

## CHAPTER 7: ORDER PROMISING

### Objectives

The objectives are:

- Describe the concepts of date calculations.
- Define dates and times used in the date calculation process for promising orders to customers.
- Explain the setup of date calculations for sales and order promising.
- Demonstrate date calculation and order promising functionality in sales order shipping/delivery promising.
- Define dates and times used in the date calculation process for estimating purchase order receipts.
- Explain the setup of date calculations for estimating purchase order receipts.
- Demonstrate date calculation functionality in estimating purchase order receipts.
- Explain how transfer order receipts are estimated.
- Describe how to use Calendars functionality to exclude non-working days in date calculations.

## Introduction

A company must have the ability to give customers accurate information about order delivery and to estimate the receipt of orders shipped by vendors.

In Microsoft Dynamics® NAV, the date calculation functionality and the Order Promising feature are the foundations of managing sales orders. The program calculates the delivery and shipment dates that meet the dates requested by customers based on availability dates.

The date calculation functionality available for purchase orders offers companies a way to calculate the date an item must be ordered to have it in inventory on a certain date.

## Date Calculation Concepts

Microsoft Dynamics NAV operates with two concepts:

- Available to Promise
- Capable to Promise

### Available to Promise

Available to Promise (ATP) has date calculation functionality and is based on the inventory reservation system. When you use the ATP function, the program performs the availability check of the uncommitted (unreserved) part of a company's inventory with regard to planned production, purchases, transfers, and sales returns. Based on the availability date of the items, the delivery date for the customer calculates automatically.

### Capable to Promise

Capable to Promise (CTP) performs "what if" scenarios. If no items are available in inventory and no inbound orders are scheduled, the program calculates the earliest date when items can be available if they are produced, bought, or transferred from another location.

From the availability date of the items, the program:

- Calculates the delivery date to the customer
- Creates order lines for this date
- Reserves the inventory

The CTP function includes capacity constraint issues in the calculation, and you can integrate it with production scheduling, manufacturing, transfer, and purchase planning. The level of CTP depends on the model selected in the capacity-scheduling engine.

With date calculation functionality, companies also can estimate the expected dates for order receipts from their vendors.

The following lessons explain and illustrate promising orders to customers and estimating purchase and transfer order receipts. To follow the suggested demonstrations, remember to install the clean database. Otherwise, your results may vary from those described here.

### Promise Orders to Customers

Order processors can use the date calculation functionality to give customers accurate information about sales order delivery; this relates to the available-to-promise situation. They also can supplement it with the Order Promising feature; this relates to the CTP situation.

The date calculation functionality builds on a series of calculations that are based on several dates and times. To understand this functionality, review the terms and definitions of the key dates and times used and calculated by the program, and then learn about a set of calculations that are based on the interrelations between those dates and times.

After you have examined the functionality's terms and definitions, continue to discover how:

- To set up the program to use the date calculation functionality and the Order Promising feature.
- The program supports order processors in managing their sales order promising process, depending on customer requirements and item availability.

### Definitions

The following table defines important date fields in Order Promising.

Field	Definition
<b>Requested Delivery Date</b>	The date when the customer wants the order delivered to his or her address. You must enter this date manually to affect the date calculation.
<b>Promised Delivery Date</b>	The date when the company promised the order to be delivered to the customer's address. You must enter this date manually to affect the date calculation.
<b>Planned Delivery Date</b>	The date when the company plans the order will be delivered to the customer's address. This date calculates automatically. If a requested delivery date exists, the planned delivery date equals the requested delivery date.
<b>Planned Shipment Date</b>	The date when the picking process is complete and items ship from the warehouse. This date calculates automatically.

Field	Definition
<b>Shipment Date</b>	The date when an item must be available in inventory. The picking process can start on this date. This date calculates automatically.
<b>Outbound Warehouse Handling Time</b>	The time that is required to pick, pack, and label the items in an order.
<b>Shipping Time</b>	The time between when the items ship from the warehouse to when they are delivered to the customer's address.

### Date Calculations

The date calculations functionality enables an order processor to provide a customer with an accurate date for when orders are delivered. The program supports the order processor in two ways:

- It calculates the earliest possible delivery date when the customer has not requested a delivery date, considering item availability.
- It verifies whether the delivery date requested by the customer/promised by the order processor is realistic, considering item availability.

To perform these two actions, the program performs a set of calculations based on the dates entered by the order processor and information set up in the program. The relationship between the dates and times used in calculations is illustrated in the following scheme:

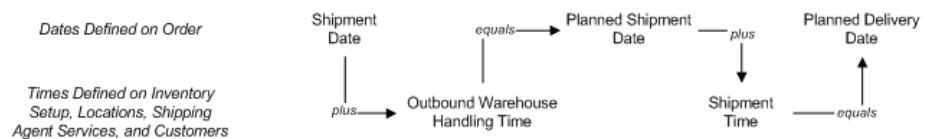


FIGURE 7.1 DATE AND TIME CALCULATION RELATIONSHIP IN SALES ORDERS

To calculate the earliest delivery date for the orders when a customer has not requested a delivery date, the program sets the shipment date to be equal to the current working date and bases the availability date on that date. If items are available on that date, the program makes a forward calculation to determine when the order can be delivered to the customer. These calculations are represented by the following formulas.

$$\textit{Shipment Date} + \textit{Outbound Warehouse Handling Time} = \textit{Planned Shipment Date}$$

and

$$\textit{Planned Shipment Date} + \textit{Shipping Time} = \textit{Planned Delivery Date}$$

To verify that the delivery date requested by the customer/promised by the order processor can be met, the program sets the planned delivery date equal to the requested/promised delivery date and a backward calculation determines the date when items must be available to meet the customer's request/order processor's promise.

These calculations are represented by the following formulas:

$$\textit{Planned Delivery Date} - \textit{Shipping Time} = \textit{Planned Shipment Date}$$

and

$$\textit{Planned Shipment Date} - \textit{Outbound Warehouse Handling Time} = \textit{Shipment Date}$$

The program uses the shipment date, which is the calculated availability date, to make the availability check. If items are available on this date, the program confirms that the requested/promised delivery date can be met by setting the planned delivery date equal to the requested/promised delivery date. In this manner, the interface between the time functionality and the availability check is at the shipment date.

If the program determines that items are not available on the current working date (when there is no requested/promised delivery date) or on the calculated availability date (when there is a requested/promised delivery date), an order processor can use the CTP functionality of the Order Promising feature. Based on new dates, the program recalculates all other related dates according to the formulas defined here.

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

There is an order of priority for how the program uses the dates entered on the sales header when it calculates all related dates on the lines. These priorities are illustrated in the following table.

	<b>Promised Delivery Date</b>	<b>Requested Delivery Date</b>	<b>Shipment Date</b>
<b>Priority 1</b>	X		
<b>Priority 2</b>	is not entered	X	
<b>Priority 3</b>	is not entered	is not entered	X

The program takes the date with the highest priority as a starting point for the calculation.

## Date Calculation for Sales and Order Promising Setup

To set up date calculations for sales, a company must define warehouse handling time, shipping time, and availability periods. These specify the time parameters that calculate shipping and availability dates.

To set up the Order Promising feature, a company must specify certain parameters for order promising calculations. These specify the time parameters that calculate item availability and which worksheet stores the information.

### Date Calculation for Sales Setup

The setup for date calculations on the sales side consists of the following elements:

- **Outbound Warehouse Handling Time setup.** This is the time required to pick, pack, and label the items in an order before shipping. The program uses the outbound warehouse handling time in calculating the planned delivery date or shipment date.
- **Shipping Time setup.** 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 setup.** This is the period within which the program makes the availability calculation.

### Demonstration: Set Up Outbound Warehouse Handling Time

Companies can set up the outbound warehouse handling time on:

- The inventory setup card.
- The location card.

If a company has more than one location, it must set up handling time for each location. This setup has priority over the setup on the inventory setup card.

**Scenario:** Ellen, the warehouse manager at CRONUS International Ltd., is contacted by Kevin, the sales manager, regarding 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 ensure shipments are not delayed, she sets up the BLUE location to accommodate this extra handling time.

Follow these steps to set up the outbound warehouse handling time for the Blue Warehouse:

1. On the navigation pane, click **Warehouse**.
2. On the **Warehouse** page, click **Administration** and then click **Locations**.
3. Open the location card for the Blue Warehouse, and then expand the **Warehouse** FastTab.
4. In the **Outbound Whse. Handling Time** field, type 1D.
5. Click **OK** to close the location card.

### Demonstration: Set Up Shipping Time

Because the shipping time can depend on the type of shipping services companies' shipping agents offer, they can set up the shipping time for each shipping agent service. With the shipping agent services and shipping times set up, the companies can link them to the customers. Then, whenever an order processor makes a sales order for a specific customer, the program uses the shipping time associated with the shipping agent service set up for this customer to calculate the planned delivery date.

Companies also can set up a shipping time for each customer, independent of the specific shipping agent service. They do so by entering the information in the **Shipping Time** field on the **Shipping** FastTab of the customer card. In this case, they overwrite the shipping time associated with a specific shipping agent service.

To use the shipping time dependent on a chosen shipping agent and services, companies must set up shipping agents and define their services.

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

Michael, the account manager, is responsible for setting up the FEDEX shipping agent and the Next Day shipping service for his customer, 20000 Selangorian Ltd.

Follow these steps to review the shipping agent information for FEDEX:

1. On the navigation pane, click **Sales & Marketing** and then click **Order Processing**.
2. On the **Order Processing** page, click **Shipping Agents**.
3. Click the line for FEDEX and on the **Related Information** menu, point to **Line** and then click **Shipping Agent Services**.

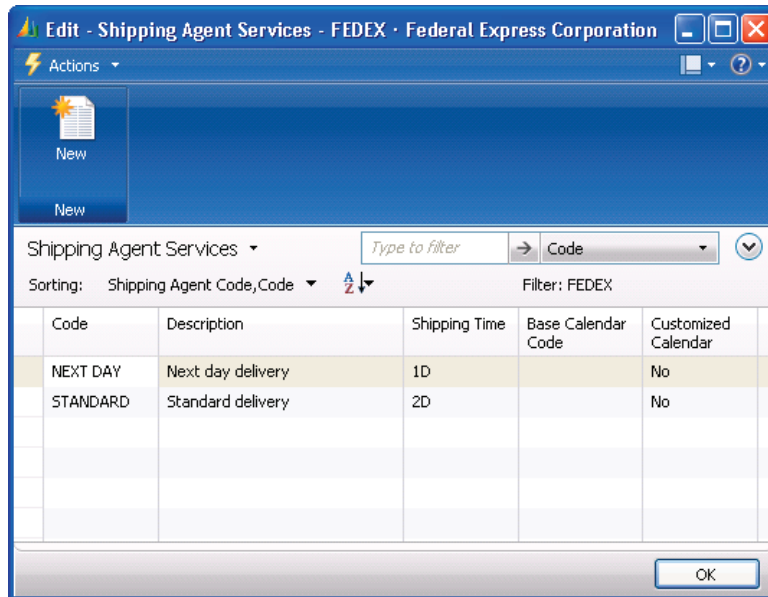


FIGURE 7.2 SHIPPING AGENT SERVICES FOR FEDEX

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

Follow these steps to set up customer 20000 with the FEDEX shipping agent and Next Day shipping service:

1. Close the shipping agents pages.
2. On the **Order Processing** page, click **Customers**.
3. Open the customer card for customer 20000 and then expand the **Shipping** FastTab.
4. In the **Shipping Agent Code** field, enter FEDEX.
5. In the **Shipping Agent Service Code** field, select NEXT DAY, and then press ENTER or TAB.

The **Shipping Time** field is automatically populated with 1D.

The next time a sales order is created for this customer, the information about the shipping agent services and shipping time from the customer card is copied automatically to the corresponding fields on the **Shipping** FastTab of the sales order.



## Demonstration: Review the Availability Test Interval Setup

**Scenario:** Sales management at CRONUS decided that when an order processor runs the ATP function, the program must check item availability for 90 days starting from the current day, checking one week at a time.

Follow these steps to ensure the setup of the availability test interval:

1. On the navigation pane, click **Administration**, then **Application Setup** and then click **General**.
2. On the **General** page, click **Company Information**.
3. Expand the **Shipping** FastTab.

The screenshot shows the 'Edit - Company Information' window with the 'Shipping' FastTab expanded. The following fields are visible and populated:

Field	Value
Ship-to Name:	CRONUS International Ltd.
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 Code:	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 Frame:	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 customers are willing to wait before their order requests can be met.

## Order Promising Setup

The Order Promising feature is set up in the **Order Promising Setup** page, which you can access on the navigation pane by clicking **Sales & Marketing**, then **Administration** and then clicking **Order Promising Setup**.

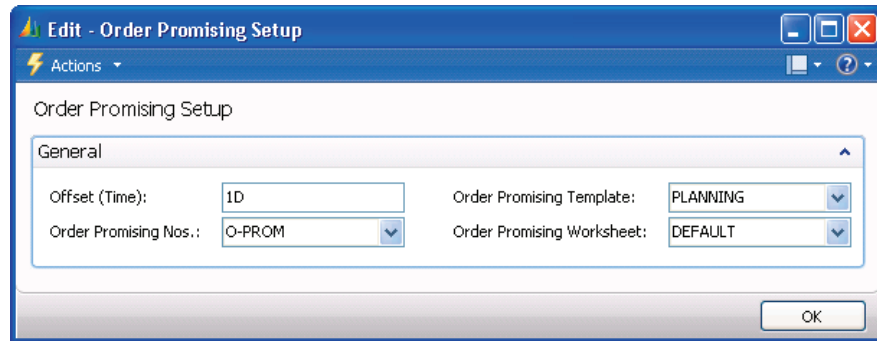


FIGURE 7.4 ORDER PROMISING SETUP

The **Order Promising Template** field set up in CRONUS contains PLANNING. This means that replenishment proposals are created by default in the planning worksheet.

For more information about setting up parameters in the **Order Promising Setup** page, refer to the "Setting Up Order Promising" topic in online Help.

## Promising Sales Order Delivery

The date calculations provide the order processor with information about when an order can be promised to a customer.

The following demonstrations illustrate the date calculation functionality and the functionality of Order Promising. In these examples, the current day is assumed to be the 28th of January, 2010 (01/28/10).

### 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 tells the customer when the order will be delivered.

Follow these steps to create the sales order for customer 10000 for 100 units of item 70002:

1. On the **Sales & Marketing** page, click **Order Processing** and then click **Sales Orders**.
2. Click **New** and then press ENTER or TAB.

3. In the **Sell-to Customer No.** field, enter 10000.
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.

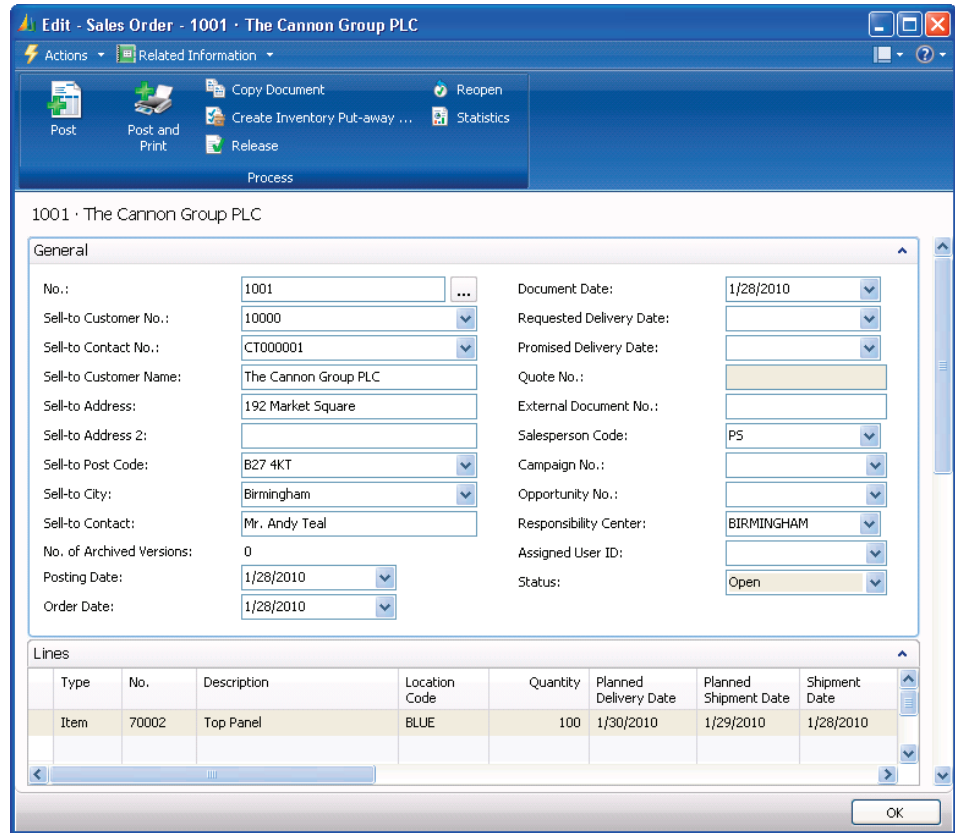


FIGURE 7.5 SALES ORDER WITH DELIVERY AND SHIPMENT DATES

Notice the **Planned Delivery Date**, **Planned Shipment Date**, and **Shipment Date** fields on the sales lines.

The program fills in the date fields with dates from the forward calculation, when the shipment date is set equal to the order date.

First, the program checks the availability of the required quantity of item 70002 at the Blue Warehouse on the current date. When the availability check shows that items are available, the program performs forward calculation, taking this date as a starting point for calculations. Because the outbound warehouse handling time is one day for this location, and the shipping time is one day for this customer, the program calculates the planned shipment date and the planned delivery date.

Susan can inform 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.

Susan creates a sales order and tells the customer when the order will be delivered.

Follow these steps to create a sales order for customer 20000 for 30 units of item 1968-S:

1. On the **Sales & Marketing** page, click **Order Processing** and then click **Sales Orders**.
2. Click **New** and then press ENTER or TAB.
3. In the **Sell-to Customer No.** field, enter 20000.
4. Leave the **Requested Delivery Date** field blank.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, enter 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.

A stockout warning message appears.

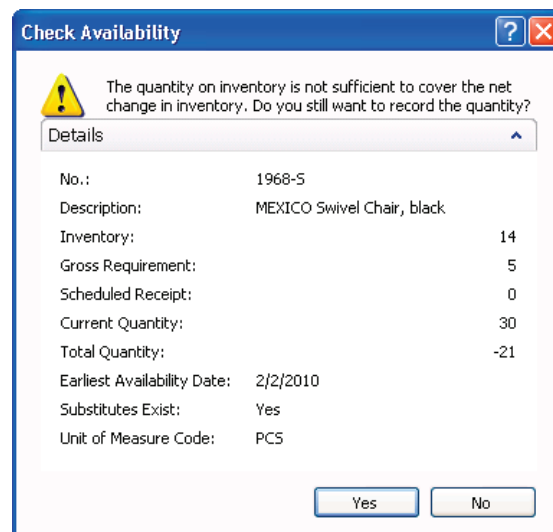


FIGURE 7.6 STOCKOUT WARNING SHOWING THE EARLIEST AVAILABILITY DATE

The **Earliest Availability Date** field on the warning card contains 02/02/10. This means that a transfer, production, or sales return order has been created for item 1968-S, and the expected receipt date for this order is 02/02/10. Susan uses this information to recalculate the date when the sales order can be delivered.

10. Click **Yes** to record the quantity.
11. In the **Shipment Date** field on the sales line, enter 02/02/10 and then press ENTER or TAB.

The planned shipment date and the planned delivery date recalculate.

Type	No.	Description	Location Code	Quantity	Planned Delivery Date	Planned Shipment Date	Shipment Date
Item	1968-S	MEXICO Swivel Chair, black	GREEN	30	2/4/2010	2/3/2010	2/2/2010

FIGURE 7.7 RECALCULATED DELIVERY AND SHIPMENT DATES

Based on these calculations, Susan can tell the customer that the order will be delivered on 02/04/10.

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**NOTE:** In addition to using the suggested earliest availability date, the order processor can run the CTP function.

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If Susan decides to change the shipment date to a later date, the program recalculates all related dates.

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**NOTE:** If the shipment date is changed on the header, and the availability check for existing sales lines shows that items are unavailable on the new shipment date, the program does not give a stockout message. The warning appears only when the shipment date is changed on an individual line.

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12. In the **Shipment Date** field on the sales line, change the date to 02/03/10 and then press ENTER or TAB.

The program makes the forward calculations to determine the new planned shipment and planned delivery dates and fills in the corresponding fields on the sales lines.

If Susan decides to change the planned delivery date, the program makes a backward calculation to determine when items must be available (the shipment date). Based on this new date and depending on item availability, the program performs forward calculations.

### **Demonstration: Meet the Requested Delivery Date**

**Scenario:** Customer 50000 orders 25 units of item 70010. The customer requests that the order be delivered on 02/02/10.

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

Follow these steps to create a sales order for customer 50000 for 25 units of item 70010:

1. On the **Sales Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Sell-to Customer No.** field, enter 50000.
3. In the **Requested Delivery Date** field, enter 02/02/10.
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, enter BLUE.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 70010.
8. In the **Quantity** field, type 25.

Notice the **Planned Delivery Date**, the **Planned Shipment Date**, and the **Shipment Date** fields on the sales lines.

- Planned Delivery Date: 02/02/10
- Planned Shipment Date: 01/31/10
- Shipment Date: 01/30/10

The program fills in these fields with dates from the backward calculation, when the planned delivery date is set equal to the requested delivery date. Then it verifies that items are available for shipping on the calculated shipping date (01/30/10) and leaves the planned delivery date unchanged.

Based on these calculations, Susan can inform the customer that the order will be delivered on the requested delivery date of 02/02/10.

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

Follow these steps to change the outbound warehouse handling time in the sales order from one day to two days:

1. On the **Shipping** FastTab, in the **Outbound Warehouse Handling Time** field, type 2D and then press ENTER or TAB.
2. Click **Yes** to update the lines.

The program now recalculates the shipment date and verifies that items are available for shipping on this date. The requested delivery date remains unchanged.

### Demonstration: Request an Unavailable Delivery Date

**Scenario:** Customer 20000 orders 30 units of item 70200. The customer requests that the order arrives on 02/01/10.

Susan creates a sales order and checks if the requested order delivery date can be met. The sales order will ship from the Green Warehouse.

Follow these steps to create a sales order for customer 20000 for 30 units of item 70200:

1. On the **Sales Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Sell-to Customer No.** field, enter 20000.
3. In the **Requested Delivery Date** field, enter 02/01/10.
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, enter GREEN.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 70200.
8. In the **Quantity** field, type 30.

A stockout warning message appears. This message appears because the program checks whether the needed quantity of the item is available for shipping on 01/30/10. This is the day when the order must ship to meet the requested delivery date of 02/01/10. The availability check shows that items are unavailable on that date.

The **Earliest Availability Date** field on the warning message does not contain a date. This means that there are no transfer, production, or sales return purchase orders created for item 70200.

9. Click **Yes** to accept the warning message.

***NOTE:** If the requested delivery date is changed on the header, and the availability check for existing sales lines shows that items are unavailable on the calculated shipment date, the program does not give a stockout warning. The warning appears only when the requested delivery date is changed on an individual line.*

Susan can use the CTP functionality of the Order Promising functionality to calculate when the requested quantity can be available. Follow these steps to use the CTP functionality:

1. On the **Related Information** menu, point to **Order** and then click **Order Promising**. The **Order Promising Lines** page appears.

The program copies information to the **Requested Delivery Date** field and the **Original Shipment Date** field from the sales order header and line, respectively.

2. On the **Related Information** menu, point to **Calculate** and then click **Capable-to-Promise**.

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

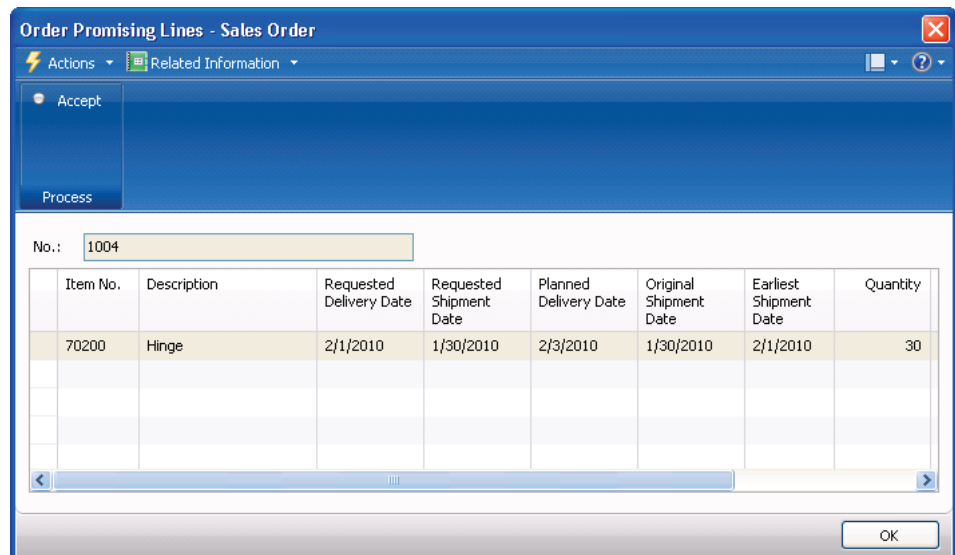


FIGURE 7.8 CALCULATED CAPABLE-TO-PROMISE LINES

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

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



Based on these calculations, Susan can inform the customer that the requested delivery date cannot be met. At the same time, she can inform the customer that CRONUS can deliver the order two days later than first requested, on 02/03/10 (the Planned Delivery Date).

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***NOTE:** After the CTP function runs, the program reserves the required quantity for the sales order and creates a requisition proposal line in the Planning Worksheet in Manufacturing. If the requested delivery date changes after you run the CTP function, the lines in the planning (requisition) worksheet are not updated.*

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If, with the customer's agreement, Susan moves the requested delivery date to another date, the program recalculates all related dates. Follow these steps to change the requested delivery date from 02/01/10 to 02/03/10:

1. In the **Requested Delivery Date** field, enter 02/03/10.
2. Click **Yes** to update the lines.

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

If Susan changes the planned shipment date, the program recalculates all associated dates and makes a backward calculation to determine the new shipment date and a forward calculation to determine a new planned delivery date.

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

**Scenario:** Customer 50000 orders 20 units of item 1988-S and requests that the order arrives on 01/30/10. The sales order ships from the Yellow Warehouse.

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

Follow these steps to create a sales order for customer 50000 for 20 units of item 1988-S:

1. On the **Sales Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Sell-to Customer No.** field, enter 50000.
3. In the **Requested Delivery Date** field, enter 01/30/10.
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, enter YELLOW.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 1988-S and then press ENTER or TAB.

The program performs calculations and gives a message that the shipment date is before the work date. By clicking **OK**, you accept the suggested shipment date of 01/28/10.

8. In the **Quantity** field, type 30.

The **Late Order Shipping** field on the **Shipping** FastTab is set to Yes. This indicates that the shipment is delayed compared to the customer's requested delivery date or the shipment date is before the work date. The program does not give a direct warning.

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***NOTE:** It may be necessary to refresh the page to see the change to the **Late Order Shipping** field. On the **Actions** menu, click **Refresh** or click the field.*

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In this situation, Susan can do either of the following steps:

- Accept the planned delivery date and the requested delivery date, and find an internal solution to comply.
- Set the shipment date equal to the current date and make the program recalculate all associated dates and suggest a new planned delivery date.

### **Promising Sales Order Delivery in Other Situations**

When creating sales orders, with or without requested delivery dates, order processors may want to ship the orders on a different date than that calculated by the program. Shipping orders on certain week days to a specific customer (and having a fixed routing schedule) is an example. Another example is when the shipping of various sales lines with different planned delivery dates on the same date is an optimal option for both the order processor and the customer.

In these and similar situations, the order processor first confirms the new delivery date with the customer and then, with the customer's agreement, regards this date as a promised delivery date. After the date is entered in the **Promised Delivery Date** field, the program sets the planned delivery date equal to the promised delivery date and calculates all associated dates in the same way as if there is a requested delivery date.

### **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 that the order be delivered on 02/01/10. The sales order will ship from the Green Warehouse.

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

Follow these steps to create a sales order for customer 50000 for 20 units of item 1988-S:

1. On the **Sales Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Sell-to Customer No.** field, enter 50000.
3. In the **Requested Delivery Date** field, enter 02/01/10.
4. Expand the **Shipping** FastTab.
5. In the **Location Code** field, enter GREEN.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 1908-S.
8. In the **Quantity** field, type 10.
9. On the next line, enter 1964-S in the **No.** field.
10. In the **Quantity** field, type 15.
11. On the next line, enter 1906-S in the **No.** field.
12. In the **Quantity** field, type 90 and then press ENTER or TAB.

A stockout message appears, stating that the earliest availability date for this item is 02/03/10.

13. Click **Yes** to record the quantity.
14. In the **Shipment Date** field on the third line, enter 02/03/10.

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

To ship all three items on the same date, Susan obtains the customer's acceptance to deliver the order on 02/06/10.

15. On the **General** FastTab, in the **Promised Delivery Date** field, enter 02/06/10 and then press ENTER or TAB.
16. Click **Yes** to update the lines.

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

## Lab 7.1 - Promise Order Delivery to a Customer

### Scenario

Customer 50000 orders 50 units of item 70040. The customer requests the order be delivered on 01/30/10. The sales order will ship from the Yellow Warehouse.

As the order processor, it is your responsibility to create the sales order and check if the requested order delivery date can be met. If the requested delivery date cannot be met, determine when you can deliver the order.

### Challenge Yourself!

1. Create the sales order for customer 50000 for 50 units of item 70040 to ship from the Yellow Warehouse for delivery on 01/30/10.
2. Accept any warning messages.
3. Run the CTP function to check delivery availability and accept the new delivery date.

### Need a Little Help?

1. Create the sales order for customer 50000 with a requested delivery date of 01/30/10.
2. Set the location to the Yellow Warehouse.
3. Enter a line for item 70040 for a quantity of 50 and accept any warning messages.
4. Open the **Order Promising Lines** page.
5. Run the CTP function.
6. Accept the planned delivery date of 02/03/10.

### Step by Step

Follow these steps to create the sales order:

1. On the **Sales & Marketing** page, click **Order Processing** and then click **Sales Orders**.
2. Click **New** to insert a new order and then press ENTER or TAB.
3. In the **Sell-to Customer No.** field, enter 50000.
4. In the **Requested Delivery Date** field, enter 01/30/10.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, enter YELLOW.
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 close the message regarding the work date.
10. In the **Quantity** field, type 50 and then press ENTER or TAB.
11. Click **Yes** to record the quantity.

Follow these steps to run the CTP function:

1. On the **Related Information** menu, point to **Order** and then click **Order Promising**.
2. On the **Related Information** menu, point to **Calculate** and then click **Capable-to-Promise**.
3. According to these dates, you can deliver the order on 02/03/10. On the Action Pane, click **Accept**.

## Estimate Order Receipt

To understand the functionality of the Order Promising feature when you estimate purchase order receipts, review the terms and definitions of key dates and times used and calculated by the program. Then, examine some calculations, which are based on the interrelations between the dates and times.

After you have become familiar with the terms, definitions, and calculations, review how:

- To set up the program to use the date calculation functionality.
- The program supports purchasing agents in managing the purchase order receipt process.

### Definitions

The following table defines important date fields in Order Promising.

Field	Definition
<b>Requested Receipt Date</b>	The date when the company requests a vendor to deliver the order. You must enter this date manually to affect the date calculation.
<b>Promised Receipt Date</b>	The date when the vendor promises the order will be delivered to the company. You must enter this date manually to affect the date calculation.
<b>Planned Receipt Date</b>	The date when the company plans to receive the order. This date calculates automatically.
<b>Expected Receipt Date</b>	The date when the company expects the put-away process to finish and when items are available for picking. This date calculates automatically and affects item availability.
<b>Order Date</b>	The date when 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 interval between items being ordered at the vendor and items being received by the company.
<b>Safety Lead Time</b>	The buffer period if there are delays in the production process. This affects the date when items are available for sale.

## Date Calculations

The date calculation functionality enables a purchasing agent to estimate when orders are received at the company. The program supports a purchasing agent in two ways:

- It calculates the expected receipt date for the orders when a purchasing agent has not requested a receipt date, considering vendor's lead time.
- It calculates the date when the purchasing agent must make a purchase order to receive it on the requested date.

To perform these actions, the program makes a set of calculations based on the dates entered by the purchasing agent and information set up in the program. The relationship between the dates and times in calculations is illustrated in the following scheme:

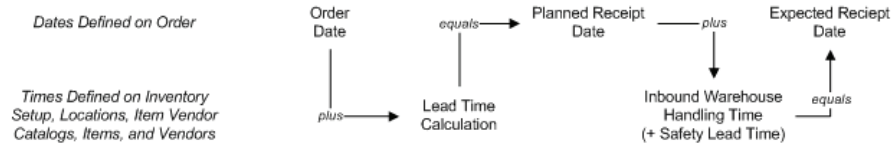


FIGURE 7.9 DATE AND TIME CALCULATION RELATIONSHIP IN PURCHASE ORDERS

To calculate the expected receipt date for orders when a purchasing agent does not request a receipt date, the program sets the order date equal to the current working date. The program makes a forward calculation from this date to determine when the order will be delivered. These forward calculations are represented by the following formulas.

$$\text{Order Date} + \text{Lead Time Calculation} = \text{Planned Receipt Date}$$

and

$$\text{Planned Receipt Date} + \text{Inbound Warehouse Handling Time} + \text{Safety Lead Time} = \text{Expected Receipt Date}$$

To calculate an order date for an order to be received on the requested date, the program sets the planned receipt date equal to the requested receipt date. The program makes a backward calculation to determine when items must be ordered (the order date).

To calculate the expected receipt date for an order with the requested receipt date, the program sets the planned receipt date equal to the requested receipt date. The program makes a forward calculation. These calculations are represented by the following formulas.

*Planned Receipt Date - Lead Time Calculation = Order Date*

and

*Planned Receipt Date + Inbound Warehouse Handling Time (+ Safety Lead Time) = Expected Receipt Date*

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

There is an order of priority for how the program uses the dates entered on the purchase header when it calculates all related dates on the lines. These priorities are illustrated in the following table.

	<b>Promised Receipt Date</b>	<b>Requested Receipt Date</b>	<b>Expected Receipt Date</b>	<b>Order Date</b>
<b>Priority 1</b>	X			
<b>Priority 2</b>	is not entered	X		
<b>Priority 3</b>	is not entered	is not entered	X	
<b>Priority 4</b>	is not entered	is not entered	is not entered	X

The program uses the date with the highest priority as a starting point for the calculation.

## Date Calculation Setup for Purchase Orders

The order promising setup on the purchase side consists of three elements:

- **Inbound Warehouse Handling Time setup.** When users set up the inbound warehouse handling time, they define the time required to receive and put away items. The program uses this time to calculate the planned receipt date or expected receipt date.
- **Lead Time Calculation setup.** When users set up the lead time calculation, they define a date formula for the time required for the item to be delivered to the company.

Alternatively, the user can define a date formula for the time required for a vendor to deliver (orders) from when orders are placed to when they are received at the company.



The program uses the formula to calculate the date when the items/orders are planned to be received (when there is no requested receipt date) or the order date (when there is a requested receipt date).

- **Safety Lead Time setup.** In the planning process, this time affects the date the items produced are available for sale. The safety lead time is a buffer period if delays occur in the production process.

### **Demonstration: Set Up Inbound Warehouse Handling Time**

Companies can set up the inbound warehouse handling time on:

- The inventory setup card.
- The location card.

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

**Scenario:** Ellen, the warehouse manager at CRONUS, has been working with staff in the Blue Warehouse to ensure that inbound items are accurately included in the date calculation on the purchase lines.

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 before items are available for picking. Therefore, she sets up the BLUE location to accommodate this extra handling time.

Follow these steps to set up the inbound warehouse handling time for the Blue Warehouse:

1. On the navigation pane, click **Warehouse**.
2. On the **Warehouse** page, click **Administration** and then click **Locations**.
3. Open the location card for the Blue Warehouse, and then expand the **Warehouse** FastTab.
4. In the **Inbound Whse. Handling Time** field, type 1D.
5. 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 **Item Vendor Catalog** page.
- The **Receiving** FastTab of the Item Card (or on the **Replenishment** FastTab of the Stockkeeping Unit Card if the stockkeeping unit exists for the item).
- The **Receiving** FastTab of the Vendor Card.

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

Companies can set up the safety lead time on the **Planning** FastTab of the item card or the **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, has an idea of how long it takes a vendor to deliver each item. Similarly, she knows how long it takes for vendors to deliver a specific item and for a vendor to deliver orders.

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

The safety lead time is not relevant for CRONUS' business operations. Therefore, all items on the company's inventory must have zero safety lead time.

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.

In the situation where several vendors ship the same items, companies can set up vendors for each item using the **Item Vendor Catalog** page. Follow these steps to review the setup for item 70010 and vendor 40000:

1. On the navigation pane, click **Purchase** and then click **Inventory & Costing**.
2. On the **Inventory & Costing** page, click **Items**.
3. Select the line for item 70010 and then on the **Related Information** menu, point to **Purchases** and then click **Vendors**.

On the **Item Vendor Catalog** page, 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 calculation for the purchase order.

4. Click **OK** to close **Item Vendor Catalog** page.
5. On the navigation pane, under Purchase, click **Order Processing**.
6. On the **Order Processing** page, click **Vendors**.
7. Open the vendor card for vendor 40000.
8. Expand the **Receiving** FastTab.

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 calculation for the purchase order.

9. Click **OK** to close the Vendor Card.

Follow these steps to set up the lead time calculations for items 70010, 70011, 70040, and 1928-W:

1. On the navigation pane, under Purchase, click **Inventory & Costing**.
2. On the **Inventory & Costing** page, click **Items**.
3. Open the item card for item 70010.
4. Expand the **Planning** FastTab.
5. In the **Safety Lead Time** field, type 0D.
6. Click **OK** to close the item card.
7. Open the item card for item 70011.
8. Expand the **Replenishment** FastTab.
9. In the **Lead Time Calculation** field, type 2D.
10. On the **Planning** FastTab, type 0D in the **Safety Lead Time** field.
11. Click **OK** to close the item card.
12. Repeat steps 3-6 for item 70040.
13. Repeat steps 7-11 for item 1928-W.

## Estimating Purchase Order Receipts

You can estimate the receipt of a purchase order by using the estimate purchase order receipt functionality.

The following demonstrations illustrate the date calculation functionality. In these examples, the current day is assumed to be the 28th of January 2010 (01/28/10).

### Demonstration: Calculate 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.

Follow these steps to create a purchase order to vendor 10000 for 25 units of item 70011:

1. On the navigation pane, click **Purchase** and then click **Order Processing**.
2. On the **Order Processing** page, click **Purchase Orders**.
3. Click **New** and then press ENTER or TAB.
4. In the **Buy-from Vendor No.** field, enter 10000.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, enter BLUE.
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.

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.

Based on the lead time (+ safety lead time) set up for item 70011 and the inbound warehouse handling time set up for the Blue Warehouse, the program calculates planned and expected receipt dates. Alicia can expect the items to be available for picking in the Blue Warehouse on 01/31/10.

If Alicia decides to change the order date, the program recalculates all related dates.

For example, change the order date on the purchase line from 01/28/10 to 02/03/10 to see how the dates recalculate:

11. In the **Order Date** field on the purchase line, enter 02/03/10.

The program makes a forward calculation to determine the new planned receipt date and expected receipt date and fills in the corresponding fields on the purchase line.

Type	No.	Description	Location Code	Quantity	Planned Receipt Date	Expected Receipt Date	Order Date
Item	70011	Glass Door	BLUE	25	2/5/2010	2/6/2010	2/3/2010

FIGURE 7.10 PURCHASE ORDER WITH RECEIPT DATES

If Alicia changes the expected receipt date, the program makes a backward calculation from this date to determine the new planned receipt date and a new order date.

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

**Scenario:** Alicia orders 30 units of item 70010 from vendor 30000 and requests that the order be delivered to the Blue Warehouse on 02/06/10.

She creates a purchase order and wants to estimate the latest order date for it to arrive at the Blue Warehouse on the requested date and when the items will be available for picking.

Follow these steps to create the purchase order to vendor 30000 for 30 units of item 70010:

1. On the **Purchase Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Buy-from Vendor No.** field, enter 30000.
3. Expand the **Shipping** FastTab.
4. In the **Location Code** field, enter BLUE.
5. In the **Requested Receipt Date** field, enter 02/06/10.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 70010.
8. In the **Quantity** field, type 30.

The program calculates when the vendor can deliver the items to the warehouse and when they will be available for picking. Refer to the **Planned Receipt Date**, **Expected Receipt Date**, and the **Order Date** fields on the purchase lines.

The program sets the planned receipt date equal to the requested receipt date from which the program subtracts the lead time (set up for this item to one week if purchased from vendor 30000) to calculate the order date. The program calculates the expected receipt date by adding inbound warehouse handling time (+ safety lead time) to the planned receipt date.

Alicia estimates that to receive the items on 02/06/10, the order must be placed on 01/30/10. If she changes the requested receipt date, the program recalculates all related dates accordingly.

For example, change the requested receipt date from 02/06/10 to 02/05/10 to see how the dates are recalculated.

9. In the **Requested Receipt Date** field on the **Shipping** FastTab, enter 02/05/10 and then press ENTER or TAB.
10. Click **Yes** to update the lines.

Based on the new requested receipt date, the program makes a backward calculation from this date to determine the new order date and then a forward calculation to determine a new expected receipt date.

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

**Scenario:** Alicia orders 40 units of item 70040 from vendor 40000 and requests that the order be delivered to the Green Warehouse on 01/30/10.

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

Follow these steps to create the purchase order to vendor 40000 for 40 units of item 70040:

1. On the **Purchase Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Buy-from Vendor No.** field, enter 40000.
3. Expand the **Shipping** FastTab.
4. Ensure that the **Location Code** is set to GREEN.
5. In the **Requested Receipt Date** field, enter 01/30/10.
6. On the **Lines** FastTab, in the **Type** field, select Item.
7. In the **No.** field, enter 70040 and then press ENTER or TAB.
8. Click **OK** to accept the work date warning message.
9. In the **Quantity** field, type 40.

The program does not change the calculated order date that is before the work date.

In this situation, Alicia can either:

- Discuss the possibility of receiving the items on the initially requested receipt date (leaving the dates on the line unchanged).
- Set the order date to equal to the current date and make the program recalculate all associated dates.

---

***NOTE:** If the user changes the requested receipt date on the header and the date calculation for existing purchase lines results in the order date being before the work date, the program does not give a warning. The warning appears only when the requested receipt date is changed on an individual line.*

---

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

**Scenario:** When using the program to estimate the receipt of purchase orders, Alicia assumes the delivery process adheres to time periods set up for this process. However, she likes to confirm the program's calculated delivery dates with their vendors. If a vendor requests another date, she considers it as a promised receipt date.

After Alicia enters the date in the **Promised Receipt Date** field, 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 first calculated order date remains unchanged.

Alicia orders 20 units of item 1928-W from vendor 40000 and requests that the order be delivered to the Green Warehouse on 02/01/10.

She creates a purchase order and uses the program to estimate the latest order date for the order to arrive at the warehouse on the requested date.

Follow these steps to confirm the calculated receipt date:

1. On the **Purchase Orders** list page, click **New** and then press ENTER or TAB.
2. In the **Buy-from Vendor No.** field, enter 40000.
3. Expand the **Shipping** FastTab.
4. Ensure that the **Location Code** is set to GREEN.
5. In the **Requested Receipt Date** field, enter 02/01/10.
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 set up for the item (two days for item 1928-W) to calculate the order date instead of using the lead time set up for the vendor (three days for vendor 40000).

The vendor cannot deliver the order on the requested date and promises to deliver three days later on 02/04/10.

9. On the **Shipping** FastTab, in the **Promised Receipt Date** field, enter 02/04/10 and then press ENTER or TAB.
10. 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. The initial order date of 01/30/10 remains unchanged.



## Lab 7.2 - Purchase Order Promising

### Scenario

As the purchasing agent at CRONUS, you order ten units of item 70011 from vendor 30000 and request that the order be delivered at the Green Warehouse on 02/09/10.

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

### Challenge Yourself!

1. Create the purchase order to vendor 30000 for 10 units of item 70040 to be received into the Green Warehouse on 02/09/10.
2. Record the earlier receipt date of 02/06/10 promised by the vendor.

### Need a Little Help?

1. Create the purchase order to vendor 30000 with a requested receipt date of 02/09/10.
2. Set the location to the Green Warehouse.
3. Enter a line for item 70011 for a quantity of 10 and accept any warning messages.
4. Change the promised receipt date to 02/06/10.

### Step by Step

Follow these steps to create the purchase order:

1. On the navigation pane, click **Purchase** and then click **Order Processing**.
2. On the **Order Processing** page, click **Purchase Orders**.
3. Click **New** and then press ENTER or TAB.
4. In the **Buy-from Vendor No.** field, enter 30000.
5. Expand the **Shipping** FastTab.
6. In the **Location Code** field, enter GREEN.
7. In the **Requested Receipt Date** field, enter 02/09/10.
8. On the **Lines** FastTab, in the **Type** field, select Item.
9. In the **No.** field, enter 70011 and then press ENTER or TAB.
10. The work date message indicates that the order must be placed by 01/26/10 to meet the requested receipt date. Click **OK** to accept the work date warning message.
11. In the **Quantity** field, type 10.

Follow these steps to record the earlier receipt date promised by the vendor:

1. On the **Shipping** FastTab, in the **Promised Receipt Date** field, enter 02/06/10.
2. Click **Yes** to update the lines.

The **Planned Receipt Date** and **Expected Receipt Date** fields on the line update accordingly.

## Estimate Transfer Order Receipt

With the date calculation functionality, companies can estimate a date when transfer orders are received at the transfer-to location. The program calculates the receipt date according to the following formula.

$$\textit{Shipment Date} + \textit{Outbound Warehouse Handling Time} + \textit{Shipping Time} + \textit{Inbound Warehouse Handling Time} = \textit{Receipt Date}$$

The shipping time can be either:

- The time associated with the shipping agent service set up for a specific transfer route.
- Entered manually on the transfer header.

Learn more about how to estimate transfer order receipts in the "Inventory Management in Microsoft Dynamics® NAV 2009" training material.

## Calendars

The date calculation in this description does not consider non-working days. This section describes setting up the program to calculate days using the Calendars feature.

Non-working days are when the company is closed for business, such as weekends or holidays. Working days vary from one country/region to another and between companies. Companies base their scheduling on working and non-working days and acknowledge that their business partners may work with different calendars.

### Set Up and Assign Calendars

The Calendar feature enables companies to calculate working days based on specific calendars. In the calendar, users set up the specific days to be considered as working and non-working days and then assign the calendars to the company and to its business partners. When users assign them, the program calculates all order lines according to the relevant calendar.

The program defines two different types of calendars:

- Base Calendar
- Customized Calendar

The Base Calendar is the calendar that defines working and non-working days and is the basis for the customized calendars.

The Customized Calendar is a copy of a specific base calendar with added settings for the assigned business partner.

The procedures for creating and maintaining the Base Calendar are described in the online Help when you search for "Base Calendar."

## Procedure: Review Base Calendar Setup

Follow these steps to review the base calendar set up in CRONUS:

1. On the navigation pane, click **Administration**, then **Application Setup** and then click **General**.
2. On the **General** page, click **Base Calendar**.
3. Double-click the line for UK Base National Calendar.

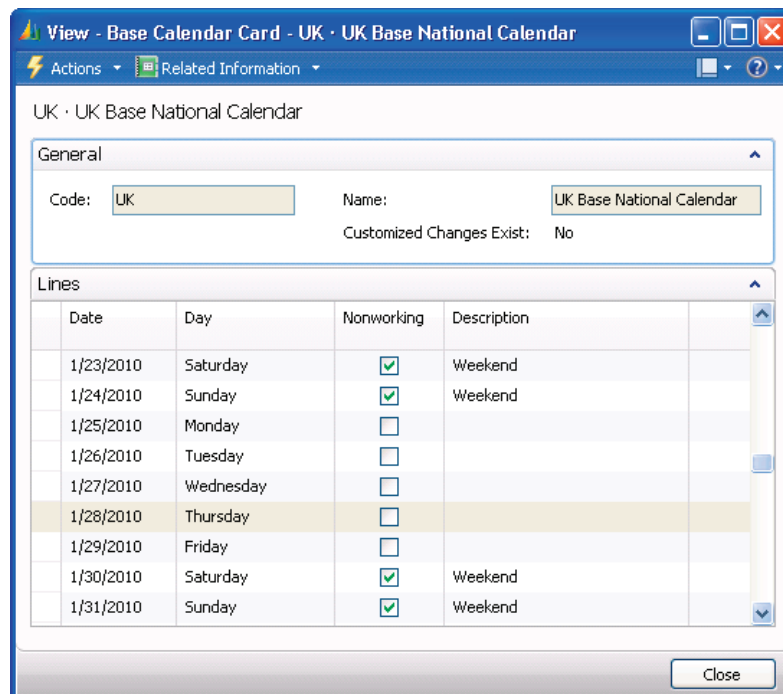


FIGURE 7.11 BASE CALENDAR CARD FOR THE UK BASE NATIONAL CALENDAR

Saturdays and Sundays are set up as nonworking days. Users can specify nonworking days that occur weekly or annually (for example, bank holidays) in the **Base Calendar Changes** page.

4. On the **Actions** menu, point to **Functions** and then click **Maintain Base Calendar Changes**.
5. Close the **Base Calendar Changes** and **Base Calendar Card** pages.

Follow these steps to assign the Base Calendar to a company:

1. On the navigation pane, under Application Setup, click **General**.
2. On the **General** page, click **Company Information**.
3. Expand the **Shipping** FastTab.
4. Enter the relevant code in the **Base Calendar Code** field.

---

***NOTE:** Do not assign a Base Calendar in the **Company Information** page at this time.*

---

Assign and customize the Base Calendar to the following areas:

- **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

---

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

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

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## Summary

The date calculation and Order Promising functionality can make a critical difference in customer satisfaction levels regarding order promising dates and on-time delivery.

With Order Promising, Microsoft Dynamics NAV calculates the date that an item is available to promise or capable to promise, and it will create sales order lines for the dates the order processor can accept.

In the sales order delivery promising functionality, Microsoft Dynamics NAV calculates the earliest possible date that an item on a sales order line can be shipped and/or delivered.

In the estimating a purchase order receipt functionality, Microsoft Dynamics NAV calculates when an item needs to be ordered to have it in inventory on a certain date, and when items ordered on a particular date can be expected to be available for picking availability.

You also can use the date calculation functionality to estimate when transfer orders are received at the transfer-to location.

You can set up Microsoft Dynamics NAV to disregard non-working days in date calculations using the Calendar feature. When calendars are defined and assigned, the program calculates all order lines according to the relevant calendar.

Order processing with these features helps maintain the best customer service levels and enables the exchange of order date information with vendors.

## Test Your Knowledge

Test your knowledge with the following questions.

1. Which date field do you change on a sales line to make a backward calculation to determine when items must be available?
  - Shipment Date
  - Planned Shipment Date
  - Planned Delivery Date
  - Promised Delivery Date
2. Which field on the sales order **Shipping** FastTab indicates that the shipment is delayed compared to the customer's requested delivery date, or that the shipment date is before the work date?

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3. 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
  - Planned Delivery Date
  - Promised Delivery Date
4. Which field on a purchase line calculates when you add inbound warehouse handling time (+ safety lead time) to the planned receipt date?
  - Promised Receipt Date
  - Expected Receipt Date
  - Order Date
  - Requested Receipt Date

5. What date formula is used to calculate transfer order receipts?

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6. Where are Base Calendars assigned in Microsoft Dynamics NAV? (Select all that apply)

- Item Card
- Customer Card
- Location Card
- Company Information

Fill in the blanks to test your knowledge of this section.

7. \_\_\_\_\_ to Promise performs "what if" scenarios.
8. The Base Calendar defines working and non-working days and is the basis for the \_\_\_\_\_ calendars.
9. \_\_\_\_\_ to Promise is based on the inventory reservation system.
10. \_\_\_\_\_ Time Calculation is the time interval between items being ordered and received.
11. The \_\_\_\_\_ Available Date on a stockout warning message indicates when an item is available for sale.



## Quick Interaction: Lessons Learned

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

1.

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2.

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3.

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## Solutions

### Test Your Knowledge

1. Which date field do you change on a sales line to make a backward calculation to determine when items must be available?
  - Shipment Date
  - Planned Shipment Date
  - Planned Delivery Date
  - Promised Delivery Date
2. Which field on the sales order **Shipping** FastTab indicates that the shipment is delayed compared to the customer's requested delivery date, or that the shipment date is before the work date?

MODEL ANSWER:

Late Order Shipping

3. 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
  - Planned Delivery Date
  - Promised Delivery Date
4. Which field on a purchase line calculates when you add inbound warehouse handling time (+ safety lead time) to the planned receipt date?
  - Promised Receipt Date
  - Expected Receipt Date
  - Order Date
  - Requested Receipt Date

5. What 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

6. Where are Base Calendars assigned in Microsoft Dynamics NAV? (Select all that apply)
- Item Card
  - Customer Card
  - Location Card
  - Company Information

Fill in the blanks to test your knowledge of this section.

7. Capable to Promise performs "what if" scenarios.
8. The Base Calendar defines working and non-working days and is the basis for the Customized calendars.
9. Available to Promise is based on the inventory reservation system.
10. Lead Time Calculation is the time interval between items being ordered and received.
11. The Earliest Available Date on a stockout warning message indicates when an item is available for sale.

