

# MODULE 7: ORDER PROMISING

## Module Overview

A company must give customers accurate delivery information for sales orders and it must correctly estimate the receipt date of purchase and transfer orders. In Microsoft Dynamics® NAV, this functionality is known as Order Promising.

Based on the known and expected availability dates for an item, the program quickly calculates sales order shipment and delivery dates. These dates are then promised to the customer, or, if the customer requests a specific delivery date, the program can assess whether this delivery date is realistic.

When the item is not in inventory and no supply orders are scheduled, the order processor can use the program's **Capable to Promise** function to estimate the earliest delivery date for the item.

Similar date calculations apply to purchases. The program can estimate the date on which an item must be ordered to have it in inventory by a certain date, or, based on the order date, it can calculate the date when ordered quantities of the item will arrive in inventory and are available to pick.

This module describes the Order Promising features for sales and purchasing. To follow the procedures and demonstrations in the lessons, install a clean database and set your work date to January 23, 2014.

### **Objectives**

The objectives are:

- Describe the key concepts, field definitions, and date calculations for sales order promising.
- Explain the setup of time values and other parameters for sales order promising.
- Show order promising and date calculation functionality for sales order deliveries.
- Define the field definitions and date calculations for estimating purchase order receipts.
- Explain the setup of time value parameters for estimating purchase order receipts.
- Show how to estimate dates for purchase order receipts and the related calculations.
- Explain how transfer order receipts are estimated.
- Describe how to use the Calendars functionality to exclude nonworking days in date calculations.

## Sales Order Promising Key Concepts

Sales order promising is based on two key concepts:

- Available to Promise (ATP)
- Capable to Promise (CTP)

### Available To Promise

Available to Promise functionality calculates dates based on the inventory availability system. ATP performs an availability check of the unreserved quantities in inventory or in planned production, purchases, assembly orders, transfers, and sales returns. If items are available (either in inventory or on planned receipts), the program automatically calculates the delivery date of the customer's order.

### Capable To Promise

Capable to Promise is used if an item is not in inventory and if no supply orders are scheduled. By using a "what if" approach, CTP calculates the earliest date the item can be available if it is produced, purchased, assembled, or transferred from another location.

Based on this estimated availability date for the item, the program will do the following:

- Calculate the delivery date to the customer
- Create planning line(s) for the item
- Reserve the inventory

The CTP function includes capacity constraint issues in its calculations, and can be integrated with production scheduling, manufacturing, transfer, purchase, and assembly planning. The level of CTP used depends on the model selected in the capacity scheduling engine.

## Sales Order Promising Definitions and Calculations

The sales order promising functionality (both ATP and CTP) is based on calculations that involve several date and time fields.

### Field Definitions

The following table briefly describes the important fields in sales order promising.

Field	Definition
<b>Requested Delivery Date</b>	The date the customer wants the order delivered to the customer's address. You must manually enter this date to affect the date calculation.
<b>Promised Delivery Date</b>	The date the company promised delivery to the customer's address. You must manually enter this date to affect the date calculation.
<b>Planned Delivery Date</b>	The date the company plans to deliver the order to the customer's address. This date calculates automatically but you can change it.
<b>Planned Shipment Date</b>	The date the order is shipped from the warehouse. This date calculates automatically but you can change it.
<b>Shipment Date</b>	The date the order items are in inventory and available to be picked. This date calculates automatically but you can change it.
<b>Outbound Whse. Handling Time</b>	The time that is required to pick, pack, and label the items in an order.
<b>Shipping Time</b>	The time that is between when the items ship from the warehouse and when they arrive at the customer's address.

## Date Calculations

The date calculations used in sales order promising are based on the dates entered by the order processor and the time values that are set up in the program. The Date and Time Calculation Relationship in Sales Orders figure shows the relationship between the date and the time values that are used in the calculations.



**FIGURE 7.1: DATE AND TIME CALCULATION RELATIONSHIP IN SALES ORDERS**

The calculations that are used depend on whether the customer requests a specific delivery date.

**Note:** To compare the following formulas to the Date and Time Calculation Relationship in Sales Orders figure, substitute the Promised Delivery Date or the Requested Delivery Date for the Planned Delivery Date in the figure.

### Calculating a Requested Delivery Date

If the customer requests a specific delivery date, then the planned shipment date and the shipment date calculate backward as follows:

- *Requested delivery date - shipping time = planned shipment date*
- *Planned shipment date - outbound warehouse handling time = shipment date*

If the items are available to pick on the shipment date, then the planned delivery date is set to the requested delivery date, and the sales process continues. If the items are not available to pick on the shipment date, then a stockout warning appears.

If the order processor enters a date in the **Promised Delivery Date** field, this date is substituted for the requested delivery date in the previous calculations (the promised delivery date takes precedence), and any additional changes to the requested delivery date are not allowed (you can calculate dates based on either a request or a promise, but not both).

The full order or priority for dates in the order header is as follows:

1. Promised Delivery Date
2. Requested Delivery Date
3. Shipment Date

### ***Calculating the Earliest Possible Delivery Date***

If a customer does not request or is not promised a specific delivery date, or if the delivery date cannot be met, then the program calculates the earliest date on which the items are available. This date is entered in the **Shipment Date** field on the sales line, and the planned shipment date and planned delivery date calculate forward as follows:

- *Shipment date + outbound warehouse handling time = planned shipment date*
- *Planned shipment date + shipping time = planned delivery date*

### ***Triggering Calculations Manually***

The program also recalculates all relevant dates if the order processor manually changes any date involved in date calculations.

### ***CTP Calculations***

If the program determines that an item is unavailable, an order processor can use the CTP functionality to calculate the earliest possible date on which a new supply of the item can be made available. If this date is accepted, the program copies it to the affected sales line and automatically recalculates the planned shipment and planned delivery dates. The program then finishes the CTP process by creating a planning line and a reservation entry for the item in the designated worksheet. If carried out, these actions make sure that the order is fulfilled.

## Date Calculation Setup for Sales Orders

To support date calculations for sales order promising, a company must set up the following:

- **Outbound warehouse handling time:** This is the time that is required to pick, pack, and label the items in an order before shipping. The program uses this time value to calculate the difference between the shipment date (the date when items are available for shipment) and the planned shipment date.
- **Shipping time:** This setup can include definitions of the types of services the company's shipping agent can offer and the corresponding shipping times.
- **Availability test interval:** This is the maximum period for which the program makes the availability calculation.

To support CTP functionality, a company must also specify time and worksheet parameters in the **Order Promising Setup** page.

### Demonstration: Set Up Outbound Warehouse Handling Time

Companies can set up the outbound warehouse handling time on the following:

- Inventory setup card
- Location card

If a company has multiple locations, it must set up the handling time for each location. The location setup has priority over the setup on the inventory setup card.

**Scenario:** Kevin, the sales manager at CRONUS International Ltd., contacts Ellen, the warehouse manager, about some recent delays in shipments from the BLUE warehouse. After speaking to warehouse staff, Ellen determines that it takes one day for the warehouse personnel at the BLUE warehouse to handle the picking, packing, and labeling procedures. Therefore, to make sure estimates for shipment dates are correct in the future, she records this additional handling time on the BLUE location card.

### Demonstration Steps

To set up the outbound warehouse handling time for the BLUE warehouse, follow these steps.

1. In the **Search** box, enter "locations", and then select the related link.
2. Open the location card for the BLUE warehouse and expand the **Warehouse** FastTab.
3. In the **Outbound Whse. Handling Time** field, type "1D".
4. Click **OK** to close the location card.

### Demonstration: Set Up Shipping Time

A company can record a shipping time for a customer in the **Shipping Time** field on the **Shipping** FastTab of the customer card.

When an order processor creates a sales order for the customer, the program copies the shipping time from the customer card to the **Shipping Time** field on the sales order line.

Many companies use the services of a shipping agent to deliver their orders. To reflect this, the company can also set up a shipping time for each shipping agent service, and then assign a default shipping agent service to the customer. When this approach is used, the order lines for the customer receive their initial shipping times from the customer's default shipping agent service instead of the customer card.

**Scenario:** At CRONUS, there are four shipping agents. For each shipping agent, the company sets up several services that differ on shipping time.

Michael, the account manager, is responsible for setting up the FEDEX shipping agent and the NEXT DAY shipping service. He then assigns this as the default shipping agent service for customer 20000, Selangorian Ltd.



### Demonstration Steps

To review the shipping agent information for FEDEX, follow these steps.

1. In the **Search** box, enter "shipping agents", and then select the related link.
2. Click the line for FEDEX, and on the Home tab, click Shipping Agent Services.

Code	Description	Shipping Time	Base Calend...	Customized Calendar
NEXT DAY	Next day delivery	1D		No
STANDARD	Standard delivery	2D		No

**FIGURE 7.2: SHIPPING AGENT SERVICES FOR FEDEX**

Based on this setup, there is a one-day shipping time used for next-day delivery.

To set up customer 20000 with FEDEX as the shipping agent and NEXT DAY as the default shipping service, follow these steps.

1. Close the **Shipping Agent Services** and **Shipping Agents** page.
2. In the **Search** box, enter "customers", and then select the related link.
3. Open the customer card for customer 20000 and then expand the **Shipping** FastTab.
4. In the **Shipping Agent Code** field, select FEDEX.
5. In the **Shipping Agent Service Code** field, select NEXT DAY, and then press **Enter** or **Tab**.

The **Shipping Time** field automatically populates with 1D.

The next time that a sales order is created for this customer, the FEDEX shipping agent, the NEXT DAY shipping agent service, and the 1D shipping time values automatically copy to the corresponding fields on the **Shipping** FastTab of the sales order.

## Demonstration: Review the Availability Test Interval Setup

**Scenario:** The Sales management at CRONUS decide that when the program checks availability, it must perform the check for 90 days starting from the current day, by using time buckets of one week. This setting also applies to ATP functionality.

### Demonstration Steps

To verify the availability test interval, follow these steps.

1. In the **Search** box, enter "company information", and then select the related link.
2. Expand the **Shipping** FastTab.

The screenshot shows the 'Edit - Company Information' window for 'CRONUS International Ltd.'. The 'Shipping' FastTab is expanded, displaying the following fields and values:

Field	Value
Country/Region Code	GB
Phone No.	0666-666-6666
VAT Registration No.	GB77777777
Industrial Classification	
Ship-to Name	CRONUS Internation...
Ship-to Address	5 The Ring
Ship-to Address 2	Westminster
Ship-to Post Code	W2 8HG
Ship-to City	London
Ship-to Country/Region Co...	GB
Ship-to Contact	
Location Code	
Responsibility Center	
Check-Avail. Period Calc.	90D
Check-Avail. Time Bucket	Week
Base Calendar Code	
Customized Calendar	No
Cal. Convergence Time Fra...	1Y

**FIGURE 7.3: AVAILABILITY TEST INTERVAL SETUP**

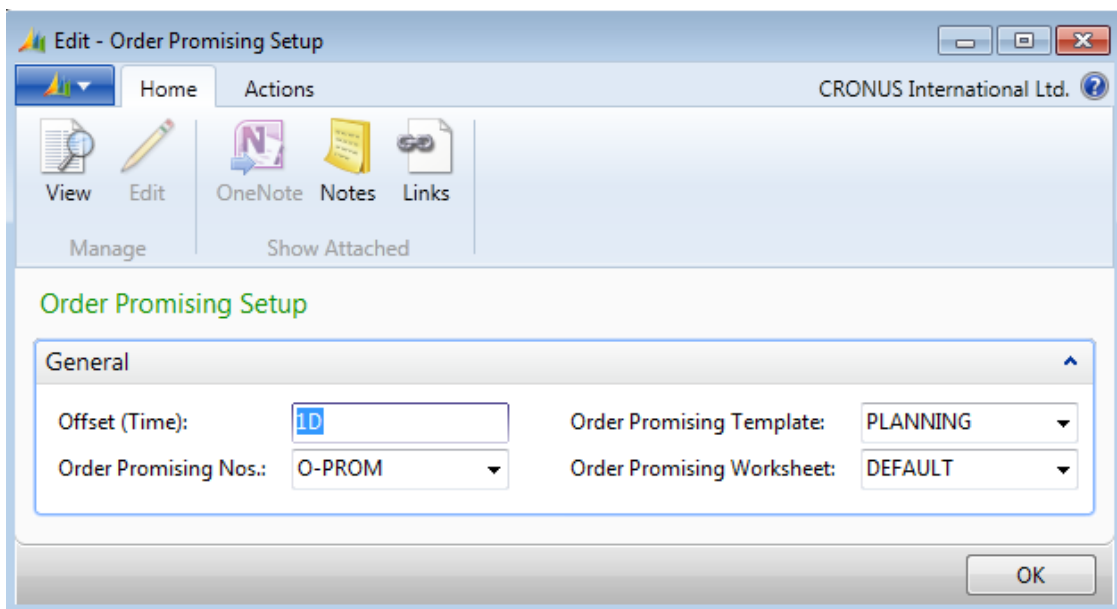
The **Check-Avail. Period Calc.** field contains 90D and the **Check-Avail. Time Bucket** field contains Week.

The check availability period reflects an agreement between a company and its customers. This indicates the maximum time that customers are willing to wait before their order requests are met.

The check available time bucket specifies how frequently the system checks supply and demand events to discover if the item on the demand line is available on its planned shipment date.

### Order Promising Setup

Order Promising Setup controls certain aspects of CTP behavior. To access the setup page, enter "order promising setup" in the **Search** box, and then select the related link.



**FIGURE 7.4: ORDER PROMISING SETUP**

The **Order Promising Template** and **Order Promising Worksheet** fields specify the requisition worksheet template and the worksheet that CTP functionality uses to create its replenishment proposals.

The **Offset (Time)** field specifies the period from the current date that the program must wait before issuing a new purchase, production, assembly, or transfer order (a type of administrative lead time).

For more information about how to set up parameters in the **Order Promising Setup** page, refer to the "How to: Set Up Order Promising" topic in the online Help.

## Promising Sales Order Delivery

Order processors must deal with many scenarios when promising sales order deliveries. These include the following:

- Has the customer requested or been promised a delivery date, and can this date be met?
- Is there existing or expected inventory available to meet the order requirements? If this is the case, when?
- If there is no existing inventory or expected inventory, can a new supply be manufactured, purchased, assembled, or transferred in time to meet the order requirement?

The demonstrations in this lesson show order processors how to answer these questions. In these examples, the current day is January 23, 2014.

### Demonstration: Promise Sales Orders Without a Requested Delivery Date

**Scenario:** Customer 10000 orders 100 units of item 70002. The customer does not request a specific delivery date.

Susan, the order processor at CRONUS, creates a sales order and provides a delivery date to the customer.

### Demonstration Steps

To create the sales order for customer 10000, for 100 units of item 70002, follow these steps.

1. In the **Search** box, enter "sales orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "10000". Accept any messages.
4. Leave the **Requested Delivery Date** field blank.
5. On the **Lines** FastTab, in the **Type** field, select Item.

6. In the **No.** field, enter "70002".
7. In the **Quantity** field, type "100".

1001 · The Cannon Group PLC

General

No.: 1001 Document Date: 1/23/2014

Sell-to Customer No.: 10000 Requested Delivery Date:

Sell-to Customer Name: The Cannon Group PLC External Document No.:

Sell-to City: Birmingham Salesperson Code: PS

Posting Date: 1/23/2014 Status: Open

Order Date: 1/23/2014

Show more fields

Lines

Type	No.	Description	Location Code	Quantity	Planned Delivery Date	Planned Shipment Date	Shipment Date
Item	70002	Top Panel	BLUE	100	1/25/2014	1/24/2014	1/23/2014

OK

**FIGURE 7.5: SALES ORDER WITH DELIVERY AND SHIPMENT DATES**

Because there is no **Requested Delivery Date** or **Promised Delivery Date** specified in the order header, the program first calculates the earliest date that item 70002 is available at the BLUE warehouse. Because the items are available now, the program sets the **Shipment Date** field to equal the current work date of January 23, 2014.

In keeping with the calculations that are specified in the "Sales Order Promising Definitions and Calculations" lesson in this training material, the program then forward calculates the **Planned Shipment Date** field by adding the outbound warehouse handling time for the BLUE warehouse to the shipment date. Because the outbound warehouse handling time for the BLUE warehouse is one day, the **Planned Shipment Date** field is set to January 24, 2014.

The program then forward calculates the **Planned Delivery Date** field by adding the shipping time to the planned shipment date. Because the shipping time for customer 10000 is one day, the **Planned Delivery Date** field is set to January 25, 2014.

Susan informs the customer that the order will be delivered in two days.

### **Demonstration: Request Items Unavailable for Shipping**

**Scenario:** Customer 20000 orders 30 units of item 1968-S. The customer does not request a specific delivery date, and the order will ship from the GREEN warehouse.

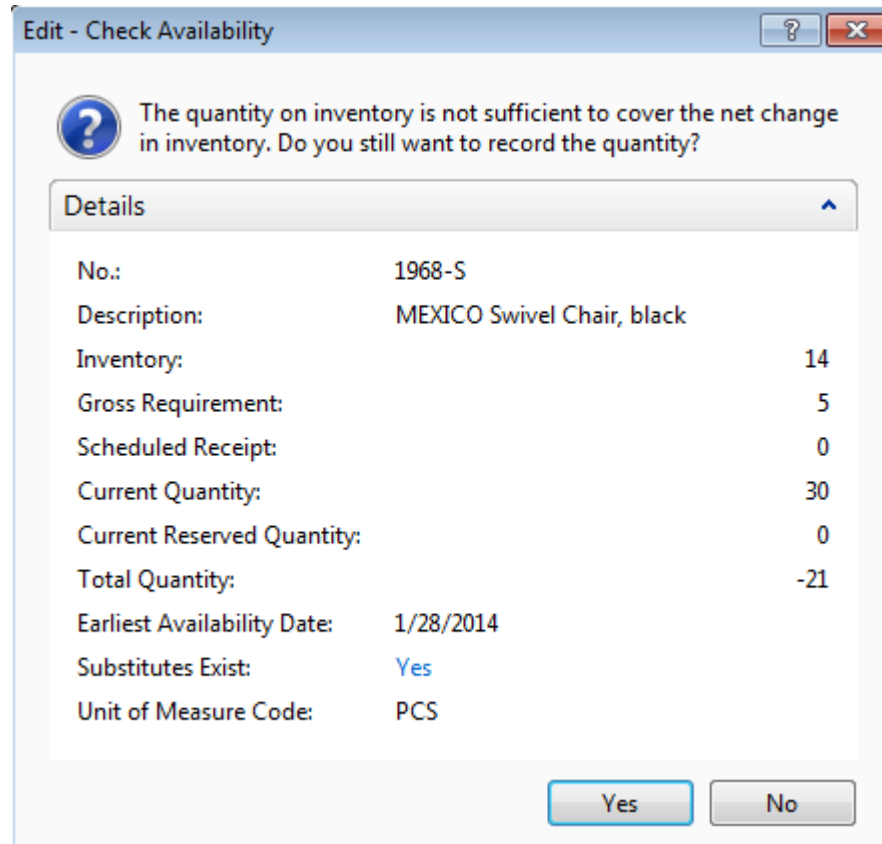
The required quantity of item 1968-S is currently not available in inventory at the GREEN warehouse. However, it is expected to be available sometime in the future. Susan creates a sales order and uses the program's available-to-promise functionality to tell the customer when the order will be delivered.

### **Demonstration Steps**

To create a sales order for customer 20000 for 30 units of item 1968-S, follow these steps.


1. In the **Search** box, enter "sales orders", and then click the selected link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "20000". Accept any messages.
4. Leave the **Requested Delivery Date** field blank.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, select GREEN.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "1968-S".
9. In the **Quantity** field, type "30".

You will receive a stockout warning message.



**FIGURE 7.6: STOCKOUT WARNING THAT DISPLAYS THE EARLIEST AVAILABILITY DATE**

The **Earliest Availability Date** field on the stockout message shows January 28, 2014. This means that an outstanding production, purchase, assembly, transfer, or sales return order exists for item 1968-S, and the expected availability date for this new supply is January 28, 2014. Susan uses this information to recalculate the delivery date for the order.

 **Note:** The **Earliest Availability Date** field in the stockout message shows a date only if the inbound supply is of sufficient quantity to cover the required quantity. If the inbound supply cannot cover all the required quantity, the **Earliest Availability Date** field is blank.

To complete the order, follow these steps.

1. Click **Yes** to record the quantity.
2. Set the **Shipment Date** field to January 28, 2014, and then press **Enter** or **Tab**. The planned shipment date and the planned delivery date recalculate.

The screenshot shows the 'New - Sales Order - 1002 - Selangorian Ltd.' window. The 'General' tab is active, showing fields for 'No.' (1002), 'Document Date' (1/23/2014), 'Sell-to Customer No.' (20000), 'Requested Delivery Date', 'Sell-to Customer Name' (Selangorian Ltd.), 'External Document No.', 'Sell-to City' (Coventry), 'Salesperson Code' (PS), 'Posting Date' (1/23/2014), 'Status' (Open), and 'Order Date' (1/23/2014). Below the 'General' tab is the 'Lines' table:

Type	No.	Description	Location Code	Quantity	Planned Delivery Date	Planned Shipment Date	Shipment Date
Item	1968-S	MEXICO Swivel Chair, black	GREEN	30	1/30/2014	1/29/2014	1/28/2014

**FIGURE 7.7: RECALCULATED SHIPMENT AND DELIVERY DATES**

Based on these calculations, Susan can tell the customer that the delivery date for the order is January 30, 2014.

**Note:** If you change the shipment date in the **Shipment Date** field of the **Shipping** FastTab, and the availability check for the existing sales lines shows that items are unavailable on the new shipment date, the program does not show a stockout warning. The warning appears only when you change the shipment date on a sales line.

**Note:** Additionally, when the order processor uses the suggested earliest availability date on the stockout message, he or she can run the CTP function. For an example of this function, refer to the "Request a Delivery Date for Which Items Are Unavailable" demonstration.



### Demonstration: Meet the Requested Delivery Date

**Scenario:** Customer 50000 orders 25 units of item 70010. The customer requests that the order is delivered on February 02, 2014.

Susan creates a sales order and checks whether the requested delivery date can be met.

#### Demonstration Steps

To create a sales order for customer 50000 for 25 units of item 70010, follow these steps.

1. In the **Search** box, enter "sales orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "50000". Accept any messages.
4. Set the **Requested Delivery Date** field to February 02, 2014.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, select BLUE.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "70010".
9. In the **Quantity** field, type "25".

Notice that the **Planned Delivery Date** field is equal to the requested delivery date of February 02, 2014. Based on the required shipping time and outbound warehouse handling time, the program backward calculates the **Planned Shipment Date** field to January 31, 2014, and the **Shipment Date** field to January 30, 2014.

The program then checks that the required items are available for shipping on the shipment date. Because they are available, the program leaves the dates unchanged.

Based on these calculations, Susan informs the customer that the order will meet the requested delivery date of February 02, 2014.

If Susan decides to change the shipping time or the outbound warehouse handling time, the program recalculates all related dates.

To change the outbound warehouse handling time in the sales order from one day to two days, follow these steps.

1. Expand the **Shipping** FastTab.
2. Click **Show more fields**.
3. In the **Outbound Warehouse Handling Time** field, type "2D", and then press **Enter** or **Tab**.
4. Click **Yes** to update the lines.

The program now recalculates the shipment date (making it one day earlier, to January 29, 2014), and verifies that the required items are available for shipping on this date. The requested delivery date remains unchanged.

### **Demonstration: Request a Delivery Date for Which Items Are Unavailable**

**Scenario:** Customer 20000 orders 30 units of item 70200. The customer requests that the order arrive on February 01, 2014.

Susan creates a sales order and finds that the requested delivery date cannot be met because there is no existing inventory and no new inbound supply. Therefore, Susan uses the CTP functionality to determine the earliest possible date that a new supply can be made available. If this is acceptable, she must create the supply and reserve it for the sales order.

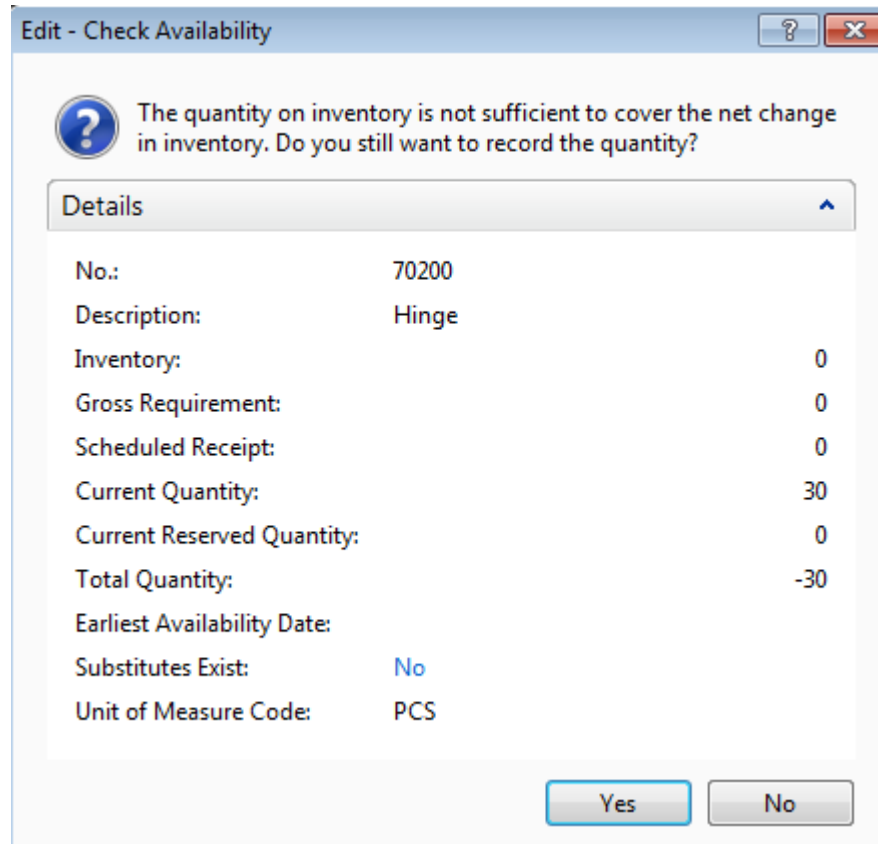
The sales order will ship from the GREEN warehouse.

### **Demonstration Steps**

To create a sales order for customer 20000 for 30 units of item 70200, follow these steps.

1. In the **Search** box, enter "sales orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "20000". Accept any messages.
4. Set the **Requested Delivery Date** field to February 01, 2014.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, select GREEN.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "70200".
9. In the **Quantity** field, type "30".

You will receive a stockout warning message.



**FIGURE 7.8: STOCKOUT WARNING WITHOUT AN EARLIEST AVAILABILITY DATE**

You receive this message because the program checks whether the required items are available for shipping on January 30, 2014. This is the day they must be available to meet the requested delivery date of February 01, 2014. The availability check shows that the items are not available at the GREEN warehouse on that date.

The **Earliest Availability Date** field on the warning message does not contain a date. This means that there are no production, purchase, assembly, transfer, or sales return orders created for item 70200 at the GREEN warehouse, either (no known supply from any source).



**Note:** If you change the requested delivery date on the header, and the availability check for the existing sales lines shows that items are unavailable on the calculated shipment date, the program does not show a stockout warning. The warning appears only when you change the requested delivery date on a sales line.

## Trade in Microsoft Dynamics® NAV 2013

Without existing or expected inventory available to fill the order, Susan can use the CTP functionality to calculate when the requested quantity can be available. To use the CTP functionality, follow these steps.

1. Click **Yes** to accept the stockout warning message.
2. On the **Home** tab, click **Order Promising**. The **Order Promising Lines** page appears. The program copies information to the **Requested Delivery Date**, **Requested Shipment Date**, **Original Shipment Date**, and **Quantity** fields from the sales order header and line.
3. On the **Home** tab of the **Order Promising Lines** page, click **Capable-to-Promise**.

The program checks when the required item quantity can be available if it must be produced, purchased, assembled, or transferred. Then it fills in the **Earliest Shipment Date** field and, based on this date, it recalculates the new planned delivery date.

Item No.	Description	Requested Delivery Date	Requested Shipment Date	Planned Delivery Date	Original Shipment Date	Earliest Shipment Date	Quantity
70200	Hinge	2/1/2014	1/30/2014	2/1/2014	1/30/2014	1/30/2014	30

**FIGURE 7.9: CALCULATED CAPABLE-TO-PROMISE LINES**

Based on the dates shown, the customer's requested delivery date can still be met despite the need for a replenishment order.

To accept the CTP recommendations, on the **Home** tab, click **Accept**.

The program copies the dates from the fields on the **Order Promising Lines** page to the corresponding fields on the sales line.

What did the program use as its source of inventory replenishment to meet the customer's order requirements? It created a planning line in the planning worksheet for a purchase order for 30 units of item 70200. The purchase order is scheduled to be received at the GREEN warehouse on January 30, 2014. The program also created a reservation entry to link the planned purchase order with the customer's sales order. This makes sure that the new supply is not used to meet another need.



**Note:** *If the requested delivery date changes after you run the CTP function, the lines in the planning (requisition) worksheet do not update.*

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### **Demonstration: Set the Shipment Date Before the Current Date**

**Scenario:** Customer 50000 orders 20 units of item 1988-S and requests that the order arrives on January 25, 2014. The sales order ships from the YELLOW warehouse.

Susan creates a sales order and checks whether the requested order delivery date can be met.

#### **Demonstration Steps**

To create a sales order for customer 50000 for 20 units of item 1988-S, follow these steps.

1. In the **Search** box, enter "sales orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "50000". Accept any messages.
4. Set the **Requested Delivery Date** field to January 25, 2014.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, select YELLOW.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "1988-S", and then press **Enter** or **Tab**.
9. The program performs calculations and shows a message that the shipment date of January 22, 2014, is before the work date. Click **OK** to accept the January 22, 2014 date.
10. In the **Quantity** field, type "30".

The **Late Order Shipping** field on the **Shipping** FastTab is set to Yes. This indicates that the shipment date on one or more sales lines is a) earlier than the shipment date on the order header, or b) is before the work date. The program does not provide an additional warning.



**Note:** You might have to refresh the page for the change to be visible in the **Late Order Shipping** field. On the **Actions** tab, click **Refresh**.

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In this situation, Susan has two options:

- Accept the planned delivery and requested delivery dates, and find a way internally to meet these dates.
- Set the shipment date equal to the current date and make the program recalculate all associated dates to determine a new planned delivery date.

Susan selects the second option and changes the **Shipment Date** field to January 23, 2014. This causes a forward calculation of the planned shipment date to January 24, 2014, and of the planned delivery date to January 26, 2014.

Susan uses this information to inform the customer that the order will be one day late.



**Note:** Susan can also manually adjust the **Planned Delivery Date** field. This causes the program to backward calculate the **Planned Shipment Date** and **Shipment Date** fields.

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### Promising Sales Order Delivery in Other Situations

Sometimes when order processors create sales orders with or without requested delivery dates, they might want to ship the orders on a different date than the date that is calculated by the program. For example: shipping orders on certain week days to a specific customer because of a fixed shipping schedule, or when the order processors try to coordinate multiple shipments to the same customer.

When this occurs, the order processor confirms the new delivery date with the customer, and then he or she enters this date in the **Promised Delivery Date** field of the sales header. Then, the program sets the planned delivery date equal to the promised delivery date and calculates all dates, but it substitutes the promised delivery date where it typically uses the requested delivery date (the promised delivery date takes precedence).

### Demonstration: Request Different Shipment Dates on Lines

**Scenario:** Customer 50000 orders 10 units of item 1908-S, 15 units of item 1964-S, and 90 units of item 1906-S. The customer requests delivery of the order on January 26, 2014. The sales order will ship from the GREEN warehouse.

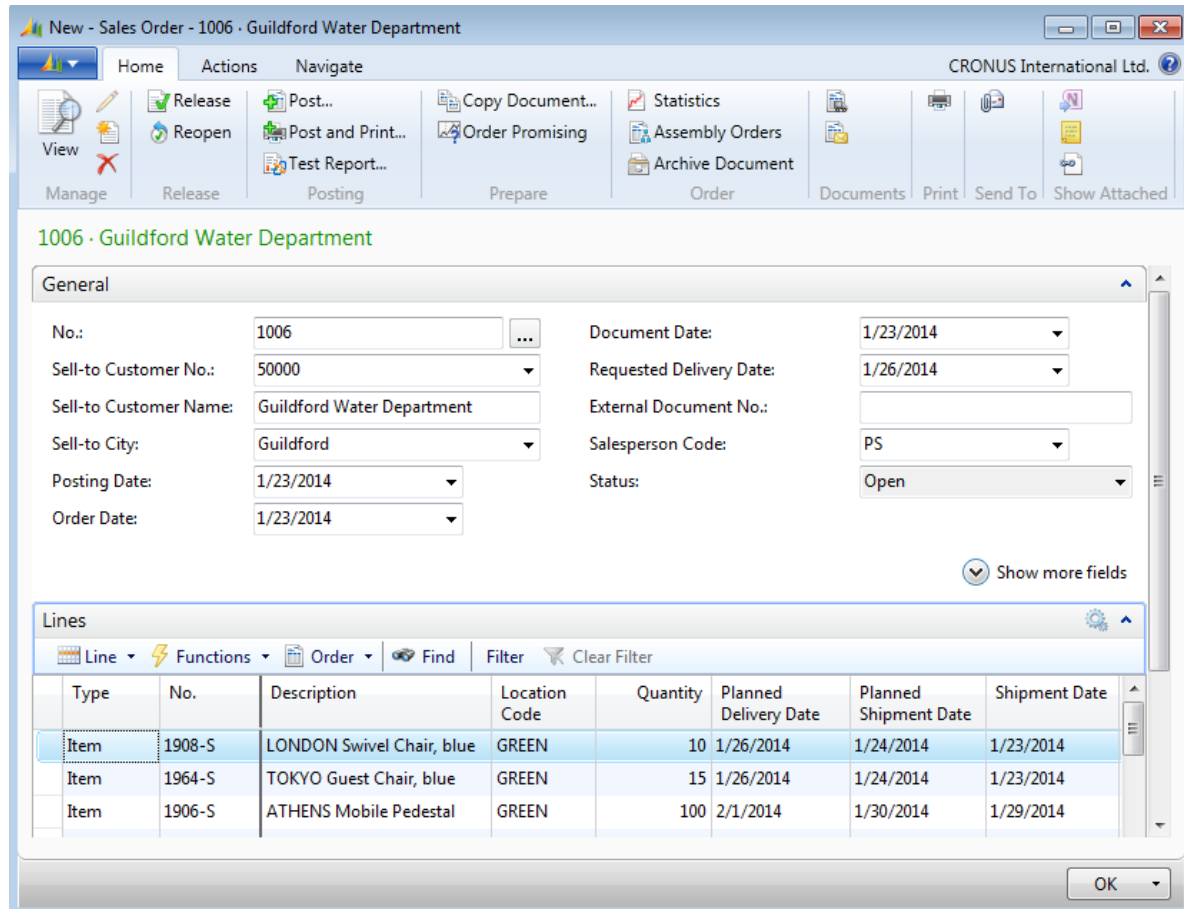
Susan creates the sales order and checks whether the requested order delivery date can be met.

### Demonstration Steps

To create a sales order for customer 50000 for 20 units of item 1988-S, follow these steps.

1. In the **Search** box, enter "sales orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "50000". Accept any messages.
4. Set the **Requested Delivery Date** field to January 26, 2014.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, select GREEN.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "1908-S".
9. In the **Quantity** field, type "10".
10. On the next line, enter "1964-S" in the **No.** field.
11. In the **Quantity** field, type "15".
12. On the next line, enter "1906-S" in the **No.** field.
13. In the **Quantity** field, type "100" and then press **Enter** or **Tab**. You receive a stockout message that states the earliest availability date for this item is January 29, 2014.
14. Click **Yes** to record the quantity.
15. Set the **Shipment Date** field on the third line to January 29, 2014. The program recalculates the planned shipment date and the planned delivery dates, and sets the **Planned Delivery Date** field to February 01, 2014.

The order now contains three sales lines with two shipment dates.



**FIGURE 7.10: MULTIPLE SALES LINES WITH DIFFERENT SHIPMENT DATES**

To ship all three items on the same date, Susan obtains the customer's acceptance to deliver the order on February 01, 2014. To record this agreement, follow these steps.

1. On the **General** FastTab, click **Show more fields**.
2. Set the **Promised Delivery Date** field to February 01, 2014, and then press **Enter** or **Tab**.
3. Click **Yes** to update the lines.

The program recalculates all dates and fills in the corresponding fields on the sales lines.



## Lab 7.1: Promise Sales Order Delivery to a Customer

### Scenario

Customer 50000 orders 50 units of item 70040. The customer requests delivery of the order on January 25, 2014. The sales order will ship from the YELLOW warehouse.

As the order processor, you must create the sales order and check whether the requested order delivery date can be met. If the requested delivery date cannot be met, determine when you can deliver the order.

### High Level Steps

1. Create the sales order for customer 50000 for 50 units of item 70040, with a requested delivery date of January 25, 2014. The order must ship from the YELLOW warehouse.
2. Run CTP to determine the earliest date that you can deliver the order to the customer.

### Detailed Steps

1. Create the sales order for customer 50000 for 50 units of item 70040, with a requested delivery date of January 25, 2014. The order must ship from the YELLOW warehouse.
  - a. In the **Search** box, enter "sales orders", and then select the related link.
  - b. On the **Home** tab, click **New** and then press **Enter**.
  - c. On the **General** FastTab, in the **Sell-to Customer No.** field, enter "50000". Accept any messages.
  - d. Set the **Requested Delivery Date** field to January 25, 2014.
  - e. Expand the **Shipping** FastTab.
  - f. In the **Location Code** field, select YELLOW.
  - g. On the **Lines** FastTab, in the **Type** field, select Item. In the **No.** field, enter "70040", and then press **Enter** or **Tab**.
  - h. Click **OK** to close the message about the work date.
  - i. In the **Quantity** field, type "50", and then press **Enter** or **Tab**.
  - j. In the stockout message, notice that there is no date in the **Earliest Availability Date** field. Click **Yes** to record the quantity.

2. Run CTP to determine the earliest date that you can deliver the order to the customer.
  - a. On the **Home** tab, click **Order Promising**. Click **OK** to close the repeat message about the work date.
  - b. On the **Home** tab of the **Order Promising Lines** page, click **Capable-to-Promise**.
  - c. According to these dates, the earliest shipment date is January 26, 2014. This makes the earliest planned delivery date January 29, 2014. On the **Home** tab, click **Accept**.
  - d. Communicate to your customer that the order will be delivered on January 29, 2014.

## Purchase Order Promising Definitions and Calculations

Purchasing agents must know when the orders they place with vendors will be received into inventory and available for picking.

When you create a purchase order, the program quickly calculates planned and expected receipt dates for the order, by considering vendor lead time and other time variables. Or, if you request a specific receipt date for the order, the program calculates the date on which you must place the order so that the vendor can fulfill your request.

Similar to sales order promising, purchase order promising is based on calculations that involve several date and time fields.

### Field Definitions

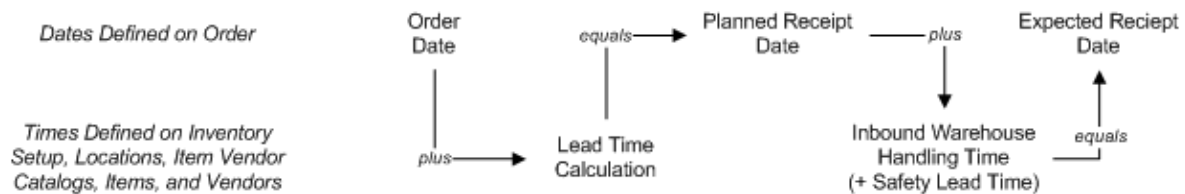
The following table provides a brief description of the important fields in purchase order promising.

Field	Definition
<b>Requested Receipt Date</b>	The date the company requests a vendor to deliver the order. You must manually enter this date to affect the date calculation.
<b>Promised Receipt Date</b>	The date the vendor promises delivery of the order to the company. You must manually enter this date to affect the date calculation.
<b>Planned Receipt Date</b>	The date the company plans to receive the order. This date calculates automatically.
<b>Expected Receipt Date</b>	The date the company expects the put-away process to finish and when the items are available for picking. This date calculates automatically and affects item availability.

Field	Definition
<b>Order Date</b>	The date the item is ordered. If calculating backward from a planned receipt date, the date the vendor must ship the items to meet the planned receipt date.
<b>Inbound Warehouse Handling Time</b>	The time that is required to receive and put away the items of an order.
<b>Lead Time Calculation</b>	The time that is between when the items are ordered from the vendor and when the items are received by the company. Otherwise, this is known as the vendor lead time.
<b>Safety Lead Time</b>	The buffer period if there are delays in the purchase replenishment lead time. This affects the date when the items are available for sale.

### Date Calculations

The date calculations that are used in purchase order promising are based on the dates that are entered by the purchasing agent and the time values that are set up in the program. The Date and Time Calculation Relationship in Purchase Orders figure shows the relationship between the date and the time values that are used in the calculations.



**FIGURE 7.11: DATE AND TIME CALCULATION RELATIONSHIP IN PURCHASE ORDERS**

The calculations that are used depend on whether the purchasing agent requests a specific receipt date.



**Note:** To compare the following formulas to the Date and Time Calculation Relationship in Purchase Orders figure, substitute the Promised Receipt Date or the Requested Receipt Date for the Planned Receipt Date in the figure.

---

### **Calculating with a Requested Receipt Date**

If there is a requested receipt date on the purchase order line, that date is used as the starting point for the following calculations:

- *Requested receipt date - lead time calculation = order date*
- *Requested receipt date + inbound warehouse handling time + safety lead time = expected receipt date*

If the purchasing agent enters a value in the **Promised Receipt Date** field on the **Shipping** FastTab of the purchase order, the promised receipt date is substituted for the requested receipt date in calculating the expected receipt date (the promised receipt date takes precedence), and any additional changes to the requested receipt date are not allowed (you can calculate dates based on either a request or a promise, but not both).

The full order or priority for dates in the order header is as follows:

1. Promised Receipt Date
2. Requested Receipt Date
3. Expected Receipt Date
4. Shipment Date

### **Calculating without a Requested Receipt Date**

If you create a purchase order line without a requested receipt date, then the **Order Date** field on the line is populated with the date in the **Order Date** field on the purchase order header. This is either the date that you entered or the work date. The following dates are then forward calculated for the purchase order line, with the order date as the starting point.

- *Order date + lead time calculation = planned receipt date*
- *Planned receipt date + inbound warehouse handling time + safety lead time = expected receipt date*

### **Triggering Calculations Manually**

The program also recalculates all relevant dates if a purchasing agent manually changes any date involved in date calculations.

## Date Calculation Setup for Purchase Orders

To support date calculations for purchase order promising, a company must set up the following:

- **Inbound warehouse handling time:** Specifies the time it takes the warehouse to make an item part of available inventory after it is received. The program uses this time in combination with the safety lead time to calculate the expected receipt date from the planned receipt date.
- **Lead time calculation:** Specifies the time it takes to replenish the item between the order date and the planned receipt date. If the program calculates forward from the order date, it uses this time value to determine the planned receipt date. If the program calculates backward from the planned receipt date, it uses this value to calculate the order date.
- **Safety lead time:** Specifies the time that is used as a buffer period if there are delays in the purchase replenishment lead time. The program uses this time in combination with the inbound warehouse handling time to calculate the expected receipt date from the planned receipt date.

### Demonstration: Set Up Inbound Warehouse Handling Time

Companies can set up the inbound warehouse handling time on the inventory setup card and, or the location card. If a company has multiple locations, it must set up the handling time for each location. The setup on the location card has priority over the setup on the inventory setup card.

**Scenario:** Ellen, the warehouse manager at CRONUS, has worked with staff in the BLUE warehouse to make sure that inbound handling times for purchased items are accurate. After speaking to warehouse staff, Ellen determines that it takes one day for the warehouse personnel to complete the procedures for receiving and putting away inbound items before they are available for picking.

### Demonstration Steps

To set up the inbound warehouse handling time for the BLUE warehouse, follow these steps.

1. In the **Search** box, enter "locations", and then select the related link.
2. Open the location card for the BLUE warehouse, and then expand the **Warehouse** FastTab.
3. In the **Inbound Whse. Handling Time** field, type "1D".
4. Click **OK** to close the location card.

### Lead Time Calculation and Safety Lead Time Setup

Companies can set up the lead time calculation on the following:

- **Item Vendor Catalog** page
- **Receiving** FastTab of the item card (or on the **Replenishment** FastTab of the stockkeeping unit card, if the stockkeeping unit exists for the item)
- **Receiving** FastTab of the vendor card

The program uses the lead time calculation in the same order of priority as previously shown.

Companies can set up the safety lead time on the following:

- **Planning** FastTab of the item card
- **Planning** FastTab of the **Manufacturing Setup** page, where the term "default safety lead time" is used

The program uses the default safety lead time set up on the **Manufacturing Setup** page only if it is not set up on the item card. Because this time is relevant to manufacturing companies, non-manufacturing companies should set this time to zero on item cards or remove it from the **Manufacturing Setup** page and the item card.

### Demonstration: Set Up Lead Time Calculations

**Scenario:** Based on the purchasing practices and long-term relationships with vendors, Alicia, the purchasing agent at CRONUS, knows how long it takes each vendor to deliver each item.

For example, it takes one week for vendor 30000 to deliver item 70010 to CRONUS, and it takes three days for vendor 40000 to deliver any order (regardless of the item). It takes all vendors two days to ship items 70011 and 1928-W.

The safety lead time is not used by CRONUS. Therefore, all the company's inventory items must have a safety lead time of zero.

First, review how CRONUS has set up the lead time calculation for item 70010 and vendor 40000. Then, set up the lead time calculation for items 70011 and 1928-W, and the safety lead time for items 70010, 70011, 70040, and 1928-W.

When several vendors ship the same items, companies can set up vendors for each item by using the **Item Vendor Catalog** page.

### Demonstration Steps

To review the setup for item 70010 and vendor 40000, follow these steps.

1. In the **Search** box, enter "items", and then select the related link.
2. Open the item card for item 70010.
3. On the **Navigate** tab, click **Vendors**.
4. The **Item Vendor Catalog** page appears. Notice that the **Vendor No.** field contains 30000, and the **Lead Time Calculation** field contains 1W. This means that when item 70010 is purchased from vendor 30000, the program uses one week as a default lead time in date calculations for the purchase order.
5. Close both the **Item Vendor Catalog** page and the item card.
6. In the **Search** box, enter "vendors", and then select the related link.
7. Open the vendor card for vendor 40000.
8. Expand the **Receiving** FastTab.
9. The **Lead Time Calculation** field contains 3D. This means that when an order is placed with vendor 40000, the program uses a three-day default lead time in date calculations for the purchase order.
10. Click **OK** to close the vendor card.

To set up the lead time calculation and blank the safety lead time for items 70010, 70011, 70040, and 1928-W, follow these steps.

1. In the **Search** box, enter "items", and then select the related link.
2. Open the item card for item 70010.
3. Expand the **Planning** FastTab.
4. In the **Safety Lead Time** field, type "0D".
5. Click **OK** to close the item card.
6. Open the item card for item 70011.
7. On the **Planning** FastTab, in the **Safety Lead Time** field, type "0D".
8. Expand the **Replenishment** FastTab.
9. In the **Lead Time Calculation** field, type "2D".
10. Click **OK** to close the item card.
11. Repeat steps 2 through 5 for item 70040.
12. Repeat steps 6 through 10 for item 1928-W.



## Estimating Purchase Order Receipts

Purchase order receipt dates are automatically calculated based on a combination of the date fields, parameters, and the formulas described in the “Purchase Order Promising Definitions and Calculations” and “Date Calculation Setup for Purchase Orders” lessons in this training material.

The demonstrations in this lesson show the date calculation functionality. In these examples, the current day is January 23, 2014.

### Demonstration: Calculate a Purchase Order Receipt Without a Requested Receipt Date

**Scenario:** Alicia, the purchasing agent at CRONUS, orders 25 units of item 70011 from vendor 10000, and does not request a specific receipt date.

She then creates a purchase order and wants to estimate when the order will arrive at the BLUE warehouse.

#### Demonstration Steps

To create a purchase order to vendor 10000 for 25 units of item 70011, follow these steps.

1. In the **Search** box, enter “purchase orders”, and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Buy-from Vendor No.** field, enter “10000”.
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, select BLUE.
6. Click **Show more fields**. Notice that the **Inbound Whse. Handling Time** field is automatically set to “1D”.
7. Leave the **Requested Receipt Date** field blank.
8. On the **Lines** FastTab, in the **Type** field, select Item.
9. In the **No.** field, enter “70011”.
10. In the **Quantity** field, type “25”.

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The program calculates when the vendor can deliver the items to the warehouse and when they are available for picking. Refer to the **Planned Receipt Date**, the **Expected Receipt Date**, and the **Order Date** fields on the purchase lines to view these dates (use the **Choose Columns** function to rearrange the fields in the **Lines** FastTab as shown below).

The screenshot displays the 'Edit - Purchase Order - 106024 - London Postmaster' window. The 'General' tab is active, showing the following fields:

No.:	106024	Order Date:	1/23/2014
Buy-from Vendor No.:	10000	Document Date:	1/23/2014
Buy-from Contact No.:	CT000072	Vendor Order No.:	
Buy-from Vendor Name:	London Postmaster	Vendor Shipment No.:	
Buy-from City:	London	Vendor Invoice No.:	
Posting Date:	1/23/2014	Status:	Open

The 'Lines' FastTab is also visible, showing a table with the following data:

Type	No.	Description	Location Code	Quantity	Expected Receipt Date	Planned Receipt Date	Order Date
Item	70011	Glass Door	BLUE	25	1/26/2014	1/25/2014	1/23/2014

**FIGURE 7.12: PURCHASE ORDER WITH RECEIPT DATES**

The **Order Date** field is set to the current work date of January 23, 2014. Based on the lead time of two days, the **Planned Receipt Date** field is calculated as January 25, 2014. Based on the inbound warehouse handling time set up for the BLUE warehouse, plus the safety lead time set up for item 70011, the program adds one day to the planned receipt date and calculates the **Expected Receipt Date** field as January 26, 2014.

Alicia expects the items to be available for picking in the BLUE warehouse on January 26, 2014.

### **Demonstration: Estimate a Purchase Order Receipt with a Requested Receipt Date**

**Scenario:** Alicia orders 30 units of item 70010 from vendor 30000, and she requests the delivery of the order to the BLUE warehouse on February 05, 2014.

She creates a purchase order and wants to estimate the latest date she can place the order for it to arrive at the BLUE warehouse on the requested date, and when the items will be available for picking.

#### **Demonstration Steps**

To create the purchase order to vendor 30000, for 30 units of item 70010, follow these steps.

1. In the **Search** box, enter "purchase orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Buy-from Vendor No.** field, enter "30000".
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, select BLUE.
6. Set the **Requested Receipt Date** field to February 05, 2014.
7. On the **Lines** FastTab, in the **Type** field, select Item.

8. In the **No.** field, enter "70010".
9. In the **Quantity** field, type "30".

The screenshot displays the 'New - Purchase Order - 106025 - CoolWood Technologies' window. The 'General' section shows the following fields:

No.:	106025	Order Date:	1/23/2014
Buy-from Vendor No.:	30000	Document Date:	1/23/2014
Buy-from Contact No.:	CT000083	Vendor Order No.:	
Buy-from Vendor Name:	CoolWood Technologies	Vendor Shipment No.:	
Buy-from City:	Portsmouth	Vendor Invoice No.:	
Posting Date:	1/23/2014	Status:	Open

The 'Lines' section contains a table with the following data:

Type	No.	Description	Location Code	Quantity	Expected Receipt Date	Planned Receipt Date	Order Date
Item	70010	Wooden Door	BLUE	30	2/6/2014	2/5/2014	1/29/2014

**FIGURE 7.13: PURCHASE ORDER RECEIPT AND ORDER DATES CALCULATED FROM THE REQUESTED RECEIPT DATE**

The program sets the **Planned Receipt Date** field equal to the requested receipt date, because it assumes, for the moment, that the vendor will meet the request. The program then subtracts the lead time for this item (set up for one week if it is purchased from vendor 30000) to calculate the **Order Date** field as January 29, 2014.

To have the 30 units of item 70010 delivered to the BLUE warehouse by February 05, 2014, Alicia knows that she must place the order by January 29, 2014.

The program calculates the **Expected Receipt Date** field by adding inbound warehouse handling time (plus safety lead time) to the planned receipt date. This results in a date of February 06, 2014.

This tells Alicia that if the items arrive at the BLUE warehouse on February 05, 2014, as requested, they will be available for picking on February 06, 2014.

### Demonstration: Calculate an Order Placed Before the Current Date

**Scenario:** Alicia orders 40 units of item 70040 from vendor 40000, and she requests the delivery of the order to the GREEN warehouse on January 25, 2014.

She creates a purchase order and wants to estimate the latest date she can place the order for it to arrive at the warehouse on the requested date.

#### Demonstration Steps

To create the purchase order to vendor 40000 for 40 units of item 70040, follow these steps.

1. In the **Search** box, enter "purchase orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Buy-from Vendor No.** field, enter "40000".
4. Expand the **Shipping** FastTab.
5. Make sure that the **Location Code** is set to GREEN.
6. Set the **Requested Receipt Date** field to January 25, 2014.
7. On the **Lines** FastTab, in the **Type** field, select Item.
8. In the **No.** field, enter "70040" and then press **Enter** or **Tab**.
9. Click **OK** to accept the message that the order date of January 22, 2014 is earlier than the work date of January 23, 2014.
10. In the **Quantity** field, type "40".

The program does not change the calculated order date that is before the work date. It only provides a warning.

In this situation, Alicia can either do one of the following:

- Work with the vendor to check whether the items can still be delivered on the requested date, even though she will technically be placing the order one day late. In this case, she can leave the dates unchanged (although she is effectively reducing the lead time for the order).
- Set the order date equal to the current date and make the program recalculate all associated dates.

To select the second option, change the **Order Date** field on the sales line to January 23, 2014 (the current work date). The program recalculates the planned receipt and the expected receipt dates by adding one day to them.



**Note:** Alicia also has other options to change the sales line dates. She can change the **Expected Receipt Date** field and trigger a backward calculation from that field instead of the forward calculation triggered by changing the **Order Date** field. Or she can change the **Planned Receipt Date** field and trigger recalculations in both directions—forward to the expected receipt date and backward to the order date.

She can also change the **Requested Receipt Date**, **Promised Receipt Date**, or the **Expected Receipt Date** fields in the **Shipping** FastTab, and the program will give her the option of copying any of these changes to all purchase lines. This triggers a recalculation of the relevant dates. One disadvantage of changing dates in the order header and copying them to the purchase lines is that the program does not provide a warning if the resulting recalculation sets the order date before the work date. This warning appears only in response to changes that are made directly to a purchase line.

---

### **Demonstration: Estimate a Purchase Order Receipt in Other Situations**

**Scenario:** When Alicia uses the program to estimate the receipt date of purchase orders, she assumes that the delivery process follows the time periods that are set up for this process. However, she confirms the calculated delivery dates with the vendors. If a vendor requests another date, she considers it a promised receipt date. She then enters this date in the **Promised Receipt Date** field on the **Shipping** FastTab of the purchase order.

After Alicia enters a date in the **Promised Receipt Date** field, the program asks whether she wants to copy this date to the purchase lines. If she agrees, the program sets the planned receipt date equal to the promised receipt date and the program makes a forward calculation to suggest a new expected receipt date. The order date remains unchanged.

On January 23, 2014, Alicia orders 20 units of item 1928-W from vendor 40000, and she requests delivery of the order to the GREEN warehouse. She creates the purchase order and sees that the planned delivery date is calculated as January 25, 2014.

However, when she contacts the vendor, the vendor informs her that it cannot deliver the order until January 26, 2014. Alicia records this date as a promise. By doing this, it causes the program to recalculate the purchase line delivery dates.

### Demonstration Steps

To create the purchase order for 20 units of item 1928-W from vendor 40000, follow these steps.

1. In the **Search** box, enter "purchase orders", and then select the related link.
2. On the **Home** tab, click **New** and then press **Enter**.
3. On the **General** FastTab, in the **Buy-from Vendor No.** field, enter "40000".
4. Expand the **Shipping** FastTab.
5. Make sure that the **Location Code** is set to GREEN.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter "1928-W".
8. In the **Quantity** field, type "20".

The program uses the lead time that is set up for the item (two days) instead of the lead time that is set up for the vendor (three days) to calculate the planned receipt date. Based on the order date of January 23, 2014, this results in a planned receipt date of January 25, 2014 and an expected receipt date of January 27, 2014.

However, the vendor then informs Alicia that it cannot deliver the order until January 26, 2014. Alicia considers this date a promise.

To record the vendor's promise, follow these steps.

1. On the **Shipping** FastTab, set the **Promised Receipt Date** field to January 26, 2014, and then press **Enter** or **Tab**.
2. Click **Yes** to update the lines.

The program sets the planned receipt date equal to the promised receipt date and calculates forward to suggest a new expected receipt date of January 28, 2014. The initial order date of January 23, 2014 remains unchanged.

## Lab 7.2: Purchase Order Promising

### Scenario

As the purchasing agent at CRONUS, you order 10 units of item 70011 from vendor 30000, and you request delivery of the order to the GREEN warehouse on February 09, 2014.

The vendor informs you that it can deliver the order three days earlier than first requested. Record this information in the purchase order.

### High Level Steps

1. Create the purchase order to vendor 30000 for 10 units of item 70011, to be delivered to the GREEN warehouse, with a requested receipt date of February 09, 2014.
2. Record the vendor promise to deliver the purchase order three days early, on February 06, 2014.

### Detailed Steps

1. Create the purchase order to vendor 30000 for 10 units of item 70011, to be delivered to the GREEN warehouse, with a requested receipt date of February 09, 2014.
  - a. In the **Search** box, enter "purchase orders", and then select the related link.
  - b. On the **Home** tab, click **New** and then press **Enter**.
  - c. On the **General** FastTab, in the **Buy-from Vendor No.** field, enter "30000".
  - d. Expand the **Shipping** FastTab.
  - e. In the **Location Code** field, select GREEN.
  - f. Set the **Requested Receipt Date** field to February 09, 2014.
  - g. On the **Lines** FastTab, in the **Type** field, select Item.
  - h. In the **No.** field, enter "70011" and then press **Enter** or **Tab**.
  - i. In the **Quantity** field, type "10".
2. Record the vendor promise to deliver the purchase order three days early, on February 06, 2014.
  - a. On the **Shipping** FastTab, set the **Promised Receipt Date** field to February 06, 2014.
  - b. Click **Yes** to update the lines. The **Planned Receipt Date** and the **Expected Receipt Date** fields on the line recalculate.



## Estimate a Transfer Order Receipt

Order promising calculations are also used to determine when transfer orders are received at the transfer-to location. The program calculates the receipt date according to the following formula.

*Shipment date + outbound warehouse handling time + shipping time + inbound warehouse handling time = receipt date*

The shipping time can be either the time associated with the shipping agent service that is set up for a specific transfer route, or it can be manually entered on the transfer header.



**Note:** For availability, the Receipt Date is equivalent to the Expected Receipt Date on purchase orders.

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Learn more about how to estimate transfer order receipt dates in the *Inventory Management in Microsoft Dynamics NAV 2013 (HOL)* course.

## Calendars

This lesson describes how to set up the program to calculate working or nonworking days by using the Calendars feature.

Working days are designated as the days a company is open for business, and nonworking days are designated as the days a company is closed, such as weekends or holidays. The designation of a specific day can vary from one country and, or region to another.

Companies base their schedules on working and nonworking days and must acknowledge that business partners might operate according to different schedules.

## Set Up and Assign Calendars

Companies can use the Calendar feature to calculate working days based on specific calendars. You can set up multiple calendars, each with specific working and nonworking days, and assign these calendars to the company and its business partners. The program then calculates order lines according to whichever calendar applies.

The program defines two types of calendars—base calendars and customized calendars.

Base calendars define working and nonworking days.

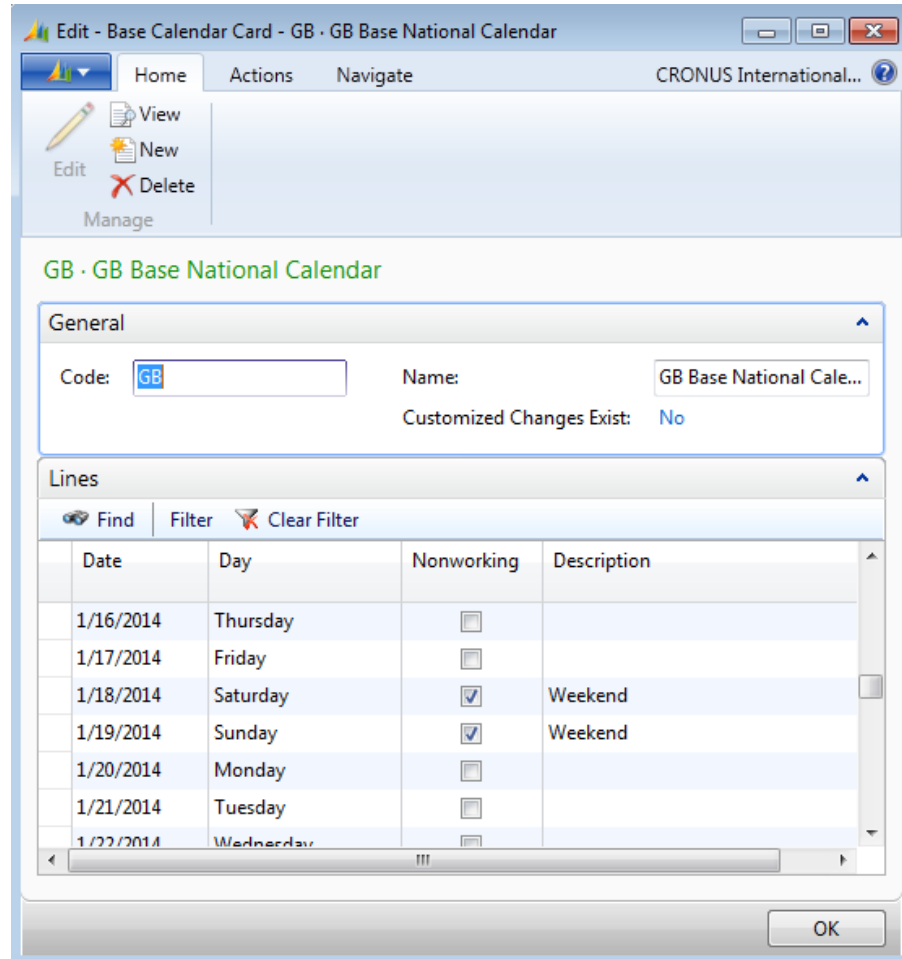
You can use customized calendars to create variations of base calendars for specific business partners. For example, a base calendar might list Saturdays and Sundays as nonworking days, and a customized calendar might list these days as working days for vendors who are open seven days a week. Additionally, customized calendars are used to record seasonal variations in work patterns.

The procedures for how to create and maintain base calendars and customized calendars are described in the "Calendars" topic in the online Help.

### Procedure: Review Base Calendar Setup

To review the base calendar set up in CRONUS, follow these steps.

1. In the **Search** box, enter "base calendar", and then select the related link.
2. Double-click the line for GB Base National Calendar.



**FIGURE 7.14: BASE CALENDAR CARD FOR THE GB BASE NATIONAL CALENDAR**

3. Notice that Saturdays and Sundays are set up as nonworking days.
4. To set up nonworking days that occur weekly or annually (for example, bank holidays), click **Maintain Base Calendar Changes** in the **Actions** tab.
5. Close the **Base Calendar Changes** and **Base Calendar Card** pages.

To assign a base calendar to a company, follow these steps.

1. In the **Search** box, enter "company information", and then select the related link.
2. Expand the **Shipping** FastTab.
3. Enter the relevant code in the **Base Calendar Code** field.
4. Do not assign a base calendar to CRONUS now.

You can assign and customize base calendars in the following locations in the program:

- **Shipping** FastTab on the customer card
- **Receiving** FastTab on the vendor card
- **Warehouse** FastTab on the location card
- **Shipping Agent Services** list page
- **General** FastTab on the **Service Mgt. Setup** page

If you do not assign a base calendar to a company or a business partner, the program treats all dates as working days.



**Note:** *If you enter a blank location on an order line, the program treats all dates as working days.*

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## Module Review

### ***Module Review and Takeaways***

The Order Promising functionality in Microsoft Dynamics NAV provides exceptional support to sales order processors and purchasing agents on order delivery.

The **Available to Promise** and **Capable to Promise** functions help sales order processors give customers quick and accurate delivery information, regardless of whether inventory is already in stock, somewhere in the supply chain, or even if new supply must be created specifically for the order.

Purchasing agents benefit from similar features when they create or change purchase orders. The program shows the purchasing agent when an order will be received given a specific order date, or on what date the order must be placed to have it delivered by a specific date. The date calculation functionality is also used to estimate when transfer orders are received at the transfer-to location.

Additionally, with the order promising features, you can set up calendars to reflect different working and nonworking day scenarios for individual customers, vendors, locations, and shipping agent services.

Together, these features help companies achieve the best possible working relationships with customers and vendors.

### **Test Your Knowledge**

Test your knowledge with the following questions.

1. What is the main purpose of the program's order promising functionality?

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2. Which date field do you typically change on a sales line to make a backward calculation to determine when items must be available for shipment?

- ( ) Shipment Date
- ( ) Requested Shipment Date
- ( ) Planned Delivery Date
- ( ) Promised Delivery Date

3. Which field on the sales order Shipping FastTab indicates that the shipment on one or more sales lines is a) earlier than the shipment date on the order header, or b) is before the work date?

Shipment Is Late

Late Order Shipping

Shipment Is Delayed

Requested Date Status

4. When you enter a date in the Promised Delivery Date field on a sales order, which field on the sales line is set to the same date?

Shipment Date

Planned Shipment Date

Requested Delivery Date

Planned Delivery Date

5. Which field on a purchase line calculates when you add inbound warehouse handling time (plus safety lead time) to the planned receipt date?

Promised Receipt Date

Expected Receipt Date

Order Date

Requested Receipt Date

6. Which date formula is used to calculate transfer order receipts?

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## Test Your Knowledge Solutions

### Module Review and Takeaways

1. What is the main purpose of the program's order promising functionality?

MODEL ANSWER:

To give customers accurate delivery information for sales orders and it also estimates the receipt date of purchase and transfer orders.

2. Which date field do you typically change on a sales line to make a backward calculation to determine when items must be available for shipment?

- Shipment Date
- Requested Shipment Date
- Planned Delivery Date
- Promised Delivery Date

3. Which field on the sales order Shipping FastTab indicates that the shipment on one or more sales lines is a) earlier than the shipment date on the order header, or b) is before the work date?

- Shipment Is Late
- Late Order Shipping
- Shipment Is Delayed
- Requested Date Status

4. When you enter a date in the Promised Delivery Date field on a sales order, which field on the sales line is set to the same date?

- Shipment Date
- Planned Shipment Date
- Requested Delivery Date
- Planned Delivery Date

5. Which field on a purchase line calculates when you add inbound warehouse handling time (plus safety lead time) to the planned receipt date?
- ( ) Promised Receipt Date
  - (√) Expected Receipt Date
  - ( ) Order Date
  - ( ) Requested Receipt Date
6. Which date formula is used to calculate transfer order receipts?

MODEL ANSWER:

*Shipment date + outbound warehouse handling time + shipping time + inbound warehouse handling time = receipt date*