Infor LN User Guide for Intercompany Trade

Important Notices

Trademark Acknowledgements

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About this document

This document describes the purpose and general characteristics of intercompany trade. The process to set up intercompany trade and the use of intercompany trade orders are also outlined.

Assumed Knowledge

Familiarity with the business processes involved in intercompany trade, and general knowledge of the LN functionality will help you understand this guide.

References

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

- *User Guide for Terms and Conditions (U9499 US)*
- *Infor LN Common User Guide for Authorizations and Security (U9890 US)*
- *User Guide for Enterprise Structures*

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Chapter 1
Introduction

1

Intercompany trade - introduction

When a project or an order, such as a sales order, is created, various entities within an organization perform activities to execute this order. For example, the sales office invoices the customer and the warehouse delivers the goods.

If the entities of an organization have their own profit and loss registration process, for each activity, internal cost and revenue transactions must be registered to balance the accounts. You can set up intercompany trade to allow the application to create internal cost and revenue transactions, and internal invoices.

Example

Sales office S1 and warehouse W1 are part of organization A, but are located in different countries. To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery.

Internal prices

Various options are available to set up transfer pricing rules or fixed amounts that determine the internal prices.

Intercompany trade orders

If you set up an intercompany trade relationship, the application creates intercompany trade orders for the entities involved to support their own profit and loss registration process. Intercompany trade orders trigger the creation of the internal cost and revenue transactions, and, if specified, the internal invoices.

On an intercompany trade order you can view the details of the intercompany trade activities, such as dates and times, the entities involved, amounts, and the transfer pricing rules on which the amounts are based. Depending on the transfer pricing rules, some pricing details are maintainable.

Approval

Intercompany trade orders can include an approval step. If approval is specified, deliveries are not allowed until the intercompany trade order is approved.

The approval process can be supported by a workflow application.

When the sales order lines of the sales order of the previous example are created, an intercompany trade order is also created. If approval is specified in the setup, W1 cannot deliver the goods to the customer until the intercompany trade order is approved.

Setup

LN distinguishes various types of internal trade processes and trade details, which are specified in intercompany trade scenarios and intercompany trade agreements. These scenarios and agreements are linked to intercompany trade relationships.

An intercompany trade order is created if:

- An intercompany trade relationship is present for the entities involved in the fulfillment of an order.
- The intercompany trade relationship includes an intercompany trade scenario that corresponds with the business process involving the order.

The intercompany trade order includes information of:

- The originating order lines, such as delivery dates and item quantities
- The settings of the applicable trade agreement and trade scenario
- Other master data, such as business partner information and tax data

These settings determine the amounts of the cost and revenue transactions and, if specified, the internal invoice lines. Depending on the settings, you can adjust the transfer pricing rules or the amounts of the intercompany trade order.

Chapter 2
Intercompany Trade Setup

2

Prerequisites for the intercompany trade setup

Before setting up the master data for intercompany trade, these enterprise modeling attributes must be set up:

- Entities
- Enterprise units
- Internal business partners
- Logistic and financial companies.

Note

The enterprise units must be linked to the appropriate internal business partners.

If freight costs are charged internally, shipping offices must be linked to the entities involved in the goods transports.

Intercompany trade setup - overview

The intercompany trade setup entails:

- Specifying the parameters controlling the intercompany trade order approval step.
- Defining intercompany trade agreements.
- Specifying the intercompany trade scenario for each intercompany trade agreement.
- For each intercompany trade agreement and linked intercompany trade scenario:
  - Specifying whether internal invoicing applies.
  - Specifying whether approval applies to the intercompany trade orders.
  - Selecting the price origins on which the internal invoices or intercompany trade transactions are based.
- Defining intercompany trade relationships between the parts of your organization involved in intercompany trade.

- Linking one or more intercompany trade agreements to each intercompany trade relationship.

Note

Before setting up the intercompany trade functionality, complete the company setup. For more information, refer to *Prerequisites for the intercompany trade setup (p. 11)*.

Internal freight responsibilities

If Freight is implemented and freight costs are handled internally, you must specify the internal freight responsibilities:

- The party responsible for freight planning
- The party that must pay the freight costs

Internal terms and conditions

Optionally, you can link internal terms and conditions agreements to enterprise units. Internal terms and conditions are used within the context of internal ownership. The terms and conditions become effective when you link the terms and conditions to a relation between enterprise units. The enterprise unit relations defined for internal terms and conditions have no impact on the intercompany trade agreements linked to intercompany trade relationships.

To set up intercompany trade

The most efficient way to set up the intercompany trade functionality is to first define the smallest building blocks. The process:

1. In the Implemented Software Components (tccom0100s000) session, select the **Intercompany Trade** check box.
2. Specify the required settings in the Intercompany Trade Parameters (tcitr0100m000) session.
3. If required, in the Intercompany Trade Classification (tcitr1630m000) session, define intercompany trade classifications.
4. In the Intercompany Trade Agreement (tcitr1600m000) session, define an intercompany trade agreement.
5. For each intercompany trade agreement, you must specify the intercompany trade scenario to which the trade agreement applies. This determines the available transfer pricing rules used to calculate the amounts of the:
   - Internal costs and revenue bookings
   - (If specified) the internal invoices
6. In the Intercompany Trade Agreement - Transfer Pricing Rules (tcitr1605m000) session, for the intercompany trade agreement, specify the:
   - Price origins

- Priorities
- Markup or markdown percentages or amounts
- Profit split percentage. See *Profit split (p. 13)*

The available price origins and pricing options vary for each intercompany trade scenario.

7. If you selected intercompany trade scenario **Subcontracting Depot Repair** for the trade agreement, you must define one or more subscenarios for each price origin as described in *Subscenarios for Subcontracting depot repair (p. 44)*.
8. Repeat steps 3-6 to add more intercompany trade scenarios.
9. In the Intercompany Trade Relationships 360 (tcitr2300m000) session, click New to start the Intercompany Trade Relationship (tcitr2600m000) session.
10. In the header section of the Intercompany Trade Relationship (tcitr2600m000) session, define an intercompany trade relation.
11. On the Agreements tab, add an intercompany trade scenario and link an intercompany trade agreement to the intercompany trade scenario. You can only add trade agreements with matching intercompany trade scenarios.
12. Repeat step 10 to add more intercompany trade scenarios to the intercompany trade relation as required.

Note

If Freight is implemented and freight costs are handled internally, you must determine the party responsible for freight planning and the party that must pay the freight costs. For more information, refer to *Intercompany trade scenario Freight - process and setup (p. 36)*.

Profit split

Profit split is a method to divide the profit of an external sales transaction between the entities involved in the transaction. In LN, this applies to sales transactions in which two entities are involved. For example, the profit gained from a sales order is divided between the sales office and the warehouse.

The profit split method only applies to these intercompany trade scenarios:

- **External Material Delivery Sales**
- **External Material Direct Delivery**

When the intercompany trade order is created, the profit amount is calculated based on the estimated order price and the estimated cost of goods sold (COGS). During invoicing, the profit is based on the actual order price and COGS.

The profit is divided according to a profit split percentage, which is defined as a default value on the applicable intercompany trade agreement but can be adjusted for the intercompany trade order.

The profit split percentage is defined for the selling entity, the remaining percentage goes to the buying entity.

The profit split percentage is based on the net profit or the gross profit of the sales order. This depends on the **Profit Split (Gross)** or **Profit Split (Net)** price origin specified for the intercompany trade order. The default price origin is defined in the applicable intercompany trade agreement.

Gross profit split and net profit split calculation

```
Gross profit:
Sales order price - COGS

Net profit:
Sales order price - COGS - discounts
```

The gross profit and the net profit is divided between the entities involved according to the **Profit Split Percentage** of the intercompany trade order.

Example

The sales office in Paris of a multinational company sells goods to a customer for EUR 1000. The customer is offered a discount of EUR 40. The goods are delivered from the warehouse in London. The warehouse incurs EUR 800 COGS.

The gross profit is 1000 - 800 = EUR 200.

If the price origin is **Profit Split (Gross)** with a profit split percentage of 60%, the warehouse receives EUR 120 and the sales office EUR 80 (the remaining 40%). The intercompany trade price that the warehouse invoices the sales office is EUR 920:

800 COGS + 120 gross profit. The net profit for the sales office is EUR 40. This is the sales office's gross profit of EUR 80 - EUR 40 discount.

The total net profit is 1000 - 800 - 40 = EUR 160. This is the warehouse's profit of 120 added with the sales office's net profit of 40.

If the price origin is **Profit Split (Net)** with a profit split percentage of 60%, the warehouse receives EUR 96 and the sales office EUR 64 (the remaining 40%). The intercompany trade price that the warehouse invoices the sales office is EUR 896:

800 COGS + 96 net profit. The net profit for the sales office is EUR 64. The gross profit for the sales office is EUR 104. This is the calculated net profit of EUR 64 + EUR 40 reduction.

Setup

1. In the Intercompany Trade Agreement (tcitr1600m000), define an intercompany trade agreement with either of these intercompany trade scenarios:
   - **External Material Delivery Sales**
   - **External Material Direct Delivery**

2. Click New on the Transfer Pricing Rules tab and select pricing origin **Profit Split (Gross)** or **Profit Split (Net)**.
3. In the **Profit Split Percentage** field, specify the profit percentage that the selling entity is to receive. In the preceding example, the warehouse is the selling entity.

Search sequences for intercompany trade relationships

When an order is created, such as a sales order or a warehouse transfer order, the application checks whether intercompany trade relations are available for the entities involved in the order. If yes, intercompany cost and revenue bookings must be posted and, if specified, internal invoices must be created based on the intercompany trade agreements for the applicable intercompany trade scenarios.

Various trade relations can be available that correspond with the entities involved in the order. Of the available relationships, the relationship defined for the most detailed level is given priority.

Example

These intercompany trade relationships correspond to the entities involved in order SLS A:

Relationship	From	To
1	**Enterprise Unit** A	**Any Enterprise Unit**
2	**Enterprise Unit** A	**Entity** sales office B

Relationship 2 is defined for a more detailed level. Therefore, relationship 2 is given priority. Consequently, the trade agreements of relationship 2 determine the amounts of the intercompany cost and revenue bookings and, if specified, the internal invoices.

The **Search Sequence Intercompany Trade Relationships** parameter

The setting of the **Search Sequence Intercompany Trade Relationships** parameter in the Intercompany Trade Parameters (tcitr0100m000) session determines whether the from-side or the to-side of the intercompany trade relationships is given priority.

Example

These intercompany trade relationships are present:

- From warehouse W1 to any enterprise unit
- From any enterprise unit to sales office S2

For internal invoicing between W1 and S2, both relations are applicable. If the setting in the **Search Sequence Intercompany Trade Relationships** parameter is *From*, the relationship of the most detailed level on the from-side is taken: *From* warehouse W1 *To* any enterprise unit. If the priority setting is *To*, the other relationship is given priority.

The use of Any Financial Company and Any Enterprise Unit

The intercompany trade unit types **Any Financial Company** and **Any Enterprise Unit** are used to define generic intercompany trade relationships, for which a few specific rules are applicable.

Any Financial Company

A relationship *to* **Any Financial Company** is a relationship to (the entities of) all financial companies except for the financial company that the from-element (entity, enterprise unit or financial company) belongs to.

A relationship *from* **Any Financial Company** is a relationship from (the entities of) all financial companies except for the financial company that the to-element (entity, enterprise unit, or financial company) belongs to.

Any Enterprise Unit

A relationship *to* **Any Enterprise Unit** is a relationship to (the entities of) all enterprise units, except for the enterprise unit that the from-element (entity or enterprise unit) belongs to.

A relationship *from* **Any Enterprise Unit** is a relationship from (the entities of) all enterprise units except for the enterprise unit that the to-element (entity or enterprise unit) belongs to.

Other than the **Any Financial Company** option, relationships to or from **Any Enterprise Unit** can include relationships to other enterprise units within the same financial company.

Example

Situation:

- Organization A has financial companies AFIN1 and AFIN2.

- Enterprise units AEU11 and AEU12 belong to AFIN1.
- Enterprise units AEU21 and AEU22 belong to AFIN2.
- Warehouse AWH20 belongs to enterprise unit AEU21.

From Warehouse AWH20 *to* **Any Enterprise Unit** includes all enterprise units from both AFIN1 and AFIN2, whereas *from* Warehouse AWH20 *to* **Any Financial Company** only includes the enterprise units belonging to financial company AFIN1: AEU11 and AEU12.

Internal terms and conditions relationships

If you link an internal terms and conditions agreement to a relationship between enterprise units, the internal terms and conditions agreement becomes effective. Internal terms and conditions are used within the context of internal ownership.

To use internal terms and conditions agreements for internal trade:

1. Define internal terms and conditions as described in Setting up terms and conditions.
2. In the Internal Terms and Conditions Relationships (tcitr2140m000) session, specify a relationship between the enterprise units of the entities to which the terms and conditions must apply.

   You must ensure that:
   - The internal business partner of the from- enterprise unit of the relationship is identical to the buy-from business partner of the internal terms and conditions.
   - The internal business partner of the to-enterprise unit is identical to the sold-to business partner of the internal terms and conditions.
3. Specify the relevant internal terms and conditions agreement for the enterprise unit relationship.

Setup example of external material delivery sales and freight

Modeling the internal trade flow may require setting up more than one intercompany trade scenario. This topic outlines the setup of intercompany trade scenarios **External Material Delivery Sales** and **Freight** for a multinational organization.

Situation

- Organization X is represented by logistical company X.
- Sales office S1 and warehouse W1 are part of organization X.
- Sales office S1 is located in Germany and is part of the German division of organization X.

- Warehouse W1 is located in The Netherlands and is part of the Dutch distribution center of organization X.
- Shipping office SHP1 is also part of the Dutch distribution center of organization X.
- Warehouse W1 is responsible for freight planning, but transport planning and all transport related matters are delegated to shipping office SHP1.
- The Dutch and the German branches of organization X have their own profit and loss registration.
- The German branch, with sales office S1, is represented by financial company XF1
- The Dutch distribution center, with warehouse W1 and shipping office SHP1, is represented by financial company XF2.

To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery. The amount of the internal invoice is based on the gross sales order price. SHP1 invoices S1 for freight costs. The freight costs are based on the actual costs.

Step 1: Enterprise modeling

The following enterprise building blocks are implemented in logistical company X:

1. The German division of organization X is defined as enterprise unit X-GER.
2. Enterprise unit X-GER is linked to financial company XF1.
3. Sales office S1 is defined as an entity and is linked to enterprise unit X-GER.
4. The Dutch distribution center of organization X is defined as enterprise unit X-NL.
5. Enterprise unit X-NL is linked to financial company XF2.

   The German and the Dutch enterprise units are linked to different financial companies to keep separate accounts.
6. Warehouse W1 and shipping office SHP1 are defined as entities and are linked to enterprise unit X-NL.

Step 2: Freight

In the Warehouses by Shipping Office (fmfmd0185m000) session in Freight, warehouse W1 is linked to shipping office SHP1.

This is to accomplish that freight orders involving warehouse W1 are grouped into loads and shipments with W1 as the ship-from entity.

Step 3: Intercompany trade agreements

In the Intercompany Trade Agreement (tcitr1600m000) session, these intercompany trade agreements are set up:

1. **EMDS-1**
   - The **Internal Invoice** check box is selected.

- Applicable intercompany trade scenario **External Material Delivery Sales**.
- Price origin **Sales Order Price (Gross)**, with a 5% markdown. This means that the sales office receives 5% of the revenue.

2. **FRGT-1**
   - The **Internal Invoice** check box is selected.
   - Applicable intercompany trade scenario **Freight**
   - Price origin **Cost Plus**, with a 3% markup.

Step 4: Internal Freight responsibilities

In the Internal Freight Responsibilities (tcitr2130m000) session, the following relationship is specified:

- *From* warehouse W1 *To* sales office S1.
- In the **Responsible for Planning** field: to specify that warehouse W1 is responsible for freight planning, **From** is selected.
- In the **Freight Costs Paid By** field: to specify that sales office S1 must pay the freight costs, **To** is selected.

Step 5: Intercompany trade relationships

In the Intercompany Trade Relationship (tcitr2600m000) session, intercompany trade relationship X1 is defined:

- *From* Enterprise unit X-NL *To* Enterprise unit X-GER.

  Note: To cover a wider range of enterprise units, you can define a trade relationship *from* and *to* the financial companies to which the enterprise units X-NL and X-GER belong.

- On the Agreements tab, these scenarios and agreements are selected:
  - Intercompany trade scenario **External Material Delivery Sales** and intercompany trade agreement EMDS-1.
  - Intercompany trade scenario **Freight** and intercompany trade agreement FRGT-1.

The from-part of the relationship applies to the entities that belong to enterprise unit X-NL. These entities are warehouse W1 and shipping office SHP1. Warehouse W1 represents the from-part for the **External Material Delivery Sales** scenario, and shipping office SHP1 represents the from-part for the **Freight** scenario.

The to- part of the relationship applies to the entities that belong to enterprise unit X-GER. This is entity sales office S1.

If an intercompany trade relationship is defined, LN creates internal cost and revenue transactions. For the from-part, LN registers costs incurred on behalf of the to-part. For the to-part, LN registers these costs as payable costs, because the to-part is indebted to the from-part.

According to trade agreement EMDS-1, LN registers these costs if based on external sales orders. The amounts are based on the gross sales order price.

According to trade agreement FRGT-1, LN registers these costs if based on freight orders. The amounts are based on the actual freight costs.

The to-part of the relationship is invoiced for these costs, because internal invoicing is specified in both trade agreements.

Chapter 3
Adopt Cost Selling Structure

3

Adopt selling cost structure

In large enterprises, various organizational entities can be involved in fulfilling an order or project for an external customer. For example, location A delivers subassemblies to location B, who use the subassemblies to produce an end item that is sold to the external customer. Internally, location A is the selling entity and location B is the buying entity.

For more insight into the costs of the item, the buying entity can adopt the cost component structure of the item or project of the selling entity. In the previous example, location B can adopt the cost structure of the subassemblies that location B buys from location A. Also, a specific cost component can be defined on which to book the intercompany trade profit margin of the selling entity.

Adopting the selling cost structure not only provides the buying entity with a detailed view of the costs, but higher management can also use this information for various types of analyses. For example, to analyze cost and profit margins for groups of business units involved in sales to particular customers or regions.

Supported scenarios and originating business objects

Adopting the selling cost structure and specifying a margin cost component is supported for most combinations of intercompany trade scenario and originating business object.

Process

Adopting the selling cost structure and specifying a margin cost component is done for the applicable intercompany trade order.

When the intercompany trade order is created, the values from the applicable intercompany trade agreement are defaulted to the **Adopt Selling Cost Structure** check box and the **Margin Cost Component** field of the intercompany trade order. You can modify these default settings if the order status is **Open** or **Ready for Process**.

The **Adopt Selling Cost Structure** check box and the **Margin Cost Component** field are available in these sessions:

- Intercompany Trade Orders (tcitr3100m000)
- Intercompany Trade Orders - Purchase (tcitr3100m300)
- Intercompany Trade Order (tcitr3100s000)
- Intercompany Trade Order - Purchase (tcitr3100s300)
- Intercompany Trade Order (tcitr3600m000)
- Intercompany Trade Order - Purchase (tcitr3600m300)

When the transaction lines are created, the cost component structure of the selling entity is adopted by the buying entity. The adopted cost structure is displayed in various sessions, such as:

- Sales Order Actual Delivery Line COGS (tdsls4109m000)
- Inventory Receipt Transaction - Cost Details (whina1513m000)
- Integration Transactions (tfgld4582m000)

Setup

1. To use this functionality, select or clear the **Adopt Selling Cost Structure** check box in the Intercompany Trade Parameters (tcitr0100m000) session. This setting is defaulted to the **Adopt Selling Cost Structure** check box of the Intercompany Trade Agreements (tcitr1100m000) session.
2. For the applicable intercompany trade agreements, in the Intercompany Trade Agreements (tcitr1100m000) session:
   - Select the **Adopt Selling Cost Structure** check box.
   - Optionally, specify a profit margin cost component in the **Margin Cost Component** field.

Note

The requirements for adopting the selling cost structure may differ for particular groups of entities or regions. To meet these requirements, different intercompany trade relationships can be required.

For example, if adopting the selling cost structure is required for intercompany trade agreement X between entity A and entity B, but not between entity A and the entities in region C, you must define different relationships and specify the required setting for adopting the cost structure for each relationship.

Supported scenarios and originating business objects

Adopting the selling cost structure and specifying a margin cost component is supported for most combinations of intercompany trade scenario and originating business object.

This functionality is not supported for these intercompany trade scenarios:

- **Freight**

- **Subcontracting Depot Repair**

External material delivery sales

Supported for sales orders, sales schedules and contract deliverables.

For sales orders, the selling cost component structure of the warehouse is used. The COGS listed on the sales order include the cost components and the intercompany margin of the shipping warehouse.

Not allowed for service orders, maintenance sales orders, or customer claims.

External material direct delivery

Supported for sales orders.

Not allowed for service orders.

For sales orders, the selling cost component structure of the purchase order is used. The COGS listed on the sales order include the cost components of the purchase order and the intercompany margin of the purchase office.

Internal material delivery

Supported, except for items linked to a project in Project.

For warehouse transfer receipts, the selling cost component structure of the shipping warehouse is used. The COGS listed on the warehouse transfer include the cost components and the intercompany margin of the shipping warehouse.

Labor

Supported for:

- Production orders
- Assembly lines
- Projects created in the Project Control module
- General hours lines from People

For assembly lines, the cost component is converted to the effective line structure.

If you select the **Adopt Selling Cost Structure** check box for the intercompany trade order, selecting a margin cost component is not mandatory.

Not allowed for service orders, maintenance work orders, or projects from the Project package.

Expenses

Supported for general expense lines from People.

An expense has only one cost component. The costs are booked on this cost component and the internal margin is added to or subtracted from these costs.

Not allowed for projects from the Project package.

PCS delivery

Supported.

WIP transfer

Supported.

The intercompany transactions are performed at actual costs. Therefore, there is no intercompany trade margin and margin cost components cannot be specified.

Adopt selling cost structure - examples

Location A manufactures subassembly 1001 and sells it to location B. Subassembly 1001 is transferred in a warehouse transfer to location B. The intercompany trade scenario is **Internal Material Delivery**. Location B uses subassembly 1001 to manufacture end item 1101, which is to be sold to an external customer. The table displays the total costs, the cost structure, the total revenue and the intercompany trade profit margin for location A.

Location A	Subassembly 1001	Cost component	Amount EUR
	Material	MATX	100
	Operations	OPSX	200
	Surcharges	SURX	50
	Total COGS		350
	Revenue		500
	Intercompany trade profit margin	ITMRX	150

The transfer price is EUR 500, which includes the profit margin of EUR 150 for location A. In the following table, the cost component structure of subassembly 1001 is not adopted by location B.

Location B	Subassembly 1001	Cost component	Amount EUR
	Material 1001	*MAT*	*500*

If location B adopts the cost structure from location A, a more detailed cost breakdown is displayed for subassembly 1001. In the following table, the intercompany margin cost component *ITMRX* is specified. *ITMRX* is part of the effective cost component structure of subassembly 1001:

Location B	Cost component type		Amount EUR
Sub-assembly 1001	*Material*	*MATX*	*100*
	Operations	*OPSX*	*200*
	Surcharges	*SURX*	*50*
	Intercompany trade profit margin	*ITMRX*	*150*

In the following table, *ITMRX* does not belong to the effective cost component structure of subassembly 1001. *ITMRX* is of cost component type **Material Costs**. Consequently, the amount of the intercompany trade margin is aggregated to cost component *MATX*:

Location B	Cost component type	Cost component	Amount EUR
Subassembly 1001	*Material*	*MATX*	*250*
	Operations	*OPSX*	*200*
	Surcharges	*SURX*	*50*

In the following table, *ITMRX* does not belong to the effective cost component structure of subassembly 1001. *ITMRX* is of cost component type **Surcharge on Operation Costs**. Consequently, the amount of the intercompany trade margin is aggregated in cost component *SURX*:

Location B	Cost component type	Cost component	Amount EUR
Subassembly 1001	*Material*	*MATX*	*100*
	Operations	*OPSX*	*200*
	Surcharges	*SURX*	*200*

Specifying a margin cost component

When you select the **Adopt Selling Cost Structure** check box for an intercompany trade agreement or an intercompany trade order, selecting a cost component on which to book the intercompany trade profit margin of the selling entity is mandatory or optional, based on:

- The applicable intercompany trade scenario if you are working in the Intercompany Trade Agreements (tcitr1100m000) session.
- The combination of intercompany trade scenario and originating business object if you are working in one of the intercompany trade order sessions.

If the selected margin cost component is part of the effective cost component structure of the item or assembly line, the intercompany trade margin is booked to the margin cost component.

If the margin cost component is not part of the effective cost component structure of the item or assembly line, the intercompany trade margin is added to or subtracted from the amount of the cost component whose cost component type is identical.

If for a labor line of a production order no margin cost component is specified and the labor cost components have the same cost component type, the intercompany trade profit margin is divided proportionately among the cost components:

Opera-tion	Operation costs	Cost component type	Cost component	Amount EUR
OPS1	100	*Operations*	*OPS1*	*100*
OPS2	50	*Operations*	*OPS2*	*50*

If the intercompany trade profit margin is 30, the margin is apportioned as follows:

Opera-tion	Operation costs	Cost component type	Cost component	Amount EUR
OPS1	100	*Operations*	*OPS1*	*120*
OPS2	50	*Operations*	*OPS2*	*60*

Chapter 4
Intercompany Trade Scenarios

4

Intercompany trade scenario External material delivery sales

The ownership of the goods changes from an internal financial entity to an external business partner (or affiliated company) based on an order of another internal financial entity, which invoices the external customer.

Example

Sales office S1 and warehouse W1 are part of organization A, but are located in different countries. To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery.

On the intercompany trade order, W1 is the selling entity and S1 is the buying entity.

Business processes

The **External Material Delivery Sales** scenario is used for these business processes:

- **Sales process**
  - A sales order with a delivering warehouse. In case of returns, credit notes are created.
  - A sales schedule with a delivering warehouse.
  - A sales order with a delivering work center (for FAS items).
- **Service process**
  - A service order with a delivering warehouse. In case of returns, credit notes are created.
  - A maintenance sales order with a delivering warehouse on a part delivery line. On a part receipt line, a credit note is created.
  - A customer claim with a delivering warehouse.

- **Project**
  A project contract delivery with a delivering warehouse. In case of returns, credit notes are created.

In this scenario, the intercompany trade order is created when the originating order lines are created. The transaction lines are created when a delivery is made for the originating order. For more information, refer to *Intercompany trade orders (p. 47)*.

Supported price origins

- **Cost Plus**
- **Commercial Price**
- **Sales Order Price (Gross)**
- **Sales Order Price (Net)**
- **Sales Order Customs Value**
- **Profit Split (Gross)**
- **Profit Split (Net)**

Deliveries from work center instead of warehouse

Deliveries of FAS items for sales order lines can be made straight from the work center instead of a warehouse. In such cases, the **From Entity** field on the intercompany trade order displays the work center from which the delivery is made. On the shipment of the related warehousing order, the **Ship-From** field displays the issuing work center instead of a warehouse.

Intercompany trade if part loan changes into part delivery

Part loan deliveries for maintenance service orders are not regarded as intercompany trade. Nevertheless the application creates an intercompany trade order for a part loan line, because the part loan can change into a part delivery. A part loan changes into a part delivery if the customer does not return the loaned item. If an intercompany trade relation is present for the entities involved in the part delivery, this is an intercompany trade transaction.

If an intercompany trade order is created from a part loan line, the **Part Loan** check box is selected in the Intercompany Trade Orders (tcitr3100m000) session.

Before converting the part loan delivery to a part delivery, the user must approve the intercompany trade order if approval is specified for the applicable intercompany trade agreement. After the conversion, the application creates transaction lines for the intercompany trade order.

If the maintenance sales order is closed and the part loan lines are not converted to part deliveries, the relevant intercompany trade orders are cancelled.

BOM items and kit items

If the originating sales order line lists a bill of material (BOM) item, a parent intercompany trade order is created for the main item, and a child order is created for each of the bill of material (BOM) component

items. If the price origin of the intercompany trade agreement is **Commercial Price**, the price is determined according to the setting of the **Commercial Price in case of BOM Lines** field in the Intercompany Trade Parameters (tcitr0100m000) session. You can change this setting on the intercompany trade order.

Similarly, if the price origin is **Sales Order Price (Gross)** or **Sales Order Price (Net)** for kit items, the sales price is apportioned to the component items.

Intercompany trade scenario External material delivery purchase

The ownership of the goods changes from an external supplier (which can be an affiliated company) to an internal financial entity based on an order of another internal financial entity, which is invoiced by the external supplier.

Example

A multinational organization has a central purchase office that buys materials for its production plants located in various countries. The purchase office buys the materials from external suppliers. The production plants are modeled as separate financial entities. The purchase office charges the production plants internally for the costs it made.

To charge the production plants, the central purchase office sends intercompany trade orders to the production plants. The charges can be based on various pricing rules, such as the purchase price paid to the external supplier.

On the intercompany trade order, the purchase office is the selling entity and the production plants are the buying entities.

Business processes

The **External Material Delivery Purchase** scenario is used for these business processes:

- **Purchase process**
  A purchase order or purchase schedule with a receiving warehouse belonging to a different entity. The receipts can include:
  - Purchased items
  - Subcontracted items or subassemblies with or without material flow
- **Assembly Control**
  A receipt for an assembly line from an assembly line belonging to a different logistic company. The receipt is based on a purchase order.

- **Job Shop Control process**
  A receipt for a purchase order created for a **Production Order** WIP. The receipt includes subcontracted service items without material flow.
- **Service process**
  Receipts of subcontracted items for a purchase order based on:
  - A service order WIP
  - A maintenance sales order WIP
- **Supplier Claim**
  Receipts, returns excluded.
- **Project**
  A project receipt for a purchase order

In this scenario, the intercompany trade orders are generated when the originating purchase order lines, purchase schedule lines, or the supplier claim receipt lines are created. The transaction lines are created when the receipt is completed. See *Intercompany trade orders (p. 47)*

Supported price origins

- **Cost Plus**
- **Commercial Price**
- **Purchase Order Price (Gross)**
- **Purchase Order Price (Net)**

Intercompany trade scenario Project (PCS) Delivery

The cost of goods sold (COGS) of a Project Control project can be posted to the entities involved in the project. If an intercompany trade relationship is defined for the project calculation office and the responsible departments involved, an intercompany trade order and, if specified, an internal invoice is created for the calculation office and the responsible department.

In this scenario, the originating business object is a **PCS Project**. The intercompany trade order is created when the COGS details are saved in the Project COGS Distribution (tipcs3110m000) session, provided that an intercompany trade relation is present for the project office and the responsible department involved.

Related orders are not present in this scenario. The transaction lines are created when the project is closed.

Supported price origin: **Cost Plus**

Intercompany trade scenario WIP Transfer

In case of WIP transfers, work in progress is transferred from one work center to another work center. Each work center is defined as an entity. Each entity belongs to a different internal financial entity. The shipping work center invoices the receiving work center, because ownership changes directly from one internal financial entity to another internal financial entity. Supported price origin: **Cost Plus** (without markup).

For the intercompany trade order, the shipping work center is the selling entity and the receiving work center is the buying entity.

Business process

The **WIP Transfer** scenario is used in production processes:

- Job Shop Control production orders involving two operations related to work centers belonging to different financial entities.
- Assembly Control assembly orders involving two assembly lines related to work centers belonging to different financial entities.

In this scenario, invoicing or revenue and cost postings are based on actual costs. This cannot be modified.

Job Shop Control

A production order includes multiple operations carried out by different work centers. The production order is linked to a calculation office. The **WIP Transfer** scenario is applicable if an intercompany trade relationship is present between:

- The work centers linked to two successive operations in the production process
- The work center of the last operation and the calculation office of the production order

When an operation or an entire production order is reported complete, an intercompany trade order and the linked transaction lines are generated. The originating order is the warehousing order of transaction type **WIP Transfer** that transfers the semifinished goods or completed products between the work centers. In this scenario, related orders are not present.

In the Intercompany Trade Order Transaction Lines (tcitr3110m000) session, the production order is the purchase business object.

Assembly Control

In an assembly structure, assembly lines can be linked to different calculation offices represented by work centers. If an intercompany trade relationship is present between the work centers, the **WIP Transfer** scenario is applicable. The process to create the intercompany trade order and the transaction lines is similar to that of Job Shop Control. The warehousing **WIP Transfer** order is the originating order.

Intercompany trade scenario external material direct delivery

The ownership of the goods changes from one external legal entity to an external business partner based on two orders, for example a sales order and a purchase order, from different internal legal entities.

Example

To fulfill a sales order for an external customer, sales office A instructs purchase office A1 to purchase goods from an external supplier. The supplier delivers the goods directly to the external customer. Sales office A invoices the external customer. The external supplier invoices purchase office A1. To be compensated for the costs incurred, purchase office A1 sends an internal invoice to sales office A.

On the intercompany trade order, purchase office A1 is the selling entity and sales office A is the buying entity.

Business processes

The **External Material Direct Delivery** scenario is used in sales and service processes in which the goods are delivered directly from an external supplier to the external customer:

- **Sales process**
  Sales order for which the deliveries are made from the buy-from business partner of the related purchase order.
- **Service process**
  Service order for which the deliveries are made from the buy-from business partner of the related purchase order.

In this scenario, the originating order is a direct delivery sales or service order and the related order is the purchase order that registers the items to be delivered directly from the buy-from business partner to the customer.

The intercompany trade order is created when the purchase order related to the originating sales or service order is created, provided that an intercompany trade relation and the applicable scenario are defined for the sales office of the sales or service order and the purchase office of the related order. The transaction lines are created when a receipt is specified for the related purchase order.

Note

If approval is required, you must approve the intercompany trade order to complete the administrative receipt for the purchase order. The actual receipt at the customer's is a separate process that is not affected by the approval process of the intercompany trade order.

Supported price origins

- **Cost Plus**

- **Commercial Price**
- **Sales Order Price (Gross)**
- **Sales Order Price (Net)**
- **Sales Order Customs Value**
- **Purchase Order Price (Gross)**
- **Purchase Order Price (Net)**
- **Profit Split (Gross)**
- **Profit Split (Net)**

Intercompany trade scenario internal material delivery

Goods and the related ownership are transferred from one internal financial entity to another internal financial entity. For example, a warehouse transfer in which goods are transferred from one warehouse to another. Both warehouses are defined as entities. In this scenario, the shipping entity incurs costs on behalf of the receiving entity, or invoices the receiving entity.

Business processes

The **Internal Material Delivery** scenario is used in warehouse transfers.

In this scenario, the originating order is a transfer order. The intercompany trade order is created when the transfer order is created. There is no separate related order. For the intercompany trade order, the **Related Business Object** field is blank.

The transaction lines are created when the shipments of the outbound order lines of the transfer order are created. At this point, the issuing, or selling, warehouse can invoice the receiving warehouse. In this scenario, on the intercompany trade order the issuing warehouse is the selling organization and the receiving warehouse is the buying organization.

For one shipment from the issuing warehouse, multiple receipts can be generated in the receiving warehouse. Therefore, multiple receipts can exist on a transaction line.

Multicompany warehouse transfers

For multicompany warehouse transfers, two warehouse transfer orders are created. One in the company of the issuing warehouse, and the other in the company of the receiving warehouse. The transfer order of the issuing warehouse is the originating order of the intercompany trade order and the transfer order for the receiving company is the related order.

Child orders in subcontracting depot repair scenario

The **Internal Material Delivery** scenario is used in subcontracting depot repair scenarios involving child orders. For more information, refer to *Subcontracting depot repair for intercompany trade - process and setup (p. 39)*.

Supported price origins

- **Cost Plus**
- **Commercial Price**

Intercompany trade scenario Freight - process and setup

Freight costs are invoiced by a shipping office to a warehouse, sales office, or other department.

If a freight order is created for an order, such as a sales order, transfer order, or purchase order, the shipping office pays the freight costs. If specified, to be compensated for the freight costs the shipping office sends an internal invoice to the sales office, warehouse or purchase office on whose behalf the freight costs are incurred. The shipping office and the other departments are defined as entities.

In this scenario, a shipping office is the selling entity and a warehouse, sales office or other department is the buying entity on the intercompany trade order.

The originating order is a freight order. When the freight order is created, the application checks the entity responsible for freight planning and the entity that must pay the freight costs. If an intercompany trade relation is defined between the shipping office that incurs the freight costs and the entity that must pay the freight costs, an intercompany trade order is created. The transaction lines are created when deliveries are made for the freight orders. In the **Freight** scenario, related orders are not defined.

Internal Freight setup

To use the **Freight** scenario, some specific setup is required. This entails defining:

- The entities responsible for freight planning
- The entities that must pay the freight costs
- An intercompany trade agreement, transfer pricing rules, and an intercompany trade relation.

The entities responsible for freight planning

If an order requires transportation, one of the entities involved in the fulfillment of the order is responsible for freight planning. For example, for a warehouse transfer, two warehouses are involved.

In the **Responsible for Planning** field of the Internal Freight Responsibilities (tcitr2130m000) session, you can specify which of the entities (warehouses in the previous example) is responsible for freight planning.

In Freight, shipping offices are linked to warehouses and - through the originating order types - to other entities.

When the freight order creation process is started, the shipping office linked to the entity responsible for planning is used to create freight orders, shipments, and loads in Freight.

If an order requires transportation, and a single warehouse is involved, this warehouse is responsible for freight planning in Freight. For example, this applies to a sales order in which a warehouse and a sales office are involved. In this situation, no further setup is required.

However, for warehouse transfers two warehouses are involved and for direct delivery, no warehouse is involved. By default, in these situations the from-entity is responsible for freight planning. For warehouse transfers, the from-entity is the issuing warehouse. For direct delivery, this is the purchase office. If this default setup is not required, you must specify the responsible to-entity in the Internal Freight Responsibilities (tcitr2130m000) session.

The entities that must pay the freight costs

If a warehouse and a department are involved in an order that requires transportation, by default, the department must pay the freight costs. For warehouse transfers, the issuing warehouse must pay by default, and for direct delivery this is the purchase office. If this default setup is not required, you must specify the responsible to-entity in the **Freight Costs Paid By** field of the Internal Freight Responsibilities (tcitr2130m000) session.

Intercompany trade agreement, transfer pricing rules, and trade relationship

You must also define an intercompany trade relation with intercompany trade scenario **Freight** in the Intercompany Trade Relationship (tcitr2600m000) session. In this relationship, the from-part is the shipping office that sends the freight invoice, and the to-part is the party that pays the freight costs. This is the default party described in the previous section or the party that you select in the **Freight Costs Paid By** field of the Internal Freight Responsibilities (tcitr2130m000) session.

Supported price origins

- **Cost Plus**
- **Commercial Price**

Internal and external freight invoicing

In the Freight Invoicing module, freight invoices can be created for both internal and external business partners.

External business partners are the customers or suppliers on whose behalf the transportation costs are incurred. Business partners are maintained in Common. Suppliers and customers are maintained as buy-from business partners and sold-to business partners. Invoices are sent to the invoice-to business partners of the sold-to and buy-from business partners.

Internal business partners are departments in larger organizations that can be invoiced internally. In large organizations, the shipping office arranges transportation on behalf of internal business partners such as:

- sales offices
- purchase offices
- service departments
- warehouses

The shipping office receives the invoice from the carrier. In turn, the shipping office invoices the sales office, the warehouse, the service department, or the purchase office internally to be compensated for the carrier charges incurred.

In Common, shipping offices, service departments, sales offices, and purchase offices are maintained as departments. To enable invoices to be created for the internal business partners related to the departments, relations must be defined between the departments. Relationships are defined in the Intercompany Trade module of Common.

To create an internal invoicing relationship between two departments, two relationships must be defined.

The first relationship indicates whether the from-entity (department) or the to-entity is responsible for paying the transportation costs. This relationship is defined in the Internal Freight Responsibilities (tcitr2130m000) session.

The second relationship is between the shipping office and the responsible entity of the first relationship. The shipping office in this relation is the shipping office linked to the responsible entity of the first relationship. This relationship is defined in the Intercompany Trade Relationship (tcitr2600m000) session.

In Freight, shipping offices are linked to warehouses and - through the originating order types - to other entities.

If the responsible entity of the first relationship is also responsible in the second relationship, an internal invoice must be created.

Example

Relationship 1 Internal Freight Responsibilities (tcitr2130m000)

From-entity	To-entity	Responsible entity
Warehouse	Sales office	Sales office

Relationship 2 Intercompany Trade Relationship (tcitr2600m000)

From-entity	To-entity	Responsible entity

Shipping office	Sales office	Sales office

The responsible entity in relationships 1 and 2 is the entity that pays for the freight costs, which is the entity to which the internal invoice is sent.

Subcontracting depot repair for intercompany trade - process and setup

Operations or activities are carried out by one financial entity on behalf of another financial entity and costs are incurred, for example, material or labor, for these operations or activities.

Work center WCA1 and Service Department SDA2 are entities of organization A. Work center WCA1 belongs to financial company FA1 and Service Department SDA2 belongs to financial company FA2. Both financial companies are also part of organization A.

To fulfill a maintenance sales order for an external customer, Service Department SDA2 instructs Work center WCA1 to carry out some repairs for item R1 on behalf of the external customer. SDA2 invoices the external customer. As compensation for the costs incurred, WCA1 invoices SDA2 for materials and labor at actual costs.

Business process

This scenario applies to maintenance sales orders, and uses a parent and one or more child intercompany trade orders. On the parent order, WCA1 is the selling entity and SDA2 is the buying entity. The parent order also displays the main item, the overall price origin, and the total cost of goods sold (COGS) and revenues of the child orders.

A child intercompany trade order displays a repair item, labor costs, or hours booked by a service engineer. If different items are used to repair a main item, a child order is created for each repair item.

Multiple issues for the same repair item can be combined in one child order. Labor bookings from different engineers can be combined in a child order if these attributes match:

- **Work Order**
- **Labor Line**
- **Activity Line**
- **Reference Activity**
- **Task**
- **Cost Component**
- **Labor Type Cost**
- **Labor Rate Code**

The related work order displays the responsible work center and overall information such as the item to be repaired. The work order is linked to various resource lines such as material resource lines, or hours accounting lines.

When the related work order is saved, the parent intercompany trade order is created. The child intercompany trade orders are created when the work order lines are saved.

The transaction lines are created when the related work order is closed. To close the work order, the selling and buying parts of the parent and child intercompany trade orders must be approved.

Child orders in subcontracting depot repair scenario

In subcontracting depot repair scenarios with price origin time and material, the items - materials - used to repair the main item can be invoiced by the work center to the service department. This is displayed on child intercompany trade orders. For these child orders, the scenario is **Internal Material Delivery**.

Supported price origins

- **Time and Material**
- **Commercial Price**

For the subscenarios **Labor** and **Internal Material Delivery**, the price origins are:

Supported price origins

- **Cost Plus**
- **Commercial Price**

For the subscenario **Other**, the price origins are:

Supported price origins

- **Cost Plus**
- **Zero Price**

Setup

1. Work center WCA1 and Service Department SDA2 are both defined as entities of organization A.
2. In the Intercompany Trade Agreement (tcitr1600m000) session, intercompany trade agreement SDR-A1 is set up with these settings:
   - Intercompany trade scenario **Subcontracting Depot Repair**.
   - Price origin **Time and Material**
3. To invoice labor and expenses, in the Intercompany Trade Agreement - Transfer Pricing Rules (tcitr1605m000) session, the **Labor** subscenario is selected.
4. For subscenario **Labor**, price origin **Cost Plus** is selected in the Intercompany Trade Agreement - Time and Material (tcitr1610m000) session.

5. In the Intercompany Trade Relationship (tcitr2600m000) session, intercompany trade relationship A1 is defined:
   - *From* Entity WCA1 *To* Entity SDA2.

     To cover a wider range of entities, you can define a trade relationship *from* and *to* the enterprise units or financial companies to which the entities WCA1 and SDA2 belong.
   - On the Agreements tab, intercompany trade scenario **Subcontracting Depot Repair** and intercompany trade agreement SDR-A1 is selected.

Intercompany trade scenario Labor

The intercompany trade scenario **Labor** is used to determine the intercompany trade amount that the department of the employee who books the hours charges internally to the department on whose behalf the hours are booked.

Hours are booked in these sessions:

- General Hours (bptmm1111m200)
- Project Hours (bptmm1111m000)
- Production Order Hours (bptmm1120m000)
- Service Order Hours (bptmm1130m000)
- Work Order Hours (bptmm1140m000)
- Assembly Hours (bptmm1160m000)
- Project (PCS) Hours (bptmm1170m000)

These price origins are available to determine the internal amounts for hours:

Supported price origins

- **Cost Plus**
- **Commercial Price**

Cost Plus

The cost plus amount is based on the actual costs of the hours specified in the hours related sessions in People. You can add a markup percentage to this amount in the Intercompany Trade Agreement (tcitr1600m000) session.

Note

For intercompany trade orders originating from service orders or work orders, the markup percentage is determined by the setting of the **Cover Labor Overhead Costs in Employee Department** check box in the People Parameters (bpmdm0100m000) session. If this check box is selected, the markup percentage is based on the labor rate and the service overhead rate specified for the labor rate applicable to the employee. These rates are determined in the Labor Rate Code - Rates (tcppl0191m000) or Specific Labor Rates (tcppl0192m000) sessions.

Commercial Price

The commercial price for the hours spent on a project or an order by an employee is determined by the intercompany rate specified for the labor rate applicable to the employee.

Additionally, you can add an intercompany rate surcharge to internally book special rates for activities such as overtime, travel time, or training time. An intercompany rate surcharge is added to a labor type in the Labor Type - Surcharges (tcppl0131m000) session.

Example

An employee from another department is hired at USD 40 per hour for normal time and USD 50 for overtime. For overtime, an intercompany rate surcharge of 25% is specified to compensate the employee's department.

Labor rates

Labor rates (that include the intercompany rates) can be added to an employee, an employee's department or trade group in these sessions:

- Employees - General (tccom0101m000)
- Departments (tcmcs0565m000)
- Employees - Project (tppdm8101m000)
- Trade Groups (tppdm0530m000)

To determine which of these labor rates is used to determine the intercompany rate for the current intercompany trade relationship and intercompany trade scenario, you can set the priority in the **Search Path** field of the Intercompany Trade Agreements (tcitr1100m000) session.

Intercompany rates for labor rates are specified in the **Intercompany Rate** field of the Labor Rate Code - Rates (tcppl0191m000) session.

Intercompany trade scenario Expenses

The intercompany trade scenario **Expenses** is used to determine the intercompany trade amount that the department of the employee who made the expenses charges internally to the department on whose behalf the expenses are made.

Expenses are booked in these sessions:

- General Expenses (bptmm1111m300)
- Project Expenses (bptmm1111m100)

These price origins are available to determine the internal expense amounts:

Supported price origins

- **Cost Plus**
- **Commercial Price**
- **Zero Price**

Cost Plus

The cost plus amount is based on the amount specified in the **Expense Amount** field of the General Expenses (bptmm1111m300) or the Project Expenses (bptmm1111m100) session. You can add a percentage to this amount.

Commercial Price

For general expenses, the commercial price is determined by the intercompany price of the **General Expense** code specified for the employee in the **Expense** field of the General Expenses (bptmm1111m300) session. Intercompany prices for general expense codes are specified in the **Intercompany Price** field of the General Expense Types (bpmdm0155m000) session.

To book project expenses, various types of expenses are available. These are grouped by cost type. For each type of expense, you can specify an intercompany price or intercompany rate that determines the commercial price:

Cost Type	Type of expense	Intercompany price or rate	Defined in session
Labor			
	Task	**Intercompany Rate**	Task (tppdm0615m000)
	Project Task	**Intercompany Cost Amount**	Project Task (tppdm6615m000)
Sundry Costs			
	Sundry Cost	**Intercompany Price**	Sundry Cost (tppdm0114s000)
	Sundry Cost	**Intercompany Price**	Project Sundry Cost (tppdm6114s000)

Zero Price

The value 0 (zero) is used for an internal invoice, because the costs are considered to be part of another invoice line, for example, the surcharge for labor or material.

The employees can book expenses to be compensated for the costs, but the expenses are not internally charged to the department on whose behalf these costs were incurred.

Subscenarios for Subcontracting depot repair

For intercompany trade scenarios of type **Subcontracting Depot Repair**, you must specify the price origins **Time and Material** or **Commercial Price**. For the specified price origin, you must specify one or more of these time and material subscenarios:

- **Internal Material Delivery**
- **Labor**
- **Other**

To specify a price origin and a time and material subscenario:

1. Select a price origin as described in step 4 in *To set up intercompany trade (p. 12)*.
2. Double-click the selected price origin to start the Intercompany Trade Agreement - Transfer Pricing Rules (tcitr1605m000) session.

3. Double-click a subscenario to start the Intercompany Trade Agreement - Time and Material (tcitr1610m000) session.
4. Select a price origin for the selected subscenario.
5. Repeat steps 1-4 as required.

Chapter 5
Intercompany Trade Orders

5

Intercompany trade orders

An intercompany trade order is created from an originating business object such as:

- A sales order
- A service order
- A warehouse transfer
- A project
- The hours registration of an employee

The intercompany trade order is created when the order lines or project lines of the originating business object are created, provided that an intercompany trade relationship with an applicable intercompany trade scenario is defined for the entities related to the originating business object. The application creates an intercompany trade order for each originating business object line.

Transaction lines and related business objects

A transaction line is linked to an intercompany trade order and displays the details of a delivery, service, or other activity performed for the originating business object. The transaction line triggers the creation of the internal cost and revenue transactions, and, if specified, the internal invoice lines.

A transaction line is created when a delivery is made or a service is rendered for the originating business object. In some scenarios, deliveries are created using related business objects, such as warehousing orders or work orders.

Intercompany trade order numbering

The application creates an intercompany trade order for each business object line of an originating business object. Intercompany trade order numbering is based on standard intercompany trade order numbering or user defined order series. For more information, refer to *Intercompany trade order numbering (p. 51)*.

Parent and child intercompany trade orders

An intercompany trade order provides the overall intercompany trade information that is applicable for the linked transaction lines. In some scenarios, however, part of the information applies only to some of the transaction lines. For example, in a **Subcontracting Depot Repair** scenario, to repair the main item various other items can be used. In such cases, the parent intercompany trade order lists the details of the main item, and the child intercompany trade orders list the details of the repair items.

Applicable intercompany trade scenarios and agreements

An intercompany trade order is created if:

- An intercompany trade relationship is present for the entities involved in the fulfillment of an order.
- The intercompany trade relationship includes an intercompany trade scenario that corresponds with the business process involving the order.

These settings determine the amounts of the cost and revenue transactions and, if specified, the internal invoice lines. Depending on the settings, you can adjust the transfer pricing rules or the amounts of the intercompany trade order.

Example

Sales office S1 and warehouse W1 are part of organization A, but are located in different countries. To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery.

An intercompany trade relationship is defined for W1 and S1. The intercompany trade scenario **External Material Delivery Sales** is linked to the intercompany trade relationship.

According to the intercompany trade agreement linked to this scenario, internal invoicing is applicable and the internal invoice must be based on the **Sales Order Price (Net)** price in this example. Therefore, the conditions of this intercompany trade agreement are retrieved to create the intercompany trade order. The internal invoice amount is based on the **Sales Order Price (Net)** price.

Approval

Intercompany trade orders can include an approval step. If approval is specified, deliveries are not allowed until the intercompany trade order is approved.

Both the buying and the selling organization must approve the intercompany trade orders. In the intercompany trade process the selling organization is the entity that delivers goods or renders services. The buying organization purchases goods or services.

Approval can be done automatically or manually. For example, you can specify that the selling organization must approve manually and the buying part must approve automatically.

Transaction lines and related business objects

A transaction line is linked to an intercompany trade order and displays the details of a delivery, service, or other activity performed for the originating business object. The transaction line triggers the creation of the internal cost and revenue transactions, and, if specified, the internal invoice lines.

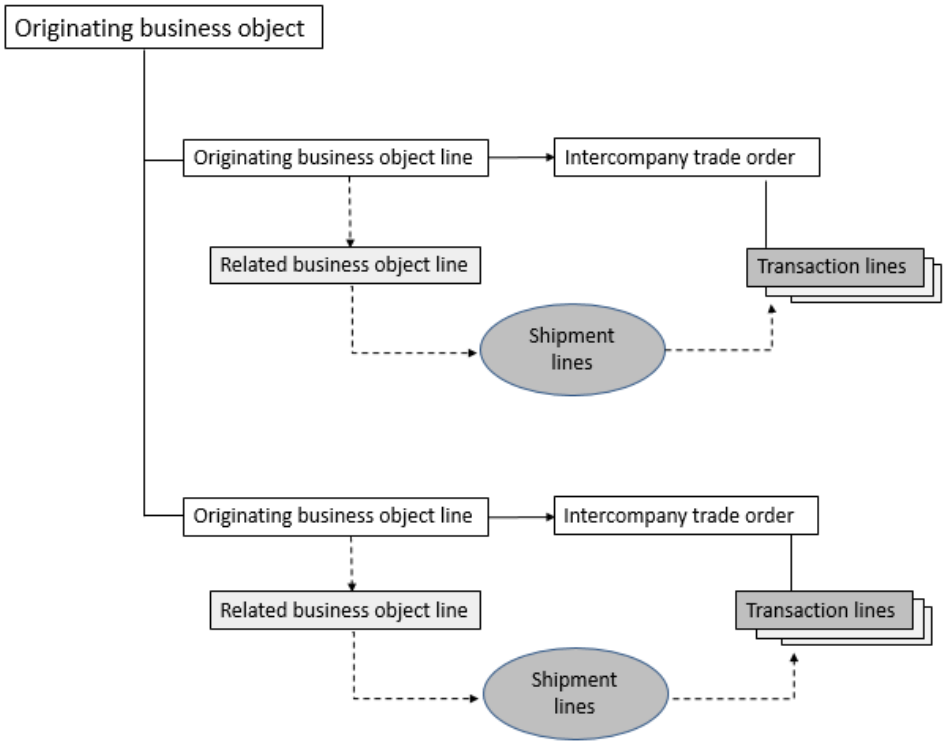
A transaction line is created when a delivery is made or a service is rendered for the originating business object. In some scenarios, deliveries are created using related business objects, such as warehousing orders or work orders.

Related business objects

A delivery or a service is created using a related business object, such as a warehousing order or service order, in these scenarios:

- **External Material Delivery Sales**
- **External Material Direct Delivery**
- **Subcontracting Depot Repair**
- **Internal Material Delivery**
  For warehouse transfers, for other originating business objects there are no related business objects.
- ***Labor (p. 41)***
  If hours are booked for an order or a project, the hours booking is the related object. For general hours bookings, there are no related business objects.
- ***Expenses (p. 42)***
  If expenses are booked for an order or a project, the expense booking is the related object. For general expense bookings, there are no related business objects.

For various types of originating business objects, such as sales orders, or service orders, a transaction line is created when a shipment line is created for the related warehousing order of the originating business object line. This is displayed in the following diagram:



For originating maintenance sales orders in the *Subcontracting depot repair for intercompany trade - process and setup (p. 39)* scenario, the related business object is a work order. The transaction lines are created when the work order is saved.

For originating business objects in the *External material direct delivery (p. 34)* scenario, the purchase order used to order the goods from the supplier is the related business object.

For originating business objects in the *Labor (p. 41)* and *Expenses (p. 42)* scenarios, the related business objects are the hours and expense entries for the relevant employees in People.

Deliveries or services without related business objects

Deliveries or services are created without related business objects in these scenarios:

- *Intercompany trade scenario Freight - process and setup (p. 36)*
- *Intercompany trade scenario Project (PCS) Delivery (p. 32)*
- *Intercompany trade scenario WIP Transfer (p. 33)*

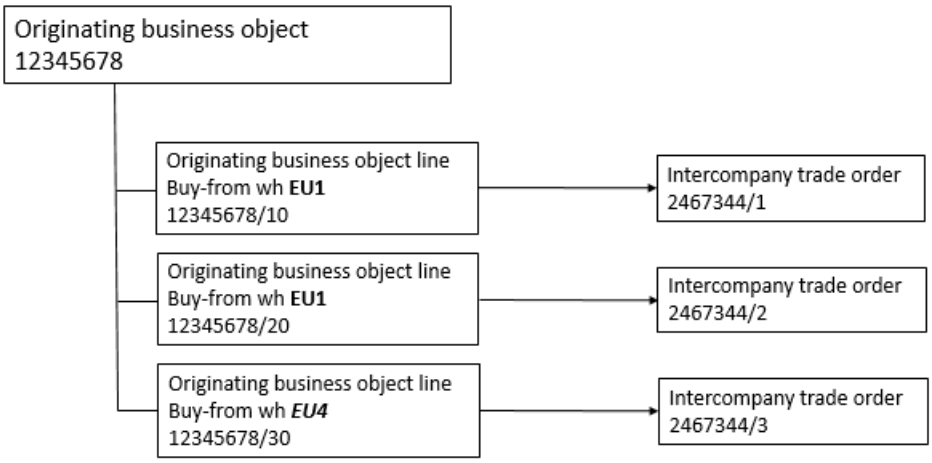
Intercompany trade order numbering

The application creates an intercompany trade order for each business object line of an originating business object. Intercompany trade order numbering is based on standard intercompany trade order numbering or user defined order series.

Standard order numbering

Standard order numbering is used if intercompany trade order series are not defined. If standard order numbering is used, the order numbers of the intercompany trade orders linked to the same originating business object are identical.

For example, if the originating business object is a sales order and the sales order has three order lines, three intercompany trade orders are created and the order numbers of the intercompany trade orders are identical. The **Position Number** field is added to make the intercompany trade order unique:



Intercompany trade order series

To provide more insight into the origin of intercompany trade orders, you can define order series for intercompany trade orders. To each intercompany trade order series, you can add these attributes:

- **User**
- **Scenario**
- **From Enterprise Unit**
- **To Enterprise Unit**

If any of these attributes of an intercompany trade order series match the attributes of an intercompany trade order, the number of the intercompany trade order is based on this series.

For intercompany trade orders whose attributes do not match the attributes defined for an intercompany trade order series, standard order numbering is used.

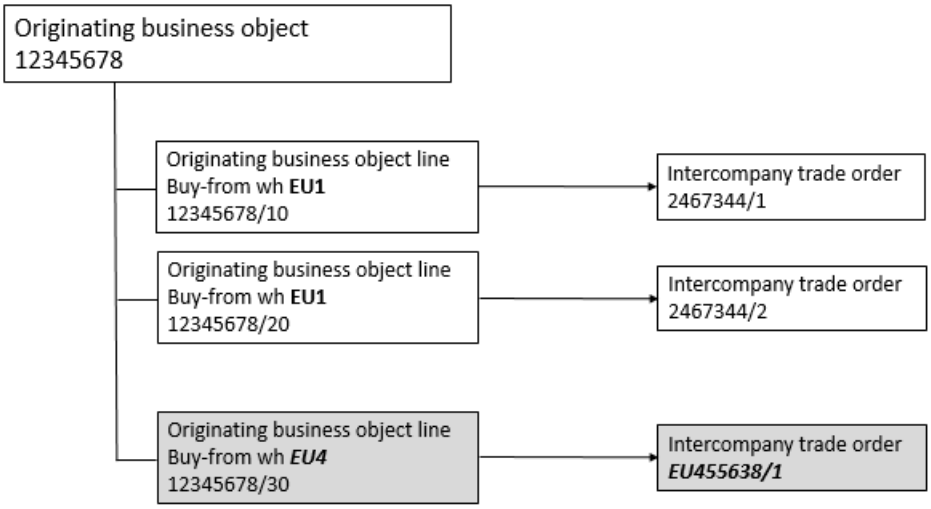
You can specify series for intercompany trade orders in the Intercompany Trade Order Series (tcitr0110m000) session.

Example

Buy-from Enterprise unit 4 is added as a selection criterion to intercompany trade order series 001EU4.

In originating business object lines 10 and 20, deliveries are made from a warehouse belonging to enterprise unit 1. Therefore, intercompany trade order series 001EU4 is not applicable. The order numbers of the intercompany trade orders created from these originating business object lines are identical according to the standard order numbering. The position numbers /1 and /2 help distinguish the intercompany trade orders.

In line 30, the delivery is made from a warehouse that belongs to enterprise unit 4. Therefore, intercompany trade order series 001EU4 is used to create intercompany trade order EU455638/1:



For each delivery that is made for an originating business object, a transaction line is created. The **Position Number** field is added to make the transaction line ID unique.

Parent and child intercompany trade orders

An intercompany trade order provides the overall intercompany trade information that is applicable for the linked transaction lines. In some scenarios, however, part of the information applies only to some of the transaction lines. For example, in a **Subcontracting Depot Repair** scenario, to repair the main item various other items can be used. In such cases, the parent intercompany trade order lists the details of the main item, and the child intercompany trade orders list the details of the repair items.

In the Intercompany Trade Orders (tcitr3100m000) session, the **Parent Order Line** field refers to the parent intercompany-trade order of an intercompany trade order. The child order adopts the order number of the parent order.

Parent and child intercompany trade orders are also used for bill of material (BOM) items. A parent intercompany trade order is created for the main item, and a child order is created for each of the bill of material (BOM) component items.

Example

Service department SDept1 creates a maintenance sales order for the repair of item A. The repair is carried out by service department SDept2, who invoice SDept1 based on materials used and hours spent. A parent intercompany trade order is created for item A with price origin **Time and Material**.

For the repair of this item, the items B1 and B2 are used and 20 hours are booked. Consequently, these additional child intercompany trade orders are created:

- Item B1
- Item B2
- 20 hours work

On both the parent and the child orders, you can maintain the details. For example, on the child orders you can change the price origin for the repair items B1 and B2, or the rate on which the work hours are based.

Transaction lines are created for both the parent and the child orders.

Intercompany trade price corrections

In various intercompany trade scenarios, the intercompany price is sometimes changed after the transaction lines are created. The intercompany price is based on the price of the originating object, such as the external sales price or purchase price.

If the price of the originating object is changed after the transaction lines are created, LN creates a new transaction line. For the new transaction line, the **Correction** check box is selected in the Intercompany Trade Order Transaction Lines (tcitr3110m000) session. The old transaction line is saved as the parent of the new transaction line.

Also, for the new transaction line the **Parent Transaction Line** field displays the position number of the parent transaction line. The origin of the intercompany price correction is displayed in the **Correction Origin** field of the Intercompany Trade Order Transaction Lines (tcitr3110m000) session.

Example- scenario **External Material Delivery Sales**

For a sales order, the external sales price is EUR 200. The intercompany price is based on the external sales price, but has a 10% markdown percentage. Therefore, the customer must pay EUR 200 to the

sales office, and the sales office must pay EUR 180 (200 - 10%) to the warehouse that delivers the goods to the customer.

After shipment, the sales price is reduced to 150. This means that the customer pays only EUR 150, and the sales office owes the warehouse EUR 135 (150 – 10%).

Consequently, these transaction lines are created:

- Transaction line 1 displaying the original intercompany sales price of EUR 180.
- Transaction line 2 displaying the intercompany sales price correction of EUR - 45. For this transaction line, the **Correction** check box is selected and the **Parent Transaction Line** field shows the position number of Transaction line 1.

Example- scenario **Internal Material Delivery**

In this scenario, a correction is made for a transfer order if fewer items are received than shipped. For example, if 10 items are shipped and 8 items are received, there is a shipment variance of two items. Only 8 items can be invoiced.

In the Inventory Handling Parameters (whinh0100m000) session, you can specify whether the issuing or the receiving warehouse is responsible. If the issuing warehouse is responsible, a new child transaction line is created displaying the subtracted value of the two items that were not received.

The intercompany trade-order procedure

Step 1: Adjust and approve

The initial status of an intercompany trade order is **Open**. You can change the data of the intercompany trade order, such as the pricing data or the tax data.

If manual approval is specified for the intercompany trade order, both the selling and the buying part of the order must be approved before transaction lines can be created, cost and revenue transactions can be posted, or, if specified, internal invoices can be created and sent.

To approve an individual intercompany trade order, from the appropriate menu of the Intercompany Trade Order (tcitr3600m000) session or the Intercompany Trade Order (tcitr3100s000) session, select:

- **Sales Approve Intercompany Trade Orders** to approve the selling part.
- **Purchase Approve Intercompany Trade Orders** to approve the buying part.

You can also perform approval by batch using the Buyer Approve Intercompany Trade Orders (tcitr3200m100) and the Seller Approve Intercompany Trade Orders (tcitr3200m000) session.

Approval is also supported by a workflow application.

Step 2: Approved - ready for further processing

When both the buying and the selling organization have manually or automatically approved the intercompany trade order, the transaction lines can be created. The order status changes to **Ready for Process**.

You can still change the pricing data of the intercompany trade order. If you do, the status reverts to **Open**. In this case, automatic approval is not allowed.

If workflow is used and, during the approval process, changes are made to the originating business object that affect the intercompany trade order, the intercompany trade order must be recalled from workflow and resubmitted after the required adjustments have been completed.

Step 3: Transaction lines present, posting and invoicing in progress

The status is set to **In Process** if one or more transaction lines are created for the intercompany trade order. Changes to the intercompany trade order are no longer allowed. Cost and revenue transactions, and, if internal invoicing is specified, internal invoices are posted for the transaction lines. The transaction line status shows the progress of this process. See *Intercompany trade transaction lines - procedure (p. 56)*.

Step 4: Posting and invoicing completed, close and remove intercompany trade order

You can close an intercompany trade order if the cost and revenue transactions and, if specified, the invoice lines of the transaction lines are posted, which is indicated by transaction line status **Posted** or **Invoiced**.

Intercompany trade orders are closed manually or batchwise using the Close Intercompany Trade Orders (tcitr3200m200) session. The order status is changed to **Closed**.

You can remove closed and cancelled intercompany trade orders in the Remove Intercompany Trade Orders (tcitr3200m300) session.

Cancel, delete, or change the intercompany trade order

An originating order or order line can be cancelled or deleted, or the to- entity can be changed, before deliveries are made. These activities can be performed before or after the intercompany trade order is approved, so the status can be **Open** or **Ready for Process**.

An intercompany trade order receives the **Cancelled** status if the originating order or order line is:

- Cancelled
- Deleted
- The to-entity of the originating order is changed and no intercompany trade relation is defined for the from- entity and the new to- entity.

If the to- entity of the originating order is changed and there is an intercompany trade relationship between the from - entity and the new to- entity, a new intercompany trade order is created that overwrites the old order.

Other changes on the originating order, such as the delivery date or the item, are updated on the intercompany trade order. The status is reverted to **Open** and re-approval is required.

Intercompany trade transaction lines - procedure

Step 1: Post to Financials

For each transaction line, cost and revenue transactions are posted to Financials. If internal invoicing is specified, the invoice lines are posted to Invoicing.

In the Intercompany Trade Order Transaction Lines (tcitr3110m000) session, the status of the invoicing and posting process is displayed in the **Status (Selling)** field for the financial company of the buy-from enterprise unit and in the **Status (Buying)** field for the financial company of the sold-to enterprise unit.

Transaction lines without invoicing are automatically posted to Financials, if the **Post Transaction Lines (without Invoicing) during Generation** check box is selected in the Intercompany Trade Agreements (tcitr1100m000) session for the applicable scenario. If cleared, posting is performed manually in the Post Transactions (tcitr3210m100) session.

Alternatively, you can use the **Post Transactions** option in the appropriate menu of the:

- Intercompany Trade Order Transaction Lines (tcitr3110m000) session to post an individual transaction line.
- Intercompany Trade Orders (tcitr3100m000) session to post the transaction lines of an intercompany trade order.

Posted transaction lines obtain the **Posted** status.

Step 2: Release to Invoicing

If the **Internal Invoice** and the **Release Transaction Lines to Invoicing during Generation** check box is selected for the intercompany trade agreement on which the intercompany trade order is based, transaction lines are automatically released to Invoicing when the transaction lines are created. If the **Release Transaction Lines to Invoicing during Generation** check box is cleared, you must release the transaction lines in the Release to Invoicing (tcitr3210m000) session.

Alternatively, you can use the **Release to Invoicing** command in the appropriate menu of the:

- Intercompany Trade Order Transaction Lines (tcitr3110m000) session to release an individual transaction line.
- Intercompany Trade Orders (tcitr3100m000) session to release the transaction lines of an intercompany trade order.

The status of the transaction lines changes to **Released** for the sales and the purchase invoice.

Step 3: Generate sales and purchase invoice

- **Internal sales invoice**
  When the billable lines of the internal sales invoice are composed in the Billable Lines (cisli8110m000) session, the transaction line receives the **Invoicing in Process** status. After the internal sales invoice is posted, the selling part of the transaction line obtains the **Invoiced** status.
- **Internal purchase invoice**
  When the internal sales invoice is posted, the internal purchase invoice can be generated in the Generate Intercompany Trade Purchase Invoices (tfacp2295m000) session. When the purchase invoice is generated, the buying part of the transaction line obtains the **Invoiced** status.

The intercompany trade order sales and purchase workbenches

The Intercompany Trade Sales Workbench (tcitr3600m400) and Intercompany Trade Purchase Workbench (tcitr3600m500) sessions help the user to efficiently process intercompany trade orders.

Various options are available to select and handle the intercompany trade orders that require immediate action, or to provide overviews of the user's workload over a period of time in the future. The intercompany trade order and transaction line data is displayed in a graph and in the line details sections of these sessions.

The workbench sessions display intercompany trade orders that require processing. Intercompany trade orders with status **Closed** are not displayed.

Both sessions are almost identical, but the Intercompany Trade Sales Workbench (tcitr3600m400) session is used to display the data from the selling organization's perspective, whereas the Intercompany Trade Purchase Workbench (tcitr3600m500) session displays the data from the buying organization's perspective.

Header and lines sections

The header sections of the Intercompany Trade Sales Workbench (tcitr3600m400) and Intercompany Trade Purchase Workbench (tcitr3600m500) sessions include the **General**, **Additional**, and **Graph Settings** tabs.

The **General** and **Additional** tabs include a graph and various filters. The filters are used to select the intercompany trade orders and related transaction lines to be displayed in the line details sections and the graph.

The line details sections include the **Orders** and **Transaction Lines** tabs.

The **Graph Settings** tab is used to specify the preferred time periods, currency, units and so on for the graph.

Filters

On the **General** tab, these filters are available to select the intercompany trade orders and related transaction lines to be displayed in the graph and the line details sections:

- **Financial Entity**
  The enterprise unit and financial company of the:
  - Seller in the Intercompany Trade Sales Workbench (tcitr3600m400) session.
  - Buyer in the Intercompany Trade Purchase Workbench (tcitr3600m500) session
- **Intercompany Customer**
  The enterprise unit and financial company of the internal customer in the Intercompany Trade Sales Workbench (tcitr3600m400) session
- **Intercompany Supplier**
  The enterprise unit and financial company of the internal supplier in the Intercompany Trade Purchase Workbench (tcitr3600m500) session
- **Orders**
  The order status. For open orders, specific filters for orders requiring seller or buyer approval are available.
- **Planned Delivery Date**
  Filters for planned delivery dates past due, due today, and due in the future.
- **Transaction Lines**
  Transaction line status of the transaction lines related to the intercompany trade orders that match the filter settings. You can also select invoiced or posted transaction lines.

  In the Intercompany Trade Sales Workbench (tcitr3600m400) session, you can use specific filters to view transaction lines for which invoicing is in process.

  In the Intercompany Trade Purchase Workbench (tcitr3600m500) session, additional filters are available for transaction lines that are received:
  - But not invoiced by sales.
  - For which a sales invoice is present, but not invoiced by purchasing.

Note

Transaction lines are not present for intercompany trade orders with status **Open** or **Ready for Process**.

On the **Additional** tab, these filters are available to narrow down the selections made on the **General** tab:

- **Scenario**
  The intercompany trade scenario of the intercompany trade orders
- **Specific Selection**
  Additional criteria to select specific intercompany trade orders.

Graph

In the graph of the Intercompany Trade Sales Workbench (tcitr3600m400) session, the estimated and realized cost of goods sold (COGS), revenues, profit margin, or the number of intercompany trade orders can be displayed.

In the Intercompany Trade Purchase Workbench (tcitr3600m500) session, the number of orders or the estimated and realized (actual) amounts can be displayed. The estimated amount is based on the intercompany trade orders and the realized amounts are based on the transaction lines.

In both workbench sessions, the data is displayed based on the period setting in the **Graph Settings** group box, in which you can specify the currency, number of periods, period type, and the first period.

Line section tabs in the Intercompany Trade Sales Workbench (tcitr3600m400) session

- **Orders**
  Refers to the Intercompany Trade Orders - Sales (tcitr3100m200) session.

  If you select a line, the Intercompany Trade Order - Sales (tcitr3600m200) session is started.

  If you select a line and click **Details** on the appropriate menu, the Intercompany Trade Order - Sales (tcitr3100s200) session is started.
- **Transaction lines**
  Refers to the Intercompany Trade Order Transaction Lines - Sales (tcitr3110m200) session. If you select a line, the Intercompany Trade Order Transaction Line - Sales (tcitr3610m200) session is started.

Line section tabs in the Intercompany Trade Purchase Workbench (tcitr3600m500) session

- **Orders**
  Refers to the Intercompany Trade Orders - Purchase (tcitr3100m300) session.

  If you select a line, the Intercompany Trade Order - Purchase (tcitr3600m300) is started.

  If you select a line and click **Details** on the appropriate menu, the Intercompany Trade Order - Purchase (tcitr3100s300) session is started.
- **Transaction lines**
  Refers to the Intercompany Trade Order Transaction Lines - Purchase (tcitr3110m300) session. If you click a line, the Intercompany Trade Order Transaction Line - Purchase (tcitr3610m300) is started.

Chapter 6
Intercompany Trade for Hours and Expenses

6

Intercompany trade for labor and expenses

In People, employees can book hours and expenses for various projects or orders. The employees, orders, or projects can belong to different departments.

Example

A multi-national company carries out an off-shore project in Dubai. This project is managed by the head office in the Netherlands while the actual implementation is performed by staff from the local departments. The local departments charge the head office for the hours and expenses spent on the project.

If an employee books hours or expenses spent on behalf of another department, you can set up intercompany trade to determine the amount that the employee's department can internally charge the department owning the order or project that the employee helped complete.

In Financials, this amount is booked as revenues for the employee's department. For the order's department, the amount is booked as costs owed to the employee's department. If required, you can specify that the employee's department invoices the order or project's department.

The intercompany trade scenarios *Labor (p. 41)* and *Expenses (p. 42)* provide various options to define the rates that are used to determine these amounts.

The intercompany trade process for hours and expenses

If intercompany trade is set up for hours and expenses, the application creates intercompany trade orders for each hours or expense booking in the relevant sessions in People. On the intercompany trade order, a general hours or expense booking is displayed as the originating object. When hours or expenses are booked for an order or a project, the order or project is the originating object, and the hours or expense booking is the related object.

Multiple logistic companies

Hours and expenses can be booked across multiple logistic companies. For example, an employee who belongs to department A from logistic company X can book hours for a project belonging to department B from logistic company Y.

The intercompany trade process for hours and expenses

Step 1: Book hours or expenses

If an employee books hours or expenses spent on behalf of another department, LN checks if an intercompany trade relationship with the intercompany trade scenarios *Labor (p. 41)* and *Expenses (p. 42)* is present for the employee's department and the department of the order or project.

Hours are booked in these sessions:

- General Hours (bptmm1111m200)
- Project Hours (bptmm1111m000)
- Production Order Hours (bptmm1120m000)
- Service Order Hours (bptmm1130m000)
- Work Order Hours (bptmm1140m000)
- Assembly Hours (bptmm1160m000)
- Project (PCS) Hours (bptmm1170m000)

Expenses are booked in these sessions:

- General Expenses (bptmm1111m300)
- Project Expenses (bptmm1111m100)

Step 2: Create intercompany trade order

If such a relationship is present, an intercompany trade order is created for each hours or expense line that is saved.

Step 3: Modify intercompany trade order

If required, the user can adjust the data on the intercompany trade order, such as the intercompany trade price.

Step 4: Approve intercompany trade order

The intercompany trade order must be approved by the buying department (the owner of the order or project) and the department of the employee (the selling department). Approval can be performed automatically or manually.

Approval is also supported by a workflow application.

Step 5: Approve hours and expenses

The hours and expenses are approved.

Step 6: Process hours and expenses

The approved hours and expenses are processed. If intercompany trade is applicable, processing is only allowed after the intercompany trade order is approved as well. After processing, the financial transactions and the intercompany trade transaction lines are created.

Step 7: Create intercompany trade transaction lines

When the hours and expenses are processed, the intercompany trade transaction lines are created.

The status of the intercompany trade order is set to **In Process** if one or more transaction lines are created. Changes to the intercompany trade order are no longer allowed.

Step 8: Finance and invoicing

When transaction lines are created, the internal cost and revenue transactions, and, if internal invoicing is specified, internal invoices are posted for the transaction lines. The transaction line status shows the progress of this process. See *Intercompany trade transaction lines - procedure (p. 56)*.

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.

assembly line

A set of consecutive line stations in which FAS (Final Assembly Schedule) items are manufactured. The items are manufactured by passing the items from line station to line station and by carrying out operations at each line station. An assembly line is subdivided into a number of line segments separated by buffers. An assembly line can be either a main line or a supplying line.

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.

business object

A business related object, such as a purchase order or an organizational unit. A business object has information stored in the business object attributes, such as the purchase order number or the organizational unit name. A business object also contains a set of actions, known as business object methods, that can manipulate the business object attributes, such as Create Purchase Order and List Organizational Units.

From a development perspective, a business object is a collection of tables, and functions that manipulate these tables, implemented simultaneously during the development phase. A business object is identified by the combination of a package code, module code, and business object code.

calculation office

A work center of the type **Costing Work Center** that is used to determine the enterprise unit for a project, or production order and also has an administrative function.

Note

When linked to production orders, the **Use as Calculation Office** check box in the Work Centers (tirou0101m000) session must be selected for the work center.

COGS

See: *cost of goods sold (p. 66)*

cost component

A cost component is a collection of cost objects with a certain characteristic. A cost component does not depend on the cost type, therefore, for example, a project can be monitored from another dimension. For example, all the costs that refer to electrical work, for example, cable and installation work, are visible if the applicable cost objects are linked to the cost component Electrical work.

cost of goods sold

The expense a company incurs in order to manufacture, create, or sell a product. It includes the purchase price of the raw material as well as the expenses of turning it into a product.

Abbreviation: COGS

department

A company's organizational unit that carries out a specific set of tasks, for example, a sales office or a purchase office. Departments are assigned number groups for the orders they issue. The department's enterprise unit determines the financial company to which the financial transactions that the department generates are posted.

employee

A person who works at your company who has a specific function such as sales representative, production planner, buyer, or credit analyst.

enterprise unit

A financially independent part of your organization that includes entities such as departments, work centers, warehouses, and projects. The enterprise unit's entities must all belong to the same logistic company, but a logistic company can contain multiple enterprise units. An enterprise unit is linked to a single financial company.

When you carry out logistic transactions between enterprise units, the resulting financial transactions are posted to the financial companies to which each enterprise unit is linked.

entity

A separate and independent building block for a planning cluster, site, or enterprise unit. For example, warehouse, work center, employee, sales department, purchase department, project, customer, supplier, financial company.

FAS item

A generic item with the FAS (Final Assembly Scheduling) order system.

FAS items are produced in a mixed model flow process on an assembly line.

financial company

A company that is used for posting financial data in Financials. You can link one or more enterprise units from multiple logistic companies to one financial company.

intercompany trade agreement

An attribute that includes the intercompany trade details for an intercompany trade scenario. An intercompany trade agreement is linked to an intercompany trade relationship, together with the intercompany trade scenario.

For the applicable intercompany trade scenario and trade relationship, an intercompany trade agreement:

- Determines whether internal invoicing is used.
- Determines whether intercompany trade orders must be approved before they can be processed.
- Includes the transfer pricing rules that determine the amounts of the intercompany trade transactions.
- Determines the amounts of the internal invoices, if internal invoicing is specified.

Example

Sales office S1 and warehouse W1 are part of organization A, but are located in different countries. To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery. The amount of the internal invoice is based on the sales order price.

intercompany trade classification

An attribute consisting of a code and a description that is used to create groups of entities or enterprise units. To create a group, a number of entities or enterprise units is linked to an intercompany trade classification. These groups can be used to define intercompany trade relationships.

Example

A large international organization includes these enterprise units:

In Europe

- UK
- France
- Belgium

In Asia

- India
- China
- Japan

Trade classification Europe is linked to the European enterprise units and trade classification Asia is linked to the Asian enterprise units. You can set up trade relations, for example to define different trade agreements in Europe and Asia, such as:

- Asia to Europe
- Europe to Asia
- Asia to Asia
- Europe to Europe

intercompany trade order

A commission to buy, sell, or transport goods, or render services between organizational units that belong to the same organization.

For example, a sales office and a warehouse belong to the same organization. The sales office instructs the warehouse to deliver goods to an external customer to fulfill a sales order. The warehouse incurs costs for the goods delivered and the sales office is indebted to the warehouse.

An intercompany trade order consists of a header and transaction lines. The header data include the organizational units involved and the applicable transfer pricing rules. The transaction lines display the amounts of the individual items and the dates and times. Depending on the transfer pricing rules, some pricing details are maintainable.

intercompany trade relationship

A "from and to" relationship between two parts of an organization. When an intercompany trade relationship is defined, the transactions between the from and the to-part of the relationship are regarded as intercompany trade. Consequently, specific cost and revenue bookings are posted for the from and the to-part.

The from-part incurs costs for goods delivered or services rendered to the to-part. The to-part is indebted to the from-part. The from-part invoices the to-part to be compensated for the costs incurred, if specified in the intercompany trade agreement.

The parts constituting an intercompany trade relationship can be:

- A financial company
- An enterprise unit
- An entity

A trade relationship between two parts applies to the underlying entities linked to these parts. For example, a trade relationship between two enterprise units applies to the entities linked to these enterprise units.

An intercompany trade relationship is linked to one or more intercompany trade agreements. In turn, each intercompany trade agreement is linked to an intercompany trade scenario. In this way, transfer pricing rules are defined for each trade scenario that is linked to the trade relationship. The transfer pricing rules determine the amounts of the intercompany trade transactions and, if specified, the internal invoices.

intercompany trade scenario

A business process, such as **External Material Delivery Sales**, involving two parts of an organization defined as entities. An intercompany trade scenario is linked to an intercompany trade agreement. The intercompany trade scenario and the intercompany trade agreement are linked to an intercompany trade relationship.

Example

The entities sales office S1 and warehouse W1 are part of organization A, but they are located in different countries. To fulfill a sales order to an external customer, S1 instructs W1 to deliver the goods to the customer. W1 sends an internal invoice to S1 to cover the costs for the goods and the delivery. The amount of the internal invoice is based on the sales order price.

internal business partner

A business partner that represents an enterprise unit of the same logistic company. The use of internal business partners allows you to model the goods flow between enterprise units and the corresponding financial relations, such as invoicing and pricing agreements. You must define all business partner roles for an internal business partner.

labor rate

The labor rate code, defined in the Labor Rate Codes (tcppl0190m000) session in People. A sales rate and cost rate can be specified in this labor rate code.

You can assign labor rates on a wider scale to, for example,

- A service department, for all work done by the service department.
- An installation group, for all work carried out on the installation group.

In the Service Order Parameters (tssoc0100m000) session, default labor rate search paths can be set for the following:

- Estimated sales rate
- Estimated cost rate
- Actual sales rate
- Actual cost rate

labor type

The classification of work performed, and the time of day at which the work is performed (either normal working hours or overtime). Based on the kind of work and the hour type, you can use labor types to specify surcharges so that LN can calculate the actual labor costs in People.

logistic company

An LN company used for logistic transactions, such as the production and transportation of goods. All the logistic data concerning the transactions is stored in the company's database.

operation

One of a series of steps in a routing that are carried out successively to produce an item.

The following data is collected during a routing operation:

- The task. For example, sawing.
- The machine used to carry out the task (optional). For example, sawing machine.
- The place where the task is carried out (work center). For example, woodwork.
- The number of employees required to carry out the task.

This data is used to compute order lead times, to plan production orders and to calculate standard cost.

ownership

Indicates if, and at which point in the supply chain, the ownership of goods changes from the supplier to the customer. Ownership changes also occur between departments or business units within an organization, which is referred to as internal ownership. When the ownership changes, payment is due.

In traditional, non-VMI scenarios, the ownership of an item changes from the supplier to the customer after the customer has received the item from the supplier. The customer must pay for the item on receipt of the goods.

In various subcontracting scenarios, ownership will not change during any of the inbound or outbound warehousing processes. In such cases, the ownership is customer owned.

In vendor managed inventory (VMI) scenarios, the ownership can be consigned. If the ownership is consigned, the ownership change is either time based or consumption based.

- **Consumption based**
  The customer issues the goods to sell them or to consume them
- **Time based**
  Some time after:
  - The customer receives the goods
  - The last issue or receipt of the goods

For time based ownership change, the period of time is laid down in the contract between the customer and the supplier.

purchase office

A department in your organization that is responsible for buying the materials and services required by your organization. You assign number groups to the purchase office.

sales office

A department that is identified in the company business model to manage the business partner's sales relations. The sales office is used to identify the locations that are responsible for the organization's sales activities.

series

A group of order numbers or document numbers starting with the same series code.

Series identify orders with certain characteristics. For example, all sales orders handled by the large accounts department start with LA (LA0000001, LA0000002, LA0000003, and so on).

service department

A department that consists of one or more persons and/or machines with identical capabilities, that can be considered as one unit for the purposes of service and maintenance planning.

shipping office

A department that is responsible for the organization of transportation for one or more warehouses. When goods are moved from or to a warehouse, the responsible shipping office plans the transportation of these goods or subcontracts the transportation of the goods. In direct delivery scenarios, the shipping office provides planning or transport subcontracting services for external suppliers or customers.

In Freight, a shipping office plays a key role in load building and freight order clustering. Freight orders are grouped by shipping office. The groups of freight orders by shipping office are used by the load building engine to build shipments and loads, or by the freight order clustering engine to build freight order clusters.

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.

(Formerly called subcontracting item)

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, schedules, planning, logistics, invoicing, and demand 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, schedules, planning, logistics, invoicing, and demand pegging for the lines.

trade group

A group of resources with common skills that can be used for a particular labor cost object. If you cannot yet make detailed assignments for employees, you can use trade groups for scheduling.

transfer order

A type of warehousing order that is created to register inventory transactions from an issuing warehouse to a destination warehouse, or between two locations in a warehouse. A transfer order can be created manually or be generated by other packages or modules in LN. A transfer order has transaction type **Transfer**.

Synonym: warehouse transfer, warehousing transfer order

valuation price

The actual price of an item, which is used in all financial transactions that involve the item.

The transactions include:

- Standard cost of goods sold
- Inventory transfer
- Issue to work-in-process value

The actual cost is calculated by using one of the actual costing methods (LIFO, FIFO, MAUC and Lot costing), or by using a standard cost valuation method.

warehouse

A place for storing goods. For each warehouse, you can enter address data and data relating to its type.

warehouse transfer, warehousing transfer order

See: *transfer order (p. 72)*

WIP transfer

The transfer of the value of the work in process from one work center to the next, in accordance with a physical transfer of a subassembly to the work center where the next operation must be performed.

work center

A specific production area consisting of one or more people and/or machines with identical capabilities, that can be considered as one unit for purposes of the capacity requirement planning and detailed scheduling.

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