# Infor LN Analytics Foundation Installation Guide

10.4.1

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# About this guide

This guide describes Infor LN Analytics Foundation and the tasks required to install and configure it.

## Intended audience

This guide is for IT professionals and system administrators who are responsible for installing and configuring Infor Business Intelligence software.

## 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.

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# About Infor LN Analytics Foundation

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LN Analytics Foundation offers what business users in an organization require: a quick way to implement an advanced business intelligence environment for Infor LN. The application includes the most common metrics that business users require for sales, finance, production, and procurement analysis and reporting, making it easier for the users to accomplish their daily tasks.

The application not only includes the content that is needed from a business perspective but also manages the major problem experienced by companies when dealing with business intelligence: the technically complex process of extracting, transforming and loading data from an ERP system into a BI environment. For this, the application leverages the suite which automatically handles the communication between these modules and the storage data in the Business Vault.

The application requires the Business Vault as a central staging area. Infor LN can be connected to the Business Vault using standard connectors, custom-built ION connectors, or point-to-point integrations. When an ION connector is used, information corresponding to each transaction posted on the ERP system is packaged into a standardized BOD (Business Object Document) XML file and sent to the Infor Business Vault via Connect. This information is stored in a raw data format and can also be transformed into a relational schema, using a transformation process known as 'Shredding'.

The data is rearranged to create star schemas from the relational schema. Infor Business Vault Enterprise Edition, creates multidimensional hypercubes running on the Infor BI OLAP Server. Dashboards, reports and analytics are also provided through Infor BI Application Studio which runs in Infor Ming.le™ or standalone.

Before the installation, you must familiarize yourself with the content of:

- Infor Connect documentation
- Infor Business Vault documentation
- Infor LN Integration Guide for Infor ION Business Vault
- Infor BI Installation Guide
- Infor BI Hardware Recommendations Guide
- Infor BI Platform Support.

You can find these documents in the Documentation section of the Infor Xtreme Support portal at http://www.infor.com/inforxtreme.

Use this guide as a reference at your site. This guide explains the process to use the Infor DVD Browser and administrative and user functions to complete specific setup and maintenance tasks.

# Installation

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The chapter describes the process to install LN Analytics Foundation. The chapter also lists the prerequisites for the installation process.

## System requirements

Prerequisites for the LN analytics Foundation installation

- Infor LN
  - Infor LN 10.4 or later.
  - At a minimum, PMC solutions through June 2015 in generic KB article 22945150. You must also install the solution components of the BO2.1 packages.
- Infor BI
  - Infor ION BI 10.6 tools (see Infor BI installation Guide):
    - Infor BI Application Studio 10.6.0.381 including webservices
    - Infor BI Dashboards 10.6.0.315
    - Infor BI OLAP Server 10.6.0.348
- ION
  - ION 11.2 including ION connect
- Business Vault
  - ION Business Vault Base Data Store 10.3.7 including the patch in KB 1550813. (Older Base Data Stores must be migrated to 10.3.7 before you start the Business Vault Enterprise Edition installation.)
  - ION Business Vault Enterprise Edition 11.2 (This must be a new installation and must not be a migration from previous ION Business Vault releases.)

  **Note:**

  - The `BV10_2_TranslationRelatedBVUIScript.sql` script must have been executed on the BVUI database.
  - In Business Vault, you must have a database connection that points to the Base Data Store database. Also the BOD mappings provided with the Base Data Store installation must be imported to a data store definition that is uses the same database connection.

Other prerequisites: Infor Ming.le

# Installation overview

Whether you are installing a new version of LN analytics Foundation or reinstalling an existing version, a full installation is required. You can install and run LN Analytics Foundation 10.4.1 with an older version of LN Analytics Foundation, on the same server. When multiple Infor LN Analytics Foundation versions exist, each LN analytics Foundation version must have separate Business Vault base data stored, repository database, web service and so on. However, it is recommended to remove the older Infor Program Cost Ledger version from the server.

**Note:** Infor does not support multiple installations of the application on one server.

## Backing up existing LN Analytics foundation tables

Installing a new version does not overwrite existing versions. Instead, each new version is installed at a different location.

To install a new version, see "Installing LN Analytics Foundation, Repository Database and OLAP Database" on page 12

During installation, all existing tables specific to the application are dropped and recreated. Prior to this, the system creates a backup for the tables delivered by Infor, that contain user-configured data. The backup tables are saved in the Business Vault Base Datastore database with a time stamp in the existing table name_version_time stamp format. The tables created by a customer are not dropped, Also, back up of these tables is not taken.

After the installation, you can migrate the data from the backup files to the new tables. The tables are made subject to normal housekeeping processes and routine. If the backup files are no longer required, you can delete the files.

**Caution:** If you have made changes to any other LN Analytic foundation tables, your changes are lost unless you have taken a backup of those tables manually.

A further two tables are backed up automatically for security reasons. You must not edit them.

All other LN Analytics Foundation specific tables are dropped without taking a backup. If you have made changes to these tables, the changes are lost if you have not taken a backup.

## Installing a new version

The new version overwrites the existing version, making the existing version obsolete.

For all installations, the installer overwrites:

- The existing LN Analytics Foundation related database objects in the Business Vault Base Datastore.
- The Analytical Model Files that are copied to the file system.
- The Online Help Documentation and Dashboard Files that are copied to the file system.

For the installation of a new version of the application, all other existing LN Analytics Foundation components are not overwritten as the components are installed at a new path or version specific component names.

**Note:** It is recommended that you delete the installed components of the previous version.

## Updating an existing version

For the installation of an existing version of LN Analytic Foundation, the installer attempts to delete the existing components of the application. When the installer is unable to delete these objects, you are prompted to delete the objects before you can finish the installation process.

**Note:** If you want to use the existing User Management configuration, select the **Export User Management Data** option to export the User Management before you delete the repository database and registration. After the installation, use **Import User Management Data** to import the exported User Management.

# Infor LN Analytics Foundation component descriptions

These program features are offered in the LN Analytics Foundation Installation Wizard.

### LN Analytics Foundation, Repository Database, OLAP Database

You can use this feature to:

- Install a LN Analytics Foundation repository database called BA_Rep_LN_AF_10_4_1.
- Create a repository registration called LN Analytics Foundation 10.4.1.
- Install the LN Analytics Foundation OLAP database called LN Analytics Foundation 10.4.1.
- Deploy SQL scripts to the Business Vault Data Store database.
- Configure a LN Analytics Foundation OLAP database alias called LN AnalyticsFoundation.
- Configure a LN Analytics Foundation relational database alias titled BV_DataStore.

**Note:** You must install this feature on the machine that hosts the Infor BI OLAP Server

### Copy Analytic Modeling files

This feature is used to copy the Analytical Modeling zip files to the `LN Analytics Foundation10.4.1\Analytic Modeling` sub folder of the installation folder. The default installation folder is `..Program Files (x86)\Infor\BI\`.

**Note:** This feature must be installed on a machine with a browser. You must have access to the Business Vault Enterprise Edition URL

### Configure Application Studio Web

This feature creates an Application Studio web, LN_AnalyticsFoundation.

**Note:** This feature must be installed on the machine that hosts Infor BI Application StudioWebServices.

### Copy Online Help and Dashboard files

Use this feature to copy:

- The Online Help files to the `Application Studio\Webservices\Help\LNAnalytics Foundation` sub folder of the installation folder. The default installation folder is:

  `..Program Files(x86)\Infor\BI\`
- The CFO.dashboards file to the `LN Analytics Foundation10.4.1\Dashboards` sub folder of the installation folder. The default installation folder is:

  `..Program Files (x86)\Infor\BI\`

**Note:** This feature must be installed on the machine that hosts Infor BI Application Studio WebServices.

### Configure Dashboards Web and Content Connections

Use this feature to create:

- An Application Studio webservice called LN_AnalyticsFoundation_Dashboards.
- A content connection called LNAnalyticsFoundation.

**Note:** This feature must be installed on the machine which hosts Infor BI Application Studio WebServices.

# Installing LN Analytics Foundation, Repository Database and OLAP Database

This feature must be installed on the machine which hosts Infor BI OLAP Server.

To install LN Analytics Foundation, Repository Database and OLAP Database:

1. Run the LN Analytics Foundation installer Setup.exe .
2. Click **Next** on the Welcome to the Installation Wizard for Infor LN Analytics Foundation window.

3 Select **LN Analytics Foundation**, **Repository Database**, and **OLAP Database** in the Custom Installation window.

4 Click **Next**.

5 In the Database Server window, select **SQL Server** in the **Server Type** field and specify the name of the database server on which the Repository database must be installed.

6 Specify the name of the server, Business Vault Data Store database, user name and the password in the Database Server - Relational Alias (BV_DataStore) window.
This information is used to configure the BV_DataStore relational alias.

7 Click **Next**.

8 In the Script Execution window, specify the server name, database name, user name and password of the Business Vault Data Store in which the scripts must be executed. By default, the information is copied from the previous step.

9 Click **Next**.

10 In the Repository window, specify the name of the server on which OLAP runs. Click **Next**.

11 In the Ready to Install the Program window, click **Install**.
The installation begins and can take several minutes.

12 In the Installation Wizard Completed window, click **Finish**

# Copying Analytic Modeling files

This feature must be installed on a machine with a browser on which you have access to the Business Vault Enterprise Edition URL.

To copy the Analytical Modeler files:

1 Run the LN Analytics Foundation installer Setup.exe.

2 In the Welcome to the Installation Wizard for Infor LN Analytics foundation window, click **Next**.

3 In the Custom Installation window, select **Copy Analytic Modeling Files** and click **Next**.

4 In the Ready to Install the Program window, click **Install**.
The Installation begins and can take several minutes.

5 In the Installation Wizard Completed window, click **Finish**.

# Configuring Application Studio Web

To configure Application Studio Web:

1 Run the LN Analytics Foundation installer Setup.exe.

2 In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.

3 In the Custom Installation window, select **Configure Application Studio Web** and click **Next**.

4 In the Ready to Install the Program window, click **Install**.
The Installation begins.

In the Application Studio WebServices Name window, the default name for the application is displayed. This name is the part of the URL that can be used to access the LN Analytics Foundation reports through the Application Studio WebServices.

5 Click **Next**.

6 Select the method to be used to authenticate Application Studio WebServices users.

**Note:** When using Ming.le, you must used IFS.

7 Click **Finish**.

When prompted, click **Yes** to restart IIS.

8 In the Configuration Progress window, click **Close**.

9 In the Installation Wizard Completed window, click **Finish**.

**Note:** This feature must be installed on the machine which hosts Infor BI Application StudioWebServices.

# Copying Online Help and Dashboard files

To install the Online Help documentation:

1 Run the LN Analytics Foundation installer Setup.exe.

2 In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.

3 In the Custom Installation window, select **Copy Online Help and Dashboard Files** and click **Next**.

4 In the Ready to Install the Program window, click **Install**.
The installation begins and can take several minutes.

5 In the Installation Wizard Completed window, click **Finish**.

**Note:** This feature must be installed on the machine which hosts Infor BI Application Studio WebServices

# Configuring Dashboards Web and Content Connection

To configure the Dashboard Web and Content connection:

1 Run the LN Analytics Foundation installer Setup.exe.

2 In the Welcome to the Installation Wizard for Infor LN Analytics Foundation window, click **Next**.

3 In the Custom Installation window, select **Configure Dashboards Web and Content Connections** and click **Next**.

4 In the Ready to Install the Program window, click **Install**.
The Installation begins.

In the Infor BI Dashboard Name window, the default Dashboard name for Infor LN Analytics Foundation is displayed. This name is the part of the URL that can be used to access the LN Analytics Foundation Dashboards in Infor BI Dashboards.

5 Click **Next**.

6 In the dashboard Authentication window, select the method to be used to authenticate Dashboards users.

**Note:** You must use the same method of authentication as for Application Studio WebServices. When using Mingle, you must use IFS.

7 Click **Finish**.

8 In the  Configuration Progress window, click **Close**.

9 In the Installation Wizard Completed window, click **Finish**.

**Note:** This feature must be installed on the machine which hosts Infor BI Application StudioWebServices.

# Post-installation configuration

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## Introduction

After you have completed the Infor LN Analytics Foundation installation, you must perform these Business Vault related tasks:

- Create and configure the OLAP LoadFromSource database tool.
- Configure the Analytic Modeling tool.
- Create the domains on which you will report.
  See "Creating domains" on page 30

Other post-installation configuration tasks depend on the domains you use. This document contains post-installation steps for each domain.

Optionally, you can customize the Accounting Entities hierarchies of some domains.

See "Customizing the Accounting Entities hierarchies" on page 26.

## Creating and configuring the OLAP Load From Source DB

The Load from Source database is the interface between the publishing processes of the Business Vault and Infor BI OLAP Server. This database is a relational database on a relational DB server such as Microsoft SQL Server. From the Business Vault perspective this database is referred to as the target, and from the OLAP Server perspective as the OLAP Load from Source database. The Business Vault sends instructions to build dimensions, cubes, and load facts to the target database when dimensions and cubes are published. Infor BI OLAP server reads instructions and processes jobs from the Load from Source database.

See LoadFromSource in the *BI OLAP Server Administrator Manual* for more details.

To configure the BI OLAP server to read from the LoadFromSource Database, execute these steps:

**1** Create the OLAP LoadFromSource Database.

2 Specify the connection string to the LoadFromSource database in the OLAP Server database configuration.
3 Activate and configure the automatic polling of the LoadFromSource database in the OLAP Server scheduler configuration.

# Creating the OLAP Load from Source database

1 Access the SQL Server Management Studio.
2 To create a new database, specify this information:
   a Enter a name for the database. For example, LNAnalyticsOLAPLoadFromSource.
   b Save the database name and other important properties that are required to configure the Business Vault's Target Database connection.
3 Open a new query window.
4 Locate and load the script file to create the LoadFromSource tables provided with the OLAP Server installation.

   The CreateOlapMetadata.sql file (contains the code for SQL Server), is installed with the OLAP Server Setup in the bin64 folder of OLAP Server (default path: `C:\Program Files\Infor\BI\OLAP\bin64`).
5 Execute the script to create the metadata tables.

# Specifying the connection string to the LoadFromSource database

1 Access BI OLAP Administration.
2 Go to the Computer Configuration section of the LN Analytics Foundation 10.4.1 database.
3 Select **Database Settings > LoadFromSource database > Connection string**.
4 Set the connection string.

   Example of connection strings on SQL Server:

   ```
   Driver=RelationalConnectionString=Driver={SQL Server Native Client 10.0};
   Server=localhost\sql2008;Database= LNAnalyticsOLAPLoadFromSource ;Trusted_
   Connection=yes;Pooling=false;
   ```

   Example of a connection string with a named user:

   ```
   DRIVER={SQL Server}; Server=MYSERVERNAME;Trusted_Connection=no;Database=
   LNAnalyticsOLAPLoadFromSource;UID=MySQLUser;PWD=MySQLUsersPassword;
   ```
5 Specify the information required for the ODBC driver when the OLAP server just passes the connection string to the ODBC library.

# Activating and configuring the automatic polling of the LoadFromSource database

1 Access BI OLAP Administration.
2 Go to Computer Configuration section of the LN Analytics Foundation 10.4.1 database.
3 Select **Scheduler Settings > Other > LoadFromSource**.
4 Select **Yes**.
5 Select **Scheduler Settings > Other > LoadFromSource polling interval**.
6 Specify a value between 1 and 5.

   This setting specifies the time interval (in seconds) at which OLAP server checks for the new job (to be executed) in the _Jobs table of the LoadFromSource database. The lower the value, the latency between multiple jobs is reduced. Therefore, shorter time intervals can increase the performance of the publication. The default value is 60 (seconds). It is recommended to set the time interval to 1 or 2 (seconds).

# Applying runtime settings in the LN Analytics Foundation 10.4.1 database

1 Access BI OLAP Administration.
2 Go to Favorite Databases section and connect to the LN Analytics Foundation 10.4.1 database.

   **Note:** If the database does not exist, you must register the database.

3 Right-click database registration and select **Apply Runtime Settings**.

   >

   This step is required to ensure that the runtime settings are applied immediately and not after the OLAP database is restarted.

# Configuring the Analytic Modeling feature in the Business Vault

To configure the Analytic Modeling feature within Business Vault:

1 Create a database connection for the publication.
2 Import the LN Analytics Foundation Model.
3 Create a database connection for the Business Vault Base Data Store database (if the database does not exist).

4 Import the BDS 10.3.7. Model.
5 import the LN Analytics Foundation Model.
6 Create a LN Analytics Data Store and load the meta data LN Analytics BOD mappings.
7 Load the LN Analytics Definitions.

# Create a Database Connection for the Publication Target

### Target database connection

A target database is used to publish dimensions, cubes, and data to Infor BI OLAP Server. The target database indicates the Infor BI OLAP Server Load from Source database. The Load from Source database is the interface database between the publishing processes of the Business Vault and Infor BI OLAP Server. The Business Vault sends instructions to build dimensions, cubes, and load facts to the target database when dimensions and cubes are published. Infor BI OLAP Server reads instructions and processes jobs from the Load from Source database.

# Configuring the Target database connection

You must configure a target database connection which defines the target database for publishing dimensions, cubes, and facts to Infor BI OLAP Server. The target database is the Load From Source database that is setup and configured for Infor BI OLAP server.

To setup and configure the Load From Source database, see *Infor BI OLAP Server Administration Manual*. .

Verify these settings in the OLAP server configuration:

- Load from Source Database connection string. The connection string refers to the Load From Source database that is associated with the database defined in the target database connection.
- OLAP Server database scheduler settings for:
  - LoadFromSource
  - LoadFromSource polling interval

Before you define a target database connection, verify that a Microsoft SQL Server Load from Source database exists. Also verify that you have the Microsoft SQL Server details such as server name, database name, user ID, and password to connect to the database, using the SQL Server authentication.

After you create the target database connection, you must setup a publication target definition. The publication target definition specifies the locales in which the dimensions and cubes must be published.

To configure a target database connection:

1 Select **Administration > Database Connections**.

2 Select **New Target Database Connection** or click **drill-down** to update an existing target database connection which identifies the database into which the dimension and cube definitions and data are published.

3 Specify this information:

**Name**
A unique name for the database connection.

**Description**
This is optional. Description for the database connection.

4 Select the **Parameters** tab to specify the database connection information.

5 Specify the **Database Type** . The default value is **Microsoft SQL Server**.

6 Select **Basic** in the Parameters section to build the JDBC URL and the ODBC URL based on the values specified. See the *Infor Business Vault - Analytic Modeling User Guide* for details on how the JDBC URL and the ODBC URL are being build.

**Host Name**
Specify the name of the server, computer, or machine to which you want to connect.

**Port Number**
This is optional. Specify the port number of the database to which you want to connect.

**Named Instance**
This is optional. Specify the named instance for the database to which you want to connect. You can specify a port number and a named instance.

**Database**
Specify the database to which you want to connect.

7 Select **Advanced** in the Parameters section to specify the JDBC URL and ODBC URL . To update the URL, click on the screen. Specify this information:

**JDBC URL**: Specify the JDBC URL for the database connection. The JDBC URL is used by the Business Vault application.

**Note:** The default value is `jdbc:sqlserver://[HostName];databaseName=[Database Name];`

**ODBC URL**: Specify the ODBC URL for the database connection. The ODBC URL is used by the Infor BI OLAP Server application.

**Note:** The default value is `Driver={ODBC Driver 11 for SQL Server};Server=;Database=` .

**Note:** If you click **Basic** after you edit the Advanced URL, the Advanced URL must be reset to match the basic details. Changes made to the Advanced URL are not saved.

8 In the Connection section, specify this information:

**User Name**
Specify a user name to connect to the database connection. The username must be a Microsoft SQL Server Authentication user. Microsoft Windows Authentication users are not supported and do not work in the Business Vault application. Verify that the user name has access to the database specified.

**Password**
Specify a password to connect to the database connection. The password specified is encrypted.

**Note:** If you change the connection parameters, such as Host, Port Number, Named Instance, Database, or URL, you must again specify the password before you test the connection.

**Note:** If the user name or password is manually changed in the Microsoft SQL Server, you must manually update the username and password to match the database user name and password.

9 Click **Test Connection** to test the database connection.

10 Click **Save**.

**Note:** Setup a Publication Target definition to associate with the target database connection. See Setting up the publication target.

# Creating a Publication Target and selecting locales

A publication target allows you to specify the database connection and locales information required to publish cubes, dimensions, and cube facts. Before you create a publication target, you must setup a database connection to the target database. It is recommended to setup one target for each database connection to avoid contention during the publication process.

See "Database connections".

To create a new publication target:

1 Select **Analytic Modeling > Publication Targets**. The Publication Targets page opens.

2 Click **New**.

3 Specify this information:

**Name**
Specify a name for the publication target. The name must be unique.

**Description**
Specify a description, to provide additional information about the publication target.

**Database Connection**
Select the target database connection you specify in the Configuring the Target Database Connection section. The target database connection is the location to which the dimension, the fact data and the cube definitions are published.

**Locales**
The locales are the languages for which you publish the dimension, cube, and hierarchy data to the target. For example, if you have a target server in Germany, you can publish the German translations of hierarchies, dimensions, and cube fact data. The localized data must be in the source database and localized definition values, such as dimension display names and descriptions, must be in the definition.

4 To select the locales for publishing, select the locales in the **Available** grid. Click **Add** to add the locales to the Selected grid.

**Note:** The Default and English locales are mandatory for each publication.

5 Click **Save** to save the publication target definition.
6 Click **Back** to return to the Publication Targets list.

# Creating a LN Analytics Data Store and loading the meta data LN Analytics BOD Mappings

To load the meta data LN Analytics BOD mappings, you must create a LN Analytics Foundation Data Store.

1 Select **Analytic Modeling > Data Stores**.
2 Click **New**.
3 Specify this information:

**Name**
Specify a name for the data store. The name must be unique.

**Description**
Specify a description that provides additional information about the data store.

**Database Connection**
Select the standard database connection that connects to the Base Data Store.

4 Click **Save** to save the data store definition.

**Note:** The status must be set to Inactive, always.

5 Import the meta data LN Analytics BOD mappings.
Click **Import** and select the .zip file.
During the installation, the Analytic Modeling zip files are copied to the `LN Analytics Foundation10.4.1\Analytic Modeling` sub folder of the default installation folder `..Program Files (x86)\Infor\BI\`
In this folder, select the LN Analytics Foundation 10.4.1 BV Data Store.zip file.

6 Click **Save** to save the data store definition.

7 Click **Back** to return to the data stores list.

# Importing BDS 10.3.7 and LN Analytics Foundation 10.4.1 BV models

To import the BDS 10.3.7 and LN Analytics Models, you must have a standard database connection that points to an ION Business Vault Base Data Store 10.3.7. (see prerequisites)

To import a model, use the **Database Connections** function. **Database Connections** is secured for users with the BVDatabaseAdmin role.

To import the models:

1 Select **Administration > Database Connections**. The Database Connections page opens.
2 Select the standard database connection that connects to the Base Data Store and click **drill-down**
3 Select the **Models** tab.

## Importing the LN Analytics Foundation 10.4.1 BV Model

1 Click **Import**. The Import Wizard opens.
2 Browse and select the .zip file to import.

   During the installation, the Analytic Modeling zip files are copied to the `LN Analytics Foundation10.4.1\Analytic Modeling` sub folder of the default installation folder `..Program Files (x86)\Infor\B`

   In this folder, select LN Analytics Foundation 10.4.1 BV Model.zip file.

   A list of model components, configurations, relationships, properties, and entities is displayed.
3 Select an option for: If the import file contains entities that already exist, the system should:

   Select **Overwrite existing definitions with the imported versions**.
4 Click **Import** to import the model components. A message dialog is displayed to indicate that the import process is successful. The imported model is displayed in the Available data grid. You do not have to save the database connection after the model is imported.
5 When the Infor-locked model is imported, the application selects the Infor-Locked checkbox. You can select and use an Infor-locked model with a database connection, but you cannot edit or delete the model or the objects in the model.
6 To associate the model with the database connection, select the model and click **Add**. The model is displayed in the Selected grid.

## Importing the BDS 10.3.7 Model

1. Repeat the steps from 1 to 6 of the previous chapter to import the second model required.

   Select the file, Infor Base Data Store 10.3.7 model.zip, in step 2.

2. After you have also associated the second model to this database connection, ensure that the order of the selected models is correct. The order of the selected models determines the order in which models are accessed. The top model is used as first model when accessing the content in definitions.
3. Validate if the model, LN Analytics Foundation is the top model. Else, select a model and use the **Up** and **Down** buttons or use the row position icon in the grid, to change the priority order.

   See, Model priorities.

   See Selecting and prioritizing models in the *Infor Business Vault Analytic Modeling User Guide*

# Loading the LN Analytics Definitions

To load the LN Analytics Definitions you must import the hierarchy, dimension, and cube LN Analytics Definitions. You can import the definitions, using the Cubes home page. You cannot select individual definitions in the import file.

When you import definitions, the definitions are associated with the database connection that you specify. The definitions are also associated with the application that you are currently using.

1. Select **Analytic Modeling > Cubes**.
2. Click **Import**. The Import Wizard opens.
3. Click **Browse** and select the .zip file to import.

   During installation the Analytic Modeling zip files are copied to the `LN Analytics Foundation10.4.1\Analytic Modeling` sub folder of the default installation folder `..Program Files (x86)\Infor\BI\`

   In this folder select the LN Analytics Foundation 10.4.1 BV Cube Definitions.zip file.

4. Select an option for: If the import file contains entities that already exist, the system should: .

   Select **Overwrite existing definitions with the imported versions**

5. Select the database connection you created.
6. Click **Import** to import the definitions. The imported hierarchies are displayed in the Hierarchies page. Imported dimensions are displayed in the Dimensions page, and the imported cubes are displayed in the Cubes page. The Last Updated By and Last Updated On columns are updated. If imported definitions that overwrite existing definitions exist, a new definition version is added.

# Customizing the Accounting Entities hierarchies

You can add up to four levels to the hierarchies of these dimensions:

- BA_PROD_ACCOUNTING_ENTITY
- BA_SALE_ACCOUNTING_ENTITY
- BA_FIGL_ACCOUNTING_ENTITY
- BA_PCXX_ACCOUNTING_ENTITY

All the above listed dimensions contain these hierarchies:

- All AE by RC (All Accounting Entities by Reference Currency)
- All AE by BC (All Accounting Entities by Local Currency)
- All AE by SC (All Accounting Entities by Reporting Currency)

The BA_PCXX_ACCOUNTING_ENTITY does not contain a hierarchy by secondary currency.

This table shows the hierarchies contain the levels, with the exception of BA_FIGL_ACCOUNTING_ENTITY:

| CURRENCY_TYPE | CURRENCY | AE |
|---|---|---|
| All AE (by RC, by BC) | | |
| | Currency (for example, BC-USD) | |
| | | Accounting Entity |

This table shows the BA_FIGL_ACCOUNTING_ENTITY hierarchy that contains a fourth level which groups accounting entities by financial calendar:

| CURRENCY_TYPE | CURRENCY | Financial Calendar | AE |
|---|---|---|---|
| All AE (by RC, by BC, or by SC) | | | |
| | Currency (for example, BC-USD) | | |
| | | FY01 | |
| | | | Accounting Entity |

If custom levels are required in any of the four dimensions, these levels can be defined in a Rule based hierarchy in Analytic Modeling. By default, two sample dimensions are provided which can be modified or duplicated multiple times based on the customer requirement.

These are sample dimensions:

- BA_FIGL_ACCOUNTING_ENTITY custom
- BA_SAXX_ACCOUNTING_ENTITY custom

You can create up to four levels in each hierarchy, between the Currency and AE levels. This table show an example of adding a level to group the accounting entities by city and currency:

| CURRENCY_TYPE | CURRENCY | PARENT3 | AE |
|---|---|---|---|
| All AE by BC | | | |
| | BC-USD | | |
| | | City | |
| | | | Accounting Entity |

An example of adding four levels to create a full regional hierarchy:

| CURRENCY_TYPE | CURRENCY | PARENT3 | PARENT4 | PARENT5 | PARENT6 | AE |
|---|---|---|---|---|---|---|
| All AE by BC | | | | | | |
| | BC-USD | | | | | |
| | | N. America | | | | |
| | | | Alabama | | | |
| | | | | Autaga County | | |
| | | | | | Autagaville | |
| | | | | | | Accounting Entity |

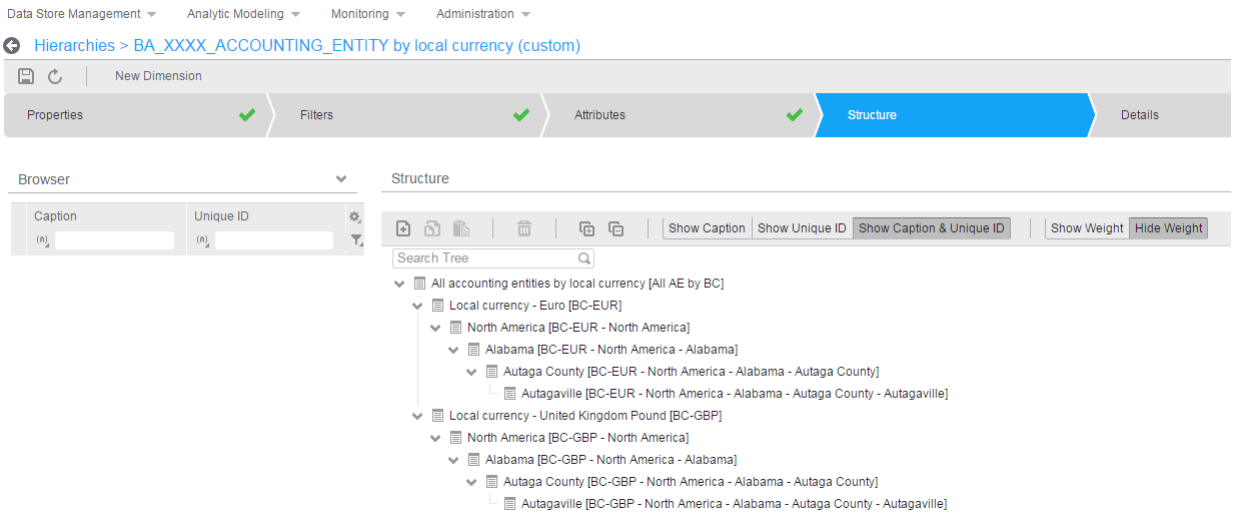
The hierarchy does not require to be based on a region. An example of creating a divisional hierarchy:

| CURRENCY_TYPE | CURRENCY | PARENT3 | PARENT4 | PARENT5 | PARENT6 | AE |
|---|---|---|---|---|---|---|
| All AE by BC | | | | | | |
| | BC-USD | | | | | |
| | | Wood Products | | | | |
| | | | Furniture | | | |
| | | | | Home | | |
| | | | | | Chairs | |
| | | | | | | Accounting Entity |

You can use Analytic Modeling to create the required levels in a new rule based hierarchy or you can modify the provided sample hierarchies.

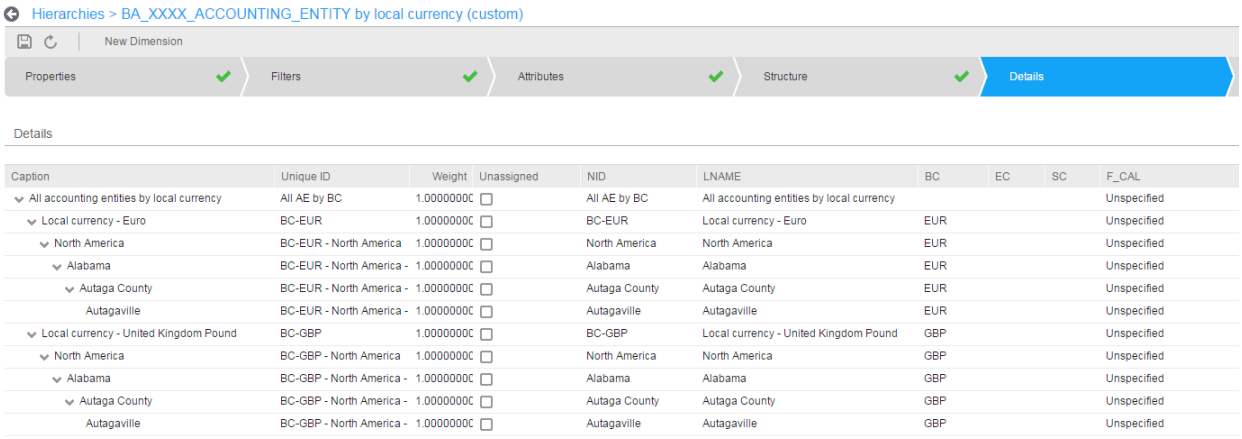
**Note:** An accounting entity dimension has 3 hierarchies, one for each currency type (local, reference, and reporting). So, if you add custom levels, these levels must be created in all three hierarchies.

Click the Structure tab, to modify or add new levels and manually create these levels. For example:



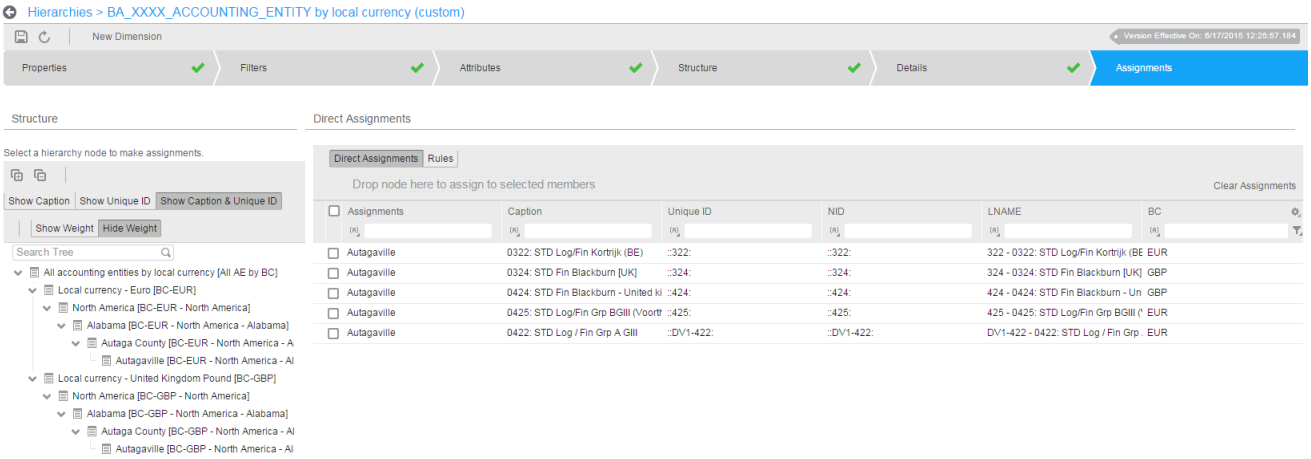

It is important that you specify a unique ID as the same node can exist under multiple parents. For example, North America exists under Local currency - Euro and Local currency - United Kingdom Pound. The previous level must be concatenated.

On the **Details** tab, you can add the attribute details not just for the new levels but also for the Currency type level. This is dynamic in the original level based accounting entity hierarchies.




| Caption | Unique ID | Weight | Unassigned | NID | LNAME | BC | EC | SC | F_CAL |
|---|---|---|---|---|---|---|---|---|---|
| All accounting entities by local currency | All AE by BC | 1.0000000( | ☐ | All AE by BC | All accounting entities by local currency | | | | Unspecified |
| Local currency - Euro | BC-EUR | 1.0000000( | ☐ | BC-EUR | Local currency - Euro | EUR | | | Unspecified |
| North America | BC-EUR - North America | 1.0000000( | ☐ | North America | North America | EUR | | | Unspecified |
| Alabama | BC-EUR - North America - | 1.0000000( | ☐ | Alabama | Alabama | EUR | | | Unspecified |
| Autaga County | BC-EUR - North America - | 1.0000000( | ☐ | Autaga County | Autaga County | EUR | | | Unspecified |
| Autagaville | BC-EUR - North America - | 1.0000000( | ☐ | Autagaville | Autagaville | EUR | | | Unspecified |
| Local currency - United Kingdom Pound | BC-GBP | 1.0000000( | ☐ | BC-GBP | Local currency - United Kingdom Pound | GBP | | | Unspecified |
| North America | BC-GBP - North America | 1.0000000( | ☐ | North America | North America | GBP | | | Unspecified |
| Alabama | BC-GBP - North America - | 1.0000000( | ☐ | Alabama | Alabama | GBP | | | Unspecified |
| Autaga County | BC-GBP - North America - | 1.0000000( | ☐ | Autaga County | Autaga County | GBP | | | Unspecified |
| Autagaville | BC-GBP - North America - | 1.0000000( | ☐ | Autagaville | Autagaville | GBP | | | Unspecified |

When the new levels are defined in the hierarchy and the full structure is created, you can assign the accounting entities on the **Assignments** tab; using the drag-and-drop option from the tree structure to an accounting entity.




### Translating inserted levels

The new levels can also be translated. You must export the hierarchy translations, enter the required translations in the excel file and import the levels.

See the *Analytic Modeling user manual*.

# Configuring the item hierarchy

Configuration of the item hierarch is relevant for all domains with an item dimension. Based on the LN requirements, each domain is linked to an Item dimension.

The structure of Item hierarchies can be configured in Analytic Modeling, however as the dimensions are LN specific, the configuration of Item dimensions is fully dependent on the customer.

**Note:** This procedure requires input from a business user who can make the required decisions, with regards to the organization of the items in the Item hierarchy.

You can configure:

- The number of hierarchies the Item dimension must contain.
- The type of item attributes that must be used to build the hierarchy levels.

**Note:** If there are a large number of items, removing levels from the Item hierarchy adversely affects performance. Flattening the hierarchy, by removing the levels, reduces the loading speed of the reports and the ease of navigating through the product lists.

The structure of the Item hierarchy is defined in the domain specific Item hierarchies.

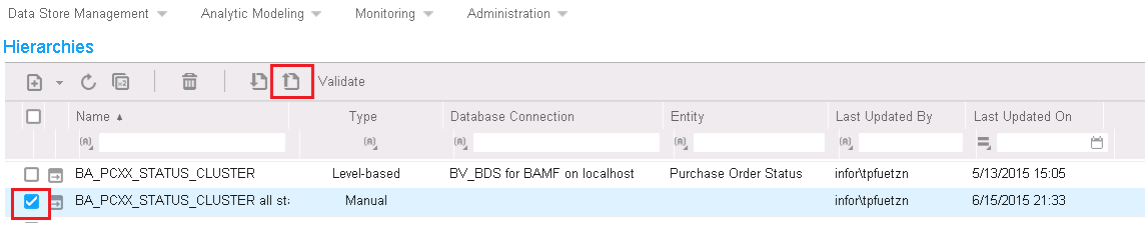
See "Localizing customized hierarchies or elements in the OLAP model" on page 30.

# Localizing customized hierarchies or elements in the OLAP model

AM offers an option to select localization for each publication target. Localized languages can be selected in **Analytic Modeling > Publication Targets**.

In addition to the translation of the customized hierarchies (Time cluster and Status cluster), you must export the hierarchy strings, specify the translations for the required languages and import the translations in AM.

1 Select **Analytic Modeling > Hierarchies**.
2 Select hierarchies that must be translated. Multiple hierarchies can be translated in a single export or import operation.
3 Click on **Export** button and select **Translations** in the Export Wizard.




4 Open the excel file.
5 Update the translations for the captions, SNAME and LNAME, for the required languages.
6 Save the excel file in the same structure of zipped files (the folder must contain the ReadMe.txt file as well).
7 Import the file in AM.
   a Select file.
   b Select the required Database Connection.
8 Publish the changes to OLAP Server.
   Select **Analytic Modeling > Publications** and execute any of the publications that include the modified hierarchies.

# Creating domains

Infor BI Analytic Modeling can be used to create publications to for domains in a variety of installation scenarios: for example, to create only the Finance domain, or to create the Sales domain in addition to an existing Finance domain.

The publications to create domains and various partial publications create and populate all the required dimensions and cubes for a selected domain.

The publications in Analytic Modeling can be structured in these categories:

- Create Domains
- Create Components of Domains (by Domain)
- Create Domains by Recurrence

These categories group publications based on varied criteria. The 'by recurrence' category groups the publications based on the frequency with which you normally are required to run the publications. For example, the time dimensions must be rebuilt only once a year. When you do no create entire domains on each data load, use of the 'by recurrence' publications can significantly reduce daily load time. For this reason, we recommend using the 'by recurrence' publications, particularly when scheduling publications for automatic execution.

Depending on the requirements, you can use one or more of these publications to create or recreate the required domains.

The publications of the Create Single Domains category are used when a single domain must be created or recreated with all the components, even if some domains are shared with other domains.

## Suggested structure of publication by Domain

BA_00_AllDims_and_Cubes

- Details
  - Cubes
  - Dimensions
- Cubes
  - all
- Dimensions
  - all

BA_00_SharedDims

- Details
  - Dimensions
- Dimensions
  - BA_XXXX_CURRENCY
  - BA_XXXX_CURRENCY_TYPE

BA_11_FIGL_SpecificDims_and_Cube

- Details
  - Cubes

    - Dimensions
- Cubes
    - BA_FIGL_FINANCE (FINANCE)
    - BI_GL_BALANCE_39
- Dimensions
    - BA_FIGL_ACCOUNTING_ENTITY
    - BA_FIGL_DIMENSION01
    - BA_FIGL_DIMENSION02
    - BA_FIGL_DIMENSION03
    - BA_FIGL_DIMENSION04
    - BA_FIGL_DIMENSION05
    - BA_FIGL_DIMENSION06
    - BA_FIGL_DIMENSION07
    - BA_FIGL_DIMENSION08
    - BA_FIGL_DIMENSION09
    - BA_FIGL_DIMENSION10
    - BA_FIGL_IC_PARTNER_COMPANY
    - BA_FIGL_MEASURE_GL
    - BA_FIGL_MEASURE_GL_DETAILS
    - BA_FIGL_TIME_FISCAL
    - BA_XXXX_VERSION

BA_21_PCXX_SpecificDims_and_Cube

- Details
    - Cubes
    - Dimensions
- Cubes
    - BA_PCZZ_HELPER (BA_PCZZ_HELPER)
    - BA_PCXX_PROCUREMENT (BA_PCXX_PROCUREMENT)
        - BI_FAC_PCXX_CNT_POL_COMP_29
        - BI_FAC_PCXX_CNT_POH_29
        - BI_FAC_PCXX_CNT_POH_TIME_29
        - BI_FAC_PCXX_CNT_POL_29
        - BI_FAC_PCXX_CNT_POL_TIME_29
        - BI_FAC_PCXX_OPEN_29
        - BI_FAC_PCXX_ORDERAMOUNT_29
        - BI_FAC_PCXX_ORDERQTY_29

    - BI_FAC_PCXX_RECEIVED_29

- Dimensions
    - BA_PCVR_MEASURE_PROCUREMENT
    - BA_PCXX_ACCOUNTING_ENTITY
    - BA_PCXX_BUYER
    - BA_PCXX_ITEM
    - BA_PCXX_ORDER_REFERENCE
    - BA_PCXX_ORDER_TYPE
    - BA_PCXX_PURCHASE_OFFICE
    - BA_PCXX_SHIP_FROM
    - BA_PCXX_STATUS_CLUSTER
    - BA_PCXX_SUPPLIER
    - BA_PCXX_TIME_DELIVERY
    - BA_PCXX_TIME_ORDER
    - BA_PCXX_UNIT
    - BA_PCXX_WAREHOUSE
    - BA_XXZZ_HELPER

BA_30_PRXX_SharedDims

- Details
    - Dimensions
- Dimensions
    - BA_PRXX_ACCOUNTING_ENTITY
    - BA_PRXX_LOCATION
    - BA_PRXX_ORDER_TYPE
    - BA_PRXX_MANUFACTURED_ITEM
    - BA_PRXX_ITEM
    - BA_PRXX_STATUS
    - BA_PRXX_TIME_END
    - BA_PRXX_TIME_START
    - BA_PRXX_UNIT
    - BA_PRXX_WORKCENTER

BA_31_PROA_SpecificDims_and_Cube

- Details
    - cubes
    - Dimensions

- Cubes
  - BA_PROA_OPERATION_ANALYSIS (BA_PROA_OPERATION_ANALYSIS)
    - BI_FAC_PROA_PRD_ORD_39_AM
  - BA_PRZZ_HELPER (BA_PRZZ_HELPER)
- Dimensions
  - BA_PROA_MEASURES
  - BA_PROA_TIME_CLUSTER
  - BA_PROA_DUMMY_FOR_REL_TABLE

BA_32_PROC_SpecificDims_and_Cube

- Details
  - Cubes
  - Dimensions
- Cubes
  - BA_PROC_ORDER_COSTING (BA_PROC_ORDER_COSTING)
    - BI_FAC_PROC_PRD_ORD_39_QtyAndErrInd
    - BI_FAC_PROC_PRD_ORD_39_Burden
    - BI_FAC_PROC_PRD_ORD_39_Contractor
    - BI_FAC_PROC_PRD_ORD_39_Labor
    - BI_FAC_PROC_PRD_ORD_39_Machine
    - BI_FAC_PROC_PRD_ORD_39_Material
  - BA_PRZZ_HELPER (BA_PRZZ_HELPER)
- Dimensions
  - BA_PROC_COST_COMPONENTS
  - BA_PROC_MEASURES
  - BA_PROC_DUMMY_FOR_REL_TABLE

BA_41_SARE_SpecificDims_and_Cube

- Details
  - Cubes
  - Dimensions
- Cubes
  - BA_SARE_SALES (SALES)
    - BI_FAC_SALES_ORDER_39_AM
    - BI_FAC_INVOICE_39_AM

    - BI_FAC_INVOICE_EXT_COST_39_AM
    - BI_FAC_INV_LINE_INV_ALLW_39_AM
    - BI_FAC_SALES_ORDER_31_AM
    - BI_FAC_SALES_ORDER_CANCL_31_AM
    - BI_FAC_SALES_ORDER_NOO_31_AM
    - BI_FAC_SALES_ORDER_CA_NO_31_AM

- Dimensions
    - BA_SARE_ACCOUNTING_ENTITY
    - BA_SARE_CUSTOMER
    - BA_SARE_ITEM
    - BA_SARE_MEASURE_SALES
    - BA_SARE_PHASE_SALES
    - BA_SARE_REVENUE_ORIGIN
    - BA_SAXX_SALES_OFFICE
    - BA_SARE_SALES_REP
    - BA_SARE_TIME
    - BA_XXXX_VERSION

## Suggested structure of publication by recurrence

Run once (initial execution) - dimensions that must be executed just once, on initial execution

- Shared dimensions
    - BA_XXXX_CURRENCY_TYPE
    - BA_XXXX_VERSION
    - BA_XXZZ_HELPER
- Finance domain
    - BA_FIGL_IC_PARTNER_COMPANY
    - BA_FIGL_MEASURE_GL_DETAILS
- Procurement domain
    - BA_PCXX_CURRENCY_TYPE
    - BA_PCVR_MEASURE_PROCUREMENT
    - BA_PCXX_ORDER_REFERENCE
    - BA_PCZZ_HELPER (Procurement helper Cube)
- Production domain

  - BA_PROA_MEASURES
  - BA_PROC_MEASURES
- Sales domain
  - BA_SARE_MEASURE_SALES
  - BA_SARE_PHASE_SALES
  - BA_SARE_REVENUE_ORIGIN

Run on demand: - Dimensions must be published after a configuration change or change in the Master Data. This setting is dependent on a customer, for example, if an Item hierarchy is not modified, you are not required to publish the dimension every day but only on demand. However, we recommend that these dimensions be published on demand:

- Shared dimensions
  - BA_XXXX_CURRENCY
- Finance domain
  - BA_FIGL_ACCOUNTING_ENTITY
  - BA_FIGL_MEASURE_GL
- Procurement domain
  - BA_PCXX_ACCOUNTING_ENTITY
  - BA_PCXX_CURRENCY
  - BA_PCXX_ORDER_TYPE
  - BA_PCXX_STATUS_CLUSTER
- Production domain
  - BA_PRXX_ACCOUNTING_ENTITY
  - BA_PRXX_ORDER_TYPE
  - BA_PRXX_STATUS
  - BA_PROA_TIME_CLUSTER (Operation Analysis Cube specific)
  - BA_PROC_COST_COMPONENTS (Order Costing Cube specific)
- Sales domain
  - BA_SARE_ACCOUNTING_ENTITY

Run yearly

- Finance domain
  - BA_FIGL_TIME_FISCAL
- Procurement domain
  - BA_PCXX_TIME_DELIVERY
  - BA_PCXX_TIME_ORDER

- Production domain
  - BA_PRXX_TIME_END
  - BA_PRXX_TIME_START
- Sales domain
  - BA_SARE_TIME

Run monthly

- Customer specific

Run weekly

- Customer specific

Run always

- Customer specific

## Creating the domains required for the installation

To create the domains execute these steps:

**1** Create the publication.

a Select **Analytic Modeling > Publications**

b Click **New**.

c Specify the name of the publication.

d Select **Database Connection**. **BV_BDS** is the required source.

e Select the target OLAP database.

f Select the type of publication. You can either publish only Cubes or Dimensions or both.

**Note:** If you select the **Cubes** option, only the Dimensions that are included in the selected Cubes can be published.

g On the **Cubes** tab, select required cubes to be published.

h On the **Dimensions** tab, select required dimensions to be published.

i Click **Save**.

**2** Execute the publication on demand.

a Select **Analytic Modeling > Publications**.

b Select the required publication.

c Click **Publish**.

d To view the result, select **Monitoring > Publication Monitor**.

**3** Execute the publication on a regular basis.

a Select **Analytic Modeling > Publications Schedules**.

b Create the required publications and set the recurrence pattern.

a Click **Activate** to activate the publication.

# Post-installation for Finance

## Specifying the number of years to load

To specify the number of years of history that must be uploaded to the Finance cube:

1. Select **Analytic Modeling > Dimensions**.
2. Go to BA_FIGL_TIME_FISCAL dimension.
3. Specify the required **Start Year Date** in the YYYYMMDD format.
4. Click **Save**.

## New accounts

New accounts added to the source ERP system source must be mapped.

## Account mappings

We recommend that this procedure be executed by single user with a complete understanding of the General Ledger charts of accounts affected.

Business Analytics includes a predefined reporting structure on which the pre built dashboards and reports are based.

This reporting structure is predefined for these three different taxonomies:

- German commercial law (HGB)
- International Financial Reporting Standard (IFRS)
- US Generally Accepted Accounting Principles (GAAP).

For IFRS and HGB, there are two expense methods: Cost of Sales Management and Total Cost Accounting.

Individual financial accounts must be mapped to a minimum of one taxonomy and one IFRS and HGB expense method. This enables the generation of balance sheets and Income Statements in the taxonomy, and the Dashboard, Cashflow report, and additional KPI reports.

You can map generic accounts in the Balance, and Profit and Loss tabs of Measure_GL.xlsx. Where mapping is not possible, this message is displayed:

**Note:** Transactions which, for any reason, do not reference an existing General Ledger account in the ERP system are automatically mapped to element 9998.For this error handling to work, it is essential that you do not manually map to element 9998.

Transactions that, through user error, have not been mapped to any GL Measure are validated for type and natural sign and are automatically mapped to 9999 Balance Asset or Liability or Profit and Loss.

For this error handling to work it is essential that you do not manually map to elements 9998 or 9999.

If you do not want an ERP GL Accountto be mapped to the Measure_GL structure, map it to 9997 in the appropriate taxonomy.

## Net Profit and Loss

This task applies only if:

- You use HGB and/or IFRS, and
- You use only the Total Cost Accounting (TCA) expense method for Profit & Loss.

It is assumed that you use the Cost of Sales Management (CSM) expense method for Profit & Loss.

In Analytic Modeling, a rule automatically takes the current year's Net profit/loss from the CSM instance of the Net profit/loss account and puts it into the balance liabilities.

For CSM, the Net profit/loss account in MEASURE_GL is either K005HGBUKV or K005IFRSUKV according to whether you use the HGB or IFRS taxonomy. The account suffix UKV indicates CSM.

But if you use only TCA, the CSM instance of the Net profit/loss account is empty. So, you must edit the rule in Analytic Modeling.

To calculate Net profit/loss for HGB or IFRS based on the value of the TCA hierarchy:

1. Select **Analytic Modeling > Cubes**.
2. Go to BA_FIGL_FINANCE.
3. Select the **Cube Rules** tab.
4. This rule is displayed:

```
<Alea:Rules xmlns:Alea="http://www.misag.com" Accelerated="false"
Selected="false" User="Admin" Time="Mar/15/2014 02:13:28,725">
     <Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>

     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
          <Alea:Description/>
```

```
     </Alea:Rule>

     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0001300000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGBUKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>

     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0001C80000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043HGBGKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005HGBGKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>

     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0002600000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRSUKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>
     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0002F80000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043IFRSGKV'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005IFRSGKV']</Alea:Formula>
          <Alea:Description/>
     </Alea:Rule>

     <Alea:Rule Cells="All" Enabled="true" RuleID="0X0003900000"
Selected="true" Type="Cube">
          <Alea:Target>[MEASURE_GL:'K043GAAP'] </Alea:Target>
          <Alea:Formula>[MEASURE_GL:'K005GAAP']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

**5** If you use HGB with TCA, change line 1 of the rule from:

```
<Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005HGBUKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

to

```
<Alea:Rule Cells="All" Enabled="true" RuleID="000000000000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043HGB'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005HGBGKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

6 If you use IFRS with TCA, change line 2 of the rule from

```
<Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005IFRSUKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

to

```
<Alea:Rule Cells="All" Enabled="true" RuleID="0X0000980000"
Selected="true" Type="Cube">
     <Alea:Target>[MEASURE_GL:'K043IFRS'] </Alea:Target>
     <Alea:Formula>[MEASURE_GL:'K005IFRSGKV']</Alea:Formula>
     <Alea:Description/>
</Alea:Rule>
```

## Renaming the analysis dimensions

The Finance domain includes ten analysis dimensions. Some or all of the analysis dimensions can be used in reports to filter the list of codes displayed, and to analyze individual codes. The dimensions are named BA_FIGL_DIMENSION01to BA_FIGL_DIMENSION10.The dimensions are generated from the code lists that are defined in the BOD accounting chart. Because these dimensions do not have a fixed content, generic display names are allotted, 'Analysis Dimension 1', 'Analysis Dimension2' and so on. You can modify the display names of the dimensions to names which are appropriate for each installation.

**Note:** Modify only the localized display names. The default language are generic.

To change the display names of the analysis dimensions, execute these steps:

1 Select **Analytic Modeling > Dimensions**.
2 Select the dimensions to translate. You can translate multiple dimensions in a single export or import operation.
3 Click **Export** and select **Translations** in the Export Wizard.

4 Open the excel file.
5 Update the translations for the displayName for the required languages.
6 Save the excel file in the same structure of zipped files (the folder must contain the ReadMe.txt file as well).
7 Import the file in AM.
   a Select the file.
   b Select the required Database Connection.
8 Publish the changes to OLAP Server.
   Select **Analytic Modeling > Publications** and execute the publications that include the modified dimensions.

**Identifying which analysis dimensions are used**

If you do not know which analysis dimensions are used, you can identify these dimensions by publishing the dimensions and viewing the reports in the Finance dashboard to see which Analysis Dimension lists are populated.

# Post-installation for Production

## Configuring time clusters

The TIME_CLUSTER dimension contains time intervals for age analysis of late, early and on-time orders. There are 14 time clusters for late orders and 14 for early orders. For example, '1 to 3 months' late or '3 to 5 days early'. There is one cluster for on-time orders. The time clusters are defined in hours. For example, the '3 to 5 days early' cluster starts at -72 hours and ends at -120 hours. You can modify the captions of the clusters and the number of hours .

See "Localizing customized hierarchies or elements in the OLAP model" on page 30.

**Note:** This procedure requires input from a business user in Production who can make the required decisions with regards to the type of periods that can be considered Late or Early.

To edit the time clusters, the hierarchy in Analytic Modelling must be updated first and then identical changes must be applied to Business Vault Database.

1 In Analytic Modeling
   a Select **Analytic Modeling > Hierarchies**.
   b Go to BA_PROA_TIME_CLUSTER dimension.
   c On the **Tree** tab, apply the required changes.
   d On the **Details** tab, edit the attribute for gthe time range (RANGE field) with the required number of hours
   Retain the other attributes as the reports may rely on the settings.

e Click **Save**.

**2** In Business Vault Database:

a Run the appropriate database management tool. For example, SQL Server Management Studio.

b Expand the Business Vault database.

By default, the Business Vault database is named BV_BDS.

c Expand Tables.

d Right-click dbo.BI_MAN_PRD_TIME_CLUSTER_DEF and select **Edit Top 200 Rows**.

The columns of the table and their current values are displayed.

e Edit the cluster values as required.

**3** Edit the cluster values as required (to be identical with the hierarchy in Analytic Modeling).

## Specifying the number of years to load

To specify the number of years of history that must be uploaded to the Production cube:

**1** For Time Start dimension:

a Select **Analytic Modeling > Dimensions**.

b Go to BA_PRXX_TIME_START dimension.

c Specify the required **From Date** in YYYYMMDD format.

The date that you specify is the earliest date in the Time dimension when the Production domain is created.

d Specify the required **To Date** in YYYYMMDD format.

e Click **Save**.

**2** For Time End dimension:

a Select **Analytic Modeling > Dimensions**.

b Go to BA_PRXX_TIME_END dimension.

c Specify the required **From Date** in YYYYMMDD format.

The date that you specify is the earliest date in the Time dimension when the Production domain is created.

d Specify the required **To Date** in YYYYMMDD format.

e Click **Save**.

# Post-installation for Procurement

## Configuring time clusters

The Status Cluster dimension contains time intervals for age analysis of the late, early, and on-time deliveries.

These are the measures of delivery performance in Procurement:

- Actual delivery time versus promised delivery time
- Actual delivery time versus required delivery time
- Promised delivery time versus required delivery time

By default, each of these types has six time clusters to represent the late deliveries and six to represent the early deliveries. The time clusters are defined in hours. For example, the '3 to 5 days early' cluster starts at -72 hours and ends at -120 hours and the '3 to 5 days late' cluster starts at 72 hours and ends at 120 hours. You can change the labels of the clusters and the number of hours they represent.

You can localize the customizable elements of the hierarchy.

See"Localizing customized hierarchies or elements in the OLAP model" on page 30

There is one on-time cluster.

**Note:** This procedure requires input from a business user who can make the required decisions with regards to the type of periods that can be considered as Late or Early.

To edit the time clusters, update the hierarchy in Analytic Modelling first and then identical changes must be applied to Business Vault Database.

**1** In Analytic Modeling:
   a Select **Analytic Modeling > Hierarchies**.
   b Go to BA_PROA_TIME_CLUSTER dimension.
   c Apply the required changes on the **Tree** tab.
   d Edit the attribute for the time range (**RANGE** field) and specify the required number of hours on the **Details** tab. Do not change the other attributes as the reports can depend on the settings.
   e Click **Save**.

**2** In Business Vault Database:
   a Run the appropriate database management tool. For example, SQL Server Management Studio.
   b Expand the Business Vault database.
   By default, the Business Vault database is named BV_BDS.
   c Expand Tables.
   d Right-click dbo.BI_MAN_PCXX_STATUS_TIMECLUSTER_DEF and select **Edit Top 200 Rows**.
   The columns of the table and the current values are displayed.
   e In the TO_HOURS column, edit the cluster values as required (to be identical with the hierarchy in Analytic Modeling).

## Specifying the number of years to load

To specify the number of years of history that must be loaded to the Procurement cube:

1. For Time Start dimension:
   a. Select **Analytic Modeling > Dimensions**.
   b. Go to BA_PRXX_TIME_START dimension.
   c. Specify the required **From Date** in YYYYMMDD format.
      The date that you specify is the earliest date in the Time dimension when the Procurement domain is created.
   d. Specify the required **To Date** in the YYYYMMDD format.
   e. Click **Save**.
2. For Time End dimension:
   a. Select **Analytic Modeling > Dimensions**.
   b. Drill into BA_PRXX_TIME_END dimension.
   c. Specify the required **From Date** in YYYYMMDD format.
      The date that you specify is the earliest date in the Time dimension when the Procurement domain is created.
   d. Specify the required **To Date** in YYYYMMDD format.
   e. Click **Save**.

## Completeness configuration

The 'Number of order lines shipped complete', 'Number of order lines undershipped', and 'Number of order lines overshipped' measures can be configured. Typically, there is some tolerance for variances between the quantities ordered and the quantities actually delivered. The tolerance is defined with the minimum and maximum values. If the value of the quantity delivered is between the minimum and maximum values, the quantity is considered complete. If the quantity delivered is less than the minimum value, the quantity is undershipped, and if the quantity is greater than the maximum value, the quantity is overshipped. You specify the minimum and maximum values as percentages. By default, the minimum value is set to 3% and the maximum value to 10%. You can modify these values in Analytic Modeling.

To modify the tolerance values:

1. Select **Analytic Modeling > Dimensions**.
2. Go to BA_PCXX_COMPLETENESS_CONFIGURATION dimension.
3. Specify the minimum and maxim values in Min Quantity and Max Quantity fields.
4. Publish the dimension.
   Select **Analytic Modeling > Publication**. Create a new publication for this dimension (To create the publication, see the 'Creating the publication' in the Creating Domains chapter). Execute the publication.

# Post-installation for Sales

## Specifying the number of years to load

To specify the number of years of history that must uploaded to the Sales cube:

1. Select **Analytic Modeling > Dimensions**.
2. Go to BA_SARE_TIME dimension.
3. Specify the required **From Date** in YYYYMMDD format.
   The date that you specify is the earliest date in the Time dimension when the Production domain is created.
4. Specify the required **To Date** in the YYYYMMDD format.
5. Click **Save**.

## Configuring the Customer hierarchy

Business Analytics installs a default Customer dimension which contains multiple Customer hierarchies.

- BA_SARE_CUSTOMER by AE
- BA_SARE_CUSTOMER by area
- BA_SARE_CUSTOMER by business partner type
- BA_SARE_CUSTOMER by channel
- BA_SARE_CUSTOMER by industry code
- BA_SARE_CUSTOMER by line of business
- BA_SARE_CUSTOMER by parent (this hierarchy is composed of three hierarchies, all must be selected if the hierarchy is active)
  - BA_SARE_CUSTOMER by parent1
  - BA_SARE_CUSTOMER by parent2
  - BA_SARE_CUSTOMER by parent3
- BA_SARE_CUSTOMER by region
- BA_SARE_CUSTOMER by region (no state)
- BA_SARE_CUSTOMER by region (ZIP)
- BA_SARE_CUSTOMER by sales office
- BA_SARE_CUSTOMER by sales territory

You can configure the of the hierarchies and the hierarchies that must be built and set to Active.

To remove or add a hierarchy, execute these steps:

1. Select **Analytic Modeling > Dimensions**.
2. Go to BA_SARE_CUSTOMER dimension

3 Select **Hierarchies** tab.
4 Select the required hierarchies.
5 Click **Save**.

For each selected hierarchy, in a special hierarchy for unknown values a BA_SARE_CUSTOMER must exist. If a hierarchy is removed, the node must be removed and if a hierarchy is added, the node must be added, based on the logic used for the selected hierarchies.

To edit the unknowns, execute these steps:

1 Select **Analytic Modeling > Hierarchies**.
2 Go to BA_SARE_CUSTOMER unknowns hierarchy.
3 Add or remove the unknown nodes for the required hierarchies.
   The top level **Caption** and **Unique ID** must be identical to the hierarchy.
   Each hierarchy contains three unknown elements:
   - Customer reference missing
   - Customer reference invalid
   - Not applicable
4 On the **Details** tab, specify the attributes based on the implemented logic.
5 Click **Save**.

**Note:** This procedure requires input from a business user who can make the required decisions with regards to the organization of customers in the customer dimension.

# Post Installation - Reports and Dashboards 4

## Configuration in Application Studio

1 Open the Application Studio.
2 Connect to the LN Analytics foundation 10.4.1 repository registration with the user name as Admin. The password is not required
3 Select Database Structure and right-click BV_DataStore to edit the database connection.
4 On the **Authentication** tab, set the **Authentication** to Basic and specify the BV_DataStore login and password.
5 In the Authentication Setting, set the Connect at log on option to **Yes**. Test the connection.
6 Click **OK**.
7 Right-click BV_DataStore and select Log on.

**Note:** After the BV_DataStore validation, the connection properties of the LN Analytics Foundation must be validated.

## Configuring Repository Administration with IFS

When a dashboard is configured to the IFS, the repository must also be configured to the IFS.

1 Select **Start > All Programs > Business Intelligence > Repository Administration** .
2 Right-click **Repository Administration** and select **Run as Administrator**.
3 Right-click **User Management** and select **Authentication Systems**.
4 Select the Infor Fedration Services and provide the required information. You can register an IFS group or user. Assign the required roles to the selected user(s). See BI installation guide.

## Configuring Dashboard Plug-in in Infor Ming.le

See BI Installation Guide.

# Online help

Online help is available with the Infor BI Application Studio WebServices reports. For this feature the .html help files must exist in the Application Studio WebServices directory. If the Application Studio WebServices is not installed in the default directory and/or if you do not install Business Analytics to the default directory, you must copy the online help files manually:

Go to the folder where you installed LN Analytics Foundation (`Application Studio\WebServices\Help\LNAnalyticsFoundation\en`). Copy the Business Analytics folder, subfolders, and content to the `WebServices\Help` directory of your installation.

1. Go to the folder in which you installed Business Analytics.

   The folder contains this path: `Application Studio\WebServices\Help\LNAnalytics Foundation Analytics\en`

2. Copy `LNAnalyticsfoundation\en` to the `WebServices\Help` directory of your Application Studio WebServices installation.

   For example, if Application Studio WebServices is installed at the default location instead of LN Analytics Foundation, copy `LNAnalyticsFoundation\en` to: `..\Program Files (x86)\Infor\BI\ Application Studio\WebServices\Help`

# Dashboards

In LN Analytics Foundation two CFO dashboards are delivered. However these dashboards must be imported.

- Login to Mingle
- Go to the dashboard. Otherwise, you must connect to your dashboard service URL as specified during the installation ' Configure Dashboards Web and Content Connections' section of the installation.
- Under the Share icon, select Import Dashboards.
- In the Import wizard, on the **Source** and **Target** Tab, specify the Import File by selecting the CFO.dashboards file from the `LN Analytics Foundation 10.4.1\Dashboards` sub folder of your installation folder (default `..\Program Files (x86)\Infor\BI`). Also specify the Target Folder and click **Next**.
- On the **Dashboards** tab, select all dashboards and click **Next**.
- On the **Content Connections** tab, select your Content connection and click **Next**.
- On the **Summary** tab, click **Finish**.

The CFO dashboards are displayed on the **Dashboards** tab.

# Management

5

## User management

The repository database is pre-configured to enable Windows authentication in addition to basic authentication. See the Infor BI Repository help for instructions to register and configure user accounts.

## Configuring a Workspace or Infor Ming.le site with Business Analytics

1 Log on to the Workspace or Infor Ming.le SharePoint site in the browser.

Use the Administration account that has been created during the Workspace or Infor Ming.le installation.

2 Select **Site Actions > New Workspace Site** or **Site Actions > New Ming.le Site**.

3 Select Infor Workspace BI Plug-in or Ming.le BI Plug-in from the list.

4 In the **Title** field, specify a name for the site.

For example, **Business Analytics**.

5 Specify a name for the sub site.

This name becomes a part of the SharePoint sub site URL that calls the Workspace or Infor Ming.le site.

```
HTTP://Server:port/BA
```

**Note:** Do not specify an 'Application Home' URL.

6 Click **OK**.

An icon, with the name that you specified in the Step 4 (Business Analytics), is displayed in the navigation pane of Workspace or Infor Ming.le. The icon has the name that you specified in the Step 4 (Business Analytics). The icon must be linked to Application Studio content.

7 Open the Home page.

8 Select **Site Actions > View All Site Content**.

9 Select **Lists > Infor Application Deployments**.

10 Click **Add Item**.

11 Specify this information:

**Title**
Specify **Infor Workspace - BI Plug-in** or **Ming.le BI Plug-in** as the name of the deployed application.

**Site**
Specify the site that you created in Steps 1 to 6.

**Logical ID**
The format of the ID is `lid://infor.BI.Site`. 'Site' is the BI site name, or unique identifier. The logical ID enables Workspace or Infor Ming.le to identify and communicate with the different applications integrated with the ID.

Each logical ID can be used once. The value of the ID is unique for each instance of a given application. So, if there is more than one instance of BI, each instance must have a logical ID. For example, `lid://INFOR.BA`.

**Application version**
10.4.1

**Hostname**
Specify the name of the server on which the Application Studio WebServices run.

**Port**
Specify the port used by the Application Studio WebServices. The standard port for IIS applications is 80 but can differ. For example, the Application Studio WebServices applications that are installed by Workspace and Infor Ming.le run under Port 8080.

**Context**
Specify the name of the web application that must be used.

For Infor ION Business Analytics, a web is created during the setup. By default, the web is called BI_BusinessAnalytics.

**HTTPS**
Select this option if SSL is enabled for the Application Studio WebServices. If the Application Studio is using SSL, ensure that the SSL-related port number is entered in the **Port** field.

**Tenant**
If applicable, specify the tenant identification that is assigned to the application.

12 Click **Save**.

13 Refresh the browser and click the BI application icon.

14 Select **Site Actions > Edit Page**.

The Application Studio Container context application is displayed. However, this application must be configured.

15 Click the down arrow at the top of the context application and select **Edit Context Application**.

16 Specify this information:

**Logical ID**
Specify the Logical ID that as in step 11, `lid://INFOR.BA`.

**Repository**
Select the required repository, BI Business Analytics, from the list.

**Project**
Select the required project, BI Business Analytics, from the list.

**Report catalog**
Select the required report catalog, BI Business Analytics, from the list.

**Note:** The start report of the report catalog is used as the start screen. Business Analytics has a standard start report configured for the report catalog.

**17** Click **OK**.

**18** Click **Stop Editing**.

**19** Refresh the browser and click the BI application icon.

The start report is displayed.

**Note:** To integrate the Application Studio with Workspace or Infor Ming.le, see the *Infor BI Installation Guide*.

# Failed installations

If an installation or update fails, you must remove the files related to the failed installation before reinstalling the application.

## Taking a backup of the OLAP database

To backup and delete the OLAP database:

**1** Copy the BI Business Analytics 10.4.1 folder as a backup.

By default, on Windows 2008, the folder is located at: `..\Users\Public\Documents\Infor\BI\OLAP\Data`.

To validate the location of the database folder, run OLAP Administration and go to **Computer Configuration > Local Computer > General**. The path is displayed in the **Database root directory** field.

**2** Delete the BI Business Analytics 10.4.1 folder.

## Exporting and deleting Repository registration

Before you delete the repository registration, export the registration data as a backup.

To use the existing User Management configuration, select the **Export User Management Data** option to export the User Management before you delete the repository registration. After installation, use **Import User Management Data** option to import the User Management.

To export the repository registration and the user management data, and to delete the repository registration:

1. Select **Start > All Programs > Infor Business Intelligence > Repository Administration**.
2. Expand **Repository Administration > Repository Registrations**.
3. Expand BI Business Analytics 10.4.1.
4. Right-click User Management and select **All Tasks > Export User Management Data**.
5. In the Specify Export File Wizard window, specify a name and location for the export and click **Next**.
6. Click **Finish**.
7. Right-click BI Business Analytics 10.4.1 and select **Export Registration**.
8. Specify a name and location for the export and click **Save**.
9. Right-click BI Business Analytics 10.4.1 and select **Delete Registration**.

## Repository database

To use your existing User Management configuration, ensure that you export the User Management configuration in Repository Administration.

See "Exporting and deleting Repository registration" on page 53"Repository registration" on page 53.

Use the appropriate database administration tool to take a backup and then delete the SQL or Oracle database  BI_Rep_BA_10_4_1.

## Copying the Online help

Online help is available in the Infor BI Application Studio WebServices reports. To enable this feature, the .html help files must exist in the Application Studio WebServices directory. That is, if the Application Studio WebServices is not installed in the default directory and you do not install Business Analytics to the default directory, you must copy the online help files manually.

Go to the folder where you installed Business Analytics and locate the `Application Studio\Web Services\Help\Business Analytics\en` folder. Copy the Business Analytics folder, including the subfolders and the content, to the `WebServices\Help` directory of your installation folder.

To manually copy the help files:

1. Browse to the folder in which you installed Business Analytics.

   In the folder, select this path: `Application Studio\WebServices\Help\Business Analytics\en`

2 Copy `Business Analytics\en` to the WebServices\Help directory of your Application Studio WebServices installation.

For example, if Application Studio WebServices is installed at the default location but Business Analytics is not, copy `Business Analytics\en` to:

`..\Program Files (x86)\Infor\BI\Application Studio\WebServices\Help`

## Other files

Delete `..\Program Files (x86)\Infor\BI\Business Analytics` 10.4.1 folder.

# Updating the current installation

Updates to the currently installed version overwrite the existing version. During installation, all existing tables are dropped and recreated. But first, tables delivered by Infor that contain user-configured data are automatically backed up. The backed up tables are saved in the Business Vault Base Datastore database with a time stamp in the format `existing table name_version_time stamp`. Customer-created tables are not automatically backed up.

After installation you can migrate from the backups to the new tables. The tables should be made subject to normal housekeeping processes and routines. If the backups are no longer needed, you can delete them.

**Caution:** If you have made changes to any other tables, your changes will be lost unless you have backed up those tables manually.

To update a current installation:

1 Follow the procedure described in Installing Business Analytics, Repository Database, OLAP Database.

See "Installing LN Analytics Foundation, Repository Database and OLAP Database" on page 12

2 Follow the procedure described in Copy configuration files.

See "Copying Analytic Modeling files" on page 13

3 Follow the procedure described in Copy documentation.

See "Copying Online Help and Dashboard files" on page 14.

4 Ensure that you have backed up any tables which you have configured and which will not be backed up automatically.

5 Install the update.

6 Follow the procedure described in ImportMaster definition file.

See "ImportMaster definition file".

7 If applicable, follow the procedure described Net Profit and Loss.
See "Net Profit and Loss" on page 39.

8 If there are mapping changes, follow the procedure described in Account mappings.
See "Account mappings" on page 38.

9 If there are no mapping changes:
   a Rename the existing `BI Business Analytics Accounts [version number] Mapping.xls` to reflect the new version number.
   b Perform steps 21 to 23 described in "Account mappings" on page 38.

10 If you run in , perform the procedure described in Configuring a Workspace or Infor Ming.le site with Business Analytics.
See "Configuring a Workspace or Infor Ming.le site with Business Analytics" on page 51.