

## CHAPTER 5: BASIC WAREHOUSE TASKS

### Objectives

The objectives are:

- Set up locations for warehousing, including bin setup.
- Receive and put away items using the purchase order, inventory put-away, or warehouse receipt documents.
- Pick and ship items using the sales order, inventory pick, or warehouse shipment documents.
- Move items between bins and adjust item quantities in bins.

### Introduction

Maximum efficiency, data accuracy, and reliability in inventory management and warehousing operations are of the utmost importance to any company striving for excellence in customer service and cost reduction. While these goals are relevant to a business, not every company considers warehousing as their core competence, which in turn reflects on their willingness to invest in extensive warehousing solutions and accept a long implementation time.

With this in mind, companies with straightforward warehousing needs, such as small distributors, manufacturing or service companies, have a number of challenges to deal with while ensuring that overall goals are reached.

To sustain efficiency and short order handling time, items must be easy to find in the warehouse. Additionally, warehouse workers must be able to focus on carrying out physical movements rather than spending time in front of computers recording information. Moreover, in companies that experience high turnover of warehouse workers, the ability to train them quickly on using the program is highly relevant.

## Basic Warehousing Concepts

Considering the varying challenges with inventory management and warehousing operations, companies with simple warehousing generally need the ability to:

- Reflect their warehouse data structure in the program.
- Obtain an overview of inventory levels and item placement in the warehouse.
- Receive program support to perform the basic movements of receiving, putting away, picking, and shipping.

Warehousing functionality in Microsoft Dynamics® NAV provides a way for companies with even the most simple warehouse data and processes to perform daily activities in a reliable and easy-to-use environment, while allowing for increasing complexity as the company grows and processes change. The program does this by providing the following benefits:

- Efficiency and overview - This is supported by features such as:
  - Dynamic bin suggestion, the ability to record warehouse information directly on the order documents.
  - The facility to handle warehousing tasks on separate documents where only relevant order information is displayed.
  - The ability to get an overview of warehouse pending tasks.
- Shortened learning curve - Features, such as a simplified user interface on warehouse documents and support for reversing mistakes help warehouse workers to quickly learn the program.
- Reduced implementation risk - Scalability of the total warehousing offering, that is, the possibility to start with a base level from which more advanced functionality can be installed in the preferred place, is the key factor that contributes to mitigating implementation risk.

Warehouse functionality in Microsoft Dynamics NAV includes:

- Bins
- Picks
- Put-aways
- Receipts
- Shipments

This functionality can be implemented in any combination, thereby giving companies with different warehousing requirements the ability to tailor their warehouse solutions as they see fit.

The ability to use bins on sales and purchase documents with the Bin functionality gives companies with a simple warehouse organization a way to perform picks and put-aways while using documents they are already familiar with. When these companies grow and find that their pick and put-away processes become more complicated, the Pick and Put-away functionality provides the perfect step up to a level where their information can be handled with greater flexibility. The Pick and Put-away functionality comes with the ability to access pick and put-away information from separate documents and menu options, which means that warehouse workers can do their work in a specialized and focused environment. Finally, the Receipt and Shipment functionality gives companies the ability to process receiving and shipment information for multiple orders in one separate warehouse document.

The warehousing processes are divided into the following categories:

- Receiving and putting away
- Picking and shipping
- Movements and adjustments
- Physical inventory

Read the respective topics in the online help for a quick overview of typical procedures associated with specific warehouse handling activities.

## Set Up Basic Warehousing

When warehousing options are set up in Microsoft Dynamics NAV, the following options trigger the features in the warehousing functionality. The warehousing setup consists of two elements:

- **Location setup.** Setup begins with defining a warehouse as a location and specifying the extent to which the company wants their warehouse processes to be supported by the program.
- **Bin setup.** A bin is the most basic storage unit in the warehouse. To reflect the actual warehouse structure in terms of a bin numbering system and to keep inventory records on the bin level, the company must set up bins in the program. This includes defining how bins must be used and specifying what to store in them.

The following topics describe these two elements.

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***NOTE:** Load a clean CRONUS International Ltd. demonstration database without changes to the data.*

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## Procedure: Review Location Setup

In Microsoft Dynamics NAV, each warehouse must be set up as a location. Define the extent to support warehouse processes for a specific location on the **Warehouse** FastTab of the location card.

The CRONUS demonstration company has a number of locations for warehousing. Follow these steps to review the SILVER location:

1. On the navigation pane, click **Warehouse**.
2. On the **Warehouse** page, click **Administration** and then click **Locations**.
3. Double-click the SILVER location to open the location card.
4. Expand the **Warehouse** FastTab.

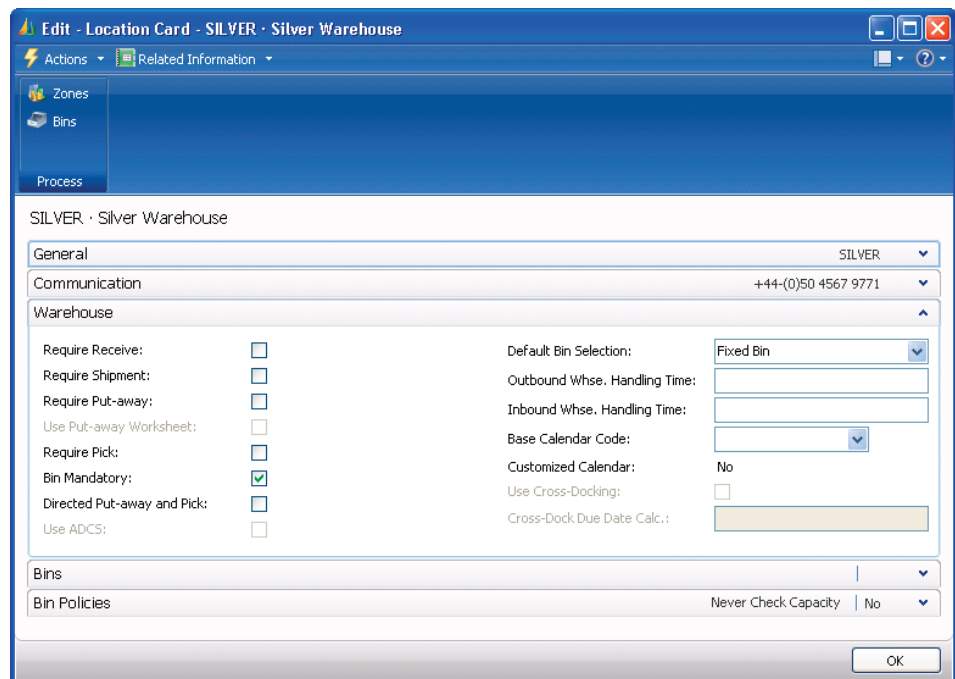


FIGURE 5.1 WAREHOUSE SETUP OF THE SILVER LOCATION

The check boxes on the left side of the FastTab define the methods that inbound and outbound warehouse processes can handle. As previously explained, these methods are directly linked with the different warehousing functions.

Select the **Bin Mandatory** check box to indicate that bin information will be defined and recorded for all movements that occur in this location. This means that posting of transactions, both from journals and documents, is not possible unless a bin code is specified. Keeping records of inventory movements at the bin level is an important precondition for efficient warehousing.

The **Require Receive**, **Require Shipment**, **Require Put-away**, and **Require Pick** check boxes define if separate warehouse documents are used to handle the respective warehousing processes: receiving, shipping, putting away, and picking. Decide whether to use one or another document, or a combination of documents, to support handling a corresponding process using the same logic as when deciding to use one or another warehousing function. Consider also the volume and complexity of the warehousing workload and the organizational setting of the warehouse.

Essentially, if these check boxes are selected, it means that the company has a designated warehouse environment, where actual order handling is carried out and order posting takes place. Otherwise, the company operates on the premise that all warehousing activities are handled and posted from the actual order document (or journal).

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***NOTE:** If the **Bin Mandatory** check box is selected, the **Directed Put-away and Pick** check box is available. Selecting this check box indicates that the company is using functionality from the Warehouse Management Systems and that the location requires advanced warehousing functionality. Directed put-away and pick makes it possible to use such features as bin ranking, bin capacity, and put-away templates to let the program suggest which bins to use for put-aways and picks. Learn about these features in the "Warehouse Management in Microsoft Dynamics® NAV 2009" training material.*

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At CRONUS, the SILVER location is set up to use bins without requiring the use of separate warehouse documents. The Green and Yellow Warehouses are, on the other hand, set up in a way that requires all warehouse activities to be processed separately from the order documents without registering bin information.

### Bin Setup

A bin is the most basic storage unit in the warehouse. When companies require workers to enter bin codes for each inventory transaction and movement, they must consider a number of bin setup options.

For locations that use bins, Microsoft Dynamics NAV uses a system of default bins to facilitate the warehouse handling tasks. A default bin can be assigned to every item that is stored in a warehouse, and each item can have only one default bin for each location. The default bin is then suggested whenever a transaction is performed with the item. For instance, when creating a purchase order, the item number and location code is entered, and the program automatically fills in the bin code with the item's default bin.

The first step is to create the bins in the program. Bins must be identified by codes that reflect the actual bin numbering in the warehouse.

## Procedure: Review Bin Codes and Bin Contents Setup

Assign a code to and describe bins in two ways:

- Manually
- Automatically by using the Bin Creation Worksheet

The method selected depends on the scope of the setup task. If the task is limited to only a few modifications, then the manual bin creation method is most appropriate. If the task is to register a large number of bin codes, as is typically the case in the startup phase of an entire warehouse setup, then choose to do so automatically.

Bins are manually created from the location card. CRONUS has a number of bins for the SILVER location. Follow these steps to review the bins and the content of one of the bins set up for the SILVER location:

1. On the location card for the Silver Warehouse, click **Bins** on the Action Pane.

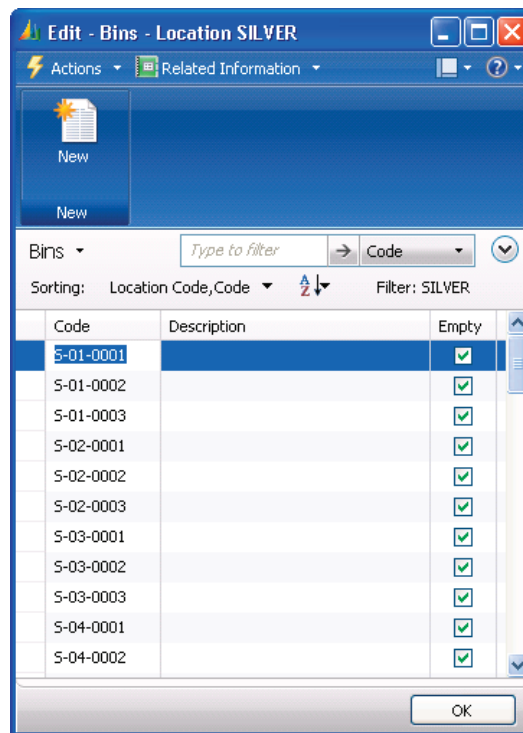


FIGURE 5.2 AN EXTRACT OF AVAILABLE BIN CODES IN CRONUS

On the **Bins** page, a bin has a code and description.

To create bins automatically, define bin templates and then create bins using the **Bin Creation Worksheet**. In the worksheet, apply the Calculate Bins function to create a large number of bins.

Once bin codes are assigned, the user can define bin contents.

Bin content defines which items are stored in each bin. It also describes a relation between the bin and the item in terms of if a particular bin is a default or is fixed for a specific item.

Like bins, bin content can also be set up in two ways: manually and automatically. The first and simplest method is to set up bin content manually. This can be done from both the location card and item card.

2. On the **Bins** page, select the first bin code and then click **Related Information**, point to **Bin** and then click **Contents**.

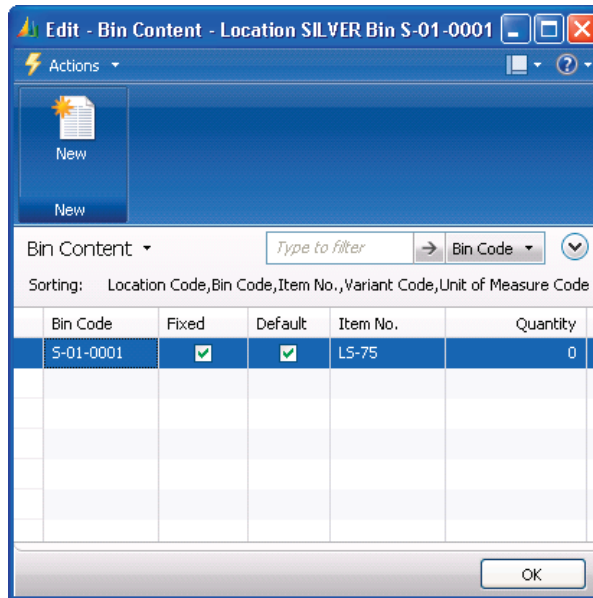


FIGURE 5.3 CONTENTS OF BIN S-01-0001

On the **Bin Content** page, the user specifies which item will be stored in the bin.

If the **Fixed** check box is selected, then the item (bin content) is associated with this bin, and the bin normally contains the item. If the item quantity goes to zero, the program does not delete the bin content line.

If the **Default** check box is selected, then this bin must be the first bin the program suggests when the user enters details of a transaction involving this item on the order document or journal line. For items with no default bin specified in advance, the program sets the bin in which the item is put away for the first time as the default bin.

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**NOTE:** The way that the program behaves (as previously described) can be used as an alternative method for setting up default bins.

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The **Quantity** field is for information only and cannot be edited. This field shows how many units of the item are currently in the bin.

If required, set up the same bin to contain more than one item and, similarly, store the same item in several bins, if applicable. However, an item has only one default bin for each location.

The second, and most efficient, way to set up large numbers of bins with bin content is to use the **Bin Content Creation Worksheet**.

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***NOTE:** The bin creation and bin content creation worksheets are part of the Bin Setup functionality. For more details on these two worksheets, read the corresponding topic in the online Help or refer to the "Warehouse Management in Microsoft Dynamics® NAV 2009" training material.*

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To complete the setup of bin usage rules for the location, specify how Microsoft Dynamics NAV will handle default bins once they are set up. This is done by selecting one of the two options in the **Default Bin Selection** field on the **Warehouse** FastTab of the location card:

- If **Fixed Bin** is selected, the program always suggests the same bin for picking and putting the item away. The user can always change the default bin assignment if such a need occurs.
- If **Last-Used Bin** is selected, the program changes the default bin assignment to the last bin in which the item is put away.

Selecting fixed bins as default bins is the rule specified for the Silver Warehouse.



## Lab 5.1 - Set Up a Warehouse Location

### Scenario

CRONUS has established a new warehouse location that is referred to as the ORANGE location. This location uses bins.

As the warehouse manager, you must set up the new ORANGE location to use a basic bin structure using bins numbered from O-01-0001 to O-01-0005, and set up bin O-01-0001 as the default bin for item LS-75.

Use ORANGE as the location code and Orange Warehouse as the name.

### Challenge Yourself!

1. Set up the new location card for the Orange Warehouse and set the bin usage as mandatory.
2. Create the five bins for the ORANGE location and make bin O-01-0001 the default bin for item LS-75.

### Need a Little Help?

1. Create a new location card for the Orange Warehouse, and set the warehousing options so that bin usage is mandatory.
2. Manually create the five bins for the ORANGE location, using bin codes O-01-0001 to O-01-0005.
3. Set up bin O-01-0001 as the default bin for item LS-75.

### Step by Step

1. On the **Warehouse** page, click **Administration** and then click **Locations**.
2. Click **New** to create a new location card
3. In the **Code** field, type ORANGE.
4. In the **Name** field, type Orange Warehouse.
5. Expand the **Warehouse** FastTab.
6. Select the **Bin Mandatory** check box.
7. On the Action Pane, click **Bins**.
8. On the first line, type O-01-0001 in the **Code** field.
9. On the next four lines, type O-01-0002 through O-01-0005.
10. Click the first line and then click **Related Information**, point to **Bin** and then click **Contents**.
11. Select the **Default** check box.
12. In the **Item No.** field, enter LS-75.
13. Click **OK** to close the **Bin Content** page.

## Receive and Put Away Items

Warehousing functionality in Microsoft Dynamics NAV enables the receiving and putting away of inbound orders, such as purchase orders, sales return orders, or inbound transfer orders. For more information about putting away a production output, refer to the "Manufacturing I in Microsoft Dynamics® NAV 2009" training material.

In principle, the process of receiving inbound orders consists of two major activities:

- Receiving items at the warehouse receiving dock.
- Putting away items to the stocking area.

A typical scenario when items arrive at the warehouse may be the following, where a warehouse person:

- Confirms the received quantities stated on the delivery documents, with the quantities on the company's order records.
- Records the received quantities.
- Records the place where the items are put away.

In the Microsoft Dynamics NAV warehousing solution, receiving and putting away occurs using one of four methods, described in the following table.

		<b>Bins</b>	<b>Receipts</b>	<b>Put-aways</b>
(a)	Post receipt and put-away from the order line	X		
(b)	Post receipt and put-away from an inventory put-away document			X
(c)	Post receipt and put-away from a warehouse receipt document		X	
(d)	Post receipt from a warehouse receipt document and post put-away from a warehouse put-away document		X	X

Selecting an approach depends upon the company's accepted practices and the level of their organizational complexity. In an order-by-order warehousing environment, where most of the warehouse staff works directly with order documents, a company might decide to use method (a). A company that has a more complex put-away process, or where there are dedicated warehouse staff to perform warehousing functions, might decide to separate their put-away functions from the order document. Additionally, companies that need to plan the handling of multiple orders may find it helpful to use warehouse receipt documents.

In methods (a), (b), and (c), the program combines the actions of receiving and putting away in one step when posting the corresponding documents as received. In method (d), the program posts the receipt first to recognize the increase of inventory and thus that items are available for sale. The user registers the put-away to make items available to pick.

When a location is set up for mandatory bin usage, the program also creates warehouse entries in addition to the item ledger entries and value entries, upon posting a receipt. These entries are the records of the items' placement in the warehouse at the bin level.

An order document is available for invoicing when the warehouse worker completes the receiving and put-away processes. If the source document is an inbound transfer order, the program deletes it and creates a posted transfer receipt.

Recording a receipt and put-away on an order is the simplest way to receive and put away items. With this method, the program posts the receipt and put-away in one step, and no additional warehouse documents are required. This method is available with the Bin functionality, and the only requirement to use this method is that the location must be set up with mandatory bin usage.

When items arrive at the warehouse, the person who receives the shipment records the bin code on the order line. This bin code is where the item is put away. When the user posts the order as received, the program posts the put-away as well.

The following topics demonstrate and/or explain the implications of methods (a), (b), (c), and (d). For simplicity, the example of a purchase order is used as the inbound order throughout the demonstrations.

### **Demonstration: Receive and Put Away from a Purchase Order**

**Scenario:** Alicia, the purchasing agent at CRONUS, creates a purchase order for 70 units of item LS-120 and 80 units of item LS-150 from vendor 10000 to be delivered to the Silver Warehouse. When the shipment arrives at the warehouse, John, the warehouse worker, must perform a series of activities to record the correct numbers of items in the program and make them available for sale.

### **Steps: Create and Release the Purchase Order**

Follow these steps to create and release the purchase order:

1. Create the purchase order to vendor 10000 for 70 units of item LS-120 and 80 units of item LS-150 to be received in the SILVER location.
2. Use the Choose Columns function on the **Lines** FastTab to make the **Bin Code** field visible.

The default bin code is populated for each item in the **Bin Code** field.

To make the order ready for handling in the warehouse, Alicia must use the release function. Releasing the order changes the order's status to Released, which serves as a signal to the warehouse that the order is complete and ready to be delivered from the vendor and received into the warehouse.

3. On the Action Pane, click **Release**.

### Steps: Post the Receipts

Assume that the shipment now arrives at the warehouse. John uses the accompanying delivery documents to determine to which purchase order the shipment belongs. With this information, he can now carry out receiving and putting away the order.

The bin codes on the purchase order lines serve as an indication to John as to where the respective items must be put away. A situation may occur where items must be put in a bin other than a default one or be placed in more than one bin.

Suppose that, when putting item LS-120 away, John finds that the bin can only hold 20 units. The remaining 50 units must be put away in bin S-01-0002. To record this handling in the program, he must do a partial receipt.

Follow these steps to post the partial receipt of item LS-120:

1. In the **Qty. to Receive** field on the first purchase line, change the quantity to 20. This indicates that only 20 units are put into the bin specified on the line.
2. On the Action Pane, click **Post**.
3. Click **Receive** and then click **OK**.

Follow these steps to complete the put-away and receipt of the remaining 50 units of item LS-120:

1. In the **Bin Code** field, change the code to S-01-0002, this is the bin where the remaining quantity is put away.
2. Post the order as received.

As a result of the posting, the program has now:

- Run the receive function for the received items and updated the relevant fields on the order.
- Recorded the put-away information for the bin by creating a warehouse register and warehouse entries specifying the quantity and bin information for the put-away.
- Updated the bin contents for the corresponding bin.

### Steps: Review the Posted Entries

Follow these steps to view the put-away information in the warehouse registers created by the posting:

1. On the navigation pane, click **Warehouse**.
2. On the **Warehouse** page, click **History** and then click **Warehouse Registers**.

The last two entries contain the PURCHASES source code. Those are the registers for the put-aways that were just posted.

3. Select the first of the two lines and click the **Related Information** menu, point to **Register** and then click **Warehouse Entries** to see the warehouse entries that correspond to the put-away.

Entry Type	Zone Code	Bin Code	Item No.	Description	Quantity	Source Document	Source No.	Registering Date
Positive Adjmt.		S-02-0001	L5-120		20	P. Order	106024	1/28/2010
Positive Adjmt.		S-03-0001	L5-150		80	P. Order	106024	1/28/2010

FIGURE 5.4 WAREHOUSE ENTRIES CREATED IN THE FIRST OF THE TWO RECEIPT POSTINGS FROM THE PURCHASE ORDER

Based on these entries, the bin content records are updated for the bins, respectively.

Follow these steps to check that the quantity is received and put away in the appropriate place:

1. On the first line, click the **Bin Code** field (for S-02-001) and then click **Advanced**.

On the **Bin List** page, the **Empty** field for the bins to which the items on the purchase order are put away does not contain a check mark.

2. With the line for bin code S-02-0001 selected, click **Related Information**, point to **Bin** and then click **Contents**.

The bin content record specifies that there are 20 units of item LS-120 in the bin.

Location Code	Bin Code	Item No.	Default	Fixed	Quantity
SILVER	S-02-0001	LS-120	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	20

FIGURE 5.5 BIN S-02-0001 CONTAINS 20 UNITS FROM THE FIRST RECEIPT POSTING

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***NOTE:** When a purchase order is associated with a sales order set to be drop shipped (the order line has a purchasing code defined as drop shipment), in principle, items do not enter and are not handled in the company's warehouse. In this case, the program prevents the user from entering a bin code on a sales/purchase order, even though the location has mandatory bin usage. As a consequence, when the user posts the orders, the program does not create warehouse entries.*

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## Demonstration: Undo the Put-away Quantity

When a user has posted an order with incorrectly entered quantity as received but not invoiced, he or she can use the undo posting function, which is available on the posted receipt document. In a situation where an order is posted as received into the location with mandatory bin usage, the undo quantity posting function ensures that the warehouse-related records are automatically reversed. The following demonstration illustrates this process.

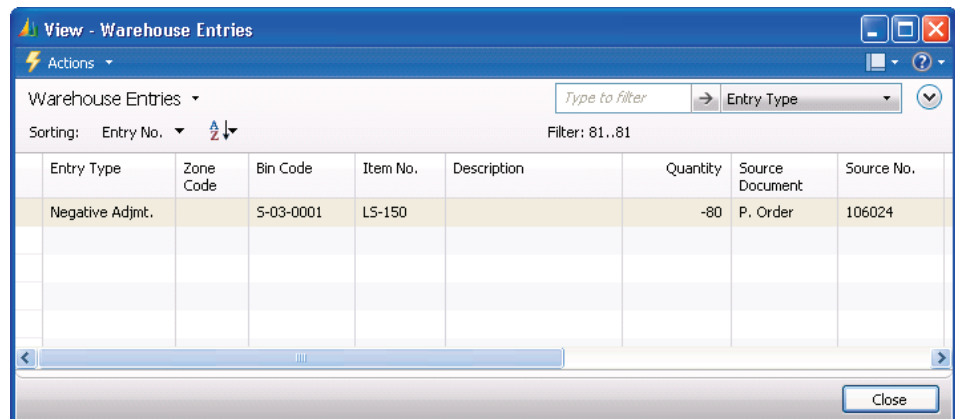
**Scenario:** In the process of putting item LS-150 away in the bin and, more importantly, after the order is posted as received, John, the warehouse worker, discovers that only 60 of the expected quantity of 80 units are delivered. When Alicia, the purchasing agent, is alerted to the problem, it turns out that according to the agreement with the vendor, the order is for 60 units. This error must now be corrected.

Follow these steps to undo the posting of the receipt and put-away:

1. On the **Warehouse** page, click **History** and then click **Posted Purchase Receipts**.
2. Browse to the first posted receipt for the purchase order, in which item LS-150 is received.
3. Select the line containing the receipt of the item LS-150.
4. On the **Lines** FastTab, click **Actions** (lightning bolt icon), point to **Functions**, and then click **Undo Receipt**.
5. Click **Yes** to undo the selected receipt line.

In addition to performing a number of regular steps to ensure that the receipt is undone correctly (which are: (a) creating a corrective negative receipt line applied to the one to be corrected, and (b) updating the respective fields on the associated purchase order) Microsoft Dynamics NAV also reverses the put-away. This is done by means of creating a warehouse entry for the bin in question with the negative quantity.

6. Close the **Posted Purchase Receipt** page.
7. Open the **Warehouse Registers** page, select the last warehouse register and open the associated warehouse entry.



Entry Type	Zone Code	Bin Code	Item No.	Description	Quantity	Source Document	Source No.
Negative Adjmt.		S-03-0001	LS-150		-80	P. Order	106024

FIGURE 5.6 WAREHOUSE ENTRY UNDONE

The record of the content of bin S-03-0001 is now updated and specifies that the bin is empty.

If John had put away the order line in more than one bin using multiple receipts, then he must undo each receipt as appropriate.

Generally, the undo quantity function can reverse the warehouse records for the posted receipt line as long as there is enough quantity in the bin to which the corresponding quantity is originally put away. This means that the user can still perform the function even though some or all of the items in the bin are moved elsewhere but the bin contains the quantity specified for the undoing operation.

***NOTE:** The undo quantity posting function is also available if a receipt is posted from a warehouse receipt document (when using the Receipt functionality). However, the undo function is not available when a receipt is posted from an inventory put-away document (using the Put-away functionality rather than the Receipt functionality).*

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Follow these steps to update the purchase order with the correct quantity of item LS-150:

1. Open the purchase order created in the "Receive and Put Away from a Purchase Order" demonstration.
2. On the **Actions** menu, point to **Functions** and then click **Reopen** to reopen the order.
3. In the **Quantity** field for the line for item LS-150, enter 60.
4. Receive the order.

### **Receive and Put Away with Inventory Put-away Documents**

The second method of receiving and putting away allows companies to record put-away information separately from the order information. This method requires the Put-away functionality and requires that the **Require Put-away** check box is selected on the **Warehouse** FastTab on the location card.

To register the item's physical placement in the warehouse, rather than using the purchase order line, the warehouse worker uses a separate document: an inventory put-away. This document is a copy of the order document but only displays the information relevant to the warehouse. Moreover, the inventory put-away document provides greater flexibility in regard to handling additional warehouse requirements such as splitting lines and document printing.

Therefore, for companies with dedicated warehouse workers who do not typically work with orders, the ability to work with inventory put-away documents can be an advantage in terms of simplicity and better usability.

The user creates an inventory put-away document and accesses it either directly from the purchase order or from the Warehouse department on the navigation pane. When the user posts the put-away document, the program also posts the order as received.

The principle behind the Put-away functionality is identical to that of the Pick, which is described in detail in the "Pick and Ship Items" lesson.



### Receive and Put Away with a Warehouse Receipt Document

In addition to recording put-away information separately from the order document, the third method of receiving and putting away gives companies a way to plan receipt and put-away tasks for multiple orders. This method requires the Receive functionality and requires that the **Require Receive** check box is selected on the **Warehouse** FastTab of the location card.

This option is particularly relevant for companies where the receiving process is more complex or requires more attention. Planning for the receipt tasks can be accomplished by creating a warehouse receipt document. With this document, which is based on released inbound orders, companies get an accurate picture of the expected work load and can manage the receiving process in the most efficient way.

Typically, creating warehouse receipts falls under the responsibility of a warehouse manager, who uses this document for planning purposes. When items arrive at the warehouse, a warehouse worker handles them and records the received quantities in the appropriate warehouse receipt document. Upon completion of this task, the warehouse worker must post the warehouse receipt. The program then registers the items as part of the company's inventory.

If bin usage is mandatory in a location, the warehouse worker must record the bin information on the warehouse receipt lines. The receipt document can be printed as a put-away list to aid warehouse workers. When the warehouse worker posts the receipt, the program also posts bin information on the line and creates warehouse entries.

When the warehouse completes the receiving process, the associated order document (purchase order or sales return order) is ready for invoicing. If the source document is an inbound transfer order, the program deletes it and creates a posted transfer receipt.

The following demonstration describes the process of receiving with a warehouse document. In this demonstration, the SILVER location is set up to require only receive processing in the warehouse and not put-away processing.

### Demonstration: Receive and Put Away with a Warehouse Receipt Document

**Scenario:** Alicia, the purchasing agent, creates two purchase orders to be received into the SILVER location:

- One for 30 units of item LS-150 for vendor 10000.
- One for 20 units of item LS-120 for vendor 50000.

When the items arrive at the warehouse, John, the warehouse worker, must perform a series of activities to receive the items.

### Steps: Set Up the Location for Receiving

The first step is to set up the SILVER location to require that receipts are handled through warehouse documents. Follow these steps to set up the location for receiving:

1. Open the location card for the Silver Warehouse and expand the **Warehouse** FastTab.
2. Select the **Require Receive** check box.
3. Click **OK** to close the location card.

### Steps: Create and Release Two Purchase Orders

Follow these steps to create the two purchase orders:

1. Create a purchase order to vendor 10000 for 30 units of item LS-150 at the SILVER location.
2. On the Action Pane, click **Release**.
3. Click the drop-down arrow on the **OK** button and then select **OK & New**.
4. Press ENTER or TAB.
5. Create a purchase order to vendor 50000 for 20 units of item LS-120 at the SILVER location.
6. On the Action Pane, click **Release**.
7. Click **OK** to close the purchase order.

A released purchase order represents a request to the warehouse to expect arrival of the items. Managers use a list of all the released inbound orders to create receipt documents by setting certain parameters.

### Steps: Create the Warehouse Receipt

Microsoft Dynamics NAV can be used to create a receipt of a purchase order from two functional areas:

- The warehouse: A warehouse worker, at the warehouse where the order is to arrive, can create a receipt document with all, filtered, or manually selected released purchase orders.
- The purchase office: A purchaser responsible for the specific order may choose to send a purchase order directly to the warehouse receipt document from the purchase order by clicking the **Actions** menu, pointing to **Functions** and then clicking **Create Whse. Receipt**.

John, the warehouse worker, proceeds to receive the items purchased from vendors 10000 and 50000.

**NOTE:** Ensure that the current user is set up as a Warehouse Employee for the SILVER location by opening the **Application Setup** page, clicking **Warehouse**, **Warehouse** again, and then clicking **Warehouse Employees**. If the current user is not set up, click **New** and add the user with the SILVER location set as the default location.

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Follow these steps to create the warehouse receipt:

1. On the **Warehouse** page, click **Planning & Execution** and then click **Warehouse Receipts**.
2. Click **New** and then press ENTER or TAB. The SILVER location is automatically selected since it is the default location for this warehouse employee.

John must now select the released source documents (in this example, purchase orders) with lines for quantities that are not yet received. To do this, he has two options:

- Click **Use Filters To Get Src. Docs.** on the Action Pane to use filters to select the source documents from which to retrieve lines.
- Click **Get Source Documents** on the Action Pane to view a list of all released orders with lines to be received at the selected warehouse. With this option, the orders to retrieve are selected and then the program copies the information from the source documents into the receipt lines. The procedure for using the Get Source Documents function to create a warehouse receipt document is described in the respective topic in the online Help.

John decides to use the warehouse source filter card to create a warehouse receipt document.

3. On the Action Pane, click **Use Filters to Get Src. Docs.**

The **Filters to Get Src. Docs. - Inbound** page contains a list of filter codes that represent filter combinations. The program only retrieves lines from source documents that meet the filter criteria. Filter combinations can be saved and reused with the code reference.

If the **Show Filter Request** check box is selected, then the Filters to Get Source Docs. function shows the filter request form before the lines are retrieved. For more information about this page, press F1 to access online Help.

---

**NOTE:** The **Filters to Get Source Docs. - Inbound** page appears empty only if the warehouse has not yet set up filters. In this case, when **Run** is clicked, the program retrieves all the released source documents. Once the filters are set up, a list of corresponding filter codes appear on the page.

---

### Steps: Set Up a Filter Card

Ellen, the warehouse manager, decides to set up a filter card specifying that the program must only retrieve all the released purchase orders, without retrieving any other inbound orders.

When setting up a filter for the first time, enter a code name on the **Filters To Get Source Docs. - Inbound** page and then open the filter card to specify other parameters.

Follow these steps to set up the filter card:

1. In the **Code** field, type PO ALL, and in the **Description** field, type Get all purchase orders.
2. On the Action Pane, click **Modify**. The filter card appears.

Ellen can define the source document(s) for a specific filter by selecting and clearing the check boxes representing the types of source documents. Note that, by default, only check boxes representing the inbound source documents (sales return orders, purchase orders, and inbound transfers) can be edited and selected.

3. Clear the **Sales Return Orders** and the **Inbound Transfers** check boxes.

Every time Ellen chooses to create a receipt document using the Use Filters to Get Src. Docs. function, the program opens the **Filters to Get Source Docs. - Inbound** page, where she can select, modify, and run the appropriate filter.

### Steps: Retrieve Released Purchase Orders

Now Ellen wants to retrieve all the released purchase orders with the expected receipt date of 01/29/10:

1. On the **Customize** menu, click **Limit Totals To**.
2. On the Filter Pane, click **Add Filter**, and then in the **Enter a value** field for the **Expected Receipt Date Filter**, type 01/29/10. Do not press ENTER or TAB.
3. On the Action Pane, click **Run**.

The program retrieves the lines from the purchase order documents and fills in the fields in the **Warehouse Receipt** page.

Source Document	Source No.	Item No.	Description	Quantity	Qty. to Receive	Qty. Received
Purchase Order	106025	LS-150	Loudspeaker, Cherry, 150W	30	30	0
Purchase Order	106026	LS-120	Loudspeaker, Black, 120W	20	20	0

FIGURE 5.7 TWO WAREHOUSE RECEIPT LINES CREATED FOR PURCHASES INTO THE SILVER LOCATION

As it appears in the **Warehouse Receipt** page, on this working date there are two purchase orders (created according to the scenario) that meet the parameters specified in the source document filter card.

The **Bin Code** field is filled in on the line with the item's default bin code.

### Steps: Post the Warehouse Receipt

Suppose that all items now arrive at the warehouse. John, the warehouse worker, handles the items and records their receipt in the program. While the quantities of all other items that arrive correspond to the quantities on the purchase orders, only 25 units out of 30 of item LS-150 arrived.

Follow these steps to post the receipt:

1. On the **Warehouse Receipt** page, on the line for item LS-150, type 25 in the **Qty. to Receive** field.
2. On the Action Pane, click **Post Receipt**. Click **Yes** to post the warehouse receipt.

The following posting confirmation message appears.

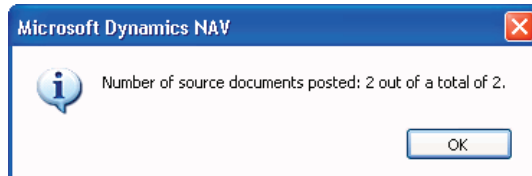


FIGURE 5.8 POSTING CONFIRMATION

3. Click **OK**.

The program has now:

- Updated the relevant quantity fields on the lines of the source documents (in this example, purchase orders) and run the Post, Receive function for the orders.
- Recorded the put-away information for the bin by creating warehouse entries, specifying the quantity and bin code for the put-away.
- Updated the **Qty. to Receive** field for the receipt lines and calculated the outstanding quantities as the difference between the quantity on the source document and the quantity handled. Lines with no outstanding quantities are removed from the receipt document and those with the outstanding quantities remain.

The warehouse worker must repeat the handling and posting tasks for the remaining receipt line(s) when the items arrive at the warehouse.

This demonstration combined the actions of receiving and putting-away in one step of posting the warehouse receipt document. This is in accordance with the warehousing setup chosen for the SILVER location; the location does not require put-away processing through separate put-away documents.

## Receive and Put Away with Warehouse Documents

The fourth method of handling receiving and putting away allows companies to plan receiving and putting away tasks for multiple orders by means of using a separate warehouse receipt document and warehouse put away document.

This method is the same as receiving with a receipt document, except the **Require Put-away** check box must be selected on the **Warehouse** FastTab of the location card, in addition to the **Require Receive** check box.

When a location is set up for separate put-away processing, the program automatically creates the put-away document when the warehouse worker posts the warehouse receipt. The put-away document must then be registered before it becomes available for picking.

When the warehouse completes the receiving process, the associated order document (purchase order or sales return order) is ready for invoicing. If the source document is an inbound transfer order, the program deletes it and creates a posted transfer receipt.

### **Procedure: Receive and Put Away with Warehouse Documents**

When items arrive at a warehouse that is set up for warehouse receipt processing, a warehouse worker must retrieve the lines of the released source document that triggered their receipt. If the company uses bins, the warehouse worker can either accept the default bin that is filled in, or if the item has never been used before in the warehouse, he or she can fill in the bin where the item should be put away. He or she must fill in the quantities of the items received and then post the receipt. A source document for a receipt can be a purchase order, a sales return order, or an inbound transfer order.

Follow these steps to receive and put away with warehouse documents:

1. Ensure that the source document is released.
2. On the **Warehouse** page, click **Planning & Execution** and then click **Warehouse Receipts**.
3. Click **New** to create a warehouse receipt and then press ENTER or TAB.
4. Fill in, at minimum, the fields on the left side of the **General** FastTab.

---

***NOTE:** If you want to receive items with warehouse class codes other than the class code of the bin in the **Bin Code** field on the document header, you must delete the contents of the **Bin Code** field on the header before you retrieve source document lines for the items.*

---

5. On the Action Pane, click **Get Source Documents**.
6. Select the source document(s) that contain the item(s) to receive and then click **OK**.

The lines of the source documents appear in the **Lines** FastTab. The program fills the **Qty. to Receive** field with the quantity outstanding for each line, but users can change the quantity as necessary. If the warehouse worker deleted the contents of the **Bin Code** field on the **General** FastTab before getting the lines, he or she must fill in an appropriate bin code on each receipt line.

---

***NOTE:** You cannot receive more items than the number in the **Qty. Outstanding** field on the source document line. To receive such “extra” items, retrieve another source document that contains a line for the item by using the filter function to get source documents with the item.*

---

7. On the Action Pane, click **Post Receipt**.

The program updates the quantity fields on the source documents, and records the items as part of company inventory.

When a location is set up to require receive processing as well as put-away processing, the program automatically sends the receipt lines to the warehouse put-away function. The items, although received, cannot be picked until the put away has been registered.

Follow these steps to register the put-away document:

1. On the **Warehouse** page, click **History** and then click **Posted Whse. Receipts**.
2. Open the posted warehouse receipt document.
3. On the **Related Information** menu, point to **Receipt** and then click **Put-away Lines**.
4. On the **Related Information** menu, point to **Line** and then click **Card**.
5. On the Action Pane, click **Register Put-away**.
6. Click **Yes** to register the put-away document.

The items are now available for picking.

Warehouse workers can view the registered put-away information in the **Registered Put-aways** page.

Refer to the "Receiving Items" and "Putting Items Away with Warehouse Put-away" topics in online Help for more information about receiving with warehouse documents.



## Lab 5.2 - Receive and Put Away from the Purchase Document

### Scenario

The purchasing agent at CRONUS creates a purchase order for four pallets of item LS-75 from vendor 10000 to be delivered to the SILVER location. The SILVER location is set up for mandatory bin usage and warehouse receipts.

When the shipment arrives, the warehouse worker finds that only two of the pallets can be put away in the bin suggested by the program. The other two must be put away into an available bin, and the warehouse worker chooses to use bin S-03-0003.

Perform the steps as both the purchaser and the warehouse worker.

### Challenge Yourself!

1. Create and release the purchase order, ensuring that the shipment is delivered to the SILVER location.
2. Receive the correct quantity into the correct bins.

### Need a Little Help?

1. Create the purchase order to vendor 10000 for four units of item LS-75 at the SILVER location, in bin S-01-0001.
2. Post the receipt of only two units into bin S-01-0001.
3. Post the receipt of the remaining two units into bin S-03-0003.

### Step by Step

1. On the **Purchase** page, click **Order Processing** and then click **Purchase Orders**.
2. Click **New** and then press ENTER or TAB.
3. In the **Buy-from Vendor No.** field, enter 10000.
4. On the first line, in the **Type** field, enter Item.
5. In the **No.** field, enter LS-75.
6. In the **Location Code** field, enter SILVER.
7. In the **Bin Code** field, enter S-01-0001.
8. In the **Quantity** field, type 4.
9. In the **Qty. to Receive** field, type 2.
10. On the Action Pane, click **Post**.

11. Click **Receive** and then click **OK**.
12. In the **Bin Code** field, enter S-03-0003.
13. In the **Qty. to Receive** field, type 2.
14. On the Action Pane, click **Post**.
15. Click **Receive** and then click **OK** to post the remaining quantity to bin S-03-0003.

## Lab 5.3 - Receive with a Warehouse Receipt

### Scenario

A purchaser at CRONUS creates a purchase order for 30 units of item 70010 for vendor 40000. The expected receipt date for this order is 01/29/10.

The Silver Warehouse is set up to require receipt, but not put-away.

When the items arrive at the warehouse, the warehouse worker makes items available for sale and for picking by creating a Warehouse Receipt document and using the Get Source Documents to record the receipt.

Perform the steps as both the purchaser and the warehouse worker.

---

***HINT:** Any Bin Code can be used in the Warehouse Receipt. Assign it in the header to transfer it to the line.*

---

### Challenge Yourself!

1. Create and release the purchase order.
2. Create a warehouse receipt for all the orders from vendor 40000 with the expected receipt date of 01/29/10.
3. Ensure that the items are made available for sale and for picking.

### Need a Little Help?

1. Create a purchase order to vendor 40000 for 30 units of item 70010 to the SILVER location.
2. Release the order.
3. Open Warehouse Receipts from the **Warehouse** page.
4. Create a new warehouse receipt and enter any bin code in the header.
5. Run the **Get Source Documents** function and select the purchase order to vendor 40000.
6. Post the receipt.

### Step by Step

Follow these steps to create and release the purchase order:

1. On the **Purchase** page, click **Order Processing** and then click **Purchase Orders**.
2. Click **New** and then press ENTER or TAB.
3. In the **Buy-from Vendor No.** field, enter 40000.
4. On the first line, in the **Type** field, select Item.

5. In the **No.** field, enter 70010.
6. In the **Location Code** field, enter SILVER.
7. In the **Quantity** field, type 30.
8. On the Action Pane, click **Release**.

Follow these steps to create and process the warehouse document and receive the purchase order:

1. On the navigation pane, click **Warehouse**, then **Planning & Execution**, and then click **Warehouse Receipts**.
2. Click **New** and then press ENTER or TAB.
3. In the **Bin Code** field, enter any bin code; this will be transferred to the line.
4. On the Action Pane, click **Get Source Documents**.
5. Select the purchase order to vendor 40000 for 30 units of item 70010 and then click **OK**.
6. On the Action Pane, click **Post Receipt** and then click **Yes** to post the warehouse receipt.
7. Click **OK** in the posting confirmation message.

## Pick and Ship Items

Warehousing functionality in Microsoft Dynamics NAV helps companies efficiently manage the picking and shipping of their outbound orders: sales orders, purchase return orders, and outbound transfer orders. Picking components for production orders is addressed in the "Manufacturing I in Microsoft Dynamics® NAV 2009" training material.

In principle, the process of shipping outbound orders consists of two major tasks:

- Picking items from the shelves.
- Shipping items out of the warehouse.

As with the receiving and putting away processes, four methods exist to support picking and shipping, described in the following table.

		<b>Bins</b>	<b>Picks</b>	<b>Shipments</b>
(a)	Post pick and shipment from the order line	X		
(b)	Post pick and shipment from an inventory pick document		X	
(c)	Post pick and shipment from a warehouse shipment document			X
(d)	Post pick from a warehouse pick document and post shipment from a warehouse shipment document		X	X

What differentiates the four methods from one another is how complex the picking process or warehouse organization is for a company.

- In the order-by-order warehousing environment, for a company with straightforward processes where the bin structure is simple, picking and shipping from the order line is appropriate.
- Conversely, for a company where items for one order line might come from more than one bin, or where warehouse workers typically do not work with the order documents, the use of separate pick documents is more appropriate.
- Where a company's picking and shipping processes involve multiple order handling and thus require greater control and overview, the company might choose to use a warehouse shipment document and warehouse pick document to separate the picking and shipping tasks.

In the methods (a), (b), and (c), the program posts picking and shipping in one step when either of the corresponding documents is posted as shipped. In method (d), the program registers the pick first and posts the shipment at a later time from a different document.

As in the receiving process, upon posting an outbound order or a pick/shipment document from a location set to use bins, the program creates warehouse entries. These entries are the records of the decreases in item quantity at the bin level.

The following topics demonstrate and/or explain the implications of methods (a), (b), (c), and (d). For simplicity, the example of a sales order is used as the outbound order throughout the demonstrations.

### **Pick and Ship from the Order Line**

Registering the picking information directly on the order line is the simplest method of warehousing in Microsoft Dynamics NAV. With this method, when the user creates the sales order, the program automatically fills in the bin information on the order line. When the time comes to ship the order to the customer, a warehouse worker uses the specified bin code as an indication of where to find the item for picking. When the order is posted as shipped, the program posts the pick information as well, so that the bin contents reflect that the items are taken from the bins.

In addition to the item ledger entries and value entries for the shipment, this shipment posting also creates warehouse entries, which are the records of where the items are picked from in the warehouse.

The principles behind the functionality of picking and shipping from the order line are identical to that on the receiving side, which is described in detail in the "Receive and Put Away Items" lesson.

### Pick and Ship from Inventory Pick Documents

When using separate pick documents, the warehouse worker enters bin code information on the pick document rather than handling picking information on the order line. The pick information can then be printed and manipulated as necessary. To use this method, a company must have the Pick functionality, and the **Require Pick** check box on the location card must be selected.

For companies with dedicated warehouse staff, the use of pick documents is the best option. This is because the Pick functionality offers greater flexibility in terms of meeting their key requirements, such as:

- A warehousing program must be easy and fast for the users to learn.
- The warehouse workers can carry out their jobs without having to be tied to the computer to perform lengthy or complicated procedures.

An inventory pick document is created on the basis of a released outbound order, only displaying the information relevant for the warehouse. To prepare the shipment, the warehouse workers use the pick documents as instructions of what and how many items to pick and where to find them in the warehouse.

When the user posts the pick document, the program also posts the associated outbound order as shipped.

### Demonstration: Pick and Ship from an Inventory Pick Document

**Scenario:** Susan, the order processor at CRONUS, creates a sales order for 50 units of item LS-120 to be shipped to customer 20000 from the Silver Warehouse. John, the warehouse worker must now ensure that the shipment is prepared and delivered to the customer.

### Steps: Set Up the Location for Picking

As explained earlier, for picking to be handled through pick documents, the warehouse location must be set up to require pick:

1. Open the location card for the Silver Warehouse.
2. On the **Warehouse** FastTab, select the **Require Pick** check box.
3. Click **OK** to close the location card.

### Steps: Create and Release the Sales Order

Follow these steps to create and release the sales order for customer 20000:

1. Create the sales order to customer 20000 for 50 units of item LS-120 to be shipped from the SILVER location.
2. Use the Choose Columns function on the **Lines** FastTab to make the **Bin Code** field visible.
3. On the Action Pane, click **Release**.

The release of an order is a signal to the warehouse that the order is ready for picking and shipping.

### Steps: Create the Pick Document

Suppose that, as a part of regular daily activity, Ellen, the warehouse manager consults the list of released orders and creates a pick document for each.

She has three options for creating a pick document:

- Create the pick document from the sales order document by clicking the **Actions** menu, pointing to **Functions** and then clicking **Create Inventory Put-away / Pick**.
- Create the pick document from the **Warehouse** page either by single or multiple orders.
- Create pick documents for several orders from the Create Invt. Put-away/Pick batch job found on the **Warehouse** page under Planning & Execution.

In this scenario, Ellen prefers to create the pick documents for orders one at a time from the **Warehouse** page:

1. On the navigation pane, click **Warehouse**, then **Goods Handling Order By Order** and then click **Inventory Picks**.
2. Click **New** to create a new pick document and then press ENTER or TAB.
3. In the **Location Code** field, enter SILVER.

### Steps: Use the Get Source Document Function

The next step is to retrieve the information from the sales order to create the pick lines. This can be done in two ways:

- Select the relevant order details in the fields on the inventory pick document header.
- Use the Get Source Document function.

Follow these steps to use the Get Source Document function:

1. On the Action Pane, click **Get Source Document**. The **Source Documents** page opens, displaying the released orders for the SILVER location.

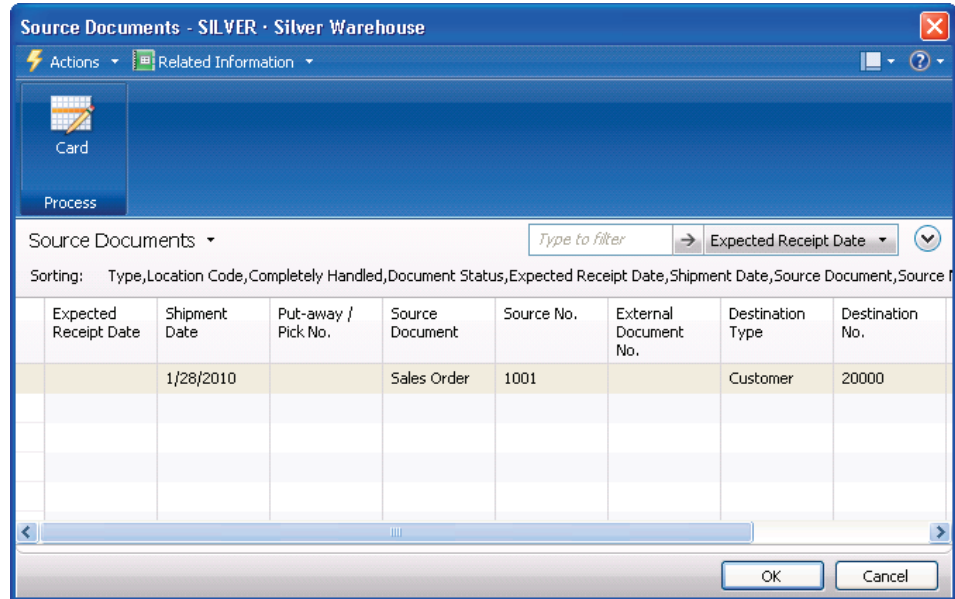


FIGURE 5.9 GETTING THE SOURCE SALES ORDER

On this page, the **Source Document** field indicates the type of order. In this scenario, the source document is Sales Order. The **Source No.** field contains the document number for the order. The **Destination Type** field indicates that the source document is for a customer, and the **Destination No.** field contains the customer number, if applicable.

The **Put-away / Pick No.** field contains the number of the put-away or pick document that is created for the order. In this example, no pick document is created yet. This is the next step.

2. With the line containing the source number for the sales order, click **OK**.



The inventory pick lines are created for item LS-120.

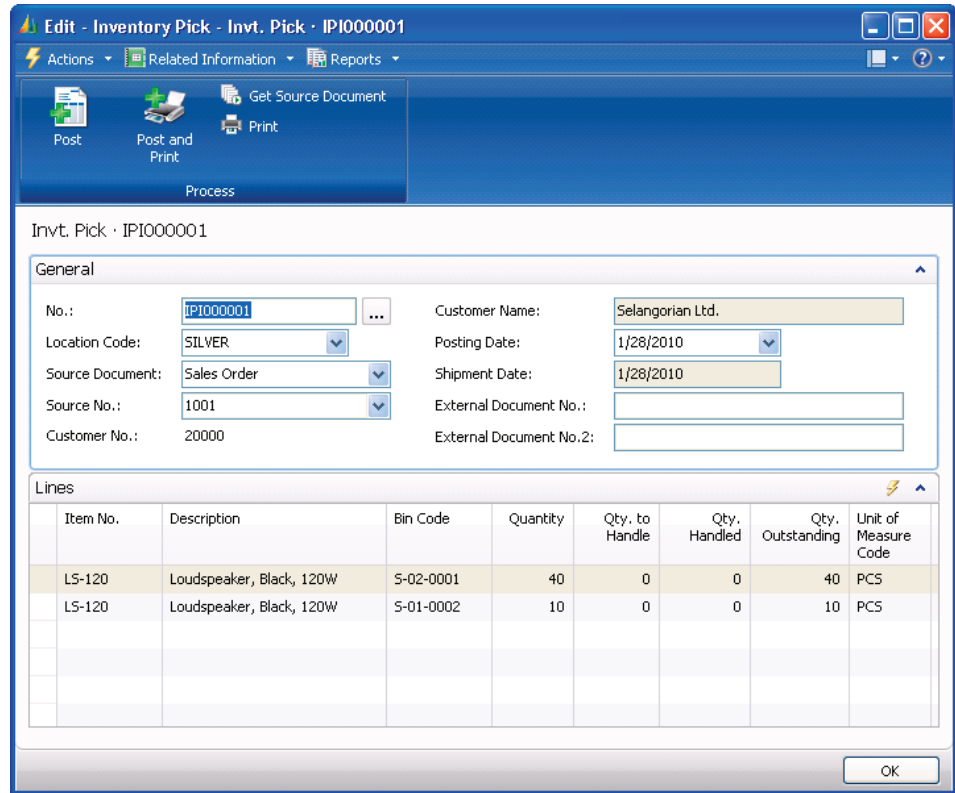


FIGURE 5.10 PICK LINES CREATED

The document contains two pick lines, specifying that the required quantity must be picked from two different bins. The program automatically split the sales order line into two pick lines because the default bin code for item LS-120 (S-02-0001) does not contain enough quantity to fulfill the order line. Based on the bin content records (warehouse entries) for the item in question within the specified location, the program suggests picking the remaining quantity from a bin code with sufficient quantity.

3. Click the first line and then on the **Lines** FastTab, click **Actions**, point to **Line**, and then click **Bin Contents List** to view the quantities of item LS-120 at the bin level.

Location Code	Bin Code	Item No.	Default	Fixed	Quantity
SILVER	5-01-0002	LS-120	<input type="checkbox"/>	<input checked="" type="checkbox"/>	50
SILVER	5-02-0001	LS-120	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	40

FIGURE 5.11 BIN CONTENTS FOR ITEM LS-120 IN THE SILVER LOCATION

This example shows a pick line being split automatically by the program. Warehouse workers might experience situations where they must split a pick line manually. The need for this can occur when, during the picking process, no sufficient item quantity is found in the bin suggested by the program and the required quantity is picked from another bin. To record this handling in the program, the warehouse worker uses the Split Line function available on the inventory pick document.

From the **Inventory Pick** page, warehouse workers can print the pick lines and use the printout to pick the items for the shipment to the customer, writing down the actual quantities and recording any deviations from the printed information. When they are finished, the warehouse manager can take the written feedback and record the actual pick information in the inventory pick document.

4. Close the **Bin Contents List** page.

## Steps: Update and Post Inventory Pick Document

Follow these steps to update the lines and post the inventory pick document:

1. In the **Qty. to Handle** field, type 40 and 10 for the respective lines.

When the pick lines correctly reflect the picked quantities and bin codes, the warehouse manager can post the inventory pick document. As explained earlier, this posting also posts the shipment of the associated sales order.

2. On the Action Pane, click **Post**.
3. Click **Ship** and then click **OK**.

The program posts the picking information and the shipment. The option of posting the order as invoiced is also available for the warehouse workers. This can be relevant in situations where the invoice document serves as a shipment note to be handed over to the shipping agent.

Follow these steps to view the inventory records at the bin level by looking at the warehouse registers created by the posting:

1. On the **Warehouse** page, click **History** and then click **Warehouse Registers**.

The last entry has a source code of SALES. This is the register for the pick just posted.

2. Click the last line and on the **Related Information** menu, point to **Register** and then click **Warehouse Entries** to see the warehouse entries that correspond to the pick.

The pick and shipment of the items is now complete.

The warehousing functionality in Microsoft Dynamics NAV also supports the practice used by some companies of creating order documents with negative lines. A negative order line, represents a transaction opposite to the one associated with the order in question, for example, a negative sales order line stands for an inbound order of sales return. This means that, when processing warehouse activities, the program ensures that the corresponding warehouse entries reflect the corresponding inventory movement at the bin level. In the example of a negative sales line, the warehouse entry represents an increase in the bin contents.

Where separate inventory warehouse documents are used to process warehouse activities, the program creates an appropriate warehouse document. In the example of a negative sales line, the program creates a put-away document.

---

***NOTE:** The Undo Quantity function is not available when the process of putting away/picking is performed by means of using the separate warehouse documents of inventory put-aways and inventory picks. The Undo Quantity function is also not available when posting a shipment from a warehouse shipment document (using the Shipments functionality).*

---

### Pick and Ship with a Warehouse Shipment Document

In addition to recording pick information separately from the order and inventory pick documents, the third method of picking and shipping gives companies a way to plan pick and shipment tasks for multiple orders. This method requires the Ship functionality and requires that the **Require Shipment** check box is selected on the **Warehouse** FastTab of the location card.

This option is particularly relevant for companies where the shipping process is more complex or requires more attention. Planning for the shipment tasks can be accomplished by creating a warehouse shipment document. With this document, which is based on released outbound orders, companies get an accurate picture of the expected work load and can manage the shipping process in the most efficient way.

Typically, creating warehouse shipments falls under the responsibility of a warehouse manager, who uses this document for planning purposes. When items need to be shipped from the warehouse, a warehouse worker picks them and records the shipped quantities in the appropriate warehouse shipment document. Upon completion of this task, the warehouse worker must post the warehouse shipment. The program then removes the items from the company's inventory.

If bin usage is mandatory for the location, the warehouse worker must record the bin information on the warehouse shipment lines. The shipment document can be printed as a pick list to aid warehouse workers. When the warehouse worker posts the shipment, the program also posts bin information on the line and creates warehouse entries.

When the warehouse completes the shipping process, the associated order document (sales order or purchase return order) is ready for invoicing. If the source document is an outbound transfer order, the program deletes it and creates a posted transfer shipment.

The principles behind the functionality of picking and shipping with a shipment document are identical to that on the receiving side, which is described in detail in the "Receive and Put Away Items" lesson.

### **Pick and Ship with Warehouse Documents**

The fourth method of handling picking and shipping allows companies to plan shipping and picking tasks for multiple orders by means of using a separate warehouse shipment document and warehouse pick document. This option requires the Shipment functionality and that the **Require Shipment** check box is selected on the location card.

A released outbound order represents a request to the warehouse to ship items to customers, or to another warehouse or production, as appropriate. By creating warehouse shipment documents based on the released orders, companies get an accurate picture of the expected work load and can thus manage the shipping process in the most efficient way.

If the location is set up for processing picks separately from the shipment document (**Require Pick** check box is selected on the location card), the user must create a warehouse pick document based on the shipment document. This document is an instruction to the warehouse worker to remove items from the shelves and move them to the packing and shipping area. The warehouse worker also uses this document to register the handled quantities and the bin information.

If the location is not set up for separate pick processing but the bin usage is mandatory, the warehouse worker must record the bin information on the warehouse shipment lines. The document can be printed to help warehouse workers in the picking process. Posting the shipment at the same time registers the pick information.

A document with ship lines is an instruction to the warehouse worker to pass the picked items to the shipping agent. The warehouse worker also uses this document to register the handled quantities; he or she then posts the ship lines when the items leave the warehouse.

When the warehouse completes handling the shipping process, the associated order document (sales order or purchase return order) is ready for invoicing. If the order document is an outbound transfer order, the program creates a posted transfer shipment.

The following scenario describes the processes of creating shipments for items to pick, picking the items, and then shipping them to customers. In this demonstration, set up the SILVER location for both pick and ship processing.

### **Demonstration: Pick and Ship Using Warehouse Documents**

**Scenario:** Susan, the order processor, creates a sales order for 20 units of item LS-120 and 47 units of item LS-150 for customer 30000. The order must be shipped from the Silver Warehouse. John, the warehouse worker, must perform a series of activities to ship the items to the customer.

#### **Steps: Set Up the Location for Picking and Shipping**

The first step is to ensure that the SILVER location requires shipment processing through warehouse documents:

1. Open the location card for the Silver Warehouse and expand the **Warehouse** FastTab.
2. Select the **Require Shipment** check box.
3. Ensure that the **Require Pick** check box is selected.
4. Click **OK** to close the location card.

#### **Steps: Create and Release the Sales Order**

Follow these steps to create and release the sales order:

1. Create the sales order to customer 30000 for 20 units of item LS-120 and 47 units of item LS-150, each to be shipped from the SILVER location.
2. On the Action Pane, click **Release**.

Creating a shipment document is the first stage in the flow of items out of the warehouse. At this stage, a warehouse manager assigns quantities of items from available inventory to outbound source document lines.

### Steps: Create the Warehouse Shipment

Based on the list of all released outbound orders, warehouse managers create shipment documents, that is, make specific lists of items to be picked for shipment. To make the picking process more efficient, warehouse managers can sort the lines in various ways by setting certain parameters, such as who must do the picking and what sorting method to apply. As in the case of receiving, a shipment line can also be sent to the warehouse shipment document directly from an order document by clicking the **Actions** menu, pointing to **Functions**, and then clicking **Create Whse. Shipment**.

Follow these steps to handle the released sales order:

1. On the **Warehouse** page, click **Planning & Execution** and then click **Warehouse Shipments**.
2. Click **New** to create a new warehouse shipment and then press ENTER or TAB. The SILVER location is automatically selected since it is the default location for this warehouse employee.

---

***NOTE:** If a location code is not selected for a specific warehouse shipment, then the program retrieves source document lines from all locations that require warehouse shipment processing.*

---

Because the SILVER location is set up for mandatory bin usage as well as to require both shipment and picking documents, the program regards the item movement from the shelves to the shipping dock as a movement from a picking bin to a shipping bin. The program automatically suggests the bin code from which to pick the items, but the user must specify on the warehouse shipment header the bin code to which items are placed after being picked and from which they are shipped.

Assume that bin code S-09-0001 is selected as a shipping bin for the shipment in question.

3. In the **Bin Code** field on the shipment header, click the drop-down arrow and then select S-09-0001.

The manager must now fill in the shipment document with lines of the released outbound source documents (in this example, sales orders), for which quantities are not yet assigned. To do this, the manager has two options:

- **Get Source Documents.** The manager can view a list of all released orders with lines to be shipped at the selected warehouse. The manager can then select the order to retrieve, and the program copies the information from the source document(s) into the shipment lines.
- **Use Filters to Get Src. Docs.** The manager can use filters to select the source documents that are necessary to retrieve lines according to the specified criteria.

### Steps: Use the Get Source Documents Function

Ellen, the warehouse manager, decides to use the Get Source Documents function to create a warehouse shipment document. Follow these steps to use the Get Source Documents function:

1. On the Action Pane, click **Get Source Documents**.
2. Click **OK**.

The program retrieves the source documents and creates the lines in the **Warehouse Shipment** page.

- Use the Choose Columns function on the **Lines** FastTab to make the **Bin Code** field visible.

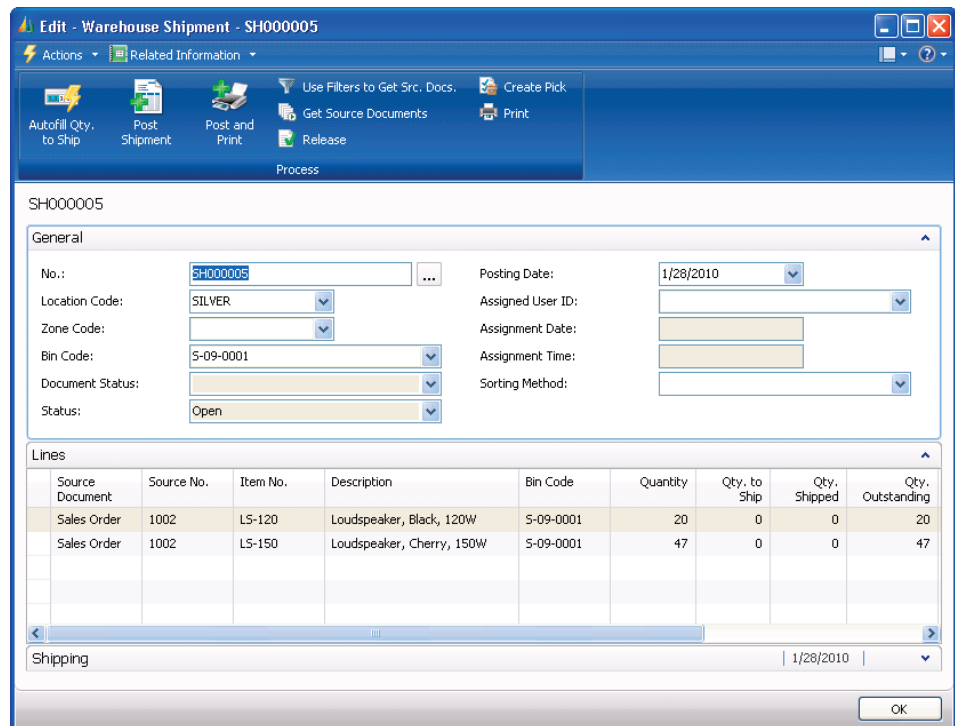


FIGURE 5.12 WAREHOUSE SHIPMENT CREATED

For locations not requiring a separate pick processing, warehouse employees can print the shipping document with bin code information and use it as an instruction for where in the warehouse to find the items. When the warehouse worker posts the picking information, the program creates warehouse entries with bin information.

***NOTE:** Handling a picking task only with the warehouse shipment document is based on the assumption that the shipping bin code information is irrelevant and therefore must not be selected on the document header. Similar to the other warehousing scenarios, in this case, the program suggests a default bin code as a picking bin for each shipment line.*

## Steps: Create the Pick Document

Because the SILVER location is set up to require pick documents, Ellen creates the picking document from the warehouse shipment document.

Follow these steps to create a picking document for the items required to fulfill the order:

- On the Action Pane, click **Create Pick**.



In the **Whse.-Shipment - Create Pick** dialog box, an ID can be assigned in the **Assigned User ID** field and a sorting method can be selected for the pick lines in the **Sorting Method for Activity Lines** field. The **Set Breakbulk Filter** field is only applicable when the program is set up to use warehouse management functionality.

By selecting the **Do Not Fill Qty. to Handle** check box, the **Qty. to Handle** field is set to zero initially, so that the warehouse worker filling in the pick document must enter the quantity manually. The worker can print the pick list by selecting the **Print Document** check box.

2. Click **OK**.

The following message appears:

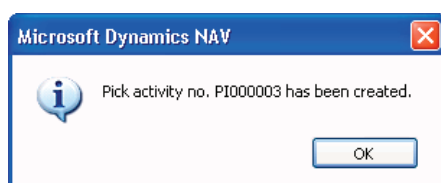


FIGURE 5.13 WAREHOUSE PICK CREATED

3. Click **OK** to close the confirmation message.

The program creates a picking document. Follow these steps to open the picking document:

1. On the **Warehouse** page, click **Goods Handling Multiple Orders** and then click **Picks** and browse to the picking document just created.

2. Use the Choose Columns function on the **Lines** FastTab to display the **Action Type** and the **Bin Code** fields.

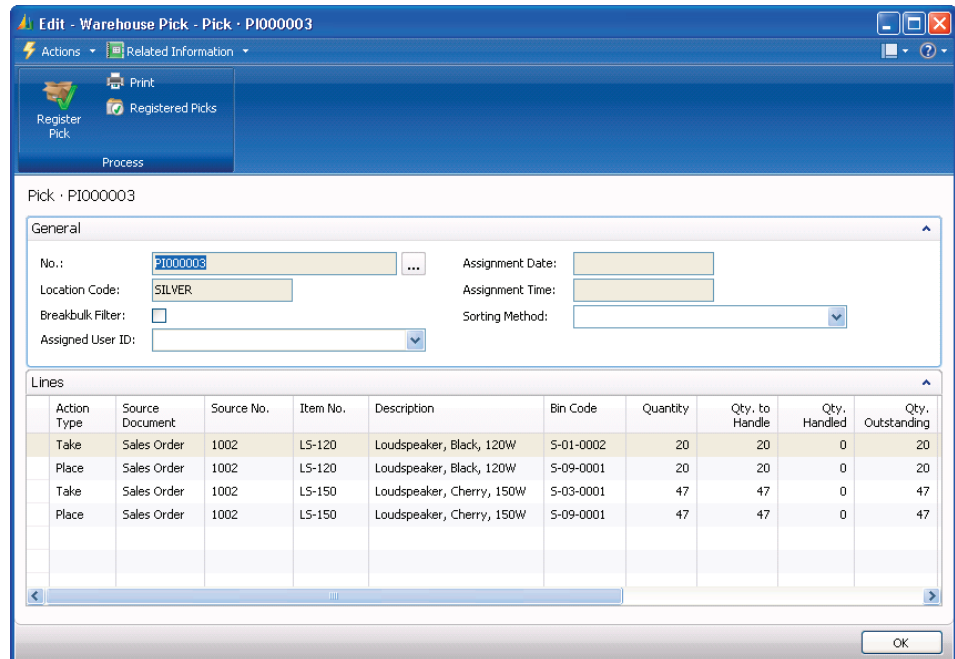


FIGURE 5.14 WAREHOUSE PICK SHOWING A TOTAL OF FOUR ACTIONS

In the pick document, two pick lines are created for each shipment line: a Take and a Place line for each item. The Take line is a pick line indicating from where the items are to be picked, while the Place line specifies a shipping bin to which the picked items are to be placed before shipping.

The program suggested bin S-01-0002 instead of the default bin S-02-0001 on the Take line for item LS-120. This is because the default bin is currently empty, and the program detected that bin S-01-0002 contains the required picking quantity.

Upon moving items to the shipping dock, the warehouse worker must record this action in the program through the Register function. Registering differs from the posting function in that it does not affect inventory availability but simply recognizes that the items moved from one place to another within the same warehouse.

## Steps: Register the Pick

Follow these steps to register the pick:

1. On the Action Pane, click **Register Pick**.
2. Click **Yes** to register the pick document.

As a result, the program created:

- A registered pick document.
- Warehouse entries to record the pick information at the bin level.

### Steps: Post the Shipment

John, the warehouse worker, must now pass the picked items to the shipping agent and post the shipment lines when the items leave the warehouse.

Follow these steps to proceed with the shipping process:

1. On the **Planning & Execution** page, click **Warehouse Shipments**.
2. Open the shipment document created earlier in the "Create the Warehouse Shipment" step.

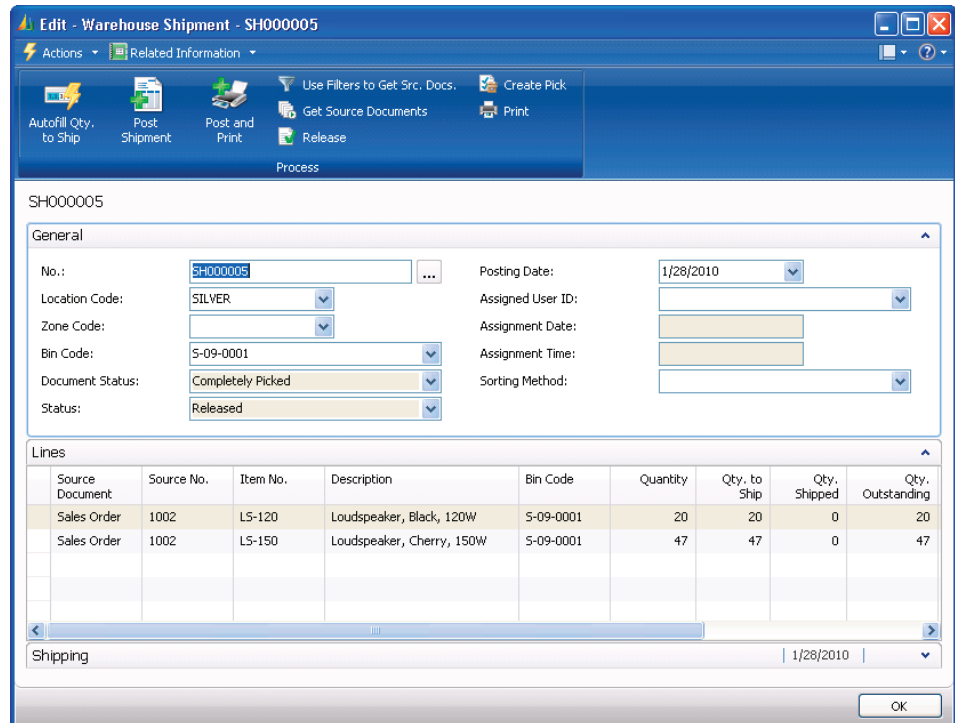


FIGURE 5.15 WAREHOUSE SHIPMENT COMPLETELY PICKED

In the Warehouse Shipment, the **Qty. to Ship** fields are now updated and the document status is now set to Completely Picked.

3. On the Action Pane, click **Post Shipment**.

The program offers the possibility of posting the shipment and at the same time invoicing the associated outbound order document(s).

4. With **Ship** selected, click **OK**.

A message appears stating: "Number of source documents posted: 1 out of a total of 1. Ship lines have been posted."

5. Click **OK** to close the posting confirmation message.

The shipment is now both a posted warehouse shipment and a posted sales shipment.

## Lab 5.4 - Pick and Ship with Inventory Pick Documents

### Scenario

An order processor enters a sales order for 50 units of item LS-75 for customer 30000 to be shipped from the SILVER location.

The warehouse manager creates inventory picks from the released source documents and ensures that the pick is completed and that the shipment is posted.

Perform the steps as both the order processor and the warehouse worker.

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***NOTE:** Handling a picking task only with the warehouse shipment document is based on the assumption that the shipping bin code information is irrelevant and therefore must not be selected on the document header. Similar to the other warehousing scenarios, in this case, the program suggests a default bin code as a picking bin for each shipment line.*

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### Challenge Yourself!

1. Edit the SILVER location so that it does not use warehouse shipping.
2. Create and release the sales order.
3. Process the pick and shipment, which encompasses:
  - Creating the inventory pick.
  - Ensuring that the picked quantity is recorded.
  - Posting the pick and shipment.

### Need a Little Help?

1. Open the location card for the Silver Warehouse and remove the shipment requirement.
2. Create a sales order to customer 30000 for 50 units of item LS-75 to be shipped from the SILVER location.
3. Release the order.
4. On the **Warehouse** page, click **Goods Handling Order By Order** and then click **Inventory Picks**.
5. Create a new inventory pick for the SILVER location.
6. Run the **Get Source Document** function and then select the sales order just created for customer 30000.
7. Ensure that the full quantity is to be handled (or allocated accordingly if the bins are split) and then post the shipment.

## Step by Step

Follow these steps to change the setting on the SILVER location and process the sales order:

1. Open the location card for the Silver Warehouse.
2. On the **Warehouse** FastTab, clear the **Require Shipment** check box and then click **OK**.
3. On the **Warehouse** page, click **Orders & Contacts** and then click **Sales Orders**.
4. Click **New** and then press ENTER or TAB.
5. In the **Sell-to Customer No.** field, enter 30000.
6. On the first line, in the **Type** field, select Item.
7. In the **No.** field, enter LS-75.
8. In the **Location Code** field, enter SILVER.
9. In the **Quantity** field, type 50.
10. On the Action Pane, click **Release**.
11. Ensure that the **Qty. to Ship** field is set to 50.

Follow these steps to create and process the warehouse document and ship the sales order:

1. On the **Warehouse** page, click **Goods Handling Order By Order** and then click **Inventory Picks**.
2. Click **New** and then press ENTER or TAB.
3. In the **Location Code** field, enter SILVER.
4. On the Action Pane, click **Get Source Document**.
5. Select the sales order just created and click **OK**.
6. In the **Qty. to Handle** field, type 50; or allocate the quantities accordingly if the bins are split.
7. On the Action Pane, click **Post**.
8. Select **Ship** and then click **OK**.

## Lab 5.5 - Ship with Warehouse Pick and Ship Documents

### Scenario

An order processor at CRONUS creates a sales order for four units of item LS-75 and eight units of item LS-150 for customer 30000.

The order must be shipped from the Silver Warehouse; therefore the shipment requirement needs to be reset on this location.

The warehouse worker must perform a series of activities to ship items to the customer which consists of:

1. Creating a warehouse shipment document.
2. Creating a warehouse pick document.
3. Registering the pick.
4. Posting the shipment.

Perform the steps as both the order processor and the warehouse worker.

### Challenge Yourself!

1. Set the shipment requirement on the Silver Warehouse.
2. Create and release the sales order.
3. Create the shipment using the Create Whse. Shipment function.
4. Create and register the pick.
5. Ship the sales order.

### Need a Little Help?

1. Open the location card for the Silver Warehouse and set the shipment requirement.
2. Create a sales order to customer 30000 for four units of item LS-75 and eight units of item LS-150, both to be shipped from the SILVER location.
3. Release the order.
4. Run the **Create Whse. Shipment** function and then create the pick.
5. Open the **Goods Handling Multiple Orders** page and open the pick just created.
6. Register the pick.
7. Open the warehouse shipment and ship the sales order.

## Step by Step

Follow these steps to change the setting on the SILVER location and process the sales order:

1. Open the location card for the Silver Warehouse.
2. On the **Warehouse** FastTab, select the **Require Shipment** check box and then click **OK**.
3. On the **Warehouse** page, click **Orders & Contacts** and then click **Sales Orders**.
4. Click **New** and then press ENTER or TAB.
5. In the **Sell-to Customer No.** field, enter 30000.
6. On the first line, in the **Type** field, enter Item.
7. In the **No.** field, enter LS-75.
8. In the **Location Code** field, enter SILVER.
9. In the **Quantity** field, type 4.
10. On the next line, in the **No.** field, enter LS-150.
11. In the **Location Code** field, enter SILVER.
12. In the **Quantity** field, type 8.
13. On the Action Pane, click **Release**.

Follow these steps to create and process the warehouse documents:

1. On the **Actions** menu, point to **Functions** and then click **Create Whse. Shipment**.
2. Click **OK** in the confirmation message.
3. In the **Warehouse Shipment** page, on the Action Pane, click **Create Pick**.
4. In the **Whse.-Shipment - Create Pick** dialog box, click **OK**.
5. Click **OK** in the confirmation message.
6. On the **Warehouse** page, click **Goods Handling Multiple Orders** and then click **Picks**.
7. Open the Warehouse Pick just created.
8. On the Action Pane, click **Register Pick**.
9. Click **Yes** to register the pick document.
10. On the **Warehouse** page, click **Planning & Execution**, and then click **Warehouse Shipments**.
11. Open the warehouse shipment and notice that the **Qty. to Ship** field is populated.
12. On the Action Pane, click **Post Shipment**.
13. With **Ship** selected, click **OK**.
14. Click **OK** in the confirmation message.



## Move and Adjust Items in the Warehouse

In the course of daily activity, users occasionally need to move items from bin to bin or to adjust the quantity recorded in the program for a bin. A company may need to move items to different bins to reorganize a section of the warehouse. Adjustments might be necessary if a real gain or loss of items occurs, such as items being found that are previously thought lost or items that become broken or unusable.

Movements and quantity adjustments in warehousing are simple processes to learn and perform because, in principle, they are parallel to those of other regular inventory movements and adjustments, such as transfers between locations or quantity adjustments within the same location. The important difference is, that the movement of items from one bin to another within the same warehouse represents a change in the physical placement of items, but essentially does not affect the inventory quantity in that warehouse. For this reason, when the user posts a warehouse movement, the program only creates warehouse entries but no item ledger entries.

When the user adjusts quantities in a warehouse that is set up for mandatory bin usage, the program creates both item ledger entries and warehouse entries when the user posts the journal.

The following demonstration illustrates how movements and adjustments are performed with warehousing in Microsoft Dynamics NAV.

### Demonstration: Move Items to Bin S-02-0001

**Scenario:** Ellen, the warehouse manager at CRONUS, discovers that the bin usually used to store item LS-120, S-02-0001, is running low and she wants to replenish it with the contents of bin S-01-0002.

She performs a series of steps to ensure that the movement of items from one bin to another is recorded accurately in the program.

Follow these steps to create a movement using the item reclassification journal:

1. On the **Warehouse** page, click **Inventory** and then click **Item Reclass. Journals**.
2. Use the Choose Columns function to make the **Location Code**, **Bin Code**, and **New Bin Code** fields visible. Reopen the journal to activate the changes.

Now that the necessary fields are visible, fill in the fields of the journal. The fields can be filled in individually but, for an example like this one where the full content of one bin must be moved to another bin, the user can apply the Get Bin Content function to speed up the process.

3. On the **Actions** menu, point to **Functions** and then click **Get Bin Content** to open the **Whse. Get Bin Content** page.
4. On the **Bin Content** FastTab, in the **Location Code** field, enter Silver.

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***NOTE:** It might be necessary to type Silver in the **Location Code** field and then select it from the drop-down list to set the filter.*

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5. In the **Bin Code** field, enter S-01-0002, the bin whose contents must be moved.
6. Click **OK**.

The item reclassification journal now contains a line for item LS-120 specifying the bin code from which the item is to be moved and the quantity currently contained in that bin.

7. In the **New Bin Code** field, enter S-02-0001, the bin code to which the contents must be moved.

The item reclassification journal is now ready to be posted.

8. On the Action Pane, click **Post** and then click **Yes** to post the journal.

The program posts the movement by creating two warehouse entries, one indicating the decrease in contents in bin code S-01-0002 and another indicating the increase in bin code S-02-0001, without creating item ledger entries.

### **Demonstration: Adjust Quantity in Bin S-02-0001**

**Scenario:** Suppose that in the course of moving the items, John, the warehouse worker discovers that five of the items are broken. Ellen, the warehouse manager, determines that they are unsuitable for sale and that the quantity must be reduced in the program. She performs this work in an item journal.

1. On the **Warehouse** page, click **Inventory**, and then click **Item Journals**.
2. Use the Choose Columns function to make the **Bin Code** field visible. Reopen the journal to activate the changes.
3. In the **Entry Type** field, enter Negative Adjmt.
4. In the **Item No.** field, enter LS-120.
5. In the **Location Code** field, enter SILVER.

The program fills in the **Bin Code** field with the item's default bin. To ensure that this bin contains the quantity to be adjusted, check the bin contents by clicking the field and then clicking **Advanced**. When finished, close the **Bin Contents List**.

6. In the **Quantity** field of the item journal, type 5. This is the quantity to be adjusted.
7. On the Action Pane, click **Post** and then click **Yes** to post the journal.

The program creates item ledger entries and warehouse entries that adjust the quantity in the bin to reflect the change.

## Lab 5.6 - Move Items to an Empty Bin

### Scenario

As the warehouse manager at CRONUS, it is your responsibility to manage movements in the warehouse.

To make room for repairs to the default bin (S-01-0001), you need to move all wooden doors, item number 70010, to the closest empty bin in the SILVER location.

After posting the movement, review the Bin Contents for the Silver Warehouse from the **Goods Handling Multiple Orders** page.

### Challenge Yourself!

1. Create an item reclassification journal line that moves all units of items 70010 currently in bin S-01-0001 to the closest empty bin in the SILVER location.
2. Confirm that bin S-01-0001 in the SILVER location is empty.

### Need a Little Help?

1. Open the **Item Reclass. Journal** and then run the **Get Bin Content** function.
2. Filter on the SILVER location and bin S-01-0001.
3. Confirm the quantity of items in the bin in the **Bin Contents List**.
4. In the **New Bin Code** field, access the **Bin Contents List** and then select the first bin code that has the **Empty** check box selected.
5. Post the journal.
6. Open the **Bin Contents** page from the **Goods Handling Order by Order** page.
7. Set a filter on the SILVER location and then review the contents in the **Quantity** field on the lines for item 70010.

### Step by Step

Follow these steps to populate and post the Item Reclass. Journal:

1. On the **Warehouse** page, click **Inventory** and then click **Item Reclass. Journals**.
2. On the **Actions** menu, point to **Functions**, and then click **Get Bin Content**.
3. On the **Bin Content** FastTab, in the **Location Code** field, enter Silver.

4. In the **Bin Code** field, enter S-01-0001.
5. Click **OK**.
6. In the **Bin Code** field, click the drop-down arrow, and then click **Advanced**.
7. Review the value in the **Quantity** field (30 pcs) and then close the **Bin Contents List**.
8. In the **New Bin Code** field, click the drop-down arrow and then click **Advanced**.
9. Select the first bin code that has the **Empty** check box selected and then click **OK**.
10. Ensure that the **Quantity** field is set to 30.
11. On the Action Pane, click **Post** and then click **Yes** to post the journal.
12. Click **OK** in the confirmation message.

Follow these steps to confirm that bin S-01-0001 in the SILVER location is now empty:

1. On the **Warehouse** page, click **Goods Handling Order by Order**, and then click **Bin Contents**.
2. In the **Location Filter** field, enter SILVER.
3. For item 70010, confirm that the **Quantity** field is zero for bin S-01-0001, and that the bin where the 30 units moved to contains the moved quantity.

## Summary

Efficiency, data accuracy, and reliability in warehousing operations are of the utmost importance to the bottom line of competitive companies. To guarantee short order handling time, items must be quickly found in the warehouse.

Additionally, warehouse workers must be able to focus on carrying out physical movements rather than spending time in front of computers recording information. Moreover, in companies that experience high turnover of warehouse workers, the ability to train them quickly in how to use the program is highly relevant.

## Test Your Knowledge

Test your knowledge with the following questions.

1. Where in Microsoft Dynamics NAV, are the warehousing options set up that trigger the different warehousing features, such as receipt handling or pick handling?

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2. In the **Bin Content** page, what do the **Fixed** and **Default** fields mean?

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3. Suppose that there is Put-away and Bin functionality, but not the Receipt functionality. What documents are used to post the receipt and put-away of a purchase order?

- Post receipt from the purchase order and post put-away from the warehouse put-away document.
- Post both receipt and put-away from the inventory put-away document.
- Post both receipt and put-away from the warehouse receipt document.
- Post both receipt and put-away from the purchase order.

4. When using bins and posting a transaction such as a receipt of an item to a bin, the program creates \_\_\_\_\_ entries in addition to item ledger entries and value entries.

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5. If bins are being used, how is a movement from one bin to another bin recorded in Microsoft Dynamics NAV?

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### Quick Interaction: Lessons Learned

Take a moment and write down three key points you have learned from this chapter:

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2.

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3.

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## Solutions

### Test Your Knowledge

1. Where in Microsoft Dynamics NAV, are the warehousing options set up that trigger the different warehousing features, such as receipt handling or pick handling?

MODEL ANSWER: Warehousing options for a location are set up on the Warehouse FastTab on the Location Card.

2. In the **Bin Content** page, what do the **Fixed** and **Default** fields mean?

MODEL ANSWER: The Fixed field indicates that the bin normally contains the item. The Default field indicates that the program must always suggest this bin when the user performs a transaction for the item.

3. Suppose that there is Put-away and Bin functionality, but not the Receipt functionality. What documents are used to post the receipt and put-away of a purchase order?

- Post receipt from the purchase order and post put-away from the warehouse put-away document.
- Post both receipt and put-away from the inventory put-away document.
- Post both receipt and put-away from the warehouse receipt document.
- Post both receipt and put-away from the purchase order.

4. When using bins and posting a transaction such as a receipt of an item to a bin, the program creates \_\_\_\_\_ entries in addition to item ledger entries and value entries.

MODEL ANSWER: warehouse

5. If bins are being used, how is a movement from one bin to another bin recorded in Microsoft Dynamics NAV?

MODEL ANSWER: Record a movement of items from one bin to another by using the item reclassification journal.

