



# Infor LN Procurement User Guide for Purchase Orders

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## About this Guide

This document provides an introduction to purchase orders and explains the steps and functions in the purchase order procedure.

### Assumed knowledge

Although you need no detailed knowledge of the LN software to read this guide, general knowledge of the LN functionality will help you understand this guide.

### References

Use this guide as the primary reference for purchase orders. Use the current editions of these related references to research information that is not covered in this guide:

- *User Guide for Purchase Master Data*
- *User Guide for Purchase Requisitions*
- *User Guide for Requests for Quotation (RFQs)*
- *User Guide for Purchase Contracts*
- *User Guide for Purchase and Sales Schedules*
- *User Guide for Purchase Vendor Rating*
- *User Guide for Retrobilling*
- *User Guide for Statistics*
- *User Guide for Additional Information Fields*
- *User Guide for Landed Costs*
- *User Guide for Supplier Stage Payments*
- *User Guide for Subcontracting*
- *User Guide for Vendor Managed Inventory*
- *User Guide for Project Pegging*
- *User Guide for Budget Control*
- *User Guide for Pricing*
- *User Guide for Material Pricing*
- *User Guide for Price Stages*
- *Global Trade Compliance User Guide*
- *User Guide for Letters of Credit*

### How to read this document

This document is assembled from online Help topics. Text in italics followed by a page number represents a hyperlink to another section in this document.

Underlined terms indicate a link to a glossary definition. If you view this document online, clicking the underlined term takes you to the glossary definition at the end of the document.

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# Chapter 1: Introduction

## Overview of purchase order handling

You can create and modify *purchase orders* for purchasing goods. For example, if you run out of inventory, you can perform the purchase order procedure to replenish stocks. You can also use the purchase order procedure to purchase, for example, services. After confirmation, a purchase order is a legal obligation to supply items according to certain terms and conditions, including specific prices and discounts.

After an order is processed, the information is used by different departments in the company, such as planning, production, distribution, finance, purchasing, and marketing.

### Purchase master data

Before you can complete the purchase order procedure, you must specify the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session and specify the purchase master data.

For more information, refer to:

- Item purchase data
- Purchase organizational data
- General purchase data

### Purchase order procedure

The purchase order procedure includes these steps:

- 1 Creating the purchase order
- 2 Sending the purchase order to the buy-from business partner, and informing the warehousing people about the goods to be expected
- 3 Receiving the purchased goods
- 4 Paying the received goods
- 5 Transferring the delivered purchase orders to the purchase order history database

For more information, refer to Purchase order procedure.

### Purchase order additional processes

A number of processes do not always occur in the purchase order procedure, but can be applicable in specific situations, such as direct deliveries, backorders, and return orders.

For more information, refer to Purchase orders - additional processes.

## Chapter 2: Procedure

### Purchase order procedure

The purchase order procedure covers the complete administrative procedure for purchasing goods or services.

The procedure includes these steps:

#### 1 Creating purchase orders

In the Purchase Order (tdpur4100m900) session, purchase orders can be created:

- Automatically, from a variety of sources, such as **EP**, **Sales**, and **Service**.
- Copied from an existing order in the Copy Purchase Order (tdpur4201s000) session.
- Manually.

#### 2 Approving purchase orders

After purchase orders are created, purchase order approval is a mandatory step in the purchase order procedure. The execution of the order procedure activities can start when you approve the order.

#### 3 Printing purchase orders

After the order is registered and approved, you can print the purchase order and send it to the buy-from business partner as confirmation. The **Print Purchase Orders (tdpur4401m000)** session is mandatory only if you communicate the purchase order to the buy-from business partner by mail or *electronic data interchange (EDI)*. If you use the phone to communicate purchase orders, this step is optional.

After the purchase order is printed, you can still modify the purchase order. A *change request* is required to update the purchase order if the Change Requests check box is selected in the **Purchase Order Parameters (tdpur0100m400)** session.

#### 4 Releasing purchase orders to Warehousing

After the buy-from business partner is informed about the purchase order and the purchase order is approved, you can release the purchase order to Warehousing in the **Release Purchase Orders to Warehousing (tdpur4246m000)** session. The warehousing department is now informed about the goods to be expected.

When purchase orders are released to the warehouse, several activities are triggered in Warehouse Orders, starting with warehouse order creation in the **Warehousing Orders (whinh2100m000)** session. The activities in Warehouse Orders depend on the warehouse order type that is linked to the purchase order type.

To link a warehousing order type to a purchase order type:

- a Link activities to a *warehousing procedure* in the **Activities by Procedure (whinh0106m000)** session.
- b Link a warehousing procedure to a warehousing order type in the **Warehousing Order Types (whinh0110m000)** session.



**c** Link the warehousing order type in the **Purchase Order Types (tdpur0194m000)** session.

It is not mandatory to release purchase orders for cost items and service items to Warehousing. This depends on the setting of the Release to Warehousing check box in the **Item - Purchase** session. Direct deliveries are never released to warehousing.

## 5 Receiving the purchased goods

You can record the receipts of purchased goods in Warehousing or Procurement.

- **Warehousing**

If the purchase order is released to Warehousing, the receipt procedure is covered by the inbound and inspection procedures in Warehouse Orders.

When receipts are recorded in Warehousing, the receipt data is reported back to Procurement. You can view this data in these sessions:

- **Purchase Orders - Receipt Overview (tdpur4531m000)**
- **Purchase Receipts (tdpur4106m000)**

- **Procurement**

For noninventory items that are not released to Warehousing, you can record the receipts in the Purchase Order - Lines to be Received (tdpur4501m400) and Purchase Receipts (tdpur4106m000) sessions.

After a receipt is confirmed in the **Purchase Receipts (tdpur4106m000)** session, you can no longer change the receipt data in this session. However, you can still change specific receipt data in the Correct Purchase Receipt (tdpur4106s100) session.

When the goods are received, the prices and discounts of the goods may be changed. Use the Change Price and Discounts after Receipt (tdpur4122m000) session to maintain prices and discounts.

## 6 Paying the purchased goods

To manage the payment of the purchased goods, use Accounts Payable. You can carry out this process only if the Financials package is implemented.

In the purchase order procedure, the business partner does not need to send an invoice. Instead, you can use *self-billing* to automatically generate invoices for the purchased goods.

Self-billing is typically used if you have:

- A contract with the business partner for the price of the goods you are buying.
- An agreement with the business partner that you will pay for the goods without receiving an invoice for them.

Self-billing is controlled by these fields in the **Purchase Orders (tdpur4100m000)** and **Purchase Order Lines (tdpur4101m000)** sessions:

- **Self-Billing**

If you select this check box, an invoice can be generated for each order line receipt. In the financial company to which the purchase office is linked, you can select the order lines and generate the invoices in the **Generate Self-Billing Purchase Invoices (tfacp2290m000)** session.

- **Invoice after**

This field can be:

- **Inspection**

Self-billed invoices can be created only for the total approved received quantity, after all inspections are finished for a particular receipt.

- **Receipt**

A self-billed invoice can be immediately created for the total received quantity. If, after inspection, some quantity is rejected, in the **Generate Self-Billing Purchase Invoices (tfacp2290m000)** session, an invoice is created for the rejected quantity. This invoice includes a negative quantity.

## 7 Processing purchase orders

At the end of the purchase order procedure, all purchase orders must be processed in the Process Delivered Purchase Orders (tdpur4223m000) session. The processed purchase orders are transferred from the regular database to the history database.

### Purchase order workbenches

You can use these sessions to view the *purchase order lines* that require a buyer's attention and to execute the appropriate actions on the lines:

- Purchase Order Intake Workbench (tdpur4601m200)  
To view the order lines for which specific *activities* are yet to be executed, or unconfirmed data or backorder quantities exist.
- Purchase Order Fulfillment Workbench (tdpur4601m300)  
To view the order lines that are yet to be received and are almost due, or lines whose due date (planned receipt date) has passed.

## Purchase order approval

After purchase orders are created, purchase order approval is a mandatory step in the purchase order procedure.

You can approve purchase orders:

- Based on *approval rules* for a range of purchase orders in the Approve Purchase Orders (tdpur4210m100) session.
- Manually, for a range of purchase orders in the **Approve Purchase Orders (tdpur4210m100)** session.
- Manually, for a specific purchase order. To approve a purchase order, click **Approve** on the *appropriate* menu of the **Purchase Orders (tdpur4100m000)** or the **Purchase Order (tdpur4100m900)** session. If the **Approval Rules Mandatory** check box is selected in the **Purchase Order Parameters (tdpur0100m400)** session, this option is disabled.

### Note:

- You cannot approve purchase orders that are waiting for *commingling* before they are actually commingled.
- If the **Use Confirmation** check box is selected in the **Order Terms and Conditions (tctrm1130m000)** session or the **Buy-from Business Partner (tccom4120s000)** session, you cannot approve purchase orders before the **Confirmed Quantity** and **Order Confirmation Date** fields are specified on the purchase order line(s).
- When a purchase order is approved, flexible purchase order processing can start.

## Processing purchase orders

You can process purchase orders and order lines in the Process Delivered Purchase Orders (tdpur4223m000) session.

### Processing actions

During processing, LN:

- Inserts turnover history.
- Updates the contract data and history (if a contract is used). The called quantity amount is lowered, and the invoiced quantity and amount are raised. The turnover is written to the contract history. This action is performed only if the **Log Turnover on Contract** check box is selected in the **Purchase Contract Parameters (tdpur0100m300)** session. In this way, you can view which order called off a quantity for a contract.
- Updates the invoice-from business partner's balance.
- Updates the average/latest purchase price. If Financials is implemented, this action is performed during the invoice matching procedure, which you can carry out after approving the invoice in the **Confirm Received Purchase Invoices (tfacp1104m000)** session.
- Writes and updates turnover history using the actual purchase price. A posting is made with a positive and a negative quantity. This action only happens if the **Log Order History** check box is selected and the **Level of Order Intake History Logging** is ALL in the **Purchase Order Parameters (tdpur0100m400)** session.

### Processing consignment replenishment orders

In case of consignment, two purchase orders can exist: one for the replenishment and one for the payment of the goods. The consignment replenishment order can be linked to a contract. When the consignment replenishment order is processed, the contract data is not updated, because no invoice is made for that order.

When the consignment payment is done and the order is processed, LN:

- 1 Searches for the consignment replenishment order.
- 2 Retrieves the contract from the consignment replenishment order.
- 3 Updates called quantities and amounts and invoiced quantities and amounts on the purchase contract

### Processing purchase orders versus matching and approving purchase invoices

Processing purchase orders and matching and approving purchase orders in Financials can be executed independently from each other. When you approve the purchase invoice after you processed the purchase order, the invoice amount is not written to a turnover history record. Therefore, you must repair the situation by rerunning the **Process Delivered Purchase Orders (tdpur4223m000)** session. Because the invoice amount was not written yet to a turnover history record, additional turnover history records (- and +) are added with the invoice amount.

## Purchase order history

You can use purchase order history to track creations and modifications to purchase orders. You can keep certain information after the original purchase order is removed.

To register the history of orders that are created, canceled, or processed, select the Log Order History and Log Actual Order Receipt History check boxes in the **Purchase Order Parameters (tdpur0100m400)** session.

**Note:** You cannot modify the history data. It is only used for information purposes.

### Contents of history files

The purchase order history files include:

- All created purchase orders and lines. These are the not yet processed orders and lines.
- All invoiced purchase orders and lines. These are the processed orders and lines.

The history files are of these record types:

- **Intake**  
The order line was added, changed, or deleted.
- **Cancellation**  
The order line was canceled.
- **Turnover**  
The order line was processed in the Process Delivered Purchase Orders (tdpur4223m000) session.

The fields in this table determine if, when, and how the purchase order history files are updated:

Purchase orders	
Field	Retrieved from session
Log Order History	<b>Purchase Orders (tdpur4100m000)</b>
Start Logging Order History at	<b>Purchase Orders (tdpur4100m000)</b>
Level of Order Intake History Logging	<b>Purchase Order Parameters (tdpur0100m400)</b>
Log Actual Order Receipt History	<b>Purchase Order Parameters (tdpur0100m400)</b>

### Deleting history files

You can restrict the total amount of history data with the Archive/Delete Purchase Order/Schedule History (tdpur5201m000) session.

Be aware that the history files are the base for statistics. Before you delete the history files, verify that the statistics are fully updated. If the history files are deleted before the update, you cannot fully update the statistics

## Chapter 3: Additional processes

### Purchase orders - additional processes

A number of processes do not always occur in the purchase order procedure, but can be used optionally.

#### Adding landed costs to purchase orders

To have a proper insight in all procurement costs, not only the purchase price, but also *landed costs* can be linked to a purchase order.

For more information, refer to:

- Landed costs – overview
- Landed costs – orders

#### Additional information fields

You can define *additional information* fields. The additional information from the purchase order is transferred to the inbound and receipt documents in Warehousing. For more information, refer to Additional information fields in Procurement.

#### Archiving and deleting purchase orders

You can use the Archive/Delete Purchase Orders (tdpur4224m000) session to delete, archive, or archive and delete purchase order- and purchase order line-data

**Note:** How the order data is deleted, depends on the value of the Delete Order Data if Received Completely field in the **Purchase Order Parameters (tdpur0100m400)** session.

#### Blocking purchase orders

If order blocking is enabled, purchase orders and purchase order lines can be blocked.

Purchase orders and lines can be manually blocked, or are automatically blocked because of a *compliance* check failure.

For more information, refer to Blocking purchase orders.

#### Changing prices and discounts after receipt or consumption

- After receipt

In the **Change Price and Discounts after Receipt (tdpur4122m000)** session, you can change prices and discounts after the goods are received.

- After consumption

In the **Change Price and Discounts after Receipt (tdpur4122m000)** session and the **Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000)** session, you can change prices and discounts after the goods are consumed.

For more information, refer to Changing prices or discounts after receipt or consumption.

### Commingling purchase orders

If you want to reduce the number of purchase orders and obtain the best available prices and discounts, you can commingle purchase orders. Commingling enables you to group various purchase orders that originate from different sources into a single purchase order.

For more information, refer to:

- Overview of purchase order commingling
- Commingling purchase orders

### Copying purchase orders

You can use the Copy Purchase Order (tdpur4201s000) session to copy existing purchase orders to new purchase orders. You can copy from the actual orders or from the order history.

For more information, refer to Copying purchase orders.

### Generating freight orders from purchase orders

Freight is the package that handles transportation requirements. Because Procurement is sometimes responsible for the transportation of goods and must consequently collect goods from a supplier, you can generate a freight order from the purchase order. If the transportation of goods is not the supplier's responsibility, the supplier must know on what date the goods must be ready. Therefore, you must consider the planned load date in the purchase order as the shipment date; when to pick up the goods from the supplier.

The integration between Freight and Procurement includes these topics:

- Integration freight order control and procurement  
During the planning and execution of a freight order, its status often changes. If Procurement is responsible for creating the freight order, the progress of the shipment and loads can be exchanged and information can be shared between Freight and Procurement.
- Integration freight invoicing and purchase invoicing  
The freight rate that you must pay to the carrier, is called freight costs. You can invoice your business partner for the freight costs based on:
  - **Freight Costs**
  - **Freight Costs (Update Allowed)**
  - **Client Rates**

For more information, refer to:

- Integration Freight Order Control and Procurement

- Integration freight invoicing and purchase invoicing

### Generating purchase orders from work orders or service orders

With Depot Repair and Field Service you can maintain, repair, or upgrade parts. An integration is available between Service and Procurement to buy parts or to *subcontract* the maintenance, repair or upgrade.

The following depot repair and field service processes are supported:

- Purchasing additional parts
- Purchasing subcontracting activities

In both cases, a purchase order must be generated to buy parts or to procure *subcontracting*.

For more information, refer to:

- Purchasing additional parts
- Service subcontracting in Procurement

### Handling backorders

If only a part of the goods or none of the goods listed on a purchase order are received, *backorders* can be created.

The following can result in a backorder:

- The received quantity of the purchase order line is less than the ordered quantity at the time of delivery date.
- The received quantity of the goods is (partially) rejected during inspection.
- The received quantity is equal to the ordered quantity, but the user changes the back order quantity from zero into a higher value.

For more information, refer to Purchase backorders.

### Handling return orders

A return order is a purchase order on which returned shipments are reported. A return order can include only negative amounts. With a purchase return order, you can return inventory units (**Return Inventory**), or rejected goods (**Return Rejects**) to the supplier.

Purchase orders of the **Return Rejects** order type are always generated from Warehousing to return *quarantine inventory*.

For more information, refer to Purchase return orders.

### Import compliance for purchase orders

If *global trade compliance* is applicable for import documents, purchase orders are validated to ensure that the import compliance information is valid and the required licenses are available.

For more information, refer to Import compliance for purchase orders.

### Letters of credit for purchase orders

If payment is to be made through a *letter of credit (L/C)*, an import or domestic purchase letter of credit must be linked to a *purchase order* or *purchase order line*.

An order or order line linked to a letter of credit can only be approved if it is linked to an approved letter of credit. To be released, the order or order line must be linked to a letter of credit with status **Issued**, which expresses that the *issuing bank* issued the letter of credit to the *advising bank*.

For more information, refer to Letter of credit and Import letter of credit procedure.

### Material prices on purchase orders

If the **Material Pricing in Procurement** check box is selected in the Material Price Parameters (tcmpr0100m000) session, after setting up the material pricing master data, LN can retrieve material price information and calculate *material prices* for a purchase order line.

Linked material price information can be viewed in the Material Price Information (tcmpr1600m000) session.

For more information, refer to Material price information – purchase orders.

### Printing claims

Occasionally, during the receipt process, the quantity received does not match with the *packing slip quantity*. If suppliers ship less than what is on their packing slip, a *claim note* can be printed in the Print Claims (tdpur4420m000) session.

### Printing purchase invoices

An optional step in the purchase order procedure is to print *purchase invoices* in the Print Purchase Invoices (tdpur4404m000) session. These invoices are used to compare the data in your system with the data (invoices) you get from the buy-from business partner.

### Printing reminders

You can use the Print Purchase Order Reminders (tdpur4403m000) session to print a *reminder* to advise a business partner of undelivered purchase orders.

### Project pegging

Project costs can be pegged to purchase orders. If the item on the purchase order requires a *peg*, a peg distribution must be linked to the purchase order. In a peg distribution, the required quantity of the parent business object is distributed across distribution lines for combinations of project/budget, project element and/or project activity. For example, if a distribution is used to peg the ordered quantity on a purchase order line, the goods are purchased for and the costs are booked to these projects, elements, and activities.

For more information, refer to Project pegging in Procurement.



### Retrobilling purchase orders

If price changes are made to a purchase contract or to an item because of price renegotiations, the *retrobilling* functionality can be used to re-invoice previously invoiced items for purchase orders. Price differences are handled through price change advice lines, which are based on the *purchase payable receipts* of the order. After approving and processing a price change advice line, an additional (retro-active) payable receipt line is generated for the order.

For more information, refer to Retrobilling in Procurement.

### Specifying direct delivery orders

On a sales order or service order, you can indicate whether you want the sold goods to be *directly delivered*. In case of a direct delivery, a sales order or service order results in a purchase order. Because the buy-from business partner delivers the goods directly to the sold-to business partner, Warehousing is not involved.

For more information, refer to:

- Direct delivery sales orders
- Direct delivery service orders

### Specifying supplier stage payments

*Supplier stage payments* enable customers to pay suppliers before or after the ordered goods are actually received for a purchase order. The payments are spread over a period of time and the amounts must be paid to the supplier on specific dates. The purchase order item's invoice flow is separated from its goods flow.

Supplier stage payments can be useful for items with characteristics such as long lead, high value, much engineering, and a fixed price. The stage payments can include the dates and events for which the supplier must complete specific tasks before receipt of any goods, such as providing design documents or test results.

For more information, refer to Supplier stage payments.

### Static cross-docking

If you want to fulfill an existing sales order for which no inventory is available, you can take inbound goods immediately from the receipt location to the staging location for issue. To initiate this process, you must generate a *cross-docking* order.

For more information, refer to Static cross-docking.

### Subcontracting

In Procurement, various purchase documents for *subcontracting* can be created. To start the subcontracting process, a purchase order is required.

These types of subcontracting are available:

- *Operation subcontracting*
- *Item subcontracting*
- Unplanned subcontracting
- *Service subcontracting*

For more information, refer to Subcontracting in Procurement .

### Using change requests

You can use *change requests* to update purchase orders (and related data) in a controlled manner after their initial approval or printing. Only one open change request can be applicable at a time for a purchase order. A new change request can be created only after a previous revision was processed or canceled.

For more information, refer to Change requests - overview.

### Using consigned inventory

If you want to use *consigned* inventory in the purchase order procedure, you can specify how consigned inventory is handled.

For more information, refer to Consignment in Sales and Procurement.

### Using customer furnished materials

To enable customers or their suppliers to furnish the materials that are required to produce a specific customer item, you can implement **Customer Furnished Materials**. Based on the demand from a sales order, a purchase order of the **Customer Furnished Materials** type is generated by the *order plan*. This purchase order is used to call off the customer furnished materials that are needed by the production order to produce the customer item. The purchase order inherits the demand peg of the demand order.

For more information, refer to Customer furnished materials in Sales and Procurement.

### Using price stages

You can use *price stages* to categorize the price based on the phase of the price-negotiation process. As long as the price is not final, price stages are used to allow the continuation of the order process, but to restrict the activities that you can perform during this process. The *blocking definition* that is linked to the price stage determines the phase at which the purchase order line must be blocked or a signaling message must be displayed.

For more information, refer to Price stages - overview.

## Blocking purchase orders

In Procurement, you can block purchase orders or purchase order lines.

Purchase orders and lines can be manually blocked, or are automatically blocked because of a *compliance* check failure, or a *price stage* check.

### Setup and procedure

- 1 Specify the reasons for blocking a purchase order or purchase order line and the reason categories in the **Hold Reasons (tcmcs2110m000)** session.

- 2 Select the Order Blocking check box and specify a value in the License Compliance Hold Reason and Letter of Credit Hold Reason fields in the **Purchase Order Parameters (tdpur0100m400)** session.
- 3 If you use *price stages*, specify the stages and the related *blocking definition*.
- 4 In the **Procurement User Profiles (tdpur0143m000)** session, select the **Authorized to Release Blocked Orders** check box for the users who are authorized to release (unblock) orders.
- 5 Blocked purchase orders and purchase order lines are displayed in the Purchase Order (Line) Blockings (tdpur4120m000) session.

### Manually blocking purchase orders

- To block a purchase order, click the **Block** option from the *appropriate menu* in the **Purchase Order (tdpur4100m900)** session. To block an individual purchase order line, select a line and click the **Blockings** option in the same session.
- When you block a purchase order, the status is set to **Blocked**. For a blocked purchase order line, the **Blocked** check box is selected.
- When a purchase order is blocked, all linked purchase order lines are also blocked. If an open receipt is linked to the purchase order line, the purchase order line cannot be blocked. However, the purchase order can still be blocked.
- You must specify a **Hold Reason** to indicate why the purchase order or line is blocked.
- When a purchase order (line) is blocked, a record is created in the **Purchase Order (Line) Blockings (tdpur4120m000)** session. To release the blocked purchase order (line), an authorized user can click the **Release Blocking** option.

**Note:** If the *change request* functionality is implemented for purchase orders, you can also block and release purchase order (line) change requests.

### Compliance check failure

Purchase order lines that are blocked because the import *compliance* check or the *letter of credit (L/C)* check failed, are displayed in the **Purchase Order (Line) Blockings (tdpur4120m000)** session with the **Hold Reason** value retrieved from the License Compliance Hold Reason or the Letter of Credit Hold Reason fields in the **Purchase Order Parameters (tdpur0100m400)** session.

The blocked lines cannot be released in the **Purchase Order (Line) Blockings (tdpur4120m000)** session. To unblock a line, you must update the required compliance data and re-execute the compliance check, or an authorized user can manually override the block by using the Document Compliance Check Results (tcgtc1510m000) or Override Compliance Check Results Workbench (tcgtc1610m100) sessions.

### Price stage check

Purchase order lines that are blocked due to the *price stage*, are displayed in the **Purchase Order (Line) Blockings (tdpur4120m000)** session. The value of the **Hold Reason** field is retrieved from the *blocking definition* that is linked to the price stage.

Based on the blocking phase for the blocking definition, the purchase order line can be blocked during these phases:

- Order entry
- Release to Warehousing
- Receipt confirmation

The blocked lines cannot be released in the **Purchase Order (Line) Blockings (tdpur4120m000)** session. To unblock a line, you must update the price stage. Based on the new price stage, the order process can continue, a new blocking can be created, or only a signal may be displayed.

## Changing prices or discounts after receipt or consumption

You can change prices or discounts for purchase orders after *receipt* or *consumption*.

Price changes are applied to purchase order lines, purchase order detail lines, or purchase order backorder lines. You can also update the item file with the price changes, which will update the **Purchase Price** field in the **Item - Purchase** session. For each subsequent order for the item, the new price is used.

Before you can change prices or discounts, these conditions must be met:

- If the purchase order originates from a sales or service direct delivery order, the sales or service order is not yet updated
- If a production order is linked to a purchase order, the production order status is not **closed**
- No *supplier stage payments* are linked to the purchase order line
- The purchase order line is not processed
- If payment for the purchase order line is:
  - **Pay on Use**, the invoicing status is not **ALL Approved**
  - **Pay on Receipt**, the invoicing status is **Free**

### Change prices or discounts after receipt

In the **Change Price and Discounts after Receipt (tdpur4122m000)** session, you can change prices or discounts for received purchase order lines.

**Pay on Use** When you change the price or discount of a purchase order line for which the payment type is **Pay on Use** and the invoicing status is **Free**, LN processes this change as follows:

- Updates the order amount, receipt amount, order line discount amount, and order discount amount in the **Purchase Order Lines (tdpur4101m000)**, **Purchase Order Line History (tdpur4551m000)**, and **Invoice Information on Purchase Orders (tfacp2540m000)** sessions.
- Updates the receipts in the **Purchase Receipts (tdpur4106m000)** session.
- Updates the receipt history data in the **Purchase Actual Receipt History (tdpur4556m000)** session.
- Updates the invoice information in the **Orders by Packing Slip (tfacp2543m000)** session.
- Updates the purchase contract data. The Always Use Contract Price and Discount check box in the **Purchase Contract Parameters (tdpur0100m300)** session determines how the link with the contract is handled.
- Updates the buy-from business partner's balance of unpaid orders in the **Invoice-from Business Partner Balances (tccom4523m000)** session.

**Pay on Receipt** If the payment type is **Pay on Receipt**, LN performs the following updates in addition to those previously listed:

- Updates the payable receipt in the **Purchase Payable Receipts (tdpur4130m000)** session.

- Creates payment receipt history records in the **Purchase Payable Receipt History (tdpur4560m000)** session.
- Updates the receipt information in the **Orders by Consumption (tfacp2543m100)** session. LN creates a *purchase payable receipt* record and a consumption record when the receipt for the purchase order line is confirmed.
- Records the price variance per order line in the **Integration Transactions (tfgld4582m000)** session.

**Note:**

If the payment type is **Pay on Receipt**, LN creates a *purchase payable receipt* when the purchase order line is received. Therefore, if a price or discount change is inserted after receipt, the purchase payable receipt is also updated. If the payment type is **Pay on Use**, the purchase payable receipt is not created until consumption takes place.

If the payment type is **Pay on Use**, LN inserts financial integration transactions in the **Integration Transactions (tfgld4582m000)** session when consumption takes place, because consumption is the moment that payment is due and price or discount changes affect financial transactions.

If the receipt of a purchase order with owned inventory is (partially) consumed and the valuation method is *moving-average unit cost (mauc)*, the created inventory variance will be consumed by inventory for the nonconsumed part. Therefore, the consumed part will still affect the MAUC value.

**Change prices or discounts after consumption**

In the **Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000)** and **Change Price and Discounts after Receipt (tdpur4122m000)** sessions, you can change prices or discounts for consumed purchase order lines for which the payment type is **Pay on Use**.

If you change the price or discount for a purchase payable receipt with payment type **Pay on Use** and status **Free**, LN processes this change as follows:

- Payable receipt  
Updates the payable receipt in the **Purchase Payable Receipts (tdpur4130m000)** session.
- Creates payment receipt history records in the **Purchase Payable Receipt History (tdpur4560m000)** session.
- Updates the consumption information in the **Orders by Consumption (tfacp2543m100)** session.
- Integration transactions  
Records the price variance for the payable receipt in the **Integration Transactions (tfgld4582m000)** session.
- Contract and business partner balance  
Updates the purchase contract data. The Always Use Contract Price and Discount check box in the **Purchase Contract Parameters (tdpur0100m300)** session determines how the link with the contract is handled.
- Updates the buy-from business partner's balance of unpaid orders in the **Invoice-from Business Partner Balances (tccom4523m000)** session.

## Import compliance for purchase orders

If the **Trade Management** check box is selected in the **Implemented Software Components (tccom0100s000)** session and the **Import** check box is selected in the **Trade Management Parameters (tcgtc0100m000)** session, you can set up information for an item for which import compliance is applicable.

When an item is subject to *global trade compliance*, internal checks are executed to ensure that the import compliance information is valid and the required licenses are available. This check is done during *purchase order line* entry, *shipment notice* line scheduling, and warehouse *receipt* line confirmation.

After a purchase order line is checked for import compliance, the success and failure data is logged. If the import compliance check fails, the purchase order line is blocked.

To allow the exclusion of documents from import compliance checks, you can specify document exceptions. For example, the exceptions can be specified by business partner, country, and document type.

### Purchase order lines

When a purchase order line is specified in the Purchase Order (tdpur4100m900) session, an import compliance check is executed if these conditions are met:

- The **Internal Check** check box is selected on the **Trade Compliance** tab of the **Trade Management Parameters (tcgtc0100m000)** session
- The order type is not used for returning inventory, returning rejects, or consignment payment
- The warehouse is specified
- The ordered quantity or order amount are more than zero
- The Subject to Trade Compliance check box is selected for the item in the **Items (tcibd0501m000)** session
- The country of the ship-from address differs from the country of the receipt address

If these conditions are met, and no exception is found in the Import Document Exceptions (tcgtc0130m100) session, an internal compliance check is executed for the purchase order line. For the internal check, LN verifies whether a valid import license is available in the Import Licenses (tcgtc0120m100) session. The availability and validity of import compliance data for the combination of item and ship-from country in the Item Inbound Compliance Data (tcgtc0110m100) session is also verified.

If the **Apply Quantity Limit** check box or the **Apply Value Limit** check box is selected in the **Import Licenses (tcgtc0120m100)** session for the import license, quantity or value limits are verified. The purchase order line's ordered quantity in inventory unit and the net order line amount in order currency are used for these checks. During receipt confirmation, import license consumptions are logged in the Import License Consumptions (tcgtc1520m100) session.

**Note:** If global trade compliance is applicable for the item of the purchase order line, the Subject to Trade Compliance check box is selected for the line.

### Components

If the Inventory Handling field is set to **By Component** in the **Purchase Order Lines (tdpur4101m000)** session, *components* are linked to the purchase order line. The import compliance check is executed only for the components that are received, and not for the main item. Consequently, the compliance check results are logged by component line.

If a component fails the compliance check, the order line is blocked. Several components can fail the check, but only one purchase order line blocking record is generated in the **Purchase Order (Line) Blockings**

(**tdpur4120m000**) session. The order line cannot be unblocked before all failure results are removed for the component lines.

### Import compliance check

The import compliance check can result in a success or failure, which you can view in the Document Compliance Check Results (tcgtc1510m000) session.

If the check is successful, the purchase order (component) line is saved and the order procedure can start. The compliance check result is automatically approved.

In case of a failure, the line is saved and blocked. Consequently, the **Blocked** check box is selected for the line. The line data is displayed in the **Purchase Order (Line) Blockings (tdpur4120m000)** session and the value of the **Hold Reason** field is retrieved from the License Compliance Hold Reason field in the **Purchase Order Parameters (tdpur0100m400)** session. To unblock the line, you must update the required data and re-execute the import compliance check, or an authorized person can manually override the import block by using the **Document Compliance Check Results (tcgtc1510m000)** or **Override Compliance Check Results Workbench (tcgtc1610m100)** sessions.

**Note:** On the *appropriate* menu in several Procurement sessions, you can use the **Check Trade Compliance** option to force execution of the import compliance check.

## Change requests

### Change requests - overview

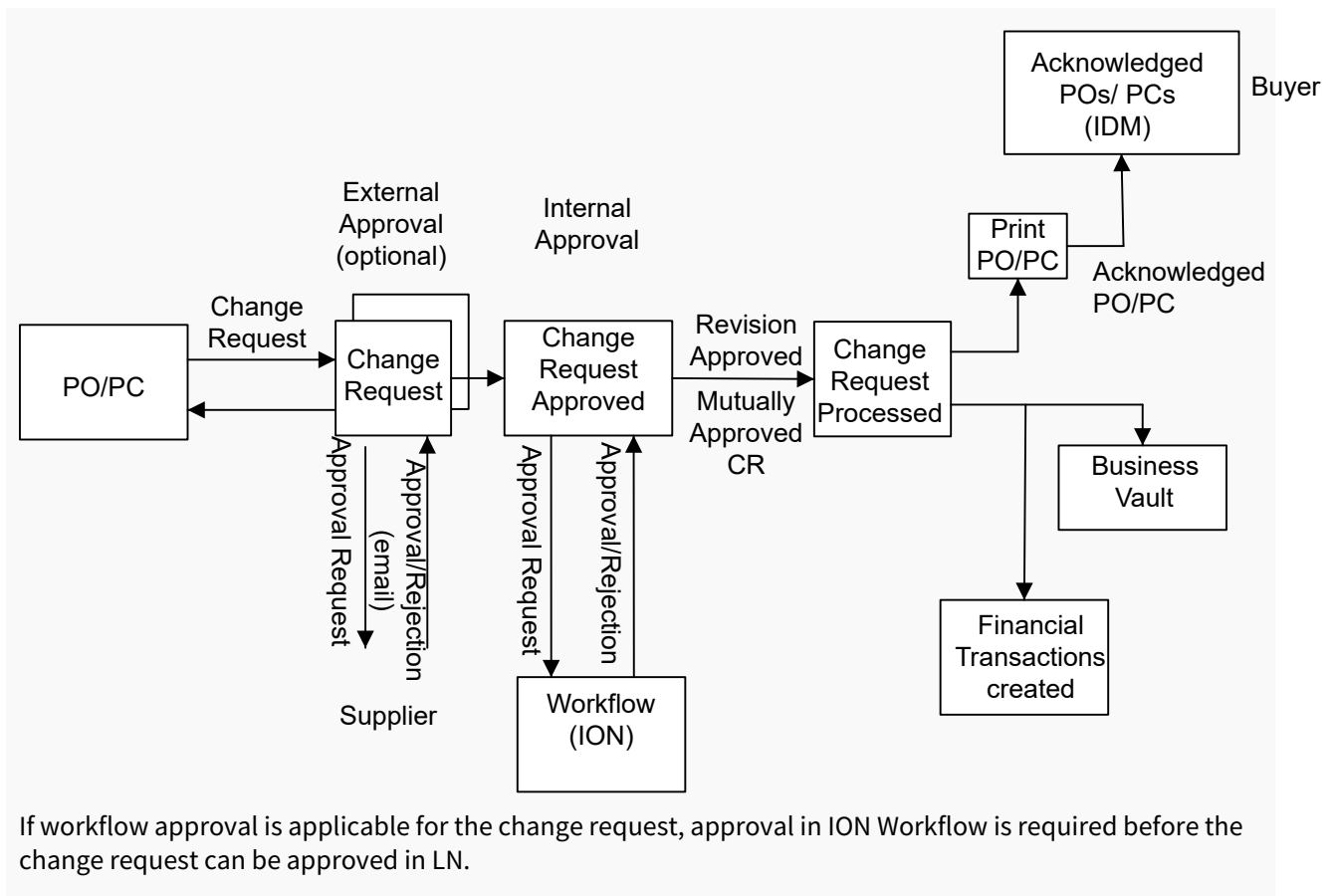
The modification of purchase documents which are binding, may require that procurement offices and companies include a formal and auditable change process to review, approve, and process the modifications made to the purchase documents. You can use the *change request* functionality to update documents in a controlled manner after the initial approval, printing, or activation.

You can use change requests for *purchase orders* and *purchase contracts*.

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#### Example

An example of the change request process for purchase orders and purchase contracts:



## Change requests - purchase orders

If the *change request* functionality is implemented for *purchase orders*, a change request is required to update the purchase order and the related data. A change request is a copy of the original and actual purchase order (including all the related information) that is added to a new document and assigned a new document number.

Change requests are required after the purchase order is approved, or after the order is printed (if the print activity is part of the order procedure). Only one open change request is applicable at a time for a purchase order. A new change request can be created only after a previous revision is processed or canceled.

On a change request, you can modify the purchase order, order line, order line receipt, and the linked purchase order data, such as landed costs, material prices, and material supply lines. Activities that are part of the purchase order procedure, such as releasing the order to Warehousing, printing the order, generating supply lines, and invoicing the order, can be initiated only from the actual purchase order and not using the change request.

For a purchase order, a change request can be manually created or can be generated based on the origins **Job Shop Control, Sales, Or Requisition**.

To modify purchase order data using the change request functionality:



- 1 In the **Purchase Order Parameters (tdpur0100m400)** session:
    - Select the Change Requests check box.
    - Specify a *series* for purchase order change requests in the Series field.
    - Optionally, you can select the Process Purchase Order Change Requests Automatically check box.
  - 2 Click **Initiate Change Request** in the **Purchase Orders (tdpur4100m000)** or **Purchase Order (tdpur4100m900)** sessions, to start the Purchase Order Change Request (tdpur4600m000) session. The status of the change request is set to **Created**. In case of change request generation, this step is executed automatically.
  - 3 Modify the required purchase order data of the change request. Consequently, the change request status is set to **Modified** and the actual purchase order (data) is locked.
  - 4 Submit the change request for approval (if ION Workflow approval is applicable).
  - 5
    - Click **Approve** to approve the change request in LN, if the data is valid. If the modifications are also approved in ION Workflow, the change request status is set to **Approved** and the revision number of the change request is increased by one.
    - If the modifications are rejected in ION Workflow, the **workflow approval status** of the change request is set to **Not Started** and the change request status is set to **Modified**. Based on the reject reason, you can modify the purchase order data and resubmit the change request. Optionally, you can use the **Cancel Change Request** option to cancel the change request and unlock the actual purchase order.
  - 6 Click **Process Change Request** to process the change request. Consequently, the change request status is set to **closed**, the modified data is updated on the purchase order, the revision number is increased, and the purchase order is unlocked.
- An approved change request is automatically processed if the **Process Purchase Order Change Requests Automatically** check box is selected in the **Purchase Order Parameters (tdpur0100m400)** session.

### Field updates

You can modify specific fields for a change request. The availability of fields on the change request depends on the status of the actual purchase order. See Purchase order change requests - field updates.

## Purchase order change requests - field updates

If *change requests* are used to update purchase orders, you can modify the value of specific fields on the change requests. These fields are enabled based on the status of the actual purchase order.

### Field categories

This table lists the categories of the fields that can be updated:

Category	Fields
Pricing terms	Order Discount, Price Stage, Price, Landed Costs
Delivery terms	Delivery Terms, Ship-from Address, Receiving address (warehouse), Delivery Location, Delivery Date, Ship-to BP, Carrier

Category	Fields
Payment terms	Payment Terms, Payment Address, Supplier Stage Payment information, Point of Title Passage
Order reference	BP Order Number, Reference A, Reference B, Buyer, Text (Header and Line)
Quantity	Quantity
Item	Item, Manufacturer Part Number, Unit Effective Number, E-Item Revision, Unit of Measure
Accounting distribution	Project/Element/Activity (project peg), General Ledger Account

### Field update requirements

This table lists the status of the purchase order (PO) and the required criteria to update the purchase order fields:

Category	Unap-proved PO	Approved PO (with supplier response, without receipts)	PO received (with backorder)	PO fully received	Matched and approved PO
Pricing Terms (except for Order Discount)	PO can be changed	Change request required to update PO	Change request required to update PO	Change request required to update PO	Change request required to update PO and initiate <i>retrobilling</i>
Quantity, Delivery Terms, Item	PO can be changed	Change request required to update PO	Change request required to update backorder (except for Item)	Not allowed	Not Allowed
Payment Terms	PO can be changed	Change request required to update PO	Change request required to update backorder	Not allowed	Not Allowed
Order References	PO can be changed	Change request required to update PO	Change request required to update PO	Change request required to update PO (Header and Line Text and Buyer)	Change request required to update PO (Header and Line Text and Buyer)
Accounting Distribution	PO can be changed	Change request required to update PO	Change request required to update backorder	Not Allowed	Not Allowed

**Note:** For a purchase order with the status **closed**, the purchase order line price can be updated using the change request *purchase payable receipt*. As the invoice is paid, retrobilling is also initiated. See: Retrobilling price changes using change requests.

### Change request sessions

These main sessions are available to update purchase orders and their related data using change requests:

- Purchase Order Change Request (tdpur4600m000)
- Purchase Order Change Request Line (tdpur4601m400)

The main sessions include these tabs that refer to the related change request sessions:

- Purchase Order Change Request Lines (tdpur4101m100) or Purchase Order Change Request Line Details (tdpur4101m400)
- Purchase Order Change Request Material Supply Lines (tdpur4116m100)
- Purchase Change Request Receipts (tdpur4106m100)
- Purchase Change Request Payable Receipts (tdpur4130m100)
- Potential Purchase Backorders (tdpur4101m700)

From the *appropriate menu* in the **Purchase Order Change Request Lines (tdpur4101m100)** or **Purchase Order Change Request Line Details (tdpur4101m400)** sessions, you can access these sessions to update additional purchase-order data:

- Purchase Change Request Peg Distribution (tdpur5600m100)
- Material Price Information (tcmpr1600m100)
- Landed Cost Lines (tclct2100m010)

**Note:** If there is a mismatch between an original purchase order line and the corresponding change request line, and consequently the change request line is locked for updates, click **Reinitialize Change Request** in the **Purchase Order Change Request Lines (tdpur4101m100)** session to regenerate the change request line (and related data) based on the updated purchase order line. For example, a mismatch can occur if the order line is finally received during the change request process for the purchase order.

### Example

A purchase order includes ten order lines with a different status. For the first order line, an update is required. Consequently, a change request is generated for the entire purchase order.

If a final receipt can be executed for the second order line, the existence of a corresponding change request line that is not modified, may not block the original order line to be received. Consequently, the order line is received and the related fields are updated. However, now a mismatch occurs between the second order line and the second change request line. Due to this mismatch, the second change request line is locked for updates and the reinitialization of the change request is required.

**Note:** If a modified change request line is linked to a purchase order line, the purchase order line cannot be received.

You can use the Print Purchase Order Change Request Comparison (tdpur4408m000) session to view and compare all the updates between the original order and the change request.

In the history session that is linked to the relevant change request session, you can view the history of the changes.

## Chapter 4: Commingling

### Overview of purchase order commingling

You can *commingle* purchase orders that have the following origins:

- Enterprise Planning.
- The Job Shop Control module.
- Project.
- Warehousing.
- The Sales Control module.
- Service.
- Request for quotations (RFQs).
- Purchase requisitions.
- Manual purchase orders.

If you create a purchase order in one of the preceding origins, LN can commingle various purchase orders from different origins in the Purchase Control module.

#### Commingling conditions

Before you can commingle purchase orders, the following must be applicable:

- In the **Purchase Order Parameters (tdpur0100m400)** session, the **Commingling For** check box is selected for the purchase order's origin.
- In the **Items - Purchase Business Partner (tdipu0110m000)** session, the **For Commingling** check box is selected for the item and business partner entered on the order line.

#### Purchase orders for commingling

If the commingling conditions are met, for the purchase orders that are waiting for commingling, the **For Commingling** check box is selected in the following sessions:

- **Purchase Orders (tdpur4100m000)**
- **Purchase Order (tdpur4100m900)**
- **Purchase Order Lines (tdpur4101m000)**
- **Purchase Order Line Details (tdpur4101m200)**

To view the purchase orders that are waiting for commingling, filter on the **For Commingling** check box in these sessions.

You must *commingle* the purchase orders in the Commingle Purchase Orders (tdpur4210m000) session and approve the commingled purchase orders.

For more information, refer to:

- Commingling purchase orders
- Purchase order approval

**Note:**

- If the commingling conditions are not met, LN generates normal purchase orders in the Purchase Control module.
- You cannot approve purchase orders that are waiting for commingling before they are actually commingled.

## Commingling purchase orders

You can *commingle* purchase orders that have the **Created** status.

To commingle purchase orders, on the *appropriate* menu of the **Purchase Orders (tdpur4100m000)** or **Purchase Order (tdpur4100m900)** sessions, click **Commingle Purchase Orders**. Consequently, the Commingle Purchase Orders (tdpur4210m000) session starts in which you can enter your selection range.

The commingling process includes these steps:

### 1 Header level commingling

When you click **Commingle** in the **Commingle Purchase Orders (tdpur4210m000)** session, the *purchase order header* fields of each purchase order are compared. If the header fields match, LN writes the corresponding lines into one new header. This process is repeated for the next header. If the header fields match, LN copies this header to the previously created header. If the fields do not match, LN creates a new header. This process is repeated for each successive header.

### 2 Line level commingling

After comparing the order headers, lines are sorted according to purchase order line fields. Lines with, for example, the same **Item**, **Payment**, and **Payment Terms**, are commingled into one line and the original lines are stored as line details. Lines that differ only by their details fields are commingled into the same *position*, but with a different *sequence number*, because the linked line data differs for the various lines.

If purchase order lines are *project pegged*, commingling of purchase order lines is subject to project combination checks. Commingling rules regarding project pegging, which you can specify in Project Pegging under Common, determine if lines with different pegs can be commingled into one purchase order line.

Prices that you specify on the purchase order are overwritten during the commingling process. If a valid price/discount structure is linked to the order line, for the total quantity of the order line's line details, LN derives the price from Pricing. If you have not defined a valid price/discount structure for the order line, LN derives the price from Item Purchase Data.

If you commingle purchase order lines that are linked to a purchase contract, the lines that are linked to the same contract are commingled. LN derives the price for the commingled order line from the contract's

active *purchase contract price revision*. If you have not defined a valid contract price revision, LN derives the price from Item Purchase Data.

### 3 Approval

After both line and header level commingling is carried out, you must approve the commingled order. Next, LN deletes the original order and the related LN modules are updated with the new order number. Therefore, the status in the linked order line data of those modules is changed to **Approved**.

## Chapter 5: Direct deliveries

### Direct delivery

On a sales order or service order, you can indicate whether you want the sold goods to be *directly delivered*. In case of a direct delivery, a sales order or service order results in a purchase order. Because the buy-from business partner delivers the goods directly to the sold-to business partner, Warehousing is not involved.

For detailed information on generating and processing direct delivery orders, refer to the following topics:

- Direct delivery sales orders
- Direct delivery service orders

#### Modifying direct delivery purchase orders

Fields on the generated purchase order (line) that are filled by Sales or Service are disabled and cannot be manually changed.

As long as no receipts are executed, you can change the following fields on the purchase order line from Sales or Service:

- **Ordered Quantity**
- **Planned Receipt Date**
- **Receipt Address**

#### Deleting direct delivery purchase orders

You cannot delete a direct delivery purchase order from Sales or Service. You can delete a direct delivery purchase order line only manually in Procurement. However, if the service order receives the **ReLeased** status, you can no longer delete the linked direct delivery purchase order.

**Note:**

- If the direct delivery purchase order is deleted, the deletion is communicated to Service in the **Related Orders (tsmdm4500m000)** session.
- You cannot delete a service order line to which a direct delivery purchase order line is linked. You must first manually delete the direct delivery purchase order line.

#### Canceling direct delivery purchase orders

You cannot cancel a direct delivery purchase order line in Procurement. You must cancel the linked sales order line in Sales or the linked service order line in Service to cancel the direct delivery purchase order line.

However, if receipts are executed for the purchase order, you can no longer cancel the linked sales order line or service order line.

## Direct delivery sales orders

To generate and process *directly delivery* sales orders:

### 1 Delivery Type

To create a direct delivery sales order:

- The **Allow Purchase Orders** check box must be selected for the sales order type in the **Sales Order Types (tdsls0594m000)** session.
- The **Delivery Type** field must be **Direct Delivery** in the **Sales Order Lines (tdsls4101m000)** session or the **Sales Order Planned Delivery Lines (tdsls4101m100)** session.

The **Direct Delivery** delivery type can be selected as follows in these sessions:

- Automatically, if the ordered quantity is equal to or greater than the quantity defined in the **Direct Delivery from Quantity** field of the **Items - Sales (tdisa0501m000)** session
- Manually, by selecting **Direct Delivery**
- By selecting **Generate Direct Delivery Order** from the **Inventory Shortage Menu (tdsls4830s000)** session that appears if an inventory shortage exists for the item

### 2 Create a purchase order advice

After the sales order line is approved and the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session is linked as an activity to the order type in the **Sales Order Type (tdsls0694m000)** session, a *purchase order advice* is or must be generated for the sales order line in the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session.

This step is not applicable if the **Generate Purchase Orders (tdsls4241m000)** session is linked as an activity to the order type instead of the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session.

### 3 Create a direct delivery purchase order

A purchase order must be generated for the direct delivery sales order. How the purchase order is generated, depends on whether a purchase order advice already exists for the sales order line.

- No purchase order advice

You can generate purchase orders for direct delivery sales orders in the **Generate Purchase Orders (tdsls4241m000)** session. Select the **Direct Delivery** check box and specify the fields in the **Direct Delivery** group box.

- Existing purchase order advice

If you want LN to convert the generated purchase order advice automatically to a purchase order, you must select the **Convert Purchase Advice automatically to Purchase Order** check box in the **Sales Order Parameters (tdsls0100s400)** session. If this check box is cleared, you must manually confirm and transfer the purchase order advice to a purchase order in the **Confirm Purchase Order Advice (whina3211m000)** session and the **Transfer Purchase Order Advice (whina3212m000)** session.



LN uses these fields from the **Purchase Order Parameters (tdpur0100m400)** session to generate direct delivery purchase orders:

<b>Order Series for Direct Delivery</b>	Order Series for Direct Delivery
<b>Order Type for Direct Delivery</b>	Order Type for Direct Delivery

After a purchase order is generated, the status of the originating sales order line is Awaiting direct delivery in the **Sales Order Lines Monitor (tdsls4510m100)** session.

#### 4 Receive a direct delivery order

If you use *advance shipping notices* and you click **Receive Direct Delivery Lines** in the **Shipment Notices (whinh3100m000)** session, receipts for items that are purchased for a direct delivery sales order, are inserted in the Purchase Receipts (tdpur4106m000) session. If you do not use advance shipment notices, you must manually specify the receipts for direct delivery sales orders in the **Purchase Receipts (tdpur4106m000)** session.

You cannot confirm receipts in the **Purchase Receipts (tdpur4106m000)** session before the lot and serial set, if lots and serials must be registered, is complete.

#### 5 Communicate the deliveries to Sales

Run the Update Sales / Service Order with Delivery Information (tdpur4222m000) session to communicate the item, quantity, lot and serial information back to Sales for final receipts.

For each purchase order receipt line that is registered in the **Purchase Receipts (tdpur4106m000)** session, a sales order delivery line is created in the **Sales Order Line (tdsls4101m900)** and the **Sales Order Actual Delivery Lines (tdsls4106m000)** sessions.

#### 6 Send the sales invoice to the sold-to business partner

After receipts are booked in Procurement and communicated to Sales through the **Update Sales / Service Order with Delivery Information (tdpur4222m000)** session, you can release the sales order data for invoicing in the **Release Sales Orders/Schedules to Invoicing (tdsls4247m000)** session.

#### 7 Process a direct delivery order

Process the purchase order in the **Process Delivered Purchase Orders (tdpur4223m000)** session and the sales order in the **Process Delivered Sales Orders (tdsls4223m000)** session.

### Direct delivery sales orders and related orders

- Return orders

If you want to return items that are received for the direct delivery sales order, you must manually enter a direct delivery sales return order in the **Sales Order (tdsls4100m900)** session.

A direct delivery purchase return order can be generated based on the Return Order Type for Direct Deliveries field in the **Purchase Order Parameters (tdpur0100m400)** session. Next, the normal procedure for the *purchase order type* applies.

- Freight orders

If you want to use Freight to manage and plan your direct deliveries, you can generate *freight orders* for direct deliveries. For more information, refer to Generating freight orders for direct delivery sales orders.

- Backorders

After deliveries are communicated to Sales and less is received than ordered, a confirmed backorder is generated in Procurement irrespective of the setting of the Confirm Back Orders automatically check box in the **Purchase Order Parameters (tdpur0100m400)** session.

It depends on the setting of the Confirm Back Orders automatically check box in the **Sales Order Parameters (tdsls0100s400)** session if you must first manually confirm the backorder in Sales.

**Note**

- You can change the backorder quantity in Sales until receipts are executed.
- You can also generate a *freight order* for a direct delivery backorder.
- You cannot cancel a direct delivery backorder in Procurement.
- You can only delete a direct delivery backorder in Procurement. However, the deletion is not communicated to Sales.

**Note:** If you use the Enterprise Modeler Content Pack with LN, consider using the MPL0050 (Generate Purchase Orders for Sales Order) *wizard* to specify direct delivery settings. You can execute this predefined wizard from the **Wizards by Project Model (tgwzr4502m000)** session after you specified the *business function model* for your company.

## Direct delivery service orders

To generate and process *directly delivery* service orders:

### 1 Delivery Type

- a Specify a service order and link activities to the service order in the **Service Order (tssoc2100m100)** session.
- b Specify a direct delivery line in the **Service Order Estimated Material Costs (tssoc2120m000)** session and set the Delivery Type field to **Supplier Direct Delivery**.

At this stage, the status of the service order is **Free**.

### 2 Plan the service order

Use the Service Order Resource Planning (tssoc2260m000) session to plan the service order.

These fields from the **Purchase Order Parameters (tdpur0100m400)** session are copied to the **Purchase Order Direct Delivery** group box in the **Service Order Resource Planning (tssoc2260m000)** session:

- Order Series for Direct Delivery
- Order Type for Direct Delivery

### 3 Generate and approve a direct delivery purchase order

When the status of the service order becomes **Planned**, a direct delivery purchase order is generated in the **Purchase Order (tdpur4100m900)** session based on the order type and series from the **Purchase Order Parameters (tdpur0100m400)** session. You must approve the purchase order.

### 4 Release the service order

Release the service order in the Release Service Orders (tssoc2200m000) session. You cannot receive the direct delivery purchase order before the status of the service order is **Released**.

### 5 Receive the direct delivery order

If you use *advance shipping notices*, receipts for items that are purchased for a direct delivery service order are inserted in the Purchase Receipts (tdpur4106m000) session when you click **Receive Direct Delivery Lines** in the **Shipment Notices (whinh3100m000)** session. If you do not use advance shipment notices, you must manually specify the receipts for direct delivery service orders in the **Purchase Receipts (tdpur4106m000)** session.

You cannot confirm receipts in the **Purchase Receipts (tdpur4106m000)** session before:

- The status of the linked service order is **ReLeased**.
- The lot and serial set, if lots and serials must be registered, is complete.

## 6 Communicate the deliveries to Service

Run the Update Sales / Service Order with Delivery Information (tdpur4222m000) session to communicate the item, quantity, lot and serial information back to Service for final receipts.

## 7 Complete the service order

After all goods are received and all activities are completed on the service order, you can change the service order status to **Completed**.

## 8 Send the invoice to the sold-to business partner

After receipts are booked in Procurement and communicated to Service through the **Update Sales / Service Order with Delivery Information (tdpur4222m000)** session, you can invoice the service order if its status is **Costed**. You can set the service order status to **Costed** in the **Cost Service Orders (tssoc2290m000)** session.

## 9 Process a direct delivery order

Process the purchase order in the **Process Delivered Purchase Orders (tdpur4223m000)** session and the service order in the **Close Service Orders (tssoc2201m000)** session.

## Direct delivery service orders and related orders

### • Return orders

Service engineers who carry out repairs at your sold-to business partner's location, might not use all the parts that are received for the direct delivery service order. In this case, you can directly return the unused materials to the buy-from business partner or to your own warehouse via a direct delivery return order.

After a service order is set to **Completed**, and the **Actual** is reduced in the **Service Order Actual Material Costs (tssoc2121m000)** session, use the **Return unconsumed Items Direct to Supplier** check box to indicate whether you want to return the excess quantity either to your company's warehouse or directly to the buy-from business partner.

If parts must be returned to the supplier on completing the order, which you can indicate by selecting the **Return unconsumed Items Direct to Supplier** check box and specifying a **Return Reason** in the **Service Order Actual Material Costs (tssoc2121m000)** session, another material line is automatically generated with the **Delivery Type** field set to **Supplier Direct Return**. Next, a direct delivery return purchase order is generated automatically in the **Purchase Order (tdpur4100m900)** session, based on the Return Order Type for Direct Deliveries field in the **Purchase Order Parameters (tdpur0100m400)** session.

### • Freight orders

If you want to use Freight to manage and plan your direct deliveries, you can generate *freight orders* for direct deliveries. For more information, refer to Generating freight orders for direct delivery service orders.

### • Backorders

After the status of a service order is **Completed**, and less is received than ordered, a confirmed backorder is generated automatically. The setting of the Confirm Back Orders automatically check box in the **Purchase Order Parameters (tdpur0100m400)** session is ignored.

**Note**

- You can change the backorder quantity, delivery date, and delivery address in Service until receipts are executed.
- You can also generate a *freight order* for a direct delivery backorder.
- You cannot cancel a direct delivery backorder in Procurement. You must change the **Required Quantity** quantity to zero in the **Service Order Actual Material Costs (tssoc2121m000)** session.
- You can delete a direct delivery backorder only in Procurement. The deletion is not communicated to Service.

## Chapter 6: Cross-docking

### Static cross-docking

To fulfill an existing sales order for which no inventory is available, inbound goods can be immediately taken from the receipt location to the staging location for issue. This process is called *cross-docking*.

These types of cross-docking are available:

- Static
- Dynamic
- Direct material supply

In this topic, only static cross-docking is handled.

To generate cross-docking orders:

#### 1 Create a cross-docking sales order

- Set the **Delivery Type** field to **Cross-docking** in the **Sales Order Lines (tdsls4101m000)**, **Sales Order Planned Delivery Lines (tdsls4101m100)**, or **Sales Order Line Components (tdsls4163m000)** session.

The **Cross-docking** delivery type can be specified as follows in these sessions:

- Manually, by selecting **Cross-docking**
- By selecting **Generate Cross-dock Order** from the **Inventory Shortage Menu (tdsls4830s000)** session that appears when an inventory shortage exists for the item
- After you run the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session with the **Warehouse** check box selected for sales order lines that have the **Delivery Type** field set to **Warehouse**

The **Allow Purchase Orders** check box must be selected for the sales order type in the **Sales Order Types (tdsls0594m000)** session.

#### 2 Create a purchase order advice

After the sales order line is approved and if the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session is linked as an activity to the order type in the **Sales Order Type (tdsls0694m000)** session, a *purchase order advice* must be generated for the sales order line in the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session.

This step is not applicable if the **Generate Purchase Orders (tdsls4241m000)** session is linked as an activity to the order type instead of the **Generate Purchase Order Advice for Sales Order (tdsls4240m000)** session.

#### 3 Create a cross-docking purchase order

A purchase order must be generated from the sales order. How the purchase order is generated, depends on whether a purchase order advice already exists for the sales order line.

- No purchase order advice  
You can generate cross-docking orders in the **Generate Purchase Orders (tdsls4241m000)** session. Select the **Cross-docking** check box and specify the fields in the **Purchase Order** group box.
- Existing purchase order advice  
To automatically convert the generated purchase order advice to a purchase order, select the **Convert Purchase Advice automatically to Purchase Order** check box in the **Sales Order Parameters (tdsls0100s400)** session. If this check box is cleared, you must manually confirm and transfer the purchase order advice to a purchase order in the **Confirm Purchase Order Advice (whina3211m000)** and **Transfer Purchase Order Advice (whina3212m000)** sessions.

The calculation of the **Planned Receipt Date** for the purchase order:

**Planned Delivery Date** in the **Sales Orders (tdsls4100m000)** session + **Cross-dock Lead Time** in the **Item Data by Warehouse (whwmd2110s000)** session.

#### 4 Release the cross-docking order to Warehousing

Release the purchase order to Warehousing in the **Release Purchase Orders to Warehousing (tdpur4246m000)** session.

Release the sales order to Warehousing in the **Release Sales Orders to Warehousing (tdsls4246m000)** session.

#### Note:

For a cross-docking order, several purchase order line details can be linked to one sales order line, or several sales order planned delivery lines can be linked to one purchase order line. Therefore, if you make changes to the sales order (delivery) line, the link with the purchase order line (detail)(s) can be broken.

When you change sales or purchase order lines that are linked, a message is displayed about the link between the sales order and the purchase order.

When you cancel or delete sales or purchase order lines that are linked, the link is broken.

When you cancel or delete a sales order line for which a purchase order advice exists, the purchase order advice is deleted.

## Chapter 7: Purchase orders and freight orders

### Integration Procurement and Freight

The Freight package can be used to handle transportation requirements. If the transportation of goods must be arranged in Procurement, and consequently goods must be collected from a supplier, you can generate a freight order from the purchase order. The supplier must know the date on which the goods must be ready. As a result, you must consider the planned load date in the purchase order as the shipment date; when to pick up the goods from the supplier.

#### Integration between Freight Order Control and Procurement

During the planning and execution of a freight order, its status often changes. If a freight order is created from Procurement, the progress of the shipment and loads can be exchanged and information can be shared between Freight Order Control and Procurement.

For more information, refer to Integration Freight Order Control and Procurement .

#### Integration between freight Invoicing and purchase invoicing

The freight rate that you must pay to the carrier, is called freight costs. You can invoice your business partner for the freight costs, based on:

- **Freight Costs**
- **Freight Costs (Update Allowed)**
- **Client Rates**

For more information, refer to Integration freight invoicing and purchase invoicing.

#### Integration between landed costs and Freight

You can link estimated or actual freight costs as *landed costs* to a *purchase order* for which a *freight order* is or will be generated.

For more information, refer to Landed costs – freight orders.

# Integration Freight Order Control and Procurement

For companies that want to do their own freight planning, an integration is available between Freight Order Control and Procurement to generate freight orders from purchase orders.

Freight orders can be generated from purchase orders that are manually created, generated by LN, or that originate from a converted *response line*.

## RFQ response settings

To enable the generation of freight orders from purchase orders that originate from a converted response line, and to provide the necessary freight-related information when the response line is converted to a purchase order, specify these fields in the **RFQ Responses (tdpur1506m000)** session:

- Select the **Generate Freight Orders from Purchase** check box
- Enter a service level in the **Freight Service Level** field if you want the same service level to be used in the freight order as in the purchase order
- Select the **Carrier Binding** check box if you want the same carrier to be used in the freight order as in the purchase order
- Enter a date in the **Planned Receipt Date** field, which must be considered as the unload date

**Note:** Freight orders can only be generated from purchase orders.

## Purchase order settings

To enable the generation of freight orders from purchase orders, these settings must be applied in the **Purchase Order Lines (tdpur4101m000)** or **Purchase Order Line Details (tdpur4101m200)** session:

- The **Generate Freight Orders from Purchase** check box must be selected
- The **Carrier Binding** check box must be selected if you want the same *carrier* to be used in the freight order as in the purchase order.
- A service level must be entered in the **Freight Service Level** field if you want the same service level to be used in the freight order as in the purchase order.
- A date must be entered in the **Planned Receipt Date** field. If the purchasing company is responsible for transportation, you must consider this as the *unload date*; the date when the goods must be available in the warehouse.
- A *planned load date* must be entered in the **Planned Load Date** field. If the purchasing company is responsible for transportation, this is the date on which the suppliers must be ready with the goods on their location. This date can be considered as the shipment date.

## Generating freight orders from purchase orders

If the **Generate Freight Orders from Purchase** check box is selected in the **Items - Purchase Business Partner (tdipu0110m000)** session and a purchase order is generated for the item – purchase business partner combination, after approval, LN checks whether **Generate Freight Orders (tdpur4220m000)** is linked as an activity to the order type in the **Purchase Order Type - Activities (tdpur0560m000)** session to determine the freight order generation method. The freight order can be manually or automatically generated for the purchase order.



After a freight order is generated from a purchase order (detail) line, the status of the freight order is **Expected**. The information that goes to the freight order includes only shipping related data, such as planned dates, addresses, shipping constraints, carrier, route, delivery terms, and planning responsibility. When a load plan is created for the freight order, the status of the freight order is **Planned**. The load plan can only be made actual in Freight, and the status of the freight order can be **Actual** after the purchase order (detail) line is released to Warehousing.

If the freight order status is **Planned**, on the *appropriate* menu of the **Purchase Order Lines (tdpur4101m000)** or **Purchase Order Line Details (tdpur4101m200)** session, you can click:

- **Freight Details** to view freight details, such as information about shipments and loads, the used carrier, the dates that the shipments will be executed and the quantities to be shipped in the **Freight Order Line Status Overview (fmfoc2601m000)** session.
- **Purchase Order Line - Linked Information** to view linked freight orders in the **Purchase Order Line - Linked Information (tdpur4502s000)** session.

**Note:** If you want to modify, block, delete, or cancel a purchase order and linked freight order, the status of the freight order must be **Expected, Planned, Or Actual**.

After the **Planned Receipt Date** is specified on the purchase order (detail) line, Freight determines whether the transportation lead time is sufficient to deliver the goods in time. If not, you must either change the **Planned Receipt Date** or select another carrier. Due to the type of transport or the availability of the carrier, the **Planned Receipt Date** can differ from the date as specified on the purchase order (detail) line. In the **Purchase Orders (tdpur4100m000)** session, you can click Printing and then **Print with Deviation in the Shipment Dates(Dummy for FM)** to start the **Print Orders with Deviating Shipment Dates (fmlbd3450m000)** session. With this session, you can generate a difference report that lists all orders for which the original dates differ from those in the load plan of Freight

## Integration freight invoicing and purchase invoicing

If a purchasing company is responsible for the transportation of goods and hires a *carrier* to transport the goods, after transportation, the carrier sends an invoice to the purchasing company. The freight rate that a company must pay to the carrier is called freight costs.

### Master data

To invoice your external business partner for freight, specify the following master data:

- In the **Buy-from Business Partner (tccom4120s000)** session, select the **Invoice Business Partner for Freight** check box to indicate that you want the business partner to pay for the freight costs you make.
- In the **Invoice-to Business Partner (tccom4112s000)** session, define the **Invoice for Freight Based On** field as:
  - **Freight Costs**  
If you want the freight costs for a shipment or load to be based on the best information currently available. The freight invoice amount is based on a *carrier rate book* in Pricing. These costs are also known as estimated freight costs.
  - **Freight Costs (Update Allowed)**

If you want the freight costs to be invoiced after matching the carrier invoice to a certain load or shipment. Initially, the freight invoice amount is based on a carrier rate book in Pricing. These costs are also known as actual freight costs.

- **Client Rates**

If you want the freight invoice amount to be based on a *client rate book* in Pricing. This rate book stores freight service rates for a specific business partner.

- If the **Invoice for Freight Based On** field is **Freight Costs** or **Freight Costs (Update Allowed)**, and if you want to add a cost plus amount or a cost plus percentage to the invoice, specify these fields in the **Invoice-to Business Partner (tccom4112s000)** session:

- **Additional Percentage**

The percentage with which the freight invoice amount must be increased

- **Additional Amount**

The amount with which the freight invoice amount must be increased

**Note:** These master data fields are used as a default for the same fields in the **Purchase Orders (tdpur4100m000)** and **RFQ Bidders (tdpur1505m000)** sessions, but can be overwritten in these sessions.

### Invoicing methods

A company can invoice freight rates to the external business partner, based on:

- **Freight Costs**
- **Freight Costs (Update Allowed)**
- **Client Rates**

### Freight Costs

Freight calculates the freight invoice amount based on the best information currently available (estimated freight costs). These freight costs are retrieved from a carrier rate book in Pricing and are updated each time a change is made to the shipment/load. Freight releases the freight invoice to Invoicing.

### Freight Costs (update allowed)

Freight prorates the freight amount for the purchase order (estimated freight costs) based on the entire load in Freight. It occurs that, when Freight releases the freight invoice with the estimated freight costs to Invoicing, the invoice is sent before the actual costs are received from the carrier. In this case, first the estimated freight costs are determined, based on the carrier rate books as stored in Pricing. In a later stage, after the carrier invoice is received and matched in Accounts Payable, the actual costs can be specified. Consequently, you can invoice your business partner the difference between the estimated costs and the actual costs.

**Note:** If you want to invoice your business partner with the difference, LN can generate an additional invoice. The invoice is based on the data you specify in the **If amount greater than** or **If greater than** fields of the **Freight Invoicing Parameters (fmfri0100m000)** session.

### Client Rates

If the invoicing method is **Client Rates**, the invoice amount is based on fixed agreements with customers about the freight rates that can be charged to them in order to be compensated for the freight costs that a company must pay to the carrier.

## Freight orders for direct delivery orders

### Generating freight orders for direct delivery sales orders

On a sales order or sales quotation, you can indicate whether you want the sold goods to be *directly delivered*. By means of a purchase order that is linked to a sales order, the buy-from business partner delivers the goods directly to the sold-to business partner. A direct delivery by-passes your warehouse.

You can use Freight to manage and plan your direct deliveries.

#### Direct delivery orders

If you want to generate *freight orders* for direct deliveries, the following applies:

- The freight order must be generated from the purchase order and not from the sales order.  
Therefore, if the Delivery Type field is **Direct Delivery** in the **Sales Order Lines (tdsls4101m000)** session:
  - The activity **Generate Freight Orders (tdsls4222m000)** is no longer linked to the sales order.
  - The **Generate Freight Order from Sales** check box is renamed into the **Generate Freight Order from Sales** check box. Whether this check box must be selected, is defaulted from the **Generate Freight Orders from Purchase** check box in the **Items - Purchase Business Partner (tdipu0110m000)** session.
- If, in the **Sales Order Lines (tdsls4101m000)** session, the **Delivery Type** field is set to **Direct Delivery** after a freight order was generated, the freight order is deleted.
- Either the Invoice for Freight check box can be selected in the **Sales Order Lines (tdsls4101m000)** session, or the Invoice External Business Partner check box can be selected in the **Purchase Orders (tdpur4100m000)** session. You cannot select both check boxes.
- Sales order fields, such as **Carrier/LSP**, **Route**, and **Freight Service Level**, are leading. Therefore, these fields must be specified on the sales order and not on the purchase order. The purchase order data is unavailable.
- To calculate the freight invoice amount for the direct delivery, click **Freight Amount** in the **Sales Order Lines (tdsls4101m000)** session. The purchase office that is linked to the buy-from business is used for this calculation. LN displays the calculated freight invoice amount in the Freight Amount field of the **Sales Order Lines (tdsls4101m000)** session.

**Note:** After the **Planned Delivery Date** is entered on the sales order line, LN determines whether the transportation lead time is sufficient to deliver the goods in time. To calculate the transportation time, the ship-from business partner's ship-from address and the ship-to business partner's ship-to address are used. If the goods cannot be delivered in time, you must change the **Planned Receipt Date** or select another carrier on the order line.

If a freight order is linked to a direct delivery order, the date fields have different names in the various modules. See this table:

-	Sales	Purchase	Freight	ASN
Moment of shipment of the goods from the supplier.	planned delivery date	load date	load date	shipping date

Moment of receipt of the goods by the sold-to business partner.	planned receipt date	planned receipt date	unload date	planned delivery date
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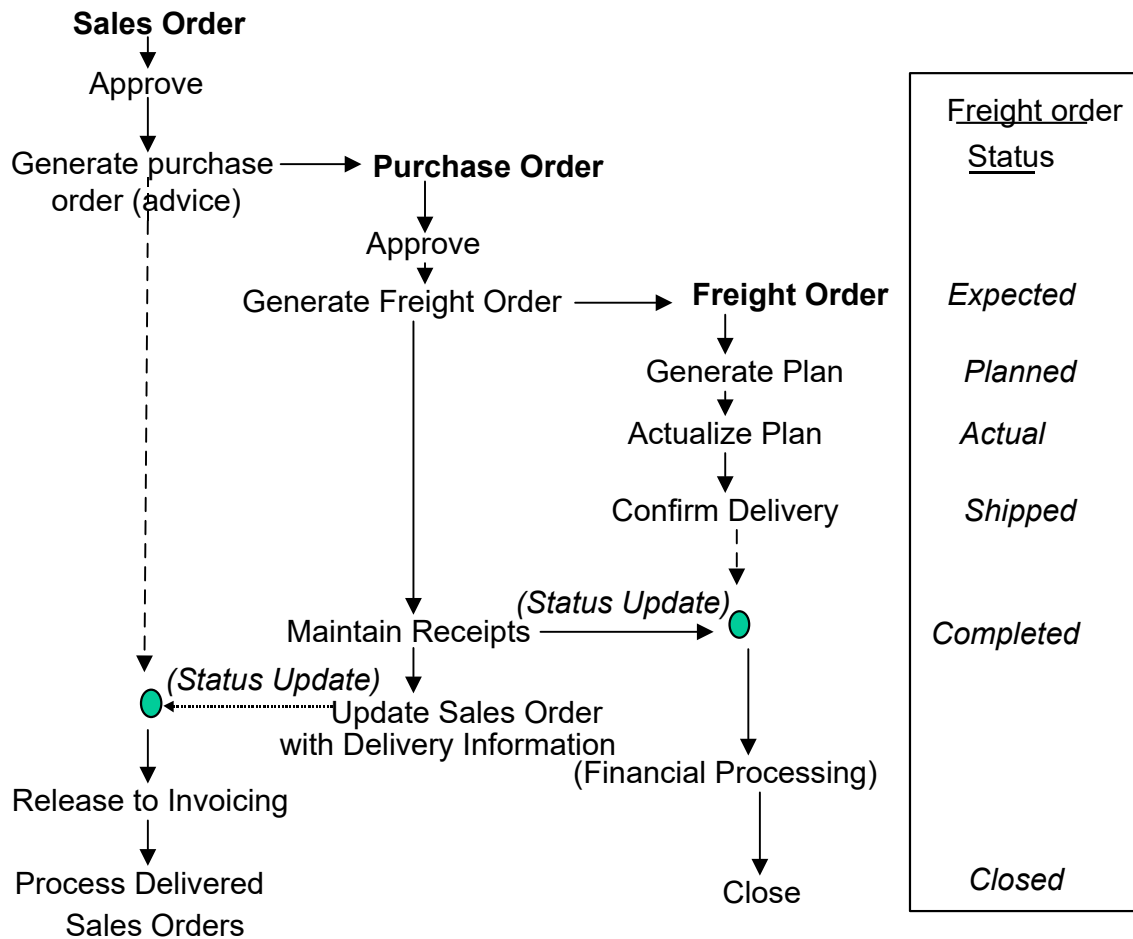
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### Freight orders

- After a direct delivery purchase order is generated for the sales order, a freight order can be generated for the direct delivery order in the **Generate Freight Orders (tdpur4220m000)** session. For details on creating a direct delivery sales order, refer to Direct delivery sales orders.
- The purchase order number as well as the sales order number are displayed on the freight order.
- When the freight order is generated, it is linked to the sales order line in the **Linked Order Line Data (tdsls4102s200)** session and to the purchase order line in the **Purchase Order Line - Linked Information (tdpur4502s000)** session.
- When the purchase order is received in the **Purchase Receipts (tdpur4106m000)** session, freight-related fields must be specified in this session, such as the carrier that is used for freight cost calculation. After final receipt, you must communicate the direct delivery information to the sales order by means of the **Update Sales / Service Order with Delivery Information (tdpur4222m000)** session.

### Procedure

The procedure for direct delivery orders with linked freight orders is explained in this diagram:

**Note:**

The freight order that is linked to a direct delivery purchase order is deleted if any of these actions are performed for the direct delivery purchase order:

- Updated by Sales Control. You must generate a new freight order, if required.
- Deleted in Purchase Control.
- Canceled by Sales Control.

## Generating freight orders for direct delivery service orders

On a service order, you can indicate whether you want the sold goods to be *directly delivered*. By means of a purchase order that is linked to a service order, the buy-from business partner delivers the goods directly to the sold-to business partner. A direct delivery by-passes your warehouse.

You can use Freight to manage and plan your direct deliveries.

### Direct delivery orders

If you want to generate *freight orders* for direct deliveries, the following applies:

- The freight order must be generated from the purchase order, but the service order fields are leading. Therefore, on the **Freight** tab of the **Service Order Estimated Material Costs (tssoc2120m000)** session, freight information must be specified on the service order. The purchase order data is disabled.
- You must use shipping office matrices to determine which shipping office is responsible for handling the freight orders. For more information, refer to Shipping office matrices.
- The **Invoice for Freight** field in the **Service Order Estimated Material Costs (tssoc2120m000)** session determines the value of the Invoice External Business Partner check box in the **Purchase Orders (tdpur4100m000)** session.

If this field is:

- **Not Applicable**  
The **Invoice External Business Partner** is selected
- **By Service Or By Freight Management**  
The **Invoice External Business Partner** is cleared.
- To calculate the freight invoice amount for the direct delivery, click **Freight Amount** in the **Service Order Estimated Material Costs (tssoc2120m000)** session. The purchase office that is linked to the buy-from business is used for this calculation. The calculated freight invoice amount is shown in the **Freight Amount** field of the **Service Order Estimated Material Costs (tssoc2120m000)** session.

**Note:** After the **Planned Delivery Time** is entered on the estimated material cost line, LN determines whether the transportation lead time is sufficient to deliver the goods in time. To calculate the transportation time, the ship-from business partner's ship-from address and the ship-to business partner's ship-to address are used. If the goods cannot be delivered in time, you must change the **Planned Receipt Time** or select another carrier on the estimated material cost line.

If a freight order is linked to a direct delivery order, the date fields have different names in the various modules. See this table:

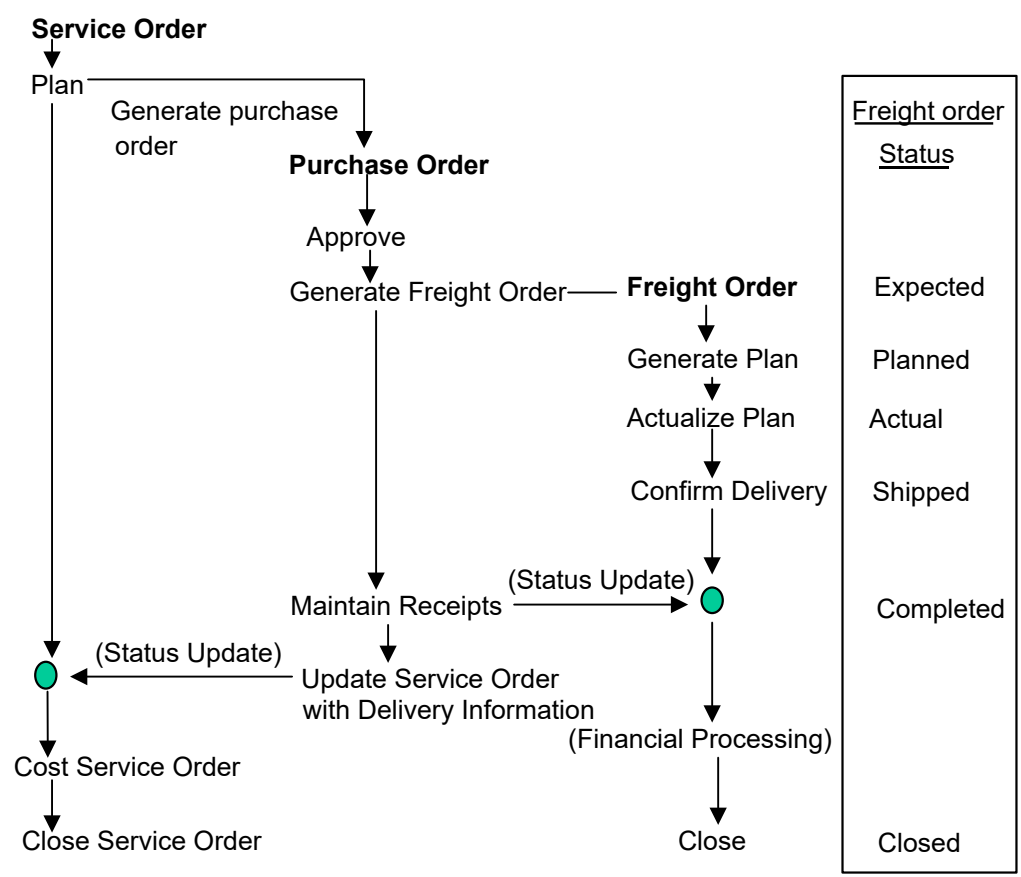
-	Service	Purchase	Freight	ASN
Moment of shipment of the goods from the supplier	planned delivery time	load date	load date	shipping date
Moment of receipt of the goods by the sold-to business partner	planned receipt time	planned receipt date	unload date	planned delivery date

### Freight orders

- After a direct delivery purchase order is generated for the service order, a freight order can be generated for the direct delivery order in the **Generate Freight Orders (tdpur4220m000)** session. For details on creating a direct delivery service order, refer to Direct delivery service orders.
- The purchase order number as well as the service order number are displayed on the freight order.
- When the freight order is generated, it is linked to the service order line in the **Related Orders (tsmdm4500m000)** session and to the purchase order line in the **Purchase Order Line - Linked Information (tdpur4502s000)** session.
- When the purchase order is received in the **Purchase Receipts (tdpur4106m000)** session, freight related fields must be entered in this session. For instance, you must enter a carrier that is used for freight cost calculation, if no carrier is known yet. After final receipt, you must communicate the direct delivery information to the service order by means of the **Update Sales / Service Order with Delivery Information (tdpur4222m000)** session.

### Procedure

The procedure for direct delivery service orders with linked freight orders is explained in this diagram:





## Chapter 8: Purchase orders and work/service orders

### Integration Procurement and Service

With Depot Repair and Field Service you can maintain, repair, or upgrade parts. An integration is available between Service and Procurement to buy parts or to *subcontract* the maintenance, repair or upgrade.

The following depot repair and field service processes are supported:

- Purchasing additional parts
- Purchasing subcontracting activities

#### Purchasing additional parts

If an organization that carries out the repairs or upgrades is not equipped with all the necessary parts, additional parts may be required from a third party. A purchase order can be generated from a work order (depot repair) or service order (field service) to buy these parts.

If the **Inventory Commitments Required** check box is selected in the **Maintenance Sales Control Parameters (tsmsc0100m000)** and/or **Work Order Parameters (tswcs0100m000)** session, or in the **Service Order Parameters (tssoc0100m000)** session, the additional parts that are received on a purchase order can be committed. This is to assure that the goods are used only by the work/service order that created the purchase order and not by any other order. This is called an *inventory commitment* of the goods for the work/service order. A purchase order that includes additional items must be released to Warehousing. Consequently, Procurement passes the order origin, work/service order, work/service order line and required quantity to Warehousing. In Warehousing, the receipts are committed. Warehousing will commit the received quantity until the total required quantity is committed for the order.

For more information, refer to Purchasing additional parts.

#### Purchasing subcontracting activities

If an organization that is responsible for the repairs or upgrades hires another company (the subcontractor) to carry out the maintenance, repair, or upgrade, you can specify work order- or service order- activities in Service from which a purchase requisition or purchase order can be generated in Procurement. Both for depot repair and field service, materials can be sent to the subcontractor. For depot repair, also the item to be maintained can be sent.

For more information, refer to Service subcontracting in Procurement .

## Purchasing additional parts

If a department that carries out indoor repairs or upgrades is not equipped with all the necessary parts and needs additional parts from a third party, a purchase order can be generated from a *work order* (depot repair) or *service order* (field service) to buy these parts.

### 1 Create a work order or service order

- a** In the Work Order (tswcs2100m100) or Service Order (tssoc2100m100) session, specify an item for which you need additional parts.
- b** Perform one of these steps:
  - 1** Work order  
On the *appropriate* menu of the **Work Order (tswcs2100m100)** session, click **Material Resources** to add the required additional parts to the work order in the Work Order Material Resources (tswcs4110m000) session.
  - 2** Service order  
On the Materials tab in the **Service Order (tssoc2100m100)** session, which refers to the Service Order Material Costs (tssoc2122m000) session, add the required additional parts to the service order.
- c** Specify an item and select **Via Purchase** (work order), or **By Purchase Order** or **By Field Purchase** (service order) in the **Delivery Type** field to determine that it is Procurement that delivers the materials to the work order or service order.

You can also specify activities for a work order or service order.

After you created the work order or service order header:

- a** On the Activities tab of the **Work Order (tswcs2100m100)** or **Service Order (tssoc2100m100)** session, specify an activity.
- b** In the Work Order Activity (tswcs2610m000) or Service Order Activity (tssoc2110m100) session, on the relevant tab, add material resources to the work order activity, or materials to the service order activity.
- c** In the Work Order Material Resources (tswcs4110m000) or Service Order Material Costs (tssoc2122m000) session, specify an item and select **Via Purchase** (work order) or **By Purchase Order/By Field Purchase** (service order) in the **Delivery Type** field.

The date you specify in the **Earliest Start Time** field or the **Start** field of the work order or service order is displayed as the *planned delivery date* in the purchase order.

### 2 Plan a work order or service order

- Work order  
Plan the work order in the Plan Work Orders (tswcs3200m000) session to generate a purchase order. After the work order is planned successfully, the status of the work order is **Planned** and a purchase order is generated with order type **Maintenance**. This can be viewed in the **Origin** field of the **Purchase Orders (tdpur4100m000)** session.
- Service order  
Plan the service order in the Service Order Resource Planning (tssoc2260m000) session to generate a purchase order. After the service order is planned successfully, the status of the work order is **Planned** and a purchase order is generated with order type **Service**. This can be viewed in the **Origin** field of the **Purchase Orders (tdpur4100m000)** session.

On the *appropriate* menu of the **Purchase Order Lines (tdpur4101m000)** session, click **Purchase Order Line - Linked Information** to view the original maintenance work order or service order in the **Purchase Order Line - Linked Information (tdpur4502s000)** session.

**3** Commit inventory for a work order or service order

The receipts for additional parts are carried out in Warehousing.

If the **Inventory Commitments Required** check box is selected in the **Maintenance Sales Control Parameters (tsmsc0100m000)**, **Work Order Parameters (tswcs0100m000)**, or **Service Order Parameters (tssoc0100m000)** session, the additional parts that are received on a purchase order can be committed. If this is required, a purchase receipt automatically results into an *inventory commitment* for the work order or service order in Warehousing. Warehousing commits the received quantity until the total required quantity is committed for the order.

In the **Purchase Order Lines (tdpur4101m000)** session, these fields provide information about the commitment of goods:

- **Inventory Allocated**
- **Committed Inventory**

## Service subcontracting in Procurement

The *service subcontracting* functionality enables purchase requisitions, requests for quotation (RFQs), and purchase orders to include subcontracted items.

Service subcontracting is supported with and without material flow. When purchasing subcontracting service activities from Depot Repair or Field Service, materials can be supplied to the subcontractor. In case of Depot Repair, also the complete item to be maintained (subassembly) can be supplied to the subcontractor.

### Master data

Before you can generate subcontracting purchase documents from Service, you must specify the master data.

For more information, refer to Data setup for service subcontracting with material flow (Depot Repair).

### Generating purchase documents from Service

Purchase requisitions and purchase orders with subcontracted items are generated from Service; either from a work order activity in case of depot repair, or from a service order activity in case of field service.

- Depot repair

A purchase requisition or purchase order is generated of origin **Maintenance** when the **Activity Status** of a work order activity changes to **Released** in the Work Order (tswcs2100m100) session.

The purchase requisition or purchase order can include a cost or service item, or a purchased or manufactured item.

If the **Supply Item to Subcontractor** check box is selected in the **Reference Activity** session, the (purchased or manufactured) item must be supplied to the subcontractor.

If the **Supply Material to Subcontractor** check box is selected for the item in the **Reference Activity** session, materials must be supplied to the subcontractor for the item.

You can view the supplied items and materials in the Purchase Order Material Supply Lines (tdpur4116m000) session.

- Field service

A purchase requisition or purchase order is generated of origin **Service** when the **Activity Status** of a service order activity changes to **PLanned** in the Service Order (tssoc2100m100) session.

The purchase requisition or purchase order always includes a cost or service item.

If the **Supply Material to Subcontractor** check box is selected for the item in the **Reference Activity** session, materials for the item can also be supplied to the subcontractor. You can view these materials in the **Purchase Order Material Supply Lines (tdpur4116m000)** session.

## Purchase requisitions

### 1 Generating subcontracting requisitions

A *purchase requisition* can be generated from a work order activity, or service order activity.

For a subcontracted requisition line:

- The **Subcontracted** check box is selected in the **Purchase Requisition Lines (tdpur2502m000)** session
- The work order, the service order, the reference activity, and the material supply information are displayed in, or the details can be accessed using the Linked Requisition Line Data (tdpur2502s000) session

### 2 Approving subcontracting requisitions

If the Submit Generated Requisitions Automatically check box is selected in the **Purchase Requisition Parameters (tdpur0100m200)** session, LN submits the generated purchase requisitions for approval.

**Note:** if this check box is selected, the purchase requisition cannot be updated before approval. Updates can be made only if the requisition is rejected by the approver.

For more information, refer to Purchase requisition approval process.

### 3 An approved subcontracting requisition can be converted to a purchase order or an RFQ in the Convert Purchase Requisitions (tdpur2201m000) session.

The following is applicable:

- If a suitable buy-from business partner and price are retrieved for the subcontracted item, the requisition can be converted to a purchase order.
- If no suitable buy-from business partner or price can be retrieved or the price requires negotiation, the requisition can be converted to an RFQ.

If an RFQ is generated for a subcontracting requisition, you cannot delete the requisition before the RFQ is converted to a purchase order.

For more information, refer to Purchase requisition conversion process.

## Requests for quotation (RFQs)

After a requisition with a subcontracted item is converted to an RFQ, the generated RFQ's origin is set to **Requisition**.

For a subcontracted RFQ line:

- The **Subcontracted** check box is selected in the **RFQ Lines (tdpur1502m000)** and **RFQ Responses (tdpur1506m000)** sessions
- The work order, the service order, the reference activity, and the material supply information are displayed in, or the details can be viewed using the Linked RFQ Data (tdpur1502s000) session

The generated RFQ must be converted to a purchase order in the Convert RFQs (tdpur1202m000).

An RFQ line with the origin **Requisition** cannot be deleted before conversion. If more than one alternative is available for a line, alternatives can be deleted. However, the first alternative (alternative 0) must remain.

### Purchase orders

Purchase orders lines with subcontracted items can be generated from Service or from a converted requisition or RFQ.

For a subcontracted purchase order line:

- The **Subcontracted** check box is selected in the **Purchase Order Lines (tdpur4101m000)** session.
- The work order, the service order, and the reference activity are displayed in the Purchase Order Line - Linked Information (tdpur4502s000) session.
- The material supply information is displayed in the Purchase Order Material Supply Lines (tdpur4116m000) session, from which supply orders can also be generated. A warehouse transfer order, or sales transfer order must be generated to transfer the material from the component warehouse (supply-from warehouse) to the administrative warehouse (supply-to warehouse), which represents the subcontractor's warehouse.
- If the item to be repaired (subassembly) is serialized, the item with the proper serial number can be sent to the subcontractor and received. As a result, the purchase order line and material supply line include the lot and serial information.
- A subassembly can be owned by a customer. As a result, a purchase order line and material supply line support sending and receiving customer owned items.

After the purchase order is generated, the linked service order or work order is updated with the purchase order number and the buy-from business partner.

### Receipts and consumptions

For a subcontracted item of the type **Cost** or **Service**, the receipts can be processed in Procurement or Warehousing. This is determined by the **Release to Warehousing** check box in the **Item - Purchase** session.

LN generates a trigger from Procurement or Warehousing, to Service on the receipt of the item.

Based on the receipt information, Service issues the materials from inventory and updates the consumed quantities on the material supply lines.

### Service subcontracting prices

If a requisition is generated from Service and the Source of Price for Service Subcontracting field is set to **Reference Activity** in the **Item - Purchase** session, LN defaults the purchase price from Service on the requisition line. After the requisition is converted to a purchase order, this purchase price is also defaulted on the order line and no discounts are retrieved.

If the **Source of Price for Service Subcontracting** field is set to **Price Book / Contract**, price data is not defaulted on the requisition line. When the requisition is converted to a purchase order, the purchase price and discounts are retrieved for the purchase order line, based on the general search logic utilized for retrieving pricing information.

For RFQs, the requisition line price is defaulted as the Target Price in the **RFQ Lines (tdpur1502m000)** session. After the requisition (with or without the price) is converted to an RFQ, LN overwrites the requisition line with the price and discounts, specified by the bidders on the *RFQ response*.

## Chapter 9: Backorders

### Purchase backorders

If a final receipt is made for a purchase order (detail) line and only a part of the goods or none of the goods are received, a *backorder* is created.

If the receipt is a final receipt, the following results in a backorder:

- The received quantity of the purchase order line is less than the ordered quantity on the receipt date.
- The received quantity of the goods is (partially) rejected during inspection and the **Payable to Supplier** check box is cleared in the **Inventory Handling Parameters (whinh0100m000)** session.
- The received quantity is equal to the ordered quantity, but the user changes the backorder quantity from zero into a higher value.

Sessions with backorder information

You can view:

- The ordered quantity, received quantity, rejected quantity (destroyed and returned), quantity on the reject location, backorder quantity, and the most recent *receipt number* in the **Potential Purchase Backorders (tdpur4101m700)**, **Purchase Orders - Receipt Overview (tdpur4531m000)**, **Purchase Order Lines (tdpur4101m000)**, and **Purchase Order Line Details (tdpur4101m200)** sessions.
- The confirmed backorders for the purchase orders in the **Confirmed Purchase Backorders (tdpur4101m800)** session.

### Backorders - automatic confirmation

If the Confirm Back Orders automatically check box is selected in the **Purchase Order Parameters (tdpur0100m400)** session, LN automatically confirms backorders.

#### Received quantity is less than ordered

A distinction is made for items that are received for:

- Regular purchase orders
- Direct delivery purchase orders

**Note:** For regular purchase orders, the Combine Open Backorders check box in the **Purchase Order Types (tdpur0194m000)** session determines whether several backorder lines are consolidated into one open backorder line for a purchase order line detail.

### Regular purchase orders

When you enter a purchase order and release it to Warehousing, its status is **In Process**. After the purchase order is released to Warehousing, receipts are carried out in the **Warehouse Receipt (whinh3512m000)** session. On the Lines tab of this session, you must enter the quantity of goods received in the **Received Quantity** field. If the expected quantity is more than the received quantity and the receipt is final and confirmed, LN generates a backorder and automatically confirms the backorder.

When the backorder is confirmed, LN generates a new purchase order line (with the same position number as the original line, but with another sequence number) for which the **Order Line Type** is **Backorder**. When this backorder is confirmed, the purchase backorder line is automatically released to Warehousing. The original purchase order status still is **In Process**. After the receipt is carried out, the normal procedure for the *purchase order type* applies.

### Direct delivery purchase orders

If a *direct delivery* purchase order is generated for a sales order or service order, in the Update Sales / Service Order with Delivery Information (tdpur4222m000) session, you can report deliveries back from Procurement to Sales or Service.

If less is received than ordered:

- 1 A backorder is generated automatically in Sales or from Service. If a backorder is generated in Sales, you must first confirm the backorder (sequence) line manually in the **Maintain and Confirm Backorders (tdsls4125m000)** session, or LN automatically confirms the backorder if the **Confirm Back Orders automatically** check box is selected in the **Sales Order Parameters (tdsls0100s400)** session.
- 2 A confirmed backorder is generated automatically in Procurement, irrespective of the setting of the Confirm Back Orders automatically check box in the **Purchase Order Parameters (tdpur0100m400)** session. If the direct delivery applies to a sales order, the backorder is linked to the backorder in Sales.
- 3 After a (direct delivery) backorder is generated in Procurement, the normal procedure for the *purchase order type* applies.

### Received quantity is (partially) rejected

If inspection is required on the goods, first receipts are carried out in the **Warehouse Receipt (whinh3512m000)** session and then the goods must be inspected in the **Warehouse Inspections Overview (whinh3122m000)** session. If the goods are rejected during inspection and the **Payable to Supplier** check box is cleared in the **Inventory Handling Parameters (whinh0100m000)** session, a backorder is created for the rejected items.

**Note:** If the **Payable to Supplier** check box is selected in the **Inventory Handling Parameters (whinh0100m000)** session, you must pay for the items after receipt, even if they must still be inspected. If, in Warehousing, these items are rejected during inspection and returned to the supplier by means of a **Return Rejects** purchase order, the supplier must be invoiced for the returned rejected goods. Because Warehousing does not communicate rejections for disposition items to the purchase order line, no backorder is created.

Backorder lines that are the result of rejection during inspection, cannot be automatically confirmed and always result into a *potential backorder*. The reason for this is that a user must have the time to decide how to handle the rejected inventory that is stored in the *reject location* of the warehouse, which can also be accepted again. For more information, refer to Backorders - manual confirmation.



### Planned inventory transactions for backorders

When a backorder is generated, LN creates a *planned inventory transaction* in the **Planned Inventory Transactions (whinp1500m000)** and **Order - Planned Inventory Transactions (whinp1501m000)** sessions. The value of the **Planned Quantity** field in these sessions is equal to the quantity that is expected to be received on the backorder.

## Backorders - manual confirmation

If the Confirm Back Orders automatically check box is cleared in the **Purchase Order Parameters (tdpur0100m400)** session, you must manually confirm *potential backorders*.

### Potential backorders

Potential backorders are displayed in the Potential Purchase Backorders (tdpur4101m700) session. In this session, you can retrieve all required information for internal investigation and external negotiation. LN displays all purchase orders whose backorder quantity is greater than zero and whose backorder is not confirmed yet. You can modify the potential backorder details, such as the backorder quantity and the backorder's delivery date, and must confirm the potential backorder in this session.

**Note:** After confirmation, the backorder is moved to the Confirmed Purchase Backorders (tdpur4101m800) session.

### Received quantity is less than ordered quantity

When enter a purchase order and release it to Warehousing, its status is **In Process**. After the purchase order is released to Warehousing, receipts are carried out in the **Warehouse Receipt (whinh3512m000)** session. On the Lines tab of this session, you must enter the quantity of goods received in the **Received Quantity** field. If the expected quantity is less than the received quantity and the receipt is final and confirmed, LN generates a potential backorder in the **Potential Purchase Backorders (tdpur4101m700)** session.

After you confirm the potential backorder, LN generates a new purchase order line (with the same position number as the original line, but with another sequence number) for which the **Order Line Type** is **Backorder**. When the backorder is approved, the purchase (back)order line is automatically released to Warehousing. The original purchase order's status still is **In Process**. After the receipt is performed, the normal procedure for the *purchase order type* applies.

### Received quantity is (partially) rejected

If inspection is required on the goods, first receipts are carried out in the **Warehouse Receipt (whinh3512m000)** session and then the goods must be inspected in the **Warehouse Inspections Overview (whinh3122m000)** session. If the goods are rejected during inspection and the Payable to Supplier check box is cleared in the **Inventory Handling Parameters (whinh0100m000)** session, a backorder is created for the rejected items.

**Note:** If the **Payable to Supplier** check box is selected in the **Inventory Handling Parameters (whinh0100m000)** session, you must pay for the items after receipt, even if they must still be inspected. If,

in Warehousing, these items are rejected during inspection and returned to the supplier by means of a **Return Rejects** purchase order, the supplier must be invoiced for the returned rejected goods. Because Warehousing does not communicate rejections for disposition items to the purchase order line, no backorder is created.

Backorder lines that are the result of rejection during inspection cannot be automatically confirmed and always result into a *potential backorder*. The reason for this is that a user must have the time to decide how to handle the rejected inventory that is stored in the *reject location* of the warehouse, which can also be accepted again.

Rejected quantity that is present at the reject location, can be:

- Returned
- Destroyed
- Accepted again

Potential backorders can be manually confirmed in the **Potential Purchase Backorders (tdpur4101m700)** session. Confirmation can occur before or after you decided how to handle the rejected inventory at the reject location. However, if (part of) the rejected goods are accepted again, you can first adapt the **Backorder Quantity to be Confirmed** and then confirm the potential backorder.

The following applies to the original purchase order line (detail):

- The original purchase order line (detail) can only be processed in the **Process Delivered Purchase Orders (tdpur4223m000)** session if the total received quantity is inspected and rejected goods are no longer present at the reject location.
- The invoicing status, which is displayed in the **Invoicing Status** field of the **Purchase Order Lines Monitor (tdpur4501m500)** session, can only be set to **All Approved** if rejected goods are no longer present at the reject location. If rejected goods are still present, the goods can be accepted again, after which they must be invoiced.

### Planned inventory transactions for backorders

When a backorder is generated, LN creates a *planned inventory transaction* in the **Planned Inventory Transactions (whinp1500m000)** and **Order - Planned Inventory Transactions (whinp1501m000)** sessions. The **Planned Quantity** field in these sessions is equal to the quantity that is expected to be received on the backorder, even if the backorder is not confirmed yet. If you change the backorder quantity in the **Potential Purchase Backorders (tdpur4101m700)** session and confirm the potential backorder, the changed quantity is recorded as the planned quantity.

#### Example

Order quantity = 10

Received quantity	Rejected quantity	Backorder confirmed	Backorder quantity	Planned inventory transaction
7	0	No	-	3
7	0	Yes	3	3
7	2	No	-	5
7	2	Yes	5	5

Received quantity	Rejected quantity	Backorder confirmed	Backorder quantity	Planned inventory transaction
7	2	Yes	3	3

For the example's last line, the backorder quantity is changed manually in the **Potential Purchase Backorders (tdpur4101m700)** session.

## Chapter 10: Return orders

### Purchase return orders

A return order is a purchase order for which returned shipments are reported. A return order can include only negative amounts. With a purchase return order, you can return inventory units or rejected goods to the supplier. Usually, these goods are rejected during inspection.

To use purchase return orders:

#### 1 Specify purchase order types for return orders

Specify *purchase order types* for return orders in the **Purchase Order Type (tdpur0694m000)** session.

In the Return Order field of the **Purchase Order Type (tdpur0694m000)** session, you can specify these return order types:

- **Return Inventory**, used to return inventory.
- **Return Rejects**, used to return rejects from *quarantine inventory*.

To select the Ship Lines Complete check box, the return order must be of the type **Return Rejects**.

To select the Direct Delivery check box, the return order must be of the type **Return Inventory**.

#### 2 Link a warehousing order type to the purchase order type

Link a *warehousing order type* to the return order type in the **Warehousing Order Type** field of the **Purchase Order Type (tdpur0694m000)** session. The warehousing order type's **Inventory Transaction Type** must be set to **Issue** in the **Warehousing Order Types (whinh0110m000)** session.

If the received goods must be inspected, you must select a warehousing order type with a linked inspection procedure.

If the **Direct Delivery** check box is selected for the purchase order type, you cannot specify a warehousing order type.

#### 3 Link activities to the return order type

Link activities to the order type in the **Purchase Order Type (tdpur0694m000)** session.

LN links the following mandatory activities to the return order type:

- **Release Purchase Orders to Warehousing (tdpur4246m000)**
- **Purchase Receipts (tdpur4106m000)**
- **Process Delivered Purchase Orders (tdpur4223m000)**

#### 4 Link order type and series for **Return Rejects** to the purchase order parameters

To generate **Return Rejects** purchase orders, in the Order Type for Return Rejection and Order Series for Return Rejection fields in the **Purchase Order Parameters (tdpur0100m400)** session, select the order type and series that you specified in the **Purchase Order Type (tdpur0694m000)** session.

## Return inventory purchase orders

**Return Inventory** purchase orders are used to return inventory to the supplier.

To return inventory using purchase orders:

### 1 Purchase Orders (tdpur4100m000)

- a Create a purchase order header with the purchase order type **Return Inventory**.
- b Specify the Original Document Type.
- c Specify the Original Document Number.
- d Specify the return reason for the return order in the **Return Reason** field. The reason type must be set to **Return of Goods**.
- e After creating a link between a return order and an original document number, click **Copy from Original Document** on the *appropriate* menu. A session is started from which you can copy lines to the return order. The lines that are added to the purchase order have a negative quantity and a negative amount. Optionally, you modify the data of these lines. You can also manually add purchase order lines to the return order.

### 2 Release Purchase Orders to Warehousing (tdpur4246m000)

After the purchase return order is approved, release the order to Warehousing. The status of the purchase order is set to **In Process** and the activity status is set to Awaiting Shipment in the **Purchase Order Line Status (tdpur4534m000)** session.

### 3 Generate Outbound Advice (whinh4201m000)

If the **Include Return Orders** check box is selected in this session, LN generates an outbound and shipment advice for the quantity that must be returned.

### 4 Process Delivered Purchase Orders (tdpur4223m000)

After the shipping process is executed by Warehousing, the purchase order status continues to be **In Process**, but the activity status is set to Process Purchase Orders in the **Purchase Order Line Status (tdpur4534m000)** session. Consequently, you must process the return order in the Process Delivered Purchase Orders (tdpur4223m000) session.

Returning pegged inventory

Specific conditions are applicable for returning *pegged* inventory:

- If a return order line is linked to an original document, the linked peg distribution is defaulted. If a return order line is not linked to an original document, you can manually specify a peg distribution for the return order line.
- You can manually update the defaulted peg distribution. The return order line's pegs can differ from the pegs on the original document.
- If two purchase return order lines are linked to a specific original schedule line/schedule receipt line, the same return order quantity and peg distribution are defaulted for both order lines. As a result, you must manually decrease the return order quantity and update the peg distribution.

## Return rejects purchase orders

**Return Rejects** purchase orders are used to return rejects from *quarantine inventory* to the supplier.

To return production material to buy-from and ship-from business partners, you can generate purchase return orders from *quarantine inventory* in the Quarantine Inventory Disposition (whwmd2172m000) session. These orders can be linked to an original purchase document, but this is not mandatory.

To return the quarantine inventory, set the **Disposition** field to **Return to Vendor** in the **Quarantine Inventory Disposition (whwmd2172m000)** session. Select the disposition lines, and click **Process** on the *appropriate menu* of the **Quarantine Inventory Disposition (whwmd2172m000)** session, to generate a purchase return order of the type **Return Rejects** in the **Purchase Order (tdpur4100m900)** session.

If the return order cannot be linked to an original document, LN verifies whether the combination of item, and buy-from/ship-from business partner of the disposition line(s) is available in the purchase order actual or history data. If not, a warning message is displayed.

After a return order is generated, the generated return order number is displayed on the **Disposition Order** tab in the **Quarantine Inventory Disposition (whwmd2172m000)** session.

You must approve the purchase return order to start the (regular) outbound procedure.

For more information, refer to Process quarantine inventory - return to vendor.

## Appendix A: Miscellaneous

### Sequence numbers on purchase orders

*Sequence numbers* are used if more than one receipt takes place on an order line. More than one receipt can occur, for example, with backorders.

Consequently:

- If an **Order Line** is generated in the **Purchase Order Lines (tdpur4101m000)** session, the purchase order line's sequence number is one.
- If an order line is split or a backorder is generated for the order line, the order line changes to a **Total** line in the **Purchase Order Lines (tdpur4101m000)** session with a sequence number of zero. The sequence number for the line details of the split purchase order line (line type **Detail**), or the backorder line (line type **Backorder**) are greater than zero.

#### Example

Adding an order line:

Sequence number	Order quantity	Planned receipt date
1	100	14/12

Splitting of the order line:

Sequence number	Order quantity	Planned receipt date
0	100	14/12
1	80	14/12
2	20	21/12

Assume that you must modify the order quantity. The sum of the order quantities can be lower than the total order quantity. If you save the order line, the total order quantity is updated.

After receipts are performed:

Sequence number	Order quantity	Planned receipt date	Received quantity	Backorder quantity
1	80	14/12	70	10
2	20	21/12	0	0

3	10	28/12	10	0
---	----	-------	----	---

Sequence number 3 is of the **Backorder** line type.

You must evaluate the backorder quantity. If you agree upon a backorder, you can specify a receipt date for this backorder. If for that receipt date a sequence number already exists, the backorder quantity is added to the order quantity of that date. If for the specified date an order quantity is not yet available, a new sequence number is created. LN also checks if the delivery address and the ship-from address match.

## Synchronizing purchase order line and line details

A purchase order line can have linked line details or backorder lines. A line detail can also have linked back order lines. The purchase order line includes the aggregated information of the line details/backorder lines. Changed fields on the purchase order line are synchronized with the line details and vice versa.

A purchase order line with line details is also referred to as a **Total** line.

### Updating line details from the total line

If you change the following fields on the **Total** line in the **Purchase Order Lines (tdpur4101m000)** session, the change is copied to the linked line detail(s) in the **Purchase Order Line Details (tdpur4101m200)** session:

Price fields	Discount fields	Contract fields	Other fields
<b>Price</b>	<b>Discount %</b>	<b>Contract</b>	<b>Order Confirmation Date</b>
<b>Price Matrix</b>	<b>Discount Amount</b>	<b>Contract Position</b>	<b>Lot Selection</b>
	<b>Discount Matrix</b>	<b>Contract Purchase Office</b>	<b>Lot</b>
-		-	-
-		-	-
-		-	-
-	<b>Discount Code</b>	-	-
-	<b>Determining</b>	-	-
-	<b>Eligible</b>	-	-

#### Note:

- A change to a field on the **Total** line is not always visible on the line detail. Commercial data, such as prices, discounts, and amounts is displayed only on the **Total** line. Logistic data, such as time and place of receipt, and place of shipment is displayed on the line detail. As a result, the **Total** line includes the aggregated commercial information of the linked line details. However, when you release a line detail to Financials, LN uses the invisible commercial data of the line details, because a **Total** line cannot be invoiced.



- When the order line is created, the price is determined based on the **Purchase Price Date Type** parameter in the **Pricing Parameters (tdpcg0100m000)** session. This field determines whether the order date, system date, or delivery date must be used to calculate the price. If you change the **Receipt Date for Pricing**, or the **Order Date** in the **Purchase Order Lines (tdpur4101m000)** session, the new dates are not synchronized with the linked line details in the **Purchase Order Line Details (tdpur4101m200)** session.

### Updating price and discounts after receipt

After an order line or a line detail is received, you cannot update the price or discount for the **Total** line in the **Purchase Order Lines (tdpur4101m000)** session. For a **Total** line or a line detail with at least one receipt, you can update the price in the **Change Price and Discounts after Receipt (tdpur4122m000)** session.

LN copies the new prices and discounts to all linked line details that are not yet processed and/or matched/approved in Financials.

### Updating price and discounts after consumption

For *consumed* order lines, you can update prices or discounts in the **Change Price and Discounts after Receipt (tdpur4122m000)** session and the **Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000)** session. For more information, refer to Changing prices or discounts after receipt or consumption.

#### Example

Se- quence	Order Line Type	Order Quanti- ty	Price	Order Amount	Re- ceived	Pro- cessed
0	Total	30	8	240	-	-
1	Detail	10	8	80	Yes	No
2	Detail	10	8	80	Yes	Yes
3	Detail	10	8	80	No	No
4	Backorder	3	8	24	No	No

Now the price on the **Total** line is changed from 8 to 10:

Se- quence	Order Line Type	Order Quanti- ty	Price	Order Amount	Re- ceived	Pro- cessed
0	Total	30	10	280	-	-
1	Detail	10	10	100	Yes	No
2	Detail	10	8	80	Yes	Yes
3	Detail	10	10	100	No	No
4	Backorder	3	10	30	No	No

The new price of the **Total** line is copied to all linked sequences that are not yet matched in Financials, nor processed. The order amount on the **Total** line is the sum of the order amounts of the **Detail** lines. To prevent double counting, the order amount of the **Backorder** lines is excluded.

### Updating the total line from the line details

When you add, update, cancel, or delete a line detail in the **Purchase Order Line Details (tdpur4101m200)** session, LN updates the quantity and amount fields on the **Total** line, which include the sum of the quantities/amounts of the linked line details.

These quantity and amount fields are synchronized:

- **Ordered Quantity**
- **Received Quantity**
- **Packing Slip Quantity**
- **Approved Quantity**
- **Rejected Quantity**
- **Backorder Quantity**
- **Order Amount**
- **Receipt Amount**
- **Line Discount Amount**
- **Order Discount Amount**

#### Note:

- The quantities and amounts are available, but mostly invisible in the **Purchase Order Line Details (tdpur4101m200)** session. However, you can view these quantities and amounts in the **Purchase Receipts (tdpur4106m000)** session and the **Purchase Orders - Receipt Overview (tdpur4531m000)** session.
- When you modify the **Ordered Quantity** of a **Backorder** line in the **Purchase Order Line Details (tdpur4101m200)** session, LN does not update the **Ordered Quantity** of the **Total** line in the **Purchase Order Lines (tdpur4101m000)** session, but updates the **Backorder Quantity** of the **Total** line.

When you modify the order quantity, prices and discounts are recalculated automatically. LN only recalculates the price and discounts if you did not manually enter the existing price and discounts. When a new price and/or discount is retrieved for the **Total** line, LN:

- Copies the new price/discount to the linked **Detail** lines and **Backorder** lines, provided the lines are not invoiced or processed.
- Recalculates the order line amounts for each **Detail** line and **Backorder** line. The order line amount fields of the **Total** line are updated with the sum of the order line amounts of the linked **Detail** lines. The order amount of the **Backorder** lines is not considered for the order amount of the **Total** line. For the other quantities and amounts, such as **Received Quantity** and **Receipt Amount**, the values of the **Backorder** lines are considered for the sum on the **Total** line.

### Example

Se- quence	Order Line Type	Order Quanti- ty	Price	Order Amount	Re- ceived	Pro- cessed
0	Total	30	8	240	-	-

Se- quence	Order Line Type	Order Quanti- ty	Price	Order Amount	Re- ceived	Pro- cessed
1	Detail	10	8	80	Yes	No
2	Detail	10	8	80	Yes	Yes
3	Detail	10	8	80	No	No
4	Backorder	3	8	24	No	No

Now the order quantity of **Detail** line 3 is changed from 10 to 12, and the price is changed from 8 to 10:

Se- quence	Order Line Type	Order Quanti- ty	Price	Order Amount	Re- ceived	Pro- cessed
0	Total	32	10	300	-	-
1	Detail	10	10	100	Yes	No
2	Detail	10	8	80	Yes	Yes
3	Detail	12	10	120	No	No
4	Backorder	3	10	30	No	No

For the **Detail** line that has a new order quantity, the order amount is recalculated. The order quantity on the **Total** line is the sum of the order quantities of the **Detail** lines. Because the price and discounts were not entered manually, the price and discounts on the **Total** line are recalculated based on the price and the new order quantity. The new prices and discounts are copied to the linked sequences. For each **Detail** line and **Backorder** line, the order amount is recalculated and the **Total** line is updated with the sum of the order amounts of the **Detail** lines.

### Updating backorder lines from the original line

For a **Total** line, a **Detail** line, or a **Backorder** line, you can change the price and discounts (after receipt). When a line already has one or more linked **Backorder** lines, LN copies the new price and discounts to these lines.

### Example

Se- quence	Order Line Type	Order Quanti- ty	Price	Parent Se- quence	Re- ceived	Pro- cessed
0	Detail	50	8	-	Yes	No
1	Backorder	10	8	0	Yes	No
2	Backorder	2	8	0	Yes	Yes
3	Backorder	5	8	1	Yes	No
4	Backorder	1	8	1	No	No
5	Backorder	2	8	3	No	No

Now the price on the **Detail** line is changed from 8 to 10:

Se- quence	Order Line Type	Order Quanti- ty	Price	Parent Se- quence	Re- ceived	Pro- cessed
0	Detail	50	10	-	Yes	No
1	Backorder	10	10	0	Yes	No
2	Backorder	2	8	0	Yes	Yes
3	Backorder	5	10	1	Yes	No
4	Backorder	1	10	1	No	No
5	Backorder	2	10	3	No	No

The new price also applies to all linked sequences that can be modified.

Now, instead of the price on the **Detail** line, the price for sequence number 1 is changed:

Se- quence	Order Line Type	Order Quanti- ty	Price	Parent Se- quence	Re- ceived	Pro- cessed
0	Detail	50	8	-	Yes	No
1	Backorder	10	10	0	Yes	No
2	Backorder	2	8	0	Yes	Yes
3	Backorder	5	10	1	Yes	No
4	Backorder	1	10	1	No	No
5	Backorder	2	10	3	No	No

The new price applies to all sequences that are linked to sequence 1 (the sequences with parent sequence 1 and its children). LN does not change the parent line of sequence 1.

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