Infor LN User Guide for Enterprise Structures

Important Notices

Trademark Acknowledgements

Publication Information

Document code	comententerprisestructuresug (Ucomenterprisestructure-sug)
Release	10.6 (10.6)
Publication date	June 18, 2018

Table of Contents

About this document

This document describes the processes and procedures involved in setting up enterprise structures using the multisite concept.

Assumed knowledge

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

References

Use this guide as the primary reference for the activation of the multisite concept. Use the current editions of these related references for information that is not covered in this guide:

- *User Guide for Multicompany Structures (U9504 US)*
- *User Guide for Setting Up a Company (U9503 US)*
- *User Guide for Item Setup (Ucomitemsug_US)*
- *User Guide for Site Activation (Ucomsiteactivug_US)*
- *User Guide for Intercompany Trade (Ucomitrug_US)*

How to read this document

This document is assembled from online Help topics.

Text in italics followed by a page number represents a hyperlink to another section in this document.

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

Comments?

We continually review and improve our documentation. Any remarks/requests for information concerning this document or topic are appreciated. Please e-mail your comments to documentation@infor.com .

In your e-mail, refer to the document number and title. More specific information will enable us to process feedback efficiently.

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal.

If we update this document after the product release, we will post the new version on this website. We recommend that you check this website periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com .

Chapter 1
Introduction

1

Multisite overview

In an enterprise structure, parameter settings and master data related to business processes are specified by company, enterprise unit, warehouse and department.

If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, you can also specify item data and other master data by site. Sites are situated on a level between the company and the warehouse or department level.

If the **Sites** parameter is not activated, sites are unavailable and you can specify only global, companywide or local warehouse or department settings.

Company structure

A company structure can include multiple logistic and financial companies.

A logistic company can include multiple sites, enterprise units, warehouses, and departments. A financial company can include multiple enterprise units.

The warehouses and departments of a logistic company are linked to a site to reflect the logistics or production flow, and to an enterprise unit to reflect the financial flow.

Sites - logistics flow

To reflect the production and logistics flows of a company, warehouses and departments are linked to a site.

A logistic company can include multiple sites, and a site can include multiple warehouses and departments. Consequently, parameter settings and master data related to business processes such as production, planning, warehousing, and order handling are specified by company, by site, or by warehouse and department.

Parameter settings by subentity are available at the company level and at the site level.

Enterprise units - financial transactions and standard costs

To reflect the financial flow of a company, warehouses and departments are linked to an enterprise unit.

The financial transactions involved in the logistics activities of departments or warehouses can be centrally registered for the entire organization, or locally for one or more business units. These are business units that are responsible for their own financial management.

The warehouses and departments for which a business unit is financially responsible are linked to the enterprise unit that represents the business unit.

The financial transactions resulting from production, order handling, or logistic handling by the warehouses and departments within the site are registered in the financial company of the enterprise unit.

Also, standard costs are specified by company or by enterprise unit. If your business units use different standard costs, you must specify the standard cost by enterprise unit and link the warehouses and departments to the enterprise units.

Item data

In addition to the item master data sessions at the global, company level, specific sessions are available to define item master data related to these entities:

- Sites
- Enterprise units
- Planning clusters
- Offices
- Warehouses

See *User Guide for Item Setup (Ucomitemsug_US)*.

Order data

Production orders, warehousing orders, sales orders, service orders, and purchase orders include references to the sites and departments for which these orders are created.

Planning clusters

If Enterprise Planning is implemented, logistics and production planning is based on planning clusters. Sites are grouped by planning cluster within the company.

Note

Site-related sessions and fields are available only if the multisite functionality is implemented. To adopt multisite functionality in a multicompany or single company environment previously without sites, you must carry out a site activation process. See *User Guide for Site Activation (Ucomsiteactivug_US)*.

Chapter 2
Enterprise Model

2

Sites

An enterprise can include multiple business units in different locations and countries. At each business unit, various activities, such as production, sales, or warehousing can take place.

Sites are used to group the entities residing at the same business location. At a site, activities such as production, warehousing, sales, or a combination of these can be performed. To model the activities, you can specify specific site settings and link warehouses, assembly lines, and various types of departments to the site.

For example, if an enterprise has two production plants each using the same materials but buy these from different suppliers, you can model this by defining two sites. For each site, you specify a warehouse, a purchase office, and a production department, companywide item properties, and the materials supplier.

Administrative sites

At an administrative site, only administrative tasks are performed. Production, logistics, or warehousing do not take place at an administrative site. You cannot link planning clusters, production departments, warehouses, work centers, assembly lines, or service locations to an administrative site. Subentity settings and external relations are unavailable.

An administrative site can only have these types of departments:

- purchase office
- sales office
- accounting office
- service office
- shipping office
- project management office

External sites

An external site belongs to an external party such as a customer or a subcontractor. External sites can include warehouses in which inventory is stored that is owned by your company or by the customer, and for which your company performs planning.

You can specify a sold-to business partner and a ship-to business partner for an external site.

At an external site, no own production can take place.

Sites and offices

Sites and offices are used to maintain data and settings for specific business processes.

Offices

Sales offices, purchase offices, and service offices are departments in which master data and settings are defined that relate to administrative processes such as order handling and invoicing.

In an office, data such as order number series, price books, rates, and various default values for orders are maintained. For example, in a purchase office, settings for the payment method, retro-billing, supplier staged payment, and self-billing are maintained. In a sales office, settings related to the sales agreement with the customer are maintained.

Sites

Site settings control the logistics and production processes. In the purchase process, for example, the supplier, the price, the inbound lead times, and the carriers are determined by the site.

The position of sites and offices in the purchase process

In the purchase process, the data and settings defined for the site are predominant. The receiving site requires the goods, such as items to be sold to customers or materials needed to produce an end item. Therefore, the logistics involved in the receipts of the goods is the most important part of the process.

The position of sites and offices in the sales process

In the sales process, the settings defined in the sales office related to the customer are predominant. The logistics involved in shipping the goods do not affect the agreements made with the customer. For example, if a delivery of goods is more expensive because they had to be delivered from a different distribution center, this does not affect the price agreed with the customer. What could affect the customer is that, if goods are shipped from a different country, customs and other transport documents are different.

The site of an office

An office is a type of department and therefore, an office is linked to a site.

The site at which a purchase, sales, or service office is located can be different from the site for which the office handles the purchase, sales, or service activities.

For example, purchase office New York is located at site New York. Site New York is the place where the staff of purchase office New York work, but purchase office New York handles the purchase of materials for production sites Boston, Philadelphia and Pittsburgh.

Thus the site New York is not involved in the purchase processes that purchase office New York controls for the Boston, Philadelphia and Pittsburgh sites, except that draft contracts, order acknowledgements, and so on, must be sent to the address of site New York. Therefore, the site at which an office is located is important for the address, and for overviews showing at which locations the activities take place.

The site at which an office is located is specified in the **Part of Site** field in these sessions:

- Sales Offices (tdsls0512m000)
- Purchase Offices (tdpur0112m000)
- Service Offices (tsmdm1100m100)

Departments

You must specify departments to issue orders and other document types.

Departments can be:

- Sales offices
- Purchase offices
- Service offices
- Accounting departments
- Production departments
- Work centers
- Shipping offices
- Project management offices

For example, a service department issues service contracts, service orders, and calls.

Department types

You can define more than one department of each type for a company, and, if the **Sites** parameter is activated, a site. For example, you can have separate sales offices that deal with sales of different products or sales to different market segments, or work for multiple sites that each manufacture a different product.

The department's financial company

A department is an entity of an enterprise unit. Each enterprise unit is linked to one financial company. The financial data related to a department is registered in the financial company to which the enterprise unit of the department is linked.

You can define relationships between the departments for transactions between the departments and between departments and warehouses, for example, sales or purchase transactions. For more information, refer to Intercompany trade setup - overview.

The department's site

If the **Sites** parameter is activated, a department must be linked to an enterprise unit and a site. For more information, refer to *Multisite overview (p. 7)*.

Defining departments

Departments are defined in the Enterprise Units (tcemm0130m000) session and the Departments (tcemm1124m000) session. If the **Sites** parameter is activated, you can also define departments in the Sites (tcemm0150m000) session. From these sessions, the following sessions are accessed in which you specify the department details:

Department type	Session
Work center	Work Centers (tirou0101m000)
Work cells	Work Cells (tirpt0140m000)
Repair cells	Repair Cells (tirpt0140m100)
Production department	Production Departments (tirou2100m000)
Sales office	Sales Offices (tdsls0512m000)
Purchase office	Purchase Offices (tdpur0112m000)
Service office	Service Offices (tsmdm1100m100)
Accounting office	Departments (tcmcs0165s000)
Shipping office	Shipping Office (fmfmd0680m000)

Chapter 3
Setup

3

Enterprise model - multisite setup

If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, parameter settings and master data related to business processes such as production, planning, warehousing, and order handling is specified by company, by site, or by warehouse and department.

Various settings specified by company are used as default values for all sites, departments, and warehouses of the company. At an individual site, for various data you must specify whether the company data and settings must be used, or specific settings for the site can be specified.

For example, for site A you can specify that inbound warehousing data are defined at company level, and outbound data are specified at site level.

Similarly, most settings specified by site are used as default values for the related departments or warehouses, but you can replace these default settings with department or warehouse settings.

If you use company settings for a site, warehouse, or department, changes made to these company settings are updated to the site, warehouse, or department. You cannot change a company setting at a site, warehouse, or department.

Financial flow

To reflect the financial flow of an organization, you can define one or more financial companies for a company structure. A financial company can include multiple enterprise units.

The warehouses and departments of a site must be linked to an enterprise unit. The warehouses and departments for which a business unit is financially responsible are linked to the enterprise unit that represents the business unit.

This is to ensure that the financial transactions resulting from production, order handling, or logistic handling performed by the warehouses and departments are registered in the financial company of the enterprise unit.

Also, standard costs are specified by enterprise unit. If your business units use different standard costs, you must specify the standard cost by enterprise unit and link the warehouses and departments to the enterprise units.

The entities within a site can be linked to different enterprise units, or the entities within an enterprise unit can be linked to different sites. This depends on these factors:

- The business unit that the enterprise unit represents
- The financial company to which the financial transactions of the entities must be booked
- The way the standard costs are set up

Example

An enterprise has two production plants located in different countries. To produce an end item, each production plant uses the same materials, which it buys from different external suppliers at different prices.

You can model this by defining two sites and linking receiving warehouses, production departments, purchase offices, and a ship-from warehouse to each site.

For each site, you can specify settings that apply to the warehouses, purchase offices, and production departments of the site.

To define the standard costs, the receiving warehouses of each site must be linked to different enterprise units.

For the purchased materials you can define the standard costs by enterprise unit and various item settings by site. For the finished item, you can also define site or office settings if the item properties are different from the global item properties.

Note

In addition to the item master data sessions at the global, company level, specific sessions are available to define item master data related to these entities:

- Sites
- Enterprise units
- Planning clusters
- Offices
- Warehouses

See *User Guide for Item Setup (Ucomitemsug_US)*.

To set up a multisite structure within a company

If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, a logistic company consists of one or more sites, and each site consists of multiple entities. The entities are also linked to an enterprise unit.

The typical procedure of setting up a multisite structure includes these steps:

1. Define enterprise units.

2. Define sites.
3. Define site subentity settings.
4. Define entities.

The alternative procedure includes these steps:

1. Define sites.
2. Define site subentity settings.
3. Define enterprise units.
4. Define entities.

These steps describe the regular procedure in detail:

Step 1: Define enterprise unit

See *Defining enterprise units and entities (p. 18)*.

Step 2: Define site

1. In the Sites (tcemm0150m000) session, click New.
2. In the Site (tcemm0650m000) session that starts, specify this information:
   - The properties of the site, such as the planning cluster, logistic company, and address.
   - An enterprise unit, if all of the site's entities must belong to the same enterprise unit.

Step 3: Define subentity settings by site

In the **Settings** tab of the Site (tcemm0650m000) session, define the subentity settings for the site.

The subentity setting buttons refer to these sessions:

- **Procurement**
  Procurement Settings by Site (tdpur0111m000)
  These settings are used to receive purchase orders at the site.
- **Sales**
  Sales Settings by Site (tdsls0511m000)
  These settings are used to ship sales orders from the site.
- **Warehousing**
  Warehousing Settings by Site (whwmd2101m000)
  These settings are used to perform warehousing activities at the site.
- **Production**
  Production Settings by Site (timfc0180m000)
  These settings are used to handle production orders at the site.

- **Service**
  Service Settings by Site (tsmdm1103m000)
  These settings are used to perform service activities at the site.

When you start these sessions, default settings are generated from the company parameters related to the subentities.

For example, if you click **Warehousing**, the Warehousing Settings by Site (whwmd2101m000) session starts and warehousing settings from various warehousing parameter sessions are set as default values in this session.

You can change the default settings and specify specific settings for the site as required.

Note

Defining **Warehousing** and **Production** subentity settings by site is a prerequisite to link warehouses, production departments, and work centers to sites. For example, you cannot link a site to a production department if production settings by site are not present.

Defining **Procurement**, **Sales**, or **Service** subentity settings for a site are is not required to define purchase offices, sales offices, or service offices located at that site.

Step 4: Define entities and link entities to site and enterprise unit

In the tabs of the lower half of the Site (tcemm0650m000) session, you can start the sessions in which you define the entities. In these sessions, you must link the entity to a site and an enterprise unit. See *Defining entities for sites (p. 21)* and *Defining enterprise units and entities (p. 18)*.

If you carry out the alternative procedure, in step 4, entities are created in the Enterprise Unit (tcemm0630m000) session. In the Enterprise Unit (tcemm0630m000) session, you can also access the sessions in which you define entities and link these to a site and an enterprise unit.

Defining enterprise units and entities

Enterprise units are used to register the financial transactions, which result from the activities performed at the entities of a company, to the appropriate financial company. For a logistic company, you can define multiple enterprise units.

Step 1: Define enterprise unit

1. Click New in the Enterprise Units (tcemm0130m000) session.
2. Specify this information:
   - The properties of the enterprise unit, such as the financial company, logistic company, and enterprise unit category.

- If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, specify a site, if all of the enterprise unit's entities must belong to the same site.
- Optionally, the entities of the enterprise unit. If you create entities in the Site (tcemm0650m000) session, you can save and close the current session without adding entities.

Step 2: Optionally, add entities

Entities must be linked to an enterprise unit. If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, entities must be linked to both an enterprise unit and a site.

You can create entities in the Site (tcemm0650m000) session or in the Enterprise Unit (tcemm0630m000) session.

If you create an entity in the Site (tcemm0650m000) session, the entity is linked to the site by default and you must manually link an enterprise unit. If you create an entity in the Enterprise Units (tcemm0130m000) session, the entity is linked to the enterprise unit by default, and you must manually link a site.

To create entities in the Enterprise Unit (tcemm0630m000) session:

1. Click New in the Warehouses or the Departments tab.
2. In the session that opens, create the entity. If you click New in the Departments tab, you must first select the type of entity. Based on the selected type of entity or tab, the session starts in which you can define the details of the entity:

Tab	Entity
Warehouses	Warehouse
Departments	Work center
	Work cell
	Repair cell
	Production department
	Sales office
	Purchase office
	Service office
	Accounting office
	Shipping office
	Project management office

The entity that you define is by default linked to the enterprise unit.

Note

Projects are displayed in the Projects tab of the Enterprise Unit (tcemm0630m000) session, but projects are not created in this tab. You can create projects in the Project (tppdm6600m400) session.

If the **Sites** parameter is activated in the Implemented Software Components (tccom0100s000) session, complete these steps:

- Link the entities of an enterprise unit to a site.
- Optionally, link an enterprise unit to a site. Consequently, the entities of the site are also linked to the enterprise unit.
- Alternatively, you can link a site to an enterprise unit. Consequently, the entities of the enterprise unit are also linked to the site.

Defining entities for sites

To create entities in the Site (tcemm0650m000) session:

1. Click New in the Warehouses, Departments, Assembly Lines, or Service Locations tabs.
2. In the session that opens, create the entity. If you click New in the Departments tab, you must first select the type of entity.

   Based on the selected tab or type of department, a session starts in which you can define the details of the entity:

Tab	Entity
Warehouses	Warehouse
Departments	Work center Work cell Repair cell Production department If you link a production department to a site, the site is automatically passed on to the shop floor components that are related to the production department. The shop floor components include these entities: ■ Work centers ■ Work cells ■ Line stations ■ Machines related to work centers. ■ Repair cells Sales office Purchase office Service office Accounting office Shipping office Project management office
Assembly Lines	Assembly line

	Line station
Service Locations	Service location

The entity that you define is linked to the site by default.

Chapter 4
Examples

4

Multisite examples

To describe the setup of a multisite enterprise structure, the example of a manufacturer of passenger aircraft located in the USA is used.

First, the enterprise structure of the imaginary aircraft manufacturer is described, followed by the corresponding enterprise model in LN, using sites, enterprise units, offices, work centers, and warehouses.

The item data is described for the purchase, sales, production, and intercompany trade business-scenarios.

Multisite examples - the company structure of an aircraft manufacturer

A manufacturer of passenger aircraft has three production units and one sales unit. All business units and departments of the aircraft manufacturer are located and registered in the USA.

Production units A, B, and C each manufacture a different type of aircraft. Production unit A, located in Pittsburgh, builds the Eagle Long Range. Production unit B, located in New York, builds the Eagle Midrange, and production unit C, which is located in Philadelphia, builds the Buzzard Pro.

Sales unit S handles the sale of the aircraft manufactured by production units A, B, and C.

Each production unit equips the planes they build with the same type of oxygen mask.

Production unit A manufactures the oxygen masks themselves, units B and C each buy the oxygen masks from a different local supplier.

Each unit is responsible for its own management accounting.

Finance

Financial reporting is performed centrally for the entire organization, but the production units and the sales unit have their own management accounting.

Costing

Because the production units and the sales unit have their own management accounting, the standard costs for the completed aircraft and the oxygen masks are registered per business unit.

At production units A, B, and C, the standard costs of the completed aircraft are based on local production. The production costs are different for each production unit.

At sales unit S, the standard costs of each type of aircraft are based on the internal transfers from the production units.

At production unit A, the standard costs of the oxygen masks are based on local production.

At units B and C, the standard costs of the masks are based on local procurement. Production units B and C have different standard costs for the same type of oxygen mask.

Production

At production unit A, the oxygen masks are manufactured in a dedicated work center. In this simplified example, the oxygen mask is a component of an aircraft. The aircraft are manufactured in a production hall. In this production hall, the oxygen masks are fitted into the airplane cabins.

At production units B and C, the aircraft are also produced in production halls. In these production halls, the purchased masks are fitted into the aircraft cabins.

Planning

Production units A, B, and C are responsible for their own production planning.

Logistics

At each production unit, the completed aircraft are transferred from an inspection warehouse to a finished goods warehouse. The inventory stored in the finished goods warehouses is owned by sales unit S. From the finished goods warehouses, the aircraft are shipped to the customers. Each production unit hires a different carrier to transport the aircraft to the customers.

At unit A, the completed oxygen masks are transferred from the oxygen-mask work center to a shop floor warehouse. From the shop floor warehouse, the masks are issued to the work centers where they are fitted into the airplane cabins.

At unit B and unit C, the purchased masks are received in a regular warehouse from where they are issued to the work centers.

Purchase

At production unit B, purchase office B handles the purchase of the oxygen masks from production unit B's local supplier. Similarly, at production unit C, purchase office C handles the local purchase of the oxygen masks from production unit C's local supplier.

Sales

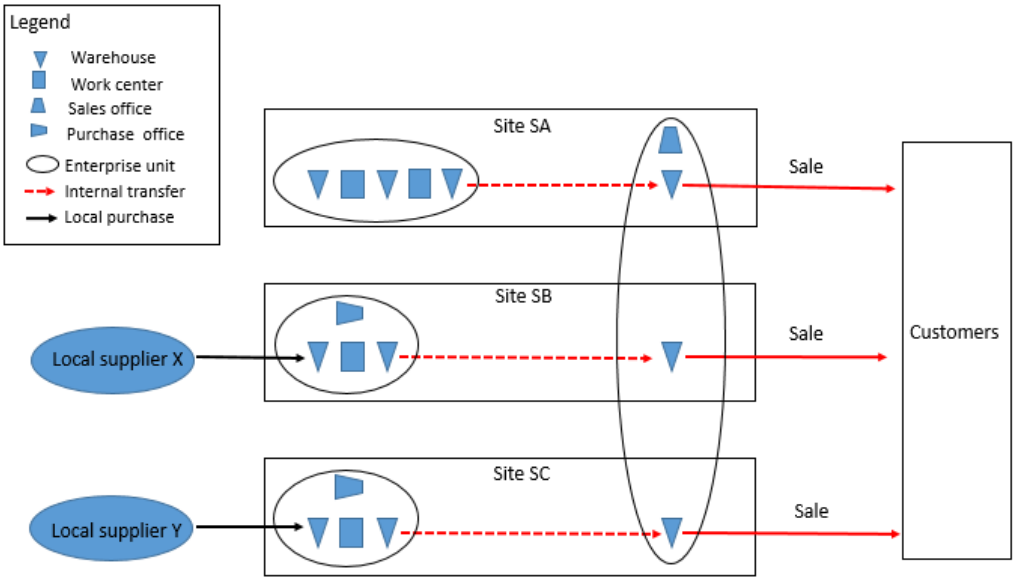
The sale of the completed aircraft from each production unit is handled by sales unit S. The sales office of sales unit S is located on the premises of production unit A. Sales unit S owns the inventory of the finished goods warehouses located at product units A, B, and C.

Intercompany trade

Each production unit charges sales unit S for each transfer of completed aircraft from the inspection warehouse to the finished goods warehouse.

Multisite example - LN enterprise model of the aircraft manufacturer

The aircraft manufacturer is modeled using the various Enterprise Modeling Management building blocks available in LN.



Companies

The aircraft manufacturer is modeled as a logistic company and a corresponding financial company.

The aircraft manufacturer is modeled as a logistic company because in LN, a logistic company is used to maintain companywide transactional data and logistic and commercial master data.

Because financial reporting is performed centrally, and all parts of the organization are part of one legal entity, one financial company is also defined for the aircraft manufacturer.

Enterprise units

Each production unit is modeled as an enterprise unit. Production unit A is modeled as enterprise unit EUA, production unit B is modeled as enterprise unit EUB, and production unit C is modeled as enterprise unit EUC.

Sales unit S is modeled as enterprise unit EUS.

Enterprise unit EUA includes all facilities, such as warehouses and work centers, involved in the production of the oxygen masks and the Eagle Long Range, except for the finished goods warehouses, from where the completed aircraft are shipped to the customers.

Enterprise unit EUB includes:

- The warehouses and the production hall involved in the production of the Eagle Midrange, except for the finished goods warehouses, from where the completed aircraft are shipped to the customers.
- The warehouses involved in the receipt and the issue to production of the purchased oxygen masks.
- The purchase office responsible for the local purchase of the oxygen masks at production unit B.

Enterprise unit EUC includes:

- The warehouses and the production hall involved in the production of the Buzzard Pro, except for the finished goods warehouses, from where the completed aircraft are shipped to the customers.
- The warehouses involved in the receipt and the issue to production of the purchased oxygen masks
- The purchase office responsible for the local purchase of the oxygen masks at production unit C.

Enterprise unit EUS includes:

- The sales office that handles the sale of the aircraft manufactured at each production unit.
- The finished goods warehouses, from where the aircraft manufactured at production units A, B, and C are shipped to the customers.

Note
The finished goods warehouse:

- From where the Eagle Long Range are shipped, is located at site SA.
- Of the Eagle Midrange is located at site SB.
- Of the Buzzard Pro is located at site SC.

In LN, an enterprise unit represents a part of an organization that is responsible for its own financial management. An enterprise unit thus reflects the financial flow of a business unit. Also, standard costs are defined by enterprise unit.

Because the standard costs for both the oxygen masks and the completed aircraft are different at each production unit and the sales unit, and the aircraft manufacturer performs management accounting at unit level, the production units and the sales unit must be defined as separate enterprise units.

Sites

To reflect the production and logistics flow of the aircraft manufacturer, these sites have been defined:

- **SA**
  At site SA, these parts of the organization are located:
  - All facilities, such as warehouses and work centers, involved in the production of the oxygen masks and the Eagle Long Range. These facilities belong to enterprise unit EUA.
  - The finished goods warehouses, from where the completed Eagle Long Range aircraft are shipped to the customers. These warehouses are part of enterprise unit EUS.
  - The sales office of sales unit S, which belongs to enterprise unit EUS.
- **SB**
  At site SB, these parts of the organization are located:
  - The warehouses and the production hall involved in the production of the Eagle Midrange.
  - The warehouses involved in the receipt and the issue to production of the purchased oxygen masks.
  - The purchase office responsible for the local purchase of the oxygen masks at production unit B.
  - The finished goods warehouses, from where the aircraft manufactured at production unit B are shipped to the customers. These warehouses are part of enterprise unit EUS.
- **SC**
  At site SC, these parts of the organization are located:
  - The warehouses and the production hall involved in the production of the Buzzard Pro.
  - The warehouses involved in the receipt and the issue to production of the purchased oxygen masks.
  - The purchase office responsible for the local purchase of the oxygen masks at production unit C.
  - The finished goods warehouses, from where the aircraft manufactured at production unit C are shipped to the customers. These warehouses are part of enterprise unit EUS.

The sites have been modeled to allow you to define:

- The logistics and production data specific for each production unit.
- The warehouses and departments located at each site.

Site subentity settings

For the sites, these subentity settings are required:

- **Production**
  For site SA, production subentity settings are required to set up work centers and define production data, such as production order series, operation settings, and handling of materials for both the oxygen masks and the completed aircraft. For sites SB and SC, production settings are only needed for the completed aircraft.
- **Warehousing**
  For all sites, warehousing subentity settings are required to set up warehouses and define settings that control the inbound and outbound flow at each site. See Multisite in Warehousing.
- **Sales**
  For all sites, sales subentity settings are required to ship the completed aircraft based on sales orders.
- **Procurement**
  Sites SB and SC also require procurement subentity settings. These settings are required to receive the purchased oxygen masks based on purchase orders.

Warehouses

The shop floor warehouses, regular warehouses, inspection warehouses, and finished goods warehouses of each production unit are defined as warehouses in LN, and linked to the site where the warehouse is located.

Except for the finished goods warehouses, the warehouses of each site are also linked to the enterprise unit defined for the production unit.

The finished goods warehouses of each site are linked to enterprise unit EUS, because the inventory of these warehouses is owned by the sales unit and the standard costs of EUS are based on the internal transfer between the production units and the sales unit.

To define the intercompany trade price between each production unit and sales unit S, intercompany trade relationships must be set up between EUA and EUS, EUB and EUS, and EUC and EUS.

Thus the finished goods warehouses are linked to the *site* of the production unit to which they belong, and to the *enterprise unit* of the sales unit. In this way, the logistic data of the site, such as lead times and the carrier, and the standard costs of the enterprise unit apply to the finished goods warehouses.

Offices

Sales unit S is modeled as sales office SO and defined as a department of type sales office and linked to site SA and enterprise unit EUS.

The purchase offices of production units B and C are modeled as purchase office PB and PC, respectively. They are defined as departments of type purchase office. The purchase office of production unit B is linked to site SB and enterprise unit EUB. The purchase office of production unit C is linked to site SC and enterprise unit EUC.

Purchase office PB is linked to site SB, because it is located at site SB and the purchase price of the oxygen masks is defined at site level in LN.

Purchase office PB is linked to enterprise unit EUB, because the aircraft manufacturer performs management accounting at unit level. Also, the financial transactions involved in the purchase of the oxygen masks at production unit B must be booked in the financial company, which is linked to enterprise unit EUB. Similarly, purchase office PC is linked to site SC and enterprise unit EUC.

Sales unit S is defined as sales office SO, because commercial data such as the sales price and sales order data are defined in sales offices in LN. Sales office S is linked to enterprise unit EUS, because management accounting is performed at unit level and sales office SO belongs to sales unit S. The sales office is linked to site SA to indicate that the sales office is located at site SA.

Work centers

The work centers and production halls of each production unit are defined as departments of type work center in LN, and linked to the site defined for the production unit.

Planning clusters

Because each site SA performs its own production planning, a separate planning cluster is defined for each site. For site SA, planning cluster PLA is defined. For sites SB and SC, planning clusters PLB and PLC, respectively, are defined.

Multisite example - item data in the purchase scenario

For the purchase scenario, item data is set up at:

- Sites SB and SC. At these sites, the oxygen masks are bought from local suppliers.
- Purchase offices SB and SC.
- Enterprise units EUB and EUC.

At site SB, purchase office PB handles the purchase of the oxygen masks from local supplier X. At site SC, purchase office PC handles the purchase of the oxygen masks from local supplier Y.

At site SA, purchase is not applicable, because the oxygen masks are manufactured.

At enterprise units EUB and EUC, the standard costs for the purchased oxygen masks at sites SB and SC are calculated.

These item data must be set up for the oxygen mask:

- **Item by site**
  In the Items by Site (tcibd1550m000) session, the supply source is **Purchase** for sites SB and SC. If required, you can specify additional data such as product types or manufacturers.
- **Item-ordering by site**
  In the Item - Ordering by Site (tcibd2150m000) session, for sites SB and SC, you must specify the default warehouse in which the oxygen mask is received. Also, specify data such as the order method and the applicable lot sizes as required.
- **Item-purchase by site**
  In the Items - Purchase by Site (tdipu0181m000) session, you must specify supplier X for site SB and supplier Y for site SC. Also, in this session you must specify the purchase price and the price group for sites SB and SC . You can also specify purchase office PB for site SB and purchase office PC for site SC, and other settings as required.
- **Item-warehousing by site**
  In the Item - Warehousing by Site (whwmd4604m000) session, specify data such as the default package definition, settings for locations, handling units, or rejected items, for the purchased oxygen masks at sites SB and SC.
- **Item-purchase by office**
  Item purchase data by office is not mandatory. In the Items - Purchase by Office (tdipu0181m100) session, you can specify the tax code and stage payment setting for each purchase office if these settings are different from the company settings.
- **Item costing by enterprise unit**
  For enterprise unit EUB, in the Item - Costing (ticpr0107m000) session, for item oxygen mask, specify costing source **Purchase** and the warehouse of site SB where the purchased oxygen masks are received.

  Consequently, the purchase price specified in the Items - Purchase by Site (tdipu0181m000) session for site SB is used to calculate the standard costs for enterprise unit EUB.

  Likewise, for enterprise unit EUC, specify costing source **Purchase** and the warehouse of site SC where the purchased oxygen masks are received. Consequently, the purchase price defined for site SC is used to calculate the standard costs for enterprise unit EUC.

Note

To specify specific item data for an individual site, clear the Use Global check box in the sessions mentioned in the previous list.

Multisite example - item data in the sales scenario

For the sales scenario, item data is set up at:

- Sites SA, SB, and SC. At these sites, the aircraft are manufactured and shipped to the customers.
- Sales office SO, which is responsible for the sale of the aircraft manufactured at all sites.
- Enterprise units EUA, EUB, EUC, and EUS.

For enterprise units EUA, EUB, EUC, the standard costs are calculated for the aircraft manufactured at sites SA, SB, and SC. At enterprise unit EUS, the standard costs are calculated for the aircraft sold by sales office SO.

These item data must be set up for the completed aircraft:

- **Item by site**
  In the Items by Site (tcibd1550m000) session, set the supply source to **Job Shop** for all sites. You can also specify data such as configuration and customization settings.
- **Item-ordering by site**
  In the Item - Ordering by Site (tcibd2150m000) session, for each site, you must specify the default warehouse from which the completed aircraft are shipped.
- **Item-sales by site**
  Item sales data by site are not mandatory, you can specify this data if it is different from the global company settings. In the Items - Sales by Site (tdisa0181m100) session, you can specify data as required if these data at sites SA, SB, or SC are different from the company settings.
- **Item-warehousing by site**
  In the Item - Warehousing by Site (whwmd4604m000) session, specify data such as the default package definition, and settings for locations, serialization, or handling units for the warehouses from which the aircraft are shipped at each site.
- **Item-sales by office**
  In the Items - Sales by Office (tdisa0181m000) session, for sales office SO, for each type of aircraft, specify:
  - The sales price and other pricing information
  - Ordering data, such as the warehouse where the aircraft to be shipped are stored, shipping constraints and component handling.
- **Item costing by enterprise unit**
  See *Item costing by enterprise unit* in *Multisite example - item data in the intercompany trade scenario (p. 33)*.

Note

To specify specific item data for an individual site, clear the Use Global check box in the sessions mentioned in the previous list.

Multisite example - item data in the production scenario

For the production scenario, item data is set up at:

- Sites SA, SB, and SC. At these sites, the aircraft are manufactured and shipped to the customers.
- Site SA, where the oxygen masks are manufactured.
- Enterprise units EUA, EUB, EUC, and EUS.

For enterprise units EUA, EUB, EUC, the standard costs are calculated for the aircraft manufactured at sites SA, SB, and SC. At EUA, the standard costs are calculated for the oxygen masks manufactured at site SA.

For sales unit EUS, the standard cost is based on the intercompany transfer price from the production unit to the sales unit.

These item data must be set up for the completed aircraft:

- **Item by site**
  In the Items by Site (tcibd1550m000) session, set the supply source to **Job Shop** for all sites, the oxygen masks, and the three types of aircraft. You can also specify data such as configuration and customization settings.
- **Item-ordering by site**
  In the Item - Ordering by Site (tcibd2150m000) session, for each site and type of aircraft, specify the default warehouse in which the completed aircraft are stored. In this example, this is the warehouse in which the aircraft are inspected after production.

  For the oxygen masks, at site SA this is the warehouse in which the completed masks are stored after production. As sites SB and SC, this is the warehouse in which the purchased oxygen masks are received from the supplier.
- **Item-production by site**
  In the Item - Production by Site (tiipd0151m000) session, specify that inbound inspection is required after production for each type of completed aircraft at each site.

  Specify that inbound inspection is required for the purchased oxygen masks received from the supplier for sites SB and SC. For site SA, specify that outbound inspection is required for the completed oxygen masks before they are fitted into the airplane cabins.
- **Item-warehousing by site**
  In the Item - Warehousing by Site (whwmd4604m000) session, specify data such as the default package definition, and settings for locations, serialization, or handling units for the warehouses at each site in which the oxygen masks or the aircraft are stored.

  For example, data that apply to the warehouses in which the oxygen masks are received and issued at site SA, and data that apply to the inspection and finished goods warehouses for the Eagle Midrange at site SB.
- **Item costing by enterprise unit**
  See Item costing by enterprise unit in *Multisite example - item data in the intercompany trade scenario (p. 33)*.

Note

To specify specific item data for an individual site, clear the Use Global check box in the sessions mentioned in the previous list.

Multisite example - item data in the intercompany trade scenario

At each site, the completed aircraft are internally transferred from the inspection warehouses to the finished goods warehouses. The inspection warehouses belong to enterprise units EUA, EUB, and EUC, and all of the finished goods warehouses belong to EUS.

At site SA, the Eagle Long Range is manufactured. The aircraft are transferred from the inspection warehouse to the finished goods warehouse. The inspection warehouse belongs to enterprise unit EUA and the finished goods warehouse belongs to enterprise unit EUS. EUA internally charges EUS for the transfer costs incurred.

Likewise, at sites SB and SC, where the Eagle Midrange and the Buzzard Pro are manufactured, the aircraft are transferred from the inspection warehouses to the finished goods warehouses. The inspection warehouses belong to EUB and EUC, respectively, and the finished goods warehouses belong to EUS. EUB and EUC internally charge EUS for the transfer costs incurred.

To define the intercompany trade price between each production unit and sales unit S, intercompany trade relationships are set up between EUA and EUS, EUB and EUS, and EUC and EUS.

For the intercompany trade scenario, item costing data for the completed aircraft is set up at these enterprise units:

- EUA
- EUB
- EUC
- EUS

At enterprise units EUA, EUB, EUC, the standard costs are calculated for the aircraft manufactured at sites SA, SB, and SC. At enterprise unit EUS, the standard costs are calculated for the aircraft that are internally bought from EUA, EUB, and EUC by sales office SO. Sales office SO sells the completed aircraft to the external customers.

These item data must be set up for the completed aircraft:

- **Item by site**
  In the Items by Site (tcibd1550m000) session, set the supply source to **Job Shop** for all sites. You can also specify data such as configuration and customization settings.
- **Item-ordering by site**
  In the Item - Ordering by Site (tcibd2150m000) session, for each site, you must specify the default warehouse from which the completed aircraft are shipped.

- **Item costing by enterprise unit**
  For enterprise units EUA, EUB, EUC, in the Item - Costing (ticpr0107m000) session, for each type of completed aircraft, specify costing source **Job Shop** and the inspection warehouse at each site where the completed aircraft are received from production, inspected, and transferred to the finished goods warehouses.

  Consequently, the data in the Item - Production by Site (tiipd0151m000) session related to the site of the selected warehouse is used to calculate the standard costs.

  For enterprise unit EUS, in the Item - Costing (ticpr0107m000) session, for each type of completed aircraft, specify:
  - Costing source **Intercompany Transfer**
  - The finished goods warehouse in which the aircraft is received:
    - For the Eagle Long Range, this is the finished goods warehouse at site SA.
    - For the Eagle Midrange, this is the finished goods warehouse at site SB.
    - For the Buzzard Pro, this is the finished goods warehouse at site SC.
  - The enterprise unit from which the aircraft is transferred:
    - For the Eagle Long Range, this is enterprise unit EUA.
    - For the Eagle Midrange, this is enterprise unit EUB.
    - For the Buzzard Pro, this is enterprise unit EUC

  Consequently, for each type of aircraft the standard cost is calculated based on the intercompany trade price specified between the selling and the buying enterprise unit:
  - For the Eagle Long Range, this is the intercompany sales price specified for intercompany transfers between enterprise unit EUA and EUS.
  - For the Eagle Midrange, this is the intercompany sales price specified for intercompany transfers between enterprise unit EUB and EUS.
  - For the Buzzard Pro, this is the intercompany sales price specified for intercompany transfers between enterprise unit EUC and EUS.

Note

To specify specific item data for an individual site, clear the Use Global check box in the sessions mentioned in the previous list.

Appendix A
Glossary

A

accounting office

A department that a financial company uses to group financial data on a more detailed level than by enterprise unit.

You can typically use accounting offices to group the following types of financial data:

- Manually entered sales invoices
- Trade notes
- Business partner financial data

You can link an accounting office to several business partner roles.

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.

company

A working environment in which you can carry out logistic or financial transactions. All the transaction data is stored in the company's database.

Depending on the type of data that the company controls, the company is:

- A logistic company.
- A financial company.
- A logistic and a financial company.

In a multicompany structure, some of the database tables can be unique for the company and the company can share other database tables with other companies.

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.

enterprise unit

A financially independent part of your organization that consists of 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. You can define intercompany trade relationships between enterprise units to determine the terms for internal trade between these units. To use invoicing and pricing between enterprise units, you must link the enterprise units to internal business partners.

You can use enterprise units to perform separate financial accounting for parts of your business. For example, you can define enterprise units for separate parts of your organization that belong to one logistic company, but that are located in different countries. The accounting of each enterprise unit is performed in each country's national currency, and in the financial company linked to the enterprise unit.

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.

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.

line station

A work center that is part of an assembly line. A line station is used in the production of FAS (final assembly schedule) items. A line station can have multiple positions, which enables more than one item to be present in one line station.

location

The physical location that is associated with the data or transaction, such as a warehouse, production facility, city, or country.

Location is a mandatory field in Business Object Documents (BODs) for transactional data.

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.

machine

In LN, a mechanical object on which operations can be carried out to produce items.

Machines are linked to operation rates. The operation rate and the labor rate together form the basis for the actual costing of production orders.

multisite

Refers to the management of multiple sites within a single (logistic) company.

In a multicompany structure, which includes several companies, multisite applies to each of the logistic companies.

planning cluster

An object used to group warehouses for which the inbound and outbound flow of goods and materials is planned collectively. For this purpose, the demand and supply of the warehouses of the planning cluster is aggregated. Within a planning cluster one supply source is used, such as production, purchasing or distribution.

If multisite is implemented, a planning cluster must include one or more sites. The site or sites include the warehouses for which the planning processes are performed.

production department

A group of production resources, work centers and work cells, physically related to each other. For example, a production hall is a production department.

production order

An order to produce a specified quantity of an item on a specified delivery date.

project management office

You can use the project management office (PMO) to group projects by department or to link employees to the department.

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.

purchase order

An agreement that indicates which items are delivered by a buy-from business partner according to certain terms and conditions.

A purchase order contains:

- A header with general order data, buy-from business partner data, payment terms, and delivery terms
- One or more order lines with more detailed information about the actual items to be delivered

relationship

A relationship that carries information between two enterprise units or between two entities, for example, an intercompany trade agreement.

Preferred term: intercompany trade relation

repair cell

A repair cell is a dedicated work cell linked to a production model.

Note

- A repair cell cannot be linked to work stations.
- Repair cells are used in repetitive manufacturing to repair rejected items.

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.

sales order

An agreement that is used to sell items or services to a business partner according to certain terms and conditions. A sales order consists of a header and one or more order lines.

The general order data such as business partner data, payment terms, and delivery terms are stored in the header. The data about the actual items to be supplied, such as price agreements and delivery dates, is entered on the order lines.

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.

service office

A department clearly identified within the company business model to manage the sales relations of the business partner. The service office is used to identify the locations that are responsible for the service activities within the organization.

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.

ship-to business partner

The business partner to whom you ship the ordered goods. This usually represents a customer's distribution center or warehouse. The definition includes the default warehouse from which you send the goods, the carrier who carries out the transport, and the related sold-to business partner.

Synonym: ship-to customer

ship-to customer

See: *ship-to business partner (p. 39)*

site

A business location of an enterprise that can maintain its own logistical data. It includes a collection of warehouses, departments and assembly lines at the same location. Sites are used to model the supply chain in a multisite environment.

These restrictions apply to sites:

- A site cannot cross countries. The warehouses and departments of the site must be in the same country as the site.
- A site is part of a planning cluster. Consequently, all warehouses and work centers of a site must belong to the same planning cluster.
- A site is linked to one logistic company.

You can link a site to an enterprise unit or an enterprise unit to a site.

If an enterprise unit is linked to a site, the entities of the site belong to the enterprise unit. Conversely, if a site is linked to an enterprise unit, the entities of the enterprise unit belong to the site.

sold-to business partner

The business partner who orders goods or services from your organization, who owns the configurations you maintain, or for whom you perform a project. Usually a customer's purchase department.

The agreement with the sold-to business partner can include:

- Default price and discount agreements
- Sales order defaults
- Delivery terms
- The related ship-to and invoice-to business partner

standard cost

The sum of the following item costs as calculated by the standard cost calculation code:

- Material costs
- Operational costs
- Surcharges

Prices that are calculated against other price simulation codes are simulated prices. The standard cost is used for simulation purposes and in transactions when no actual price is available.

Standard cost is also an inventory valuation method for accounting purposes.

subentity

A reference to an LN package, such as Manufacturing or Warehousing. For example, items by subentity refer to sessions such as Items - Planning (cprpd1100m000), or Item Data by Warehouse (whwmd2510m000). Similarly, site by subentity refers to site data by LN package, which is available in sessions such as Warehousing Settings by Site (whwmd2101m000) or Production Settings by Site (timfc0180m000).

warehouse

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

warehousing

All actions related to the receipt, storage, treatment, and issuing of goods within a warehouse.

The Warehousing package coordinates all transactions of goods in the warehouses by using warehousing orders. This relates to inbound and outbound of goods, transfer of goods, cycle counting of goods, ABC analysis, inventory commitments, and various kinds of inventory reporting.

work cell

A production unit consisting of one or more work stations in a fixed sequence.

A work cell is used in repetitive manufacturing for the production of a repetitive item.

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.

Index