. Drag and drop date cells as necessary to change due dates and balance the workload.

Note: The system locks all PM equipment records related to the selected equipment and PMs. The system does not allow changes to the PM equipment record or PM generation until after the forecasting session is **Approved** or **Cancelled**. The system displays the **Session ID** responsible for locking the record on the PM equipment record.

To cancel the forecasting session, click **Cancel Session**.

If a PM is brought into the session via parameters selected and the PM equipment is selected on the **Preview** page, the system automatically includes all PMs in the nest regardless of whether or not the other PMs in the nest meet the selected criteria.

All PMs in a nest for specific equipment are represented by a single row on the **Forecasting** page, i.e. all frequencies in the nest are represented on the calendar portion of the row. Otherwise a row represents a unique PM and equipment.

Understanding PM forecasting options

There are several options available for adjusting the due dates for forecasted PMs.

See the following table for a list of icons available:

Icon	Description	Results
Show Legend	View the calendar legend	The system displays the calendar legend with the parameters set on the **Parameters** page.
Validate Session	Validate all records in a session to see if any active warnings exist	The system displays any active warnings. To ignore an active warning, select **Ignore Warning**, and then click **Submit**. The system ignores the warning and validates the session.
Process	Process all due date changes and approve a session	The system updates all relevant PM equipment records with the new due dates and **Perform On Day** information, if a perform on day was set. The system does not approve sessions with active warnings unless **Allow Session Approval with Active Warnings** is selected on the **Parameters** page.
View Resource Load	View the resource load required to perform PMs	The system displays the View Resource Load popup.
Run Resource Load Graph	Run the resource balance report	The system initiates the view resource load report for the current session.

Icon	Description	Results
Run Future Maintenance Cost Report	Run the future maintenance cost report	The system initiates the maintenance cost report for the current session.
Cancel Session	Delete and cancel a session	The system cancels the session, and then displays the **Parameters** page. The system deletes the **Session ID**.
Previous Month	View the same day of the previous month	The system displays the same day of the previous month. If the same day does not exist in the previous month, the system displays the last day in the previous month.
Next Month	View the same day of the next month	The system displays the same day of the subsequent month. If the same day does not exist in the subsequent month, the system displays the last day of the next month.

There are several right-click options available for PM equipment. To view and choose the options, right-click on the PM equipment record, and then select the appropriate right-click option.

See the following table for the available right-click options:

Right-click Option	Description	Results
View Equipment Details	View details for PM equipment	The system displays the View Equipment Details popup.
Update PM Due Date	Update a PM **Due Date**	The system displays the Update Due Date popup. **Note:** If the record represents a nest, the system displays all PMs in a nest. **Original Due Date** is the PM due date as it exists currently in the system. **Due Date** is the PM due date as it exists within the current session.
Validate Record	Validate a single record in a session	If the validation fails, the system displays the failures in the Validation Warnings popup.

There are numerous right-click options available on a calendar grid cell. To view and choose the options, right-click on the calendar grid cell, and then select the appropriate right-click option.

See the following table for the available right-click options:

Right-click Option	Description	Results
View WO Details	View the details of a work order	The system displays the View Work Order Details popup.
View PM Details	View the details of a PM	The system displays the View PM Details popup.
Shift PM Schedule	Shift the PM schedule	The system shifts the PM schedule.
Enable Perform On Day	Enable **Perform On Day**	The system enables **Perform On Day**.
Disable Perform On Day	Disable **Perform On Day**	The system disables **Perform On Day**.
Lock PM Due Date	Lock the PM **Due Date**	The system locks the PM **Due Date**.
Unlock PM Due Date	Unlock the PM **Due Date**	The system unlocks the PM **Due Date**.

Viewing the resource load

View the resource loading required for the current PM forecasting session to determine the number of resource days required to complete the work. View the number of estimated hours and resource days required by trade per month, week, or day in the forecasting session. Modify the date ranges to plan PMs for a specific time period, and then make changes to the underlying PM forecasting session to balance the resource load. This popup considers both Released and Forecasted PMs.

To view the resource load:

1. Select **Work > WO Planning > PM Forecasting**.
2. Choose to create a new PM forecasting session or work with an existing PM forecasting session.
3. Click **View Resource Load**.
4. Specify this information:

   Start Date
   Specify the starting date for the current PM forecasting session.

   End Date
   Specify the ending date for the current PM forecasting session. **Work Hours per Day** are automatically populated based on the value on the **Parameters** page.

   Specify one of the following options:

   - **Group by Day**
     Specify to group the defined date range by days.

The time period is displayed in days. **Group Start Date** matches **Group End Date** for each record. **Estimated Hours**, **Resource Day Requirements**, and **Total Resource Day Requirements** are calculated by this selection.

- **Group by Week**
  Specify to group the defined date range by weeks.
  The time period is displayed in weeks. **Estimated Hours**, **Resource Day Requirements**, and **Total Resource Day Requirements** are calculated by this selection.

  Group by Month
  Specify to group the defined date range by month.
  The date range records are displayed until the **End Date** is the same as **Group End Date**.

Note: Resource Days Required is calculated as:

```
Resource Days Required = Estimated Hours ⁄ Work Hours per Day
```

Resource Days Required is calculated as the number of person-days required for the trade for the defined date range.

5. View the current resource load. Modify the PM due dates in the underlying PM forecasting session.
6. Click **Refresh Resource Data**. **Date Last Refreshed** is automatically populated and the data on the popup is refreshed based on the current PM forecasting session.
7. Click **Close**.

   Note: The changes to the PM forecasting session made while the View Resource Load popup is open are not automatically displayed. To view the changes made in the grid, click **Refresh Resource Data**.

Generating work orders

Create or update multiple work orders using the **Generate Work Orders** form.

The **Generate Work Orders** form consists of two pages: the **Parameters** page, on which you define the selection criteria for locating the work orders to process in the batch; and the **Preview** page, on which you can preview the work orders in the batch prior to actually processing them and select or unselect the work orders to process as necessary.

The **Generate Options** section of the **Parameters** page enables you to specify the manner in which the system processes the work orders during the batch generation process. **Release WOs for Fixed/Variable PMs** is selected by default, enabling the system to automatically release all PM work orders of **PM Type**Fixed or Variable with a **Status** of Awaiting release. When you unselect **Release WOs for Fixed/Variable PMs**, the system does not automatically release any fixed or variable PM work orders during the batch generation process.

If you choose to release fixed/variable PM work orders, the system releases the fixed or variable PM work orders based on their due dates. If you specified a dormant period for the equipment attached to

the fixed/variable PM, the system temporarily postpones the release of the fixed/variable PM if the due date for the PM falls within the specified dormant period.

The system automatically recalculates the next due date for a fixed PM falling within a dormant period by incrementally adding the PM period to the due date until the due date for the PM is greater than the specified **Dormant End** date for the equipment.

The system recalculates the next due date for a variable PM falling within a dormant period by assigning the new due date as the next day following the specified **Dormant End** date for the equipment associated with the PM.

Note: Adding a dormant period to PM equipment does not affect any previously created or released PM work orders.

If you choose to release duplicate PMs, the system searches for any PMs that meet the parameter criteria. If **Perform On** is specified for the PM equipment record, the system automatically adjusts the calculated **Due Date** based on **Perform On**. Within the month in which the normally calculated **Due Date** falls, the system sets to the week of the month and day of the week defined by **Perform On** for the PM equipment record.

The **Preview** page allows you to preview all of the work orders selected for processing based on the selection parameters, enabling you to select or unselect work orders to include in the batch generation process before you actually process the work order batch. You can select or unselect individual work orders for processing, or you can select or unselect all work orders for processing.

To generate work orders:

1 Select **Work > Process > Generate WOs**.

2 Specify this information:

Organization
Specify the organization to which the work order belongs if you use multi-organization security.

Department
Supervisor
Equipment
Location
Assigned To
PM
PM Class
WO Type
Cost Code
Specify one or all of these selection parameters for generating the work order batch.

Generate Through
Specify the date until which to process the work orders.

Note: To generate all work orders meeting the specified selection criteria up to the current date, leave **Generate Through** blank.

Change WO Status
Select to change the work order status.

Current WO Status
Specify the current status of the work order.

New WO Status
Specify the status to which to change the current work order status.

Generate WOs for Repairable Spares
Select to generate work orders for repairable spares.

Store
Specify the store for which to generate work orders for repairable spares.

Generate PM Work Package
Select to create PM work orders for the parent equipment specified on a selected work package.

Department
Specify the department to which the work package belongs.

Work Package
Specify the code identifying the work package for which to generate a work order for the parent equipment.

WO Status
Specify the status of the work package.

Period
Specify the period under which the work package PM work orders were grouped.

Parent Equipment
Specify the parent equipment for which to generate PM work orders for all child equipment listed on the work package.

WO Type
Specify the work order type of the work package.

Release WOs for Fixed/Variable PMs
Select to create PM work orders that are of the type **Fixed** or **Variable** when processing the work order batch. The system releases the fixed PM work order's status to the status specified in the WORKWOST installation parameter.

If the ROUTEEOB installation parameter is set to Y, a **Route** is specified on a PM schedule, and the PM schedule **Type** is either Fixed or Variable, then the system also creates MEC work orders for the route equipment (as indicated by the setting of the MEROUTWO installation parameter). The system generates the MEC work orders in addition to the initial PM work order when the PPMSTAT installation parameter is set to R (Released), and the system automatically selects **Multiple Equipment** on the PM work order header.

If AUTOPMCL installation parameter is set to YES, the system automatically closes all released minor PM work orders when a major PM is released. If the minor PM work orders being closed are

multiple equipment work orders, then the system also closes all MEC work orders related to the minor PM work orders.

In the current version of the system, if the ROUTEEOB installation parameter is set to Y, the system creates MEC work orders when a parent work order is released for a route-based PM.

Note: In previous versions of the system (version 7.9 or earlier), if installation parameter ROUTEEOB is set to Y, the system created RC (route child) work orders when a parent work order was released for a route-based PM.

See "Defining PM routes and equipment within routes" on page 561.

Generate WOs for Duplicate PMs
Select to create PM work orders that are of the type **Duplicate** when processing the work order batch. The system automatically assigns the status entered for the PPMSTAT installation parameter to the PM work orders created during the batch process and then releases the work order's status to the status specified in the WORKWOST installation parameter.

Note: Work orders are not generated for PMs locked by a PM forecasting session.

Generate WOs for Repairable Cores
Select to create work orders for repairable core parts to be repaired internally. **Store** is enabled and it is required. See "Generating work orders for repairable core parts" on page 599

Include Child Equipment
Select to generate work orders for any child equipment of the selected **Equipment** when processing the work order batch.

Release Other WOs
Select to update other existing work orders that have the specified **Current WO Status**. **Current WO Status** is enabled and it is required.

Current WO Status
Specify the current work order status for which to update existing work orders.

If you selected **Release Other WOs** and entered a **Current WO Status**, upon initiation of the work order generation process, the system locates and updates all existing work orders that have the specified **Current WO Status** and updates the status of the work orders to the value specified in the WORKWOST installation parameter.

Print Summary Report
Select to generate a summary report of all the generated work orders after the batch generation process is complete.

Print Work Orders
Select to print work order cards for the work orders created/updated when processing the work order batch.

3 Click **Process**.

The system displays the **Preview** page listing all of the work orders meeting the selection criteria.

The **Preview** page retains the settings for **Print Work Orders** from the **Parameters** page. You can select or unselect **Print Work Orders** as necessary.

4 Select each work order you wish to generate in the work order batch as necessary, or you can unselect each work order you do not wish to generate in the work order batch as necessary.

Note: To select all the work orders at once, click **Select**. To unselect all the work orders at once, deselect **Select**.

The system does not display MEC work orders on the **Preview** page. However, the MEC work orders are generated/released when the parent multiple equipment work order is generated or released.

5 Click **Generate**.

The system generates the work order for the selected records. If any errors occur, then the system changes the record's visual attribute to red and displays an error message in the **Error Message** column of the Preview list.

The system automatically copies **From Point**, unit of measure, **Ref. Description**, and **Geographical Ref.** and **To Point**, unit of measure, **Ref. Description**, and **Geographical Ref.** to work orders that are released for linear equipment PMs.

Note: If you have set up the system to require an electronic signature to authorize status changes to work order headers, the system displays the eSignature popup once for every work order in the work order batch for which there is a status change.

Generating work orders for repairable core parts

Generate work orders for repairable core parts to be repaired internally. If you select to generate work orders for internal repairs, the system checks to see if there is a **Qty. for Repair** for any parts in store. If a positive quantity for repair exists, the system generates a work order of **Type** Repairable Core containing the part(s) to be repaired internally. If **Auto-Assign** and **Active** are on, the system automatically moves the part from **Qty. on Hand** to **Qty. at Shop**when the internal repair work order is generated.

To generate work orders for repairable core parts:

1 Select **Work > Process > Generate WOs**.

2 Specify this information:

Organization
Specify the organization to which the work order belongs if you use multi-organization security.

Department

Equipment

Location

PM

PM Class

WO Type
Specify one or all of these selection parameters for generating the work order batch.

Generate Through
Specify the due date through which to process the work orders.

Note: To generate all work orders meeting the specified selection criteria up to the current date, leave **Generate Through** blank.

Print Summary Report
Select to generate a summary report of all the generated work orders after the batch generation process is complete.

Print Work Orders
Select to print work order cards for the work orders created/updated when processing the work order batch.

Generate WOs for Repairable Cores
Select to create work orders for repairable core parts to be repaired internally. The system enables **Store** and it is required. The system populates **Store Org.** based on the selected **Store**.

3 Click **Process**. The system displays the **Preview** page listing all of the work orders meeting the selection criteria.

The **Preview** page retains the settings for **Print Work Orders** from the **Parameters** page. You can select or unselect **Print Work Orders** as necessary.

4 Select each work order you wish to generate in the work order batch as necessary.

Note: To select all the work orders at once, check Select. To unselect all the work orders at once, uncheck **Select**.

5 Click **Generate**. The system generates the work order for the selected records. If any errors occur, then the system changes the record's visual attribute to red and displays an error message in the **Error Message** column of the Preview list.

Note: If you set up the system to require an electronic signature to authorize status changes to work order headers, the system displays the eSignature popup once for every work order in the work order batch for which there is a status change.

See the following processing rules when generating work orders for repairable spare parts:

- If you selected **Use Stock Method** for a part on the **Repair Details** tab of the **Parts** form, the system calculates the **Qty. to Repair** based on the stock replenishment method specified for the part in the holding store. For example, you create a part OOV-REX-TRA-25G for which Min/Max is the **Stock Method** with a **Minimum Qty.** of 5 and a **Maximum Qty.** of 10. The current **Qty. on Hand** of OOV-REX-TRA-25G is 4 and the stock **Qty. for Repair**is 9. When you generate an internal repair work order for the part, the system calculates the **Qty. to Repair** on the work order as 6 parts rather than 9 to update the **Qty. on Hand** of the part in stock to the specified maximum of 10.
- If you do not select **Use Stock Method** for a part on the **Repair Details** tab of the **Parts** form, the system automatically generates the work order for the full **Qty. for Repair** on the **Repair Details** tab of the **Parts** form.
- If you do not select **Auto Assign** on the **Repair Details** tab of the **Parts** form, the system automatically generates the work order for a **Qty. Assigned** of 0, and you must use the Assign Repair Details popup on the work order to make assignments.

Scheduling work

View the current work order schedule, calculate labor availability, and view labor utilization. Schedule unscheduled or backlogged work orders. Reschedule work orders as necessary. Additionally, you can view work order comments, change the work order status, and freeze or unfreeze activity schedules. You may balance the workload on the **WO Load Balancing** form.

Viewing the work order schedule

View the work order schedule to gather information concerning current maintenance projects and to assist in future scheduling.

To view the work order schedule:

1 Select **Work > WO Planning > WO Scheduling**.

2 Specify this information:

Organization
Specify the organization for which to view schedules if you use multi-organization security.

Schedule By
Select one of the following options:

- **Employee**
  Select to view the schedule by employee.

  The system displays **Employee**. Enter for **Employee**, the Employee for whom you wish to view the work order schedule for the date selected on the calendar.

- **Trade/Department**
  Select to view the schedule by trade/department.

  The system displays **Trade** and **Department**. Enter for **Trade**, the trade for which you wish to view the work order schedule for the date selected on the calendar. You may also enter, for **Department**, the department for which you wish to view the work order schedule to further filter the trade records for the date selected on the calendar.

Note: To refresh the work order schedule, click **Refresh**.

See this table when viewing the work order schedule:

View	Procedure
Daily schedule	Select from the calendar the day for which to view the schedule. The system displays the daily schedule in the top portion of the form.
Unscheduled work orders	Select Unscheduled WOs for **Dataspy** in the **Activities** section of the form.

View	Procedure
Backlogged work orders	Select Backlogged WOs for **Dataspy** in the **Activities** section of the form.

Calculating labor availability

Calculate the total number of hours that are available for work during a given period. Use the available hours to schedule labor.

Organization, **Trade**, and **Department** serve as filters for employees who are associated with specific organizations, trades, and departments. Enter an organization to calculate labor availability for all employees assigned to that organization and to an active shift. Enter a trade to calculate labor availability for all employees assigned to that trade and to an active shift. Enter a department to calculate labor availability for all employees assigned to that department and to an active shift. Finally, enter any combination of **Organization**, **Trade**, or **Department** to calculate labor availability for all employees that match that specific combination. Leave **Organization**, **Trade**, and **Department** empty to calculate labor availability for all active shifts.

Note: You have to assign the employee to a shift in order for the employee's availability to be part of the calculation.

You may also calculate labor availability on the **Record View** tab of the Employees page.

Note: Infor strongly recommends that you calculate labor availabilities before scheduling work orders in the system.

To calculate labor availability:

1. Select **Work > WO Planning > WO Scheduling**.
2. Click **Calculate Availability**.
3. Specify this information:

   Organization
   Specify the organization for which to calculate labor availability.

   Trade
   Specify the trade for which to calculate labor availability.

   Department
   Specify the department for which to calculate labor availability.

   Note: The system totals employee exceptions for **Trade** and **Department** to calculate the total amount of labor hours available for a specific time-frame.

   Enter the **Start Date** and **End Date** of the period for which to calculate available labor.

   Note: End Date must be later than or equal to **Start Date**.

4. Click **Calculate**.

5 Click **Close**.

Viewing labor utilization

View labor utilization percentages for each calendar day.

To view labor utilization:

1 Select **Work > WO Planning > WO Scheduling**.

2 Specify this information:

Organization
Specify the organization for which to view labor utilization if you use multi-organization security.

Schedule By
Select one of the following options:

- **Employee**
  Select to view the schedule by employee.

  The system displays **Employee**. Enter for **Employee**, the Employee for whom you wish to view the labor utilization for the date selected on the calendar.

- **Trade/Department**
  Select to view the schedule by trade/department.

  The system displays **Trade** and **Department**. Enter for **Trade**, the trade for which you wish to view the labor utilization for the date selected on the calendar. You may also enter, for **Department**, the department for which you wish to view the labor utilization to further filter the trade records for the date selected on the calendar.

3 Place the cursor over a calendar day to view the employee or trade/department utilization percentage for that day. The colors indicating labor utilization only appear on the calendar after you calculate labor availability. See this table when viewing the labor utilization.

Color	Significance
Gray	Non-working day for the organization or no labor scheduled for this day.
Green	Total scheduled hours are less than total available hours, and labor utilization is less than 80%.
Yellow	Total scheduled hours are between 80% and 100% of total available hours.
Red	Total scheduled hours exceed the total available hours.

Scheduling or rescheduling work orders

Schedule unscheduled or backlogged work orders. Reschedule work orders as necessary.

To schedule or reschedule work orders:

1 Select **Work > WO Planning > WO Scheduling**.

2 Specify this information:

Organization
Specify the organization for which to schedule work if you use multi-organization security.

Schedule By
Select one of the following options:

- **Employee**
  Select to schedule by employee. The system displays **Employee**. Enter, for **Employee**, the Employee for whom you wish to schedule the work.

- **Trade/Department**
  Select to schedule by trade/department. The system displays **Trade** and **Department**. Enter, for **Trade** and **Department**, the trade and department for which you wish to schedule the work.

- **Auto Refresh**
  Select for the system to automatically refresh the Daily Schedule list after scheduling an activity on the calendar. If you do not select **Auto Refresh**, the activity will not automatically appear in the Daily Schedule list until you manually click **Refresh**.

See this table when scheduling or rescheduling work orders:

Function	Procedure
Schedule unscheduled work orders	Select Unscheduled WOs for **Dataspy** in the **Activities** section of the form, and then select a work order from the list and drag it to the day on the calendar for which to schedule it. The system creates a new work order schedule record.
Schedule backlogged work orders	Select Backlogged WOs for **Dataspy** in the **Activities** section of the form, and then select a work order from the list and drag it to the day on the calendar for which to schedule it. The system creates a new work order schedule record.
Reschedule work orders	Select the work order to reschedule in the Daily Schedule list, and then drag it to the day on the calendar for which to reschedule it. You must select either today's date or a future date as the reschedule date on the calendar.

Viewing work order comments

View work order planning and work order activity-related comments on the **Work Order Scheduling** form.

To view work order comments:

1. Select **Work > WO Planning > WO Scheduling**.
2. Select a work order for which to view comments from the Activities list, and then click **View Comments**.
3. Specify this information:

   Comments Type
   Select one of the following options:

   - **Activity**
     Select to view comments associated with the work order activity.
   - **Task Instructions**
     Select to view task instructions associated with the task defined on the work order activity.
   - **Work Order**
     Select to view work requested comments associated with the work order.

4. Click **Close**.

Changing work order status

Change work order status on the **Work Order Scheduling** form.

To change work order status:

1. Select **Work > WO Planning > WO Scheduling**.
2. Select a work order for which to view comments from the Daily Schedule list, and then click **Change WO Status**.
3. Specify this information:

   New Status
   Select the status to which to change the work order.

   Note: You may only select a **New Status** with a system status of R.

4. Click **Submit**.

Freezing and unfreezing activity schedules

Temporarily freeze a schedule to compare the actual work done against the work that you scheduled. Frozen activity schedules cannot be updated.

To freeze and unfreeze activity schedules:

1. Select **Work > WO Planning > WO Scheduling**.
2. Right-click on the form, and then choose **Freeze/Unfreeze**.
3. Specify this information:

   Freeze/Unfreeze
   Select **Freeze** to freeze the schedule, or select **Unfreeze** to unfreeze the schedule.

   From Date/To Date
   Specify the starting and ending dates for the freeze period.

   Department
   Specify the department for which to freeze or unfreeze schedules.

4. Click **Submit**.

Balancing the workload

Balance the workload by adjusting the schedule. The **WO Load Balancing** form consists of three pages: the **Parameters** page, on which you define the selection criteria for locating the work orders to balance; the **Preview** page, on which you can preview the work orders prior to actually balancing them and select or unselect the work orders to process as necessary; and the **Balance Load** page, on which you can balance the work order load.

The **Generate Options** section of the **Parameters** page enables you to specify the manner in which the system processes the work orders.

The **Preview** page allows you to preview all of the work orders selected for processing based on the selection parameters, enabling you to select or unselect work orders to balance. You can select or unselect individual work orders for processing, or you can select or unselect all work orders for processing.

Note: The system does not enable you to balance the workload for work orders of **TypeST** (standing work order) or **MEC** (multiple equipment child).

The **Balance Load** page enables you to view labor availability and reschedule work.

To balance the workload:

1. Select **Work > WO Planning > WO Load Balancing**.
2. Specify this information:

   Work Order Org.
   Specify the organization to which the work order belongs if you use multi-organization security.

3 Enter selection criteria as necessary in the **Selection Parameters** section of the form.

Note: You can enter wildcards for the **Department**, **PM Schedule**, **Project Budget**, **WO Type**, **Priority**, **Trade**, **Status**, **Reported By**, **Work Order**, **Assigned To**, and **Assigned By** parameters. Enter the first character of the parameter followed by a percentage sign, and then click **Process**. For example, if you enter E% for **Trade**, the system retrieves all work orders with a trade that begin with the letter "E" on the **Preview** tab.

4 Specify this information:

Schedule Window (Days)
Specify the number of days into the future for which to calculate labor availability.

Sort By
Select whether to sort by **Reported Date** or by **Scheduled Start Date**.

5 Click **Process**.

6 Select each work order you wish to balance, or you can unselect each work order you do not wish to balance as necessary.

Note: To select all the work orders at once, select **Select**. To unselect all the work orders at once, clear **Select**.

7 Click **Lock Selected Work Orders**.

8 Select a work order, and then click the next arrow to move the current work order ahead in time. Click the previous arrow to move the current work order back in time. You may also click a specific date cell to change the work order date. In the lower section of the form, the system displays colors to represent labor availability versus labor required for the work order:

- **Green**
  Available labor hours exceed required labor hours

- **Yellow**
  Required labor hours equal available labor hours

- **Red**
  Required labor hours exceed available labor hours

By adjusting work orders in the schedule, you can reschedule them at times when enough labor is available, and thus balance the workload.

9 Click **Update Activity** to update the work order activity.

10 Specify this information:

Activity-Trade
Select the activity-trade for which to update the trade or start date.

Trade
Specify the trade to update for the activity.

Start Date
Specify the starting date to update for the activity.

11 Click **Save**.

12 Click **Close Session and Update Work Orders**.

Note: To save the work order balancing session, click **Save Session**.

To cancel the work order balancing session, click **Cancel Session**.

Viewing work order details while balancing the workload

View work order details while balancing the workload for a work order to access specific information about a work order that can affect the scheduling of the work order, such as the location, priority, start and due dates, etc.

To view work order details while balancing the workload:

1 Select **Work > WO Planning > WO Load Balancing**.

2 Generate, preview, and lock the list of work orders to balance as necessary.
See "Balancing the Workload" on page 606.

3 Select the work order for which to view details, and then click **View WO Details**.

4 View the work order details for the work order to balance.

5 Click **Close**.

Completing work

This section describes the process for completing work information. You may close work orders on the **Closing** page or on the **Work Order Quick Close** form. Depending on your particular system parameter configuration, you may or may not be able to complete transactions for the closed work order. Also, in certain cases, you may not be able to close work orders if there are still purchases outstanding. Reopen closed work orders if necessary.

Closing work orders

Close completed work orders.

Note: If you close a PM work order, the system generates the next PM work order.

You may also close work orders on the Work Order Quick Close page.

See "Closing work orders on the quick close page" on page 610.

You cannot close a work order if any of the following conditions is true:

- If **Prevent WO Completion** is selected for the **Equipment** on the work order header or any of the associated MEC work orders
- If the WOCLPOUT installation parameter is set to NO and the work order or one of the MEC work orders is referenced on an active purchase order or requisition line
- If the WOCLPOUT installation parameter is set to NO and the work order or one of the MEC work orders contains one or more direct purchase parts that have been received to a **Store** but not yet issued to the work order
- If the EVTCASCD installation parameter is set to NO and the work order is the parent of at least one open dependent child work order

  Note: The setting of the EVTCASCD installation parameter does not affect the **Status** of a MEC work order when you change the Status of the parent multiple equipment order because the system always cascades the Status of the parent multiple equipment work order to the associated MEC work orders.

To close work orders:

1. Select **Work > Work Orders**.
2. Select the work order to close, and then click the **Closing** tab.
3. Specify this information:

   Status
   Select **Completed** as the status of the work order.

   Note: If you close a work order that is a template standard work order and that has children attached, the system recalculates and updates the status of all child work orders attached. If you close the last child work order in a sequence, the system recalculates the requested start and end dates for all child work orders.

   Depending on your system configuration, you may not be able to close a parent work order until all dependent child work orders have been closed. Contact your system administrator for more information.

   You can reopen a work order after it is closed if the REOPENPM installation parameter is set to YES and you have the proper status authorization to do so. However re-opening a parent work order does not affect any child work orders of the parent work order regardless of whether the child work order is dependent on the parent or the setting of the EVTCASCD installation parameter.

   If the work order is a multiple equipment work order, then the system updates the **Status** of all MEC work orders associated with the work order to the **Status** of the parent work order.

   Equipment
   Specify the equipment on which the work was performed.

   Note: If the equipment record was previously flagged as **Prevent WO Completion**, you will not be able to close the work order.

   Start Date
   Specify the date on which the work started.

Date Completed
Specify the date on which the work was completed.

Note: When closing a multiple equipment work order, the system copies the **Date Completed** to any open MEC work orders associated with the parent multiple equipment work order and overwrites the existing **Date Completed** on the MEC work orders. However, the system does not overwrite the **Date Completed** on any MEC work orders that were completed prior to closing parent multiple equipment work order.

Downtime Cost
Specify the cost of the downtime to the production process.

Downtime Hours
Specify the number of hours that the equipment was down.

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the equipment or component failed.

Cause Code
Specify the problem cause code, i.e., the root cause of the problem.

Action Code
Specify the code of the action taken to correct the problem.

Note: If the work order is a multiple equipment work order and you modify the **Problem Code**, **Failure Code**, **Cause Code**, and/or **Action Code**, the system cascades the change to the corresponding codes on any MEC work orders that are not completed, overwriting any existing values.

4 Click **Save Record**.

Closing work orders on the quick close page

Quickly close completed work orders on the Work Order Quick Close page. When you enter a work order number, the system automatically enters a status of Completed and enters today's date as the date completed so that you may quickly close the work order. However, you may also update any information about the work order and book additional hours for the work order activities on this page.

Note: If you close a PM work order, the system generates the next PM work order as long as the PM work order is not a duplicate.

You may also close work orders on the **Closing** tab.

See "Closing Work Orders" on page 608.

To close work orders on the Work Order Quick Close page:

1 Select **Work > WO Quick Close**.

2 Specify this information:

Work Order
Specify the work order number of the work order you wish to close.

The system automatically populates the work order description, **Organization**, and **New Status** with a value of Completed.

Equipment
Specify the equipment on which the work was performed.

Note: If the work order is a multiple equipment work order, then **Equipment** (on the work order header) is protected.

New Status
Select **Completed** as the new status of the work order.

Note: If you close a work order that is a template standard work order and that has children attached, the system recalculates and updates the status of all child work orders attached. If you close the last child work order in a sequence, the system recalculates the requested start and end dates for all child work orders.

A parent work order cannot be closed until all dependent child work orders have been closed.

Start Date
Specify the date and time on which the work started.

Date Completed
Specify the date on which the work was completed.

Downtime Cost
Specify the cost of the downtime to the production process.

Downtime Hours
Specify the number of hours that the equipment was down.

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the equipment or component failed.

Cause Code
Specify problem cause code, i.e., the root cause of the problem.

Action Code
Specify the action taken to correct the problem.

Closing Comments
Enter closing comments about the work order.

Specify the following information to book additional hours to the work order:

Activity-Trade
Select the activity-trade performing the work for which to book labor hours.

Note: When you select an **Activity-Trade**, the system temporarily protects **Work Order** to prevent an accidental change during the process of booking hours. However, upon saving the booked hours or clicking **Clear**, the system enables Work Order and clears the **Activity-Trade**. However, if you manually clear **Activity-Trade**, **Work Order** remains protected.

If the selected **Work Order** is a multiple equipment work order, then the system enables **Equipment** in the details section of the form, and it is required. If you clear **Activity-Trade** for a multiple equipment work order, the system also clears the **Equipment**, **Equipment Org.**, and **Related Work Order**.

Employee
Specify the personnel performing the work for which to book hours.

Date
Specify the date on which the work was performed.

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

- **All Equipment**
  Enter **All Equipment** to evenly distribute the booked labor to each equipment record on the work order. Upon saving the transaction, the system creates the labor booking records and applies them to each related work order for each equipment and selected activity. The **Rate** applicable to the multiple equipment work order will also be applied to all MEC work orders.

  Note: The system automatically applies any remainder of the **Hours Worked** to the last equipment record added to the work order.

  If you select All Equipment for **Equipment** and at least one of the related work orders has Completed status (or equivalent user status), the system displays a message enabling you to select whether to distribute the labor hours against only open related work orders or against all equipment.

  Also, the system disregards the setting of the COMDAYS installation parameter when posting labor booking transactions if you select All Equipment.

- **WO Header Equipment**
  Enter **WO Header Equipment** to apply the booked labor to the work order header only.

- **Equipment**
  Enter a specific **Equipment** record to apply the booked labor to the selected **Equipment** and the corresponding **Related Work Order**. The system automatically populates **Equipment Org.** and **Related Work Order** from the selected **Equipment** record.

  See "Adding Equipment to Work Orders to Split Work Order Costs" on page 502.

Type of Hours
Select the type of hours worked (e.g., hourly rate, overtime rate, corrective booking, etc.).

Hours
Specify the number of hours spent performing the work.

End Time
Specify the scheduled start time and end time of the work order activity.

3 Click **Save Hours**.
4 Repeat these steps as necessary to book any additional hours against the work order activity.
5 Click **Save Record**.

Reopening closed work orders

Reopen closed work orders when changes to the work order are required or when requisitions or purchase orders related to the closed work order must be generated. Only users with proper authorization may reopen closed work orders. Depending on your system configuration, you may not be able to reopen closed work orders. Contact your system administrator for more information.

To reopen closed work orders:

1 Select **Work > Work Orders**.
2 Select the work order to reopen, and then click the **Closing** tab.
3 Specify this information:

Status
Select **Released** as the status of the work order.

4 Click **Save Record**.

Note: Reopened is selected when the work order is saved.

Creating operator checklist results for equipment

View and create checklist results for equipment on this form without going to the **Checklist** tab of the **Work Order** form. After an operator checklist is created, the user can complete or cancel it on this screen.

To create operator checklist results for equipment:

1 Select **Work > Additional Features > Operator Checklist > Operator Checklist**.
2 Specify this information:

Organization
Specify the organization of the operator of the checklist you are creating.

Equipment
Specify the equipment for which to create or view the checklist results. The equipment description, **Equipment Org.**, **Equipment Class**, and **Equipment Class Org.** are automatically populated.

Task Plan
Specify the task plan of the equipment. The task plan description, **Task Plan Revision**, and **Start Date/Time** are automatically populated.

3 Click **Create Checklist**. **Operator Checklist Number** and **Created By** are automatically populated.

4 Specify this information to modify the checklist items:

Job
Optionally, specify the job for which to modify operator checklist results, or select **Show All Records** to display all of the checklist items for the task plan, including pre-planned jobs or a job created specifically for the task plan.

Note: If the task plan **Planning Level** is set to **Job Plan**, select the job for which to create a planned labor record.

Alternately, if the task plan **Planning Level** is set to **Task Plan** and **Job** is set to **Show All Records** all of the records for the selected task plan are displayed.

Performed By
Specify the person performing the checklist.

Reviewed By
Specify the person reviewing the checklist.

5 Enter results of the checklist based on the checklist item:

Completed
Select the check box if **Type** is **Checklist Item**.

Select **Yes** or **No** if **Type** is **Question**.

Enter **Finding** if **Type** is **Qualitative**.

Enter **Value** if **Type** is **Quantitative** or **Meter Reading**.

Enter **Finding** and **Value** if **Type** is **Inspection**.

Notes
Specify any relevant notes for the checklist item results.

Final Occ.
Select the check box if the results entered represent the final occurrence of the specific checklist item. This only applies to repeating checklist items.

Follow-up
Select the check box for specific checklist items to later generate follow-up work orders for the checklist item.

6 Click **Actions**, and then select **Create Follow-up WO** to generate follow-up work orders for all checklist items of the selected operator checklist record where **Follow-up** is selected and where **Follow-up WO-Activity** and **Deferred Maintenance No.** are not populated.

7 Click **Actions**, and then select **Create Deferred Maintenance** to generate a deferred maintenance activities record for the organization of the selected operator checklist, and the department of the equipment on the selected operator checklist.

8 Choose one of the following options

Move to Complete
Select to indicate the checklist is complete. The status is updated to **Complete Status**.

Move to Cancel
Select to cancel the checklist. The status is updated to **Cancel Status**.

9 Click **Submit**.

Reviewing operator checklist results for equipment

Review and complete checklist results for equipment on this form without going to the **Checklist** tab of the **Work Order** form.

To review operator checklist results for equipment:

1 Select **Work > Additional Features > Operator Checklist > Review Operator Checklist**.

2 Specify this information:

Status
Select the status of the operator checklist you want to review.

Performed By
Specify the person who performed the checklist.

Reviewed By
Specify the person reviewing the checklist.

3 Enter results of the checklist based on the checklist item:

Completed
Select the check box if **Type** is **Checklist Item**.

Select **Yes** or **No** if **Type** is **Question**.

Enter **Finding** if **Type** is **Qualitative**.

Enter **Value** if **Type** is **Quantitative** or **Meter Reading**.

Enter **Finding** and **Value** if **Type** is **Inspection**.

Notes
Specify any relevant notes for the checklist item results.

Final Occ.
Select the check box if the results entered represent the final occurrence of the specific checklist item. This only applies to repeating checklist items.

Follow-up
Select the check box for specific checklist items to later generate follow-up work orders for the checklist item.

4 Click **Actions**, and then select **Create Follow-up WO** to generate follow-up work orders for all checklist items of the selected operator checklist record where **Follow-up** is selected and where **Follow-up WO-Activity** and **Deferred Maintenance No.** are not populated.
5 Click **Actions**, and then select **Create Deferred Maintenance** to generate a deferred maintenance activities record for the organization of the selected operator checklist and the department of the equipment on the selected operator checklist.
6 Click **Save Record**.

Performing revision control

Revision control tracks and controls the authorization of modifications to entities.

Note: Set the installation parameter PMRVCTRL to YES to activate Revision Control. Contact your system administrator for more information.

Defining revision control approval lists

Create a revision control approval list to assign approvers to be designated for an entity revision record.

To define revision control approval lists:

1 Select **Work > Revision Control > Approval Lists**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the approval list belongs if you use multi-organization security.

Approval List
Specify a name for the approval list, and then enter an approval list description in the adjacent field.

4 Click **Save Record**.

Defining approvers for revision control approval lists

Manage the list of approvers for an existing revision control approval list on the **Revision Control Approval Lists** form.

To define approvers for revision control approval lists:

1. Select **Work > Revision Control > Approval Lists**.
2. Select the list for which to define an approver, and then click the **Approvers** tab.
3. Click **Add Approver**.
4. Specify this information:

   Approver
   Enter the approver to add to the approval list. The system automatically populates the approver description.

   Sequence
   Enter an approval order for the approver.

   Responsibility
   Enter the designation of the approver assigned to the revision, e.g. **Manager1**, **Supervisor1**, **Foreman1**.

5. Click **Submit**.

Approving revisions

View revision approval records for various entities (PMs, tasks, material lists, and routes) and approve revisions when necessary.

To approve revisions:

1. Select **Work > Revision Control > Revision Approval**.
2. Select the revision record to approve, and then click **Approve**.

   Note: If the approval list contains multiple approvers, the system updates **Approver** and **Date**. Once the final approver approves the revision, the system removes the record from the **List View** page.

Rejecting revisions

To reject revisions:

1. Select **Work > Revision Control > Revision Approval**.
2. Select the revision record to reject, and then click **Reject**.
3. Specify this information:

Reject Reason
Specify a reason for rejecting the revision.

4 Click **OK**.

Note: Once a revision is rejected, the system removes the record from the **List View** page.

Viewing approvers

Access the **Approvers** page of the **Revision Control Approvals** form to view approvers for the selected revision.

To view approvers:

1 Select **Work > Revision Control > Revision Approval**.
2 Select the revision for which to view approvers, and then click the **Approvers** tab.
3 View the list of approvers.

Note: To reject an approver for revision control, select the approver to reject, and then click **Reject**.

Approving parent PMs for revision control

View the list of PM and PM-related revisions to evaluate the change to the associated entity record in terms of the PM schedule.

To approve parent PMs for revision control:

1 Select **Work > Revision Control > Revision Approval**.
2 Select the revision record for which to approve parent PMs, and then click the **Parent PMs** tab.
3 Select the Parent PM record to approve, and then click **Approve**.

Note: If you are the final approver in this process, the system assigns a status of Finished and removes the record from the **Parent PMs** page.

To reject a parent PM for revision control, select the parent PM to reject, and then click **Reject**.

Viewing revision control approval history

History records are updated when users approve or reject revisions on the **Revision Control Approvals** form. The records display the designated approver and date.

To view revision control approval history:

1 Select **Work > Revision Control > Revision Control History**.

2 View the approval history.

Setting up revision control for PM work orders

Designate which PM work order fields, link buttons, and right-click options the system will protect when PM revision control is enabled for the Work Orders form and all work order-related tabs. Right-click options that are not work order specific, e.g., Audit Trail are not available for revision control setup.

Note: Revision Control must be enabled. Set PMRVCTRL to YES to activate PM Revision Control capabilities. Otherwise the system will not update any changes made on the form. Comments, Documents, and Translations tabs are not revision control enabled.

To set up revision control for PM work orders:

1 Select **Work > Revision Control > Revision Control Setup**.

2 Specify this information:

Protected
Select to protect the field on the Work Orders form and all work order-related tabs.

3 Click **Save Record**.

Note: If no boiler text exists for the field, e.g., work order description, the system displays the ID element for the field.

Setting up revision control for hazards

Designate which hazard fields, and link buttons the system will protect when hazard revision is not **Unfinished**.

To set up revision control for hazards:

1 Select **Work > Revision Control > Revision Control Setup**.

2 Click the **Hazards** tab.

3 Specify this information:

Protect
Select to protect the field on the **Hazards** form and all hazard-related tabs.

4 Click **Save Record**.

Setting up revision control for isolation points

Designate which isolation point fields, tabs, and link buttons the system will protect when isolation point revision is not **Unfinished**.

To set up revision control for isolation points:

1. Select **Work > Revision Control > Revision Control Setup**.
2. Click the **Isolation Points** tab.
3. Specify this information:

   Protect
   Select to protect the field on the **Isolation Points** form and all isolation point-related tabs.

4. Click **Save Record**.

Setting up revision control for precautions

Designate which permit fields, tabs, and link buttons the system will protect when precautions revision is not **Unfinished**.

To set up revision control for precautions:

1. Select **Work > Revision Control > Revision Control Setup**.
2. Click the **Precautions** tab.
3. Specify this information:

   Protect
   Select to protect the field on the **Precautions** form and all precaution-related tabs.

4. Click **Save Record**.

Setting up revision control for permits

Designate which permit fields, tabs, and link buttons the system will protect when isolation point revision is not **Unfinished**.

To set up revision control for permits:

1. Select **Work > Revision Control > Revision Control Setup**.
2. Click the **Permits** tab.
3. Specify this information:

   Protect
   Select to protect the field on the **Permits** form and all permit-related tabs.

4. Click **Save Record**.

Defining initial service request information

Define initial service request information before creating service requests.

Creating customers

To create customers:

1. Select **Work > Contract Management > Customers**.
2. Click **New Record**.
3. Specify this information:

Organization
Specify the organization to which the customer belongs if you use multi-organization security.

Customer Code
Specify a unique code identifying the customer, and then enter the name or a description of the customer in the adjacent field.

Language
Select the customer's language. The language selected will be the default language for the customer in the system.

Currency
Specify the currency for the customer.

Class
Specify the class of the customer.

Out of Service
Select to indicate that the customer is no longer used.

Status
Specify a status to categorize the customer by status.

Parent
Specify the parent company. Using the "Parent" attribute, you can indicate whether a customer is part of a larger organization.

Customer
Select to indicate that this customer purchases goods or services from you. Selecting **Customer** inserts the customer into the lookup from which you select customers on any other forms within the system. Unselect to indicate that the customer does not purchase goods or services from you.

Customer Account Code
Specify the customer's account code to apply to invoices, contracts, or rental contracts generated for this customer.

Customer Cost Center
Specify the customer's cost center to apply to invoices, contracts, or rental contracts generated for this customer.

Tax Code
Specify the supplier's tax code to indicate the tax that must be applied to invoices generated for this customer.

Enter the customer's **Contact Name**, **Telephone**, **Fax Number**, and **E-mail Address**.

Our Contact
Specify the customer's primary contact for your organization.

EDI Number
Specify the customer's electronic data interchange (EDI) number for processing electronic transaction information.

4 Click **Save Record**.

Associating properties with customers

Associate properties with customers to easily create service requests for customers. Properties are based on the property-building-floor/unit structure established on the **Service Request** page.

Note: You must define property structures before associating properties with customers.
See "Defining Property Code-structure Combinations for Service Requests" on page 624.

To associate properties with customers:

1 Select **Work > AMS-Customer**.
2 Select the customer with which to associate a property, and then click the **SR-Properties** tab.
3 Click **Add Property**.
4 Specify this information:

Property
Specify the property to associate with the customer.

Note: If you enter a **Property** only, the system assumes that lower-level values are implied. In this case, you cannot use the same property twice for the same customer.

Building
Specify the building of the property to associate with the customer.

Floor/Unit
Specify the floor or unit of the building and property to associate with the customer.

5 Click **Submit**.

Creating callers for customers

Associate customers' employee names with customer records to help identify callers for service requests.

To create callers for customers:

1 Select **Work > AMS-Customer**.
2 Select the customer for which to create a caller, and then click the **Callers** tab.
3 Click **Add Caller**.
4 Specify this information:

Org.
Specify the organization to which the customer caller belongs if you use multi-organization security.

Name
Specify the name of the caller.

ID
Specify the user ID that the customer can use to log in to the customer service request system.

Phone
Specify the primary phone number of the caller.

E-mail
Specify the primary e-mail address of the caller.

Fax
Specify the primary fax number of the caller.

Property
Specify the default property of the caller.

Building
Specify the default property building of the caller.

Floor/Unit
Specify the default building floor or unit of the caller.

Allow Service Request Creation
Select to indicate that the caller may create new service requests.

5 Click **Submit**.

Viewing customer requests for work orders

To view customer requests for work orders:

1 Select **Work > Work Orders**.

2 Select the work order for which to view customer requests, and then click the **Customer Requests** tab.
3 View the customer request for the work order.
See "Entering Customer Requests" on page 897 and "Processing an Action Request" on page 903.

Defining property code-structure combinations for service requests

Define property code-structures for service requests that reflect actual property-building-floor/unit hierarchies.

When defining property code-structure combinations for service requests, you must first define a level one property before you can create lower levels. For example, you must insert a record for "Property A" before inserting a record for "Property A – Building 1."

To define property code-structure combinations for service requests:

1 Select **Work > Service Request Setup > Properties**.
2 Click **Add Property**.
3 Specify this information:

Property
Specify the name of the property.

Building
Specify the name of the building to associate with the property.

Floor/Unit
Specify the name of the floor or unit to associate with the building and property combination.

4 Click **Submit**.

Associating properties with employees

To associate properties with employees:

1 Select **Work > Setup > Employees**.
2 Select the employee for whom to associate properties, and then click the **Properties** tab.
3 Click **Add Property**.
4 Specify this information:

Property
Specify the property with which to associate the employee.

5 Click **Submit**.

Managing property information

Enter property information that users can access when creating information requests as customers call in requesting additional information.

To manage property information:

1 Select **Work > Service Request Setup > Property Information**.

2 Click **Add Information**.

3 Specify this information:

Property
Select the property for which to add information.

Information Type
Select the category of information to add.

Information
Specify the relevant information.

4 Click **Submit**.

Creating service codes

Create service codes that identify work request problems to add to service requests. You can create a service code based on a standard work order and the system will populate a service description and priority.

To create service codes:

1 Select **Work > Service Request Setup > Service Codes** .

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the service code belongs if you use multi-organization security.

Service Code
Specify a code identifying the service code, and then enter a description in the adjacent field.

Property
Specify the property with which to associate the service code.

System
Specify the system equipment with which to associate the service code.

Standard WO
Specify the standard work order with which to associate the service code.

Customer Selectable
Select to allow callers to choose this service code on a service request.

Billable
Select to indicate that this service code is billable on a service request. If selected, the system also marks the service request as **Billable** on the **Closing** tab of the **Service Requests** form.

Std. Response Time
Specify, in minutes, the standard response time of the service code to use as a benchmark for evaluating response times to service requests that reference this service code.

Estimated Cost
Specify the estimated cost of the service code.

Priority
Specify the priority level of the service code.

4 Click **Save Record**.

Creating service requests

Create service requests when tenants call in to request maintenance. Use the search bar to quickly locate information associated with the caller. If the caller record does not exist, you may quickly create a new caller record. If a caller record does exist, you may edit the caller's information and then enter service request details.

To create service requests:

1 Select **Work > Service Requests**.
2 Click **New Record**.
The system automatically populates **Date/Time Reported** with the current date and time.
3 Specify this information:

Organization
Specify the organization to which the service request belongs if you use multi-organization security.

Find Caller By
Select the desired search criteria.

Enter a value for **that contains**, and then click **Search**. A caller record that matches the search criteria is searched for, and one of the following results is returned:

- **One matching caller record is located**
The system automatically populates the **Requestor Name**, **Requestor Phone**, **Requestor E-mail**, **Customer**, **Customer Type**, **Property**, **Building**, and **Floor/Unit**.

- **An exact match to the search criteria is not located but several caller records that begin with the same criteria are located**
  The system displays the Callers popup. If you see the caller record you need in the list, select the caller record for which to create a service request, and then click **OK**. The system automatically populates the **Requestor Name**, **Requestor Phone**, **Requestor E-mail**, **Customer**, **Customer Type**, **Property**, **Building**, and **Floor/Unit** if available.

- **No caller records that match the search criteria are located**
  Create a new caller record.

Service Request
Enter a description of the service request in the adjacent field.

Service Code
Specify the code identifying the requested service. **System**, **Priority**, **Std. Response Time**, **Act. Response Time**, **Act. Time Open**, **Estimated Cost**, and currency are entered, if available.

System
Specify the code identifying the system that needs repair.

Priority
Select the priority of the service request.

Class
Specify the class of the service request.

Status
Select the status of the service request.

Service Request Type
Select the type of the service request.

Requestor Name
Specify the name of the person requesting service.

Requestor Phone
Specify the phone number of the person requesting service.

Requestor E-mail
Specify the e-mail address of the person requesting service.

Reference Number
Specify the reference number for the service.

Contact Name
Specify the contact name of the person at the site needing service.

Contact Phone
Specify the contact person’s phone number.

Contact E-mail
Specify the contact person’s e-mail address.

Assigned To
Specify the name of the person responsible for completing the work.

Customer
Specify the requestor’s customer name, e.g., the name of the company for whom the requestor works.

Property
Specify the name of the property needing service.

Building
Specify the name of the building needing service.

Floor/Unit
Specify the name of the floor/unit needing service.

Area
Specify the name of the area needing service.

4 Enter any additional comments about the service request.

5 Click **Save Record**.

The system automatically populates **Created By** with the **User ID** of the person who created the service request and populates **Created On** with the date and time the service request was created.

Note: The system verifies whether the service request being created is a duplicate or repeated service request. If the service request is a duplicate or repeated service request, the system displays a message with a list of possible matches and asks whether to mark the new service request as a duplicate or a repeat. If you select to duplicate or repeat an existing service request, the system marks the service request as either a **Duplicate Parent** or **Repeated Parent**, respectively.

To view a list displaying all requests for the specified caller, right-click on the **Service Requests** form, and then choose **View Requests for Caller**.

To view a list displaying all requests for the specified customer, right-click on the **Service Requests** form, and then choose **View Requests for Customer**.

To create a work order for the service request, right-click on the **Service Requests** form, and then choose **Create WO**. Once you choose to create a work order, the system generates a work order for which you may assign one or multiple activities. The new work order number is the same as the service request number, but it also contains a prefix of "SR."

Creating new caller records

Create a new caller record if you cannot locate a caller record via the **Find Caller By** field.

See "Creating Service Requests" on page 626.

To create new caller records:

1 Select **Work > Service Requests**.

2 Click **New Record**.

3 Right-click on the form, and then choose **Add/Edit Caller**.

4 Specify this information:

Org.
Specify the organization to which the customer caller belongs if you use multi-organization security.

Customer
Specify the caller's customer name, e.g., the name of the company for whom the caller works.

Name
Specify the name of the caller.

Phone
Specify the primary phone number of the caller.

E-mail
Specify the primary e-mail address of the caller.

Fax
Specify the primary fax number of the caller.

Allow Service Request Creation
Select to indicate that the caller may create new service requests.

Property
Specify the default property of the caller.

Building
Specify the default property building of the caller.

Floor/Unit
Specify the default building floor or unit of the caller.

ID
Specify the user ID that the customer can use to log in to the customer service request system.

5 Click **Save as New**.

Note: Click **Cancel** to close the Create/Edit Caller popup without saving changes.

Click **Reset** to clear all data on the Create/Edit Caller popup.

Editing existing caller records

Edit existing caller records on the Add/Edit Caller popup. Then you may save the changes to the selected caller's record or as a new record.

Note: Editing an existing caller record permanently updates the caller's information in the system. If you only want to specify a different contact person for a specific service request, simply enter the contact's information on the **Service Request** form.

To edit existing caller records:

1. Select **Work > Service Requests**.
2. Click **New Record**.
3. Search for a caller by using the **Find Caller By** search bar.
4. Right-click on the form, and then choose **Add/Edit Caller**.
5. Choose one of the following options:

   - **Save as New**
     Click after you edit existing caller details to save the changes as a new caller record.

   - **Save Changes**
     Click after you edit existing caller details to save the changes to this caller record.

   Note: If an **ID** is listed on the existing record, you must change the**ID** before clicking **Save as New**.

   Click **Cancel** to close the **Add/Edit Caller** popup without saving changes.

   Click **Reset** to clear all data on the **Add/Edit Caller** popup.

Assigning personnel to service requests

Assign personnel to complete work required for a particular service request. Once you choose to assign personnel, the system generates a work order for which you may assign one or multiple activities. The new work order number is the same as the service request number, but it also contains a prefix of "SR."

To assign personnel to service requests:

1. Select **Work > Service Requests**.
2. Select the service request for which to assign personnel, and then click the **Record View** tab.
3. Right-click on the form, and then choose **Assign Personnel**.

   Note: Trade Filter defaults to the trade of the selected work order activity.

4. Specify this information:

   Activity-Trade
   Select the activity-trade to which to assign personnel. The system changes the value of **Trade Filter** to the trade of the selected activity and populates the People Available list with all personnel assigned to the trade.

Note: Select ALL TRADES from **Trade Filter** to display all available personnel associated with the property.

Select ALL PEOPLE from **Trade Filter** to display all available personnel.

Trade Filter
Select the name of the person to whom to assign the work in the People Available list, and then click **>**. The system assigns the person to the highlighted work order activity, removes their name from the People Available list, and displays their name in the People Assigned list.

Repeat this process to add as many people to the activity as necessary.

Note: To clear a person from the People Assigned list, select the name and then click **<**. The system moves their name from the People Assigned list to the People Available list.

5 Repeat the previous step to select additional activities and assign personnel as necessary.

6 Click **Submit**.

Note: Click **Cancel** to close the Assign Personnel to Service Request popup. Clicking **Cancel** does not cancel the personnel assignments already submitted on the popup.

Viewing work order details for service requests

To view work order details for service requests:

1 Select **Work > Service Requests**.

2 Select the service request for which to view work order details, and then click the **Work Order Details** tab.

3 View the work order details.

Closing service requests

To close a service request, the service request to close must be open and associated with an open work order to which personnel is assigned. Closing a service request will also close the work order to which it is associated. Additionally, you must have sufficient system privileges to close both the service request and work order. You may close service requests on the **Closing** page of the **Service Requests** form, or you may book employee time for service requests and close service requests concurrently on the Book & Close tab of the **Service Requests** form.

See "Booking Hours and Closing Service Requests" on page 636.

To close service requests:

1 Select **Work > Service Requests**.

2 Select the service request to close, and then click the **Closing** tab.

3 Specify this information:

Equipment
Modify the equipment on which the work was performed as necessary.

Note: A service request cannot be closed if the **Equipment** associated with it does not permit closure.

Status
Select **Closed**.

Billable
Select whether the service request is billable.

4 Click **Save Record**.

Note: Click **Add Comment** to enter completion comments as necessary.

See "Entering Comments" on page 46.

Booking hours for service requests

Book hours for service requests to track the number of hours spent performing work associated with the service request.

Note: All hours booked for a service request are recorded on the work order associated with the service request.

To book hours for service requests:

1 Select **Work > Service Requests**.
2 Select the request for which to book hours, and then click the **Book Hours** tab.
3 Click **Add Labor**.
4 Specify this information:

Person
Specify the person performing the work for the service request.

Department
Specify the department where the work for the service request was performed.

Trade
Specify the trade that performed the work.

Date Worked
Specify the date on which the work was performed for the service request.

Type of Hours
Select the type of hours worked (e.g., normal rate, overtime rate, etc.).

Hours Worked
Specify the number of hours spent performing the work for the service request.

Note: To quickly enter information when booking hours for a service request, click the row containing the personnel assignment for which to book hours. The system automatically populates the **Person**, **Date Worked**, and **Activity-Trade**. Modify the information as necessary.

Activity-Trade
Select the activity-trade performing the work for the service request.

Rate
Specify or modify the hourly pay rate for the employee or trade performing the work. If you defined a trade rate for the select employee or trade, the system automatically populates **Rate** with the appropriate hourly rate.

If you defined a trade rate for the selected **Employee**, the system populates **Rate** with the employee trade rate. However, if you did not define trade rates for the selected **Employee**, the system populates **Rate** with the trade rate defined for the selected **Trade**.

5 Click **Submit**.

6 Repeat these steps as necessary to book any additional hours against the work order activity for the service request.

Issuing parts for service requests

Issue parts against service requests to record the parts that were used when performing the work associated with the service request.

Note: You may only issue parts to service requests for which a work order has been created.

To issue parts for service requests:

1 Select **Work > Service Requests**.

2 Select the request for which to issue parts, and then click the **Issue Parts** tab.

3 Click **Add Part**.

4 Specify this information:

Part
Specify the part to issue to the service request. The system automatically populates the part description, **UOM**, and **Part Org.** The system selects **Track By Asset** and/or **Track By Lot** if the part is tracked by asset and/or lot and they are protected.

Note: If you are updating a part to issue on the service request and you select a part from the Parts list, the system displays the quantity of the part planned to be used for the service request in **Planned Qty.** and the quantity of the part used to date for the service request in **Used**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Activity-Trade
Specify the activity-trade performing the work for the selected service request.

Store
Specify the store from which to issue parts. **Available** is automatically populated with the quantity of the part available in the selected store for the work order activity after you have entered **Part**, **Activity-Trade**, and **Store**.

Transaction Type
Select **Issue**. **Tool Hours** is protected because the **Transaction Type** is **Issue**.

Date
Specify the desired date of the transaction.

Quantity
Specify the number of parts to issue to the work order. The number must be greater than zero.

Note: If the part is tracked by asset, the **Quantity** must be equal to 1.

Failed Qty.
Specify the quantity of the part that failed.

Note: Part failures are not allowed on an Issue for parts tracked by asset or core tracked.

Date Failed
Specify the date the part failed.

Problem Code
Specify the code of the problem that required work.

Failure Code
Specify the reason that the part failed.

Action Code
Specify the action taken to correct the problem.

Cause Code
Specify the problem cause code, i.e., the root cause of the problem.

Failure Notes
Enter comments about the failure.

Asset ID
Specify the asset ID if the part is tracked by asset.

Bin
Specify the bin from which to issue the parts.

Lot
Specify the lot from which to issue the parts.

5 Click **Submit**.

Note: To record a stockout for a part, select the part, and then click **Record Stockouts**.

See "Recording Stockouts for Parts" on page 266.

Returning parts from service requests

Return unused parts issued to service requests back to stores.

To return parts from service requests:

1 Select **Work > Service Requests**.
2 Select the request for which to return parts, and then click the **Issue Parts** tab.
The system automatically populates **Date** with the current system date and time.
3 Click **Add Part**.
4 Specify this information:

Part
Specify the part to return. The system automatically populates the part description, **UOM**, and **Part Org.** The system selects **Track By Asset** and/or **Track By Lot** if the part is tracked by asset and/or lot and they are protected.

Note: If you are updating a part to return on the service request and you select a part from the Parts list, the system displays the quantity of the part planned to be used for the service request in **Planned Qty.** and the quantity of the part used to date for the service request in **Used**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**. When returning a condition tracked part, the condition in which the part is being returned must be entered in the return condition field.

Activity-Trade
Specify the activity-trade performing the work for the selected service request. The system automatically populates **Available** with the quantity of the part available in the selected store for the work order activity.

Store
Specify the store to which to return parts.

Transaction Type
Select **Return**.

Note: If you select **Return** as the **Transaction Type** for a core tracked part, the system automatically enables **Core Return**. You can select **Core Return** to indicate that the part needs repair. If **Core Return** is selected, the system adds the quantity of the part to return to the **Core Qty.** in the store to which the part is returned.

If RTNANY is set to NO, you can only return the quantity of the part that was originally issued to that entity to the same store. When issuing a part, you issue to an entity (work order, equipment, etc.) from a store. When returning a part, you return from an entity (work order, equipment, etc.) to a store. Regardless of the setting of the RTNANY installation parameter, you cannot return a greater quantity of a part tracked by lot than the quantity of the part that has been used to date for the work order.

Date
Specify the desired date of the transaction.

Quantity
Specify the number of parts to return to the work order. The number must be greater than 0 (zero).

Note: If the part is tracked by asset, the **Quantity** must be equal to 1.

Asset ID
Specify the asset ID if the part is tracked by asset.

Bin
Specify the bin to which to return the parts.

Lot
Specify the lot to which to return the parts.

Tool Hours
If the part you are returning is identified as a tool, specify the number of hours the tool was in use.

5 Click **Submit**.

Booking hours and closing service requests

Book employee time for service requests and close service requests concurrently on the Book & Close page of the **Service Requests** form. To close a service request, the service request to close must be open and associated with an open work order to which personnel is assigned. Closing a service request also closes the work order to which it is associated. You must have sufficient system privileges to close both the service request and work order.

Note: All hours booked for a service request are recorded on the work order associated with the service request.

To book hours and close service requests:

1 Select **Work > Service Requests**.
2 Select the service request for which to book hours and close, and then click the **Book & Close** tab.

3 Specify this information:

Equipment
Modify the equipment on which the work was performed as necessary.

Note: A service request cannot be closed if the **Equipment** associated with it does not permit closure.

Status
Select **Closed**.

Billable
Select whether the service request is billable.

Comments
Enter completion comments as necessary.

4 Click **Add Labor**.

5 Specify this information:

Activity-Trade
Select the activity-trade performing the work for the service request.

Person
Enter the person performing the work for the service request.

Date Worked
Enter the date on which the work was performed for the service request.

Hours Worked
Enter the number of hours spent performing the work for the service request.

6 Click **Submit**.

7 Repeat these steps as necessary to book any additional hours against the work order activity for the service request.

8 Click **Save Record**.

Creating service request log entries

Log entries detail changes that have been made to the service request since its creation. View a service request's log entries and then create additional log entries as necessary.

To create service request log entries:

1 Select **Work > Service Requests**.

2 Select the request for which to create a log, and then click the **Log Entries** tab.

3 Click **Add Log Entry**.

4 Specify this information:

Type
Select the type of log entry you are adding.

Note: If you select Time Correction for **Type**, the system makes **Time Correction** available as a required field. Enter the number of minutes to add or subtract from the response time. For example, to add 35 minutes to the response time, enter 35. To subtract 2 hours from the response time, enter –120. Click **Submit**. The system corrects the response time.

5 Enter log entry comments as necessary.

6 Click **Submit**.
The system automatically populates **Old Status**, **New Status**, **Entered By**, and **Date/Time Entered**.

Creating information requests

Create information requests whenever customers call in requesting additional information.

To create information requests:

1 Select **Work > Service Request Setup > Information Requests**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the service request belongs if you use multi-organization security.

Find Caller By
Select the desired search criteria.

4 Specify a value for **that contains**, and then click **Search**. A caller record that matches the search criteria is searched for, and one of the following results is returned:

- **One matching caller record is located**
  Requestor Name, **Requestor Phone**, **Requestor E-mail**, **Customer**, **Customer Type**, and **Property** are populated.

- **An exact match to the search criteria is not located but several caller records that begin with the same criteria are located**
  If you see the caller record you need in the list, select the caller record for which to create an information request, and then click **OK**. **Requestor Name**, **Requestor Phone**, **Requestor E-mail**, **Customer**, **Customer Type**, and **Property** are populated if available.

- **No caller records that match the search criteria are located**
  Create a new caller record.

5 Specify this information:

Information Request
Specify a description of the information request in the adjacent field.

Customer
Specify the name of the customer store requesting information.

Property
Specify the property for which to view information.

Information Type
Select the category of information to view.

Requestor Name
Specify the name of the person requesting service.

Requestor Phone
Specify the phone number of the person requesting service.

Requestor E-mail
Specify the e-mail address of the person requesting service.

6 Click **Save Record**.

Creating PM plans

Create and update PM plans to create PM schedules or add equipment to multiple PM schedules at once. A PM schedule is a predefined set of preventive maintenance details to be performed on a defined interval for equipment. PM plans enable you to quickly enter and update groups of PM schedules.

For example, you have three different PM schedules for car repairs that include: one for tire rotation, one for oil change, and another for brake adjustments. Create a PM plan and add the three car repair PM schedules to it. You then add 30 cars as equipment on the PM plan, which are then added to the three PM schedules in one click via the PM plan. PM plans and PM schedules are related to one another only by the list of equipment they share.

Note: You can view PM plans and schedules created on the PM Plans and the PM Schedules pages.

The PM plan functionality is not available when the PMRVCTRL installation parameter is set to **Yes**.

Creating PM plan headers

To create PM plan headers:

1 Select **Work > WO Planning > PM Plans**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the PM plan belongs if you use multi-organization security.

Note: If multi-organization security is activated, i.e., the MULTIORG installation parameter is set to YES, you can only attach PMs of the same organization to a PM plan. A PM plan and all PM schedules attached to the plan must share the same **Organization**.

PM Plan
Specify a unique code identifying the PM plan, and then enter a description in the adjacent field.

Class
Specify the class of the PM plan. The classes shown belong to the PM Plan entity.

Equipment Class
Specify the class of the equipment. If you select an equipment class, the system restricts attaching PM equipment associated with other classes to the PM plan.

4 Click **Save Record**.

Copying PM plans

Copy PM plans to quickly create a new PM plan by copying information from an existing PM plan to a new plan.

To copy PM plans:

1 Select **Work > WO Planning > PM Plans**.
2 Select the PM plan to copy, and then click the **Record View** tab.
3 Right-click on the form, and then select **Copy PM Plan**.
4 Specify this information:

New PM Plan
Specify a unique code identifying the new PM plan, and then enter a description of the PM plan in the adjacent field.

5 Select the related details to copy to the new PM plan:

- **Custom Field Values**
- **Comments**
- **Activities**
- **PM Schedules**
- **Equipment**
- **Documents**

6 Click **Submit**.

Associating PM schedules with PM plans

Associate PM schedules with PM plans to manage equipment for all of the PM schedules on the PM plan.

To associate PM schedules with PM plans:

1 Select **Work > WO Planning > PM Plans**.

2 Select the PM plan with which to associate PM schedules, and then click the **PM Schedules** tab.

3 Choose one of the following options:

Associate an existing PM schedule
Specify an existing **PM Schedule**. The system automatically populates the **PM Schedule** description. The system also populates the **WO Type**, **Duration**, **PM Type**, **Class**, **Priority**, **WorkPackage**, and **Perform Every** from the existing PM schedule.

Note: You cannot add an existing PM schedule with equipment to a PM plan.

If you select an existing PM schedule, the system only populates **PM Plan** on the existing PM schedule record. If you update any of the existing PM schedule data from the PM schedule on the PM plan, the system also displays the changes to the PM schedule record.

If there are existing activities on the PM schedule, the system also copies the activities to the PM plan.

Create and associate a new PM
Click **Add PM Schedule**. Enter a unique code identifying the new **PM Schedule**, and then enter a description in the adjacent field.

4 Specify this information:

WO Type
Select the work order type for the PM schedule.

Duration
Specify the estimated number of days to complete the PM.

PM Type
Select the type of PM.

Class
Specify the class of the PM. The classes shown belong to the PPM entity.

Priority
Select the priority level of the PM.

Work Package
Select to indicate that this PM schedule can be associated with a work package.

Perform Every
Specify the length of the interval of time to pass before the system generates the next PM work order. You can enter any value between 0 and 99999, and then select the unit of measure in the

adjacent field. The unit of measure for the PM period can be days, weeks, months, quarters, or years.

Perform On
Specify the week of the month and the day of the week on which to perform the work on the equipment, e.g., 2 and Tuesday of the month due. Select **Last** to handle scenarios in which there are five weeks in a month. The system sets the due date to the last week of the month.

5 Click **Submit**.

Note: If the PM schedule to delete has equipment, the system displays a message enabling you to indicate whether to remove all of the equipment from the PM schedule.

If you click **No**, the system does not remove the equipment from the PM schedule but deletes the PM schedule from the PM plan, clears the PM plan activities for the PM schedule, clears the PM plan on the PM schedule record, and deletes all work orders for the PM schedule with a status of Awaiting Release.

If you click **Yes**, the system removes the equipment from the PM schedule. If **Work Package** is not selected, the system removes the PM schedule from the PM plan, clears the PM plan activities for the PM schedule, clears the PM plan on the PM schedule record, deletes all work orders for the PM schedule with a status of Awaiting Release, and removes the equipment from the PM schedule if all of the PM work orders have a status of Complete or Awaiting Release. If any of the PM work orders for the PM schedule have a status other than Complete or Awaiting Release, the system populates **Date Deactivated** for the equipment on the **Equipment** page of the **PM Schedules** form instead of removing the equipment from the PM. If the PM plan has only one PM schedule, the system removes the equipment from the PM plan.

If **Work Package** is selected, the system also removes the equipment from the work package associated with the PM schedule.

Creating activities for PM schedules on PM plans

Create activities for PM schedules on PM plans to conveniently add activities for PM schedules. The **Activities** page of the **PM Plans** form functions in the same manner as the **Activities** page of the **PM Schedules** form.

See "Defining Activities of PM Work Orders" on page 567.

The functionality of the **Activities** page of the **PM Plans** form is unlike the functionality of the **Equipment** page of the **PM Plans** form because additions/revisions made on the **Activities** page affect only the selected PM schedule and do not affect/update all of the PM schedules on the PM plan.

See "Adding Equipment to PM Plans" on page 644.

To create activities for PM schedules on PM plans:

1 Select **Work > WO Planning > PM Plans**.
2 Select the PM plan for which to create activities, and then click the **Activities** tab.
3 Click **Add PM Activity**.

Note: To update an existing activity or PM schedule, select the activity to update. The system populates **PM Schedule**, **Activity**, **Trade**, **Task**, **Material List**, **Estimated Hours**, **People Required**, **Start**, and **Duration** from the selected activity record.

4 Specify this information:

PM Schedule
Specify the PM schedule. The system automatically populates **Activity** with the next consecutive number according to the INCRLINO installation parameter and populates **People Required**, **Start**, and **Duration** with "1".

Trade
Specify the trade required to perform the activity.

Task
Specify the task code for the activity.

Material List
Specify the code identifying the material list that contains the parts needed for the activity.

Estimated Hours
Specify the estimated number of hours required to complete the activity.

People Required
Modify the number of people required to perform the activity as necessary. When you enter a **Trade** and **Estimated Hours**, the system populates **People Required** based on the following equation:

```
People Required = (Estimated Hours / Duration x the value of the WORKDAY
installation parameter)
```

Start
Specify `1` if the activity is to start on the same day that the standard work order starts. Specify `2` if the activity should start on day 2 of the standard work order, etc.

Duration
Specify the estimated number of days to complete the PM.

5 Click **Submit**.

Note: To copy the activity, select the activity to copy, and then click **Copy PM Activity**. The system inserts a new PM Activity Details record and populates **Trade**, **Task**, **Material List**, **Estimated Hours**, **People Required**, **Start**, and **Duration** from the selected activity. Enter a **PM Schedule**, and then click **Submit**.

Moving activities to PM plans

Move activities from one PM to another or change the sequence of an activity within the same PM.

To move activities to PM plans:

1 Select **Work > WO Planning > PM Plans**.
2 Select the PM plan for which to move activities, and then click the **Activities** tab.
3 Select the activity to move, and then click **Move PM Activity**.
4 Specify this information:

New PM Schedule
Specify the PM Schedule to which to move the activity. The system automatically populates the **New PM Schedule** description and **New Activity** with the next available activity number.

Note: If the activity being moved has tools associated with it, the system also moves the tools to the new PM activity.

You can also renumber activities on the same PM by entering the same PM number for **New PM Schedule** and entering a **New Activity** number.

5 Click **Save**.
The system moves the activity and updates the PM schedule records on both the **PM Plans** and **PM Schedules**forms.

Adding equipment to PM plans

Add equipment for PM schedules to PM plans. Equipment added to a PM plan is automatically associated with every PM schedule on the PM plan.

Note: You can only add or delete equipment for a PM schedule on a PM plan on the **Equipment** page of the **PM Plans** form.

If **Work Package** is selected for a PM schedule on the PM plan, the system does not create an initial PM work order for the PM schedule when equipment is added to the PM plan.

To add equipment to PM plans:

1 Select **Work > WO Planning > PM Plans**.
2 Select the PM plan to which to add equipment, and then click the **Equipment** tab.
3 Specify this information:

Equipment
Specify the PM equipment to add to the PM plan.

Note: Because the equipment details information for the PM plan is stored in the same database table with the equipment information for PM schedules, all of the additional equipment data that is available on the **Equipment** page of the **PM Schedules** form is also copied to this tab, although the data is not displayed. Likewise, all location information and handling of dormant periods/bypassing is also carried over from the PM schedule. If necessary, you can update the equipment details on the **Equipment** page of the **PM Schedules** form.

See "Creating Preventive Maintenance Work Orders" on page 560.

4 Click **Submit**. **PM Plan** is populated on the **Equipment** page of the **PM Schedules** form.

Add additional equipment to the PM plan as necessary.

Note: If **Work Package** is selected for the PM schedule(s) on the PM plan and there are work orders with a status of Completed or Awaiting Execution, the PM work orders with Awaiting Execution status are deleted, no changes are made to completed work orders, the equipment from all of the associated PM schedules is deleted, and the PM schedule(s) are detached from the work package.

If any of the PM work orders for the PM schedule have a status other than Complete or Awaiting Release, **Date Deactivated** is populated for the equipment on the **Equipment** page of the **PM Schedules** form instead of the equipment from the PM being removed.

Managing fuel

Manage fuel by tracking fuel issues and receipts. Associate fuel types to depots, tanks, and pumps. View fuel transactions.

Creating fuels

Enter the different types of fuel and fuel mixes to issue to vehicles or equipment.

To create fuel:

1. Select **Work > Fuel Management > Fuels**.
2. Click **New Record**.
3. Specify this information:

Fuel
Specify a unique code identifying the fuel.

Fuel Description
Specify a description of the fuel.

Fuel Type
Select the fuel type.

UOM
Specify the unit of measure in which to measure the fuel quantities.

Class
Specify the class to which the fuel will belong. The system automatically populates **Class Org.**

Emissions Commodity
Specify the commodity to associate with the fuel to track CO2e emissions.

Blended Grade
Select if this fuel is a blend of two or more grades.

Note: If you selected **Blended Grade**, complete steps 13-22.

Out of Service
Select to indicate the fuel is no longer in service. If you select **Out of Service** the system retains the fuel record, but it will no longer appear in the lookups for fuels on other forms.

Fuel 1
Specify fuel type 1.

Blend % 1
Specify the percentage of blended grade 1.

Fuel 2
Specify fuel type 2.

Blend % 2
Specify the percentage of blended grade 2.

Fuel 3
Specify fuel type 3.

Blend % 3
Specify the percentage of blended grade 3.

Fuel 4
Specify fuel type 4.

Blend % 4
Specify the percentage of blended grade 4.

Fuel 5
Specify fuel type 5.

Blend % 5
Specify the percentage of blended grade 5.

4 Click **Save Record**.

Creating depots

Create depots to specify storage areas for fuel.

To create depots:

1 Select **Work > Fuel Management > Depots**.
2 Click **New Record**.
3 Specify this information:

Depot
Specify a unique code identifying the depot.

Description
Enter a description of the depot.

Depot Organization
Specify the organization to which the depot belongs.

Class
Specify the class to which the depot belongs. The system automatically populates **Class Org.**

Location
Specify the location of the depot. The system automatically populates **Location Org.**

4 Choose one of the following options:

- **Markup %**
  Specify a markup percentage, to be added to the average price when fuel is issued.
- **Fixed Markup**
  Specify a fixed markup amount, to be added to the average price when fuel is issued.
- **External**
  Select to indicate that the depot is an external depot.
- **Out of Service**
  Select to indicate that the depot is out of service.
- **Allow Tank Volumes Greater than Capacity**
  Select to allow a tank record to indicate a greater volume than set capacity.
- **Allow Negative Tank Volumes**
  Select to allow a tank record with a negative volume.

5 Click **Save Record**.

Creating tanks for depots

Create tanks in which to store fuel at a specified depot.

To create tanks for depots:

1 Select **Work > Fuel Management > Depots**.
2 Select the depot for which to create a tank, and then click the **Tanks** tab.
3 Specify this information:

Tank
Specify a unique code identifying the tank, and then enter a description of the tank in the adjacent field.

Fuel
Specify the fuel to store in the tank at the depot. The system automatically populates **Fuel Type**, **Volume UOM**, and **Average Price**.

Max. Tank Volume
Specify the maximum allowable fuel volume. The system automatically populates **Current Tank Volume**.

4 Optionally, select the **Out of Service** check box if the fuel is out of service.
5 Click **Submit**.

Creating pumps for depots

Create pumps from which to issue fuel.

To create pumps for depots:

1 Select **Work > Fuel Management > Depots**.
2 Select the depot for which to add pumps, and then click the **Pumps** tab.
3 Click **Add Pump**.
4 Specify this information:

Pump
Specify a unique code identifying the pump, and then enter a description of the pump in the adjacent field.

5 Optionally, select the **Out of Service** check box if the pump is out of service.
6 Click **Submit**.

Associating pumps to tanks and fuel for depots

Associate pumps with the tanks and fuel the pump will issue.

To associate pumps to tanks and fuel for depots:

1 Select **Work > Fuel Management > Depots**.
2 Select the depot for which to associate pumps to tanks, and then click the **Tank/Pump** tab.
3 Click **Add Record**.
4 Specify this information:

Tank
Specify the tank to associate to the pump for the selected depot. The system automatically populates the tank description and **Fuel**.

Pump
Specify the pump to associate to the tank for the selected depot. The system automatically populates the pump description.

5 Optionally, select the **Active** check box to designate the pump as active on the selected tank.
6 Click **Submit**.

Issuing fuel

Issue fuel to vehicles or equipment, and then track the quantity and price of fuel issued.

To issue fuel:

1 Select **Work > Fuel Management > Fuel Issues**.
2 Specify this information:

Depot
Specify the depot at which the fuel is located.

Date
Enter the date of the fuel issue.

Note: If you are entering multiple transactions for one date, entering **Date** above will automatically populate **Date** below.

3 Click **Add Fuel**.
4 Specify this information:

Fuel
Specify the fuel to be issued to the vehicle or equipment.

Pump
Specify the pump from which the fuel was issued.

Vehicle
Specify the vehicle to which the fuel was issued.

Qty. Issued
Specify the quantity in gallons of fuel issued.

Date
Specify the date of the fuel issue transaction.

5 Click **Add to List**.
6 Click **Submit Transaction**.

Receiving fuel into tanks

Receive fuel into tanks from selected depots.

To receive fuel into tanks:

1. Select **Work > Fuel Management > Fuel Receipts**.
2. Specify this information:

   Depot
   Specify the depot from which to issue the fuel. The system automatically populates the depot description and **Organization**.

   Date
   Specify the date and time for which the fuel issue will occur.

3. Click **Add Tank**.
4. Specify this information:

   Tank
   Specify the tank to receive the fuel issue. The system automatically populates the tank description, **Fuel**, fuel description, fuel UOM, and **Fuel Type**.

   Qty. Received
   Specify the fuel quantity to receive to the tank. The system automatically populates the quantity received unit of measure.

   Date
   Specify the date and time for which the fuel issue will occur.

   Price
   Specify the price for the fuel issue.

   Supplier
   Specify the fuel supplier.

5. Click **Add to List**.
6. Click **Submit Transaction**.

Recording tank volumes for fuel physical inventories

Record actual quantities of tanks on a fuel physical inventory record.

To record tank volumes for fuel physical inventories:

1. Select **Work > Fuel Management > Fuel Physical Inventory**.
2. Select or create the fuel physical inventory for which to record tank volumes, and then click the **Tanks** tab.

The system automatically populates **Line**, **Tank**, **Description**, **Fuel**, **Expected Volume**, **Expected Volume UOM**, and **Physical Volume UOM**.

3 Specify this information:

Physical Volume
Specify the actual volume of the tank for the selected fuel physical inventory record.

4 Click **Submit**.

Viewing associated depots and tanks for fuels

View a list of associated tanks and depots for selected fuels.

To view associated depots and tanks for fuels:

1 Select **Work > Fuel Management > Fuels**.
2 Select the fuel for which to view associated depots and tanks, and then click the **Depot/Tank** tab.
3 View the list of associated depots and tanks for the selected fuel.

Viewing fuel transactions

View the history of issues and receipts associated with fuels.

To view fuel transactions:

1 Select **Work > Fuel Management > Fuels**.
2 Select the fuel for which to view fuel transactions, and then click the **Transactions** tab.
3 View the transaction history for the selected fuel.

Understanding deferred maintenance

Deferred maintenance is a work order activity for a specific piece of equipment that will be performed at a future date. For example, a work order for vehicle maintenance might include several critical and non-critical activities. To save time, a supervisor might decide to defer one or more non-critical activities to a later date.

Create deferred maintenance from an existing work order or manually create deferred maintenance on the **Deferred Maintenance** form.

Creating deferred maintenance

Create deferred maintenance when a maintenance activity you want to defer has not been added to a work order. The deferred maintenance can be assigned to a work order when there is adequate availability on the equipment for the deferred activity to be completed.

To create deferred maintenance:

1 Select **Work > WO Planning > Deferred Maintenance**.

2 Click **New Record**.

The system automatically populates **Deferred Maintenance No.**, **Status**, **Deferred By**, **People Required**, **Duration (Days)** and **Task Qty.**

3 Specify this information:

Organization
Specify the organization to which the work order belongs if you use multi-organization security.

Activity Note
Specify a description of the maintenance activity to defer.

Equipment
Specify the equipment for which to defer maintenance. The system automatically populates the adjacent field with the equipment's description, **Equipment Type**, and **Equipment Org.**

Status
Choose one of the following options:

- **Unassigned**
  Select to create the deferred maintenance.

- **Assigned**
  Select to assign the deferred maintenance to a specific work order.

- **Cancelled**
  Select to cancel the deferred maintenance.

4 Specify this Deferred Maintenance details information:

Task Plan
Specify the task code for the deferred maintenance. The system automatically populates **Task Plan Revision**, **UOM** (field adjacent to **Task Plan Qty.**) and **Trade** for the task, as well as **People Required**, **Reason for Repair**, **Work Accomplished**, **Technician Part Failure**, **Manufacturer**, **System Level**, **Assembly Level**, and **Component Level** if you use the American Trucking Association's Vehicle Maintenance Reporting System (VRMS).

Task Plan Qty.
Specify the required number of units of the task plan to associate with the deferred maintenance, and then select the unit of measure for the **Task Plan Qty.** in the adjacent field. For example, a work order activity to pave 100 miles of highway today will indicate a **Task Plan Qty.** of "100" and

a unit of measure of "Miles", whereas the same task on another day might indicate only 80 miles due to the steep inclines of the stretch of highway being paved on that day.

Material List
Specify the code identifying the material list that contains the parts needed for the deferred maintenance. The system automatically populates **Material List Revision**.

Trade
Specify the trade required to perform the deferred maintenance.

People Required
Specify the number of people required to perform the deferred maintenance.

Duration (Days)
Specify the estimated number of days needed to complete the deferred maintenance.

Estimated Hours
Specify the estimated number of hours needed to complete the deferred maintenance.

Note: Estimated Hours must be less than or equal to **People Required** times 24 times **Duration (Days)**.

Specify this information only if you use the American Trucking Association’s Vehicle Maintenance Reporting System (VMRS):

Note: The system will copy the VMRS-related information you enter on this form to the work order to which the deferred maintenance is assigned.

Reason For Repair
Specify the reason the vehicle needs repair (Code Key 14).

Work Accomplished
Specify the work performed on the vehicle (Code Key 15).

Technician Part Failure
Specify the reason the technician or supplier thinks the vehicle failed (Code Key 18).

Manufacturer
Specify the Manufacturer/Supplier Code (Code Key 34) to associate with the vehicle.

System Level
Specify the VMRS code identifying the system, e.g., brakes, frame, suspension, needing repair (Code Key 31).

Assembly Level
Specify the VMRS code identifying the subsystem needing repair (Code Key 32). The values available are based on the system-level code.

Component Level
Specify the VMRS code identifying the specific component or part needing repair (Code Key 33). The values available are based on a combination of the system-level code and the assembly-level code.

Hired Labor
Select to indicate that the deferred maintenance will be completed by an external source.

Labor Type
Select the type of labor needed if you selected **Hired Labor**.

Supplier
Specify the supplier for the deferred maintenance. The system automatically populates **Supplier Org.**

5 Specify this information:

Activity Comments
Enter comments or instructions for the deferred maintenance.

Work Order
Specify when ready to assign the deferred maintenance to a new work order.

6 Click **Save Record**.

Adding parts to deferred maintenance

Add, delete, change or view parts for deferred maintenance.

To add parts to deferred maintenance:

1 Select **Work > WO Planning > Deferred Maintenance**.
2 Select the deferred maintenance for which to add parts, and then click the **Parts** tab.
3 Click **Add Part**.
4 Specify this information:

Part
Specify the part to add to deferred maintenance. The system automatically populates the part description in the adjacent field, **Part Source**, **Part Org.**, **UOM**, **Track by Asset**, **Track by Lot**, and **Planned Source**.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

Planned Source
Specify the planned source for the part, e.g., **Direct Purchase** for a part ordered from an external source, or **Stock** for a part ordered from internal stock.

Planned Qty.
Specify the quantity of the part planned for the deferred maintenance.

5 Click **Submit**. The system automatically populates **Material List**.

Creating maintenance patterns

A maintenance pattern is a schedule of predefined jobs used to perform a preventive maintenance cycle. A maintenance pattern tells how the system should generate work orders for the maintenance pattern, and whether the resulting PM work order generation is based primarily on a time interval (weekly, monthly, annually), or on a meter interval (ex. 3000 miles) or both.

To create maintenance patterns:

1 Select **Work > WO Planning > Maintenance Pattern**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization of the maintenance pattern.

Maintenance Pattern
Specify a unique code identifying the maintenance pattern, and then enter a description of the maintenance pattern in the adjacent field.

Type
Select the maintenance pattern type.

Class
Specify the maintenance pattern class. The system automatically populates **Class Org.**

Meter #1 UOM
Specify the unit of measure for meter #1 for the maintenance pattern.

Meter #1 Releases Use
Select the release method for which Meter #1 uses to trigger the release of work orders.

Meter #2 UOM
Specify the unit of measure for meter #2 for the maintenance pattern.

Meter #2 Releases Use
Select the release method for which Meter #2 uses to trigger the release of work orders.

Pattern Start Date
Specify the start date for the maintenance pattern.

Supervisor
Specify the supervisor for the maintenance pattern.

4 Click **Save Record**.

The system automatically populates **Created By** and **Date Created**.

Note: To copy the maintenance pattern, right-click and click **Copy Maintenance Pattern**.

Adding sequences to maintenance patterns

A sequence defines the work to be completed on a maintenance pattern job as well as the relative chronology in which the work will be performed within the maintenance pattern, and the interval (time or meter) for a work order to be generated.

To add sequences to maintenance patterns:

1. Select **Work > WO Planning > Maintenance Patterns**.
2. Select the maintenance pattern for which to add a sequence, and then click the **Sequence** tab.
3. Click **Add Sequence**.
4. Specify this information:

   Sequence
   Specify the sequence number for which the work will be performed.

   Standard WO
   Specify the standard work order to associate to the sequence in the maintenance pattern.

   WO Description
   Specify a description for the work order sequence.

   Calculate from Basis
   Select to copy the sequences of the maintenance pattern to the new maintenance pattern.

   Note:

   Actual Close Date
   When generating a WO, the work order due date will be the actual closing date of the previous work order, plus the defined interval for the selected sequence.

   Due Date
   When generating a WO, the WO due date will be the due date of the previous work order plus the defined interval for the selected sequence.

   Scheduled Start Date
   When generating a WO, the WO due date will be the schedule start date of the previous work order plus the defined interval for the selected sequence.

   Perform After
   Specify a numerical value for the period interval, and then select a value for the perform after UOM to flag the system to schedule work orders based on dates. For example, enter 5 for Perform After and Months for perform after UOM, which flags the system to perform the work (or release work orders associated to the maintenance pattern) after a 5 month interval.

   Note: You may select to flag the system to schedule work orders based on an interval time period or a meter reading interval. If you selected a value in **Perform After** you chose to flag the system to perform the work on an interval time period. If you prefer to flag the system to perform the work on a meter reading interval, leave **Perform After** blank and enter a value for **Meter #1 Interval**.

Meter #1 Interval
Select to flag the system to schedule the work orders (or release work orders associated to the maintenance pattern) based on meter readings. The system automatically populates **Meter #1 UOM**.

Meter #2 Interval
Select to flag the system to schedule the work orders (or release work orders associated to the maintenance Meter #2 Interval pattern) based on meter readings. The system automatically populates **Meter #2 UOM**.

Ok Window
Specify the value to use for the Ok window.

Near Window
Specify the value to use for the near window.

Release Window
Specify the value to use for the release window.

5 Click **Submit**.

Managing equipment for maintenance patterns

Manage equipment for maintenance patterns by creating or deleting equipment associations. The system performs work on equipment associated to the maintenance pattern in the sequential order designated on the **Sequences** page of the **Maintenance Patterns** form.

Associate equipment to a maintenance pattern so that the system may create a work order for the associated equipment. Activate maintenance patterns with initial sequences and associated equipment to start the process of creating maintenance pattern work orders. Deactivate maintenance patterns to stop a maintenance pattern for the selected pieces of equipment.

Adding equipment to maintenance patterns

To add equipment to maintenance patterns:

1 Select **Work > WO Planning > Maintenance Patterns**.
2 Select the maintenance pattern for which to add equipment, and then click the **Equipment** tab.
3 Click **Add Equipment**.
4 Specify this information:

Equipment
Specify the equipment to add to the maintenance pattern.

Note: Equipment with logical meters flagged as **Up/Down Meter** on the **Meters** page of the equipment record will not be displayed.

Test Point Set
Specify the test point set for calibration of the equipment.

Dormant Start
Specify the date on which the dormant period for the PM begins.

Dormant End
Specify the date on which the dormant period for the PM ends.

Reuse Dormant Period
Select to use the same specified dormant period for the PM on a yearly basis.

Date Deactivated
Specify the date after which work order generation stops.

WO Department
Specify the department of the work order.

WO Location
Specify the location of the work order.

WO Cost Code
Specify the cost code of the work order.

WO Assigned To
Specify the person responsible for the work.

WO Assigned By
Specify the person assigning the work.

Work Order Org.
Specify the organization of the work order.

Due Date
Specify the due date of the first work order.

Meter #1 Due
Specify the reading due value for the first meter.

Meter #2 Due
Specify the reading due value for the second meter.

5 Click **Submit**.

Note: If you populate any of the replacement values (e.g., **WO Department**, **WO Location**, **WO Cost Code**, **WO Assigned To** or **WO Assigned By**), the default values from the equipment record are replaced when a maintenance pattern work order is created with these replacement values.

To activate a maintenance pattern for equipment, click **Activate MP**.

To deactivate a maintenance pattern for equipment, click **Deactivate MP**.

Activating maintenance patterns for equipment

Start the maintenance pattern for selected equipment, which will generate the first work order for all selected equipment.

To activate maintenance patterns for equipment:

1. Select **Work > WO Planning > Maintenance Patterns**.
2. Select the maintenance pattern to activate for equipment, and then click the **Equipment** tab.
3. Click **Activate MP**.
4. Specify this information:

   Initial Sequence
   Specify the sequence number that the pattern will use to create the first maintenance pattern work order.

   Note: A maintenance pattern does not to necessarily start with the first sequence in the list of Sequences on the **Sequence** tab.

   Due Date
   Specify the due date of the initial work order.

   Meter #1 Due
   Specify the reading due value for the first meter. The system automatically populates **Meter #1 UOM**.

   Meter #2 Due
   Specify the reading due value for the second meter. The system automatically populates **Meter #2 UOM**.

5. Select one or more equipment records, and then click **Submit**.

Deactivating maintenance patterns for equipment

Stop the maintenance pattern for selected equipment, which will delete the work order for equipment.

Note: The system deletes only work orders with **Status** of **Awaiting Release**.
The system deactivates the maintenance pattern and flags the selected equipment **Inactive**.

To deactivate maintenance patterns for equipment:

1. Select **Work > WO Planning > Maintenance Patterns**.
2. Select the maintenance pattern to deactivate for equipment, and then click the **Equipment** tab.
3. Click **Deactivate MP**.
4. Select one or more records, and then click **Submit**.

Viewing work orders for maintenance patterns

View and select work orders associated with maintenance patterns.

To view work orders for maintenance patterns:

1. Select **Work > WO Planning > Maintenance Patterns**.
2. Select the maintenance pattern for which to view work orders, and then click the **Work Orders** tab.
3. View the list of work orders.

   Note: To select a work order in the list, click on the work order.

Copying maintenance patterns

Copy existing child records and header records from an existing maintenance pattern to a new maintenance pattern.

To copy maintenance patterns:

1. Select **Work > WO Planning > Maintenance Patterns**.
2. Select the maintenance pattern for which to copy records, and then click the **Record View** tab.
3. Right-click on the form, and then select **Copy Maintenance Pattern**.
4. Specify this information:

   New Maintenance Pattern
   Specify a unique identifying name for the new maintenance pattern, and then enter a description of the maintenance pattern in the adjacent field.

5. Select the related details to copy to the new maintenance pattern:
   - **Custom Field Values**
   - **User Defined Fields**
   - **Sequences**
   - **Equipment**
   - **Discounts**
   - **Comments**
   - **Documents**
6. Click **Submit**.
7. Click **Submit**.

Scheduling work orders daily

Schedule work orders on a daily basis on the **WO Daily Scheduling** form.

To schedule work orders daily, first define the selection criteria for the following four classifications:

1. Equipment selection parameters
2. Work order selection parameters
3. Activity selection parameters
4. Employee selection parameters

Defining parameters for work order daily scheduling

Create and update selection parameters for scheduling daily work orders on the WO Daily Scheduling page.

On the **Parameters** page, define the selection criteria for locating work orders, activities, employees, and equipment to display on the **Equipment**, **WO Activity**, and **Employee Preview** tabs.

To define parameters for work order daily scheduling:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the saved selection parameters if applicable.
3. Specify this information to define work order selection parameters:

   Session ID
   Enter the ID for the session.

   Note: Enter **Session ID** if you are working on an existing session. If you are creating a new session, the system automatically populates **Session ID** after you click **Create/Refresh Previews**.

   Work Order Org.
   Specify the work order organization.

   Work Order
   Specify the work order.

   WO Department
   Specify the department of the work order.

   WO PM Schedule
   Specify the PM schedule for the work order.

   WO Project
   Specify the project of the work order.

   WO Project Budget
   Specify the project budget of the work order.

WO Equipment
Specify the equipment of the work order.

WO Equipment Org.
Specify the equipment organization of the work order.

WO Location
Specify the location of the work order.

WO Location Org.
Specify the location organization of the work order.

WO Type
Specify the work order type.

WO Priority
Specify the work order priority.

WO Status
Specify the status of the work order.

WO Reported By
Specify the employee requesting the work.

WO Assigned To
Specify the employee responsible for the work order.

WO Assigned By
Specify the supervisor who assigned the work order.

WO Class
Specify the class of the work order.

WO Class Org.
Specify the class organization of the work order.

WO Criticality
Specify the criticality code to indicate the relevant importance of the work order to the overall production of goods or services for your organization.

WO Shift
Specify the shift during which the work is requested to be performed.

WO Maintenance Pattern
Specify the maintenance pattern to which the work order belongs.

WO MP Org.
Specify the maintenance pattern organization to which the work order belongs.

Sequence
Specify the sequence for which the work order will be performed on the maintenance pattern.

Campaign
Specify the campaign to which the work order belongs.

Campaign Event
Specify the campaign event to which the work order belongs.

Maximum Calculated Priority
Specify the maximum calculated priority of the work order. Work orders with a value equal or less than the value entered here will be selected.

4 Specify this information to define equipment selection parameters:

Equipment
Specify the equipment to use for daily work order scheduling.

Equipment Org.
Specify the organization of the equipment.

Equipment Type
Specify the type of equipment.

Equipment Status
Specify the status of the equipment.

Equipment Class
Specify the class of the equipment.

Equipment Class Org.
Specify the class organization of the equipment.

Equipment Category
Specify the category of the equipment.

Equipment Cost Code
Specify the cost code of the equipment.

Equipment Department
Specify the department of the equipment.

Equipment Parent Equipment
Specify the parent equipment of the equipment. Select more than one parent equipment if applicable.

Equipment Parent Equipment Org.
Specify the parent equipment organization of the equipment.

Equipment Location
Specify the location of the equipment.

Equipment Location Org.
Specify the location organization of the equipment.

Operational Status
Specify the operational status of the equipment to indicate if the equipment is in working order, ready for use, and available for scheduling.

Consist
Specify the consist to which the equipment belongs.

Skip Equipment Selection Process
Select this check box to skip the process of previewing and selecting equipment. If this check box is selected, the system will not populate the **Equipment** tab.

5 Specify this information to define work order activity selection parameters:

Trade
Specify the activity trade.

Activity Task Plan
Specify the activity task plan.

Beginning Activity Start Date
Specify the beginning start date for the activity.

Ending Activity Start Date
Specify the ending start date for the activity.

Allow Activities on Different Sessions
Select this check box to allow the activity to be selected on more than one scheduling session.

6 Specify this information to define employee selection parameters:

Employee Department
Specify the department of the employee.

Employee Class
Specify the class of the employee.

Employee Class Org.
Specify the class organization for the employee.

Employee Trade
Specify the employee's trade or craft.

Shift
Specify the shift on which the employee works.

Crew
Specify the crew of the employee.

Crew Org.
Specify the crew organization of the employee.

7 Specify this information to define a date range for the scheduled work order:

Start Date
Specify the start date for the scheduled work order.

End Date
Specify the end date for the scheduled work order.

8 Specify this information to define the scheduling options for the work order:

Threshold Percent Between Lightly/Moderately Scheduled
Specify the percentage of daily employee available hours to designate the point at which the calendar switches between lightly scheduled and moderately scheduled.

Unscheduled (% Scheduled=0) Color
Specify the color to designate the unscheduled days on the calendar view.

Lightly Scheduled (% Scheduled >= Threshold) Color
Specify the color to designate the lightly scheduled days on the calendar view.

Moderately Scheduled (% Scheduled >= Threshold) Color
Specify the color to designate the moderately scheduled days on the calendar view.

Fully Scheduled (% Scheduled = 100) Color
Specify the color to designate the fully scheduled days on the calendar view.

Over Scheduled (% Scheduled > 100) Color
Specify the color to designate the over scheduled days on the calendar view.

Generate Availability Through
Specify the date through which to generate scheduling availability.

Exclude Duration from Scheduled Hours Calculation
Select the check box to exclude the duration time from the calculations of the scheduled hours.

Exclude People Required from Scheduled Hours Calculation
Exclude the number of people required from the calculations of hours scheduled.

Shift Scheduling
Select this check box to schedule labor for one shift. If selected the session becomes a shift scheduling session and you can still add or remove equipment, work orders, and employees to or from the session.

Shift Start
Specify the date and time the shift should start.

Shift Duration
Specify the duration of the shift in hours.

9 Click **Create/Refresh Previews**.
The system automatically populates **Session ID** for new sessions.

Selecting equipment for work order daily scheduling

Preview the equipment before selecting equipment to use for work order daily scheduling.

Once equipment selections have been made, proceed to the **WO Activity Preview** page, the **Employee Preview** page, or to the **Scheduling** page.

To select equipment for work order daily scheduling:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the saved selection parameters to open an existing session.
3. Click the **Equipment Preview** tab.

   Note: Click **Create Refresh Preview** to display the results on the **Preview** tab without entering a parameter list.

4. Select the equipment for which to perform work order daily scheduling, and then choose one of the following options:

   - **WO Activity Preview**
     Click the tab to preview and select work order activities for work order daily scheduling.

   - **Start Labor Scheduling**
     Click to start labor scheduling.

Selecting work order activities for work order daily scheduling

Preview the work order activities before selecting the activities to use for work order daily scheduling.

Once the activity selections have been made, proceed to the **Employee Preview** page, or to the **Scheduling** page.

To select work order activities for work order daily scheduling:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the saved selection parameters to open an existing session.
3. Click the **WO Activity Preview** tab.

   Note: Click **Create Refresh Preview** to display the results on the **Preview** tab without entering a parameter list.

4. Select the work order and activities for which to perform work order daily scheduling, and then choose one of the following options:

   - **Employee Preview**
     Click to preview and select employees for work order daily scheduling.

   - **Equipment Preview**
     Click to preview and select equipment for work order daily scheduling.

- **Start Labor Scheduling**
  Click to start labor scheduling.

Selecting employees for work order daily scheduling

Preview and select employees for work order daily scheduling based on employee selection parameters specified on the **Parameters** page. Once employees have been selected, proceed to the **Scheduling** page to schedule the daily work orders.

To select employees for work order daily scheduling:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the saved selection parameters from the **Parameter List**.

   Note: Click **Create Refresh Preview** to display the results on the **Preview** tab without entering a parameter list.
3. Click the **Employee Preview** tab.
4. Select the employees for which to perform work order daily scheduling, and then click **Start Labor Scheduling**.

Scheduling labor for work order daily scheduling sessions

Review and modify employee schedule information, work order details, activity schedules, planned parts availability, and booked labor for an activity.

To schedule employees for work order daily scheduling sessions:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the saved selection parameters for an existing scheduling session.
3. Click the **Scheduling** tab.
4. To filter employees, click **Filter Employee**.
5. Choose one of the following options:

   - **Match Department**
     Select to display employees in the same department.

   - **Match Trade**
     Select to display employees in the same trade.

   - **Match Shift**
     Select to display employees on the same shift.

- **Qualified Employees**
  Select to display qualified employees for the highlighted work order activity(s).

6 Drag and drop work order activities to selected employee calendar days. The system creates the appropriate labor schedule record.

Note: Drag more than one work order activity at a time to an employee calendar day. The system creates a labor schedule record for each work order activity for the employee calendar day.

Drag one employee calendar day to another calendar day for same employee, e.g., drag Wednesday to Friday. The system updates the scheduled date for each labor schedule record(s) on the dragged employee calendar day.

Drag one employee calendar day to another employee calendar day. The system deletes the labor schedule record(s) on the dragged employee calendar day and creates the necessary labor schedule records on the dropped employee calendar day.

See the following table for more options on work order daily scheduling sessions:

Icon Hover Text	Description	Results
WO Details	View and modify work order and activity details for the selected work order activity	The system opens the WO Details popup.
Activity Schedule	View and modify labor schedules for the selected work order activity	The system opens the Labor Schedules popup.
View Planned Part Availability	View planned part availability for the selected work order activity	The system opens the Planned Part Availability popup.
Part Availability Overlay	View available dates for selected materials to schedule work order activities	The system protects or shades the calendar grid cell dates if all work order activity material list parts are unavailable. If a calendar grid cell is protected due to part overlay (unavailability), then the system cannot schedule the work order activity for that particular date.
View Activity Booked Labor	View booked labor for work order activity for the selected work order activity	The system opens the Booked Labor popup.
Previous Week	View the previous week	The system advances the calendar gird to the previous week.
Go To Week	View a specific week	The system opens a calendar popup. Select the Start Date.
Next Week	View the following week	The system advances the calendar grid forward one week.

Icon Hover Text	Description	Results
Filter Employees	Filter Employees	The system displays employee filter options.
Employee Schedules	View and modify labor schedules for selected employees	The system opens the Labor Schedules popup.
View Employee Booked Labor	View booked labor for the selected employee	The system opens the Booked Labor popup.
Close Session and Update Work Orders	Close the session and update work orders	The system closes the session, updates and creates activity labor schedules outside the session, and returns to the Parameters page.
Cancel Session	Cancel the session	The system cancels the session.

Modifying work order details

View and modify work order and activity details on the **Scheduling** page of the **WO Daily Scheduling** form.

Note: A work order activity must be highlighted in the grid prior to performing this action.

To modify work order details:

1 Select **Work > WO Planning > WO Daily Scheduling > Daily Scheduling**.

2 Select a work order activity for which to modify details, and then click **WO Details**.

3 Specify this information:

New Work Order Status
Select the new work order status.

Hours Remaining to be Worked
Specify or modify the hours remaining to be worked for the activity.

Completed
Select if the work for the activity has been completed.

4 Click **Submit**.

Modifying labor schedules for work order activities

View and modify labor schedules for selected work order activities on the **Daily Scheduling** page of the **WO Daily Scheduling** form.

Note: A work order activity must be highlighted in the grid prior to performing this action.

To create or modify labor schedules for work order activities:

1. Select **Work > WO Planning > WO Daily Scheduling**.
2. Select the work order activity for which to modify labor schedules, and then click **Activity Schedule**.
3. Choose one of the following options:

   - **Add Employee to Session**
     Click to add employees **Not in Session** to a selected labor schedule.

   - **Add Schedule**
     Click to add a labor schedule to the work order activity.

     Enter the **Employee**, **Scheduled Date**, and then enter **Start Time** and **End Time**, or enter the **Scheduled Hours** for the selected work order activity. Enter the **Department** and **Shift** of the employee. Click **Submit**.

   - **Add WO to Session**
     Click to add activities from a work order **Not in Session**.

Viewing planned part availability for work order activities

View planned part availability for work order activities to display in a list of parts that have been planned for a work order activity.

To view planned part availability for work order activities:

1. Select a work order activity, and then click **View Planned Part Availability**.
2. Specify this information:

   Store
   Enter a different store for which to view part availability information as necessary. The system displays availability in the default **Store** for the work order **Department** when the popup opens.

3. Click **Close**.

Modifying labor schedules for employees

View and modify labor schedules for selected employees on the **Scheduling** page of the **WO Daily Scheduling** form.

To modify labor schedules for employees:

1. Select an employee, and then click **Employee Schedule**.
2. Click **Add Schedule**.
3. Specify this information:

WO
Enter the work order for which to add an employee schedule. The system automatically populates the work order description, **Tools**, **Frozen**, **Not in Session**, **Act. Est. Hours**, **Act. Sched. Hours**, and **Act. Actual Hours**.

Activity-Trade
Select the activity and trade for the employee labor schedule.

Scheduled Date
Select the scheduled start date of the work order activity.

Scheduled Hours
Specify the number of hours to schedule for the work order.

Start Time
Specify the time the scheduled work order should begin.

End Time
Specify the time the scheduled work order should end.

Department
Specify the department of the employee.

Shift
Specify the employee's shift on the work order.

4 Click **Submit**.

5 Click **Close**.

Note: To add activity labor schedules to the session, click **Add WO to Session**.

Viewing booked labor for work order activities

View the booked labor of employees for work order activities.

To view booked labor for work order activities:

1 Select a work order activity, and then click **View Activity Booked Labor**.

2 View the information.

3 Click **Close**.

Viewing booked labor for employees

View all booked labor for selected employees.

To view booked labor for employees:

1 Select an employee, and then click **View Employee Booked Labor**.

2 View the information.

3 Click **Close**.

Scheduling employees on shifts for work order daily scheduling

Schedule work for employees to a selected shift on the **WO Daily Scheduling** form.

Drag and drop employees on work order activities to schedule them to shifts for the work order activity or selected equipment on the work order activity.

Note: This tab cannot be used for daily scheduling.

To schedule employees on shifts for work order daily scheduling:

1 Select **Work > WO Planning > WO Daily Scheduling**.
2 Select the saved selection parameters from the **Parameter List** to open an existing session for which to schedule employees on shifts.
3 Click the **Shift Scheduling** tab.

   Work order activity cards are displayed on the left-side of the page while associated trades and employees are displayed on the right-side of the page.
4 Choose one of the following options to display work order activity cards on the screen:

   - **Equipment**
     Select the equipment associated with the work order activities you want to display so that you can schedule employees.

   - **Show Scheduled**
     Select this check box to display all work order activities of the session. Work order activities with a completed or already scheduled status will be displayed.

5 Click **Filter Trades** to filter the available employees by specific trade or to show available employees for all trades. Select **Show All** to display all of the employees and work order activities of the open session.
6 Drag and drop available employees to the work order activity cards for which to schedule the employee.

Viewing employee schedules for work order daily scheduling

View the employee schedules for work order daily scheduling, and then update the scheduled hours for the employee or for a work order activity as necessary.

To view employee schedules for work order daily scheduling:

1 Select **Work > WO Planning > WO Daily Scheduling**.
2 Click the **Shift Scheduling** tab.
3 Optionally, select the **Show Scheduled** check box to display the existing labor scheduled for the work order/activities and employee/trade combinations.

4 Select and employee in the Trades/Employees section of the form, right-click on the employee, and then click the **View Employee Schedule**.

5 Specify this information in the View Employee Schedule popup:

Main Resource
Select to indicate the employee is the main resource for the specified work order-activity.

Scheduled Hours
Specify the hours to schedule the employee for the specified work order-activity.

6 Click **Submit** to close the View Employee Schedule popup and return to the **Shift Scheduling** tab.

7 Drag and drop employees to work order/activity cards as necessary to schedule the employee to work order-activity, and to create a scheduled labor record for the employee on the **Schedule Labor** tab.

Note: Hover over the work order cards with an assigned employee to view the hours scheduled for that work order.

8 Click **Submit**.

9 Click **Close**.

Managing work order activities and jobs on the mechanic's workbench

The **Mechanic's Workbench** screen allows mechanics to view all work order activities and jobs that have been assigned to the mechanic for selected shift sessions for a particular day on the **Shift Scheduling** form. Use this form to start and stop work order activities and/or jobs, update their status to completed, or view equipment and work order details.

To manage work order activities and jobs on the mechanic's workbench:

1 Select **Work > Mechanic's Workbench**.

2 Specify this employee information:

Employee
Enter your employee code if it was not automatically populated based on your logged on user ID and password. The system automatically populates **Employee Name**.

Shift
Specify the shift for which you are managing work. The system automatically populates **Shift Scheduling Session**, **Shift Start**, and **Shift Duration** if the session already exists and you were scheduled for the work order activity/job on the **Shift Scheduling** form.

Note: The system defaults shifts in eight hour increments of time. If more than one shift scheduling session is found for you, the session with the earliest start time is selected.

If more than one shift scheduling session is found for you with the same start time, the previous shift scheduling session is selected so that you may finish the previous session.

You cannot work on more than one work order at the same time. If you start to perform work on an additional work order, performance on the first work order is stopped.

Type of Hours
Specify hour occupation type for this work, e.g., select **N** for normal hours or **O** for overtime hours.

Password
Enter your employee password for the current session.

3 Select the work order activity or job for which to manage work. The system automatically populates the associated **Work Order** and **Equipment**. The work order and equipment become hyperlinks.

4 Choose one of the following options:

- **Start Job**
  Click **Start Job** to start work on the selected activity or job. The system automatically populates **Started** to indicate the work was started and sets the **Timer** to zero.

  Note: The system creates a selected scheduled labor record ID to differentiate between multiple scheduled labor records for the same activity and employee combination.

  The timer calculates how much time has passed since the work was started.

- **Stop Job**
  Click **Stop Job** to stop work on the selected activity or job.

- **Complete Job**
  Click **Complete Job** if the work on the selected activity or job has been completed.

Managing customer contracts

Manage contracts with customers by creating contract templates to specify work order criteria, associate clauses, charges, discounts, and sales prices with specific customers.

Define customer rental contracts and contracts to create customer invoices.

Defining adjustments

Define adjustments to apply to customer contracts and reservations to quickly identify extra charges or discounts for the contract. An adjustment could be an extra charge for damaged equipment or a late return of a rented vehicle.

Similarly you may also define discounts or credits on the Adjustments form by entering a negative rate for the adjustment.

When defining adjustments on this form, associate a standard work order to the adjustment to enable users to create a work order from an adjustment for the customer contract or reservation, if required.

To define adjustments:

1 Select **Work > Contract Management > Adjustments**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization of the adjustment.

Adjustment
Specify a unique code identifying the adjustment, and then enter a description of the adjustment in the adjacent field.

Rate
Specify the rate for the adjustment, e.g., enter 100 for an extra charge of $100, or enter -100 for a $100 credit.

Standard WO
Specify the standard work order to associate with the adjustment. When a work order is created from the adjustment on the customer contract, this standard work order is applied.

Out of Service
Select to exclude the adjustment in lookups.

4 Click **Save Record**.

Defining contract templates

Create a template to define an actual contract with a customer. Include high level contract details, charge definitions, contract clauses, and comments. After creating a template, use the template to quickly create a contract or modify a contract.

To define contract templates:

1 Select **Work > Contract Management > Contract Templates**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization of the contract template.

Contract Template
Specify a unique code identifying the contract template, and then a description of the contract template in the adjacent field.

Class
Specify the class of the contract template. The system copies the class to the contract along with any custom fields defined on the template.

Contract Class
Specify the class of the contract. This value is copied to the contract along with any custom fields defined on the template.

Default Invoice Status
Select the default status for the invoice after the automatic invoice generation process is complete.

Where Used
Select **Customer Contract** or **Rental Contract** to specify where the template will be used.

Rounding Hours
Select the method by which to round the hours for the invoice.

Rounding Days
Select the method by which to round the days for the invoice.

Hourly Invoicing Start Time
Specify the daily time in hours and minutes to begin invoicing the customer for the contract.

Hourly Invoicing End Time
Specify the daily time in hours and minutes to stop invoicing the customer for the contract.

Invoice Every
Specify the number, and then select the interval by which to invoice customers on the contract. For example, enter 2 and then select Week to invoice the customer every 2 weeks.

4. Optionally, select the **Out of Service** check box to exclude the contract template in the list of values on the Customer Contract and Rental forms.
5. Click **Save Record**.

Defining work order criteria for contract templates

Specify which work orders to include on the invoice. Work order selection criteria includes department, work order class, and work order type.

To define work order criteria for contract templates:

1. Select **Work > Contract Management > Contract Templates**.
2. Select the contract template for which to define work order criteria, and then click the **WO Criteria** tab.
3. Click **Add WO Criteria**.
4. Specify this information:

Department
Enter the department of the work orders to include on the invoice. The system automatically populates the department description in the adjacent field.

WO Class
Enter the class of the work orders to include on the invoice. The system automatically populates **WO Class Org.** and the work order class description in the adjacent field.

WO Type
Enter the type of the work orders to include on the invoice. Select to include **Breakdown**, **Preventive Maintenance**, **Default work order type**, **Calibration**, **Direct Issue**, **Repairable Spare**, **Standard WO**, or **Scheduled** work order types on the invoice.

Grouping
Enter a unique name to identify the grouping of selected work order types. The system references the group on the invoice for easy identification.

Note: The system allows more than one grouping for the same work order type. If more than one grouping is found for the same work order type, the system selects the first grouping for reference on the invoice.

5 Click **Submit**.

Associating clauses with contract templates

Associate clauses with contract templates to define agreements for the customer contracts.

To associate clauses with contract templates:

1 Select **Work > Contract Management > Contract Templates**.
2 Select the contract template for which to associate clauses, and then click the **Clauses** tab.
3 Click **Add Clause**.
4 Specify this information:

Contract Clause
Specify a predefined ISO clause or a user-defined clause. You can associate multiple clauses with a contract template. The system automatically populates **Organization** and the contract clause description.

Sequence
Specify the sequence number for the clause.

5 Click **Submit**.

Associating sales prices with contract templates

Associate sales prices for entities (Parts, Tasks, PM Schedules, Standard Work Order, and Service Problem Codes) to create invoice lines using a fixed sales price rather than the actual work order costs (part issues, time sheets, tool costs) tracked by the system.

Sales prices defined on the contract template level will be copied to the contract when the template is referenced on that contract. These sales prices will take precedence over any sales prices directly associated to any of the entities. So a sales price for a bearing can be overwritten on contract level if desired and this price will then be invoiced, otherwise the system uses the standard sales price of the bearing defined on the Parts form.

To associate sales prices with contract templates:

1. Select **Work > Contract Management > Contract Templates**.
2. Select the contract template for which to associate sales prices, and then click the **Sales Prices** tab.
3. Click **Add Sales Price**.
4. Specify this information:

   Entity
   Select the entity for which to associate sales prices.

   Date Effective
   Specify the date this sales price will go into effect.

   Code
   Specify the system code associated with the entity. The system automatically populates **Code Org.** and the code description in the adjacent field.

   Organization
   Specify the organization to associate to the sales prices. This **Organization** will use these sales prices.

   Sales Price
   Specify the sales price to associate with the entity for the customer contract created from this template. The system automatically populates the currency based on the selected **Organization**.

   Date Expired
   Specify the date the sales price will expire.

   Store
   Specify the store to associate with the sales price when parts entities are selected. If no **Store** is entered, the system applies the sales price to all stores in the selected **Organization** that are not specifically mentioned.

   Condition
   Specify the condition if the entity is a part that is a condition tracked parent part. If the selected entity for the part is a condition tracked child part, the system will automatically populate **Condition**.

5. Click **Submit**.

Defining charges for contract templates

Specify the charges to invoice to customers, including work order, fuel, and lease charges. These charges defined on the template form the basis for the charges used on the customer contract and customer rental.

To define charges for contract templates:

1. Select **Work > Contract Management > Contract Templates**.
2. Select the contract template for which to define charges, and then click the **Charge Definitions** tab.
3. Click **Add Record**.
4. Specify this information:

Invoicing Org.
Specify the organization responsible for the invoicing.

Charge Category
Select the category of the charges for this template. Select from **Sales Transactions**, **WO Charges**, **Fuel Charges**, **Energy Charges**, **Usage Charges**, or **One Time Charges**.

Note: You can combine different charges on a template or a contract.

Charge Level
Select the level for the charges. Select **Subcategory Adjustment** or **Charge Category Adjustment**.

Charge Subcategory
Select the subcategory of the charges for this template based on the **Charge Category** previously selected. For example, for **Fuel Charges**, select from **Diesel**, **Premium**, any other fuels you defined, or **All Fuels**.

Note: For **Fuel Charges** define fuels in the fuel management area; for **Energy Charges** define commodities on the Commodities form; for **Usage Charges** define subcategories on system codes entity CCOC; and for one **One Time Charges** define subcategories on the system entity CCOC.

Invoicing Description
Specify a description of the charge to include on the invoice.

Invoice
Select to invoice the customer for the charges defined here.

Invoice Conditional
Select if there are conditions associated with the invoice for these charges.

Note: If **Invoice Conditional** is selected on this **Charge Level**, if the lower Charge levels add up to zero dollars no additional charges are determined on this level.

If **Invoice Conditional** is not selected, charges on this level may be applied although lower level charges add up to zero.

Rate
Specify the rate for the charges defined here.

Note: Rate is required for usage and one-time charges, and can also be used optionally on energy charges.

Adjustment Unit Price
Specify the adjustment to apply to the transaction price.

Adjustment Transaction
Specify the adjustment to apply to the transaction.

Adjustment % Before
Specify the percent with which to adjust the transaction amount prior to price or transaction adjustments are applied.

Adjustment % After
Specify the percent with which to adjust the transaction amount after, Before %, price or transaction adjustments are applied.

Minimum Quantity
Specify the minimum quantity to invoice.

Minimum Charge
Specify the minimum amount to invoice.

Maximum Charge
Specify the maximum amount to invoice.

Free Up To
Specify a monetary amount to designate the amount by which the invoice will be reduced, or the amount that is free of cost. E.g., the first $250 of work order charges are free.

Taxable
Select to indicate this transaction line is taxable on the invoice.

Usage UOM
Specify the unit of measure, e.g., miles, kilometers that the system will apply to the usage-based rate.

Charge Estimated Usage
Select to add estimates for the usage and energy consumption of the equipment to the periodic invoices.

Rollover
Select to roll over the difference between the actual usage and **Minimum Quantity** invoiced when actual usage is less than **Minimum Quantity**.

Trade
Specify the trade for the charge definition. **Trade** is only relevant for work order charges.

Type of Hours
Specify the type of hours for the charge category on the invoice.

Part Class
Specify the part class for the charge definition. **Part Class** is only relevant for work order charges.

5 Click **Submit**.

Associating discounts with contract templates

Add, update, and delete discount charges for contract templates.

To associate discounts for contract templates:

1 Select **Work > Contract Management > Contract Templates**.
2 Select the contract template for which to associate discounts, and then click the **Discounts** tab.
3 Click **Add Discount**.
4 Specify this information:

Minimum Value
Specify the minimum charge value for which the discount should apply, and then enter the currency in the adjacent field.

Discount %
Specify the discount percentage to apply once the minimum value threshold is met.

5 Optionally, select the **Apply to Each Invoice** check box to apply the discount to each individual invoice. If unselected the discount is associated to the contract level and takes all invoices for the contract into consideration.
6 Optionally, select the **Apply to Full Amount** check box to apply the discount to the full amount of the invoice or the contract. If unselected the system applies the discount to the difference between the invoice or contract total amount and **Minimum Value**.
7 Click **Submit**.

Copying contract templates

Copy the header details and child records of customer contract templates to quickly create a new template.

To copy contract templates:

1 Select **Work > Contract Management > Contract Templates**.
2 Select the contract template to copy, and then click the **Record View** tab.
3 Right-click on the form, and then select **Copy Contract Template**.
4 Specify this information:

New Template Code
Specify a unique code identifying the new contract template, and then enter a description of the contract template in the adjacent field.

5 Select the related details to copy to the new contract template:

- **Custom Field Values**
- **Clauses**
- **WO Criteria**
- **Sales Prices**
- **Discounts**
- **Charge Definitions**
- **Commodities**
- **Comments**
- **Documents**

6 Click **Submit**.

Defining customer contracts

Define new contracts for customers. The customer contract details information such as charges, clauses, comments, and invoice details.

To define customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the customer contract belongs.

Customer Contract
Specify a unique code identifying the customer contract, and then enter a description of the customer contract in the adjacent field.

Customer
Specify the customer for which to create the contract. The system automatically populates **Customer Org.**

Status
Select the status of the customer contract.

Contract Template
Specify the template with which to create the customer contract. The template selected defines the high level details of this contract. The system automatically populates **Contract Template Org.**

Class
Specify the class of the customer contract. The system automatically populates **Class Org.**

Tax Code
Specify the tax code to associate with the customer contract.

Start Date
Specify the date the customer contract becomes available.

End Date
Specify the date the customer contract is no longer available.

Revisit Date
Specify the date for which to revisit the customer contract.

Customer Contact
Specify the person to contact about the contract.

Specify the customer's **Phone Number** and **Email Address**.

Email Invoice
Select to email the customer contact the invoice for the contract.

Invoice Every
Specify the time period for which to invoice the customer by entering an integer, and then selecting the time period unit of measure. For example: Enter 2 and then select **Weeks** to invoice the customer every 2 Weeks.

Next Invoice Date
Specify the next date for which to generate an invoice for the customer.

Offset Invoice Generation
Specify the number of days for which to offset or delay the generation of the next invoice. Example: Enter 15 to offset generation of the next invoice by 15 days.

Default Invoice Status
Select the default status to define for all invoices generated for the customer.

Default Invoicing Organization
Specify the default organization to define for all invoices generated for the customer.

Invoicing Currency
Specify the currency of the invoices for the customer.

Use Fixed Exchange Rates
Select to use fixed exchange rates for the customer when **Invoicing Currency** and **Invoicing Org.** differ. The system defaults the exchange rate with the current active exchange rate where the base currency is the **Invoicing Org.**'s currency and the foreign currency is the **Invoicing Currency**.

Sync Fixed Exchange Rates
Select to sync fixed exchange rates when more than one exchange rate is found for the **Invoicing Currency** and **Invoicing Org.**, or no exchange rate can be found. The system applies the current active exchange rate to the contract items.

Closed WO Only
Select to display only the work orders with a Closed status on the invoice.

Rounding Hours
Select hourly rounding options for the contract. Round the hours of the contract up 15 minutes, down 15 minutes, up 30 minutes, down 30 minutes, or elect not to round the contract hours.

Rounding Days
Select daily rounding options for the contract. Round the days of the contract up, down, or elect not to round the contract days.

Hourly Invoicing Start Time
Specify the time in hours and minutes (ex. 3:00) that the system will begin to invoice the customer for the contract work.

Hourly Invoicing End Time
Specify the time in hours and minutes (ex. 23:00) that the system will stop invoicing the customer for the contract work.

4 Click **Save Record**.

The system automatically populates **Last Invoice Date**, **Last Invoice**, **Amount Invoiced**, **Revision**, **Requested By**, **Date Requested**, **Approved By**, **Date Approved**, and **Revision Reason**.

Note: Click **Create New Revision** to create a new revision of the contract from any previous revision of the contract when the previous revision has a system status other than **Unfinished** or **Request Approval**.

Click **Copy Contract** to copy the header details and child records of the customer contract.

See "Copying customer contracts" on page 696.

Click **Reset Contract Charge Definitions** to reset manual changes applied to the charge definitions for this contract.

Defining contract items for customer contracts

Define contract items and details for customer contracts. Contract items consist of equipment, projects, or work orders to include on the customer contract. A contract may have many items associated.

To define contract items for customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract for which to define contract items, and then click the **Contract Items** tab.
3 Click **Add Contract Item**.
4 Specify this information:

Equipment
Specify the equipment to include on the customer contract. The system automatically populates **Equipment Org.**

Project
Specify the project to include on the customer contract.

Project Budget
Specify the project budget to include on the customer contract.

Work Order
Specify the work order to include on the customer contract.

Customer
Specify the customer. This can be the customer associated to the contract on the header or any of the children of that customer. The system automatically populates **Customer Org.**

Invoicing Org.
Specify the invoicing organization that will collect the charges for this contract item.

Tax Code
Specify the tax rate to be applied to the cost of the contract item.

Contract Template
Specify the contract template for the selected project, project budget, work order, or equipment. The system automatically populates **Contract Template Org.**

Note: Use this feature to define charge definitions specifically for this contract item if they are different from the other contract items.

Invoicing Description
Specify a description that will be printed on the invoice.

Use Fixed Exchange Rate
Select to use fixed exchange rates for the contract item when **Invoicing Currency** and the currency of the **Invoicing Org.** differ. The system defaults the exchange rate with the current active exchange rate where the base currency is the **Invoicing Org.**'s currency and the foreign currency is the **Invoicing Currency**.

Exchange Rate
Specify the exchange rate for the currency. The system will use this rate if the invoicing currency is different from the invoicing organization currency.

Usage Quantity
Specify the usage quantity of the contract item to be used on the customer contract invoice.

UOM
Specify the unit of measure of the usage quantity of the contract item.

Sales Price
Specify the sales price of the equipment.

Exercise Option
Select to exercise the equipment sales options specified on this form.

Exercise Date
Specify the date for which to exercise the equipment sales options.

Sales Tax Code
Specify the sales tax code of the equipment.

Equipment Status After Sale
Select the status of the equipment after the automatic invoice generation process is complete and the equipment is sold.

5 Click **Submit**.

Note: To translate the invoicing description, select a record, and then click **Translate Invoicing Description**. View and edit the translated descriptions.

To reset all charge definitions referenced with the contract items for the current contract revision, click **Reset All Charge Definitions**.

To reset the charge definitions for a particular contract item for this contract revision only, select the contract item record for which to reset charge definitions, and then click **Reset Charge Definitions**.

To refresh all tax codes for all contract items for the current contract revision, click **Reset All Tax Codes**.

To refresh all contract templates for all contract items for the current contract revision, click **Reset All Contract Templates**.

To reset the selected contract item for this contract revision only, click **Reset Contract Template**.

Associating discounts with customer contracts

Add, update, or delete discounts on customer contracts.

To associate discounts with customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract with which to associate discounts, and then click the **Discounts** tab.
3 Click **Add Discount**.
4 Specify this information:

Minimum Value
Specify the minimum charge value for which the discount should apply, and then enter the currency in the adjacent field.

Discount %
Specify the discount percentage to apply once the minimum value threshold is met.

5 Optionally, select the **Apply to Each Invoice** check box to apply the discount to all invoices regardless of whether the contract invoice reaches the minimum value threshold.
6 Optionally, select the **Apply to Full Amount** check box to apply the discount to the full amount of the invoice or contract. If unselected, the discount is applied to the difference between the net amount plus adjustments and **Minimum Value**.
7 Click **Submit**.

Defining work order criteria for customer contracts

Specify which work orders to include on an invoice by defining work order criteria and associating to any customer contract. Work order selection criteria includes department, work order class, and work order type.

If you do not define work order criteria for a contract, the system includes all work orders for selection on the invoice.

To define work order criteria for customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.

2 Select the customer contract for which to define work order criteria, and then click the **WO Criteria** tab.

3 Click **Add WO Criteria**.

Note: If * is entered for any of the work order criteria specified below, the system includes all values for that selection on the invoice.

4 Specify this information:

Department
Enter the department of the work orders to include on the invoice. The system automatically populates the department description in the adjacent field.

WO Class
Enter the class of the work orders to include on the invoice. The system automatically populates **WO Class Org.** and the work order class description in the adjacent field.

WO Type
Enter the type of the work orders to include on the invoice. Select to include **Breakdown**, **Preventive Maintenance**, or **Scheduled** work order types on the invoice.

Grouping
Enter a unique name to identify the grouping of selected work order types. The system references the group on the invoice for easy identification.

Note: The system allows more than one grouping for the same work order type. If more than one grouping is found for the same work order type, the system selects the first grouping for reference on the invoice.

5 Click **Submit**.

Associating commodities with customer contracts

Associate an energy-related commodity with a customer contract to invoice energy costs to customers. Associating energy-related commodities to a customer contract simplifies energy-related setup of charge definitions.

To associate commodities with customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.

2 Select the customer contract with which to associate commodities, and then click the Commodities tab.
3 Click **Add Commodity**.
4 Specify this information:

Commodity
Specify the commodity to associate with the selected customer contract. The system automatically populates the description of the commodity and **Commodity Org.**

5 Click **Submit**.

Note: Adding energy commodities to a customer contract may automatically generate energy-related charge definitions for equipment associated to the contract.

Defining sales prices for customer contracts

Define sales prices for specific entities on a customer contract. Use the sales prices defined here for sales transactions on the customer contract. Sales prices can be defined for specific entities Parts, Tasks, PM Schedules, Standard Work Orders and Service Problem Codes to create invoice lines using a fixed sales price rather than use the actual work order costs tracked by the system, like part issues, time sheets, tool costs, etc.

To define sales prices for customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract for which to define sales prices, and then click the **Sales Prices** tab.
3 Click **Add Sales Price**.
4 Specify this information:

Entity
Select the entity for which to define sales prices. Choose from the following list of entities:

- **Parts**
- **Tasks**
- **PM Schedules**
- **Standard work order**
- **Service problem codes**

Code
Enter the code for the entity. The system automatically populates the description and **Code Org.**

Organization
Enter the organization of the selected code.

Sales Price
Enter the sales price to specify for the selected entity.

Store
Select the store of the entity.

Condition
Enter the condition if the entity is a part that is a condition tracked parent part. If the selected entity for the part is a condition tracked child part, the system will automatically populate **Condition**.

5 Click **Submit**.

Associating clauses with customer contracts

Include clauses in customer contracts. For example, state that for each day the contract finished ahead of schedule, he or she receives a bonus. Set up contract clauses prior to associating them with customer contracts.

To associate clauses with customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract with which to associate clauses, and then click the **Clauses** tab.
3 Click **Add Clause**.

Note: You can only access the **Clauses** tab and add or delete a clause if the customer contract has a status of **Unfinished**.

4 Specify this information:

Contract Clause
Specify a predefined ISO clause or a user-defined clause. You can associate multiple clauses with a customer contract. The system automatically populates the description in the adjacent field, and **Organization**.

Sequence
Specify a valid number to indicate the order of the contract clause in relation to other associated clauses, if applicable.

5 Click **Submit**.

Defining charges for customer contracts

Define charge definitions for a customer contract to determine what the system invoices on the contract and how the system generates the invoice. Charge definitions are invoiced per contract item (e.g., a piece of equipment, project, or work order).

Defining charge definitions involves specifying adjustments for invoicing transactions for several charge categories, subcategories, and levels which all help to determine when and how costs are invoiced to customers during the invoice generations process.

See the following table for details on charge definitions categories and subcategories available for selection:

Charge Category	Description	Charge Subcategory
WO Charges	select to associate charge definition records with invoices for work order costs	• Labor • Hired Labor • Services • Stock Items • Direct Purchase • Tool Costs • All Cost Types
Sales Transactions	select to associate charge definition records with invoices for work order related costs against a fixed sales price	• Service Problem Codes • PM Schedules • Standard WO • Tasks • Parts • All Sales Entities
Fuel Charges	select to associate charge definition records with invoices for fuel issues from the fuel management system	• Diesel • All Fuels
Energy Charges	select to associate charge definition records with invoices for energy usage like electricity or gas	• Commodity • All Energy Commodities
Usage Charges	select to associate charge definition records with invoices for usage per period (e.g., monthly rent) or per usage (e.g., miles driven)	Period • Hourly • Daily • Weekly • Monthly • Quarterly • Yearly Usage • miles
One Time Charges	select to associate charge definition records with invoices for one-time costs like contract initiation fees, attorney fees, fuel (rental contract) etc. **Note:** Subcategories here are at contract start and contract end.	

To define charges for customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the contract for which to define charges, and then click the **Charge Definitions** tab.
3 Click **Add Record**.
4 Specify this information:

Contract Item
Specify the contract item for which to define charges. Contract items consist of equipment, projects, or work orders. The system automatically populates the contract item description, and applicable **Work Order**, **Project**, or **Equipment**, and **Contract Item Org.**

Note: Leave **Contract Item** unpopulated to define these charges for all contract items on the header level of the customer contract.

Invoicing Org.
Specify the invoicing organization on the customer contract header. The system automatically populates **Source Code** with details of where the record originated.

Invoicing Description
Specify a description of the invoice transaction for the charge defined here. This description is listed on the invoice when it is generated.

Invoice
Select to include this line of charges defined on the invoice.

Note: Use **Invoice** to make exceptions, e.g., invoice all work order charges but not tool costs.

Invoice Conditional
Specific to charge levels, charge category adjustments and subcategory adjustments. Select to invoice this line if the lower charge level costs add up to more than zero.

Charge Category
Select the category of the charges defined above in the table for the customer contract to determine the type of charges that will be invoiced. Select one of the charge categories to invoice as follows:

Charge Level
Select the level of invoicing for the charges defined here for the customer contract. Select one of the charge levels to invoice as follows:

- **Transaction Adjustment**
  Select to invoice the customer for the charges defined here on the transaction level, e.g., stocking items or issuing fuel.

- **Subcategory Adjustment**
  Select to invoice the customer for the charges defined here on a group level, e.g., select **Subcategory Adjustment** to add a $50 administration fee when materials are issued from the warehouse, or select **Subcategory Adjustment** to add a 2% tax on all fuel issues.

- **Charge Category Adjustment**
  Select to invoice the customer for the charges defined here on the charge category level, e.g., select **Charge Category Adjustment** to specify that the first $250 of work order costs is included in the rental fee of the space and is therefore free of charge.

Charge Subcategory
Select the subcategory level of invoicing for the charges defined here for the customer contract. This selection depends on the selection you made for **Charge Category**.

Rate
Specify the price to use on the invoice for **Energy Charges**, **Usage Charges**, and **One Time Charges**.

Adjustment % Before
Specify the percentage by which to adjust the transaction amount prior to price or transaction adjustments are applied.

Adjustment Unit Price
Specify the adjustment that should be applied to the transaction price.

Adjustment Transaction
Specify the adjustment that should be applied to the transaction.

Adjustment % After
Specify the percentage by which to adjust the transaction amount after the **Adjustment % Before**, price, or transaction adjustments are applied.

Minimum Quantity
Specify the minimum quantity to invoice.

Note: The system compares the transaction quantity with **Minimum Quantity** and if the transaction quantity is less, the system invoices the minimum quantity.

Minimum Charge
Specify the minimum charge value to invoice.

Maximum Charge
Specify the maximum charge value to invoice.

Free Up To
Specify a monetary amount to designate the amount by which the invoice will be reduced, or the amount that is free of cost. E.g., the first $100 of work order charges are free.

Taxable
Select to indicate this transaction line is taxable on the invoice.

Tax Code
Specify the tax rate to be applied to the cost of the contract item.

Usage UOM
Specify the unit of measure, e.g., miles, kilometers, to which the usage-based rate will be applied.

Charge Estimated Usage
Select to add estimates for the usage and energy consumption of the equipment or charge definitions to the periodic invoices.

The system invoices the customer for actual usage entered via meter readings but when meter readings are not up to date, the system also invoices the estimated usage entered below in **Estimated Daily Usage**.

Rollover
Select to roll over the difference between the actual usage and **Minimum Quantity** invoiced when actual usage is less than **Minimum Quantity**.

Note: The difference is used in future invoices to compensate for over usage. E.g., A customer has a **Minimum Quantity** of 2000 miles per month. The customer is charged for 2000 miles each month, but perhaps one month the customer uses only 1800 miles. The customer would lose 200 miles because the system uses the **Minimum Quantity** when generating the customer's invoice.

Rollover allows the system to roll over the 200 miles into a buffer that can be used in the next invoicing periods if the customer uses more than the 2000 miles in a month.

Starting Meter Value
Specify the value of the meter at the beginning of the contract. This is the starting value of the meter for the first invoice.

Estimated Daily Usage
Specify the estimated daily usage to charge to the invoice if **Charge Estimated Usage** was previously selected. The system invoices the customer for estimated daily usage or energy consumption during the invoice generation process when actual usage via meter readings is not known or incomplete.

Trade
Specify the trade of the charge definition. This is only relevant for work order charges and if you want to make exceptions for certain trades.

Occupation Type
Specify the Occupation Type of the charge definition. This is only relevant for work order charges and if you want to make exceptions for certain trades.

Part Class
Specify the part class of the charge definition. This is only relevant for work order charges and if you want to make exceptions for certain part classes.

Submetered
Select if the equipment or contract item has its own meter (water meter, gas meter, or electric meter) from which to measure energy consumption.

Use Floor Area
Select if the equipment or contract item does not have it own meter and you would like to measure and track energy consumption based on the building utility bill, i.e. **Utility Bill Source**.

Note: If you select to use the floor area in the calculations, the system calculates the invoicing percentage based on the floor area of the contract item and that of the utility bill source, e.g., typically the building in which the contract item resides.

Invoicing Percentage
Specify the percentage of the utility bill or actual submetered consumption to invoice.

Utility Bill Source
Specify the utility bill source, usually a piece of equipment, to associate with the contract item. The system automatically populates the utility bill source description and **Utility Bill Source Org.**

Note: The utility bill source determines the consumption of energy and the rate, if **Rate** was left blank for this charge definition record.

5 Click **Submit**.

Note: Click **Reset Tax Codes** to reset tax codes based on the selected values for the associated contract items.

Click **Associate Missing Meters** for all contract items where a usage-based charge definition references a meter UOM that does not exist on the equipment, the system add this meter to the equipment.

Click **Update Energy Preferences** to save the energy settings of all commodities and all equipment referenced on the contract.

Associating adjustments with customer contracts

Associate adjustments to customer contracts when an adjustment to the invoice is necessary after the setup of the initial contract charge definitions. Adjustments may be necessary after a customer complaint, equipment was damaged prior to return, or extra charges are needed.

To associate adjustments with customer contracts:

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract to which to associate adjustments, and then click the **Adjustments** tab.
3 Click **Add Adjustment**.
4 Specify this information:

Contract Item
Specify a contract item to which to associate the adjustment. The system automatically populates the contract item description, **Contract Item Org.**, **Invoice Amount**, and **Invoice Tax Amount**. The system also automatically populates **Equipment**, **Project**, or **Work Order** depending on which is associated to the selected contract item.

Note: If **Contract Item** is populated, the system invoices the , adjustment as part of the contract item costs. If left unpopulated, the system invoices the adjustment on the customer contract header level.

Adjustment
Specify the adjustment which to associate with the customer contract or the contract item. Adjustments are defined on the **Adjustments** form. The system automatically populates **Adjustment Org.**

Quantity
Specify the number of adjustments to apply to the invoice.

Tax Code
Specify the tax code to specify for the adjustment, the system calculates the tax amount on the invoice.

Adjustment Type
Select to categorize the adjustment.

Note: Invoice Discount or **Contract Discount** are system types and cannot be manually selected.

Date
Select the date to invoice the adjustment.

Status
Select the status of the adjustment.

Note: The system selects only Approved adjustments during the invoicing process. Once invoiced the system changes the status to Invoiced and adds the invoice number on the adjustment record for future reference.

Comments
Enter any comments applicable to the adjustment.

Rate
Specify the rate for the adjustment. The system automatically populates **Total Amount**.

Note: `Total Amount=Quantity * Rate`

It is not necessary to enter any values. If **Rate** is blank the **Total Amount** is automatically set to 0 (zero). If **Quantity** is blank the **Total Amount** is automatically set equal to the entered **Rate**.

Exchange Rate
Specify the exchange rate the system will use for the adjustment when a foreign currency is specified on the invoice of the customer.

Note: The system will try and find the exchange rate for you. If the adjustment date is in the past it will try and find the exchange rate for that day. If it is in the future it will use today's date. If a contract item is selected and **Use Fixed Exchange Rate** is selected for the contract item the system will default the exchange rate from the contract item.

5 Click **Submit**.

To create a work order for the selected adjustment, click **Create WO**. Select the **WO Organization**, and then click **Submit**.

Copying customer contracts

Copy the header details and child records of customer contracts to quickly create a new customer contract.

To copy customer contracts.

1 Select **Work > Contract Management > Customer Contracts**.
2 Select the customer contract to copy, and then click the **Record View** tab.
3 Right-click on the form, and then select **Copy Contract**.
4 Specify this information:

New Contract Code
Enter a unique code identifying the new customer contract, and then enter a description of the contract in the adjacent field.

5 Select the related details to copy to the new customer contract:

- **Custom Field Values**
- **Clauses**
- **WO Criteria**
- **Sales Prices**
- **Discounts**
- **Contract Items**
- **Charge Definitions**
- **Commodities**
- **Comments**
- **Documents**

6 Click **Submit**.

Defining reservations

Define a reservation for a customer to record the rental of equipment for short periods of time, and the charges based on usage fees for a period of time (hours, days, and weeks) and/or for the usage measured in a specific unit of measures (miles, kilometers, and engine hours). The reservation can also include fixed charges such as fuel charge or a repair charge to handle any damage that occurs during the reservation period.

To define reservations:

1 Select **Work > Contract Management > Reservations**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization for which the reservation is created, if you use multi-organization security.

Reservation
Specify a unique code identifying the reservation, and then a description in the adjacent field. A reservation number is assigned after you save the record.

Status
Select a status for the reservation. Select one of the following statuses:

Status	Description
Unfinished	The reservation is editable and has not been approved. **Note:** When status is **Unfinished**, all the fields are editable except the following: • **Customer Rental** • **Organization** • **Created By** • **Date Created** • **Completed**
Issued	Status must be changed to **Issued** when the reservation equipment is issued to the customer.
Returned	Status must be changed from **Issued** to **Returned** when the customer returns the reservation equipment.
Completed	Status must be changed from **Returned** to **Completed** when the reservation is completed. **Note:** System automatically updates the status from **Completed** to **Finished** based on the **Rental Completed** date and **CCFIDAYS** install parameter defined on Options tab of Organization
Cancelled	Select if the contract no longer impacts reservations.

Reservation Type
Specify the rental type for the reservation.

Note: If the user selects **Loaner** option, **Received Equipment** is enabled. If the user selects **Pool**, **Received Equipment** is protected.

Equipment
Specify the equipment for which the reservation is applicable.

Received Equipment
Specify details of the equipment received.

Note: The equipment selected for the **Rental Type** is the equipment being loaned while the received equipment is under repair. This field is enabled only when the **Rental Type** is set to **Loaner**.

Rental Template
Specify the template to apply to the customer reservation.

Class
Specify the class of the reservation.

Issue To
Specify customer receiving the equipment for the reservation.

Customer
Specify the unique code identifying the customer.

Customer Contact
Specify the customer contact name.

Specify the customer **Work Phone Number** and **Email Address**.

Email Invoice
Select to e-mail the customer reservation invoice to the customer.

Specify the **Driver's License No.**, **Cost Code**, and **Tax Code**.

Specify **Issue Date/Time**, **Issue Location**, **Issue Reading**, and **Issue Fuel Level** details of the rental equipment.

Specify **Return Date/Time**, **Return Location**, **Return Reading**, and **Return Fuel Level** details of the rental equipment.

Specify **Corrected Hours**, **Corrected Days**, **Corrected Usage**, and **Corrected Fuel Usage**, if the calculated values must be overwritten.

Note: The system populates the values for the invoicing details such as **Calculated Hours**, **Calculated Fuel Usage**, **Net Amount**, **Tax Amount**, and**Gross Amount**.

4 Click **Save Record**. The Reservation number is generated.

Note: To generate an invoice, right-click on the screen, and then select **Generate Invoice**.

Associating adjustments with reservations

Associate adjustments with reservations. An adjustment can be an extra charge or a discount such as extra charges for a damaged vehicle or a late return fee on the equipment. The user can also create work orders from this screen.

Create a work order for an adjustment on this screen.

To associate adjustments with reservations:

1. Select **Work > Contract Management > Reservations**.
2. Select the reservation for which to create an adjustment, and then click the **Adjustments** tab.
3. Click **Add Adjustment**.
4. Specify this information:

Adjustment
Specify the adjustment with which to associate to the reservation.

Tax Code
Specify the tax code for the adjustment.

Date
Specify the date to invoice the adjustment.

Quantity
Specify the quantity of adjustments to invoice.

Adjustment Type
Select the type of adjustment, e.g., enter an extra charge for damage if the equipment was returned damaged or a discount because it was returned early. You cannot select **Invoice Discount** or select **Contract Discount** because they are reserved by the system.

Status
Select the status of the adjustment. Select one of the following statuses:

- **Unfinished**
  Adjustments can be changed.
- **Approved**
  Adjustment is ready for invoicing.
- **Invoiced**
  Adjustment is invoiced.
- **Cancelled**
  Adjustment is cancelled.

Rate
Specify the rate for the adjustment. **Total Amount** are automatically populated, and **Tax Amount** which is applied to the invoice when the adjustment is due, based on the adjustment date selected.

5 Click **Submit**.

Invoice and **Invoice Org.** are automatically assigned when the invoice process is completed. **Created Work Order** is automatically populated when a work order is created for the adjustment.

Note: To create a work order for the adjustment, click **Create WO**.

See "Creating regular work orders" on page 488.

Viewing charge definitions for reservations

View charge definitions for the reserved equipment.

To view charge definitions for reservations:

1 Select **Work > Contract Management > Reservations**.
2 Enter the customer rental for which to view charges, and then click the **Charge Definitions** tab.
3 View the charge definitions details.

Creating reservation requests

Create, update, and approve reservation requests.

To create reservation requests:

1 Select **Work > Contract Management > Reservation Requests**.
2 Click **New Record**.
3 Enter a description of the reservation request.
4 Specify this information:

Organization
Specify your organization.

Vehicle
Select the vehicle you are renting.

Vehicle Type
Select the type of vehicle you are renting.

Class
Specify the class of the reservation request.

Status
Specify the current status of the reservation request.

Start Date/Time
Specify the date and time you intend to rent the vehicle.

End Date/Time
Specify the date and time you intend to return the vehicle.

5 Specify these reservation request details:

Reference
Specify a number or unique code to identify the reservation request.

Issue To
Specify the employee name of the person to which the vehicle will be issued.

Customer
Specify the customer name associated with the employee to which you are issuing the vehicle.

Phone Number
Specify your phone number if you are renting the vehicle, or the phone number of the employee renting the vehicle if you are approving the request.

Work Phone No.
Specify your work phone number if you are renting the vehicle, or the work phone number of the employee renting the vehicle if you are approving the request.

Email Address
Specify your email address if you are renting the vehicle, or the email address of the employee renting the vehicle if you are approving the request.

Driver's License No.
Specify your driver's license number if you are renting the vehicle, or the driver's license number of the employee renting the vehicle if you are approving the request.

Cost Code
Specify the cost code of the employee to track any vehicle maintenance costs.

6 Click **Save Record**.

Reviewing reservation requests

View a list of reservation requests ready for approval and then either accept or reject the reservation request.

Note: Only the reservation requests for which you are authorized to review are displayed.

To review reservation requests:

1 Select **Work > Contract Management > Review Reservation Requests**.
2 Select the reservation request(s) to review.
3 Choose one of the following options:

- **Accept**
  Click the **Accept** button to accept the reservation request(s). The selected record is deleted from the list once it is accepted and the status of the record is updated.

- **Reject**
  Click the **Reject** button to reject the reservation requests, specify a reason for the rejection in the popup, and then click **OK**. Optionally, select the **Use Reason for All** check box in the popup to use the same rejection reason for all of the selected reservation requests if you selected more than one record.

4 Double-click on a record in the grid to hyperlink to the record on the **Reservations** screen.

Viewing customer invoices

View and modify customer invoices on this screen. The **Customer Invoices** page displays details of the invoices created for customer contracts and customer rentals.

Note: Customer invoices can only be generated by the system. You cannot manually insert or delete invoices on this screen, but you can modify customer invoices.

To view and modify customer invoices:

1 Select **Work > Contract Management > Customer Invoices**.
2 Select the customer invoice for which to modify or view, and then click the **Record View** tab.
3 Specify this information:

Description
Specify the description of the invoice.

Status
Select the status of the invoice. To approve the invoice, select **Approved**.

4 Click **Save**. The system automatically populates **Approval Date**.

Viewing contract items for customer invoices

View details of the equipment, projects, or work orders linked to the customer invoice. View contract items details such as the invoicing organization, applicable exchange rate, and customer data.

To view the contract items:

1 Select **Work > Contract Management > Customer Invoices**.
2 Select the invoice for which to view contract items, and then click the **Contract Items** tab.
3 Specify this information:

Adjusted Net
If required, modify the net amount. The adjusted net amount is displayed on the Invoice header.

Viewing and modifying customer invoice details

View details of a customer invoice by charge categories, charge subcategories and charge levels.

To view and modify customer invoices:

1. Select **Work > Contract Management > Customer Invoices**.
2. Select the customer invoice for which to view or modify details, and then click the **Invoice Details** tab.
3. View details of the customer invoice.

   Note: Only **Adjusted Quantity**, **Adjusted Periods**, **Adjusted Price** and **Adjusted Rollup** can be modified. The adjustments are displayed on the Contract Items tab and the Invoice header.

Viewing invoice generation errors

View the error details generated during the customer invoicing process.

To view invoice generation errors:

1. Select **Work > Contract Management > Customer Invoices**.
2. Select the customer invoice for which to view generation errors, and then click the **Generation Errors** tab.
3. View the errors.

Viewing unreturned core parts

View and track core parts issued to a work order, equipment, project-budget or employee for which a corresponding core was never returned to the store after failing. When core parts remain outstanding, the value of the core part remains charged against the work order, or to whatever it was issued. Once the core part is returned the core value is removed from the work order.

Note: The total value of cores which remain unreturned for a work order can be seen on the **Cost Summary** page of the **Work Orders** form.

To view unreturned core parts:

1. Select **Work > Overview > Unreturned Cores**.
2. View the unreturned core parts.

Managing permits to work

Create and promote a safe work environment for your employees by defining permits to work. The permit to work details the hazards and precautions required to remove or prevent a potential hazard to your employee's safety.

An efficient permit to work includes:

- Details of potential hazards
- Details of the precautions to take to prevent potential hazards
- Any required lockout/tagout operations

Defining permit to work setup

Define permit to work setup options to format the maximum initial duration, maximum number of extensions, and the maximum extension duration of a permit to work.

To define permit to work setup:

1 Select **Work > Permit to Work > Permit to Work Setup**.

2 Specify this information:

Organization
Specify the organization of the permit to work. The system automatically populates the description of the organization.

Risk
Select the color indicating the potential risk the work poses to your operation, e.g., select **Red** if the hazard poses a significant risk to your operation.

Note: The selection of colors is contingent upon your organization's preferences or the value your organization assigns for each color. The system does not assign value to the colors available.

Maximum Initial Duration (Hrs.)
Specify the maximum number in hours to indicate the initial duration period expected for the permit to work.

Maximum Extensions
Specify the maximum number of extensions to allow for the permit to work in the event the work to be performed is not completed by the **Maximum Initial Duration (Hrs.)**.

Maximum Extension Duration (Hrs.)
Specify the maximum number of hours to allow per extension for the duration of the permit to work in the event the work to be performed is not completed by the **Maximum Initial Duration (Hrs.)**.

Maximum Total Duration (Hrs.)
Specify the maximum number in hours to indicate the total duration allowed for the permit to work.

3 Click **Save Record**.

Defining hazards

A hazard is a situation that poses a level of threat to life, health, property, or the employee's environment such as working with fire and flammable equipment, lifting heavy objects, handling sharp objects, working near roadsides, working at heights, or working in confined spaces. Define these situations as hazards to notify your employees of potential dangers in the workplace as they perform maintenance.

After defining hazards, define precautionary measures for each hazard on the **Precautions** form.

To update or revise hazard records once created, right-click on a hazard record, and then select **Create New Revision**.

To define hazards:

1. Select **Work > Permit to Work > Hazards**.
2. Specify this information:

   Organization
   Specify the organization of the hazard.

   Hazard
   Specify a unique code identifying the hazard, and then enter a description in the adjacent field. Alternately, you may opt to allow the system to automatically generate **Hazard**.

   Specify the **Status** and **Class** of the hazard. The system automatically populates **Class Org.**

   Hazard Type
   Select the type to classify the hazard. For example, select **Biological Hazards**, **Chemical Hazards**, **Physical Hazards**, or **Radiological Hazards**.

   Date Review Required
   Specify the date by which to review the hazard.

3. Optionally, select the **Out of Service** check box to indicate that the hazard should not display in lookups on the **Safety** pages.
4. Click **Save Record**. The system automatically populates **Created By** and **Date Created**.

   Note: After updates to the hazard record are saved, the system automatically populates **Updated By**, **Date Updated**, and **Revision**.

Associating precautions with hazards

Associate precautions with hazards to prevent hazardous situations in the workplace that can potentially cause bodily harm or injury to your employees. For example, workers completing a job on the roof of a building are at risk of falling off the roof. Wearing a safety harness is a precaution the workers can take to protect them from a potential fall off the roof.

To associate precautions with hazards:

1. Select **Work > Permit to Work > Hazards**.
2. Select the hazard for which to associate precautions, and then click the **Precautions** tab.

3 Click **Add Precaution**.

4 Specify this information:

Precaution
Specify the safety measure to protect the workers from the hazard. The system automatically populates the precaution description and the **Precaution Org.**

Sequence
Specify the sequence in the workflow process at which the precaution should be taken to prevent the hazard if more than one precaution is in effect and you want to prioritize.

5 Click **Submit**.

Viewing hazard usage

The **Where Used** page of the **Hazards** form lists the screens on which hazards are being used throughout the system. Hazards can be attached to PM schedules, work orders, parts, equipment, categories, permits to work, and standard work orders on the **Safety** tab.

To view hazard usage:

1 Select **Work > Permit to Work > Hazards**.

2 Select the hazard for which to view usage, and then click the **Where Used** tab.

3 View the hazard usage information.

Defining precautions

Define precautions to safeguard workers from potential hazards in the workplace such as working with fire and flammable equipment, lifting heavy objects, handling sharp objects, working near roadsides, or working at heights.

Precautions for these potential hazards include wearing harnesses or using scaffolds to prevent falls, wearing gloves for handling sharp objects, or working during low traffic volume times when working on or near roadsides.

After creating precautions, associate the precautions with hazards on the **Precautions** tab of the **Hazards** form or immediately associate hazards and precautions on the **Safety** tabs.

To update or revise precaution records once created, right-click and then select **Create New Revision**.

To define precautions:

1 Select **Work > Permit to Work > Precautions**.

2 Click **New Record**.

3 Specify this information:

Organization
Enter the organization of the precaution.

Precaution
Enter a unique code identifying the precaution, and then enter a description in the adjacent field. Alternately, you may opt to allow the system to automatically generate **Precaution**.

Enter the **Status** and **Class** of the precaution. The system automatically populates **Class Org.**

Timing
Select the best time to observe the precaution to prevent the hazard. For example, select **Pre Work** if workers should observe the precaution prior to performing work.

Date Review Required
Enter the date on which the precaution should be reviewed.

4 Optionally, select the **Out of Service** check box to indicate the precaution should not display in the Precautions lookup on the **Safety** page.

5 Click **Save Record**. The system automatically populates **Created By** and **Date Created**.

Note: After updates to the precaution record are saved, the system automatically populates **Updated By** and **Dated Updated**.

Defining isolation points for equipment

Define isolation points for equipment to later isolate the equipment from its energy sources during a lockout/tagout procedure as part of a permit to work process. Isolating equipment from its energy sources helps to prevent further injury that may occur if the equipment or machinery is unexpectedly energized or starts up while maintenance or service work is being performed on the equipment by employees.

For example, if crews are performing maintenance on a machine, lockout/tagout safety procedures are observed which may involve isolating the machine from its power source by shutting off the power and placing a lock on the circuit breakers.

By defining isolation points, you indicate at which areas the equipment can be isolated from its energy sources to prevent injury from unexpected startup.

To define isolation points for equipment:

1 Select **Work > Permit to Work > Isolation Points**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization of the isolation points.

Isolation Point
Specify a unique code identifying the isolation point, and then enter a description in the adjacent field.

Note: If you leave **Isolation Point** blank, the system generates a code for you.

Equipment
Specify the equipment if the isolation point is equipment that you already maintain, e.g., a valve. The system automatically populates the description and **Equipment Org.**

Class
Specify the class of the isolation point, e.g. **VALVE**, **SWITCH**. The system automatically populates **Class Org.**

Status
Specify the status of the isolation point. The system automatically populates **Unfinished**.

Location
Specify the location of the isolation point. The system automatically populates **Location Org.**

Location Note
Specify any additional notes on the location of the isolation as necessary.

Energy Source
Select the equipment's source of energy, e.g., electrical power.

Residual Energy
Select the secondary source of residual energy to the equipment if any.

Secondary Residual Energy
Select the secondary source of residual energy to the equipment.

Date Review Required
Specify the date review of the isolation point is required.

4 Optionally, select the **Out of Service** check box to indicate the isolation point should not display in the isolation point lookups on the **LOTO** tab of the **Assets**, **Positions**, **Locations**, and **Permit to Work** form.
5 Click **Save Record**. The system automatically populates **Created By** and **Date Created**.

Viewing permits to work for isolation points

This screen displays the permit to work data attached to specific isolation points.

To view permits to work for isolation points:

1 Select **Work > Permit to Work > Isolation Points**.
2 Select the isolation point for which to view permits to work, and then click the **Permit to Work** tab.
3 View the information.

Defining lockout boxes for lockout/tagout procedures

Define lockout boxes for employees to safely store all the keys used for a lockout/tagout procedure. Lockout/tagout procedures are observed during the maintenance required for a permit to work.

Tagging and locking out (e.g., securing that mechanical equipment is disconnected from to electricity) while employees are performing required maintenance and work orders, prevents bodily injury and death by employees who might otherwise startup equipment while maintenance is being performed.

To define lockout boxes for permits:

1. Select **Work > Permit to Work > Lockout Boxes**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization of the lockout box.

   Lockout Box
   Specify a unique code identifying the lockout box, and then enter a description in the adjacent field.

   Class
   Specify the class of the lockout box for the permit. The system automatically populates **Class Org.**

   Location Note
   Enter a note detailing where the lockout box is located.

   In Use
   Select if the lockout box is currently in use.

4. Optionally, select the **Out of Service** check box if the lockout box is currently out of service or not being used.
5. Click **Save Record**.

   Note: The system automatically populates **Current PTW** and **In Use** if the lockout box is used on a permit to work that is currently isolated.

Defining permits to work

To define permits to work:

1. Select **Work > Permit to Work > Permit to Work**.
2. Enter the **Organization**.
3. Enter a description of the permit to work.
4. Specify this information:

Equipment
Specify the equipment associated with the permit to work. The system automatically populates the description of the equipment and **Equipment Org.**

PTW Type
Select the type of work to be performed on the permit, e.g., **Confined space entry** if the work to be performed must be completed in an enclosed space.

Department
Specify the department of the equipment.

Status
Specify the status of the permit to work.

Location
Specify the location of the equipment. The system automatically populates **Location Org.**

Location Note
Enter a note on the location of the equipment.

Class
Specify the class for the permit to work. The system automatically populates **Class Org.**

Type of Work
Select the type of work to be performed on the permit to work.

Priority
Select the priority of the work to be performed on the permit to work.

Risk
Select the risk the permit to work poses to your organization.

Lockout Box
Specify the lockout box that will be used if a lockout is required.

Un-assessed Conflicts
Select to indicate if the potential conflicts with other permits to work have been un-assessed.

Requested By
Specify the person who requested the permit to work.

Date Requested
Specify the date the permit to work was requested.

Isolated
Select to indicate that the equipment has been isolated or disconnected from its energy source in order that work can be performed without risk or injury.

Date Required
Specify the date the permit to work will go in effect.

Duration (Hrs.)
Specify the duration in hours required for the permit to work.

Extension (Hrs.)
Specify the number of hours to extend the permit to work if maximum duration hours are exceeded. The system automatically populates **Duration Total**. The system automatically populates **Valid Until** and **Extension Count** when the permit to work **Status** is **Active**.

Suspension Reason
Specify the reason to suspend the permit to work.

5 Click **Save Record**.

Note: The system automatically populates **Permit to Work**, **Created By**, **Date Created**, **Updated By**, and **Date Updated**. To extend the amount of time that the permit to work is valid, click **Extend**. Enter your electronic signature information, and a new **Extension Count**, **Duration Total**, and **Valid Until** will be determined.

To indicate that the equipment is isolated from its energy source so that work can be performed without risk or injury to employees performing the work, click **Isolated**. This will also flag the associated isolation points.

To indicate the equipment is on-line and reattached to its energy source after work has been performed, click **De-Isolated**. This will also reset the isolation flag for the associated isolation points.

To sign off on the permit to work, click **Sign-Off**.

To make a copy of an existing permit to work or to replace a permit to work if it can no longer be used, click **Copy/Replace**.

See "Copying and replacing permits to work" on page 716.

To view all differences between the current data of the permit to work and the archived data from the last electronic signature, click **Unsigned PTW Differences**. View the differences.

Adding safety hazards and precautions to permits to work

Add hazards to permits to work to alert your employees to of all the dangers (bodily harm, environmental issues like spills) they face when performing required maintenance and working with equipment. Attach precautions to these hazards so they can safeguard themselves and their surroundings from these potential dangers. For example, if you must maintain electrical equipment, electrocution is a hazard. Add a precaution to turn that equipment off and remove it from the power outlet before performing repairs on that electrical equipment.

To add safety hazards and precautions to permits to work:

1 Select **Work > Permit to Work > Permit to Work**.
2 Select the permit to work for which to add safety precautions and hazards, and then click the **Safety** tab.
3 Click **Add Safety Record**.
4 Specify this information:

Hazard
Specify the hazard to add to the permit to work. The system automatically populates the hazard description, **Hazard Org.**, **Hazard Revision**, and **Hazard Type**.

Precaution
Specify the safety measure to protect your employees from the hazard. The system automatically populates the precaution description, **Precaution Org.**, and **Precaution Revision**. Add one or more precautions to a hazard as needed.

Timing
Select the timing which is used to identify when the precaution should be taken. For example, if your employee is working with fire, you can enter the timing of "during" to alert the employee that they should wear fire-resistant clothing during the task.

Sequence
Specify the sequence number which is used to identify the order in which your employee should be made aware of the precaution. All precautions are important regardless of the sequence number entered.

Health Hazard
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used poses a hazard to the health of the employee.

Flammability
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used are flammable.

Instability
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates the degree to which the materials used can detonate or explode.

Special Hazards
Specify the code based on the Hazardous Materials Code (400) of the NFPA that indicates any special hazards related to the materials used.

5 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

Implementing lockout/tagout procedures for permits to work

Define the steps that must be taken on the permit to work to isolate equipment from its energy sources to prevent startup of a piece of equipment or machine once maintenance on that equipment is in progress. This is to prevent dangers to the workers.

To implement lockout/tagout procedures for permits to work:

1 Select **Work > Permit to Work > Permit to Work**.
2 Select the permit to work for which to implement lockout/tagout procedures, and then click the **LOTO** tab.
3 Click **Add LOTO Record**.

4 Specify this information:

Sequence
Specify the sequence in which to implement lockout/tagout procedures.

Isolation Point
Specify the point at which to isolate the equipment from its energy source. The system automatically populates the description, **Isolation Point Org.**, **Isolation Point Revision**, **Equipment** and **Equipment Org.**

Isolation Method
Specify the method by which to isolate the equipment from its energy source. The system automatically populates **Method Revision**, **Location**, and **Location Org.**

Location Note
Specify any additional notes on the location of the equipment as necessary.

Number of Tags
Specify the number of tags required to properly lock and tag the equipment so that startup of the equipment is prevented.

Energy Source
Select the equipment's source of energy, e.g., electrical power.

Residual Energy
Select the secondary source of residual energy to the equipment if any.

Secondary Residual Energy
Select the secondary source that stores residual energy for the equipment. This source supplies energy to the equipment when the equipment is disconnected from its primary energy and secondary energy sources.

Isolation Step
Select to indicate this procedure is an isolation step and not a de-isolation step.

Note
Specify any notes regarding the lockout/tagout step for this permit to work.

Key References
Specify any references to keys used during the lockout.

5 Specify this Permit to Work Tags information to define your unique tags:

Tag Header
Specify a unique name for the tag.

Tag Line 1
Specify a unique tag for line 1.

Tag Line 2
Specify a unique tag for line 2.

Tag Line 3
Specify a unique tag for line 3.

Tag Line 4
Specify a unique tag for line 4.

6 Click **Submit**.

Viewing and entering checklist items for permits to work

View a checklist for a permit to work LOTO sequence to verify the progress or completion of the checklist. Alternately you may enter results for a checklist of a permit to work LOTO sequence. To enter results for checklist items associated to the permit to work, the permit to work must not have a status equal to **Closed** or **Cancelled**.

To view and enter checklist items for permits to work:

1 Select **Work > Permit to Work > Permit to Work**.
2 Select the permit to work for which to enter checklist items, and then click the **Checklist** tab.
3 Specify this information:

LOTO Sequence
Select the sequence of the step of the lockout/tagout procedure during which to enter the checklist answers. The system automatically populates the isolation method description.

4 Enter results of the checklist based on the checklist item.

- Select **Completed** if **Type** is **Checklist Item**.
  Select **Yes** or **No** if **Type** is **Question**.
  Enter **Finding** if **Type** is **Qualitative**.
  Enter **Value** and **UOM** if **Type** is **Quantitative**.

  Notes
  Enter any relevant notes for the checklist item results.

  Final Occ.
  Select if the results entered represent the final occurrence of the specific checklist item. This applies only to repeating checklist items, e.g., a gas measurement you must perform more than once.

5 Click **Submit**.

Resolving conflicts with permits to work

Conflicts with permits to work can occur when multiple permits to work are attached to the same equipment or have the same isolation points or location. Identify potential conflicts and choose the method by which to resolve the conflicts.

To resolve conflicts with permits to work:

1 Select **Work > Permit to Work > Permit to Work**.
2 Select the permit to work for which to resolve conflicts, and then click the **Conflicts** tab.
3 Click **Add Record**.
4 Specify this information

Conflicting PTW
Specify the permit to work with the conflict. The system automatically populates the description, **Organization**, **Status**, **PTW Type**, **Risk**, **Equipment**, **Equipment Org.**, equipment description, **Location**, **Location Org.**, **Responsible**,**Holder**, **Un-Assessed Conflicts**, **Date Required**, **Valid Until**, **Created By**, **Date Created**, **Updated By**, and **Date Updated**.

Resolution
Select the method for resolving the conflict with the conflicting permit to work.

5 Click **Submit**.

Viewing event logs for permits to work

View status changes, extensions, isolation, de-isolation and sign-off events that occurred during the life cycle of the permit to work. Alternately you may manually add events or remarks.

To view event logs for permits to work:

1 Select **Work > Permit to Work > Permit to Work**.
2 Select the permit to work for which to view event logs, and then click the **Event Log** tab.
3 Specify this information:

Event Type
Select the events type to view for the permit to work. For example, select **Status Change** to view the events in which the status for the permit to work was changed. The system automatically populates **User**, and **User Name**.

Note: To manually add an event to the log, click **Add Event**. Select the **Event Type**, and then enter **Date/Time** the event occurred.

Date/Time
Specify the date and time the event occurred.

4 Enter notes as necessary.
5 Click **Submit**. The system automatically populates **Created By** and **Date Created**.

Note: The system automatically populates **Updated By** and **Date Updated** if updates were made the event log.

Copying and replacing permits to work

Replace an existing permit to work with a new permit to work, or copy an existing permit to work to save planning time for a new permit to work.

To copy and replace permits to work:

1. Select **Work > Permit to Work > Permit to Work**.
2. Select the permit to work to copy or replace.
3. Right-click on the form, and then select **Copy/Replace PTW**.
4. Specify this information:

   Description
   Specify a description of the new permit to work.

   Equipment
   Specify the equipment to associate to the new permit to work. The system automatically populates a description of the equipment and **Equipment Org.**.

   Location
   Specify the location of the equipment associated to the new permit to work. The system automatically populates a description of the location, and **Location Org.**

5. Select to copy the following associated details to the new permit to work:
   - **Custom Field Values**
   - **Comments**
   - **Documents**
   - **LOTO**
   - **Safety**
   - **Add Equipment Safety**
   - **Add Location Safety**
6. Click **Copy** or **Replace**.

Creating healthcare work orders

Create new work orders for one or more pieces of healthcare equipment.

Note: The form contains collapsible sections.

To create healthcare work orders:

1. Select **Work > Verticals > Healthcare > Work Orders Healthcare**.
2. Click **New Record**.
3. Specify this information:

Organization
Specify the organization to which the work order belongs if you use multi-organization security. The system automatically populates **Created By** with the **User ID** of the logged in user.

Work Order
Specify a description of the work needed in the adjacent field. The system assigns a work order number after you save the record.

Equipment
Specify the healthcare equipment on which to perform the work. The system automatically populates the following fields based on the selected **Equipment** if available: equipment description, **Manufacturer**, **Model**, **Serial Number**, **Equipment Org.**, **Department**, **Cost Code**, **OEM Site/System ID**, **Vendor**, **Coverage Type**, **Warranty**, **Equipment Type**, and **Assigned By**.

Note: The system automatically selects **Multiple Equipment** if you add additional equipment to the work order and it is protected.

Type
Choose one of the following options:

- **Breakdown**
  Select to create a work order in response to an equipment breakdown or failure.

- **Calibration**
  Select to create a calibration work order.

- **PM**
  Select to create a preventive maintenance work order.

- **Repairable Spare**
  Select to create a work order for repairable spare parts. If you are creating a work order for repairable spare parts, you must also add the parts to repair on the **Repair Parts** tab.

- **Standard WO**
  Select to create a standard work order.

  Note: The previously listed work order types are standard types in the system. You can also create user-defined work order types.

  Status
  Select one of the following options:

  - **Released**
    Select to create a work order.

  - **Work request**
    Select to create a work request.

Note: If you select a **Status** of **Work request**, the work request must be approved and assigned a status of **Released** before defining activities, scheduling labor, booking labor, etc.

Priority
Specify the priority of the work order.

4 Specify this Equipment Details information:

Cost Code
Specify the cost code of the work order.

Warranty
Select if the equipment is under manufacturer warranty.

5 Specify this Work Order Details information:

Standard WO
Specify the standard work order if it has been stored in the system library. The system automatically populates the work order description, **Type**, **Class**, **Scheduling Session**, **Scheduling Session Type**, **Maintenance Pattern-Sequence**, **Problem Code**, **Priority**, **Scheduled End Date**, **Campaign-Campaign Event** and **Campaign Status** if available. The system also copies the standard work order activities to the current work order. If the standard work order is a template, the system creates child work orders as defined on the standard work order.

Class
Specify the class of the work order.

Assigned By
Specify the supervisor who assigned the work order.

Assigned To
Specify the person responsible for the work order.

Sched. Start Date

Sched. End Date
Specify the starting and ending dates for the work order.

Start Date
Specify the actual date on which the work order is started.

Date Completed
Specify the actual date on which the work order is completed.

Problem Code
Specify the code to identify the type of problem.

Note: If the selected **Equipment** is linked with a **Criticality** code, the system populates **Problem Code** based on the **Criticality** code.

Cause Code
Specify the cause code identifying the cause of the problem. The system automatically populates the following fields:

Route identifies the inspection route of which the equipment is a part.

Inspection Status indicates the current status of the inspection route of which the equipment is a part.

Failure Code
Specify the cause of failure for the equipment.

Action Code
Specify the action taken to resolve the problem.

Project - Budget
Specify the project and the project budget to associate with the work order.

Note: You cannot select a frozen project/budget.

Safety
Select if this work requires special safety precautions.

Parent Work Order
Specify the code identifying the parent work order for the work order.

Downtime Cost
Specify the cost that resulted from the equipment being out of operation due to failure.

Downtime Hours
Specify the number of hours that the equipment was out of operation due to failure. The system automatically populates the following fields:

The system populates **Last Meter Reading** with the value of the last meter reading and the unit of measure of the reading in the adjacent field.

Trigger Event indicates the MS Project planning session associated with the equipment on the work order.

Print
Select to print the work order when work orders are batch printed.

Note: Once the work order is printed, the system automatically selects **Printed** and unselects **Print**.

Dependent
Select to keep the work order open until all child work orders are completed.

6 Specify this Requestor Details information:

Reported By
Specify the employee requesting the work.

Phone

E-mail
Specify the phone number and e-mail address of the employee requesting the work.

Req. Start Date

Req. End Date
Specify the requested starting and ending dates for the work order.

Shift
Specify the shift during which the work is requested to be performed.

7 Specify this Activity information:

Activity
Specify a value if you want to create a new activity to associate with the work order.

Trade
Specify the trade required to perform the activity.

Note: If you enter a **Trade**, **Estimated Hours**, or **People Required** in the Activity section of the page, an activity will automatically be created for this work order.

An activity record can be deleted when you remove the **Trade** value.

Task
Specify the task code for the activity.

Material List
Specify the material list code for the material list containing the parts needed for the work order.

Activity Start Date

Activity End Date
Specify the starting and ending dates for the activity associated with the work order.

Estimated Hours
Specify the estimated number of hours required to complete the activity. The system automatically populates **Hours Remaining** with the estimated number of hours remaining for the activity. You may update this field at any time during the life cycle of the work order.

People Required
Specify the number of people required to perform the activity.

8 Specify this Incident Tracking Details information:

Patient/Visitor Injury
Select if the work order involved a patient or visitor injury.

Staff Injury/Illness
Select if the work order involved a staff injury or illness.

Security Incident
Select if the work order involved a security incident.

Property Damage
Select if the work order involved damage to property.

Hazardous Materials Incident
Select if the work order involved a hazardous materials incident.

Fire Safety Incident
Select if the work order involved an incident regarding fire safety.

Medical Equipment Incident
Select if the work order involved an incident with medical equipment.

Utility System Incident
Select if the work order involved an incident with a utility system.

9 Specify this Compliance Details information:

Above Ceiling Permit
Select if the work to be performed requires an above ceiling permit.

Interim Life Safety
Select if the work to be performed requires interim life safety procedures and techniques be put in place.

Interim Infection Control
Select if the work to be performed requires interim infection control procedures be put in place.

Preconstruction Risk Assessment (PCRA)
Select if the work to be performed relates to a preconstruction risk assessment plan.

Plan for Improvement (PFI)
Select if the work to be performed relates to a plan for improvement.

Statement of Conditions
Select if the equipment on which the work to be performed relates to the Statement of Conditions as required by The Joint Commission.

Building Maintenance Program (BMP)
Select if the work to be performed is on a piece of equipment inventoried in the building maintenance program.

Personal Protective Equipment (PPE)
Select if the work to be performed requires personal protective equipment.

Lockout/Tagout
Select if the work to be performed is on a piece of equipment which must comply with OSHA regulations on lockout/tagout.

Hot Work/Burn Permit
Select if the work to be performed requires a hot work/burn permit.

Confined Space
Select if the work to be performed is on a piece of equipment located in an area defined as a confined space as per OSHA regulations.

Patient Safety
Select if the work to be performed interferes with patient safety and requires patient safety measures.

Recall Notice
Select if the work to be performed requires a recall notice or is on a piece of equipment with a recall notice.

SMDA
Select if the work to be performed is on a piece of equipment covered by the Safe Medical Devices Act of 1990.

HIPAA Confidentiality
Select if the work to be performed is on a piece of equipment containing confidential patient health information.

10 Click **Save Record**.

Note: To create a standard work order from any general work order for easy duplication, right-click on any existing work order, and then click **Create Standard WO**. Enter **New Standard WO**, and then enter a description for the new standard work order. Enter **Organization**, and then click **Submit**.

To view the progress of a work order, right-click on the form, and then choose **Event Log**.

To create a warranty claim for the work order, right-click, and then select **Create Warranty Claim**.

Creating hospitality work orders

Create and update hospitality-based work orders.

To create hospitality work orders:

1 Select **Verticals > Hospitality > Work Orders Hospitality**.

2 Click **New Record**.

3 Specify this information:

Property
Specify the property to which the work order belongs. The system automatically populates **Created By** with the **User ID** of the logged in user.

Work Order
Specify a description of the work needed in the adjacent field. The system assigns a work order number after you save the record.

Equipment
Specify the hospitality equipment on which to perform the work. The system automatically populates the following fields based on the selected **Equipment** if available: equipment description, **Reliability Ranking**, **Reliability Ranking Index**, **Reliability Ranking Score**, **System Status**, **Equipment Type**, **Equipment Property**, **Facility**, **Facility Parent**, **Building**, **Wing**, **Floor**, **Exposure**, **Equipment Alias**, **Serial Number**, **Model**, and the guest details.

Type
Choose one of the following options:

- **Breakdown**
  Select to create a work order in response to an equipment breakdown or failure.

- **Calibration**
  Select to create a calibration work order.

- **PM**
  Select to create a preventive maintenance work order.

- **Repairable Spare**
  Select to create a work order for repairable spare parts. If you are creating a work order for repairable spare parts, you must also add the parts to repair on the **Repair Parts** tab.

- **Standard WO**
  Select to create a standard work order.

  Note: The previously listed work order types are standard types in the system. You can also create user-defined work order types.

Status
Select one of the following options:

- **Released**
  Select to create a work order.

- **Work request**
  Select to create a work request.

  Note: If you select a **Status** of **Work request**, the work request must be approved and assigned a status of **Released** before defining activities, scheduling labor, booking labor, etc.

Priority
Specify the priority of the work order.

Standard WO
Specify the standard work order if it has been stored in the system library. The system automatically populates the work order description, **Type**, **Maintenance Pattern-Sequence**, **Problem Code**, **Action Code**, **Priority**, and **Scheduled End Date**.

Route
Specify the inspection route of which the equipment is a part.

Action Code
Specify the action taken to resolve the problem.

Profession
Specify the profession required to perform the activity.

Note: If you enter a **Profession**, **Estimated Hours**, or **People Required** in the Activity section of the page, an activity will automatically be created for this work order.

An activity record can be deleted when you remove the **Profession** value.

Task
Specify the task code for the activity.

Activity Start Date

Activity End Date
Specify the starting and ending dates for the activity associated with the work order.

Estimated Hours
Specify the estimated number of hours required to complete the activity. The system automatically populates **Hours Remaining** with the estimated number of hours remaining for the activity. You may update this field at any time during the life cycle of the work order.

People Required
Specify the number of people required to perform the activity.

Date/Time Reported
Specify the date and time the work to be performed was reported.

Assigned To
Specify the person responsible for the work order.

Sched. Start Date

Sched. End Date
Specify the starting and ending dates for the work order.

Date Completed
Specify the actual date on which the work order is completed.

Facility
Specify the facility at which the work is to be performed.

4 Click **Save Record**.

Inspection management

6

The inspection management module coordinates with the work management module to give you more control over preventive maintenance (PM) functions within your organization.

Set up PM routes in the work management module, and then enhance the PM route information in the inspection management module by adding inspection points, inspection methods, and inspection conditions.

First, enter the inspection information, and then establish high and low tolerances for inspection readings. When a reading result exceeds the high or low tolerance, the system automatically generates a corrective work order. The Infor EAM inspection process will lower your organization's maintenance costs and ensure asset reliability.

Inspection management terms

The following terms will help you become familiar with the inspection management module's unique attributes:

Term	Definition
Inspection Point	The physical location on the piece of equipment to inspect Example: Examine the tires on a van every three months for tread wear. The inspection points are the front left tire, the front right tire, the rear left tire, and the rear right tire. Also, define inspection points at the category level so that the points apply to all equipment within the specified category. Example: Define inspection points for all vans rather than for a specific van.
Inspection Point Type	Groups of similar inspection points

Term	Definition
	Example: Inspection point types for a vehicle are tires, brakes, headlights, etc. For a pipe, the point type could be a tee or weld.
Inspection Aspect	The item(s) measured during an inspection. An inspection point can have multiple inspection aspects. Example: To check the oil aspect, measure the available oil against the dipstick. Another example is wall thickness.
Time Dependence	Indication of the trend for the inspection aspect over a period of time. The dependence can be either linearly increasing or linearly decreasing. Example: Tire tread decreases linearly over time. The mineral deposits in water pipes increase linearly over time, restricting water flow.
Inspection Point Conditions	Restrictions on inspecting a piece of equipment Example: When inspecting tire tread, the tires cannot be in motion, and they should be relatively clean from dirt and debris. Define general conditions, which apply to all aspects, or define conditions that are aspect specific.
Inspection Unit	The unit of measure for the inspection Example: Tire tread measurements may be in centimeters or fractional inches.
Inspection Method	The detailed description of how to carry out the inspection Example: The inspection method for checking tire tread is simple: insert the tire gauge between the tire treads and note the amount of tread on the tire.
Nominal Value	A standard against which to measure aspects Example: When a snow tire is new, its tread is 9/32 of an inch. The dealership recommends replacing the tire when the tread reaches 2/32. The nominal value would be 9/32 of an inch.
Extreme Value	Either a minimum or maximum value that defines the range of acceptable inspection readings Example: The minimum extreme value for tire tread is 1/32. The maximum value is 9/32. Tire tread measurements between these two values are acceptable.

Term	Definition
Critical Value	The value that indicates when to take action for an aspect Example: When tire tread reaches 2/32 of an inch, replace the tire.
Tolerance	The percentage amount above or below the critical value. The tolerance defines the safety limits, which are the values that signal the need for a new inspection. Example: A tolerance of 5 percent is set for tire tread. If a measurement is 5 percent above or below 2/32 of an inch (the critical value), initiate a new inspection.
Inspection Route Template	A sorted list of inspection points defined for a category (not a specific piece of equipment), outlining both the sequence and the content of an inspection Apply the template to any piece of equipment in a category. The system stores the template in the database library and attaches it to a work order when you need it. Example: Set up a route template for 12,000, 36,000, and 60,000-mile tune-ups for vehicles. When it is time to perform the tune-up, attach the tune-up template to a work order for a 1991 Ford Passenger Van.
Inspection Route for Work Order	An aspect-specific subset of an inspection route template that can associate a route with a specific work order
Route Status	The status of an inspection route changes as the inspection moves through its lifecycle. This list describes the status codes. **Blank (no status)** Add or remove inspection aspects and points. **Unfinished** Enter the results of the inspection. **Ready** All results are entered in the system, and you can process the results. At this point, you cannot make any changes to the results. **Request Approval** Update the inspection point result type only.

Term	Definition
	Approved/Processed The results are frozen, and you can update the inspection point result type only. **Canceled** User cannot make any changes, and the route is considered "dead.
Finding Code	Defines observations or measurements that you can only report qualitatively Example: It is difficult to gauge water color (clear, hazy, swampy). In this situation, set up finding codes for clear, hazy, and swampy.
Result Type	Indicates the validity of an inspection reading or result Example: When a finding is "Valid," include the value in system calculations. When a finding is "Invalid," do not include the value in calculations. When a finding indicates discontinuity, take a new reading.

Defining inspection codes

Define inspection codes before defining inspection parameters.

Defining inspection aspects

Define codes to represent specific aspects to measure. Measure one or multiple aspects against standards or gauges.

Although you can define additional time dependence codes on the **Installation Parameters** form, the system only uses the linearly increasing or decreasing codes for internal calculations.

You cannot delete inspection aspect codes after associating them with inspection points.

To define inspection aspects:

1 Select **Work > Inspections > Aspects**.
2 Click **New Record**.
3 Specify this information:

Aspect
Specify a unique code identifying the inspection aspect, and then enter a description of the aspect in the adjacent field.

Time Dependency
Select Linearly Increasing or Linearly Decreasing. The time dependence parameter is used to calculate when equipment will exceed safety margins.

Class
Specify the class of the aspect. The system automatically populates **Class Org.**

Out of Service
Select to indicate that the system does not use this aspect.

Random Result
Select to permit entry of measurements without requiring an associated inspection point.

4 Click **Save Record**.

Defining inspection point types

Inspection point types are groups of similar inspection points. Associating inspection points with point types simplifies data entry and analysis by standardizing descriptions.

Note: You cannot delete inspection point type codes after associating them with inspection points.

To define inspection point types:

1 Select **Point Types > Work > Inspections**.
2 Click **New Record**.
3 Specify this information:

Point Type
Specify a unique code identifying the inspection point type, and then enter a description of the point type in the adjacent field.

Class
Specify the class of the inspection point type. The system automatically populates **Class Org.**

4 Click **Save Record**.

Defining inspection methods

Inspections involve procedures or methods. With this feature, define the method of inspecting a particular aspect of a piece of equipment.

Note: You cannot delete inspection method codes after associating them with inspection points or inspection aspects.

To define inspection methods:

1. Select **Work > Inspections > Methods**.
2. Click **New Record**.
3. Specify this information:

   Method
   Specify a unique code identifying the inspection method, and then enter a description of the method in the adjacent field.

   Class
   Specify the class of the inspection method. The system automatically populates **Class Org.**

4. Click **Save Record**.

Defining inspection conditions

Inspection conditions are restrictions on inspections. The conditions differ with different equipment. For example, check the brake system of a vehicle only when it is stationary with the wheels removed. For other equipment, the weather or the temperature might restrict an inspection.

The system includes, on the work order printout, any conditions that must be met prior to the inspection.

To define inspection conditions:

1. Select **Work > Inspections > Conditions**.
2. Click **New Record**.
3. Specify this information:

   Condition
   Specify a unique code identifying the inspection condition, and then enter a description of the condition in the adjacent field.

   Class
   Specify the class of the inspection condition. The system automatically populates **Class Org.**

4. Click **Save Record**.

Defining inspection findings

Define codes that represent the results of an inspection. All of the codes defined on this form represent qualitative findings, not quantitative results. For example, a qualitative finding of a pipe inspection is "The pipe is leaking."

Associate one or more equipment classes with a specific inspection finding. For example, associate tire tread wear results with vehicle classes (four door sedans, two door sedans, vans, etc.).

Note: You cannot delete inspection findings codes after associating them with classes or inspection results.

To define inspection findings:

1 Select **Work > Inspections > Findings**.

2 Click **New Record**.

3 Specify this information:

Finding
Specify a unique code identifying the inspection finding, and then enter a description of the finding in the adjacent field.

General
Select to associate the finding with all equipment inspections. Unselect to associate specific equipment classes with the finding on the **Classes** page of the **Findings** form. In this situation, the system displays the finding in the list of values for the relevant equipment.

Note: You cannot select **General** if the finding is associated with one or more equipment classes.

4 Click **Save Record**.

Assigning equipment classes to findings

Assign equipment classes to a finding on the **Classes** page. The **Classes** page displays a list of equipment classes assigned to a particular finding. A finding may have multiple equipment class assignments, if it is not a **General** finding, which by default applies to all equipment classes.

For example, equipment with a class of HVAC may have different findings than equipment with a class of MOTOR. When you enter inspection results for a piece of equipment with a class of HVAC, only the **General** findings and those assigned specifically to the HVAC class will appear in **Finding** on any inspection result entry form.

Note: You cannot assign classes to a **General** finding.

To assign equipment classes to findings:

1 Select **Work > Inspections > Findings**.

2 Select the finding to which to assign an equipment class, and then click the **Classes** tab.

3 Click **Add Class**.

4 Specify this information:

Class
Specify the equipment class to which to assign the finding. The system automatically populates **Class Org.**

5 Click **Submit**.

Viewing monitored data

View equipment, locations, categories, and profiles for inspection-related details.

To view monitored data:

1. Select **Work > Inspections > Monitored Data**.
2. View the monitored data information.

Defining points

Define equipment inspection points, equipment inspection aspects, equipment inspection aspect points, and equipment inspection conditions. Finally, enter additional equipment inspection information and record equipment inspection results.

Defining equipment inspection points

Associate inspection points with specific equipment or categories. For example, when examining the tread wear on tires of a van, the equipment is the van, and the inspection points are the four tires. You can also associate inspection points with categories.

To define equipment inspection points:

1. Select **Work > Inspections > Monitored Data**.
2. Select the equipment, profile, or equipment category for which to define inspection points, and then click the **Points** tab.
3. Click **Add Point**. The system automatically populates **Origin**.
4. Specify this information:

   Point Type
   Specify the inspection type to associate with the equipment or equipment category. The system automatically populates the point type description.

   Point
   Specify the inspection point number.

5. Click **Submit**.

   Note: You cannot remove point records that are indirectly associated with the monitored data object.

Defining equipment inspection aspects

Associate aspects with equipment or categories. For example, specify a category of vans or a particular van, and then associate it with the inspection aspect of measuring tire tread.

To define equipment inspection aspects:

1. Select **Work > Inspections > Monitored Data**.
2. Select the equipment, equipment class, or equipment category for which to enter inspection aspect information, and then click the **Aspects** tab.
3. Click **Add Aspect**. The system automatically populates **Origin**.
4. Specify this information:

   Aspect
   Specify the inspection aspect with which to associate the monitored data object. The system automatically populates the aspect description.

   Method
   Specify the inspection method for the aspect as necessary.

   Nominal Value
   Specify the starting value or normal value and unit of measure for measurements on this aspect. For example, if a new pipe's wall thickness is 3 mm, the nominal value is 3 and the unit of measure is mm.

   Min. Extreme
   Specify the minimum extreme value beyond the operating specifications for the aspect.

   Min. Critical
   Specify the lowest possible value for the aspect.

   Min. Tolerance
   Specify the minimum percentage of critical value for the aspect.

   Min. Std. WO
   Specify a standard work order to restore normal operating conditions when the minimum critical value is reached.

   Min. PM
   Specify a preventive maintenance work order to restore normal operating conditions when the minimum critical value is reached.

   Max. Extreme
   Specify the maximum extreme value beyond the operating specifications for the aspect.

   Max. Critical
   Specify the highest possible value for the aspect.

   Max. Tolerance
   Specify the maximum percentage of critical value for the aspect.

Max. Std. WO
Specify a standard work order to restore normal operating conditions when the maximum critical value is reached.

Max. PM
Specify a preventive maintenance work order to restore normal operating conditions when the maximum critical value is reached.

5 Click **Submit**.

Note: You cannot remove aspect records that are indirectly associated with the monitored data object.

Defining equipment inspection aspect points

Define minimum and maximum measurement values for the equipment. When inspection aspect measurements exceed acceptable values, the system automatically generates work orders to correct the problems. Inspection aspect point information is similar to the information on the **Aspect** page but is specific for an aspect/point combination.

To define equipment inspection aspect points:

1 Select **Work > Inspections > Monitored Data**.
2 Select the equipment, equipment class, or equipment category for which to enter aspect point information, and then click the **Aspect Points** tab.
3 Click **Add Aspect Point**. The system automatically populates **Origin**, **Date**, and **Finding**.
4 Specify this information:

Aspect
Specify the inspection aspect with which to associate the aspect point. The system automatically populates the aspect description, **Method**, **Nominal Value**, **Min. Extreme**, **Min. Critical**, **Min. Critical Reached**, **Min. Tolerance**, **Min. Tolerance Reached**, **Min Std. WO**, **Max. Extreme**, **Max. Critical**, **Max. Critical Reached**, **Max. Tolerance**, **Max. Tolerance Reached**, and **Max. Std. WO** from the Aspect of the equipment or category.

Point
Specify the point with which to associate the aspect point. The system automatically populates the point description, **Point Type**, and the point type description.

Point Type
Specify the point type with which to associate the aspect point. The system automatically populates the point type description.

Method
Specify the inspection method for the aspect as necessary.

Nominal Value
Specify the starting value or normal value and unit of measure for measurements on this aspect point. For example, if a new pipe's wall thickness is 3 mm, the nominal value is 3 and the unit of measure is mm.

Min. Extreme
Specify the minimum extreme value beyond the operating specifications for the aspect point.

Note: Min. Extreme must be less than **Min. Critical**.

Min. Critical
Specify the lowest possible value for the aspect point.

Note: Min. Critical must be less than the **Nominal Value**.

Min. Tolerance
Specify the minimum percentage of critical value for the aspect point.

Min. Std. WO
Specify a standard work order to restore normal operating conditions when the minimum critical value is reached.

Min. PM
Specify a preventive maintenance work order to restore normal operating conditions when the minimum critical value is reached.

Max. Extreme
Specify the maximum extreme value beyond the operating specifications for the aspect point.

Note: Max. Extreme must be greater than or equal to the **Min. Extreme** and **Max. Critical**.

Max. Critical
Specify the highest possible value for the aspect point.

Note: Max. Critical must be greater than the **Nominal Value** and greater than or equal to **Min. Critical**.

Max. Tolerance
Specify the maximum percentage of critical value for the aspect point.

Max. Std. WO
Specify a standard work order to restore normal operating conditions when the maximum critical value is reached.

Max. PM
Specify a preventive maintenance work order to restore normal operating conditions when the maximum critical value is reached.

5 Click **Submit**.

Note: You cannot remove aspect point records that are indirectly associated with the monitored data object.

Copying aspect points

Copy existing aspect points associated with a source monitored data object to a selected destination monitored data object.

Note: You cannot copy aspect points if you do not have the proper permissions to access the **Aspect Points** page.

To copy aspect points:

1. Select **Work > Inspections > Monitored Data**.
2. Select the monitored data object to which to copy aspect points, and then click the **Aspect Points** tab.
3. Click **Copy Aspect Points**. The system automatically populates **Destination** and the destination description.
4. Specify this information:

   Source
   Specify the source object. The system automatically populates the source description and the list of aspect points directly associated with the source object.

5. Select each aspect point to be copied from the source object to the destination object.

   Note: You must select at least one aspect point that is associated with the source object.

   To select all the aspect points at once, select the **Select** check box. To unselect all the aspect points at once, clear the **Select** check box.

6. Click **Copy**.

   Note: You cannot copy aspect points that are already associated with the destination object from the source object to the destination object.

Defining equipment inspection conditions

Specify conditions to meet before inspecting a piece of equipment. For example, conditions for a boiler inspection might include blocking all inlet and outlet valves, cutting the fires from the burners approximately 8 hours prior to the inspection, and cooling the inside of the boiler for 24 hours.

To define equipment inspection conditions:

1. Select **Work > Inspections > Monitored Data**.
2. Select the equipment, profile, or equipment category for which to define equipment inspection conditions, and then click the **Point Conditions** tab.
3. Click **Add Point Condition**. The system automatically populates **Origin**.

4 Specify this information:

Point
Specify the point with which to associate the inspection condition and **Point Type**. The system automatically populates the point description.

Condition
Specify the inspection condition. The system automatically populates the condition description.

Aspect
Specify the aspect with which to associate the inspection condition as necessary.

Note: Do not enter an **Aspect** when the **Condition** applies to the **Point**, regardless of what aspect is being measured.

5 Click **Submit**.

Note: You cannot remove point conditions records that are indirectly associated with the monitored data object.

You cannot create a new point condition with the same combination of **Point**, **Point Type**, and **Aspect** as an existing point condition.

Entering additional equipment inspection information

To enter additional equipment inspection information:

1 Select **Work > Inspections > Monitored Data**.
2 Select the equipment, profile, or equipment category for which to enter additional equipment inspection information, and then click the **Equipment Details** tab.
3 Specify this information:

Piping Class
Specify the piping class of the equipment as necessary. The system automatically populates **Piping Class Rev.**, **Material Standard**, **Corr. Allowance**, **Material**, **Material Std. Rev.**, **Design Code**, **Design Temp. Min.**, and **Design Temp. Max.**

Material Standard
Specify the material standard of the equipment as necessary.

Nominal OD
Specify a numeric value for the pipe's nominal outer diameter. Then, specify the unit of measure for the diameter by selecting **Inch** or **mm** (millimeters).

MAOP

Lining/Coating
Specify the relevant values according to the design specifications listed by the manufacturer or international standards organizations.

Variable 1

Text 5
Enter any additional information about the object.

4 Click **Save Record**.

Note: You cannot delete equipment details records that are indirectly associated via the equipment's category with the monitored data object. If the existing equipment details record is not directly associated with the monitored data object, click **Copy Category Data to Equipment** to directly associate the equipment details record from the details of the indirectly associated equipment details record.

Recording equipment inspection results

To record equipment inspection results:

1 Select **Work > Inspections > Monitored Data**.
2 Select the equipment, equipment class, or equipment category for which to record inspection results, and then click the **Results** tab.
3 Click **Add Result**.
4 Specify this information:

Aspect
Specify the aspect associated with the equipment.

Point
Specify the inspection point for which to record results.

Point Type
Specify the inspection point type for which to enter results.

Date
Specify the date of the inspection.

Confidence Rating
Select the confidence rating of the results.

Result
Select one of the following options:

- **Valid**
  Select to indicate that the system uses the result in trend analysis.

- **Invalid**
  Select to indicate that the system does not use the result in trend analysis.

- **Discontinuity**
  Select to indicate that the system restarts the trend analysis.

Work Order
Specify a work order with which to associate the results.

Completed
Select to indicate that all results are recorded and verified for this record. The system freezes information for this record.

Note: You cannot modify **Completed** results.

5 Click **Submit**.

Note: The above fields are fixed. The system displays variable fields based on the selected aspect. Once you select the **Aspect** in the header, the system displays the prompts related to the aspect that were defined on the **Prompts** page of the **Aspects** form. Enter information for the prompts accordingly. The system displays prompts with formulas as read-only attached at record insert or update.

Defining and associating inspection routes

Define inspection routes and then associate the routes with specific PM work orders.

Defining inspection routes

Follow a prescribed inspection route when performing an inspection. Define inspection routes for a category or for specific pieces of equipment.

Defining inspection route inspection points

Associate inspection routes with a particular sequence of inspection points. The options shown depend on whether you are defining an inspection route for equipment or a route template.

To define inspection route inspection points:

1 Select **Work > WO Planning > Routes**.
2 Select the inspection route for which to define inspection points, and then click the **Inspection Points** tab. The system automatically populates **Sequence Number** with the next available integer based on the setting of the installation parameter INCRLINO.
3 Click **Add Point**.
4 Specify this information:

Equipment

Category
Specify the equipment or category that is first in the inspection route sequence. The system automatically populates the equipment or category description, **Equipment Type**, and **Equipment Org.**

Note: For regular inspection routes, you associate equipment inspection points. For route templates, you associate category inspection points.

Point Type
Specify the point type.

Level
Specify a level value when associating category inspection points. This value tells the system where the inspection point is found in the equipment structure. The equipment specified on the work order is a level 1. Any child equipment items (of the same type) are a level 2 or higher. If you leave this field blank, the system automatically searches the existing equipment hierarchy (as defined on the **Equipment** form). The system associates inspection points for all child equipment that match the specified class and category, independent of the level.

Point
Specify the point that is first in the inspection route sequence. The system automatically populates the point description.

Sequence Number
Specify the sequence number of the inspection point.

5 Click **Submit**.

Associating inspection routes to work orders

Associate inspection routes with specific PM work orders after defining inspection routes and corresponding inspection points. The system will also create work order inspection points for the work order if at least one inspection route inspection point exists for the inspection route.

Note: In order to associate an inspection route with a work order, the work order must have a system status of Released.

Depending on your system configuration, **Route** and **Inspection Status** may not be displayed. Contact your system administrator for additional information.

To associate inspection routes with work orders:

1 Select **Work > Work Orders**.

2 Click **New Record**.

3 Enter the information necessary to define a work order.

4 Specify this information:

Route
Enter the inspection route to associate with the work order. If **Route** is a template route, you must also enter **Equipment**.

5 Click **Save Record**. The system automatically populates **Inspection Status** with Unfinished.

Associating inspection points with work orders

Associate inspection points with a particular work order. Use this feature only when the work order has a system status of Released or Completed and when the inspection route has a status of Unfinished. Finally, enter the results of the inspection into the system after the employee performs the inspection.

To associate inspection points with work orders:

1 Select **Work > Work Orders**.
2 Select the work order with which to associate inspection points, and then click the **Inspections** tab.
3 Click **Add Point**.
4 Specify this Point Details information:

Point
Specify the point to associate with the work order. The system automatically populates **Equipment**, equipment description, **Equipment Type**, **Equipment Org.**, point description, **Point Type**, **Aspect**, **Method**, and the **Value** unit of measure.

Sequence Number
Specify the sequence number of the inspection point.

Method
Specify the inspection method.

Comments
Enter any additional comments.

Note: The system automatically selects **New WO Required** if **Value** exceeds the upper or lower critical value specified for the aspect point.

5 Specify this Result Details information:

Date
Specify the date of the inspection.

Result
Specify the reliability code for the inspection (this code is also used in regression analysis). Choose one of the following options:

Option	Description
The measurement is acceptable	Select **Valid**.
The measurement is wrong	Select **Invalid**.

Option	Description
The inspection point has been changed so drastically that all previous inspection results for this point must be deactivated	Select **Discontinuity**.

Note: If you are entering result details for the work order, you must enter both **Date** and **Result**.

Value
Specify the value and unit of measure of the inspection.

Finding
Specify the inspection finding.

Inspected By
Specify the employee that performed the inspection.

Location
Specify the location of the inspection.

Standard WO
Specify the standard work order associated with the inspection.

New WO Required
Select to generate a work order based on the inspection results.

Class
Specify the class of the inspection. The system automatically populates **Class Org.**

Note
Enter any additional notes.

6 Specify this Linear Reference Details information:

From Point
Specify the starting or from point on the linear equipment record where the issue was found during the inspection.

Ref. Description
Specify a description for the **From Point**.

Geographical Ref.
Specify the geographical reference for the **From Point**.

To Point
Specify the ending or to point on the linear equipment record where the issue was found during the inspection.

Ref. Description
Specify a description for the **To Point**.

Geographical Ref.
Specify the geographical reference for the **To Point**.

7 If necessary, click **Create New WO** to generate the work order immediately. However, if the system status of the route is Approved, you cannot create a new work order. You must also select **New WO Required** to create new work orders. The system creates a new work order based on the details of the work order inspection point and inserts the work order number for **Work Order**.

Note: If you do not create a new work order by clicking **Create New WO**, the system automatically creates a work order after the inspection results are approved.

8 Click **Save Record**.

Changing inspection statuses

After defining routes and corresponding inspection points and associating routes with specific work orders, change the statuses of selected work order inspections during different phases of the inspection process.

Note: In order to change the status of an inspection, the work order must have a system status of Released or Completed; have inspection points defined; have **Inspection Status** defined (usually with a Work Order Inspection Status of Unfinished); and not be part of an MS Project scheduling session.

To change inspection statuses:

1 Select **Work > Work Orders**.
2 Select the work order for which to change the inspection status, and then click the **Inspections** tab.
3 Select the inspection point for which to change the inspection status, and then click **Change Inspection Status**. The system automatically populates **Work Order**, work order description, Route, route description, and **Current Status**.
4 Specify this information:

New Status
Specify the new status of the inspection.

5 Click **Submit**.

Adding inspection point comments

Add comments for work order inspection points.

To add inspection point comments:

1 Select **Work > Work Orders**.
2 Select the work order to associate with inspection points, and then click the **Inspections** tab.
3 Click **Inspection Comments**.
4 Click **Add Comment**.
5 Specify this information:

Language
Select the language in which to write the comment.

Comments
Enter the inspection point comments.

6 Optionally, select the **Print with Document** check box to print the comments with the work order.
7 Click **Save**.
8 Click **Close**.

Add inspection custom fields

Add custom fields to work order inspections to further define inspections.

Note: The system displays custom fields associated with a class defined for the inspection result entity (INRH) only when **Class** and **Class Org.** on the work order are equal to **Class** and **Class Org.** on a class record that is associated with INRH.

To add inspection custom fields:

1 Select **Work > Work Orders**.
2 Select the work order to associate with inspection points, and then click the **Inspections** tab.
3 Click **Inspection Custom Fields**.
4 Enter inspection custom fields as necessary.
5 Click **Submit**.

Adding inspection point custom fields

Add custom fields to work order inspection points to further define inspection points.

To add inspection point custom fields:

1 Select **Work > Work Orders**.
2 Select the work order to associate with inspection points, and then click the **Inspections** tab.
3 Select the inspection point for which to add custom fields, and then click **Point Custom Fields**.
4 Enter inspection point custom fields as necessary.
5 Click **Submit**.

Approving inspection results

The **Approve Inspection Results** form consists of two pages: the **Parameters** page and the **Preview** page. On the **Parameters** page, you can define the selection criteria for locating the inspection points to process in the batch. The **Preview** page allows you to preview all of the inspection points selected for processing based on the selection parameters, enabling you to select or unselect inspection points to include in the batch generation process before you actually process the inspection point batch. You

can select or unselect individual inspection points for processing, or you can select or unselect all inspection points for processing.

Note: In order to approve inspection points, you must have the necessary authorizations to the **Approve Inspection Result** form and the **Preview** page, and you must enter a specific organization.

To approve inspection results:

1 Select **Work > Process > Approve Inspection Results**.

2 Specify this information:

Organization
Specify the organization to which the inspection point belongs if you use multi-organization security.

Inspection Status
Specify the status to determine at which point the batch approval of work order inspection points is to be performed.

Note: When the system is prompted to perform the batch approval of work order inspection points, the system will include work order inspection points that are associated with a work order whose inspection status is equal to the status specified here.

Route
Work Order
PM
Equipment Type
Equipment
Location
Department
Equipment Class
Category
Enter one or all of these selection parameters for generating the inspection point batch.

3 Click **Process**.

4 Select each inspection point you wish to approve in the inspection point batch as necessary, or you can unselect each inspection point you do not wish to approve in the inspection point batch as necessary.

Note: To select all the inspection points at once, select the **Select** check box. To unselect all the inspection points at once, clear the **Select** check box.

5 Click **Approve**. The system updates the Inspection Status of any affected work orders. If any errors occur, then the system changes the record's visual attribute to red and displays an error message in the Error Message column of the Preview list.

Note: If you have set up the system to require an electronic signature to authorize status changes to work order headers or to create work orders, the system displays the eSignature popup once for every inspection point in the inspection point batch for which there is a status change or a new work order is created.

Defining formulas

Define generic formulas to establish any calculation that produces a minimum or maximum critical value for an inspection point aspect combination or any calculation with entered monitored data, and then identify where the system executes those formulas. First, define the actual formula, and then define parameters used within the formula. The system calculates formulas with SQL statements defined for the parameters used in the formula.

To define formulas:

1. Select **Work > Inspections > Formulas**.
2. Click **New Record**.
3. Specify this information:

   Formula ID
   Specify a unique code identifying the formula, and then enter a description of the formula in the adjacent field.

   Class
   Specify the class of the formula. The system automatically populates **Class Org.**

   Formula
   Enter the actual formula using codes to identify parameters. For example, to calculate minimum allowable thickness (MAT) for a cylindrical shell using design pressure (DP), actual outside diameter (OD), and nominal design stress (NDS), enter the following equation:

   ```
   $MAT = $DP * $OD/ (2 * $NDS + $DP)
   ```

   Note: All parameters must have a dollar sign prefix ($).

   To create parameters immediately, click **Verify Parameters**. The system verifies that the parameters exist. If they do not exist, the system asks if you want to create a new parameter. Click **Yes**. The system inserts a new parameter for the formula and updates the Parameters list on the **Parameters** page.

   To perform a validation of a formula, click **Validate Formula**.

   Depending on your system configuration, **Validate Parameters** and **Validate Formula** may not be displayed. Contact your system administrator for additional information.

4. Click **Save Record**.

Associating parameters with formulas

After defining formulas, associate parameters used within the formulas.

Note: You can also associate parameters with formulas on the **Record View** page by clicking **Validate Parameters**.

To associate parameters with formulas:

1. Select **Work > Inspections > Formulas**.

2 Select the formula for which to associate parameters, and then click the **Parameters** tab.
3 Click **Add Parameter**.
4 Specify this information:

Parameter
Specify the parameter with which to associate the formula. The system automatically populates the parameter description, **Formula UOM**, and **Statement**.

Formula UOM
Specify the unit of measurement of the formula.

5 Click **Submit**.

Note: Click **Validate Parameter** to check the accuracy of the SQL statement.

Editing formula parameters

Edit details of an existing formula parameter.

To edit formula parameters:

1 Select **Work > InspectionsFormulas**.
2 Select the formula for which to edit parameters, and then click the **Parameters** tab.
3 Select the parameter to edit, and then click **Edit Parameter Details**.
4 Edit the parameter details as necessary.
5 Click **Submit**.

Calibration management

7

Maintain calibration data to ensure the accuracy of your equipment. The calibration management module coordinates the equipment module with the work management module. Create and edit calibration information on the **Assets**, **Positions**, or **Systems** forms, and then create calibration work orders and enter the actual calibration data on the **Work Orders** form.

Load test point data and equipment calibration data using the equipment and work order interfaces. To enable data collection for calibration data, you must define the necessary transaction prompts on the **DC Transaction Prompts** form.

See "Data Collection" in the *Infor EAM System Administrator Guide*.

The calibration management module also provides extensive reporting capabilities. See "Generating calibrations reports" in the *Infor EAM Reports User Guide*.

All calibration terms are defined in the Glossary.

Understanding calibration management

Calibration is the process of comparing the performance of a piece of equipment to a known standard of accuracy. Calibration results in a measurement that documents whether the equipment deviates from the known standard of accuracy or is compliant with the standard. If the equipment is not in compliance with the standard, calibration may also include adjusting the equipment in a manner that results in the instrument's compliance with the known standard.

The accuracy of electronic and/or mechanical components within equipment shifts over time, which affects the quality, reliability, health, and safety of component output. Therefore, some instruments/equipment must be calibrated at regular intervals to ensure their accuracy.

Define calibration data for equipment categories, assets, systems, and positions. After defining the test point data, associate equipment work orders and PM work orders. Creating PM work orders enables you to generate regularly scheduled jobs for equipment requiring calibration. You can also create regular calibration work orders as necessary. Designate calibration work orders by selecting the calibration work order type when creating a work order.

See "Defining regular work order headers" on page 488.

Calibrate equipment as necessary, and then enter the calibration data and results. Statuses are assigned to calibration work orders based on the test point measurement results.

Run calibration reports for generating, tracking, and maintaining calibration data for your records.

Understanding calibration loops

A loop is a series of one or more instruments. Typically, the individual instruments in a loop are not calibrated; the loop is calibrated as one unit. Therefore, you must be able to measure the output of a loop whenever you apply a known standard as the loop's input.

Designate an instrument as a loop on the **Calibration** tab of the equipment record.

See "Defining Calibration Test Point Data" on page 750.

Note: Depending on your system configuration, the system may not display **Loop** on the **Calibration** tab of the **Categories**, **Assets**, **Positions**, or **Systems** forms. Contact your system administrator for more information.

Link instruments to the loop equipment through parent-child relationships in a hierarchy. All instruments in a loop must be linked directly as children of the loop equipment in an equipment hierarchy.

See "Creating equipment hierarchies" on page 107.

Within the equipment hierarchy of the loop, designate the parent equipment as a Loop and designate the child equipment in the loop as an Instrument on the **Calibration** tab of the equipment record.

See "Defining Calibration Test Point Data" on page 750.

If you create a calibration work order for a loop, the loop is displayed on the work order header, and the test points defined on the loop are copied to the work order. When calibrating loops, the calibration standard is often applied to the input loop instrument. The reading is then taken at the output loop instrument. The system creates test points on the work order for instruments in the loop that are defined as type Reading taken from.

See "Entering Calibration Results" on page 755.

Defining calibration test point data

Define test point data for assets, positions, and systems or for equipment categories.

Define calibration data for equipment categories to associate calibration data at the category level. The system applies the calibration data to all equipment within the specified category. For example, define calibration test points for all pressure indicators rather than having to enter the data individually for each pressure indicator.

The system copies calibration and test point data entered for a piece of equipment to the **Calibration** page of the **Work Orders** form when a calibration work order for the piece of equipment is released.

Step 1: Define basic calibration data

To define basic calibration data:

1 Select **Equipment > Assets**.

Select **Equipment > Positions**.

Select **Equipment > Systems**.

Select **Equipment > Setup > Categories**.

Select **Equipment > Equipment Configuration > Equipment Configurations**.

2 Select the asset, position, system, or category for which to define calibration data, and then click the **Calibration** tab.

3 Specify this information:

Instrument

Loop
Select to indicate whether the piece of equipment is an individual calibration instrument or is part of a calibration loop.

Instrument Type
Choose one of the following options if the instrument is within a loop:

- **Standard applied to**
  Select to indicate the instrument is a point in the loop to which a standard is applied.

- **Accessory**
  Select to indicate the instrument is secondary or subordinate within the loop.

- **Reading taken from**
  Select to indicate the instrument is a point in the loop at which calibration readings are taken.

Test Point UOM
Specify the unit of measure for the test point.

Device Tolerance
Specify the range of the device tolerance for the piece of equipment, e.g., 10 to 20. The values entered indicate the desired range for the calibration measurement and can be either an absolute or a percentage.

Alert Tolerance
Specify the alert tolerance for the piece of equipment. The system interprets the value entered as a percentage.

Precision
Specify the precision of the instrument.

Output Range
Specify numeric values indicating the potential range of the device output, e.g., 200 to 500.

Default Set
Specify a value identifying the calibration data and test points as the default set of test points for the equipment. Designate the set of test points as the default set to indicate which set of test points to copy to manually created calibration work orders. The system also copies the default set when creating PM equipment records.

P&ID Drawing
Specify the process and instrument diagram drawing number.

P&ID No
Specify the process and instrument diagram number.

Output UOM
Specify the unit of measure for the device output.

Choose one of these options to indicate the type of value for the specified **Device Tolerance**:

- **Percentage**
  Select to apply the values entered in **Device Tolerance** as a percent value.

- **Absolute**
  Select to apply the values entered in **Device Tolerance** as an absolute value.

Increment
Specify the increment that the instrument can read.

Note: If you enter an Increment for a test point, the **Device Reading** that you enter on the **Calibration** page of the **Work Orders** form must be a multiple of the specified Increment when entering calibration results. For example, if you enter an increment of 5, you must enter a **Device Reading** that is a multiple of 5, such as 5, 10, 15, 20, 25, etc.

Device Range
Specify numeric values indicating the potential range for the device, such as 250 to 450.

Process Tolerance
Specify the range of the process tolerance, such as 10 to 20.

Process Range
Specify the range of the process, such as 150 to 600.

S.O.P.
Specify the standard operating procedure for calibration.

4 Click **Save Record**.

The system automatically populates **Next Cal. Due** with the date of the next calibration work order for the piece of equipment.

Note: The system does not display **Next Cal. Due** on the **Calibration** page of the **Categories** and **Equipment Configurations** forms.

Update calibration data as necessary. The system applies new data entered in **Test Point UOM** and **Device Tolerance** to work order test points created after you make the update. The system does not update the data on existing test point records.

Right-click and then select **View Calibration Results** to view calibration results for the equipment record.

If you are defining calibration data for a category, click **Update Equipment** and **Update Equipment Configurations**. The system copies the calibration data to all equipment records within the category. Prior to copying the calibration data, the system deletes any calibration data for this category from related equipment records.

Note: The system does not display **Update Equipment** and **Update Equipment Configurations** on the **Calibration** page of the **Equipment Configurations**.

Step 2: Define or import test point data

Defining test point data

To define test point data:

1. Select **Equipment > Assets**.

   Select **Equipment > Positions**.

   Select **Equipment > Systems**.

   Select **Equipment > Setup > Categories**.

   Select **Equipment > Equipment Configuration > Equipment Configurations**.
2. Select the asset, position, system, category, or equipment configuration for which to define test point data, and then click the **Test Points** tab.

   The system automatically populates **Sequence** and **Device Tolerance** if available.
3. Click **Add Test Point**.
4. Specify this information:

   Set
   Specify a value to identify the test point set.

   Sequence
   Specify a value identifying the sequence in which the test point is calibrated.

   Test Point
   Specify the point at which to test the piece of equipment, and then enter the unit of measure for the test point in the adjacent field.

   Output
   Specify the test point output if testing is performed for dual units of measure, and then enter the unit of measure of the output in the adjacent field.

Device Tolerance
Specify the range of the device tolerance for the piece of equipment, e.g., 10 to 20. The values entered indicate the desired range for the calibration measurement and can be either an absolute or a percentage. By default, the system reads these values as percentages.

Comments
Enter comments for the test point.

5 Click **Submit**.

Note: if you delete a test point, the system does not update the sequence numbers of other test points.

To modify an existing test point, select the test point to modify, and then edit fields as necessary. You can update **Test Point**, **Device Tolerance**, and **Comments** for existing test points. You cannot update **Sequence**.

If you are defining test points for a category, click **Update Equipment** and **Update Equipment Configurations**. The system copies the test points to all equipment records within the category. Prior to copying the test points, the system deletes any test points for this category from related equipment records.

Importing test point data

Test point data can be imported from existing equipment, categories, or work orders to save time if test points are duplicated across similar instruments or calibration records.

Note: Test points cannot be imported from or to more than one record simultaneously.

Test points can be imported to a work order from an asset, position, system, category record, or work order. However, test points cannot be imported to an asset, position, system, or category from a work order.

When copying test points from one work order to another work order, the system will not copy the **Device Reading**, **Deviation**, or test point **Status**. No "As Left" data will be copied.

If one or more imported test points already exist on the destination record, the system displays a warning message and re-sequences the imported test points to avoid duplication. You may then make any corrections if necessary.

Records that do not have any associated test points will not be available to import from. Records whose organization is not associated to the user will not be available to import from.

When importing from a work order to a work order, records whose organization does not match the destination work order organization will not be available to import from.

Categories, assets, positions, systems, and work orders whose **Precision** is less than the **Precision** of the destination record will not be available to import test points from **Precision**.

When importing test points to a work order from a category or equipment, the system always converts any test point tolerances defined as **Percentage** to absolute values for display on the **Calibration** page of the **Work Orders** form. This conversion is not necessary when importing test points from another work order since the system will have already converted the work order test point tolerances to absolute values.

Entering calibration results

Enter calibration results for work orders to report calibration data for the actual work performed while calibrating a piece of equipment.

The system copies test point data for equipment to the **Calibration** tab of the **Work Orders** form for any calibration work order once it is released.

See "Defining calibration test point data" on page 750.

If you need to enter calibration results for a work order that you did not specify as being a calibration work order, you must manually enter the test point data.

If a work order is a multiple equipment work order, you can also enter calibration test points and data for child equipment on the work order.

The calibration results you enter determine the **Calibration Status** of the work order, as well as the **Status** for each test point.

Note: Generate a calibration record report for a work order as necessary before beginning the calibration process.

To enter calibration results:

1 Select **Work > Work Orders**.

2 Select the work order for which to enter calibration results, and then click the **Calibration** tab.

The system automatically populates **Calibration Status** with the status of the calibration and **S.O.P.**, **P&ID No.**, **Precision**, **Increment**, **P&ID Drawing**, and **Alert Tolerance** based on the information entered on the**Calibration** tab of the equipment record listed on the work order. The system populates **Last Calibrated** with the completed date for the last calibration work order for the piece of equipment and **Calibration Interval** with the interval specified on the work order's PM.

3 Select the test point for which to enter calibration results. If the calibration work order is released, the system automatically populates **Equipment**, **Sequence**, **Equipment Org.**, **Test Point**, and the unit of measure for the test point based on the test point data entered for the equipment listed on the work order.

4 Specify this information:

Equipment
Choose one of the following options if the work order is a multiple equipment work order:

Option	Description
All Equipment	Specify All Equipment to create the test point for each of the **Related Work Orders** associated with all of the equipment records on the **Calibration** tab of the **Work Orders** form. **Note:** If the work order is a multiple equipment type work order and you click **Add Test Point** without selecting an existing test point, the system automatically populates **Equipment** with All Equipment. If you select an existing test point and then click **Add Test Point** on a multiple

Option	Description
	equipment work order, the system populates **Equipment**, **Equipment Description**, **Equipment Org.**, **Related Work Order**, **Test Point UOM**, **Standard UOM**, and **Output UOM** from the selected record. If All Equipment is selected for **Equipment**, then **Device Tolerance**, **Device Reading**, and **Status** are protected, because you cannot distribute these values to all equipment on the work order.
WO Header Equipment	Specify WO Header Equipment to create the test point for each equipment record on the **Calibration** tab of the **Work Order** on the work order header.
Equipment	Specify a specific Equipment record to create the test point for the **Related Work Order** associated with the selected Equipment. See "Adding Equipment to Work Orders to Distribute Work Order Costs" on page 502.

Not Applicable
Select to indicate the test point is no longer applicable for the calibration process.

Test Point
Specify the test point value for the calibration, and then enter the unit of measure for the test point in the adjacent field.

5 Specify the following in the **As Found** section of the form to enter the calibration results:

Standard
Specify the standard value for the calibration, and then enter the unit of measure for the standard in the adjacent field.

Device Tolerance
Specify the range of the device tolerance.

Output
Specify the value of the test point output, and then enter the output's unit of measure in the adjacent field.

Device Reading
Specify the reading of the device.

The system subtracts the **Standard** from the **Device Reading** to determine the **Deviation**. The system automatically populates **Status** based on the calibration results you enter.

6 Specify the following in the **As Left** section of the form if re-calibration is required:

Note: Click **Copy to As Left** to copy the data from the **As Found** section to the **As Left** section, and then modify the fields as necessary.

Enter the calibration **Standard**, **Output**, **Device Tolerance**, and **Device Reading**. The system subtracts the **Standard** from the **Device Reading** to determine the **Deviation**. The system automatically populates **Status** based on the calibration results you enter.

7 Click **Submit**.

Note: To add a new test point, click **Add Test Point**. Enter data as necessary, and then click **Submit**.

If you delete a test point for which the test point **Equipment** is associated with a MEC work order, then the system removes the test point from the **Related Work Order**.

The system calculates the work order's calibration status based on the status of each test point. For multiple equipment work orders, the calibration status of the parent work order considers the test points for all of its related work orders.

To run a calibration record report, click **Run Calibration Report**.

Viewing loop instruments for a work order

View loop instruments for a work order containing an object that is a loop to access a list of all the instruments within the loop.

Note: The system activates **View Loop Instruments** if the work order contains a loop.

See "Understanding Calibration Loops" on page 750,

To view loop instruments for a work order:

1 Select **Work > Work Orders**.
2 Select the calibration work order for which to view a loop, and then click the **Calibration** tab.
3 Click **View Loop Instruments**.
4 View the loop instrument information.

Note: If the work order for which you are viewing loop instruments is a multiple equipment work order, then the system displays the loop instruments associated with the selected test point **Equipment**, because more than one loop can be calibrated on a multiple equipment work order.

5 Click **Close**.

Defining standards used for calibration

Define the specific piece of equipment used as a standard for the selected work order. The Standards Used popup displays a list of parts that serve as potential parts from which to specify the piece of equipment and/or lot used for the calibration.

To define standards used for calibration:

1 Select **Work > Work Orders**.

2 Select the work order for which to define standards used during calibration, and then click the **Calibration** tab.

3 Click **Standards Used**.

The Standards Used popup automatically displays parts for which you specified Calibration Standard and to which you associated the work order's equipment record on the **Parts Associated** tab of the Assets, Positions, or Systems form.

See these references:

- "Creating parts" on page 232
- "Associating parts" on page 49

Note: If the work order for which you are defining standards used is a multiple equipment work order, then the system displays the parts used as calibration standards associated with the selected test point equipment record.

4 Select the part for which to specify equipment and/or lot information. The system automatically populates **Part** and **Part Org.**

5 Specify this information:

Equipment
Specify the equipment record used for calibration.

Note: The system displays equipment records to which you associated the selected part via the **Part** field on the **Record View** tab of the Assets, Positions, or Systems form.

See these references:

- "Defining assets" on page 70
- "Defining positions" on page 75
- "Defining systems" on page 81

If the work order for which you are defining standards used is a multiple equipment work order, you can associate a test point with a specific equipment or with all equipment on the work order.

Lot
Specify the lot of the part record.

6 Click **Submit**.

Note: To add a standard, click **Add Standard**. Enter the **Part**, **Equipment**, and **Lot**, and then click **Submit**.

Viewing calibration results

To view calibration results:

1. Select **Work > Calibration Results**.
2. View the calibration information.

Project management

8

Define special projects in addition to the work defined in the work management and asset management modules. Examples of special projects are painting a room or building a new production line. Break large projects down into more manageable sub-projects, and assign individual work orders to each step. You can also set up budget requirements and monitor costs for projects. Charge work orders and purchase orders against projects. The system displays actual costs, committed costs, and planned costs, eliminating guesswork.

Defining initial project information

Define initial project information before using the project management module.

Defining budget codes for projects

Define budget codes to be associated with projects. Designate default budget codes.

Note: The system only displays **Cost Area**, **Cost Center**, and **Code of Accounts** if the installation parameter PROJTRCK is ON. **Cost Area**, **Cost Center**, and **Code of Accounts** are linked to entities for which you must define user codes. Contact your system administrator for more information.

To define budget codes for projects:

1. Select **Work > Projects > Project Budgets**.
2. Click **New Record**.
3. Specify this information:

   Project Budget
   Enter a unique code identifying the budget, and then enter a description of the budget in the adjacent field.

   Class
   Enter the class of the budget. The system automatically populates **Class Org.**

Cost Area
Select the cost area of the budget.

Default
Select if the budget is a default budget.

Note: You can link default budgets to projects on the **Project Budgets** form.

See "Linking Default Budget Codes with Projects" on page 767.

Cost Center
Select the cost center of the budget.

Code of Accounts
Select the code of accounts for the budget.

4 Click **Save Record**.

Defining shutdown codes

Define shutdown codes, and then define equipment to service during shutdowns. Your organization might have equipment that can only be serviced when it is completely out of service or shut down. A shutdown can represent either a part of the facility or a type of shutdown to be performed.

To define shutdown codes:

1 Select **Work > Projects > Shutdowns**.
2 Click **New Record**.
3 Specify this information:

Organization
Enter the organization to which the shutdown belongs if you use multi-organization security.

Shutdown
Enter a unique code identifying the shutdown, and then enter a description of the shutdown in the adjacent field.

Class
Enter the class of the shutdown. The system automatically populates **Class Org.**

4 Click **Save Record**.

Associating standard work orders, equipment, and projects with shutdown codes

Associate standard work orders, specific equipment, and project budgets with the shutdown identification codes. For example, create a shutdown identification code for each station, and then associate each piece of equipment in the station with that identification code.

Note: You cannot associate standard work order templates with shutdown codes.

To associate standard work orders, equipment, and projects with shutdown codes:

1. Select **Work > Projects > Shutdowns**.
2. Select the shutdown code with which to associate a standard work order and equipment, and then click the **Equipment** tab.
3. Click **Add Equipment**.
4. Specify this information:

   Equipment
   Specify the equipment to associate with the shutdown code. The system automatically populates **Equipment Org.**and **Equipment Type**.

   Standard WO
   Specify the standard work order describing the work to be performed when the shutdown occurs.

   Project Budget
   Specify the budget code to be referenced on the shutdown work order.

5. Click **Submit**.

Defining parent and child projects

Define parent projects and create as many child projects as needed. Define parent projects and budget codes before defining child projects. For example, if the parent project is building a new road, set up a project for the road construction, and then define individual steps for each child project, such as surveys, excavation, infrastructure, paving, seal coating, and painting.

For each project you create, include a budget amount. Once the project is approved, the system saves the budget amount. Update the amount later if the budget changes. The system retains the original value and stores revision information against that amount. Any changes to labor and material estimates for child projects are validated against the parent project budget. If estimates exceed the set budget, the system displays a warning message.

Defining project basics

Define project basics by entering basic project information. Define parent projects and budget codes before defining child projects. When you specify a parent project for a child project, the budget records of the parent project are inserted on the child project.

Note: Estimate to Complete indicates the calculated sum of the values displayed for **Estimate to Complete** for each budget entered on the **Budgets** page of the **Projects** form.

See "Associating Predefined Budget Codes with Projects" on page 766.

Estimate to Complete is automatically updated any time **Estimate to Complete** is updated manually or automatically for any budget on the **Budgets** page.

To define project basics:

1. Select **Work > Projects > Projects**
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the project belongs if you use multi-organization security.

   Project
   Specify a unique code identifying the project, and then enter a description of the project in the adjacent field.

   Coordinator
   Specify the employee code of the project coordinator.

   Parent Project
   Specify a parent project if applicable.

   Note: You can only specify a parent project while defining a new project. Once the project is saved, you are not allowed to add a parent project.

   Estimated Start Date
   Specify the intended starting date for the project.

   Estimated End Date
   Specify the intended ending date for the project.

   Shutdown
   Specify a shutdown identification code to associate with the project if the project requires the shutdown of equipment.

   Status
   Specify the status of the project.

   Note: All projects start with a **Status** of Awaiting Approval.

   Actual Start Date
   Specify the actual starting date for the project.

Actual End Date
Specify the actual ending date for the project.

Class
Specify the class of the project.

Note: Capital Planning Request, **Capital Planning Request Org.**, **Project WOs**, and **Shutdown WOs Created** are automatically populated for projects created on the **Capital Planning Requests** form.

Current Budget
Specify the total budget amount for the project. Budgets of child projects do not roll up to the budget of the parent project. The estimated cost of completing the project is displayed in **Estimate to Complete** and the total budget for the project is approved in **Budget Approved**.

Budget Date
Specify the date the budget was established.

Note: You must enter a **Budget Date** that is before or equal to the current date.

Labor
Specify the estimated internal labor costs.

Services
Specify the estimated services costs.

Hired Labor
Specify the estimated hired external labor costs.

Stock Items
Specify the estimated stock material costs.

Direct Purchases
Specify the estimated amount of money needed to purchase materials not normally stocked in house.

Tool Cost
Specify the estimated tool usage costs.

4 Click **Save Record**.

Note: Depending on your system configuration, an electronic signature may be required to create a work order. The eSignature popup is displayed once regardless of the number of shutdown work orders created.

To generate shutdown work orders associated with a project, click **Create Shutdown WOs**.

To close open work orders associated with a project, click **Close WOs**.

To detach detachable work orders associated with a project, click **Detach WOs**.

To delete work orders associated with a project, click **Delete WOs**.

Associating predefined budget codes with projects

Associate one or more budget codes with each defined project. Also, define the budget amount for the project. Define child projects, or sub-projects, only after finishing this procedure. Child projects share the budget codes of the parent project.

Note: If you do not associate the budget of a shutdown work order with the project, the system does not create the shutdown work order when you click **Create Shutdown WOs** on the **Projects** form.

See "Generating Shutdown Work Orders" on page 770.

The system monitors the expenditures for parts and labor for the project and any child projects, and it breaks the budget amount of the main project down into a budget amount for each subproject. It validates these expenditures against the budget amount. Regard the budget values defined here as sub-budget values, in comparison with the budgets defined on the **Projects** form. After the project is complete, the system freezes all associated budget items.

Note: You do not need to create project budget codes for child projects.

To associate predefined budget codes with projects:

1. Select **Work > Projects > Projects**.
2. Select the project for which to associate budget codes, and then click the **Budgets** tab.
3. Click **Add Budget**.
4. Specify this information:

   Budget
   Enter a budget code for the project. The system automatically populates the budget description, **Class**, **Class Org.**, **Cost Area**, **Cost Center**, and **Code of Accounts** from the project budget code.

   Budgeted Amount
   Enter the total budgeted amount for this project.

   Note: You can associate additional budget codes with a project throughout the project life cycle; however, you cannot delete codes after assigning them to a work order.

   You may change **Budgeted Amount** at any time.

   Estimate to Complete
   Enter the estimated expenditures remaining for this project for the selected budget.

   Note: When creating an initial budget for the selected budget code, the system automatically populates **Estimate to Complete** with the value entered in **Budgeted Amount**. If applicable, the system automatically subtracts the value of any planned, on order, actual, and invoice difference costs that may be incurred against this project/budget from the value entered in **Budgeted Amount**, and then populates **Estimate to Complete** with the calculated value. Modify the value of **Estimate to Complete** as necessary.

   Additionally, the system calculates the sum of all the values entered for **Estimate to Complete** for each budget on the **Budgets** page of the **Projects** form and then automatically populates **Estimate to Complete** on the project record with this value.

   See "Defining Project Basics" on page 764.

5. Click **Submit**.

Linking default budget codes with projects

Link default budget codes with a project to retrieve all budget codes for which **Default** is selected on the **Project Budget Codes** form.

You can define budget codes as default codes on the **Project Budget Codes** form.

See "Defining Budget Codes for Projects" on page 761.

To link default budget codes with projects:

1. Select **Work > ProjectsProjects**.
2. Select the project for which to associate default budget codes, and then click the **Budgets** tab.
3. Click **Add Default Budgets**.

Granting purchasing authorization permissions for projects

Authorize users to create requisitions and/or purchase orders for a specific project. If you add any authorized users to a project, no other users can create requisitions and/or purchase orders for the project.

If you do not add any authorized users to a project, any user with the appropriate group-level permissions can create requisitions and purchase orders for the project.

Select **Approver** to enable a user to approve purchase requisitions and purchase orders for the project. A user can only approve purchase requisitions and purchase orders for the project if you selected **Approver** for the user and if the user has the proper authorizations set on the **Status Change Authorizations** form. If you specify any authorized users as approvers for a project, no other users can approve requisitions and/or purchase orders for the project.

If you add authorized users to the project but do not select **Approver** for any of them, the system does not allow any users to approve purchase requisitions or purchase orders for the project.

Additionally, if the user has been granted proper authorization on the **Status Change Authorizations** form, selecting **Approver** for a user also enables them to create, update, and delete budget code information on the **Budgets** tab of the **Projects** form.

Click **Add Buyers** to retrieve a list of all users set up as buyers for the organization of the project. The system retrieves all users set up as buyers, adds each buyer to the User Authorization list, and automatically selects**Approver** for each user. You can unselect **Approver** for each user as necessary.

See the *Infor EAM System Administrator's Guide*.

To grant purchasing authorization permissions for projects:

1. Select **Work > ProjectsProjects**.
2. Select the project for which to add authorized users, and then click the **User Authorization** tab.
3. Click **Add User**.
4. Specify this information:

User
Specify the user to add as an authorized user for the project.

Approver
Select to indicate that the authorized user can approve purchase requisitions and purchase orders for the project.

5 Click **Submit**.

Viewing project hierarchy

View all child projects, or sub-projects, related to a parent project.

To view project hierarchy:

1 Select **Work > Projects** .
2 Select the project for which to view hierarchy, and then click the **Sub-projects** tab.
3 View the sub-projects related to the project.

Creating project work orders

Create project work orders by creating new work orders in the work management module or by associating work orders created previously with a project.

Creating new project work orders

After defining the project and any sub-projects, use the **Work Orders** form to create the appropriate work orders. To link the work order to a specific project, enter a project budget on the work order.

To create new project work orders:

1 Select **Work > Work Orders**.
2 Click **New Record**.
3 Enter information into the fields as necessary.
See "Creating Regular Work Orders" on page 488.
4 Specify this information:

Project-Budget
Specify the project and budget of the work order.

Department
Specify the department of the work order.

5 Click **Save Record**.

Associating predefined budget codes with projects

Associate one or more budget codes with each defined project. Also, define the budget amount for the project. Define child projects, or sub-projects, only after finishing this procedure. Child projects share the budget codes of the parent project.

Note: If you do not associate the budget of a shutdown work order with the project, the system does not create the shutdown work order when you click **Create Shutdown WOs** on the **Projects** form.

See "Generating Shutdown Work Orders" on page 770.

The system monitors the expenditures for parts and labor for the project and any child projects, and it breaks the budget amount of the main project down into a budget amount for each subproject. It validates these expenditures against the budget amount. Regard the budget values defined here as sub-budget values, in comparison with the budgets defined on the **Projects** form. After the project is complete, the system freezes all associated budget items.

Note: You do not need to create project budget codes for child projects.

To associate predefined budget codes with projects:

1 Select **Work > Projects > Projects**.
2 Select the project for which to associate budget codes, and then click the **Budgets** tab.
3 Click **Add Budget**.
4 Specify this information:

Budget
Enter a budget code for the project. The system automatically populates the budget description, **Class**, **Class Org.**, **Cost Area**, **Cost Center**, and **Code of Accounts** from the project budget code.

Budgeted Amount
Enter the total budgeted amount for this project.

Note: You can associate additional budget codes with a project throughout the project life cycle; however, you cannot delete codes after assigning them to a work order.

You may change **Budgeted Amount** at any time.

Estimate to Complete
Enter the estimated expenditures remaining for this project for the selected budget.

Note: When creating an initial budget for the selected budget code, the system automatically populates **Estimate to Complete** with the value entered in **Budgeted Amount**. If applicable, the system automatically subtracts the value of any planned, on order, actual, and invoice difference costs that may be incurred against this project/budget from the value entered in **Budgeted Amount**,

and then populates **Estimate to Complete** with the calculated value. Modify the value of **Estimate to Complete** as necessary.

Additionally, the system calculates the sum of all the values entered for **Estimate to Complete** for each budget on the **Budgets** page of the **Projects** form and then automatically populates **Estimate to Complete** on the project record with this value.

See "Defining Project Basics" on page 764.

5 Click **Submit**.

Generating shutdown work orders

Generate shutdown work orders, directly from the **Project** form, if the nature of your project requires that you take equipment out of service. A shutdown work order is no different than any other work order with the exception that you create shutdown work orders in the **Project** form and specify a shutdown identification code for the project.

After creating shutdown work orders, you can view them in the List View of the **Work Order** form. Newly created shutdown work orders contain a system status of Released or the equivalent to that system status based on your system configuration.

Note: The project status must be approved and a shutdown identification code must be specified in **Shutdown** to create shutdown work orders.

See "Defining Shutdown Codes" on page 762.

Before creating a shutdown work order, you must associate the budget code of a shutdown work order with the project on the **Budgets** page of the **Project** form.

See "Associating Predefined Budget Codes with Projects" on page 766.

To generate shutdown work orders:

1 Select **Work > ProjectsProjects**.
2 Select the project for which to generate shutdown work orders, and then click the **Record View** tab.
3 Click**Create Shutdown WOs**.

Note: You may only create shutdown work orders for a project once. If Shutdown WOs is any number other than 0, the system does not allow you to create shutdown work orders.

Viewing all work orders associated with projects

View all work orders related to projects. If necessary, detach work orders from a project.

To view all work orders associated with projects:

1 Select **Work > ProjectsProjects**.
2 Select the project for which to view associated work orders, and then click the **Work Orders** tab.
3 View the work orders associated with the project.

Note: Click **Detach WOs** to detach work orders from the project. The system only detaches those work orders that have no costs or transactions associated with them. Before detaching the work orders, the system verifies that you want to detach all detachable work orders. Click **Yes** to detach all work orders that have no costs or transactions associated with them from the project.

Closing work orders associated with projects

Close open work orders associated with a project. The system does not close those work orders that have a system status of C, or Closed. Before closing the open work orders, the system verifies that you want to close all open work orders. Click **Yes** to close all open work orders.

To close work orders associated with projects:

1. Select **Work > Projects > Projects**.
2. Select the project for which to close associated work orders, and then click the **Record View** tab.
3. Click **Close WOs**.

Detaching and deleting work orders associated with projects

Detach work orders from a project or delete the work orders completely.

The system only detaches those work orders that have no costs or transactions associated with them. Before detaching the work orders, the system verifies that you want to detach all detachable work orders. Click **Yes** to detach all work orders that have no costs or transactions associated with them from the project.

The system only deletes those work orders that are deletable on the **Work Orders** form. Before deleting the work orders, the system verifies that you want to delete all deletable work orders. Click **Yes** to delete all deletable work orders associated with the project.

To detach and delete work orders associated with projects:

1. Select **Work > ProjectsProjects**.
2. Select the project for which to detach or delete associated work orders, and then click the **Record View** tab.
3. Choose one of the following options:
   - Click **Detach WOs**.
   - Click **Delete WOs**.

Viewing project purchase orders

View purchase orders associated with a specific project. Information in the list includes the purchase order number, status, creation date, supplier, store, purchase order type, total cost, and outstanding balance.

Purchase order headers are not directly associated with projects because a single purchase order may include parts and/or services for several projects. However, an individual order line of a purchase order can be project-specific. The system automatically associates an order line, both for parts or services, with a project when the order line links to a work order activity that is part of a project. When a purchase order has at least one order line associated with a project, the system displays the purchase order in the project's list.

See "Creating and Revising Purchase Orders" on page 388.

To view project purchase orders:

1. Select **Work > ProjectsProjects**.
2. Select the project for which to view associated purchase orders, and then click the **Purchase Orders** tab.
3. View the project purchase order information.

Viewing detailed project cost summaries

View existing costs for a Project. The system includes all child projects associated with a parent project.

The **Costs** page summarizes and compares estimated, planned, actual, and total costs for projects. It also summarizes and compares the cost of materials on order, the budget amount remaining, and the difference between the actual cost of each cost category and the invoice cost for each project.

To view detailed project cost summaries:

1. Select **Work > ProjectsProjects**.
2. Select the project for which to view associated costs, and then click the **Costs** tab.
3. View the costs associated with the project.

Creating campaigns

A campaign is a list of jobs that may be performed on a given list of equipment as necessary to complete work. Campaigns are comprised of two types of events:

Type	Description
Survey	Maintenance personnel checks equipment specified on the work order to see if issue(s) exist.

Type	Description
Job	Work order to correct issue(s) found.

If equipment passes the survey, work on the equipment is unnecessary.

If equipment fails the survey, work on the equipment is necessary. All survey results are recorded on the **Equipment** page of the **Campaigns** form, or the **Survey Equipment** page of the **Work Orders** form.

A campaign can have multiple jobs listed to complete work on necessary equipment, however only one survey is allowed per campaign.

To create campaigns:

1 Select **Work > Projects > Campaigns**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization of the campaign.

Campaign
Specify the unique, identifying code for the campaign, and then enter a description in the adjacent field.

Status
Select the status of the campaign.

Class
Specify the class of the campaign.

Type
Specify the type for the campaign.

Survey Required
Select to require a survey campaign event to check all specified equipment for necessary repairs.

Campaign Manager
Specify a manager for the campaign.

Project-Budget
Specify both the project and budget to associate to this campaign.

4 Click **Save Record**.

Adding events to campaigns

A campaign event is either a survey of equipment on the specified campaign to check for equipment repairs needed, or a job to perform to repair equipment. If a piece of equipment passes the survey

event, work is not necessary. If a piece of equipment fails the survey, a job event is performed to repair the equipment. A campaign can have only one survey event, but several job events.

Add, change, or delete campaign events as necessary.

To add events to campaigns:

1. Select **Work > Projects > Campaigns**.
2. Select a campaign, and then click the **Campaign Events** tab.
3. Click **Add Campaign Event**.
4. Specify this information:

Campaign Event
Enter the order in which this campaign event will occur.

Project-Budget
Enter both the project and budget to associate to this campaign event.

Standard WO
Enter the standard work order to associate to this campaign event.

Assigned To
Enter the person responsible for the work order.

Assigned By
Enter the supervisor who assigned the work order.

Requested By
Enter the person who requested the work.

Survey
Select to mark this campaign event as an equipment survey type.

Production Priority
Enter the priority for the production. The system automatically populates **Production Priority Desc.**

Req. Start Date Buff. (Days)
Enter the number of days needed prior to the starting date for the work order.

Req. End Date Buff. (Days)
Enter the number of days needed after the ending date for the work order.

Downtime (Hours)
Enter the number of hours that the equipment was out of operation due to failure.

WO Description
Enter a description of the work to be performed for the campaign event.

WO Type
Select the type for the work order.

Priority
Enter the priority of the work order for the campaign event.

WO Class
Enter the work order class for the campaign event. The system automatically populates **WO Class Org.**

Duration
Enter a duration (time) for the work order for the campaign event.

Problem Code
Enter the code to identify the type of problem.

Safety
Select if this campaign event requires special safety precautions.

Trade
Enter the trade required to perform the activity.

Task
Enter the task code for the activity.

Material List
Enter the material list code for the material list containing the parts needed for the work order.

Estimated Hours
Enter the estimated number of hours required to complete the activity.

People Required
Enter the number of people required to perform the activity.

Activity Duration
Enter a duration (time) for the activity for the campaigning event.

5 Click **Submit**.

Managing equipment for campaigns

Manage equipment for campaigns on the **Equipment** page of the **Campaigns** form by adding, editing, deleting, or marking equipment for a campaign. Mark equipment as passed, failed, or not evaluated.

In addition to managing equipment on the **Equipment** page of the **Campaigns** form, drive the campaign process by creating campaign work orders, generating survey work orders, or clearing survey work orders.

Adding equipment to campaigns

To add equipment to campaigns:

1. Select **Work > Projects > Campaigns**.
2. Select a campaign for which to add equipment, and then click the **Equipment** tab.
3. Click **Select Equipment**.
4. Select the equipment to add to a campaign, and then click **OK**.

   Note: To generate survey work orders for equipment, select the equipment, click **Select**, and then click **Generate Survey WO**.

   To generate work orders for equipment, select the equipment, click **Select**, and then click **Generate WO(s)**.

   To clear survey work orders for equipment, select the equipment, click **Select**, and then click **Clear Survey WO**.

   To clear errors, select the equipment, click **Select**, and then click **Clear Error(s)**.

Marking equipment for campaigns

Mark equipment as having passed the survey work order, failed the survey work order, or not evaluated on the survey work order.

Note: Campaign **Status** must be **Active** before the system allows marking equipment for a campaign.

To mark equipment after survey work orders are completed for equipment on campaigns:

1. Select **Work > Projects > Campaigns**.
2. Select a campaign for which to mark equipment, and then click the **Equipment** tab.
3. Select the equipment to mark for a campaign after a survey work order, and then choose one of the following options:

Option	Description
Mark as Passed	Click to mark equipment as passed.
Mark as Failed	Click to mark the equipment as failed.
Mark as Not Evaluated	Click to mark the equipment as not evaluated.

Generating work orders for campaigns

Generate regular, multi-equipment, or survey type, campaign work orders from selected equipment and campaign events on the Equipment page of the Campaigns form. See the steps below to generate regular, multi-equipment, or survey type, campaign work orders.

To generate work orders or multiple equipment work orders for campaigns:

1. Select **Work > Projects > Campaigns**.
2. Select a campaign for which to generate a work order, and then click the **Equipment** tab.

3 Select the equipment for which to generate a campaign work order, and then click **Generate Survey WO**.

4 Specify this information:

Campaign Event
Specify the campaign event for which to generate a work order. The system automatically populates the campaign event description.

Create Multiple Equipment WO
Select to generate multiple equipment work orders for the selected campaign event.

Include Campaign Comments
Select to include comments on the work order generated for the campaign.

Include Campaign Documents
Select to include documents on the work order generated for the campaign.

Equipment
Specify the equipment for which to perform work. The system automatically populates the equipment description and **Equip. Org.**

Status
Select the status of the work order generated for the campaign.

Sched. Start Date
Specify a scheduled start date for the work to be performed.

Sched. End Date
Specify a scheduled end date for the work to be performed.

5 Click **Submit**.

Generating survey work orders for campaigns

To generate survey work orders for campaigns:

1 Open the **Campaigns** form.

2 Select a campaign for which to generate a work order, and then click the **Equipment** tab.

3 Select the equipment for which to generate a campaign work order, and then click **Generate Survey WO**.

4 Specify this information:

Campaign Event
Specify the campaign event for which to generate a survey work order. The system automatically populates the campaign event description and selects **Survey**.

Create Multiple Equipment WO
Select to generate multiple equipment work orders for the selected campaign event.

Include Campaign Comments
Select to include comments on the survey work order generated for the campaign.

Include Campaign Documents
Select to include documents on the survey work order generated for the campaign.

Equipment
Specify the equipment for which to perform survey work. The system automatically populates the equipment description and **Equip. Org.**

Status
Select the status of the work order generated for the campaign.

Sched. Start Date
Specify a scheduled start date for the survey work to be performed.

Sched. End Date
Specify a scheduled end date for the survey work to be performed.

5 Click **Submit**.

Viewing work orders for campaigns

View the list of existing work orders for a specific campaign.

To view work orders for campaigns:

1 Select **Work > Projects > Campaigns**.
2 Select the campaign for which to view work orders, and then click the **Work Orders** tab.
3 View the work orders.

Copying campaigns

Copy child records of campaigns and campaign header information to a new campaign.

To copy campaign records to new campaigns:

1 Select **Work > Projects > Campaigns**.
2 Select the campaign for which to copy, and then click the **Record View** tab.
3 Click **Copy Campaign**.
4 Specify this information:

New Campaign
Specify a unique code identifying the new campaign, and then enter a description for the new campaign in the adjacent field.

Custom Field Value
Select to copy the custom field values to the new campaign.

User Defined Fields
Select to copy the user defined fields to the new campaign.

Campaign Events
Select to copy the campaign events to the new campaign.

Equipment
Select to copy the equipment to the new campaign.

Comments
Select to copy the comments to the new campaign.

Documents
Select to copy the documents to the new campaign.

5 Click **Submit**.

Printing the project summary chart

Print the project summary chart report to view costs associated with a specific project.

To print the project summary chart:

1 Select **Work > ProjectsProjects**.
2 Select the project for which to print the project summary chart, and then click the **Project Summary Chart** tab.
3 View the chart.

GIS integration

9

Geographical Information Systems are important to companies with equipment spread over a large area such as local governments/schools, oil and gas companies, utilities, etc. GIS systems are widely used to show equipment spatially via maps. These maps provide a better understanding of the location of the equipment, directions to the equipment, work history of the equipment, and the surrounding area of the equipment in question.

Integrate Infor EAM (Infor EAM) with `Environmental Systems Research Institute`'s (ESRI) GIS package so that you have the advantages of a GIS system paired with those of Infor EAM.

This chapter documents procedures completed in both the Infor EAM and ESRI GIS systems. As a result, section headings include (Infor EAM) or (ESRI), if applicable, to identify in which system the task should be performed.

Linking Infor EAM equipment and GIS features

When integrating Infor EAM with ESRI's GIS (Geographical Information System) package, both programs should reflect an accurate representation of your company assets. You may have an Infor EAM equipment record that has not been defined in the GIS system or a GIS feature that has not been defined in the Infor EAM system. If you want to view a piece of equipment on a GIS map, create a corresponding GIS feature for the Infor EAM equipment record. Likewise, if you want access to Infor EAM functionality, e.g., creating and scheduling work orders for a GIS feature, create a corresponding Infor EAM equipment record for the GIS feature.

The systems link corresponding equipment/features together with a GIS object identification number (**GIS ID**) in Infor EAM, `GISOBJID` in ESRI).

Processing rules for defining equipment records within ESRI

See the following list of processing rules the system follows when automatically creating Infor EAM equipment records for GIS features you have created within ESRI:

Note: Contact your system administrator for more information regarding these processing rules.

- A GIS feature must reside within a layer that contains the GISOBJID attribute before you can create a corresponding equipment record.
- The system creates equipment records based on the field mappings defined for the feature's layer. If a field mapping has not been defined, the system populates the field based on the GIS profile defined on the user's default preference record for the layer.

  Note: If a field mapping for an attribute exists, the system always populates the equipment field based on the data of the attribute, even if the attribute value is empty and the GIS profile value contains data.

  Field mappings are not defined for **Layer**, **Location X**, and **Location Y**. The system creates equipment records based on an implied mapping where GIS is the owner and the data is automatically mapped to the **Layer**, **Location X**, and **Location Y** fields in Infor EAM. If a feature is a line or polygon feature, the system populates the Infor EAM**Location X** and **Location Y** based on the feature's center point.

- If more than one GIS attribute is mapped to a single Infor EAM field, the system concatenates the data into the single field based on the **Sequence** and **Delimiter** values on the mapping record. Likewise, if a GIS attribute that contains concatenated data is mapped into more than one Infor EAM field, the system parses the data based on the **Sequence** and **Delimiter** values on the mapping record.
- The system automatically defines the equipment as an Asset record if a field mapping does not exist for the equipment type.
- The system assigns the equipment code of the equipment record based on any existing field mapping. If a feature attribute is mapped to the equipment code field, the system assigns the equipment code based on the field mapping even if the AUTOANUM installation parameter is set to Yes. If no field mapping exists for the equipment code, the system automatically generates an equipment code even if AUTOANUM is set to No.
- The Infor EAM**Class**, **Location**, **Position**, **Parent**, **PO**, and **Part** can be unique per Infor EAM organization. This organization may or may not be the same organization of the equipment record. If there is a mapping record for **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part**, the system must also populate the organization of **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part**. If you map data into these fields, you must also map the organization field for each of them.

  If a field mapping does not exist for the organization of **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part**, the system populates the information based on the following:

  - If the mapped value for **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part** belongs to a single organization:

    The organization is copied.

  - If the mapped value for **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part** belongs to multiple organizations:

    An attempt is made to populate the organization based on the GIS profile defined on the user's default preference record for the layer.

  - If the mapped value for **Class**, **Location**, **Position**, **Parent**, **PO**, or **Part** belongs to multiple organizations and there is not a default GIS profile:

    An attempt is made to populate the organization based on the organization of the equipment record.

Defining Infor EAM equipment (ESRI)

For every GIS feature within ESRI that you want to integrate with Infor EAM, define a corresponding Infor EAM equipment record.

You can also define equipment records within ESRI through synchronization.

Note: Depending on your system configuration, the system automatically creates an equipment record in Infor EAM as soon as you save a new feature, and then displays the **Create Infor EAM Equipment** popup to notify you of the transaction. Contact your system administrator for more information.

To define Infor EAM equipment:

1. Open `ArcMap` to an existing map.
2. Select the GIS feature(s) for which to define equipment records, and then click **Infor EAM Create Equipment**.

   ESRI connects to Infor EAM, verifies that you are authorized to define equipment within the organization you specified on the profile, and creates the equipment record in Infor EAM. A popup containing success and error messages in **Result** is shown. An Infor EAM equipment record is defined for each GIS feature with a success message.
3. Click **Close**.

   Note: To save this data, right-click, and then select **Save As**. Select the file in which to save the data, and then click **Save**. The data in the file is saved, e.g., if you receive error messages because the corresponding Infor EAM equipment records are not successfully defined for the GIS features, save the data. Use the saved list of data to identify those GIS features for which you still need to create equipment records. Correct the error identified in the **Result** column, and then complete the process to define equipment records within ESRI again.

Processing rules for defining GIS features within Infor EAM

See the following list of processing rules that are followed when creating corresponding GIS features for equipment records you have created within Infor EAM:

Note: Contact your system administrator for more information regarding these processing rules.

Features are created based on the field mappings defined for the selected layer. If a field mapping has not been defined, the field is populated based on the GIS profile defined on the user's default preference record for the selected layer.

Note: If a field mapping exists, the attribute is always populated based on the data of the equipment field, even if the field's value is empty and the GIS profile value contains data.

If more than one Infor EAM field is mapped to a single GIS attribute, the data is concatenated into the single attribute based on the **Sequence** and **Delimiter**. Likewise, if an Infor EAM field that contains concatenated data is mapped into more than one GIS attribute, the data is parsed based on the **Sequence** and **Delimiter** values on the mapping record.

Defining GIS features (Infor EAM)

To define GIS features:

1. Open the Assets, Positions, or Systems form.
2. Click **New Record**.
3. Specify the information necessary to define the piece of equipment.
4. Specify the profile that GIS should use to create the GIS feature.
5. Click **Save Record**. A **GIS ID** number is generated.

   Note: Depending on your system configuration, a **GIS ID** number may not be automatically generated.

   - The Create GIS Feature popup is shown after you click **Save Record**, enter the **Layer**, **Location X**, and **Location Y** for the GIS feature, and then click **Submit**. The record is saved, and a **GIS ID** number is generated.
   - If the **Create GIS Feature** button is enabled, click **Create GIS Feature** after you click **Save Record**. Enter the **Layer** , **Location X** , and **Location Y** for the GIS feature, and then click **Submit**. The record is saved and a **GIS ID** number is generated.
6. Synchronize features with equipment records so that the corresponding feature is created within GIS.

Synchronizing records (ESRI)

Synchronize Infor EAM and ESRI's GIS to ensure both systems contain a complete and accurate list of corresponding features/equipment.

Synchronize attributes to ensure that corresponding features and equipment reflect the same attribute values.

Note: You can only synchronize records from a GIS map that contains layers integrated with Infor EAM, e.g., the layer contains a feature that has a `GISOBJID` attribute.

Synchronizing equipment with features (ESRI)

Search for GIS features with no corresponding defined Infor EAM equipment records, view a list of discrepancies, and create corresponding equipment records for the existing features.

To synchronize equipment records with features:

1. Open `ArcMap` to an existing map, and then click **Infor EAM Synchronize Attributes**.
2. Specify this information:

Layer
Select the layer for which to view features without corresponding equipment records.

3 Select the **Consider only features selected on the map** check box to only compare features that are selected on the map.

4 Select the **Consider only features with a GISOBJID** check box to only compare features that reference a `GISOBJID` number.

Note: Unselect **Consider only equipment with a GISOBJID** to compare features without a `GISOBJID` number, which enables you to create equipment records for existing features that were not previously integrated.

5 Click **View Discrepancies**.

6 Select the features for which you want to create corresponding equipment records.

All of the features are automatically selected. Remove individual features from the list by unselecting the line.

7 Click **Create Equipment**. Corresponding equipment records are created within Infor EAM.

Result and **Creation Date/Time** are automatically populated, and all features are unselected for which corresponding equipment records were created.

Note: If the corresponding equipment record cannot be created for a selected feature, the reason is displayed in **Result**. The feature remains selected.

You must have insert privileges in Infor EAM to create an equipment record. Contact your system administrator for more information.

The feature's existing `GISOBJID` number is assigned to the equipment record. If the feature does not have a `GISOBJID` number, one is automatically generated.

The equipment record's **Layer**, **Location X**, and **Location Y** are automatically populated. If the feature is not a point feature, **Location X** and **Location Y** are automatically populated for its corresponding equipment record based on the center of the feature.

Synchronizing features with equipment (ESRI)

Search for Infor EAM equipment records with no corresponding defined GIS features, view a list of discrepancies, and create corresponding features for the existing equipment records.

Note ESRI's `ArcMap` displays features as soon as the system creates them.

To synchronize features with equipment:

1 Open `ArcMap` to an existing map, and then click **Infor EAM Synchronize Attributes**.

2 Click the **GIS** tab.

3 Specify this information:

Layer
Select the layer for which to view equipment records without corresponding features.

4 Select the **Consider only equipment with a GISOBJID** check box to only compare equipment records that reference a `GISOBJID` number. The `GISOBJID` number is referenced on the Infor EAM equipment record in the **GIS ID** field.

Note: If you clear the **Consider only equipment with a GISOBJID** check box, equipment records that do not have a **GIS ID** but do reference a **GIS Profile** or GIS layer are compared.

5 Click **View Discrepancies**. **Layer**, **Location X**, and **Location Y** for each equipment record are automatically populated if available.

Note: Only equipment records for which you have query web service permissions are displayed. Contact your system administrator for more information.

6 Select the equipment records for which you want to create corresponding features.

All of the equipment records are automatically selected. Remove individual records from the list by unselecting the line.

7 Specify this information:

Layer
Select a layer for each equipment record for which you want to create corresponding features.

Location X

Location Y
Enter the X and Y coordinates for each equipment record for which you want to create corresponding features.

Note: Highlight the equipment record within the list, click **Record**, and then click the location on the map within ESRI's **ArcMap** page on which to place the feature. The X and Y coordinates are determined and **Location X** and **Location Y** are automatically populated.

If the selected layer contains line or polygon features, click on the map more than once to include all necessary coordinates for the feature. The additional X and Y coordinates are saved.

If you enter **Location X** and **Location Y** with the **Record** button and then need to edit the fields with the **Record** button, you must first right-click on the equipment record, and then select **Clear Map Coordinates**.

8 Click **Create Feature(s)**. Corresponding features within ESRI's GIS are created for each selected equipment record and the newly created features are highlighted on the map. **Result** and **Creation Date/Time** are populated, and all equipment records are unselected for which corresponding features were created.

Note: If the system cannot create a corresponding feature for a selected equipment record, the reason is displayed in **Result**. The equipment record remains selected.

Synchronizing attributes (ESRI)

Infor EAM and ESRI's GIS attributes may be synchronized based on the field mappings defined for each layer. The system compares the attributes of corresponding features/equipment (based on the

GISOBJID/**GIS ID**), provides you with a list of discrepancies, and enables you to synchronize the attribute values.

Field mappings are not defined for a feature/equipment record's layer, location X, and location Y. The system synchronizes based on an implied mapping where GIS is the owner and the data is automatically mapped to the **Layer**, **Location X**, and **Location Y** fields in Infor EAM. If a feature is a line or polygon feature, the system populates the Infor EAM**Location X** and **Location Y** based on the feature's center point. Contact your system administrator for more information.

Note: Infor EAM recommends synchronizing features and equipment prior to synchronizing attributes.

To synchronize attributes:

1. Open ArcMap to an existing map.
2. Click **Infor EAM Synchronize Attributes**.
3. Specify this information:

   Map
   Enter the map for which to synchronize attributes.

   Layer
   Select the layer for which to view attribute discrepancies.

4. Select the **Consider only features selected on the map** check box to only consider features that are selected on the map.
5. Click **View Discrepancies**. The system displays features for which the system locates a corresponding equipment record based on the GISOBJID, but for which there are attribute discrepancies.

   Note: The system only considers mapped attributes that have an **Action** of Copy. Contact your system administrator for more information.

   You must have query web service permissions in Infor EAM to view discrepancies. Contact your system administrator for more information.

6. Select the features for which you want to synchronize attribute discrepancies.

   The system automatically selects all of the features. Remove individual features from the list by unselecting the line.

   Note: To select all lines at once, click **Select All**. To unselect all lines at once, click **Unselect All**.

7. Click **Synchronize Discrepancies**.

   The system synchronizes attributes based on the values contained within the owner system of the field mapping record. Contact your system administrator for more information.

   Note: The system displays an error message in either Infor EAM**Result** or **GIS Result** for any record whose discrepancies cannot be synchronized.

   You must have update web service permissions in Infor EAM to synchronize discrepancies. Contact your system administrator for more information.

8. Click **Close**.

Synchronizing attribute details (ESRI)

To synchronize attribute details:

1 Open `ArcMap` to an existing map.

2 View attribute discrepancies.

Note: Do not click **Synchronize Discrepancies**.

3 Highlight the feature for which to view discrepancy details, and then click the **Details** tab. **Layer**, **Equipment**, **FID**, **Description**, and **Org.** are automatically populated, and a list of field mapping records is displayed for the feature.

Note: Only discrepancy mapping records with an **Action** of **Copy** are displayed. Contact your system administrator for more information.

4 View the discrepancy records. **GIS Attribute** and its data in **GIS Value** are displayed and the corresponding Infor EAM**Attribute** and its data in Infor EAM**Value**. The **Owner** indicates the system from which the data will be copied during synchronization.

Note: If multiple GIS attributes are mapped to a single Infor EAM attribute or vice-versa, the system lists the attributes on separate lines but groups them together.

During synchronization, the system concatenates or parses data according to the **Sequence** and **Delimiter** defined on the field mapping record. Contact your system administrator for more information. If the system must parse data because one field is mapped to multiple fields, it verifies that the number of fields to which to map data matches the instances of concatenated data in the source field. If it does not, the system does not synchronize the data. If, however, the source field in the owner system contains a null value, the system copies the null value to the multiple fields in the other system and overwrites any data that those fields originally contained.

5 Specify this information:

New Owner Value
Enter a value to override the current data contained within the owner system. During synchronization, the system writes the new value to the owner system and then copies the value to the other system.

Note: You cannot enter a **New Owner Value** if there is a discrepancy with a **Layer**, **Location X**, or **Location Y**. These values are populated automatically based on the feature's actual map location.

6 Click **Synchronize Discrepancies**.

The system synchronizes the attributes based on the values contained within the owner system or based on the values entered in **New Owner Value**.

Note: The system displays an error message in either Infor EAM**Result** or **GIS Result** for any record whose discrepancies cannot be synchronized.

Click **Next Record** or **Previous Record** to view the details of the next or previous discrepancy record within the list on the **Synchronize Attributes** page.

7 Click **Close**.

Applying a data filter (ESRI)

Create a filter for integrated features based on attribute data stored in either ESRI, Infor EAM, or both. ESRI highlights the GIS features that satisfy the search criteria on the GIS map.

See the following list of Infor EAM grids that the system queries:

Grid	Function
Equipment	BEGEQ
Equipment and related cost details	BEGEQC
Equipment and related event details	BEGEQE
Work order and related activity details	BEGWAC
Work order and related equipment details	BEGWEQ

Note: The system only queries those grids to which you have Query access. If you do not have access to a grid, contact your system administrator to grant you access to its related function.

Running a data filter (ESRI)

To run a data filter:

1 Within ESRI, click **Infor EAM Data Filter**.

Note: Highlight features on the GIS map prior to opening the Data Filter popup, and then select **Consider only features highlighted on the map**. Only the highlighted features in the search are considered.

2 Specify this information to enter the filter's GIS criteria:

Layer
Select a GIS layer.

Filter
Enter filter information for features.

Note: The available fields are based on the selected **Layer**.

3 Specify this information to enter the filter's Infor EAM criteria:

Grid
Select an Infor EAM grid.

Filter
Enter filter information for equipment records.

Note: The available fields are based on the selected **Grid**.

4 Click **Select Custom Fields** to select the custom fields to display on the **Results** page.

Note: The displayed fields are based on the selected **Grid**.

5 Select the custom fields to display on the **Results** page, and then click **Submit**.

Note: Search response time increases as the selected number of custom fields increases.

6 Click **Apply**. A search based on the criteria is ran and Infor EAM data that satisfies the filter is displayed on the **Results** page.

Saving filter criteria (ESRI)

Save filter criteria so it can be accessed in the future, reducing the amount of time it takes to run common searches.

To save filter criteria:

1 Within ESRI, click **Infor EAM Data Filter**.

Follow steps 2 through 5 to save a GIS criteria record.

2 Select a **Layer**, and then enter **Filter** information.

3 Click **Set As Default** to select to identify this criteria as the default GIS criteria record.

Note: If you select **Set As Default**, the system automatically displays this GIS criteria record whenever you open the Data Filter popup.

4 Click **Save As**.

5 Enter the file name, select a file type, and then click **Save**. The system populates **Criteria** with the file name.

Note: Save the file as either an .XMLGIS or .EXP file. If you save the file as an .EXP file, the system clears filter information and displays **WHERE Clause**, **Edit Query**, and **Reset Filter**. Modify the **WHERE Clause** as necessary. Click **Edit Query** to open `ArcMap`'s Select By Attributes popup. Click **Reset Filter** to enable the filter lines, and then modify the filter as necessary.

Follow steps 6 through 9 to save an Infor EAM criteria record.

6 Select a **Grid**, enter **Filter** information, and select custom fields to display on the **Results** page.

7 Click **Set As Default** to select to identify this criteria as the default Infor EAM criteria record.

Note: If you select **Set As Default**, the system automatically displays this Infor EAM criteria record whenever you open the Data Filter popup.

8 Click **Save As**.

9 Enter the file name, and then click **Save**. The system populates **Criteria** with the file name.

Note: The file type must be .xmlinforEAM.

10 Click **Apply**. The system runs a search based on the criteria and displays Infor EAM data that satisfies the filter on the **Results** page.

Running existing data filters (ESRI)

Select saved criteria records to quickly run searches.

Note: If you selected **Set As Default** for a saved GIS or Infor EAM criteria record, it is automatically displayed when you open the Data Filter popup.

To run existing data filters:

1 Within ESRI, click **Infor EAM Data Filter**.

2 Specify this information:

Criteria
Enter an existing GIS criteria record. You may enter a saved file type of either .EXP or .XMLGIS.

Criteria
Enter an existing Infor EAM criteria record. You may enter a saved file type of either .EXP or .XMLINFOREAM.

3 Click **Apply**. A search is run based on the criteria and Infor EAM data that satisfies the filter is displayed on the **Results** page .

Viewing data filter results (ESRI)

To view data filter results:

1 Within ESRI, click **Infor EAM Data Filter**.

2 Apply a filter, and then click the **Results** tab.

Note: The **Results** page is automatically displayed if the criteria includes an Infor EAM Grid.

Infor EAM records that satisfy the defined criteria are displayed. See the following list for more information regarding the results:

- If you defined both GIS and Infor EAM criteria:

  The filter results that reference GIS-integrated equipment records are displayed, including all fields associated with the selected **Grid** and any selected custom fields.

- If you only defined GIS criteria:

  Filter results are not displayed.

- If you only defined Infor EAM criteria:

  The filter results that reference all equipment records are displayed, including all fields associated with the selected **Grid** and any selected custom fields.

3 View the Infor EAM records.

Note: To remove records from the list, highlight the record(s) to remove, and then click **Remove Highlighted Record(s)**.

4 Click **Save As**.

5 Enter the file name, select a file type, and then click **Save**.

Note: The default file type is .CSV. If you save the file as a .DBF file, the file is available within the GIS map as a data table.

6 Click **Close**.

Performing Infor EAM functionality (ESRI)

Access Infor EAM functionality via the Infor EAM GIS Extensions in ESRI's `ArcMap`. Create Infor EAM work orders and view Infor EAM events for any GIS feature that is integrated with Infor EAM.

Note: You can also define Infor EAM equipment records, synchronize records, and create data filters via the Infor EAM GIS Extensions Also, define user information and preferences. Contact your system administrator for more information.

Many of the Infor EAM forms accessible in ESRI display a grid with a list of records. Select the record(s) or field(s), and then right-click to access additional functionality. See the following table for more information:

Right-Click Option	Description
Clear Map Coordinates	Clear map coordinates associated with the record
Identify Feature(s)	View the GIS attributes of an equipment record
Memo Editor	View the full text of a field
Record View	View the information pertaining to a record in a vertical list
Save As	Save the displayed data as a .csv or .dbf file
Show Feature	Temporarily highlight the feature on the map **Note:** You will not see the highlighted feature if it is not on the map's visible layer or not within the map's current extent.

Creating Infor EAM work orders (ESRI)

Locate a feature within the GIS system, and then create an Infor EAM work order. Associate activities, comments, custom field values, and linear reference information to the work orders if necessary.

You can only create an Infor EAM work order for a GIS feature that has a corresponding Infor EAM equipment record. In addition, the equipment record cannot have a status of Withdrawn, In Transit, or Awaiting Purchase or be out of service.

To create an Infor EAM work order within GIS, you must have permission to create work orders within Infor EAM. Contact your system administrator for additional information.

To create Infor EAM work orders within GIS:

1 Within ESRI, select a feature, and then click **Create Work Order**.

Equipment, **WO Organization**, **Department**, **Location**, **Cost Code**, **Criticality**, **Safety**, **Assigned To**, and **Assigned By** are automatically populated based on the corresponding equipment record of the selected feature.

2 Specify this information:

WO Description
Enter a description of the work needed.

WO Organization
Enter the organization to which the work order belongs.

Status
Select the status of the work order.

Type
Select the work order type.

Priority
Select the priority level of the work order.

Problem Code
Enter the problem code.

Class
Enter the class of the work order.

Department
Enter the department responsible for completing the work order.

Location
Enter the location of the work to be completed.

Cost Code
Enter the cost code of the work order.

Criticality
Select a criticality code to indicate the relative importance of the asset to the overall production of goods or services for your organization.

Standard WO
Enter the standard work order if applicable.

Safety
Select to observe safety precautions when working with this asset.

Sched. Start Date

Sched. End Date
Select the starting and ending dates for the work order.

Date Reported
Enter the date and time that the problem was reported.

Assigned To
Enter the username of the person responsible for the work order.

Assigned By
Enter the supervisor who assigned the work order.

3 Enter activities, comments, custom fields, and linear reference information.

4 Click **Submit**. The work order and any information entered on the Activities, Comments, Custom Fields, and/or Linear References pages is saved.

Defining activities

To define activities:

1 Enter work order details.

2 Click the **Activities** tab.

3 Click **Add Activity**. The system automatically populates **Activity** with the next available activity number, populates **Start Date** and **End Date** with the scheduled start date of the work order, and populates **People Required** with a default value of "1."

4 Specify this information:

Activity
Modify the activity number as necessary.

Trade
Enter the trade required to perform the activity.

Estimated Hours
Enter the estimated number of hours required to complete the activity.

People Required
Modify the number of people required to perform the activity as necessary.

Completed
Select if the activity is completed.

Task
Enter the task code for the activity. The system updates the value for**People Required** to correspond with the **Task**as necessary.

Material List
Enter the code identifying the material list that contains the parts needed for the activity.

Activity Comments
Enter comments or instructions for the activity.

5 Click **Add to List**.
6 Enter comments, custom fields, and linear reference information for the work order.
7 Click **Submit**. The system saves the work order and any information entered on the Activities, Comments, Custom Fields, and/or Linear References pages.

Associating comments

To associate comments:

1 Enter work order details.
2 Click the **Comments** tab.
3 Specify this information:

Comments
Enter comments or instructions for the work order.

Print with WO
Select to print the comments with the work order.

4 Enter activities, custom fields, and linear reference information for the work order.
5 Click **Submit**. The system saves the work order and any information entered on the Activities, Comments, Custom Fields, and/or Linear References pages.

Entering custom fields

To enter custom fields:

1 Enter work order details.
2 Click the **Custom Fields** tab. The system automatically displays custom fields specific to the class and/or work order entity.
3 Enter the custom fields information.
4 Enter activities, comments, and linear reference information for the work order.
5 Click **Submit**. The system saves the work order and any information entered on the Activities, Comments, Custom Fields, and/or Linear References pages.

Defining linear reference details

To define linear reference details:

1 Enter work order details.
2 Click the **Linear Details** tab.
3 Specify this information:

From Point
Enter the point on the linear equipment record from which to perform the work order. The system automatically populates **Ref. Description** and **Geographical Ref.** if available.

To Point
Enter the point on the linear equipment record to which to perform the work order. The system automatically populates the **Ref. Description** and **Geographical Ref.** if available.

4 Enter activities, comments, and custom fields for the work order.

5 Click **Submit**. The system saves the work order and any information entered on the Activities, Comments, Custom Fields, and/or Linear References pages.

Viewing Infor EAM events (ESRI)

View a history of all events performed within Infor EAM for a GIS feature's corresponding equipment record. View such events as work orders.

Note: You cannot update any event records on the Infor EAM Events popup.

To view Infor EAM events within GIS:

1 Within ESRI, select an integrated feature(s), and then click **Infor EAM Events**.

All of the selected features are displayed in the Equipment list. The total number of selected equipment records is displayed next to **Equipment**, **Total Events** is populated with the total number of events for all equipment records within the Equipment list, and the number of events for the selected equipment record is displayed next to **Events**.

2 In the Equipment list, double-click the equipment record from the Equipment list for which to view events.

Note: If you double-click a linear equipment record, **From Point** and **To Point** are enabled.

3 Specify this information:

From Point
Enter the point on the linear equipment record from which to display events.

To Point
Enter the point on the linear equipment record to which to display events.

4 View the events information in the Events list.

Note: The Dataspy available on this popup is defined on the **Events** page of the Assets, Positions, or Systems form of Infor EAM.

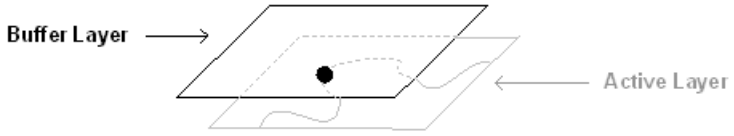
5 Click **Close**.

Performing a GIS map search (Infor EAM)

Perform a GIS map search to locate equipment according to address or equipment type, such as asset, position, or system.

Map layers are searched. A **layer** contains a set of thematic data, such as streets, hydrants, or pipes. A GIS map contains multiple layers, which create overlays of geographical information.

In Infor EAM GIS maps are searched based on active and buffer layers. The active layer is the layer in which a search originates. If your search involves multiple layers, the buffer layer is the layer in which the equipment for which you are searching resides, e.g., your GIS map contains a Pipe layer and a Hydrant layer. You want to locate a fire hydrant based on the location of a specific pipe. Select the Pipe layer as your active layer and the Hydrant layer as your buffer layer. The pipe in the Pipe layer is searched and fire hydrants found within the Hydrant layer are returned. See the following image:



Note: If you are performing a search based on an address, you do not need to specify an active layer. The search originates in the address layer, which is defined by installation parameter `GISADDR`.

Once you have performed a map search, use the GIS Map Search toolbar to modify the map view.

If you use geocoding services, address searches are performed based on the primary geocode as defined in installation parameter `GISSERV`. If no records are found that match your search criteria, the search is performed based on the secondary geocode as defined in installation parameter `GISGEOSV` . Contact your system administrator for more information.

Note: The screen display and functionality depend upon your `GISSERV` and `GISGEOSV` installation parameters. `GISSERV` must be set to `REST` and `GISGEOSV` must be set to `Geocode services URL` to experience the full features of this screen which include:

- By default, the startup view for this screen is set to Record View and the map is loaded on the full screen.
- This new map feature supports only GIS 10.1 and 10.2 servers.
- This new map screen utilizes architecture available on ESRI ArcGIS 10.1 and 10.2.
- For the new screen REST services are used instead of SOAP services. The result is better performance and faster map loads.
- The GIS Attributes popup is displayed as you navigate to the equipment List View screen.
- The new map screen features a floating popup which displays the GIS Attributes and the **Action** button is now located at the bottom of the popup.
- The **Action** button is also accessible:
  - as a right-click option on the equipment grid and work order grids
  - on the List View page near the **Export To Excel** and **Save Layout** icons.

Performing a map search (Infor EAM)

Perform a map search to search for equipment in one layer. Enable the advanced search option to search for equipment across multiple layers. In addition, you may apply a GIS filter and specify a search radius for each selected layer.

Note: Some of the map search features display and function differently based upon your GISSERV and GISGEOSV installation parameters. See the *Infor EAM System Administrator's Guide*.

`GISSERV` must be set to mapservice REST URL and `GISGEOSV` must be set to Geocode service REST URL published on ArcGIS Server to experience the full features of this screen. Set the installation parameters according to the following format:

For `GISSERV` use the following format:

```
http://<arcgisserver:port>/arcgis/rest/services/<servicename>/MapServer
```

For `GISGEOSV` use the following format:

```
http://<arcgisserver:port>/arcgis/rest/services/<servicename>/GeocodeServer
```

To perform a map search:

1 Select **Equipment > GIS Map Search**.

Note: Depending upon your `GISSERV` and `GISGEOSV` installation parameter settings, the **GIS Map Search** screen opens with the map search options displayed, or in Record View with the map displayed.

See "Performing a GIS map search (Infor EAM)" on page 797.

2 Click **Search**.

Note: If `GISSERV` is set to `REST` and `GISGEOSV` is set to `Geocode services URL`, the search icon appears on the map toolbar. Specify your search criteria, and then click **Search** to search for map records. The GIS Attributes floating popup is displayed with the **Options** drop-down available at the bottom of the popup.

3 Specify this information:

Map
Specify the map for which to perform the search.

Note: Map is available only when GISMAPS installation parameter is set to **Organization** or **Department**.

Search For

Note: To search for all records that contain like characters in **Address**, **Street**, **Equipment**, **Asset**, **Position**, or **System**, enter "%." For example, if you want to search for all assets beginning with the letter "M," enter "M%" in **Asset**. If you want to search for all positions containing the letters "PMP," enter "%PMP%" in **Position**.

Specify one of the following options:

Option	Description
Address	The **Street** and **Zone** fields are displayed. Enter the street address and/or zone location for which to search. **Note:** To search for intersections, enter the street names with the appropriate separator as defined in installation parameter `GISINTRS`. For example, enter Main & Broadway.
Equipment	The **Equipment** field is displayed. The equipment lookup with GIS-integrated equipment records in Infor EAM that are installed, in use, and are associated with the organizations to which you have rights is populated. Enter the equipment for which to search.
Asset	The **Asset** field is displayed. The asset lookup with GIS-integrated asset records in Infor EAM that are installed, in use, and are associated with the organizations to which you have rights is populated. Enter the asset for which to search.
Position	The **Position** field is displayed. The position lookup with GIS-integrated position records that are associated with the organizations to which you have rights is populated. Enter the position for which to search.
System	The **System** field is displayed. The system lookup with GIS-integrated system records that are associated with the organizations to which you have rights is populated. Enter the system for which to search.

Note: Edit the equipment's **From Point** and **To Point** via the map if you entered a linear equipment record in **Equipment**, **Asset**, **Position**, or **System**.

Dataspy
Select a dataspy.

Note: Click **Edit** to create a Dataspy.

Buffer Layers
Select the layer in which the equipment for which you are searching resides if you are searching for an address.

Active Layer
Specify the layer in which the search should originate if you are searching for equipment, assets, positions, or systems.

Note: If possible, **Active Layer** for the equipment, asset, position, or system record for which you are searching is automatically defaulted. Editing the **Active Layer** returns no search results.

GIS Filter
Select a GIS filter for the specified layer.

Note: Click **Edit** to create a GIS filter.

Note: If you selected Address in **Search For**, you do not need to specify an **Active Layer**. The search originates in the address layer as defined by installation parameter `GISADDR`.

Radius
Enter the radius in which to search, and then select the unit of measure (Feet, Meters, Kilometers, or Miles) in the adjacent field.

Note: If your search is for a linear equipment record, enter a radius and unit of measure to create a buffer around the linear equipment record on the map. All GIS-integrated equipment records that fall within the from and to point along the linear equipment record are searched.

4 Optionally, select the **Enable Advanced Search** check box to select additional buffer layers, and specify a **GIS Filter** and **Radius** for each layer, as necessary. Click **Add Line** to add an additional line. You may add a maximum of ten lines.

5 Optionally, select the **Search Along** check box to search non-integrated features for the selected buffet layer.

6 Click **Search**. The search results are displayed in the Equipment Within Search Area list and on the map. If `GISSERV` is set to `REST`, the search results are displayed in the List View section on the left-hand side of the page. After the selecting a specific record, click **Expand Left** to expand the record on the screen.

Note: If you use geocoding services and you entered a street name and number in **Address**, more than one address matching your search criteria may be returned depending upon your Address Locator configured with the geocode service. If multiple addresses match your search criteria, the Matching Addresses popup is displayed. On the popup the addresses that match the search criteria are listed and a **Match Score** is displayed which is assigned for each address depending upon your Address Locator configured with the geocode service. The closer the **Match Score** is to 100, the more likely the corresponding address is the address for which you are searching. Select the address or addresses to view on the map, and then click **Submit**. The map is displayed.

If your search is for a linear equipment record, the length of the equipment record defined between the **From Point** and **To Point** is highlighted, and the GIS-integrated equipment records that fall within the linear equipment record's buffer.

Double-click an equipment record to view the record details if you opened the **GIS Map Search** form via the menu bar.

7 To view work orders associated to the equipment, select equipment(s) from the grid, and right-click to open the context menu. Select **Show WOs**. Work orders are shown in a floating grid.

Optionally, expand the summary grid and use the **Actions** menu to select the **Show WOs** option.

To hide the work order grid, click the grid, and then select **Hide WOs**.

GIS map search toolbar (Infor EAM)

See the following descriptions when accessing buttons on the GIS Map Search toolbar:

Button Hover Text	Function
Toggle Overview Map	Displays/removes an overview map in the upper left-hand corner of the main map. If the overview map is displayed, the system outlines the current extent of the main map within the overview map in red. **Note:** If you click and drag to select an area within the overview map, the system highlights the area within the overview map and updates the extent of the main map.
Zoom to Full Extent	Displays the full extent map defined in ESRI.
Zoom In	Displays a magnification of the map area selected. Records displayed in the Equipment Within Search Area list will continue to be based on the search criteria.
Zoom Out	Displays a larger view of the map area selected. Records displayed in the Equipment Within Search Area list will continue to be based on the search criteria.
Pan	Changes the focus of the map center. Records displayed in the Equipment Within Search Area list will continue to be based on the search criteria.
Zoom to Previous Extent	Refreshes the map to focus on the previous map. Records displayed in the Equipment Within Search Area list will continue to be based on the search criteria.
Select by • **Select by Rectangle** • **Select by Polygon** • **Select by Freehand Polyline** • **Select by Circle**	Select the method to draw over the desired map area. Choose one of the following options: • Select to form a rectangle over the desired map area. • Select at least three points to form a polygon over the desired map area. • Select to draw a line between at least two points on map. • Select to form a circle over the desired map area.
Pointer	Displays the equipment within the point or area selected on the map. The Equipment Within Search

Button Hover Text	Function
	Area list will refresh to display equipment within the selected area on the map.
Print	Opens a new window and displays the standard Windows Print dialog box
Previous Search	Displays a list of the last five searches if they occurred within the current user session and were initiated by clicking **Search**.The first search displayed in the list is the most recent search performed. Select a search, and the system displays the selected map and GIS Map Search form. **Note:** The system displays the map based on your current settings and visible layers.
Select Features	Highlights and numbers features on the map. The system also highlights the corresponding equipment records in the Equipment Within Search Area list.
Sketch	Draws on the map. Click anywhere on the map to place a map marker or click and drag to draw a line on the map.
Measure	Highlights the distance between two points on the map and displays the distance between the two points. The Measure tool calculates two distances: the current segment and a cumulative distance. For example, if you select feature A and then feature B, the system displays the distance between features A and B. If you then select feature C, the system displays the distance between features B and C (the current segment) and the distance between features A and C (the cumulative distance). **Note:** The distance is measured based on the unit of measure defined for **Radius**.
Identify Features	Displays the attributes of map features within a map's visible layers.
View Route Events	Displays the events associated to the selected route on the map. Choose the event layer for which to view events. Alternately displays only the events currently highlighted on the map for the selected layer or for all events for the selected layer.
View Nearest Address	Displays the nearest address to a selected point on the map.
Visible Layers	Displays the Visible Map Layers popup.

<table>
<tr><th>Button Hover Text</th><th>Function</th></tr>
<tr><td></td><td>Select the layers to display in the GIS map, and then click Submit.

Note: Temporary layers are created and displayed in the event you highlight or mark the map. Un-select a temporary layer to remove its markup from the map. See the table below for more information.

<table><tr><th>Layer Name</th><th>Markup Created By</th></tr><tr><td>Highlights (temporary)</td><td>Search, Highlight on Map, Pointer tool</td></tr><tr><td>Measurements (temporary)</td><td>Measure tool</td></tr><tr><td>Nearest Addresses (temporary)</td><td>View Nearest Address tool</td></tr><tr><td>Selections (temporary)</td><td>Select Features tool</td></tr><tr><td>Sketches (temporary)</td><td>Sketch tool</td></tr><tr><td>Work Orders (temporary)</td><td>Highlight on Map</td></tr></table>
Visible layers are saved with the exception of temporary layers, according to your user ID. When you open the GIS Map Search form, your saved visible layers are shown.</td></tr>
<tr><td>Show Legend</td><td>Displays a legend of icons for each type of feature on the GIS map</td></tr>
<tr><td>Switch Basemap</td><td>Determines the default ESRI base map that is displayed. Valid values are: Streets, Imagery, Imagery with Labels, Terrain with Labels, Topographic, Light Gray Canvas, Dark Gray Canvas, Oceans, National Geographic, and Open Streetmap.</td></tr>
<tr><td>Opacity Slider</td><td>Adjusts the transparency (or opaqueness) of the map service in increments of 10 or as defined by the GISSERV parameter. The range of opacity is 0-100 (percentage). At 100, the map is most opaque (less transparent). At 0, the map is least opaque (more transparent).</td></tr>
</table>

Selecting features on the GIS map (Infor EAM)

Select integrated features on the GIS map. For every feature that you select on the map, its corresponding equipment record is highlighted in the Equipment Within Search Area list and associated work orders are highlighted in the View Work Orders list.

Select features on the map to perform basic GIS Map Search functions on multiple equipment records, e.g., create a route work order.

Note: You can also select equipment records on the Equipment Within Search Area list. Click **Select Features**, and then select the equipment records in the list. The corresponding equipment record is automatically highlighted on the GIS map. Press SHIFT or CTRL to select multiple equipment records at one time.

To select equipment records on the GIS map:

1. Perform a GIS Map Search.
2. Click **Select Features**, and then select highlighted features on the map. The highlighted color of the features is changed and the features are numbered in the order that you select them.

   Note: Install parameter GISSFCLR determines the color with which the selected records are highlighted.

   Unselect features as necessary. The numbers of the remaining selected features are updated.

   To select multiple features on the map at one time, click **Select Features**, and then click and drag on the GIS map to include the desired area. All of the features contained within the area are highlighted and randomly numbered.

Identifying features (Infor EAM)

View feature attributes within the map's visible layers.

To identify features:

1. Perform a GIS map search.
2. Choose one of the following options:
   - Click **Identify Features**, and then click on the GIS map to select a point or drag to select an area for which to view features.
   - Select the equipment or work order(s) for which to view corresponding feature attributes in the Equipment Within Search Area or View Work Orders list. Select **Identify Features** in **Options**, and then click **Submit**.

   Note: To view the selected features within a layer other than the active layer, click the plus sign (+) next to the layer. The layer's selected features are displayed.

   The features are highlighted in blue if the feature's corresponding equipment or work order record is listed in the Equipment Within Search Area or View Work Orders list. All other features are highlighted in white.
3. Click the plus sign (+) next to the FID# for which you want to view attributes.

4 View the attributes.

Viewing the nearest address

Note: To enable the view nearest address feature, a value must be entered for the GISSVAXL installation parameter. Contact your system administrator for more information.

To view the nearest address:

1 Select **Equipment > GIS > GIS Map Search**.
2 Choose one of the following options:

- Click **View Nearest Address**, and then click on the GIS map to select a point for which to view the nearest address.

  Note: The address of the closest feature is displayed in the address layer within the radius, in meters, as specified by installation parameter GISNARAD.

  If the closest feature is linear and your geocoding style contains a range, the street number is approximated.

- Perform a GIS Map Search, and then select the equipment or work order record(s) for which to view the nearest address in the Equipment Within Search Area or View Work Orders list. Select **View Nearest Address** in **Options**, and then click **Submit**.

  Note: The nearest address for each record's corresponding feature is displayed.

  If the corresponding feature is a linear or polygon feature, the address is determined based on the first point of the feature.

3 View the address information.

Creating GIS filters (Infor EAM)

A GIS Filter, similar to a Dataspy, is a named, predefined search based on GIS attributes accessed on the **GIS Map Search** form. Create GIS Filters that are specific to individual layers.

A GIS Filter allows you to apply a second level of conditional filters to your map search: filter for equipment records using the Dataspy, and then filter for specific GIS attributes using the GIS Filter.

Note: To copy the values from an existing GIS Filter into a new GIS Filter, select the existing filter in the text box, and then click **Copy**. Edit the GIS Filter criteria as necessary.

If you define a GIS Filter for which the system returns no data, the probable cause is that the column headers within ESRI do not contain all uppercase letters.

To create GIS Filters:

1 Click **Edit**.
2 Click **New**.

3 Enter a title for the GIS Filter in the text box.

4 Edit the GIS Filter criteria as necessary. Edit GIS Filter criteria in the same manner that you edit Dataspy criteria.

Note: Click **Cancel New** to cancel the creation of a new GIS Filter and return to the previous view.

Select **Default Dataspy** to save the selected GIS Filter as the default filter for the active layer specified on the **GIS Map Search** form. You can have one default filter for each of your active layers.

5 Click **Save**. The GIS Filter is applied to the GIS map search.

Adjusting the range of linear equipment (Infor EAM)

Adjust the **From Point** and/or **To Point** of a linear equipment record to edit the extent of your map search or to adjust the extent of the equipment record on which work should be performed.

To adjust the range of linear equipment:

1 Perform a GIS Map Search.

Note: You can also adjust the **From Point** or **To Point** on the View GIS Map popup accessed from the **Work Orders** form.

2 Adjust the linear equipment record's **From Point** or **To Point**.

3 Click the map at the location along the linear equipment record to which to adjust the point. The system populates **From Point** or **To Point** with the new value and marks the boundaries of the equipment's current range based on the new value.

4 Click **Submit**. The system performs a search based on the new range of the linear equipment record.

Note: From the View GIS Map popup accessed from the **Work Orders** form, the system closes the popup and populates the **From Point** and **To Point** of the work order based on the points that you selected on the map.

Creating quick work orders (Infor EAM)

Create a quick work order for any equipment displayed in the Equipment Within Search Area list. This functionality allows you to locate a specific piece of equipment on the map and create a work order and activity without opening the Work Orders page.

To create quick work orders:

1 Perform a GIS Map Search.

2 Select the equipment record for which to create a work order.

3 In the **Actions** menu, select **Create Quick WO**, and then click **Submit**.

4 Specify the information necessary to create the work order.

5 Specify linear reference information.

Note: Linear Reference Details are shown if the equipment record for which to create the work order is a linear equipment record.

6 Specify the information necessary to add the first activity to the work order.

7 Click **Submit**.

8 Click **Yes** to associate the map with the work order. A PDF file of the currently displayed map is created and attached to the work order as a linked document.

Creating work orders (Infor EAM)

Create a work order for any equipment displayed in the Equipment Within Search Area list via the **Work Orders** form.

To create work orders:

1 Perform a GIS Map Search.

2 Select the equipment record for which to create a work order.

3 In the **Actions** menu, select **Create WO**, and then click **Submit**.

4 Specify the information necessary to create the work order.

5 Click **Submit**.

6 Click **Yes** to associate the map with the work order. A PDF file is created of the currently displayed map, and the PDF is attached to the work order as a linked document.

7 Specify additional information on each page of the **Work Orders** form as necessary, and then click **Close**.

Creating multiple equipment work orders (Infor EAM)

Create a work order with multiple pieces of equipment displayed in the Equipment Within Search Area list via the **Work Orders** form.

To create multiple equipment work orders:

1 Perform a GIS Map Search.

2 Select the equipment records for which to create a work order.

3 Use the **Actions** menu to select **Create WO**, and then click **Submit**.

4 Enter the information necessary to create the work order.

Note: The first piece of equipment selected displays on the **Record View** of the **Work Orders** form; all equipment displays on the **Equipment** page of the **Work Orders** form.

Department Security is enforced on this form. User must have more than read-only access for the department.

This functionality is not affected by ROUTEEOB installation parameter.

Additional equipment may be added to the work order once the popup is open; however, the attached map will not reflect the equipment change.

5 Click **Submit**.

6 Click **Yes** to associate the map with the work order. The system creates a PDF file of the currently displayed map and attaches the PDF to the work order as a linked document.

7 Enter additional information on each page of the **Work Orders** form as necessary, and then click **Close**.

Scheduling work order activities (Infor EAM)

Schedule work order activities according to geographic location. To schedule a work order activity, first create the work order activity, and then schedule it. Search for equipment for which there are open work orders, and then schedule labor based on location for convenience.

The Work Order Activities list displays a separate record for every work order, activity, and schedule combination. The system displays work orders without activities in the grid, but each work order must have an activity in order to schedule it.

To schedule work order activities:

1 Perform a GIS Map Search.

2 Select the work order to schedule.

3 Use the **Actions** menu to select **Schedule WOs**, and then click **Submit**.

4 Specify the **From Point** and **To Point** on the linear equipment record for which to display work order activities.

Note: The system only displays **From Point** and **To Point** if the equipment record for which you are viewing work orders is a linear equipment record.

5 Select the work order activity for which to schedule. The system displays the information for the work order activity in the **Labor Details** section.

6 Click **Add Schedule**.

The system automatically populates **WO-Activity-Trade** with the work order, activity, and trade for the selected work order activity. The system also populates **Scheduled Date** with the scheduled start date of the work order activity, **Act. Est. Hours** with the number of hours planned for the work order activity, **Act. Sched. Hours** with the number of hours scheduled for the work order activity, and **Act. Actual Hours** with the total hours booked to date for the work order activity.

7 Specify this information:

Employee
Enter the employee who will complete the work order activity. The system automatically populates **Department**.

Scheduled Date
Enter the date for which to schedule the work order activity. You cannot schedule work for any date earlier than today’s date.

Scheduled Hours
Enter the estimated number of hours to complete the work. The number of hours must be between 0 and 24.

Start Time

End Time
Enter the scheduled start time and end time of the work order activity.

Shift
Enter the shift responsible for completing the work order activity.

Department
Enter the department responsible for completing the work order activity.

Maintenance Equipment
Enter equipment on which to perform maintenance during the work order activity.

Comment
Enter comments about the work order activity.

8 Click **Submit**.

Note: You may delete an existing labor schedule that is scheduled for the current date or later if you have made an error entering the data and if you have access rights for deleting the labor schedule. You may only delete labor schedules that have not been frozen or completed.

Copying an existing work order activities schedule (Infor EAM)

Copy an existing work order activities schedule to add more than one schedule to each work order activity For example, you need to schedule an electrician from 9:00 to 10:00 and then, after another work order activity has been completed, the electrician needs to finish the work order activity from 1:00 to 3:00. After you copy the existing schedule, only modify the necessary fields, such as **Start Time** and **End Time**. The system maintains the original schedule and creates a new schedule for the work order activity.

Note: To schedule additional time to a work order activity immediately after submitting the original schedule, click **Add Schedule**. Modify fields as necessary, and then click **Submit**.

To copy an existing work order activities schedule:

1 Perform a GIS Map Search.

2 Select the work order for which to copy an existing schedule.

3 In the **Actions** menu, select **Schedule WOs**, and then click **Submit**.

4 Select the work order activity schedule to copy, and then click **Copy Schedule**. The system automatically populates **Employee** and **WO-Activity-Trade** with the employee, work order, activity, and trade for the selected work order. The system also populates **Act. Est. Hours** with the number of hours planned for the work order activity, **Act. Sched. Hours** with the number of hours scheduled

for the work order activity, and **Act. Actual Hours** with the total hours booked to date for the work order activity.

5 Specify this information:

Employee
Specify the employee who will complete the work order activity.

Scheduled Date
Specify the date for which to schedule the work order activity. You cannot schedule work for any date earlier than today's date.

Scheduled Hours
Specify the estimated number of hours to complete the work. The number of hours must be between 0 and 24.

Start Time

End Time
Specify the scheduled start time and end time of the work order activity.

Shift
Specify the shift responsible for completing the work order activity.

Department
Specify the department responsible for completing the work order activity.

Maintenance Equipment
Specify equipment on which to perform maintenance during the work order activity.

Comment
Enter comments about the work order activity.

6 Click **Submit**.

Creating routes and route work orders (Infor EAM)

Create routes according to the geographic location of the pieces of equipment within the route, and then create a work order and activity for the route.

To create routes and route work orders:

1 Perform a GIS Map Search.

2 Select the equipment records on the GIS map in the order in which they should appear in the route.

3 In the **Actions** menu, select **Create Route/Route WO**. The selected equipment records are displayed in the Route list. A **Sequence** number is assigned to each equipment record in the order in which you selected the equipment.

Note: Sequence numbers are assigned based on the `INCRLINO` install parameter settings.

To modify the order in which an equipment record appears in the route, place your cursor in the equipment record's **Sequence** field on the Route list, and then edit the sequence number.

To remove a piece of equipment from the route, select the piece of equipment, and then click **Remove Equipment**.

4 Specify this information:

Route
Specify a unique code identifying the route, and then enter a description of the route in the adjacent field.

Organization
Specify the organization to which the route belongs if you use multi-organization security.

Note: Click **View GIS Map** to view the current route map.

If you are not going to create a work order and activity for the route, select **Link GIS Map to WO** on the View GIS Map popup to link the GIS map to all work orders for the route. Click **Submit**. Click **Finish** on the **Create Route** page.

5 Click **Next** to create a work order and activity for the route.

Note: If PM Revision Control is On, the system disables **Next** because you cannot approve a route and, therefore, cannot create a work order for the route. Contact your system administrator for more information. Click **Finish** to save the route without creating a work order. The route is saved with a status of Unfinished.

The system automatically populates **Equipment** with the first piece of equipment within the route and populates **Department**, **Location**, **Cost Code**, and **Assigned To** if available on the equipment record.

6 Specify the information necessary to create the work order.

7 Specify linear reference information.

Note: Linear Reference Details are only shown if the equipment record for which to create the work order is a linear equipment record.

8 Specify the information necessary to add the first activity to the work order.

9 Click **Finish**. The route, work order, and work order activity records are saved and the status of the route is set to Approved.

Locating equipment and work orders on the GIS map (Infor EAM)

You can locate one or more pieces of equipment on the GIS map.

To locate equipment and work orders on the GIS map:

1 Perform a GIS Map Search.

2 Select the equipment or work order(s) to locate on the map.

3 In the **Actions** menu, select **Highlight on Map**, and then click **Submit**. The selected record(s) is highlighted on the GIS map.

Note: For equipment to display in the Equipment Within Search Area list and display on the map, the equipment must meet the search criteria, exist in both systems, and be linked together in the database.

If you select a work order from the View Work Orders list, the system labels the work order in addition to highlighting it, e.g., "WO 1001."

Viewing Analytics data (Infor EAM)

View analytics data for any equipment in the Equipment Within Search Area list.

Note: This feature is only available if you use Infor EAM Analytics. The **View Analytics Data** button is displayed for all users, but no data will display in the Analytics Data popup if you do not have Infor EAM Analytics.

To view analytics data:

1 Perform a GIS Map Search.
2 Select the equipment record for which to view analytics data.
3 In the **Actions** menu, select **View Analytics Data**, and then click **Submit**.
4 View the Analytics data for the selected equipment.

Viewing child equipment on the GIS map

View child equipment on the GIS map and in the Equipment Within Search Area list. The system includes all child equipment records regardless of the search criteria entered for the parent equipment record and regardless of whether the Infor EAM equipment record is linked to a corresponding GIS asset.

After viewing child equipment records, you can create Infor EAM work orders or display Analytics data for the child equipment records.

To show child equipment on the GIS map:

1 Perform a GIS Map Search.
2 Select the equipment record for which to view child equipment.
3 In the **Actions** menu, select **Show Children**, and then click **Submit**. The parent and child equipment are highlighted on the GIS map, and the parent and child equipment records are listed in the Equipment Withing Search Area list.

Note: The child equipment records are shown directly below their parent equipment record in the Equipment Within Search Area list.

You cannot apply a quick filter on child equipment records.

Viewing GIS maps Infor EAM

View GIS maps for equipment records, routes, and work orders within Infor EAM.

After creating a new GIS map, view it within Infor EAM. View multiple maps for one Infor EAM user.

Note: You cannot view a GIS map for any Infor EAM equipment record that does not contain a GIS ID number. Likewise, you cannot view a GIS map for a route or work order that does not contain at least one equipment record with a GIS ID number.

If you are viewing a GIS map that contains a linear equipment record, see the following information:

- If there is a discrepancy between the length of a corresponding equipment record and feature, the system highlights the equipment record based on the length of ESRI's GIS feature.
- If the linear equipment record has multiple paths, e.g., a road that forks in multiple directions, the system highlights all paths of the equipment based on the length defined on the equipment or work order's **From Point** and **To Point**.

Viewing GIS maps from equipment records

View the GIS map for a piece of equipment and configure the system to link the GIS map to work orders as they are released.

To view GIS maps from equipment records:

1 Open the Assets, Positions, Systems, or Routes form.

2 Select the asset, position, system, or route for which to view a GIS map, and then click the **Record View** tab.

3 Right-click, and then select **View GIS Map**.

Note: The system highlights the length of linear equipment records as defined by the **From Point** and **To Point** and labels the boundary points of the equipment record.

4 Specify this information:

Map
Specify the GIS map for which to view. The system automatically populates the map description and **Organization**.

Link GIS Map To WO
Select to link the GIS map to work orders containing the selected asset, position, system, or route as the work orders are released.

When the work order is released, the system links the map to the work order as a PDF, flags it to print whenever the work order is printed, and displays it on the **Documents** page of the **Work Order** form.

Note: You can edit the view of the map, such as zoom in, using the GIS Map Search toolbar.

5 Click **Submit**.

Note: The system saves the current map settings and visible layers, e.g., if you edit the zoom extent of the map and click **Submit**, the system opens the map to that zoom extent the next time you view the map.

Map will be saved if GISMAPS is set to Organization or Department.

Viewing GIS maps from work orders

View the GIS map for the work order and associate the map with the work order.

To view GIS maps from work orders:

1. Open the **Work Orders** form.
2. Select the work order for which to view a GIS map, and then click the **Record View** tab.
3. Right-click, and then select **View GIS Map**.

   The system automatically highlights the work order's equipment on the map.

   Note: The system does not display **From Point** and **To Point** on the View GIS Map popup if the work order is for a route or if the work order's equipment record is not a linear equipment record.

   The system only highlights the portion of linear equipment records on which to work as defined by the **From Point** and **To Point** of the work order. Edit the work order's **From Point** and **To Point** via the map.
4. Select **Associate GIS Map With WO** to associate the current GIS map with the work order.

   The system saves a copy of the current map as a PDF with the work order, flags it to print whenever the work order is printed, and displays it on the **Document** page of the **Work Order** form.

   Note: You can edit the view of the map, e.g., zoom in, using the GIS Map Search toolbar.
5. Click **Submit**.

Creating maps

Create GIS map records to identify the image service when using ArcIMS or the map service when using ArcGIS Server from which the map inside Infor EAM will be based.

Note: This screen is only accessible when GISMAPS installation parameter is set to Organizatioin or Department.

To create GIS maps:

1. Open the **Maps** form.
2. Click **New Record**.
3. Specify this information:

Organization
Enter the organization of the map.

Map
Enter a unique code identifying the map, and then enter a description of the map in the adjacent field.

Class
Enter the class of the map. The system automatically populates **Class Org.**

Out of Service
Select if the map is not used.

4 Click **Submit**.

Note: To add users to a map, right-click, and then select **Add to Users**.

To add departments to a map, right-click, and then select **Add to Departments**.

To copy a GIS map record, right-click, and then select **Copy Map**.

Defining parameters for GIS maps

Specify information about the map displayed inside Infor EAM including image/map service, geocoding service, and geoprocessing service. Use this page to customize how each map will look and behave using the GIS installation parameter values.

To define parameters for GIS maps:

1 Open the **Maps** form.
2 Select the GIS map for which to define parameters, and then click the **Parameters** tab.
3 Select the installation parameter, and then enter **Value**.
4 Click **Submit**.

Associating departments to GIS maps

Grant departmental privileges for specific maps. Associations made on this popup will create map records on the Maps page of the Departments form.

Note: This popup is accessible only when GISMAPS installation parameter is set to Department, and DEPTSEC installation parameter is set to On.

To associate a department to a GIS map:

1 Open the **Maps** form.
2 Select the map for which to associate departments, and then click the **Record View** tab.
3 Right-click, and then select **Add to Departments**.

4 Select the department for which to associate to the map.
5 Click **Submit**.

Associating users to GIS maps

Grant users privileges to specific maps.

Associate maps based on the user's organization or department list.

Associations made on this popup will create map records on the **Maps** tab of the **User Setup** form.

Note: This popup is accessible only when GISMAPS installation parameter is set to Organization.

To associate users to maps:

1 Open the **Maps** form.
2 Select the map for which to associate users, and then click the **Record View** tab.
3 Right-click, and then select **Add to Users**.
4 Select the user for which to associate to the map.
5 Click **Submit**.

Copying GIS maps

Copy GIS map header and detail information.

To copy GIS maps:

1 Open the **Maps** form.
2 Select the map for which to copy, and then click the **Record View** tab.
3 Right-click, and then select **Copy Map**.
4 Specify this information:

Map
Enter a unique code identifying the new map, and then enter the new map description in the adjacent field.

Organization
Enter the organization of the new map.

Parameters
Select to copy the GIS map parameters to the new map.

Comments
Select to copy the comments to the new map.

Documents
Select to copy the documents to the new map.

5 Click **Submit**.

Fleet management

10

The fleet management module allows you to manage fleet motor pools and the fleet billing process. Use the fleet management module to create vehicle tickets and view and modify fleet bills.

For more information on the American Trucking Association's Vehicle Maintenance Reporting System (VMRS) and defining VMRS in the system, see

"Defining VMRS codes" on page 476.

To access Databridge functions within Infor EAM, you must first set up Databridge menus for user groups.

See the *Infor EAM System Administrator Guide*.

Understanding fleet management terms

The following terms will help you become familiar with the fleet management module's unique attributes:

Term	Definition
Vehicle	A specific type of asset used in the fleet management module Example: To classify a van in a fleet as a vehicle in the system, select **Vehicle** on the **Assets** form.
Motor Pool	The motor pool is a grouping of vehicles that are either rented to employees on a short-term basis (pool/loaner vehicles) or are provided as a permanent means of transportation for employees (assignment vehicles). Example: The fleet management module will manage the entire motor pool for a company, organization, etc.
Vehicle Ticket	Tracks the issuing and returning of fleet vehicles from the motor pool

Term	Definition
	Example: Create a vehicle ticket to track a specific vehicle. The ticket tracks when the vehicle is issued to and returned by employees, as well as other attributes of the vehicles such as mileage, parking location, and fuel levels.
Ticket Status	The status of a vehicle ticket changes as the ticket moves through its life cycle. This list describes the status codes. **Issued** Indicates that the vehicle is currently issued to an employee, and it is no longer an available asset in the motor pool. **Returned** Indicates that the vehicle has been returned from the employee and is back in the motor pool. **Completed** Indicates that the ticket is complete and ready to be billed. The ticket is now available for issuing.
Vehicle Type	Three types of vehicles make up the motor pool. This list describes the vehicle types. **Pool** Type of vehicle that is a temporary means of transportation for employees. If an employee needs a car from the pool for the day for a specific task, a pool vehicle is issued from the motor pool. **Loaner** Type of vehicle that is a temporary means of transportation for employees, particularly when their assignment vehicles are not available. When an employee's company vehicle needs repairs, a loaner vehicle is issued from the motor pool until the assignment vehicle is repaired. **Assignment** Type of vehicle that is assigned to employees on a long-term basis. Assignment vehicles are often company vehicles that are issued to employees for weeks, months, or years at a time.
Exception	Attaches additional fees to vehicle tickets for exceptional conditions that occur to vehicles. Exception codes are associated with vehicle tickets on the **Exceptions** page of the **Vehicle Ticket** form.

Term	Definition
	Example: Associate an exception code that charges customers an additional fee for low amounts of fuel in returned vehicles with the vehicle ticket.
Adjustment	Adds credits and debits to previous bills. Adjustments are reflected on the subsequent fleet bill. To correct a ticket that was billed to an incorrect cost code, enter a new **Cost Code**. Adjustments can be added to pool, loaner, and assignment vehicles. Example: If a fleet customer was overcharged for mileage during the previous billing period, then provide a credit that will reimburse the fleet customer on the next fleet bill.
Bill	Fleet bills are generated by the billing process and correspond with each specific billing schedule. The frequency at which bills are generated is determined by the billing period (billing schedule). Fleet customers can also view fleets bills. Example: View a bill for a specific customer for a specific billing period.
Period	Billing schedules that determine billing process. At the end of the billing schedule, generate customer bills that correspond with the billing schedule **Period End Date**. Example: Choose to be billed weekly, monthly, quarterly, etc.
Billing Code	Determines the normal fees that customers are billed for various fleet billing categories. Together, billing codes and markup codes, when associated with specific fleet customers, determine the total rates for fleet billing categories. Example: Create a billing code for usage charges, and then associate a rate with that billing code. Fleet customers are typically billed that amount for usage charges.
Markup Code	Used to charges additional fees above and beyond the normal fees (billing codes). Together, billing codes and markup codes, when associated with specific fleet customers, determine the total rates for fleet billing categories. Example: Create a markup code for usage charges, and then associate a rate with that

Term	Definition
	markup code. When markup fees are required, fleet customers are billed that amount for usage charges.
Fleet Customer	A group that is used and billed for fleet vehicles. Example: Create a fleet customer to correspond to a specific department within a company, i.e., a specific company will set up the Water and Sewer department as one fleet customer and the Parks and Recreation department as another fleet customer within its fleet management module.

Understanding motor pool management

Track vehicles with the motor pool management functionality of the fleet management module. First, create fleet customers, cost codes, and vehicles. Then, track the issuing and returning of vehicles from the motor pool, using vehicle tickets. You can also associate billing exceptions for vehicle tickets to add additional charges to the ticket and view billing adjustments for credits or debits to the bill. Finally, you can view and modify fleet bills, view fleet bill transaction and fleet bill adjustment transactions, and crate pool, loaner, and assignment adjustments for credits and debits to the bill.

Understanding the fleet billing process

Through the fleet management system, fleet customers are billed for their use of pool, loaner, and assignment vehicles. Fleet customers are also billed for other motor pool vehicle costs such as maintenance labor and parts, non-maintenance related activities, fuel, insurance, and vehicle ticket exceptions.

The fleet billing process is the means by which the fleet management module generates bills for fleet customers. The process occurs automatically and is determined by the **Process Start Date** and **Process Start Time** on the **Billing Schedules** page of the **Fleet Configuration** form. Fleet billing periods are determined by the **Period End Date** for each billing schedule on the **Billing Schedules** page of the **Fleet Configuration** form, and fleet bills are generated according to this date.

If for some reason the bills are not generated automatically, you can start the billing process manually by clicking **Run Billing Process** on the **Parameters** page of the **Fleet Configuration** form.

If periods associated with **Period End Dates** that are before the most recent **Period End Date** remain unbilled when you manually initiate the billing process, the system generates bills for the earliest unbilled period, and then generates bills for the next earliest unbilled period until all unbilled periods (which are past due) have been processed.

You can also choose to view the current charges for a fleet customer by clicking **Current Charges** on the **Billing History** page of the **Fleet Customers** form. The system will calculate and display all charges up to the current system date. Viewing the current charges provides an idea of the amount of charges for the period to date.

See the *System Administrator's Guide*.

Finally, you can regenerate the last bill for a specific fleet customer by clicking **Regenerate Bill** on the **Fleet Bills** form. The system displays the fleet bills associated with the last fleet billing period. Use the regeneration process to correct a billing mistake and regenerate the bill instead of entering a billing adjustment. The changes are reflected on the subsequent bill.

See "Modifying Fleet Bills" on page 827.

Creating vehicle tickets

Create vehicle tickets that will track the issuing and returning of fleet vehicles from the motor pool. The motor pool is a grouping of vehicles that are either rented to employees on a short term basis (pool/loaner vehicles) or are provided as a long-term means of transportation (assignment vehicles).

Note: You must have specific vehicle ticket authorizations to insert, update, and delete vehicle ticket records.

To create vehicle tickets:

1. Select **Work > Fleet > Fleet Vehicle Tickets**.
2. Click **New Record**.
   The system automatically populates **Date Created** and **Created By**.
3. Specify this information:

   Ticket Type
   Choose one of the following options:

   - **Pool**
     Select to indicate that the vehicle is a pool vehicle.
   - **Loaner**
     Select to indicate that the vehicle is a loaner vehicle.
   - **Assignment**
     Select to indicate that the vehicle is an assignment vehicle.

   Ticket Status
   Choose one of the following options:

   - **Issued**
     Select to indicate that the vehicle will be issued.

- **Returned**
  Select to indicate that the vehicle has been returned.

- **Completed**
  Select to indicate that the ticket is complete and ready to be billed.

Vehicle
Specify the vehicle to associate with the vehicle ticket. The system automatically populates the vehicle description, **Vehicle Org.**, **Shop**, **Vehicle Status**, **Issued Fuel Level**, **Issued Parking Location**, and **Issued Mileage**.

Received Vehicle
Specify the received vehicle to associate with the vehicle ticket. The system automatically populates the received vehicle description, **Received Vehicle Org.**, and **Received Vehicle Status**.

Note: You can only specify a **Received Vehicle** for loan tickets.

Issued To
Specify the employee to which to issue the vehicle. The system automatically populates **Cost Code**, **Fleet Customer**, **Fleet Customer Org.**, **License No.**, and **Phone No.**

Cost Code
Specify the cost code with which to associate the vehicle ticket.

License No.
Specify the employee's driver's license number.

Other
Specify the visiting employee to which to issue the vehicle.

Note: You must enter an employee in **Issued To** and/or **Other**.

Phone No.
Enter the employee's phone number.

Fleet Customer
Specify the fleet customer with which to associate the vehicle ticket. The system automatically populates **Fleet Customer Org.**

Ticket Class
Specify the class of the ticket.

Issued Fuel Level
Specify the amount of fuel in the vehicle at the time it is issued. The system retrieves the amount from the last ticket, if available.

Issued Parking Location
Specify the location of the vehicle at the time it is issued. The system retrieves the location from the last ticket, if available.

Issued Mileage
Specify the mileage of the vehicle at the time it is issued. The system retrieves the mileage from the greater of the last ticket or meter reading.

Issued Date/Time
Specify the date and time that the vehicle is issued.

Note: Issued Date/Time cannot be after the system date/time or the **Returned Date/Time**.

Est. Return Date/Time
Specify the estimated date and time that the vehicle is expected to be returned.

Use the following fields for returning previously issued vehicles:

Returned Fuel Level
Specify the amount of fuel in the vehicle at the time it is returned.

Returned Parking Location
Specify the location of the vehicle at the time it is returned.

Returned Mileage
Specify the mileage of the vehicle at the time it is returned.

Returned Date/Time
Specify the date and time that the vehicle is returned. The system automatically populates **Hours Used** and **Mileage Used**.

Hours
Specify the number of hours for which to bill the vehicle.

Mileage
Specify the number of miles for which to bill the vehicle.

4 Click **Save Record**. The system automatically populates **Ticket**, **Issued Date/Time**, and **Issued By**. The system also automatically populates the **Billing Code** and **Markup Code** associated with the **Vehicle**, **Class**, **Category**, **Type**, and the **Fleet Customer**.

Note: If exceptions have been associated with the vehicle ticket, **Exceptions** is selected.

Upon saving a vehicle ticket with a status of Returned, the system automatically populates **Returned To**, **Hours Cost** and the currency, **Mileage Cost** and the currency, **Exceptions Cost** and the currency, **Total Cost** and the currency, and **Period End Date**.

Upon saving a vehicle ticket with a status of Completed, the system automatically populates **Completed Date/Time**.

Click **Assignment Billing** to view billing details for each period in which the assignment ticket has been billed.

Associating billing exceptions with vehicle tickets

Associate billing exceptions with vehicle tickets. For example, associate an exception code that charges customers an additional fee for low amounts of fuel in returned vehicles with the vehicle ticket.

Note: You cannot associate billing exceptions with completed vehicle tickets.

To associate billing exceptions with vehicle tickets:

1. Select **Work > Fleet > Fleet Vehicle Tickets**.
2. Select the vehicle ticket for which to associate billing exceptions, and then click the **Exceptions** tab.
3. Click **Add Exception**.
4. Specify this information:

   Exception
   Specify the exception with which to associate the vehicle ticket. The system automatically populates the exception description, **Exception Org.**, and **Amount**.

   Date
   Specify the current date.

   Exception Type
   Select the type of exception.

   Extra Charge
   Select to include this exception in the vehicle ticket billing costs.

   Amount
   Specify the amount of the additional fee for the exception.

   Exception Comments
   Enter any additional comments.

5. Click **Submit**.

   Note: Click **Create WO** to create a new work order for the vehicle ticket exception combination. The system populates Work Order with the new work order number. If a standard work order is associated with the exception, the standard work order can be used to create the work order.

   See "Creating work orders" on page 112.

Viewing billing adjustments for vehicle tickets

To view billing adjustments for vehicle tickets:

Note: The system checks the vehicle **Ticket Type** on the vehicle ticket header and displays billing adjustments based on the **Ticket Type**. Assignment adjustments are displayed differently than pool and loaner adjustments.

1. Select **Work > Fleet > Fleet Vehicle Tickets**.

2 Select the vehicle ticket for which to view billing adjustments, and then click the **Billing Adjustments** tab.
3 View the billing adjustments for the vehicle ticket.

Viewing fleet bills

View fleet bills that are generated by the billing process.

To view fleet bills:

1 Select **Work > Fleet > Fleet Bills**.
2 View the fleet bill information.

Modifying fleet bills

Modify fleet bills that are generated by the system.

Note: You cannot delete fleet bills.

To modify fleet bills:

1 Select **Work > Fleet > Fleet Bills**.
2 Select the fleet bill to modify, and then click the **Record View** tab.
The system automatically populates **Fleet Bill**, the fleet bill description, **Fleet Customer**, **Fleet Customer Org.**, **Period End Date**, **Total**, **Billed Date**, and **General Ledger**.
3 Specify this information:

Class
Specify the class to which the fleet bill belongs. The system automatically populates **Class Org.**

Paid Date
Specify the date that the fleet bill was paid.

4 Click **Save Record**.

Note: Click **Regenerate Bill** to regenerate the bill. The system generates and displays a new fleet bill number and deletes the original bill from the system. The new bill will include all transactions that were originally billed as well as any new transactions that are within the billing period that are not billed. **Billed Date** is populated with the current system date.

You cannot regenerate the bill if the bill you want to regenerate is not the latest bill or if the bill has been sent to a general ledger.

If the bill is regenerated, the system deletes the old bill.

Viewing billing details for fleet bills

View billing details for specific fleet bills. Fleet bill charges are summarized to the unique fleet customer cost code and vehicle level. Charges are displayed by the following categories: Usage, Mileage, Maintenance, Non-maintenance, Fuel, Insurance, and Exceptions. The system also displays a total charge for each bill line, a subtotal, which summarizes the charges for all bill lines by category, an adjustment line, which summarizes all adjustments entered for previous bills that are included in the selected bill, grand totals of each of the charge categories, and a total bill charge.

Note: When filtering the billing details, **Subtotals** and **Totals** may change; they are relative to the specific fleet bill lines in the grid. Adjustments totals will not change, as they are related to the entire bill.

To view billing details for fleet bills:

1. Select **Work > Fleet > Fleet Bills**.
2. Select the fleet bill for which to view billing details, and then click the **Billing Details** tab.
3. View the billing details.

Viewing fleet bill transactions

View individual transaction information for specific billing categories. For example, select Usage as the Category, and then click View Transactions. The system displays the specific usage transactions that make up the usage total for the selected bill line. This includes usage charges and usage markup charges.

To view fleet bill transactions:

1. Select **Work > Fleet > Fleet Bills**.
2. Select the fleet bill for which to view fleet bill transactions, and then click the **Billing Details** tab.
3. Select the fleet bill line for which to view fleet bill transactions.

   Note: You must select a bill line to view fleet bill transactions.

4. Specify this information:

   Category
   Choose one of the following options:

   - **Usage**
     Select to show usage charges only.
   - **Mileage**
     Select to show mileage charges only.
   - **Maintenance Labor**
     Select to show maintenance labor charges only.
   - **Maintenance Parts**
     Select to show maintenance parts charges only.

- **Non-maintenance Labor**
  Select to show non-maintenance labor charges only.
- **Non-maintenance Parts**
  Select to show non-maintenance parts charges only.
- **Fuel**
  Select to show fuel charges only.
- **Insurance**
  Select to show insurance charges only.
- **Exceptions**
  Select to show exception charges only.

5 Click **View Transactions**.
6 View the charges for the specific transaction category.

Viewing fleet bill adjustment transactions

View individual adjustment transaction information for specific billing categories. For example, select Usage as the **Category**, and then click **View Adjustment Transactions**. The system displays the specific usage adjustment charges that make up the entire bill. This includes usages adjustment charges and usage markup charges. The system always displays all adjustments related to the bill and category.

To view fleet bill adjustment transactions:

1 Select **Work > Fleet > Fleet Bills**.
2 Select the fleet bill for which to view fleet bill adjustment transactions, and then click the **Billing Details** tab.
3 Specify this information:

Category
Choose one of the following options:

- **Usage**
  Select to show usage charges only.
- **Mileage**
  Select to show mileage charges only.
- **Maintenance Labor**
  Select to show maintenance labor charges only.
- **Maintenance Parts**
  Select to show maintenance parts charges only.

- **Non-maintenance Labor**
  Select to show non-maintenance labor charges only.
- **Non-maintenance Parts**
  Select to show non-maintenance parts charges only.
- **Fuel**
  Select to show fuel charges only.
- **Insurance**
  Select to show insurance charges only.
- **Exceptions**
  Select to show exception charges only.

4 Click **View Adjustment Transactions**.
5 View the charges for the specific adjustment transaction category.

Creating pool and loaner adjustments for fleet bills

Create an adjustment to vehicle ticket charges that have already been billed. The adjustments will be reflected on the subsequent fleet bill. You can make changes to billing category amounts or cost codes. To enter specific pool or loaner adjustments for hours charges, hours markup charges, mileage charges, mileage markup charges, and/or exceptions charges, specify the pool or loaner adjustment amount in the corresponding field. These assignment adjustment amounts can be negative (a credit) or positive (a debit).

Note: You can only make adjustments to pool and loaner vehicle tickets on this form.
You cannot update a pool or loaner adjustment after the adjustment is billed.

To create pool and loaner adjustments for fleet bills:

1 Select **Work > Fleet > Fleet Bills**.
2 Select the fleet bill for which to create a pool or loaner adjustment, and then click the **Pool/Loaner Adjustments** tab.
   The system automatically populates **Created By** and all currency fields in the **Adjustment Details** section.
3 Click **Add Adjustment**.
4 Specify this information:

   Ticket
   Specify the vehicle ticket for which to add a pool/loaner adjustment. The system automatically populates **Vehicle**, the vehicle description, **Issued Date/Time**, **Created Date/Time**, **Period End Date**, **Returned Date/Time**, **Cost Code**, **Hours Billed** and the currency, **Hours Markup Billed**

and the currency, **Mileage Billed** and the currency, **Mileage Markup Billed** and the currency, and **Exceptions Billed** and the currency.

New Cost Code
Specify a new cost code to correct a ticket that was billed to an incorrect cost code.

Note: You cannot adjust cost code values and pool or loaner adjustment amounts on the same fleet bill. If you enter a **New Cost Code**, the system protects all other fields except **Ticket** and **Comments**. If you clear the **New Cost Code**, the system re-enables all of the protected fields. If you enter pool and loaner adjustment amounts, the system protects **New Cost Code**. If you clear the pool or loaner adjustment amounts, the system re-enables **New Cost Code**.

Hours Adjustment
Specify the adjustment amount for hours charges.

Hours Markup Adjustment
Specify the adjustment amount for hours markups.

Mileage Adjustment
Specify the adjustment amount for mileage charges.

Mileage Markup Adjustment
Specify the adjustment amount for mileage markup charges.

Fuel Markup Adjustment
Specify the adjustment amount for fuel markup charges.

Exceptions Adjustment
Specify the adjustment amount for exceptions charges.

Exception
Specify the exception for which to add pool or loaner adjustment. The system automatically populates **Exceptions Adjustment**.

Comments
Enter any comments about the pool or loaner adjustment.

5 Click **Submit**.

Note: You cannot delete a pool or loaner adjustment after the adjustment is billed.

Creating assignment adjustments for fleet bills

Create an adjustment to vehicle ticket charges that have already been billed. The adjustments will be reflected on the subsequent fleet bill. To correct a ticket that was billed to an incorrect cost code, enter a **New Cost Code**. To enter specific assignment adjustments for period charges, period markup charges, mileage charges, mileage markup charges, fuel markup charges, insurance charges, insurance markup charges, and/or exceptions charges, specify the assignment adjustment amount in the

corresponding field. These assignment adjustments amounts can be negative (a credit) or positive (a debit).

Note: You can only make adjustments to assignment vehicle tickets on this screen.

You cannot update an assignment adjustment after the adjustment is billed.

To create assignment adjustments for fleet bills:

1. Select **Work > Fleet > Fleet Bills**.
2. Select the fleet bill for which to create an assignment adjustment, and then click the **Assignment Adjustments** tab. The system automatically populates **Created By** and all currency fields in the **Adjustment Details** section.
3. Click **Add Adjustment**.
4. Specify this information:

Ticket
Specify the vehicle ticket for which to add an assignment adjustment. The system automatically populates **Vehicle**, the vehicle description, **Issued Date/Time**, **Created Date/Time**, **Period End Date**, **Returned Date/Time**, **Cost Code**, **Period Charge Billed** and the currency, **Period Markup Billed** and the currency, **Mileage Billed** and the currency, **Mileage Markup Billed** and the currency, **Fuel Markup Billed** and the currency, **Insurance Billed** and the currency, **Insurance Markup Billed** and the currency, and **Exceptions Billed** and the currency.

New Cost Code
Specify a new cost code to correct a ticket that was billed to an incorrect cost code.

Note: You cannot adjust cost code values and assignment adjustment amounts on the same fleet bill. If you enter a **New Cost Code**, the system protects all other fields except **Ticket** and **Comments**. If you clear the **New Cost Code**, the system re-enables all of the protected fields. If you enter assignment adjustment amounts, the system protects **New Cost Code**. If you clear the assignment adjustment amounts, the system re-enables **New Cost Code**.

Period Charge Adjustment
Specify the adjustment amount for period charges.

Period Markup Adjustment
Specify the adjustment amount for period markups.

Mileage Adjustment
Specify the adjustment amount for mileage charges.

Mileage Markup Adjustment
Specify the adjustment amount for mileage markup charges.

Fuel Markup Adjustment
Specify the adjustment amount for fuel markup charges.

Insurance Adjustment
Specify the adjustment amount for insurance charges.

Insurance Markup Adjustment
Specify the adjustment amount for insurance markup charges.

Exceptions Adjustment
Specify the adjustment amount for exceptions charges.

Exception
Specify the exception for which to add an assignment adjustment. The system automatically populates **Exceptions Adjustment**.

Comments
Enter any comments about the assignment adjustment.

5 Click **Submit**.

Note: You cannot delete an assignment adjustment after the adjustment is billed.

Infor EAM Microsoft Project interface

11

The Infor EAM Microsoft (MS) Project Interface facilitates work order scheduling and resource assignment by allowing you to schedule work and resources in MS Project and then update the Infor EAM database with the information.

See the MS Project documentation for information on standard MS Project functionality.

Installing the Infor EAM MS Project interface

Note: You must install Infor EAM and MS Project 2003 or MS Project 2010 before you install the Infor EAM MS Project Interface.

See the *Infor EAM Installation Guide* and the MS Project 2003, 2010 documentation.

You must also install the `MS .NET Framework Version 1.1` before you install the Infor EAM MS Project Interface. The `MS .NET Framework` is included on the Infor EAM MS Project Interface CD, and is called `DOTNETFX.EXE`. You must run `DOTNETFX.EXE` before `SETUP.EXE` if the `MS .NET Framework` is not already installed on the machine.

To install the Infor EAM MS Project Interface:

1. Insert the Infor EAM MS Project Interface CD into the proper drive.
2. Choose the folder specific to your version of MS Project:
   - **MS Project 2003-2007**
     Select this folder if you have MS Project 2003 or 2007 installed on your machine.
   - **MS Project 2010**
     Select this folder if you have MS Project 2010 installed on your machine.
3. Execute the SETUP.EXE file. The system displays the Language Installation dialog box.

   Note: If you would like to use English as the language for the installation, execute the msproject.msi file. The installation wizard will skip the language selection option in step #4 and display the Welcome dialog box.
4. Select the language to be used in the installation, and then click **OK**.

5 Click **Next**.
6 Click **I accept the terms in the License Agreement**, and then click **Next**.
7 Enter the folder in which to install the Infor EAM MS Project Interface.
8 Click **Next**.
9 Click **Install**.
10 Wait for the system to complete the installation, and then click **Finish**.
11 Click **Close**.

Choosing a Language for the Infor EAM MS Project Interface

After the installing the Infor EAM MS Project, choose a language for the interface.

To choose a language for the Infor EAM MS Project Interface:

1 Select **Infor > Infor EAM MS Project Interface > Choose Language**.
2 Select the language to be used in the Infor EAM MS Project Interface, and then click **OK**.

Setting up connection information

Before completing tasks within the system, you must first set up the appropriate connection information. Use this information each time you log in to the system.

Note: The connection information is also used to establish privileges to Infor EAM records within the system. Therefore, you can only create and maintain one user record per client machine.

To set up connection information:

1 Open MS Project.
2 Select **Infor > Infor EAM**.
3 Click **Set connection information**.
4 Specify this information:

Host Name
Enter the URL for the Infor EAM server.

Username
Enter the user code used to log in to Infor EAM. If necessary, include the tenant after the user code, e.g., user@tenant.

Password
Enter the password used to log in to Infor EAM.

5 Click **Save**.

Note: Click **Test** to test the connection information.

Associating Infor EAM priority codes with MS Project priority codes

After defining work priority codes in Infor EAM, associate those codes with the priority codes in MS Project.

To associate Infor EAM priority codes with MS Project priority codes:

1. Select **Administration > Setup > MS Project Priority Mappings**.
2. Click **Add Mapping**.
3. Specify this information:

   Infor EAM Priority
   Select the Infor EAM work priority code to associate with an MS Project priority code.

   MS Project Priority
   Specify the MS Project priority code to associate with the Infor EAM priority code.

4. Click **Submit**.

Creating scheduling sessions in Infor EAM

Create batches of work orders to import into MS Project by creating scheduling sessions in Infor EAM. You can also send resource information to MS Project with the scheduling session.

Note: To return to a previous side-pane while creating a new scheduling session, click the appropriate Go back to button.

To create scheduling sessions in Infor EAM:

1. Open MS Project.
2. Select **Infor > Infor EAM** .
3. Set the connection information for the Infor EAM MS Project Interface.
   See "Setting Up Connection Information" on page 836.
4. Click **Create new scheduling session**.
5. Specify this information:

   Description
   Specify a description of the session.

   Organization
   Specify the organization with which to associate the session if you use multi-organization security.

   Include Header Task
   Select the check box to display both the work order header tasks and work order activity sub-tasks.

Set Task Duration To Est. Hours
Select the check box to populate **Duration** of the activity task to the estimated hours of the Infor EAM work order activity.

6 Click **Save and go to Step 2**.

7 Specify this information:

From
Specify the beginning date of the work order activity start dates included in the session.

To
Specify the ending date of the work order activity start dates included in this session.

8 Click **Save and go to Step 3**.

9 Choose one or more of the following criteria for filtering work orders to include in the session:

- **Project**
  Click **Project**, and then select the projects to include in the list of work orders.

- **Department**
  Click **Department**, and then select the departments to include in the list of work orders.

- **WO Type**
  Click **WO Type**, and then select the work order types to include in the list of work orders.

- **WO Status**
  Click **WO Status**, and then select the work order statuses to include in the list of work orders.

- **Priority**
  Click **Priority**, and then select the priorities to include in the list of work orders.

- **Trade**
  Click **Trade**, and then select the trades to include in the list of work orders.

- **Equipment**
  Click **Equipment**, and then enter the first letter(s) in the spelling of the pieces of equipment to include in the list of work orders. Click **Refresh**. Select the pieces of equipment to include in the list of work orders.

- **Equipment Class**
  Click **Equipment Class**, and then select the equipment classes to include in the list of work orders. The selected criteria is displayed in the preview-pane.

- **Assigned By**
  Click **Assigned By**, and then select the supervisors to include in the list of work orders.

10 Click **Display Results**. A list of unlocked work order activities that matches the activity start date range and the criteria you selected is displayed. Select the work order activities to include in the new scheduling session.

Note: Check **Select** to select all of the work order activities.

You cannot select work order activities that are associated with existing open sessions.

You cannot select work order activities with Estimated Hours equal to 0.

11 Click **Save and go to Step 4**.

12 Choose one or more of the following criteria for filtering employees to include in the session:

- **Department**
  Click **Department**, and then select the departments to include in the list of employees.

- **Trade**
  Click **Trade**, and then select the trades to include in the list of employees.

- **Class**
  Click **Class**, and then select the classes to include in the list of employees. The system displays the selected criteria in the preview-pane.

13 Click **Display Results**. A list of employees that matches the criteria you selected is displayed. Select the employees to include in the new scheduling session.

Note: Check **Select** to select all of the employees.

14 Click **Save and go to Step 5**.

15 Choose one or more of the following criteria for filtering suppliers to include in the session:

- **Class**
  Click **Class**, and then select the classes to include in the list of suppliers.

16 Click **Display Results**. A list of suppliers that matches the criteria you selected is displayed. Select the suppliers to include in the new scheduling session.

Note: Check **Select** to select all of the suppliers.

17 Click **Save and go to Step 6**.

18 Choose one or more of the following criteria for filtering maintenance equipment to include in the session:

- **Department**
  Click **Department**, and then select the departments to include in the list of maintenance equipment.

- **Class**
  Click **Class**, and then select the classes to include in the list of maintenance equipment.

- **Category**
  Click **Category**, and then select the categories to include in the list of maintenance equipment.

19 Click **Display Results**. A list of maintenance equipment that matches the criteria you selected is displayed. Select the maintenance equipment to include in the new scheduling session.

   Note: Check **Select** to select all of the maintenance equipment.

20 Click **Save and go to Step 7**.

21 Click **Class** to select the classes to include in the list of tools.

22 Click **Display Results**. A list of tools that matches the criteria you selected is selected. Select the tools to include in the new scheduling session.

   Note: Check **Select** to select all of the tools.

23 Click **Save and Finish**.

   Note: When saving the record, the work order activity and resource (employee, supplier, maintenance equipment, and tool) records are also imported for the session into MS Project.

Importing sessions into MS Project from Infor EAM

Import an existing scheduling session into MS Project from Infor EAM.

To import sessions into MS Project from Infor EAM:

1 Open MS Project.

2 Select **Infor > Infor EAM** .

3 Set the connection information for the Infor EAM MS Project Interface.
   See "Setting Up Connection Information" on page 836.

4 Click **Import existing scheduling session**.

   Note: To import data from Infor EAM, the current project in MS Project must be empty.

5 Specify this information:

   Scheduling Session
   Select the scheduling session to import to MS Project.

   Note: You can only import scheduling sessions with a status of Exported or Ready to Export.

6 Click **Import**.

Creating and adding work orders and activities to scheduling sessions

Create a work order or a work order activity and then add it to an existing scheduling session.

Creating a work order and adding it to an existing scheduling session

To create a work order and add it to an existing scheduling session:

1 Open the MS Project file that contains the open scheduling session for which to add a work order.

Note: You must first create or import a scheduling session in order to add a work order.

2 Click **Create work order**.

3 Specify this information:

Equipment
Specify the equipment on which to perform work. The system automatically populates **Equipment Description** and **WO Org.**

WO Description
Specify a description of the work needed.

Status
Specify the status of the work order.

Type
Specify the type for the work order.

Priority
Specify the priority of the work order.

Standard WO
Specify the standard work order.

Note: If you enter a **Standard WO**, the system creates the new work order, any activities, any child work orders, and related activities. Only standard work orders and child work orders with activities are added to the current scheduling session.

Parent WO
Specify the code identifying the parent work order.

Class
Specify the class of the work order.

Department
Specify the department.

Location
Specify the location of the work to be completed.

Problem Code
Specify the code to identify the problem.

Cost Code
Specify the cost code of the work order.

Sched. Start Date
Specify the starting date for the work order.

Sched. End Date
Specify the ending date for the work order.

Assigned To
Specify the person responsible for the work order.

Reported By
Specify the employee requesting the work.

Assigned By
Specify the supervisor who assigned the work order.

Project-Budget
Specify the project budget for the work order.

Trade
Specify the trade required to perform the activity.

Task
Specify the task code for the activity.

Material List
Specify the material list code for the material list containing the parts needed for the work order.

Activity Start Date
Specify the beginning date for the activity.

Activity End Date
Specify the ending date for the activity.

Estimated Hours
Specify the number of estimated hours for the activity.

People Required
Specify the number of people required to perform the activity.

4 Click **Submit**.

Note: Click **Custom Fields** to display all custom fields associated with the work order.

Enter a priority for the work order. The system converts the Infor EAM Priority to the appropriate MS Project Priority before creating the scheduling session.

Creating a work order activity and adding it to an existing scheduling session

To create a work order activity and add it to an existing scheduling session:

1. Open the MS Project file that contains the open scheduling session for which to add a work order activity.

   Note: You must first create or import a scheduling session in order to add a work order activity.

2. Select the work order for which to add an activity, and then click **Create work order activity**. **Work Order**, **Work Order Description**, and **WO Org.** are automatically populated.
3. Specify this information:

   Activity
   Specify an activity.

   Trade
   Specify the trade required to perform the activity.

   Task
   Specify the task code for the activity.

   Material List
   Specify the material list code for the material list containing the parts needed for the work order.

   Activity Start Date
   Specify the starting date for the activity.

   Activity End Date
   Specify the ending date for the activity.

   Estimated Hours
   Specify the number of estimated hours for the activity.

   People Required
   Specify the number of people required to perform the activity.

4. Click **Submit**.

Importing work orders into open MS Project scheduling sessions from Infor EAM

Import an existing work order into an open MS Project scheduling session from Infor EAM.

To import existing work orders into an open MS Project scheduling session from Infor EAM:

1. Open MS Project.
2. Select **Infor > Infor EAM** .
3. Set the connection information for the Infor EAM MS Project Interface.
   See "Setting Up Connection Information" on page 836.
4. Click **Import Existing Work Order**.
5. Specify this information:

   Work Order
   Select the work order to import into MS Project. The system automatically populates the work order details.

   Note: Work Orders must have at least one activity to be imported.

   An open scheduling session must exist to import existing work orders. If no open scheduling session exists for the project file, create or import a scheduling session prior to importing existing work orders.

6. Click **Import**.

Exporting sessions from MS Project to Infor EAM

Export scheduling sessions from MS Project after scheduling work or modifying schedules.

To export sessions from MS Project to Infor EAM:

1. Open the MS Project file that contains the open scheduling session that you want to export to Infor EAM.

   Note: You must first create or import a scheduling session in order to export a scheduling session.

2. Click **Export scheduling session**.
3. Click **Export Session**.

   Note: Infor EAM updates the resources assigned, **Activity Start Date**, **Activity End Date**, **Estimated Hours**, and **Percent Complete**, and sets **Assigned By** of the work order equal to **Assigned By** in MS Project.

   Click **Cancel** to close the Export Scheduling Session side-pane without exporting any records to Infor EAM.

   Work order activities deleted in MS Project are not deleted in Infor EAM, and new work order activities created in MS Project will not be exported back to Infor EAM.

Canceling sessions

Cancel an existing scheduling session.

Note: Canceling the session will not delete the work order activities and resource (employee, supplier, maintenance equipment, and tool) records from the current project, but after canceling the session, you cannot export the updated tasks back to Infor EAM.

To cancel sessions:

1. Open the MS Project file that contains the open scheduling session that you want to cancel.

   Note: You must first create or import a scheduling session in to order cancel a scheduling session.

2. Click **Cancel scheduling session**.
3. Click **Cancel Session**.

Asset management services

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The asset management services module is used by maintenance organizations that operate as a business unit and charge the cost of maintenance work to the customers for whom the work is performed. Work charged to one customer may be carried out at different places.

Time, material, and labor costs are defined in pricing schedules and then applied to customer contracts, which specify how maintenance work is charged to the customer. The contracts are then used to calculate work order costs and to generate invoices and reports.

Creating customer contracts

Create contracts for commercial service customers to specify how time, material, and labor costs are charged to a customer for maintenance work.

Customers are defined for use with service requests and asset management services.

See "Creating Customers" on page 621.

To create customer contracts:

1. Select **Work > Asset Management Services > AMS-Customer Contracts**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the customer contract belongs if you use multi-organization security.

   Customer Contract
   Specify a description of the customer contract in the adjacent field. After you save the record, a customer contract number will be assigned.

   Status
   Select the contract status. Changing the status of a customer contract may affect additional system checks and field changes as follows:

Option	Description
Unfinished	All fields are editable. However, when you save the customer contract with Unfinished status, **Organization** is protected.
Approved	All fields are protected except **Status** and **End Date**. Approved status indicates that payments can be approved and work orders can be processed.
Finished	All fields are protected except **Status**. Finished status indicates that payments and work order charges can still be invoiced, but no new work order charges will be processed for a finished contract.
Cancelled	All fields are editable except **Organization**. Cancelled status indicates that the customer contract has been cancelled and can only be selected if no invoiced payments or work order charges exist.

Note: You cannot modify the status of customer contracts if there are any existing approved or invoiced fixed charges, or if there are any existing calculated work orders. A calculated work order is a work order that is associated with a customer contract for which customer charges have been calculated.

See "Understanding the Calculation of Customer Charges" on page 855.

Class
Specify the class of the contract. The classes shown belong to the AGR entity.

Customer
Specify the customer to whom to charge the work.

Pricing Schedule
Specify the pricing schedule for time and material costing.

Choose one of the following options:

Option	Description
Apply the contract to equipment	Specify the **Equipment** for which to apply the contract. The contract also applies to any child equipment, unless the cost rollup attribute is set for the child equipment.
Apply the contract to a project	Specify the**Project** to which the contract applies. The contract also applies to any child projects.

Option	Description
Apply the contract to an event	Specify the **Work Order** to which the contract applies. **Note:** MEC work orders are not displayed in the **Work Order** lookup.

Start Date and End Date
Specify the date on which the contract period begins and the expiration date of the contract. If you do not enter a date, there is no time limitation on the contract.

Note: If the contract has a fixed charge due date, the **Start Date** must be on or before the fixed charge due date, and the **End Date** must be on or after the fixed charge due date.

4 Click **Save Record**.

Creating fixed charge schedules for customer contracts

Create fixed charge schedules for customer contracts to create a set price to be added to a customer invoice based upon a specified due date.

When generating costs for a customer contract, the system uses fixed charges in the place of any work order charges and creates the fixed charges via the customer invoice.

See "Understanding the Calculation of Customer Charges" on page 855.

If a work order is created with a cost for a customer contract, the system bypasses the work order when calculating costs, and the cost for the customer will be the specified fixed charges.

To create fixed charge schedules for customer contracts:

1 Select **Work > Asset Management Services > AMS-Customer Contracts**.
2 Select the customer contract for which to create fixed charges and then click the **Fixed Charges** tab. The system automatically populates and protects **Start Date** and **End Date** with the date(s) from the customer contract header. The system populates **Currency** with the currency of the **Organization** of the contract header.
3 Click **Add Fixed Charge**.
4 Specify this information:

Line
Specify a description of the fixed charge in the adjacent field. Modify the sequence number of the fixed charge as necessary. The next incremental line number is automatically assigned based on the setting of the INCRLINO installation parameter.

Note: You can only edit the **Line** number when inserting a record. After the record is saved, **Line** is protected.

Status
Select the status of the fixed charge. Changing the status of a fixed charge may affect additional system checks and field changes as follows:

Option	Description
Unfinished	All fields are editable. However, when you submit the fixed charge with Unfinished status, the system protects **Line**. Select Unfinished if the fixed charge or the customer contract is not approved.
Approved	The system protects all fields except **Status**. Select Approved to create an invoice for this payment.
Cancelled	The system protects all fields except **Status**. Select Cancelled to cancel the invoice for this payment.
Due Date	Specify the date when records can be invoiced. Leave this field blank for the record to be invoiced every time invoices are generated.
Price	Specify the gross price (not including tax) in internal currency units.

5 Click **Submit**.

Creating pricing schedules

Create pricing schedules to define time and material calculations, work orders, custom trade rates, and part-specific charges to be associated with customers and customer contracts.

To create pricing schedules:

1 Select **Work > Asset Management Services > AMS-Pricing Schedules**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the pricing schedule belongs if you use multi-organization security.

Pricing Schedule
Specify a unique code identifying the pricing schedule and then enter a description of the pricing schedule in the adjacent field.

Class
Specify the class of the pricing schedule. The classes shown belong to the ARR entity.

Labor Cost %
Specify the percentage of the work order labor costs that is charged to the customer.

Stock Items %
Specify the percentage of the work order costs for stock items that is charged to the customer.

Hired Labor %
Specify the percentage of the work order hired labor costs that is charged to the customer.

Direct Outs %
Specify the percentage of the work order direct material costs that is charged to the customer.

Tool Usage %
Specify the percentage of the work order tool usage costs that is charged to the customer.

Services %
Specify the percentage of the work order services costs that is charged to the customer.

Additional Charge
Specify an additional fee to associate with the pricing schedule. For example, if you assess a standard trip charge regardless of the work performed, enter that amount.

Note: Additional Charge is not displayed if the MULTIORG installation parameter is set to YES. If you are using multi-organization security, you must add additional charges for each organization on the **Additional Charges** page.

See "Adding Additional Charges (MOS)" on page 852.

Time Rounding (min.)
Specify the number of minutes to round charged time of booked hours. For example, a value of 15 indicates rounding to quarters of an hour.

Minimum Time (min.)
Specify the minimum number of minutes to charge per labor booking.

Custom Trade Rates
Select to apply a markup for specific trade rates.

Note: If you enter **Labor Cost %**, you cannot select **Custom Trade Rates**.

Custom Part Charges
Select to apply part charges depending on the type of part used.

Note: If you enter **Stock Items %**, you cannot select **Custom Part Charges**.

4 Click **Save Record**.

Note: When you save the pricing schedule record, a record is also created on the **Custom Trade Rates**, **Custom Part Charges**, and **WO Criteria** pages based on the information entered for the pricing schedule.

Creating custom trade rates

Create custom trade rates for a pricing schedule. Custom trade rates are used to charge labor costs to customers based on rates defined for specific trades and hour types instead of a standard labor cost percentage entered on the Pricing Schedule header.

To create custom trade rates:

1. Select **Work > Asset Management Services > AMS-Pricing Schedules**.
2. Select the pricing schedule for which to create custom trade rates and then click the **Custom Trade Rates** tab.
3. Click **Add Rate**.
4. Specify the **Trade**, **Type of Hours**, and **Hourly Rate** to charge the customer.
5. Click **Submit**.

Creating custom part charges

Create custom prices for part charges for a pricing schedule. Custom part charges are used to charge material costs to customers based on rates defined for part classes instead of a standard stock item cost percentage entered on the Pricing Schedule header.

To create custom part charges:

1. Select **Work > Asset Management Services > AMS-Pricing Schedules**.
2. Select the pricing schedule for which to create custom part charges and then click the **Custom Part Charges** tab.
3. Click **Add Charge**.
4. Specify this information:

   Part Class
   Specify the part class for which to charge part prices to the customer.

   Charge %
   Specify the percentage of the part prices to charge to the customer.

   Note: To indicate that the exact cost is charged to the customer, enter 100. To create a surcharge for the part prices, enter a value greater than 100.

5. Click **Submit**.

Adding additional charges (MOS)

Add additional charges to a pricing schedule for specific organizations. Additional charges on a pricing schedule are added to every work order that is completed for a customer contract. The additional

charges are not added or displayed on the work order when the work order is created. Instead, additional charges are added to the work order costs when the system calculates work order customer charges.

See "Understanding the Calculation of Customer Charges" on page 855.

Note: You can only add additional charges for specific organizations if the MULTIORG installation parameter is set to YES.

To add additional charges (MOS):

1. Select **Work > Asset Management Services > AMS-Pricing Schedules**.
2. Select the pricing schedule for which to add additional charges and then click the **Additional Charges** tab.
3. Click **Add Charge**. The system automatically populates **Organization** with the organization of the logged-in user.
4. Specify this information:

   Additional Charge
   Specify an additional amount to add to invoices for the pricing schedule.

   Note: A fixed charge is per invoice; whereas, an additional charge is per work order.

   Organization
   Specify the organization for which to add the fixed or added price.

5. Click **Submit**.

Defining work order criteria

Define criteria to identify the work orders for which to charge for pricing schedules. The system uses the specified work order criteria for a pricing schedule to select the work orders for which to charge a customer when calculating work order costs.

After the system selects all of the existing work orders matching the work order criteria for a pricing schedule, it then calculates and compiles all the costs for the work orders, which will be used later during the assembly of charges for customer invoices.

See these topics:

- "Understanding the Calculation of Customer Charges" on page 855
- "Understanding Customer Invoice Generation" on page 859

To define work order criteria for pricing schedules:

1. Select **Work > Asset Management Services > AMS-Pricing Schedules**.
2. Select the pricing schedule for which to define work order criteria parameters and then click the **WO Criteria** tab.

   Note: When you create pricing schedules, the system automatically creates a WO Criteria record for the **Department**, **WO Type**, and **Equipment Class** using an asterisk (*) to represent all departments, work order types, and equipment classes.

See "Creating Pricing Schedules" on page 850.

3 Click **Add WO Criteria**.
4 Specify the **Department**, **WO Type**, and **Equipment Class** for the work being performed.
5 Click **Submit**.

Viewing invoices for AMS-Customers

View a list of invoices for a selected customer.

If you use multi-organization security, the system displays all invoices for a selected customer based on the query permissions established by the multi-organization security settings for the EVNT and INV entities.

To assemble/generate customer invoices, right-click on a form for which the customer invoice generation option is available, and then select **Create Customer Invoice**.

See "Understanding Customer Invoice Generation" on page 859.

To view invoices for customers:

1 Select **Work > Service Request Setup > AMS-Customers**.
2 Select the customer for which to view invoices and then click the **Invoices** tab.
3 View the customer invoice information.

Viewing AMS-customer contracts

View contracts associated with each customer.

Customers are defined for use with service requests and asset management services.

To view customer contracts:

1 Select **Work > Service Request Setup > AMS-Customers**.
2 Select the customer for which to view contracts and then click the **Contracts** tab.
3 View the customer contract information.

Calculating and approving customer charges

The system calculates customer charges based on customer contracts, pricing schedules, and work orders associated with customer contracts.

Review customer charges and make corrections as necessary, and then approve and generate the customer charges to customer invoices.

Understanding the calculation of customer charges

The system calculates customer charges and locates the current work orders that are associated with a customer contract. View the customer charges on the **AMS-Approve Customer Charges** form.

The customer charge calculation process is initiated at different points within the system and includes work orders that match the following criteria:

- Work orders of event type JOB or PPM (or their user status equivalent)
- Work orders for which there is no Parent work order
- Work orders for which Continue Charging is not selected and are not associated with any customer charge records with a Status of Excluded from invoicing, Approved, or Invoiced
- Work order line types LAB, MAT, HIR, DMA, FIX, or TOOL

For all work orders that match the previously stated criteria, customer charges are then calculated. See the following list for additional information:

- First, the system determines which work orders are associated with a customer contract. To do so, the system checks the work order first, then the project of the work order (and child projects), then the equipment of the work order (and child equipment), and finally the location of the work order (and child locations).
- After making the association between a work order and a customer contract, the system then creates a customer charge record for the work order on the **AMS-Approve Customer Charges** form.

  Note: A work order must have some costs associated with it to generate a customer charge.

  If the system cannot find an approved contract that matches, the system generates an error message that can be viewed on the Comments page of the **AMS-Approve Customer Charges** form for the current work order charge record. Also, if there is an error message for the work order charge record, the Status of the record will always be changed to Data Error.

  If there are multiple, valid customer contracts associated with a work order, the system generates charges for the customer contract for which the most specific data is defined.

  If there is more than one valid customer contract, the system generates charges for the customer contract associated with a pricing schedule for which specific values are defined on the WO Criteria page of the Pricing Schedules form.

- Next, the system retrieves any additional charges for pricing schedules associated with the customer contract.

  Note: The system only adds the value of an additional charge to a work order once. It does not include any additional charges for which there are already existing charges on a work order, unless the value of the Additional Charge has been updated on the pricing schedule after a work order charge has been generated. If the Additional Charge has been updated, then the first work order charge record contains the original value of the Additional Charge, and the system generates a new work order charge for the difference between the values of the two additional charges.

- If Custom Trade Rates is selected for a pricing schedule associated with a customer contract, the system bypasses any trade rates and uses only the rates specified on the Custom Trade Rates page of the Pricing Schedules form.
- If Custom Part Charges is selected for a pricing schedule associated with a customer contract, the system calculates charges using the values specified for Charge % on the Custom Part Charges page of the Pricing Schedules form to calculate charges rather than the value specified for Stock Items Charge %.
- If there are existing labor hours on a work order, the system rounds the hours based on the values specified for Time Rounding (min) and Minimum Time (min) on the pricing schedule.

  Note: The system does not track which transactions belonging to a work order have already been billed. Therefore, if you re-generate work order charges for a customer contract, the system simply calculates the total work order charges again and subtracts the values that have already been approved or invoiced to calculate the necessary charges for the new work order charge record.

Approving and generating customer charges

Approve customer charges after reviewing and correcting the results of time and material calculations.

After approving the customer charges, generate invoices from all customer charges. The system generates customer charges for all work orders, not just the work order selected on the **List View** page.

To approve and generate customer charges:

1 Select **Work > Asset Management Services > AMS-Approve Customer Charges**.

2 Select the work order for which to approve customer charges and then click the **Record View** tab. The system automatically populates **Charge Number**, **Run Date**, **Customer**, **Originator**, and **Customer Contract** .

  Note: Charge Number is used to associate several invoices with the same work order.

3 Specify this information:

  Status
  Specify the status of the customer charges. See the following for a description of the possible customer charge statuses:

Option	Description
Approved	Work order charge will be invoiced. All fields are protected except **Status**.
Data Error	System generated status. Work order charge will not be invoiced. You can update **Status**, **Continue Charging**, and **Corrections** as necessary.
Exclude from invoicing	Work order charge will not be invoiced. You can update **Status**, **Continue Charging**, and **Corrections** as necessary.

Option	Description
Invoiced	System generated status indicating that the charges are invoiced. All fields are protected. After you generate the invoice, the system automatically changes **Status** to Invoiced.
Unapproved	Default status of the calculations. You can update **Status**, **Continue Charging**, and **Corrections** as necessary.

Continue Charging
Select to enable the system to continue generating invoice charges for the same work order. If selected, the system creates a new **Charge Number** when generating customer charges, assigns a new incremental number to a newly calculated charge record, and displays the difference in price between the actual and the existing calculation(s).

Note: Continue Charging is automatically selected for calculations for non-completed work orders.

Comments
Enter comments related to the work order costs.

Corrections
Specify the amount to adjust the work order costs. Enter deductions as negative amounts.

4 Click **Generate All Customer Charges**.

5 Specify the **Organization**, **Work Order**, **Customer**, **Department**, **Equipment**, and **Project** for which to calculate work order charges.

6 Specify this information:

Released Work Orders
Select to only calculate work order charges for released work orders.

Print Report
Select to print a report of all the calculated work order charges.

Completed From and Completed To
Specify the work order completion date range for which to calculate work order charges.

Completed Work Orders
Select to calculate work order charges for only completed work orders.

7 Click **Calculate**.

Note: If you did not specify any generation criteria, charges for all work orders of type JOB or PPM with a status of Released or Completed will be generated. The system verifies that the work order(s) have no parent work order and that the customer charges do not have a **Status** of Approved, Excluded from invoicing, or Invoiced.

Viewing charges for AMS-Customers

View a list of calculated charges for a customer. Calculated customer charges are accrued from work orders for which charges are compiled for external invoicing purposes based on the terms of an established customer contract.

To view charges for customers:

1. Select **Work > Service Request Setup > AMS-Customers**.
2. Select the customer for which to view charges and then click the **Charges** tab.
3. View the customer charges information.

Creating and generating customer invoices

Generate customer invoices to create and assemble accounts receivable invoices for asset management service customers, work order charges, and fixed payments.

Customer invoices are only related to asset management services and should not be confused with the invoice voucher functionality in the Purchasing Management module

See "Recording Invoice Vouchers" on page 411.

You can generate customer invoices several different ways:

- Calculate customer charges and create a single customer invoice using the Create Customer Invoice right-click option on the Work Orders form.

  See "Creating Customer Invoices from Work Orders" on page 859.

- Generate customer invoices from the Customer Invoices form.

  See "Generating Customer Invoices" on page 859.

- Create an invoice for a work order

Upon initiation of the invoice generation process, the system locates all customer charge records and fixed charge schedules for customer contracts. The system does not recalculate the invoice charge records.

See "Understanding the Calculation of Customer Charges" on page 855.

The system adds the total price for the customer(s) based on the specified invoice generation criteria. The system changes the **Status** of all work orders on the Approve Customer Charges form to Invoiced.

Depending on the specified generation criteria, the system generates separate invoices for each customer, for which the invoice organization is the organization of the customer contract.

Note: If a single customer is referenced on more than one customer contract and the customer contracts are from different organizations, the system generates invoices for each of the customer contract organizations.

You can also generate invoices for customers that are marked as **Out of Service**.

Understanding customer invoice generation

When you generate a customer invoice, the system retrieves the charge records generated by the customer charge process and then creates customer invoices displaying the **Total Price** for each work order.

See "Understanding the Calculation of Customer Charges" on page 855.

See the following list for additional information on the manner in which the system generates customer invoices:

- The system retrieves all customer charges and fixed charges for a customer contract.
- The system then generates the sum of the **Total Price** for the customer(s) based on the criteria specified on the Generate Invoices popup or the work order specified on the Create Invoice for WO popup.
- The system changes the status of all work orders on the Approve Customer Charges form to Invoiced.
- The system generates a separate invoice for each customer.

  Note: If a single customer is referenced on more than one customer contract and the customer contracts are in different organizations, the system generates separate invoices for each of the customer contract organizations.

  The system also enables you to generate invoices for customers that have been marked as Out of Service.

Creating customer invoices from work orders

Create a customer invoice from a work order to calculate customer charges and create a single customer invoice for a specific work order.

To create customer invoices from work orders:

1. Select **Work > Work Orders**.
2. Select the work order for which to create customer invoices and then click the **Record View** tab.
3. Enter or update any information on the work order as necessary.

   See "Creating Regular Work Orders" on page 488.
4. Right-click on the form and then choose **Create Customer Invoice**.

   Note: View the customer invoice created on the **Customer Invoices** form.

   See "Viewing Invoices for Customers" on page 854.

Generating customer invoices

Generate customer invoices for all customers or for a single customer.

To generate customer invoices:

1. Select **Work > Asset Management Services > AMS-Customer Invoices**.
2. Select the customer invoice for which to generate invoices and then click the **Record View** tab.
3. Right-click on the form and then choose **Generate Invoices**.
4. Specify this information:

Organization
Specify the organization for which to generate invoices.

Work Order
Specify the work order for which to generate invoices. If you enter a work order, the system generates an invoice for only the specified work order.

Customer
Specify the customer for which to generate invoices. If you enter a customer, the system generates a single invoice that contains all the costs for the specified customer.

Note: By default the system generates customer invoices for all customers on the **Customer Invoices** form unless you specify a specific customer. The system enables you to generate invoices for a single work order by using the **Create Customer Invoice** right-click option on the Work Orders form.

See "Creating Customer Invoices from Work Orders" on page 859.

Approved Customer Charges
Select to generate invoices for only those customer charges with a status of Approved.

Note: Any corrections made on the Approve Customer Charges form are reflected on the invoice after it is generated.

See "Approving and Generating Customer Charges" on page 856.

Fixed Charges
Select to generate invoices for fixed charges. If you created a fixed charge schedule for a customer contract, you must select **Fixed Charges** to include the schedule on an invoice.

See "Creating Fixed Charge Schedules for Customer Contracts" on page 849.

Original Invoice
Specify the customer invoice to recalculate. If you specify an invoice to recalculate, the system generates a new invoice with the latest customer charges.

Note: The system displays all customer invoices, including those with Cancelled status. You can use a wild card, such as "%", with partially-specified text strings anywhere within the field to retrieve strings containing the specified text.

The recalculate invoice functionality does not make corrections to the original invoice. The system generates an updated invoice.

Start Date and End Date
Specify the start and end dates for which to generate invoices.

Note: If no date range is specified, the system generates invoices for all Approved customer invoices.

The date range specified refers to the date on which the work order was completed. The date range does not apply to released work orders.

Unapproved Customer Charges
Select to generate invoices for customer charges with a status of Unfinished.

5 Click **Generate**.

Note: View details about the generated invoices on the **Customer Invoice Lines Overview** form.

See "Viewing Customer Invoice Lines" on page 862.

Creating invoices for work orders

Note: Creating an invoice for a work order is only related to work performed for asset management services customers and should not be confused with the invoice voucher functionality in the Purchasing Management module. See "Recording Invoice Vouchers" on page 411 Chapter 4 "Purchasing Management."

To create invoices for work orders:

1 Select **Work > Asset Management Services > AMS-Customer Invoices**.
2 Click the **Record View** tab.

Note: Because the customer invoice is being generated for a work order, the **Create Invoice for WO** right-click option is not affected by the selected customer invoice record. Although the right-click option is only available from the **Record View** tab of the Customer Invoices form, the invoice is generated independently of the selected customer invoice record on the **Record View** page.

3 Right-click on the form, and then choose **Create Invoice for WO**.
4 Specify this information:

Work Order
Specify the work order for which to create an invoice.

5 Click **Submit**.

Viewing and changing the status of customer invoices

View and change the status of customer invoice records.

Note: To assemble/generate customer invoices, right-click on the form for which the customer invoice generation option is available, and then choose **Create Customer Invoice**.

See "Understanding Customer Invoice Generation" on page 859.

To view and change the status of customer invoices:

1 Select **Work > Asset Management Services > AMS-Customer Invoices**.

2 Select the customer invoice for which to view or change the status and then click the **Record View** tab.

3 Specify the **Status** of the customer invoice.

Note: The system displays all available statuses for the EIV entity, including any user-statuses created on the **Status Authorizations** form. However, the system does not allow some status changes regardless of the status authorizations created on the **Status Authorizations** form. The system allows the following status changes (and their user-status equivalents): Invoiced to Cancelled; Invoiced to Ready for Printing; Ready for Printing to Cancelled; and Ready for Printing to Invoiced.

4 Click **Save Record**.

Viewing customer invoice lines

View a list of all charge lines on a customer invoice.

To view customer invoice lines:

1 Select **Work > Asset Management Services > AMS-Customer Invoices**.

2 Select the customer invoice for which to view invoice lines and then click the **Lines** tab.

3 View the customer invoice line information.

Viewing an overview of customer invoice lines

View an overview of customer invoice lines to access detailed information about all the charges on customer invoices.

To view an overview of customer invoice lines:

1 Select **Work > Asset Management Services > AMS-Customer Invoice Lines Overview**.

2 View the customer invoice line information.

Budgets

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Budgets track expenses and set spending limits for specified time periods or items. Budgets coordinate with existing inventory. They also can be defined for predetermined time frames such as months, quarters, or years.

Defining budget setup information

Calendar types, structures, terms, and groups are required before creating budgets.

Defining budget calendar types

Calendar types are used to determine the number of reporting periods in a budget term.

To define budget calendar types:

1 Select **Operations > Budgets > Budget Calendar Types**.

2 Click **New Record**.

3 Specify this information:

Calendar Type
Specify a name for the calendar type, and then enter a calendar type description in the adjacent field.

Number of Periods
Specify the number of periods for this budget calendar type, such as 12 for a monthly calendar, 4 for quarterly.

Class
Specify the class for the calendar type. The system automatically populates **Class Org.**

4 Click **Save Record**.

Defining budget structures

Budget structures define levels for cost reporting. There are six levels available, but only one is required. Budget structures can be used by multiple budgets in a specific organization.

To define budget structures:

1 Select **Operations > Budgets > Budget Structures**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization to which the budget structure hierarchy belongs if you use multi-organization security.

Budget Structure
Specify a name for the budget structure, and then enter a budget structure description in the adjacent field.

Calendar Type
Specify the calendar type for the budget structure.

Level 1
Select the first level of the budget structure hierarchy.

Level 2
Select the second level of the budget structure hierarchy.

Level 3
Select the third level of the budget structure hierarchy.

Parent
Specify a parent for the budget structure hierarchy.

Note: If the chosen parent contains budget structure levels, the levels will be copied to the new budget structure.

Level 4
Select the fourth level of the budget structure hierarchy.

Level 5
Select the fifth level of the budget structure hierarchy.

Level 6
Select the sixth level of the budget structure hierarchy.

4 Click **Save Record**.

Defining budget terms

Budget terms consist of a calendar type defined by start and end dates. You can include a single budget term in multiple budgets.

To define budget terms:

1. Select **Operations > Budgets > Budget Terms**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization to which the budget term belongs if you use multi-organization security.

   Budget Term
   Specify a name for the budget term, and then enter a budget term description in the adjacent field.

   Calendar Type
   Specify the calendar type for the budget term. The system automatically populates **Number of Periods**.

   Start Date
   Specify the start date for the budget term.

   End Date
   Specify the end date for the budget term.

4. Click **Save Record**.

Defining periods for budget terms

Periods for budget terms set the start and end dates for the terms. Default periods are created automatically when the budget term is saved. Periods can be changed or renamed as necessary.

To define periods for budget terms:

1. Select **Operations > Budgets > Budget Terms**.
2. Select the budget term for which to set the period, and then click the **Periods** tab.
   The system automatically populates **Sequence Number**.
3. Specify this information:

   Period
   Specify a new name for the period, such as January, February, or First Quarter.

   Start Date
   Specify the start date for the period.

   End Date
   Specify the end date for the period.

4 Click **Save Record**.

Defining budget groups

Create budget groups for different entities. Budget groups include Departments, Systems, Equipment, WO Locations, Cost Code, WO Cost Type, WO Job Type, and Project. Using budget groups saves time by assigning a budget amount to a group of items rather than to many single items, e.g., define a budget group for the HVAC group containing all pieces of equipment associated with the HVAC system.

To define budget groups:

1 Select **Operations > Budgets > Budget Groups**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the budget group belongs if you use multi-organization security.

Budget Group
Specify a budget group name, and then enter a budget group description in the adjacent field.

Entity
Specify the entity for which to create a budget group. The system automatically populates entity description.

4 Click **Save Record**.

Assigning items to budget groups

Items can be combined to form budget groups. For example, you can define a budget group for the HVAC system to include all pieces of equipment associated with the system. A thermostat could be one item within the HVAC budget group. Items can belong to multiple budget groups.

To assign items to budget groups:

1 Select **Operations > Budgets > Budget Groups**.
2 Select the budget group for which to assign an item, and then click the **Items** tab.
3 Specify this information:

Item
Specify an item.

4 Click **Submit**.

Defining budgets

Create and update budgets on the Budgets form. The budget combines a specific budget structure and term. Set a current amount and a person responsible.

To define budgets:

1 Select **Operations > Budgets > Budgets**.

2 Click **New Record**.

3 Specify this information:

Budget Structure
Specify a budget structure. The system automatically populates budget structure description, **Organization**, **Calendar Type**, **Date Created**, and **Status**.

Budget Term
Specify the budget term.

Note: The budget **Calendar Type** should be the same as the budget structure **Calendar Type**.

Date Created
Change the creation date if necessary. **Date Created** can be in the past or future.

Status
Choose one of the following options:

Option	Description
In Process	Select for budgets not yet approved.
Temporary value	Select for budgets not yet approved.
Final value	Select for budgets not yet approved.
Approved/frozen	Select to approve or freeze the budget. You must create the Budget Details before you can select this status. See "Defining budget details" on page 868. If you select **Approved/frozen**, the system automatically populates **Original Amount**, **Approved By**, and **Date Approved**. If the status changes from **Approved/frozen** to any other status, the above fields are not affected and updated the next time the **Budget** is approved. **Temporary value**, **Final value**, and **Approved/frozen** are available in update mode only.

Current Amount
Specify the current budget amount.

Person Responsible
Specify the name of the person responsible for the budget.

Total Sub-Budget Amount
If budget details exist, this value is the total amount set up for its level one sub-budgets.

4 Click **Save Record**.

Defining budget details

Using the **Details** page of the **Budgets** form, combine budget information and assign specific monetary amounts to each budget area. The **Details** page contains budgeted amounts for individual budget items or groups within the structure of a budget. Define budgets according to dollar amount for individual budget items or for budget groups.

To define budget details:

1 Select **Operations > Budgets > Budgets**.

2 Select the budget for which to view details, and then click the **Details** tab.

Note: In the budget tree, the item code and organization will be displayed with the budget amount if details already exist. Descriptions are hover text only.

3 Click **Add Budget**. The system enables the **Budget Details** section.

The system automatically populates **Current Budget**and **Calculated Budget**.

Note: If you click **Add Sub-Level Budget**, the fields will display in the same manner but appear beneath the main budget heading for the next lower level in the budget structure.

4 Enter information in the required fields.

Note: When adding budgets and sub-level budgets, the fields vary depending upon the levels set up in each budget structure. Complete the required fields as they display. For each budget, select an individual budget item or a budget group, and then assign a budget amount. All other fields are protected.

5 Specify this information:

Budget Amount
Specify the amount for the currently selected budget. The system automatically populates the budget amount currency.

6 Click **Submit**.

Calculating budgets

Calculate a budget to gather costs from work orders. Depending on the scope of the budget, you may want to run the calculation process during down times, such as in the evening or on the weekends.

Note: Budgets are not automatically updated when you incur costs.

To calculate budgets:

1 Select **Operations > Budgets > Budgets**.

2 Select the budget to calculate, and then click the **Record View** tab.

3 Right-click, and then select **Calculate Current Budget**.

The system automatically populates **Budget Structure**, budget description, **Budget Term**, and term description.

4 Specify this information:

From Period
Specify a starting period that corresponds to the Start Date of the Budget Term.

To Period
Specify an ending period that corresponds to the **End Date** of the **Budget Term**.

Note: If **From Period** and/or **To Period** are left blank, the system calculates budget amounts for the earliest and latest periods.

5 Click **Submit**.

Copying budgets

The copy budget feature copies a Budget structure and term, including all the lower-level budget details.

To copy budgets:

1 Create a budget.
2 Right-click, and then select **Copy Budget**. The system automatically populates **Budget Structure**, description, and **Budget Term**.
3 Specify this information:

To Budget Structure
Specify a new budget structure. The system automatically populates the **To Budget Structure** description.

To Budget Term
Specify a new budget term.

Copy Budgeted Amounts
Select to copy only budgeted amounts.

Copy Actual Costs
Select to copy actual costs for the budget.

Note: Click **Calculate Budget** before copying budgets to ensure that actual costs are up-to-date.

Plus or Minus %
Specify the amount to adjust the budget, such as 10% over last year's budgeted amount.

Calculate Zero-based Budget
Select to calculate a zero-based budget.

Reset Amounts to Zero
Select to set the copied term's actual non-PM costs plus expected PM costs for the term to which you are copying. Resetting amounts to zero will include all maintenance due next term as well as the same amount of breakdowns as occurred in the most recent term.

4 Click **Submit**.

Copying sub-level budgets

Copy a node in the budget details structure to include sub-level budgets and all lower-level budget details. Copying sub-level budgets allows you to copy various budget subsets, i.e., the same list of equipment for every month or the same cost codes for every department.

To copy sub-level budgets:

1 Select **Operations > Budgets > Budgets**.
2 Select the budget for which to copy a sub-level budget, and then click the **Details** tab.
3 Click **Copy Sub-Level Budget**.
The system automatically populates **From Budget** and its description.
4 Specify this information:

To Budget/To Budget Group
Specify the budget to which you want to copy the budget details or enter the budget group to which the new budget is copied. For example, if **From Budget** is **January**, you can copy it to a new budget for **February**. The system automatically populates **To Budget Group** and its description if **To Budget** is entered.

Copy Budgeted Amounts
Select to copy all budget amounts to the new budget.

Reset Amounts to Zero
Select to reset budget amounts to zero on all new records.

Plus or Minus %
Specify a percentage by which to adjust new values.

5 Click **Submit**.

Contracts

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Purchasing contracts detail agreements for parts. Details include such information as suppliers, time-frames, and buyer facts as well as percentage discounts arranged for each contract according to order or duration.

Defining purchasing contracts

Purchasing Contracts detail agreements with specific suppliers for certain parts.

To define purchasing contracts:

1 Open the **Purchasing Contracts** form.

2 Click **New Record**. The system automatically populates **Date Created** and **Own Contract**.

3 Specify this information:

Organization
Specify the organization to which the purchasing contract belongs if you use multi-organization security. The system automatically populates **Status**.

Purchasing Contract
Specify a description of the purchasing contract in the adjacent field. The system assigns a purchasing contract number after you save the record.

Status
Select a status for the purchasing contract.

Option	Description
Unfinished	Select if the contract is editable and has not been approved. **Note:** While system status is Unfinished, all fields are editable except **Purchasing Contract**, **Organization**, **Supplier**, **Language**, **Currency**, **Printed**, and **Copy From**.

Option	Description
Approved/active	Select if the contract has been approved. In order to be considered active, the contract may or may not be approved but the system date is in the range created by the start and end dates.
Cancelled	Select if the contract no longer effects purchase order changes.

Contract Class
Specify the contract class for the purchasing contract. The system automatically populates **Organization**.

Supplier
Specify the supplier for the purchasing contract. The system automatically populates **Supplier Org.**, **Language**, and **Currency**.

Language
Select the language for the purchasing contract.

Currency
Select the currency for the purchasing contract.

Store
Specify the store to which items on the purchasing contract should be sent.

Person Responsible
Specify the name of the employee responsible for the purchasing contract.

Start Date
Specify the starting date for the purchasing contract.

End Date
Specify the ending date for the purchasing contract.

Supplier Reference
Specify the reference number for the supplier.

Contact
Specify the name of the contact person for the purchasing contract.

Copy From
Specify an existing purchasing contract to copy.

Note: The **Copy From** contract must have the same **Currency** as the new contract.

Renewal Date
Specify the renewal date for the purchasing contract.

Own Contract
Select if the contract originated internally. Leave unselected if the contract originated externally (with the customer).

Printed
Select to have the system indicate when the contract has been printed.

Note: If you select the **Printed** checkbox, the **Printed** checkbox on the reports form will be populated.

4 Click **Save Record**.

Assigning parts to purchasing contracts

Add parts to purchasing contracts to define what is included in the contract.

To assign parts to purchasing contracts:

1 Select **Purchasing > Contracts > Purchasing Contracts**.
2 Select the contract for which to assign parts, and then click the **Parts** tab.
3 Click **Add Part**.
4 Specify this information:

Part
Specify the part to assign to the contract. The system automatically populates the part description and **Part Org. UOP**,**Qty. per UOP**,**Supp. Catalog Reference** , **Net Price**, currency, **UOM**, and**Lead Time (Days)**default only if a Supplier Catalog record exists for the part.

Condition
Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

UOP
Specify the unit of purchase for the part.

Qty. per UOP
Specify the quantity per unit of purchase.

Supp. Catalog Reference
Specify the supplier catalog reference for the part.

Net Price
Specify the net price for the part.

5 Click **Submit**.

Defining part discounts for purchasing contracts

Add, update, and delete part discounts on a purchasing contract.

To define part discounts for purchasing contracts:

1. Select **Purchasing > Contracts > Purchasing Contracts**.
2. Select the contract for which to define part discounts, and then click the **Part Discounts** tab.
3. Click **Add Part Discount**.
4. Specify this information:

   Part
   Specify the part for which to assign a discount. The system automatically populates the part description, **Part Org.**, **Purchase Price**, **UOP**, and **Supp. Catalog Reference**.

   Condition
   Specify the condition if the part is a condition tracked parent part. If the selected part is a condition tracked child part, the system will automatically populate **Condition**.

   Discount %
   Specify the percentage for the part discount.

5. Choose one of the following options:

   Minimum Qty.
   Specify the minimum quantity that must be purchased in order to receive the discount.

   Minimum Value
   Specify the minimum value for the discount.

6. Select **Apply to Each PO** to apply the discount to each individual PO.
7. Click **Submit**.

Defining order discounts for purchasing contracts

Add order discounts to purchasing contracts to indicate the manufacturer discounts available on specific orders.

To define order discounts for purchasing contracts:

1. Select **Purchasing > Contracts > Purchasing Contracts**.
2. Select the contract for which to define order discounts, and then click the **Order Discounts** tab.
3. Click **Add Order Discount**.
4. Specify this information:

   Minimum Value
   Specify the minimum value for the order discount.

Discount %
Specify the percentage amount for the order discount.

Apply to Each PO
Select to apply the order discount to each individual PO.

5 Click **Submit**.

Defining clauses for contract classes

Modify, add, and delete lists of purchasing clauses for an existing contract class.

To define clauses for contract classes:

1 Select **Purchasing > Contracts > Clauses of Contract Classes**.
2 Specify this information:

Contract Class
Specify the contract class for which to associate clauses. The system automatically populates the contract description and **Contract Class Org.**

3 Click **Add Clause**.
4 Specify this information:

Sequence
Specify the sequence number for the clause.

Clause
Specify the clause to associate with the contract class. The system automatically populates the clause description.

5 Click **Submit**.

Defining purchasing contract text

Purchasing contract text contains basic information about the contract. Text is predefined for the default contract class and contains such information as suppliers, timeframes, and buyer information. Purchasing contract text fields allow the user to change the text labels on the printed contract. Create and/or edit purchasing contract text to appear on the printed purchasing contract.

To define purchasing contract text:

1 Select **Purchasing > Contracts > Purchasing Contract Text**.
2 Specify this information:

Contract Class
Specify the contract class for which to define purchasing contract text. The system automatically populates the description and **Contract Class Org.**

3 Click **Add Record**.

4 Specify this information:

Language
Select the language of the purchasing contract text.

Contract
Specify the contractor.

Supplier
Specify the vendor.

Start Date
Specify the contract period start.

End Date
Specify the contract period end.

Clauses
Specify the contract terms.

Financial Conditions
Specify the text label for the financial conditions section of the printed purchasing contract.

Per Order
Specify the text label for the per order discount details section of the printed purchasing contract.

Period
Specify the period discount.

Minimum Order Value
Specify the minimum order value.

Part
Specify the part.

Minimum Quantity
Specify the minimum quantity.

Minimum Value of Parts
Specify the minimum order line value.

Discount %
Specify the discount percentage.

5 Click **Submit**.

Call Center

15

The Call Center module handles incoming customer requests for action, information, or comments. Use the call center module to query a knowledge base for information to help customers, or to facilitate the search process; search a GIS map to retrieve equipment for a work order; create a new work order; link a request to an existing work order; or record customer comments.

This module easily facilitates the call taker's need for speed. Sections of the main Call Center form can be expanded or collapsed, with minimal need to open additional forms.

Understanding Call Center

The call center serves three main purposes: answering requests for information (information request), scheduling an action for requests (action request), and recording customer comments (comment).

Typically, customers call, email, or fax the call center with an issue. The call center employee responds by attempting to solve the customer's problem, handling it according to the request type.

Record each customer request to provide accurate reporting on request volume. As soon as the customer contacts the call center, click save to create a new record before you take any information. The type of request determines which sections of the form need to be filled in. Many call centers require employees to perform a KB search for each customer request so that standard procedures are followed (e.g., call scripts).

Information requests

Customers may contact the call center asking for information. Perform a search of the knowledge base for the requested information. The knowledge base is a database of articles created by supervisors of the call center to help facilitate the information request process.

A knowledge base article can consist of a call script or phone numbers to read to the customer, an external URL link that will answer the request, or a link to another KB article. Consult the article and relay the requested information to the customer. Typically, information requests do not generate work orders. After the requested information is relayed to the customer, the call usually ends. However, if the customer requires any work to be performed after the information request, the call becomes an action request.

Action requests

Action requests usually involve a problem the customer has. To solve action requests, create a customer request, which typically becomes a work order, or link the customer request to an existing work order. Create a customer request for the problem, filling in the customer's information as needed. If this is the first report of the problem, create a work order. However, if the problem has already been reported, then create a customer request from the new customer and link it to the existing work order.

Departmental hierarchies

- **Departments**
  A department is the umbrella under which providers, service categories, and service problem codes fall. It is the top of the hierarchy. An example of a department is "Environmental Services."

- **Providers**
  Providers refer to the levels within a department directly above a service category that handles the service needed. An example of provider is "Solid Waste."

- **Service Categories**
  Service categories fall under a provider and help filter service problem codes. Service categories represent the service needed. An example of a service category is "Residential Garbage Pickup."

- **Service Problem Codes**
  Service problem codes identify specific problems and any information needed to provide solutions. A service problem code is required in order to create a work order from a customer request. An example of a service problem code is "Appliance Pickup." The appliance pickup problem is assigned a "code" that tells the system that a stove, washer, dryer, or other appliance needs to be picked up when that code is entered into the system. This service problem code has a standard work order for appliance pickup.

Comments

Occasionally, customers call with comments, but no desire for information or need for work performance. The comment may be about the new call center, an especially helpful employee, or other messages that require no follow-up or action. The call center employee records the comment.

Setting up basic Call Center information

To set up basic call center information, create service problem codes, associate layers with service problem codes, and create providers, service categories, departments, and knowledge base articles.

Entering contact information

Enter contact information for follow up and informational purposes.

Note: Each contact must have either a **Name**, **Address**, or **Employee Code** before the system saves the contact information.

To enter contact information:

1 Select **Operations > Call Center > Contact Information**.

2 Click **New Record**.

3 Specify this information:

Name
Enter a first name, middle initial, and last name for the contact.

Company Name
Enter the name of the company where the contact works.

Employee
Enter an employee code for the contact if applicable. The system automatically populates the employee name in the adjacent field.

Address 1
Enter an address for the contact.

Address 2
Enter an address for the contact.

City
Enter the city of the contact.

State
Enter the state of the contact.

Zip Code
Enter the zip code of the contact.

Address Alias
Enter a popular name for the address, e.g., Gwinnett Place Mall or Finley Park.

Primary E-mail
Enter a primary e-mail address for the contact.

Secondary E-mail
Enter a work e-mail address for the contact.

Notes
Enter any applicable notes for the contact.

Organization
Enter the organization to which the contact belongs.

Class
Enter the class to which the contact belongs.

Primary Phone
Enter a primary phone number for the contact.

Secondary Phone
Enter an alternate phone number for the contact.

Third Phone
Enter a third phone number for the contact.

Primary Fax
Enter a home fax number for the contact.

Secondary Fax
Enter a work fax number for the contact.

E-mail Fax
Enter the e-mail address for the contact if you use fax software that requires an e-mail address.

4 Click **Save Record**.

Associating equipment with contact information

For contacts with specific equipment, associate one or more pieces of equipment with the contact information record.

Note: Specific equipment can be a system, position, asset, or location.

To associate equipment with contact information:

1 Select **Operations > Call Center > Contact Information**.
2 Select the contact for which to associate equipment, and then click the **Equipment** tab.
3 Click **Add Equipment**.
4 Specify this information:

Equipment
Specify the equipment to associate with the contact.

Note: Equipment is multi-select to save time.

Type
Select the request type for the equipment.

5 Click **Submit**.

Creating service codes

Service problem codes identify requests, concerns, or problems that customers frequently experience. Create service problem codes that are specific to your customer needs. With any call type your employee can enter a specific service problem code to provide reporting on frequency of that type of call. The service problem code may also contain all the information needed to create a work order.

To create service problem codes:

1. Select **Operations > Setup > Service Codes**.
2. Click **New Record**.
3. Specify this information:

Organization
Specify the organization to which the service problem code belongs if you use multi-organization security.

Service Code
Specify a unique code identifying the service problem, and then enter a description of the service problem code in the adjacent field.

WO Type
Select a type of work order to create for the service problem code.

Standard WO
Specify the standard work order with which to associate the service problem code.

Priority
Select the priority for work orders created from this service problem code.

Class
Specify the class with which to associate the service problem code.

Equipment
Specify the equipment to associate with the service problem code.

Note: Equipment can also be selected on the **Call Center** form or GIS map when processing an action request.

Out of Service
Select if the service problem code is not used.

WO Class
Specify the work order class with which to associate the service problem code.

Temporary Fix Turnaround
Specify the amount of time it will take for the problem to be fixed temporarily by entering in an amount, and then select the unit of time.

Permanent Fix Turnaround
Specify the amount of time it will take for the problem to be fixed permanently by entering in an amount, and then select the unit of time.

Note: Temporary Fix Turnaround and **Permanent Fix Turnaround** are used to calculate promise dates on the **Call Center** form when **Service Code** is selected.

Penalty Factor
Specify the penalty factor with which to associate the service problem code.

Equipment Usability
Specify the code identifying the equipment's usability.

Note: Equipment Usability is used in penalty reports when penalty amounts depend upon equipment usability.

4 Click **Save Record**.

Associating GIS map layers with service codes

For each service problem code you create, you can associate GIS map layers. Layers might include street lights, water lines, or other features to which a service problem code applies.

When the call taker opens the map for a particular address, the system displays the relevant equipment layer based upon the service problem code.

To associate GIS map layers with service problem codes:

1 Select **Operations > Setup > Service Codes**.
2 Select the service code for which to associate a layer, and then click the **Layers** tab.
3 Click **Add Layer**.
4 Specify this information:

Layer
Select a layer with which to associate the service code.

5 Click **Submit**.

Creating providers

Providers facilitate knowledge base searches in the call center and provide additional levels of reporting for a department.

To create providers:

1 Select **Operations > Call Center > Providers**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization to which the provider belongs.

Provider
Specify a unique code identifying the provider, and then enter a description of the provider in the adjacent field.

Address 1
Specify an address for the provider.

Address 2
Specify an address for the provider.

City
Specify the city of the provider.

State
Specify the state of the provider.

Zip Code
Specify the zip code of the provider.

Primary E-mail
Specify the primary e-mail address for the provider.

Secondary E-mail
Specify an alternate e-mail address for the provider.

Contact
Specify the contact person for the provider.

Preferred Method of Contact
Select the method by which the contact prefers to receive correspondence.

Class
Specify the class to which the provider belongs.

Out of Service
Select if the provider is not used.

Primary Phone
Specify the primary phone number for the provider.

Secondary Phone
Specify an alternate phone number for the provider.

Third Phone
Specify the third phone number for the provider.

Primary Fax
Specify the primary fax number for the provider.

Secondary Fax
Specify an alternate fax number for the provider.

E-mail Fax
Specify the e-mail address for the provider if you use fax software that requires an e-mail address.

4 Click **Save Record**.

5 Click **Convert to Supplier**to replace this provider with the specified supplier record across the system.

Creating service categories

Service categories facilitate knowledge base searches in the call center and provide additional levels of reporting for a department.

To create service categories:

1 Select **Operations > Call Center > Service Categories**.

2 Click **New Record**.

3 Specify this information:

Organization
Enter the organization to which the service category belongs.

Service Category
Enter a unique code identifying the service category, and then enter a description of the service category in the adjacent field.

Class
Enter the class of the service category.

Out of Service
Select if the service category is not used.

4 Click **Save Record**.

Adding service codes to service categories

1 Select **Operations > Call Center > Service Categories**.

2 Select the service category, and then click the Service Codes tab.

3 Click **Add Service Code**.

4 Specify this information:

Service Code
Specify the service code to add to the service category.

5 Click **Submit**.

Creating department structures

Create department structures consisting of providers, service categories, and service problem codes.

To create department structures:

Note: Add both a parent and child record at the same time. The system adds both to the structure.

1 Select **Equipment > Setup > Departments**
2 Select the department for which to create a structure, and then click the **Structure** tab.
3 Click **Add Record**.
4 Specify this information:

Provider
Enter the provider for this department.

Service Category
Enter the service category.

Service Problem Code
Enter the service problem code. The system automatically populates **Service Problem Code Org.**

5 Click **Save Record**.

Note: If you delete a parent record, the system deletes all of its child records. For example, deleting Provider 1 will also delete Category 1 and Service Problem Code 1 from the structure.

Creating service delivery matrixes for equipment

Create service delivery matrixes to filter **Department**, **Supplier**, **Service Category**, and **Service Code** lookups on the **Call Center** form and in the Knowledge Base based on the selected equipment.

See "Selecting Options for the Call Center Form" on page 891.

Note: Service Delivery Matrix must be selected for **Service Code Validation** on the **Call Center Setup** form before a service delivery matrix can be created for selected equipment.

To create service delivery matrixes for equipment:

1 Select **Equipment > Assets**.
Select **Equipment > Positions**.
Select **Equipment > Systems**.
2 Select the asset, position, or system for which to create a service delivery matrix, and then click the **Service Matrix Delivery** tab.

Note: Service Delivery Matrix must be selected on the **Record View** tab of the selected asset before the system displays the **Service Delivery Matrix** tab.

3 Click **Add Record**.

4 Specify this information:

Department
Enter the department that which is valid for the selected equipment. The system automatically populates **Department Org.**

All Departments
Optionally, select this check box to select all departments.

Supplier
Enter the provider that which is valid for the selected equipment. The system automatically populates **Supplier Org.**

All Suppliers
Optionally, select this check box to select all suppliers.

Service Category
Enter the service category that which is valid for the selected equipment. The system automatically populates **Service Category Org.**

All Service Categories
Optionally, select this check box to select all service categories.

Service Code
Enter the service code that which is valid for the selected equipment. The system automatically populates **Service Code Org.**

All Service Codes
Optionally, select this check box to select all service codes.

5 Click **Submit**.

Note: To copy a service delivery matrix for child equipment, select the service delivery matrix, and then click **Copy to Every Child Matrix**. The system copies the service delivery matrix to the **Service Delivery Matrix** tab of every child equipment with **Service Delivery Matrix** selected on its record in the service delivery matrix already.

To import a matrix, select the service delivery matrix to import to, and then click **Import Matrix**. Select the equipment from which to import the matrix, and then click **Submit**.

Defining calendar groups for equipment

Define a calendar group code for a group of equipment that share periods of availability, such as several school buildings in a school district.

To define calendar groups for equipment:

1 Select **Operations > Call Center > Calendar Groups**.

2 Click **New Record**.

3 Specify this information:

Organization
Specify the organization of the equipment.

Calendar Group
Specify the calendar group, and then specify a description in the adjacent field.

Class
Specify the class of the equipment.

Out of Service
Select if the calendar group is not used.

4 Click **Save Record**.

Defining calendar periods for calendar groups

Define periods of availability for calendar groups to calculate penalties and for reporting purposes.

To define calendar periods for calendar groups:

1 Select **Operations > Call Center > Calendar Groups**.
2 Select the calendar group for which to define periods, and then click the **Calendar Periods** tab.
3 Click **Add Calendar Period**.
4 Specify this information:

Calendar Period
Specify the name of the calendar period.

Start Date
Specify the date the calendar period starts.

End Date
Specify the date the calendar period ends.

Monday Start Time
Specify the start time for Mondays during the calendar period.

Monday End Time
Specify the end time for Mondays during the calendar period.

Tuesday Start Time
Specify the start time for Tuesdays during the calendar period.

Tuesday End Time
Specify the end time for Tuesdays during the calendar period.

Wednesday Start Time
Specify the start time for Wednesdays during the calendar period.

Wednesday End Time
Specify the end time for Wednesdays during the calendar period.

Thursday Start Time
Specify the start time for Thursdays during the calendar period.

Thursday End Time
Specify the end time for Thursdays during the calendar period.

Friday Start Time
Specify the start time for Fridays during the calendar period.

Friday End Time
Specify the end time for Fridays during the calendar period.

Saturday Start Time
Specify the start time for Saturdays during the calendar period.

Saturday End Time
Specify the end time for Saturdays during the calendar period.

Sunday Start Time
Specify the start time for Sundays during the calendar period.

Sunday End Time
Specify the end time for Sundays during the calendar period.

5 Select the **Internal Office Hours** check box to indicate the calendar period represents internal office hours for the calendar group.
6 Click **Submit**.

Creating knowledge base articles

Create knowledge base articles to reference when assisting customers. Knowledge base articles can contain instructions for call center employees, links to websites, or separate documents for the customer.

To create knowledge base articles:

1 Select **Operations > Call Center > Knowledge Base Articles**.
2 Click **New Record**.
3 Specify this information:

Organization
Specify the organization.

Knowledge Base Article
Specify a unique code to identify the article, and then enter a title for the article in the adjacent field.

Note: If AUTOKBNUM=YES the KB article is assigned a number. Contact your system administrator for more information.

Language
Select the language for the article text and information.

Status
Select the status for the article.

Note: Articles with an Obsolete status are not displayed during a knowledge base article search.

Department
Specify the department with which to associate the article.

Provider
Specify the provider with which to associate the article.

Service Category
Specify the service category with which to associate the article.

Service Problem Code
Specify a service problem code with which to associate the article. The system automatically populates **Service Problem Code Org.**

Note: Department, **Provider**, **Service Category**, and **Service Problem Code** are copied to the customer request when the article is selected from the knowledge base.

Keywords
Specify words that identify the article when performing KB searches.

Remarks
Enter remarks about the article.

Article Text
Enter the body text of the article. Within **Article Text** you can link documents, other knowledge base articles, and external web pages to the knowledge base article you are creating with the HTML Editor. Click **Hyperlink** to link a document, knowledge base article, or web address.

Note: Copy and paste from existing documents to save time.

4 Click **Save Record**.

Viewing associated service delivery matrixes and knowledge base articles

Each equipment record can have a service delivery matrix defined with allowable combinations of **Department**, **Provider**, **Service Category**, and **Service Problem Code**. When a knowledge base article is created with the referenced values for the department, provider, service category, and service problem code, the system creates a viewable record of the association.

To view associated service delivery matrixes and knowledge base articles:

1. Select **Operations > Call Center > Knowledge Base Articles**.
2. Select the knowledge base article for which to view an associated service delivery matrix, and then click the **Service Delivery Matrix Equipment** tab.
3. View the information.

Creating bulletin board notices

Create, edit, and view bulletin board notices from the **Call Center** form.

To create bulletin board notices:

1. Select **Operations > Call Center > Bulletin Board Notices**.
2. Click **New Record**. The system automatically populates **Created By** and **Date Created**.
3. Specify this information:

   Organization
   Enter the organization to which the bulletin board notice belongs.

   Language
   Select the language in which to create the notice.

   Note: To create a notice in more than one language, create separate bulletin board notices for each language.

   Importance
   Select the level of importance for the notice. The system displays icons on the bulletin board indicating the selected level of importance.

   Knowledge Base Article
   Enter the article to which a hyperlink should be displayed on the bulletin board.

   Start Date
   Enter the start date for displaying the notice on the bulletin board.

   End Date
   Enter the end date for displaying the notice on the bulletin board.

   Note: If you do not enter a **Start Date** and **End Date**, the system displays the notice on the bulletin board until an **End Date** is entered or the notice is deleted.

   Title
   Enter the title for the notice.

   Notice
   Enter the details of the notice.

4. Click **Save Record**. The system automatically populates **Bulletin Board Notice**.

Defining event log type filters

Define which event log types are selectable in the Event Log Type for combinations of Source (Call Center or WO), WO Type, and WO Class.

To define event log type filters:

1 Select **Operations > Call Center > Event Log Type Filter**.

2 Click **New Record**.

3 Specify this information:

Source
Select the screen for which the event log type will display.

Event Log Type
Select the type of event log to display for the **Source**, **WO Type**, and **WO Class**.

WO Type
Enter the work order type for which the event log type will display.

WO Class
Enter the work order class for which the event log type will display.

4 Click **Save Record**.

Setting up the Call Center form

Set up the **Call Center** form by selecting default values and the options to display on the form.

Selecting options for the Call Center form

Select the options for the **Call Center** form to expedite the incident request process.

To select options for the **Call Center** form:

1 Select **Operations > Call Center > Call Center**.

2 Select the organization for which to select options, and then click the **Record View** tab.

3 Specify this information:

Default Source
Select the source to display as the default source on the **Call Center** form.

Default WO Status
Select the default status to display when creating a work order on the **Call Center** form.

Default WO Org.
Specify the organization to display as the default work order organization when a work order is created and the system cannot determine the work order organization from the service problem code or equipment.

Default Type
Select the default request type.

Default Find Contact By
Select the default option to search by when searching for contact information.

Use Default Organization
Select to use the call taker's default organization on the **Call Center** form.

Note: If unselected, the call taker must pick an organization for each caller on the **Call Center** form.

Default Source from Portal
Specify the default source for the service request records created from the Service Request Portal.

Default Type from Portal
Specify the default type for the service request records created from the Service Request Portal.

Default Status from Portal
Specify the default status for the service request records created from the Service Request Portal.

Open Request Status when WO Closes
Select the status to assign to open incident requests when the work order to which they are linked is closed.

Note: This refers only to service requests that are open.

Option	Description
Open	Select to keep the service request open when the work order closes.
Follow-up	Select to flag the service request for follow up when the work order closes.
Closed	Select to close the service request when the work order closes.
Cancelled	Select to cancel the service request when the work order closes

Follow-up Request Status when WO Closes
Select the status to assign to follow-up service requests when the work order to which they are linked is closed:

Note: This refers only to service requests marked for follow-up.

Option	Description
Open	Select to open the service request when the work order closes.
Follow-up	Select to flag the service request for follow-up when the work order closes.
Closed	Select to close the service request when the work order closes.
Cancelled	Select to cancel the service request when the work order closes.

Note: You may define more statuses to meet your call center requirements. Contact your system administrator for more information.

Top Ten Lookback Days
Specify the number of days for which to calculate the top ten knowledge base articles. For example, enter 10 to view the top ten articles for the last 10 days, or enter 6 to view the top ten articles for the last 6 days.

Minimum Penalty
Specify the minimum penalty amount that must be met before a penalty can be deducted from the maintenance fee.

Service Code Validation
Select one of the following options:

Option	Description
Department Structure	Select to define a hierarchy of department, provider, service category, and service code on the **Department Structure** page of the **Departments** form. Equipment and service code do not restrict one another. For example, a service code for tree removal does not need to be linked to every possible parcel within a city. Call takers may select tree removal as the service code, and then select the property location for the problem.
Service Delivery Matrix	Select to configure a matrix of valid department, provider, service category, and service code combinations for equipment on the **Service Delivery Matrix** page of the **Equipment** form. If selected, only equipment with service delivery matrix flagged can be selected. **Note: Service Delivery Matrix** is very restrictive and requires more maintenance.

Option	Description
	The equipment must be flagged as Service Delivery Matrix in order for the lookups and KB search to be filtered on the equipment.
Simplified SDM	Select to configure a simplified matrix of valid service codes and suppliers for the equipment. This can be done on any level, e.g., campus, building, floor, room, or any other asset.

Event Log Type Filter
Select to restrict event types in the Event Log popup on the **Call Center** form.

See "Defining Event Log Type Filters" on page 891.

Allow Request to be Closed while WO is Open
Select to allow the call taker to close the service request while the work order is open.

Note: If unselected, a status change to Closed on service requests linked to open work orders is not allowed.

Populate Customer Information on Unsuccessful Search
Select to always copy the information used to search for a contact. For example, copy contact name or phone number to the contact information section when the contact is not located through **Find Contact By**.

Allow New Contact to be Saved on Customer Request
Select to allow a new Contact Information record to be saved on the Service Request section of the **Call Center** form.

Note: Unselect if only authorized callers are allowed, or if only addresses are stored on the Contact Information record.

Use Department Structure Values Only Once
Select to use each value in the department hierarchy of provider, service category and service code only once.

Note: Provider, **Service Category**, and **Service Code** can appear in the department structure only once. If you select a service problem code, **Department**, **Provider**, **Service Category**, and **Service Code** are automatically populated based on the associated department structure. Unselect to use a service code for more than one department, service category, or provider.

To select options for the duplicate work order check on the Action Request section:

Enable Duplicate WO Check
Select to enable the system to check for duplicate work orders. The duplicate work orders are displayed in **Work Order** on the Work Orders popup on the **Call Center** form. When duplicate work orders exist, users can link to an existing work order or create a new one.

Days to Show Closed WOs
Specify the number of days to show a work order when the work order has closed.

Note: Specify the **Days to Show Closed WOs** to reduce the number of possible duplicate work orders to display for the equipment. Leave it blank to show only work orders that are still open. Enter 0 to show work orders that were closed today or enter 1 for yesterday, etc.

Days to Show Open WOs
Specify the number of days to show the work order after the work order was created. For example, enter `0` to show work orders created on the current date only, enter `1` to show work orders created one day prior to the current date, or leave it blank to include all open work orders.

WO Types
Specify the work order types to allow call takers to link to customer requests. For example, enter Breakdown and Repairable Spare to allow the call takers to select work orders of Breakdown and Repairable Spare type only. Enter null to allow call takers to link customer requests to all work order types.

WO Statuses
Specify the work order statuses of which to allow call takers to link customer requests.

Match WO Header Equipment Only
Select to display work orders when at least one equipment record on the **Call Center** form matches the WO header equipment.

Match Equipment on WO Header or Equipment Tab
Select to display work orders when at least one equipment record on the **Call Center** form appears on the WO header or the **Equipment** page of the **Work Orders** form.

Match Service Category
Select to display work orders when **Service Category** matches the service category of the customer request.

Match Service Problem Code
Select to display work orders when **Service Problem Code** matches the service problem code of the customer request.

To select options for the Knowledge Base popup:

KB Results Per Page
Specify the number of knowledge base articles to display per page after a knowledge base article search.

Show Service Category in Knowledge Base
Select to display the service category in the knowledge base.

Show Provider in Knowledge Base
Select to display the provider in the knowledge base.

To select options for the GIS Map Search popup:

Show Service Problem Code in Knowledge Base
Select to display the service problem code in the knowledge base.

Highlight on Map
Select to have the option to highlight addresses on the map.

Identify Features
Select to have the option to identify features on the map.

Show Children
Select to have the option to show child equipment on the map.

View Nearest Address
Select to have the option to view the nearest address on the map.

Schedule WOs
Select to have the option to schedule work orders from the map.

4 Click **Save Record**.

Specifying GIS attributes for the Call Center form

Select GIS layer attributes based on the customer address to display on the Additional Info popup of the **Call Center** form.

To specify attributes for the **Call Center** form:

1 Select **Operations > Call Center > Call Center**.
2 Select an organization, and then click the **GIS Attributes** tab.
3 Click **Add Attribute**. The system inserts a new Attribute Details record.
4 Specify this information:

Layer
Select the layer for which to choose attributes.

Attribute
Select the attribute to appear on the popup.

Alias
Enter an alias for the attribute. If your attribute name is PC_Parcid enter Parcel Number in Alias.

5 Click **Submit**.

Defining usability codes for equipment

Define usability codes for equipment to calculate penalties for facilities management reports. Use equipment usability codes such as Available for Use or Unavailable to determine equipment usability.

To define usability codes for equipment:

1. Select **Operations > Call Center > Call Center Setup**.
2. Click the **Equipment Usability Codes** tab.
3. Click **Add Equipment Usability Code**.
4. Specify this information:

   Equipment Usability
   Enter an equipment usability code, and then enter a description of the equipment usability code in the adjacent field.

   Penalty Factor
   Enter a penalty factor for the equipment usability code.

   Out of Service
   Select if the equipment usability code is out of service.

5. Click **Submit**.

Processing customer requests

Edit contact information, search a GIS map to retrieve equipment for a work order, create a new work order, link to an existing work order, record customer comments, query the knowledge base search, or view bulletin board notices.

Entering customer requests

To enter customer requests:

1. Select **Operations > Call Center > Call Center**.
2. Click **New Record**.
3. Specify this information:

   Organization
   Specify the organization of the request.

   Status
   Select the status for the request.

Source
Select the request source.

Type
Select the request type.

Class
Specify the class for the request linked to the work order from the service code.

Assigned To
Specify the Call Center employee assigned to the request.

4 Click **Save Record**.

See "Viewing customer requests for work orders" on page 623.

Performing a customer search

To perform a customer search:

1 Select **Operations > Call Center > Call Center**.
2 Click **New Record**.
3 Specify this information:

Find Customer By
Choose one of the following options to search for a customer:

Option	Description
Phone	Select to locate a customer by phone number in the system. The system searches all phone fields, not just the primary phone.
Employee Code	Select to locate call center employees by their codes.
Last Name	Select to locate customers by their last names.
First Name	Select to locate customers by their first names.
Employee Name	Select to locate call center employees by names.
Address	Select to locate customers by their address in the system.

that contains
Enter the data for which to search. For example, if you chose to search by Phone, enter the phone number for which to search.

Note: If exactly one match is found, the system populates the information in the **Customer Information** section.

If more than one match is found, select the correct match from the Customer Information lookup.

If no match is found, the system copies the search criteria information to the **Customer Information** section.

4 Click **Search** to begin the search process.

Entering customer information

To enter customer information:

1 Select **Operations > Call Center > Call Center**.

2 Click **Create New Call Center Record**.

3 Specify this information:

Name
Specify the customer's first name, middle initial, and last name.

Company Name
Specify the company where the customer is employed.

Employee Code
Specify the code for the employee.

Address 1/Address 2
Specify an address.

Note: Click **Copy to Work Address** to copy **Address 1** or **Address 2** to the work address on the action request.

Specify the customer's **City**, **State**, and **Zip Code**.

Specify the customer's **Primary Phone**, **Secondary Phone**, and **Third Phone** numbers.

Specify the customer's **Primary Fax** and **Secondary Fax** numbers, as well as the **Primary E-mail** and **Secondary E-mail** addresses.

Note: Click **Launch E-mail** to send an email message to the customer.

Address Alias
Specify a popular name for an address, e.g., Haywood Mall or Cleveland Park.

Notes
Enter notes specific to the customer.

4 Choose one of the following options to save:

- Click **Save as New** to save the customer information to a new contact information record.

See "Entering Contact Information" on page 879.

- Click **Save Changes** to save any changes made to this customer's information to the existing contact information record.

Note: Optionally, if you do not wish to save the information to a contact information record, leave the information added and navigate to another section. The new information is saved to the customer request, not to the contact information record.

Viewing additional information

View information based on the **GIS Attributes** page of the **Call Center Setup** form and Address 1 in the **Customer Information** section.

To view additional information:

1. Select **Operations > Call Center > Call Center**.
2. Select the customer request for which to view additional information, and then click the **Record View** tab.
3. Click **Additional Information**.
4. View the additional information.

   Note: If the system finds more than one address match, select the address for which to show attributes from the lookup, and then click **Next** to view the Additional Info popup.

5. Click **Close**.

Viewing the event log

View the progress of a customer request or work order.

To view the event log:

1. Select **Operations > Call Center > Call Center**.
2. Select the customer request for which to view the event log, and then click the **Record View** tab.
3. Click **Event Log**.
4. Click **Add Event**.
5. Specify this information:

   Date/Time
   Enter a date and time for the event.

   Event Log Type
   Select a type for the event.

   From Value
   Enter a value.

To Value
Enter a value.

Note: From Value and **To Value** are highly configurable and may represent any value of your choice, for example, **From Value** could represent the email address of a sender, and **To Value** could represent the email address of the recipient, etc.

6 Click **Close**. The system automatically populates **User** and **Field**.

Performing a knowledge base search

To perform a knowledge base search:

1 Select **Operations > Call Center > Call Center**.
2 Click **New Record**.
3 Specify this information:

Search Criteria
Enter the words to search for in the knowledge base.

Choose one of the following to specify search criteria results:

Option	Description
Keyword Search	Select to search the knowledge base for articles with key words that match the criteria.
Full Text Search	Select to search the contents of the knowledge base for the search criteria entered.

Department
Enter a department to narrow the search.

Provider
Enter a provider to narrow the search.

Service Category
Enter a service category to narrow the search.

4 Click **Search**. The system automatically populates **Search Criteria**, **Keyword Search/Full Text Search**, **Department**, **Provider**, **Service Category**, and **Service Problem Code** with the information from the **Call Center** form.
5 Click the title of the article that closely matches your search.

Note: If you are familiar with an article and see the service problem code you need, click **Add Article to Customer Request** next to the article. The system adds the article to the customer request. The system adds the article, **Department**, **Provider**, **Service Category**, and **Service Problem Code** to the **Call Center** form.

Click **Add Article to Favorites** to add the article to My Favorites.

Click **Remove Article from Favorites** to remove the article from My Favorites.

Click **Print Article** to print the article.

Viewing the results of the knowledge base search

View the results of the knowledge base article search, your favorite articles, or your most recent search results.

Viewing the results summary

To view the results summary of a knowledge base search:

1. Perform a knowledge base search.
   See "Performing a Knowledge Base Search" on page 901.
2. Click **Total Articles Found** to view all articles from the search.
3. Click **Articles w/ Service Problem Codes** to view only the articles that have a service problem code.

Viewing my recent searches

To view my recent searches:

1. Perform a knowledge base search.
   See "Performing a Knowledge Base Search" on page 901.
2. Click the saved search to display the article.

   Note: The system displays your 5 most recent searches during the period of login. The search is cleared when you log out.

Viewing my favorites

To view my favorites:

1. Perform a knowledge base search.
   See "Performing a Knowledge Base Search" on page 901.
2. Click the title of the article to display the article.

   Note: If you log out, the system does not delete this list.

Viewing the top 10 knowledge base articles

To view the top 10 knowledge base articles:

1. Select **Operations > Call Center > Call Center**.
2. Click the **Record View** tab.
3. Click **Expand/Collapse** on **Top 10 KB Articles**.
4. Click the title of the desired KB Article to display the article in the Knowledge Base.

Processing an action request

To process an action request:

1. Select **Operations > Call Center > Call Center**.
2. Click **New Record**.
3. Choose one of the following options:

Option	Description
Work Address	Enter the address or intersection where work is requested.
Landmark	Enter a popular landmark to retrieve an address if the exact work address is not known. **Note:** If you copied **Address 1** or **Address 2** from Customer Information, the system inserts the address in Work Address. Click **Additional Information** to view additional information based on the **Work Address**. See "Viewing Additional Information" on page 900.

4. Specify this information:

Equipment
Enter the equipment on which to perform work. **Equipment Org.** and **Equipment Description** are automatically populated.

Note: Click **View Customer Equipment** to view and select from equipment associated with this customer.

Click **Additional Equipment** to view and select from all equipment associated with this customer. The system automatically populates **Multiple Equipment** if more than 1equipment is selected.

Service Problem Code
Enter the service problem code. The system can automatically populate **Service Problem Code** for the work order based on the selected knowledge base article.

See "Performing a Knowledge Base Search" on page 901.

Temporary Fix Promise Date
Enter the date by which the work will be fixed temporarily.

WO Class
Enter the class of the work order.

Equipment Usability
Enter the code identifying the equipment's usability. The system automatically populates **Equipment Usability Org.**

Note: Equipment Usability is used in penalty reports when penalty amounts depend upon equipment usability.

Permanent Fix Promise Date
Enter the date by which the work will be fixed permanently.

5 Click **Perform Map Search**.

6 Perform a GIS map search.

See "Performing a GIS map search (Infor EAM)" on page 797.

7 Choose one of the following options:

Option	Description
Return Equipment	Click to return equipment to the action request.
Return Work Order	Click to return a work order to the action request. The system associates the customer request with this existing work order.
Close	Click to close the **GIS Map Search** page.
Associate Map	Click to attach the map to the customer request as a .PDF file.
Update Work Address	Click to update the work address on the **Call Center** form with the selected equipment. This is used when the equipment is a physical address.

Note: If you attach the map to the customer request, click the **Documents** tab to view it.

If your system does not have the GIS module, select **Equipment** from the list of values.

8 Enter linear reference information. The system only displays Linear Reference Details if the equipment record for which to create the work order is a linear equipment record.

See "Defining regular work order headers" on page 488.

9 Click **Create WO**.

10 Choose one of the following options:

Option	Description
Link work order to customer request	Select the Work Order, and then click **Link to Request**. The system automatically populates **Work Order**, **WO Class**, **Work Order Org.**, **WO Priority**, and selects **Duplicate**.
Generate a new work order	Click **Create New WO**. The new work order is created and **Work Order** is automatically populated.

11 Click **Save Record**.

Adding remarks to the customer request

To add remarks to the customer request:

1 Select **Operations > Call Center > Call Center**.

2 Click **New Record**.

3 Specify this information:

Remarks
Enter any remarks regarding the customer, work order, or request.

Copy to WO
Select to copy the remarks to the work order when you click **Create WO**.

Note: If **Copy to WO** is unselected, the system saves remarks made to the customer request only.

4 Click **Save Record**.

Viewing bulletin board notices

To view bulletin board notices:

1 Select **Operations > Call Center > Call Center**.

2 Click the **Record View** tab.

3 Click **Expand/Collapse** next to Bulletin Board.

4 Click **Expand/Collapse** next to the notices that have additional text to expand them. Notices with knowledge base articles have titles that are links to display the knowledge base articles.

5 View the bulletin board notice information.

Creating, updating and reviewing requests using the service request portal

Create a new service request to request maintenance on a piece of equipment or a location. Alternately, update open service requests when a work order or case is not already associated to the service request.

To create, update and review a request using the service request portal:

1 Click the URL provided to open the service request portal.

2 Choose one of the following options:

Option	Description
Create a new request	Click **Create Request**. See step #3.
Update an existing request	Select the service request record to update, and then double-click the record to open it. See step #4. **Note:** If a work order or case is already associated to the service requests, all fields are protected and no updates are allowed.
View request details	View the information, and then close the screen.

3 Click **Create Request**.

4 Specify this Location Details information:

Equipment
Specify the name of the equipment needing service.

Campus
Specify the name of the campus needing service.

Building
Specify the name of the building needing service.

Floor
Specify the name of the floor needing service.

Room/Unit
Specify the room or the unit needing service.

5 Specify this Request Details information:

Service Category
Specify the service category identifying the requested service.

Service Code
Specify the code identifying the requested service.

6 Specify the **Request Details**.

7 Specify the **First Name**, **Last Name**, **E-mail**, and **Phone** of the person at the site needing service or the person to contact.

8 Select the **Request Registration** check box if you are a guest user and would like to register, and use your e-mail address as your **Portal ID** for future log-in access.

9 Click **Submit**.

Note: If you are a guest user and selected the **Request Registration** check box, the service request is saved and you are logged out. Re-enter the portal with the e-mail address you specified as your **Portal ID**.

Creating customer surveys

Insert, update, or delete customer surveys used to assess customer satisfaction, responsiveness, etc.

To create a customer survey:

1 Select **Operations > Customer Surveys**.

2 Click **Add Record**.

3 Specify this information:

Customer Survey
Specify a unique code to identify the customer survey, and a description of the customer survey.

Effective
Specify the date to activate or make the survey available.

Discontinue
Specify the date after which to discontinue the survey to make it unavailable.

Survey Status
Specify A (Approved) status or U (Unfinished) status for the survey.

Survey Title
Specify a title for the survey.

Opening Message
Specify the message that will display when the customer survey is opened.

Closing Message
Specify the message that will display when the customer survey is completed and closed.

Logo URL
Specify the URL file path to the logo to be displayed for the customer survey.

From Email
Specify the email address from which the surveys will be sent.

Redirect URL
Specify the URL file path to which to redirect the users when they close the customer survey and the screen is not refreshed nor are they redirected after the set period specified in **Redirect Timer**.

Redirect Timer
Specify the time in seconds in which the user will be redirected to the specified URL in **Redirect URL** after the user completes the survey.

4 Click **Save Record**.

Adding questions to customer surveys

Add, edit, or delete questions on a customer survey.

To add a question to a customer survey:

1 Select **Operations > Customer Surveys**.

2 Select the customer survey for which to add questions, and then click the **Questions** tab.
3 Click **Add Question**.
4 Specify a description of the question.
5 Specify this information:

Sequence
Specify the sequential order the question will display in the customer survey.

Type
Specify the question type, e.g., **Checkbox** or **Radio Button**.

Question Text
Specify the text for the question. This is the actual question text the users will see.

6 Select the **Out of Service** check box to prevent the question from displaying in the customer survey.
7 Click **Submit**.
A **Question Code** is assigned to identify the question.

Adding answers to questions for customer surveys

1 Select **Operations > Setup > Customer Surveys**.
2 Select the customer survey for which to add answers to questions, and then click the **Questions** tab.
3 Select the question code for which to add answers, and then click **Add/Edit Survey Answers**.
4 Click **Add Survey Answer**.
5 Specify this information:

Survey Answer
Specify the answer to the question, and then enter a description of the answer.

Answer Sequence
Specify the sequential order the answer will display in the options when the question is answered on the survey.

6 Select the **Out of Service** check box to prevent the answer from displaying in the options of answers to the question.
7 Click **Submit**.
An **Answer Code** is assigned to identify the answer.
8 Click **Close**.

Adding triggers to customer surveys

Add, updated, or delete triggers to be included in a customer survey.

To add triggers to a customer survey:

1. Select **Operations > Customer Surveys**.
2. Select the customer survey to which to add triggers, and then click the Triggers tab.
3. Click **Add Trigger**.
4. Specify this information:

   Entity Trigger
   Specify the entity trigger, e.g., **Work Order** or **Call Center**.

   Status Trigger
   Specify the status trigger.

   Email Source
   Specify the email source.

5. Click **Out of Service** check box to prevent the trigger from being included in the customer survey.
6. Click **Submit**.

Reviewing results of customer surveys

Review the results of customer surveys once they have been completed.

To review the results of a customer survey:

1. Select **Operations > Customer Surveys**.
2. Select the customer survey for which to review results, and then click the Results tab.
3. View the information.

Updating long translations for customer surveys

Update the translations of the customer survey questions and answers.

To update long translations for a customer survey:

1. Select **Operations > Customer Surveys**.
2. Select the customer survey for which update long translations, and then click the **Translations** tab.
3. Select the language for which to update long translations.
4. Specify this information:

   Translated Description
   Specify the translations.

5. Click the **Translated** check box to indicate the text is translated.
6. Click **Save Record**.

Completing customer surveys

Complete customer surveys by recording answers to the questions, and submitting the survey.

To complete a customer survey:

1. Select the URL provided in the request for survey completion.
2. Complete all of the survey questions.
3. Click **Complete Survey**.

Defining cases for case management

Create records for events which occur on the job that do not qualify as equipment and are thus not tracked by a work order. Examples of these types of events are environmental spills, accidents, or you may need to enter notes from your shift, or the history of non-work order equipment. Define these events as cases.

To define cases for case management:

1. Select **Operations > Case Management**.
2. Click the **Record View** tab.
3. Click **New Record**.
4. Specify a description of the case.
5. Specify this information:

   Organization
   Specify the organization of the case.

   Equipment
   Specify the equipment if related to the case.

   Note: Equipment is required to generate a follow-up work order for the case.

   Type
   Specify the type.

   Department
   Specify the department responsible for the case.

   Status
   Specify the status of the case. Specify **Requested**, **Open**, **Closed**, or **Cancelled**.

6. Specify this case details information:

   Class
   Specify the class of the case.

Location
Specify the location of the event or case. If equipment is involved, specify the location of the equipment.

Service Code
Specify the service code to associate with the event or case.

Area
Specify the area in which the case occurred.

Priority
Specify the priority to handle the case.

Cost Code
Specify the cost code.

Event Start Date
Specify the date the case event occurred.

Event End Date
Specify the date the case event ended.

Total Estimated Costs
Specify the total estimated costs to fix the event.

7 Select the **Regulatory** check box to indicate this case event is a regulatory requirement or regulated event.

8 Select the **Follow-up Required** check box to indicate this case event requires follow-up details.

9 Select the **Hazardous Materials** check box to indicate this case event involves hazardous materials or an event related to hazardous materials.

10 Specify the follow-up work order details information if there is a related work order.

11 Specify the linear reference details information if the associated equipment is linear.

12 Specify this tracking details information:

Requested By
Specify the person requesting work on the case.

Date Requested
Specify the date work on the event was requested.

Responsible
Specify the identifying code of the employee responsible for the case event.

Responsible Name
Specify the name of the employee responsible for the work on the event.

Responsible E-mail
Specify the e-mail address of the person responsible for the work on the event.

Assigned To
Specify the person assigned to complete the work on the event.

Assigned To Name
Specify the name of the person assigned to complete the work on the event.

Assigned To E-mail
Specify the e-mail address of the person assigned to complete the work on the event.

Sched. Start Date
Specify the scheduled start date of the work on the event.

13 Click **Save Record**. A unique code identifying the **Case** is assigned.

Defining tasks for case management

Define tasks or activities related to a case that must be performed to complete the case.

To define a task for case management:

1 Select **Operations > Case Management**.

2 Select the case for which to define a task, and then click the **Tasks** tab.

3 Click **Add Task**.

4 Specify a description of the task.

The **From Service Code** check box is selected if this task originated from a case task associated to the service code entered on the Case Management page.

5 Specify this task details information:

Sequence
Specify the sequential order in which this task is to be performed if there are more tasks to define for this case.

Step
Specify a sub-sequence for tasks that have the same sequential order.

Task Plan for Checklist
Specify an existing task plan checklist to attach to this task.

Estimated Costs
Specify the estimated costs of the task.

Priority
Specify the priority of the task.

6 Specify the tracking details information.

7 Specify the follow-up work order details information if there is a related work order.

The **Calculated Costs Refresh Required** check box is selected if the **Refresh Cost Data** button must be selected to display the current actual costs of the follow-up work order associated with this task.

8 Click **Submit**. A unique code identifying the **Task No.** is assigned.

Viewing event logs for case management

Major events such as status changes that occurs during the lifecycle of a case are stored on the **Event Log** tab. View, update, or manually add events or remarks for a case.

To view the event logs for a case:

1 Select **Operations > Case Management**.
2 Select the case for which to view the event log, and then click the **Event Log** tab.
3 Perform one of the following actions:

Option	Description
View the event log	View the event log, and then close the screen.
Add a note to an existing record	Select the record, and then add the note. Proceed to step # 6.
Manually add an event	Click **Add Event**. Proceed to step # 4.

4 Specify this event details information:

Event Type
Specify the type of event.

Date/Time
Specify the date and time of the event.

5 Specify any notes related to the event.
6 Click **Submit**.

Completing task checklists for case management

Enter answers to checklist items associated with tasks of a case.

To complete a task checklist for case management:

1 Select **Operations > Case Management**.

You may also complete task checklist items on the **Checklist** tab of the Case Management Tasks page.

2 Select the case for which to complete task checklists, and then click the **Checklist** tab.
3 Select the **Task Sequence** of the task for which you will answer checklist item questions.
4 Answer the checklist item questions.
5 Click **Submit**.

Updating case management tasks

Update case management tasks or complete tasks assigned to you.

To update a case management task:

1. Select **Operations > Case Management Tasks**.
2. Select the case for which to update a task, and then click the **Record View** tab.
3. Specify the Tracking Details information:

   Start Date
   Specify the date the task was started.

   Percent Complete
   Specify the percentage of how close the task is to completion.

   Date Completed
   Specify the date the task was completed.

4. Select the **Ready to Start** check box to indicate that work on the task can be started.
5. Select the **Started** check box to indicate work on the task has started.
6. Select the **Completed** check box to indicate work is complete for the task.
7. Specify the Follow-up WO Details information.
8. Click **Save Record**.

Completing task checklists for case management

Enter answers to checklist items associated with tasks of a case.

To complete a task checklist for case management:

1. Select **Operations > Case Management**.

   You may also complete task checklist items on the **Checklist** tab of the Case Management Tasks page.

2. Select the case for which to complete task checklists, and then click the **Checklist** tab.
3. Select the **Task Sequence** of the task for which you will answer checklist item questions.
4. Answer the checklist item questions.
5. Click **Submit**.

Web service prompt execution

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System administrators can create user-defined screens that utilize the underlying web services on which the system is architected.

See the *Infor EAM System Administrator Guide*.

The Web Service Prompt Engine displays the screen representing the prompt definition. The Web Service Prompt Engine also processes data entered for the prompt transactions through the underlying web services.

Because the Web Service Prompt Engine uses web services, the data is processed directly to the underlying tables as the transactions are submitted. Therefore, you receive immediate feedback if the transaction is successful as well as if it contains validation or web service errors. These errors can then be corrected in 'real time' and re-submitted.

Once a web service prompt has been created, the system administrator must place the corresponding screen into the user groups menu structure. That process makes the new screen available through the menu structure, and the new screen appears like all other screens within the system. The screen name is equivalent to the prompt description. You need only query permissions for the new screen.

Note: User defined fields are available for web service prompts. The fields display in a list of all fields under the appropriate web service. These user defined fields inherit properties from the associated reference form. Right-click in Screen Designer mode to define options for user defined fields.

See "Entering user defined fields" on page 34.

The following apply to screens based on web service prompts:

- They are standalone record view screens with no tabs and no Dataspy filtering features
- Common tabs and pop-ups (Comments, Documents, Addresses, etc.) are not available
- The only toolbar options available are Previous Screen, Save, Reset Screen, and Help
- Right-click options are not available
- Dataspy, Export to Excel, Quick Filter, and Save Layout options are not available
- The system does not automatically display the lookup defined on the selected screen for a chosen field. The system administrator must associate a Query Code or define a Retrieved Value for each lookup field unless the field is a User Defined Field with lookup definitions defined on the inherited screen.

Executing web service prompts

Submit one or more transactions using one or more web services to execute the web service prompts.

To execute web service prompts:

1. Create a web service prompt.

   See the *Infor EAM System Administrator's Guide*.

2. Associate the new web service prompt with a user group menu.

   See the *Infor EAM System Administrator's Guide*.

3. Select a **Web Service Prompt** screen. The screen is displayed in insert mode, based on the underlying web service prompt field defined. The Web Service Prompt description is displayed as the screen name.

   Note: Each web service defined for the prompt is displayed in its own section. Each section contains a header containing the name of the web service for which the section is based, such as AddWorkOrder, AddActivity, and DeletePart.

   The prompt fields for each web service section header are displayed in ascending order by **Sequence**.

   If a **Query Code** is defined for the prompt field, a lookup button for the field is displayed.

   If the prompt field is Computed, the statement in **Computed Data** is used to populate the field value. These calculations are performed when the transaction is saved.

   If the prompt field is a checkbox, a check box is displayed next to the **Field Label**.

   If a **Pattern Match** is defined for a prompt field and you leave the field, the value entered in the field is guaranteed to match the defined pattern.

   If **Use Previous Value** is checked for a prompt field and insert mode is entered, the field values from the previous record are automatically populated for any fields that have **Use Previous Value** checked on the web service prompt.

4. Enter values for the displayed prompt fields.
5. Click **Save**. The entered data is submitted through the web services related to the prompt. Web Services are processed by the Web Service Prompt Engine in ascending order by **Process Group**.

Executing a web service prompt containing an 'update' web service

To execute a web service prompt containing an 'update' web service:

1. Create a web service prompt.

   See the *Infor EAM System Administrator's Guide*.

2. Associate the new web service prompt with a user group menu.

   See the *Infor EAM System Administrator's Guide*.

3. Select a **Web Service Prompt** screen. The screen is displayed in insert mode, based on the underlying web service prompt field defined. The Web Service Prompt description is displayed as the screen name.

Note: Key fields defined in the 'update' web service prompt are displayed. These fields are used to uniquely identify a database record. For example, if updating equipment, you must enter the equipment code and organization.

4 Enter the key field data. When you tab out of the last key field or click **Save**, the key field information is used to retrieve the field data defined in the 'update' prompt definition. The key fields are protected by the system.

5 Update other fields as necessary.

6 Click **Save**.

Executing a web service prompt containing a 'delete' web service

To execute a web service prompt containing a 'delete' web service:

1 Create a web service prompt.

See the *Infor EAM System Administrator's Guide*.

2 Associate the new web service prompt with a user group menu.

See the *Infor EAM System Administrator's Guide*.

3 Select a **Web Service Prompt** screen. The screen is displayed in insert mode, based on the underlying web service prompt field defined. The Web Service Prompt description is displayed as the screen name.

Note: Key fields defined in the 'delete' web service prompt are displayed. These fields are used to uniquely identify a database record. For example, if deleting equipment, you must enter the equipment code and organization.

4 Enter the key field data. When you tab out of the last key field or click **Save**, the key field information is used to identify the database record for deletion.

5 Click **Save**.

Glossary

ABC analysis

An inventory method that enables you to divide your stock inventory items into three groups or classes: A, B, and C. ABC class assignments are used as selection criteria for a number of material management functions, such as EOQ calculations, stock replenishment, repairable spares, and physical inventory counts.

absolute

Indicates the values entered in **Device Tolerance** should be processed as absolute values.

The range at which the work order will pass or fail is calculated based on the following equations:

Lower Work Order Device Tolerance = Standard - Lower Equipment Device Tolerance

Upper Work Order Device Tolerance = Standard + Upper Equipment Device Tolerance

For example, if the **Standard** is 25, and the **Device Tolerance** of the equipment is 5-5, the reading must fall within a range of 20 to 30 for the work order to pass.

active layer

The layer of a GIS map in which a search originates.

additional charge

Added to pricing schedules in a multi-organization environment. Additional charges are added to every work order that is completed for a customer contract.

address alias

A name (usually more popular name) for an address or place.

adjustment

Corrections made to charges invoiced to a customer. Adjustments can be in the form of an extra charge for a damaged vehicle or a fee for equipment returned late.

alert tolerance

Indicates a reading that is acceptable, but is closer to the device tolerance limits than desired. Alert tolerances fall within device tolerance limits and are always calculated as a percentage value.

The lower and upper alert tolerances are calculated based on the following equations:

Lower Work Order Alert Tolerance = Standard - [(Alert Tolerance / 100) * (Standard - Lower Equipment Device Tolerance)]

Upper Work Order Alert Tolerance = Standard + [Alert Tolerance / 100) * (Upper Equipment Device Tolerance - Standard)]

archive

The process in which the system will remove data from the viewable screens and into tables for keeping.

asset

A sub-category of equipment. An asset is any physical object for which you want to store data and create work orders, e.g., a pump, a car, an air conditioning unit, etc.

budget

Tools used to track expenses and set spending limits for specified time periods or items. Budgets coordinate with existing inventory. They also can be defined for predetermined time frames such as months, quarters, or years.

Important parts of a budget include budget calendar types, groups, terms, and structures.

buffer layer

The layer of a GIS map in which equipment for which you are searching resides if your search involves multiple layers.

building maintenance program (BMP)

One of many policies and procedure templates within Behavioral Health Environment of Care Manual written for the medical office, hospital, and other healthcare organizations. The policies cover: Joint Commission (JCAHO or TJC) • CMS • HIPAA • CDC • AAAHC and more.

bulletin board

A database of information posted for the benefit of call center employees that lists company-related information, or any information that the call center employee needs to know immediately.

bulletin board notice

An internal notice in the Call Center module.

calibration

The process of comparing the performance of a piece of equipment to a known standard of accuracy.

call center

A place where a customer calls, emails, faxes, or walks in, with a request for information. Call Centers are staffed with employees who are trained to handle the requests that customers have.

campaign

A list of jobs that may be performed on a given list of equipment as necessary to complete work.

campaign event

A survey of equipment or job to perform work on equipment.

change notice

Used when specifying defective equipment from vendors, which the vendors replace without charge to the customer for a certain period of time. Change notices can be recorded in forms once they are issued from the vendor.

charge definition

The specification of a type of charge and any adjustments to the charge that will be invoiced to a customer. The charges are defined on the customer and rental contracts.

checklist

The items listed are used to verify the progress or completion of tasks. The Checklist tab is on the Task, Work Order, and Permit to Work screens.

clause

A provision added to a customer contract and used on the customer contract definition.

confined space

Area determined as a confined space by OSHA regulations.

contract

Purchasing contracts are tools used to detail agreements for parts. Details include such information as suppliers, time-frames, and buyer facts as well as percentage discounts arranged for each contract according to order or duration.

contract item

A piece of equipment, project, or work order. The Contract Items screen specifies the equipment, project, or, work order included on the customer contract. Also provided are details of the item including the organization that will invoice, contract template, recommended exchange rate, and associated customer.

core part

A part you plan to repair on internal repair work orders, or send to a supplier to repair on external repair requisitions. Often referred to as repairable core parts.

customer charge

The costs calculated for all work performed for a customer contract. Customer charges include the costs of all labor, parts, fixed charges, and all information specified on a pricing schedule.

customer contract

An agreement with a customer detailing charge definitions, contract clauses, comments, and invoice data. The contract also lists a definition of the charges included and excluded, and applicable adjustments. Charges that can be invoiced are work order charges, sale of services, fuel charges, energy charges, and periodic or usage based lease or rental charges. A customer contract can involve a combination of multiple equipment, projects, and work orders.

customer contract - work

An electronic document/record created for commercial service (or asset management services) customers to specify how time, material, and labor costs are charged to a customer for maintenance work. A customer contract can include fixed charge schedules and pricing schedules for custom trade rates, part charges, additional charges, and the criteria by which the system will identify work orders for which to accumulate and bill charges when generating customer charges and invoices.

customer invoice

Generated/created to compile and assemble accounts receivable invoices for asset management service customers, work order charges, and fixed payments.

customer rental

A contract created when a customer rents equipment. The rental price is listed on the contract and is based on usage or a one-time charge. Customer invoices can be generated from Customer Rental records. Only one piece of rental equipment can be listed on the contract.

customer request

Any need that the customer has and contacts the Call Center for help/results. There are three types of customer requests:

1. Action Request (work order)

2 Information Request

3 Commenting on a service or new product/program

dataspy

A predefined view of a list of records or set of data.

decision tree

Created for a reliability ranking to calculate a reliability ranking score. A decision tree is comprised of four levels which include a reliability ranking level and up to three sub-levels, answers, formulas, and normalization values.

default set

The default set of calibration test points that apply to calibration work orders/PM work orders.

depreciation

The reduction of the value of an asset as the result of wear and tear, age, or obsolescence.

deviation

The difference between the **Device Reading** and the **Standard**.

device tolerance

The allowable deviation from the standard for the device being used to perform the calibration measurement. A specified device tolerance indicates the range of variation permitted in maintaining adherence to the standard for the device.

equipment

Entities for which you store data and create work orders. "Equipment" is a generic, all-encompassing term for assets, positions, systems, and locations, which form a hierarchy of equipment information:

1 Locations

2 Systems

3 Positions

For example, a motor, a line in a factory, a street, etc.

fields to remember

This tab refers to the fields and their values that the system will remember and display as the user moves from screen to screen.

fixed charge

Can be added to customer contracts to create a set price to be added to a customer invoice based upon a specified due date.

GIS

An acronym for Geographical Information Systems.

hazard

A biological, chemical, physical, mechanical, environmental agent or situation that threatens life, health, property, or the environment. In EAM hazards typically refer to workplace hazards or potential hazards employees may encounter based on their workplace operations such as falling when working at heights, drowning when welding under water, or electrocution when working with high voltage equipment.

HIPAA confidentiality

A federal regulation protecting patient health information and the equipment that safeguard this confidential information.

incident request

A record created when a hotel guest or employee contacts the front desk to report a problem or to get information. Work orders can then be generated from these requests when it is necessary to take action.

increment

The increment specifies the numeric interval of which a device reading must be evenly divisible. For example, if you specify an **Increment** of 5, you must enter a **Device Reading** that is evenly divisible by 5, such as 0, 5, 10, 15, 20, 25, etc.

instrument type

A series of one or more instruments requiring and/or used for calibration that are linked together.

Standard applied to: An instrument to which a standard is applied during calibration.

Accessory: An instrument that is secondary or subordinate within a loop.

Reading taken from: An instrument from which a reading is taken during calibration.

isolation point

Indicates at which areas the equipment can be isolated from its energy sources to prevent injury from unexpected startup. Equipment should be isolated from its energy sources during the lockout/tagout procedure of the permit to work process. Examples of isolation points are circuit breaker, valve, or equipment switch.

kit

A collection created from a stock of parts within a store. When a kit is built, component parts are removed from

inventory and the kit itself is added to inventory. Kits are individually identified by a unique Lot number.

knowledge base

A database of information from which call center employees can search for needed information, to solve a customer's problem or request. Within a knowledge base there are articles, links to websites that offer more information, and directions for call center employees to follow.

lockout/tagout

OSHA regulations on lockout/tagout procedures for equipment, which require that machines are properly shut down and that they are not restarted until service or maintenance on the machine is completed. Tagging and locking out (e.g., securing that mechanical equipment is disconnected from to electricity) while employees are performing required maintenance and work orders, prevents bodily injury and death by employees who might otherwise startup equipment while maintenance is being performed.

lockout box

A physical location for employees to safely store all the keys used for a lockout/tagout procedure during which mechanical equipment is disconnected from electricity. The keys are safely stored and locked to prevent unexpected startup of the equipment while employees are performing maintenance. The unexpected startup of equipment while maintenance is performed could cause bodily injury or death to employees performing the work. The keys are safely stored and locked during this time to prevent such injuries or fatalities.

loop

A series of one or more instruments requiring and/or used for calibration that are linked together.

maintenance pattern

A schedule of predefined jobs used to perform a preventive maintenance cycle. A maintenance pattern tells how the system should generate work orders for the maintenance pattern, and whether the resulting PM work order generation is based primarily on a time interval (weekly, monthly, annually), or on a meter interval (ex. 3000 miles) or both.

normalization value

Acceptable value ranges for levels in the decision tree for which to determine equipment reliability rankings.

objective

A specific result that your organization plans to achieve. Objectives specify the expected results and expected result dates. For example, an objective can be to reduce electrical consumption by 10% in fiscal year 2014 at Greenville, SC plant.

OEM site/system ID

A site and/or system identification for service companies and original equipment manufacturer of an asset.

output

The reading or measurement produced by the calibration measurement at a calibration point.

The output can also be the expected reading if the output unit of measure is different from the input unit of measure.

output range

The allowable deviation from the standard for the output that indicates the range of variation permitted to adhere to the standard for the test point.

percentage

Indicates the system processes the values entered in **Device Tolerance** as percentages.

The range at which the work order will pass or fail is calculated based on the following equations:

Lower Work Order Device Tolerance = Standard - [Standard * Lower Equipment Device Tolerance / 100]

Upper Work Order Device Tolerance = Standard + [Standards * Upper Equipment Device Tolerance / 100]

For example, if the **Standard** is 25, and the **Device Tolerance** of the equipment is 5-5, the reading must fall within a range of 23.75 to 26.25 for the work order to pass.

permit to work

Details the hazards and precautions required to remove or prevent a potential hazard to your employee's safety.

policy

Guidelines created by your organization to record a corporate or enterprise-wide initiative. For example, this enterprise is committed to reducing energy consumption and thereby reducing its carbon footprint.

precaution

A measurement your operation or employees can take to prevent workplace hazards which have the potential to cause bodily injury and even death. Examples of precautions include wearing a safety harness to prevent falling when working at heights, wearing proper equipment to prevent drowning, or switching off electricity to prevent electrocution.

precision

Indicates the maximum number of decimals allowed to the right of the decimal point for a reading.

Note: You can enter a number with fewer than the maximum number of decimals allowed to the right of the decimal point. The system assumes there are zeros at the end of the specified number.

The precision indicates the degree of refinement with which the calibration is performed or the calibration measurement is stated.

process range

The reading or measurement produced by the calibration measurement process at a calibration point.

process tolerance

The allowable deviation from the standard for the process that indicates the range of variation permitted to adhere to the standard for the test point.

reliability ranking

A method by which users assess equipment criticality or risk to overall production.

reliability ranking index

An index of a range of assigned values the system uses when a reliability ranking score has been calculated for equipment using the decision tree formulas.

reliability ranking score

The calculated score by which the system determines equipment criticality and reliability.

reliability ranking survey

A survey for selected equipment to calculate the Reliability Ranking Score and the Reliability Ranking Index (RRI).

The system calculates the Reliability Ranking Score using the formula of the reliability ranking levels and the answers entered on the reliability survey.

sequence

The chronological order of work to be completed on a maintenance pattern based on either a time or meter-based interval for releasing work orders.

In calibrations it indicates the order in which test points should be calibrated.

set

A number assigned to identify a group of test points.

standard

The ideal reading for a piece of equipment against which actual readings should be measured. Standard also refers to the parts used to perform a calibration.

statement of conditions

A statement of conditions on healthcare equipment as required by The Joint Commission to document that a fire safe environment of care and compliance is maintained.

strategy

Utilized to record a corporate or organizational strategic initiative such as the corporate commitment to reduce electrical consumption by an amount and a date. The strategy does not specify how this will be accomplished. For example, a strategy can be to reduce electrical consumption by 35% before fiscal year 2014. To accomplish the strategic initiative, the following can be done:

- Average 35% reduction across the enterprise.
- Minimum reduction of 25% per facility.

target

The focus of an objective or initiative.

test point

The actual point (calibration point) at which the accuracy of the equipment is tested to the known standard. A piece of equipment that requires calibration may consist of numerous test points.

test point range

The numeric values indicating the acceptable range for the test point. The values identify the upper and lower limits of the standard for the test point. The test point reading must fall within this range for the test point to pass.

UMDNS code

A code which identifies a healthcare asset in the Universal Medical Device Nomenclature System™ (UMDNS) which is a standard international nomenclature and computer coding system for medical devices.

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