

**MICROSOFT[®] BUSINESS SOLUTIONS
NAVISON[®] 4.0**

**COURSE 8387A: WAREHOUSE MANAGEMENT
TRAINING**

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INTRODUCTION

This training manual provides a conceptual and operational description of Warehouse Management Systems (WMS) functionality in Microsoft® Business Solutions–Navision® 4.0. The manual can be used both in the context of an instructor-led training course and as reference material for self-teaching.

Course Organization

This course provides the participants with an in-depth understanding of the granules and features of the Warehouse Management Systems functionality in Navision. The recommended duration of the course is one day.

The manual consists of the following chapters:

- Chapter 1: Setting Up Warehouse Management Systems
- Chapter 2: Receiving Orders
- Chapter 3: Internal Warehouse Processes
- Chapter 4: Shipping
- Chapter 5: Item Tracking Within Warehouse Management Systems
- Appendix A: Answers to Test Your Knowledge Questions
- Appendix B: Terminology List
- Appendix C: Warehouse Layout
- Appendix D: Warehouse Workflow
- Appendix E: Warehouse Management Systems Granules Description

Course Objectives

The material is designed to build the product knowledge required for the certification test and for employees of Microsoft Certified Business Solutions Partners who work as sales/implementation consultants on Warehouse Management Systems (WMS) for Microsoft Navision.

By the end of this course, you should be able to:

- Set up a company for use with Warehouse Management Systems.
- Receive and put away items.
- Set up and use cross docking to direct items directly to the ship zone.
- Perform internal warehousing operations including movements, internal picks, and internal put-aways.
- Use warehouse journals to adjust or reclassify an item.
- Set up and use counting of physical inventory.
- Pick and ship items.
- Ship cross-docked items.
- Use Break-bulk functionality to break items stored in larger units of measure into smaller ones.
- Set up and use item tracking when receiving, moving, and shipping items.

Target Audience

This training material is intended for employees of Microsoft Certified Business Solutions Partners, selling and implementing WMS into Microsoft Navision.

Training Prerequisites

To successfully participate in the WMS course or complete the training in the self-teaching manner, participants must have attended the Distribution course.

Course Overview

This manual provides the participants with an in-depth understanding of the granules and features of the Warehouse Management functionality in Microsoft Navision. Every chapter of this manual includes an overview of the granule(s)/feature, explains the setup procedure, and describes how the granule(s)/feature supports the associated operating processes involved in Warehouse Management. The chapters also include exercises to allow participants to practice using the functionality on their own.

The chapters in this training manual typically contain the following elements:

- **Concepts:** Concepts explain the business processes that can be managed using the Warehouse Management systems functionality of the program.
- **Scenarios:** Scenarios represent the typical business situations where the application is used. Scenarios provide a basis for examples that give practical step-by-step descriptions of how to use the application.

- **Test Your Knowledge:** Test Your Knowledge sections allow the course participants (manual readers) to review the information from the chapters by answering questions.
- **Test Your Skills:** Test Your Skills allow the course participants (manual readers) to practice using the program.

Chapter 1, “Setting Up Warehouse Management Systems,” describes how users can set up a company for use with WMS including features such as locations, bins, put-away templates, and warehouse classes.

Chapter 2, “Receiving Orders,” explains how WMS helps companies to manage the receipt of inbound orders and handle the process of putting the items away in an efficient way.

Chapter 3, “Internal Warehouse Processes,” describes how to use internal warehouse operations. The chapter also includes information about working with warehouse journals and about physical inventory counting.

Chapter 4, “Shipping,” explains how to handle an outbound order from the warehouse and how to break items stored in larger units of measure into smaller ones.

Chapter 5, “Item Tracking Within Warehouse Management Systems,” describes how users can track items that require special warehouse handling through serial or lot numbers.

Appendix A, “Answers to Test Your Knowledge Questions,” contains the solutions for the Test Your Knowledge sections of the different chapters.

Appendix B, “Terminology List,” contains the terminology list for Warehouse Management Systems.

Appendix C, “Warehouse Layout,” shows an example of a warehouse layout.

Appendix D, “Warehouse Workflow,” contains an illustration of a typical warehouse workflow.

Appendix E, “Warehouse Management Systems Granules Description,” describes the granules within Warehouse Management Systems.

Demonstration Data

All scenarios and exercises in this material are based on the fictitious company Cronus International Ltd.

To make sure that scenarios and examples can be followed and completed correctly, it is essential that you start every course on a clean database.

License Information

To run the examples and exercises included in this training material, you need a standard Cronus license, which is provided on your product CD.

Further Information

The dates of this training material are in the American format. In order to avoid confusion when reading the manual and following the exercises, if necessary, it is a good idea to change the date format in Microsoft® Windows® before starting the training session.

The working date is set to be 01/25/01 (January 25, 2001). It is important that this date is used when following the examples and doing the exercises included in this material.

For a quick overview of typical procedures associated with specific warehouse handling activities, it is recommended that you read the respective topic in the Online Help.

For a comprehensive understanding of the Warehouse Management Systems technical structure, read the Warehouse Management Systems white paper.

Student Objectives

What do you hope to learn by participating in this course?

List three main objectives below:

1.

2.

3.

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CHAPTER 1: SETTING UP WAREHOUSE MANAGEMENT SYSTEMS

This chapter contains the following sections:

- Objectives
- Overview
- Setting up WMS

Objectives

By the end of this course, you should be able to:

- Set up a warehouse.
- Set up Locations.
- Set up Put-away Templates.
- Set up Items.
- Set up Bin Types.
- Set up Bin Rankings.
- Create Bins.
- Set up Warehouse Classes.

Overview

The process of physical handling of goods in and out of the warehouse is an extensive and costly operation. To keep costs as low as possible, it is essential that quantity and placement of the items are accurate. In order to have efficient warehouse processes, the company must define the warehouse in terms of layout, put-away and pick logic, as well as internal replenishment information.

Warehouse Management Systems (WMS) is aimed at companies with not only the need to receive and ship, but also to optimize space utilization. Goods can either be stored in predefined (fixed) bins or in random (floating) bins, depending on the need for optimization.

The WMS granules provide functionality for handling more advanced warehouse processes such as handling items within a warehouse by zone and bin level, handling directed put-away and pick, and the development of a radio frequency environment.

The flow of inventory through the warehouse can be divided into three basic processes:

- Receiving items at the warehouse and making them available.
- Handling items for internal distribution/movement/production.
- Picking and shipping items to customers or other locations.

Each process can consist of a series of warehouse handling activities. Receiving items involves the physical receiving of items when they arrive at a warehouse and then putting them away (from the receiving area into the stocking /handling area).

Handling items involves repacking or completing items for sale, inventory counting, supplying production, or simply moving for optimization of space.

Shipping items involves picking items from inventory and handing them to the shipping agent whom delivers them to customers.

In order to have an efficient operation, warehouse managers must know which items have to be shipped or are to be used in production and which are expected to arrive. In this way they can estimate the expected workload and allocate warehouse resources accordingly.

Employees in sales and purchase departments need to be able to see what stage in the warehouse handling process a particular order has reached.

WMS for Microsoft® Business Solutions–Navision® helps companies to manage all these activities in the most efficient way.

The granules provide companies with the necessary functionality to organize the receiving and shipping processes and to assist warehouse employees in recording the receipt of goods, picking items for shipping or production, and making shipments.

The granules are used for communication between the sales, purchase, production, and warehousing functions. A release function ensures that only released inbound and outbound orders can be viewed and processed by the warehouse employees.

Setting up WMS

Warehouse Menu

Warehouse documents, reports, and functions are all accessible from the Warehouse main menu. Submenus related to Warehouse Management Systems will not be active when using the system with the Warehouse Management application.

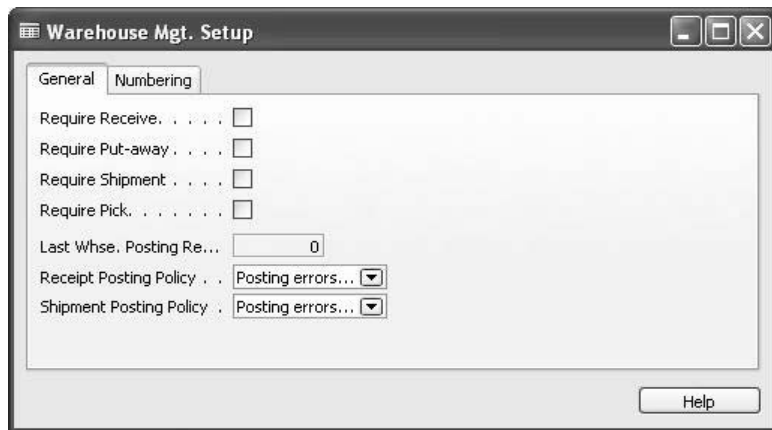


Warehouse Setup

To set up for WMS, companies must specify details about how the program must manage certain aspects of their warehouse(s).

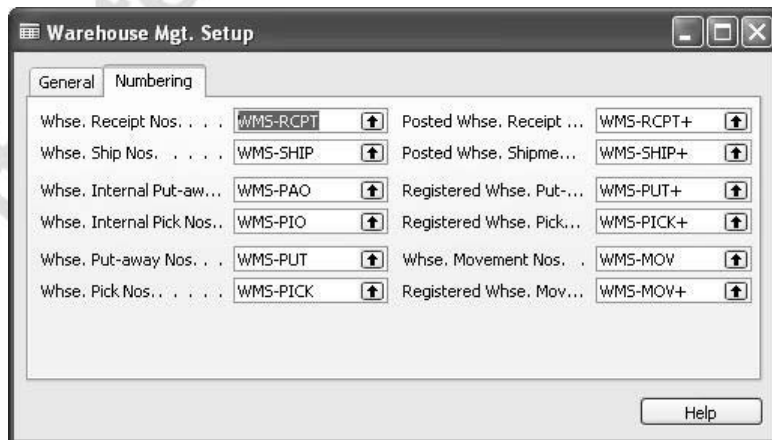
Microsoft Navision Warehouse Management

1. In the Navigation Pane, click the **Warehouse** button and click SETUP→WAREHOUSE SETUP.



The fields on the **General** tab specify warehouse activities that may constitute the warehouse handling processes. When using WMS, these requirements are to be filled out on the specific location card. Options in the **Receipt Posting Policy** and **Shipment Posting Policy** fields define whether or not the warehouse personnel are able to see the errors that the program may detect during posting of the documents, when posting warehouse receipt or ship lines.

2. Click the **Numbering** tab.



The fields on the **Numbering** tab specify the number series the company will be using for various documents (for example, receipt, ship, put-away etc.).

Locations Setup

Multiple locations provide the possibility to set up each location (warehouse) in a specific way. By defining different parameters for the individual location, work processes can be varied from one location to another, and thereby give more freedom of choice according to surroundings and/or customs.

NOTE: At Cronus, the White warehouse is set up by default to use WMS, and thereby WMS functionality and processes. Specific demo data has been created to support the WMS functionality.

1. In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS.
2. Browse to the White location and click the **Warehouse** tab.

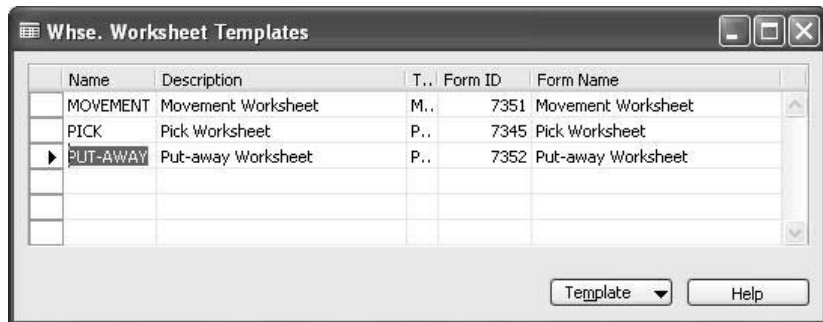


All warehouse requirements are grayed out, due to the requirements of Warehouse Management Systems. The check mark in the **Directed Put-away and Pick** field is the signal to the system that this location will use Warehouse Management Systems. When this field contains a check mark, the **Require Receive**, **Require Shipment**, **Require Put-away**, **Require Pick**, and the **Bin Mandatory** fields all contain check marks by default and become non-editable.

You can also choose here whether or not to use the Put-away Worksheet to organize your put-away activities. From this worksheet, put-away can be created, providing the possibility to make changes to the put-away. When activated, deleted put-away lines can be retrieved through this worksheet to create a new put-away.

When setting up the Put-away Worksheet, the company must first create a template to use with the worksheet.

3. In the Navigation Pane, click the **Warehouse** button and click **PLANNING & EXECUTION**→**SETUP WAREHOUSE**→**WORKSHEET TEMPLATES**.



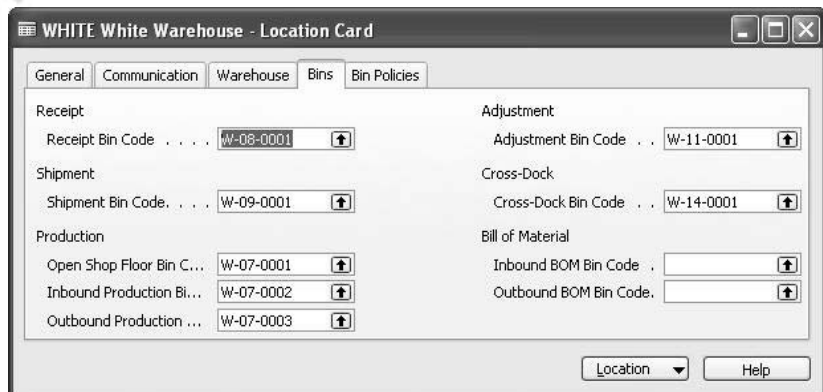
4. In the Navigation Pane, click the **Warehouse** button and click **SETUP**→**LOCATIONS**.

A check mark in the **Use ADCS** field indicates that a location will use the Automated Data Capture System functionality.

The additional fields on the **Warehouse** tab, the **Outbound Whse. Handling Time**, **Inbound Whse. Handling Time**, **Base Calendar Code**, and **Customized Calendar** relate to the date calculation and order promising functionality, which can be used whether the **Directed Put-away and Pick** field is filled in or not.

The check mark in the **Use Cross-Docking** field indicates that the location will use cross-docking functionality. This option is automatically checked when the **Directed Put-away and Pick** field is checked. However, unlike the warehouse process requirement fields, this field is editable, and the check mark can be removed if the location should not use cross-docking functionality.

5. Click the **Bins** tab.



Whenever the **Directed Put-away and Pick** field contains a check mark, the fields on this tab become available.

When you fill in specific bin numbers in the Bin Code fields, the program is instructed to use these bins as default when receiving, putting away, adjusting, and shipping the items.

The **Inbound BOM Bin Code** and **Outbound BOM Bin Code** are the default bins used by the BOM Journals. When the BOM Journal is posted, a negative adjustment is made to the Inbound BOM Bin for the components, and a positive adjustment is made to the Outbound BOM Bin for the output of the BOM.

Zones and bins are the basic structure of the warehouse. The zones are used to subdivide the warehouse into logical parts, and the zones are then divided into bins.

When you set up the warehouse, the number of zones is optional, but the program requires that you define at least four zones: Receipt, Adjustment, Pick, and Shipping Zone.

When you define a zone in the warehouse by various parameters, every bin you create within it will also have those parameters, unless you choose to redefine them for a given bin. At an even more detailed level, you can define the general characteristics of the contents that you want the program to place in each bin.

NOTE: When you change a zone parameter, all bins created thereafter in that zone will have the new characteristics, but the original bins will not be changed.

6. Click the **Bin Policies** tab.



When you set up the program, you must take various setup options into consideration.

If you place a check mark in the **Always Create Pick Line** field, the program will create a pick line even though it cannot find items to pick, and it will create blank zone and bin fields, leaving it up to the user to locate and insert values manually. Placing a check mark in the **Always Create Put-away Line** field creates a put-away line, even though the program cannot find a suitable space in which to store items and leaves it up to the user to determine zone and bin.

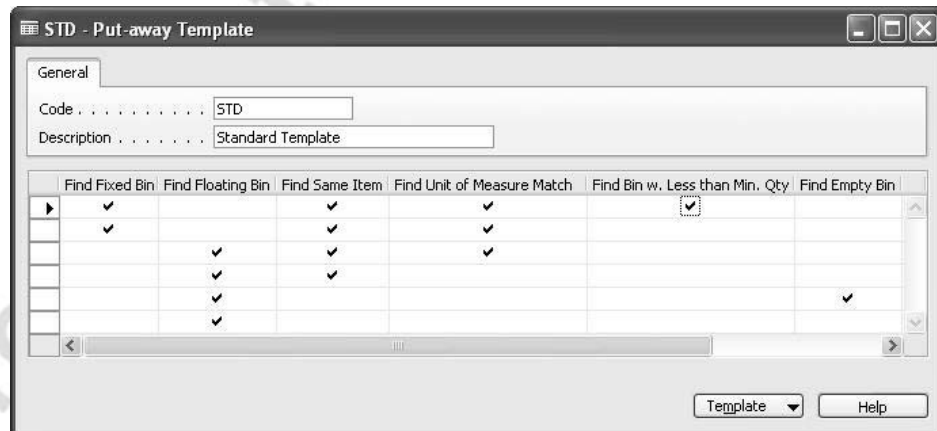
Place a check mark in both the **Always Create Put-away Line** field and the **Always Create Pick Line** field. These settings are a function of the scenarios in this training material.

The Allow Breakbulk feature allows for breaking up, for example, pallets into smaller units when picking. The remaining items not used for picking will be left in the area where the larger unit of measure was taken from. To move these items (that may now be misplaced due to a different unit of measure defined in that bin), use the Bin Replenishment or the Movement Worksheet to create a movement. See the scenarios in “Internal Warehouse Processes.”

Put-away Template Setup

When setting up the warehouse, the company must define how the put-away process is to be prioritized. The company is able to make various templates to suit different needs.

In the Navigation Pane, click the **Warehouse** button and click **PLANNING & EXECUTION**→**SETUP WAREHOUSE**→**PUT-AWAY TEMPLATES**.



The Put-away template consists of a list of priorities, where requirements must be met and sorted in a specific way. Each line in the table represents a command with requirements the program should fulfill, or if they cannot be fulfilled, the program should go to the next option (line).

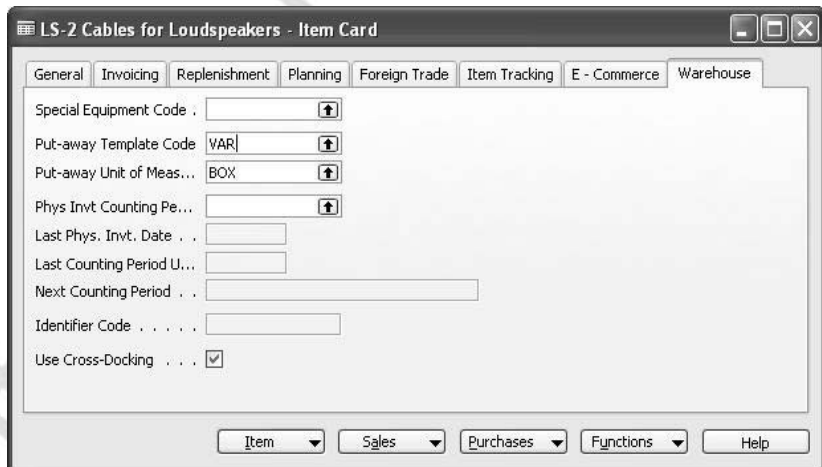
The illustrated example is to be read as follows:

Line 1: Find a fixed bin containing the same item, with the same unit of measure and where quantity is less than prior-defined minimum quantity. If all the criteria match, then put away here but do not exceed the prior-defined maximum quantity.

The next lines represent variations of the above, but with fewer requirements, until the program is instructed to find an available empty space in a floating bin. Some situations require that certain items are put away in a specific manner, and this can be determined on stockkeeping unit cards and item cards.

If a specific Item/SKU varies from the warehouse default put-away settings, an alternative put-away template code can be added in the **Put-away Template Code** field.

1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→ITEMS.
2. Browse to item no. LS-2 and click the **Warehouse** tab.



The screenshot shows a software window titled "LS-2 Cables for Loudspeakers - Item Card". The window has a tabbed interface with tabs for General, Invoicing, Replenishment, Planning, Foreign Trade, Item Tracking, E - Commerce, and Warehouse. The Warehouse tab is active. The form contains the following fields and controls:

- Special Equipment Code: [] [↑]
- Put-away Template Code: VAR [↑]
- Put-away Unit of Meas...: BOX [↑]
- Phys Invt Counting Pe...: [] [↑]
- Last Phys. Invt. Date: []
- Last Counting Period U...: []
- Next Counting Period: []
- Identifier Code: []
- Use Cross-Docking: [x]

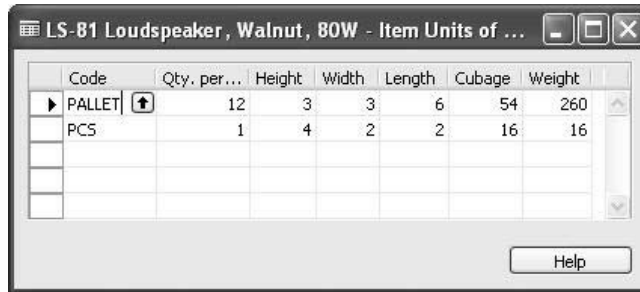
At the bottom of the window, there are five buttons: Item, Sales, Purchases, Functions, and Help.

Item Setup

In order to fully utilize the available space, information regarding an item's, weight, height etc., has to be added to the item.

1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→ITEMS.

2. Browse to item no. LS-81 and click ITEM→UNITS OF MEASURE.



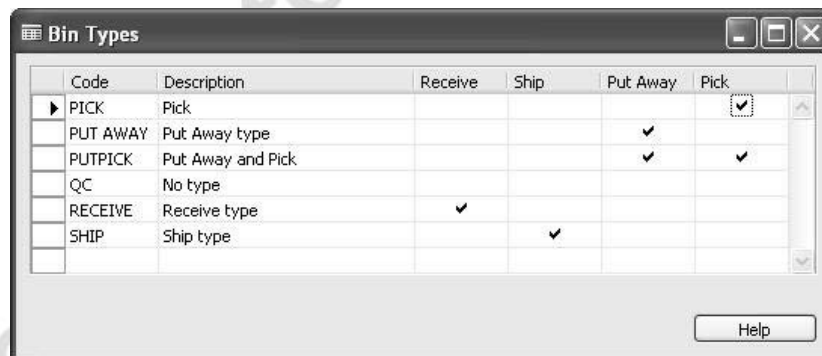
Code	Qty. per...	Height	Width	Length	Cubage	Weight
PALLET	12	3	3	6	54	260
PCS	1	4	2	2	16	16

By specifying as much information about an item as possible, the more accurate space utilization the warehouse achieves.

Bin Types Setup

A great advantage of WMS is that the program allocates items according to the instructions provided in the setup, calculating space availability and taking many variables into consideration when performing the tasks. In WMS, the bin is the smallest unit in which to place and register items. The company is able to define the bin types, and thereby how and for what purpose the program should use them.

In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→SETUP WAREHOUSE→BIN TYPES.

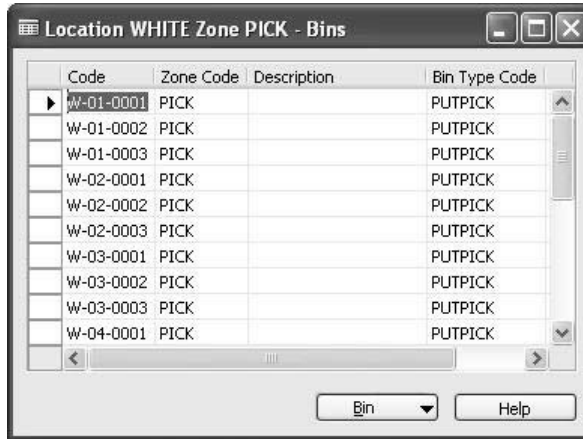


Code	Description	Receive	Ship	Put Away	Pick
PICK	Pick				<input checked="" type="checkbox"/>
PUT AWAY	Put Away type			<input checked="" type="checkbox"/>	
PUTPICK	Put Away and Pick			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
QC	No type				
RECEIVE	Receive type	<input checked="" type="checkbox"/>			
SHIP	Ship type		<input checked="" type="checkbox"/>		

The check marks in the bin type illustration indicate which action is allowed to be performed within the given bin type. For example, you are not able to put away in a bin carrying bin type “pick,” while the “putpick” bin type code allows both picking and putting away. The maximum number of combinations is six. Bin types are added when creating new bins or when wanting to change the type of a specific bin.

1. In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS.

2. Browse to the White location and click LOCATION→ZONES.
3. Select the PICK zone and click ZONE→BINS.



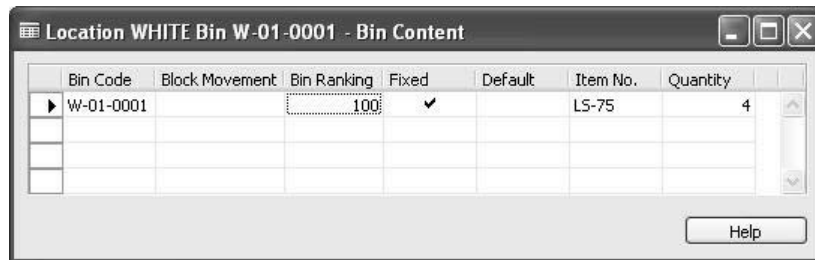
Bin Ranking Setup

Bin ranking is a method of prioritizing replenishment movements, picks and put-aways, and indicating which bin should be replenished, picked or put-away first. A bin with a high-ranking number has a higher priority than one with a low number. When bins are created, they will inherit the ranking from the zone for which they are created. For example, if a zone has the ranking of 100, the bins created within that zone will also get a ranking of 100.

In order to define the bin ranking on individual bins, follow these instructions:

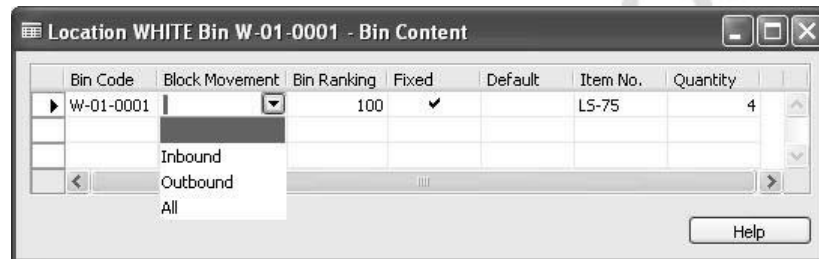
1. In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS.
2. Browse to the White location and click LOCATION→ZONES.
3. Select the PICK zone and click ZONE→BINS.
4. Select bin code W-01-0001 and click BIN→CONTENTS.

The **Bin Ranking** field is where to enter the value. In this specific bin, the value has been set to 100.



The **Fixed** field indicates to the program that a certain item is fixed to this bin, in this example, item no. LS-75. Other items can and will be entered by the program according to the setup of the put-away template, but item LS-75 has priority over other items. The **Default** field indicates that this bin is the default bin for this item. The system of default bins is not used with Warehouse Management Systems.

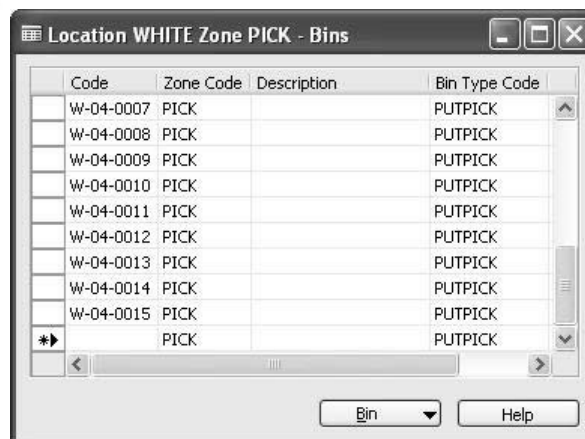
The **Block Movement** field is used to block any movement within the specific bin. This functionality is usually used to prevent movement from or to a specific bin during bin replenishment. The feature could also be very useful as quarantine for the items within this specific bin. There are three options to select from, Inbound, Outbound, or All.



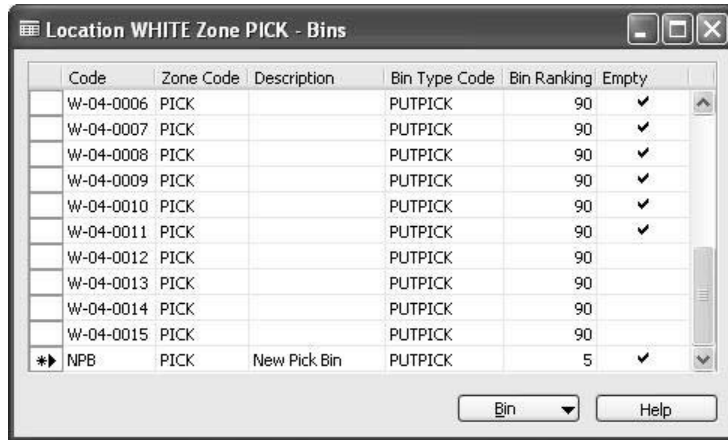
Creating Bins

To manually create bins, you must select the zone in which you want to establish a new bin.

1. In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS.
2. Browse to the White location and click LOCATION→ZONES.
3. Select the PICK zone and click ZONE→BINS.
4. Scroll down to an empty line.



5. Fill in the fields on the line as shown in the following screen shot.

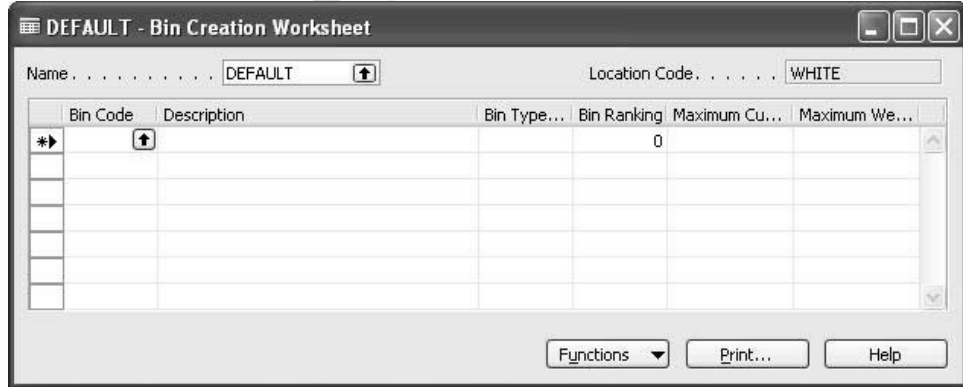


Code	Zone Code	Description	Bin Type Code	Bin Ranking	Empty
W-04-0006	PICK		PUTPICK	90	✓
W-04-0007	PICK		PUTPICK	90	✓
W-04-0008	PICK		PUTPICK	90	✓
W-04-0009	PICK		PUTPICK	90	✓
W-04-0010	PICK		PUTPICK	90	✓
W-04-0011	PICK		PUTPICK	90	✓
W-04-0012	PICK		PUTPICK	90	
W-04-0013	PICK		PUTPICK	90	
W-04-0014	PICK		PUTPICK	90	
W-04-0015	PICK		PUTPICK	90	
*▶ NPB	PICK	New Pick Bin	PUTPICK	5	✓

Bin Creation Worksheet

The Bin Creation Worksheet is an easy-to-use tool for creating a large number of bins within a given zone.

In the Navigation Pane, click the **Warehouse** button and click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→BIN CREATION WORKSHEET.



Bin Code	Description	Bin Type...	Bin Ranking	Maximum Cu...	Maximum We...
*▶	↑		0		

When you create new bins, the bin ranking is inherited by default from the zone ranking, and you can make manual changes.

Remember to fill in values in the **Maximum Cubage** field and the **Maximum Weight** field. The values entered are used by the program to calculate how many of each item there is room for when putting away, moving, or calculating replenishment.

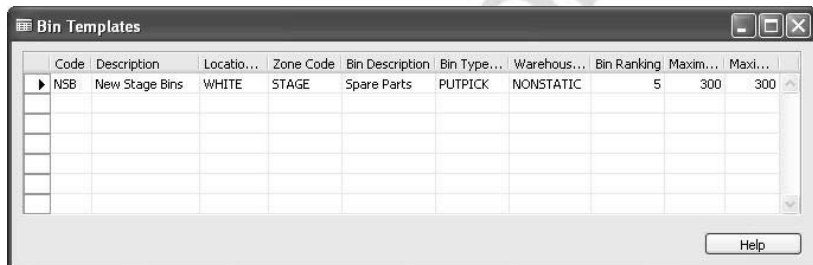
Insert the required values and click FUNCTIONS→CREATE BINS.

Creating Multiple Bins

Whenever companies would like to create multiple bins, for example, when setting up for the first time or for a new section in the warehouse, the bin creation worksheet provides the fastest and easiest method for doing this.

In order to use the Calculate Bins functionality, you must first set up a Bin Template Code.

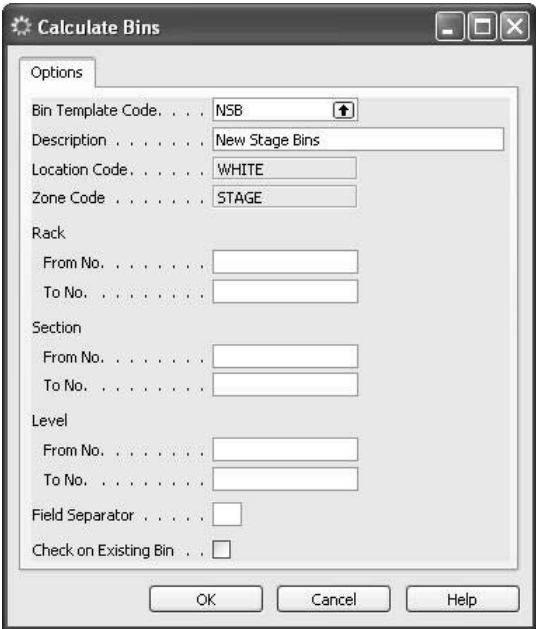
1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→SETUP WAREHOUSE→BIN TEMPLATES.



Code	Description	Locatio...	Zone Code	Bin Description	Bin Type...	Warehouse...	Bin Ranking	Maxim...	Maxi...
NSB	New Stage Bins	WHITE	STAGE	Spare Parts	PUTPICK	NONSTATIC	5	300	300

2. Fill in the template according to the above window.
You are now ready to create multiple bins in the Bin Creation Worksheet.
3. In the Navigation Pane, click the **Warehouse** button and click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→BIN CREATION WORKSHEET.
4. Click FUNCTIONS→CALCULATE BINS.

- 5. In the Calculate Bins request form, browse to the **Bin Template Code** field and select NSB.



The information from the NSB bin template code is entered in the **Calculate Bins** request form. The six fields in the Rack, Section, and Level sections indicate to the program how many of each rack, section, and level you want to create.

- In the **Rack**, **Section** and **Level** fields, enter information as shown in the window below. In the **Field Separator** field enter:

- Click **OK** to confirm.

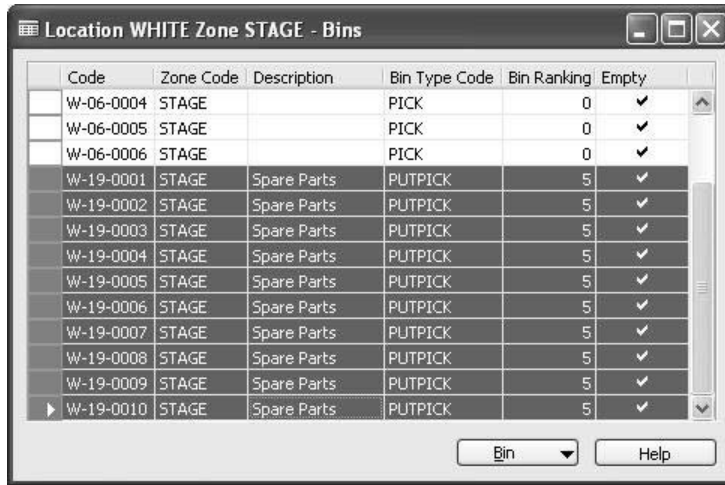
Bin Code	Description	Bin Type...	Bin Ranking	Maximum Cu...	Maximum We...
W-19-0001	Spare Parts	PUTPICK	5	300	300
W-19-0002	Spare Parts	PUTPICK	5	300	300
W-19-0003	Spare Parts	PUTPICK	5	300	300
W-19-0004	Spare Parts	PUTPICK	5	300	300
W-19-0005	Spare Parts	PUTPICK	5	300	300
W-19-0006	Spare Parts	PUTPICK	5	300	300
W-19-0007	Spare Parts	PUTPICK	5	300	300
W-19-0008	Spare Parts	PUTPICK	5	300	300
W-19-0009	Spare Parts	PUTPICK	5	300	300
W-19-0010	Spare Parts	PUTPICK	5	300	300
W-19-0011	Spare Parts	PUTPICK	5	300	300

- Click **FUNCTIONS**→**CREATE BINS**, and the program will create the bins. Note that the lines in the bin creation worksheet are deleted.

To see what the program has created:

- In the Navigation Pane, click the **Warehouse** button and click **SETUP**→**LOCATIONS**.
- Browse to the **White** location and click **LOCATION**→**ZONES**.

11. Select the STAGE zone and click ZONE→BINS.



The screenshot shows a window titled "Location WHITE Zone STAGE - Bins" with a table of bin configurations. The table has columns for Code, Zone Code, Description, Bin Type Code, Bin Ranking, and Empty. The data is as follows:

Code	Zone Code	Description	Bin Type Code	Bin Ranking	Empty
W-06-0004	STAGE		PICK	0	✓
W-06-0005	STAGE		PICK	0	✓
W-06-0006	STAGE		PICK	0	✓
W-19-0001	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0002	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0003	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0004	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0005	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0006	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0007	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0008	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0009	STAGE	Spare Parts	PUTPICK	5	✓
W-19-0010	STAGE	Spare Parts	PUTPICK	5	✓

At the bottom of the window, there is a "Bin" dropdown menu and a "Help" button.

Warehouse Class Setup

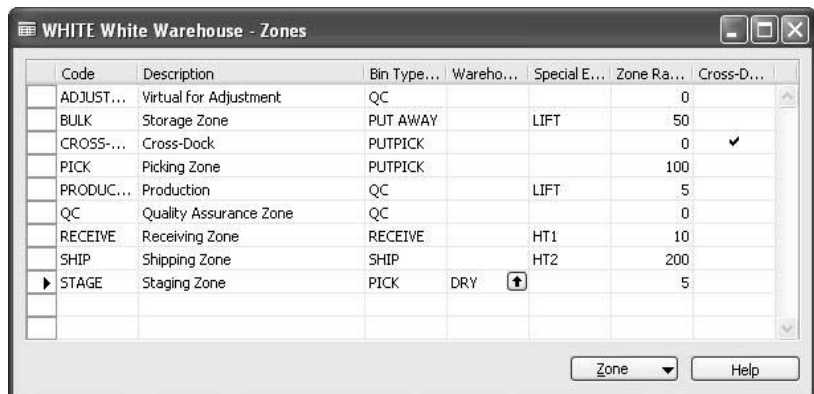
When you set up the warehouse(s), WMS offers a variety of options to define the specific conditions controlling the way items are received, stored, picked, and shipped. An important parameter is the conditions for how items are stored. Not all items are stored under the same conditions. They may need different temperatures or be vulnerable to light. The options are many, but with the introduction of warehouse classes in WMS, these can easily be defined and handled throughout the warehouse processes.

NOTE: Remember that when adding a warehouse class code to a zone, all bins you create for that zone will inherit this value.

To add a warehouse class to a zone:

1. In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS→LOCATION→ZONES.

2. Select the STAGE zone, and enter warehouse class code DRY in the **Warehouse Class Code** field.



If you want, you can set the warehouse class code at bin level on the bin contents card.

To add a warehouse class code at the bin level:

3. In the Zone window, select the STAGE zone.
4. Click ZONE→BINS and select the bin W-06-0006.
5. In the **Warehouse Class Code** field, select DRY.

The value of the warehouse class code is copied to the Bin Contents window.

6. Click BIN→CONTENTS.



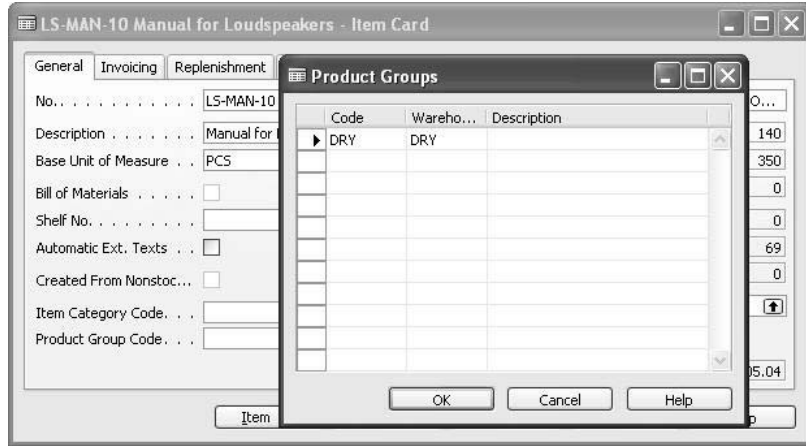
The warehouse class code can be added to item cards to indicate to the program that this specific item is to be stored under a certain warehouse condition.

To add a warehouse class code to an item:

1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→ITEMS.
2. Select item no. LS-MAN-10 and click the **General** tab.

3. Click the **AssistButton** in the **Product Group Code** field.

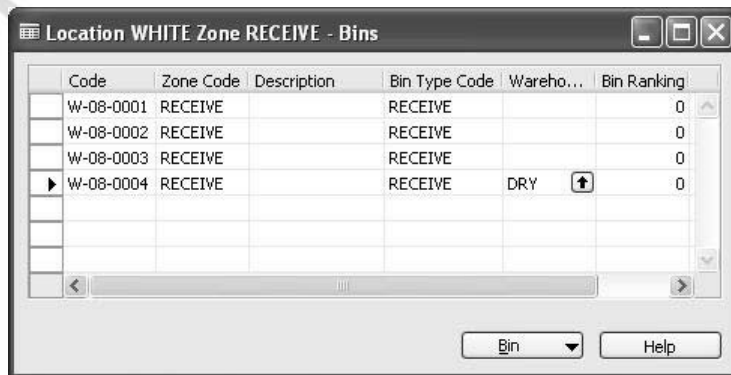
In the Product Groups window that appears, enter DRY for both the **Code** and the **Warehouse Class Code** fields.



4. Click **OK** to confirm.

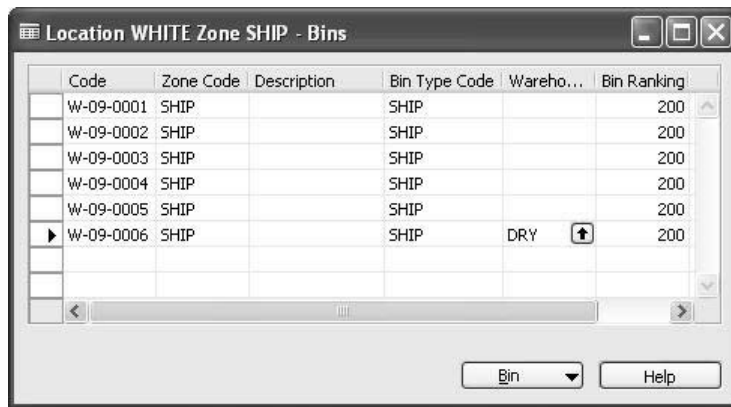
In order for the program to handle items with a warehouse class code, bins in areas where these items are received, stored, and shipped from must carry the same warehouse class code as the item.

5. In the Navigation Pane, click the **Warehouse** button, click **SETUP**→**LOCATIONS**, and browse to the White location.
6. Click **LOCATION**→**ZONES**, select the **RECEIVE** zone and click **ZONE**→**BINS**.
7. Select Code **W-08-0004**, and in the **Warehouse Class Code** field select **DRY**.



8. Close the Zone RECEIVE - Bins window, and in the Zones window, select the Ship zone and click **ZONE**→**BINS**.

9. Select Code W-09-0006, and in the **Warehouse Class Code** field select DRY.



You have now prepared the program to receive, store, and ship items with DRY warehouse class code.

Test Your Knowledge – Setting Up Warehouse Management Systems

1. Which field must be checked on the location card to indicate that a location should use Warehouse Management Systems?
 - a. Allow Breakbulk
 - b. Directed Put-away and Pick
 - c. Use Cross-Docking
 - d. Use As In-Transit

2. What is the fastest and easiest method for creating multiple bins in a given zone?

3. Bin A-01-0001 is of bin type PICK and contains 12 pieces of item 70000. What can you do to prevent the warehouse personnel from using this bin as picking source?

4. What are warehouse classes used for and in which two places must you specify warehouse class information to make the system use this functionality?

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Test Your Skills – Setting Up Zones and Bins

Create a new zone for location White with the following values:

Zone Code: Internal
Description: Internal Use
Bin Type Code: Ship
Zone Ranking: 0

Inside this new zone, create five new bins using the number series from W-15-001 to W-15-005, with the bin ranking of 0.

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Quick Interaction: Lessons Learned

Take a moment to write down three Key Points you have learned from this chapter:

1.

2.

3.

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CHAPTER 2: RECEIVING ORDERS

This chapter contains the following sections:

- Objectives
- Receive and Put-away
- Cross-Docking

Objectives

By the end of this chapter, you should be able to:

- Receive and put away items on different zones of a location.
- Perform cross-docking for a warehouse receipt.

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Receive and Put-away

This chapter explains how the Warehouse Management Systems (WMS) functionality in Microsoft® Business Solutions–Navision® helps companies to manage the receipt of inbound orders and handle the process of putting the items away in an efficient way. Inbound orders are purchase orders, inbound transfer orders, and sales return orders.

Receiving orders with WMS provides new options for defining where and how the items are received and expedited further in the warehouse process.

Prior to receiving, an inbound document must be created and released before the warehouse personnel are able to see the order lines. Apart from being a working document, the receipt can also work as an indication of what the warehouse should expect, and thereby be able to plan workloads more efficiently. The receipt can either be created from an inbound order or from the warehouse receipt menu.

When items arrive to the warehouse, an employee must handle and register the arrival and insert the exact received amount into the related document. As soon as the warehouse employee posts the receipt, the items become part of inventory available for sale (but not yet ready for picking).

When posting the receipt document, a put-away document is created. A put-away document is an instruction to the warehouse personnel at the receiving area to take the (arrived and received) item and place it in a designated place suggested by the program.

At this point, the suggested zone and bin placement can be altered if the placement suggested by the system is not convenient.

And, finally, the put-away document can be registered, and both the receiving and the put-away can be viewed under Posted Receipts and Registered Put-aways. The items are now available for picking.

When the warehouse has completed these tasks, the source document can be invoiced.

In the following, the processes of receiving and putting away are described and illustrated using Cronus as an example. The examples used are based on scenarios as well as on the existing data in the demo database.

Scenario 1

A buyer at Cronus creates a purchase order for the 12 units of item LS-100 from vendor 62000. The receipt of items is requested on January 25, 2001.

When handling this scenario, items are to be shipped to the WHITE warehouse.

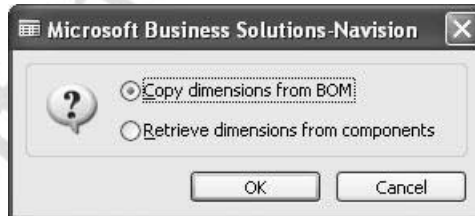
When the items arrive at the warehouse, the warehouse personnel must perform a series of tasks to make items available for sale and picking.

First, create the purchase order for 12 pieces of item LS-100 from vendor 62000.

T... No.	Description	Location ...	Quantity	Reserve...	Unit of M...	Direct U...	L
I... LS-100	Loudspeaker 100W OakwoodD...	WHITE	12		PCS	15.00	

Since this item is not a finished item, we will have to purchase the components in single items.

1. Click FUNCTIONS→EXPLODE BOM→COPY DIMENSIONS FROM BOM.



2. Click **OK** to let the program retrieve the items from the Bill of Material of item LS-100.

T. No.	Description	Location ...	Quantity	Reserve...	Unit of M...	Direct U...	L
	Loudspeaker 100W OakwoodD...						
I... LSU-15	Base speaker unit 15" 100W	WHITE	12		PCS	15.00	
I... LSU-8	Middletone speaker unit 8"100W	WHITE	12		PCS	15.00	
I... LSU-4	Tweeter speaker unit 4" 100W	WHITE	12		PCS	15.00	
I... FF-100	Frequency filter for LS-100	WHITE	12		PCS	15.00	
I... C-100	Cabling for LS-100	WHITE	12		PCS	15.00	
I... H5-100	Housing LS-100,Oakwood 120 lts	WHITE	12		PCS	15.00	
I... SPK-100	Spike for LS-100	WHITE	48		PCS	15.00	

3. Click **FUNCTIONS**→**RELEASE** to release the order.

Receiving the Items

Receiving is the first stage in the inbound warehouse flow, and the released purchase order is a request to the warehouse to expect arrival of items. These requests can be viewed in the warehouse receipt list.

In Microsoft Navision, the receipt of a purchase order can be created from two functional areas:

- The warehouse: The receipt document is created from the released purchase order. This can be done in two ways, either by getting the source document, or by using the source document filtering option.
- The purchase office: The receipt can be created through the released purchase order. To achieve this, in the Navigation Pane, click the **Purchase** button and click **ORDER PROCESSING**→**ORDERS**→**FUNCTIONS**→**CREATE WHSE. RECEIPT**.

To create a receipt from the Warehouse menu:

1. In the Navigation Pane, click the **Warehouse** button and click **PLANNING & EXECUTION**→**RECEIPTS**.

2. To create a new receipt press F3 in the **No.** field, and then press ENTER to assign a receipt number to this document.
3. In the **Location Code** field, select the White location.
4. The **Zone Code** field and the **Bin Code** field are filled in by the program, retrieving the default information set up on the location card.

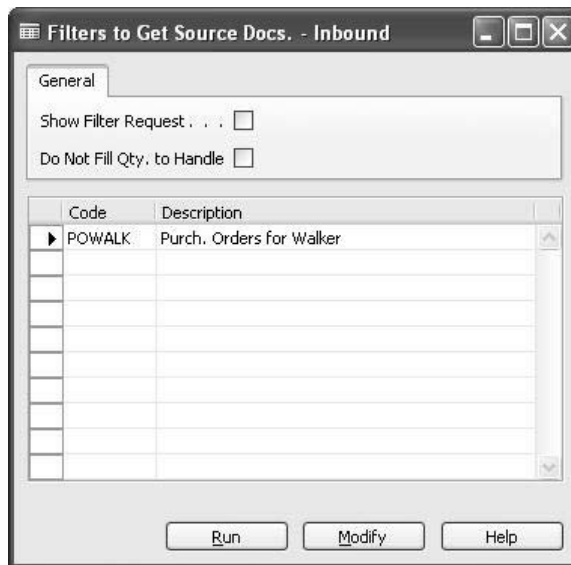
Now select the released source document (the purchase order) with lines for which quantities have not yet been received. In this example, there are two options:

- Click **FUNCTIONS**→**USE FILTERS TO GET SRC. DOCS.** The Filters to Get Source Docs. – Inbound window appears. The filters, when set up, can be used to select document lines that fulfill the filtering criteria. Click **Run**, to add the lines of all released source documents, containing the filtering criteria, to the warehouse receipt.
- Click **FUNCTIONS**→**GET SOURCE DOCUMENTS.** The Inbound Source Documents window opens with a list of all released inbound documents. When a document is selected, information from the source document is copied into the receipt lines.

NOTE: The filter window is by default empty and will retrieve all released inbound order lines. In this exercise we have added a filter for purchase orders from vendor Walker.

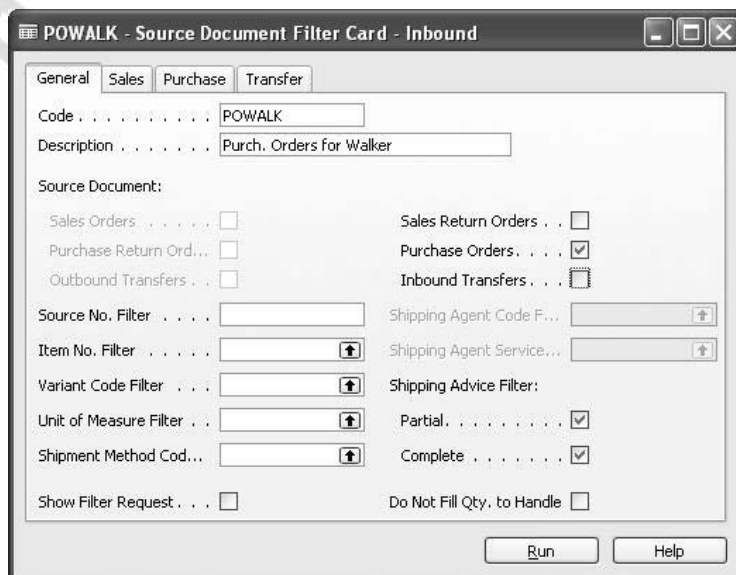
In this case, suppose the warehouse employees typically use the **Use Filters to Get Src. Docs.** option.

1. Click **FUNCTIONS**→**USE FILTERS TO GET SRC. DOCS.** The **Filters to Get Source Docs. – Inbound** window appears.



When you set up a filter for the first time, enter a code name in the **Filters to Get Source Docs. – Inbound** window, and then open the filter card to specify the parameters. To set up a filter card:

2. In the **Filters to Get Source Docs. – Inbound** window, in the **Code** field, enter **POWALK** and, in the **Description** field, enter the description text as shown in the screen shot above.
3. Click **Modify**. The **Source Document Filter Card – Inbound** window appears.

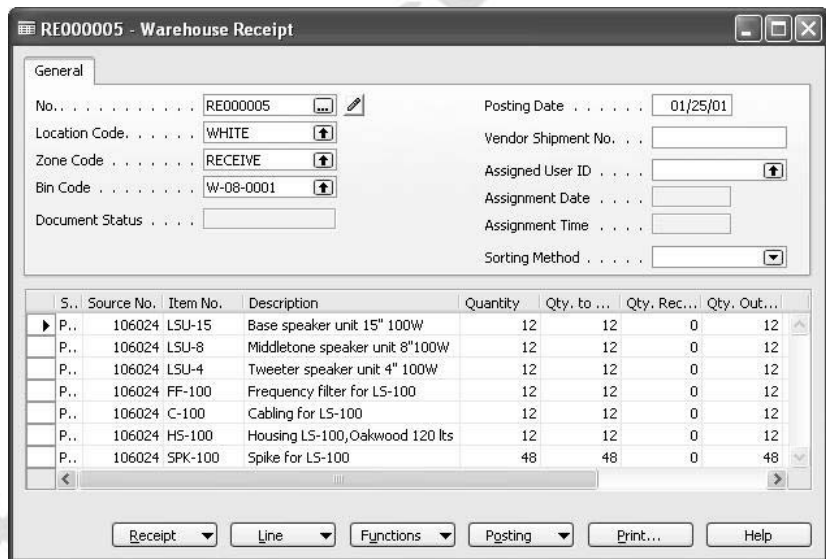


Place check marks in the source document fields to define specific filters.

4. In the **Sales Return Orders** and the **Inbound Transfers** fields, remove the check marks as shown above.
5. Click the **Purchase** tab. In the **Buy-from Vendor No.** field, enter 62000, and in the **Planned Receipt Date Filter** field, enter 012501.
6. Click **Run**.

The program retrieves all released purchase document lines with a requested receipt date of January 25, 2001, and it copies the lines to the Warehouse Receipt window.

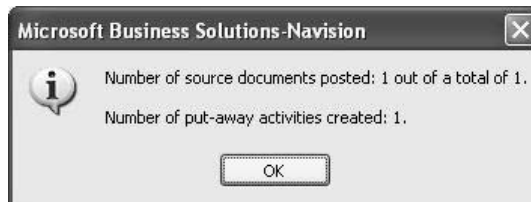
7. Delete the first two receipt lines because you only want to receive the items for the purchase order you just created.



Fill in the **Vendor Shipment No.** field, and observe that the **Qty. to Receive** fields are filled in automatically by the system. This should be verified by a physical count of the received items.

8. Click **POSTING→POST RECEIPT**. Confirm the posting of the receipt.

The program gives the following message:



9. Click **OK** to confirm.

The program has now:

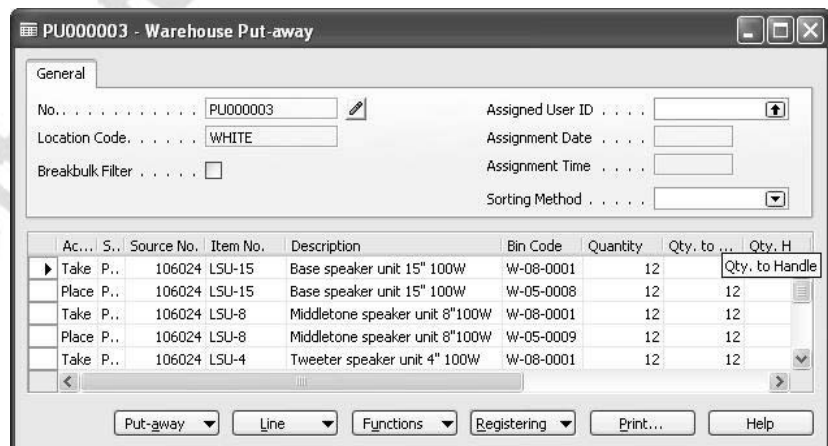
- Updated the relevant quantity field on the lines of the source document, in this case the purchase order, and posted the receipt. The items are now part of inventory, available for sale but not yet available for picking.
- Created a put-away activity, which is used to perform the next task in the receiving process – putting items away.
- Made entries to Warehouse Entries in Warehouse Register and to Item Ledger Entries in Item Register.

Putting the Items Away

When the warehouse receipt is posted, the program creates a put-away document. A put-away document is an instruction to the warehouse personnel to move received items from the receiving area to the storage area. In this process, the system is guided by the settings of the Put-away Template and by bin ranking suggesting where to put the received items away.

The procedure for putting away items is as follows:

1. In the Navigation Pane, click the **Warehouse** button and click GOODS HANDLING MULTIPLE ORDERS→PUT-AWAYS.
2. Browse to the put-away document that you have just created.



The Warehouse Put-away window contains the lines copied from the posted warehouse receipt document. The put-away activity must now be handled and quantities registered.

The put-away document contains exact information on which zone and bin to find and take items from and in which zone and bin to place the items.

On the Place lines, the program suggests that the items are put away in the BULK zone. Changes can be made to this line: you can keep the zone and choose another bin, or you can store the items in a new location by changing the zone and finding a suitable bin.

Register the put-away document by doing the following:

3. Click REGISTERING→REGISTER PUT-AWAY.

The program deletes the put-away lines and records all the information in the registered put-aways. At the same time, the lines in the initial receipt document are deleted. The items are now available for picking.

Alternatively, you have an option of storing the items in different places. In the warehouse receipt, change the value of the **Qty. to Handle** field to a lower qty. Then click FUNCTIONS→SPLIT LINE, and the program creates a new line below the original, filling in the remaining quantity and leaving it up to the user where to store the rest by leaving the **Zone Code** field and the **Bin Code** fields empty.

At the same time, the program offers the opportunity to store the items in a different unit of measure than specified on the SKU/item card on the **Warehouse** tab. To see this alternative, click FUNCTIONS→CHANGE UNIT OF MEASURE.

To illustrate this, follow scenario 2:

Scenario 2

The company has decided to purchase one pallet of printing paper, mainly to be used for internal purposes. When the items are put away, they must be stored in boxes.

Create a purchase order for vendor 60000, Grassblue Ltd., ordering one pallet of item 80100 to be shipped to location White, and release the order.

1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→RECEIPTS. Press F3 to create a new receipt and, in the **Location Code** field, enter the White location.

Microsoft Navision Warehouse Management

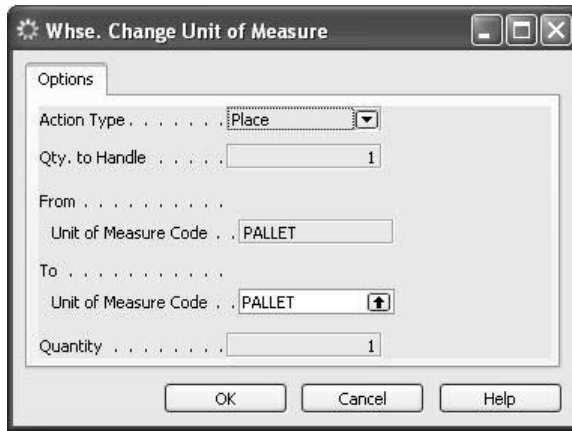
2. Click FUNCTIONS→GET SOURCE DOCUMENTS, and select the purchase order you just created.

S.	Source No.	Item No.	Description	Quantity	Bin Code	Qty. to Receive	Qty. to Cross...	Qt
P.	106025	80100	Printing Paper	1	W-08-0001	1	0	

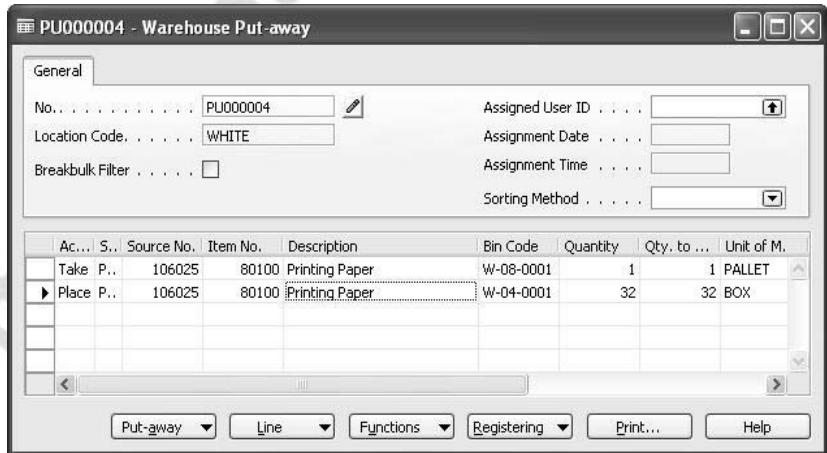
3. Click POSTING→POST RECEIPT.
4. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PUT-AWAY, and open the put-away just created.
5. Click the Place line.

Ac...	S.	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Unit of M.
Take	P.	106025	80100	Printing Paper	W-08-0001	1	1	PALLET
Place	P.	106025	80100	Printing Paper	W-04-0001	1	1	PALLET

- Click **FUNCTIONS**→**CHANGE UNIT OF MEASURE**. The Whse. Change Unit of Measure window appears.



- In the **To Unit of Measure Code** field, change the value from **PALLET** to **BOX**, and the **Quantity** field is updated from 1 to 32 (number of boxes on a pallet).
- Click **OK** to confirm.



On the warehouse put-away document, the **Qty. to Handle** field and the **Unit of Measure Code** fields are changed accordingly.

- Click **REGISTERING**→**REGISTER PUT-AWAY**.

This completes the receiving process.

Test Your Skills – Receiving and Putting Items Away

Consider the following scenario:

Scenario 3

A purchaser at Cronus creates a purchase order for 15 units of item LS-75 from vendor 30000.

The warehouse manager requires five units be put away in the Staging Zone on bin W-06-0003 and the rest to be put away in the Bulk Zone in an available bin.

The vendor must ship the order to the WHITE warehouse.

Your task is to carry out all the required warehouse activities to make the items available for sale and picking.

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Cross-Docking

Cross-docking is a means of saving time and work by directing items for orders awaiting shipment from the receive zone directly to the ship zone without placing them into storage. In the following scenario, cross-docking is demonstrated in detail. You instruct the program to cross-dock in two places.

In the Navigation Pane, click the **Warehouse** button and click SETUP→LOCATIONS. Browse to the White location and select the **Warehouse** tab.

The screenshot shows the 'WHITE White Warehouse - Location Card' dialog box with the 'Warehouse' tab selected. The 'General' tab is also visible. The 'Warehouse' tab contains the following fields and checkboxes:

- Require Receive:
- Require Shipment:
- Require Put-away:
- Use Put-away Worksheet:
- Require Pick:
- Bin Mandatory:
- Directed Put-away an...:
- Use ADCS:
- Default Bin Selection: [Dropdown]
- Outbound Whse. Han...: [Text]
- Inbound Whse. Handli...: [Text]
- Base Calendar Code: [Text]
- Customized Calendar: No
- Use Cross-Docking:
- Cross-Dock Due Date: [Text]

Buttons at the bottom: Location (dropdown), Help.

The **Cross-Dock Due Date** field is used to set up how far in advance the program should look for cross-docking opportunities.

On the item card, you can indicate that an individual item should be cross-docked.

From the Warehouse menu, click PLANNING & EXECUTION→ITEMS, and select item LS-81. Click the **Warehouse** tab.

The screenshot shows the 'LS-81 Loudspeaker, Walnut, 80W - Item Card' dialog box with the 'Warehouse' tab selected. The 'General' tab is also visible. The 'Warehouse' tab contains the following fields and checkboxes:

- Special Equipment Code: [Text]
- Put-away Template Code: [Text]
- Put-away Unit of Meas...: PALLET
- Phys Invt Counting Pe...: [Text]
- Last Phys. Invt. Date: [Text]
- Last Counting Period U...: [Text]
- Next Counting Period: [Text]
- Identifier Code: [Text]
- Use Cross-Docking:

Buttons at the bottom: Item (dropdown), Sales (dropdown), Purchases (dropdown), Functions (dropdown), Help.

Scenario 5

Customer 60000, Blanemark Hifi Shop, needs 72 pieces of item no. LS-81. Sales order no. 2021 and warehouse receipt no. RE000004 have been created. Your task is to receive the items and cross-dock them to the shipping zone for fast delivery to the customer.

1. From the Warehouse menu, click PLANNING & EXECUTION→RECEIPTS, and browse to warehouse receipt no. RE000004.

RE000004 - Warehouse Receipt

General

No. RE000004 Posting Date 01/01/00

Location Code. WHITE Vendor Shipment No.

Zone Code RECEIVE Assigned User ID

Bin Code W-08-0001 Assignment Date

Document Status Assignment Time

Sorting Method

S..	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Qty. Rec...
▶ P..	104012	LS-81	Loudspeaker, Walnut, 80W	W-08-0001	10	10	0

Receipt Line Functions Posting Print... Help

2. Click FUNCTIONS→CALCULATE CROSS-DOCK.

The program checks for released outbound orders in need of the items on the receipt document, calculates the quantity to cross-dock, and updates the **Qty. To Cross-Dock** field.

RE000004 - Warehouse Receipt

General

No. RE000004 Posting Date 01/01/00

Location Code. WHITE Vendor Shipment No.

Zone Code RECEIVE Assigned User ID

Bin Code W-08-0001 Assignment Date

Document Status Assignment Time

Sorting Method

S..	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to Receive	Qty. to Cross...
▶ P..	104012	LS-81	Loudspeaker, Walh...	W-08-0001	10	10	6

Receipt Line Functions Posting Print... Help

3. Click the **AssistButton** on the **Qty. to Cross-Dock** field, and the Cross-Dock Opportunities window appears.

To Source Document	To Source No.	Qty. Needed	Qty. to Cross-Dock	To-Src. Unit of M...	Due Date	Reserved Quantity	Rem. Qty. to Cross...
► Sales Order	2021	72	0	PCS	01/17/01	0	72

Total Qty. To Handle (Base) 120 Total Qty. To Be Cross-Docked 0 Total Rem. Qty. to Cross-Dock (Base) 72
 Qty. on Cross-Dock Bin (Base) 0
 Qty. to be Cross-Docked on Receipt Line 0

The Cross-Dock Opportunities window contains information about the source document from which items are to be cross-docked and the quantity needed to fulfill the order.

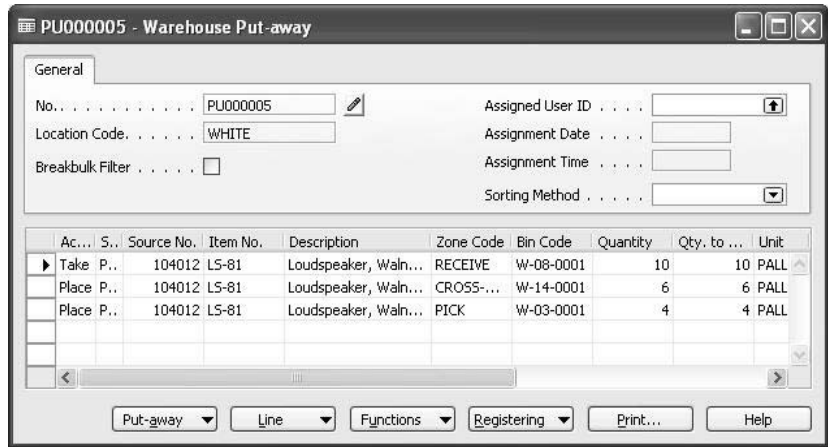
4. Click **FUNCTIONS**→**AUTOFILL QTY. TO CROSS-DOCK**, and the program updates the quantity to cross-dock.
5. Click **OK** to confirm.
6. Click **POSTING**→**POST RECEIPT**.

The receipt lines are deleted and a put-away has been created.

From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PUT-AWAYS**.

Microsoft

7. Browse to the put-away just created.



8. Click REGISTERING→REGISTER PUT-AWAY.

The shipping process of cross-docked items is illustrated in “Shipping.”

Test Your Knowledge – Receiving Orders

1. What are the two options to retrieve the lines of a released sales return order from within a warehouse receipt?
2. True or False:
As soon as you have posted a warehouse receipt, the items are available for picking.
3. How do you change the unit of measure on the Place line of a put-away document?
4. Complete the following sentence:
Cross-docked items are directed from the _____ zone to the _____ zone without placing them into storage.

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Quick Interaction: Lessons Learned

Take a moment to write down three Key Points you have learned from this chapter:

- 1.

- 2.

- 3.

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CHAPTER 3: INTERNAL WAREHOUSE PROCESSES

This chapter contains the following sections:

- Objectives
- Movement
- Internal Pick and Put-away
- Journals
- Counting

Objectives

By the end of this chapter, you should be able to:

- Move items between different zones and bins, replenish bins, and block movements.
- Perform Internal Picks and Put-aways.
- Adjust items and change storage information by using warehouse journals.
- Perform counting of physical inventory.

Microsoft Internal Use Only

Movement

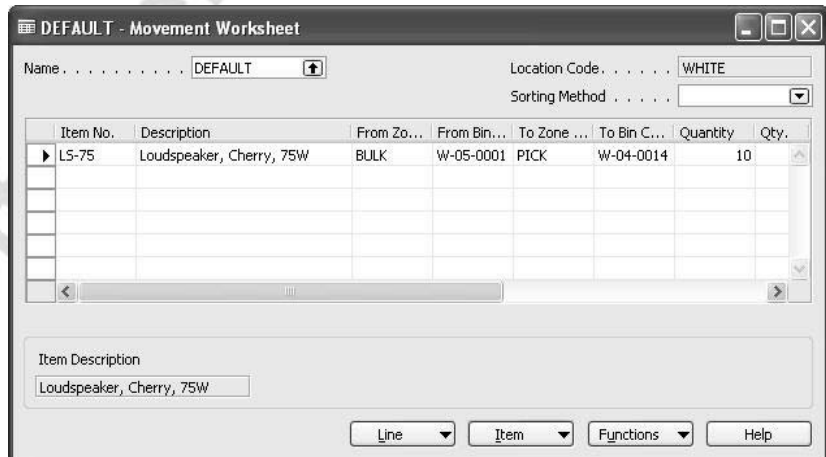
Warehouse Management Systems offers the opportunity to move items within the warehouse to optimize the use of space. Movements are done at bin level. Warehouse movement can be a manual process, if, for instance, the company wants to reallocate items elsewhere within the warehouse. It can also be automatically allocated by the system as the act of bin replenishment. The movement worksheet is where you start creating a movement. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→MOVEMENT WORKSHEETS.

Inside the movement worksheet, the lines must be filled out with the items the company wants to move, along with the information on present zone and bin and the new zone and bin to which the items should be moved.

Scenario 6

The warehouse manager decides to move ten units of Speaker LS-75 from the bulk zone to the pick zone for quicker handling of these items in order to fulfill received shipping orders.

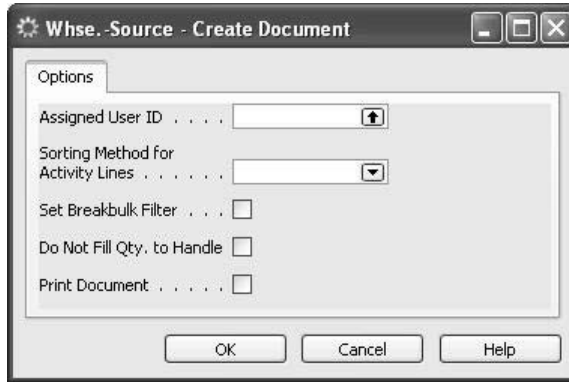
1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→MOVEMENT WORKSHEETS. Fill in the line to move ten units of item LS-75 from the BULK zone and bin W-05-0001 to the PICK zone and bin W-04-0014.



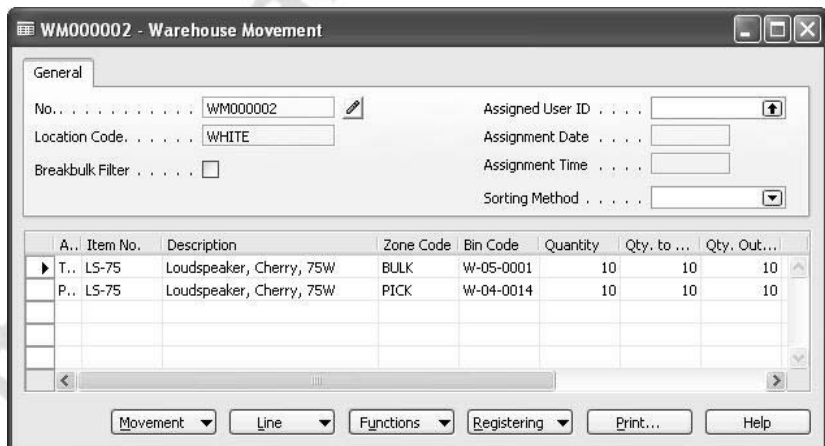
A movement must now be created from the worksheet as a request for warehouse employees to get items from their present location to their new location.

2. Fill in the **Qty. to Handle** field with the full quantity for the line.

- Click **FUNCTIONS**→**CREATE MOVEMENT**. The Create Document window appears giving the user the options to sort within the activity lines and to print the movement.



- Click **OK** to create the movement.
- From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**MOVEMENTS**, and select the movement you just created.



At this stage, it is still possible to change zone and bin values on the place line, and the possibility to split lines is also available. The split line functionality can be useful if you need to take the items from or place the items in more than one bin. When the items have been physically moved, the warehouse employee must register the lines to complete the movement.

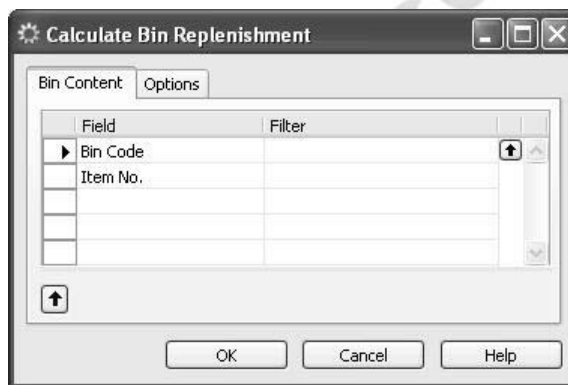
- Click **REGISTERING**→**REGISTER MOVEMENT**. The movement is registered, and the lines are deleted from the warehouse movement document.

While making a movement, you are able to change the unit of measure. Typically items are stored on pallets in the bulk zone, but when moving to the pick zone, for example, you might want to store them in pieces. The procedure is the same as when putting away.

Bin Replenishment

To achieve maximum usage of warehouse space, the company will need a tool to automatically detect unused space on bins, and calculate the quantity to be filled in. At the same time, it must suggest from where to take these items and update the system.

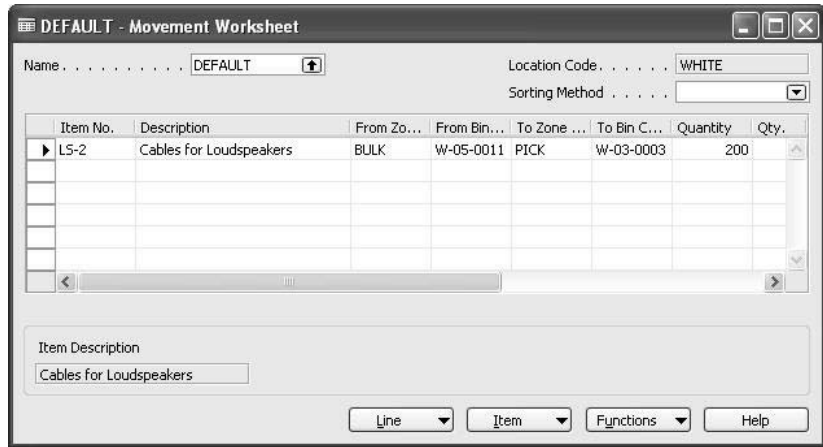
1. In the Navigation Pane, click the **Warehouse** button and click **PLANNING & EXECUTION**→**MOVEMENT WORKSHEETS**→**FUNCTIONS**→**CALCULATE BIN REPLENISHMENT**, and the Calculate Bin Replenishment request window appears.



Through the replenishment process, the system searches for a fixed bin content that needs to be replenished, whenever the bin has reached minimum quantity. The process of replenishment is only capable for fixed and unblocked bins and must be activated manually by a warehouse employee. The program tries to find bin content of the same item and item variant within the location. The bin ranking determines from where to take the items, always searching for lower ranking bins to take from. The calculation is made to fill fixed bins that are below minimum quantity. A warehouse movement document is created containing the replenishment lines from the requested location, zone, or bin according to the filter options used.

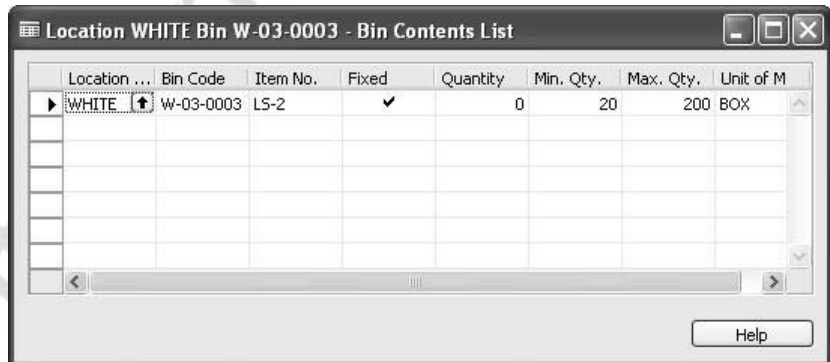
2. In the **Item No.** field, select LS-2, and click **OK**.

The program generates this suggested replenishment:



To examine why the program proposes to do as shown, follow the next steps:

3. In the **To Bin Code** field, click the **AssistButton**. In the Bin List window, select the bin suggested by the program, W-03-0003, and click BIN→CONTENTS. The Bin Contents List window opens:

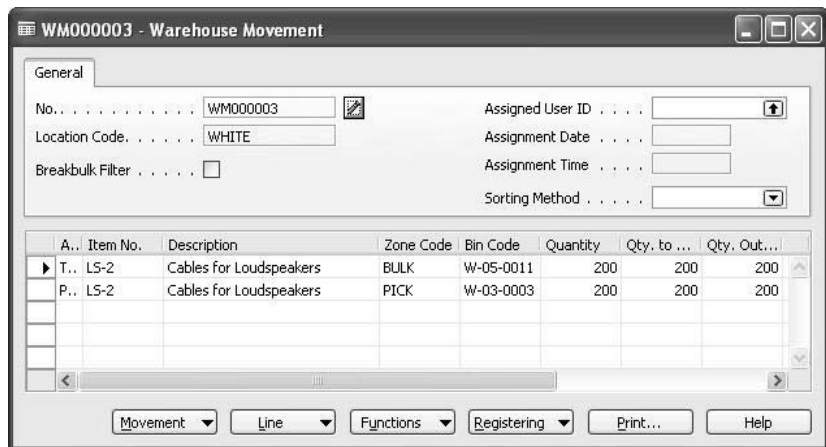


The bin content line shows that this bin is a fixed bin for item LS-2 and that the current quantity is below minimum quantity. In the movement worksheet, we see that the quantity suggested to move corresponds exactly to maximum quantity for this bin.

To complete the replenishment,

4. In the Movement Worksheet window, click FUNCTIONS→CREATE MOVEMENT.

- From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→MOVEMENTS, and select the movement you just created.

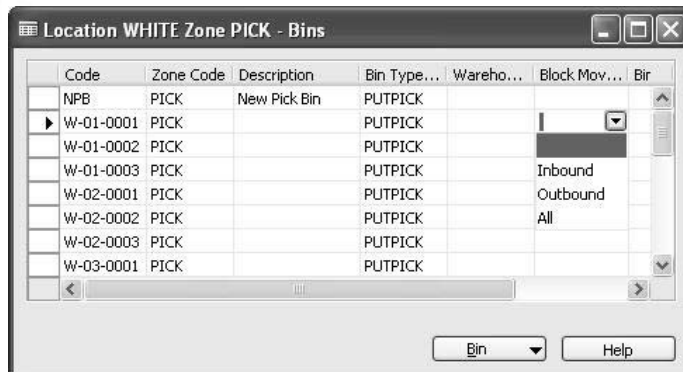


- Click REGISTERING→REGISTER MOVEMENT.

Blocking Warehouse Movements

Blocking warehouse movements is done at the bin level, and eventually a company will experience the situation where items on a bin will have to be moved somewhere else in the warehouse. It is also possible that similar items placed at a specific bin should stay where they are. In situations like this, the company would block the bin, so that movement from this specific bin would not occur while the rest of the similar items elsewhere are moved. To block bins:

- In the Navigation Pane, click the **Warehouse** button, and click SETUP→LOCATIONS. Browse to the White location and click LOCATION→ZONES.
- Select the PICK zone, click ZONE→BINS, and select bin W-01-0001.

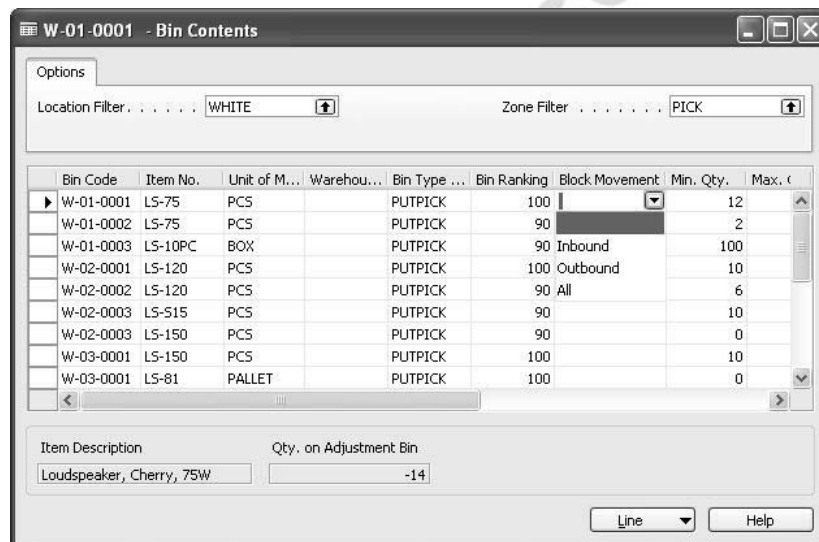


In the Bins window, you can select a method for blocking the movement of items into or out of a specific bin. A choice of Inbound indicates no items should be placed in the bin. A choice of Outbound indicates that no items should be taken from the bin. This will have impact on the availability to pick from the items stored on the blocked bins, as these items will be available for sale but not for picking. A choice of all indicates that no items should be either taken out of or placed in the bin.

Alternatively, the blocking of a bin can be done from the Bin Content window. To retrieve the Bin Content window:

From the Warehouse menu, click **PLANNING & EXECUTION**→**BIN CONTENTS**.

At the header in the filtering fields, select the White location in the **Location Filter** field and in the **Zone Filter** field, select the PICK zone. All bin contents with these criteria are listed.



In the **Block Movement** field, enter the desired value Inbound, Outbound, or All.

Internal Pick and Put-away

An internal pick or put-away can be used when items must be taken out of or returned to inventory without a source document such as a sales order, purchase order, or transfer. An example of this would be a request to the warehouse from the sales department for items to be used in a customer demonstration. This would be handled in the Internal Picks functionality on the Warehouse menu. The warehouse manager would typically create this request.

Scenario 7

A salesperson from Cronus International Ltd. is about to demonstrate the new edition of item LS-2 and, therefore, will require two pieces of this item for a short loan.

1. In the Navigation Pane, click the **Warehouse** button and click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→INTERNAL PICKS.
2. Press F3 to create a new internal pick. Select the White location in the **Location Code** field, and Internal in the **To Zone Code** field. Select an empty bin to place the items in.

Item No.	Description	Quantity	Qty. Out...	Due Date	Unit of M...	Qty. per...
LS-2	Cables for Loudspeakers	2	2		BOX	1

3. Insert two boxes of item no. LS-2 on the lines and release the document. Click FUNCTIONS→CREATE PICK.
4. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PICKS, and browse to the pick you just created.

S...	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Qty. Ha...
1		LS-2	Cables for Loudspeakers	W-04-0014	2	2	0
2		LS-2	Cables for Loudspeakers	W-15-001	2	2	0

NOTE: There is no Source Document information since this pick was created from Internal Picks, and there is no demand for a Source Document.

5. Click REGISTERING→REGISTER PICK.

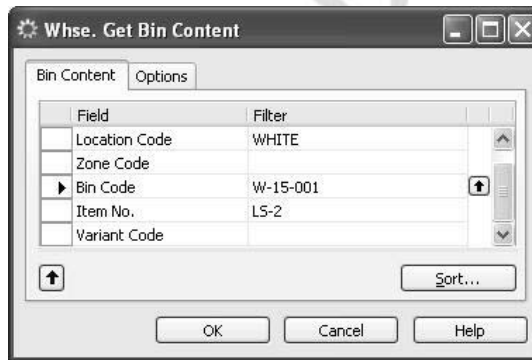
The two boxes of item LS-2 are still part of inventory but become unavailable for picking. The items can be handed to the sales personnel for demonstration.

Scenario 8

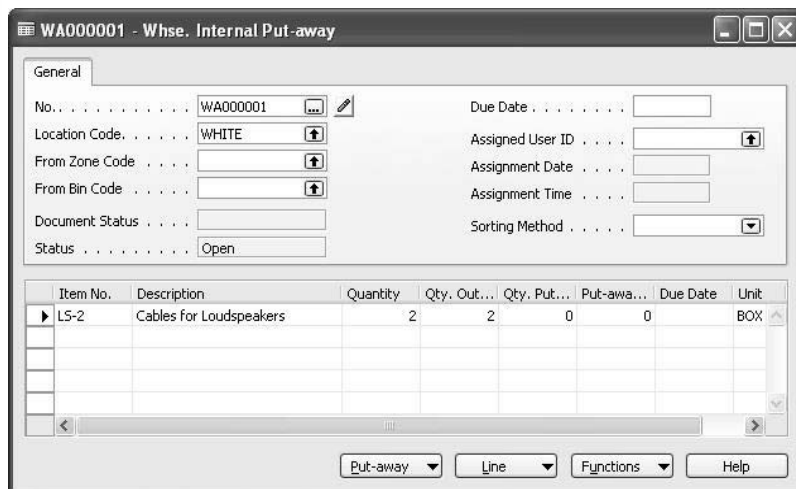
The Sales person had success in his demonstration and has returned the items to the Warehouse.

The task of the warehouse personnel is to register the returned items and make them available for picking.

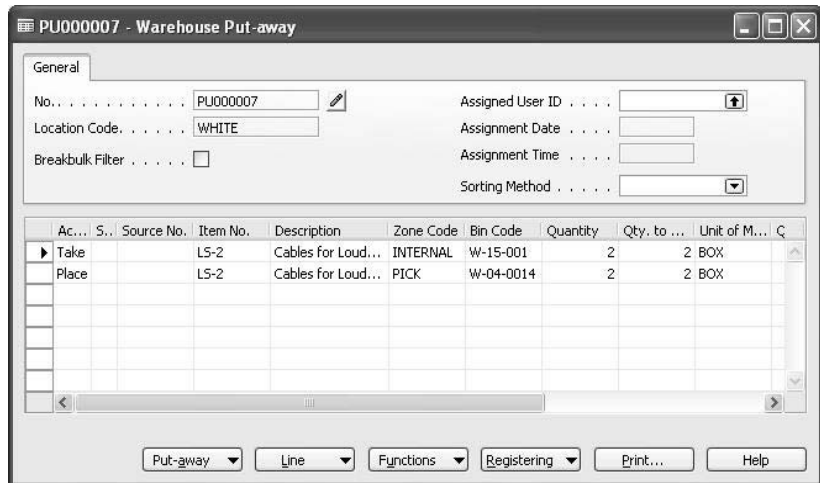
1. In the Navigation Pane, click the **Warehouse** button, and then click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→INTERNAL PUT-AWAYS.
2. Press F3 to create a new Internal Put-away, and select the White location in the **Location Code** field.
3. Click FUNCTIONS→GET BIN CONTENT, and the Whse. Get Bin Content window opens.



4. Fill in the filter with the above information, corresponding to what has been placed on the bin, and click **OK** to confirm.



5. Click FUNCTIONS→CREATE PUT-AWAY, and the put-away document is created.
6. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PUT-AWAYS, and browse to the put-away you just created.



The put-away created illustrates that this put-away comes from an internal put-away by the missing source document information.

7. Click REGISTERING→REGISTER PUT-AWAY.

The items are now available to pick.

Integration to Manufacturing

Warehouse Management Systems offers pick to and put-away from production. The following scenario gives an example of how to perform these processes.

Scenario 9

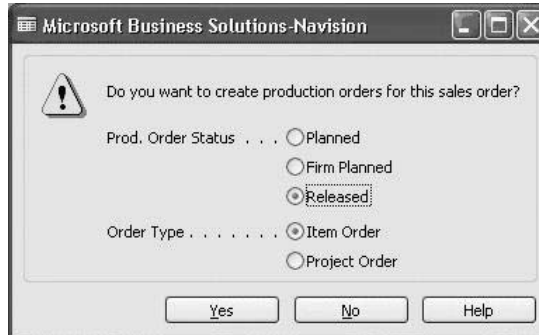
Customer 60000, Blanemark Hifi Shop, orders 12 units of item LS-100.

In order to deliver this product to our customer, the parts of this product are to be assembled at our production assembly line.

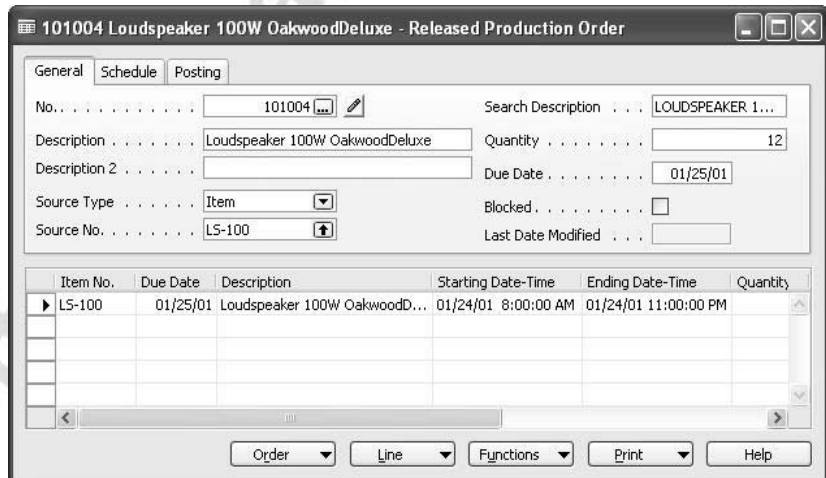
1. In the Navigation Pane, click the **Warehouse** button, and click ORDERS & CONTACTS→SALES ORDERS. Create a new order for 12 units of item LS-100 to customer 60000, and release the order.

Since the items are to be assembled, use the following process to create the production order for the items:

2. Click ORDER→PLANNING, and from the Sales Order Planning window, click FUNCTIONS→CREATE PROD. ORDER. Set the **Prod. Order Status** field to Released.



3. Click **Yes** to create the released production order.
4. In the Navigation Pane, click the **Warehouse** button and click ORDERS & CONTACTS→RELEASED PROD. ORDERS. Browse to the order created above.



We want to make our warehouse aware that they should pick the items needed for making the assembly.

5. Click FUNCTIONS→CREATE WHSE. PICK to create the pick activity.

NOTE: If the program reports "Nothing to Handle" at this point, it is because it cannot find any available items in bins that have been assigned a bin type that has Pick ticked. You may have available items in stock, but in other bins. There are two ways to solve this. Either use a movement to move the items to bins that the program can pick from, or pick the **Always Create Pick Line** field on the **Bin Policies** tab on the location card.

- From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PICKS, and browse to the pick you just created.

The screenshot shows the 'PI000004 - Warehouse Pick' window. The 'General' tab is active, displaying fields for 'No.' (PI000004), 'Location Code' (WHITE), 'Assigned User ID', 'Assignment Date', 'Assignment Time', and 'Sorting Method'. Below the general information is a table with the following data:

S..	Source No.	Item No.	Description	Zone Code	Bin Code	Quantity	Qty. to ...
▶ P..	101004	LSU-15	Base speaker unit 15" 100W			12	12
P..	101004	LSU-15	Base speaker unit 15" 100W	PRODUC...	W-07-0002	12	12
P..	101004	LSU-8	Middletone speaker unit 8"100W			12	12
P..	101004	LSU-8	Middletone speaker unit 8"100W	PRODUC...	W-07-0002	12	12
P..	101004	LSU-4	Tweeter speaker unit 4" 100W			12	12

At the bottom of the window are buttons for 'Pick', 'Line', 'Functions', 'Registering', 'Print...', and 'Help'.

NOTE: The program has created lines with the Zone Code and Bin Code filled in but has left the Take lines with empty **Zone Code** and **Bin Code** fields. The reason for this is that the program was unable to find any available stock to pick from. The user has to make a decision on where to pick the items from. If in doubt of where the items are stored, select a Take line and click the **AssistButton** in the **Bin Code** field. The Bin Contents List will show where the items are to be found and from there you can select a bin to pick from.

In this case, the items are stored in the BULK zone. The bin type assigned to the bins in this zone is PUTAWAY, and this type is not set up for picking. Therefore, the program is not able to suggest that you pick the items from these bins.

- Fill in the missing bin code information on the Take lines by clicking the **AssistButton** on the **Bin Code** field and selecting bins to take from as shown in the following window.

The screenshot shows the 'PI000004 - Warehouse Pick' window after the bin codes have been filled in. The 'General' tab and fields are the same as in the previous screenshot. The table now has the following data:

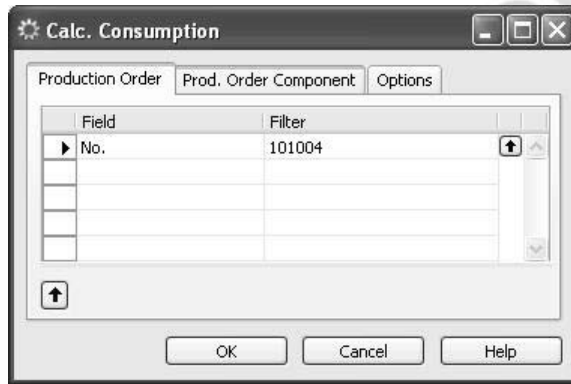
S..	Source No.	Item No.	Description	Zone Code	Bin Code	Quantity	Qty. to ...
▶ P..	101004	LSU-15	Base speaker unit 15" 100W	BULK	W-05-0008	12	12
P..	101004	LSU-15	Base speaker unit 15" 100W	PRODUC...	W-07-0002	12	12
P..	101004	LSU-8	Middletone speaker unit 8"100W	BULK	W-05-0009	12	12
P..	101004	LSU-8	Middletone speaker unit 8"100W	PRODUC...	W-07-0002	12	12
P..	101004	LSU-4	Tweeter speaker unit 4" 100W	BULK	W-05-0010	12	12

The buttons at the bottom remain the same: 'Pick', 'Line', 'Functions', 'Registering', 'Print...', and 'Help'.

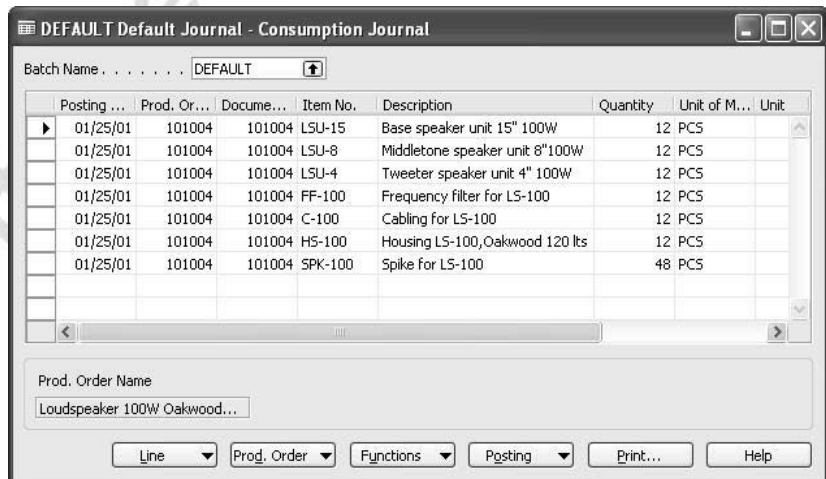
8. Click REGISTERING→REGISTER PICK, to register the pick.

All the items are assembled, consumption calculations are run, and the finished items are to be returned to the warehouse.

1. In the Navigation Pane, click the **Manufacturing** button and click EXECUTION→CONSUMPTION JOURNALS. In the Consumption Journal window, click FUNCTIONS→CALC. CONSUMPTION.
2. In the Calc. Consumption window, enter the production order number.



3. Click **OK** to confirm.



4. Click POSTING→POST to post the consumption journal lines.

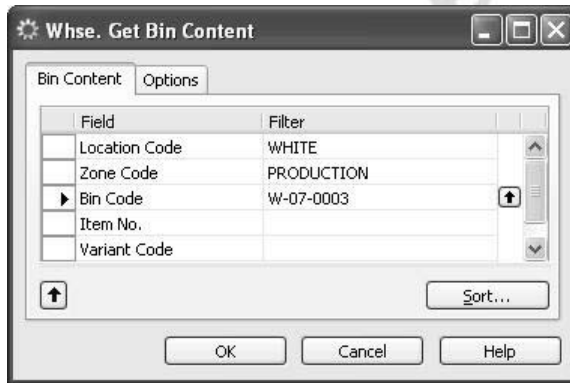
Your task is now to move the finished items to the Outbound Production Bin at the Warehouse.

5. From the Manufacturing menu, click EXECUTION→OUTPUT JOURNALS. In the Output Journal window, click the **Prod. Order No.** field, and select the production order.

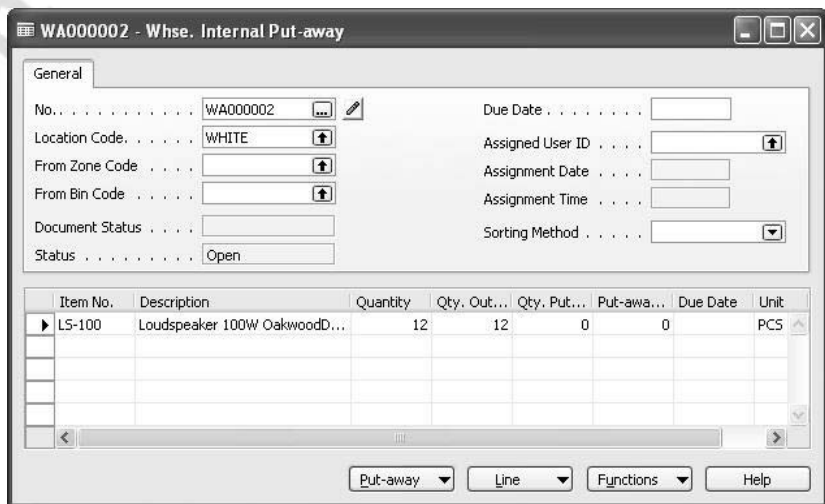
6. Click FUNCTIONS→EXPLODE ROUTING, and click POSTING→POST.

The items have been moved to the Outbound Production Bin in the warehouse, and they now need to be moved to storage in the warehouse.

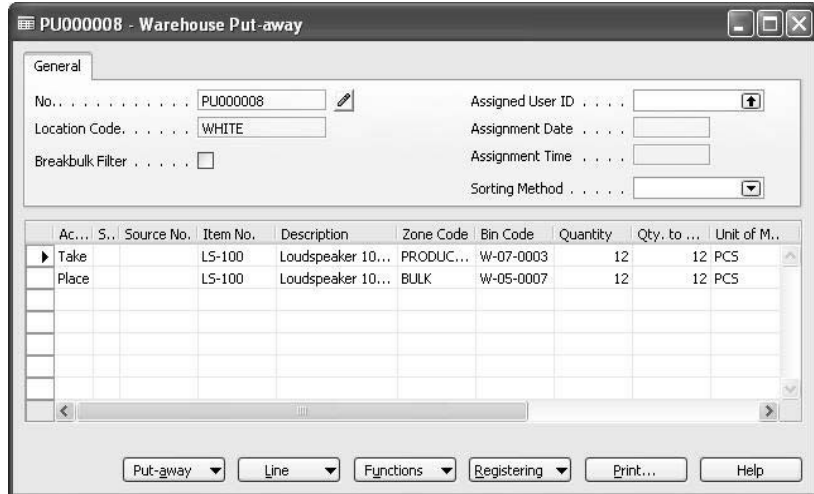
1. In the Navigation Pane, click the **Warehouse** button and click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→INTERNAL PUT-AWAYS.
2. Press F3 to create a new Internal Put-away, and select the White location in the **Location Code** field.
3. Click FUNCTIONS→GET BIN CONTENT, and the Whse. Get Bin Content window opens. In the **Zone Code** field, select Production, and in the **Bin Code** field, select W-07-0003. This is the bin defined as the Outbound Production Bin on the location card for the White location.



4. Click **OK** to confirm, and the lines in the internal put-away are filled out.



5. Click FUNCTIONS→CREATE PUT-AWAY. A put-away is created.
6. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PUT-AWAYS, and browse to the put-away you just created.



7. Click REGISTERING→REGISTER PUT-AWAY.

The items are now in stock and available for picking as finished items.

Journals

In Warehouse Management Systems, the program uses special journals to handle processes occurring inside warehouse parameters. When using Warehouse Management Systems, it is necessary to use the warehouse item journal, warehouse physical inventory journal, and warehouse reclassification journal. The corresponding journals on the Inventory menu will not take zones and bins into consideration if you try to perform operations within these journals.

Warehouse Item Journals

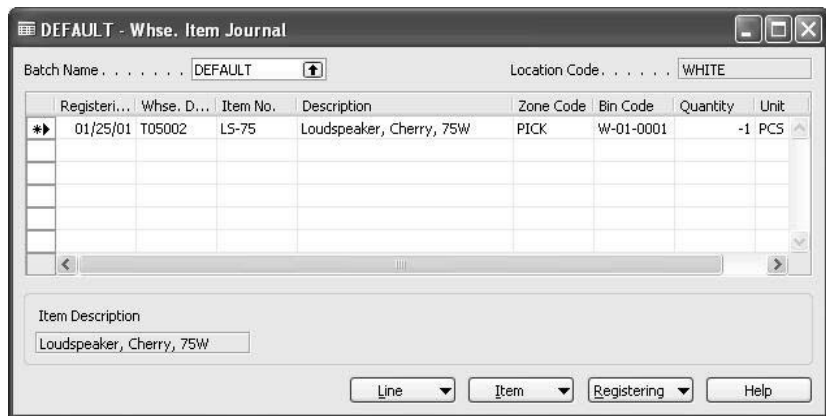
The purpose of this journal is to make adjustments to an item on a specific bin in a specific zone.

Scenario 10

During warehouse activities, one piece of item LS-75 was damaged while moving and must be removed from stock.

The incident happened in the PICK zone and in bin W-01-0001.

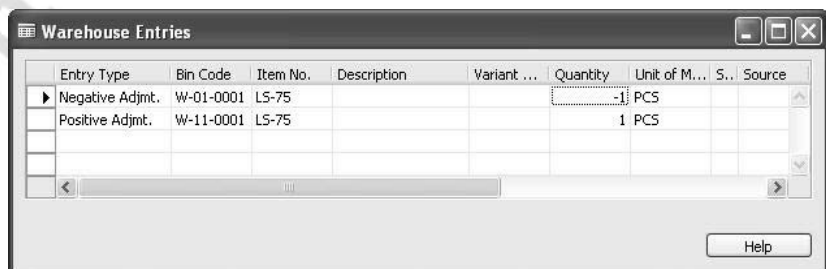
1. In the Navigation Pane, click the **Warehouse** button, and click GOODS HANDLING MULTIPLE ORDERS→WHSE. ITEM JOURNALS.



2. Enter the above information from the scenario into the Whse. Item Journal window.
3. Click REGISTERING→REGISTER.

The item has now been removed from stock. Looking at the warehouse registers, we can see that the item has been removed from its original bin and placed in the Adjustment bin.

1. From the Warehouse menu, click HISTORY→REGISTERS→REGISTERS, to open the warehouse registers.
2. Select the last entry in the Warehouse Registers window, and click REGISTER→WAREHOUSE ENTRIES.



The program has created two entries. The first is the negative adjustment, removing the item from the original bin. The second is the positive adjustment, placing the item in the adjustment bin. The adjustment bin is a virtual bin, defined on the **Bins** tab of the location card.

To remove the item from inventory, from the Warehouse menu, click INVENTORY→ITEM JOURNALS. Click FUNCTIONS→CALCULATE WHSE. ADJUSTMENT to fill the item journal lines with the adjustments to the warehouse adjustment bin. Post the journal lines in order to make corresponding adjustments to the inventory.

Reclassification Journals

In Warehouse Management Systems, the warehouse reclassification journal enables you to perform changes after the goods have been moved physically. This situation could occur if the workers had moved items from one place to another in the warehouse and later informed the manager of where the items had been moved.

To access the Whse. Reclassification Journal:

1. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→WHSE. RECLASS. JOURNALS.
2. In the **Item No.** field, select item LS-S15. Enter the quantity of 12. In the **From Zone Code** field, select the PICK zone, and in the **From Bin Code** field, select W-04-0015. In the **To Zone Code** field, select the PICK zone, and in the **To Bin Code** field, enter W-02-003.

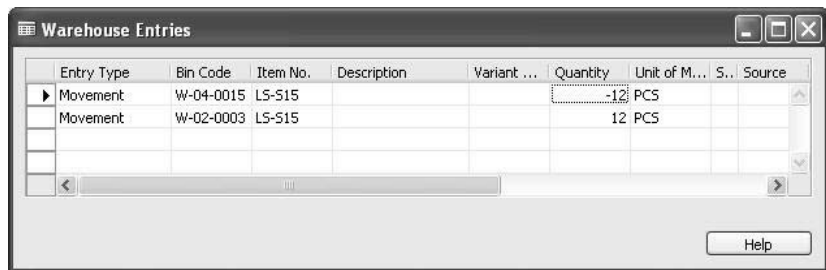
Item No.	Description	From Zo...	From Bin...	To Zone ...	To Bin C...	Quantity	Unit of M...
* 15-15	Stand for Loudspe...	PICK	W-04-0015	PICK	W-02-0003	12	PCS

3. Click REGISTERING→REGISTER, to register the journal lines.

The program has made a movement between two bins within the warehouse, without using the movement worksheet. This information is to be found in the warehouse entries.

1. From the Warehouse menu, click HISTORY→REGISTERS→REGISTERS to open the warehouse registers.

2. Select the last entry in the Warehouse Registers window, and click REGISTER→WAREHOUSE ENTRIES.



This window illustrates that a movement has been performed in the program due to a warehouse reclassification.

Counting

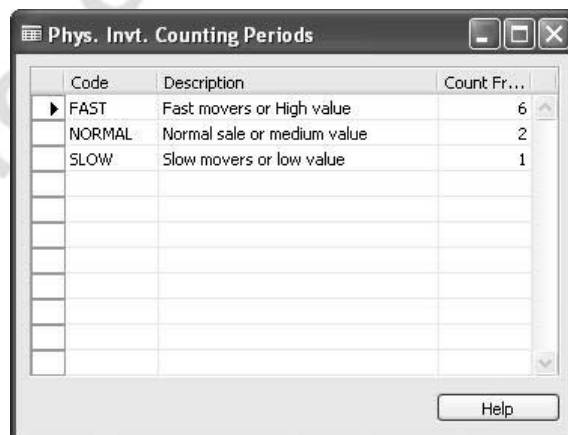
In order to keep an accurate record of inventory in the warehouse, physical counts of inventory must be performed regularly. Having the possibilities of defining the count frequency for a specific item and displaying information regarding when last counting was done and when the next is due makes the process of counting much easier.

Warehouse Physical Inventory Counting Periods Setup

The physical inventory cycles are determined on the SKU and item cards. The primary setup and definition of counting periods are made from the Warehouse menu.

In the Navigation Pane, click the **Warehouse** button, and then click INVENTORY→PHYS. INVT. COUNTING PERIODS.

To enter a new value, simply create a new code, and add the counts to be made per year.

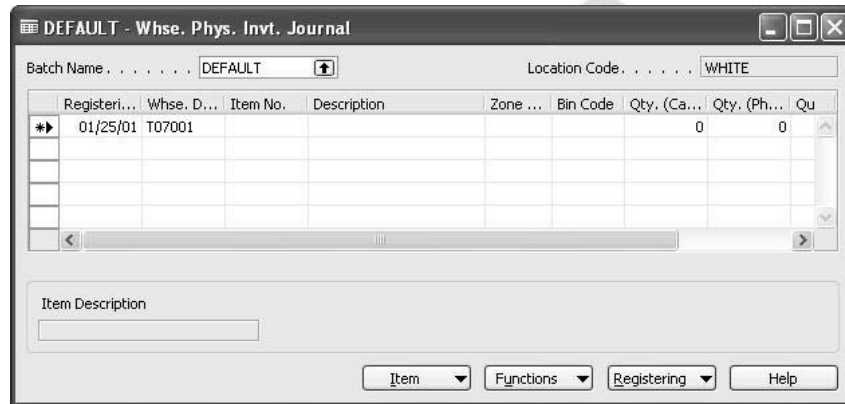


Physical Inventory Counting

The process of counting inventory can be a very time-consuming procedure. WMS enables companies to count at the zone and/or bin level in order to divide warehouse areas into smaller pieces and to count specific areas of the warehouse. Because of this feature, counting can be made more regular or spread over a longer period or at different intervals. The blocking of bins can be a major advantage to ensure that no items are removed during the counting or between the counting intervals.

Physical inventory counting is performed in the Whse. Phys. Invt. Journal.

From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→WHSE. PHYS. INVT. JOURNALS.



Scenario 11

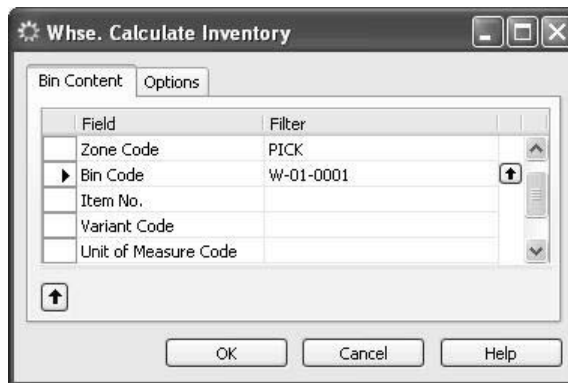
The warehouse manager suspects that an error might have occurred during the pick for an earlier order.

The pick has occurred from the PICK zone and from bin no. W-01-0001.

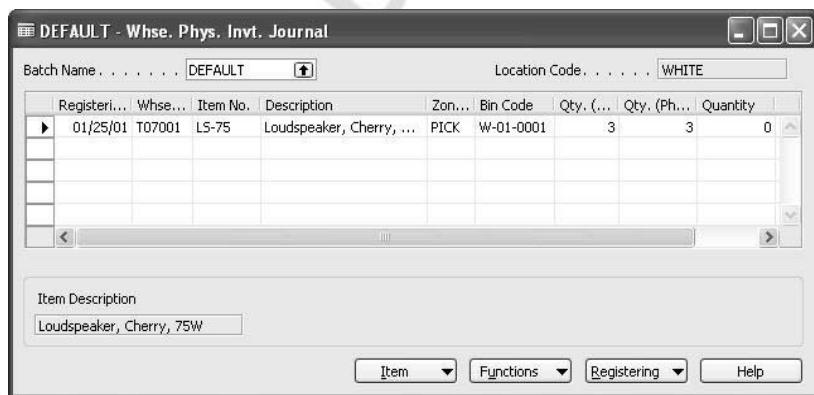
The task is now to create a list for the warehouse personnel to make a physical count of items inside this specific bin and report back to the warehouse manager for corrections to be made against inventory.

1. In the Navigation Pane, click the **Warehouse** button, and click GOODS HANDLING MULTIPLE ORDERS→PERIODIC ACTIVITIES→WHSE. PHYS. INVT. JOURNALS.

2. Click FUNCTIONS→CALCULATE INVENTORY, and fill in the filter fields according to the description in the scenario.



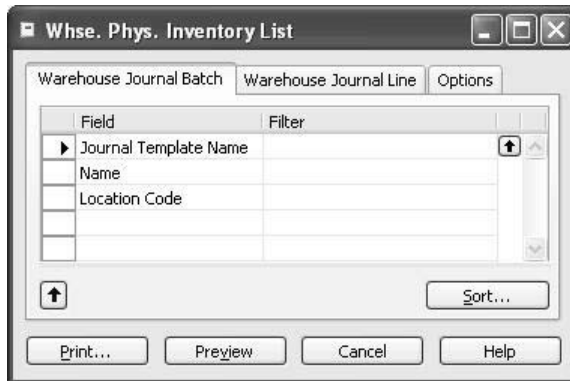
3. Click **OK** to let the program fill in the lines in the Whse. Phys. Invt. Journal window.



The warehouse personnel must make a physical count of the bin and return with the result to be entered in the **Qty. (Phys. Inventory)** field.

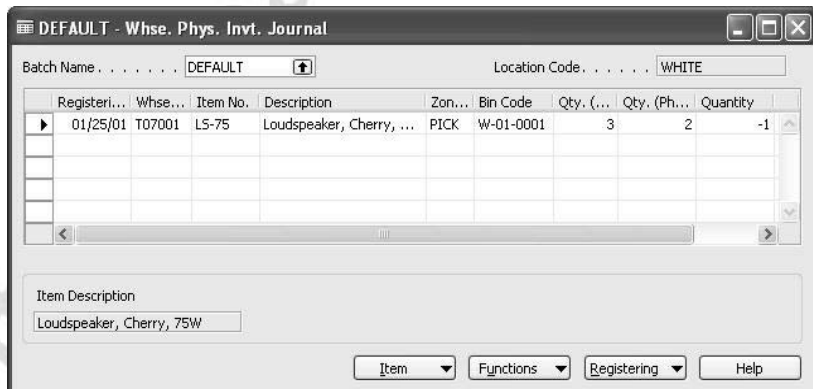
To perform this task, a written copy is to be printed out and handed to the warehouse employee(s).

4. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→REPORTS→WHSE. PHYS. INVENTORY LIST→PRINT.



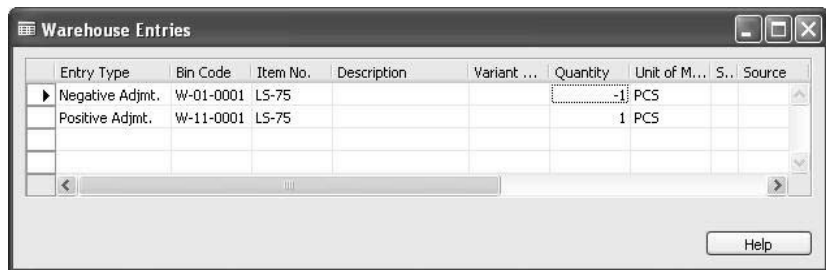
Suppose that the result of the physical count is that the bin contains 2 pieces of item LS-75 and not 3 as the program has indicated. Make the necessary changes in the **Qty. (Phys. Inventory)** field.

5. Return to the Whse. Phys. Invt. Journal you created, and enter the details in the **Qty. (Phys. Inventory)** field.



6. Click REGISTERING→REGISTER.
7. From the Warehouse menu, click HISTORY→REGISTERS→REGISTERS, to open the warehouse registers.

8. Select the last entry in the Warehouse Registers window, and click REGISTER→WAREHOUSE ENTRIES.



NOTE: Note that the program has recorded the movement of the item to the adjustment bin. The adjustment bin is where the program stores items (records) until they are removed from inventory. Items are not available and cannot be picked from the adjustment bin.

To remove the item from inventory, use the Calculate Whse. Adjustment functionality in the Item Journal.

Cycle Counting

Cycle counting is the procedure for the scheduling of physical counting of frequently counted items. These might be high value items, fast movers, low value, or slow movers.

Physical inventory counting periods can be defined on the **Warehouse** tab of each individual SKU or item card. For example, the company might determine that an item should be counted six times per year. This is defined in the program by adding the number 6 in the **Count Frequency per Year** field on the physical inventory counting periods card.

1. In the Navigation Pane, click the **Warehouse** button, and click **PLANNING & EXECUTION**→**ITEMS**. Browse to item LS-120, and click the **Warehouse** tab.

2. Click the **AssistButton** in the **Phys Invt Counting Period** field, and the Phys. Invt. Counting Periods window appears.

Code	Description	Count Fr...
FAST	Fast movers or High value	6
NORMAL	Normal sale or medium value	2
SLOW	Slow movers or low value	1

Buttons: OK, Cancel, Help

3. Select **FAST** in the **Code** field, and click **OK** to confirm.

When you leave this field, you receive a message telling you that the program will calculate when to suggest the next cycle counting period, and it will ask you to confirm that you want this to happen.

4. Click **Yes** to confirm.

The screenshot shows the 'Item Card' window for 'LS-120 Loudspeaker, Black, 120W'. The 'Warehouse' tab is selected. The fields are as follows:

Field	Value
Special Equipment Code	
Put-away Template Code	
Put-away Unit of Meas...	PCS
Phys Invt Counting Pe...	FAST
Last Phys. Invt. Date	
Last Counting Period U...	
Next Counting Period	01/01/01..02/28/01
Identifier Code	
Use Cross-Docking	<input checked="" type="checkbox"/>

Navigation buttons: Item, Sales, Purchases, Functions, Help

The **Next Counting Period** field is updated, and the counting period calculations are based on the work date.

The SKU/item card also holds information on last count, last counting period update, and when the next count is to be performed.

Test Your Knowledge – Internal Warehouse Processes

1. You want to take ten pieces of an item from bin A-01-0001 and place them on bin A-02-0001. How can you achieve this without using the movement worksheet?
2. True or False:
You have to release an inbound source document to use the internal put-away functionality.
3. What is the purpose of the Whse. Item Journal?
4. Where can you look up when the last physical inventory has been performed for item 70000?

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Quick Interaction: Lessons Learned

Take a moment to write down three Key Points you have learned from this chapter:

- 1.

- 2.

- 3.

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CHAPTER 4: SHIPPING

This chapter contains the following sections:

- Objectives
- Shipping the Items
- Shipping Cross-Docked Items
- Break-bulk

Objectives

By the end of this chapter, you should be able to:

- Pick and ship items.
- Ship Cross-Docked items.

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Shipping the Items

This chapter explains how to handle an outbound order from the warehouse. In order to handle outbound requests, the source document (sales order, purchase return order, and outbound transfer order) must be released for the request to be visible to the warehouse personnel and to initiate the shipping process.

The first step is to get an overview of the orders released for shipment. This can either be done from the shipment list or from the pick worksheet, showing all released shipping orders.

A shortcut from the sales order has been added to create a request for a warehouse shipment.

In order to continue the process of shipping, the items have to be picked.

In the following example, the process of shipping the items is described and illustrated using Cronus as an example. The example is based on scenario 12, as well as on the existing data in the demo database.

Scenario 12

The Blanemark Hifi Shop on Baker Street has placed an order for the delivery of 12 units of Loudspeaker LS-100.

Your task is to find the existing sales order, order 1001, for customer 60000 and to pick and ship items from the White Location.

The first warehouse process in creating a picking document is to retrieve the released sales order:

1. In the Navigation Pane, click the **Warehouse** button, and click **PLANNING & EXECUTION**→**SHIPMENTS**. With your cursor in the **No.** field, press F3 to create a new shipment. In the **Location Code** field, select the White location. The **Zone Code** and **Bin Code** fields are filled in with default values, as set up in the location setup. These values are copied to the lines when retrieved.

- Click **FUNCTIONS**→**GET SOURCE DOCUMENTS**, and browse to the sales document 1001. Click **OK** to fill in the shipment lines.

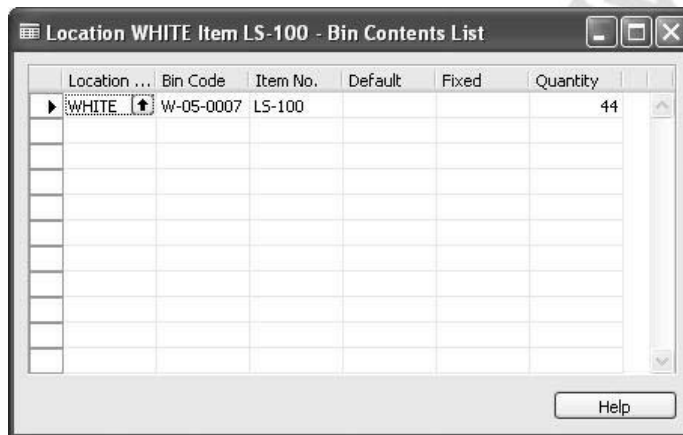
S..	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Qty. Shi...
▶ S..	1001	LS-100	Loudspeaker 100W OakwoodD...	W-09-0001	12	0	0

- Click **FUNCTIONS**→**CREATE PICK**. The Create Pick window appears, which allows you to sort the lines and print a hardcopy of the picking document about to be created.
 - Click **OK** to confirm, and the pick is created.
- To continue the picking process,
- From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PICKS**.

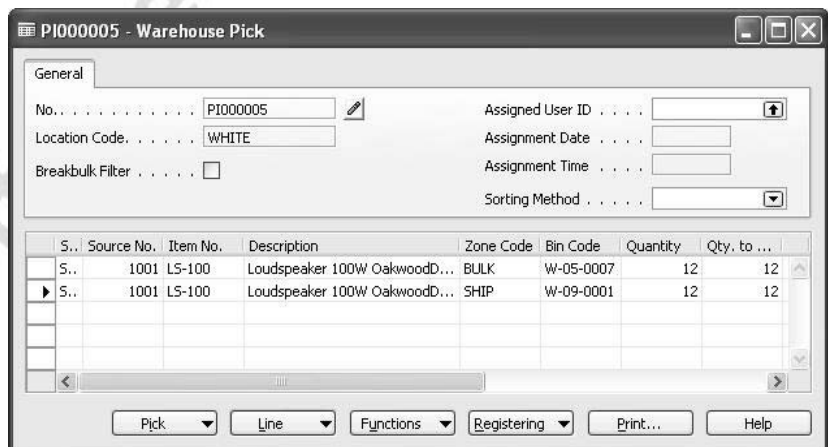
S..	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Qty. Ha...
▶ S..	1001	LS-100	Loudspeaker 100W OakwoodD...	W-09-0001	12	12	0
S..	1001	LS-100	Loudspeaker 100W OakwoodD...	W-09-0001	12	12	0

The Warehouse Pick window for the pick you just created contains two lines. The first line is missing information on where to take the items from. This is because the system has been set up to not allow automated picks from the bulk zone. The second line shows where to place the items.

6. To see where the items are stored, click the Take line (the first line), and click LINE→BIN CONTENTS LIST.



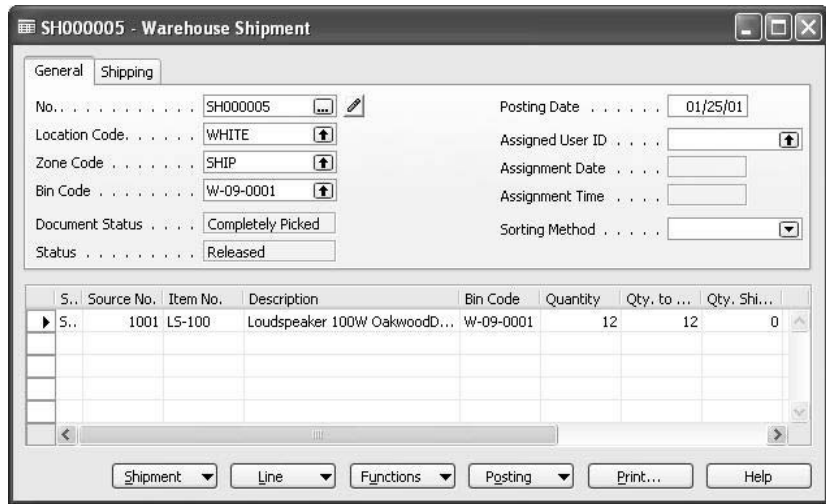
7. Fill in the values for the **Zone Code** field and the **Bin Code** field according to the information from the bin contents list.



8. Click REGISTERING→REGISTER PICK.

The goods are now picked.

- From the Warehouse menu, click PLANNING & EXECUTION→ SHIPMENTS.



The **Qty. to Ship** field is now filled out, and the document status is Completely Picked. To finalize the shipping process, post the shipment.

- Click POSTING→POST SHIPMENT.



The program gives you the option to invoice simultaneously with shipping while posting the shipment.

- Click **OK** to confirm that you want to ship only.

NOTE: If you select *Ship and Invoice*, the source document is posted from the shipping document, using the posting date information from the source document.

The lines are deleted from the Warehouse Shipment window, and the document is registered as both a posted shipment and posted sales shipment.

Shipping Cross-Docked Items

The items received earlier from the cross-docking opportunities are now to be shipped to the customer.

The Blanemark Hifi Shop has contacted Cronus and stated that they want to reduce their order to 60 pieces of item no. LS-81.

1. In the Navigation Pane, click the **Warehouse** button, and click **ORDERS & CONTACTS**→**SALES ORDERS**. Browse to sales order 2021.

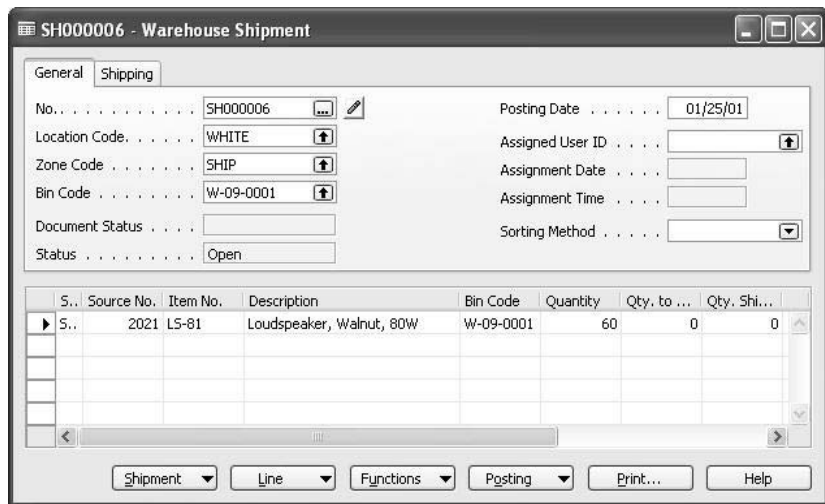
The screenshot shows the '2021 Blanemark Hifi Shop - Sales Order' window. The 'General' tab is active, displaying various fields for customer and order information. The 'Shipping' tab is also visible. Below the main form is a table with the following data:

T. No.	Description	Location	Quantity	Reserve	Unit of M.	Unit Pric.
I... LS-81	Loudspeaker, Walnut, 80W	WHITE	72		PCS	79.00

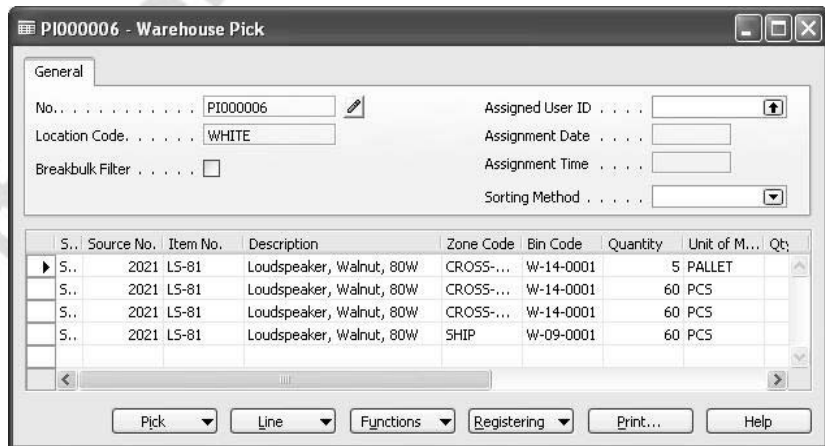
At the bottom of the window, there are buttons for 'Order', 'Line', 'Functions', 'Posting', 'Print...', and 'Help'.

2. Click **FUNCTIONS**→**REOPEN**, and in the **Quantity** field, change the quantity to 60. Click **FUNCTIONS**→**RELEASE** to release the order.
3. From the Warehouse menu, click **PLANNING & EXECUTION**→**SHIPMENTS**. With your cursor in the **No.** field, press F3 to create a new shipment. In the **Location Code** field, select the White location.

- Click **FUNCTIONS**→**GET SOURCE DOCUMENTS**. In the Outbound Source Documents window, select sales order 2021. Click **OK** to confirm.



- Click **FUNCTIONS**→**CREATE PICK**, and in the Create Pick window, click **OK** to create the warehouse pick.
- From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PICKS**, and browse to the pick you just created.



As illustrated, the program changes the unit of measure according to the sales unit of measure when picking for the sales order.

- Click **REGISTERING**→**REGISTER PICK**.

- From the Warehouse menu, click **PLANNING & EXECUTION**→**SHIPMENTS**.

S..	Source No.	Item No.	Description	Bin Code	Quantity	Qty. to ...	Qty. Shi...
▶ S..	2021	LS-81	Loudspeaker, Walnut, 80W	W-09-0001	60	60	0

The **Qty. to Ship** field is filled in, and the **Document Status** field has changed to **Completely Picked**.

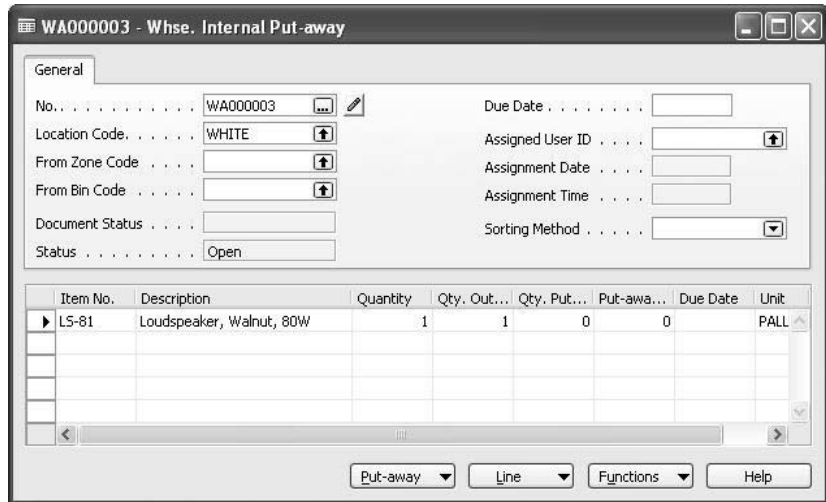
- Click **POSTING**→**POST SHIPMENT**→**SHIP AND INVOICE**.

The Blanemark Hifi Shop originally ordered 72 pieces of item no. LS-81, and you cross-docked 72 pieces, but only picked and shipped 60 pieces. Your task is to move the remaining quantity from the cross-dock bin.

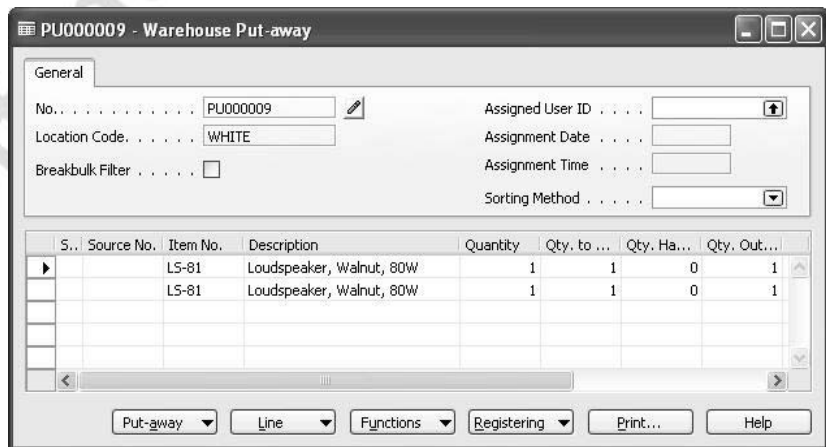
- From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PERIODIC ACTIVITIES**→**INTERNAL PUT-AWAYS**.
- Click the **No.** field, and press F3 to create a new internal put-away. In the **Location Code** field, select the White location.
- Click **FUNCTIONS**→**GET BIN CONTENT**, and the Whse. Get Bin Content window appears.

Field	Filter
▶ Location Code	WHITE
Zone Code	
Bin Code	
Item No.	
Variant Code	

4. Select the White location in the **Location Code** filter field, and in the **Zone Code** filter field, select the Cross-Dock zone. In the **Bin Code** filter field, select bin W-14-0001 in which the remaining pallet of item LS-81 is placed.
5. Click **OK** to confirm.



6. Click **FUNCTIONS**→**CREATE PUT-AWAY**, and the put-away is created.
7. From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PUT-AWAYS**, and browse to the put-away you just created.



8. Click **REGISTERING**→**REGISTER PUT-AWAY**.

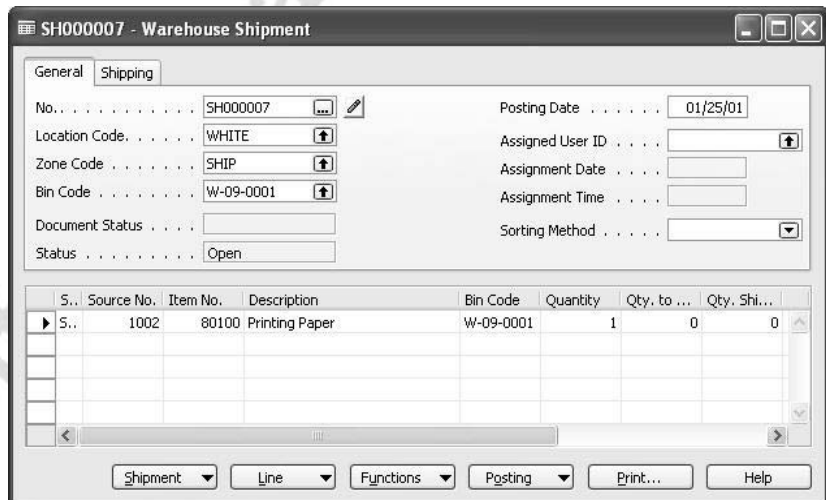
Break-bulk

When you pick items for outbound orders, you will find that items are often stored in a different unit of measure than the sales unit of measure. WMS handles the Break-bulk process when picking. The Break-bulk functionality breaks items stored in larger units of measure into smaller ones. The following scenario describes how to perform break-bulk while picking for a sales order.

Scenario 13

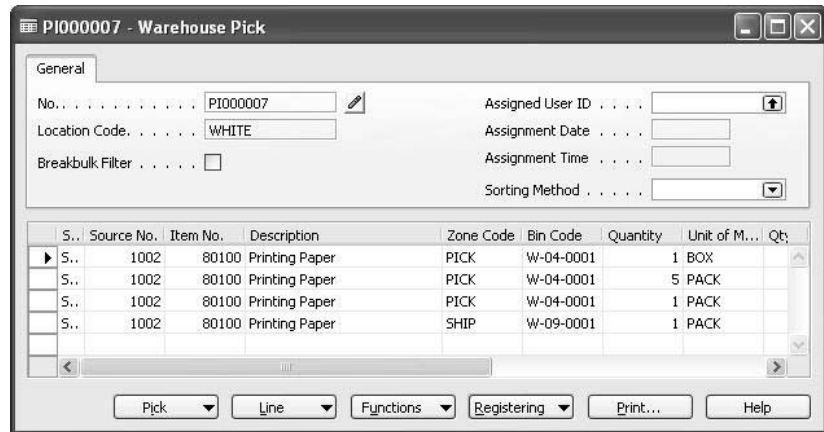
Blanemark Hifi Shop, customer 60000, is in need of printing paper, item 80100, with which to invoice their customers. They need a single package to complete immediate demand.

1. Create and release the sales order.
2. From the Warehouse menu, click PLANNING & EXECUTION→SHIPMENTS. Click the **No.** field, and press F3 to create a new shipment. Select the White location in the **Location Code** field.
3. Click FUNCTIONS→GET SOURCE DOCUMENTS, and select the sales order you just created.

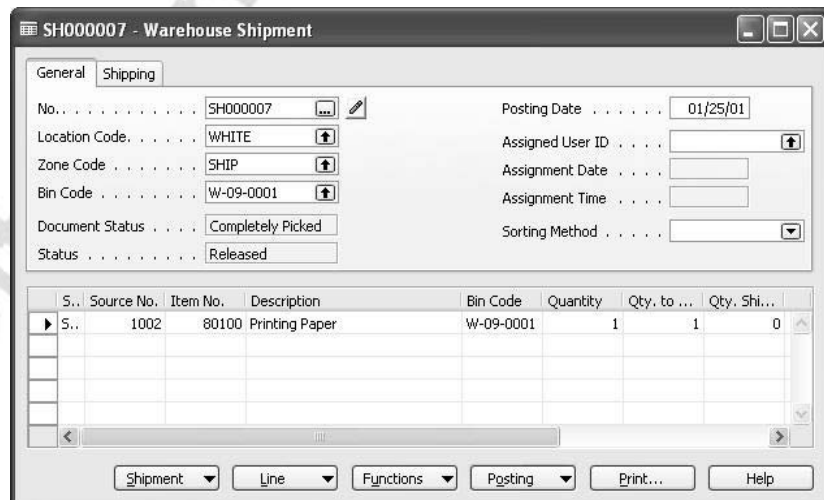


4. Click FUNCTIONS→CREATE PICK to create a pick for this shipment.

When you retrieve the pick document, multiple lines are displayed illustrating the physical break-bulk to be performed. The program suggests where to and how to take and place items.



5. Click REGISTERING→REGISTER PICK.
6. From the Warehouse menu, click PLANNING & EXECUTION→SHIPMENTS. The **Document Status** field now contains Completely Picked, and the **Qty. to Ship** field contains 1.



7. Click POSTING→POST SHIPMENT→SHIP AND INVOICE.

To verify what the program has performed during the process, you can view the warehouse entries for this exercise.

Microsoft Navision Warehouse Management

- 8. From the Warehouse menu, click PLANNING & EXECUTION→ BIN CONTENTS, and browse to the first entry for the bin containing item 80100, the printing paper. Click LINE→WAREHOUSE ENTRIES.

The screenshot shows a window titled 'Item 80100 - Warehouse Entries'. It contains a table with the following data:

Entry Type	Bin Code	Item No.	Description	Variant ...	Quantity	Unit of M...	S..	Source No.
▶ Movement	W-04-0001	80100			32	BOX	P..	106025
Movement	W-04-0001	80100			-1	BOX	S..	1002
Movement	W-04-0001	80100			5	PACK	S..	1002
Movement	W-04-0001	80100			-1	PACK	S..	1002

Illustrated above are three movements performed by the program in order to convert storage unit of measure to the sales unit of measure used in the previous scenario.

Test Your Knowledge – Shipping

1. Suppose you store Item1 in packs, where one pack equals 15 pieces. When you sell Item1, you sell it in pieces.
True or False:
When you create pick lines, the program uses the break bulk functionality automatically to break down the larger unit into smaller ones.
2. How do you print a hardcopy of a picking document?
3. At what point in time is the **Qty. to Ship** field of a shipment line filled out?

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Test Your Skills – Receive, Put-away, Cross-dock and Ship

Blanemark Hifi Shop, customer 60000, is in great need of ten pieces of item no. LS-120 and would like to receive them as soon as possible.

Your task is to:

- Create a sales order for this customer for ten pieces of item no. LS-120 and release the order.
- Create a receipt for purchase order no. 104008 from vendor no. 60000, cross-docking item no. LS-120.
- Change the put-away unit of measure for item LS-75 from pallets to pieces.
- Put the items away.
- Ship and invoice the items to Blanemark Hifi Shop, customer 60000.

Quick Interaction: Lessons Learned

Take a moment to write down three Key Points you have learned from this chapter:

1.

2.

3.

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CHAPTER 5: ITEM TRACKING WITHIN WAREHOUSE MANAGEMENT SYSTEMS

This chapter contains the following sections:

- Objectives
- Preparing Warehouse Management Systems for Item Tracking
- Receiving Items with Item Tracking Information
- Moving Items with Item Tracking Information
- Shipping Items with Item Tracking Information

Objectives

By the end of this chapter, you should be able to:

- Receive item-tracked items.
- Move item-tracked items.
- Ship item-tracked items.

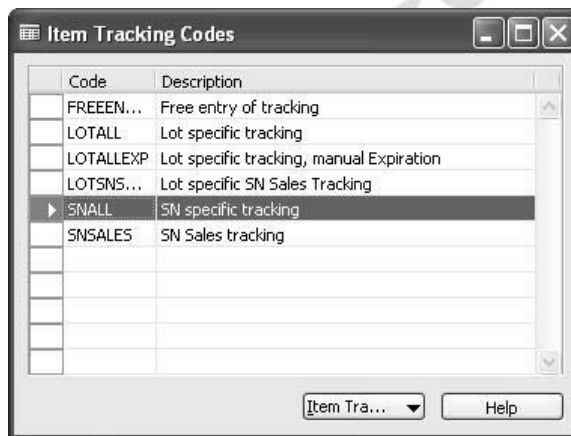
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Preparing Warehouse Management Systems for Item Tracking

NOTE: Before you begin, you must install a clean database!

Handling items with item tracking information in a Warehouse Management Systems environment requires that parameters be set up to instruct the program to require item tracking information for all processes defined in the Warehouse Management setup.

1. In the Navigation Pane, click the **Warehouse** button and click PLANNING & EXECUTION→SETUP INVENTORY→ITEM TRACKING CODES.



2. Select SNALL, and click ITEM TRACKING CODE→CARD.

3. Click the **Serial No.** tab, and place a check mark in the **SN Warehouse Tracking** field:

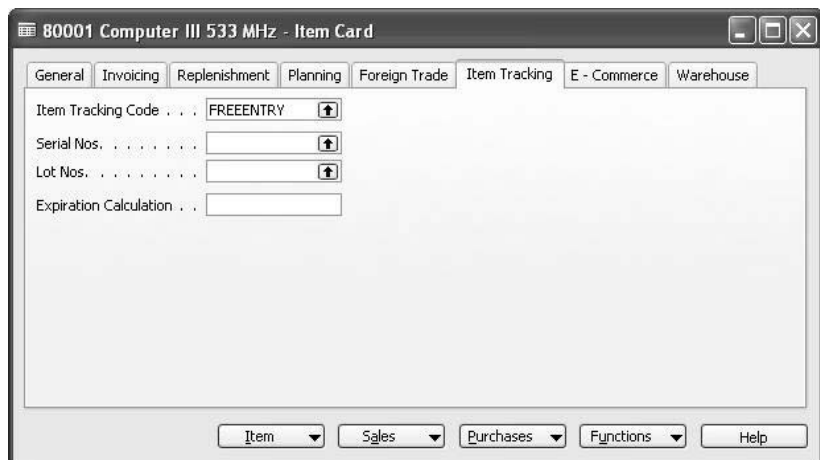


NOTE: In order to indicate that warehouse document lines require lot numbers, you must place a check mark in the **Lot Warehouse Tracking** field on the **Lot No.** tab of an item tracking code card.

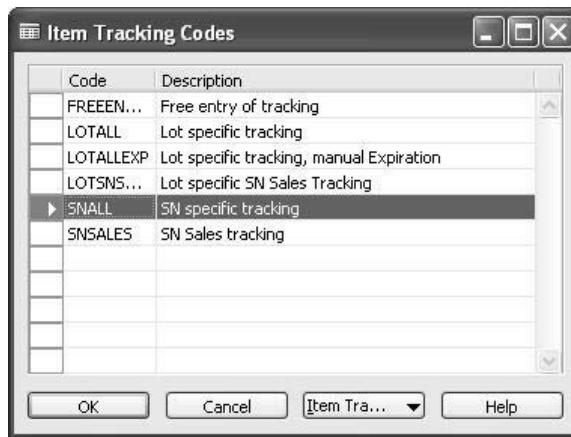
Your program is now set up to handle Item Tracking information on defined warehouse processes.

NOTE: In order to follow the scenarios described in this chapter, you will need to define item tracking parameters for item no. 80001 Computer III 533MHz.

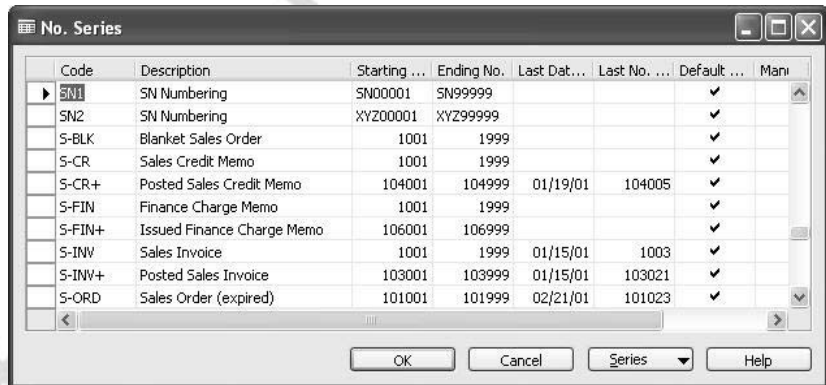
1. From the Warehouse menu, click PLANNING & EXECUTION→ITEMS and browse to item 80001.
2. Click the **Item Tracking** tab.



3. In the **Item Tracking Code** field click the **AssistButton**. In the Item Tracking Codes window, select the SNALL code and click **OK**.



In the **Serial Nos.** field click the **AssistButton**, and from the No. Series window, select the SN1 code and click **OK**.



You have now completed the setup of item tracking information on the item card.

Receiving Items with Item Tracking Information

When receiving items that are set up for item tracking functionality, it is necessary to add the tracking information at the time of registering the items as received. This is defined in a combination between parameters defined as requirements on the location card setup and parameters set up at the item tracking procedure on the item tracking code card.

Scenario 14

Our customer, The Device Shop, has asked us, due to good business relations, to order them 32 computers for their administrative department. In order to keep track of these specific computers, we supply them with item tracking information. We will have to purchase these computers from our vendor Electronics Ltd.

Create a sales order for customer 62000, The Device Shop, for 32 pieces of item 80001, and place a purchase order to vendor 61000 Electronics Ltd. for the same quantity to be delivered at our White warehouse. Remember to release both orders.

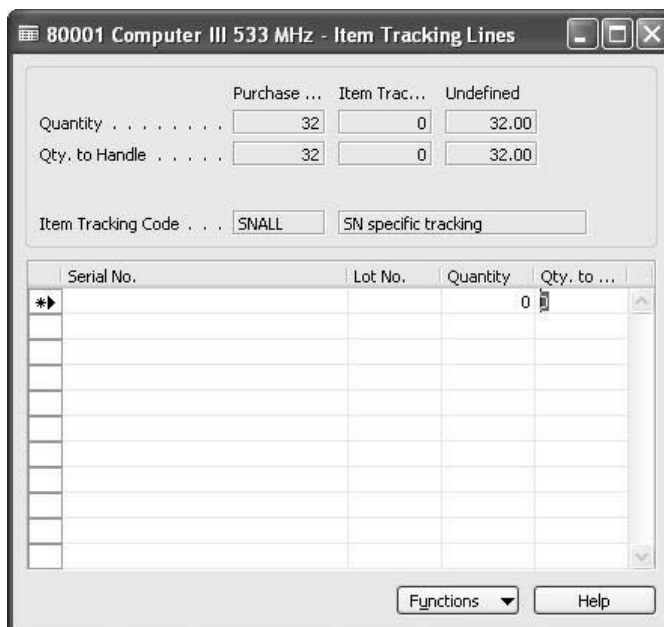
Your task is to receive and put away the items, applying item tracking information when receiving.

1. From the Warehouse menu, click PLANNING & EXECUTION→RECEIPTS. Click the **No.** field, and press F3 to create a new receipt. In the **Location Code** field, select the White location. Click FUNCTIONS→GET SOURCE DOCUMENTS, and select the purchase order you just created. Click **OK** to copy the lines from the purchase order to the receipt.

S.	Source No.	Item No.	Description	Quantity	Qty. to ...	Qty. Rec...	Qty. Out...
▶ P.	106024	80001	Computer III 533 MHz	32	32	0	32

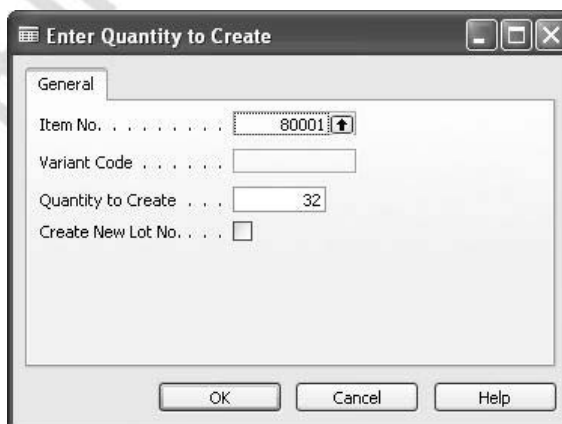
Your line from the purchase order is now ready to be handled, and item tracking information is to be applied.

2. In the Warehouse Receipt, select the line and click LINE→ITEM TRACKING LINES.



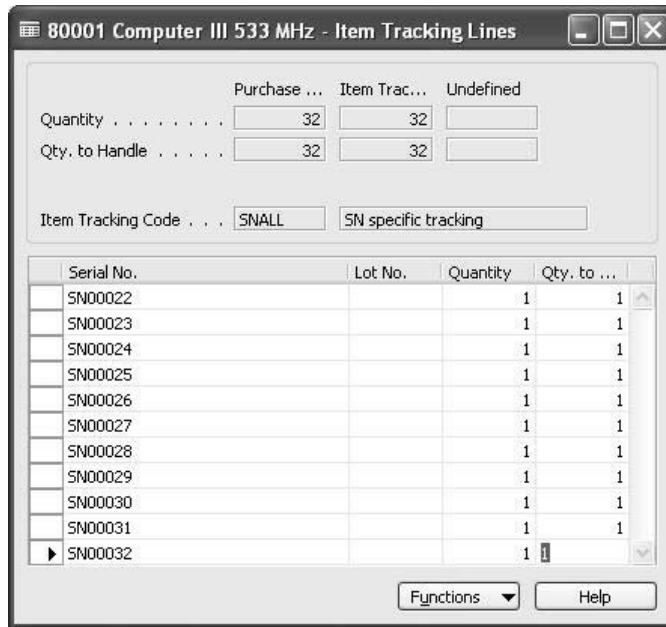
During setup of item tracking for item 80001, we defined a number series for the item tracking code SNALL. Therefore, the program can define serial numbers for all 32 items.

3. Click FUNCTIONS→ASSIGN SERIAL NO., and the Enter Quantity to Create window appears.



You now have the opportunity to edit the quantity of serial numbers to be created and to create a new lot containing these serial numbers.

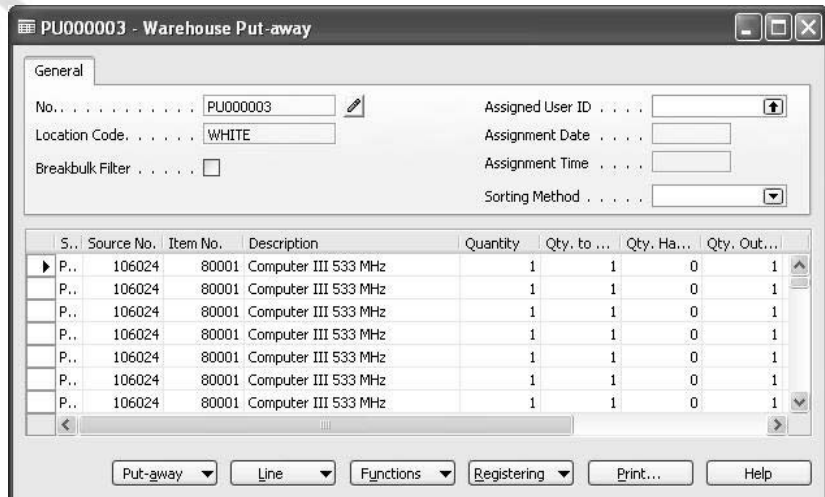
- For our scenario, we choose to accept the full quantity and confirm by clicking **OK**, and serial numbers are created for all 32 pieces.



- Close the Item Tracking Lines window. The serial numbers are now added for this receipt line.
- Complete the receipt of the items by clicking **POSTING**→**POST RECEIPT**.

The next step is to put the items away.

- From the Warehouse menu, click **GOODS HANDLING MULTIPLE ORDERS**→**PUT-AWAYS**, and browse to the put-away just created.



The number of lines for this specific order has now multiplied, due to the fact that now every single one of the 32 items have become unique, and, therefore, each are displayed individually. There is no need to change any of the lines, so you can now register your put-away.

8. Click REGISTERING→REGISTER PUT-AWAY.

Your items are now in stock, available to pick.

Moving Items with Item Tracking Information

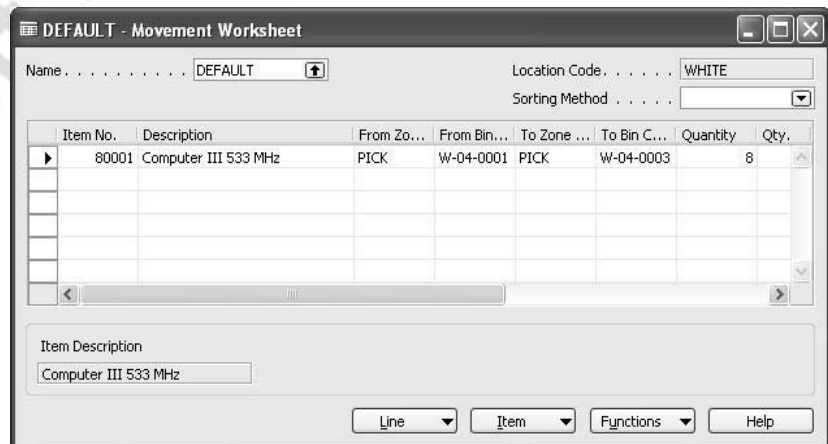
Moving items around within the warehouse can be a daily routine. Pick routines are frequently updated, and items are moved around in order to be placed in a forward picking area or for any other optimization routine. The reasons for moving items around are many, and the following scenario is to demonstrate how this is performed with Warehouse Management Systems.

Scenario 15

Due to a survey that has shown that the bin carrying item 80100, W-04-0001 has a high risk of collapsing when carrying close to maximum specified weight load, the warehouse manager has decided that 25% of the quantity in the bins is to be placed on a different bin. The manager has decided that the quantity is to be moved to the PICK zone and bin W-04-0003.

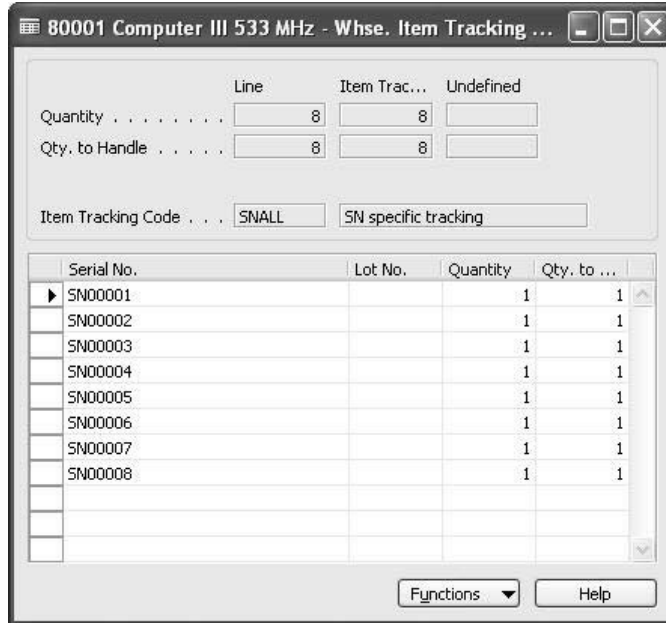
Your task is to perform the movement of the items in mention with item tracking information.

1. From the Warehouse menu, click PLANNING & EXECUTION→MOVEMENT WORKSHEETS. In the movement worksheet, apply the information from the above scenario.

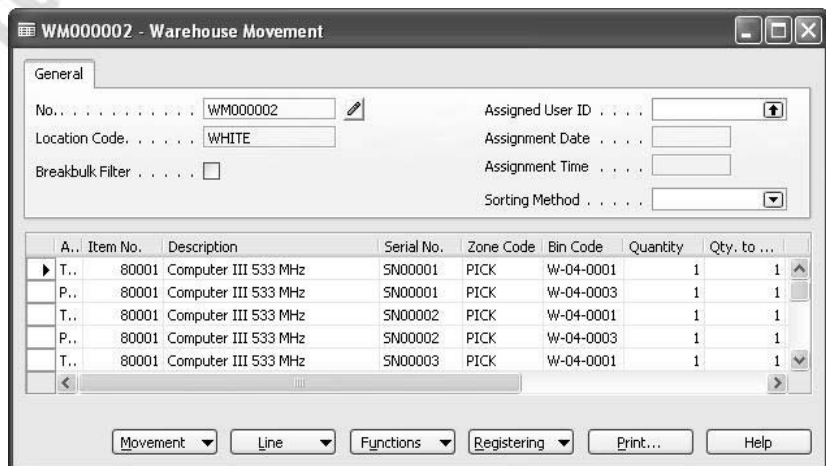


2. Select the line, and click LINE→ITEM TRACKING LINES. In the Whse. Item Tracking Lines window, apply the eight serial nos. that you want to move. Remember to fill in the **Quantity** field.

NOTE: This information is to be entered manually/scanned according to the items picked. For exercise purposes, check the warehouse registers for the item tracking information.



3. Close the Whse. Item Tracking Lines window.
4. Click FUNCTIONS→CREATE MOVEMENT, and click **OK** to create the movement.
5. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→MOVEMENTS. Browse to the movement just created.



The lines have been split up into the two actions, Take and Place, for each serial number. The movement is ready to be performed.

6. Click REGISTERING→REGISTER MOVEMENT.

The items are now moved.

NOTE: This was one way of handling movements with Item Tracking. Another way is to simply wait to apply the item tracking information until handling the warehouse movement document.

Shipping Items with item Tracking Information

Items registered with item tracking at the warehouse are to contain tracking information at the point of shipping when using the serial/lot specific tracking and having activated SN Warehouse tracking on the item tracking code card.

Scenario 16

Our customer, The Device Shop (customer 62000), has decided that they would like a partial delivery of 16 computers, item 80001, to be expedited right away.

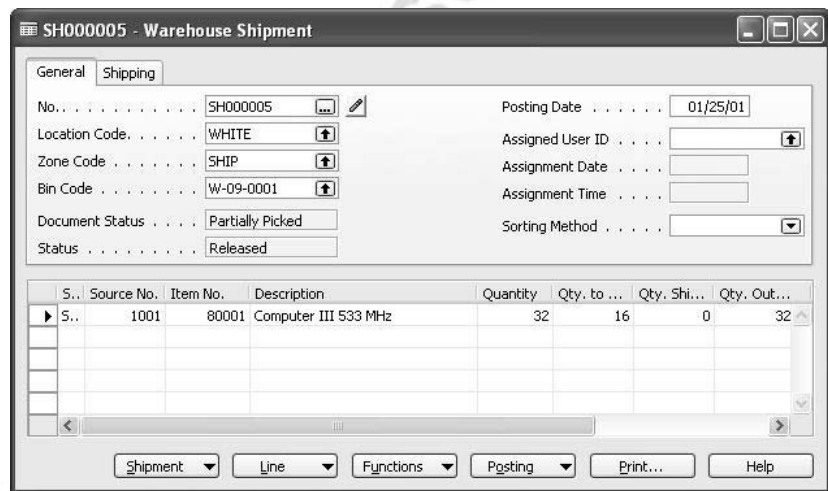
Your task is to create a shipment for item 80001.

1. From the Warehouse menu, click PLANNING & EXECUTION→SHIPMENTS. Click the **No.** field, and press F3 to create a new shipment. In the **Location Code** field, select the White location.
2. Click FUNCTIONS→GET SOURCE DOCUMENTS. Select the sales order just created, and click **OK** to confirm. The line is copied to the shipment document.

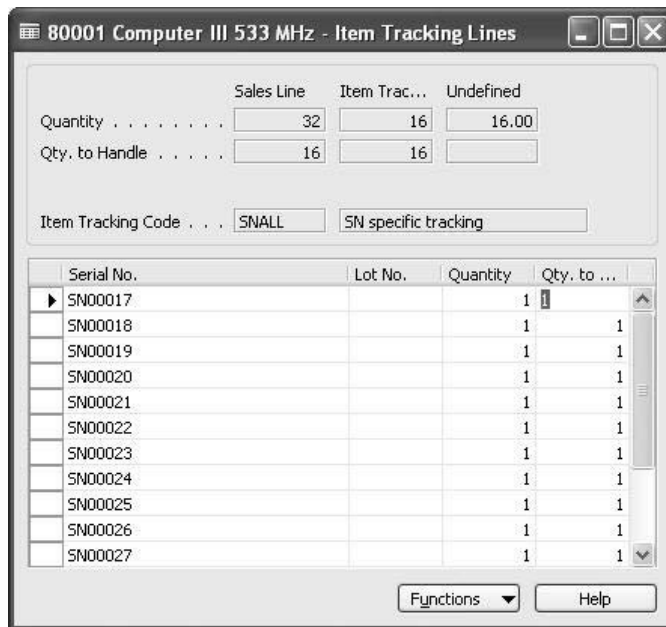
S.	Source No.	Item No.	Description	Quantity	Qty. to...	Qty. Shi...	Qty. Out...
▶ S.	1001	80001	Computer III 533 MHz	32	0	0	32

3. From the shipment document, click FUNCTIONS→CREATE PICK and confirm. A pick activity is created.

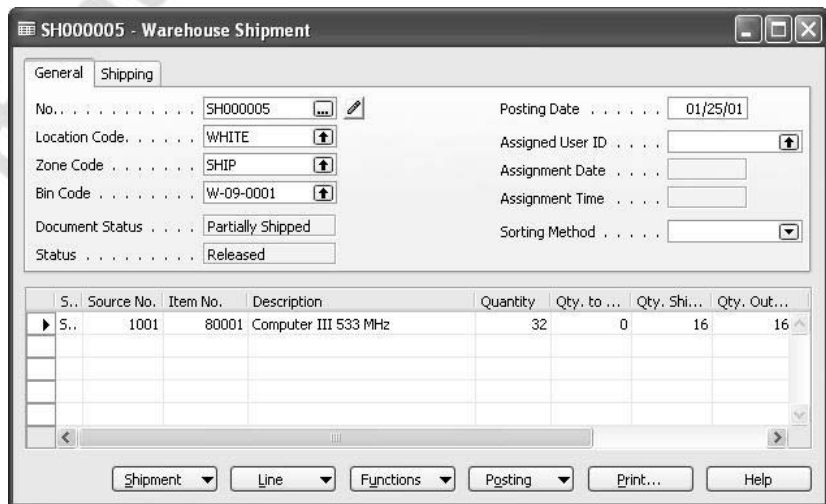
4. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PICKS, and browse to the pick just created. The pick document contains 32 items to be picked. Since you are to make a partial delivery of 16, you must delete the lines exceeding the quantity needed.
5. Delete the extra lines so that you only pick from bin no. W-04-0001.
6. In the **Serial No.** fields, enter the serial numbers to be shipped (click the **AssistButton** in the **Serial No.** field, and select the numbers to be picked).
7. Click REGISTERING→REGISTER PICK. Your pick is now registered, and your shipment lines are updated.
8. From the Warehouse menu, click PLANNING & EXECUTION→SHIPMENTS, and browse to your shipment.



- To verify the item tracking information, click LINE→ITEM TRACKING LINES.



- Close the Item Tracking Lines window, and click POSTING→POST SHIPMENT→SHIP and confirm. Your shipment is now shipped, and the remaining quantity is awaiting your customer's orders to ship the rest.



NOTE: The illustrated scenario is one way of handling item tracking information in WMS. Another way is illustrated in the next scenario using the pick worksheet to get better control over the number of lines to be created in the pick document.

Scenario 17

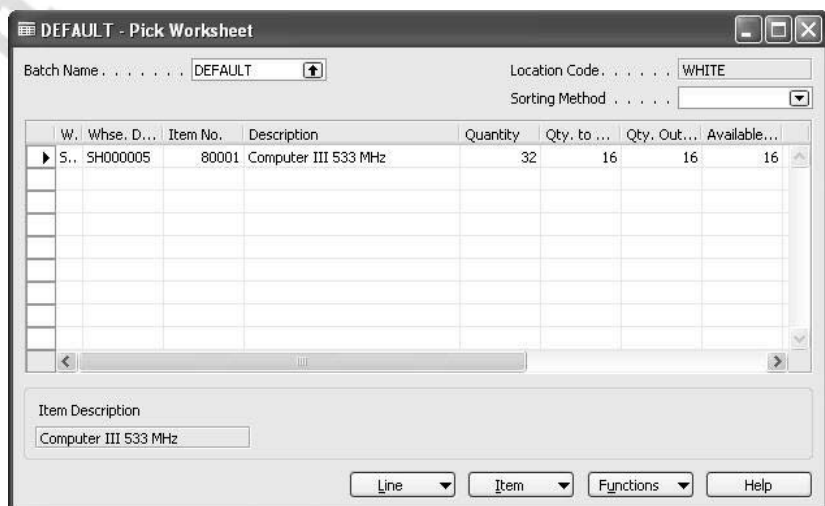
Customer 62000, The Device Shop, has called and ordered an additional four units of item 80001 to be delivered right away.

Your task is to perform the pick, and ship the items using the Pick Worksheet to generate the needed pick lines.

1. From the Warehouse menu, click PLANNING & EXECUTION→ PICK WORKSHEETS. In the header, in the **Batch Name** field, select the default batch for the White location.
2. Click FUNCTIONS→GET WAREHOUSE DOCUMENTS.



3. In the Pick Selection window, select the line with the shipment created previously. Click **OK**. The line from the shipping document is now displayed.



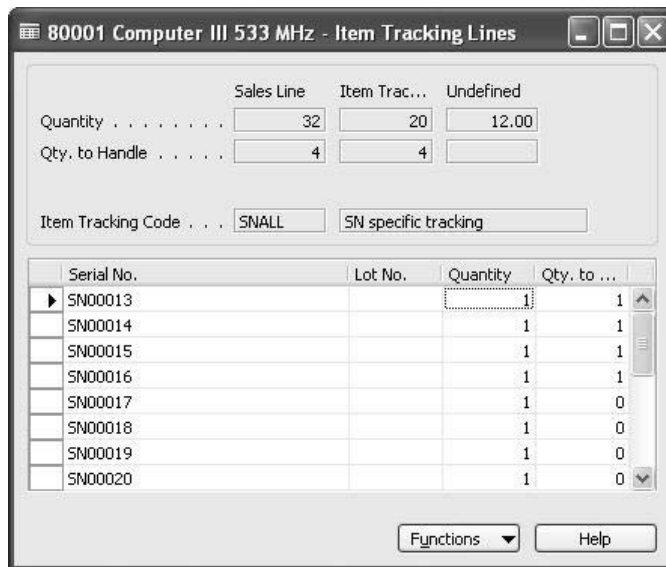
4. In the **Qty. to Handle** field, change the quantity to 4, click FUNCTIONS→CREATE PICK and confirm.
5. From the Warehouse menu, click GOODS HANDLING MULTIPLE ORDERS→PICKS, and browse to the pick just created. In the **Serial No.** fields, enter the serial numbers (click the **AssistButton** of the **Serial No.** field) for the items to ship.

S..	Source No.	Item No.	Description	Serial No.	Zone Code	Bin Code	Quantity	Un
S..	1001	80001	Computer III 533 MHz	SN00016	PICK	W-04-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00016	SHIP	W-09-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00015	PICK	W-04-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00015	SHIP	W-09-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00014	PICK	W-04-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00014	SHIP	W-09-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00013	PICK	W-04-0001	1	PC
S..	1001	80001	Computer III 533 MHz	SN00013	SHIP	W-09-0001	1	PC

6. Click REGISTERING→REGISTER PICK and confirm.
7. From the Warehouse menu, click PLANNING & EXECUTION→SHIPMENTS, and browse to the shipment you just updated.

S..	Source No.	Item No.	Description	Quantity	Qty. to ...	Qty. Shi...	Qty. Out...
S..	1001	80001	Computer III 533 MHz	32	4	16	16

8. Click LINE→ITEM TRACKING LINES to assure that all tracking lines are in place.



9. Close the Item Tracking Lines window, and click POSTING→POST SHIPMENT→SHIP. The shipment document is updated.

This concludes the shipping of items containing item tracking information from a warehouse with WMS setup.

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Test Your Knowledge – Item Tracking

1. How do you instruct the program to require item tracking information in warehouse processes for items using item tracking code SNALL?
2. Where do you assign the number series that is used by the program to automatically assign consecutive serial numbers to an item?
3. You want to sell an item-tracked item. Warehouse item tracking has been activated.
True or False:
You can assign item tracking information in the warehouse shipment document.

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Quick Interaction: Lessons Learned

Take a moment to write down three Key Points you have learned from this chapter:

1.

2.

3.

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APPENDIX A: ANSWERS TO TEST YOUR KNOWLEDGE QUESTIONS

The following sections contain the answers to the questions that appear in the Test Your Knowledge sections throughout the manual.

Setting Up Warehouse Management Systems (CH 1)

1. Answer b., Directed Put-away and Pick.
2. You can use the Calculate Bins functionality of the Bin Creation Worksheet to easily set up a large number of bins.
3. For bin A-01-0001, you set the value of the **Block Movement** field to Outbound or All.
4. You need warehouse classes if the warehouse carries items that need specific storage conditions. The program respects the warehouse class codes when it suggests item placement in bins. You have to assign the warehouse class codes to product groups, which are then assigned to items and SKUs. Moreover, you must assign the warehouse class codes to zones and bins that can accommodate the required storage conditions.

Receiving Orders (CH 2)

1. From a warehouse receipt, you can either use the function Get Source Documents or the filter function Use Filters to Get Src. Docs to retrieve source document lines
2. False. As soon as you post the receipt, the items become part of inventory available for sale but are not yet ready for picking.
3. You call the function Change Unit of Measure on the put-away card.
4. Cross-docked items are directed from the receive zone to the ship zone without placing them into storage.

Internal Warehouse Processes (CH 3)

1. You can register the movement in the warehouse reclassification journal by entering the item numbers, the quantity to move, the bins from which you take the items, and the bins in which you place them.
2. False. There is no need for a source document when working with internal picks and put-aways.

3. The purpose of the whse. Item Journal is to make adjustments to an item on a specific bin in a specific zone.
4. You can look up the value of the **Last Phys. Invt. Date** field on the **Warehouse** tab of the item card.

Shipping (CH 4)

1. False. The break bulk functionality must be activated on the **Bin Policies** tab of the location card.
2. When creating a pick, you can choose in the Create Pick window to print a hardcopy of the picking document about to be created.
3. As soon as you register a pick for the shipment line, the **Qty. to Ship** field is updated.

Item Tracking (CH 5)

1. On the item tracking code card for code SNALL, place a check mark in the **SN Warehouse Tracking** field on the **Serial No.** tab.
2. You assign the number series in the field **Serial Nos.** on the **Item Tracking** tab of the item card.
3. False. You must assign the item tracking information in the pick document.

APPENDIX B: TERMINOLOGY LIST

This appendix contains the terminology list for Warehouse Management Systems.

Navision Warehouse Management Systems Terminology List

bin

This is a physical storage unit that is used for placing and storing items. This can be anything from a small container box to an open space on a pallet rack. It is the smallest unit of the warehouse logical structure.

bin content

This contains the contents within the bin, including the physical quantity of items in the bin, as well as information about volume and status (e.g. defective). Bin content is the basis for the pick and put-away creation in the program.

bin ranking

This is a measure for prioritizing replenishment movements. This indicates which bin should be replenished first. A bin with a high bin ranking number has a higher priority than one of a lower number.

bin replenishment

This involves relocating material from a bulk storage area to an order pick storage area, and documenting this relocation. This assures that the proper quantity of items is maintained for the bin so that the performance of the warehouse is kept at an optimum level.

bin type

This is a classification for the type of activity that is performed from a particular bin. For example, a bin that has the bin type “receiving,” should contain only items that have been received into the warehouse but have not been put away. Some examples of bin types are receiving, shipping, picking, and put-away.

break bulk

This means to break a larger unit of measure down to a lower unit of measure during the picking process in order to fulfill the correct quantity for the picking order.

cross-dock

This means to move items directly from the receiving area to the shipping area, thereby minimizing handling and storage and allowing sales orders to be shipped sooner.

Noun and adjective form: cross-dock

cycle counting

This is an inventory accuracy audit technique where inventory is counted on a cyclic schedule rather than once a year. A cycle inventory count is usually taken on a regular defined basis (often more frequently for high-value or fast-moving items and less frequently for low-value or slow-moving items). Most effective cycle counting systems require the counting of a certain number of items every workday with each item counted at a prescribed frequency.

delivery note

This is a note that accompanies a shipment and that lists the items in the shipment.

Synonyms: advice note, accompanying note, dispatch note, covering note

expected receipt date

This is the date, calculated by the program, on which an inbound item will be available for picking.

fixed bin

This is a bin that is dedicated to hold only a specific pre-determined item or type of item. This type of bin is not used as a floating bin.

floating bin

This pertains to any bin that is not fixed to store a specific item or type of item and is used to store items as they come into the warehouse.

inventory

This includes items held in a store or a warehouse and purchased for resale, items used to support production (raw materials and work-in-process), and items for maintenance activities (including repair and operating supplies). The program calculates inventory as the quantity of an item available in inventory.

item

This is a manufactured or purchased article, product, part, or material that is part of inventory. If a company has several locations, it stores inventory control information about items or item variants at a particular location in the stockkeeping unit for that item or item variant at that location.

location

This is a physical structure or place where inventory is received, store, and shipped. A location can be a warehouse, service car, showroom, plant, or area within a plant.

negative adjustment

This refers to a reduction in inventory that is not due to a sale.

order date

This is the date on which the vendor must ship the items in order to meet the planned receipt date.

physical inventory

This is the determination of inventory quantity by the counting of items, which is performed on a continuous, periodic, or annual basis.

pick

This means to physically withdraw from inventory items to be shipped or components of items to be assembled and shipped.

positive adjustment

This refers to an increase in inventory that is not due to a purchase.

put away

This means to remove the item from the receiving area, transport it to a specific location in a storage area, and record the movement and the exact location of the item.

Noun and adjective form: put-away

put-away template

This is a form in the application that is used to set up the parameters that the program uses during the put-away process. Multiple templates may be entered and assigned for use by the location or by the item.

receipt

This is the physical acceptance of an item at a location. A warehouse person immediately registers the receipt of an item in the program, but the item is not a part of available to pick inventory until it has been put away.

receiving

This is a function encompassing the physical receipt of items, the inspection of the items for conformance to the purchase order (quantity and damage), the putting away of the items, and the preparation of the receiving report.

register

This means to make an entry in a register that is not an item or value ledger.

release

This means to send a document to the next stage of processing without posting the document. You cannot change information on a released document unless you reopen the document.

Example: You can release a sales order to the warehouse. The order is then among the source documents from which the warehouse can retrieve lines to be assigned, picked, and shipped.

reservation

This is the designation of a quantity of inventory on a purchase order for a specific sales order or production schedule.

shipment date

This refers to the date a shipment leaves your location for delivery to a customer, either with a shipping agent or your own means of transportation.

source document

This is the original evidence of a transaction that supports journal entries in the accounting system.

Example: Vouchers and contracts, but also internal documents that create journal entries, such as a sales, transfer, or purchase order or an internal freight charge.

transfer order

This is an order to move items from one location to another.

warehouse Abbreviation: whse.

This is a building or part of a building where items are received, stored, and shipped. As such, it is a particular kind of location.

Synonyms: distribution center, branch warehouse, field warehouse

warehouse activity

This refers to an activity in the Warehouse Management application area. Each activity has its own menu item.

warehouse adjustment

This is the process of adjusting bin content records. A negative adjustment decreases the quantity of items in the bin. A positive adjustment increases the quantity of items in the bin.

warehouse class

This is the categorization of items, zones, and bins according to special conditions or special equipment that are required for the storage of items. Examples of warehouse classes can be frozen, dry, and hazardous.

warehouse receipt

This is the physical acceptance and recording in the program of an item arriving into a warehouse location.

warehouse shipment

This refers to the act of shipping items from a warehouse location and recording the shipment in the program.

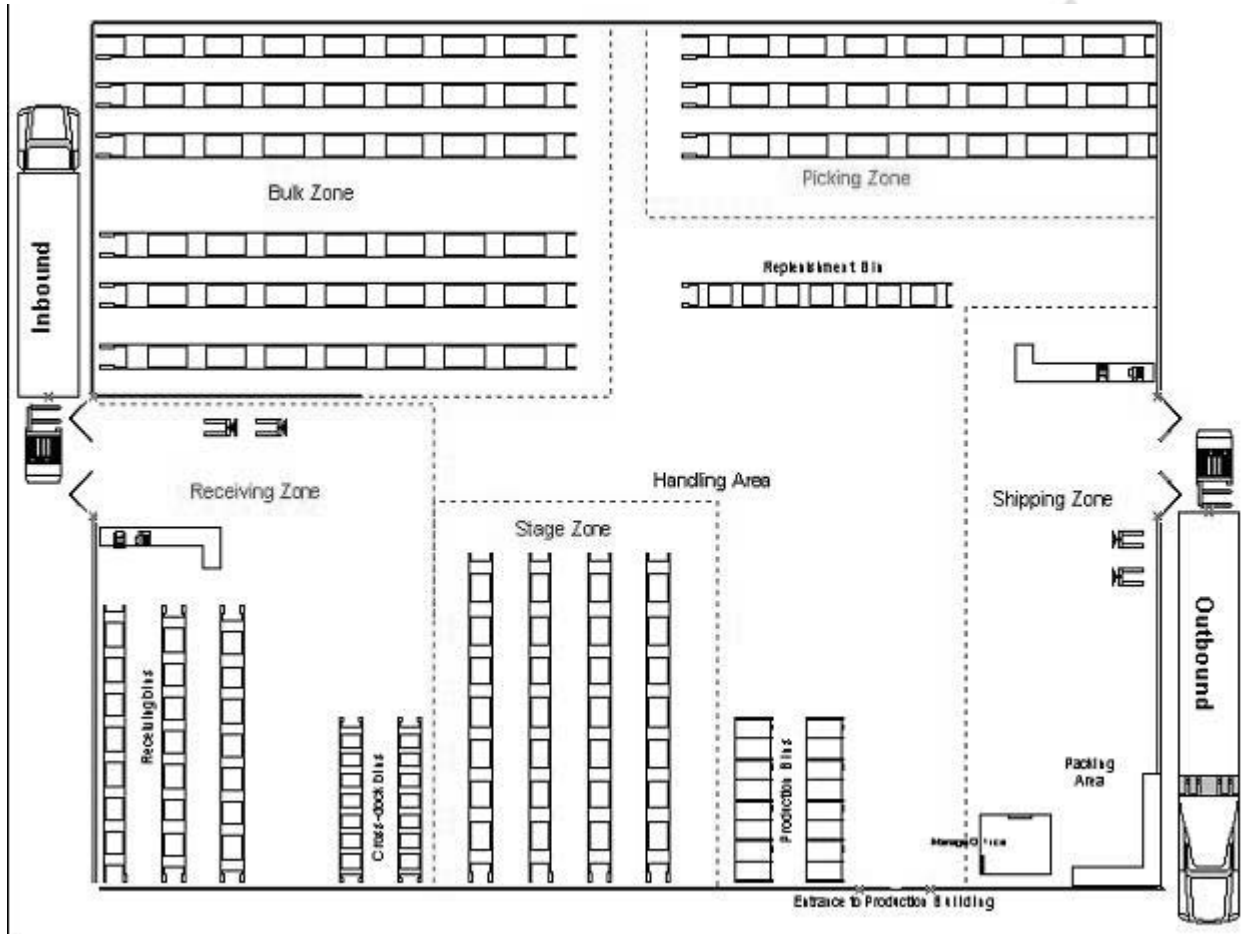
zone

This is a continuous area within a warehouse location that is usually distinguished from adjoining areas by the function for which it is used.

APPENDIX C: WAREHOUSE LAYOUT

This appendix contains an example of a warehouse layout.

Warehouse Layout



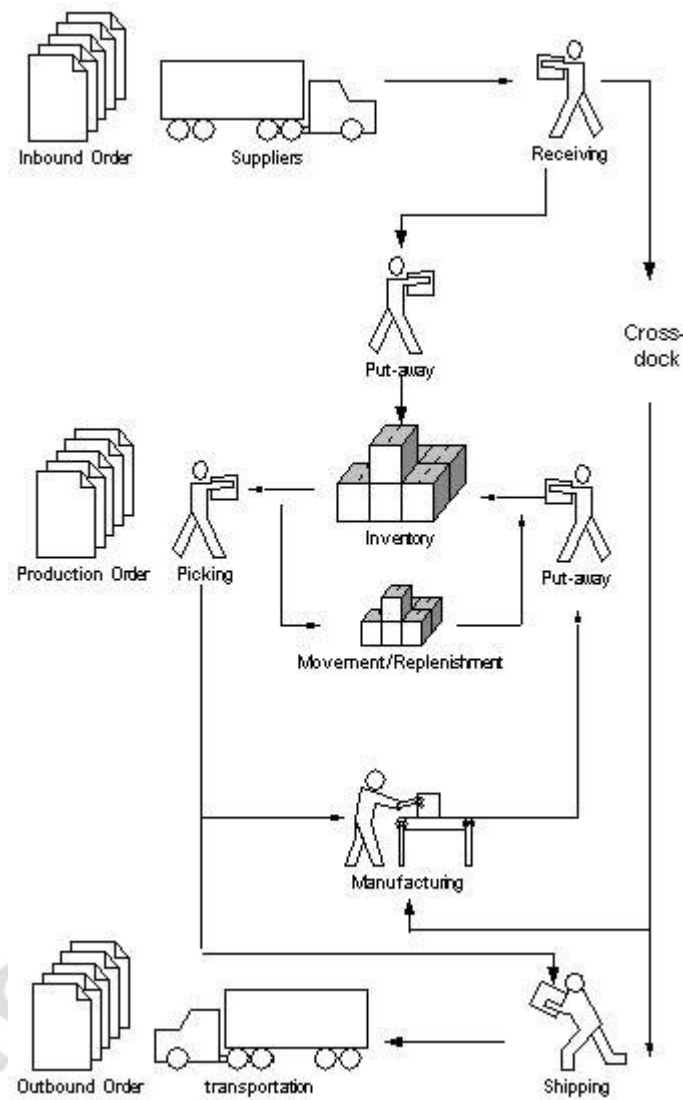
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APPENDIX D: WAREHOUSE WORKFLOW

This appendix contains an illustration of the warehouse workflow.

Warehouse Workflow



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APPENDIX E: WAREHOUSE MANAGEMENT GRANULES DESCRIPTION

This appendix contains the description of the granules within Warehouse Management Systems.

Warehouse Management Systems Granules Description

Warehouse Management Systems consists of nine different granules:

Granule	Description
Bin (New)	You use this granule to organize your warehouse by assigning items to bins, the smallest unit in the warehouse logical structure. This is done on the item journals or directly on the document lines (does not only apply to order lines).
Cycle counting (4,160)	
Put-Away	You use this granule to enable your warehouse employees to carry out their dedicated tasks. This is done from a separate user interface when receiving items in an order-by-order environment. Here the put away is created from the released order.
Warehouse Receipt	You use this granule to enable your warehouse employees to carry out their dedicated tasks. This is done from a separate user interface when receiving items in a multi-order environment. Here, the put away is created from the receipt.
Pick	You use this granule to enable your warehouse employees to carry out their dedicated tasks. This is done from a separate user interface when shipping items in an order-by-order environment. Here, the pick is created from the released order.
Warehouse Shipment	You use this granule to enable your warehouse employees to carry out their dedicated tasks. This is done from a separate user interface when shipping items in a multi-order environment. Here, the pick is created from the shipment.

Granule	Description
Warehouse Management Systems	You use this granule to automate your warehouse processes. This is done with the system providing you with intelligent and calculated bin suggestions. Here, the calculations are based on bin ranking, bin capacity, put-away templates, and zones.
Bin Set Up	You use this granule to easily set up and maintain your bins. This is done by defining both the layout of your warehouse and the dimensions of your racks, columns, and shelves. Furthermore, you use the granule to easily set up and maintain your planning parameters. This is done by defining the limitations and characteristics of each bin.
Internal Picks and Putaways	You use this granule to create pick and put-away orders for internal purposes at the same location, but without the need of a released order. This is done from a separate user interface, which allows you to retrieve bin content to include in the pick or put away.