



Infor LN User Guide for Material Pricing

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About this document

This document explains the process to set up, retrieve, and update [material prices](#) for various sales and purchase documents, such as sales quotations, sales orders, sales contracts, sales schedules, requests for quotation, purchase orders, purchase contracts, and purchase schedules.

Objectives

This document describes how to set up and use [material prices](#) in LN.

Assumed knowledge

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

Document summary

This table shows the chapters of this guide:

Chapter number	Chapter title	Content
Chapter 1	Introduction and overview	Introduction to and overview of material pricing
Chapter 2	Setup	Setup of material price master data and generation of item material content
Chapter 3	Retrieval	General logic for retrieving material price information
Chapter 4	Sales quotations	Material prices and sales quotations
Chapter 5	Sales orders	Material prices and sales orders
Chapter 6	Sales contracts	Material prices and sales contracts
Chapter 7	Sales schedules	Material prices and sales schedules
Chapter 8	Requests for quotation	Material prices and requests for quotation (RFQs)
Chapter 9	Purchase orders	Material prices and purchase orders
Chapter 10	Purchase contracts	Material prices and purchase contracts
Chapter 11	Purchase schedules	Material prices and purchase schedules
Chapter 12	Update	General logic for updating material price information

References

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

- ***User Guide for Sales Quotations U9841 US***
Use this guide to understand the sales quotation procedure.
- ***User Guide for Sales Orders U9845 US***
Use this guide to understand the sales order procedure.
- ***User Guide for Sales Contracts U9844 US***
Use this guide to understand the sales contract procedure.

- ***User Guide for Purchase and Sales Schedules U9541 US***
Use this guide to understand the sales schedule procedure.
- ***User Guide for Requests for Quotation (RFQs) U9821 US***
Use this guide to understand the requests for quotation procedure.
- ***User Guide for Purchase Orders U9824 US***
Use this guide to understand the purchase order procedure.
- ***User Guide for Purchase Contracts U9822 US***
Use this guide to understand the purchase contract procedure.
- ***User Guide for Pricing U9179 US***
Use this guide to understand the pricing functionality.

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 *Introduction*. 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, clicking the underlined term takes you to the glossary definition at the end of the document.

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Chapter 1

Introduction and overview

1

Material pricing – overview

Prices of material such as copper, silver, gold, and aluminum often fluctuate. Because these prices usually represent a significant part of the finished goods' value, specific monitoring is required to minimize the risk and exposure. You can use material price surcharges to account for price increases of material and you can use material price surcharge costs to cover additional material-related costs.

If the **Material Pricing** check box is selected in the Implemented Software Components (tccom0500m000) session and the **Material Pricing in Procurement** and/or **Material Pricing in Sales** check boxes are selected in the Material Price Parameters (tcmpr0100m000) session, LN calculates the material price and includes this price in the (document line) price for purchase and sales documents. Consequently, these documents include real time prices.

The following is considered when material prices are calculated for purchase and sales documents:

- The material price agreements made with the business partner
- The item material content linked to the purchased or sold item
- The item material information linked to the business partner
- The difference between the base price and the actual price of the item's materials
- The exceptions for which no material prices are calculated

Material pricing setup

Before you can calculate material prices, you must specify the master data.

For more information, refer to

- *Material pricing – setup (p. 13)*
- *Generation of material content (p. 15)*

Retrieving material price information

After you set up the material pricing master data, material price information can be retrieved and material prices can be calculated for sales and purchase documents.

For more information, refer to *Retrieving material price information – general logic* (p. 23).

Material price information on sales and purchase business documents

For more information, refer to:

- *Material price information – sales quotations* (p. 27)
- *Material price information – sales orders* (p. 29)
- *Material price information – sales contracts* (p. 33)
- *Material price information – sales schedules* (p. 35)
- *Material price information – requests for quotation (RFQs)* (p. 39)
- *Material price information – purchase orders* (p. 41)
- *Material price information – purchase contracts* (p. 45)
- *Material price information – purchase schedules* (p. 47)

Updating material price information

After the material price information is retrieved for a purchase or sales document, the material price information can be updated.

For more information, refer to *Updating material price information – general logic* (p. 51).

Material pricing – setup

To enable material pricing in Procurement and Sales:

Step 1: Implement material pricing

In the Implemented Software Components (tccom0500m000) session, in the **Purchase and Sales** group box of the **Concepts (Logistics)** tab, select the **Material Pricing** check box.

Step 2: Specify material exchanges

In the Material Exchanges (tcmpr0101m000) session, specify the material exchange you use.

Step 3: Specify the material price parameters

In the Material Price Parameters (tcmpr0100m000) session, specify if material pricing is applicable for Procurement and/or Sales, and specify the related parameters, such as number group and series for material price agreements, default material exchange, search dates, and surcharge factors.

Step 4: Specify a material price agreement number group and series for your user profile

Specify a default **Material Price Agreement Series** and **Series Material Price Agreements** for your purchase user profile in the Purchase User Profiles (tdpur0143m000) session, and for your sales user profile, in the Sales User Profiles (tdsls0139m000) session.

Step 5: Specify the material and the material price master data

In the Material (tcmpr0610m000) session, specify the material.

For the material, you can:

- **Link the material to items and specify item material content**

In the Item Material Content (tcmpr0120m000) session, you can manually specify the material content for an item. You can also use the Generate Item Material Content (tcmpr0220m000) session.

The Generate Item Material Content (tcmpr0220m000) session is used to determine, for items with a linked BOM or for kit items, the material content of each BOM level or component. The content is added to the material content of the (main) item. Click the **Generation Results** option to review a summary of the results in the Generation Results (tcmpr0121m000) session. Next, you can double-click a record (**Generation Result Id**), to start the Item Material Content Generation Results (tcmpr0621m000) session, where you can view the detailed results, such as the generated material content for all relevant items and the generation errors.

- **Link the material and items to a price list or business partner(s)**

In the Procurement Business Partner Item Material Information (tcmpr0104m000) and Sales Business Partner Item Material Information (tcmpr0104m100) sessions, specify the date-effective item material information for the price list or business partner.

To modify the percentage of the material content quantity that is actually billable, change the default value of one to another value in the **Billable Quantity Factor** field.

- **Specify exceptions for the material by price list or business partner**

In the Procurement Material Exceptions (tcmpr0103m000) and Sales Material Exceptions (tcmpr0103m100) sessions, you can specify exceptions for the material by price list or business partner. Material exceptions are date effective.

To specify an exception for a document type by price list or business partner, use the Procurement Document Type Exceptions (tcmpr0102m000) and Sales Document Type Exceptions (tcmpr0102m100) sessions.

- **Specify base prices for the material by item, and price list or business partner**

In the Material Base Prices (tcmpr0140m000) session, specify the base price for the material by item, and price list or business partner. Material base prices are date effective.

- **Specify actual prices for the material**

In the Material Actual Prices (tcmpr0145m000) session, specify the date-effective actual prices for the material and material exchange.

Step 6: Specify material price agreements by item (group), and price list or business partner

In the Material Price Agreement for Procurement (tcmpr0630m000) and Material Price Agreement for Sales (tcmpr0630m100) sessions, specify the material price agreements for a price list or business partner, and item or item group.

On a material price agreement, the material or price is not specified. The agreement includes the dates and preconditions used to retrieve materials and calculate material prices.

Generation of material content

Up-to-date item material content listings are required to perform accurate material pricing calculations. Item material content can be generated or manually specified.

- **Generating item material content using the Generate Item Material Content (tcmpr0220m000) session**
After item structures are generated, for example, for a bill of material (BOM) or a product variant, you can generate the item material content using the Generate Item Material Content (tcmpr0220m000) session. Generation is based on the existing quantities of the standard parts or engineering modules used in the item structure.
For assembly items, the product variant structure specified in the Product Variants (Assembly) (tiapl3500m000) session is used as the BOM. For shop floor items, the Bill of Material (tibom1110m000) session is used for the same purpose.
- **Manually specifying item material content in the Item Material Content (tcmpr0120m000) session**
For items without an item structure, you cannot generate item material content. You must manually specify the material content in the Item Material Content (tcmpr0120m000) session.

Note

You must regularly generate item material quantities for standard items and engineering modules. Quantities must be available for these items before item material content can be generated for other items, such as customized items. In addition, if material content is not generated regularly for standard items and engineering modules, material price calculations are affected.

The material content is calculated based on the lowest level of the item structure after which a material is indexed for the specified item or item range based on levels. The lowest levels of the BOM can include manually specified material quantities. The material quantities at the higher levels are usually generated by LN.

The following formula is used to calculate the material content:

$$\frac{\text{Material quantity of all components} * \text{net quantity}}{\text{BOM quantity}} = \text{item material content}$$

Based on the item for which the material content is generated, the material content calculation is determined by:

- The manually specified item material content of the configurable purchased items, defined for the option list ID or the product variant. **Note:** If both are defined, the product variant is used.
- The item material content of the engineering modules.
- The item material content of the lower level generic items or configurable manufactured items.

Date effective material

A material is date effective for a specific item structure. The results generated depend on the period in which a material is effective, in combination with the date specified in the **Effective Date** field, (the date for which results are generated). If the material for which results are generated is not active for an item on this specific date, the material is not considered.

Example: Example: Standard items with effectivity units

Item material content generated for list components

If the item material content of a kit item must be determined, the content is based on the items that are linked to the list group and list - kit item combination in the List Components (tcibd3100m000) session.

When generating item material content, LN verifies if the components are effective on the **Effective Date** specified in the Generate Item Material Content (tcmpr0220m000) session. If all components are effective, the same procedure is applicable as for a bill of material (BOM) item. The lowest level is retrieved and the structure is rolled up to the main item.

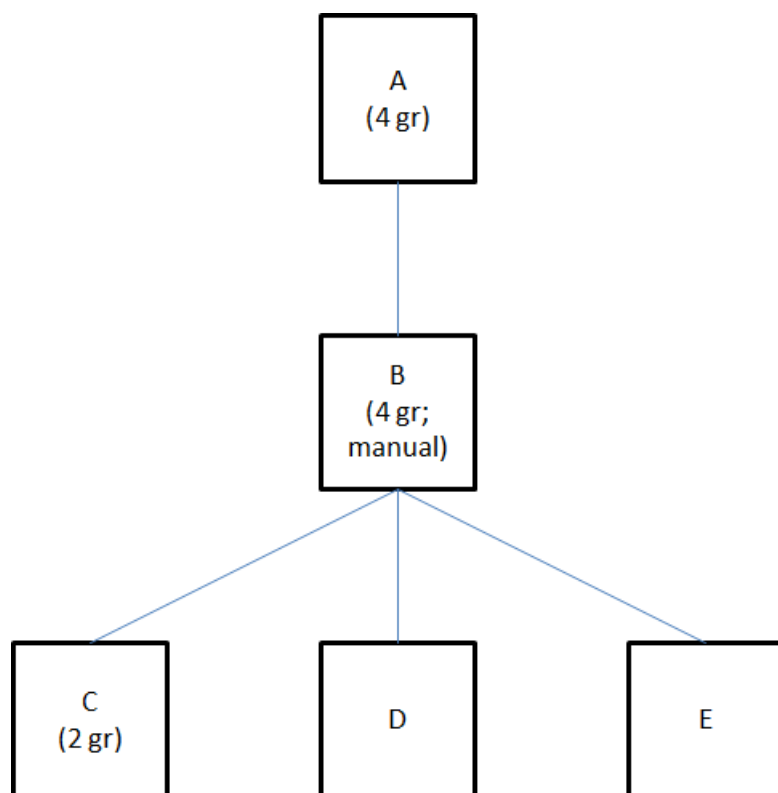
Note

A prerequisite for the generation of item material content for assembly planning is that the item material content must already be generated for the standard items that make up the assembly items.

Example: Manually specified material quantities in the item structure

When calculating item material content, manually specified material quantities in the item structure are used differently from the quantities that are aggregated from the lower BOM levels. The quantities generated by aggregating material quantities from the lower levels, are overwritten by the manually specified quantities.

Generation process:



In the bill of material (BOM) structure, all the quantities are 1 (one).

The material quantity for item C is calculated by LN.

The manually specified material quantity for item B is 4 grams. Because the quantity is manually specified, the material content of item B overrules the quantity calculated for item C. Therefore, the material quantity for main item A is 4 grams of material instead of 2 grams, if the manually specified quantity is not present.

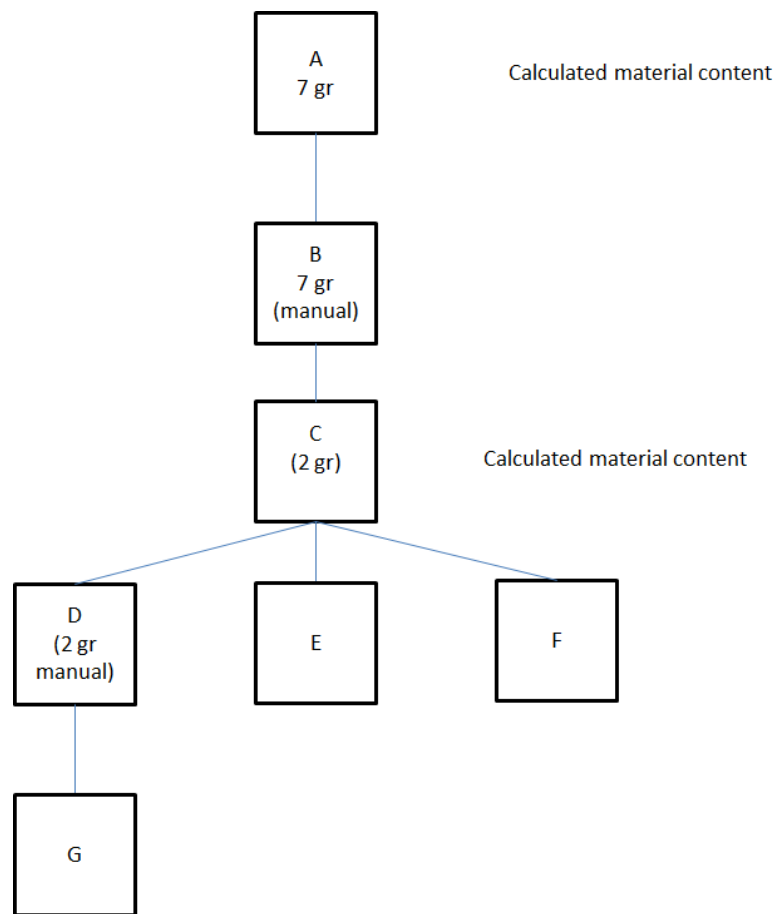
Note

The generated item material content data can be viewed and updated in the Item Material Content (tcmpr0120m000) session. For updated or manually specified item material content, the **Manual** check box is selected. Consequently, the item material content is not overwritten during regeneration. The material content that is manually specified can only be overwritten if the **Overwrite Manual and Modified Item Material Content** check box is selected in the Generate Item Material Content (tcmpr0220m000) session.

Example: Resolution of inconsistencies

In some scenarios, LN must resolve inconsistencies that are encountered during the indexing.

In this example, manually specified item material content exists at different levels of a bill of material (BOM), for the same main item.



When determining the item material content, LN first determines the lowest level of the BOM or the product variant. The material content is usually manually specified at this level. Manually specified material content can exist at different levels in the BOM.

In this example, manually specified quantities are found for item D and B. Therefore, both items are a starting point for the calculation and are designated as level zero (0).

Item	Level
D	0
B	0

Items A and C are added as level 1 items because the items are the parents of the items at level zero (0).

Item	Level
D	0
B	0
C	1
A	1

When the parents of the level 1 items are resolved, LN identifies an inconsistency if the parent of the level 1 item C is B. LN changes the level of item B from 0 to 2 to resolve this inconsistency. A, being the main item, does not have a parent.

Item	Level
D	0
C	1
A	1
B	2

The same inconsistency as on the previous level occurs with the level 2 item. The parent of the level 2 item B is A. To resolve this, LN designates A as a level 3 item.

Item	Level
D	0
C	1
B	2
A	3

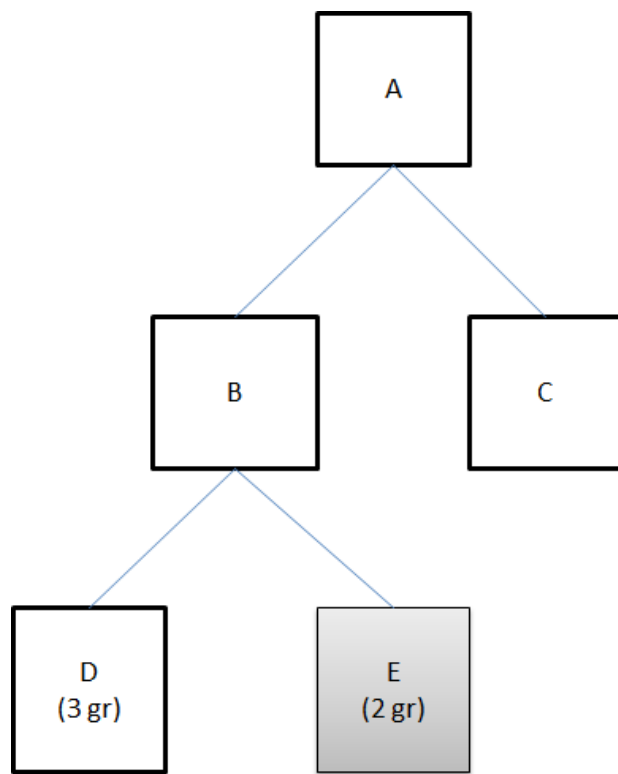
A does not have parents and therefore the algorithm is complete. All the BOM items are included at the correct level and the material content can be accurately calculated.

Example: Standard items with effectivity units

A standard item with an effectivity unit is different from a customized item. An effectivity unit requires a complete bill of material (BOM) explosion starting with the main item to the lowest levels of the standard items. This is due to the exceptions that can be defined at any level of the BOM, which can lead to a different material count at each level.

In the example, item E is only valid for a specific effectivity unit. In the standard configuration (effectivity unit = 0) item E does not exist. Item material content records are created for items B and A, if an effectivity unit is active that adds item E to the item structure.

If an effectivity unit is not specified, the item material content for the main item is 3 grams in item D. If effectivity unit 23 is active, the item material content becomes 5 due to the addition of the 2 grams that are part of item E, which is only valid for this effectivity unit.

**Legend**

White	Standard BOM
Grey	Exception valid for effectivity unit 23

Retrieving material price information – general logic

After you set up the material pricing master data, LN can retrieve material price information for purchase or sales documents, which you can view in the Material Price Information (tcmpr1600m000) session. The following material price information is retrieved and calculated for a document:

Step 1: Material price agreement

Based on the document line's price list, business partner, item and date, LN searches for a valid material price agreement in the Material Price Agreements for Procurement (tcmpr0130m000) or Material Price Agreements for Sales (tcmpr0130m100) session.

If a valid price agreement exists, material price information is generated for the business document in the Material Price Information (tcmpr1600m000) session.

Step 2: Item material content

Based on the document line's item, effectivity unit, option list ID, product variant, and date, LN retrieves item material content from the Item Material Content (tcmpr0120m000) session.

For each material, a material (price information) line is generated in the Document Material Information (tcmpr1110m000) session. This session is displayed as a tab in the Material Price Information (tcmpr1600m000) session. If a material line is generated, but no price agreement exists, material price information is defaulted based on the data in the Material Price Parameters (tcmpr0100m000) session. Consequently, the search date to retrieve the material actual prices is set to **Fixed Price**.

Step 3: Billable quantity factor

Based on the document line's business partner, item and date, LN retrieves the **Billable Quantity Factor** for the material lines.

Step 4: Material base price

Based on the document line's business partner, item and date, LN retrieves the base prices for the material lines.

Step 5: Material actual price

Based on the **Price Rule** of the material price agreement, LN determines a search date to retrieve the actual prices for the material lines.

Determining the material actual price is not always mandatory. This is applicable if:

- The material actual price is not yet required in the business document line process
- The search date that is used to determine the actual price is in the future or is not specified
- A material actual price is not yet specified for the search date

If the material actual price cannot be retrieved, but is required in the document line process, LN considers the best possible option. Accordingly, LN uses the last date that is before the search date and for which an actual price is specified, or retrieves the last available material actual price.

For sales documents, the material actual price becomes mandatory when the business document line is released to invoicing. If no material actual price is available, an error message is displayed. You can manually specify a material actual price, or redetermine the actual price using the Price and Discount Recalculation Parameters (tdpcg0240s000) session. For purchase documents, the material actual price is not mandatory at this stage, because the invoice must be paid even if the actual price is not specified for the purchase document. However, the invoiced amount is displayed on the purchase document.

Step 6: Material price surcharge

If material base prices and actual prices are specified for the material lines, LN adds surcharges to the material base prices. A material price surcharge is calculated by subtracting the material base price from the material actual price.

Step 7: Material price surcharge costs

LN calculates material price surcharge costs to include the additional material costs, such as administration costs. These surcharge costs are calculated by multiplying the material price surcharge by a surcharge factor.

Example

- Material price surcharge = €0.432
- Material price surcharge factor = 1.5

The material price is increased with the material price surcharge costs of €0.648 (€0.432 * 1.5)

Step 8: Document line price

LN determines the document line price.

General rules

When retrieving material price information, such as agreements, exceptions, item material content, and material base prices, LN initiates the search at the most detailed level. If information is found, the search stops.

If a **Business Partner for Prices/Discounts** is specified for the document, LN first searches for material price information specified for this business partner. If no material price information can be retrieved for this business partner for prices/discounts, LN searches the buy-from or sold-to business partner for this information.

The date used to retrieve date effective material price master data is determined using the **Search Date** (purchase documents) and **Search Date** (sales documents) fields in the Material Price Parameters (tcmpr0100m000) session. To retrieve material actual prices, other search dates are used.

For document lines with a customized item, the **Use Derived-from Item** (purchase documents) and **Use Derived-from Item** (sales documents) fields in the Material Price Parameters (tcmpr0100m000) session are used to determine the item that must be used to retrieve material price information.

You can manually specify material price information for a business document line in the Material Price Information (tcmpr1600m000) session. Consequently, the **Material Price Agreement** field is blank and the **Manual** check box is selected in the Material Price Information (tcmpr1600m000) session.

If an exception is applicable, you can manually link a material price agreement or material to the document. However, a warning message is displayed.

Material price information – sales quotations

If the **Material Pricing in Sales** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a sales quotation line.

When a sales quotation line is specified in the Sales Quotation Lines (tdsls1501m000) session, LN searches for a valid material price agreement and includes the material price information in the sales quotation line.

If sales quotation lines are generated from sources with a price, such as from the Opportunities (tdsmi1110m000), Generate Sales Quotations for Project (tipcs2240m000), and Generate (Project) Structure for Product Variant (tipcs2220m000) sessions, LN does not search for material price information, because the price already includes the material prices.

On the **Selling** tab of the Sales Quotation Lines (tdsls1501m000) session, in the **Material Price** group box, you can view the (material) price for the sales quotation line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

The material price information for the sales quotation line is used as a default when you convert the sales quotation line to a sales order line. The sales quotation line can only include a material base price. Material price surcharges and surcharge costs are calculated for the resulting sales order line.

Material price information can be manually updated for a sales quotation line, or is updated by LN during the redetermination process. When the status of a sales quotation line is **Confirmed**, prices and discounts can no longer be updated.

Optionally, phantom items can be replaced with the related components when generating the budget structure in the Generate (Budget PCS) Structure for Sales Quotations (tdsls1201m100) session. The sales quotation line item can be updated by replacing the generic item with a standard item, or by specifying the item segment. When the item is modified, the item material content is retrieved using the derived-from item. The price of the phantom item is distributed across the sales quotation lines that are created, but material price information is not defaulted from the phantom and is also not redetermined. If the components would include material prices, the total price can differ from the original phantom price, which is not allowed.

Material price information – sales orders

If the **Material Pricing in Sales** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a sales order line.

When a sales order line is specified in the Sales Order - Lines (tdsls4100m900) session, LN searches for a valid material price agreement. The material price information can be defaulted from the origin used to generate the sales order, from the master data, or retrieved from the linked sales contract line.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) session is used to determine if LN must search for material price information for sales order lines if the linked contract line has no material price information.

On the **Selling** tab of the Sales Order Lines (tdsls4101m000) session, in the **Material Price** group box, you can view the (material) price for the sales order line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

Note

The **Include Surcharges before Apply Discounts** check box in the Material Price Information (tcmpr1600m000) session is used to determine the calculation of the **Total Discount Amount**, **Order Discount Amount** and **Order Amount** for the sales order line.

Sales order line generation

If the material price information is defaulted from the origin used to generate the sales order, the **Manual** check boxes are selected by default in the Material Price Information (tcmpr1600m000) and Document Material Information (tcmpr1110m000) sessions. Consequently, the material price information is not overwritten when material price information for the sales order line is redetermined.

If the material price information is not defaulted from the origin used to generate the sales order, but retrieved from the master data, LN does not select the **Manual** check boxes.

Updates

Material price information can be manually updated for a sales order line, or can be updated by LN during the redetermination process.

If a sales order line has planned delivery lines in the Sales Order Line (tdsls4101m900) session, material prices are only displayed for the sales order (total) line. The material price information, which is displayed in the Material Price Information (tcmpr1600m000) session, is displayed to the related delivery lines.

Note

If the material price information is defaulted from a linked sales contract line, the **Always Use Contract Price and Discount** check box in the Sales Contract Parameters (tdsls0100s300) session is used to determine if the material price information for the sales order line can be updated.

Approval

When you approve the sales order using the Approve Sales Orders (tdsls4211m000) session and you want to redetermine the material price information during approval, select the **Redetermine Material Price Information** check box.

If a sales order is approved using the **Approve** option on the appropriate menu of the Sales Orders (tdsls4100m000) session, the **Redetermine Material Information** field in the Material Price Parameters (tcmpr0100m000) session is used to specify if the material price information is redetermined.

If the material price information is modified for a sales order line after order approval, the sales order status is set to **Modified**, which means that the order must be reapproved. The **Approved** status is not affected if LN modifies the material actual prices. The order status is set to **Modified** only if you manually modify the material actual prices.

Components

If a sales order line has linked components, the components can be managed using the component lines or a sales BOM.

If the **Component Handling** field is set to **Sales BOM** in the Sales Order Lines (tdsls4101m000) session, the linked bill of material (BOM), which is displayed in the Sales Order Line - BOM Components (tdsls4532m000) session, cannot be updated. Consequently, the material price information is only linked to the sales order line and searching for item material content is based on the sales order line item and not on the BOM components.

If the **Component Handling** field is set to **Component Lines** in the Sales Order Lines (tdsls4101m000) session, a component level exists for the sales order line in the Sales Order Line Components (tdsls4163m000) session. The item specified on the sales order line functions as a phantom item that is not shipped, but is used for the invoicing process. The material price information is linked to the sales order line and not to the components. However, searching for item material content is based on the components.

If you process modifications to the component lines after approval, using the Submit Changes option on the [appropriate](#) menu of the Sales Order Lines - Components (tdsls4601m000) session, LN redetermines the material price information.

Copy templates

Copying sales orders and order lines is based on [copy templates](#). In a copy template, you can specify **Calculate Material Prices** as a [copy exception](#). Accordingly, the material price information is redetermined and retrieved from the master data for the target sales order line.

If **Calculate Material Prices** is not added as an exception to the copy template, the material information is copied from the source order line to the target order line. If the material price information is no longer applicable or is modified, the information is not defaulted but redetermined.

Project structure

Optionally, [phantom items](#) can be replaced with the related components when generating the project structure in the Generate (Project PCS) Structure for Sales Orders (tdsls4244m000) session. The sales order line item can be updated by replacing the generic item with a standard item, or by specifying the item segment. When the item is modified, the [item material content](#) is retrieved using the derived-from item. The price of the phantom item is distributed across the newly created sales order lines, but the material price information is not defaulted from the phantom and is also not redetermined. If the components would include material prices, the total price can differ from the original phantom price, which is not allowed.

Actual deliveries

After the items for a sales order line are delivered, an actual delivery line is added to the Sales Order Actual Delivery Lines (tdsls4106m000) and Sales Schedule Actual Delivery Lines (tdsls3140m100) sessions. The material price information is defaulted from the relevant order line.

If the **Manual Actual Price** check box is selected for a material in the Document Material Information (tcmpr1110m000) session, this price is defaulted to the actual delivery line. Otherwise, the actual price is redetermined when the actual delivery line is added. Consequently, the most accurate price is used.

If a material actual price cannot be retrieved, LN considers the best possible option. For example, instead of using the invoice date, which is required but not known yet, the actual transaction date is used to retrieve an approximate material actual price.

You can modify the prices and discounts, after the delivery of the item in the Change Prices and Discounts after Delivery (tdsls4122m000) and Change Prices and Discounts of Sales Invoice Lines (tdsls4132m000) sessions. From the [appropriate](#) menu of these sessions, select **Material Price Information** to modify the material price information in the Material Price Information (tcmpr1600m000) session, after item delivery.

Consumptions

If a consumption is processed and a matching sales order line is found, a sales invoice line is generated in the Sales Order Invoice Lines (tdsls4106m100) session. The price on the invoice line and the material price information are retrieved from the order line.

The material actual price is redetermined when the status of the sales invoice line changes from **Free** to **Approved**. If a matching sales order line is not found, a consignment invoicing order is generated. The price, discount, and material price information for the order are retrieved from the master data.

Invoices

When releasing a sales order line to Invoicing, a valid material actual price is required. If no material actual price is available, the invoice cannot be composed and an error message is displayed.

You must manually specify a material actual price for the invoice line, or redetermine the actual price using the Price and Discount Recalculation Parameters (tdpcg0240s000) session.

Material price information – sales contracts

If the **Material Pricing in Sales** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a sales contract line.

When you specify a sales contract line in the Sales Contract Lines (tdsls3501m000) session, LN searches for a valid material price agreement and includes the material price information in the sales contract line.

On the **Pricing** tab of the Sales Contract Lines (tdsls3501m000) session, in the **Material Price** group box, you can view the (material) price for the sales contract line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

The material price information specified for the sales contract line is used for the linked sales order and schedule lines. The sales contract line can only include a material base price. Material price surcharges and surcharge costs are calculated for the linked sales order and schedule lines.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) session is used to determine if LN must search for material price information for sales order and schedule lines if the contract line has no material price information.

The material price information can be manually updated for a sales contract line, or is updated by LN during the redetermination process. If the status of a sales contract line is **Active**, the material price information can no longer be updated.

Material price information – sales schedules

If the **Material Pricing in Sales** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to the sales schedule line.

When sales schedule lines are generated in the Sales Schedule (tdsls3611m000) session, the material price information is retrieved from the linked sales contract line. This price information is linked at schedule line level, or at planned warehouse order line level. If the sales schedule results from a processed sales release on which a price is specified, this price is also used on the schedule line/planned warehouse order line. In this case, the material price information for the schedule line/planned warehouse order line is not retrieved.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) session is used to determine if LN must search for material price information for sales schedule lines if the linked contract line has no material price information.

On the appropriate menu of the relevant lines tab in the Sales Schedule (tdsls3611m000) session, click:

- **Price and Discounts**, to start the Price and Discounts (tdpcg1600m000) session, in which you can view the **Price** and **Material Price** for the sales schedule line/planned warehouse order line.
- **Material Price Information**, to start the Material Price Information (tcmpr1600m000) session, in which you can view more detailed material price information for the sales schedule line/planned warehouse order line.

Updates

Material price information cannot be updated for sales schedule lines/planned warehouse order lines.

If the material price information specified for the linked contract line is modified, the schedule lines/planned warehouse order lines are not updated.

Approval

If a planned warehouse order must be generated for the sales schedule, the material price information is generated when the planned warehouse order is generated, during approval.

If planned warehouse orders are not applicable, the material price information is generated when the schedule line is created.

Actual delivery

After the items for a sales schedule line or planned warehouse order are delivered, an actual delivery line is added to the Sales Schedule Actual Delivery Lines (tdsls3140m000) and Sales Schedule Actual Delivery Lines (tdsls3140m100) sessions. The material price information is defaulted from the relevant schedule line.

Note

If the **Redetermine Price and Discounts at Shipment** check box is selected in the Sales Contract Lines (tdsls3501m000) session, for the linked contract line, the material price information is not defaulted from the schedule line, but is redetermined when the actual delivery line is added.

If the material actual price cannot be retrieved, LN considers the best possible option. For example, instead of using the invoice date, which is required but not yet known, the actual transaction date is used to retrieve an approximate material actual price.

You can modify prices and discounts after the schedule delivery in the Change Price and Discounts for Actual Delivery (tdpcg1600m100) session. From the appropriate menu of the Change Price and Discounts for Actual Delivery (tdpcg1600m100) session, select **Material Price Information** to modify the material price information, after the items are delivered, in the Material Price Information (tcmpr1600m000) session.

Consumptions

If a consumption is processed and a matching sales schedule line is found, a sales invoice line is generated in the Sales Schedule Invoice Lines (tdsls3140m200) session. The price on the invoice line and the material price information are retrieved from the schedule line/planned warehouse order line.

The material actual price is determined when the sales schedule invoice line is created for the consumed quantity of the sales schedule line. If a matching sales schedule line does not exist, a consignment invoicing order is generated. The price, discount, and the material price information for the order are retrieved from the master data.

Invoices

When releasing a sales schedule line to Invoicing, a valid material actual price is required. If no material actual price is available, the invoice cannot be composed and an error message is displayed.

You must manually specify a material actual price for the invoice line, or redetermine the actual price using the Price and Discount Recalculation Parameters (tdpcg0240s000) session.

If an invoice correction is specified for a sales schedule invoice line, a negative quantity is applicable. The amount is calculated based on the price, discounts, and material prices. The material price information cannot be updated for invoice corrections.

Material price information – requests for quotation (RFQs)

If the **Material Pricing in Procurement** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a response line.

RFQ responses received from a bidder can be specified in the RFQ Responses (tdpur1506m000) session. An RFQ response includes one or more response lines. When the status of a response line (or alternative response line) is set to **Responded** in the RFQ Responses (tdpur1506m000) session, LN searches for a valid material price agreement and includes the price information data in the response line. If the RFQ is generated from a contract, the material price information is retrieved from the linked purchase contract line.

On the **Pricing** tab of the RFQ Responses (tdpur1506m000) session, in the **Material Price** group box, you can view the (material) price for the response line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

To negotiate the bidder's responses, you can specify your counter proposals in the RFQ Negotiations (tdpur1606m000) session. An RFQ negotiation includes the responses of the bidder and counter proposals of the buyer.

In the RFQ Negotiations (tdpur1606m000) session, you can specify the first negotiation line using:

- The **Create Negotiation** option on the appropriate menu. The material price information is defaulted from the RFQ response to the negotiation response.
- The New Negotiation option. The material price information is defaulted from the master data.

When copying a negotiation line, the material price information of the response and counter proposal is also copied.

On the **Pricing** tab of the RFQ Negotiations (tdpur1109m000) session, in the **Price** group box, you can view the (material) price for the negotiation line. On the appropriate menu of this session, click **Response Material Price Information** or **Counter Proposal Material Price Information** to start the Material Price Information (tcmpr1600m000) session.

Material price information can be manually updated for unacknowledged negotiation lines, or is updated by LN during the redetermination process. When the status of the RFQ response is **Accepted**, prices and discounts can no longer be updated.

When converting an **Accepted** RFQ response line to a purchase contract or purchase order, the response line's material price information is defaulted to the contract line or order line. The response line can only include a material base price. Material price surcharges and surcharge costs are calculated for the resulting purchase order line.

When converting an **Accepted** RFQ response line to a price book, the response line's material price information cannot be linked to the price book.

Material price information – purchase orders

If the **Material Pricing in Procurement** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a purchase order line.

When a purchase order line is specified in the Purchase Order - Lines (tdpur4100m900) session, LN searches for a valid material price agreement. The material price information can be defaulted from the origin used to generate the purchase order, from the master data, or retrieved from the linked purchase contract line.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) is used to determine if LN must search for material price information for purchase order lines if the linked contract line has no material price information.

On the **Buying** tab of the Purchase Order Lines (tdpur4101m000) session, in the **Material Price** group box, you can view the (material) price for the purchase order line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

Note

The **Include Surcharges before Apply Discounts** check box in the Material Price Information (tcmpr1600m000) session is used to determine the calculation of the **Line Discount Amount**, **Order Discount Amount** and **Order Amount** fields for the purchase order line.

Purchase order line generation

If the material price information is defaulted from an origin that generated the purchase order, the **Manual** check box is selected by default in the Material Price Information (tcmpr1600m000) and Document Material Information (tcmpr1110m000) sessions. Consequently, the material price information is not overwritten when material price information is redetermined for the purchase order line.

If material price information is not defaulted from the origin used to generate the purchase order, but retrieved from the master data, LN does not select the **Manual** check boxes.

Note

If purchase order lines are generated from sources with a specified price, LN does not search for material price information.

Commingling

Before purchase order lines can be commingled, the material price information of the lines must be identical. If the material price information for two order lines differs, the lines are not commingled to a total line with two detail lines. However, a new purchase order with two separate lines can be created. Consequently, the material price information is defaulted from the target to the source order line.

Updates

Material price information for a purchase order line can be updated manually, or can be updated by LN during the redetermination process.

If a purchase order line has line details in the Purchase Order Line (tdpur4601m000) session, material prices are displayed on the purchase order (total) line and not on the line details. The material price information, which is displayed in the Material Price Information (tcmpr1600m000) session, is defaulted to the related line details.

Note

If material price information is defaulted from a linked purchase contract line, the **Always Use Contract Price and Discount** check box in the Purchase Contract Parameters (tdpur0100m300) session is used to determine if the material price information for the purchase order line can be updated.

Approval

When you approve the purchase order in the Approve Purchase Orders (tdpur4210m100) session and you want to redetermine the material price information during the approval, select the **Redetermine Material Price Information** check box.

If you approve a purchase order using the **Approve** option on the appropriate menu of the Purchase Orders (tdpur4100m000) or Purchase Order (tdpur4100m900) sessions, the **Redetermine Material Information** field in the Material Price Parameters (tcmpr0100m000) session is used to specify if the material price information is redetermined.

If the material price information for a purchase order line is modified after order approval, the purchase order status is set to **Modified**, which means that the order must be reapproved. The **Approved** status is not affected if LN modifies the material actual prices. The order status is set to **Modified** only if you manually modify the material actual prices.

Receipts

After a receipt is generated for a purchase order line, a receipt is added to the Purchase Receipts (tdpur4106m000) session.

The **Payment** field specified on the purchase order line is used to determine the link between the material price information and the receipts.

- **Pay on Receipt**

When the receipt is confirmed, a purchase payable receipt is generated in the Purchase Payable Receipts (tdpur4130m000) session. The material price information is defaulted from the relevant order line and linked to the Purchase Receipts (tdpur4106m000) and Purchase Payable Receipts (tdpur4130m000) sessions.

- **Pay on Use**

When the goods are consumed, a purchase payable receipt is generated in the Purchase Payable Receipts (tdpur4130m000) session. The **Price Determination Based on** field in the Purchase Order Parameters (tdpur0100m400) and Order Terms and Conditions (tctrm1130m000) sessions is used to determine the process to retrieve the material price information. This data is linked to the Purchase Receipts (tdpur4106m000) and Purchase Payable Receipts (tdpur4130m000) sessions.

If this field is set to:

- **Replenishment**, the material price information is defaulted from the relevant order line.
- **Consumption**, the material price information is determined when the payable receipt is generated. If the order line is linked to a contract, the material price information is retrieved from the contract line.

Note

If the **Redetermine Price and Discounts at Receipt** check box is selected in the Purchase Contract Lines (tdpur3101m000) session for the linked contract line, the material price information is not defaulted from the order line. The price information is redetermined when the receipt is confirmed in the Purchase Receipts (tdpur4106m000) session (**Pay on Receipt**), or when the payable receipt is generated in the Purchase Payable Receipts (tdpur4130m000) session (**Pay on Use**).

If the material actual price cannot be retrieved, LN considers the best possible option. For example, instead of using the invoice date, which is required but not known yet, the actual receipt date or usage date is used to retrieve an approximate material actual price.

You can modify the prices and discounts after the receipt confirmation by actual receipt (**Pay on Receipt**), or payable receipt (**Pay on Use**) in the Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000) session.

You can modify the prices and discounts after the receipt confirmation for the total or detail line in the Change Price and Discounts after Receipt (tdpur4122m000) session.

From the appropriate menu of the Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000) or Change Price and Discounts after Receipt (tdpur4122m000) sessions, select **Material Price Information** to modify the material price information after receipt in the Material Price Information (tcmpr1600m000) session.

Consignment replenishment and payment

For consignment replenishment order lines, material price information is retrieved from the master data.

After consumption of consigned inventory, a consignment payment order line is generated. The process to retrieve material price information for an order line, is based on the **Price Determination Based on** field of the Purchase Order Parameters (tdpur0100m400) or the Order Terms and Conditions (tctrm1130m000) sessions.

If this field is set to:

- **Replenishment**, the material price information is defaulted from the replenishment order line to the payment order line.
- **Consumption**, the material price information is determined when generating the consignment payment order.

Return orders

If an original document is linked to a purchase return order line, the material price information is defaulted from the original document. For the copied material actual price, LN selects the **Manual Actual Price** check box in the Document Material Information (tcmpr1110m000) session.

If no original document is linked to the return order line, the material price information is retrieved from the master data.

Invoices

After the goods are received, the invoice can be matched and approved in Accounts Payable.

The amount to be invoiced is based on the actual material price. Therefore, the actual receipt price is used during receipt matching.

Differences between receipt amount and invoice amount, due to material actual price differences, are logged as variance transactions.

Supplier stage payments

You cannot change the price or redetermine the material price for purchase order lines that are invoiced by supplier stage payments, after receipt. Accordingly, if the date used to determine the material actual price is set to **Invoice Date** for the linked material price agreement, this date is changed to **Actual Transaction Date** for invoicing by stage payments.

The total order line amount can differ from the total stage payment amount, if the actual receipt date is used as the price date. To adjust the difference, a correction stage payment line can be created, or an open stage payment line can be used. If the difference is not corrected, a variance transaction is logged when the stage payment is closed during the processing of the delivered purchase order.

Material price information – purchase contracts

If the **Material Pricing in Procurement** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a purchase contract line.

When you specify a purchase contract line in the Purchase Contract Lines (tdpur3101m000) session, LN searches for a valid material price agreement and includes the material price information in the purchase contract line.

On the **General** tab of the Purchase Contract Lines (tdpur3101m000) session, in the **Price** group box, you can view the (material) price for the purchase contract line. On the appropriate menu of this session, click **Material Price Information** to view the detailed material price information in the Material Price Information (tcmpr1600m000) session.

Note

Material prices cannot be used in combination with generic price lists. Therefore, contract lines with the **Option Based Pricing** check box selected, cannot have material price information.

The material price information specified for the purchase contract line is used as a default for the linked purchase order and schedule lines. The purchase contract line only includes a material base price. Material price surcharges and surcharge costs are calculated for the linked purchase order and schedule lines.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) session is used to determine if LN must search for material price information for purchase order and schedule lines if the contract line has no material price information.

The material price information can be manually updated for a purchase contract line, or can be updated by LN, during the redetermination process. If the status of a purchase contract line is **Active**, the material price information can no longer be updated.

Material price information – purchase schedules

If the **Material Pricing in Procurement** check box is selected in the Material Price Parameters (tcmpr0100m000) session, material price information can be linked to a purchase schedule line.

When purchase schedule lines are generated in the Purchase Schedule (tdpur3610m000) session, the material price information is retrieved from the linked purchase contract line.

Note

The **Apply Material Prices if No Contract Material Prices** check box in the Material Price Parameters (tcmpr0100m000) session is used to determine if LN must search for material price information for purchase schedule lines if the linked contract line has no material price information.

On the appropriate menu of the Schedule Lines tab in the Purchase Schedule (tdpur3610m000) session, click:

- **Price and Discounts**, to start the Price and Discounts (tdpcg1600m000) session, in which you can view the **Price** and **Material Price** for the purchase schedule line.
- **Material Price Information**, to start the Material Price Information (tcmpr1600m000) session, in which you can view more detailed material price information for the purchase schedule line.

Updates

Material price information cannot be updated for purchase schedule lines.

If the material price information is modified for the linked contract line, the schedule lines are not updated.

Receipts

After a receipt is made for a purchase schedule line, a receipt is added to the Purchase Schedule - Receipts (tdpur3115m200) session.

The **Payment** field specified on the purchase schedule line is used to determine the link between the material price information and the receipts.

- **Pay on Receipt**

When the receipt is confirmed, a purchase payable receipt is generated in the Purchase Payable Receipts for Schedules (tdpur3118m000) session. The material price information is defaulted from the relevant schedule line and linked to the Purchase Schedule - Receipts (tdpur3115m200) and Purchase Payable Receipts for Schedules (tdpur3118m000) sessions.

- **Pay on Use**

When the goods are consumed, a purchase payable receipt is generated in the Purchase Payable Receipts for Schedules (tdpur3118m000) session. The **Price Determination Based on** field in the Purchase Order Parameters (tdpur0100m400) and Order Terms and Conditions (tctrm1130m000) sessions is used to determine the process to retrieve material price information. This data is linked to the Purchase Schedule - Receipts (tdpur3115m200) and Purchase Payable Receipts for Schedules (tdpur3118m000) sessions.

If this field is set to:

- **Replenishment**, the material price information is defaulted from the relevant schedule line.
- **Consumption**, the material price information is determined when the payable receipt is generated. If the schedule line is linked to a contract, the material price information is retrieved from the contract line.

Note

If the **Redetermine Price and Discounts at Receipt** check box is selected in the Purchase Contract Lines (tdpur3101m000) session for the linked contract line, the material price information is not defaulted from the schedule line. The price information is redetermined when the receipt is confirmed in the Purchase Schedule - Receipts (tdpur3115m200) session (**Pay on Receipt**), or when the payable receipt is generated in the Purchase Payable Receipts for Schedules (tdpur3118m000) session (**Pay on Use**).

If the material actual price cannot be retrieved, LN considers the best possible option. For example, instead of using the invoice date, which is required but not known yet, the actual receipt date or usage date is used to retrieve an approximate material actual price.

You can modify the prices and discounts after schedule receipt confirmation, in the Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000) session. From the appropriate menu of the Change Price and Discounts of Purchase Payable Receipts (tdpur4132m000) session, select **Material Price Information** to modify the material price information after receipt in the Material Price Information (tcmpr1600m000) session.

Invoices

After the goods are received, the invoice can be matched and approved in Accounts Payable.

The amount to be invoiced is based on the actual material price. Therefore, the actual receipt price is used during receipt matching.

Differences between receipt amount and invoice amount, due to material actual price differences, are logged as variance transactions.

Updating material price information – general logic

After the material price information is retrieved for a purchase or sales document, the material price information can be updated.

The material price information can be modified by:

- Manually changing the material price information
- Redetermining material prices
- Updating the parent document line

Manually changing material price information

If you manually modify the retrieved material price information, the **Manual** check box is selected in the relevant session, by default. If you manually modify the material actual price, the **Manual Actual Price** check box is selected in the Document Material Information (tcmpr1110m000) session, by default.

Copying material price information is a manual action. Accordingly, the **Manual** check box is selected for the copied material price information, by default.

Redetermining material prices

Click **Redetermine Material Prices** on the appropriate menu of the Material Price Information (tcmpr1600m000) session to start the Price and Discount Recalculation Parameters (tdpcg0240s000) session, wherein you can redetermine the material price information for a document.

Optionally, manually added and modified material information can be excluded from the redetermination process and the manual changes are retained.

Updating the parent document line

If fields, such as business partner, item, effectivity unit, option list ID, and date are modified for a document line, the linked material price information is always redetermined.

The **Redetermine Material Information** (purchase documents) and the **Redetermine Material Information** (sales documents) fields in the Material Price Parameters (tcmpr0100m000) session are used to determine the process to manage the linked material price information, when the parent document line is *(re)approved*. The price information can be redetermined automatically, interactively, or never.

If **Redetermine Material Information** is **Interactive**, you can decide if the manually updated material price information must also be redetermined. If **Redetermine Material Information** is **Automatic**, manually updated document price agreements and document material information are not included in the redetermination process.

Updating the document line price

If materials are linked to a document line, you can manually update the price for a document line. However, you must specify a price that is higher than the material price. Else, an error message is displayed.

Example

Document line	10 pcs of item A
Material price	12 EUR
Price excl. material price surcharges	20 EUR
Material price surcharge	5 EUR
Document line price	25 EUR (20 + 5)

If you change the price from 25 to 11 euro, an error message is displayed, because the price cannot be lower than 12 euro.

Base and actual prices can be decreased in the Document Material Information (tcmpr1110m000) session.

If the material base price for materials that are linked to a document line are modified, the **Price** field is not updated on the document line if the line does not include material price surcharges. The reason for this is that material *base* prices are assumed to be included in the price. The price change can be processed only when calculating surcharges for the materials.

Example

Item	Copper Wire
Sales price	50 EUR/ kg
Material	Copper
Material base price	35 EUR/ kg
Material actual price	37 EUR/ kg
Item Sales Data	
Sales price	50 EUR/ kg
Material price	35 EUR/ kg

Sales order line with material price surcharges

- Sales order line price: 52 EUR/ kg (sales price 50 EUR + material price surcharge 2 EUR)
- Material price: 37 EUR/ kg

The material price specified for the sales order line constitutes the following:

- Material base price: 35 EUR/kg
- Material actual price: 37 EUR/kg
- Material price surcharge: 2 EUR/kg

If the material base price changes from 35 EUR to 40 EUR, the material price surcharge changes to -3 EUR (37 EUR – 40 EUR). Consequently, the sales order line price becomes 47 EUR (sales price of 50 EUR + material price surcharge of -3 EUR).

Sales order line without material price surcharges

- Sales order line price: 50EUR/ kg (sales price 50 EUR)
- Material price: 35 EUR/ kg

The material price specified for the sales order line constitutes the following:

- Material base price: 35 EUR/kg
- Material actual price: 00 EUR/kg
- Material price surcharge: 00 EUR/kg

If the material base price changes from 35 EUR to 40 EUR, the sales order line price remains 50 EUR.

Appendix A

Glossary

A

appropriate menu

Commands are distributed across the **Views**, **References**, and **Actions** menus, or displayed as buttons. In previous LN and Web UI releases, these commands are located in the *Specific* menu.

bill of material (BOM)

A list of all parts, raw materials, and subassemblies that go into a manufactured item and show the quantity of each of the parts required to make the item. The BOM shows the single-level product structure of a manufactured item.

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.

component

An item that is sold, and invoiced in combination with other items as part of a kit.

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.

contract line

An agreement of one customer with one supplier, about both commercial and logistic conditions, related to the supply of one item, during a period of time.

copy exception

A field that is not automatically copied from the source order to the target order and for which you must define a copy action.

copy template

A standard set of copy exceptions based on which existing orders are copied to target orders.

customized item

An item produced on a customer specification for a specific project. A customized item can have a customized BOM and/or a customized routing and is normally not available as a standard item. A customized item can, however, be derived from a standard item or a generic item.

document line price

The price on the document line, which is the sum of the item price and the total material price.

effectivity unit

A reference number, for example a sales order line or a project deliverable line, that is used to model deviations for a unit effective item.

engineering module

A virtual item that is used to model a fixed part of a product engineering structure in Assembly Planning in Manufacturing. The product engineering structure is used to generate assembly orders for the Assembly Control module of Manufacturing.

The engineering module is the top of a tree structure (BOM) of engineering items. If Assembly Planning generates the assembly orders, the **Engineering Module** item type is created in the Item Base Data tables in LN, if not yet present. The engineering module is part of the order content and the as-built structure.

exception

A deviation of an effective item's standard configuration. An exception indicates, for example, whether a specific BOM line or a specific routing operation is used for an effectivity unit. Exceptions are often created as a result of customer requirements, or technology upgrades.

exception

A document type or material that must be excluded from the material price calculation.

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.

generic price lists

Generic price lists form the basis for calculating the prices for particular product variants. For each generic item from the bill of material a price is computed separately. For each operation line a constraint rule may apply.

item material content

The quantity of a material that is part of an item.

kit

A predefined list of items to be delivered together when ordered by the customer.

You can define kits to facilitate order entry. A kit is ordered and priced as a single item. For internal order entry and warehousing purposes, the kit item is a list of components. On the sales order line, the components are linked. The cost price of the kit is the sum of the components' cost prices.

The components of a kit can be of the following types:

- Purchased items
- Manufactured items

Example: The components of a PC kit usually consist of the main cabinet, a monitor, a keyboard, and a mouse. In the Do-It-Yourself market, a toolshed kit can contain the parts for the walls and the roof, a door with hinges, a door handle, and a lock.

list group

A way to group list items. For example, you can use an SLS list group to group list items used on sales orders. A list item can belong to different list groups.

material

The substance of which an item is composed, such as wood, nylon, copper, and gold.

material actual price

The real price of a material from a material exchange for a specific date.

material base price

The fundamental price of a material, which is used as a basis for computing material price surcharges.

For materials with fluctuating prices, material base prices prevent high material surcharges and ensure realistic initial prices.

Example

For the item Copper Wire with Plastic Coating, the major part of the price includes the copper price. The minor part of the price includes the costs of the plastic coating and the production costs for coating the copper wire with the plastic.

If one meter of plastic coated copper wire costs \$8.00, the price parts would be as follows:

- One meter of copper wire (1 kg) = \$6.978
- Plastic coating = \$0.422
- Production costs = \$0.600

To prevent the initial price being low with only \$1.022 and the (variable) material price surcharge being high with \$6.978, you can specify an (approximate) material base price for copper of \$6.500. As a result, the initial price is \$7.522 ($0.422 + 0.600 + 6.500$) and the material price surcharge is \$0.478 ($6.978 - 6.500$), which represent more realistic figures.

material exchange

A global standard for industrial materials trading and price-risk management from which actual material prices are retrieved.

Examples of material exchanges are: London Metal Exchange (LME), Deutsche Elektrolyt-Kupfer-Notierung für Leitmaterial (DEL), and Singapore Metal Exchange (SIME).

material price

The price of a material, which can be the following:

- The material base price, if material actual prices are not applicable (yet)
- The sum of these components: material base price + material price surcharge + material price surcharge costs, if material actual prices are applicable

material price agreement

A general arrangement by price list or business partner(s) and item or item group that includes the dates and preconditions used to retrieve materials and calculate material prices.

material price surcharge

A surcharge on top of the material base price, which is calculated by subtracting the material base price from the material actual price. Because material actual prices fluctuate, material price surcharges vary.

material price surcharge costs

Costs to cover for additional material costs, such as administration costs. These surcharge costs are calculated by multiplying the material price surcharge by a surcharge factor.

Example

- Material price surcharge = €0.432
- Material price surcharge factor = 1.5

The material price will be increased with material price surcharge costs of €0.648 ($€0.432 * 1.5$)

option list ID

The identification of the options and features for a configured item. The ID is used in the item specification to match supply and demand.

phantom

An assembly that is produced as part of a manufactured item, and that can have its own routing.

A phantom is usually not held in inventory, although occasionally some inventory can exist. The planning system does not create material requirements for a phantom, but drives the requirements straight through the phantom item to its components. Phantoms are mainly defined to create a modular product structure.

Example

The door of a refrigerator is defined as a phantom item in the bill of material of a refrigerator. The materials of the door are listed on the production order's material list for the refrigerator.

planned warehouse order

An order created in Sales that forms the basis for most schedule-related processes. Planned warehouse orders, which are created during sales schedule approval, decouple schedule updates and revisions from warehouse orders. They serve as the interface between Sales on one hand and Warehousing and Invoicing on the other hand.

product variant

A unique configuration of a configurable item. The variant results from the configuration process and includes information such as feature options, components, and operations.

Example

Configurable 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.

purchase contract line

The agreement with a supplier about a certain item. A purchase contract line contains both commercial and logistic conditions related to the supply of one item, during a period of time.

In case of a corporate purchase contract, the purchase contract line is a **Total** line, because it has linked purchase contract line details.

purchase order lines

The lines on purchase orders that record detailed information about, for example:

- The ordered items
- The price agreements
- The delivery dates
- Shipping
- Invoicing

You can have one or more lines on a purchase order.

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 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.

response line

A response to a request for quotation line, which includes a bidder's bid for the RFQ line. A bid offers goods or services for a certain price and terms of sale and can be considered as an offer to sell.

return order

A purchase or sales order on which returned shipments are reported. A return order can only contain negative amounts.

RFQ response

A response to a request for quotation, which includes one or more response lines with bids. A bid offers goods or services for a certain price and terms of sale and can be considered as an offer to sell.

sales order lines

A sales order contains items that are delivered to a customer, according to certain terms and conditions. The lines of a sale order are used to record the items ordered, as well as the associated price agreements and delivery dates.

sales quotations

A statement of price, the terms of sale, and a description of goods or services offered by a supplier to a prospective purchaser; a bid. The customer data, payment terms, and delivery terms are contained in the header; the data about the actual items is entered on the quotation lines. When given in response to a request for quotation, a bid is usually considered an offer to sell.

sales schedule

A timetable of planned supply of materials. Sales schedules support long-term sales with frequent deliveries. All requirements for the same item, sold-to business partner, ship-to business partner, and delivery parameter are stored in the same sales schedule.

SSP

See: *supplier stage payments* (p. 62)

standard item

A purchased item, material, subassembly, or finished product that is normally available.

All items that are not built according to customer specification for a specific project are defined as standard items. Opposite term is customized item.

A standard item can have the following order policies:

- **Anonymous**
- **To Order**

supplier stage payments

Spread payments that are made by customers to suppliers over a period of time. With stage payments, customers can make payments for an item before or after the item is actually received. An item's invoice flow is separated from its goods flow.

Abbreviation: SSP

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