

User's Guide for Allocation and Hard Pegging

© Copyright 2008 Infor

All rights reserved. The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or its affiliates and subsidiaries. All rights reserved. All other trademarks listed herein are the property of their respective owners.

Important Notices

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above.

Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Trademark Acknowledgements

All other company, product, trade or service names referenced may be registered trademarks or trademarks of their respective owners.

Publication Information

Document code	U9500A US
Release	Infor ERP LN 6.1 FP5
Publication date	November 17, 2008

Table of Contents

About this document

Chapter 1 Overview of allocation and hard pegging	1-1
Allocation and hard pegging overview.....	1-1
To set up allocation and hard pegging.....	1-1
To handle insufficient inventory.....	1-2
Inventory allocation levels.....	1-2
To change inventory allocations.....	1-2
Chapter 2 To set up allocation and hard pegging	2-1
To set up allocation and hard pegging.....	2-1
Chapter 3 To hard peg supply orders	3-1
To hard peg supply orders.....	3-1
Hard peg supply orders in Order Management.....	3-1
Hard peg supply orders in Warehouse Management.....	3-2
Hard peg supply purchase orders and schedules.....	3-2
Chapter 4 Allocation buffers	4-1
Allocation buffers.....	4-1
To calculate available unallocated inventory.....	4-1
To create allocation buffers.....	4-2
Chapter 5 Inventory allocation levels	5-1
Inventory allocation levels.....	5-1
Allocation levels.....	5-1
Handling unit setup for allocations.....	5-2
Chapter 6 Allocation and hard pegging example	6-1
Allocation and hard pegging example.....	6-1
Item S.....	6-1
Item H.....	6-2

Components C1 and C2.....	6-2
Component C3.....	6-2
Allocation and hard pegging data.....	6-3
Appendix A Glossary.....	A-1
Index	

About this document

Objective

The objective of this guide is to describe allocation and hard pegging in ERP LN.

Intended audience

This document is intended for persons in charge of allocation and hard pegging. The intended audience can include key users, implementation consultants, product architects, support specialists, and so on.

Document summary

Chapter number	Content
----------------	---------

Chapter 1	An overview of allocation and hard pegging
-----------	--

Chapter 2	To set up allocation and hard pegging
-----------	---------------------------------------

Chapter 3	To hard peg supply orders
-----------	---------------------------

Chapter 4	Allocation buffers
-----------	--------------------

Chapter 5	Inventory allocation levels
-----------	-----------------------------

Chapter 6	An allocation and hard pegging example
-----------	--

How to read this document

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

For details, refer to *Introduction*. To locate the referred section, please refer to the Table of Contents or use the Index at the end of the document.

At the end of this document, a glossary is included. Terms explained in the glossary are presented as shown in the following example:

In Common Data, you can link [addresses](#) to [business partners](#).

If you view this document online, you can click these terms to go to the term's definition in the glossary.

Customer Support

If you have questions regarding the Infor products described, go to Infor's Customer Support portal at www.infor365.com.

- To access Infor365, go to www.infor365.com and log in. If you do not have an Infor365 account, click **Account Request**, complete the registration form, and a login will be sent to you within 24 hours.
 - To access Infor knowledgebases, documentation, downloads, communities, and incidents, click the appropriate link in the top menu of the home page.
 - To find your local support phone number, click **Contact Infor** in the top right corner of the home page, enter a product name, and click **Search**.
-

Chapter 1

Overview of allocation and hard pegging

1

Allocation and hard pegging overview

Allocation of inventory and hard pegging of orders are related methods used to designate a quantity of supply to a specific purpose.

The allocation and hard pegging functionality enables you to do the following:

- Promise a customer a particular quantity of an item. The allocated inventory cannot be shipped to other customers and serves as a reservation.
- Link an identifiable quantity of an item to a particular demand. In this way, that particular quantity cannot be interchanged with another quantity of the same item. For example, you use this to keep components and subassemblies together in a subcontracting setup.

The primary purpose of the allocation and hard pegging functionality is to link supply orders to demand orders, or to allocate inventory to a specific demand order. If inventory is allocated or supply is hard pegged to a specific demand, a lot of processes are involved. For example, hard pegging is taken into account during order planning, the issuing and receipt of materials, the outbound and shipment of goods, and so on. To enable demand and supply matching during all of these processes, specifications are used.

ERP LN uses specifications to:

- Hard peg, in other words, to link, a supply order to a demand order
- Allocate inventory to a demand order.

To set up allocation and hard pegging

Before you can use the allocation and hard pegging functionality, you must set up the allocation and hard pegging master data. For more information, refer to *To set up allocation and hard pegging (p. 2-1)*

After the allocation and hard pegging data is set up, when a demand order is created, ERP LN:

- Links a specification to the demand order.
-

- Allocates inventory to the demand order.
- Updates the quantity of the **Allocated-to Inventory Allocated** field in the Allocated-to Inventory (whwmd2519m000) session with the quantity of the demand order, even if insufficient inventory is available to fulfill the demand order.

Note

If the demand order is created manually or from independent demand, specifications are created if the allocation and hard pegging terms and conditions are defined. If the demand order is created from dependent demand, the demand order can only receive a specification from the origin that created the order. For an example of how a specification is transferred between business objects, refer to *Allocation and hard pegging example (p. 6-1)* .

To handle insufficient inventory

If insufficient inventory is available to fulfil a demand order, you can create supply orders or allocate inventory.

Supply orders are generated or manually created if insufficient allocated or unallocated inventory is present to fulfil the demand order. If a supply order is generated for the demand order, a specification is also generated for the supply order. This specification has the same characteristics as the specification of the demand order. For more information, refer to *To hard peg supply orders (p. 3-1)* .

Inventory is allocated using allocation buffers if insufficient allocated, but sufficient unallocated inventory is present. The inventory included in an allocation buffer is linked to a specification. As a result, the buffered inventory is available for demand orders with matching specification criteria. For more information, refer to *Allocation buffers (p. 4-1)* .

Inventory allocation levels

Inventory allocation levels determine whether allocated-to inventory is identifiable and traceable in the warehouse by means of handling units or merely registered as allocated-to inventory. You can define allocation levels for warehouse - item combinations in the Warehouse - Item (whwmd2510m000) session and the Item - Warehousing (whwmd4100s000) session.

For more information, refer to *Inventory allocation levels (p. 5-1)* .

To change inventory allocations

Changing an inventory allocation is required, for example, if the order for which the inventory is allocated is canceled. To change an allocation, you must use an allocation change order.

Allocation change orders are generated based on a number group and series defined in the Inventory Handling Parameters (whinh0100m000) session.

For more information, refer to:

- Allocation Change Orders (whinh1120m000)
- Allocation Change Order Lines (whinh1130m000)

To set up allocation and hard pegging

Before you can use the allocation and hard pegging functionality, you must set up the allocation and hard pegging master data.

You must define the following master data:

- Select the **Allocation and Hard Pegging** check box in the Implemented Software Components (tccom0500m000) details session.
- Set up a terms and conditions agreement and define the allocation and hard pegging terms and conditions in the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session.

In the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session, you must do the following:

- Select the **Allocation and Hard Pegging Required** check box.
- Select the **Use Unallocated Inventory** check box if not only allocated inventory must be used, but also unallocated inventory.
- Define the type of allocation and hard pegging in the **Allocation and Hard Pegging Type** field, which determines the specification attributes that are used for demand and supply matching. Therefore, the **Allocation and Hard Pegging Type** determines the content of the specification.

The **Allocation and Hard Pegging Type** field can have the following values:

- **Order Based**
This type is used to allocate inventory and hard peg orders to a specific demand order.
 - **Business Partner Based**
This type is used to allocate inventory and hard peg orders to a specific business partner.
 - **Customer Reference Based**
This type is used to allocate inventory and hard peg orders to a specific customer reference.
-

- **Internal Reference Based**

This type is used to allocate inventory and hard peg orders to a specific internal reference.

Allocation and Hard Pegging Type	Specified in Specification
Business Partner Based	Business Partner
Order Based	Business partner Order/position/sequence
Customer Reference Based	Business partner Reference
Internal Reference Based	Reference

For more information on terms and conditions, refer to Overview of terms and conditions.

To hard peg supply orders

If insufficient inventory is available, supply orders can be generated and hard pegged to the demand order requesting allocated inventory. This means the supply order receives the same specification as the demand order. Allocated planned inventory transactions, containing the specifications, are created for the supply orders.

Supply orders for demand orders are generated or manually created:

- In order planning runs in the Enterprise Planning package. For more information, refer to Order planning, an overview.
- Directly from the sales (demand) order or schedule in the Order Management package.

Hard peg supply orders in Order Management

The following supply orders can be generated:

- Supply purchase orders in the Generate Purchase Orders (tdsls4241m000) session.
- Supply production orders in the Generate Production Orders (tdsls4243m000) session.
- Supply transfer orders in the Transfer Order for Sales Order (tdsls4242s000) session.

Supply orders can be created as follows from the Sales Order Lines (tdsls4101m000) session, or the Sales Order Delivery Lines (tdsls4101m100) session:

- **Manually from the stock shortage menu**
When an inventory shortage occurs on the order line, the Inventory Shortage Menu (tdsls4830s000) session is started. Select **Generate Purchase Order**, **Generate Production Order**, or **Generate Transfer Order** to create a supply order in the relevant session.
-

- **Manually from the Specific menu**
When an inventory shortage occurs on the order line, you can click **Generate Purchase Order**, **Generate Production Order**, or **Generate Transfer Order** on the **Specific** menu to create a supply order in the relevant session.
- **Automatically at sales order line entry**
When an inventory shortage occurs, a supply order is automatically generated if the relevant session is linked as an automatic activity to the order type in the Sales Order Type - Activities (tdsls0694m000) session.

Note

- The Inventory Shortage Menu (tdsls4830s000) session, which can appear for a manually entered sales order, is only started if the total quantity of the allocated inventory and/or hard pegged supply orders is less than the sales order line's ordered quantity.
- During BOM explosion of the production order, ERP LN can propagate the hard peg to orders for components, depending on the **Hard Peg Propagation** field in the Bill of Material (tibom1110m000) session.

Hard peg supply orders in Warehouse Management

Warehouse Management parameter settings determine the following:

- Whether items received by supply orders become identifiable in inventory through handling units generated for the receipts line of the supply order when the receipt is confirmed. These handling units obtain specifications with characteristics identical to those of the supply order.
- Whether specific handling units or anonymous allocated inventory is issued when generating outbound advice for the demand order. ERP LN issues inventory whose specification characteristics match those of the outbound order lines of the demand order.

For more information on these parameter settings, refer to *Inventory allocation levels* (p. 5-1) .

Hard peg supply purchase orders and schedules

A purchase order/schedule is a source of supply for items. By means of the specification, items that you purchase can be hard pegged to an allocated demand. During receipt of the item, the hard pegging characteristics of the specification are copied to the inventory record, which allocates this inventory to the specific demand.

Purchase orders

A purchase order line can receive a hard peg if it is generated from the following origins:

- **EDI**
The purchase order line and related specification information is communicated by means of electronic data interchange (EDI). This applies if the **Supply Planning by Supplier** check box is selected in the Planning Terms and Conditions (tctrm1135m000) session. As a result, the **Allocation and Hard Pegging Type** in the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session determines the specification's appearance on the purchase order line.
- **Sales**
The purchase order is generated in the Generate Purchase Orders (tdsls4241m000) session. If a specification is linked to the sales order and the **Supply Planning by Supplier** check box is cleared in the Planning Terms and Conditions (tctrm1135m000) session, the specification of the sales order is copied to the purchase order line.
- **EP**
The purchase order is generated from the Transfer Planned Orders (cppat1210m000) session. If a specification is linked to the planned order and the **Supply Planning by Supplier** check box is cleared in the Planning Terms and Conditions (tctrm1135m000) session, the specification of the planned order is copied to the purchase order line.
- **Warehousing**
The purchase order is generated from the Generate Orders (TPOP) (whinh2201m000) session. If a specification is linked to the planned inventory transaction and the **Supply Planning by Supplier** check box is cleared in the Planning Terms and Conditions (tctrm1135m000) session, the specification of the planned inventory transaction is copied to the purchase order line.
- **Warehousing Receipt**
The purchase order line is generated automatically for an unexpected warehouse receipt. The specification is copied from the receipt in Warehouse Management.
- **SFC**
The (subcontracting) purchase order line is created from the Generate Subcontracting Purchase Orders (tisfc2250m000) session for a subcontracted operation on a production order. The specification is copied from the Estimated Materials (ticst0101m000) session in Manufacturing to the Purchase Order Material Supply Lines (tdpur4116m000) session in Order Management.
- **Subcontracting Purchase Order**
The (subcontracting) purchase order line is created from the Generate Supply Orders for Subcontracting (tdpur4216m000) session for an order

controlled/single system. The specification from the Purchase Order Material Supply Lines (tdpur4116m000) session is copied to the purchase order line.

- **Manual**

For manually entered purchase orders, you can only create a specification in a specific vendor managed inventory (VMI) scenario and a specific subcontracting scenario.

Before you can manually enter a purchase order for these scenarios, the following check boxes must be selected:

- **Supply Planning by Supplier** in the Planning Terms and Conditions (tctrm1135m000) session.
- **Allocation and Hard Pegging Required** in the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session.

Both scenarios also require specific settings before you can manually enter purchase orders:

- **VMI scenario**

On the purchase order line, the **Payment** field must be set to **Pay on Receipt** or **Pay on Use**.

- In the Planning Terms and Conditions (tctrm1135m000) session, the **Send Reference to Supplier** check box must be selected.

- In the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session, the **Allocation and Hard Pegging Type** must be set to **Internal Reference Based**.

- **Subcontracting scenario**

On the purchase order line, the **Payment** field must be set to **No Payment**.

- In the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session, the **Allocation and Hard Pegging Type** must be set to **Business Partner Based** or **Customer Reference Based**.

Note

If the purchase order line is a return order line, the specification of the original purchase order line is copied to the return order line.

Purchase schedules

A purchase schedule line can receive a hard peg if it is generated from the following origins:

- **Warehousing**

The purchase schedule is generated from the Generate Orders (TPOP) (whinh2201m000) session. If a specification is linked to the planned inventory transaction and the **Supply Planning by Supplier** check box is cleared in the Planning Terms and Conditions (tctrm1135m000) session,

the specification of the planned inventory transaction is copied to the purchase schedule line.

- **Subcontracting Purchase Order**

The (subcontracting) purchase schedule line is created from the Generate Supply Orders for Subcontracting (tdpur4216m000) session for an order controlled/single system. The specification from the Purchase Order Material Supply Lines (tdpur4116m000) session is copied to the purchase schedule line.

Note

For push schedules, specifications are not used.

Allocation buffers

You can use allocation buffers to allocate free, (unallocated) inventory if insufficient inventory is present.

When you create an allocation buffer, free on hand inventory for a warehouse, item and, if present, an effectivity unit, is allocated to a specification. The inventory is then consumable for outbound order lines whose specification characteristics match those of the allocation buffer. Outbound order lines, advice lines, shipment lines, and so on, created in the outbound and shipment procedures obtain the specification characteristics of the demand order from which they originate.

You can only create allocation buffers if the following applies:

- The **Use Unallocated Inventory** check box is selected in the Allocation and Hard Pegging Terms and Conditions (tctrm1165m000) session.
- Unallocated inventory is available.

Note

Allocation buffers are generated based on a number group and series defined in the Inventory Planning Parameters (whinp0100m000) session.

To calculate available unallocated inventory

ERP LN calculates the available unallocated inventory as follows:

$$\{A - (B + C + D)\} + E = F$$

If $F > G$, $G = \text{unallocated available inventory}$

$$H - I = G$$

Symbol	Value of field in Inventory by Warehouse, Item and Effectivity Unit (whwmd2516m000) session:
A	Inventory on Hand
B	Blocked
C	Committed
D	Location Allocated
E	Inventory Committed in Process
F	Intermediate result
H	Inventory on Hand field of the Inventory by Warehouse, Item and Effectivity Unit (whwmd2516m000) session
I	Allocated-to Inventory on Hand field in the Allocated-to Inventory (whwmd2519m000) session

The committed inventory C and the location allocated inventory D can overlap, because if outbound advice is created for committed inventory, this advised committed inventory is listed as both committed and location allocated inventory. If C and D were subtracted from A to calculate F, the calculated free inventory F would be lower than the actual free inventory. Therefore, the inventory committed in process E is added to balance the result.

If F is more than the difference between the **Inventory on Hand** field of the Inventory by Warehouse, Item and Effectivity Unit (whwmd2516m000) session and the **Allocated-to Inventory on Hand** field in the Allocated-to Inventory (whwmd2519m000) session, the result is adjusted to this difference.

To create allocation buffers

Allocation buffers are created:

- During an order planning run in Enterprise Planning. For more information, refer to *Creating allocation buffers in Enterprise Planning (p. 4-3)* .
- At sales order line entry (the sales order line being the demand order). The allocation buffer is created for the warehouse, item, effectivity unit, and specification of the sales order line. For more information, refer to *Creating allocation buffers at sales order line entry (p. 4-3)* .

- Manually in the Inventory Commitments (whinp2100m000) session.

You can view allocation buffers in the Inventory Commitments (whinp2100m000) session.

Creating allocation buffers in Enterprise Planning

During an order planning run, Enterprise Planning can create allocation buffers to allocate inventory to a demand order.

To allocate inventory:

1. ERP LN checks whether unallocated inventory is available for the item, warehouse, and specification of the demand order.
2. If no, no allocation takes place.
3. If yes, ERP LN looks for allocation buffers without outbound advice whose specification characteristics match those of the demand order.
4. If found, the quantity of the existing allocation buffer is increased with the quantity required for the demand order and the quantity of the unallocated inventory is reduced by the demand order quantity.
5. If not found, ERP LN creates a new allocation buffer with a specification whose characteristics are identical to those of the demand order. The quantity of the new allocation buffer matches the demand order quantity.

In the Allocated-to Inventory (whwmd2519m000) session, the following fields are increased with the new allocation buffer quantity:

- **Inventory in Allocation Buffer**
- **Allocated-to Inventory on Hand**

Creating allocation buffers at sales order line entry

Allocation buffers can be created as follows from the Sales Order Lines (tdsls4101m000) session, or the Sales Order Delivery Lines (tdsls4101m100) session:

- **Manually from the stock shortage menu**
When an inventory shortage occurs on the order line, the Inventory Shortage Menu (tdsls4830s000) session is started. Select **Create Allocation Buffer** to create an allocation buffer in the Create Allocation Buffers (tdsls4813s000) session. The allocation buffer is created when the sales order line is saved.
 - **Manually in Warehouse Management**
You can allocate unallocated inventory in the Inventory Commitments (whinp2100m000) session. On the **Specific** menu, click **Allocation Buffers** to start this session and enter your data.
-

- **Automatically at sales order line entry**

When an inventory shortage occurs, an allocation buffer is automatically created at sales order line entry if the **Stock Shortage Menu Options** field is set to **Create Allocation Buffer** for the relevant item in the Sales Order Types (tdsls0594m000) session.

Consumption of allocation buffers

If outbound advice is created for an outbound order line with a specification, ERP LN first advises the allocated- to inventory that was received by means of supply orders with matching specification characteristics, thus increasing the quantity in the **Allocated-to Inventory Location Allocated** field of the Allocated-to Inventory (whwmd2519m000) session.

If this inventory is insufficient, ERP LN advises inventory from allocation buffers with specification characteristics that match those of the outbound order line, thus increasing the quantity in the **Allocated-to Inventory Location Allocated** field and the **Inventory in Allocation Buffer** field of the Allocated-to Inventory (whwmd2519m000) session.

Likewise, if outbound advice is released for an outbound order line with a specification, ERP LN first releases the allocated- to inventory that was received by means of orders with matching specification characteristics. If the corresponding shipment lines are confirmed, the quantity in the **Allocated-to Inventory Location Allocated** field of the Allocated-to Inventory (whwmd2519m000) session is decreased.

If this inventory is insufficient, ERP LN releases inventory from allocation buffers with specification characteristics that match those of the outbound order line. If the corresponding shipment lines are confirmed, the quantity in the **Allocated-to Inventory Location Allocated** field of the Allocated-to Inventory (whwmd2519m000) session is decreased.

Inventory allocation levels

Inventory allocation levels determine whether allocated-to inventory is identifiable and traceable in the warehouse by means of handling units or merely registered as allocated-to inventory. You can define allocation levels for warehouse - item combinations in the Warehouse - Item (whwmd2510m000) session and the Item - Warehousing (whwmd4100s000) session.

Allocation levels

The following inventory allocation levels are available:

- **Warehouse**
If receipt lines of supply orders with specifications are confirmed, or allocation buffers are created, the received items and the buffered items become allocated-to inventory. No handling units are generated for these items, therefore, they are not traceable in the warehouse.
- **Physical Item**
If receipt lines of supply orders with specifications are confirmed, the received items become allocated inventory. ERP LN generates handling units for the received items, and the handling units obtain specifications with characteristics identical to those of the supply order. The allocated items are identifiable and traceable in the warehouse by means of the handling units and the handling unit specifications.

In all warehousing procedures, including shipment, inbound and outbound inspections, adjustments and cycle counts, handling units with specifications are used. For example, if outbound advice is created for a demand order, ERP LN advises specific handling units whose specification characteristics match those of the outbound order lines of the demand order.

However, using this allocation level requires various parameter settings. For more information, refer to *Handling unit setup for allocations* (p. 5-2)

Handling unit setup for allocations

To use allocation level **Physical Item**, the following setup is required:

- In the Implemented Software Components (tccom0500m000) details session, select the **Allocation and Hard Pegging** check box.
- In the Implemented Software Components (tccom0500m000) details session, select the **Handling Units in Use** check box.
- In the Item - Warehousing Defaults (whwmd4101s000) session and the Item - Warehousing (whwmd4100s000) session, select the **Handling Units in Use** check box.
- In the Warehouse - Item (whwmd2510m000) session:
 - To enable the use of handling units in all warehousing processes, select the following check boxes :
 - **Handling Units in Use**
 - **Receipts**
 - **Inbound Inspections**
 - **Inventory**
 - **Outbound Inspections**
 - **Shipments**
 - To automatically generate handling units during the following warehousing processes, select **Always** or **For Ownership/Hard Pegging** in the following fields:
 - **Generate Handling Units Automatically from ASNs**
 - **Confirm Receipts**
 - **Process Adjustments Orders**
 - **Process Cycle Counting Orders**
 - To generate handling units when outbound advice is released, in the **Confirm Picking** field, select **Yes**.

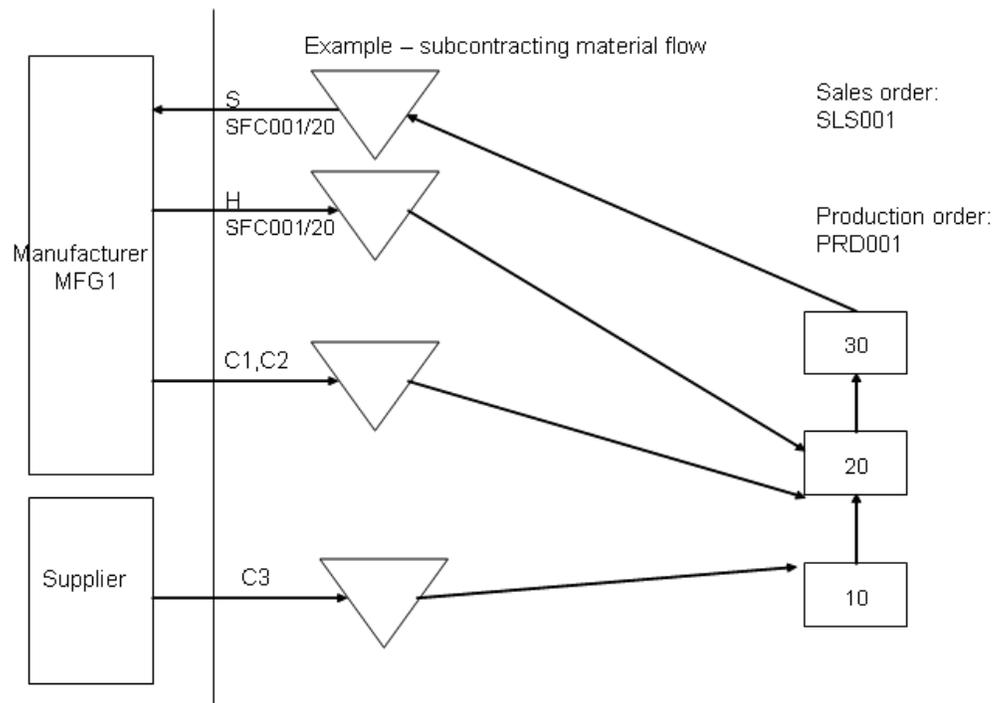
If not all of the above automatic handling unit generation options are selected, when one of the warehouse processes is carried out, the user is prompted to manually create handling units.

Note

Allocated inventory is listed by item, warehouse and specification in the Allocated-to Inventory (whwmd2519m000) session. In the Handling Units (whwmd5130m000) session, you can view handling units and handling unit specifications.

Allocation and hard pegging example

This topic gives an example of how a specification is transferred between business objects in the subcontracting process at the subcontractor's site.



Item S

The subcontractor starts by creating a subcontracting sales order for item S for which inventory must be allocated. For the sales order, a production order is planned in Enterprise Planning and created in Shop Floor Control. The sales order has a specification that is propagated to the production order.

Items H, C1, C2, and C3 are in the bill of material for item S. The **Hard Peg Propagation** field in the Bill of Material (tibom1110m000) session determines if and how the specification is further propagated from the production order to the production order estimated material lines.

The manufacturer is identified as sold-to business partner MFG1 in the subcontractor's system.

Item H

Item H is a subassembly item of the manufacturer and therefore delivered by the manufacturer.

The **Hard Peg Propagation** field in the Bill of Material (tibom1110m000) session is set to **Read Terms and Conditions**. This means that for item H, ERP LN checks the terms and conditions agreement to determine which specification attributes must be propagated.

Item H is planned by the manufacturer on an order basis. To uniquely identify H, the subcontractor receives the reference "SFC0001/20" from the manufacturer. For item S, this reference is stored in the **Reference** field on the sales order.

The specification on the purchase order also contains the reference "SFC0001/20" for item H.

Components C1 and C2

Items C1 and C2 are components that are planned and delivered by the manufacturer.

The **Hard Peg Propagation** field in the Bill of Material (tibom1110m000) session is set to **Read Terms and Conditions** for items C1 and C2. This means that ERP LN checks the terms and conditions agreement to determine which specification attributes must be propagated to the estimated material lines for the items.

C1 and C2 are supplied by the manufacturer on a bulk basis. The purchase orders for C1 and C2 have a specification that contains the business partner MFG1. C1 and C2 are allocated to this manufacturer.

Component C3

Item C3 is a component that is planned by the subcontractor.

The **Hard Peg Propagation** field in the Bill of Material (tibom1110m000) session is set to **Propagate** for item C3. This means that the specification from the production order is propagated one-to-one to the estimated material line for C3.

In an order planning run in Enterprise Planning, a purchase order is created by the subcontractor. The specification is propagated from the sales order to the purchase order.

Allocation and hard pegging data

H, C1, C2, and C3 must be issued to the production order PRD001. This is only possible if the specifications on the estimated material lines equal the specifications in inventory. In other words, the specifications on the supply side must equal the specifications on the demand side.

The following tables display the specification data for the production order, sales order, and purchase orders. The warehouse orders and planning orders are not mentioned, but the specifications on the warehouse orders are derived from the originating orders.

Order Management

Item	S	H	C1	C2	C3
Allocation and Hard Pegging Type	Customer Reference Based	Customer Reference Based	Business Partner Based	Business Partner Based	Not Applicable
Order Type	Sales order	Purchase order	Purchase order	Purchase order	Purchase order
Order Number	SLS001	PUR001	PUR001	PUR002	PUR003
Specification					
Allocated to Business Partner	MFG1	MFG1	MFG1	MFG1	MFG1
Allocated to Reference	SFC0001/20	SFC0001/20	Not Applicable	Not Applicable	SFC0001/20

Shop Floor Control

Item	S	H	C1	C2	C3
Allocation and Hard Pegging Type	Not Applicable	Customer Reference Based	Business Partner Based	Business Partner Based	Not Applicable
Hard Peg Propagation	Not Applicable	Read terms and conditions	Read terms and conditions	Read terms and conditions	Propagate
Order Type	Production order	Production order material	Production order material	Production order material	Production order material

Order Number	PRD001	PRD001/10	PRD001/20	PRD001/30	PRD001/ 40
---------------------	--------	-----------	-----------	-----------	---------------

Specification

Allocated to Business Part- ner	MFG1	MFG1	MFG1	MFG1	MFG1
--	------	------	------	------	------

Allocated to Reference	SFC0001/ 20	SFC0001/20	Not Applic- able	Not Applic- able	SFC0001/ 20
-----------------------------------	----------------	------------	---------------------	---------------------	----------------

Appendix A

Glossary



A

address

A full set of addressing details, which include the postal address, access numbers for telephone, fax, and telex, e-mail and Internet address, identification for taxation purposes, and routing information.

allocation

The reservation of inventory against a demand prior to the outbound process.

You can allocate a quantity of inventory to a business partner or a particular demand order.

Note

The documentation sometimes states that a particular demand object, such as a sales order, is *allocated to* a business partner, order, or reference. That phrase actually means that ERP LN must fill the demand object with *supply that was allocated to* that particular business partner, order or reference.

allocation buffer

Inventory that is allocated to a specification. This inventory is not allocated to a specific order, but can be consumed by any order line with a specification whose characteristics match the characteristics of the specification of the allocation buffer.

business partner

A party with whom you carry out business transactions, for example, a customer or a supplier. You can also define departments within your organization that act as customers or suppliers to your own department as business partners.

The business partner definition includes:

- The organization's name and main address.
- The language and currency used.
- Taxation and legal identification data.

You address the business partner in the person of the business partner's contact. The business-partner status determines if you can carry out transactions. The transactions type (sales orders, invoices, payments, shipments) is defined by the business partner's role.

dependent demand

A demand related to a demand for another item.

Two basic types of dependent demand exist:

- Demand for components that are used to manufacture an item.
- Demand that originates from another warehouse location or a related site.

The dependent demand is equal to the sum of the following fields:

- Dependent material demand
- Dependent Scheduled Demand
- Dependent Distribution Demand

ERP LN explodes the ATP and the dependent demand of a main item to plan items that have the same cluster as the warehouse you specified on the bill of critical materials of the main item.

electronic data interchange (EDI)

The computer-to-computer transmission of a standard business document in a standard format. Internal EDI refers to the transmission of data between companies on the same internal company network (also referred to as multisite or multicompany). External EDI refers to the transmission of data between your company and external business partners.

handling unit

A uniquely identifiable physical unit that consists of packaging and contents. A handling unit can contain items registered in Warehouse Management and other handling units. A handling unit has a structure of packaging materials used to pack items, or is a part of such a structure.

A handling unit includes the following attributes:

- Identification code
- Packaging item (optional)
- Quantity of packaging items (optional)

If you link an item to a handling unit, the item is packed by means of the handling unit. The packaging item refers to the type of container or other packing material of which the handling unit consists. For example, by defining a packaging item such as Wooden Crate for a handling unit, you specify that the handling unit is a wooden crate.

See: handling unit structure

hard peg

A relationship between a planned order, or an actual supply order, and an item requirement that represents a definite commitment. ERP LN cannot use the hard pegged supply for anything else than the pegged requirement, unless the peg is explicitly deleted.

- **Pegged supply**
The pegged supply can be a purchase order, a planned purchase order, a production order, a planned production order, a warehousing order with transaction type transfer, or a planned distribution order.
- **Pegged requirement**
The pegged requirement can be, among other things, a sales order line or a required component for a production order.

Related term: soft peg

independent demand

A demand that is unrelated to demand for other items.

Examples of independent demand:

- Demand for finished goods.
 - Demand for components required for destructive testing.
 - Service part requirements.
-

inventory ownership change order

A commission to change the ownership of goods from the supplier, that is, the buy-from business partner, to the own company, if the ownership is time based. See also ownership.

An inventory ownership change order consists of an order header providing general information and one or more order lines providing details about the items involved. In addition, if resulting from the ownership change relocation is required involving adjustments of the handling unit structure, line handling information is also provided.

Time based change orders are generated by users for items due for ownership change. Infor ERP LN uses change orders to generate financial transactions related to the ownership change and to track the whereabouts of inventory.

order-based planning

A planning concept in which planning data is handled in the form of orders.

In order planning, supply is planned in the form of planned orders. ERP LN takes into account the start and finish dates of individual planned orders. For production planning, this method considers all material and capacity requirements, as recorded in an item's BOM and routing.

Note

In Enterprise Planning, you can maintain a master plan for an item, even if you plan all supply with order planning.

order controlled/single

A demand-pull system that regulates the supply of items to shop floor warehouses.

In this supply system, a specific production order for a specific product pulls the required items from a supply warehouse to the shop floor warehouse. A direct link is established between the production order for which the items are required, and the warehousing order that regulates the supply of the required items to the shop floor warehouse.

planned inventory transactions

The expected changes in the inventory levels due to planned orders for items.

planned order

A supply order in Enterprise Planning that is created for planning purposes, but which is not an actual order yet.

Enterprise Planning works with planned orders of the following types:

- Planned production order
- Planned purchase order
- Planned distribution order

Planned orders are generated in the context of a particular scenario. The planned orders of the actual scenario can be transferred to the execution level, where they become actual supply orders.

push schedule

A list of time-phased requirements, generated by a central planning system, such as Enterprise Planning or Project, that are sent to the supplier. Push schedules contain both a forecast for the longer term and actual orders for the short term.

A push schedule can use one of the following release types:

- **Material Release:** only material releases are sent. Shipping is performed based on the **Firm** and **Immediate** requirements in the material release.
- **Shipping Schedule:** both material releases and shipping schedules are sent. Shipping is carried out based on the **Firm** and **Immediate** requirements in the shipping schedule. The material release only sends forecasting data.
- **Shipping Schedule Only:** only shipping schedules are sent. Shipping is carried out based on the **Firm** and **Immediate** requirements in the shipping schedule. No forecasting data is sent to the supplier.

return order

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

specification

A collection of item-related data, for example, the business partner to which the item is allocated or ownership details.

ERP LN uses the specification to match supply and demand.

A specification can belong to one or more of the following:

- An anticipated supply of a quantity of an item, such as a sales order or production order
- A particular quantity of an item stored in a handling unit
- A requirement for a particular quantity of an item, for example a sales order

subassembly

An intermediary product in a production process that is not stored or sold as an end product, but that is passed on to the next operation.

For subcontracting purposes, a manufacturer can send a subassembly to a subcontractor to carry out work on the subassembly. This subassembly has its own item code defined in the Item Base Data.

After work is finished, the subcontractor sends the subassembly back to the manufacturer. Also this reworked subassembly has its own item code defined in the Item Base Data.

subcontracting

Allowing another company (the subcontractor) to carry out work on an item. This work can concern the entire production process, or only one or more operations in the production process.

terms and conditions agreement

An agreement between business partners about the sale, purchase, or transfer of goods, in which you can define detailed terms and conditions about orders, planning, logistics, invoicing, and allocation/hard pegging, and define the search mechanism to retrieve the correct terms and conditions.

The agreement includes the following:

- A header with the type of agreement and the business partner(s).
 - Search levels with a search priority and a selection of search attributes (fields) and linked terms and conditions groups.
 - One or more lines with the values for the search levels' search attributes.
 - Terms and conditions groups with detailed terms and conditions about orders, planning, logistics, invoicing, and allocation/hard pegging for the lines.
-

vendor managed inventory (VMI)

Vendor managed inventory is an inventory management method according to which the supplier usually manages the inventory of his customer or subcontractor. Sometimes, the supplier manages the supply planning as well. Alternatively, the customer manages the inventory but the supplier is responsible for supply planning. Inventory management or inventory planning can also be subcontracted to a logistics service provider (LSP).

The supplier or the customer may own the inventory delivered by the supplier. Often, the ownership of the inventory changes from the supplier to the customer when the customer consumes the inventory, but other ownership transfer moments occur, which are laid down by contract.

Vendor-managed inventory reduces internal costs associated with planning and procuring materials and enables the vendor to better manage his inventory through higher visibility to the supply chain.

Index

- address**, A-1
 - allocation**, A-1
 - Allocation**, 1-1
 - allocation level, 5-1
 - inventory, 4-1
 - master data, 2-1
 - Allocation and hard pegging**, 4-1, 5-1
 - example, 6-1
 - Allocation and hard pegging example**, 6-1
 - allocation buffer**, A-1
 - Allocation buffer**, 4-1
 - consumption of, 4-4
 - in Enterprise Planning, 4-3
 - business partner**, A-2
 - dependent demand**, A-2
 - electronic data interchange (EDI)**, A-2
 - handling unit**, A-3
 - hard peg**, A-3
 - Hard pegging**, 1-1
 - master data, 2-1
 - supply order, 3-1
 - independent demand**, A-3
 - Inventory**
 - allocation, 4-1
 - inventory ownership change order**, A-4
 - order-based planning**, A-4
 - order controlled/single**, A-4
 - planned inventory transactions**, A-4
 - planned order**, A-5
 - push schedule**, A-5
 - return order**, A-5
 - specification**, A-6
 - Specification**
 - example, 6-1
 - subassembly**, A-6
 - subcontracting**, A-6
 - Supply order**
 - hard pegging, 3-1
 - terms and conditions agreement**, A-6
 - vendor managed inventory (VMI)**, A-7
-

