Infor ERP LN 6.1 Order Management

User's Guide for Purchase Control

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About this document

Objectives

This user's guide aims to explain the Purchase Control module's functionality and the processes that relate to Purchase Control.

Intended audience

This user's guide is especially written for key users and users that want to be familiar with the overall ERP LN purchasing functionality.

Assumed knowledge

You need no detailed knowledge of the ERP LN software to read this document. However, you are more likely to understand the contents if you are familiar with:

- The overall structure of packages, modules and sessions in ERP LN.
- The general business procedures used in every day business practice.
- The basic concepts of enterprise resource planning.

Document summary

This document contains the following chapters:

- **Purchase Control**
  Provides an introduction to the main processes that a user can carry out in Purchase Control.
- **Purchase Master Data**
  Provides instructions on the purchase master data that must be set before you can use the various purchase procedures.
- **Purchase Requisitions**
  Provides information on the purchase requisition procedure.
- **Requests for Quotations (RFQs)**
  Provides information on the requests for quotations (RFQs) procedure.
- **Purchase Contracts**
  Provides information on the purchase contract procedure.
- **Purchase Orders**
  Provides information on the purchase order procedure.
- **Statistics**
  Provides information on the statistics procedure.
- **Vendor rating**
  Provides information on setting up and calculating vendor ratings.
- **Glossary**
  Provides definitions of the terms and concepts used in this document, in alphabetical order.

Related user's guides

The following purchase (related) topics are handled in separate user's guides:

- **Allocated inventory**
  User's Guide for Allocation and Hard Pegging U9500 US
- **Purchase schedules**
  User's Guide for Purchase and Sales Schedules U9541 US
- **Purchase terms and conditions**
  User's Guide for Terms and Conditions U9499 US
- **Subcontracting orders**
  User's Guide for Subcontracting U9361 US
- **Vendor managed inventory**
  User's Guide for Vendor Managed Inventory U9501 US

How to read this document

This document was assembled from online Help topics. As a result, references to other sections in the manual are presented as shown in the following example:

For details, refer to *Purchase Control (PUR)*. To locate the referred section, please refer to the Table of Contents or use the Index at the end of the document.

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

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- To find your local support phone number, click **Contact Infor** in the top right corner of the home page, enter a product name, and click **Search**.

Chapter 1
Purchase Control

1

Purchase Control (PUR)

Use the Purchase Control module to manage purchase activities and maintain the data that is the result of these activities.

The purchasing functionality covers several functional procedures that (partly) control the purchase of goods. The main purchase procedure is the purchase order procedure. In most cases, the purchase order procedure does not act as a stand-alone procedure, but is preceded by and followed by other procedures.

The procedures that (can) precede the purchase order procedure are:

- Purchase requisition procedure.
- Request for quotation (RFQ) procedure.
- Purchase contract procedure.

The purchase schedule procedure runs parallel to the purchase order procedure.

The vendor rating procedure follows the purchase order procedure.

You can manage other purchase related data in the following modules:

- Item Purchase Data (IPU)
- Pricing Control (PCG)
- Statistics (STA)

Chapter 2
Purchase Master Data

2

Purchase item data

Purchase item data

In ERP LN Common Data, you can define items and item data on a general level. Before you can carry out purchase procedures, you must also specify data that is related to purchase items, such as item data, business partners, and warehouses. You cannot specify purchase-related item data in the Purchase Control module, but in the Item Purchase Data module.

To define default item purchase data for an item group and to insert item purchase data

Before order transactions can be used in Purchase Control, purchase-specific item data must be specified in the Items - Purchase (tdipu0101m000) session. You must make sure that the item already exists in the Item - General (tcibd0101s000) session. To enter a purchase item, you must specify a large amount of information. If you generate default values, you can drastically reduce the amount of data entry required when you enter a new purchase item. The item group is used in combination with the item type to set up item defaults. You can enter defaults for purchase items that belong to an item group in the Items - Purchase Defaults (tdipu0102m000) session.

The usual procedure for entering item purchase defaults and then purchase items is as follows:

1. Enter an item group in the Item Groups (tcmcs0123m000) session.
2. Define item - general defaults in the Item - General Defaults (tcibd0102s000) session, in which you must enter the **Item Group** that you previously defined in the Item Groups (tcmcs0123m000) session.
3. Click **Purchase Data** in the Item - General Defaults (tcibd0102s000) session. As a result, the Items - Purchase Defaults (tdipu0102m000) session starts in which you can enter item - purchase defaults for the combination of **Item Type** and **Item Group**.

4. Enter an item in the Item - General (tcibd0101s000) session for the combination of **Item Type** and **Item Group** that you previously defined in the Item - General Defaults (tcibd0102s000) session. As a result, the default values from the Item - General Defaults (tcibd0102s000) session are inserted in the Item - General (tcibd0101s000) session.
5. Click **Purchase Data** in the Item - General (tcibd0101s000) session. As a result, the Items - Purchase (tdipu0101m000) session starts in which you can enter the purchase data for the item that you created in the Item - General (tcibd0101s000) session. ERP LN inserts the default values from the Items - Purchase Defaults (tdipu0102m000) session in the Items - Purchase (tdipu0101m000) session.

Note

To generate transactions for the purchased item, ordering-related item data must be specified in the Item - Ordering (tcibd2100s000) session and costing-related item data must be calculated in the Items - Costing (ticpr0107m000) session.

Tip

If the **Buyer** field is filled in the Items - Purchase (tdipu0101m000) session, you can use the Buyer Dashboard (tdipu0103m000) session to display all items that are relevant for the specific buyer. Because buyers are responsible for procuring materials and for negotiating with various buy-from business partners and internal agencies on these materials, they spend a lot of time on tracking materials and answering supply-, quality-, and payment-related questions. The Buyer Dashboard (tdipu0103m000) session gives a quick overview of item data and easy access to item- and purchase-related data, as a result of which the negotiation process can be smoothened.

You can use the Buyer Dashboard (tdipu0103m000) session to:

- View, maintain, and create item-related data.
- View, maintain, and create purchase data for an item, such as purchase orders, purchase contracts, requests for quotations, purchase schedules, and so on.
- Easily perform multiple item-related tasks.

To define item - purchase business partner data

Use the Items - Purchase Business Partner (tdipu0110m000) session to define purchase business partner-specific information by item. This information is used to determine how the order is purchased and received from the specific purchase business partner.This session contains the default logistic data of a purchase business partner, required for a purchase order. If the purchase business partner is an internal business parter, the Items - Purchase Business Partner (tdipu0110m000) session also holds the default logistic data for purchase schedules and purchase releases. If the purchase business partner is an external business partner, ERP LN retrieves the logistic data for the purchase schedule or the purchase release from the Purchase Contract Line Logistic Data (tdpur3102m000) session.

You can give suppliers a priority and/or a sourcing percentage

Note

You can assign a priority and/or a sourcing percentage to business partners in the Items - Purchase Business Partner (tdipu0110m000) session if the same item is delivered by various business partners. For more information, refer to *Sourcing (p. 2-3)* .

Tip

You can use the Relation Management Dashboard (tdsmi1500m000) session to view, maintain, and create buy-from business partner-related data. You can use this session to display all business partners that are relevant for a specific buyer. Because buyers are responsible for procuring materials and for negotiating with various buy-from business partners and internal agencies on these materials, they spend a lot of time on tracking materials and answering supply-, quality-, and payment-related questions. The Relation Management Dashboard (tdsmi1500m000) session gives a quick overview of buy-from business partner information and easy access to buy-from business partner-related data, as a result of which the negotiation process is smoothened.

Sourcing

Sourcing

Sourcing is the way in which you assign orders to business partners who deliver the same items. There are two, supplementary, ways of sourcing. You can give suppliers a priority and/or a sourcing percentage.

If you want to assign an order for an item for which you have several business partners, the following applies:

1. ERP LN searches for the business partner with the highest priority. This business partner receives the order.
2. In case there are business partners with the same priority, ERP LN looks at the sourcing percentages. The order is then assigned according to these percentages.

In both cases, ERP LN takes into account the order quantity restrictions of the business partners.

Note

You can define the priority, sourcing percentage, and order quantity restrictions in the Items - Purchase Business Partner (tdipu0110m000) session.

To use priorities

The priority functionality enables you to add a certain rating to business partners who deliver the same item. If you want to order a specific item, ERP LN assigns this order to the business partner with the highest priority.

If there are business partners with minimum or maximum order quantities, ERP LN also takes these quantities into account.

The maximum order quantity of a business partner can be less than the assigned order quantity, according to the priority. In this case, the remainder of the order is assigned to the business partner with the next priority.

It can also occur that the minimum order quantity of a business partner is higher than the assigned order quantity, according to the priority. In this case, the next business partner in the priority scale gets the order.

Example

In this example, the number of items that must be ordered is 1000.

-	Priority*	Items**	Quantity***	Items****
Supplier 1	700	1000	700 (max.)	700
Supplier 2	800	0000	400 (min.)	000
Supplier 3	900	0000	500 (max.)	300

* The priority rate of the business partner in a scale from 0 (= highest priority) to 999 (= lowest priority).

** The assigned number of items according to the priority.

*** The minimum or maximum order quantities.

**** The assigned number of items when order quantity restrictions are defined.

In this example, you need 1000 items and you order 700 items from business partner 1. Business partner 2 is the second in the priority scale, but business partner 2 has a minimum order quantity of 400 and you only need 300. As a result, you order the remaining 300 items from business partner 3.

To use sourcing percentages

The sourcing percentage functionality enables you to divide orders among several purchase business partners. This is only of importance if you have several business partners that:

- Deliver the same item.
- Have the same priority to deliver this item.

In this case, the ordered quantity is divided among these business partners according to the assigned sourcing rule.

Often business partners have minimum or maximum order quantities. In this case, ERP LN takes these quantities into account. The result can differ from the result when there are no quantity restrictions.

The maximum order quantity of a business partners can be less than the assigned number of items, according to the sourcing percentage. In this case, the remainder is divided among the other business partners, according to their sourcing percentages.

In contrast, the minimum order quantity of a supplier can be higher than the assigned number of items. In this case, the business partners does not get an order. All items are divided among the other business partners according to their sourcing percentages.

Note

Sourcing percentages must not be used in a scale of 100. These percentages are just used to make a division.

Examples

In the following examples, the business partners have the same priority to deliver a specific item.

-	Sourcing percentage, example 1	Sourcing percentage, example 2
Supplier 1	50%	50%
Supplier 2	30%	40%
Supplier 3	20%	40%
Totals	100%	130%

The requirement is 1000 items, and the calculations below are done by ERP LN. These calculations result in ordering items from various business partners. The examples are calculated without and with taking the order quantity restrictions into account.

Example 1

-	Calculation	Items*	Quantity**	Calculation	Items***
S1	.50 x 1000	500	400 (max.)	-	400
S2	.30 x 1000	300	400 (max.)	(30/50) x 600	360
S3	.20 x 1000	200	300 (max.)	(20/50) x 600	240

Example 2

-	Calculation	Items*	Quantity**	Calculation	Items***
S1	(50/130) x 1000	385	400 (min.)	-	000
S2	(40/130) x 1000	308	500 (max.)	(40/80) x 1000	500
S3	(40/130) x 1000	308	500 (max.)	(40/80) x 1000	500

Legend

*	The number of items that you want to order from the suppliers.
**	The supplier's maximum or minimum order quantity.
***	The number of items that are ordered from the suppliers in case of order quantity restrictions.

Manufacturer's items

To purchase manufacturer's items

Companies often order components from purchase business partners who do not produce the components themselves. These intermediate purchase business partners offer equivalent components, items that conform to their original item's specifications, from different manufacturers.

In ERP LN, the following functionalities are available that enable you to define, approve, and use manufacturer's items:

- Multiple manufacturer item functionality.
- Manufacturer part number (MPN) item functionality.

Important!

- If you did not use the multiple manufacturer item functionality in a previous version of Infor ERP LN, you cannot set up multiple manufacturer items in the current version. You must use the MPN functionality to purchase manufacturer's items. The reason for this is that the MPN item functionality is the preferred and most extensive functionality.
- If you already used the multiple manufacturer item functionality in a previous version of Infor ERP LN, for each item you can choose whether you want to define it as a multiple manufacturer item, or as an MPN item.

Multiple manufacturer items

The following restrictions apply to the multiple manufacturer item functionality:

- Multiple manufacturer items can only be used in purchase orders and purchase requisitions. You cannot use these items in purchase contracts, purchase schedules, and RFQs.
- The master data cannot be changed when the effective date lies before the current date.

To use the multiple manufacturer item functionality, select the **Multiple Manufacturer Item** check box in the Items - Purchase (tdipu0101m000) session.

For more information on multiple manufacturer items, refer to *To set up and use multiple manufacturer items (p. 2-12)* .

MPN items

To use the MPN item functionality, select the:

- **Manufacturer Part Numbers** check box in the Implemented Software Components (tccom0100s000) session.
- **MPN Item** check box in the Items - Purchase (tdipu0101m000) session.

For more information on MPN items, refer to *To set up and use MPN items (p. 2-9)* .

Note

You can convert the multiple manufacturer master data to the MPN master data for an item. For details, refer to *To convert multiple manufacturer items to MPN items (p. 2-14)* .

To set up and use MPN items

To set up MPN items

To set up manufacturer part number (MPN) items, take the following steps:

1. Select the **Manufacturer Part Numbers** check box in the Implemented Software Components (tccom0100s000) session.
2. Select the **MPN Item** check box in the Items - Purchase (tdipu0101m000) session.
3. Set the **Item Cross Reference** field to **MPN** in the Buy-from Business Partners (tccom4120s000) session.
4. In the Manufacturers (tcmcs0160m000) session, enter the information about the manufacturer and assign a status to the manufacturer.
5. In the Manufacturer Part Numbers (tdipu0145m000) session, define manufacturer part numbers (MPNs) and link the MPNs to an item and manufacturer.You can also use this session to link a preferred MPN to an item, to enter effective and expiry dates or to assign a status to the MPN.
6. If business partners cannot deliver all MPNs, define which manufacturer part numbers (MPNs) can be delivered by which business partners for an item in the MPNs by Item - Business Partner (tdipu0148m000) session. You can also use this session to link a preferred MPN to an item and business partner. By means of the Import MPNs by Item - Business Partner (tdipu0248m000) session, you can link all MPNs for an item to the selected business partner. However, if no MPNs are specified for an item-business partner combination, the business partner can deliver all MPNs of an item.

Note

You can use the Global update MPN Details (tdipu0245m000) session to globally update the status and effectivity period of MPNs.

To use MPN items

Purchase requisitions

If you enter a manufacturer part number (MPN) in the **Cross Reference Item** field of the Requisition - Line Details (tdpur2102s000) session, the **Item**, **Manufacturer**, and **Preferred Manufacturer Part Number** are automatically defaulted from the Manufacturer Part Numbers (tdipu0145m000) session. The MPN can either have the status **Approved** or **For Approval** on the **Requisition Date**. Blocked MPNs are not allowed.

Only if a **Buy-from Business Partner** is entered in the Requisition - Line Details (tdpur2102s000) session, ERP LN checks whether the business partner is allowed to deliver the MPN in the MPNs by Item - Business Partner (tdipu0148m000) session.

If you convert a requisition to an order, the MPN must have the **Approved** status. ERP LN copies the **Preferred Manufacturer Part Number** to the purchase order and generates an MPN set that is linked to the purchase order.

You can always convert a requisition to an RFQ.

Requests for quotation (RFQs)

If you enter a manufacturer part number (MPN) in the **Cross Reference Item** field of the Purchase Request for Quotation Lines (tdpur1502m000) session, the **Item**, **Manufacturer**, and **Preferred Manufacturer Part Number** are automatically defaulted from the Manufacturer Part Numbers (tdipu0145m000) session. The MPN must have the status **Approved** or **For Approval** on the **RFQ Date**.

The **Preferred Manufacturer Part Number** from the Purchase Request for Quotation Lines (tdpur1502m000) session is copied to the **Preferred MPN** field of the Buy-from BP - Quotations (tdpur1506m000) session. However, if the preferred MPN from the RFQ line is not allowed for a business partner, the business partner cannot be linked to the RFQ. As a result, you must select another business partner, or you must change the **Preferred Manufacturer Part Number** in the Purchase Request for Quotation Lines (tdpur1502m000) session.

If you convert an RFQ to a purchase order or to a contract and the MPN has the **Approved** status, ERP LN copies the **Preferred Manufacturer Part Number** to the purchase order or purchase contract and generates an MPN set for the purchase order. If the item is an MPN item, but no MPN is filled on the RFQ, the MPN and manufacturer are defaulted from the master data.

Purchase contracts

If you enter a manufacturer part number (MPN) in the **Cross Reference Item** field of the Purchase Contract Lines (tdpur3101m000) session, the **Item**, **Manufacturer**, and **Preferred Manufacturer Part Number** are automatically defaulted from the Manufacturer Part Numbers (tdipu0145m000) session. The MPN must have the status **Approved** on the **Contract Date**.

Business partners are allowed to supply alternative MPNs, but always against the original contract price.

If a purchase order is generated from a delivery contract, the MPN is used as a default. However, defaulting is not applicable if a purchase contract is linked to a purchase order.

Purchase orders

If you enter a manufacturer part number (MPN) in the **Cross Reference Item** field of the Purchase Order Lines (tdpur4101m000) session, the **Item**, **Manufacturer**, and **Preferred Manufacturer Part Number** are automatically defaulted from the Manufacturer Part Numbers (tdipu0145m000) session. The MPN must have the status **Approved** on the **Order Date**.

When the purchase order line is saved, ERP LN automatically links an MPN set to the purchase order line (detail). If you click the **MPN Sets** button, the Purchase Order Line MPN Sets (tdpur4601m100) session is started in which you can view and maintain the MPN set that is linked to the purchase order line (detail)

If the preferred MPN is changed or deleted in the Purchase Order Line MPN Sets (tdpur4601m100) session, the preferred MPN on the purchase order line (detail) is also changed or deleted. You cannot maintain the MPN set after receipts are executed for the purchase order line.

If an item is received in the Warehouse Receipts (whinh3512m000) session, or in the Purchase Receipts (tdpur4106m000) session, the actual MPN that appears in these receipt sessions must belong to the MPN set that is linked to the purchase order line.

After receipts are executed for the purchase order line, the actual MPN is transferred to the Purchase Actual Receipt History (tdpur4556m000) session.

Purchase schedules

Because MPNs change regularly, you cannot enter a manufacturer part number (MPN) on the schedule header. Although the scheduled item appears on the schedule header, the MPN must be entered on the schedule line. If you enter an MPN in the **Preferred Manufacturer Part Number** field of the Purchase Schedule - Lines (tdpur3111m000) session, the **Manufacturer** is automatically defaulted from the Manufacturer Part Numbers (tdipu0145m000) session. The MPN must have the status **Approved** on the requirement date, which is the planned delivery date.

When the purchase schedule line is saved, ERP LN automatically links an MPN set to the purchase schedule line. If you click the **MPN Set** button, the Purchase Schedule Line MPN Sets (tdpur3611m100) session is started in which you can view and maintain the MPN set that is linked to the purchase schedule line.

If the preferred MPN is changed or deleted in the Purchase Schedule Line MPN Sets (tdpur3611m100) session, the preferred MPN on the purchase schedule line is also changed or deleted. You cannot maintain the MPN set after receipts are executed for the purchase schedule line.

If an item is received in the Warehouse Receipts (whinh3512m000) session, or in the Purchase Schedule - Receipts (tdpur3115m200) session, the actual MPN that appears in these receipt sessions must belong to the MPN set that is linked to the purchase schedule line.

After receipts are confirmed for the purchase schedule line, the actual MPN is transferred to the Purchase Actual Receipt History (tdpur4556m000) session.

Note

In addition to a large number of other fields, the **Preferred Manufacturer Part Number**, **Manufacturer**, and the contents of the MPN sets that are linked to the purchase schedule lines must match before schedule lines can be clustered in the same purchase release line detail in the Purchase Release Line - Details (tdpur3522m000) session.

For details, refer to To cluster purchase schedule lines.

To set up and use multiple manufacturer items

To set up multiple manufacturer items

To set up multiple manufacturer items, take the following steps:

1. Enter the item's default manufacturer in the Item - General (tcibd0101s000) session. If the **Multiple Manufacturer Item** check box is cleared in the Items - Purchase (tdipu0101m000) session, this is the only valid manufacturer for an item-purchase business partner combination.
2. In the Items - Purchase (tdipu0101m000) session:
   - Select the **Multiple Manufacturer Item** check box.
   - If required, select the **Effective Date by Change Order** check box.
   - If required, select the **Multiple Change Orders** check box.
   - In the **Multiple Manufacturer Item Check** field, select the session in which ERP LN must check the manufacturer's validity (status).
3. In the Manufacturers (tcmcs0160m000) session, enter the information about the manufacturer and assign a status to the manufacturer.
4. In the Item - Manufacturer (tdipu0130m000) session, enter item-manufacturer combinations. Use this session to define the various manufacturers that are approved to supply the item. If you do not use Data Management, you can also use this session to enter effective and expiry dates for an item-manufacturer combination or to approve an item-manufacturer combination. If you use Data Management, you must create change orders in the Change Management module to change the validity of the item-manufacturer combination, or to approve

item-manufacturer combinations in the Change Order (dmchm0150m005) session.

5. In the Item - Manufacturer and Business Partner (tdipu0135m000) session, define for an item which manufacturers can be delivered by which purchase business partners. You can only enter approved item-manufacturer combinations/select approved purchase business partners for an item-manufacturer combination.

Note

- If you procure items directly from the manufacturer, you must define the manufacturer as the buy-from business partner as well.
- In the Items - Purchase Business Partner (tdipu0110m000) session, you can enter a preferred manufacturer for an item-purchase business partner combination.

To use multiple manufacturer items

Purchase requisitions

If you enter a multiple manufacturer item in the Requisition - Line Details (tdpur2102s000) session, the manufacturer is defaulted from the manufacturer you entered in the Item - General (tcibd0101s000) session. The item-manufacturer combination can either be approved or waiting for approval. Blocked manufacturers are not allowed. However, from the **Manufacturer** field of the Requisition - Line Details (tdpur2102s000) session, you can zoom to the Item - Manufacturer (tdipu0130m000) session and select another manufacturer code from the list of item-manufacturer combinations that are approved or waiting for approval. If you convert a requisition to an order, ERP LN checks the manufacturer's validity before the requisition is converted to an order.

Purchase orders

If you enter a multiple manufacturer item in the Purchase Order Lines (tdpur4101m000) session, the manufacturer is defaulted from the manufacturer you entered in the Items - Purchase Business Partner (tdipu0110m000) session. If this **Manufacturer** field is empty, the manufacturer is defaulted from the Item - General (tcibd0101s000) session. ERP LN only allows approved item-manufacturer combinations on the order line. However, from the **Manufacturer** field of the Purchase Order Lines (tdpur4101m000) session, you can zoom to the Item - Manufacturer (tdipu0130m000) session and select another manufacturer code from the list of approved item-manufacturer combinations.

Note

If an item is received in the Receipt Lines (whinh3112s000) session of Warehouse Management, a **Manufacturer** 's validity is checked on the order date. If the manufacturer is no longer valid on the receipt date, but was valid on the order date, the goods can still be received. You can also manually enter an approved manufacturer for the item.

To convert multiple manufacturer items to MPN items

If you use the multiple manufacturer item functionality to order manufacturer's items, but you want to start using the manufacturer part number (MPN) item functionality instead, you can convert the multiple manufacturer master data to the MPN master data for an item.

The following data can be converted:

- Item manufacturers to manufacturer part numbers.
- Item manufacturer business partners to MPNs by business partner.

Note

Because the multiple manufacturer master data contains effectivity and status information, but the MPN master data only contains effectivity data for MPNs, master data cannot always be converted consistently. As a result, you must decide whether the master data setup for multiple manufacturer items is simple enough to be converted to the new MPN master data.

Conversion is most succesful if:

- Item manufacturers are effective on the current date.
- The effectivity periods of the item manufacturers and the item manufacturer business partners have the same effective and expiry dates.

You can also choose to only copy the item manufacturers to MPNs and next link business partners to the MPNs by means of the Import MPNs by Item - Business Partner (tdipu0248m000) session.

To convert the master data

If you clear the **Multiple Manufacturer Item** check box that was previously selected for an item in the Items - Purchase (tdipu0101m000) session and select the **MPN Item** check box instead, the conversion process is triggered.

It depends on a number of settings whether you can only copy item manufacturers to manufacturer part numbers, or you can also copy item manufacturer business partners to MPNs by business partner.

To copy item manufacturers to manufacturer part numbers

If the **Multiple Manufacturer Item Check** field is set to **Item-Manufacturer** in the Items - Purchase (tdipu0101m000) session, the **Convert Item-Manufacturers to Manufacturer Part Numbers?** question appears.

If the **Multiple Manufacturer Item Check** field is set to **Item-Manufacturer and Business Partner** in the Items - Purchase (tdipu0101m000) session, a dialog box appears with the following check boxes:

- **Convert Item-Manufacturers to MPNs**
- **Convert Item Manufacturer BPs to MPNs per BP**

If you click **Yes** to the question **Convert Item-Manufacturers to Manufacturer Part Numbers?**, or you select the **Convert Item-Manufacturers to MPNs** check box on the dialog box, ERP LN converts item manufacturers from the Item - Manufacturer (tdipu0130m000) session to MPNs in the Manufacturer Part Numbers (tdipu0145m000) session.

To copy item manufacturer business partners to MPNs by business partner

To copy item manufacturer business partners to MPNs by business partner, the **Multiple Manufacturer Item Check** field must be set to **Item-Manufacturer and Business Partner** in the Items - Purchase (tdipu0101m000) session.

If you select the **Convert Item Manufacturer BPs to MPNs per BP** check box on the dialog box that appears after you change the item into an MPN item, ERP LN converts item manufacturer business partners from the Item - Manufacturer and Business Partner (tdipu0135m000) session to MPNs by business partner in the MPNs by Item - Business Partner (tdipu0148m000) session.

Conversion rules

A number of rules apply when you convert the master data.

Item-manufacturer

General rules

The following rules apply when you convert item manufacturers to manufacturer part numbers:

- ERP LN first converts item manufacturers that are effective on the current date (see example 1).
- If no item manufacturers are effective on the current date, ERP LN converts item manufacturers that will become effective in the future (see example 2).

Selection rules in the Item - Manufacturer (tdipu0130m000) session

- The **Manufacturer Item** field, which becomes the MPN item, must be filled.
- If the **Manufacturer Item** occurs more than once, only the first item is copied.
- The **Manufacturer Item** cannot contain multibyte characters.

- The item-manufacturer's **Expiry Date** must fall after the current date.

The item manufacturers that are converted can have any status.

Item manufacturer BP

General rules

The following rules apply when you convert item manufacturer BPs to MPNs per BP:

- If item manufacturers are converted that are effective on the current date, ERP LN can only convert item manufacturer business partners that are also effective on the current date (see example 1).
- If ERP LN converts item manufacturers that will become effective in the future, ERP LN can only convert item manufacturer business partners that fall within the effectivity period of the item manufacturer (see example 2).

Selection rules in the Item - Manufacturer and Business Partner (tdipu0135m000) session

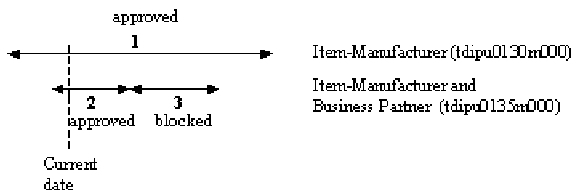
1. ERP LN first checks whether an item-manufacturer-business partner combination exists for which the **Buy-from Business Partner** and **Ship-from BP** are the same.
2. If no such record is available, ERP LN searches for an item-manufacturer-business partner combination with an empty **Ship-from BP**.
3. If no such record exists, the **Ship-from BP** can have any value for the item-manufacturer-business partner combination.

The Item manufacturer business partners that are converted cannot have the **Blocked** status or a lower status than the item manufacturer. For example, if the item manufacturer has the **Approved** status, but the item manufacturer business partner has the **For Approval** status, the item manufacturer business partner cannot be copied.

Note

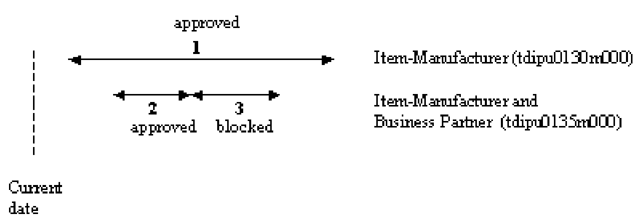
If both the **Convert Item-Manufacturers to MPNs** and **Convert Item Manufacturer BPs to MPNs per BP** check boxes are selected, but ERP LN cannot copy any of the the item manufacturer business partners, the item manufacturer is not copied either.

Example 1 - Item manufacturers effective on current date



- 1, 2, and 3 are records in the Item - Manufacturer (tdipu0130m000) and Item - Manufacturer and Business Partner (tdipu0135m000) sessions. The arrows represent the records' effectivity periods.
- Records 1 and 2 are taken into consideration for copying. Record 3 is not used because it is effective after the current date, while records exist that are effective on the current date.
- Record 1 is converted to the Manufacturer Part Numbers (tdipu0145m000) session and record 2 to the MPNs by Item - Business Partner (tdipu0148m000) session.
- If record 1 had the **For Approval** status, records 1 and 2 would also be converted.

Example 2 -Item manufacturers not effective on current date



- 1, 2, and 3 are records in the Item - Manufacturer (tdipu0130m000) and Item - Manufacturer and Business Partner (tdipu0135m000) sessions. The arrows represent the records' effectivity periods.
- Because the item manufacturer business partner records (2 and 3) fall within the effectivity period of the item-manufacturer that will become effective in the future (1), all records are taken into consideration for copying.
- Both 2 and 3 must have a status higher than or equal to the item manufacturer's status (1) and none of the item manufacturer business partner records can have the **Blocked** status. Because record 3 is blocked, record 1 cannot be converted to the Manufacturer Part Numbers (tdipu0145m000) session and records 2 and 3 cannot be converted to the MPNs by Item - Business Partner (tdipu0148m000) session.

- If both the **Convert Item-Manufacturers to MPNs** and **Convert Item Manufacturer BPs to MPNs per BP** check boxes are selected, and no other valid business partners are linked to the item-manufacturer that can be copied, the item manufacturer is not copied either.

Purchase organizational data

Purchase organizational data

Before you can carry out purchase procedures, you must define purchase organizational data, such as order types that define the steps that are mandatory in a purchase order procedure, purchase offices that you can use to create purchase contracts, purchase orders, and purchase schedules, user profiles with user-specific default data, and so on.

To define purchase order types

The purchase order type determines the activities that are included in the order procedure, and how and in which sequence the order procedure is carried out. When a purchase order type is linked to a purchase order, the purchase order is processed according to the activities and the type of order defined for the purchase order type.

To define purchase order types and their activities, take the following steps:

1. Enter a purchase order type in the Purchase Order Types (tdpur0194m000) or the Purchase Order Type - Activities (tdpur0694m000) session. In addition to the normal purchase order type, several special order types exist. By selecting one or more of the check boxes (**Cost Order**, **Collect Order**, **Return Order**, and so on), the creation and processing of these orders can differ from normal purchase orders.
2. On the **Activities** tab of the Purchase Order Type - Activities (tdpur0694m000) session, you must specify for the purchase order type:
   - The activities (tasks) to be carried out.
   - The sequence in which these activities must be carried out.
   - Whether the activity must be carried out automatically or manually. As a result, you can automate the processing of purchase orders. For details, refer to *Flexible purchase order processing (p. 2-19)* .

Tip

You must make sure that the list of activities that is linked to an order type is extensive in order to cover all processes that can apply during execution of the order procedure. If an activity is not applicable to the order type, ERP LN automatically skips this activity. You can view the actual activities that are linked to the purchase order (detail) line and the status of the activities in the Purchase Order Activities (tdpur4113m000) session.

To define purchase offices

The purchase office determines the location from which purchase orders, contracts, schedules, requisitions, and requests for quotations are processed. A purchase office is needed to complete transactions with buy-from business partners. Various purchase offices can be set up for one company. Once you set up the purchase office, you can define user profiles.

To define a purchase office, you must complete the following steps:

1. Define the purchase office as a department in the Departments (tcmcs0565m000) session.
2. Specify purchase-office-specific data in the Purchase Offices (tdpur0112m000) session. The enterprise unit to which the department is linked informs you about the financial company to which financial transactions for the purchase office are posted. If you want to use purchase offices in combination with purchase orders, purchase schedules, purchase contracts, schedule releases, call-offs, requests for quotations, or requisitions, you must fill the concerned series fields.

To define user profiles

User profiles are used to set up default information for purchasing employees, so documents can be processed faster. In the Purchase User Profiles (tdpur0143m000) session, you can link a user to a purchase office, order type, and warehouse for each login code. When the user creates a purchase order, call-off, purchase contract, purchase requisition, request for quotation, approval rule, purchase schedule, or purchase release, the user profile determines the defaults. This accelerates the purchase-related transaction entry processes.

To define approval rules

Purchase order approval is a mandatory step in the purchase order procedure. You can validate purchase orders against approval rules before their status becomes **Approved**.

For more information on defining approval rules, refer to *Purchase order approval (p. 6-5)* .

Flexible purchase order processing

In ERP LN, the processing of purchase orders can be automated. For each activity that is linked to an order type, you can indicate its execution mode.

Flexible purchase order processing enables you to:

- Indicate for the purchase order type what activities must be executed automatically and what activities require manual intervention.
- Enter a default device to which the (error) reports for a certain activity must be sent.

The execution of the order procedure activities can start when a user approves the order, either in a batch session, or by clicking a button that approves the particular order. After approval of an order, all automatic activities are executed successively until an activity is defined as not automatic. After you executed the non-automatic activity manually, ERP LN executes the next automatic activity, and so on. As a result, for each order type you can indicate the activities that you want to automate and the activities that need your interference.

To enable flexible order processing, you must first define the master data.

Master data

Before orders can be processed flexibly, you must define the following data:

1. Purchase order types and purchase order type activities.
2. Default devices to which reports are printed.

Purchase order types and activities

Define purchase order types and link activities to these order types in the Purchase Order Type - Activities (tdpur0694m000) session. You must indicate which of the activities must be executed automatically and which manually, by selecting or clearing the **Automatic** check box.

Mandatory activities

When you create an order type in the Purchase Order Type - Activities (tdpur0560m000) session, ERP LN automatically links the following predefined mandatory activities to the order type in the **Activity** field of the Purchase Order Type - Activities (tdpur0560m000) session:

- Generate Supply Orders for Subcontracting (tdpur4216m000). This activity is only available and mandatory for the subcontracting order type.
- Release Purchase Orders to Warehousing (tdpur4246m000).
- Purchase Receipts (tdpur4106m000).
- Update Sales / Service Order with Delivery Information (tdpur4222m000). This activity is only available and mandatory for the direct delivery order type.
- Process Delivered Purchase Orders (tdpur4223m000).

Note

- For the consignment payment order type, the activities Release Purchase Orders to Warehousing (tdpur4246m000), and Purchase Receipts (tdpur4106m000) are not linked.
- For the direct delivery order type, the activity Release Purchase Orders to Warehousing (tdpur4246m000) is not linked.

Although the activities Release Purchase Orders to Warehousing (tdpur4246m000) and Purchase Receipts (tdpur4106m000) can both be linked as a mandatory activity to the order type, either the Release Purchase Orders to Warehousing (tdpur4246m000) activity or the Purchase Receipts (tdpur4106m000) activity is executed during the order procedure. You cannot execute both activities for the purchase order. This applies to purchase orders with an (administrative) cost or service item. A purchase order is released to Warehouse Management if it contains an item whose **Item Type** is set to **Cost** or **Service** in the Item - General (tcibd0101s000) session and for which the **Release to Warehouse** check box is selected in the Items - Purchase (tdipu0101m000) session. If the **Release to Warehouse** check box is cleared, you must manually maintain the receipts for the purchase order in the Purchase Receipts (tdpur4106m000) session.

Optional activities

To support you in setting up a flexible order processing procedure, in addition to the mandatory activities, ERP LN also links the following optional activities to the **Activity** field, which you can delete again in the Purchase Order Type - Activities (tdpur0560m000) session:

- Print Purchase Orders (tdpur4401m000)
- Generate Freight Orders (tdpur4220m000)
- Print Claims (tdpur4420m000)
- Print Return Notes (tdpur4411m000)
- Print Purchase Invoices (tdpur4404m000)

Note

- For the consignment payment order type and the collect order type, the activity Generate Freight Orders (tdpur4220m000) cannot be linked.
- When you link Generate Freight Orders (tdpur4220m000) as an activity to the order type, execution of this activity is actually controlled on the purchase order line, or the purchase order line detail. For more information on the Generate Freight Orders (tdpur4220m000) activity, refer to *Integration Freight Order Control and Purchase Control (p. 6-27)* .

Important!

You must make sure that the list of activities that is linked to an order type is extensive enough to cover all processes that can apply during execution of the order procedure. If an activity is not applicable to the order type, ERP LN automatically skips/removes this activity.You can view the actual activities that are linked to the purchase order line (detail) and the status of the activities in the Purchase Order Activities (tdpur4113m000) session.

Default devices

Define a default device to which reports are printed for the user in the Purchase User Profiles (tdpur0143m000) session.

When you insert a user profile in the Purchase User Profiles (tdpur0143m000) session, ERP LN automatically inserts the following printing sessions in the Default Devices by User (tdpur0140m000) session:

- Print Request for Quotations (tdpur1401m000).
- Print RFQ Reminders (tdpur1402m000).
- Print Letter for Unsuccessful Bidders (tdpur1410m000).
- Print Purchase Contract Acknowledgments (tdpur3405m000).
- Print Purchase Contract Termination Letters (tdpur3406m000).
- Print Purchase Orders (tdpur4401m000).
- Print Return Notes (tdpur4411m000).
- Print Claims (tdpur4420m000).

For each printing session, you can define the device that is used for printing in the Default Devices by User (tdpur0140m000) session. You can start this session by clicking **Default Devices by User** on the **Specific** menu of the Purchase User Profiles (tdpur0143m000) session. The **Device** in the Default Devices by User (tdpur0140m000) session is defaulted from the **Device** in the Purchase User Profiles (tdpur0143m000) session, but can be overwritten in the Default Devices by User (tdpur0140m000) session.

The device search path for printing external documents is as follows:

1. From the Default Devices by User (tdpur0140m000) session.
2. From the Purchase Order Type - Activities (tdpur0560m000) session.
3. If no device can be found, you must select a device from a pop-up screen.

The device search path for printing internal documents is as follows:

1. From the Purchase User Profiles (tdpur0143m000) session.
2. From the Purchase Order Type - Activities (tdpur0560m000) session.
3. If no device can be found, you must select a device from a pop-up screen.

Note

- If an error report is printed, ERP LN always uses the device that is entered in the **Device** field of the Purchase User Profiles (tdpur0143m000) session. If no device is entered, you must select a device from a pop-up screen.

- For automatically executed activities, no process reports are printed.

Relation between purchase order status and flexible purchase order processing

The starting moment on which the defined order procedure activities are executed, is when the purchase order receives the **Approved** status.

You can approve purchase orders by:

- Running the Approve Purchase Orders (tdpur4210m100) session, in which you can approve a range of purchase orders.
- Selecting a purchase order and clicking **Approve** on the **Specific** menu of the Purchase Orders (tdpur4100m000) session, or the Purchase Order - Lines (tdpur4100m900) session.

Note

Only orders that are **Approved** are taken into account in the flexible order processing functionality.

Example

Order type sequence	Activity	Auto-matic
1	Print Purchase Orders (tdpur4401m000)	Yes
2	Release Purchase Orders to Warehousing (tdpur4246m000)	Yes
4	Process Delivered Purchase Orders (tdpur4223m000)	No

Because Print Purchase Orders (tdpur4401m000) is an automatic activity, the purchase order is printed as soon as it is approved. Next, ERP LN automatically executes the activity Release Purchase Orders to Warehousing (tdpur4246m000). However, you must manually process the purchase order in the Process Delivered Purchase Orders (tdpur4223m000) session.

Purchase order line changes

If a line of an approved purchase order is modified, the order header status changes to **Modified** and ERP LN clears the **Approved** check box in the Purchase Order Lines (tdpur4101m000) session. As a result, the unapproved purchase order line is excluded from the automatic execution of order activities.

To re-approve the purchase order line, click **Approve** on the **Specific** menu of the Purchase Order - Lines (tdpur4100m900) session. As a result, ERP LN selects the **Approved** check box in the Purchase Order Lines (tdpur4101m000) session and changes the purchase order header status to **Approved** again.

Purchase order line detail changes

- When an approved purchase order line changes to a **Total Line** with line details, the **Total Line** and line details remain approved. The reason for this is that the new line details are a copy of the approved purchase order line.
- You must manually approve a line detail that is added or modified. The purchase order header status that, as a result, was set to **Modified**, changes to **Approved** again.
- When all line details are approved, ERP LN also approves the **Total Line**. When one or more line details are unapproved, ERP LN also unapproves the **Total Line**. This applies to both line details, and back order lines.
- When a **Total Line** line is approved, ERP LN also approves the linked line details.
- When the line detail is a back order line, ERP LN automatically approves the back order line when the back order line’s **Ordered Quantity** does not exceed the **Potential Back Order Quantity**, as displayed in the Potential Purchase Back Orders (tdpur4101m700) session. If the ordered quantity exceeds the potential back order quantity, or if the back order line is changed, you must approve the back order line manually.

General purchase data

General purchase data

Before you can carry out the various processes that are related to the purchase functionality, you must define general purchase master data.

The general purchase data includes the following:

- Set up the approver list that is used in the purchase requisition procedure.
- Define data to track order changes and to determine the reason for the changes.
- Define criteria and criteria sets for requests for quotations.
- Define additional cost sets.

To set up the approver list

Before a purchase requisition can be converted to a purchase order or a request-for-quotation (RFQ), it must be approved by an approver that appears on the approver list.

For more information on setting up the approver list, refer to *Approval process (p. 3-3)* .

To define data to track order changes and to determine the reason for the changes

Purchase orders can be dynamic documents, as a company's requirements can change during the life of the order process. You can define information that enables you to track these changes and the reasons why these changes occurred. Change codes and acknowledgement codes are used in ERP LN to track the various changes to an order. Although this functionality is designed to work specifically with EDI, a company without EDI functionality can also use these codes to record changes.

You can use change codes to maintain information regarding order changes that are tracked for historical purposes. You can use acknowledgement codes to manually record information concerning changes that are communicated by the purchase business partner. A purchase order acknowledgment is a message that the purchase business partner sends to the purchaser to confirm the receipt of the purchase order, which usually implies the acceptance of the order by the purchase business partner.

To be able to maintain and track changes, take the following steps:

1. Use the Change Reasons (tdpur0197m000) session to maintain codes that represent the change reasons, which can be assigned to a changed order or an order acknowledgement to clarify why a change is made. This information can be tracked for historical reporting.
2. Use the Change Types (tdpur0198m000) session to define change types that indicate the kind of change of a changed purchase order or order acknowledgement. Possible types of change are, for instance, change order line, add order line, or change header data. The change types are assigned to the purchase order after the change is made on the order.
3. Use the Purchase Order Parameters (tdpur0100m400) session to define various default change codes and change types, which are defaulted to the purchase order line in case of changes.
4. Use the Purchase Acknowledgments (tdpur0154m000) session to define purchase order acknowledgements and the destionation of the codes, which can be **Header**, **Line**, or **Any**. The acknowledgement code contains a group of information, which appears on the purchase acknowledgment document. This code can represent the reasons for a change of a purchase order.

To define criteria and criteria sets for requests for quotations

If you want to compare quotations from different purchase business partners, you can set up criteria for RFQs. RFQ-criteria enable you to make a better deliberation in selecting a quotation. You can compare the quotations based on objective criteria and subjective criteria.

When evaluating returned RFQs, you can use objective criteria and subjective criteria. Objective criteria are criteria tracked by ERP LN, while subjective criteria are user-defined criteria. When RFQs are evaluated, ERP LN considers all objective and subjective criteria that are assigned to the RFQ. Based on user weightings, ERP LN places the RFQs in order of favorability (rank).

If you want to use criteria to evaluate quotations, you must define the criteria and their ratings as follows:

1. Define citeria sets in the RFQ Criteria Sets (tdpur1190m000) session. A criteria set is a list of request for quotation (RFQ) criterions that can be linked to an RFQ header. The RFQs are evaluated following these criteria.
2. Define RFQ subjective criteria in the RFQ Subjective Criteria (tdpur1191m000) session. You must only define the subjective RFQ criteria, because the objective criteria are already predefined in ERP LN.
3. Put together a criteria set by linking criteria to a set in the Criteria Set - Criteria (tdpur1192m000) session. In this session, you must also indicate the importance of the several criteria by assigning weights to them.
4. In the Criteria Set - Scoring Schemes (tdpur1193m000) session, you must assign objective values and subjective values to the criteria of the following types:
   - **Quantity**
   - **Delivery Time**
   - **Subjective**

After the objective values and subjective values are assigned, you must assign scoring values to them in the Criteria Set - Scoring Schemes (tdpur1193m000) session. If you do not specify a scoring scheme for objective criteria, ERP LN uses predefined system values.

Notes

- ERP LN always takes into account prices when comparing quotations.
- When the concerned business partner is selected for vendor rating, ERP LN also takes into account vendor rating when comparing quotations.

To define additional cost sets

Additional costs can be placed on an order as extra cost (items) after the last item recorded. Several additional cost items can be assigned to an order by bringing them together in a cost set. ERP LN can automatically apply these cost sets to purchase orders.

For more information on defining additional cost sets, refer to *Additional costs on purchase orders (p. 2-27)* .

Additional costs on purchase orders

Cost items in ERP LN are used to define charges such as freight, handling, and administrative fees. These costs can be added to an order so the order accurately reflects charges billed to a customer, or charges billed to us by our buy-from business partners. Additional costs can be placed on an order as extra cost (items) after the last item recorded. Several additional cost items can be assigned to an order by bringing them together in a cost set. ERP LN can automatically apply these cost sets to purchase orders.

To define additional costs

If you want to assign additional costs of items to purchase price lists and buy-from business partners, after which these costs can be added to the purchase order, complete the following steps:

Step 1: Purchase Order Parameters (tdpur0100m400)

In the Purchase Order Parameters (tdpur0100m400) session, define the following fields:

- **First Position Number for Additional Costs Sets**: Enter the first position number for a purchase order line with additional costs.
- **Recalculation of Additional Costs**: you can indicate whether or not additional costs are recalculated when an order is modified in the Purchase Order Lines (tdpur4101m000) session.
  - **No**: The additional costs are not recalculated. You can manually maintain additional costs in the Purchase Order Lines (tdpur4101m000) session.
  - **Interactive**: ERP LN asks you whether the additional costs must be recalculated. You can still manually maintain the additional costs in the Purchase Order Lines (tdpur4101m000) session, but if you let ERP LN recalculate the additional costs, the manual changes can be lost.
  - **Automatic**: You cannot maintain the additional costs on an order. The additional cost are recalculated each time you leave the Purchase Order Lines (tdpur4101m000) session.

Step 2: Additional Cost Sets (tdpur0124m000)

In the Additional Cost Sets (tdpur0124m000) session, group additional costs into sets and define the currency that must be used for the cost set. Cost sets are used to group additional charges to be incurred on the order, such as freight and handling. Cost sets can be linked to business partners or price lists, which enables you to automatically add appropriate charges to orders.

Step 3: Additional Cost Set - Item (tdpur0128m000)

In the Additional Cost Set - Item (tdpur0128m000) session, define the cost items that belong to a cost set. Examples of cost set lines that you can enter in this session are administrative costs added to the order if the order amount is lower than a certain value, or freight costs added to the order if the total weight of the purchased goods exceeds a certain value.

Step 4: Cost Sets per Price List/Buy-from BP (tdpur0127m000)

Use the Cost Sets per Price List/Buy-from BP (tdpur0127m000) session to link a default cost set to a price lists or a buy-from business partner. In this session, you can also indicate whether the cost set lines are added to the purchase order automatically, or interactively.

Step 5: Price Books (tdpcg0131m000)

To define the actual charges to be applied, Pricing Control is used. Use the Price Books (tdpcg0131m000) session to define charges for additional cost items. You must select the price book and the cost item and then define price breaks. The pricing structure for the cost sets is flexible. As a result, the structure can be unique or the same for different business partners.

Note

Since costs are added based on order totals, they are added when the user exits the purchase order line in the Purchase Order Lines (tdpur4101m000) session. In addition, the **Price** field on the order line is a price per unit. For additional cost items, this field is left empty. The amount applied appears in the **Order Amount** field on the purchase order line.

Chapter 3
Purchase Requisitions

3

Purchase requisitions

The purchase requisition procedure is designed for the non-purchasing user (someone who may not know the standard procedures in purchasing). For example, engineers can order material and/or services, but they do not need to understand the entire purchasing process to do so. Purchase requisitions are used to enter non-system planned requirements for various types of items, including inventory items, cost items, and service items.

The following item types cannot be used on requisitions:

- Subcontracting items
- Generic items
- List items (except for kit items)
- Equipment items

Purchase requisitions are created in the same manner as all other buy/sell documents (for example, purchase orders and sales orders) with one significant difference: on a requisition, the item code and buy-from business partner codes can be blank. This difference means that the requester can make a request for a new item or make a request from a new buy-from business partner.

Purchase requisition procedure

The purchase requisition procedure consists of the following steps:

1. Set the purchase requisition parameters in the Purchase Requisition Parameters (tdpur0100m200) session.
2. Maintain a list of approvers who are authorized to approve purchase requisitions in the Approvers (tdpur2105m000) session. For more information, refer to *Approval process (p. 3-3)* .
3. Enter a purchase requisition header with requester data, approver data, and delivery data in the Purchase Requisition (tdpur2101s000) session. You can start this session from the Purchase Requisitions (tdpur2501m000) session.

4. Enter a purchase requisition line with the required item or item description, the ordered quantity, and, if required, the project in the Requisition - Line Details (tdpur2102s000) session. You can start this session from the Requisition - Lines (tdpur2502m000) session.
5. Use the Submit/Cancel Purchase Requisitions (tdpur2203m000) session to do one of the following:
   - Submit the purchase requisition to the next stage of the approval process.
   - Cancel the purchase requisition.
   - Forward the purchase requisition from one approver to another.
6. Use the Approve Requisition (tdpur2106s000) session to do one of the following:
   - Approve the purchase requisition.
   - Reject the purchase requisition.
   - Submit the purchase requisition to the next approver. As a result, this session can be used several times in succession by a number of approvers.
7. If a purchase requisition is approved, convert it to a purchase order or a request-for-quotation (RFQ) in the Convert Requisition Lines to RFQ/PO (tdpur2201m000) session.

Purchase requistion additional processes

- **Copy purchase requisitions**
  You can copy an existing purchase requistion to a new one in the Copy Purchase Requisitions (tdpur2204s000) session.
- **Delete purchase requisitions**
  You can delete purchase requisitions or move them to the history in the Delete Purchase Requisitions (tdpur2202m000) session.
- **Print purchase requisitions**
  You can print purchase requisitions in the Print Purchase Requisitions (tdpur2401m000) session.
- **Purchase requisition progress**
  You can view the approval progress of a purchase requisition in one of the following sessions:
  - Display Requisition Approval Progress by Requester (tdpur2506m000)
  - Display Requisition Approval Progress by Approver (tdpur2516m000)
  - Display Requisition Approval Progress by Approver Department (tdpur2526m000)
- **Purchase requisition history**
  Based on the **Log Purchase Requisition History** field in the Purchase Requisition Parameters (tdpur0100m200) session, purchase requisitions

can be written to the history. You can view the logged requisition history in the Purchase Requisition History (tdpur2504m000) session.

Approval process

Before a purchase requisition can be converted to a purchase order or a request-for-quotation (RFQ), it must be approved by an approver.

An approver is a valid employee or department authorized to approve requisitions that are submitted by requesters. As an approver, you can perform the following actions on submitted requisitions:

- Approve.
- Reject.
- Modify.
- Resubmit (to another approver).

To set up the approver list

In the Approvers (tdpur2105m000) session, you must maintain a list of valid approvers (individuals or departments) and define a hierarchy in the approval structure, so that the first approver knows to whom the requisition can be forwarded next.

Before adding to the approver list, the following master data must be defined:

1. Define employees and departments in the Employees - General (tccom0101m000) and Departments (tcmcs0565m000) sessions.
2. Because an individual approver can belong to only one department, define an employee's department defaults in the Employees - General (tccom0101m000) session.
3. The approver's effective date and expiry date must be valid and must be verified in the employee record in the Employees - General (tccom0101m000) session. Also, the **Approver**, as defined in the Approvers (tdpur2105m000) session, must have a valid **Effective Date** and **Expiry Date**.

Note

- The **Department** field in the Approvers (tdpur2105m000) session is a mandatory field. If an approver is selected in the **Approver** field of the Approvers (tdpur2105m000) session, the approver must belong to the selected approver department.
- Only approver departments that are purchase offices and individual approvers from the purchase office are allowed to perform final approval on a purchase requisition and convert the purchase requisition into an RFQ

or purchase order. You can have multiple next approver departments that are purchase offices. One of these departments must take the responsibility for final approval of the purchase requisition.

Use the Print Approvers (tdpur2405m000) session to print the approver list.

To approve purchase requisitions

In the Approve Requisition (tdpur2106s000) session, an approver can approve purchase requistions by setting the purchase requisition status to **Approved**.

If further approval is required, the current approver must fill in the **Next Approver Department** field in the Approve Requisition (tdpur2106s000) session. The **Next Approver** field is optional, but if it is defined, the next approver must be both a valid approver on the approver list and must be associated with the approving department.

If the **Next Approver Department** field is filled, the current approver must click **Submit Requisitions** to submit the requisition to the next approver department. This procedure repeats until the **Next Approver Department** is a final approver purchase office.

- The **Next Approver Department** can be any type, but must exist on the approver list as a valid approving department.
- If the **Next Approver Department** is a purchase office, the department can act as the final approver.
- If the approver department is a purchase office and is the final approver (indicated by leaving the **Next Approver** field in the Approve Requisition (tdpur2106s000) session blank), this department is responsible for entering the conversion type and the order type. As a result, the approval process is terminated.

Note

- In the Requisition Approval Progress by Approver (tdpur2516m000) session, approvers can view whether requisitions are submitted to them for approval.
- Prior to approving the purchase requisition, the approver can review the requisition lines by clicking **Requisition Lines** in the Approve Requisition (tdpur2106s000) session. As a result, the Requisition - Lines (tdpur2502m000) session starts that contains the linked requisition lines. To view a requisition line in detail, an approver can select and double-click a line in the Requisition - Lines (tdpur2502m000) session, which starts the Requisition - Line Details (tdpur2102s000) session. At this point, the approver can reject a specific requisition line, if necessary.
- The approver can modify the requisition status to **Approved** or **Rejected**. If a requisition is incorrectly set to approved or rejected (and saved), the approver has the option to set the requisition status back to **Submitted**. As a result, the approver has an error correction capability.

- If at least one requisition line is set to **Approved**, the requisition can be approved. If all lines are rejected, the requisition must be **Rejected**.

Purchase requisition statuses

The purchase requisition status determines the actions you can take in the purchase requisition procedure.

To submit purchase requisitions

Submitting a requisition can only occur if the **Current Approval Status** is created, approved, or modified, and lines are present.

Submitting a requisition from the Submit/Cancel Purchase Requisitions (tdpur2203m000) session can only occur if:

- The value of the **Current Approval Status** field in the Requisition - Lines (tdpur2502m000) session is **Created** or **Modified**, and lines are present.
- The value of the **Current Approval Status** field in the Requisition - Lines (tdpur2502m000) session is **Approved**, at least one line is approved, and the **Next Approver** field in the Approve Requisition (tdpur2106s000) session is filled.

To approve purchase requisitions

Approving a requisition can only occur if the **Current Approval Status** is submitted.

Approvers can either approve the requisition or reject the requisition. If the requisition is rejected, it can be modified and resubmitted for approval.

To delete purchase requisitions

You can delete purchase requisitions if the **Requisition Status** is:

- Created
- Canceled
- Rejected
- Modified
- Converted

To modify purchase requisitions

The value of the **Requisition Status** controls the changes that can be made to requisitions.

Modifying requisitions is allowed, but is subject to the following:

- **Prior to submission**
  Allowed without constraints.
- **After submission**
  Only if it is rejected first by an approver or approving department.

Line data (any field) can be modified only if the status is created, rejected, or modified.

You can change the following fields only when the requisition has the following status:

Requester	created	rejected	-	-
Requesting Department	-	-	-	never
Requisition Number	-	-	-	never
Requisition Date	created	-	-	-
Reference A	created	rejected	modified	-
Reference B	created	rejected	modified	-
Requested Date	created	rejected	modified	-
Approver Department	created	rejected	modified	-
Approver	created	rejected	modified	-
Text	-	-	-	always
Delivery Warehouse	-	-	-	always
Delivery Address	-	-	-	always
Purchase Office	-	-	-	always
Currency	created	rejected	modified	-
Country	created	rejected	modified	-

You cannot add or modify lines after the requisition is submitted unless you change the **Current Approval Status** in the Requisition - Lines (tdpur2502m000) session to **Modified**.

Use the following procedure:

1. Reject the requisition by setting the **Current Approval Status** field to **Rejected**.
2. Modify the requisition header or line to change the status to **Modified**.
3. Add a new requisition line or modify an existing line.
4. Submit the modified requisition. As a result, the **Current Approval Status** field is changed to **Submitted**.

Note

Changing and saving a header updates the requisition history and recalculates the requisition amount.

To cancel purchase requisitions

Canceling a requisition can only occur if the **Current Approval Status** is created, modified, or rejected.

To copy purchase requisitions

Copying a requisition can occur for any **Current Approval Status**. You can also copy a requisition directly from history.

Chapter 4
Requests for Quotations (RFQs)

4

Overview of RFQ handling

The request for quotation (RFQ) procedure enables you to send out RFQs to buy-from business partners with regard to the procurement of goods. When an RFQ is created, information regarding items, quantities, and required receipt dates is defined. The created RFQ can then be sent to one or a range of buy-from business partners based on the approved source list. When buy-from business partners respond, their results can be compared with objective and subjective criteria. When a decision to purchase is made, the accepted RFQ can be copied to a purchase contract, a purchase order, or a supplier price book.

RFQs can be generated from planned orders, requisitions, or purchase contracts. They can also be created manually.

RFQ master data

Before you can carry out the RFQ procedure, you must define the purchase master data.

For details, refer to:

- *Purchase item data (p. 2-1)*
- *Purchase organizational data (p. 2-18)*
- *General purchase data (p. 2-24)*

You must also define the RFQ parameters in the Request for Quotation Parameters (tdpur0100m100) session.

RFQ procedure

The RFQ procedure consists of the following processes:

- The creation and communication of the RFQs to the appropriate business partners.
- The receipt, comparison, and selection of the business partner quotations.

For more information, refer to *Request for quotation procedure (p. 4-2)* .

RFQ additional processes

A number of processes do not always occur in the RFQ procedure, but can be applicable in specific situations.

For more information, refer to *RFQs - additional processes (p. 4-8)* .

Request for quotation procedure

Request for quotation procedure

You can use the request for quotation (RFQ) procedure to ask buy-from business partners to provide you with an offer of goods and services. You can compare the offers (quotations) that you reveive to select the one that best fits your requirements.

The following RFQ procedures are available:

- **Manual RFQ procedure**
  Use this procedure to manually create RFQs and send them to your buy-from business partners. You can select the buy-from business partners to whom you want to send an RFQ manually or based on the approved source list.
- **Generate RFQ procedure**
  Use this procedure to automatically generate RFQs and send them to your buy-from business partners. The creation of RFQs and the assignment to buy-from business partners is carried out in one of the generate sessions.

Tip

Use the manual RFQ procedure if you want to create an RFQ for one item. If you want to create an RFQ for several items and/or several item groups, the generate RFQ procedure is more suitable.

The request for quotation (RFQ) procedure consists of several steps.

These steps can be split up into the following parts:

1. The creation and communication of the RFQs to the appropriate business partners.
2. The receipt, comparison, and selection of the business partner quotations.

To create and send RFQs

Step 1: Purchase Request for Quotation - Lines (tdpur1600m000)

Use the Purchase Request for Quotation - Lines (tdpur1600m000) session to:

- Create RFQs in the manual RFQ procedure.
- View RFQs in the generate RFQ procedure.
  These RFQs are generated from one of the following sessions:
  - **Generate Request for Quotations (tdpur1220m000)**
    Generates RFQs for a range of items and/or item groups and enables you to select the business partners to send the RFQs to.
  - **Convert Requisition Lines to RFQ/PO (tdpur2201m000)**
    Converts purchase requisition lines to an RFQ.
  - **Duplicate Contract Lines to RFQs (tdpur3201m000)**
    Copies purchase contract lines to RFQs and enables you to link the business partners to send the RFQs to.
  - **Transfer Planned Orders (cppat1210m000)**
    Transfers the planned purchase orders in the Resource Requirement Planning module to Purchase Control. If ERP LN cannot find a buy-from business partner for the item, the planned purchase order can be transferred to an RFQ.

Step 2: Request for Quotation - Buy-from BP's (tdpur1505m000)/ Link Buy-from BPs to RFQ (tdpur1221m000)

This step only applies to the manual RFQ procedure. In the generate RFQ procedure, the generated RFQs are directly linked to the selected buy-from business partners. As a result, you need not link the RFQs to the buy-from business partners manually.

In the manual RFQ procedure you can link buy-from business partners to RFQs in the following ways:

- Manually in the Request for Quotation - Buy-from BP's (tdpur1505m000) session.
- Automatically in the Link Buy-from BPs to RFQ (tdpur1221m000) session.The selection of buy-from business partners can be based on an approved source list.

On the **RFQ - Buy-from BPs** tab of the Purchase Request for Quotation - Lines (tdpur1600m000) session, you can view which business partners are linked to the RFQ.

Step 3: Print Request for Quotations (tdpur1401m000)

After the RFQ is created and business partners are linked, you must print the RFQ in the Print Request for Quotations (tdpur1401m000) session to send it to the buy-from business partners.

To receive, compare, and to select quotations

Step 1: Buy-from BP - Quotations (tdpur1506m000)

If a business partner responds to an RFQ, you can enter the received quotation data in the Buy-from BP - Quotations (tdpur1506m000) session.

Step 2: Compare Quotations (tdpur1110m000)

When all quotations on an RFQ are entered and the return date is expired, you can compare the quotations in the Compare Quotations (tdpur1110m000) session. This session helps you to select the best quotation that can be copied. You can perform analysis for a single line on the RFQ or for all lines on the RFQ.

You can use the following sessions to compare quotations, which you can start from the **Specific** menu in the Compare Quotations (tdpur1110m000) session:

- Quotation - Buy-from BP Ranking Based on Total Amount (tdpur1805m000), in which you can compare quotations based on price.
- Quotation - Buy-from BP Ranking Based on Criteria Set (tdpur1806m000), in which you can compare quotations based on RFQ criteria that you defined. Before you can use this session, you must have defined criteria and their ratings.

To compare quotations based on criteria

Complete the following steps before you can use the Quotation - Buy-from BP Ranking Based on Criteria Set (tdpur1806m000) session to compare quotations:

1. Define criteria and their ratings. For more information, refer to *General purchase data (p. 2-24)* .
2. When you receive a business partner quotation, enter the subjective scores for the quotation in the Quotation - Subjective Criterion Scores (tdpur1195m000) session. ERP LN automatically calculates the objective criteria.
   For more information on:
   - Calculating total scoring values for each criterion, refer to *Calculation of total scoring values per criterion (p. 4-5)* .
   - Ranking the quotations, refer to *To rank quotations (p. 4-7)* .

Step 3: Convert Quotations to Contracts/Orders/Price Books (tdpur1202m000)

After you compared the quotations and made your choice based on the rankings, use the Convert Quotations to Contracts/Orders/Price Books (tdpur1202m000) session to transfer the selected quotation to a purchase order, purchase contract, or a supplier price book.

When you select more than one buy-from business partner, you can indicate if ERP LN must take into account the sourcing percentage and the priority for the item- business partner combination. You can define the sourcing percentage and the priority in the Items - Purchase Business Partner (tdipu0110m000) session, which you can start from the **Specific** menu of the Convert Quotations to Contracts/Orders/Price Books (tdpur1202m000) session.

Step 4: Delete Request for Quotations (tdpur1205m000)

Use the Delete Request for Quotations (tdpur1205m000) session to perform one of the following:

- Delete the buy-from business partner quotations that are expired. If all quotations that are returned on an RFQ are deleted, the RFQ is also deleted.
- Delete RFQs that have no quotation returned and/or for which the return date is expired.

Calculation of total scoring values per criterion

If you sent requests for quotations (RFQs) to buy-from business partners, you can rank the quotations that you get back from the buy-from business partners to decide from which buy-from business partner you will purchase. Before you can rank the quotations, ERP LN must calculate the scoring values for each quotation. The procedure that is followed to calculate the total scoring value for each criterion consists of several steps. ERP LN retrieves the RFQ data that is needed for the calculation, from the Purchase Request for Quotation Lines (tdpur1502m000) session and the quotation data from the Buy-from BP - Quotations (tdpur1506m000) session.

Delivery dates

In the first place a scoring value is calculated based on the delivery dates. The delivery date difference is calculated as follows:

- **Delivery date is specified on the RFQ and the quotation**
  Delivery difference = RFQ delivery date - quotation delivery date.
- **Lead time is specified on the RFQ and the quotation**
  Delivery difference = RFQ lead time - quotation lead time.

- **Start date is specified on the RFQ and the quotation**
  Delivery difference = (RFQ start date - quotation start date) + (RFQ end date - quotation end date).

ERP LN retrieves the scoring value for the delivery difference from the Criteria Set - Scoring Schemes (tdpur1193m000) session.

The scoring value is calculated as follows:

```
Delivery date scoring value = DW * delivery difference SVAL
```

Quantity

A scoring value is calculated based on the quantity. The quantity difference is calculated as follows:

```
Quantity difference = (RFQ quantity - quotation quantity)
* 100 / RFQ quantity.
```

ERP LN retrieves the scoring value for the quantity difference from the Criteria Set - Scoring Schemes (tdpur1193m000) session.

The scoring value is calculated as follows:

```
Quantity scoring value = QW * quantity difference SVAL.
```

Vendor Rating

A scoring value is calculated based on vendor rating. ERP LN

ERP LN retrieves the vendor rating percentage from the Vendor Ratings by Period (tdpur8102m000) session and the Vendor Ratings by Criterion (tdpur8102m100) session.

The scoring value is calculated as follows:

```
Vendor rating scoring value = VW * vendor rating percentage.
```

Subjective criterion

A scoring value is calculated based on the RFQ criterion. ERP LN

ERP LN retrieves the subjective scoring value from the Subjective Scoring Values (tdpur1193m100) session. The scoring value is linked to the RFQ in the Quotation - Subjective Criterion Scores (tdpur1195m000) session.

The scoring value is calculated as follows:

```
Subjective scoring value = SW * subjective criterion scoring
 value.
```

Price

A scoring value is calculated based on the offered price.

ERP LN retrieves the lowest price and the quotation price from the Buy-from BP - Quotations (tdpur1506m000) session. The lowest price is the lowest submitted price of all the selected buy-from business partners on a selected RFQ. The quotation price is the price of the specific buy-from business partner.

The scoring value is calculated as follows:

```
Price scoring value = PW * ((lowest price / quotation price)
 * 100)
```

Legend

Legend

DW	Weightage for the delivery dates
QW	Weightage for the quantity difference
VW	Weightage for the vendor rating
SW	Weightage for the subjective criterion
PW	Weightage for the price difference
SVAL	Scoring value per criterion

Note

ERP LN retrieves the weightages from the Criteria Set - Criteria (tdpur1192m000) session.

To rank quotations

The quotations are ranked based on the total scoring value. ERP LN takes the following steps to rank the quotations:

Step 1: To calculate scoring values

The total scoring value for each buy-from business partner is calculated as follows:

```
         Sum (SVs of all applied criteria of the BBP)
SV BBP = ____________________________________________ *
```

```
100%
                 Sum (all SVs of all selected BBPs)
```

Legend

SV Scoring value
BBP Buy-from business partner

Step 2: To rank buy-from business partners

The buy-from business partners are ranked according to the calculated scoring values in the Quotation - Buy-from BP Ranking Based on Criteria Set (tdpur1806m000) session. The buy-from business partner with the highest scoring value is the first in the list.

RFQs - additional processes

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

These are the following processes:

- To print RFQ reminders.
- To print letters for unsuccesful bidders.
- To view, print, and delete RFQ history.

To print RFQ reminders

If buy-from business partners do not submit a quotation in response to your RFQ before the return date, you can send them a reminder, which you can print in the Print RFQ Reminders (tdpur1402m000) session.

To print letters for unsuccessful bidders

You can use the Print Letter for Unsuccessful Bidders (tdpur1410m000) session to communicate to business partners if their quotation is not accepted.

Note

You can only print letters for business partners if the **Thank You for Bidding Letter** check box is selected in the Request for Quotation - Buy-from BP's (tdpur1505m000) session.

To view, print , and delete RFQ history

If the **Log RFQ History** check box is selected in the Request for Quotation Parameters (tdpur0100m100) session, you can use the following sessions to review RFQ history information:

- Purchase Request for Quotation History (tdpur1550m000)
- Request for Quotation Lines History (tdpur1551m000)
- Request for Quotation - Buy-from BP History (tdpur1555m000)
- Buy-from BP - Quotation History (tdpur1556m000)
- Overview of RFQ History (tdpur1850m000)

You can print RFQ history in the Print RFQ History (tdpur1450m000) session.

When historical information is no longer needed, you can use the Delete Purchase Request for Quotation History (tdpur1204m000) session to delete the historical data.

Chapter 5
Purchase Contracts

5

Purchase contracts

Purchase contracts are used to register specific agreements with a buy-from business partner that concern the delivery of specific goods.

These agreements can be registered at the following levels:

- **Purchase contract lines**
  In contract lines the agreements with a business partner about the delivery of a particular item or group of items for a specified period of time, are registered . These agreements are focused on total quantities, prices, and discounts. Apart from specifying an effective period, you can also indicate whether the minimum quantity to be purchased is binding.
- **Terms and conditions agreements**
  In terms and conditions agreements, detailed terms and conditions regarding orders, planning, logistics, invoicing, allocation and hard pegging regarding the sale, purchase, or transfer of goods, are registered. A purchase terms and conditions agreement must be linked to a purchase contract before you can use it.

You can create the following contract types:

- Normal contracts
- Special contracts

For each purchase business partner, you can close multiple special contracts in one period. In a specific period you cannot define more than one normal contract per item or price group for a buy-from business partner.

Purchase contracts are used as the basis of purchase orders or purchase schedules. The data specified in the purchase contract serves as a parent of the data that you specify in the linked purchase order or purchase schedule. If you use purchase schedules, you can also use purchase contracts to retrieve approved purchase business partners. Purchase schedules and terms and conditions agreements can only be linked to normal contracts and not to special contracts.

Purchase contract procedure

To record the agreements that you made with a buy-from business partner, take the following steps:

Step 1: Purchase Contract - Lines (tdpur3600m000)

Use this session to define the following:

- **Purchase contract header**
  Define the general data for a purchase contract header. The information to be defined is mainly related to the purchase business partner to whom the contract relates. On the contract header, you can also link a terms and conditions agreement.
  The terms and conditions agreement can be linked as follows in this session:
  - Manually, by selecting an agreement from the Terms and Conditions (tctrm1100m000) session.
  - By generating an agreement from a template, which is automatically linked to the contract header. Click **Generate Terms and Conditions from Template** on the **Specific** menu to start the Generate Terms and Conditions from Template (tctrm2200m000) session.

  Contract header data refers to the Purchase Contracts (tdpur3100m000) session.
- **Purchase contract lines**
  Define purchase contract lines, which include the agreements with a purchase business partner about a certain item during a period of time. Contract line data refers to the Purchase Contract Lines (tdpur3101m000) session.
- **Purchase contract price revisions**
  Record prices and discounts for the purchase contract line in a purchase contract price revision. Contract price revision data refers to the Purchase Contract Price Revisions (tdpur3103m000) session.

The following can be linked to a contract:

- Both a terms and condtions agreement and contract lines.
- Only a terms and conditions agreement and no contract lines.
- Only contract lines and no terms and conditions agreement.

For more information, refer to:

- Overview of terms and conditions
- *To set up purchase contract price revisions (p. 5-4)*
- *To link discount schedule(s) to purchase contract price revision (p. 5-4)*

Step 2: Purchase Contract Line Logistic Data (tdpur3102m000)

Use the Purchase Contract Line Logistic Data (tdpur3102m000) session if you want purchase schedules with external business partners to be linked to the contract line. If you only use purchase schedules with internal business partners, you need not define a contract. As a result, the Purchase Contract Line Logistic Data (tdpur3102m000) is not a mandatory session to define in the purchase contract procedure.

The purchase contract line logistic data provides default values to the purchase schedule that is linked to the purchase contract line. If you do not define logistic data, you cannot create a purchase schedule for an external business partner.

For more information, refer to *To set up contract line logistic data (p. 5-7)* .

Step 3: Delivery Contract (tdpur3104m000)

If you define a contract and you already know the time-phased delivery details, instead of a purchase schedule, you can create a delivery contract in the Delivery Contract (tdpur3104m000) session. A delivery contract is not a real schedule, but a schedule solution to generate purchase orders in time.

For more information, refer to *To set up a delivery contract (p. 5-7)* .

Note

- ERP LN automatically links purchase orders and purchase schedules to contracts with the **Active** status, if available. When a purchase order is created, ERP LN searches for the price and/or discounts on special contracts and then on normal contracts. If more special contracts are valid for the buy-from business partner/item(group)/date, a selection screen appears that enables you to indicate which contract must be used. When a purchase schedule is created, ERP LN automatically links a normal contract to the purchase schedule. However, in the Purchase Schedules (tdpur3110m000) session, you can unlink the normal contract and link a special contract to the purchase schedule.
- To retrieve terms and conditions from an active contract for an order line, the contract need not be linked to the order line. As a result, the contract number is only filled on the order line if an active contract line is linked to the order line. For more information, refer to To retrieve terms and conditions.

Purchase contract - additional processes

You can:

- Print contract acknowledgments to send to the buy-from business partner in the Print Purchase Contract Acknowledgments (tdpur3405m000) session.
- Copy one purchase contract to another in the Copy Purchase Contracts (tdpur3801m000) session.

- Copy quotations to a purchase contract in the Convert Quotations to Contracts/Orders/Price Books (tdpur1202m000) session.
- Create requests for quotations based on purchase contracts in the Duplicate Contract Lines to RFQs (tdpur3201m000) session.
- Check whether the agreed quantities are met at the end of a contract's effective period in the Evaluate Purchase Contracts (tdpur3420m000) session. You can also monitor, by extrapolating, the contract's progress during the effective period. A report is printed that contains the deviations. An evaluation for the complete contract can be executed by not printing the separate contract lines. Small deviations are tolerated and are not printed.
- Send a letter to inform the purchase business partner about the closure/expiration of the contract in the Print Purchase Contract Termination Letters (tdpur3406m000) session.
- Terminate or delete purchase contracts that are no longer valid, or that have ended early in the Delete/Terminate Purchase Contracts (tdpur3203m000) session.

To set up purchase contract price revisions

To set up purchase contract price revisions

To set up a purchase contract price revision, complete the following steps:

1. Create a purchase contract in the Purchase Contracts (tdpur3100m000) session.
2. Create a purchase contract line in the Purchase Contract Lines (tdpur3101m000) session.
3. In the Purchase Contract Lines (tdpur3101m000) session, choose **Purchase Contract Price Revisions**. As a result, the Purchase Contract Price Revisions (tdpur3103m000) session starts.
4. In the Purchase Contract Price Revisions (tdpur3103m000) session, you can specify the purchase contract price revisions.

To link discount schedule(s) to purchase contract price revision

In the **Discount Schedule** field of the Purchase Contract Price Revisions (tdpur3103m000) session, you can link one or more discount schedules to a purchase contract price revision.

To link one discount schedule to the price revision

If you want to define the **Discount Schedule** field in the Purchase Contract Price Revisions (tdpur3103m000) session, ERP LN automatically zooms to the Line

Discount Schedules (tdpcg0521m100) session. In this session, you can enter one or more discount schedules, with a maximum quantity of five. If you only enter one discount schedule, depending on the ordered quantity and effectivity period of both the discount schedule record and the price revision's effectivity period, one record is selected from the discount schedule.

Example

- Discount Schedule Origin : Purchase Contracts
- Discount Schedule Code : PUR000001
- Schedule Type : Quantity Break
- Currency : Euro

Break type	Break (pcs)	Effective date	Expiry date	Per-cent	Amount (Euro)	Method	Dis-count code
Upto	100	01/05/99	-	-	10	Net	RHT
Upto	200	01/01/99	-	1	-	Gross	-
Upto	300	01/01/99	04/06/99	4	-	Net	MAQ
Upto	300	05/04/99	-	5	-	Gross	APC

If the ordered quantity is 100 pieces, the price is 50 Euro, and the effectivity period of the contract line's price revision runs from 01/04/99 to 30/04/99, the discount is 1% Gross. The net amount then arrives at 49,500 Euro.

To link multiple discount schedules to the price revision

If you link more than one discount schedule to the price revision, depending on the ordered quantity and effectivity period of both the discount schedule records and the effectivity period of the contract line's price revision, one record is selected from each discount schedule.

Example

If two discount schedules are linked to the price revision, the net amount is retrieved as follows:

- Discount Schedule Origin : Purchase Contracts
- Discount Schedule Code : PUR000002
- Schedule Type : Quantity Break

- Currency : Euro

Break type	Break (pcs)	Effective date	Expiry date	Per-cent	Amount (Euro)	Method	Dis-count code
Upto	100	01/03/99	-	4	-	Gross	MHT
Upto	200	01/01/99	04/06/99	-	10	Net	-
Upto	300	01/01/99	-	4	-	Gross	LAQ
Upto	300	05/04/99	-	5	-	Gross	ZPC

- Discount Schedule Origin : Purchase Contracts
- Discount Schedule Code : PUR000003
- Schedule Type : Value Break
- Currency : Euro

Break type	Break (Euro)	Effective date	Expiry date	Per-cent	Amount (Euro)	Method	Dis-count code
Min.	10000	01/05/99	-	-1	-	Gross	LHT
Min.	20000	01/01/99	04/06/99	-	-10	Net	-
Min.	30000	01/01/99	-	-1	-	Gross	NAQ
Min.	40000	05/04/99	-	-5	-	Net	BPC

If the ordered quantity is 100 pieces, the price is 50 Euro, and the effectivity period of the contract line's price revision runs from 01/05/99 to 01/06/99, the discount applied from PUR000002 is 4% Gross. The net amount now arrives at 48,000 Euro. The discount (read surcharge) from PUR000003 is HFL -5. The total net amount that results from the two linked discount schedules, is 48,500 Euro.

To set up contract line logistic data

To set up logistic agreements for a purchase contract line, you must complete the following steps:

1. Create a purchase contract in the Purchase Contracts (tdpur3100m000) session.
2. Create a purchase contract line in the Purchase Contract Lines (tdpur3101m000) session, with:
   - The **Purchase Schedule in use** check box selected.
   - The **Delivery Contract Available** check box cleared.
3. In the Purchase Contract Lines (tdpur3101m000) session, choose **Purchase Contract Line Logistic Data**. As a result, the Purchase Contract Line Logistic Data (tdpur3102m000) session starts.
4. In the Purchase Contract Line Logistic Data (tdpur3102m000) session, you can maintain the purchase contract logistic data.

To set up a delivery contract

To set up a delivery contract, complete the following steps:

1. Create a purchase contract in the Purchase Contracts (tdpur3100m000) session.
2. Create a purchase contract line in the Purchase Contract Lines (tdpur3101m000) session, with:
   - The **Apply Contract for All Items in Price Group** check box cleared.
   - The **Purchase Schedule in use** check box cleared.
   - The **Delivery Contract Available** check box selected.
3. In the Purchase Contract Lines (tdpur3101m000) session, choose **Delivery Contract**. As a result, the Delivery Contract (tdpur3104m000) session starts.
4. In the Delivery Contract (tdpur3104m000) session, you can specify the date on which delivery must take place and the quantities to be delivered on the specified dates.
5. To generate purchase orders for the planned deliveries, in the Delivery Contract (tdpur3104m000) session, choose **Generate Purchase Orders** on the **Specific** menu. The Generate Purchase Orders (tdpur3204m000) session starts in which you can generate purchase orders for the planned deliveries. You can only generate purchase orders for the planned deliveries if both the purchase contract and the purchase contract line have the **Active** status.

To copy purchase contracts

You can copy old purchase contracts to new purchase contracts in the Copy Purchase Contracts (tdpur3801m000) session.

You can always copy a normal contract to a normal contract or a special contract to a special contract. Whether or not you can copy a normal contract to a special contract, and vice versa, depends on the settings of the following check boxes in the Purchase Contract Parameters (tdpur0100m300) session:

- **Copy Special Contract to Normal Contract**.
- **Copy Normal Contract to Special Contract**.

If you copy to a new normal contract, to determine the default value of the contract period, ERP LN:

- Assigns an effective date directly following the expiry date of the old contract.
- Sets up a contract period of one year.

If you copy to a new normal contract, ERP LN checks whether a normal contract already exists:

- In the same period.
- With the same price group or item.
- For the same buy-from business partner.

If such a contract already exists and the contract status is **Active**, ERP LN displays a message that copying is not allowed.

Contracts are copied with a new contract number, which is determined in the same way as when you enter a new contract in the Purchase Contracts (tdpur3100m000) session, but with different effective and expiry dates. The purchase contract price revisions that are linked to the old contract with effective dates that fall within the effectivity period of the new contract, are copied to the new contract. If no valid price revision exists, and you have selected the **Copy Prices** check box in the Copy Purchase Contracts (tdpur3801m000) session, the last price revision of the old contract is copied to the new contract's price revision with an effective date equal to the contract line's effective date.

Note

Discounts and discount schedules from the old price revision are not automatically included if you copy prices to the new contract's price revision. To copy discounts to the new contract's price revision as well, select the **Copy Discounts** check box in the Copy Purchase Contracts (tdpur3801m000) session.

If price books or discount schedules of the old contract's price revision are not valid in the run time of the new contract, you can create new price books and/or new discount schedules for the new contract by selecting the **Create New Price**

Book check box and/or the **Create New Discount Schedule** check box in the Copy Purchase Contracts (tdpur3801m000) session.

You can copy the delivery contract(s) that are linked to the old contract to the new contract. To copy the delivery contract(s), select the **Copy Delivery Contract** check box in the Copy Purchase Contracts (tdpur3801m000) session.

If you copy contracts, the copied contract header and the item lines are logged in the contract history files. If you selected the **Copy Terminated Contract Lines** check box in the Copy Purchase Contracts (tdpur3801m000) session, the terminated contract lines are also copied to the new contract.

The currency of the buy-from business partner must be the same as the contract currency. If not, ERP LN displays an error message. Buy-from business partners must have the status **Active** when a contract is agreed upon. A parent relation must exist between a buy-from business partner and the other business partner roles, which are given by default if the buy-from business partner is entered.

To evaluate purchase contracts

If a purchase contract is used as the basis of a purchase order or a purchase schedule, during and after the purchase order procedure/purchase schedule procedure, you can use the Evaluate Purchase Contracts (tdpur3420m000) session to evaluate the purchase contract. During the effective period of the contract, you can check whether the deliveries take place as agreed in the contract. At the end of the effective period of the contract, you can check whether the agreed quantities are met.

To evaluate contracts, the following conditions must be fulfilled:

- The contract status must be **Active**.
- Call orders must exist for the contract.
- The time elapsed (%) must be more than the specified percentage.

Another session that you can use to view the progress of a contract is the Purchase Contract Line - Results (tdpur3513m000) session.

Note

The Evaluate Purchase Contracts (tdpur3420m000) session is mandatory if the **Evaluate Contract before Deleting** check box is selected in the Purchase Contract Parameters (tdpur0100m300) session.

How a contract line is evaluated depends on the value of the **Quantity Binding** check box in the Purchase Contract Lines (tdpur3101m000) session. This check box determines whether the **Agreed Quantity** that you agreed with your purchase business partner is a mandatory quantity to purchase.

If the **Quantity Binding** check box is selected in the Purchase Contract Lines (tdpur3101m000) session, the Evaluate Purchase Contracts (tdpur3420m000) session prints the differences between:

- The **Called Quantity** and the **Maximum Quantity** fields in the Purchase Contract Lines (tdpur3101m000) session.
- The **Called Quantity** and the **Minimum Quantity** fields in the Purchase Contract Lines (tdpur3101m000) session.

If the **Quantity Binding** check box is cleared in the Purchase Contract Lines (tdpur3101m000) session, the Evaluate Purchase Contracts (tdpur3420m000) session prints the lines that exceed the boundaries that you defined in the Evaluate Purchase Contracts (tdpur3420m000) session.

You can accept small negative or positive deviations in the call order with regard to the quantities. The deviations are calculated as follows in the Evaluate Purchase Contracts (tdpur3420m000) session:

```
Called Quantity + Invoiced Quantity -
(Agreed Quantity * Elapsed Time Factor)
--------------------------------------- * 100%
              Agreed Quantity
```

Example

- Agreed Quantity = 100
- Called + invoiced = 40
- Contract duration = 10 days
- Time Elapsed = 6 days

```
                     40 - 100 * 6/10
Negative Deviation = -----------------  = -20%
                            100
```

If this percentage is greater than the allowed percentage, the contract line is printed.

Note

- The **Called Quantity** is increased when an order/schedule is linked to a contract. The **Called Quantity** is decreased again when an order/schedule line is processed in the Process Delivered Purchase Orders (tdpur4223m000)/ Process Purchase Schedules (tdpur3223m000) session.
- The invoiced quantity is increased when linked purchase order/schedule lines are processed in the Process Delivered Purchase Orders (tdpur4223m000)/ Process Purchase Schedules (tdpur3223m000) session.

- After a purchase contract is evaluated, ERP LN updates the **Evaluation [y/n/repeat]** field in the Purchase Contract Lines (tdpur3101m000) session.
- Extrapolating can produce a distorted picture if, for instance, the largest quantities are delivered at the end of the contract period. As a result, an interim evaluation will show a backlog that does not correspond with reality.

Chapter 6
Purchase Orders

6

Overview of purchase order handling

Overview of purchase order handling

In the Purchase Control module, you can create and modify purchase orders for purchasing goods. For example, if you run out of inventory, you can carry out 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.

Once 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 carry out the purchase order procedure, you must define the purchase master data.

For details, refer to:

- *Purchase item data (p. 2-1)*
- *Purchase organizational data (p. 2-18)*
- *General purchase data (p. 2-24)*

You must also define the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session.

Purchase order procedure

The purchase order procedure consists of the following processes:

- The creation of the purchase order.
- How to send the purchase order to the buy-from business partner, and how to inform the warehousing people about the goods to be expected.
- The receipt of the purchased goods.

- The payment of the received goods.
- The transfer of the delivered purchase orders to the purchase order history database.

For more information, refer to *Purchase order procedure (p. 6-2)* .

Purchase order additional processes

A number of processes do not always occur in the purchase order procedure, but can be applicable in specific situations.

For more information, refer to *Purchase orders - additional processes (p. 6-7)* .

Purchase order procedure

Purchase order procedure

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

The procedure consists of the following steps:

Step 1: To create purchase orders

Purchase orders can be created as follows in the Purchase Order - Lines (tdpur4100m900) session:

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

Step 2: To approve 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 a user approves the order.

For details on approving purchase orders, refer to *Purchase order approval (p. 6-5)* .

Step 3: To print 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 only mandatory if you communicate the purchase order to the buy-from business partner by mail or by 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.

Step 4: To release purchase orders to Warehouse Management

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 Warehouse Management in the Release Purchase Orders to Warehousing (tdpur4246m000). As a result, the warehousing department is informed about the goods to be expected.

When purchase orders are released to the warehouse, several activities are triggered in the Inventory Handling module of Warehouse Management, starting with warehouse order creation in the Warehousing Orders (whinh2100m000) session. The activities in the Inventory Handling module depend on the warehouse order type that is linked to the purchase order type. You must first link activities to a warehousing procedure in the Activities by Procedure (whinh0106m000) session. You can link a warehousing procedure to a warehousing order type in the Warehousing Order Type (whinh0110m000) session, after which you can link the warehousing order type to a purchase order type in the purchase Order Types (tdpur0194s000) session.

It is not mandatory to release purchase orders for cost items and service items to Warehouse Management. This depends on the setting of the **Release to Warehouse** check box in the Items - Purchase (tdipu0101m000) session. Direct deliveries are never released to warehousing.

Step 5: To receive the purchased goods

You can record the receipts of purchased goods:

- In Warehouse Management if the purchase order is released to Warehouse Management. The receipt procedure is covered by the inbound procedure and the inspection procedure in the Inventory Handling (INH) module. For details, refer to Receipt and inspection procedures.
  When receipts are recorded in Warehouse Management, the receipt data is reported back to Purchase Control. You can view this data in the following sessions:
  - Purchase Orders - Receipt Overview (tdpur4531m000)
  - Purchase Receipts (tdpur4106m000)
- In the Purchase Control module for non-inventory items that are not released to Warehouse Management. You can record the deliveries in the Purchase Receipts (tdpur4106m000) session.

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.

Step 6: To pay for the purchased goods

To manage the payment of the purchased goods, you must use the Accounts Payable (ACP) module in Financials. You can only carry out this process if the Financials package is implemented. For details, refer to To process purchase invoices.

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 the following fields in the Purchase Orders (tdpur4100m000)/ Purchase Order Lines (tdpur4101m000) session:

- **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 set to one of the following:
  - **Inspection**
    Self-billed invoices can only be created for the total approved received quantity, after all inspections have been 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, you can create a debit memo for the rejected quantity in the Generate Debit Memos (tfacp2270m000) session.

For more information, refer to Self billing.

Step 7: To process 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.

For more information on purchase order history, refer to *Purchase order/schedule history (p. 6-6)* .

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 specific purchase order, click **Approve** on the **Specific** menu of the Purchase Orders (tdpur4100m000) session, or the Purchase Order - Lines (tdpur4100m900) session.

Note

If you approve a purchase order directly in the Purchase Orders (tdpur4100m000) session or the Purchase Order - Lines (tdpur4100m900) session, ERP LN does not check the approval rules.

Purchase order approval based on approval rules

In ERP LN 6.1, you can validate purchase orders against approval rules before their status becomes **Approved**. These rules enable you to define conditions based on which ERP LN can automatically approve purchase orders. The purchase orders that cannot be approved based on the approval rules, must be approved manually.

To use approval rules, take the following steps:

1. Define a number group for approval rules in the **Number Group for Approval Rules** field of the Purchase Order Parameters (tdpur0100m400) session.
2. Define the **Basis for Approval Rule** field as Acceptance or Exceptions in the Purchase Order Parameters (tdpur0100m400) session.
3. Define the approval rules in the Approval Rules (tdpur0191m000) session.

4. If you want to validate purchase orders against approval rules before their status can become **Approved**, select the **Apply Approval Rules** check box in the Approve Purchase Orders (tdpur4210m100) session.

It is not mandatory to check the approval rules for approving purchase orders.

Note

- You cannot approve purchase orders that are waiting for commingling before they are actually commingled. For more information, refer to *Purchase orders for commingling (p. 6-14)* .
- If the **Use Confirmation** check box is selected in the Order Terms and Conditions (tctrm1130m000) session, or the Buy-from Business Partners (tccom4120s000) session, you cannot approve purchase orders before the **Confirmed Quantity** and **Order Confirmation Date** fields are filled on the purchase order line(s).
- When a purchase order is approved, flexible purchase order processing can start. For more information, refer to *Flexible purchase order processing (p. 2-19)* .

Example

- Each week, 1000 purchase order lines are generated by Enterprise Planning.
- The Approve Purchase Orders (tdpur4210m100) session, with the **Apply Approval Rules** check box selected, is run in a job.

As a result, 90% of all purchase order lines can be approved based on the approval rules. You must manually approve the remaining 10%.

Purchase order/schedule history

You can use purchase order/schedule history to track creations and modifications to purchase orders/schedules. You can, if necessary, keep certain information long after the original purchase order/schedule is removed.

Purchase orders/schedules are only transferred to the history database if the **Log Order History Data** field is set to **All** in the Purchase Order Parameters (tdpur0100m400) session. If this field is set to **All**, all orders/schedules that are created, canceled, and fully processed are registered in history.

As a result, the following record types are available in the history sessions:

- **Intake**
  The order/schedule line was added, changed, or deleted.
- **Cancellation**
  The order/schedule line was canceled.

- **Turnover**
  The order line was processed in the Process Delivered Purchase Orders (tdpur4223m000) session, or the schedule line was processed in the Process Delivered Purchase Schedules (tdpur3223m000) session.

Contents of history files

The purchase order/schedule history files contain:

- All created purchase order/schedule (line)s. These order/schedule (line)s are the not yet processed order/schedule (line)s.
- All invoiced purchase order/schedule (line)s. These order/schedule (line)s are the processed order/schedule (line)s.

The purchase order/schedule history files are automatically updated when:

- The purchase orders/schedules are created.
- The purchase orders/schedules are changed. For each change of a purchase order/schedule, a pair of order/schedule history lines are created. The first order/schedule history line is used to remove the original values and the second order/schedule history line is used to record the new values.

Clearing history files

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

You must realize that the history files are the base for purchase statistics. If you clear the history files, check if the purchase statistics are fully updated. You cannot fully update the statistics if the history files are cleared before the update.

Note

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

Purchase order additional processes

Purchase orders - additional processes

A number of processes do not always occur in the purchase order procedure, but can be used depending on specific situations.

These are the following processes:

- *To change prices and discounts after receipt or consumption (p. 6-8)*
- *To commingle purchase orders (p. 6-8)*
- *To copy purchase orders (p. 6-8)*
- *To create cross-docking orders and to split deliveries (p. 6-8)*

- *To create direct delivery orders (p. 6-9)*
- *To create freight orders from purchase orders (p. 6-9)*
- *To create work orders from purchase orders (p. 6-10)*
- *To delete purchase orders (p. 6-10)*
- *To handle back orders (p. 6-10)*
- *To handle return orders (p. 6-11)*
- *To print claims (p. 6-11)*
- *To print purchase invoices (p. 6-11)*
- *To print reminders (p. 6-11)*
- *To use consigned inventory (p. 6-11)*

To change prices and discounts after receipt or consumption

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

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/or discounts after the goods are consumed.

For more information, refer to *To change prices or discounts after receipt or consumption (p. 6-11)* .

To commingle 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:

- *Purchase orders for commingling (p. 6-14)*
- *To commingle purchase orders (p. 6-15)*

To copy purchase orders

You can use the Copy Purchase Order (tdpur4201s000) session to easily copy existing purchase orders to new purchase orders.

For more information, refer to *To copy purchase orders (p. 6-16)* .

To create cross-docking orders and to split receipts

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.

Splitting receipts is in fact splitting order lines. If order lines are generated, you can split up the order lines into several receipt lines. As a result, multiple receipts take place on one order line. If a cross-docking order exists and a split receipt is required, you can further split up a receipt line into several receipts.

For details, refer to *Cross-docking and splitting deliveries (p. 6-18)* .

To create 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, Warehouse Management is not involved.

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

- *Direct delivery sales orders (p. 6-21)*
- *Direct delivery service orders (p. 6-24)*

To create freight orders from purchase orders

Freight Management is the package in ERP LN that handles transportation requirements. Because Purchase Control 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, but the responsibility of Purchase Control, the supplier must know on what date 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.

The integration between Freight Management and Purchase Control covers the following topics:

- **Integration between Freight Order Control and Purchase Control**
  During the planning and execution of a freight order, its status often changes. If Purchase Control is responsible for creating the freight order, the progress of the shipment and loads can be exchanged and information can be shared between Freight Order Control and Purchase Control.
- **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 details, refer to:

- *Integration Freight Order Control and Purchase Control (p. 6-27)*

- *Integration Freight Invoicing and Purchase Invoicing (p. 6-31)*

To create work orders from purchase orders

Depot repair serves to repair or upgrade parts. An integration is established between Service and Purchase Control to support the following depot repair processes:

- The department that carries out the indoor repairs or upgrades is not equipped with all the necessary repair parts and needs additional parts from a third party.
- The department that is responsible for the repairs or upgrades hires another company (the subcontractor) to carry out the repair or upgrade.

In these two cases, a purchase order must be generated to buy parts or to procure subcontracting. To support both the purchasing of subcontracting activities and the purchasing of additional parts, the Work Control System module of Service can create a work order that posts its requirements to Purchase Control. As a result, the purchase order origin is **Maintenance**.

For details, refer to:

- *To purchase additional parts (p. 6-33)*
- *To purchase subcontracting items (p. 6-34)*

To delete purchase orders

You can use the Delete Purchase Orders (tdpur4224m000) session to delete:

- Canceled purchase order lines.
- Processed purchase order lines.

Note

The way in which ERP LN deletes the order data depends on the value of the **Delete Order Data if Received Completely** field in the Purchase Order Parameters (tdpur0100m400) session.

To handle back orders

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

The following can result in a back order:

- 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:

- *Back orders - automatic confirmation (p. 6-36)*
- *Back orders - manual confirmation (p. 6-39)*

To handle return orders

A return order is a purchase order on which returned shipments are reported. A return order can only contain negative amounts. A number of steps are involved in the return order process.

For more information, refer to *Purchase return orders (p. 6-42)* .

To print claims

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

To print 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 only used to compare the data in your system with the data (invoices) you get from the buy-from business partner.

To print reminders

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

To use consigned inventory

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

For more information, refer to *Consignment in Order Management (p. 6-44)* .

To change prices or discounts after receipt or consumption

You can change prices or discounts for purchase orders after receipt or consumption. These price changes are inserted for purchase order total lines, purchase order detail lines, or purchase order back order lines. You can also update the item file with the price changes, which will update the **Purchase Price** field in the Items - Purchase (tdipu0101m000) session. Also, if no price is found in the price lists, for each subsequent order for the item, the new price is used.

You can change prices or discounts if any of the following applies:

- The purchase order originates from a sales or service direct delivery order, and the sales or service order is not yet updated.
- A production order with a status earlier than **Closed** is linked to the purchase order.
- The purchase order line is not processed.
- If payment for the purchase order line is:
  - **Pay on Use**, the invoicing status is lower than **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.

If you change the price or discount for a purchase order line with payment type **Pay on Receipt** or **Pay on Use** and invoicing status **Free**, ERP LN processes this change as follows:

- **Order line**
  Update the following amounts:
  - Order amount
  - Receipt amount
  - Order line discount amount
  - Order discount amount

  In the following sessions:
  - Purchase Order Lines (tdpur4101m000)
  - Purchase Order Line History (tdpur4551m000), if purchase history maintenance is enabled according to the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session.
  - Invoice Information on Purchase Orders (tfacp2540m000).
- **Receipts**
  Update the receipts in the Purchase Receipts (tdpur4106m000) session.
- Update the history data in the Purchase Actual Receipt History (tdpur4556m000) session, if purchase history maintenance is enabled according to the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session.
- Update the invoice information in the Orders by Packing Slip (tfacp2543m000) session.
- **Contract and business partner balance**
  Update the purchase contract data. The value of the **Terminate Relation after Order Line Transaction** check box in the Purchase Contract

Parameters (tdpur0100m300) session determines how the link with the contract is handled.

- Update the buy-from business partner's balance of unpaid orders in the Invoice-from Business Partner Balances (tccom4523m000) session.

If the payment type is **Pay on Receipt**, ERP LN performs the following updates besides those previously listed:

- **Payable receipt**
  Update the payable receipt in the Purchase Payable Receipts (tdpur4130m000) session.
- Create payment receipt history records in the Purchase Payable Receipt History (tdpur4560m000) session, if purchase history maintenance is enabled according to the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session.
- Update the receipt information in the Orders by Consumption (tfacp2543m100) session. ERP LN creates a purchase payable receipt record and a consumption record when the receipt for the purchase order line is confirmed.
- **Integration transactions**
  Record the price variance per order line in the Integration Transactions (tfgld4582m000) session.

Note

If the payment type is **Pay on Receipt**, ERP LN creates a purchase payable receipt when the purchase order line is received. Therefore, the purchase payable receipt is updated if a price or discount change is inserted after receipt. If the payment type is **Pay on Use**, the purchase payable receipt is not created until consumption takes place. For information on updating price or discount changes after consumption, see Change prices or discounts after consumption.

If the payment type is **Pay on Use**, ERP 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 containing 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 non-consumed 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) session and the Change Price and Discounts after Receipt (tdpur4122m000) session, 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**, ERP LN processes this change as follows:

- **Payable receipt**
  Update the payable receipt in the Purchase Payable Receipts (tdpur4130m000) session.
- Create payment receipt history records in the Purchase Payable Receipt History (tdpur4560m000) session, if purchase history maintenance is enabled according to the purchase order parameters in the Purchase Order Parameters (tdpur0100m400) session.
- Update the consumption information in the Orders by Consumption (tfacp2543m100) session. If an order line has payment type **Pay on Use**, a purchase payable receipt is created when the inventory received based on the purchase order line is consumed.
- **Integration transactions**
  Record the price variance for the payable receipt in the Integration Transactions (tfgld4582m000) session.
- **Contract and business partner balance**
  Update the purchase contract data. The value of the **Terminate Relation after Order Line Transaction** check box in the Purchase Contract Parameters (tdpur0100m300) session determines how the link with the contract is handled.
- Update the buy-from business partner's balance of unpaid orders in the Invoice-from Business Partner Balances (tccom4523m000) session.

To commingle purchase orders

Purchase orders for commingling

You can commingle purchase orders that have the following origins:

- Enterprise Planning.
- The Shop Floor Control module.
- Project.
- Warehouse Management.
- 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, ERP LN can commingle various purchase orders from several different origins in the Purchase Control module if:

- The **Commingling For** check box in the Purchase Order Parameters (tdpur0100m400) session is selected for the purchase order's origin.

- The **For Commingling** check box in the Items - Purchase Business Partner (tdipu0110m000) session is selected for the item that is entered on the order line.

Note

- If the preceding two conditions are not met, ERP LN generates purchase orders in the Purchase Control module.
- If the preceding two conditions are met and the purchase order has the **Created** status, to view the purchase orders that are waiting for commingling, filter on the **For Commingling** check box in the Purchase Orders (tdpur4100m000) session. As a result, ERP LN displays the purchase orders that have the **For Commingling** check box selected in the Purchase Orders (tdpur4100m000) session and the **For Commingling** check box selected in the Purchase Order Lines (tdpur4101m000) session.

You must commingle the purchase orders in the Commingle Purchase Orders (tdpur4210m000) session and approve the commingled purchase orders in the Approve Purchase Orders (tdpur4210m100) session, or in the Purchase Orders (tdpur4100m000) session.

Note

You cannot approve purchase orders that are waiting for commingling before they are actually commingled.

To commingle purchase orders

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

To commingle purchase orders, click **Commingle Purchase Orders** on the **Specific** menu of the Purchase Orders (tdpur4100m000) session. As a result, the Commingle Purchase Orders (tdpur4210m000) session starts.

The commingling process

After you enter a range of purchase orders and click **Commingle** in the Commingle Purchase Orders (tdpur4210m000) session, ERP LN arranges the orders by buy-from business partner. The purchase order header fields of each purchase order are then compared. If the header fields match, ERP LN initially writes the corresponding lines into one new header. This process is repeated for the next header. If the header fields match, ERP LN copies this header to the previously created header. If the fields do not match, ERP LN creates a new header. This process is repeated for each successive header.

If no delivery date is specified, the **Planned Receipt Date** field on the commingled order is not filled. The commingled order's order date is the date on which commingling takes place.

After comparing the order headers, lines are sorted according to item details. Lines that differ only by their details fields are commingled into the same position, but with a different sequence number. Lines from the same origin and with the same item will have different sequences, because the linked line data is different for the various lines.

Prices that you enter on the purchase order are overwritten during the commingling process. If a valid price/discount structure is linked to the order line, ERP LN derives the price, for the sum of all the quantities of the different sequence numbers on the line, from the Pricing Control (PCG) module. If you have not defined a valid price/discount structure for the order line, ERP LN derives the price from the Item Purchase Data (IPU) module.

If you commingle purchase order lines that are linked to a purchase contract, the lines that are linked to the same contract are commingled. ERP 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, ERP LN derives the price from the Item Purchase Data module.

After both line and header level commingling is carried out, you must approve the commingled order in the Approve Purchase Orders (tdpur4210m100) session, or in the Purchase Orders (tdpur4100m000) session.

After a purchase order is commingled, ERP LN deletes the original order and the concerned ERP LN modules are updated with the new order number. As a result, the status in the linked order line data in those modules is changed to **Approved**.

To copy purchase orders

You can copy existing purchase orders to new ones from both the actual orders and the order history.

Copying procedure

The copying is done in the Copy Purchase Order (tdpur4201s000) session. To start this session, you must select an order (line) in the Purchase Orders (tdpur4100m000) or the Purchase Order Lines (tdpur4101m000) session and then click the **Duplicate Record** button.

You can only copy one order at the same time. To perform this function, you must select both the purchase order (number) you want to copy from and the purchase order (number) you want to copy to. So, you cannot copy a range of orders.

Before you can copy, you must select the order lines you want to copy. To select the order lines, click the **Select Lines** button and select the appropriate order lines. When you click the **Select Lines** button, you start one of the following sessions:

- If you copy from the actual orders, the Purchase Order Lines (tdpur4535s000) session is started.
- If you copy from order history, the Purchase Order History (tdpur4550m000) session is started.

If you do not select the order lines to be copied, you get a message that no order lines are selected to copy from. In this case, nothing is copied.

You must manually enter the planned delivery date for the order. Prices and discounts can be copied or recalculated again. When the order to be copied is linked to a contract, you can either leave the contract field blank when it is an illegal contract, or just not copy the order. You can aggregate the receipts (under some circumstances) or you can copy the receipts one by one.

Restrictions to copy orders

You cannot copy all orders in the Copy Purchase Order (tdpur4201s000) session. A number of restrictions apply:

- All applicable checks are identical to those taking place during order (line) entry.
- The supplier of a return order cannot be changed. If the original order is not a return order, the sign in front of amounts and quantities is reversed. The prices, discounts and rates are adopted from the original order.
- Copying to a cost order is only possible if all items on the original order are cost and/or service items.
- Order lines with project items are copied. If a different supplier is issued, the report contains a warning.
- If you copy orders from the history, only turnover lines are included.
- If you copy orders from current orders, ERP LN takes the delivered quantity as its basis if this is filled. If not, the process is based on the order quantity.

Restrictions to copy order lines

There are a number of conditions that must be fulfilled before an order line can actually be copied. An order line cannot be copied if:

- An order line is linked to a project that is not active or that is canceled.
- An item is blocked.
- An item's unit has no conversion factor.
- The order series to copy to is full.
- The order type to copy to is not correct because it is the wrong company, or a collect order is copied when ILC is on.
- The contract of the order to copy from is not correct.

- The order to copy from is not present.
- The history order to copy from has no invoiced lines.
- The receipt date is before the order date.

ERP LN checks all these conditions. A report can be printed to show the result of the copying action.

Cross-docking and splitting deliveries

Cross-docking orders

The following steps must be completed to generate cross-docking orders:

Step 1: To create a cross-docking sales order

To create a cross-docking 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 set to **Cross-docking** in the Sales Order Lines (tdsls4101m000) session or the Sales Order Delivery Lines (tdsls4101m100) session.
  The **Cross-docking** delivery type can be selected 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 **Type of Line** set to **All Lines** for sales order (delivery) lines with the **Delivery Type** field set to **Warehouse**.

Step 2: To 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 - Activities (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.

Step 3: To 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 or not 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 fill the fields in the **Purchase Order** group box.
- **Existing purchase order advice**
  If you want ERP 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.

Step 4: To release the cross-docking order to Warehouse Management

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

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

Note

- **Static cross-docking**
  Static cross-docking means that you cannot maintain the cross-docking order or order lines in Warehouse Management.
- For static cross-docking the **Planned Receipt Date** of the purchase order is calculated as follows: **Planned Delivery Date** in the Sales Orders (tdsls4100m000) session + **Cross-dock Lead Time** in the Warehouse - Item (whwmd2110s000) session.
- **Dynamic cross-docking**
  With dynamic cross-docking, you can do the following:
  - Create cross-docking orders and order lines in Warehouse Management.
  - Change or cancel the cross-docking order and order lines at several moments during the cross-docking process in Warehouse Management.
  - Let ERP LN automatically create cross-docking orders and/or cross-docking order lines in Warehouse Management.

Dynamic cross-docking is not further discussed in this topic. For more information, refer to Dynamic cross-docking.

Important!

If the warehouse is WMS controlled, and the **Cross-docking** check box is cleared for the warehouse in the WMS Interface Parameters (whwmd2105m000) session, you cannot generate cross-docking orders.

Splitting deliveries

Splitting deliveries is in fact splitting order lines. If purchase order lines or sales order lines are generated, you can split up the order lines into several delivery lines. As a result, multiple deliveries take place on one order line.

To split deliveries, click:

- **Deliveries** on the **Specific** menu of the Sales Order Lines (tdsls4101m000) session. As a result, the Sales Order Line - Deliveries (tdsls4101m900) session starts in which you can enter your data.
- **Order Line Details** on the **Specific** menu of the Purchase Order Lines (tdpur4101m000) session. As a result, the Purchase Order Line Details (tdpur4101m200) session starts in which you can enter your data.

Relation between cross-docking and splitting deliveries

If a cross-docking order exists and a split delivery is required, you can further split up a delivery line into several deliveries by selecting:

- **Split Delivery Line** in the Sales Order Delivery Lines (tdsls4101m100) session.
- **Split** in the Purchase Order Line Details (tdpur4101m200) session.

As a result, the Split Line (tdpur4000s000) session starts in which you can split up the delivery line into several deliveries. As a result, the link between Purchase Control and Sales Control is kept.

Important!

You must make a distinction between splitting a delivery line and adding a delivery line. If you add a delivery line in the Sales Order Line - Deliveries (tdsls4101m900), or the Purchase Order Line Details (tdpur4101m200) session to increase the order quantity, the link between the sales order and the purchase order is not kept. If you split a delivery line into several deliveries in the Split Line (tdpur4000s000) session, the link between the sales order and the purchase order is kept.

For a cross-docking order several purchase order line details can be linked to one sales order line, or several sales order delivery lines can be linked to one purchase order line. As a result, if you make changes to the sales order (delivery) line, the link with the purchase order line (detail)(s) can be broken. ERP LN breaks the link with the purchase order line (detail)(s), if you change the following fields in the Sales Order Lines (tdsls4101m000) or Sales Order Delivery Lines (tdsls4101m100) session:

- **Item**
- **Engineering Item Revision**
- **Lot**
- **Lot Selection**
- **Warehouse**
- **Effectivity Unit**, provided the old and the new effectivity unit are not interchangeable.

Example

If two sales order delivery lines are linked to a purchase order line and you change one of the above mentioned fields of the first sales order delivery line, the link between the first sales order delivery line and the purchase order line is broken. However, the link between the second sales order delivery line and the purchase order line is still kept. When the second sales order delivery line is also disconnected from the purchase order line, ERP LN removes the link between the sales order and the purchase order. As a result, in the Linked Order Line Data (tdsls4102s200) session, the link with purchase is removed.

Note

- If you want to change a sales order (delivery) line in the Sales Order Lines (tdsls4101m000) session, or the Sales Order Delivery Lines (tdsls4101m100) session, or a purchase order line (detail) in the Purchase Order Lines (tdpur4101m000) session, or the Purchase Order Line Details (tdpur4101m200) session, ERP LN notifies you about the link between the sales order and the purchase order.
- If you cancel or delete a sales order line that has a link with a purchase order, the link is broken. If you cancel or delete a purchase order line that has a link with a sales order, the link is also broken. If you cancel or delete a sales order line for which a purchase order advice exists, the purchase order advice is deleted.

To create direct delivery orders

Direct delivery sales orders

The following steps must be completed to generate and process directly delivery sales orders:

Step 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 set to **Direct Delivery** in the Sales Order Lines (tdsls4101m000) session or the Sales Order 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 in 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 when an inventory shortage exists for the item.

Step 2: To 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 - Activities (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.

Step 3: To 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 or not 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 fill the fields in the **Direct Delivery** group box.
- **Existing purchase order advice**
  If you want ERP 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.

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

Order Series for Direct Delivery	**Order Series for Direct Delivery**
Order Type for Direct Delivery	**Order Type for Direct Delivery**
Device for Direct Delivery Reports	**Device for Direct Delivery Reports**

After a purchase order is generated, the originating sales order line receives the status **Awaiting direct delivery** in the Sales Order Lines Monitor (tdsls4510m000) session.

Step 4: To receive a direct delivery order

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

Step 5: To communicate the deliveries to Sales Control

Run the Update Sales/Service Order with Delivery Information (tdpur4222m000) session to communicate the item, quantity, lot and serial information back to Sales Control 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 - Deliveries (tdsls4101m900) session and the Sales Order Actual Delivery Lines (tdsls4106m000) session.

Step 6: To send the sales invoice to the sold-to business partner

After receipts are booked in Purchase Control and communicated to Sales Control by means of 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.

Step 7: To process a direct delivery order

Like all order types, you must 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 and 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 - Lines (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.

Direct delivery and freight orders

If you want to use use Freight Management to manage and plan your direct deliveries, you can generate freight orders for direct deliveries.

For more information, refer to To generate freight orders for direct delivery sales orders.

Direct delivery and back orders

After deliveries are communicated to Sales Control and less is received than ordered, a confirmed back order is generated automatically in Purchase Control, irrespective of the setting of the **Confirm Back Orders Automatically** check box in the Purchase Order Parameters (tdpur0100m400) session. Whether or not you must first manually confirm the back order in Sales Control, depends on the setting of the **Confirm Back Orders Automatically** check box in the Sales Order Parameters (tdsls0100s400) session.

Note

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

Direct delivery service orders

The following steps must be completed to generate and process directly delivery service orders:

Step 1: Delivery Type

1. Define a service order and link activities to the service order in the Service Order - Lines (tssoc2100m100) session.
2. Enter a direct delivery line in the Service Order Estimated Material Costs (tssoc2120m000) session with the **Delivery Type** field set to **Supplier Direct Delivery**.

At this stage the service order has the **Free** status.

Step 2: To plan the service order

Use the Run Global SRP (tssoc2260m000) session to plan the service order.

ERP LN defaults the following fields from the Purchase Order Parameters (tdpur0100m400) session to the **Direct Delivery** group box in the Run Global SRP (tssoc2260m000) session:

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

Step 3: To generate and approve a direct delivery purchase order

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

Step 4: To 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 service order has the **Released** status.

Step 5: To 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 as soon as you click **Receive Direct Delivery Lines** in the Shipment Notices (whinh3100m000) session. If you do not use advance shipment notices, you must manually enter 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 linked service order has the **Released** status.
- The lot and serial set, if lots and serials must be registered, is complete.

Step 6: To 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.

Step 7: To 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**.

Step 8: To send the invoice to the sold-to business partner

After receipts are booked in Purchase Control and communicated to Service by means of the Update Sales / Service Order with Delivery Information (tdpur4222m000) session, you can invoice the service order with the **Costed** status. You can set the service order status to **Costed** in the Cost Service Orders (tssoc2290m000) session.

Step 9: To process a direct delivery order

Like all order types, you must process the purchase order in the Process Delivered Purchase Orders (tdpur4223m000) session and the service order in the Close Service Orders and Copy to History (tssoc2201m000) session.

Direct delivery and return orders

Service engineers who carry out repairs at your sold-to business partner's site, 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 by means of a direct delivery return order.

After a service order is set to **Completed**, and the **Actual Quantity** is reduced in the Service Order Actual Material Costs (tssoc2121m000) session, use the **Return Not Consumed 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 Not Consumed Items Direct to Supplier** check box and defining 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 - Lines (tdpur4100m900) session, based on the **Return Order Type for Direct Deliveries** field in the Purchase Order Parameters (tdpur0100m400) session.

Direct delivery and freight orders

If you want to use use Freight Management to manage and plan your direct deliveries, you can generate freight orders for direct deliveries.

For more information, refer to To generate freight orders for direct delivery service orders.

Direct delivery and back orders

After a service order is set to **Completed**, and less is received than ordered, a confirmed back order is generated automatically irrespective of the setting of the **Confirm Back Orders Automatically** check box in the Purchase Order Parameters (tdpur0100m400) session.

Note

- You can change the back order quantity, delivery date, and delivery address in Service until receipts are executed.
- You can also generate a freight order for a direct delivery back order.
- You cannot cancel a direct delivery back order in Purchase Control. You must change the **To be Delivered** quantity to zero in the Service Order Actual Material Costs (tssoc2121m000) session.
- You can only delete a direct delivery back order in Purchase Control. However, the deletion is not communicated to Service.

Integration Purchase and Freight Management

Integration Freight Order Control and Purchase Control

Several organizations that want to have total control on the supply chain to reduce costs, do their own freight planning. For this reason, a link is built between Freight Order Control and Purchase Control to generate freight orders from purchase orders.

Freight orders can be generated from purchase orders that are manually created/generated by ERP LN, or from purchase orders that originate from a converted supplier quotation.

Settings for generating freight orders from purchase orders that originate from a converted supplier quotation

To enable the generation of freight orders from purchase orders that originate from a converted supplier quotation, and to provide the necessary freight related information when the quotation is converted into a purchase order, define the following fields in the Buy-from BP - Quotations (tdpur1506m000) session:

- Select the **Generate Freight Orders** 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 cannot be generated from quotations, but only from purchase orders. In the Buy-from BP - Quotations (tdpur1506m000) session, you define all freight related data to provide the necessary information when the quotation is converted into a purchase order in the Convert Quotations to Contracts/Orders/Price Books (tdpur1202m000) session.

Settings for generating freight orders from purchase orders that are manually created or generated by ERP LN

To enable the generation of freight orders from purchase orders that are manually created or generated by ERP LN, the following settings must be applied in the Purchase Order Lines (tdpur4101m000) session, or the 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 site. This date can also be considered as the shipment date.

To generate freight orders from purchase orders

The **Generate Freight Orders from Purchase** check box in the Items - Purchase Business Partner (tdipu0110m000) initially determines whether freight orders must be generated for a specific combination of item and purchase business partner. You can, however, always determine not to generate, or to generate a freight order for an individual purchase order (detail) line by clearing or selecting the **Generate Freight Orders from Purchase** check box on the purchase order (detail) line. In the Purchase Order Type - Activities (tdpur0560m000) session, you can define how freight orders are generated.

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, ERP LN checks whether Generate Freight Orders (tdpur4220m000) is linked as an activity to the purchase order type in the Purchase Order Type - Activities (tdpur0560m000) session. The freight order generation method depends on the settings in the Purchase Order Type - Activities (tdpur0560m000) session.

The following possibilities exist:

- Generate Freight Orders (tdpur4220m000) is linked as an activity to the purchase order type and the **Automatic** check box is selected. As a result, ERP LN automatically generates a freight order for the purchase order.
- Generate Freight Orders (tdpur4220m000) is linked as an activity to the purchase order type and the **Automatic** check box is cleared. As a result, you must manually generate a freight order for the purchase order in the Generate Freight Orders (tdpur4220m000) session.
- Generate Freight Orders (tdpur4220m000) is not linked as an activity to the purchase order type. As a result, you must manually generate a freight order for the purchase order in the Generate Freight Orders (tdpur4220m000) session.

If the **Generate Freight Orders from Purchase** check box is cleared in the Items - Purchase Business Partner (tdipu0110m000) session, and you still want to generate a freight order for the purchase order (detail) line, you must select the **Generate Freight Orders from Purchase** check box on the purchase order (detail) line. After approval, ERP 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.

However, if no record exists for an item-business partner combination in the Items - Purchase Business Partner (tdipu0110m000) session, ERP LN checks the Purchase Order Type - Activities (tdpur0560m000) session to find out whether freight orders must be generated, and how the freight orders must be generated (either manually, or automatically). If freight orders must be generated for the order type, ERP LN automatically selects the **Generate Freight Orders from Purchase** check box in the Purchase Order Lines (tdpur4101m000) session/ Purchase Order Line Details (tdpur4101m200) session. You can, again, still clear the check box in the Purchase Order Lines (tdpur4101m000) session/ Purchase Order Line Details (tdpur4101m200) session.

Note

If Generate Freight Orders (tdpur4220m000) is linked as an activity to the order type in the Purchase Order Type - Activities (tdpur0560m000) session and a purchase order is generated, the activity *Generate Freight Orders* is linked to the purchase order (detail) line in the Purchase Order Line Status (tdpur4534m000) session. In addition, you can view the activity's execution mode and status in the Purchase Order Line Status (tdpur4534m000) session. However, if you decide to clear the **Generate Freight Orders from Purchase** check box on the purchase order (detail) line, ERP LN removes the activity *Generate Freight Orders* from the Purchase Order Line Status (tdpur4534m000) session.

Functional explanation of the integration between Freight Order Control and Purchase Control

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

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

- **Freight Details**, to start the Freight Details (fmlbd3552m000) session, or the Freight Details (fmfoc3501m000) session. In these sessions, you can 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.
- **Purchase Order Line - Linked Information**, to start the Purchase Order Line - Linked Information (tdpur4502s000) session. In this session, you can view linked freight orders.

Note

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

After the **Planned Receipt Date** is entered on the purchase order (detail) line, Freight Management determines if the transportation lead time is sufficient to deliver the goods in time. If not, a signal is sent back to the purchase order (detail) line and the user must either change the **Planned Receipt Date** or select another carrier. It occurs that, due to the type of transport or the availability of the carrier, the **Planned Receipt Date** differs from the date as entered on the purchase order (detail) line. If you click Printing in the Purchase Orders (tdpur4100m000) session and select **Print with Deviation in the Shipment Dates(Dummy for FM)**, the Print Orders with Deviating Shipment Dates (fmlbd3450m000) session starts. In this session, you can generate a difference report that provides an overview of all orders for which the dates from the origin are not the same as those in the load plan of Freight Management.

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, you must define the following master data:

- In the Buy-from Business Partners (tccom4120s000) session, select the **Invoice BP for Freight** check box to indicate that you want the business partner to pay for the freight costs you make. This check box is used as a default for the **Invoice External BP** field in the Purchase Orders (tdpur4100m000) session, and the **Invoice External BP** field in the Request for Quotation - Buy-from BP's (tdpur1505m000) session, but can be overwritten in these sessions.
- In the Invoice-to Business Partners (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 Control. 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 Control. 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 Control. This rate book stores freight service rates for a specific business parter.
- If the **Invoice for Freight Based On** field is set to **Freight Costs** or **Freight Costs (Update Allowed)**, in the Invoice-to Business Partners (tccom4112s000) session, you can define the following fields if you

want ERP LN to add a cost plus amount or a cost plus percentage to the invoice:

- **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

The **Invoice for Freight Based On** field is used as a default for the **Invoice Freight Costs Based On** field in the Purchase Orders (tdpur4100m000) session and the **Invoice Freight Costs Based On** field in the Request for Quotation - Buy-from BP's (tdpur1505m000) session, but can be overwritten in these sessions.

Explanation of 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 Management 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 Control and are updated every time a change is made to the shipment/load. It is Freight Management that releases the freight invoice to Central Invoicing.

Freight Costs (update allowed)

Freight Management prorates the freight amount for the purchase order (estimated freight costs) based on the entire load in Freight Management. It occurs that, when Freight Management releases the freight invoice with the estimated freight costs to Central Invoicing, the invoice is sent before the actual costs are received from the carrier. In other words, first the estimated freight costs are determined, based on the carrier rate books as stored in Pricing Control. In a later stage, after the carrier invoice is received and matched in Accounts Payable, the actual costs can be entered. As a result, 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, ERP LN can generate an additional invoice. The invoice is based on the data you enter in the **If amount greater than**, or the **If greater than** field 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.

Integration Purchase and Depot Repair

To purchase 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 must be created from a work order.

Step 1: To create a work order

You can create a work order in the Work Orders (tswcs2100m000) session. Enter an item for which you need additional parts. On the **Specific** menu you can choose **Material Resources** to add material resources (= lines) to the work order. As a result, the Work Order Material Resources (tswcs4110m000) session starts. Enter an item and select **Via Purchase** in the **Delivery Type** field to determine that it is Purchase Control that commits the materials to the work order.

You can also define activities for a work order. After you created the work order header, on the **Specific** menu of the Work Orders (tswcs2100m000) session, click **Work Order Activities**. As a result, the Work Order Activities (tswcs2110m000) session starts, in which you can create and maintain work order related lines that each specify a maintenance activity. On the **Specific** menu of the Work Order Activities (tswcs2110m000) session, click **Material Resources** to add material resources to the work order activity. In the Work Order Material Resources (tswcs4110m000) session, you must enter an item and select **Via Purchase** again in the **Delivery Type** field.

The date you enter in the **Earliest Start Time** field or the **Planned Start** field of the Work Orders (tswcs2100m000) session is displayed as the planned delivery date in the purchase order.

Step 2: To plan a work order

Plan the work order in the Work Order Planning/Releasing (tswcs3200m000) session to generate a purchase order. If the work order is released successfully, the work order has the status **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.

On the **Specific** menu of the Purchase Order Lines (tdpur4101m000) session, you can click **Purchase Order Line - Linked Information**. As a result, the Purchase Order Line - Linked Information (tdpur4502s000) session starts in which you can find the original maintenance work order.

Step 3: To commit inventory for a work order

The receipts for additional parts are carried out in Warehouse Management. When you add lines to the work order in the Work Order Material Resources (tswcs4110m000) session, you must define the **Warehouse** field and select the **Commitment Required** check box. As a result, a purchase receipt automatically results into an inventory commitment for the work order in Warehouse Management. Warehouse Management commits the received quantity until the total required quantity is committed for the order.

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

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

To purchase subcontracting items

If a department that is responsible for the repairs or upgrades in an organization hires another company (the subcontractor) to carry out the repairs or upgrades, a purchase order must be created from a work order.

Step 1: To create a work order

You can create a work order in the Work Orders (tswcs2100m000) session. Enter an item for which the repairs or upgrades must be carried out by a subcontractor. The following fields in the Work Orders (tswcs2100m000) session must be defined for a work order for subcontracting:

- **Buy-from Business Partner**
  Enter the subcontractor that must execute the work.
- **Service/Cost Item**
  Enter the subcontracting item. Because you cannot add activities to a purchase order line, the service item or cost item is used as an activity definition for Purchase Control.

On the **Specific** menu of the Work Orders (tswcs2100m000) session, you have the following options:

- **Material Resources**
  Adds additional materials to the work order that must be sent to the buy-from business partner. If you click this command, the Work Order Material

Resources (tswcs4110m000) session starts. Enter an item and notice that the **Delivery Type** field is filled with **Subcontracting Requirement**. For these lines, no purchase orders are created. The lines are only available for information purposes and are added to the purchase order text.

- **Other Resources**
  Adds other resources to the work order. The other resources serve to make a good cost estimation and/or to store actual costs, which are used in the purchase order. When you release a work order for subcontracting, ERP automatically generates one other resource line. If you click this command, the Work Order Other Resources (tswcs4130m000) session starts. In the **Item** field, you can only enter cost items or service items.

Note: Only one other resource line is added to the work order. You cannot manually add other resource lines.

You can also define activities for a work order for subcontracting. After you created the work order header, on the **Specific** menu of the Work Orders (tswcs2100m000) session, click **Work Order Activities**. As a result, the Work Order Activities (tswcs2110m000) session starts in which you can create and maintain work order related lines that each specify a maintenance activity. When the work order is released, ERP LN automatically generates one other resource line for every activity. On the **Specific** menu of the Work Order Activities (tswcs2110m000) session, click **Other Resources** to add other resources/change the cost price and click **Material Resources** to add material resources to the work order activity.

The date you enter in the **Earliest Start Time** field or the **Planned Start** field of the Work Orders (tswcs2100m000) session is displayed as the planned delivery date in the purchase order.

Step 2: To plan and release a work order

Plan and release the work order in the Work Order Planning/Releasing (tswcs3200m000) session to generate a purchase order. If the work order is released successfully, the work order has the status **Released** and a purchase order is generated with order type **Maintenance**. This can be viewed in the **Origin** field of the Purchase Orders (tdpur4100m000) session.

On the **Specific** menu of the Purchase Order Lines (tdpur4101m000) session, click **Purchase Order Line - Linked Information**. As a result, the Purchase Order Line - Linked Information (tdpur4502s000) session starts in which you can find the original maintenance work order.

Step 3: To inform Work Control System about the receipt of the subcontracting item

For a subcontracting item, which is of the type cost or service, the receipts for a purchase order can be carried out in Purchase Control or Warehouse Management. If you want the receipts to be made in Purchase Control, you must clear the **Release to Warehouse** check box in the Items - Purchase (tdipu0101m000) session. If you decide to receive the goods in Purchase Control, Purchase Control must inform Work Control System about the receipt of the goods. When you enter the receipt of goods in the Purchase Receipts (tdpur4106m000) session, ERP LN automatically informs Work Control System by giving the work order the status **Completed**.

To handle back orders

Back orders - automatic confirmation

Before ERP LN can automatically generate and confirm back orders, you must select the following check boxes in the Purchase Order Parameters (tdpur0100m400) session:

- **Back Orders Allowed**
- **Confirm Back Orders Automatically**

The following results in a back order if the receipt is a final receipt:

- 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 and the **Inventory Disposition** check box is cleared in the Inventory Handling Parameters (whinh0100m000) session.

Received quantity is less than ordered quantity

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 or not several back order lines are consolidated into one open back order line for a purchase order line detail.

Regular purchase orders

If you enter a purchase order and release it to Warehouse Management, its status is **In Process**. After the purchase order is released to Warehouse Management, receipts are carried out in the Warehouse Receipts (whinh3512m000) session. In this session, you must enter the quantity of goods received in the **Quantity** field. If the expected quantity is more than the received quantity and if you select the **Final Receipt** check box and confirm the receipt, ERP LN generates a back order and automatically confirms the backorder.

If the back order is confirmed, ERP LN generates a new purchase order line (with the same position number as the original line, but with another sequence number) of **Order Line Type** **Back Order**. When this back order is confirmed, the purchase back order line is automatically released to Warehouse Management. 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, you can report deliveries back from Purchase Control to Sales Control or Service with the Update Sales/Service Order with Delivery Information (tdpur4222m000) session.

If less is received than ordered:

1. A back order is generated automatically in Sales Control or from Service. If a back order is generated in Sales Control, you must first confirm the back order (sequence) line manually in the Maintain and Confirm Back Orders (tdsls4125m000) session, or ERP LN automatically confirms the back order if the **Confirm Back Orders Automatically** check box is selected in the Sales Order Parameters (tdsls0100s400) session.
2. A confirmed back order is generated automatically in Purchase Control, 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 back order is linked to the back order in Sales Control.
3. After a (direct delivery) back order is generated in Purchase Control, 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 Receipts (whinh3512m000) session and then the goods must be inspected in the Warehouse Inspections (whinh3122m000) session. If the goods are rejected during inspection and the **Inventory Disposition** check box is cleared in the Inventory Handling Parameters (whinh0100m000) session, a back order is created for the rejected items.

Note

If the **Inventory Disposition** 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 Warehouse Management, 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 Warehouse Management does not communicate rejections for disposition items to the purchase order line, no back order is created.

Back order lines that are the result of rejection during inspection cannot be confirmed automatically and always result into a potential back order. 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 back orders can be manually confirmed in the Potential Purchase Back Orders (tdpur4101m700) session. Confirmation can occur before or after a user has decided how to handle the rejected inventory at the reject location. However, if (part of) the rejected goods are accepted again, a user can first adapt the **To be Confirmed Backorder Quantity** and then confirm the potential back order.

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

- If rejected goods are accepted again in the Rejected Inventory (whwmd2570m000) session, a new receipt is executed for the original purchase order line (detail) and the **Rejected Quantity** is reduced with the accepted quantity.
- 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.

Note

You can view:

- The ordered quantity, received quantity, rejected quantity (destroyed and returned), quantity on the reject location, back order quantity, and the most recent receipt number in the following sessions:
  - Potential Purchase Back Orders (tdpur4101m700)
  - Purchase Orders - Receipt Overview (tdpur4531m000)
  - Purchase Order Lines (tdpur4101m000)
- The confirmed back orders for the purchase orders in the Confirmed Purchase Back Orders (tdpur4101m800) session.

Planned inventory transactions for back orders

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

Note

ERP LN does not create purchase back orders for return orders.

Back orders - manual confirmation

Before ERP LN can generate a potential back order in the Purchase Order Parameters (tdpur0100m400) session, you must:

- Select the **Back Orders Allowed** check box.
- Clear the **Confirm Back Orders Automatically** check box.

If the receipt is a final receipt, the following results in a back order:

- 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 and the **Inventory Disposition** 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 back order quantity from zero into a higher value.

Potential back orders

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

Received quantity is less than ordered quantity

If you enter a purchase order and release it to Warehouse Management, its status will be **In Process**. After the purchase order is released to Warehouse Management, receipts are carried out in the Warehouse Receipts (whinh3512m000) session. In this session, you must enter the quantity of goods received in the **Quantity** field. If the expected quantity is less than the received quantity and if you select the **Final Receipt** check box and confirm the receipt, ERP LN generates a potential back order in the Potential Purchase Back Orders (tdpur4101m700) session.

After you confirm the potential back order, ERP LN generates a new purchase order line (with the same position number as the original line, but with another sequence number) of **Order Line Type** **Back Order**. When the back order is approved, the purchase (back) order line is automatically released to Warehouse Management. 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 Receipts (whinh3512m000) session and then the goods must be inspected in the Warehouse Inspections (whinh3122m000) session. If the goods are rejected during inspection, If the goods are rejected during inspection and the **Inventory Disposition** check box is cleared in the Inventory Handling Parameters (whinh0100m000) session, a back order is created for the rejected items.

Note

If the **Inventory Disposition** 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 Warehouse Management, 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 Warehouse Management does not communicate rejections for disposition items to the purchase order line, no back order is created.

Back order lines that are the result of rejection during inspection cannot be confirmed automatically and always result into a potential back order. 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 back orders can be confirmed manually in the Potential Purchase Back Orders (tdpur4101m700) session. Confirmation can occur before or after a user has decided how to handle the rejected inventory at the reject location. However, if (part of) the rejected goods are accepted again, a user can first adapt the **To be Confirmed Backorder Quantity** and then confirm the potential back order.

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

- If rejected goods are accepted again in the Rejected Inventory (whwmd2570m000) session, a new receipt is executed for the original purchase order line (detail) and the **Rejected Quantity** is reduced with the accepted quantity.

- 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.

Note

You can view:

- The ordered quantity, received quantity, rejected quantity (destroyed and returned), quantity on the reject location, back order quantity, and the most recent receipt number in the following sessions:
  - Potential Purchase Back Orders (tdpur4101m700)
  - Purchase Orders - Receipt Overview (tdpur4531m000)
  - Purchase Order Lines (tdpur4101m000)
- The confirmed back orders for the purchase orders in the Confirmed Purchase Back Orders (tdpur4101m800) session.

Planned inventory transactions for back orders

As soon as a back order is generated, ERP LN creates a planned inventory transaction in the Planned Inventory Transactions (whinp1500m000) session and the Order - Planned Inventory Transactions (whinp1501m000) session. The value of the **Planned Quantity** field in these sessions is equal to the quantity that is expected to be received on the back order, even when the back order is not confirmed yet. If you change the back order quantity in the Potential Purchase Back Orders (tdpur4101m700) session and confirm the potential back order, 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
7	2	Yes	3	3

For the example's last line, the back order quantity is changed manually in the Potential Purchase Back Orders (tdpur4101m700) session.

Note

ERP LN does not create purchase back orders for return orders.

Purchase return orders

With a purchase return order, you can:

- Send back inventory units to the supplier.
- Return rejected goods to the supplier. Most of the time, these goods are rejected during inspection.

Return order settings

Before you can use return orders, you must complete a number of steps.

Step 1: Define a purchase order type for return orders

Define a purchase order type for return orders in the Purchase Order Types (tdpur0194m000) session. The **Return Order** field for this order type must be set to **Return Inventory** or **Return Rejects**.

If the **Direct Delivery** check box is selected for the order type, you can only select **Return Inventory** from the **Return Order** field.

Step 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 Types (tdpur0194m000) session. You must select a warehousing order type for which the **Inventory Transaction Type** reads **Issue** in the Warehousing Order Type (whinh0110m000) session.

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

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

Step 3: Link activities to the return order type

You must link activities to the order type in the Purchase Order Type - Activities (tdpur0560m000) session.

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

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

Step 4: Enable inspection

If you want purchase orders and purchase return orders to be inspected, select the **Inspection** check box in the Purchase Order Lines (tdpur4101m000) session.

Return order procedure

Step 1: Purchase Orders (tdpur4100m000)

1. Create a purchase order header with a purchase order type for return orders.
2. Define the **Original Document Type** field.
3. Define the **Original Document No** field.
4. Define the return reason for the return order in the **Return Reason** field. If the return order type is:
   - **Return Inventory**, the reason type must be **Return of Goods**.
   - **Return Rejects**, the reason type must be **Rejection of Goods**.
5. If you created a link between a return order and an original document number, you can click **Copy from Original Document** on the **Specific** menu. As a result, 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. If desired, you can change these lines.

If you created a link between a return order and an original document number, you can still manually add purchase order lines for return orders of the **Return Inventory** order type. For return orders of the **Return Rejects** order type, this is not allowed.

Step 2: Release Purchase Orders to Warehousing (tdpur4246m000)

After the purchase return order is approved, release the order to Warehouse Management. As a result, the purchase order status is **In Process** and the activity status in the Purchase Order Line Status (tdpur4534m000) session reads *Awaiting Shipment*.

Step 3: Generate Outbound Advice (whinh4201m000)

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

Step 4: Process Delivered Purchase Orders (tdpur4223m000)

After the shipping process is executed by Warehouse Management, the purchase order status still is **In Process**, but the activity status in the Purchase Order Line Status (tdpur4534m000) session reads *Process Purchase Orders*. As a result, you must process the return order in the Process Delivered Purchase Orders (tdpur4223m000) session.

Note

- If you want to notify a supplier about the return of the goods, you can add the Print Return Notes (tdpur4411m000) session as an activity to the order type in the Purchase Order Type - Activities (tdpur0560m000) session.
- If goods are returned on a direct delivery order, the steps related to the direct delivery procedure apply. For more information, refer to Direct delivery.

Consignment in Order Management

If you use consigned inventory, you can choose between the following setups:

- Extended consignment.
- Basic consignment.

Both setups can be used in Vendor managed inventory (VMI). For more information, refer to Vendor managed inventory.

Extended consignment

In an extended consignment setup, vendor managed inventory (VMI) settings are laid down in a terms and conditions agreement between business partners.

Therefore, if you want the item ownership to be consigned, in the Order Terms and Conditions (tctrm1130m000) session, set the **Payment** field to **Pay on Use** for a combination of item, business partner, and warehouse (Purchase) or **Ship-to Warehouse** (Sales).

If a (replenishment) order/schedule is created for the defined combination of item, business partner, and (ship to) warehouse, the **Payment** field on the order line/ schedule (line) is set to **Pay on Use**, as defaulted from the terms and conditions. Next, if consignment inventory is consumed, the consumption can be linked to an existing order/schedule.

As a result, for each consumption, the following is generated:

- **Purchase**
  A purchase payable receipt that is linked to an existing receipt in the Purchase Payable Receipts (tdpur4130m000) session, or the Purchase Payable Receipts for Schedules (tdpur3118m000) session.
- **Sales**
  A consumption line that is linked to an existing delivery in the Inventory Consumption - Lines (tdsls4640m000) session. After the consumption line is processed in the Process Inventory Consumptions (tdsls4290m000) session and invoicing is required, in the Sales Order Invoice Lines (tdsls4106m100) session, an invoice line linked to the sales order line is created for the consumption .

Extended consignment enables you to directly link the payment/invoicing for a consumption of consignment inventory to the replenishment order or schedule.

Note

If ERP LN cannot link the consumption of consigned inventory to an existing order or schedule, the following is applicable:

- **Purchase**
  A **Purchase Payment** order is automatically generated. If no receipt is available yet, based on the number group for warehouse receipts, a receipt is generated in Purchase Control and a purchase payable receipt is created.
- **Sales**
  A **Consumption** order is automatically generated based on the **Consignment Invoicing Order Type** field in the Sales Order Parameters (tdsls0100s400) session.

For more information on:

- Terms and conditions, refer to Overview of terms and conditions.
- Inventory ownership, refer to Inventory ownership in Warehouse Management.

Basic consignment

In a basic consignment setup, the order and schedule procedures are split up into a consignment replenishment part and a consignment payment/invoicing part.

You must define the following settings:

- **Purchase order procedure**
  In the Purchase Order Type - Activities (tdpur0694m000) session, create separate **Consignment Replenishment** and **Consignment Payment** order types and define the activities for both created order types. Next, enter the order types in the **Order Type for Consignment Replenishment** and **Order Type for Consignment Payment** fields of the Purchase Order Parameters (tdpur0100m400) session.
- **Purchase schedule procedure**
  Select the **Consigned** check box in the Purchase Contract Lines (tdpur3101m000) session.
- **Sales order procedure**
  In the Sales Order Type - Activities (tdsls0694m000) session, create separate **Consignment Replenishment** and **Consignment Invoicing** order types and define the activities for both created order types.

Consignment replenishment

If consignment inventory must be replenished, the following applies:

- **Purchase**
  You carry out the purchase order/schedule procedure up to the receipt of the goods. You need not pay the goods before you use them, so an invoice is not yet created.
- **Sales**
  You carry out the sales order procedure up to the delivery of the goods. You need not invoice the goods before the customer uses them, so an invoice is not yet created.

You can only use the consignment replenishment part of the order/schedule procedure to fill up the consignment inventory.

Consignment payment/invoicing

If consignment inventory is used, the following applies:

- **Purchase**
  If you use (a part of) the consignment inventory, you must pay for it. In this case, you go over the consignment payment part of the purchase order/schedule procedure. If you consume consignment inventory, a **Purchase Payment** order is automatically generated. For each consumption, a purchase payable receipt is linked to the purchase order line in the Purchase Payable Receipts (tdpur4130m000) session.

- **Sales**
  If (a part of) the consignment inventory is used, you must invoice the customer for it. You must manually create a **Consignment Invoicing** sales order.

Caution!

In a basic consignment setup, the payment/invoicing for a consumption of consignment inventory is not directly linked to the replenishment order or schedule.

For more information, refer to Consignment.

Chapter 7
Statistics

7

Statistics

The Statistics module enables you to obtain insight in the intake, turnover, and cancellation of orders and schedules. This module controls the activities that are required to define the desired format and layout for transferring historical data or actual data to statistical information. You can create user-defined statistical reports and displays to view this information. As a result, the Statistics module facilitates data analysis.

You can also use the Statistics module to enter budgets. The entered budgets are used to compare, both in print and display, the actual sales/purchases (statistics) with the estimated sales/purchases, as defined in the budgets.

Procedure for statistics

If you want to use statistics in a company, complete the following steps:

Step 1: Define master data for statistics

Before you can use statistics, you must select the following check boxes:

1. **Purchase/Sales Statistics (STA)** in the Implemented Software Components (tccom0100s000) session.
2. **Maintain Statistics** in the Purchase User Profiles (tdpur0143m000) session of Purchase Control.
3. **Maintain Statistics** in the Sales User Profiles (tdsls0139m000) session of Sales Control.

If no user profile (sales) or user profiles (purchase) is defined, a user is authorized to maintain the statistics.

Step 2: Define levels for statistics

When updating the statistics, the sales, purchase and commission/rebate history is read and compressed to data in statistics. The level of compression depends on the statistical levels, as selected in the Statistics Parameters (tdsta0100m000) session.

Before you can select the statistical levels in the parameters, you must first define the levels in the Statistics Level (tdsta0601m000) session. In this session, you must enter the levels on which you want to create/update the statistics for the level types **Purchase**, **Purchase Actual**, **Sales**, and **Sales Actual**. In the Statistics Level Attributes (tdsta0102m000) session, you can select the level attributes (fields) that must be included in the statistical reports and overviews for the level types.

The **Sales** and **Purchase** levels determine which attributes are used for compressing the history data. As a result, these statistical levels also determine the sort attributes you can select for the sort (see step 4). For example, if a sort is defined for both sales and purchase, you can select sales attributes and purchase attributes, such as sold-to BP (sales) and buy-from BP (purchase). However, the sales field must be present in the **Sales** level, and the purchase field must be present in the **Purchase** level before you can select it as a sort attribute.

The **Sales Actual** and **Purchase Actual** levels determine which history fields are overwritten by actual data if the **Actual Data** check box is selected when you update the statistics (see step 7). In this case, the attributes (fields) that are linked to these levels are not retrieved from the history data, but from the actual data for the item or the business partner.

If an attribute is not linked to a level, the statistics cannot be maintained or updated for that attribute. Data related to this attribute will be excluded from displays and reports.

Step 3: Define parameters for statistics

After the statistical levels are defined, you can link the levels to the relevant parameter, such as **Sales Intake Level**, **Purchase Turnover Level**, **Sales Actual Level**, and so on in the Statistics Parameters (tdsta0100m000) session. You must also select the dates based on which the statistics are updated for the levels.

In the Statistics Parameters (tdsta0100m000) session, you can also define:

- The way in which parent business partner data is updated when statistical data is updated.
- How the gross profit percentage is calculated and displayed in statistics.
- The various periods of a year, including the period number, start date, and end date that are used in statistics.

- Whether detailed discounts must be recorded for purchase discounts, sales discounts, rebates, and commissions.
- Standard item codes to store and retrieve statistical data.

Step 4: Define and activate sorts for statistics

In the Statistic Sorts (tdsta1600m000) session you must define sort codes, which are used to build a particular report or overview. You must indicate the type of statistical information (intake, turnover, cancellation) that must be kept for the sort and indicate whether budgets are allowed for the sort.

From this session, you can maintain the Statistics Sort Sequences (tdsta1101m000) session. In this session, you can select the sort attributes (fields) that are used to sort data in statistical reports and overviews.

Sort attributes:

- Identify specific sequences of a selection of the level attributes, as entered in the Statistics Level (tdsta0601m000) session and as selected in the Statistics Parameters (tdsta0100m000) session.
- Enable you to fine-tune the level attributes, which can be regarded as a pre-selection from the database, for each individual statistics overview that you intend to build.

After definining a sort, you must activate it before you can use it for a report or an overview. You can activate a sort directly in the Statistic Sorts (tdsta1600m000) session, or in the (De)activate Sorts (tdsta1200m000) session.

If the sort is set up for a budget, the sort need not be active to use it for a report or an overview. In addition, if you deactivate such a sort, the budget data is not deleted for the sort.

Step 5: Define budgets

Optionally, a company can create budgets to compare with actual results, or to use them as a basis for planning in the Enterprise Planning package.

You can use the Budgets (tdsta2603m000) session to enter, maintain, and delete budgets for an active sort, year, and period. However, this is not a mandatory step in the procedure.

If you create a new budget, you must first select a sort code. This choice will narrow down the data you can use in your budget. You can use the sort attributes as displayed in the Statistic Sorts (tdsta1600m000) session.

From this session, you can:

- Maintain the Absolute Figures (tdsta2100m000) session, in which you can create or display detailed numbers for the budget in absolute figures.

- Maintain the Budget Percentages (tdsta2104m000) session, in which you can create or display detailed numbers for the budget in terms of percentages.

If the **Detailed Discount Specification** check box is selected in the Statistics Parameters (tdsta0100m000) session, from the Absolute Figures (tdsta2100m000) session or the Budget Percentages (tdsta2104m000) session, you can start the Sort Budget Data by Discount Type (tdsta2105m000) session in which you can enter detailed discounts for sales and purchase discounts, for rebates, or for commissions.

Step 6: Define a layout for statistics

Before you can print or display statistical data, you must link a sort code to a layout code and you must define the layout for the data fields in the Statistics Layout (tdsta1610m000) session.

From this session, you can:

- Maintain the Statistics Layout Column (tdsta1114m000) session. In this session, you can enter and view the column content, which defines the body of the report and what exactly is detailed in the report. If no column content is defined for the layout code, you cannot print or display statistical results.
- Maintain the Statistics Layout Content (tdsta1111m000) session. In this session, you can define the type of report that is printed: different types of statistics on one line, or a fixed type of statistics for each line.
- Maintain the Statistics Layout Selection (tdsta1112m000) session. In this session, you can select the data that is used and taken into account in the report calculation.
- Maintain the Statistics Layout Print/Page (tdsta1113m000) session. In this session, you can select the data that is actually printed on the report.

Step 7: Update statistics

Use the Update Statistics (tdsta2250m000) session to create or update the statistical files based on the history or the actual data.

If you decide to do a full update, the statistics are fully updated. Except for the budget data, all current statistical data is cleared and new statistics are created based on the current (history) data. You can also update the statistics based on new (history) data that was not taken into account before when updating the statistics.

Step 8: Display/Print statistics

Use the Statistics by Layout / Sort (tdsta1615m000) session if you want to display the statistical results for a combination of layout code and sort code.

From this session, you can:

- View the data for the sort attributes (fields) that are linked to a combination of layout code and sort code in the Statistics Sort Data Selection (tdsta1501m000) session.
- View the statistical results for a combination of layout code and sort code in absolute figures in the Figures by Layout / Sort (tdsta2500m000) session. The figures that are displayed depend on the statistics type.
- View the statistical results for a combination of layout code and sort code in absolute figures in the Figures by Layout / Sort (tdsta2500m000) session. This session only displays the statistical results for the columns you entered on the **Columns** tab of the Statistics Layout (tdsta1610m000) session.
- Display the statistical results graphically.

Step 9: Print statistics

Use the Print Statistics (tdsta2400m000) session if you want to print the statistical results.

From this session, you can:

- View and maintain the data that is used and taken into account in the report calculation in the Statistics Layout Selection (tdsta1112m000) session.
- View and maintain the data that is printed on the report in the Statistics Layout Print/Page (tdsta1113m000) session.

Step 10: Archive and delete statistics

You can use the Archive/Delete Statistics (tdsta2250m100) session to transfer the statistics to an archiving file and/or to delete the statistics.

You can display the archived statistics and budgets under the company number as entered in the **Archiving Company** field of the Statistics Parameters (tdsta0100m000) session.

Chapter 8
Vendor Rating

8

Overview of vendor rating

Overview of vendor rating

If multiple purchase business partners are available for obtaining raw materials and supplies, you can pick and choose whom to give the business to. To make wise choices, having criteria to rate business partners and keep track of how they perform can aid in this process. The vendor rating procedure enables you to measure the performance of vendors based on a rating.

The vendor rating functionality contains both objective criteria and subjective criteria that can be used to calculate the vendor's rating. The objective criteria are ratings that are generated by ERP LN, since they only depend on present data and a weighting factor. The subjective criteria ratings depend on manually entered data. The overall vendor rating is calculated by ERP LN.

Before you can calculate and view vendor ratings, purchase orders must have been entered and processed.

Carrying out the vendor rating procedure results in ratings based on which you can decide whether or not to conduct transactions with a vendor.

To set up vendor ratings

Before you can use the vendor rating procedure, you must:

- Set the vendor rating parameters.
- Define objective scoring schemes.
- Define subjective criteria.
- Define subjective values.
- Define a classification scheme.

For more information, refer to *To set up vendor ratings (p. 8-2)* .

To calculate vendor ratings

After orders are processed and questionnaires are compiled, you can run the Update Vendor Rating (tdpur8850m000) session to calculate the vendor ratings.

In the Update Vendor Rating (tdpur8850m000) session, you can do a full update or a net update of the vendor rating.

For more information, refer to *To calculate vendor ratings (p. 8-4)* .

To delete vendor ratings

To remove vendor rating data, use the Delete Historical Ratings (tdpur8851m000). ERP LN deletes all vendor rating data up to and including the entered year or the period combination. The result is that all vendor rating data goes back to the same year or the same period combination.

To set up vendor ratings

To set up vendor ratings

Before you can use the vendor rating procedure, you must complete a number of steps.

Step 1: Business Partners (tccom4100s000)

Vendor rating is calculated for those business partners that have the **Vendor Rating** check box selected for the various business partner roles. You can select the **Vendor Rating** check boxes in the following business-partner role sub-sessions that you can start from the Business Partners (tccom4100s000) session:

- Buy-from Business Partners (tccom4120s000)
- Ship-from Business Partners (tccom4121s000)
- Invoice-from Business Partners (tccom4122s000)
- Pay-to Business Partners (tccom4124s000)

Step 2: Vendor Rating Parameters (tdpur0100m800)

Use this session to:

- Define the weightings for the objective criteria.
- Define the method to calculate the overall vendor rating, which can be **Moving Average**, or **Smoothing Factor**.
- Define the basis or value on which the weighting of the vendor rating criteria takes place.
- Define the period table that is used for vendor rating.

Step 3: Vendor Rating Objective Scoring Scheme (tdpur8195m000)

Use the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session to create the scheme of values for the objective criteria that are set in the Vendor Rating Parameters (tdpur0100m800) session. An objective criterion is a criterion for which the score is calculated directly from the data in the system.

You must only define the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session if the following check boxes are selected in the Vendor Rating Parameters (tdpur0100m800) session:

- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

If these check boxes are cleared in the Vendor Rating Parameters (tdpur0100m800) session, ERP LN rates the concerning objective values on a linear basis. In other words, if the objective scoring schemes are not used to convert objective values to rating percentages, a linear relationship exists between value and rating. As a result, ERP LN automatically calculates the rating for each objective criteria.

Step 4: Vendor Rating Subjective Criteria (tdpur8190m000)

If you want to use additional criteria to calculate vendor ratings besides the objective criteria defined in the Vendor Rating Parameters (tdpur0100m800) session, you must define subjective criteria in the Vendor Rating Subjective Criteria (tdpur8190m000) session. Subjective criteria are criteria that are based on user judgements from a questionnaire, which you can enter in the Questionnaire Results (tdpur8193m000) session.

Step 5: Vendor Rating Subjective Values (tdpur8192m000)

To use subjective criteria, you must specify values to give to vendors on the subjective criteria. You can specify these values in the Vendor Rating Subjective Values (tdpur8192m000) session.

Step 6: Vendor Classification Scheme (tdpur8194m000)

Once all the criteria are used to calculate and get an overall rating for a vendor, a classification scheme can equate the overall rating to a classification. Use the Vendor Classification Scheme (tdpur8194m000) session to specify a classification scheme.

Note

To calculate the vendor ratings, you must update the vendor ratings in the Update Vendor Rating (tdpur8850m000) session.

To calculate vendor ratings

To calculate vendor ratings

The calculation of vendor ratings takes place after purchase orders are created and processed. You can use objective and/or subjective criteria in the calculation. Objective information comes from processed orders and subjective criteria information is entered.

Before you start the calculation procedure, use the following sessions to enter subjective criteria information:

- **Vendor Rating Questionnaires (tdpur8454m000)**
  To assign subjective values to subjective criterions, you need your employees who work with your business partners to give feedback on how they rate them. You can print vendor rating questionnaires to give to employees to fill out. This information can be compiled and entered into ERP LN and used in the vendor rating calculation. The employees of your company can also enter the information directly in the Questionnaire Results (tdpur8193m000) session.
- **Questionnaire Results (tdpur8193m000)**
  Use this session to enter the vendor rating questionnaire results.

Note

You can use the Business Partners without Questionnaire (tdpur8452m000) session to print the business partners who do not have vendor rating questionnaire results for the defined year or the period combination.

To update vendor ratings

To calculate the vendor ratings after orders are processed and questionnaires are compiled, you must run the Update Vendor Rating (tdpur8850m000) session.

You can update the vendor ratings in the following ways:

- Net update.
- Full update.

Because the fully update process takes a lot of time, you are adviced to only do a full update of the vendor rating if:

- You changed the parameters in the Vendor Rating Parameters (tdpur0100m800) session.

- You no longer want to take into account the manual changes, which you can make in the following sessions:
  - Vendor Ratings by Period (tdpur8102m000)
  - Vendor Ratings by Criterion (tdpur8102m100)
  - Objective Ratings (tdpur8106m000)

Note

If you did not change parameters and also did not change the vendor ratings manually, the calculation of the vendor rating has the same result for a full update and a net update.

Net update of vendor ratings

To do a net update of the vendor ratings, clear the **Full Update** check box in the Update Vendor Rating (tdpur8850m000) session. As a result, only the purchase order lines that are newly processed in the Process Delivered Purchase Orders (tdpur4223m000) session and fall within the defined period, are taken into account. The calculation is as follows:

```
NR = ((OR * V) + (nRL * nVL)) / (V + nVL)
```

Legend

NR new rating
OR old rating
nRL rating of new purchase order line(s)
V value on which the old rating was based
nVL value of new purchase order line(s)

Full update of vendor ratings

To do a full update of the vendor ratings, select the **Full Update** check box in the Update Vendor Rating (tdpur8850m000) session. As a result, all purchase order lines that are processed in the Process Delivered Purchase Orders (tdpur4223m000) session and fall within the defined period, are taken into account in the calculation of vendor rating. So, ERP LN calculates totally new ratings that are fully based on the data in purchase order lines history.

If you do a full update of the vendor ratings, ERP LN completes the following calculation stages:

Step 1: To calculate actual weightings

For more information, refer to *To calculate actual weightings (p. 8-6)* .

Step 2: To calculate ratings for objective criteria

For more information, refer to *To calculate ratings for objective criteria (p. 8-9)* .

Step 3: To calculate ratings for subjective criteria

For more information, refer to *To calculate ratings for subjective criteria (p. 8-14)* .

Step 4: To update overall vendor rating

For more information, refer to *To update overall vendor rating (p. 8-18)* .

Note

You can use the following sessions to view the calculated vendor ratings and/or or manually modify the calculated vendor ratings:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)
- Graph Vendor Ratings (tdpur8701m000)

To calculate actual weightings

If you do a full update of the vendor ratings in the Update Vendor Rating (tdpur8850m000) session, the calculation of actual weightings is the first stage in the calculate/update vendor rating procedure.

If you rescale the criteria weightings in the Normalize Criteria Weightings (tdpur8852m000) session, you can choose to:

- Fully update the weightings.
- Recalculate the weighting for one subjective criterion.

After the rescale, the weightings represent a true percentage. So, weightings are not changed relative to other weightings.

Full update

When you recalculate all criteria weightings, the calculation is as follows:

Step 1: To sum the weightings

The weightings for all the objective criteria and the level 0 subjective criteria are summed.

Step 2: To recalculate objective and level zero subjective criteria

The following recalculation takes place for the objective criteria and level zero subjective criteria:

```
New weighting = (existing weighting/objective weightings
and level zero subjective weightings) * 100
```

Step 3: To calculate subjective weightings with level one or higher

The subjective weightings with level one or higher are calculated in the same way as the recalculation of one criterion, which is stated below.

Recalculation for one subjective criterion

When you recalculate the weightings for one criterion, the calculation is as follows:

```
New weighting = (current weighting/sum of all weightings)
* 100
```

If the selected subjective criterion has level one or higher, the following applies:

```
Sum of all weightings = sum of all the weightings whose
parent is the selected subjective criterion.
```

Example

The existing objective weightings and subjective weightings are:

Objective criteria	Weight-ing
Delivery time	60
Quality	60
Order confirmation	10

Level	Subjective criteria	Weight-ing
0	Customer service	40
1	Call handling	14
1	Product knowledge	6
0	Delivery service	30
1	Flexibility	25
1	Paperwork quality	15

Full update

1. Sum of all objective weightings and level 0 subjective weightings = 60 + 60 + 10 + 40 + 30 = 200.
2. The new weightings are:
   - **Delivery time**
     60/200 * 100 = 30%
   - **Quality**
     60/200 * 100 = 30%
   - **Order confirmation**
     10/200 * 100 = 5%
   - **Customer service**
     40/200 * 100 = 20%

- **Delivery service**
  30/200 * 100 = 15%

3. The subjective weightings of level one or higher are recalculated for customer service as stated below.

Recalculation for one criterion

Normalization of, for example, the weightings for customer service:

- Total of weightings = 14 + 6 = 20.
- New call handling weighting = (14/20) * 100 = 70%.
- New product knowledge weighting = (6/20) * 100 = 30%.

To calculate ratings for objective criteria

To calculate ratings for objective criteria

If you do a full update of the vendor ratings in the Update Vendor Rating (tdpur8850m000) session, the calculation of the ratings for the objective criteria is the second stage in the calculate/update vendor rating procedure.

ERP LN retrieves most of the data that is taken into account in the calculation of objective criteria ratings, from the Purchase Order Line History (tdpur4551m000) session. Only purchase orders that are processed in the Process Delivered Purchase Orders (tdpur4223m000) session and fall within the specified period are taken into account.

The procedure to calculate the objective criteria ratings, consists of the following steps:

Step 1: To calculate objective values per criterion

For more information, refer to *To calculate ratings for objective criteria (step 1) (p. 8-10)* .

Step 2: To convert objective values to ratings per criterion

For more information, refer to *To calculate ratings for objective criteria (step 2) (p. 8-11)* .

Step 3: To create a rating record for each purchase order line

For more information, refer to *To calculate ratings for objective criteria (step 3) (p. 8-13)* .

To calculate ratings for objective criteria (step 1)

The first step that ERP LN carries out in the calculate objective criteria ratings process, is the determination of objective values.

The values for the following objective criteria are calculated:

- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

Delivery Time

```
Actual Receipt Date  - Current Planned Delivery Date
```

Note

- The current planned delivery date is the highest of the delivery dates. As a result, this can be the planned delivery date or the confirmed delivery date.
- A negative delay means an early shipment

Delivery Quantity

```
((Approved Quantity + Rejected Quantity) / Ordered Quantity)
 * 100
```

Delivery Quality

```
(Approved Quantity / (Approved Quantity + Rejected
Quantity)) * 100
```

Order Confirmation

```
Order Confirmation Date - Purchase Order Entry Date (=
delay)
```

Cost Performance

```
(Purchase unit price / Average purchase price) * 100
```

To calculate ratings for objective criteria (step 2)

The second step that ERP LN carries out in the calculate objective criteria ratings process, is the conversion of the objective values to ratings.

ERP LN rates the objective values according to the settings of the following check boxes in the Vendor Rating Parameters (tdpur0100m800) session:

- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

If these check boxes are selected, ERP LN rates the concerning objective values based on an objective scoring scheme, as defined in the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session.

If these check boxes are cleared, ERP LN rates the concerning objective values on a linear basis.

Objective scoring scheme

You can assign scoring values to an objective criterion in the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session. You can link rating percentages to the scoring values.

ERP LN searches for an objective scoring scheme, which is used for the conversion of scoring values to rating percentages, in the following sequence:

1. ERP LN searches for an objective scoring scheme for the business partner/item combination.
2. If no scheme is present for the business partner/item combination, ERP LN searches for an objective scoring scheme for the business partner.
3. If no scheme is present for the business partner, ERP LN searches for an objective scheme for the item.
4. If no scheme is present for the item, ERP LN gets the default objective scoring scheme of the objective criterion.

Example 1

Criterion Type	**Delivery**	
Unit	**Days**	
Value	**Percent-age**	**Values for which the percentage applies**

-5	10%	<= -5
-1	50%	-4 to -1
0	100%	0
5	40%	1 to 5
100	30%	6 to 100

If the order is 6 days late, the business partner receives a rating of 30% for the purchase order line.

Example 2

Criterion Type	**Quality**	
Value	**Percentage**	**Values for which the percentage applies**
20%	0%	0% - 20%
80%	50%	21% - 80%
90%	75%	81% - 90%
100%	100%	91% - 100%

If 25% of the delivered items are rejected and 75% is approved, the business partner receives a rating of 50% for the purchase order line.

After this conversion, ERP LN carries out the third step in the calculate-objective-criteria-ratings procedure: the creation of a rating record per purchase order line in the Objective Ratings (tdpur8106m000) session.

Linear basis

If the objective-scoring schemes are not used to convert objective values to rating percentages, a linear relationship exists between value and rating. As a result, ERP LN calculates the rating for each objective criteria as stated below.

- **Delivery Time**
  ((Receipt date - current planned delivery date) / item lead time) * 100
- **Delivery Quantity**
  (Approved quantity / ordered quantity) * 100
- **Delivery Quality**
  (Approved quantity / (approved quantity + rejected quantity)) * 100
- **Order Confirmation**
  ((Order confirmation date - order date) / (planned delivery date - order date)) * 100
- **Cost Performance**
  (Purchase price / average purchase price) * 100

Note

- If the average purchase price is 0, the cost performance rating will be 0.
- If any of the ratings above is greater than 100, then rating = 200 - rating.
- If any of the ratings above is smaller than 0, then rating = 0.

To calculate ratings for objective criteria (step 3)

The third step that ERP LN carries out in the calculate objective criteria ratings process, is the creation of rating records for each purchase order line in the Objective Ratings (tdpur8106m000) session.

In the Objective Ratings (tdpur8106m000) session, the ratings for all objective criteria are displayed. Also, the overall rating for the concerned purchase order line is displayed.

Calculation of overall rating purchase order line

The overall rating for the purchase order line is calculated as follows:

```
Overall rating purchase order line = sum (objective rating
 * weighting)
```

ERP LN retrieves the weightings of the objective criteria from the Vendor Rating Parameters (tdpur0100m800) session. The weightings are recalculated to true percentages, which are taken into account.

Calculation of new objective criterion rating

Every time you add a new line, ERP LN automatically updates the objective criteria ratings per business partner/criterion combination in the following sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

The new rating is the running average, which is calculated as follows:

```
NR = ((ER * EV) + (R * V)) / (EV + V)
```

Legend

NR Newly calculated objective criterion rating
ER Rating for all existing purchase order lines of the purchase order, excluding the newly added line
EV Total value of all existing purchase order lines of the purchase order, excluding the newly added line
R Rating for the newly added purchase order line
V Value of the newly added purchase order line

Note

The value can be of the following types, according to the setting of the **Weighting Method** field in the Vendor Rating Parameters (tdpur0100m800) session:

- **Turnover**
- **Piece Count**
- **Order Lines**

Update of total values

The total values (also called: running totals) of the three above mentioned value types, are also automatically updated when you add an order line. The total values are updated by business partner in the following sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

The total values of all three value types are always updated, regardless of the used weighting methods. So, if you have a hundred business partners in a specific period, three hundred running totals must be updated.

Note

Subjective criteria are not taken into account in the calculation of the objective criteria ratings and the overall rating per purchase order line. So, the overall vendor rating for each business partner per period can only be calculated after the subjective criteria ratings are also calculated.

To calculate ratings for subjective criteria

If you do a full update of the vendor ratings in the Update Vendor Rating (tdpur8850m000) session, the calculation of the ratings for the subjective criteria is the third stage in the vendor rating calculation procedure.

ERP LN completes the following steps:

1. Retrieves the subjective values per business partner from the Questionnaire Results (tdpur8193m000) session.
2. Assigns the percentage values, which are stated in the Vendor Rating Subjective Values (tdpur8192m000) session, to the corresponding subjective values.
3. Calculates the average rating for each subjective criterion per business partner.

The overall rating of a business partner/subjective criterion combination is calculated as follows:

```
Overall rating per criterion = SUM / OCC
```

Legend

SUM All percentage values that are assigned to one business partner/subjective criterion combination.

OCC The number of times that percentage values are assigned for the business partner/subjective criterion combination. A not applicable value is not taken into account.

Example 1

A business partner is rated on two subjective criteria by several employees:

- CS = Customer service
- DS = Delivery service

Subjective Criterion	Subjective Value	% value	Employee
CS	Average	50	Arthur
DS	Excellent	80	Arthur
CS	Good	60	Bob
DS	Good	60	Bob
CS	Poor	40	Carol
DS	Not applicable	**	Carol

The overall ratings for the business partner/subjective criterion combination are:

- CS = (50 + 60 + 40) / 3 = 50%
- DS = (80 + 60) / 2 = 70%

After the calculation, ERP LN writes the ratings to the following sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

Example 2

The same example is used as stated above, but this time the subjective criterion CS contains three subcriteria. The subcriteria have the following weightings:

Subcriteria	Weighting
Flexibility	0.4
Call Handling	0.2
Support	0.4

The following percentage values are assigned:

Subjective Criterion	Subjective Value	% Value	Employee
Flexibility	Average	50	Arthur
Call Handling	Excellent	80	Arthur
Support	Poor	40	Arthur
DS	Excellent	80	Arthur
Flexibility	Good	60	Bob
Call Handling	Average	50	Bob
Support	Good	60	Bob
DS	Good	60	Bob
Flexibility	Poor	40	Carol
Call Handling	Excellent	80	Carol
Support	(not appl.)	0	Carol
DS	(not appl.)	0	Carol

1. **To calculate the overall ratings**
   ERP LN calculates the overall ratings for the business partner/subjective criterion combination.
   - Flexibility = (50+60+40)/3 = 50%
   - Call Handling = (80+50+80)/3 = 70%
   - Support = (40+60)/2 = 50%
   - DS = (80+60)/2 = 70%
2. **To calculate the rating of the parent subjective criteria**
   Parent criteria rating = sum (child criteria % values * weightings)
   - Flexibility = 50% * 0.4 = 20
   - Call handling = 70% * 0.2 = 14
   - Support = 50% * 0.4 = 20
   - CS rating = 20 + 14 + 20 = 54%

3. **To write the ratings**
   After the calculation, ERP LN writes the ratings to the following sessions:
   - Vendor Ratings by Period (tdpur8102m000)
   - Vendor Ratings by Criterion (tdpur8102m100)

To update overall vendor rating

To update overall vendor rating

If you do a full update of the vendor ratings in the Update Vendor Rating (tdpur8850m000) session, the calculation of the overall vendor rating for each business partner is the fourth stage in the vendor rating calculation procedure.

The following methods, which you specify in the **Methods/Factors** field of the Vendor Rating Parameters (tdpur0100m800) session, are used to calculate the overall vendor ratings:

- **Moving Average**
  For more information, refer to *Moving average (p. 8-19)* .
- **Smoothing Factor**
  For more information, refer to *Smoothing factor (p. 8-20)* .

The overall vendor rating is calculated by the Update Vendor Rating (tdpur8850m000) session and displayed in the Vendor Ratings by Period (tdpur8102m000) session and the Vendor Ratings by Criterion (tdpur8102m100) session.

Before ERP LN calculates the overall vendor rating, the period rating for the newest business partner/period combination is calculated. ERP LN calculates the period rating for the business partner/period combination as follows:

```
Period rating = sum (CR * AW)
```

Legend

CR Both the objective ratings and the subjective ratings for the newest business partner/period combination are taken into account. The objective ratings are retrieved from the Objective Ratings (tdpur8106m000) session and the subjective ratings from the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions.

AW The actual weightings are calculated in the first stage of the calculate/update vendor rating procedure. The objective criteria weightings are retrieved from the Vendor Rating Parameters (tdpur0100m800) session and the subjective criteria weightings from the Vendor Rating Subjective Criteria (tdpur8190m000) session.

Example

The following criteria apply to a business partner in the newest period:

Criterion	Rating	Actual Weighting
Delivery time	90	30%
Quality	80	40%
Customer Service	50	20%
Delivery Service	70	10%

The period rating for this business partner/period combination is calculated as follows:

```
Overal rating = (90 * 30%) + (80 * 40%) + (50 * 20%) +
                (70 * 10%) = 76%
```

ERP LN writes the results of this calculation to the following sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

In this case the **Criteria Type** field and the **Criteria** field are empty in the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions to make clear that the displayed vendor rating is the overall rating for the business partner/period combination.

Moving average

One of the two methods to calculate the overall vendor ratings is **Moving Average**.

If the method is **Moving Average**, you must define the number of periods that are taken into account in the **Moving Average Periods** field of the Vendor Rating Parameters (tdpur0100m800) session.

ERP LN calculates the overall vendor rating for the defined number of periods for each business partner as follows:

```
New overall vendor rating = sum (PR * PV) / sum (PV)
```

Legend

PR The period rating per business partner/period combination.
PV The total value of the period.

ERP LN retrieves the value type that is taken into account, from the **Weighting Method** field of the Vendor Rating Parameters (tdpur0100m800) session.

Example

- The period rating that is calculated for the newest period is 85%.
- The value for the newest period is 1000 pieces.
- The number of **Moving Average Periods** is set to three.
- The previous two period ratings were as follows:

Period rating	**Value period 1**
70%	2000
-	**Value period 2**
80%	1500

New overall vendor rating:

```
(85 * 1000) + (70 * 2000) + (80 * 1500)) / (1000 + 2000 +
1500) = 77%
```

ERP LN writes the result of this calculation to the Vendor Ratings by Period (tdpur8102m000) and the Vendor Ratings by Criterion (tdpur8102m100) sessions.

Smoothing factor

One of the two methods to calculate the overall vendor ratings is **Smoothing Factor**.

If the method is **Smoothing Factor**, you must define the factor in the **Smoothing Factor** field of the Vendor Rating Parameters (tdpur0100m800) session.

ERP LN calculates the overall vendor rating per business partner as follows:

```
New overall vendor rating =

(OR * OV * (1 - F)) + (PR * NV * F) /
(OV * (1 - F)) + (NV * F)
```

Legend

OR The existing overall vendor rating of the business partner.
OV The value on which the old rating was based.
NV The total value of the period. The value type is retrieved from the **Weighting Method** field of the Vendor Rating Parameters (tdpur0100m800) session.
F Smoothing factor that is defined in the Vendor Rating Parameters (tdpur0100m800) session.
PR The vendor rating for the newest business partner/period combination.

Example

- The existing overall vendor rating is 70%.
- The old value on which the existing rating is based is 8000 pieces.
- The **Smoothing Factor** is set to 0.8.
- The new value for the new period is 1000 pieces.
- The period rating calculated for the newest period is 85%.

New overall vendor rating:

```
(70 * 8000 * (1 - 0.8)) + (85 * 1000 * 0.8) / (8000 * (1 -
 0.8)) + (1000 * 0.8) = 75%
```

Appendix A Glossary

A

acceptance rule

If an approval rule is based on acceptance rules, ERP LN automatically approves a purchase order that meets a valid rule. If you define approval rules based on acceptance, you define for what combination of data elements you want ERP LN to approve the purchase order.

activity

A step that you must carry out for the purchase/sales order type. An activity represents the sessions or the manual action that you must carry our for the purchase/sales order type.

additional costs

Charges for extra services, such as extra packaging, insurance, and so on. Additional costs are added to the freight costs of a shipment, load, or a freight order cluster. They are levied for shipment lines or freight order cluster lines, which can be invoiced to the customer. This depends on the agreements made with the business partner.

advance shipping notice

A form of preinvoicing. The customer receives an advance notification of details of a shipment that is on its way to the customer.

Acronym: ASN

approval rule

A combination of data elements, such as buy-from business partner, buyer, planner, effective date, expiry date, and amount, based on which ERP LN approves purchase orders. The approval rules, on their turn, are based on acceptance rules or exception rules.

approved

The requisition status when an approver approves the requisition, or requisition line.

An approved requisition can be resubmitted for further approval, or it can be converted.

approved source list

A list of either buy-from business partners approved to deliver certain items, or items for which a certain buy-from business partner is approved.

ASN

See: *advance shipping notice (p. A-1)*

back order

An unfilled customer order, or partial delivery at a later date. A demand for an item whose inventory is insufficient to satisfy demand.

budget

A plan that includes the budgeted quantities and/or amounts by period for the sorts selected; the budgeted or expected sales or purchase figures.

business partner

A party with whom you carry out business transactions, for example, a customer or a supplier. You can also define departments within your organization that act as customers or suppliers to your own department as business partners.

The business partner definition includes:

- The organization's name and main address.
- The language and currency used.
- Taxation and legal identification data.

You address the business partner in the person of the business partner's contact. The business-partner status determines if you can carry out transactions. The transactions type (sales orders, invoices, payments, shipments) is defined by the business partner's role.

buyer

The employee of your company who is the contact to the concerned buy-from business partner. The buyer is also known as the purchasing agent.

canceled

A requisition with the **Created**, **Modified**, or **Rejected** status can be canceled by the requester. A canceled requisition cannot be changed.

carrier

An organization that provides transport services. You can link a default carrier to both ship-to and ship-from business partners. In addition, you can print sales and purchase orders on a packing list, sorted by carrier.

For ordering and invoicing, you must define a carrier as a business partner.

Synonym: forwarding agent, Logistics Service Provider (LSP)

carrier

The company responsible for the transportation of goods to the ship-to business partner.

carrier rate book

A freight rate book where you can maintain freight agreements with carriers.

claim note

The notes printed to notify the buy-from business partner if the actual delivered quantity is less than the quantity on the packing slip

client rate book

A freight rate book where you can maintain freight agreements with business partners.

clustering

Grouping several schedules lines to send the lines in one purchase release.

For clustering, first the next schedule issue date, according to the issue pattern, is determined. Next, the schedule lines are clustered based on the segment time unit, and the segment length, derived from the segment set.

Note
Clustering only applies to non-referenced schedules.

commingle

To group a number of purchase orders that originate from different sources, into a single purchase order. Commingling reduces the number of purchase orders and enables you to obtain the best available prices and discounts.

consigned

A type of ownership behavior pertaining to goods in inventory or on order.

If you are a customer, consigned goods are goods delivered by the supplier that you do not own and for which you have not paid. You become the owner, and payment is due, when you use or sell the goods, or after a given number of days after you receive the goods.

If you are a supplier, consigned goods are goods that you delivered to your customer, but the customer will not take ownership or pay until he uses or sells the goods, or until a given period of time after receipt of the goods has passed.

The period of time between the receipt of the goods and the date on which the customer becomes the owner, and payment is due, is laid down in the contract drawn up between the supplier and the customer.

See also: ownership

Synonym: Pay on Use

consignment inventory

The goods owned by a third party and that are stored in a warehouse belonging to another party.

Two types of consignment inventory exist:

- **Owned consignment inventory**
  Goods your company owns and stores in a customer's warehouse without receiving payment until the goods are used or sold. You do not register the goods as consignment inventory, because the goods are still part of your inventory.
- **Not-owned consignment inventory**
  Goods a supplier owns, but that are stored in your warehouse without being paid for until the goods are used or sold. You register the goods as consignment inventory.

consumption

The issue from the warehouse of consigned items by or on behalf of the customer. The customer's purpose is to use these items for sale, production, and so on. After the items are issued, the customer becomes the owner of the items and the customer must pay the supplier.

converted

When the requisition is approved and a conversion type is linked to it, this status is assigned during the conversion process.

cost item

An administrative item that is used to post extra costs to an order. Extra costs are, for example, accounting expenses, clearance charges, design costs, and freight expenses.

Cost items are not used for production and cannot be held in inventory. They are also referred to as expense items.

cost sets

The code under which a number of additional costs can be stored. Cost sets can be linked to customers or price lists and, via these, to orders.

Created

The status assigned to the purchase requisition when the requester enters and saves the purchase requisition.

cross-docking

The process by which inbound goods are immediately taken from the receipt location to the staging location for issue. For example, this process is used to fulfill an existing sales order for which no inventory is available.

ERP LN distinguishes the following three types of cross-docking:

- **Static**
  To initiate this type of cross-docking, you must generate a purchase order from a sales order in Order Management.
- **Dynamic**
  This type of cross-docking, available in Warehouse Management, can be:
  - Based on inventory shortages.
  - Defined explicitly during receipt of goods.
  - Created on an ad hoc basis.
- **Direct Material Supply**
  You can use this type of cross-docking, available in Warehouse Management, to meet demand in a cluster of warehouses, and is based on:
  - Receipts
  - Inventory on hand

Note

You can maintain cross-dock orders that originate from Order Management in the same way as cross-dock orders created in Warehouse Management, with the exception of the sales order/purchase order link, which you cannot change.

See: direct material supply

delivery contract

A list of time-phased delivery, derived from a contract and converted to purchase orders. A delivery contract is not a real schedule, but a schedule solution to generate purchase orders in time.

Example

Contract line	Delivery contract	Purchase order (PO)
100 pieces (pcs)	2000/12/01 20 pcs	PO1 2000/12/01 20 pcs
-	2000/02/08 25 pcs	PO2 2000/02/08 25 pcs
-	2000/12/15 40 pcs	PO3 2000/12/15 40 pcs
-	2000/12/22 15 pcs	PO4 2000/12/22 15 pcs

direct delivery

The process in which a seller orders goods from a buy-from business partner, who must also deliver the goods directly to the sold-to business partner. By means of a purchase order that is linked to a sales order or a service order, the buy-from business partner delivers the goods directly to the sold-to business partner. The goods are not delivered from your own warehouse, so Warehouse Management is not involved.

A seller can decide for a direct delivery because:

- There is a shortage of available stock.
- The ordered quantity cannot be delivered in time.
- The ordered quantity cannot be transported by your company.
- Costs and time are saved.

discount schedule

A schedule used to calculate discounts for an item. The discounts defined in a discount schedule are expressed as a percentage or an amount and are subject to a minimum or maximum quantity or value.

effectivity period

The period of time defined by the effective date and expiry date in which an agreement is valid.

electronic data interchange

Way to exchange information with your business partners by using electronic mail. Information include catalogs, sales and purchase orders, and all other types of information necessary to carry out business transactions.

equipment item

Reusable items used to produce or to ship goods for a project. Equipment is not consumed while the project is carried out. Equipment can be internally owned or externally rented. Equipment items can range from tools such as electric drills and wheelbarrows, to machines, large cranes, trucks, tug boats, and so on.

exception rule

If an approval rule is based on exception rules, ERP LN automatically approves a purchase order that does not meet a valid rule. If you define approval rules based on exception, you define for what combination of data elements you do not want ERP LN to approve the purchase order.

forwarding agent

See: *carrier (p. A-3)*

freight order

A commission to transport a particular number of goods. A freight order includes an order header and one or more order lines.

A freight order header includes some general information, such as the delivery date and the name and address of the customer who is to receive the goods listed on the freight order.

A freight order line includes an item to be transported and some details about the item, such as the quantity and the dimensions.

generic item

An item that exists in multiple product variants. Before any manufacturing activities are performed on a generic item, the item must be configured to determine the desired product variant.

Example

Generic item: electric drill

Options:

- 3 power sources (batteries, 12 V or 220 V)
- 2 colors (blue, gray).

A total of 6 product variants can be produced with these options.

inventory commitment

The reservation of inventory for an order without taking into account the physical storage of the goods within the warehouse. Previously referred to as *hard allocation*.

item

In ERP LN, the raw materials, subassemblies, finished products, and tools that can be purchased, stored, manufactured, sold, and so on.

An item can also represent a set of items handled as one (kit), or exist in multiple product variants (generic item).

You can also define nonphysical items, which are not held in inventory but can be used to post costs or to invoice services to customers. Examples of nonphysical items:

- Cost items (for example, electricity)
- Service items
- Subcontracting items
- List items (menus/options)

layout code

An identifying code and description of the layout properties of a report, such as paper size, font, range of data, column headings, and data.

level attribute

A data field whose information is updated and set aside for statistics overviews. It can be regarded as a pre-selection of statistics information, which can be fine-tuned later by means of sorts.

list item

A type of item that consists of multiple components. The components can also be managed and ordered separately. The type of list item (kit, menu, options, or accessories) indicates how the components are related.

List items are used to speed up the order-entry process. The order lines for a list item can contain main items or components.

logistic agreements

Conditions that must be formally agreed upon between a supplier and a customer regarding logistic data, such as:

- Delivery pattern.
- Frozen periods.
- Sourcing percentage.
- Ship-from business partner.
- Inspection.
- Schedule release type.
- Carrier.

Logistics Service Provider (LSP)

See: *carrier (p. A-3)*

maintenance activity

The smallest unit of work that form the base for all maintenance to be carried out.

manufacturer part number (MPN)

The unique identification of a manufacturer's item code, which is used in the item ordering and identification process.

modified

After a requisition is rejected, it can be modified by changing header or line information. The modified requisition can then be resubmitted for approval.

moving-average unit cost (MAUC)

An inventory valuation method for accounting purposes.

The MAUC is the average value for each unit of the current inventory. For each new receipt the MAUC is updated.

MPN set

A set of manufacturer part numbers (MPNs) that belongs to a purchase order line or a purchase schedule line.

normal contract

A customer-oriented contract, agreed upon by suppliers and customers, that is used to record specific agreements. A normal contract is usually valid for approximately one year.

A normal contract cannot be activated if another active contract exists for the same business partner in a specific period.

objective criterion

A criterion for which the score is calculated directly from the data in the system.

The following objective criteria are available:

- **Delivery**
- **Quality**
- **Quantity**
- **Cost Performance**
- **Order Confirmation**
- **Period Rating**

order date

The date on which the order is manually entered into the system or is automatically generated.

packing slip

An order document that shows in detail the contents of a particular package for shipment. The details include a description of the items, the shippers or customers item number, the quantity shipped, and the inventory unit of the shipped items.

Pay on Use

See: *consigned (p. A-4)*

period table

A table that consists of any number of time units, for example, months or weeks.

A period is used to define the time horizon during which, for example, a schedule is valid.

planned delivery date

The planned date on which the items on the order/schedule line must be delivered. The planned delivery date cannot occur before the order date/schedule generation date.

planned inventory transactions

The expected changes in the inventory levels due to planned orders for items.

Planned load date

The date and time loading is planned at the ship-from location.

position number of an order line

The number used to identify the position of the order line on the sales or purchase order.

potential back order

A back order that must be manually confirmed and that can be modified by the user.

The following can result in a potential back order:

- The received quantity of the purchase order line is less than the ordered quantity at the time of delivery date.
- The received quantity 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.

priority

An option that enables you to add a certain rating for suppliers. If the priority is defined, the item/supplier combinations are sorted according to descending priority.

purchase contract

Purchase contracts are used to register specific agreements with a buy-from business partner that concern the delivery of specific goods.

A contract is comprised of:

- A purchase contract header with general business partner data, and optionally, a linked terms and conditions agreement.
- One or more purchase contract lines with price/discount agreements and quantity information that apply to an item or price group.

purchase contract lines

The agreement with a supplier about a certain item. Purchase contract lines contain both commercial and logistic conditions related to the supply of one item, during a period of time.

purchase contract price revision

A date-controlled agreement for price and discount elements on the purchase contract line. Price revisions enable you to have several prices over time. An active revision is valid from its effective date up to the effective date of the next revision, or the expiry date of the purchase contract line.

purchase invoice

Purchased goods that are received, inspected (if required), and posted to inventory are placed on a purchase invoice. You must pay the buy-from business partner for the quantity on the invoice.

The buy-from business partner, order, item data, prices, and discounts are printed on the invoice. You can compare the data on the invoice to the invoice you receive from the buy-from business partner.

purchase office for requisitions

A department, clearly identified in the company business model, that manages business partner purchase relationships. This department identifies the location from which a purchase requisition is initiated. Purchase office information is used to convert the requisition to a purchase order or request-for-quotation (RFQ).

purchase order

The order that indicates which items are delivered by a buy-from business partner according to certain terms and conditions.

A purchase order contains:

- A header with general order data, buy-from business partner data, terms of payment, and terms of delivery.
- One or more order lines with more detailed information about the actual items to be delivered.

purchase order advice

A recommendation based on the economic stock and the reorder point of an item. Purchase order advices must be confirmed and transferred to convert them into actual purchase orders.

purchase order header

The general information of a purchase order.

A purchase order header contains, among other things:

- General order data.
- General buy-from business partner data.
- Terms of payment.
- Terms of delivery.

purchase order type

The order type determines which sessions are part of the order procedure and how and in which sequence this procedure is executed.

purchase payable receipt

Indicates when billing is applicable for purchased goods and contains the payable and invoicing details for an order or schedule. By means of purchase payable receipts, updates to and from the Accounts Payable module are handled.

If the payment for the purchased goods is set to **Pay on Use**, the payable receipt is generated when inventory related to a purchase order or a purchase schedule is consumed, that is, issued from the warehouse. If the payment is set to **Pay on Receipt**, the payable receipt is generated the moment the purchased goods are received.

purchase requisition

A request by a user to obtain authorization for the procurement of goods and services.

A purchase requisition includes both standard and nonstandard material, cost, or service requirements. Information on a purchase requisition includes name, department, location, purchase office, and approver in the header section. The requisition line detail includes item, supplier, quantity, price, and amount.

Purchase requisitions can only be converted into:

- Purchase orders.
- Requests-for-quotation (RFQ).

purchase schedule

A timetable of planned supply of materials. Purchase schedules support long-term purchasing with frequent deliveries and are usually backed by a purchase contract. All requirements for the same item, buy-from business partner, ship-from business partner, purchase office, and warehouse are stored in one schedule.

receipt

The physical acceptance of an item into a warehouse. A receipt registers: received quantity, receipt date, packing-slip data, inspection data, and so on.

receipt number

The sequence number assigned to every individual receipt of goods.

rejected

The status of the requisition when an approver does not accept a submitted requisition. A purchase requisition can be rejected if it has the status **Submitted**, or **Approved**.

reject location

A location in a warehouse in which the rejected goods are stored.

From a reject location you can:

- Accept the rejected goods
- Return the rejected goods to the buy-from business partner
- Destroy the rejected goods

reminder

A purchase order document that urges the supplier to deliver the ordered goods under the conditions agreed upon.

request-for-quotation (RFQ)

A purchasing document that is used as a request to suppliers to submit their terms (price, discount, delivery time, terms of payment, terms of delivery, and so on) for delivering a (quantity of a) product.

You can send the request to a number of suppliers. The supplier, in turn, can submit quotations for the specified items.

You can enter the quotation results into the system. This enables you to compare the prices and discounts that are offered by different suppliers.

An accepted quotation can be copied to a contract, an order, or a price book.

return order

A purchase or sales order on which returned shipments are reported. A return order can only contain negative amounts.

RFQ criterion

A subjective criterion used to determine which quotation is accepted. You can link RFQ criterions to RFQ criterion sets.

self-billing

The periodic creation, matching, and approval of invoices based on receipts or consumption of goods by an agreement between business partners. The sold-to business partner pays for the goods without having to wait for an invoice form the buy-from business partner.

sequence number

The number that identifies a data record or a step in a sequence of activities. Sequence numbers are used in a large variety of contexts. Usually ERP LN generates the sequence number for the next item or step. Depending on the context, you can overwrite this number. You can sometimes influence the numbering by setting the corresponding parameters.

service item

A standard item that represents services instead of goods.

sort code

An identifying code and description of a set of data fields grouped in a sequence. These data fields are used in statistics reports and displays. When a report or display is generated, the fields are filled with data from the database and displayed in the report or display according to the sequence defined in the sort code.

sourcing percentage

A percentage used to calculate how orders are divided among suppliers.

sourcing rule

The planning system that contains the rules for allocating demand based on a combination of supplier priority and percentage allocation to specific suppliers.

special contract

A customer-oriented contract, agreed upon by buy-from business partners and sold-to business partners that is used to record specific agreements for specific projects. A special contract can also be a promotional contract.

For special contracts, an overlap in effectivity periods is allowed for the same item/business partner combination.

subcontracted service

The auxiliary item code for recording subcontracting operations. Items of this type also belong to the administrative items. These items are non-physical items which are used to record the subcontracting costs.

subcontracting

Hiring certain services from another party, for example the execution of a part of a project or an operation of a production order.

Subcontracting is considered as purchasing a subcontracting item.

subcontractor

A third-party service provider. The subcontractor is referred to as buy-from business partner, because he is considered to be a business partner from whom services are bought.

subjective criterion

A criterion whose rating is based on user judgements that are entered in a questionnaire.

You can classify subjective criteria in a tree structure.

Subjective criteria are taken into account in vendor rating.

submitted

The requisition status when the requester submits a created requisition to a valid approver.

supplier price book

A standard purchase price book that is used to store:

- The default purchase price of an item by buy-from business partner, ship-from business partner, or both.
- The prices copied from supplier quotations.
- The default prices of items.

terms and conditions agreement

An agreement between business partners about the sale, purchase, or transfer of goods, in which you can define detailed terms and conditions about orders, planning, logistics, invoicing, and allocation/hard pegging, and define the search mechanism to retrieve the correct terms and conditions.

The agreement includes the following:

- A header with the type of agreement and the business partner(s).
- Search levels with a search priority and a selection of search attributes (fields) and linked terms and conditions groups.
- One or more lines with the values for the search levels' search attributes.
- Terms and conditions groups with detailed terms and conditions about orders, planning, logistics, invoicing, and allocation/hard pegging for the lines.

Unload date

The date and time unloading takes place at the ship-to location.

user profile (sales)

The default data that is recorded by the user and influences the creation of sales quotations, sales contracts, sales orders, and sales schedules. This data determines the method of order entry, default values during order input, and so on.

user profiles (purchase)

The default data that is recorded by the user and influences the creation of purchase requisitions, requests-for-quotations, purchase contracts, purchase orders, purchase schedules, purchase releases, call-offs, and approval rules. This data determines the method of order entry, default values during order input, and so on.

vendor managed inventory (VMI)

Vendor managed inventory is an inventory management method according to which the supplier usually manages the inventory of his customer or subcontractor. Sometimes, the supplier manages the supply planning as well. Alternatively, the customer manages the inventory but the supplier is responsible for supply planning. Inventory management or inventory planning can also be subcontracted to a logistics service provider (LSP).

The supplier or the customer may own the inventory delivered by the supplier. Often, the ownership of the inventory changes from the supplier to the customer when the customer consumes the inventory, but other ownership transfer moments occur, which are laid down by contract.

Vendor-managed inventory reduces internal costs associated with planning and procuring materials and enables the vendor to better manage his inventory through higher visibility to the supply chain.

vendor rating

A classification of a supplier based on certain criteria. These criteria can be based on deliveries (on time, sufficient quality, and so on) as well as other factors.

warehouse

A place for storing goods. For each warehouse, you can enter address data and data relating to its type.

warehousing order type

A code that identifies the type of a warehousing order. The default warehousing procedure that you link to a warehousing order type determines how the warehousing orders to which the order type is allocated are processed in the warehouse, although you can modify the default procedure for individual warehousing orders or order lines.

warehousing procedure

A procedure to handle warehousing orders and handling units. A warehousing procedure comprises various steps, also called activities, that a warehousing order or a handling unit must take to be received, stored, inspected, or issued. A warehousing procedure is linked to a warehousing order type, which in turn is allocated to warehousing orders.

work order

Orders that are used to plan, carry out, and control all maintenance on items in a maintenance shop or in a repair shop. A work order consists of at least one work order header, and can have a number of activities that must be carried out on a repairable service item.

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