Inventory and Order Management

D200 Inventory and Order Management Extended Scenarios

Training Guide

Acumatica
The Cloud ERP

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Acumatica ERP 2020 R1

Contents

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How to Use This Course

This course introduces the Acumatica ERP inventory and order management functionality based on a set of examples that illustrate extended sales and purchases processes in a small company. The course consists of lessons that guide you step by step through the examples and explanations of the configuration and business process flow in Acumatica ERP.

This course must be completed on Acumatica ERP 2020 R1. For this course, you will use an Acumatica ERP tenant with the *U100* dataset preloaded.

You perform the following general steps to complete the course:

1. You prepare an Acumatica ERP 2020 R1 instance.
2. In the prepared tenant with the *U100* dataset preloaded, you complete the lessons of Part 1 and Part 2 to learn how to configure multiple warehouses, warehouse locations, how to track serialized items, and how to process sales with insufficient stock.
3. At Partner University, you read the rules of the assessment test.
4. At Partner University, you take Certification Test: Extended Inventory Scenarios and Sales with Insufficient Stock.
5. Complete the lessons of Part 3 to learn the extended sales and purchasing processes in Acumatica ERP.
6. At Partner University, you take Certification Test: Direct Sales and Extended Purchase Scenarios.
7. At Partner University, you complete the course survey to finish the course and get the Partner University certificate of course completion.

What Is in Parts?

The course is divided into three major parts:

- Part 1 consists of configuration lessons that describe the implementation of warehouses and warehouse locations in Acumatica ERP, and the configuration of inventory items tracked by lot or serial numbers. You have to read the concepts and perform the implementation and process activities of this part to learn how to configure the system, and perform particular business processes in the fully configured system.
- Part 2 consists of process lessons and is dedicated to processing sales with insufficient stock. You have to read the concepts and complete the process activities of this part in a company with the *U100* dataset.
- Part 3 consists of process lessons and is dedicated to particular business processes. You have to read the concepts and complete the process activities of this part in a company with the *U100* dataset to learn how to perform extended sales and purchase operations in a fully configured system.

What Is in a Configuration Lesson?

A *configuration lesson*—that is, a lesson dedicated to the configuration of system settings and entities—provides a brief overview of the required system configuration and a description of other settings that could affect the workflow. Also, the lesson could provide information about reports and inquiry forms that can be used for gathering information about the configured entities.

Each lesson includes at least one implementation activity that you have to complete in your Acumatica ERP instance to configure the core system settings or to prepare system entities.

What Is in a Process Lesson?

A *process lesson*—that is, a lesson dedicated to the performing of a particular business process—includes a description of the process workflow and a process diagram that illustrates the user scenario supported by this process. The lesson also provides a brief overview of the settings and entities that need to be prepared in the system before you start to perform this business process. Also, the lesson could include a description of generated transactions, information about reports and inquiry forms that can be used for gathering information related to a described business process, and explanations on how to mass-process documents during performing a business process.

Each lesson includes at least one process activity that you have to complete in your Acumatica ERP instance to learn how to perform the described business process.

What Are the Documentation Resources?

The complete Acumatica ERP documentation is available on *https://help.acumatica.com/* and is included in the Acumatica ERP instance. While viewing any form used in the course, you can click the **Help** button on the top pane to bring up a form-specific help menu; you can use the links on this menu to quickly access form-related concepts and procedures and to open a reference topic with detailed descriptions of the form elements.

How to Create a Tenant with the *U100* Dataset

To add to an existing Acumatica ERP instance a tenant with the *U100* dataset, which is required for the completion of this course, perform the following instructions:

1. Go to *Amazon Storage* (the **builds** folder).
2. Open the folder of your Acumatica ERP instance version.
3. In this folder, open the **Snapshots** folder, and download the **u100.zip** file.
4. Launch the Acumatica ERP instance, and sign in.
5. Open the *Tenants* (SM203520) form, and click **Add New Record** on the form toolbar.
6. In the **Login Name** box, type the name to be used for the tenant.
7. On the form toolbar, click **Save**.
8. On the **Snapshots** tab, click **Import Snapshot**.

9. In the **Upload Snapshot Package** dialog box, select the **u100.zip** file, which you have downloaded, and click **Upload**.

   The system uploads the snapshot to the **Snapshots** tab of the *Tenants* form.

10. On the form toolbar, click **Restore Snapshot**.

11. If the **Warning** dialog box appears, click **Yes**.

12. In the **Restore Snapshot** dialog box, make sure that the correct snapshot package is being uploaded, and click **OK**.

13. Sign out of the current tenant.

    You are now on the Sign-In page, and you can sign in to the tenant you have just created.

Licensing Info

For educational purposes of this course, you use Acumatica ERP under the trial license that doesn't require activation and provides all available features. For production, you have to activate the purchased license; each particular feature may be a subject to additional licensing; please consult the Acumatica ERP sales policy for details.

Company Story

This topic explains the organizational structure and operational activity of the company with which you will work during this training.

Company Structure

The SweetLife Fruits & Jams company is a midsize company located in New York City. The company consists of the following branches:

- SweetLife Head Office and Wholesale Center: This branch of the company consists of a jam factory and a large warehouse where the company stores fruit (purchased from wholesale vendors) and the jam it produces.
- SweetLife Store: This branch has a retail shop with a small warehouse to which the goods to be sold are distributed from the company's main warehouse.
- Service and Equipment Sales Center: This branch is a service center with a small warehouse where juicers are stored. This branch sells juicers, installs juicers, trains customers' employees to operate juicers, and provides juicer servicing.

Operational Activity

The company has been operating starting in the *01-2019* financial period. In November 2019, the company started using Acumatica ERP as an ERP and CRM system and migrated all data of the main office and retail store to Acumatica ERP. Because the company has grown, the equipment center has begun its operations in *01-2020*.

Company Purchases

The company purchases fruits and spices from large fruit vendors for sale and for jam production. For producing jams and packing jams and fruits, the company purchases jars, labels, and paper bags from various vendors. For the internal needs of the main office and store, the company purchases stationery (printing paper, pens, and pencils), computers, and computer accessories from various vendors. The company also purchases juicers for sale from a large juicer vendor and either purchases the installation service for the juicers or provides the installation service on its own, depending on the complexity of the installation.

Company Sales and Services

Each company's branch has its own business processes, as follows:

- SweetLife Head Office and Wholesale Center: In this branch, jams and fruit are sold to wholesale customers, such as restaurants and cafés. The company also conducts home canning training at the customer's location and webinars on the company's website.
- SweetLife Store: In the store, small retail customers purchase fresh fruit, berries, and jams, or pick up the goods they have ordered on the website. Some of the goods listed in the website catalog are not stored in the retail warehouse, such as tropical fruits (which are purchased on demand) and tea (which is drop-shipped from a third-party vendor).

- Service and Equipment Sales Center: This branch sells juicers, provides training on equipment use, and offers equipment installation, including site review and maintenance services.

Part 1: Extended Inventory Scenarios

For completing lessons of this part of the course, you will use a company with the *U100* dataset preloaded, which provides a fully configured company with sample data specially designed for this course. You will learn to configure system settings and entities that are specific to configuring the inventory and order management functionality in a company with multiple warehouses. You will also learn how to perform configuration of lot- and serial-tracked items and inventory catalog in the system. Lessons of this part are independent: you can complete lesson activities in any order.

Activities in this part are to be completed under user accounts with specific access rights. Each activity provides the credentials to use for sign in to the prepared *U100* tenant in the *System Preparation* section.

In the examples of this course, you will use sample settings of configuration entities (such as posting classes) and master records (such as inventory items); you will also process sample transactions and business processes (such as those for inventory management, purchasing, order fulfillment). These sample settings, records, transactions, and processes are presented to illustrate the inventory and order management functionality of Acumatica ERP. In production systems, you have to specify the configuration entities and perform the processes as required by government regulations and the company's business requirements.

Lesson 1: Managing Warehouses

Warehouses: General Information

When your organization has multiple buildings, storage rooms, or other facilities for storing inventory items, you can create multiple warehouses in Acumatica ERP to process and track inventory appropriately for each warehouse.

With the *Multiple Warehouses* feature enabled on the *Enable/Disable Features* (CS100000) form, you can create any number of warehouses, even virtual warehouses, in the way that best fits your business, with the needed settings for each warehouse. In the following sections, you will read about multiple warehouses in Acumatica ERP.

Learning Objectives

In this chapter, you will learn how to do the following:

- Prepare the system for the creation of warehouses
- Create warehouses
- Specify warehouse-specific settings for stock items and prices
- Use a warehouse as a source of GL accounts for posting classes

Applicable Scenarios

You create warehouses in any of the following cases:

- When you initially configure inventory with multiple warehouses in Acumatica ERP
- When your organization adds a new physical or virtual warehouse

Multiple Warehouses in Acumatica ERP

In Acumatica ERP, you can implement any of the following typical use cases with multiple warehouses:

- In each warehouse, you store a specific set of goods, which is not stored in other warehouses. Each warehouse receives purchased goods directly from vendors. You do not need to transfer goods between warehouses.

  As an example of this use case, suppose that your organization sells fruits and juicers. You may have a separate warehouse with refrigeration facilities for fruits and a separate warehouse with no special storage conditions for juicers.

- You store goods of the same type (as well as goods of different types) in multiple warehouses, which can receive purchased goods directly from vendors. Also, you can perform transfers between warehouses, relocating stock items as needed.

  As an example of this use case, suppose that your organization sells fruits to wholesale and retail customers. You have a wholesale center with a large warehouse, and multiple small shops with local warehouses. The shops can either transfer fruits from the wholesale warehouse or buy fruits directly from local vendors.

- You use one warehouse as a distribution center and transfer its goods to other warehouses. Only the distribution center directly receives goods from vendors.

  As an example of this use case, suppose that your organization has a wide network of supermarkets. You have a distribution center with a large warehouse and each supermarket has its own warehouse. You purchase items only in the distribution center and then transfer these items to supermarkets.

You can implement any other use cases where multiple warehouses are involved.

Functionality Related to Multiple Warehouses

When you enable the *Multiple Warehouses* feature on the *Enable/Disable Features* (CS100000) form, the following functionality becomes available in the system:

- Warehouse-specific settings for stock items: If the details of stocking a particular inventory item vary in different warehouses, you can specify separate details for the item at each warehouse (that is, specify details for the item–warehouse pair) on the *Item Warehouse Details* (IN204500) form. You can view these warehouse-specific settings of a selected item on the **Warehouse Details** tab of the *Stock Items* (IN202500) form. For more information, see the *Warehouse-Specific Settings for Stock Items* section of this topic.

- The warehouse as a source for general ledger accounts: If you store inventory items of the same category in multiple warehouses and each warehouse has specific general ledger accounts specified on the *Warehouses* (IN204000) form, you can use the warehouse as a source of default GL accounts for any inventory item. For details, see the *Warehouse as a Source of GL Accounts for Posting Classes* section of this topic.

- The *TR* order type for sales with transfers: If you use multiple warehouses, you can implement a sales process that involves transferring items between warehouses. To reflect this process in documents, you need to activate the *TR* order type on the *Order Types* (SO201000) form.

- Warehouse-specific vendor and sales prices: You can define warehouse-specific sales prices and vendor prices for items. For more information, see the *Warehouse-Specific Prices* section of this topic.

- Inventory transfers: If your organization has multiple warehouses, you can transfer items between warehouses. To track these movements of items, you can use inventory transfers, which you create on the *Transfers* (IN304000) form. For details, see *Two-Step Transfers: General Information*.

Warehouse-Specific Settings for Stock Items

For each stock item at a particular warehouse (that is, for each item–warehouse pair), you can specify the following on the *Item Warehouse Details* (IN204500) form:

- The default locations for issuing and receiving the item at this warehouse (if you use multiple locations)

- The inventory account to be used for the stock item at this warehouse

- The ABC code and movement class assigned to the item when it is at this warehouse

- The replenishment settings for the item when it is stocked in this warehouse

The system also creates an entity for an item–warehouse pair on the *Item Warehouse Details* form in the following cases:

- When any user specifies or changes the default warehouse for an inventory item on the **Warehouse Details** tab of the *Stock Items* (IN202500) form.

- When any user releases the first inventory receipt of a particular item coming to the new warehouse (or another transaction that brings an item to a warehouse for the first time, such as the receiving part of an inventory transfer).

Warehouse as a Source of GL Accounts for Posting Classes

A posting class, which is specified for each stock item, is a group of settings that provide the default values for the purchase, sales, and inventory transactions with the item and define how these transactions will be posted to the general ledger. One of these default values is the source of general ledger accounts to be used for the item, and you can use a warehouse as a source of default GL accounts for an inventory item. You define the source of accounts that the system should use in a posting class by using the *Posting Classes* (IN206000) form.

For example, suppose that you have a separate inventory account for each warehouse. In this case, you can specify the needed inventory account in the warehouse settings on the *Warehouses* (IN204000) form and specify a warehouse as the source of the inventory account in the posting class on the *Posting Classes* form.

For more information about posting classes, see *Posting Classes: General Information*.

Warehouse-Specific Prices

In Acumatica ERP, you can define vendor and sales prices of an item and select a warehouse for these prices. If no warehouse is specified for a price on the *Vendor Price Worksheets* (AP202010) or *Sales Prices* (AR202000) forms, this price is applied to all warehouses that are defined in the system. A price that has a warehouse specified has a higher priority than a price of the same type with no warehouse selected. For example, a promotional customer price that is specific to a warehouse has a higher priority than a promotional customer price with no warehouse specified. For more information, see *Sales Prices: General Information* and *Vendor Prices: General Information*.

The system does not use warehouse-specific prices in accounts payable and accounts receivable documents, because these documents do not include warehouse information.

Warehouses: Implementation Activity

In the following implementation activity, you will learn how to create a warehouse and specify warehouse-related settings for stock items and posting classes.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the SweetLife company is going to open a new retail shop in Miami, Florida, with a small warehouse in it for keeping fruits and jams. The warehouse will contain one location where all items will be stored. Organizationally, the shop will be part of the SweetLife Head Office branch. This store will specialize in purchasing, storing, and selling exotic fruits (such as dragon fruit and guavas) from Mexico. To track item costs in the new warehouse, you will create a separate inventory account.

To prepare the system to process documents for the new retail shop, you, as an implementation manager, will create a new warehouse, specify warehouse-specific settings for the needed stock items, and specify other warehouse-related settings to support the changes in the company's operations.

Process Overview

As you create a warehouse and specify the related settings in the system, you do the following:

1. Use the *Chart of Accounts* (GL202500) form to create the inventory account that you will use for the new warehouse.
2. Create the warehouse for the new retail shop on the *Warehouses* (IN204000) form.
3. Change the settings of the posting class to be assigned to items moving to and from the warehouse on the *Posting Classes* (IN206000) form so that the inventory account of the warehouse is used when an item with this posting class specified is included in an inventory transaction.
4. Specify warehouse-specific settings for the items that are stored in multiple warehouses on the *Item Warehouse Details* (IN204500) form.
5. Process a purchase order on the *Purchase Orders* (PO301000) form and the related purchase receipt on the *Purchase Receipts* (PO302000) form, and make sure that the correct inventory account is used in the transactions generated on release of the inventory transaction.

System Preparation

Before you start creating a warehouse, you need to launch the Acumatica ERP website and sign in to a company with the *U100* dataset preloaded. To sign in as a system administrator, use the *gibbs* login and *123* password.

Step 1: Adding the Inventory Account

Before you start creating the warehouse for the new shop, you will create the inventory account that you will later specify in the settings of this warehouse. Do the following:

1. Open the *Chart of Accounts* (GL202500) form.
2. On the form toolbar, click **Add Row**.
3. Specify the following settings in the row:
   - **Account**: `12200`
   - **Account Class**: *WAREHOUSE*
   - **Type**: *Asset*
   - **Active**: Selected
   - **Description**: `Inventory Asset for FLORETAIL warehouse`
   - **Control Account Module**: *IN*
   - **Allow Manual Entry**: Cleared
   - **Post Option**: *Summary*
   - **Cash Account**: Cleared
   - **Secured**: Cleared

4. On the form toolbar, click **Save**.

You have created the account that will be specified as the inventory account for the new warehouse. The inventory account for a warehouse is the asset account to be used to maintain the balance of the inventory at this warehouse.

Step 2: Creating the Warehouse

To create the warehouse with one location for the new shop, perform the following instructions:

1. Open the *Warehouses* (IN204000) form.
2. On the form toolbar, click **Add New Record**.
3. In the Summary area, specify the following settings:
   - **Warehouse ID**: `FLORETAIL`
   - **Branch**: *HEADOFFICE*
   - **Active**: Selected
   - **Description**: `Retail warehouse in Florida`
4. On the **Location Table** table of the **Location Table** tab, add the location as follows:
   a. On the form toolbar, click **Add Row**.
   b. In the **Location ID** column, enter `MAIN`.
   c. In the **Description** column, enter `Location in the Floretail warehouse`.
   d. Keep default values in all other columns.
5. In the **Receiving Location** box of the same tab, select *MAIN*. The system will copy this location to purchase and inventory receipts by default.
6. On the **GL Accounts** tab, specify the following settings:
   - **Override Inventory Account**: Selected
   - **Inventory Account**: *12200 - Inventory Asset for FLORETAIL warehouse*
   - **Sales Account**: *40000 - Sales Revenue*
   - **COGS/Expense Account**: *50000 - COGS - Inventory*
   - **Standard Cost Variance Account**: *52100 - Standard Cost Adjustments*
   - **Standard Cost Revaluation Account**: *52110 - Standard Cost Revaluation Account*
   - **PO Accrual Account**: *20100 - Inventory Purchase Accrual*

- **Purchase Price Variance Account**: *52300 - Purchase Price Variance*
- **Landed Cost Variance Account**: *52400 - Landed Cost Variance*

7. On the **Address Information** tab, specify the following settings:
   - **Company Name**: `SweetLife Head Office and Wholesale Center`
   - **City**: `Miami`
   - **Country**: *US*
   - **State**: *FL*
8. On the form toolbar, click **Save**.

You have created a warehouse for the new retail shop.

Step 3: Changing the Posting Class Settings

To track items in the `FLORETAIL` warehouse, you have created a separate inventory account and specified it in the warehouse settings. Because fruits will be sold from the Wholesale, Retail, and Floretail warehouses, you need to track costs of fruit items specifically for each warehouse. For fruit items, the *FDI* posting class is used. For this posting class, you will specify that the system must use an inventory account from warehouse settings in transactions with fruit items. You change the settings of the *FDI* posting class as follows:

1. On the *Posting Classes* (IN206000) form, select the *FDI* class ID.
2. In the **Use Inventory/Accrual Account from** box on the **Posting Settings** tab, select *Warehouse*.
3. On the form toolbar, click **Save**.

With this setting, when an item with this posting class specified is included in an inventory transaction, the system will use the inventory account specified in the settings of the warehouse involved in the transaction.

Step 4: Specifying Item–Warehouse Settings

Because dragon fruit and guava items purchased in the Floretail warehouse will have Mexico as a country of origin and these items will be typically purchased, stored, and sold from the Floretail warehouse, you need to specify the item settings specific to the new warehouse. The system will use warehouse-specific settings with the higher priority than general settings specified for the items when you process documents with the items. You specify the settings of the dragon fruit and guava stock items in the new warehouse as follows:

1. Open the *Stock Items* (IN202500) form.
2. Specify the settings for dragon fruit in the *FLORETAIL* warehouse as follows:
   a. In the **Inventory ID** box, select *DRAGONFR*.

b. On the table toolbar of the **Warehouse Details** tab, click **Add Warehouse Detail**.

c. On the *Item Warehouse Details* (IN204500) form, which opens, select *FLORETAIL* in the **Warehouse** box. Notice that in the **Inventory Account** box of the **General Settings** tab, the system has inserted the *12200* account.

d. In the **Country of Origin** box, select *MX*.

e. Save your changes.

f. Open the *Stock Items* form with the *DRAGONFR* stock item selected.

g. On the **Warehouse Details** tab, make sure that the *FLORETAIL* warehouse is listed and the *12200* inventory account is specified for it.

h. In the **Default** column, select the check box for the *FLORETAIL* warehouse.

j. On the form toolbar, click **Save**.

3. Specify the settings for guavas in the *FLORETAIL* warehouse as follows:

a. In the **Inventory ID** box, select *GUAVAS*.

b. On the table toolbar of the **Warehouse Details** tab, click **Add Warehouse Detail**.

c. On the *Item Warehouse Details* (IN204500) form, which opens, select *FLORETAIL* in the **Warehouse** box. Notice that in the **Inventory Account** box of the **General Settings** tab, the system has inserted the *12200* account.

d. In the **Country of Origin** box, select *MX*.

e. Save your changes.

f. Open the *Stock Items* form with the *GUAVAS* stock item selected.

g. On the **Warehouse Details** tab, make sure that the *FLORETAIL* warehouse is listed and the *12200* inventory account is specified for it.

h. In the **Default** column, select the check box for the *FLORETAIL* warehouse.

j. On the form toolbar, click **Save**.

For dragon fruit and guavas (that existed in the system), you have specified settings specific for the new warehouse.

Step 5: Processing a Purchase in the New Warehouse

To make sure that the amounts of the *DRAGONFR* and *GUAVAS* inventory items are posted to the correct inventory account for the *FLORETAIL* warehouse, you will create and process a purchase order and purchase receipt containing one of the items. (You have specified the inventory account the same way for both items, so it is not necessary to test both.) You will then view the details of the generated transaction to be sure the inventory account you specified is used. Do the following:

1. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Head Office and Wholesale Center* branch is selected.
2. On the *Purchase Orders* (PO301000) form, create a purchase order for 20 pounds of guavas as follows:
   - **a.** On the form toolbar, click **Add New Record**.
   - **b.** In the **Vendor** box of the Summary area, select *GLORYFRUIT*.
   - **c.** In the **Description** box, type `Purchase of 20 lb of dragon fruit`.
   - **d.** On the table toolbar of the **Document Details** tab, click **Add Row**.
   - **e.** Make sure that in the **Branch** column of the new row, *HEADOFFICE* is specified.
   - **f.** In the **Inventory ID** column, select *DRAGONFR*.
   - **g.** In the **Warehouse** column, make sure that *FLORETAIL* is specified.
   - **h.** In the **Order Qty.** column, type `20`.
   - **j.** In the Summary area, clear the **Hold** check box.
   - **k.** On the form toolbar, click **Save**.
3. Create and process a purchase receipt for the order you have just created as follows:
   - **a.** While still viewing the purchase order, on the form toolbar, click **Actions > Enter PO Receipt**. The *Purchase Receipts* (PO302000) form opens with the relevant details copied from the purchase order. The purchase receipt has the *Balanced* status, so it can be released.
   - **b.** On the form toolbar, click **Release**.
   - **c.** On the **Other Information** tab, click the link in the **IN Ref. Nbr.** box. The system opens the *Receipts* (IN301000) form with the inventory receipt that has been created (and automatically released upon creation) for the purchase receipt.
   - **d.** On the **Financial Details** tab of this form, click the link in the **Batch Nbr.** box. The system opens the *Journal Transactions* (GL301000) form.

   In the table, you can see that the system has debited the *12200* account for this transaction. This means that the system has used an inventory account specified in the *FLORETAIL* warehouse settings.

Warehouses: Related Report and Inquiry Forms

In the following sections, you can find details about report and inquiry forms that provide information related to warehouses.

Viewing Items by Warehouse

If you want to view the list of items in a particular warehouse, you use the *Storage Summary* (IN409010) form.

Reviewing Inventory Valuation by Warehouse

To review the quantities on hand and the total cost of inventory by inventory account, with details for different warehouses or for only a particular warehouse, you use the *Inventory Valuation* (IN615500) report.

Lesson 2: Warehouse Locations and Single-Step Transfers

Warehouse Locations and Single-Step Transfers: General Information

In Acumatica ERP, you can create multiple locations in each warehouse and configure them to best fit the logistics that have been established in your company. You can reserve specific locations for sales, receipts, transfers, goods to be returned to vendors, and goods returned by customers. You can assign different pick priorities to locations, to empty certain locations more quickly while using others less frequently.

The functionality of multiple locations is available in the system if the *Multiple Warehouse Locations* feature is enabled on the *Enable/Disable Features* (CS100000) form.

When you have multiple locations, you can register and process *single-step transfers* in the system, which involve moving items between locations of the same warehouse. (In Acumatica ERP, you can also register and process *two-step transfers*, which are transfers between locations in different warehouses; see *Two-Step Transfers: General Information* for more information.)

In the following sections, you will find information about warehouse locations and single-step transfers in Acumatica ERP.

Learning Objectives

In this chapter, you will learn how to do the following:

- Create and configure warehouse locations
- Perform single-step transfers between warehouse locations
- View item availability by location

Applicable Scenarios

You may need to create warehouse locations in the following cases:

- When you are initially configuring inventory entities and settings
- When you reorganize the physical locations within an existing warehouse and would like to track items in these places.

You create single-step transfers when you need to move items from one location to another location within the same warehouse and to track this movement in the system.

Default Warehouse Location

When a warehouse is created in the system where the *Multiple Warehouse Locations* feature is disabled on the *Enable/Disable Features* (CS100000) form, the system automatically creates a default location (with the *MAIN* location ID) that the goods will be received to and issued from. The *MAIN* location has the following settings on the *Warehouses* (IN204000) form:

- **Active**: Selected
- **Include in Qty. Available**: Selected

  This means that the system adds the number of items stored in the location to the available quantity.
- **Cost Separately**: Cleared

  The default cost is used for items in this location.
- **Sales Allowed**: Selected

  With this setting, users can sell items from this location.
- **Receipts Allowed**: Selected

  This setting indicates that new items can be received to this location.
- **Transfers Allowed**: Selected

  This indicates that users can move items to and from this location.

These location settings are displayed on the **Location Table** tab of the *Warehouses* form only if the *Multiple Warehouse Locations* feature is enabled on the *Enable/Disable Features* form; if it is not enabled, the tab is not shown on the form, but the settings listed above are used internally.

When you create a warehouse in the system where the *Multiple Warehouse Locations* feature is enabled on the *Enable/Disable Features* form, the default location is not created automatically, and you need to create at least one location for the warehouse.

Configuration of Warehouse Locations

You can define multiple locations for each warehouse on the *Warehouses* (IN204000) form. You can also view and change existing locations of the warehouse and their settings, including the default location.

You do the following to create and configure the locations of a particular warehouse in Acumatica ERP:

1. Optional: On the *Segmented Keys* (CS202000) form, you review the structure of the *INLOCATION* segmented key, which defines the identifiers for warehouse locations.

   If you want to create a hierarchy of locations (site, aisle, pallet, bin, and so forth), you can configure location identifiers that consist of multiple segments, with each segment denoting a specific level in this hierarchy. For example, suppose that you have three racks, each with four shelves, in a warehouse. A location identifier can have the *Rn-SHm* format, where *Rn* is the number of the rack (such as *R2*) and *SHm* is the number of the shelf in the rack (such as *SH4*).

   For more information about segmented keys, see *Segmented Identifiers*.

2. Open the warehouse on the *Warehouses* form. On the **Location Table** tab, you add the needed locations to the table and specify the settings of each.

   To create a similar configuration of locations in multiple warehouses, you can export the location table of one of these warehouses to an Excel file and then import the settings from the file to another warehouse, changing the settings as needed. For details on importing the settings from an Excel file, see *Integration with Excel*.

3. Optional: In the boxes above the table of locations, you select the following default locations for inventory operations (which simplify data entry on purchase receipts and sales orders):

   - **Receiving Location**: The default receiving location for stock items in the warehouse.
   - **Shipping Location**: The default shipping location for the warehouse.
   - **RMA Location**: The location used for all operations involving return merchandise authorization (RMA). The returned goods will be delivered to the location specified in this box, regardless of the warehouse location selected by default for the receipt of these goods.
   - **Drop-Ship Location**: The location used for drop-ship orders and inventory issues that are automatically generated for drop-ship orders. This box is displayed only if the *Drop Shipment* feature is enabled on the *Enable/Disable Features* (CS100000) form.

4. Optional: In the **Location Entry** box in the Summary area, you specify the option that indicates whether you want to allow users to add new locations on the fly when they are entering inventory documents. If an option that allows these additions is selected, user-added locations can be viewed (and edited, if needed) along with other locations on the **Location Table** tab of the form.

Priorities of Warehouse Locations

If any inventory items with the same inventory ID in the system are stored in multiple locations of the same warehouse, the system has to find the appropriate warehouse location from which to issue the items when a user creates a shipment for a sales order. Thus, for

each location, on the **Location Table** tab of the *Warehouses* (IN204000) form, in the **Pick Priority** column, you can specify the pick priority. If the system finds multiple locations that have the item, the system selects the location with the highest pick priority: In this column, *1* indicates the highest priority, *2* the next highest, and so forth to the lowest priority; 0 means that the pick priority is not defined.

For example, suppose that you store a dairy product that can be kept for one week. You purchase this dairy product every day and store it in two locations of the warehouse: A and B. In Location A, you store a variant of the dairy product that can be kept from five to seven days. In Location B, you store a variant of the dairy product that can be kept from two to four days. You can assign the highest pick priority to Location B so that dairy products with an earlier expiration date are shipped first.

If for the majority of stock items, you specify a warehouse location in the **Default Issue From** box on the **General Settings** tab of the *Stock Items* (IN202500) form for an item, you can include this location in search for appropriate locations by selecting the **Use Item Default Location for Picking** check box on the **Location Table** tab of the *Warehouses* form.

When this check box is selected, the system treats the location specified in the **Default Issue From** box as having a higher priority than the location with the highest possible pick priority. That is, the system searches for locations in the following order until it finds a match:

1. The warehouse location specified for the item in the **Default Issue From** box.
2. The warehouse location with the highest pick priority specified on the **Location Table** tab of the *Warehouses* form. (The value *1* indicates the highest priority, *2* the next highest, and so forth; *0* means that the pick priority is not defined.)

Single-Step Transfers

Your organization can use single-step inventory transfers to record stock item movements between locations within the same warehouse. For a single-step transfer, you should specify the following information on the *Transfers* (IN304000) form:

- The source warehouse (in the **Warehouse** box).
- The destination warehouse (in the **To Warehouse** box). For a single-step transfer, select the same warehouse as the source warehouse.
- Transaction details of the stock item to be moved: the source location, the destination location, inventory ID, UOM, and quantity.

You can release a particular inventory transfer by clicking **Release** on the form toolbar of the *Transfers* form. Also, you can release multiple transfers at the same time by using the *Release IN Documents* (IN501000) form. No GL transactions are generated for a single-step transfer that records item movement from one location to another within the same warehouse.

When a transfer performed between locations within the same warehouse is released, the system updates the allocations and the availability data for the transferred items but does not change the item costs.

Warehouse Locations and Single-Step Transfers: Implementation Activity

In the following implementation activity, you will learn how to create warehouse locations.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the SweetLife company has organized separate storage areas for spices and write-off items (such as fruits that spoiled and damaged jam jars) in the retail warehouse and needs to track these items by warehouse locations. You will create two warehouse locations for spices and write-off items. (A third location of the warehouse is the default location, *MAIN*, which is where items are initially received and items not stored in the other areas are stored.)

Process Overview

In this activity, as you create locations for spices and write-off items for the retail warehouse by using the *Warehouses* (IN204000) form, you will specify a location identifier and appropriate settings for each location.

System Preparation

Before you start creating warehouse locations, you need to launch the Acumatica ERP website and sign in to a company with the *U100* dataset preloaded. To sign in as a system administrator, use the *gibbs* login and *123* password.

Step: Creating Warehouse Locations

You will leave the settings of the *MAIN* location as they are because *MAIN* is a default location for all stock items in the retail warehouse. You create locations for spices and write-off items as follows:

1. Open the *Warehouses* (IN204000) form.
2. In the **Warehouse ID** box of the summary area, select *RETAIL*.
3. On the **Location Table** tab, create a location for spices as follows:
   a. On the toolbar of the **Location Table** table, click **Add Row**.
   b. In the **Location ID** column, type `SPICES`.
   c. In the **Description** column, type `Location for spices`.
4. Create a location for write-off items as follows:

a. On the toolbar of the **Location Table** table, click **Add Row**.

b. In the **Location ID** column, type `WRITEOFF`.

c. In the **Description** column, type `Location for write-off items`.

d. In the **Include in Qty. Available** column, clear the check box, because items stored in this location will not be sold (thus should not be considered available).

e.

f. In the **Sales Allowed** column, clear the check box.

5. On the form toolbar, click **Save**.

Now that you have created warehouse locations, you can transfer items between locations in the retail warehouse, as described in *Warehouse Locations and Single-Step Transfers: Process Activity*.

Warehouse Locations and Single-Step Transfers: Mass Processing of Documents

You can process multiple single-step transfers at the same time, as described below.

Mass-Releasing Single-Step Transfers

Transfers can be mass-released. To release multiple single-step transfers at a time, you open the *Release IN Documents* (IN501000) form, select the unlabeled check boxes in the rows of the transfers to be processed, and click **Process** on the form toolbar. The system releases the selected transfers.

Warehouse Locations and Single-Step Transfers: Process Activity

In the following process activity, you will learn how to move stock items between warehouse locations within the same warehouse by using a single-step transfer.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the SweetLife company has decided to move cinnamon and ginger from the default location of the retail warehouse (to which the items have been received) to the location of this warehouse that is dedicated to spices. You need to reflect these changes in inventory. Acting as a warehouse manager, you will create a single-step inventory transfer.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*
- *Multiple Warehouse Locations*

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Warehouses* (IN204000) form, the *RETAIL* warehouse and the *MAIN* location in this warehouse
- The following items on the *Stock Items* (IN202500) form: *CINNAMON* and *GINGER*.

Process Overview

To create and process a single-step transfer in this activity, you will do the following:

1. View the item availability in the source and destination locations on the *Storage Summary* (IN409010) form.
2. Create a single-step transfer on the *Transfers* (IN304000) form.
3. Make sure that the items are available in the destination locations on the *Storage Summary* (IN409010) form.

System Preparation

Before you start processing transfers between warehouse locations, you perform the following instructions:

- Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a warehouse manager, use the *lam* login and the *123* password.
- Make sure that the *SPICES* and *WRITEOFF* warehouse locations have been created in the *RETAIL* warehouse, as described in *Warehouse Locations and Single-Step Transfers: Implementation Activity*.

Step 1: Viewing Item Availability

To check the availability of cinnamon and ginger in the default (*MAIN*) location, do the following:

1. Open the *Inventory Summary* (IN401000) form.
2. In the **Inventory ID** box, select *CINNAMON*.
3. In the **Warehouse** box, select *RETAIL*.

4. In the table, make sure that the on-hand quantity in the *MAIN* location is positive. Notice that the *SPICES* location is not displayed in the table, which means that it does not contain any cinnamon.
5. In the **Inventory ID** box, select *GINGER*.
6. In the table, make sure that the on-hand quantity in the *MAIN* location is positive. Notice that the *SPICES* location is not displayed in the table, which means that it does not contain any ginger.

Step 2: Transferring Items Between Warehouse Locations

Suppose that you have moved the cinnamon and ginger to the *SPICES* location. Further suppose that when you were moving the packages with cinnamon, you realized that two packages were broken and you moved these packages to the *WRITEOFF* location. The rest of the cinnamon packages were moved to the *SPICES* location. To record the movement of the items between these locations within the retail warehouse, do the following:

1. Open the *Transfers* (IN304000) form.
2. On the form toolbar, click **Add New Record**.
3. In the **Transfer Type** box of the Summary area, make sure that *1-Step* is selected.
4. On the form toolbar, click **Add New Record**.
5. In the **Warehouse ID** box, select *RETAIL*.
6. In the **To Warehouse ID** box, select *RETAIL*.
7. In the **Description** box, type `Moving ginger and cinnamon to the SPICES and WRITEOFF locations.`
8. Add the items to be transferred between the *MAIN* and *SPICES* locations as follows:
   a. On the table toolbar of the **Transaction Details** tab, click **Add Item**. The **Inventory Lookup** dialog box opens.
   b. In the **Inventory** box, type `GINGER`. The system searches for items with this string in the inventory ID and lists in the table the one item it finds with this ID.
   c. In the row with the *GINGER* item, select the check box in the unlabeled column.
   d. In the **Qty. Selected** column of this row, make sure that the same value that is in the **Qty. On Hand** column is specified.
   e. In the **Inventory** box, type `CINNAMON`. The system again searches for items with this string in the inventory ID and lists the item with this ID in the table, where the already-selected row is still listed.
   f. In the row with the *CINNAMON* item, select the check box in the unlabeled column.

   g. In the **Qty. Selected** column of the *CINNAMON* row, type the value of the **Qty. On Hand** column minus 2 to account for the damaged packages.

   h. Click the **Add & Close** button to add the selected items to the transfer and close the dialog box.

   j. In the **To Location ID** column, in each line, select *SPICES*.

9. Add the items to be transferred between the *MAIN* and *WRITEOFF* locations ad follows:

   a. On the table toolbar, click **Add Row**.

   b. In the **Inventory ID** column of the new row, select *CINNAMON*.

   c. In the **Location** column, select *MAIN*.

   d. In the **To Location ID** column, select *WRITEOFF*.

   e. In the **Quantity** column, type `2`.

10. On the form toolbar, click **Save**.

11. On the form toolbar, click **Release** to release the transfer.

Step 3: Viewing the Availability of Moved Items

Now that you have moved items to the appropriate locations, you will make sure that cinnamon and ginger are available in the appropriate locations. Do the following:

1. Open the *Inventory Summary* (IN401000) form.

2. In the **Inventory ID** box, select *GINGER*.

3. In the **Warehouse** box, select *RETAIL*.

4. In the table, make sure that the on-hand quantity in the *SPICES* location is positive. Notice that the *MAIN* location is not displayed in the table, which means that it does not contain any ginger.

5. In the **Inventory ID** box, select *CINNAMON*.

6. In the table, make sure that the on-hand quantity in the *SPICES* and *WRITEOFF* locations is positive. Notice that the *MAIN* location is not displayed in the table, which means that it does not contain any cinnamon.

You have successfully recorded movement of the items to appropriate locations.

Warehouse Locations and Single-Step Transfers: Related Report and Inquiry Forms

In the following section, you can find information about inquiry forms with information related to warehouse locations.

Viewing Items by Location

If you want to view a list of items in a particular warehouse location, you use the *Storage Summary* (IN409010) form. In the Selection area of this form, you need to select the warehouse to see the list of locations and stock items in each location. Optionally, in the Selection area, you can select a location to view the list of items in this location only. Alternatively, you can select a particular stock item to view the list of locations where the item is available.

If you want to view information about a particular stock item—such as warehouse, location, and availability details—you use the *Inventory Summary* (IN401000) form. On this form, you need to select a stock item and see in which warehouses and locations the items is available. Additionally, you can select a warehouse to view the list of warehouse locations where the item is stored, and you can select a warehouse location to view the availability of this item in the selected location.

Lesson 3: Processing Two-Step Inventory Transfers

Two-Step Transfers: General Information

If your organization uses multiple warehouses to store items, you may need to transfer stock items between warehouses. To record stock movements between warehouses in Acumatica ERP, you use a two-step transfer—that is, you first issue the required quantity of items from a source warehouse, and you then receive the items in the destination warehouse.

The following sections describe two-step transfers.

Learning Objectives

In this chapter, you will learn how to do the following:

- Record the movement of stock items between warehouses by using a two-step transfer
- Find information about items in transit

Applicable Scenarios

You use two-step transfers when you need to track movements of items between warehouses. A two-step transfer can reflect a movement between warehouses in different towns (which may take up to multiple days) or a movement between warehouses that are close to each other (which may take up to several hours).

Two-Step Transfer Process

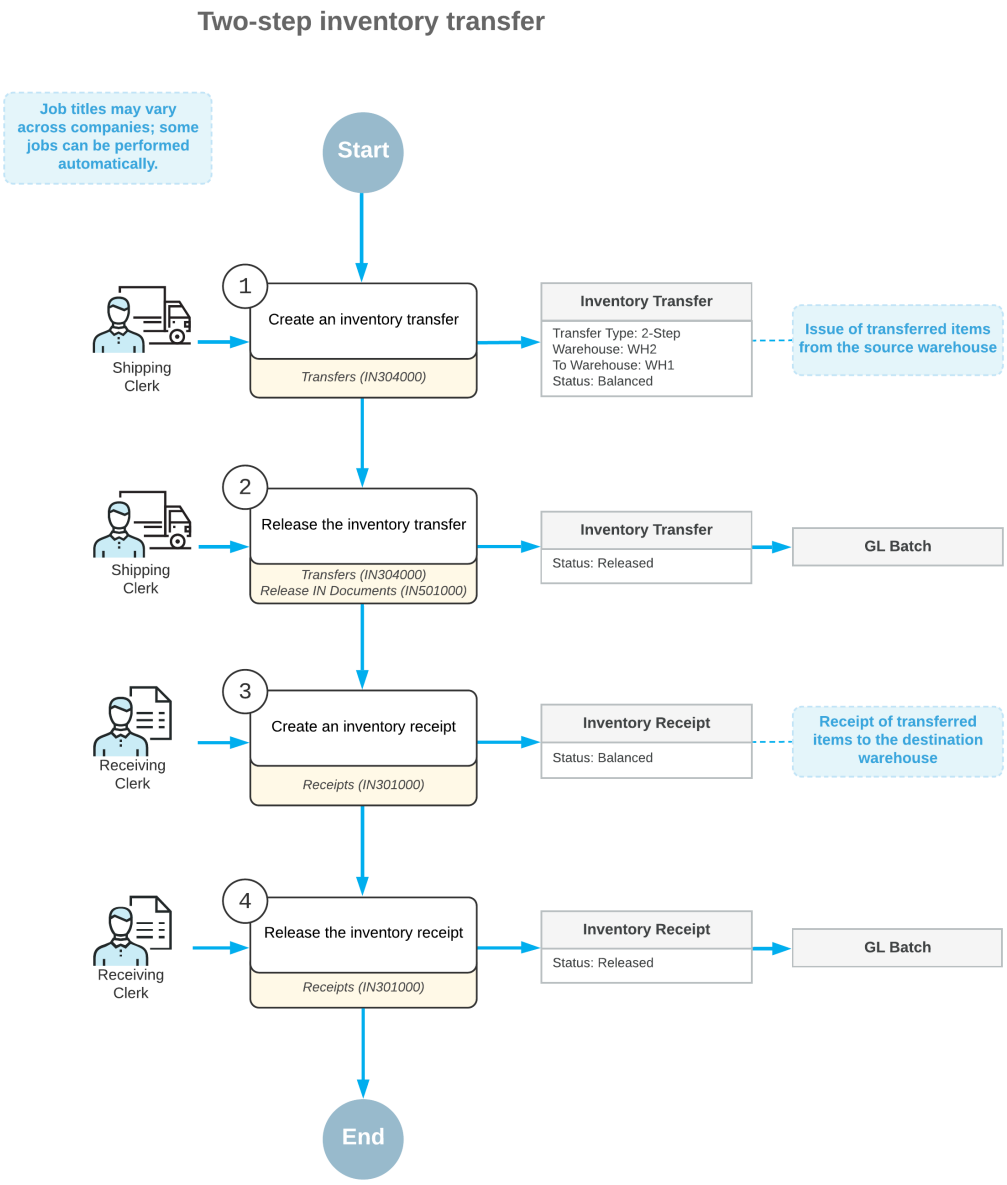
For a two-step transfer, you create both of the following documents:

1. Transfer of the *2-Step* type: You create this document by using the *Transfers* (IN304000) form. When this document is released, the on-hand quantity of the items in the source warehouse is decreased.

2. Transfer receipt: When the transferred items are received, you create an inventory receipt for this transfer on the *Receipts* (IN301000) form by selecting the reference number of the transfer in the **Transfer Nbr.** box. When you do, the relevant settings of the transfer, including the detail lines, will be inserted in the transfer receipt. When the receipt is released, the on-hand quantity of the items in the destination warehouse is increased.

Workflow of a Two-Step Inventory Transfer

For a transfer of items between warehouses, the typical processing involves the actions and generated documents and transactions shown in the following diagram.



Costs of Transferred Items

Moving stock items between warehouses usually requires some time. Items that have been issued from a source warehouse and have not been delivered to a destination warehouse are regarded as being in transit. The costs of items in transit are recorded temporarily to the In-Transit account, which is specified on the *Inventory Preferences* (IN101000) form. When the items are received at the destination warehouse, their costs are transferred to the appropriate inventory account. For details, see *Two-Step Transfers: Generated Transactions*.

The costs the transferred items will have in the destination warehouse depend on the valuation methods assigned to the items. For items with the *Average* and *Standard cost*

valuation methods, the cost of an item in the destination warehouse will be the same as the cost of the item at the source warehouse. For an item with the *FIFO* or *Specific* valuation method, a transfer receipt creates a new cost layer with the transferred quantity of the item and with the number and date of this transfer receipt.

Two-Step Transfers: Process Activity

In the following process activity, you will learn how to move stock items between warehouses by using a two-step transfer.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that you as a purchasing manager in the retail shop of the SweetLife company ordered 50 pounds of apples directly from a supplier. When the apples were delivered to the warehouse of the retail shop, you realized that the warehouse has space only for 30 pounds of apples. To address this problem, you have decided to send 20 pounds of these apples to the Wholesale warehouse. You will create all required documents in Acumatica ERP to register in the system these transactions, from the purchase of the apples through the transfer to the other warehouse.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*
- *Multiple Warehouses*
- *Multiple Warehouse Locations*

The following entities, which you will use in this activity, have been predefined in the system:

- The following warehouses on the *Warehouses* (IN204000) form: *WHOLESALE* and *RETAIL*.
- On the *Stock Items* (IN202500) form, the *APPLES* item.
- On the *Vendors* (AP303000) form, the *GLORYFRUIT* vendor.

Process Overview

In this activity, you do the following:

1. Process a purchase order and purchase receipt for items on the *Purchase Orders* (PO301000) form.

2. On the *Inventory Allocation Details* (IN402000) form, make sure that the items are available in the source warehouse.
3. Create a transfer of the *2-Step* type on the *Transfers* (IN304000) form.
4. Create an inventory receipt on the *Receipts* (IN301000) form.
5. On the *Inventory Allocation Details* form, make sure that the items are available in the destination warehouse.

System Preparation

Before you start processing two-step transfers, you perform the following instructions:

- Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a purchasing manager, use the *wiley* login and the *123* password.
- On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Store* branch is selected.

Step 1: Ordering and Receiving Items in a Source Warehouse

Before you can transfer apples from the *RETAIL* warehouse to the *WHOLESALE* warehouse, you need to process the purchasing documents. You do the following:

1. As a preliminary action, on the *Inventory Allocation Details* (IN402000) form, do the following:
   a. In the **Inventory ID** box of the Summary area, select *APPLES*.
   b. In the **Warehouse** box, select *RETAIL*.
   c. Make a note of the initial value of the **On Hand** box. You will use it later to make sure that the quantity increases after receiving items in the warehouse.
2. Open the *Purchase Orders* (PO301000) form.
3. On the form toolbar, click **Add New Record**.
4. In the **Vendor** box of the Summary area, select *GLORYFRUIT*.
5. In the **Description** box, type `Order of 50 pounds of apples from Glory Fruit Case`.
6. On the **Document Details** tab, do the following:
   a. On the table toolbar, click **Add Row**.
   b. In the **Branch** column, select *RETAIL*.
   c. In the **Inventory ID** column, select *APPLES*.
   d. In the **Warehouse** box, select *RETAIL*.

   e. In the **Order Qty.** column, type `50`.

7. In the Summary area, clear the **Hold** check box.

8. On the form toolbar, click **Save**. The system saves the purchase order with the *Open* status.

9. On the form toolbar, click **Actions > Enter PO Receipt**. The system opens the *Purchase Receipts* (PO302000) form with the new purchase receipt (which has the data copied from the linked purchase order; it also has the *Balanced* status).

10. In the **Location** column of the **Document Details** tab, select *MAIN*.

11. On the form toolbar, click **Release**. The system creates and releases the inventory receipt. On the **Other Information** tab, you can view the reference number of the created inventory receipt; you can also click the reference number link to view the inventory receipt on the *Receipts* (IN301000) form. The system changes the status of the purchase receipt to *Released*.

You have processed the documents for ordering the apples from the vendor and receiving the apples to the Retail warehouse.

Step 2: Reviewing the Availability of Items in the Source Warehouse

To make sure that the ordered apples have become available in the Retail warehouse, you do the following:

1. Open the *Inventory Allocation Details* (IN402000) form.

2. In the **Inventory ID** box of the Summary area, select *APPLES*.

3. In the **Warehouse** box, select *RETAIL*.

4. Make sure that the value in the **On Hand** box has increased by 50.

Step 3: Creating a Two-Step Transfer

Now you need to register the movement of 20 pounds of the purchased apples to the Wholesale warehouse. You do the following:

1. Open the *Transfers* (IN304000) form.

2. On the form toolbar, click **Add New Record**.

3. In the **Transfer Type** box of the Summary area, select *2-Step*.

4. In the **Warehouse ID** box, select *RETAIL*.

5. In the **To Warehouse ID** box, select *WHOLESALE*.

6. In the **Description** box, type `Transfer of 20 pounds of apples from Retail to Wholesale`.

7. On the **Transaction Details** tab, do the following:

   a. On the table toolbar, click **Add Row**.

   b. In the **Inventory ID** column, select *APPLES*.

   c. In the **Location** box, select *MAIN*.

   d. In the **Quantity** column, type `20`.

8. On the form toolbar, click **Release**. The system releases the transfer and changes its status to *Released*.

9. On the *Inventory Allocation Details* (IN402000) form, do the following:

   a. In the **Inventory ID** box of the Summary area, select *APPLES*.

   b. In the **Warehouse** box, clear the selected warehouse.

   c. On the **Item Plans** tab, make sure that a row with the *In-Transit* allocation type is displayed. This means that the apples have been issued from the *RETAIL* warehouse and have not been received in the *WHOLESALE* warehouse.

So far, you have processed the documents for registering movement of 20 pounds of apples from the Retail warehouse. Now you will register their receipt in the Wholesale warehouse.

Step 4: Creating an Inventory Receipt

Suppose that apples have been delivered to the Wholesale warehouse. Before processing the document to record this receipt, you need to view the initial on-hand quantity of apples in the Wholesale warehouse so that you can later make sure that this quantity is increased by the transferred quantity. Do the following to review this quantity and create the receipt:

1. On the *Inventory Allocation Details* (IN402000) form, do the following:

   a. In the **Inventory ID** box of the Summary area, select *APPLES*.

   b. In the **Warehouse** box, select *WHOLESALE*.

   c. Make a note of the initial value of the **On Hand** box.

2. Open the *Receipts* (IN301000) form.

3. On the form toolbar, click **Add New Record**.

4. In the **Transfer Nbr.** box, select the reference number of the two-step transfer you created in the previous step. The system copies the line for the *APPLES* item from the selected transfer to the **Transaction Details** tab.

5. On the **Transaction Details** tab, in the **Location** box of the only row, make sure that *MAIN* is selected (which is the location to which you will receive the items in the *WHOLESALE* warehouse).

6. On the form toolbar, click **Release**. The system releases the receipt and adds the item quantity from the receipt to the on-hand quantity of the *APPLES* item in the *WHOLESALE* warehouse (which you will verify in the next step).

Step 5: Reviewing Availability of Items in the Destination Warehouse

To make sure that the moved quantity of apples is now available in the Wholesale warehouse, do the following:

1. Open the *Inventory Allocation Details* (IN402000) form.
2. In the **Inventory ID** box of the Summary area, select *APPLES*.
3. In the **Warehouse** box, select *WHOLESALE*.
4. Make sure that the value of the **On Hand** box has increased by 20.
5. In the **Warehouse** box, clear the selected warehouse.
6. Notice that, in the table on the **Item Plans** tab, the row with the *In-Transit* allocation type is not displayed any more. This means that the transfer that included the *APPLES* item has been released.

You have successfully transferred apples from the Retail to the Wholesale warehouse.

Two-Step Transfers: Generated Transactions

To track a movement of stock items between warehouses, you create and release a two-step transfer on the *Transfers* (IN304000) form and a related inventory receipt on the *Receipts* (IN301000) form. To track these movements in a general ledger the system generates GL transactions described in the following section.

Transactions Generated for Two-Step Transfers

When you create and release a two-step transfer, the system generates the following general ledger transactions:

Account	Source of Account	Debit	Credit
Inventory account	Posting class settings on the *Posting Classes* (IN206000) form	0.00	COGS amount
In-Transit account	Inventory preferences on the *Inventory Preferences* (IN101000) form	COGS amount	0.00

You can view the reference number of the GL batch on the **Financial Details** tab of the *Transfers* (IN304000) form.

If the transfer is performed between warehouses in different companies, the system generates intercompany transactions when you release the two-step transfer and links these transactions to the transfer.

As a result of a two-step transfer being released, the on-hand quantity of the items in the source warehouse has been decreased.

After you have released the two-step transfer, you need to create an inventory receipt to record receiving items in the destination warehouse. When an inventory receipt is released, the system generates a batch of the following GL transactions:

Account	Source of Account	Debit	Credit
In-Transit account	Inventory preferences on the *Inventory Preferences* (IN101000) form	0.00	COGS amount
Inventory account	Posting class settings on the *Posting Classes* (IN206000) form	COGS amount	0.00

You can find the reference number of the GL batch on the **Financial Details** tab of the *Receipts* form.

As the result of the receipt being released, the on hand quantity of the items in the destination warehouse has been increased, as you can view on the *Inventory Allocation Details* (IN402000) form.

Two-Step Transfers: Mass Processing of Documents

You can process multiple transfers of the *2-Step* type at the same time, as described below.

Mass-Releasing Two-Step Transfers

Transfers can be mass-released. To release multiple transfers of the *2-Step* type at a time, you open the *Release IN Documents* (IN501000) form, select the unlabeled check boxes in the rows of the transfers to be processed, and click **Process** on the form toolbar. The system releases the selected transfers.

Two-Step Transfers: Related Report and Inquiry Forms

In the following section, you can find details about report and inquiry forms that you may want to review to gather information about two-step transfers of stock items that are being processed in the system.

Viewing Items in Transit

If you want to see a list of items that are in transit (that is, items that are being transferred to other warehouses in two steps and have not yet been received at the destination warehouse), you can use the *Goods in Transit* (IN616500) report.

This report is available only if the *Multiple Warehouses* feature is enabled on the *Enable/Disable Features* (CS100000) form.

When you need to find documents that contain stock items in transit, you can use the *Inventory Allocation Details* (IN402000) form. On this form, you can select a stock item and view the on-hand quantity of the item in a particular warehouse, the actual quantity of the item according to unreleased documents, and the list of unreleased documents that contain this item.

This form is available only if the *Inventory* feature is enabled on the *Enable/Disable Features* (CS100000) form.

Lesson 4: Managing Items with Lot and Serial Numbers

Items with Lot and Serial Numbers: General Information

Lot numbers and serial numbers are used to track certain types of inventory items as they are received, stored, manufactured, and shipped. Some products, such as food products and chemical compounds, are tracked by lot because they have expiration dates, while other products, such as medications, are tracked because laws require manufacturers to keep accurate records about their distribution. Still other products—such as electronics, appliances, and cars—must be tracked individually from the manufacturer to the consumer because of safety and warranty issues, so serial numbers are used for tracking them.

If the *Lot and Serial Tracking* feature is enabled on the *Enable/Disable Features* (CS100000) form, you can set up the tracking of stock items by lot or serial number, as well as by expiration date.

Learning Objectives

In this chapter, you will learn how to do the following:

- Configure the tracking of items with lot and serial numbers
- Process purchase and sales documents that contain lot- and serial-tracked items

Applicable Scenarios

You may need to use items with lot or serial numbers in the following cases:

- When your organization purchases items with serial numbers provided by vendors and you need to track these items by the serial numbers in a warehouse

- When your organization accepts returns or replacements of serialized items that it has sold
- When your organization provides services (such as installation or repair) for serialized items that it has sold
- When a vendor from which your organization buys items sells them in lots and provides lot numbers and expiration dates for each lot, which you want to track for the items
- When your organization sells items in lots and it is important to keep the assigned lot number tracked in the sales documents
- When your organization sells items with an expiration date and issues items based on this date

Items with Serial Numbers

A serial number is a unique number that identifies a single item of stock, such as a camera, DVD player, or bicycle.

Serial numbers can be generated by the system. This can be useful if items to be assigned to serial numbers are produced by your organization or are supplied by a vendor and the items do not have serial numbers assigned by the vendor.

Alternatively, you can manually assign a serial number to each item so that the system reflects the numbers provided by a vendor. The settings that control the tracking of a serialized item are specified by the serial class assigned to the item.

Items with Lot Numbers

A lot number is a unique identification code assigned to a specific quantity or *lot* of items. The same lot number is assigned to every item of the particular lot.

Lot numbers can be tracked only for quantities of items in base units.

You can either enter a lot number manually (if it is provided by a vendor) or configure the automatic generation of lot numbers for items that are produced by your organization or are not supplied by vendor's lot numbers. The settings that control the tracking of items by lots are specified by the lot class assigned to the items.

Lot and Serial Classes

The settings that control the tracking of items by lot and serial numbers are specified for a lot or serial class on the *Lot/Serial Classes* (IN207000) form. When the *Lot and Serial Tracking* feature is enabled on the *Enable/Disable Features* (CS100000) form, the preconfigured *DEFAULT* class is displayed on the *Lot/Serial Classes* form. This item class is used for items that are not tracked by lot and serial numbers. For item classes and items that have been created before the feature was enabled, the system inserts this class automatically.

When you are creating a lot or serial class, you specify the following:

- Tracking method: This method defines whether the class provides settings for non-tracked items, for serialized items, or for items tracked by lot numbers.
- Whether an expiration date must be tracked: You can configure the system so that it requires an expiration date to be entered for an item of the class when it is received.
- Assignment method: This method defines when the lot or serial number should be assigned to an item of the class: on item receipt or on item issue.
- Issue method: This method defines the order in which items of the class must be issued from a warehouse.
- Settings for the generation of lot or serial numbers: You can configure the system so that it generates lot or serial numbers automatically for items of the class; you can also specify the structure of automatically generated numbers.

For more information on the settings of a lot or serial class, see *Items with Lot and Serial Numbers: Tracking Settings* and *Items with Lot and Serial Numbers: Numbering Settings*.

Assignment of a Lot or Serial Class to Item Classes and Stock Items

After you have configured lot and serial classes according to the business processes of your organization, you need to assign these classes to item classes. You also need to assign them to stock items if the items were created before you assigned lot or serial classes to the item classes assigned to the items.

You specify a lot or serial class for each item class in the **Lot/Serial Class** box on the **General Settings** tab of the *Item Classes* (IN201000) form. When you create stock items and select a particular item class for which a lot or serial class is assigned, the system will copy the lot or serial class specified for the item class to the settings of the stock item. It will also insert the appropriate settings that have been specified for both the item class and the lot or serial class.

If you want to change a lot or serial class for a stock item, you select another class in the **Lot/Serial Class** box on the **General Settings** tab of the *Stock Items* (IN202500) form.

Items with Lot and Serial Numbers: Tracking Settings

You define lot or serial classes on the *Lot/Serial Classes* (IN207000) form and specify the appropriate settings to be used for lot- or serial-tracked items of the class. You then assign the appropriate lot or serial class to a specific item class or item on the *Item Classes* (IN201000) or *Stock Items* (IN202500) form, respectively.

A lot or serial class contains settings that define the tracking method, the method of assignment of the number, and the issue method, as well as an indicator of whether items of this class must be tracked by an expiration date.

Tracking Methods

With regard to lot and serial numbers, your company may track different items differently. Some stock items may not need to be tracked by a lot or serial number, other items may

be tracked by lot number, and still other items may be tracked by serial number. To specify which method of tracking you will use for a lot or serial class, you select the method in the **Tracking Method** box on the *Lot/Serial Classes* (IN207000) form as follows:

- If you are creating a class for items that should not be tracked by lot number or serial number and you do not need to track an expiration date, you select the *Not Tracked* method. For a class with this method selected, the system ignores all other settings of the lot/serial class. The *DEFAULT* class, which has this tracking method, is predefined in the system and can be used for all non-tracked items.
- If you are creating a class for tracking items by lot numbers, you select the *Track Lot Numbers* method.
- If you are creating a class for items that should be tracked by serial numbers, you select the *Track Serial Numbers* method.

You cannot change the tracking method of a lot or serial class after the class has been assigned to at least one item class or stock item.

Assignment Methods

The assignment method of a lot or serial class defines when the lot or serial number is assigned to a stock item of the class; it can be assigned manually by a user or automatically by the system based on the lot or serial class setting). You select an assignment method in the **Assignment Method** box of the *Lot/Serial Classes* (IN207000) form as follows:

- To begin tracking items of the class by lot or serial numbers as soon as they enter a warehouse, you select the *When Received* assignment method. With this method, lot or serial numbers should be assigned to items on receipt.
- To begin tracking items of the class by lot or serial numbers when the items are issued or shipped from a warehouse, you select the *When Used* assignment method. On the issue or shipment of an item of the class, a lot or serial number is assigned to all units of the items in the inventory issue or shipment.

You cannot change the assignment method selected for the lot or serial class to another assignment method in any of the following cases:

- If any historical transactions include any item of the class in the system
- If any unreleased documents include an item of the class in the system
- If a nonzero quantity of any item of the class is stored in a warehouse

Issue Methods

If you have selected the *When Received* assignment method for a lot or serial class, you need to specify the order in which the system issues items of this class by selecting an issue method. You specify this setting in the **Issue Method** box of the *Lot/Serial Classes* (IN207000) form as follows:

- If items should be picked for issue by receipt date so that the item in the warehouse the most time is picked first, you select the *FIFO* (first-in-first-out) method.

- If items should be picked for issue by a receipt date so that the item in the warehouse the least time is picked first, you select the *LIFO* (last-in-first-out) method.
- If items should be picked for issue in sequential order of their lot or serial numbers, you select the *Sequential* method.
- If items should be picked for issue by expiration date (earliest date first), you select the *Expiration* method.
- If a user should select items for issue manually, you select the *User-Enterable* method.

Tracking the Expiration Date of Items

If you need to track items in a warehouse along with their expiration date (for example, to ship or issue items expiring soonest first), you can select the **Track Expiration Date** check box for a lot or serial class on the *Lot/Serial Classes* (IN207000) form. (This check box is cleared and unavailable for classes with the *Not Tracked* tracking method.) When this check box is selected, a user who enters a receipt with the item of this class must specify an expiration date in the receipt.

Items with Lot and Serial Numbers: Numbering Settings

Your organization may assign lot and serial numbers to the items that it stores and sells. As such, the organization may have internal requirements for the structure of the lot and serial numbers to be assigned. In Acumatica ERP, these requirements can be supported through the use of lot and serial classes. When lot and serial numbers are provided by vendors and entered by users, the appropriate settings need to be specified for the applicable lot or serial classes.

The rules for assigning lot and serial numbers are specified on the *Lot/Serial Classes* (IN207000) form, as described in this topic. The appropriate lot or serial class is then assigned to each inventory item whose units have lot or serial numbers, and the class provides the default numbering settings for new items of the class.

Structure of Lot or Serial Numbers

For each lot or serial class, in the table of the *Lot/Serial Classes* (IN207000) form, you can specify the structure to be used for lot or serial numbers for items of the class, so that the numbers correspond to the numbering policies of your organization. The number may consist of multiple segments, each of which can be any of the following:

- Constant: This segment is a predefined alphanumeric string to be used in all lot or serial numbers generated for items of the class.
- Date: A date-related segment is generated based on the relevant date (of receipt or usage). The part of the date to be used may be the day, the month number, the month name, a two- or four-digit year value (that is, the last two digits or all four), or a date in a custom format.

- Auto-incremental value: This segment is automatically generated when a new lot or serial number is assigned to an item. You can specify settings for the generation of the automatically incremented values, as described in the following section.

Auto-Incremental Values

If you want to ensure the uniqueness of lot and serial numbers in the system, we recommend that in the table on the *Lot/Serial Classes* (IN207000) form, you add a segment of the *Auto-Incremental Value* type to the structure of the lot or serial numbers to be used for the lot or serial class. When segments with auto-incremental value are used, you can specify the initial number to be used.

You can configure the uniqueness of the initial auto-incremental value of a lot or serial number as follows:

- To make the initial value shared by all items assigned to the lot or serial class: In the Summary area of the *Lot/Serial Classes*form, you select the **Share Auto-Incremental Value Between All Class Items** check box; you also specify in the **Auto-Incremental Value** box the initial value to be used for generating new values (incremented by 1) in the segment.

- To make the initial value specific for each stock item of the lot or serial class (that is, the initial value can be the different for stock items of this class): You clear the **Share Auto-Incremental Value Between All Class Items** check box in the Summary area of the *Lot/Serial Classes* form. Then on the **General Settings** tab of the *Stock Items* (IN202500) form for each item of the class, you specify the lot or serial class in the **Lot/Serial Class** box and the specific initial value for the item in the **Auto-Incremental Value** box.

Assignment of Lot or Serial Numbers

For the items of a particular lot or serial class, the lot or serial numbers can be assigned to items in any of the following ways:

- When items are received or issued, users enter numbers manually for each serialized item or for each quantity of items in a lot. This way is used when the lot or serial numbers are provided by the vendors from which your organization purchases the items, and it is important to track these items along with the assigned lot or serial numbers in the warehouse where they are stored and in the documents that track their sales and any sales returns.

  To configure a lot or serial class so that users enter lot or serial numbers manually for items of the class, on the *Lot/Serial Classes* (IN207000) form, you make sure that the **Auto-Generate Next Number** check box is cleared in the Summary area and that no segments are added to the table.

- When items are received or issued, users generate numbers manually, based on a predefined structure.

  To configure a lot or serial class so that users can generate lot or serial numbers manually on a receipt or shipment (depending on the class settings) for items of the class, on the *Lot/Serial Classes*form, you make sure that the **Auto-Generate Next**

Number check box is cleared in the Summary area, and you add the segments of the lot or serial number to the table.

With these settings, users will be able to generate numbers in the **Allocations** dialog box on the *Purchase Receipts* (PO302000) form (for items being received) or the *Shipments* (SO302000) form (for items being shipped). On both forms, users invoke this dialog box by clicking **Allocations** on the table toolbar of the **Document Details** tab.

- The system generates lot or serial numbers when a user releases a purchase receipt or a shipment that includes items of the class.

  To configure a lot or serial class so that the system generates lot or serial numbers for items of the class, on the *Lot/Serial Classes* form, you select the **Auto-Generate Next Number** check box in the Summary area and add the segments of the number to the table.

  Additionally, in the Summary area of the form, you can specify the maximum number of lot or serial numbers to be assigned at once in the **Max. Auto-Generate Numbers** box. If a larger quantity of the item is specified in a document, only the maximum number of lot or serial numbers will be generated, with the excess quantity remaining with unassigned numbers.

Items with Lot and Serial Numbers: Implementation Activity

In the following implementation activity, you will learn how to create a serial class, review the settings of existing lot and serial classes, and specify lot and serial classes for item classes and stock items.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that managers in the Service and Equipment Sales Center branch of the SweetLife company have decided to track the parts for juicers that the branch purchases from the Squeezo Inc. vendor by the parts' serial numbers in the warehouse used for equipment storage. These parts are used internally by service engineers for repairing juicers.

To prepare the system for the tracking of these parts by serial numbers, you will create a serial class for tracking juicer parts, specify this class in the appropriate item class and stock item settings, and test the processing of documents with these stock items. You will also review the settings of a predefined serial class for tracking juicers, a lot class for fruits, and a lot class for jams.

Configuration Overview

In the *U100* data set, the *Inventory* feature in the *Inventory and Order Management* group of features has been enabled on the *Enable/Disable Features* (CS100000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- Warehouse on the *Warehouses* (IN204000) form: *EQUIPHOUSE*
- An item class on the *Item Classes* (IN201000) form: *OTHERPARTS*
- A stock item on the *Stock Items* (IN202500) form: *EJECTOR05*
- Lot and serial classes on the *Lot/Serial Classes* (IN207000) form: *SRNJCR*, *LTFRT*, and *LTJAM*

Process Overview

In this activity, you will do the following:

1. On the *Enable/Disable Features* (CS100000) form, enable the *Lot and Serial Tracking* feature.
2. On the *Lot/Serial Classes* (IN207000) form, create a serial class to be used for the *EJECTOR05* stock item.
3. On the *Item Classes* (IN201000) form, select the created serial class for the *OTHERPARTS* item class.
4. On the *Stock Items* (IN202500) form, select the serial class that you have created for the *EJECTOR05* stock item.
5. On the *Receipts* (IN301000) form, test the creation of an inventory receipt with the serialized items to make sure that the serial class has been defined correctly.
6. On the *Issues* (IN302000) form, test the creation of an inventory issue with the serialized item to make sure that the serial class has been defined correctly.
7. On the *Lot/Serial Classes* form, review the settings of the *SRNJCR* serial class.
8. On the *Lot/Serial Classes* form, review the settings of the *LTFRT* lot class.
9. On the *Lot/Serial Classes* form, review the settings of the *LTJAM* lot class.

System Preparation

Before you start working with lot and serial classes, you need to launch the Acumatica ERP website and sign in to a company with the *U100* dataset preloaded. To sign in as a system administrator, use the *gibbs* login and *123* password.

Step 1: Enabling the Feature

To be able to configure tracking of items by lot or serial classes, you enable the *Lot and Serial Tracking* feature as follows:

1. Open the *Enable/Disable Features* (CS100000) form.

2. On the form toolbar, click **Modify**.
3. In the *Inventory and Order Management* group of features, select **Lot and Serial Tracking**.
4. On the form toolbar, click **Enable**.

Step 2: Creating a Serial Class

The serial class you are creating will be used for tracking juicer parts by serial numbers from the time they are received in the warehouse. The serial numbers are provided by the vendors that supply the parts; therefore, purchasing managers will enter the numbers manually in the inventory receipt. These parts do not have an expiration date, and staff members who will use and issue the parts must select the exact part manually in documents. To create this serial class, you do the following:

1. Open the *Lot/Serial Classes* (IN207000) form.
2. On the form toolbar, click **Add New Record**.
3. In the Summary area, specify the following settings:
   - **Class ID**: `SRNPARTS`
   - **Description**: `Class for tracking juicer parts by serial numbers`
   - **Tracking Method**: *Track Serial Numbers*
   - **Track Expiration Date**: Cleared
   - **Required for Drop-ship**: Cleared
   - **Assignment Method**: *When Received*
   - **Issue Method**: *User-Enterable*
   - **Share Auto-Incremental Value Between All Class Items**: Cleared
   - **Auto-Generate Next Number**: Cleared
4. On the form toolbar, click **Save**.

You have created the serial class for tracking juicer parts, and now you can specify this serial class in the settings of the item class that provides default settings for items that are juicer parts.

Step 3: Specifying the Serial Class in the Item Class Settings

To specify the created serial class in the settings of the *OTHERPARTS* item class so that all new juicer part items have this setting by default, perform the following instructions:

1. Open the *Item Classes* (IN201000) form.
2. In the **Item Class Tree** pane, click the *OTHERPARTS* item class.

3. In the **Lot/Serial Class** box on the **General Settings** tab of the right pane, select *SRNPARTS*.

4. On the form toolbar, click **Save**.

You have specified the new serial class in the settings of the item class.

Step 4: Specifying the Serial Class in the Item Settings

Although specifying the *SRNPARTS* serial class in the item class settings will cause the system to insert the serial class for all new juicer part items of the *OTHERPARTS* item class, the serial class must be specified in the settings of all existing items that must be tracked according to the settings of this serial class. For simplicity, you will specify the serial class in the settings of only the *EJECTOR05* item; all other items can be modified similarly. Do the following:

1. Open the *Stock Items* (IN202500) form.

2. In the **Inventory ID** box, select *EJECTOR05*.

3. In the **Lot/Serial Class** box on the **General Settings** tab, select *SRNPARTS*.

4. On the form toolbar, click **Save**.

Step 5: Creating an Inventory Receipt with the Serialized Item

To make sure that users are able to add an item of the serial class you defined to an inventory receipt and that serial numbers can be added for each unit of the item, create an inventory receipt with the serialized item as follows:

1. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, select the *Service and Equipment Sales Center* branch.

2. Open the *Receipts* (IN301000) form.

3. On the form toolbar, click **Add New Record**.

4. In the **Description** box of the Summary area, type `Receipt of serialized parts`.

5. On the **Transaction Details** tab, do the following:

   a. On the table toolbar, click **Add Row**.

   b. In the **Branch** column, make sure that *SWEETEQUIP* is selected.

   c. In the **Inventory ID** box, select *EJECTOR05*.

   d. In the **Quantity** box, type `2` and press Ctrl+Enter to confirm the row. The system displays a warning message.

   e. On the table toolbar, click **Allocations**.

   f. In the **Allocations** dialog box, which opens, do the following:

1. On the table toolbar, click **Add Row**.
2. In the **Lot/Serial Nbr.** column, type `EJ0000327`.
3. Press Ctrl+Enter to confirm the line.
4. On the table toolbar, click **Add Row**.
5. In the **Lot/Serial Nbr.** column, type `EJ0000330`.
6. Press Ctrl+Enter to confirm the line.
7. In the **Unassigned Qty.** box of the Summary area, make sure that the value is *0.00*. This means that you have entered serial numbers for all units of the line being allocated.
8. Click **OK** to save your changes and close the dialog box.

6. On the form toolbar, click **Release** to release the inventory receipt you have created.

You have tested the creation of an inventory receipt that includes the item with a serial number. In the next step, you will test the creation of an inventory issue that includes this item.

Step 6: Creating an Inventory Issue with the Serialized Item

To test whether users will be able to manually add to an inventory issue an item of the *SRNPARTS* serial class and that you can select its serial number from the list of previously entered numbers, perform the following instructions:

1. Open the *Issues* (IN302000) form.
2. On the form toolbar, click **Add New Record**.
3. In the **Description** box of the Summary area, type `Issue of an ejector`.
4. On the **Transaction Details** tab, do the following:
   a. On the table toolbar, click **Add Row**.
   b. In the **Branch** column, make sure that *SWEETEQUIP* is selected.
   c. In the **Tran. Type** column, make sure that *Issue* is selected.
   d. In the **Inventory ID** box, select *EJECTOR05*.
   e. In the **Quantity** box, type `1`.
   f. In the **Lot/Serial Nbr.** column, select `EJ0000330`.
5. On the form toolbar, click **Release**.

You have successfully issued the ejector with the *EJ0000330* serial number.

In a production system, an inventory issue is created automatically when a user releases a shipment.

Step 7: Reviewing the Settings of the SRNJCR Serial Class

The *SRNJCR* serial class has been predefined in the dataset to be used for juicers. Serial numbers for juicers are entered in a shipment because you do not need to track juicers by serial numbers in your warehouse but you need to record that a juicer with the particular serial number has been issued from the warehouse. The serial numbers for juicers are provided by the vendor, so sales managers enter the numbers manually.

On the *Lot/Serial Classes* (IN207000) form, select *SRNJCR* in the **Class ID** box, and review the settings of the serial class, which are as follows:

- In the **Tracking Method** box, *Track Serial Numbers* is selected. This means that this class is used for items that are tracked by serial numbers in the system.
- The **Track Expiration Date** box is cleared. Serialized items usually are not tracked by their expiration dates.
- The **Required for Drop-ship** check box is cleared. The Service and Equipment Sales Center sells only juicers stored in the warehouse; these items are not drop-shipped from the vendor to the customer.
- In the **Assignment Method** box, *When Used* is selected. With this setting, the system requires the user to enter the serial number for each unit of an item of the class which in this case will be done in shipments that include the item.
- The **Share Auto-Incremental Value Between All Class Items** and **Auto-Generate Next Number** check boxes are cleared because users enter serial numbers manually for units of an item of the class.

Step 8: Reviewing the Settings of the LTFRT Lot Class

The *LTFRT* lot class has been predefined in the dataset to be used for fruits. The fruit vendors provide fruits in lots, each of which has an expiration date. When selling fruits, the sales managers of the SweetLife company want to ship fruits with the earliest expiration date first. Also, within the warehouse, warehouse managers need to track the movements and locations of fruits by lots.

On the *Lot/Serial Classes* (IN207000) form, select *LTFRT* in the **Class ID** box, and review the settings of the lot class, which are as follows:

- In the **Tracking Method** box, *Track Lot Numbers* is selected. This indicates that the class is used for tracking items by lot numbers.
- The **Track Expiration Date** box is selected because fruits are issued by expiration date.
- The **Required for Drop-ship** check box is cleared because fruits are not drop-shipped from the vendor to the customer.

- In the **Assignment Method** box, *When Received* is selected. With this setting, the system requires users to specify lot numbers and expiration dates when they enter purchase receipts.
- In the **Issue Method** box, *Expiration* is selected. This means that when items assigned to this class are sold, the system will select units of items with the earliest expiration date first.
- The **Share Auto-Incremental Value Between All Class Items** and **Auto-Generate Next Number** check boxes are cleared because users will enter lot numbers manually for units of items of the class.

Step 9: Reviewing the Settings of the LTJAM Lot Class

The *LTJAM* lot class has been predefined in the dataset to be used for jams produced by the SweetLife company. These jams are sold in lots. The lot number of an item of the class is generated automatically when a sales manager creates shipments.

On the *Lot/Serial Classes* (IN207000) form, select *LTJAM* in the **Class ID** box, and review the settings of the lot class, which are as follows:

- In the **Tracking Method** box, *Track Lot Numbers* is selected. This indicates that the class is used for tracking items by lot numbers.
- The **Track Expiration Date** box is cleared because lot numbers are generated only when jams are sold. (The expiration date is used only together with lot numbers entered when items are received.)
- The **Required for Drop-ship** check box is cleared because these jams are not drop-shipped from the vendor to the customer.
- In the **Assignment Method** box, *When Used* is selected. With this setting, the system generates lot numbers when a user creates shipments.
- The **Share Auto-Incremental Value Between All Class Items** check box is selected because lot numbers should be unique within all items assigned to this class.
- In the **Auto-Incremental Value** box, `0000` is specified. This means that the first lot number to be used in the segment is *0001* and that the system can generate 9999 auto-incremental values in the lot number.
- The **Auto-Generate Next Number** check box is selected because the system generates lot numbers automatically.
- In the table, the following segments of a lot number for an item of the class have been added:
    - The segment of the *Constant* type with the `JM` value. This segment is included in all lot numbers and does not change.
    - Segments of the *Year*, *Month*, and *Day* types: The values of these segments indicate the date when the items have been sold.

- The segment of the *Auto-Incremental Value* type: The system increases the value of this numeric segment for each new lot.

You have created the *SRNPARTS* serial class for tracking juicer parts by serial numbers, made sure the class settings work as intended, and reviewed the settings of the predefined lot and serial classes.

Items with Lot and Serial Numbers: To Purchase and Sell Serialized Items

In the following process activity, you will learn how to create and process purchase and sales documents for a stock item with a serial number that is entered manually into each shipment that includes units of the item.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

In this process activity, you will act as a sales and purchasing manager in the Service and Equipment Sales Center.

Suppose that you have received an order for two juicers with a production rate of 0.5 liter per minute from the Thai Food Restaurant customer. You do not have these juicers available in the warehouse for equipment storage, so you will purchase the juicers from the Squeezo Inc. vendor. The vendor provides juicers with serial numbers, which you do not need to track when the items are in the warehouse. But you need to track these numbers when the juicers are sold so that if a customer wants to return the juicer or request services, you can make sure that the juicer is one that the customer bought from your company.

You will process the sales order and the related purchase order in the system and enter serial numbers manually when processing a shipment.

Configuration Overview

In the *U100* data set, the *Inventory* feature in the *Inventory and Order Management* group of features has been enabled on the *Enable/Disable Features* (CS100000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- A warehouse on the *Warehouses* (IN204000) form: *EQUIPHOUSE*
- A stock item on the *Stock Items* (IN202500) form: *JUICER05CC*
- A serial class on the *Lot/Serial Classes* (IN207000) form: *SRNJCR*
- A vendor on the *Vendors* (AP303000) form: *SQUEEZO*

- A customer on the *Customers* (AR303000) form: *TOMYUM*

Process Overview

As you prepare the purchasing and sales documents for items with serial numbers, you do the following:

1. Prepare a sales order on the *Sales Orders* (SO301000) form, and mark all items to be purchased for sale.
2. Prepare a purchase order on the *Purchase Orders* (PO301000) form to order the items from the vendor.
3. Prepare a purchase receipt on the *Purchase Receipts* (PO302000) form when you receive the items from the vendor.
4. Create a shipment on the *Shipments* (SO302000) form.
5. Enter the serial numbers of the units of the items to be sold on the *Shipments* form.
6. Confirm the shipment on the *Shipments* form, and process the related invoice on the *Invoices* (SO303000) form.

System Preparation

Before you start performing the activity, you perform the following instructions:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *brawner* login and the *123* password.
2. On the *Enable/Disable Features* (CS100000) form, make sure that the *Lot and Serial Tracking* feature is enabled.

Step 1: Creating a Sales Order

To create the sales order for two juicers from the *TOMYUM* customer, do the following:

1. On the *Sales Orders* (SO301000) form, create a sales order, and specify the following settings in the Summary area:
   - **Order Type**: *SO*
   - **Customer**: *TOMYUM*
   - **Description**: `Sale of juicers with the 0.5 production rate`
2. On the **Document Details** tab, add a row, and specify the following settings for it:
   - **Inventory ID**: *JUICER05CC*
   - **Warehouse**: *EQUIPHOUSE*
   - **Quantity**: `2`

- **Unit Price**: `700`
- **Mark for PO**: Selected
- **PO Source**: *Purchase to Order*

By selecting the **Mark for PO** check box, you have marked the order line for purchasing, and it will be available for adding to a purchase order.

3. In the Summary area, make sure that the **Hold** check box is cleared.
4. On the form toolbar, click **Save** to save the sales order, which is assigned the *Open* status.

You have created a sales order for the juicers and marked the item to be purchased for sale; now you will create a purchase order.

Step 2: Creating a Purchase Order

Now you will create a purchase order for two units of the *JUICER05C* item from the *SQUEEZO* vendor. To create a purchase order for the items that are marked for purchase, do the following:

1. While you are still viewing the sales order on the *Sales Orders* (SO301000) form, click **Actions > Create Purchase Order** on the form toolbar.
2. On the *Create Purchase Orders* (PO505000) form, which opens, in the row with *SO to Purchase* specified as the **Plan Type**, do the following:
   a. Select the Included check box (in the unlabeled column) to include this row in processing.
   b. In the **Warehouse** column, make sure that *EQUIPHOUSE* is selected.
   c. In the **Vendor** column, select *SQUEEZO*.
3. On the form toolbar, click **Process** to process the purchase request.

   The system creates a purchase order for the *SQUEEZO* vendor and opens it on the *Purchase Orders* (PO301000) form.
4. On the **Document Details** tab, in the **Unit Cost** column, type `500` in the line.
5. In the Summary area, type `Purchase of juicers with the 0.5 production rate` in the **Description** box, and clear the **Hold** check box. The status of the purchase order changes to *Open*.
6. On the form toolbar, click **Save**.

Suppose that you now print the purchase order and send it to the Squeezo Inc. vendor by mail.

Step 3: Creating a Purchase Receipt

Suppose that the Squeezo Inc. vendor has delivered the juicers to *EQUIPHOUSE*. Prepare the needed documents to reflect the receipt of the juicers as follows:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, click **Actions > Enter PO Receipt** on the form toolbar. The system opens the *Purchase Receipts* (PO302000) form with the new receipt, which has the *Balanced* status and the data copied from the linked purchase order.
2. In the Summary area, select the **Create Bill** check box to make the system generate the bill automatically on release of the purchase receipt.
3. On the form toolbar, click **Release** to release the purchase receipt. Notice that the system has not required you to add serial numbers to the document; based on the *SRNJCR* serial class settings, serial numbers are entered when items are issued rather than when they are received.
4. On the *Inventory Allocation Details* (IN402000) form, do the following:
   a. In the **Inventory ID** box of the Selection area, select *JUICER05C*.
   b. In the **Warehouse** box, select *EQUIPHOUSE*.
   c. Make sure that the quantity of juicers you have received (*2*) is displayed in the **On Hand** box.
   d. On the **Item Plans** tab, review the only line in the table, which shows that two *JUICER05CC* units are allocated directly for the sales order for which you have processed the purchase.
   e. Double-click the line to open the sales order on the *Sales Orders* (SO301000) form.

The ordered juicers are ready for shipment.

Step 4: Creating a Shipment

To create a shipment with the ordered and received juicers, do the following:

1. While you are still viewing the sales order you have created on the *Sales Orders* (SO301000) form, on the form toolbar, click **Actions > Create Shipment**.
2. In the **Specify Shipment Parameters** dialog box, which opens, make sure that the today's date and the *EQUIPHOUSE* warehouse are selected, and click **OK**. The system creates a shipment and opens it on the *Shipments* (SO302000) form.

Notice that the system displays a warning on the **Document Details** tab that serial numbers are not specified for the juicer units and displays the ordered quantity of juicers in the **Unassigned Qty.** column. This means that you need to specify serial numbers for the ordered juicers manually.

Step 5: Specifying Serial Numbers for the Shipped Items

To manually specify the serial numbers in the shipment for the juicers to be sold, while you are still viewing the shipment on the *Shipments* (SO302000) form, do the following:

1. On the **Document Details** tab, click the line.
2. On the table toolbar, click **Allocations**.
3. In the **Allocations** dialog box, which opens, do the following:
   a. On the table toolbar, click **Add Row**. The system adds a line for one unit of the *JUICER05C* item.
   b. In the **Location** column, select *MAIN*.
   c. In the **Lot/Serial Nbr.** column, type `JCR050000333`; press Ctrl+Enter to confirm the line. Notice that the value in the **Unassigned Qty.** box has been changed to *1*.
   d. Add a row for the second juicer.
   e. In the **Location** column, select *MAIN*.
   f. In the **Lot/Serial Nbr.** column, type `JCR050000168`; press Ctrl+Enter to confirm the line. Notice that the value in the **Unassigned Qty.** box has been changed to *0*.
   g. Click **OK** to save your changes and close the dialog box.
4. On the form toolbar, click **Save**.

You have entered the serial numbers of the juicers. Notice that the warnings on the **Document Details** tab and the **Unassigned Qty.** column on this tab have disappeared. Now you can confirm the shipment and process the related invoice.

Step 6: Confirming a Shipment and Processing an Invoice

To confirm the shipment and process the related invoice, do the following:

1. While you are still viewing the shipment on the *Shipments* (SO302000) form, review the line on the **Document Details** tab. Make sure that the shipped quantity in the line is equal to the ordered quantity.
2. On the form toolbar, click **Actions > Confirm Shipment**. The status of the shipment has been changed to *Confirmed*.
3. On the form toolbar, click **Actions > Prepare Invoice**. The system prepares the invoice and opens it on the *Invoices* (SO303000) form.
4. On the form toolbar, click **Actions > Release** to release the invoice. The system changes the status of the invoice to *Open* and the statuses of the shipment and sales order to *Completed*.
5. On the *Inventory Allocation Details* (IN402000) form, do the following:

a. In the **Inventory ID** box of the Selection area, select *JUICER05C*.

b. In the **Warehouse** box, select *EQUIPHOUSE*.

c. In the **On Hand** box, make sure that the quantity of juicers is 0.

You have successfully processed the shipment and the invoice related to the sale of the two juicers with serial numbers.

Items with Lot and Serial Numbers: To Sell Items in Lots

In the following activity, you will learn how to create and process purchase and sales documents for a stock item with a lot number generated automatically when the item is shipped.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

In this process activity, you will act as a sales manager in the SweetLife Head Office and Wholesale Center.

Suppose that you have received an order from the HM's Bakery & Cafe customer for 14 jars of cherry jam, each of which is 32 ounces. Cherry jam is a new item that SweetLife has started to produce recently. You have decided that a lot number should be assigned on issue of sold jam, so that you can track the sold packs of jam in case any jars are returned.

You will create and process the appropriate documents to complete the sales order and record the lot number. You will use quick processing to illustrated expedited processing of the sales order.

Configuration Overview

In the *U100* data set, the *Inventory* feature in the *Inventory and Order Management* group of features has been enabled on the *Enable/Disable Features* (CS100000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- A warehouse on the *Warehouses* (IN204000) form: *WHOLESALE*
- A stock item on the *Stock Items* (IN202500) form: *CHERJAM32*
- A lot class on the *Lot/Serial Classes* (IN207000) form: *LTJAM*
- A customer on the *Customers* (AR303000) form: *HMBAKERY*

Also, the *SO* order type has been configured to allow expedited multi-step processing of appropriate sales orders, which will be illustrated in this example. On the *Order Types*

(SO201000) form, the **Allow Quick Process** check box has been selected on the **Template Settings** tab, and on the **Quick Process Settings** tab of the form, the appropriate settings have been specified to configure the sequence of order processing actions to be used by default when orders of this type are quickly processed.

Process Overview

In this activity, to perform a sale of stock items with automatic assignment of lot numbers, you will create a sales order on the *Sales Orders* (SO301000) form, select an order type that supports quick processing (if applicable), select the customer to which the items are being sold, and add items to the order.

You will use quick processing to streamline the processing of the sales order. You will click **Quick Process** on the form toolbar, review the quick processing settings, and correct them, if needed. Then you will run quick processing, during which the system processes the sales order to completion and generates all needed documents. When the quick processing completes, in the shipment, you will make sure that the system has generated a lot number for the line with the stock item that has the lot class with auto-generation settings specified.

System Preparation

Before you start performing the activity, you perform the following instructions:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales manager, use the *norman* login and the *123* password.
2. On the *Enable/Disable Features* (CS100000) form, make sure that the *Lot and Serial Tracking* feature is enabled.

Step: Creating and Processing Sales Documents

To prepare the sales order and the related sales documents (which will be created through quick processing of the sales order) from the *HMBAKERY* customer for 14 jars of *CHERJAM32*, do the following:

1. On the *Sales Orders* (SO301000) form, create a sales order, and specify the following settings in the Summary area:
   - **Order Type**: *SO*
   - **Customer**: *HMBAKERY*
   - **Description**: `Sale of cherry jam`
2. On the **Document Details** tab, add a row, and specify the following settings for it:
   - **Inventory ID**: *CHERJAM32*
   - **Warehouse**: *WHOLESALE*
   - **Quantity**: `14`
   - **Unit Price**: `16.89`

3. In the Summary area, make sure that the **Hold** check box is cleared.
4. Click **Save** on the form toolbar to save the sales order, which is assigned the *Open* status.
5. On the form toolbar, click **Quick Process**.
6. In the **Process Order** dialog box, which opens so that you can review (and change, if needed) the settings before quickly processing the order, do the following:
   a. In the **Warehouse ID** box, make sure that *WHOLESALE* is selected.
   b. In the **Shipment Date** section, make sure that *Today* is selected.
   c. In the **Shipping** section, make sure that the following check boxes are selected:
      - **Create Shipment**
      - **Confirm Shipment**
      - **Update IN**
   d. In the **Invoicing** section, make sure that the **Prepare Invoice** check box is selected.
   e. Select the **Release Invoice** check box.
   f. Click **OK**.
   g. After the system creates the documents, close the **Processing Results** box (which the system has opened). Notice that the sales order now has the *Completed* status.
7. On the **Shipments** tab, click the link in the **Document Nbr.** column. The system opens the shipment on the *Shipments* (SO302000) form.
8. In the **Lot/Serial Nbr.** column of the **Document Details** tab, make sure that the system has generated the lot number for the line.

You have created the sales order for items with a lot number that was generated automatically for the shipment, and you have used quick processing to automatically generate the related sales documents.

Items with Lot and Serial Numbers: To Purchase and Sell Lot-Numbered Items that Expire

In the following activity, you will learn how to create and process purchase and sales documents for a stock item for which the lot number and expiration date are entered manually on receipt.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the

workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

In this process activity, you will act as a sales and purchasing manager in the SweetLife Office and Wholesale Center branch of the SweetLife Fruits & Jams company.

As the purchasing manager, you will buy two boxes (10 pounds each) of guavas with different expiration dates from the Glory Fruit Case vendor. The vendor supplies each box with a lot number that must be used for tracking the enclosed items in the Wholesale warehouse. The lot class is defined so that fruits with the earliest expiration date are issued first when the fruit is sold.

Suppose that GoodFood One Restaurant ordered 12 pounds of guavas. As a sales manager, you will create and process the appropriate documents for the purchase and sale of these items with lot numbers and expiration dates. (You will use quick processing to illustrated expedited processing of the sales order.)

Configuration Overview

In the *U100* data set, the *Inventory* feature in the *Inventory and Order Management* group of features has been enabled on the *Enable/Disable Features* (CS100000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- A warehouse on the *Warehouses* (IN204000) form: *WHOLESALE*
- A stock item on the *Stock Items* (IN202500) form: *GUAVAS*
- A lot class on the *Lot/Serial Classes* (IN207000) form: *LTFRT*
- A vendor on the *Vendors* (AP303000) form: *GLORYFRUIT*
- A customer on the *Customers* (AR303000) form: *GOODFOOD*

Also, the *SO* order type has been configured to allow expedited multi-step processing of appropriate sales orders, which will be illustrated in this example. On the *Order Types* (SO201000) form, the **Allow Quick Process** check box has been selected on the **Template Settings** tab, and on the **Quick Process Settings** tab of the form, the appropriate settings have been specified to configure the sequence of order processing actions to be used by default when orders of this type are quickly processed.

Process Overview

As you prepare the purchasing and sales documents for items with lot numbers and expiration dates, you do the following:

1. Prepare a purchase order on the *Purchase Orders* (PO301000) form to order the dated, lot-numbered items from the vendor.

2. Prepare a purchase receipt on the *Purchase Receipts* (PO302000) form when you receive the items from the vendor, and specify the lot number and expiration date for each unit of the items.

3. Prepare a sales order on the *Sales Orders* (SO301000) form. Select an order type that supports quick processing (if you plan to use it), select the customer to which the items are being sold, and add items to the order.

4. Click **Quick Process** on the form toolbar to use quick processing of the sales order, review the quick processing settings, and correct them, if needed. Then you run quick processing, during which the system processes the sales order to completion and generates all needed documents. When the quick processing completes, you can review the generated documents.

5. Review that the items included in the shipment have been allocated according to the settings of the lot class assigned.

System Preparation

Before you start performing the activity, you perform the following instructions:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.

2. On the *Enable/Disable Features* (CS100000) form, make sure that the *Lot and Serial Tracking* feature is enabled.

Step 1: Creating a Purchase Order

To begin the process of ordering two boxes of guavas, 10 pounds each, from the *GLORYFRUIT* vendor, do the following to create the purchase order:

1. On the *Purchase Orders* (PO301000) form, create a purchase order, and specify the following settings in the Summary area:

   - **Type**: *Normal*
   - **Vendor**: *GLORYFRUIT*
   - **Description**: `Purchase of guavas, 20 lb`

2. On the **Document Details** tab, add a row, and specify the following settings for it:

   - **Branch**: *HEADOFFICE*
   - **Inventory ID**: *GUAVAS*
   - **Warehouse**: *WHOLESALE*
   - **Order Qty.**: `20`
   - **Unit Cost**: `9.95`

3. In the Summary area, clear the **Hold** check box.

4. Click **Save** on the form toolbar to save the purchase order, which has the *Open* status.

Suppose that you now print the purchase order and send it to the Glory Fruit Case vendor by mail.

Step 2: Creating a Purchase Receipt and Entering Lot Numbers

Suppose that the Glory Fruit Case vendor has delivered the guavas to the Wholesale warehouse. The order contains two boxes with separate lot numbers and different expiration dates. You prepare the needed documents to reflect the receipt of the guavas as follows:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, click **Actions > Enter PO Receipt** on the form toolbar. The system opens the *Purchase Receipts* (PO302000) form with the new receipt, which has the *Balanced* status and the data copied from the linked purchase order.

2. In the table of the **Document Details** tab, click the only line of the order.

3. On the table toolbar, click **Allocations**.

4. In the **Allocations** dialog box, which opens, do the following:

   a. Notice that the value of the **Unassigned Qty.** box in the Summary area is *20*.

   b. On the table toolbar, click **Add Row**.

   c. In the **Location** column, select *MAIN*.

   d. In the **Lot/Serial Nbr.** column, type `FRT000862`.

   e. In the **Quantity** column, type `10`.

   f. In the **Expiration Date** column, select *02/20/2020*.

   g. On the table toolbar, click **Add Row** to add a second row. Notice that the value of the **Unassigned Qty.** box was changed to *10*.

   h. In the **Lot/Serial Nbr.** column, type `FRT000877`.

   j. In the **Quantity** column, type `10`.

   k. In the **Expiration Date** column, select *02/13/2020*.

   l. Click **OK** to save your changes and close the dialog box.

   Notice that the value of the **Lot/Serial Nbr.** column for the *GUAVAS* line is *<SPLIT>*, which means that units of the item with different lot numbers have been included in the line of the purchase receipt.

5. In the Summary area, select the **Create Bill** check box.

6. On the form toolbar, click **Release** to release the purchase receipt. The system automatically creates and releases the inventory receipt. On the **Other Information** tab, you can view the reference number of the created inventory receipt; you can also click the reference number link to view the inventory receipt on the *Receipts* (IN301000) form.

7. On the *Inventory Allocation Details* (IN402000) form, do the following:

   a. In the **Inventory ID** box of the Selection area, select *GUAVAS*.

   b. In the **Warehouse** box, select *WHOLESALE*.

   c. Make sure that the value of the **On Hand** box is *20*.

You have processed the purchase receipt and inventory receipt to reflect that the guavas have been received in the Wholesale warehouse. In these documents, you have entered lot numbers and expiration dates, and now sales managers can sell these guavas to customers.

Step 3: Creating a Sales Order

In this step, you will act as the sales manager. To create a sales order reflecting that the *GOODFOOD* customer has ordered 12 pounds of guavas, do the following:

1. On the *Sales Orders* (SO301000) form, create a sales order, and specify the following settings in the Summary area:

   - **Order Type**: *SO*
   - **Customer**: *GOODFOOD*
   - **Description**: `Sale of 12 pounds of guavas`

2. On the **Document Details** tab, add a row, and specify the following settings for it:

   - **Inventory ID**: *GUAVAS*
   - **Warehouse**: *WHOLESALE*
   - **Quantity**: `12`
   - **Unit Price**: `12.99`

3. In the Summary area, make sure that the **Hold** check box is cleared.

4. Click **Save** on the form toolbar to save the sales order, which is assigned the *Open* status.

You have created a sales order for the guavas, and now you will create the other related documents.

Step 4: Creating and Quickly Processing Sales Documents

To create and process the sales documents related to the sales order (which will be created through quick processing of the sales order), do the following:

1. While you are still viewing the sales order you have created on the *Sales Orders* (SO301000) form, on the form toolbar, click **Quick Process**.
2. In the **Process Order** dialog box, which opens so that you can review (and change, if needed) the settings before quickly processing the order, do the following:
   a. In the **Warehouse ID** box, make sure that *WHOLESALE* is selected.
   b. In the **Shipment Date** section, make sure that *Today* is selected.
   c. In the **Shipping** section, make sure that the following check boxes are selected:
      - **Create Shipment**
      - **Confirm Shipment**
      - **Update IN**
   d. In the **Invoicing** section, make sure that the **Prepare Invoice** check box is selected.
   e. Select the **Release Invoice** check box.
   f. Click **OK**.
   g. After the system creates the documents, close the **Processing Results** box. Notice that the sales order now has the *Completed* status.

By using quick processing, you have created the sales documents related to the sales order. Now you will review how the system has allocated units of the item in the shipment.

Step 5: Reviewing the Item Allocations in the Shipment

To review how the system has allocated units of the item in the shipment, do the following:

1. While you are still viewing the sales order you have created on the *Sales Orders* (SO301000) form, on the **Shipments** tab, click the link in the **Document Nbr.** column. The system opens the shipment on the *Shipments* (SO302000) form.
2. In the **Lot/Serial Nbr.** column on the **Document Details** tab, notice that the <*SPLIT*> value is specified. This means that units of the item with different lot numbers have been included in the shipment line.
3. Click the only shipment line, and, on the table toolbar, click **Allocations**.
4. In the **Allocations** dialog box that opens, review how the system has selected guavas from warehouse as follows:
   - In the first line, notice that the system selected 10 pounds of guavas from the *FRT000877* lot with the earlier expiration date.
   - In the second line, notice that the system selected two pounds of guavas from the *FRT000862* lot with the later expiration date.

5. Click **OK** to close the dialog box.

You have prepared the documents for purchasing items with lot numbers and expiration dates, and you have prepared the sales documents for selling the lot-numbered items, making sure that the system has selected the items by using the expiration date.

Items with Lot and Serial Numbers: Related Report and Inquiry Forms

In the following sections, you can find details about the reports and inquiries that provide information about items with lot and serial numbers.

Viewing the Location of Items with Lot and Serial Numbers

By using the *Inventory Lot/Serial History* (IN407000) form, you can find the physical location of an item by the lot or serial number assigned to it.

You can use the *Lot/Serial Numbers* (IN613000) report to view the list of items, along with their lot and serial numbers, that are located at the selected warehouse, location, or both.

Viewing the Item Quantities

When you want to view the documents that include the item you specify and that are in process in the system (not completed yet), you can use the *Inventory Allocation Details* (IN402000) form. You can also use this form to view the quantities of items in a particular warehouse or location (or both).

When you want to view the on-hand quantities of particular items and the total cost of inventory by inventory account, with details for different warehouses, you can use the *Inventory Valuation* (IN615500) report.

Part 2: Sales with Insufficient Stock

For completing lessons of this part of the course, you will use a company with the *U100* dataset preloaded, which provides a fully configured company with sample data specially designed for this course. Lessons of this part are independent: you can complete lesson activities in any order.

Activities in this part are to be completed under user accounts with specific access rights. Each activity provides the credentials to use for sign in to the prepared *U100* tenant in the *System Preparation* section.

Lesson 5: Processing Sales with Drop-Shipment

Sales with Drop Shipment: General Information

In Acumatica ERP, you can create sales orders whose goods are intended for drop shipping. Drop shipping means that a customer orders the goods from your company, pays your company for the order, and receives the goods (which your company has ordered) directly from one of your vendors. With the *Drop Shipments* feature enabled on the *Enable/Disable Features* (CS100000) form, you can mark particular goods for drop-shipping and create drop-ship orders for these goods.

Learning Objectives

In this chapter, you will learn how to do the following:

- Configure the processing of drop shipments in Acumatica ERP
- Mark items for drop shipment in a sales order
- Create a drop-ship purchase order for a sales order and process the drop shipment to completion
- Mass-process drop shipments
- Process the sales order and related purchase documents, inventory documents, and accounts payable documents
- Find the information about documents related to drop shipment

Applicable Scenarios

You use drop shipment to fulfill a sales order with items that your company does not have in stock. The standard process for fulfilling such a sales order is to create a sales order and mark the items for drop shipping, and then create a purchase order to purchase these items from the vendor, which ships the items directly to the customer. You then process a purchase receipt and an SO invoice when the customer has received the items.

Drop-Shipment Process

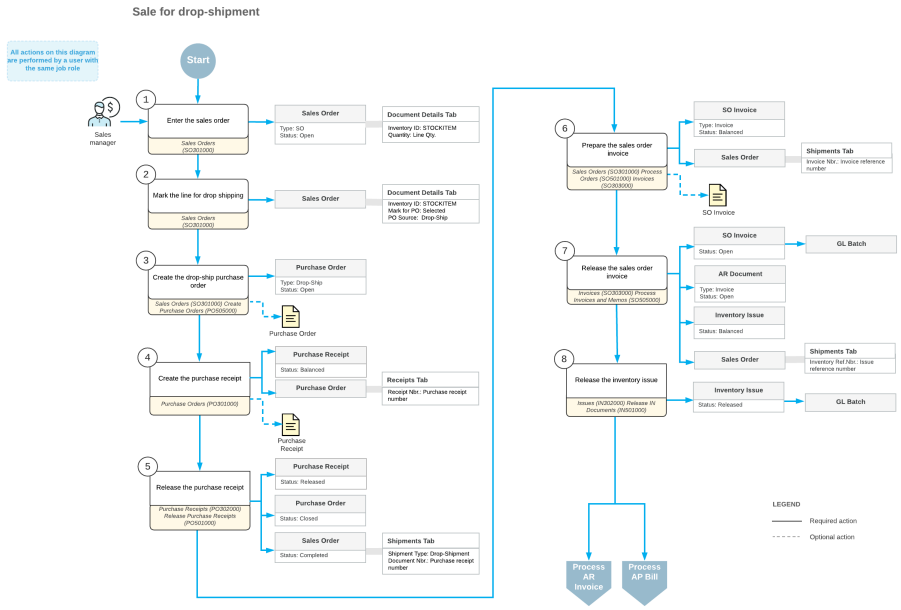
To process a sale with drop shipment, you create a sales order of the *SO* order type on the *Sales Orders* (SO301000) form, and add the stock items ordered by the customer. You mark items for drop shipping by selecting the check box in the **Mark for PO** column and selecting *Drop-Ship* in the **PO Source** column, which means that the items will be ordered from the vendor and shipped directly to the customer. The system does not allocate stock items in inventory based on the quantities of goods and the document amounts on sales orders for drop shipping.

When you mark items for drop shipping, the system creates purchase requests of the *Drop-Ship* plan type. You create drop-ship purchase orders by processing *Drop-Ship* purchase requests on the *Create Purchase Orders* (PO505000) form. Each drop-ship purchase order generated from purchase requests contains links to the related sales order. The items from this purchase order are not shipped to the company's warehouse; rather, they are shipped directly to the customer. After you have received confirmation that the customer has received the goods from the vendor, you prepare and release the purchase receipt for the drop-ship purchase order. When you release the purchase receipt (which functions as a shipment document for drop-ship lines of sales orders), the status of the drop-ship purchase order is changed to *Closed*; the sales order is assigned the *Completed* status, and then you prepare an SO invoice to the customer.

On release of a purchase receipt prepared for drop-ship purchase order, the system does not create an inventory receipt, because the items are not received to inventory and are instead delivered directly to the customer. The quantities of stock items on completed drop-ship orders are not included in the quantities available at any warehouse of your company.

Workflow of a Sale with Drop-Shipment

For a sales order that includes stock items intended for drop shipping, the typical processing involves the actions and generated documents shown in the following diagram.



Known Limitations

Return of drop-shipped stock items is supported only if these stock items have been received from a customer to the company's warehouse. In the purchase return document, the lines with drop-shipped stock items must be issued from the company's warehouse. Before you process a return, make sure that the drop-shipment processing has been completed (that is, the purchase receipt prepared for a drop-ship purchase order has been billed, and the invoice has been prepared and released for the related sales order).

Sales with Drop Shipment: Process Activity

The following activity will walk you through the process of preparing and processing to completion a sales order with items marked for drop shipping.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the FourStar Coffee & Sweets Shop (*COFFEESHOP*) customer ordered a variety of green, black, and fruit teas at SweetLife's retail store. Although the tea varieties are presented in SweetLife's website catalog, the company does not keep tea in the wholesale or retail warehouse. When a customer orders tea, SweetLife drop-ships it from the Tea & Spices (*TEACOMPANY*) vendor directly to the customer who ordered the tea. To complete the customer's request, acting as the sales manager of the SweetLife store, you need to process a drop shipment.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*, which provides the ability to create purchase orders that include stock items
- *Drop Shipments*, which provides the ability to create and process drop-shipped orders

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Vendors* (AP303000) form, the *TEACOMPANY* vendor has been configured.
- On the *Stock Items* (IN202500) form, the *GREENTEA6*, *BLACKTEA6*, and *FRUITTEA12* stock items have been configured. For each of these items, the *TEACOMPANY* vendor has been added to the **Vendor Details** tab.

Process Overview

In this activity, to process a sale with drop-shipment, you will create a sales order of the *SO* order type on the *Sales Orders* (SO301000) form; on the **Document Details** tab, you will add the inventory items ordered by the customer. Because the items are not in stock, you will mark each of them for drop shipping by selecting the check box in the **Mark for PO** column and selecting *Drop-Ship* in the **PO Source** column, which means that the items will be ordered from the vendor and shipped directly to the customer. You will create drop-ship purchase orders by processing *Drop-Ship* purchase requests on the *Create Purchase Orders* (PO505000) form. Each drop-ship purchase order generated from purchase requests, which can be viewed and processed further on the *Purchase Orders* (PO301000) form, contains links to the related sales order.

After you have received confirmation that the customer has received the goods from the vendor, on the *Purchase Receipts* (PO302000) form, you will prepare and release the purchase receipt for the drop-ship purchase order. After drop shipping has completed, you will prepare an invoice for the customer by using the *Invoices* (SO303000) form.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to today's date. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, select the *SweetLife Store* branch.

Step 1: Creating a Sales Order

To create a sales order, do the following:

1. On the *Sales Orders* (SO301000) form, create a sales order, and specify the following settings:
   - **Order Type**: *SO*
   - **Customer**: *COFFEESHOP*
   - **Description**: `Website order #00784 (tea)`
2. On the **Document Details** tab, add rows with the settings shown in the following table.

Branch	Inventory ID	Warehouse	Quantity	Unit Price
RETAIL	*GREENTEA06*	*RETAIL*	2	22.99
RETAIL	*BLACKTEA06*	*RETAIL*	1	23.99
RETAIL	*FRUITTEA12*	*RETAIL*	2	32.99

   Notice that the system displays warnings in the **Quantity** column in each line on the **Documents Details** tab indicating that the specified quantity is not available in the selected warehouse.
3. In the Summary area, make sure the **Hold** check box is cleared.
4. Click **Save** on the form toolbar to save the sales order, which is assigned the *Open* status.

Step 2: Marking the Items for Drop-Shipment

To mark items for drop-shipment, while you are still viewing the sales order on the *Sales Orders* (SO301000) form, do the following:

1. For each of the lines on the **Document Details** tab, select the **Mark for PO** check box and select *Drop-Ship* in the **PO Source** column.
2. On the form toolbar, click **Save**.

Step 3: Creating a Drop-Ship Purchase Order

To create a drop-ship purchase order from purchase requests, do the following:

1. On the form toolbar of the *Sales Orders* (SO301000) form while you are still viewing the sales order, click **Actions > Create Purchase Order**.
2. On the *Create Purchase Orders* (PO505000) form, which opens, select the unlabeled check boxes in the three lines with *Drop Ship* specified as the **Plan Type** (which are the lines that are related to the sales order that you have prepared earlier).
3. In all of the lines, specify *TEACOMPANY* in the **Vendor** column.

4. On the form toolbar, click **Process** to process the purchase requests you have selected.

   The system creates a drop-ship purchase order to the *TEACOMPANY* vendor and opens it on the *Purchase Orders* (PO301000) form.

5. On the **Document Details** tab of this form, click the *GREENTEA06* line, and on the table toolbar, click **View SO Demand**. The **Demand** dialog box, which opens, shows the sales order to which this purchase order line is linked.

6. Click **Close** to close the dialog box.

7. In the **Description** box in the Summary area, type `Purchase for website order #00784`.

8. Clear the **Hold** check box in the Summary area, and click **Save** on the form toolbar.

Step 4: Processing the Drop-Ship Purchase Order

To process the drop-ship purchase order to completion, do the following:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, click **Actions > Enter PO Receipt** on the form toolbar.

2. On the *Purchase Receipts* (PO302000) form, which the system opens with the created receipt, review the details of the prepared purchase receipt, and make sure that all purchase order lines have been added with the appropriate quantities.

3. In the Summary area, select the **Create Bill** check box to make the system generate the bill automatically on release of the purchase receipt.

4. On the form toolbar, click **Release** to release the purchase receipt.

   The system releases the purchase receipt and assigns it the *Released* status.

5. On the **Billing History** tab, review the only line in the table, which shows the generated bill, and make sure the bill has a status of *Open*.

6. On the **Other Information** tab, notice that **IN Ref. Nbr.** is empty. This is the case because the items are shipped directly from the vendor to the customer, so no inventory documents need to be generated.

Step 5: Processing the AR Invoice for the Customer

To complete the processing of a sale with drop shipment, you need to generate an invoice to the customer. Do the following:

1. On the *Sales Orders* (SO301000) form, open the sales order for the *COFFEESHOP* customer that you have created earlier in this activity.

2. On the form toolbar, click **Actions > Prepare Invoice**.

3. On the *Invoices* (SO303000) form, which opens, review the details of the invoice to make sure that all items have been included in the invoice.

4. On the form toolbar, click **Actions > Release** to release the invoice.

5. Return to the sales order on the *Sales Orders* form, and on the **Shipments** tab, review the only line, which has the shipment for the order. Notice that the purchase receipt that you have processed acts as a shipment for this sales order, and the reference number link to this purchase receipt is shown in the **Document Nbr.** column in the only line in the table (see the following screenshot).

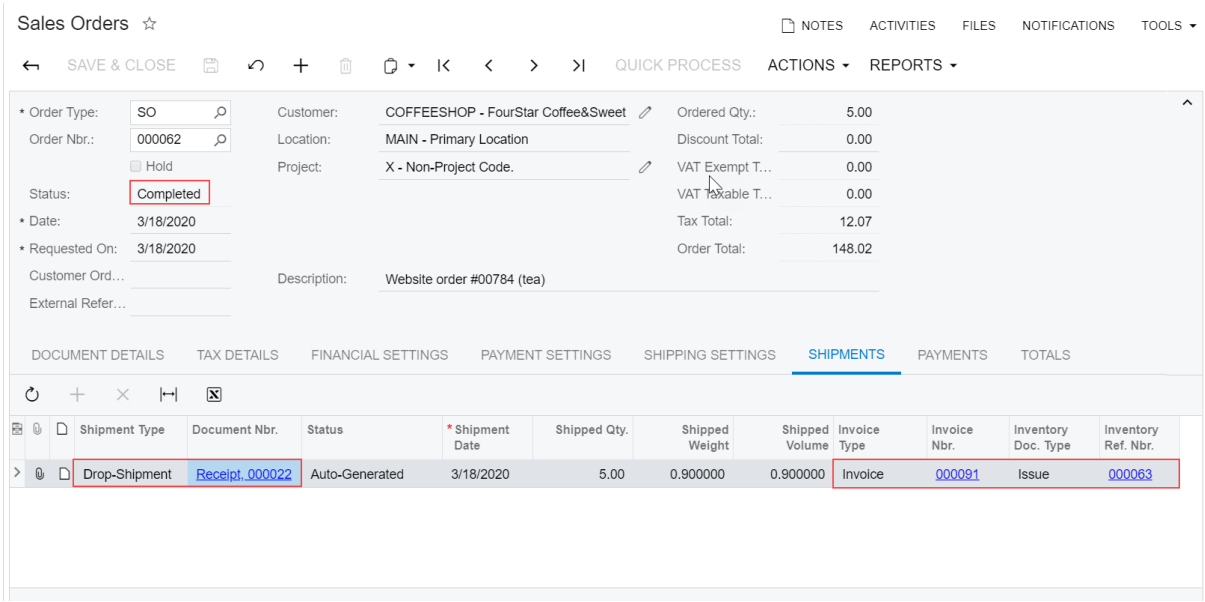


Figure: Sales order with drop shipment processed to completion

Self-Test Exercise

Process a sales order with one item intended for drop-shipping (*GREENTEA06*), one item intended for purchase for sale (*DRAGONFR*), and one more item that is available in inventory (*APPLES*), and review the generated documents.

Sales with Drop-Shipment: Mass Processing of Documents

This topic explains how to process multiple sales for drop-shipment, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Creating Drop-Ship Purchase Orders

Drop-ship purchase orders can be mass-generated for multiple sales orders at a time. To mass-process sales orders marked for drop-shipping, you open the *Create Purchase Orders* (PO505000) form, on which you can create drop-ship purchase orders based on the drop-ship purchase requests that have been created for this sales order. On this form, you select the unlabeled check boxes in the rows of the lines to be processed (which could include lines from the sales order you were working with or any other order) and click **Process** on the form toolbar to generate the purchase order or orders of the *Drop-Ship* type. A sales order can have two or more linked drop-ship orders, but each generated drop-ship order has only

one linked sales order. The system creates a consolidated drop-ship order for each group of purchase requests for which both the sales order and the vendor are the same.

Mass-Creating SO Invoices

You can create multiple invoices on the *Process Orders* (SO501000) form by selecting the *Prepare Invoice* action, selecting the unlabeled check box in the sales order lines to be processed (which could include lines from the sales order you were working with, or lines of any other order), and click **Process** on the form toolbar to generate the SO invoice or invoices.

Sales with Drop Shipment: Related Report and Inquiry Forms

In the following sections, you can find details about the reports, inquiry forms, and dialog boxes you may want to review to gather information about sales for drop-shipment that have been processed or are being processed in the system.

If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Finding Orders Pending Drop-Shipment

You can find purchase requests of the *Drop Ship* type on the *Create Purchase Orders* (PO505000) form. On the form, you can filter purchase requests by any of the following criteria: warehouse, vendor, order type, order number, inventory identifier, item class, customer, product manager, and workgroup. For the selected list of purchase requests, you can generate purchase orders of the *Drop Ship* type for all the lines in the list, or you can select particular lines (by selecting the unlabeled check boxes in the lines) and generate these purchase orders.

Reviewing the Demand for Purchase Orders

You can find the sales order that is linked to a particular line of a drop-ship purchase order by clicking the purchase order line on the **Document Details** tab of the *Purchase Orders* (PO301000) form, and then clicking **View SO Demand** on the table toolbar. The **Demand** dialog box, which opens, lists all the sales orders that are linked to the selected line of the purchase order.

Reviewing the Purchase Order Linked to a Sales Order Line

You can find the purchase order that is linked to a particular line of a sales order by clicking the sales order line on the **Document Details** tab of the *Sales Orders* (SO301000) form, and then clicking **PO Link** on the table toolbar. The **Purchasing Details** dialog box, which opens, lists all the purchase orders that are linked to the selected line of the sales order.

Reviewing Item Plans Related to Drop-Ship Orders

On the *Inventory Allocation Details* (IN402000) form, you can select an item in the **Inventory ID** box, and on the **Item Plans** tab, review the quantity of the item that is currently listed in drop-ship orders. The *SO to Drop-Ship* plan type indicates that a sales order has items marked for drop-shipping. The *Drop-Ship for SO Prepared* plan type indicates that a purchase order was prepared for the sales-order with items marked for drop-shipment.

Printing Reports and Documents

To prepare a printable form of the purchase order that is being processed, you use the *Purchase Order* (PO641000) report. While you are viewing a purchase order on the *Purchase Orders* (PO301000) form, you can print the purchase order by clicking **Reports > Print Purchase Order** on the form toolbar. The system opens the printable version of the document on the *Purchase Order* report; then you can review the order and print it by clicking **Print** on the report toolbar.

Lesson 6: Processing Purchases for Sale

Purchases for Sale: General Information

If your company sells certain items that are purchased only when sales orders for these items exist, a sales order may result in multiple purchase orders for different vendors, and a purchase order may include items from multiple sales orders. These factors could make it difficult to track the fulfillment of sales orders. In Acumatica ERP, you can link sales orders to existing purchase orders and receipts, so that the system will allocate the items listed on purchase receipts to specific sales orders.

Learning Objectives

In this chapter, you will learn how to do the following:

- Configure the processing of purchases for sale in Acumatica ERP
- In a sales order, mark items to be purchased for the sale
- Create a purchase order linked to a sales order
- Mass-create purchase orders
- Process the sales order and related purchase documents, inventory documents, and accounts payable documents
- Find information about documents related to a purchase for sale

Applicable Scenarios

You process purchases for sale in the following cases:

- You need to process a sales order that includes items that your company does not have in stock; such items are purchased only for specific sales orders.
- You have multiple warehouses and perform purchasing only to particular larger warehouses (distribution centers). (During the processing of a purchase for sale, the system will generate the required transfers between warehouses, so you can easily track where the particular sales order is in the fulfillment process.)
- You need to promptly fulfill a sales order line for which the quantity of the item is insufficient. After you have shipped the available quantity of the item (if any units are available), you need to order the quantity that was unavailable at the time of shipping.

Creation of Sales Orders with Items Requested for Purchase

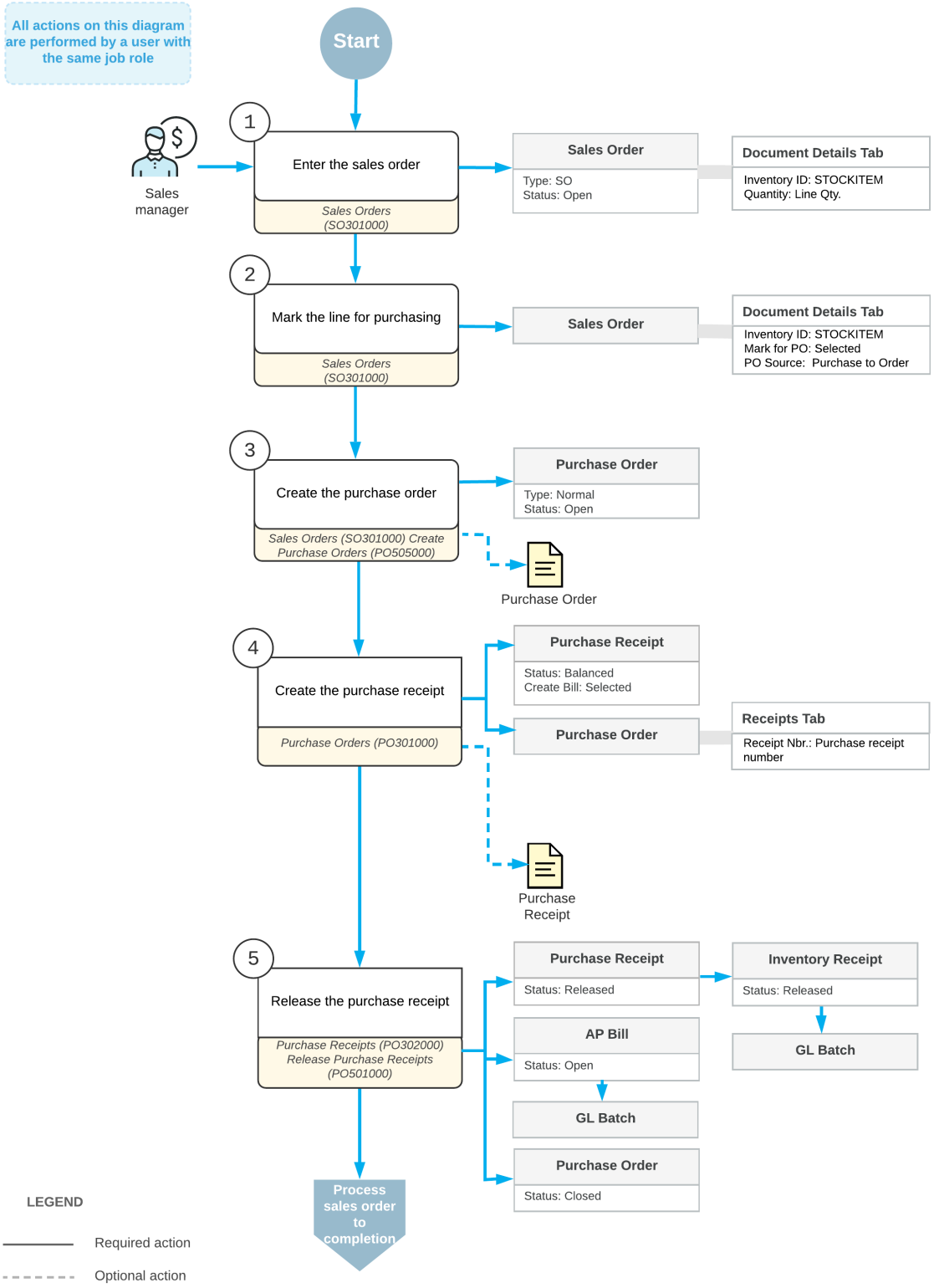
If the quantity of an item added to a sales order is fully or partially out of stock, you can purchase the remaining quantity. You specify that the remaining quantity should be purchased for the order by selecting the **Mark for PO** check box for the line on the **Document Details** tab. The quantity initially allocated for the order remains allocated, while the quantity that must be purchased remains unallocated.

Once you take the sales order off hold, the purchase request created for this order appears on the *Create Purchase Orders* (PO505000) form. By default, for each line, the system specifies the vendor, which is set as default for a stock item specified in this line. You can change the vendor, if needed. From the purchase requests, you generate purchase orders that will be linked to the original sales order. Once you prepare and release the purchase receipt for the purchase order, the items become available for shipping, so you can allocate the initially unallocated quantities manually by using the **Allocations** dialog box on the *Sales Orders* (SO301000) form and complete the processing of the sales order.

Workflow of a Purchase for Sale

For a sales order that includes stock items intended for purchasing, the typical processing involves the actions and generated documents shown in the following diagram.

Purchase for sale



Process Limitations

The following limitations apply to the processing of purchases for sale:

- Sales order lines marked for purchase are not processed during the quick processing of a sales order. For more information, see *Quick Processing of Sales Orders*.
- In a sales order of the *RR* or *RM* type, lines with the *Return* operation type cannot be marked for purchasing for sale, because these are the items to be received to inventory.
- Releasing inventory receipts during the processing of a purchase for sale does not automatically update plan types for sales orders with allocations, even if the **Replan Back Orders** check box is selected on the *Inventory Preferences* (IN101000) form. On release of these inventory receipts, the unallocated quantities are still shown as *Back Ordered* until you manually allocate them. For more information, see *Back Ordering and Replanning Back Orders*.

Purchases for Sale: Linking Sales and Purchase Documents

The following sections describe how you can establish connections between sales orders and the purchase documents that relate to these sales orders.

Linking Sales Orders to Purchase Orders

You can link a line of a sales order with the **Mark for PO** check box selected to an existing purchase order, for instance, if you have created a new sales order that lists the same items as an open purchase order does. To link a sales order line to a purchase order line, on the **Document Details** tab of the *Sales Orders* (SO301000) form, you need to click the sales order line and then click **PO Link** on the table toolbar. In the **Purchasing Details** dialog box, which opens, select the unlabeled check box in the needed line of the needed purchase order, and click **Save**. If the purchase order line has a quantity that exactly matches the total quantity on the sales orders that are already linked, you should first increase the quantity on the purchase order line, and then link the sales order to this purchase order.

Linking Purchase Receipts to Sales Orders

Items marked for purchase in a sales order may be received to warehouses other than the warehouse specified on the sales order. If the users properly specify the links between the purchase receipts and purchase orders, Acumatica ERP enables the tracking of sales order fulfillment, reserves the received items for sales orders, and automates the transfers of the items to the needed warehouses.

To make it possible to track items in receipts to the original sales orders, when you create these receipts, you need to link each receipt to the corresponding purchase order in one of the following ways:

- Open the purchase order on the *Purchase Orders* (PO301000) form, and create a receipt for it by selecting **Actions > Enter PO Receipt** on the form toolbar.

- Create a receipt on the *Purchase Receipts* (PO302000) form, and link all the related purchase orders or purchase order lines to this new receipt by clicking **Add PO** or **Add PO Line** on the table toolbar.

After a purchase receipt has been properly linked to all the related purchase orders, you will be able to track the stage of fulfillment for each line of the original sales order. On release of the purchase receipt, the quantities of items required for the sales orders are deducted from the item quantities available for shipping. If items are received to a warehouse other than the warehouse specified on the sales order, the system will generate a transfer request, which you can use to create a transfer order by using the *Sales Orders* form for a single transfer order, or by using the *Create Transfer Orders* form for multiple transfer orders.

Purchases for Sale: Process Activity

In this activity, you will learn how to process a purchase of items that are not in stock for a particular sales order, and how to process the sales order to completion after receipt of the items that were purchased for sale.

Story

Suppose that the GoodFood One Restaurant customer has ordered tropical fruits (3 pounds of dragon fruits and 2 pounds of tangerines) on SweetLife's website. SweetLife's warehouses do not have the appropriate conditions for keeping delicate tropical fruits; also, these fruits are ordered rarely and in small quantities. To provide fresh and high-quality fruits to the customers, the sales manager purchases these tropical fruits on demand from the All Fruits Mall company, and once the fruits are delivered to the retail warehouse of the SweetLife store, they are immediately shipped to the customer that ordered them. Acting as the sales manager, you will process the sales order and the related purchase order in the system.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*, which provides the ability to create purchase orders that include stock items
- *Sales Order to Purchase Order Link*, which provides the ability to link sales orders to existing purchase orders and receipts, and to create new purchase orders for existing sales orders

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Customers* (AR303000) form, the *GOODFOOD (GoodFood One Restaurant)* customer has been configured.
- On the *Vendors* (AP303000) form, the *ALLFRUITS (All Fruits Mall)* vendor has been configured.
- On the *Stock Items* (IN202500) form, the *DRAGONFR (Fresh dragon fruit 1 lb)* and *TANGERINES (Fresh tangerines 1 lb)* stock items have been configured. For each item,

the *ALLFRUITS* vendor has been added on the **Vendor Details** tab, and the last vendor price has been specified.

Process Overview

In this activity, to process a sales order that includes items that must be purchased for sale, you will first create a sales order on the *Sales Orders* (SO301000) form and add all of the stock items that were ordered by the customer. Because the items are not in stock, you will mark them for purchasing in the sales order; to ship these lines, you have to receive the purchased items at the warehouse specified in the sales order lines.

When you mark items for purchasing, the system creates purchase requests of the *SO to Purchase* type. You will create purchase orders by mass-processing purchase requests of this type on the *Create Purchase Orders* (PO505000) form. Each purchase order generated from a purchase request or from multiple requests is linked to the related sales order. When you receive the items of each linked purchase order to inventory, the items are allocated directly to the related sales orders.

After all purchased items have been received to inventory, you will process the sales order to completion. That is, you will ship the items to the customer and prepare the invoice for the customer.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to today's date. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, select the *SweetLife Store* branch.

Step 1: Creating a Sales Order

To create the sales order for GoodFood One Restaurant, do the following:

1. On the *Sales Orders* (SO301000) form, create an order with the following settings:
   - **Order Type**: *SO*
   - **Customer**: *GOODFOOD*
   - **Description**: `Website order #00782 (tropical fruits)`
2. On the **Document Details** tab, add rows with the settings shown in the following table.

Branch	Inventory ID	Warehouse	Quantity	Unit Price
RETAIL	*DRAGONFR*	*RETAIL*	3	3
RETAIL	*TANGERINES*	*RETAIL*	2	2.09

Notice that the system displays warnings in the **Quantity** column in both lines indicating that the specified quantity is not available in the selected warehouse.

3. Make sure the **Hold** check box is cleared in the Summary area, and click **Save** on the form toolbar; the sales order is saved with the *Open* status.

Step 2: Marking the Items to be Purchased for Sale

To mark items for purchase in the sales order, on the **Document Details** tab of the *Sales Orders* (SO301000) form while you are still viewing the order, do the following:

1. In the *DRAGONFR* line, select the **Mark for PO** check box, and make sure *Purchase to Order* is selected in the **PO Source** column.
2. In the *TANGERINES* line, select the **Mark for PO** check box, and make sure *Purchase to Order* is selected in the **PO Source** column.
3. On the form toolbar, click **Save**.

Step 3: Creating a Purchase Order That Is Linked to the Sales Order

To create a purchase order for the items that are marked for purchase, do the following:

1. On the form toolbar of the *Sales Orders* (SO301000) form while you are still viewing the sales order, click **Actions > Create Purchase Order**.
2. On the *Create Purchase Orders* (PO505000) form, which opens, select the unlabeled check boxes in the two lines with *SO to Purchase* specified as the **Plan Type**. (The *SO to Purchase* plan type indicates that this line is a purchase request.)
3. In both of these lines, do the following:
   a. In the **Vendor** column, select *ALLFRUITS*
   b. In the **Warehouse** column, select *RETAIL*
4. On the form toolbar, click **Process** to process the purchase requests you have selected.

   The system creates a purchase order for the *ALLFRUITS* vendor, and opens it on the *Purchase Orders* (PO301000) form.
5. On the **Document Details** tab, click the *DRAGONFR* line, and on the table toolbar, click **View SO Demand**. The **Demand** dialog box, which opens, shows the sales order to which this purchase order line is linked.
6. Click **Close** to close the dialog box.

7. On the **Document Details** tab, make sure that *2.75* is specified as the **Unit Cost** in the *DRAGONFR* line, and *1.75* is specified as the **Unit Cost** in the *TANGERINES* line.

8. In the Summary area, type `Purchase for website order #00782` in the **Description** box and clear the **Hold** check box.

9. On the form toolbar, click **Save**.

Step 4: Processing the Purchase Order

To process the purchase order to completion, do the following:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, click **Actions > Enter PO Receipt** on the form toolbar.

2. On the *Purchase Receipts* (PO302000) form, which the system has opened, review the details on the prepared purchase receipt, and make sure both purchase order lines have been added with the appropriate quantities.

3. In the Summary area, select the **Create Bill** check box to make the system generate the bill automatically on release of the purchase receipt.

4. On the form toolbar, click **Release** to release the purchase receipt.

   The system releases the purchase receipt, which is assigned the status of *Released*.

5. On the **Billing History** tab, review the only line in the table, which shows the generated bill, and make sure the bill has a status of *Open*, reflecting that it has been released.

6. On the **Other Information** tab, click the **IN Ref. Nbr.** link, and review the generated inventory receipt on the *Receipts* (IN301000) form, which opens. Make sure the inventory receipt has a status of *Released*.

Now the items are in stock and can be shipped to the GoodFood One Restaurant customer.

Step 5: Processing the Sales Order to Completion

To process to completion the sales order you have created in this activity, do the following:

1. On the *Inventory Allocation Details* (IN402000) form, select *TANGERINES* as the **Inventory ID** and *RETAIL* as the **Warehouse**.

2. On the **Item Plans** tab, review the only line in the table, which shows that 2 *TANGERINES* units are allocated directly for the sales order for which you have processed the purchase.

3. Select *DRAGONFR* as the **Inventory ID**, and in the only table line, make sure that 3 *DRAGONFR* units are also allocated for the sales order for which you purchased them.

4. In the table, double-click the line to open the sales order on the *Sales Orders* (SO301000) form.

5. On the **Document Details** tab, click the *DRAGONFR* line, and on the table toolbar, click **PO Link**. In the **Purchasing Details** dialog box, which opens, select *RETAIL* as the **Purchasing Warehouse** and review the purchase order to which this sales order line is linked.

6. Click **Save** to close the dialog box.

7. On the **Document Details** tab, click the *TANGERINES* line, and on the table toolbar, click **Allocations**.

8. In the **Allocations** dialog box, which is opened, review the allocation line, which shows that the ordered items are allocated in the *RETAIL* warehouse.

9. Click **OK** to close the dialog box.

10. On the form toolbar, click **Actions > Create Shipment**.

11. In the **Specify Shipment Parameters** dialog box, which is opened, make sure that today's date is specified in the **Shipment Date** box and *RETAIL* warehouse is specified in the **Warehouse ID** box, and click **OK**. The system closes the dialog box; it also creates a shipment and opens it on the *Shipments* (SO302000) form.

12. On this form, review the details of the shipment, and make sure that both lines have been added with the appropriate quantities.

13. On the form toolbar, click **Actions > Confirm Shipment** to confirm the shipment and then **Actions > Prepare Invoice** to prepare the invoice for the customer.

14. On the *Invoices* (SO303000) form, which opens, review the details of the prepared invoice.

15. On the form toolbar, click **Actions > Release** to release the invoice.

16. Return to the *Sales Orders* form with the sales order for the *GOODFOOD* customer open, and notice that it has the *Completed* status, as shown in the following screenshot.

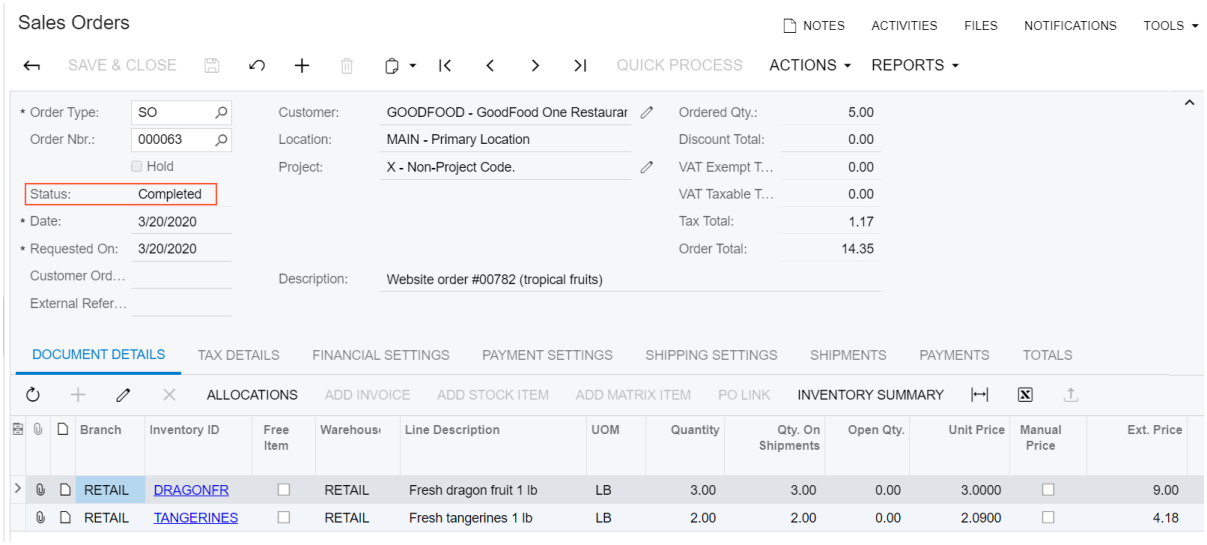


Figure: Sales order processed to completion

Self-Test Exercise

Create and process to completion a sales order with two lines: one line with a stock item that should be purchased on demand from the *GLORYFRUIT* vendor, and one line with a stock item that is available in inventory.

Purchases for Sale: Mass-Processing of Documents

This topic explains how to process multiple documents related to purchases for sale, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Creating Purchase Orders

Purchase orders related to sales orders can be mass-generated for multiple sales orders at a time. To mass-process sales order lines that have been marked for purchase, you open the *Create Purchase Orders* (PO505000) form, on which you can create purchase orders based on the purchase requests (which are the lines with the *SO to Purchase* plan type) that have been created for these sales order lines. On this form, you select the unlabeled check boxes in the rows of the lines to be processed and click **Process** on the form toolbar to generate the purchase order or orders of the *Normal* type.

When multiple purchase orders are generated from purchase requests, the system creates consolidated purchase orders grouped by order type, vendor, vendor location, and warehouse; if project accounting functionality is in use, the purchase orders are also grouped by project. In each prepared purchase order, purchase order lines are grouped by item, subitem, and date on which they are requested; if project accounting functionality is in use, the purchase order lines are also grouped by project, project task, and cost code.

Mass-Creating SO Invoices

You can create multiple invoices on the *Process Orders* (SO501000) form by selecting the *Prepare Invoice* action, selecting the unlabeled check box in the sales order lines to be processed, and click **Process** on the form toolbar to generate the SO invoice or invoices.

Purchases for Sale: Related Reports, Inquiry Forms and Dialog Boxes

In the following sections, you can find details about the reports, inquiry forms, and dialog boxes you may want to review to gather information about purchases for sale that have been processed or are being processed in the system.

If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Finding Orders Pending Purchase

You can find purchase requests of the *SO to Purchase* type on the *Create Purchase Orders*(PO505000) form. On the form, you can filter purchase requests by any of the following criteria: warehouse, vendor, order type, order number, inventory identifier, item class, customer, product manager, and workgroup. For the selected list of purchase requests, you can generate purchase orders for all the lines in the list, or you can select particular lines (by selecting the unlabeled check boxes in the lines) and generate these purchase orders.

Reviewing Allocations for a Sales Order

On the *Sales Orders* (SO301000) form, you can track the stage of fulfillment for each line of a sales order by clicking the line and then **Allocations** on the table toolbar of the **Document Details** tab. In the **Allocations** dialog box, which opens, you can view an allocation that the system automatically performs to reserve the line item quantity required for the sales order on the purchase receipt.

If a purchase order line that corresponds to a sales order is completed or canceled, the system adds a new allocation line, which can be viewed in the **Allocations** dialog box. This line has the **Mark for PO** check box cleared and indicates that the shipment should be prepared for the item quantity in this line. When the shipment is confirmed for this line, the line is removed from the **Allocations** dialog box.

Reviewing the Demand for Purchase Orders

You can find the sales order that is linked to a particular line of a purchase order by clicking the purchase order line on the **Document Details** tab of the *Purchase Orders* (PO301000) form, and then clicking **View SO Demand** on the table toolbar. The **Demand** dialog box, which opens, lists all the sales orders that are linked to the selected line of the purchase order.

Reviewing the Links Between Sales Order Lines and Purchase Order Lines

You can link a sales order line to an existing purchase order line, or find the purchase order that is linked to a particular line of a sales order by clicking the sales order line on the **Document Details** tab of the *Sales Orders* (SO301000) form, and then clicking **PO Link** on the table toolbar. The **Purchasing Details** dialog box, which opens, lists all the purchase orders that are linked to the selected line of the sales order. To link a sales order line to a purchase order line, you select the **Selected** check box next to need line in the table, and click **Save**.

Reviewing the Item Plans Related to Purchases for Sale

On the *Inventory Allocation Details* (IN402000) form, you can select an item in the **Inventory ID** box, and on the **Item Plans** tab, review the quantity of the item that is currently listed in purchase orders. The *SO to Purchase* plan type indicates that a sales order has items marked for purchasing. The *Purchase for SO Prepared* plan type indicates that a purchase order was prepared for the sales-order with items marked for purchasing.

Printing a Purchase Order

To prepare a printable version of the purchase order that is being processed, you use the *Purchase Order* (PO641000) report. While you are viewing a purchase order on the *Purchase Orders* (PO301000) form, you can print the purchase order by clicking **Reports > Print Purchase Order** on the form toolbar. The system opens the printable version of the document on the *Purchase Order* report; then you can review the order and print it by clicking **Print** on the report toolbar.

Lesson 7: Processing Sales from Multiple Warehouses

Sales from Multiple Warehouses: General Information

When you are entering a sales order, you may notice that some of the ordered items are not available in the warehouse from which you are going to ship the order, but the quantity needed to fulfill the order is available in another warehouse. For fulfilling this sales order, you need to allocate items in the other warehouse, and then transfer these items to the warehouse from which the order will be shipped. In Acumatica ERP, you can process the transfer of allocated goods from one warehouse to another by creating and processing a transfer order based on the applicable sales order.

Learning Objectives

In this chapter, you will learn how to do the following:

- Create a sales order with items allocated in different warehouses.
- Prepare a transfer order for a sales order.
- Process a transfer order to completion to transfer the included items.

- Process a sales order after the items have been transferred to the destination warehouse.

Applicable Scenarios

You process a sales order with goods from multiple warehouses in the following cases:

- You have only a part of the ordered items in the warehouse specified in the sales order, but the rest of the items are currently available at another warehouse (or multiple warehouses), so the sales order can be completed with the items from different warehouses.
- You company uses one warehouse as a distribution center, so that all items are received to this warehouse and then are distributed to smaller warehouses on demand.

Sale of Stock Items from Multiple Warehouses

When you process a sale of inventory items, you can reserve one line or multiple lines of an open sales order of the *SO* type in a warehouse other than the warehouse selected in the line. To be able to process a sales order with stock items that you have allocated (that is, reserved) in a remote warehouse (that is, a warehouse other than the one specified in the order), you first need to transfer the reserved items from the remote source warehouse (where you reserved the items) to the destination warehouse (for which the sales order is processed). For this purpose, you need to prepare and process a transfer order (that is, an order of the *TR* predefined order type).

The standard sales process typically starts with the entry of a sales order on the *Sales Orders* (SO301000) form. To obtain the sufficient quantity of items for the sales order, you manually reserve the quantity for each specific item in the source warehouse. For the items allocated in a warehouse other than the warehouse specified in the sales order, the system automatically generates transfer requests of the *SO Allocated* plan type based on which you generate transfer orders related to sales orders. To be able to complete the sales order, you need to perform a transfer of the items allocated in a source warehouse to the destination warehouse by creating and processing a transfer order (or multiple orders).

To create a transfer order for a sales order, while viewing the sales order with allocated items on the *Sales Orders* (SO301000) form, you click **Actions > Create Transfer Order** on the form toolbar; then you create one transfer order or multiple transfer orders on the *Create Transfer Orders* (SO509000) form, which opens. This form shows transfer requests for the sales orders that have the *Open* status.

A transfer order is fulfilled by one shipment or by multiple shipments from the source warehouse (in which the item is allocated) to the destination warehouse. You create a shipment for a transfer order from the *Sales Orders* (SO301000) form by clicking **Actions > Create Shipment** on the form toolbar; on the *Shipments* (SO302000) form, which is opened, you then confirm the shipment by clicking **Actions > Confirm Shipment** on the form toolbar.

To update the item quantities in the source warehouse and complete the shipment, while you are still viewing the shipment on the *Shipments* form, you click **Actions > Update IN** on the form toolbar; the system generates the two-step inventory transfer transaction, which

issues items from the source warehouse. On release of this inventory transfer, the system generates a batch of general ledger transactions.

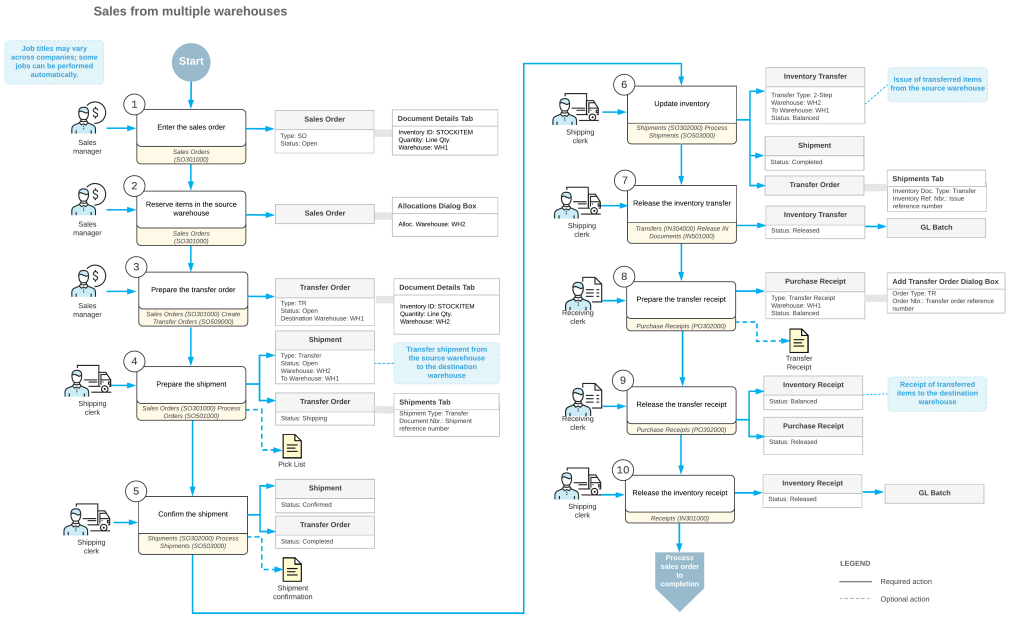
To complete the processing of the two-step inventory transfer, you prepare a transfer receipt to record the receiving of items to the destination warehouse. You manually create the transfer receipt (a receipt of the *Transfer Receipt* type) on the *Purchase Receipts* (PO302000) form and add to the receipt the lines from one transfer order or multiple transfer orders. A transfer receipt may include only some of the lines from a transfer order; also, you can change the quantity in a particular line if the items specified in this line were received partially.

On release of the transfer receipt, the inventory receipt transaction is generated in the system to reflect the receipt of the items to the destination warehouse. On release of the inventory receipt, a batch of GL transactions is generated. Thus, the quantity of the item that has been transferred from the source warehouse to the destination warehouse becomes available for sale.

After all transferred stock items have been received to the destination warehouse, you complete the sales order as you would if you had just entered it: You process a shipment of all items from the destination warehouse, and you process the related SO invoice. For information about the general steps of sales order processing, see *Processing Sales of Stock Items*.

Workflow of a Sale from Multiple Warehouses

For a sales order for which the items have been allocated in multiple warehouses, the processing involves the actions and generated documents shown in the following diagram.



Sales from Multiple Warehouses: Implementation Activity

With the following implementation activity, you will learn how to configure and activate the *TR* order type.

The following activity is based on the *U100* dataset. If you are implementing a new company, you need to specify inventory and order management settings, as described in *Order Management with Inventory Configuration: Implementation Activity*.

Story

Suppose that you, as the implementation manager, need to configure the *TR* order type for processing sales with items transferred from at least one other warehouse.

System Preparation

Before you configure and activate order types, perform the following instructions:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a system administrator, use the *gibbs* login and *123* password.
2. Make sure that the *Inventory and Order Management*, *Inventory*, and *Multiple Warehouses* features are enabled on the *Enable/Disable Features* (CS100000) form.

Step: Configuring and Activating an Order Type

To specify settings to configure the *TR* order type and activate this type, do the following:

1. Open the *Order Types* (SO201000) form.
2. Select the *TR* order type.
3. On the **General Settings** tab, clear the **Calculate Freight** check box.
4. In the **Freight Account** box, make sure *51300 (COGS – Freight)* is selected.
5. In the Summary area, make sure the **Active** check box is selected.
6. On the form toolbar, click **Save**.
7. On the *Sales Orders* (SO301000) form, make sure that *TR* is available for selection in the **Order Type** box. This indicates that you have activated the order type.

For a description of the settings that affect the processing workflow for orders of the *TR* type, see *Sales Order Types: Implementation Checklist*.

Sales from Multiple Warehouses: Process Activity

The following activity will walk you through the processing of a sales order with items allocated in multiple warehouses.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the FourStar Coffee & Sweets Shop customer ordered cherry jam in 32-ounce jars and lemon jam in 96-ounce jars at SweetLife's retail store. When entering this sales order, a sales manager has noticed that the 32-ounce jars of cherry jam are currently out of stock in the retail warehouse, and has decided to allocate the unavailable quantity of jam in the SweetLife's wholesale warehouse.

To complete the customer's request, acting as the sales manager of the SweetLife store, you need to enter the sales order and allocate the needed items, process a transfer of cherry jam from the wholesale warehouse to the SweetLife store's warehouse, and then process the sales order to completion.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*, which provides the ability to create purchase orders that include stock items
- *Multiple Warehouses*, which provides the ability to process transfers of items between warehouses

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Warehouses* (IN204000) form, the *WHOLESALE* and *RETAIL* warehouses have been configured.
- On the *Customers* (AR303000) form, the *COFFEESHOP* customer has been configured.
- On the *Stock Items* (IN202500) form, the *CHERJAM32* and *LEMJAM96* stock items have been configured.
- On the *Order Types* (SO201000) form, the *TR* order type has been configured.

Process Overview

In this activity, to perform a sale of stock items from multiple warehouses, you will create a sales order on the *Sales Orders* (SO301000) form, select the customer to which the items are being sold, and add items to the order. Then you will allocate the unavailable items in the warehouse in which these items are currently on hand.

To transfer items from the source warehouse to the destination warehouse, you will create a transfer order on the *Create Transfer Orders* (SO509000) form. Then you will process a transfer order to completion: You will process the related shipment between warehouses (which causes the items to be issued from the source warehouse) on the

Shipments (SO302000) form, and you will process the related transfer receipt (which records the receipt of the items to the destination warehouse) on the *Purchase Receipts* (PO302000) form. After you process the transfer receipt, all the items required for the sales order become available in the destination warehouse, so you can process the initial sales order to completion. On the *Shipments* (SO302000) form, you will create a shipment document for the sales order and confirm the shipment. You then will use the *Invoices* (SO303000) form to prepare the corresponding invoice for the customer and release it.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to today's date. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, select the *SweetLife Store* branch.

Step 1: Creating the Sales Order

To create the sales order, do the following:

1. On the *Sales Orders* (SO301000) form, create a sales order, and specify the following settings:
   - **Order Type**: *SO*
   - **Customer**: *COFFEESHOP*
   - **Description**: `Sale of cherry jam and lemon jam`
2. On the **Document Details** tab, add rows with the settings shown in the following table.

Branch	Inventory ID	Warehouse	Quantity	Unit Price
RETAIL	*CHERJAM32*	*RETAIL*	10	16.89
RETAIL	*LEMJAM96*	*RETAIL*	3	49.49

   Notice that the system displays a warning in the **Quantity** column of the *CHERJAM32* line indicating that the specified quantity is not available in the selected warehouse.
3. In the Summary area, make sure the **Hold** check box is cleared.
4. Click **Save** on the form toolbar to save the sales order, which is assigned the *Open* status.

Step 2: Allocating the Items in Another Warehouse

To allocate the items that are not available in the *RETAIL* warehouse, while you are still viewing the sales order on the *Sales Orders* (SO301000) form, do the following:

1. On the **Document Details** tab, click the *CHERJAM32* line, and on the table toolbar, click **Allocations**.
2. In the **Allocations** dialog box, which opens, do the following:
   a. In the only line, select the **Allocated** check box.
   b. In the **Alloc. Warehouse** box, select *WHOLESALE*.
   c. Click **OK**

   Notice that the warehouse in the line on the **Document Details** tab hasn't changed, but in the table footer, the **Allocated** quantity is now equal to 10.
3. On the form toolbar, click **Save**.

Step 3: Creating the Transfer Order

To create the transfer order for the allocated items from the sales order, do the following:

1. While you are still viewing the sales order on the *Sales Orders* (SO301000) form, click **Actions > Create Transfer Order** on the form toolbar.
2. On the *Create Transfer Orders* (SO509000) form, which opens, select the unlabeled check box in the line with *SO Allocated* specified as the **Plan Type** and *CHERJAM32* specified as the **Inventory ID**. This line is the transfer request related to the line of the sales order that you have allocated in another warehouse. In the line, make sure that *WHOLESALE* is specified as the **From Warehouse** and *RETAIL* is specified as the **To Warehouse**.
3. On the form toolbar, click **Process** to process the transfer request you have selected. The system creates a transfer order of the *TR* order type and opens it on the *Sales Orders* form.
4. In the **Description** box in the Summary area, type `Transferred goods for sales order from COFFEESHOP`.
5. Make sure the **Hold** check box is cleared in the Summary area, and click **Save** on the form toolbar.

Step 4: Processing the Transfer Order

To process the transfer order to completion, do the following:

1. While you are still viewing the transfer order you have created on the *Sales Orders* (SO301000) form, on the form toolbar, click **Actions > Create Shipment**.

2. In the **Specify Shipment Parameters** dialog box, which opens, make sure the today's date and the *WHOLESALE* warehouse are selected, and click **OK**. The system creates a shipment with the *Transfer* type and opens it on the *Shipments* (SO302000) form.

3. Review the Summary area of the shipment, and make sure that **Warehouse ID** is *WHOLESALE* and **To Warehouse** is *RETAIL*. Also, review the only line included in the shipment, and make sure its details are correct.

4. On the form toolbar, click **Actions > Confirm Shipment**. The shipment is assigned the *Confirmed* status.

5. On the form toolbar, click **Actions > Update IN** to generate the inventory transfer transaction that issues the items from the source warehouse. The shipment is assigned the *Completed* status.

6. On the **Orders** tab, click the link in the **Inventory Ref. Nbr.** column in the only row.

7. On the *Transfers* (IN304000) form that opens, make sure that the generated inventory transfer has been released.

Step 5: Processing the Transfer Receipt

To process the transfer receipt, do the following:

1. Open the *Purchase Receipts* (PO302000) form.

2. On the form toolbar, click **Add New Record**.

3. In the Summary area, specify the following:

   - **Type**: *Transfer Receipt*

   - **Warehouse**: *RETAIL*

4. On the table toolbar of the **Document Details** tab, click **Add Transfer**. The **Add Transfer Order** dialog box opens. The dialog box shows the list of completed transfer orders with completed shipments whose items have not been received to the destination warehouse yet.

5. In the dialog box, select the unlabeled check box for the transfer order you have processed earlier, and click **Add & Close** to close the dialog box and return to the *Purchase Receipts* form.

6. On the **Document Details** tab, review the details of the added line with the *CHERJAM32* item.

7. On the form toolbar, click **Release** to release the transfer receipt.

8. On the **Other Information** tab, click the **IN Ref. Nbr.** link to open the related inventory receipt transaction on the *Receipts* (IN302000) form.

9. Make sure the inventory receipt has the *Released* status, which means that the items have been received to the *RETAIL* warehouse and are now available for shipping.

Now you can finish processing the sales order, because all of the ordered items are on hand in the SweetLife's Store warehouse.

Step 6: Processing the Shipment

To create and process the shipment that is associated with the sales order, do the following:

1. On the *Sales Orders* (SO301000) form, open the sales order of the *SO* type that you have created in Step 1, and on the form toolbar, click **Actions > Create Shipment**.
2. In the **Specify Shipment Parameters** dialog box, which opens, make sure the today's date and the *RETAIL* warehouse are selected, and click **OK**. The system creates a shipment and opens it on the *Shipments* (SO302000) form.
3. On the **Document Details** tab, make sure that both order lines have been included in the shipment and that the shipped quantity in both lines is equal to the ordered quantity.
4. On the form toolbar, click **Actions > Confirm Shipment**.

The shipment is assigned the *Confirmed* status, and now you can prepare the invoice to bill the customer and increase the customer's debt in the system.

Step 7: Processing the AR Invoice for the Customer

To complete the processing of a sale, you need to generate an invoice to the customer. Do the following:

1. While you are still viewing the shipment you have created on the *Shipments* (SO302000) form, on the form toolbar, click **Actions > Prepare Invoice**.
2. On the *Invoices* (SO303000) form, which opens, review the details of the invoice to make sure that both items have been included in the invoice.
3. On the form toolbar, click **Actions > Release** to release the invoice.
4. Return to the sales order of the *SO* type on the *Sales Orders* form, and notice that the order is now assigned the *Completed* status, as shown in the following screenshot.

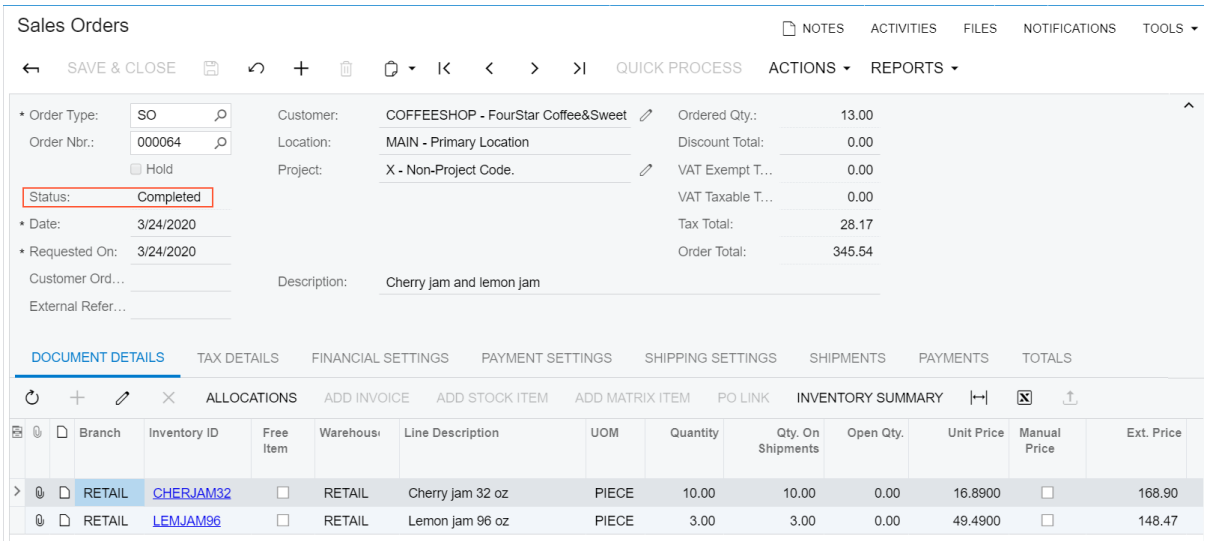


Figure: Sale from multiple warehouses completed

Sales from Multiple Warehouses: Generated Transactions

To be able to process a sales order with items from multiple warehouses, you create and process a transfer order. Processing a transfer order includes initially creating a shipment of the *Transfer* type and the related two-step inventory transfer transaction; it then involves creating a transfer receipt and the related inventory receipt transaction. To record the movements of items between warehouses in the general ledger, the system generates the GL transactions described in the following sections.

Transactions Generated for the Inventory Transfer

When you create and release a two-step transfer, the system generates the following general ledger transactions.

Account	Source of Account	Debit	Credit
Inventory account	Posting class settings on the *Posting Classes* (IN206000) form	0.00	COGS amount
In-Transit account	Inventory preferences on the *Inventory Preferences* (IN101000) form	COGS amount	0.00

You can view the reference number of the GL batch on the **Financial Details** tab of the *Transfers* (IN304000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Transactions Generated for the Inventory Receipt

After you have received the goods, you need to create an inventory receipt to record receiving items in the destination warehouse. When this inventory receipt is released, the system generates a batch of the following GL transactions.

Account	Source of Account	Debit	Credit
In-Transit account	Inventory preferences on the *Inventory Preferences* (IN101000) form	0.00	COGS amount
Inventory account	Posting class settings on the *Posting Classes* (IN206000) form	COGS amount	0.00

You can find the reference number of the GL batch on the **Financial Details** tab of the *Receipts* (IN301000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Sales from Multiple Warehouses: Mass Processing of Documents

The following sections explain how to create multiple transfer orders and related documents, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Creating Transfer Orders

Transfer orders can be mass-generated for multiple sales orders at a time. To mass-create transfer orders, you open the *Create Transfer Orders* (SO509000) form, on which you can create transfer orders based on the transfer requests that have been created for sales orders.

On this form, after you specify any needed criteria to limit the requests listed, you select the unlabeled check boxes in the rows of the transfer requests to be processed (which are the lines with the *SO Allocated* plan type) and click **Process** on the form toolbar to generate the applicable transfer orders. The system creates a consolidated transfer order for each group of transfer requests with the same source warehouse–destination warehouse pair.

Mass-Creating Shipments

Shipments can be mass-generated for transfer orders. To generate shipments for multiple transfer orders at a time, you open the *Process Orders* (SO501000) form and select the *Create Shipment* action, as well as any selection criteria for filtering the orders. Then you select the unlabeled check boxes in the rows of the orders to be processed, and click **Process** on the form toolbar. The system prepares a consolidated shipment document for

each group of the selected transfer orders with the same source warehouse–destination warehouse pair; the lines in the prepared shipments are grouped by stock items in these lines.

Mass-Confirming Shipments

Shipments can be confirmed in bulk. To confirm multiple shipments at a time, you open the *Process Shipments* (SO503000) form and select the *Confirm Shipment* action, as well as any selection criteria for filtering the shipments. Then you select the unlabeled check boxes in the rows of the shipments to be processed, and click **Process** on the form toolbar. The system confirms the selected shipment documents.

Mass-Printing Pick Lists

For multiple shipments with the *On Hold* and *Open* statuses, you can mass-print pick lists by using the *Process Shipments* (SO503000) form. On this form, you select the *Print Pick List* action (and any other needed selection criteria for filtering the shipments), select the unlabeled check boxes in the rows of the shipments for which you need to print pick lists, and click **Process** on the form toolbar.

Sales from Multiple Warehouses: Related Report and Inquiry Forms

In the following sections, you can find details about report and inquiry forms that provide information related to warehouses.

Viewing Items' Availability by Warehouse

If you want to view detailed information about inventory items that are available at particular warehouses, you use the *Inventory Summary* (IN401000) form.

Viewing Inventory Valuation by Warehouse

To review the quantities on hand and the total cost of inventory by inventory account you use the *Inventory Valuation* (IN615500) report. In this report, you can view details for different warehouses or for only a particular warehouse.

Viewing Goods That Need to Be Received

To find information about the items that have been transferred from the source warehouse and have not yet been received at the destination warehouse, you use the *Goods in Transit* (IN616500) report.

Finding Documents with Items in Transit

When you need to find documents with stock items that are in transit, you can use the *Inventory Allocation Details* (IN402000) form. On this form, you can select a stock item and view the on-hand quantity of the item in a particular warehouse, the actual quantity of the item according to unreleased documents, and the list of unreleased documents that contain this item.

Part 3: Direct Sales and Extended Purchase Scenarios

For completing lessons of this part of the course, you will use a company with the *U100* dataset preloaded, which provides a fully configured company with sample data specially designed for this course. Lessons of this part are independent: you can complete lesson activities in any order.

Activities in this part are to be completed under user accounts with specific access rights. Each activity provides the credentials to use for sign in to the prepared *U100* tenant in the *System Preparation* section.

Lesson 8: Processing Purchases with Billing Before Receipt

Purchases with Billing Before Receipt: General Information

In Acumatica ERP, you can process purchases in which the bills are received and need to be paid before the vendor ships the ordered goods.

Learning Objectives

In this chapter, you will learn how to do the following:

- Configure a vendor so that its bills should be processed before the goods are shipped (and thus received)
- Create a purchase order with stock items
- Prepare the accounts payable bill for the purchase order
- Prepare and release purchase receipt and the related inventory documents

Applicable Scenarios

In your organization, if bills are received from some vendors and entered into the system before the purchased goods arrive or if bills are imported from a third-party system, you can establish a workflow in which an accounts payable bill can be processed before the ordered items have been received. In this case, the purchasing process typically includes entering a purchase order, preparing a bill for the vendor, and then, when the purchased items are received to inventory, processing the purchase receipt.

Purchasing Process with Billing Before Receipt

In general, the *Purchase Orders* (PO301000) form is the starting point for creating a purchase order. In Acumatica ERP, for the processing of purchases of inventory items with billing before receipt, purchase orders of the *Normal* type are used.

You can create an AP bill before the corresponding purchase receipt for a purchase order if for the vendor specified in the order, the **Allow AP Bill Before Receipt** check box is selected on the *Vendors* (AP303000) form or if for the vendor location selected in the order, the same check box is selected on the *Vendor Locations* (AP303010) form, if applicable. The state of this check box is copied from the vendor or vendor location settings to the purchase orders prepared for this vendor or vendor location and cannot be changed in a purchase order.

If a purchase order has the **Allow AP Bill Before Receipt** check box selected, you can also use the standard inventory purchase workflow in which the purchase receipt is processed and then the AP bill is prepared; the check box merely determines whether it is permissible to create the AP bill before the corresponding purchase receipt is created. For a description of the workflow with the receipt processed before the related bill, see *Standard Inventory Purchases: General Information*.

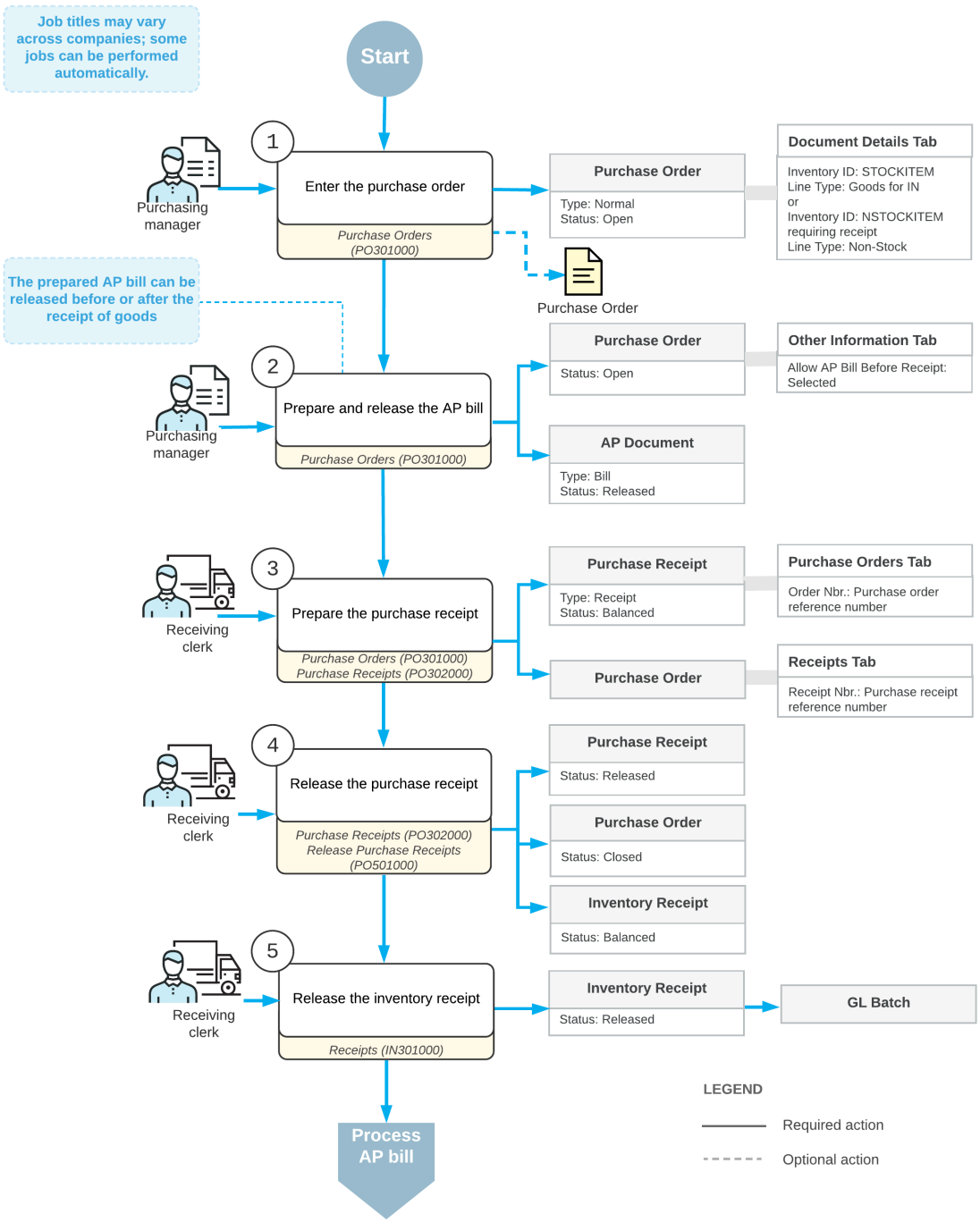
In a new purchase order created on the *Purchase Orders* form, you first select the vendor. Then on the **Document Details** tab, you list the stock items to be purchased from the vendor. You can add stock items by clicking the **Add Item** button on the table toolbar of this tab and selecting from only the vendor's items or from the entire list of stock items.

Then you need to create a bill to increase the vendor's balance in the system by the amount to be paid for the received goods. You can release the prepared bill at any time, before or after the processing of the receipt of the ordered items. Once the purchased items have been received to inventory, you create a purchase receipt (or multiple partial receipts). When a purchase receipt is released, the system automatically generates a corresponding inventory receipt, with the same date and posting period that the purchase receipt has, to update the inventory on hand with the quantity and cost of the received goods. On release of the inventory receipt, a batch of GL transactions is generated to update the account balances in the general ledger. If all the lines in the purchase order have been received and billed in full, the system assigns the purchase order the *Completed* status. For more information on the rules that affect line closing and completion, see *Stock Item Lines in Purchase Orders*, *Non-Stock Lines in Purchase Orders*, and *Service Lines in Purchase Orders*.

Workflow of a Purchase with Billing Before Receipt

The following diagram represents the general workflow of the processing of a purchase order in Acumatica ERP, in which a bill is processed before the purchased items are received to inventory.

Purchase with billing before receipt



Purchases with Billing Before Receipt: Process Activity

In this activity, you will learn how to process a purchase of stock items if the accounts payable bill from the vendor is received before the goods have been delivered.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that you, acting as the purchasing manager, order a large quantity of labeled paper bags and jar labels for SweetLife's needs. The Wingman Printing Company vendor, from which these goods were purchased, sent a bill to SweetLife, which received the original paper bill before the goods were delivered to the warehouse of the company's main office. You need to enter the purchase order, enter the accounts payable bill for the purchase order, and later, when the goods arrive to the wholesale warehouse, create and process a purchase receipt related to the purchase order.

Configuration Overview

For the purposes of this activity, the *Inventory* feature, which provides the ability to create purchase orders that include stock items, have been enabled on the *Enable/Disable Features* (CS101000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Vendors* (AP303000) form, the *PRINTICO (Wingman Printing Company)* vendor has been configured. The **Allow AP Bill Before Receipt** check box has been selected for the vendor on the **Purchase Settings** tab.
- On the *Stock Items* (IN202500) form, the *PAPERBAG* and *LABELS* stock items have been configured.

Process Overview

In this activity, to process a purchase order with billing before the items are received, you will first create the purchase order on the *Purchase Orders* (PO301000) form and add the purchased items to it. You will then create an accounts payable bill for the vendor on the *Bills and Adjustments* (AP301000) form and release the bill. When the ordered items are received, you will create a purchase receipt for them on the *Purchase Receipts* (PO302000) form. On release of the purchase receipt, the system generates a corresponding inventory receipt to reflect the receipt of the items to inventory, which you will review on the *Receipts* (IN301000) form.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.

2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to today's date. For simplicity, in this activity, you will create and process all documents in the system during this business date.

3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Head Office and Wholesale Center* branch is selected.

Step 1: Creating the Purchase Order

To create a purchase order that includes labeled paper bags and jar labels for the Wingman Printing Company, do the following:

1. On the *Purchase Orders* (PO301000) form, create a purchase order with the following settings:

   - **Type**: *Normal*
   - **Vendor**: *PRINTICO*
   - **Description**: `Order of labels and paper bags`

2. On the **Document Details** tab, add rows with the settings listed in the following table.

Branch	Inventory ID	Warehouse	Order Qty.	Unit Cost
HEADOFFICE	*LABELS*	*WHOLESALE*	40	7.49
HEADOFFICE	*PAPERBAG*	*WHOLESALE*	25	16.70

3. Review the **Other Information** tab, and notice that the **Allow AP Bill Before Receipt** check box is selected. This setting, which was specified for the *PRINTICO* vendor, means that you can create the accounts payable bill for the purchase order even though the purchase receipt has not yet been entered for the purchase order.

4. In the Summary area, clear the **Hold** check box to prepare the purchase order for further processing.

5. Click **Save** on the form toolbar to save the purchase order.

Step 2: Processing the Accounts Payable Bill

To create an accounts payable bill for the purchase order, do the following:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, click **Actions > Enter AP Bill** on the form toolbar. The system generates an accounts payable bill (to which it copies the vendor of goods, the details, and other relevant

information) and opens the created document on the *Bills and Adjustments* (AP301000) form.

2. Review the details of the created bill. In a production environment, you would make sure that the details of the bill created in the system correspond to the details of the paper document that was received from the vendor.

3. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the bill.

Step 3: Processing the Purchase Receipt

Create the purchase receipt for the purchase order as follows:

1. Return to the purchase order for *PRINTICO* on the *Purchase Orders* (PO301000) form, which still has a status of *Open*, and review the **PO History** tab. Notice that the details of the bill are shown in the right table.

2. On the form toolbar, click **Actions > Enter PO Receipt**. The system prepares the purchase receipt for the selected purchase order, with all lines and other relevant settings copied, and opens it on the *Purchase Receipts* (PO302000) form.

3. Make sure the purchase receipt has the *Balanced* status, save the purchase receipt, and review its details. Notice that on the **Billing History** tab, the bill that you have created is listed.

4. In the Summary area, make sure the **Create Bill** check box is cleared (because you have already created a bill for the entire quantity).

5. On the form toolbar, click **Release**.

6. On the **Other Information** tab, click the **IN Ref. Nbr.** link, and review the details of the generated inventory receipt, which the system opens on the *Receipts* (IN301000) form. Make sure the inventory receipt has the *Released* status.

7. Return to the purchase receipt on the *Purchase Receipts* form, and on the **Purchase Orders** tab, review the information about the related purchase order, and make sure it now has a status of *Closed*, as shown in the following screenshot.

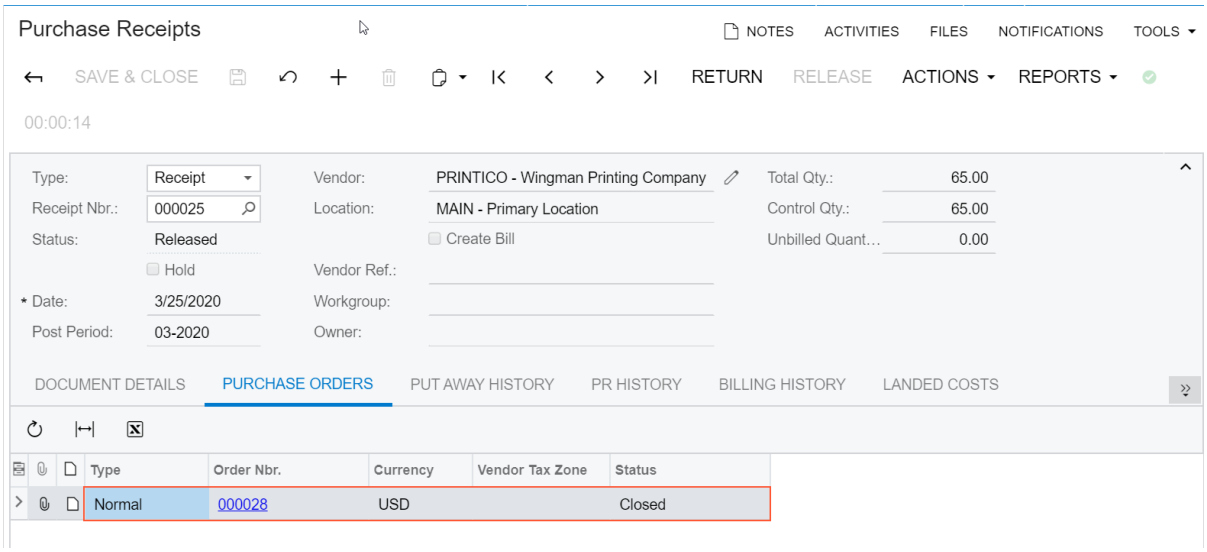


Figure: The closed purchase order

Self-Test Exercise

Process a purchase order with the same settings and to the same vendor with standard processing (first create a purchase receipt, and then process an accounts payable bill).

Purchases with Billing Before Receipt: Mass Processing of Documents

The following sections explain how to mass-process purchase orders and related documents, and how the system generates, changes, or works with documents as a result of the mass processing.

Mass-Releasing Purchase Receipts

You can release multiple purchase receipts at the same time by using the *Release Purchase Receipts* (PO501000) form. On this form, you select the unlabeled check boxes in the rows to be processed, and click **Process** on the form toolbar to release the selected documents.

Printing and Emailing Multiple Purchase Orders

If needed, you can print or email multiple purchase orders at the same time by using the *Print/Email Purchase Orders* (PO503000) form. To do this for multiple purchase orders simultaneously, you select the *Print Purchase Order* or *Email Purchase Order* action, select the unlabeled check boxes for the rows to be processed, and click **Process** on the form toolbar to process the selected documents.

Consolidating Purchase Orders or Lines into a Single Purchase Receipt

Instead of preparing an individual purchase receipt for each purchase order, you can add multiple purchase orders of one vendor to a single purchase receipt; you can also add

individual lines of one purchase order or multiple purchase orders. To do this, you create a new purchase receipt of the *Receipt* type manually on the *Purchase Receipts* (PO302000) form; you then click **Add PO** on the table toolbar of the **Document Details** tab and add the lines of multiple purchase orders with the same vendor to the purchase receipt. If you click **Add PO Line** on the table toolbar, you can add purchase receipt lines.

Consolidating Purchase Receipts or Lines into a Single Bill

Instead of preparing an individual accounts payable bill for each purchase receipt, you can add multiple purchase receipts of one vendor to a single bill; you can also add individual lines of one purchase receipt or multiple purchase receipts. To do this, you create a new accounts payable bill manually on the *Bills and Adjustments* (AP301000) form and make sure that the *Tax Settings* option is selected in the **Tax Calculation Mode** box on the **Financial Details** tab. You then click **Add PO Receipt** on the table toolbar of the **Document Details** tab and add the lines of multiple purchase receipts with the same vendor to the bill. If you click **Add PO Receipt Line** on the table toolbar, you can add purchase receipt lines.

Purchases with Billing Before Receipt: Related Report and Inquiry Forms

In the following sections, you can find details about the reports and inquiry forms you may want to review to gather information about the purchases of stock items that have been processed or are being processed in the system.

If you do not see a particular report or form that is described, you may have signed in to the system with a user account that does not have access rights to the report or form. Contact your system administrator to obtain access to any needed reports or forms.

Reviewing Purchase Order Information

If you need to review all information related to a purchase order—including the order total, open quantities, unbilled quantities and amounts, and related purchase receipts and accounts payable bills with their dates, amounts, and current statuses—you first open the particular purchase order on the *Purchase Orders* (PO301010) form. Then on the form toolbar, you click **Reports > View Purchase Order Receipt and Billing History** to open the *Purchase Order Receipt and Billing History* (PO643000) report for this purchase order.

Finding the Purchase Receipts Related to a Purchase Order

If you need to find a purchase receipt linked to a particular purchase order, you can open the purchase order on the *Purchase Orders* (PO301010) form and review the **PO History** tab. The left table on this tab lists all the purchase receipts that have been prepared for the order, and the table footer shows the summary information for all listed documents. To review the details of a listed purchase receipt, you click its reference number in the **Receipt Nbr.** column; the system opens the purchase receipt for review on the *Purchase Receipts* (PO302000) form.

Finding the Bills Related to a Purchase Order

If you need to find an accounts payable bill linked to a particular purchase order, you can open the purchase order on the *Purchase Orders* (PO301000) form and review the **PO History** tab. The right table on this tab lists all the accounts payable documents that have been prepared for the order, and the table footer shows the summary information for all listed documents. To review the details of a listed bill, you click its reference number in the **Reference Nbr.** column; the system opens the accounts payable bill for review on the *Bills and Adjustments* (AP302000) form.

Reviewing the Unbilled Quantities of a Purchase Order

To check whether a purchase order has quantities of items and amounts that have not yet been billed, you can review the **Unbilled Quantity** and **Unbilled Amount** boxes on the **Other Information** tab of the *Purchase Orders* (PO301000) form.

Printing a Purchase Order

To prepare a printable version of the purchase order that is being processed, you use the *Purchase Order* (PO641000) report. While you are viewing a purchase order on the *Purchase Orders* (PO301000) form, you can print the purchase order by clicking **Reports > Print Purchase Order** on the form toolbar. The system opens the printable version of the document on the *Purchase Order* report; then you can review the order and print it by clicking **Print** on the report toolbar.

Lesson 9: Processing Purchase Returns at the Calculated Cost

Purchase Returns at the Calculated Cost: General Information

In Acumatica ERP, you can process vendor returns if any purchased items need to be returned to the vendor for some reason.

Learning Objectives

In this chapter, you will learn how to do the following:

- Create a purchase return document
- Specify the items to be returned and define at which cost the items will be issued from inventory
- Process the purchase return and the related inventory and accounts payable documents

Applicable Scenarios

In most cases, the purchasing process is completed when your company receives the goods and the corresponding accounts payable bill is released to adjust your outstanding balance with the vendor. In some cases, however, items are delivered in an unsatisfactory condition or shipped by mistake and should be returned to the vendor for replacement or reimbursement. A vendor return can also occur when services were not rendered or were provided partially and your company should be reimbursed.

The standard purchase return process includes the creation of a purchase return document, the specification of the returned items and their quantities, the issuing of the returned item from inventory, and the adjustment to the outstanding vendor balance in the system in the returned amount.

Processing of a Purchase Return

In general, the *Purchase Receipts* (PO302000) form is the starting point for creating a purchase return, which is a document of the *Return* type that includes a line for each item being returned.

You can create a purchase return from the applicable purchase receipt, whether or not it is linked to a purchase order. To do this, you open the purchase receipt, select the unlabeled check boxes on the **Document Details** tab for the lines of the items to be returned, and click **Return** on the form toolbar. The system copies the relevant information from the purchase receipt to a new purchase return on the form. In the copied line or lines, you must specify the quantity of items to be returned in the **Receipt Qty.** column and a reason code of the *Vendor Return* usage type in the **Reason Code** column. By default, the system inserts the reason code that is selected in the **PO Return Reason Code** box on the *Purchase Orders Preferences* (PO101000) form.

As an alternative to creating a purchase return from a purchase receipt, you can create a new purchase return manually on the *Purchase Receipts* form and add any number of purchase receipts or purchase receipt lines to it by clicking **Add PR** or **Add PR Line** on the table toolbar of the **Document Details** tab.

You can process returns for purchase receipt lines with both stock and non-stock items. For each item, you must specify the warehouse (and warehouse location, if applicable) from which the items will be issued to be sent back to the vendor. For stock items with lot or serial numbers, you have to click **Allocations** on the table toolbar of the **Document Details** tab and specify the particular lot or serial numbers for the units being returned.

For purchase return lines that are linked to a purchase order, you can select the **Open PO Line** check box on the **Document Details** tab to specify that the system should change the status of the related purchase order to *Open* on release of the return (if you expect receiving of replacement items for the order and thus want to keep the purchase order open). If the **Open PO Line** check box is cleared, the related purchase order remains closed.

After you have specified the purchase return details, you define at which cost the items will be issued from inventory, by selecting or clearing the **Process Return with Original Cost** check box. If the check box is selected, the items are issued from inventory at exactly the same cost at which the items were purchased. If the check box is cleared, the items are issued at the cost calculated by the system according to the items' valuation methods.

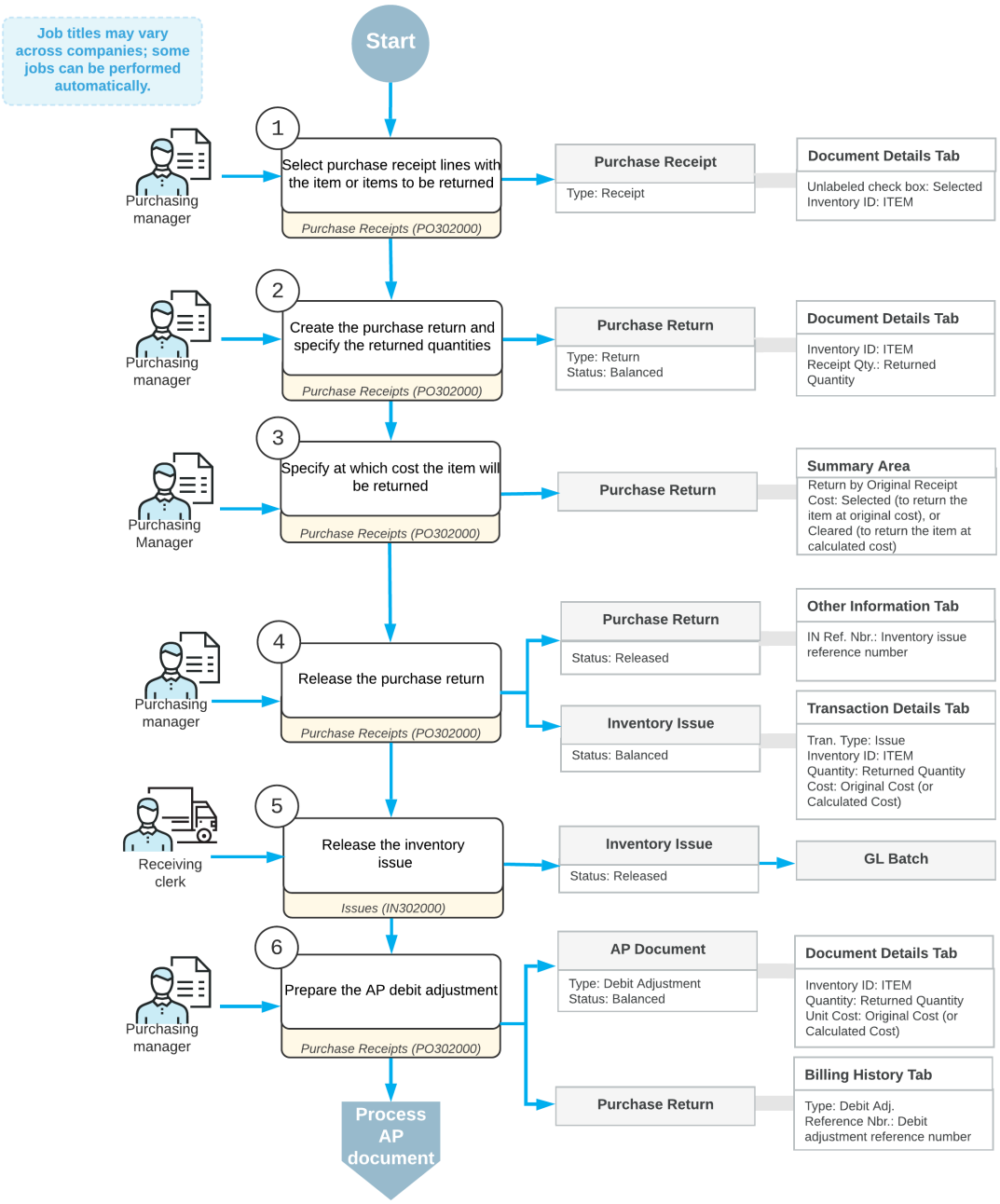
After you have prepared a purchase return document, you need to process issuing of items from inventory and adjust the vendor's balance in the system for the amount of returned items. On release of a purchase return, the inventory issue is generated automatically and can be viewed on the *Issues* (IN302000) form. On release of this issue, the quantities of returned items are deducted from the item quantities available at the specified warehouse. If the purchase receipt for which the return was created is linked to a purchase order, then on the **Document Details** tab of the *Purchase Orders* (PO301000) form for the purchase order, the applicable values in the **Qty. On Receipts** column are decreased by the quantity of the listed item that is returned. Also, on release of the purchase return, the accounts payable debit adjustment is generated automatically if the **Create Bill** check box is selected for the purchase return on the *Purchase Receipts* form. The generated debit adjustment can be viewed on the *Bills and Adjustments* (AP301000) form.

The further processing of a purchase return depends on the agreement between your company and the vendor. You can complete the processing of the return by processing a vendor refund or by receiving replacement items for the original purchase order.

Workflow of a Purchase Return

For purchase return documents, the typical processing involves the actions and generated documents shown in the following diagram.

Purchase return processing



Purchase Returns at the Calculated Cost: Process Activity

In this activity, you will learn how to process a return of stock items from your company's inventory to the vendor, with the system calculating the items' cost.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that on January 30, 2020, the SweetLife you, acting as a purchasing manager, notice that three packs of paper that were purchased and delivered on January 29, 2020 have been damaged during shipping. You have decided to return these packs to the Spectra Stationery Office vendor without requesting a replacement. You need to create and process a purchase return of the damaged items at the cost calculated by the system.

Configuration Overview

For the purposes of this activity, the *Inventory* feature, which provides the ability to create purchase orders that include stock items, has been enabled on the *Enable/Disable Features* (CS101000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Vendors* (AP303000) form, the *STATOFFICE* vendor has been configured.
- On the *Stock Items* (IN202500) form, the *PAPER* stock item have been configured.

On the *Purchase Orders* (PO301000) form, the purchase order has been created with stationary items ordered from the *STATOFFICE* vendor and, on the *Purchase Receipts* (PO302000) form, the related purchase receipt has been created and released.

Process Overview

A purchase return document, which represents a vendor return in the system, is prepared based on the applicable purchase receipt. In this activity, to create a purchase return, you will open the purchase receipt on the *Purchase Receipts* (PO302000) form, and on the **Document Details** tab, you will select (by selecting the unlabeled check boxes) the lines of all items to be returned. Then on the form toolbar, you will click **Return**; on the same form, the system copies the relevant information to a new document of the *Return* type that includes the lines selected for return.

Before you process the prepared purchase return further, on the **Document Details** tab of the *Purchase Receipts* form, you will correct the quantities to be returned. In the Summary area, you will specify that the items should be issued from inventory at the cost calculated by the system by clearing the **Process Return with Original Cost** check box. You will then release the purchase return and review the related documents to make sure the return has been processed fully in the system.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2020*. If a different date is displayed, click the Business Date menu button, and select *1/30/2020* on the calendar. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Head Office and Wholesale Center* branch is selected.

Step 1: Creating a Purchase Return from the Related Purchase Receipt

The easiest way to create a purchase return is to start from the purchase receipt in which you received the items to be returned. You create the purchase return from the purchase receipt as follows:

1. On the *Purchase Receipts* (PO302000) form, open the purchase receipt to *STATOFFICE* dated *1/29/2020*.
2. On the **Document Details** tab of the *Purchase Receipts* (PO302000), which opens, select the unlabeled check box in the line of the purchase receipt with the *PAPER* item.
3. On the form toolbar, click **Return** to create a purchase return that corresponds to the purchase receipt and includes the selected line. The system creates a document with the *Return* type and with appropriate settings copied from the purchase receipt, and opens it on the same form.

Step 2: Specifying the Settings of the Return

Do the following to define the specific settings of the return document:

1. While you are still viewing the purchase return that was created on the *Purchase Receipts* (PO302000) form, in the Summary area, make sure that 1/30/2020 is specified as the **Date**.
2. Clear the **Process Return with Original Cost** check box. With this check box cleared, the items will be issued from inventory at the cost calculated by the system.
3. Select the **Create Bill** check box to make the system generate a debit adjustment automatically on release of the purchase return.
4. In the only return line on the **Document Details** tab, change the **Receipt Qty.** to 3 (which is the quantity of items to be returned).
5. In the line, clear the **Open PO Line** check box to indicate that no replacement is needed for returned items.

6. On the form toolbar, click **Save** to save the purchase return, which has the *Balanced* status and can thus be released.

Step 3: Releasing the Purchase Return

Do the following to release the purchase return and to review how the return of items is processed in the system:

1. While you are still viewing the purchase return on the *Purchase Receipts* (PO302000) form, click **Release** on the form toolbar.
2. On the **Billing History** tab, review the information about the debit adjustment that was prepared, and make sure that it now has a status of *Open* (reflecting that it was released).
3. On the **Other Information** tab, click the **IN Ref. Nbr.** link, and review the inventory issue, which is opened on the *Issues* (IN302000) form. Make sure the issue has a status of *Released*.
4. On **Purchase Orders** tab, click the link in the **Order Nbr.** column. The system opens the purchase order for which the return was processed on the *Purchase Orders* (PO301000) form.
5. On the **Document Details** tab, in the **Qty. on Receipts** column, notice that received quantity in the *PAPER* line has been decreased by the returned quantity and is now 17.
6. On the **PO History** tab, review the documents related to the purchase order, as shown in the following screenshot. The left table shows the purchase receipt and purchase return; the right table shows the bill and the debit adjustment. In the line with the debit adjustment, notice the nonzero purchase price variance amount in the **PPV Amount** column, which shows the difference between the amounts at which the items were purchased and at which the items were returned.

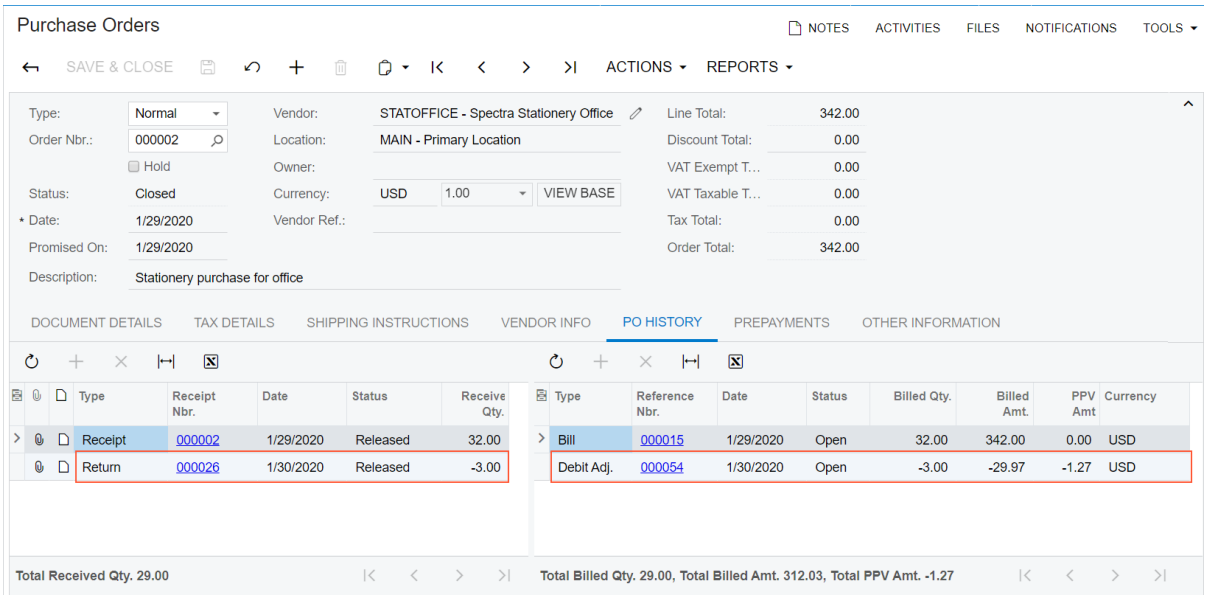


Figure: Documents related to the purchase order

Purchase Returns at the Calculated Cost: Generated Transactions

The costs of items purchased from vendors may change over time, so the correct costs must be reflected on the purchase return document. To specify that items to be returned should be issued from inventory at the cost calculated by the system according to the items' valuation methods, you need to clear the **Process Return with Original Cost** check box in the Summary area of the purchase return document on the *Purchase Receipts* (PO302000) form.

On release of the purchase return, the system prepares an inventory issue document to update inventory, which you can review on the *Issues* (IN302000) form, and a debit adjustment to decrease the vendor balance in the system, which you can review on the *Bills and Adjustments* (AP301000) form. If the calculated cost at the time of the return differs from the cost at which the items were purchased, the purchase price variance difference is posted to general ledger.

Rules of Cost Calculation

In the general ledger transactions that are posted during the processing of a purchase return, posted amount is the calculated unit cost of the item multiplied by the returned quantity (which is specified in the **Receipt Qty.** column of the purchase return line on the *Purchase Receipts* (PO302000) form). The cost is calculated according to the issue rules of the item's valuation method specified for the item in the **Valuation Method** box on the **General Settings** tab of the *Stock Items* (IN202500) form. (For instance, for items with *Average* as the valuation method, it is the current unit cost calculated at the moment of release of the issue that corresponds to the vendor return. For items with the *Specific* valuation method,

the return cost is calculated as the accumulated quantity of items in the warehouse divided by the accumulated cost.)

Transactions Generated for a Return of Stock Items

Once the purchase return of a stock item at calculated cost is released on the *Purchase Receipts* (PO302000) form, the system automatically generates a corresponding inventory issue and releases it immediately; when the inventory issue is released, the availability data for the included stock items in inventory is updated. For each line with a stock item being returned, the following general ledger transactions are generated on release of the corresponding inventory issue.

Account	Source of Account	Debit	Credit
PO Accrual account	Original purchase order line	Amount = Calculated Cost * Qty.	0.0
Inventory account	Posting class	0.0	Amount

The processing of a purchase return also includes the processing of the debit adjustment that is generated when the purchase return is released. On release of the debit adjustment, the following general ledger transactions are generated for each line with a stock item being returned.

Account	Source of Account	Debit	Credit
Accounts Payable account	Vendor	Amount = Calculated Cost * Qty.	0.0
PO Accrual account	Original purchase order line	0.0	Amount

Transactions Generated for a Return of Non-Stock Items

On the *Purchase Receipts* (PO302000) form, you can process purchase return of non-stock items requiring receipt (lines with the *Non-Stock* line type specified on the **Document Details** tab). Purchase return lines of this type are added to the inventory issue generated on the release of the purchase return. For a line with a non-stock item, the following general ledger transactions are generated on release of the inventory issue that corresponds to the purchase return.

Account	Source of Account	Debit	Credit
PO Accrual account	Original purchase order line	Amount = Calculated Cost * Qty.	0.0
Expense account	Posting class	0.0	Amount

On release of the debit adjustment that is generated when the purchase return is released, the following general ledger transactions are generated.

Account	Source of Account	Debit	Credit
Accounts Payable account	Vendor	Amount = Calculated Cost * Qty.	0.0
PO Accrual account	Original purchase order line	0.0	Amount

Record of the Purchase Price Variance

For stock items included in a purchase return on the *Purchase Receipts* (PO302000) form, the system records any PO accrual difference to the Purchase Price Variance account defined in the posting class of the stock item.

For non-stock items included in a purchase return on the *Purchase Receipts* form, the system records any PO accrual difference based on the **Allocation Mode** selected on the *Purchase Orders Preferences* (PO101000) form as follows:

- If *Purchase Price Variance Account* is selected, the system posts the PO accrual difference to the Purchase Price Variance account specified in the posting class of the item on the *Posting Classes* (IN206000) form.
- If *Inventory Account* is selected, the system posts the PO accrual difference to the Expense account specified in the purchase return line.

Lesson 10: Processing Prepayments for Purchase Orders

Prepayments for Purchase Orders: General Information

Different vendors have different conditions for supplying goods and services. A vendor may request that your company pay a part of the order amount in advance before those goods or services are provided. To support this process in Acumatica ERP, you can process a prepayment for the purchase order; this prepayment is later automatically applied to the AP bill prepared for the vendor of goods or services.

Learning Objectives

In this chapter, you will learn how to do the following:

- Configure the default prepayment amount for a vendor
- Create a prepayment request for a purchase order
- Create a prepayment from a prepayment request
- Apply a prepayment to an accounts payable bill created for a purchase order

- Process a single prepayment for multiple purchase orders
- Process multiple prepayments for a purchase order

Applicable Scenarios

You create and process a prepayment in the following cases:

- You are processing a new purchase order for the vendor that requires a partial payment in advance before the ordered items will be sent.
- You have corrected the details of an existing purchase order that was already prepaid, so that an extra prepayment amount needs to be processed.

Process of Prepaying Purchase Orders

To process a prepayment in the system, you have to first create and release the prepayment request, which denotes the vendor's request for prepayment in the system. A prepayment request is not a financial document; it is an internal document that can be approved (if required in your system) before the prepayment is actually paid to the vendor.

In general, the *Purchase Orders* (PO301000) form is the starting point for creating a prepayment request for a particular purchase order. You can create prepayment requests for purchase orders of the *Normal* and *Drop-Ship* type.

On the form toolbar of the *Purchase Orders* (PO301000) form, you click **Actions > Create Prepayment Request**. On the *Bills and Adjustments* (AP301000) form, which opens, you specify the quantity and extended cost in each of the prepayment request lines. The total amount of prepayments prepared for a purchase order cannot exceed the total amount of the purchase order. After you have specified the details, you release the prepayment request. A prepayment request generates no general ledger transactions and does not change the vendor balance.

If approval is required in your system, the prepayment request must be approved on the *Approve Bills for Payment* (AP502000) form before it can be paid.

To create a prepayment document from a prepayment request, you need to pay the prepayment. A prepayment request is always paid in the full amount; you cannot pay it partially. To pay the prepayment, you prepare an accounts payable check on the *Checks and Payments* (AP302000) form, apply it to the prepayment request, and release the check along with the application; depending on the system settings, processing a check may require you to print it before releasing it. After you apply the AP check to prepayment request, the system changes the status of this check to *Closed* and changes the status of the original prepayment to *Open*. Also, a document with the *Prepayment* type and the same reference number as that of the original prepayment request becomes available on the *Checks and Payments* form. Then you can apply this prepayment to bills and credit adjustments prepared for the vendor of the goods.

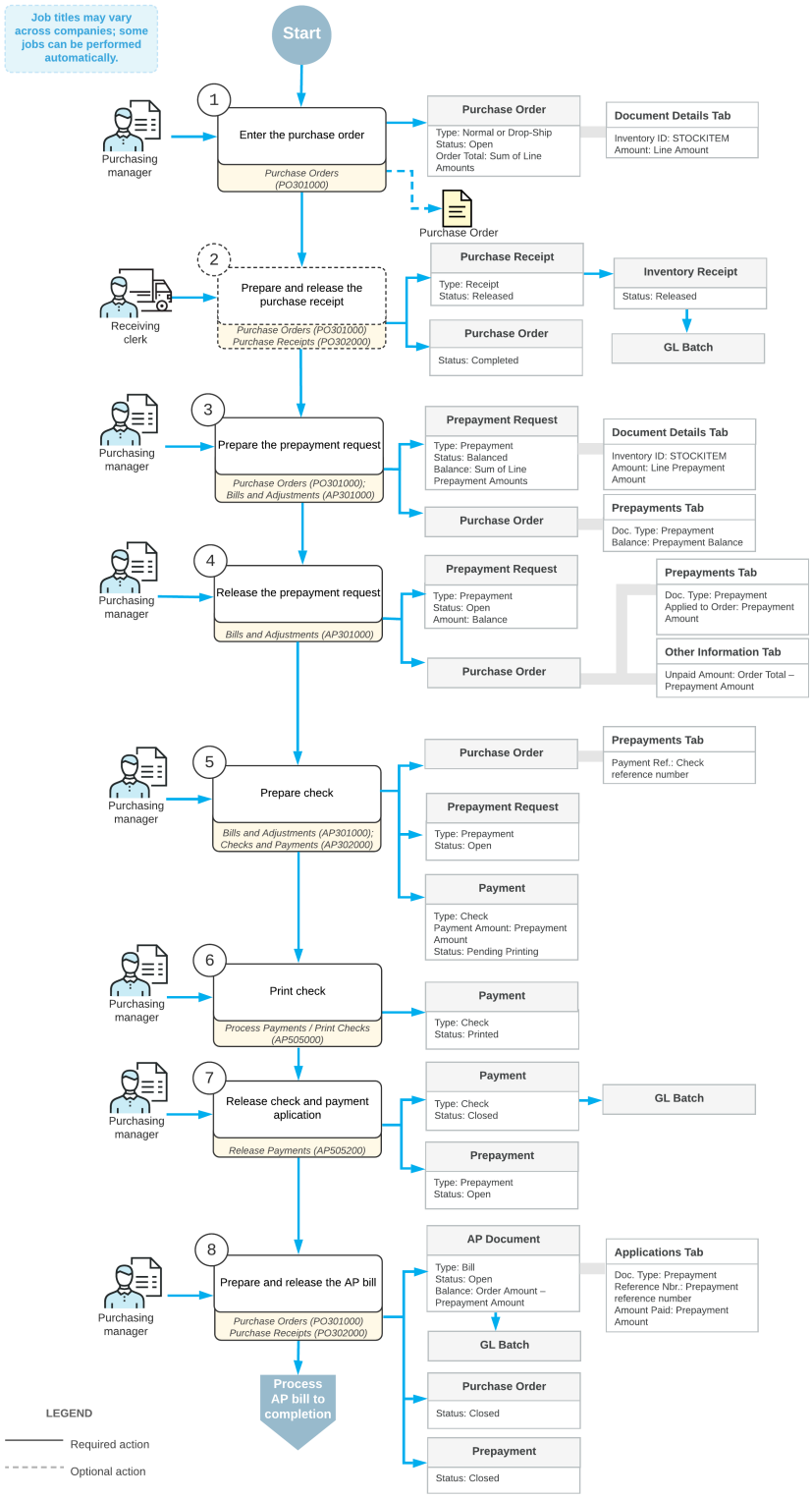
Once the purchased items have been received to inventory, you create a purchase receipt on the *Purchase Receipts* (PO302000) form and an accounts payable bill on the *Bills and Adjustments* (AP301000) form. (Depending on the vendor's settings, you may need to process the bill before the receipt or the receipt before the bill.) The prepared prepayment

document is automatically applied to the accounts payable bill; on release of the AP bill, the prepayment is applied to the bill. On release of the prepayment application to the bill, a batch of general ledger transactions is posted. The open balance of the bill is decreased by the balance of the applied prepayment.

Workflow of Prepaying Purchase Orders

The following diagram illustrates the workflow of processing a purchase with prepayment.

Purchase with prepayment



Prepayments for Purchase Orders: Calculation of the Prepayment Amount

In some cases, you need to prepay a percent of the cost of a purchase order before the vendor produces, ships, or delivers the goods to your company. While you are working with the purchase order on the *Purchase Orders* (PO301000) form, you can click **Actions > Create Prepayment Request** on the form toolbar. The system opens the *Bills and Adjustments* (AP301000) form with a new prepayment request linked to the purchase order, with the lines of the purchase order copied to the **Document Details** tab and the prepayment amount inserted in each prepayment request line.

To simplify the creation of prepayment requests for purchase orders, you can define a standard percentage of the prepayment amount for the applicable system objects (those that correspond to a particular requirement for a prepayment); these default percentages can be used in the appropriate situations for calculating the prepayment amount in prepayment request lines. You can specify a default prepayment percent for the following system objects:

- A particular purchase order: On the **Vendor Info** tab of the *Purchase Orders* (PO301000) form, specify this percent in the **Prepayment Percent** box.
- A stock item purchased by a specific vendor: On the **Vendor Details** tab of the *Stock Items* (IN202500) form, in a row with this vendor selected, specify this percent in the **Prepayment Percent** column.
- A non-stock item purchased by a specific vendor: On the **Vendor Details** tab of the *Non-Stock Items* (IN202000) form, in a row with this vendor selected, specify this percent in the **Prepayment Percent** column.
- A particular vendor: Specify this percent in the **Prepayment Percent** box on the **Payment Settings** tab of the *Vendors* (AP303000) form.

For each line of the prepayment request, the system calculates the value in the **Prepayment Amount** column by using the value in the **Prepayment Percent** column. The system checks related system settings in the following order and uses the first source value it finds:

1. If a default prepayment percent is specified in the settings of a purchase order for which the prepayment request is prepared, the system inserts this percentage for the line (regardless of the applicable vendor and item settings).
2. If a default prepayment percent is specified in the settings of the stock item or non-stock item selected in the line, the system inserts this percentage for this line (regardless of the applicable vendor settings).
3. If a default prepayment percent is specified for the vendor selected for this prepayment, the system inserts this percentage for this line.

If a default prepayment percent is not specified for any of these system settings, the system inserts *100* as the default value, which indicates that the full amount of the purchase order line should be inserted in the related line of a prepayment request.

You can manually override the default prepayment percent the system has inserted into in any line to change the prepayment amount; also, you can delete any of the lines copied from the original purchase order to exclude them from prepayment.

Prepayments for Purchase Orders: Implementation Activity

In the following implementation activity, you will learn how to specify a default prepayment percentage for a particular vendor and stock item.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the Wingman Printing Company vendor (from which SweetLife buys paper bags with personalized labels) notifies the SweetLife company that future orders will need to be partially paid in advance before the vendor starts to manufacture the goods for the order. The vendor requests that your company pay 15% of any order in advance, and for paper bags, the vendor instead requests a prepayment of 25%. You, as the implementation manager, need to configure the vendor so that the prepayment amount will be automatically filled in for each newly created prepayment.

System Preparation

Before you start making changes to the settings of the vendor and stock item, you need to launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign as a system administrator, use the *gibbs* login and *123* password.

Step 1: Editing the Vendor Account

Do the following to update the vendor account with the prepayment percent:

1. On the *Vendors* (AP303000) form, open the *PRINTICO* vendor.
2. On the **Payment Settings** tab, specify `15` in the **Prepayment Percent** box.
3. On the **GL Accounts** tab, make sure that *13200 (Deposits to Vendor)* is selected in the **Prepayment Account** box.
4. On the form toolbar, click **Save**.

Step 2: Editing the Stock Item Settings

Do the following to specify the prepayment percent of the *PAPERBAG* stock item when it is included in a purchase order for the *PRINTICO* vendor:

1. On the *Stock Items* (IN202500) form, open the *PAPERBAG* item.
2. On the **Vendor Details** tab, do the following in the existing row with the *PRINTICO* vendor:

- Make sure that the check box in the **Active** column is elected.
- In the **Prepayment Percent** column, enter `25`.

3. On the form toolbar, click **Save**.

You have specified the default prepayment settings for the *PRINTICO* vendor and item-specific prepayment settings for the *PAPERBAG* stock item.

Prepayments for Purchase Orders: To Process a Prepayment

The following activity will walk you through the process of creating a prepayment request for a purchase order, making a payment based on the prepayment request, and applying the prepayment to an AP bill.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that the SweetLife Fruits & Jams company has ordered a large quantity of labeled paper bags for SweetLife's needs. The Wingman Printing Company vendor has requested an advance payment in the amount of $500.

Acting as the purchasing manager of SweetLife, you have to enter the purchase order and record a request for a prepayment. You then need to make a payment by check for the prepayment request, process the purchase order to completion, and make sure the prepayment was applied to the bill created for the purchase order.

Configuration Overview

For the purposes of this activity, the *Inventory* feature, which provides the ability to create purchase orders that include stock items, has been enabled on the *Enable/Disable Features* (CS101000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Vendors* (AP303000) form, the *PRINTICO (Wingman Printing Company)* vendor has been configured. The **Allow AP Bill Before Receipt** check box has been selected for the vendor on the **Purchase Settings** tab (which means that for this vendor, accounts payable bills can be processed before purchase receipts).
- On the *Stock Items* (IN202500) form, the *PAPERBAG* stock item have been configured.

Process Overview

In this activity, you will start with creating a purchase order on the *Purchase Orders* (PO301000) form and adding the purchased items to it. Then you will create a prepayment request by clicking **Actions > Create Prepayment Request**; on the *Bills and Adjustments* (AP301000) form, you will specify the prepayment amount for each line copied from the purchase order. To create a prepayment document from the prepayment request, you will pay the prepayment by clicking **Actions > Pay Bill / Apply Adjustment** on the *Bills and Adjustments* form; you will review the prepared check on the *Checks and Payments* (AP302000) form. Then you will print the check and release the payment.

To complete the processing of the purchase order, you will create a purchase receipt for the ordered items on the *Purchase Receipts* (PO302000) form and an accounts payable bill to the vendor on the *Bills and Adjustments* (AP301000) form. On release of the AP bill, the system automatically applies the prepayment to the bill and updates the vendor's balance.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to today's date. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Head Office and Wholesale Center* branch is selected.

Step 1: Creating the Purchase Order

To create a purchase order, do the following:

1. On the *Purchase Orders* (PO301000) form, create a purchase order with the following settings:
   - **Type**: *Normal*
   - **Vendor**: *PRINTICO*
   - **Description**: `Purchase of paper bags with company labels`
2. On the **Document Details** tab, add a row with the following settings:
   - **Branch**: *HEADOFFICE*
   - **Inventory ID**: *PAPERBAG*
   - **Warehouse**: *WHOLESALE*

- **Order Qty.**: `250`
- **Unit Cost**: `16.70`

3. In the Summary area, clear the **Hold** check box to prepare the purchase order for further processing.
4. On the form toolbar, click **Save**.

Step 2: Creating a Prepayment Request

Prepare a prepayment request for the purchase order as follows:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, on the form toolbar, click **Actions > Create Prepayment Request**.
2. On the *Bills and Adjustments* (AP301000) form, which opens, in the only line of the prepared prepayment request, specify the following settings:
   - **Ext. Cost**: `2000`
   - **Account**: *81000*
3. Make sure that the calculated **Prepayment Amount** is *500* in the prepayment request line.
4. In the Summary area, clear the **Hold** check box, and save the prepayment request.
5. Click **Release** on the form toolbar to release the prepayment request.

You have created a prepayment request to make the prepayment to the vendor.

Step 3: Creating a Check to Pay for the Prepayment Request

Prepare an AP check to pay the vendor in the prepayment amount as follows:

1. While you are still viewing the prepayment request on the *Bills and Adjustments* (AP301000) form, on the form toolbar, click **Actions > Pay Bill/Apply Adjustment**.
2. On the *Checks and Payments* (AP302000) form, which is opened, review the check and verify that it has the following settings in the Summary area:
   - **Type**: *Check*
   - **Vendor**: *PRINTICO*
   - **Payment Method**: *CHECK*
   - **Cash Account**: *10200WH*
   - **Payment Amount**: `500`
   - **Description**: `Prepayment for label printing`

3. On the **Documents to Apply** tab, make sure that the following settings are specified in the only row:
   - **Document Type**: *Prepayment*
   - **Reference Nbr.**: The reference number of the document you created in Step 2
   - **Amount Paid**: `500`
4. Clear the **Hold** check box in the Summary area, and click **Save** on the form toolbar. The check is assigned the *Pending Print* status, which mean that it requires printing before it can be released.

Step 4: Processing the Check

Apply the check to prepayment request by doing the following:

1. While you are still viewing the check on the *Checks and Payments* (AP302000) form, on the form toolbar, click **Actions > Print Check**.
2. On the *Process Payments / Print Checks* (AP505000) form, which is opened, notice that the system has added a row with the check and selected the unlabeled check box for it. On the form toolbar, click **Process**.

   A separate browser tab has opened showing a printable version of the selected check.
3. Review the printable version of the check. (In a production system, you would click **Print** on the form toolbar to print the check.) Close the browser tab.
4. On the *Release Payments* (AP505200) form, which is opened, click **Process**. In the **Processing** pop-up window, which is opened, click **Close**.

You have created a check and applied it to the prepayment request you created earlier. Now the prepayment is ready to be applied to the vendor's bill.

Step 5: Processing the Accounts Payable Bill with the Prepayment

To create an accounts payable bill for the purchase order, do the following:

1. On the *Purchase Orders* (PO301000) form, open the purchase order you created in Step 1, and click **Actions > Enter AP Bill** on the form toolbar. The system generates an accounts payable bill for the vendor of the goods and shows the created document on the *Bills and Adjustments* (AP301000) form.
2. Review the details of the prepared bill. (In a production environment, you would make sure that the details of the bill created in the system correspond to the details of the document that was received from the vendor.)
3. On the **Applications** tab, make sure that the line with the prepayment has been automatically added to the table and that $500 was specified in the **Amount Paid** column.

4. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the bill. Make sure that the bill now has the *Open* status and that the bill's open balance has been decreased by the prepaid amount (see the following screenshot).

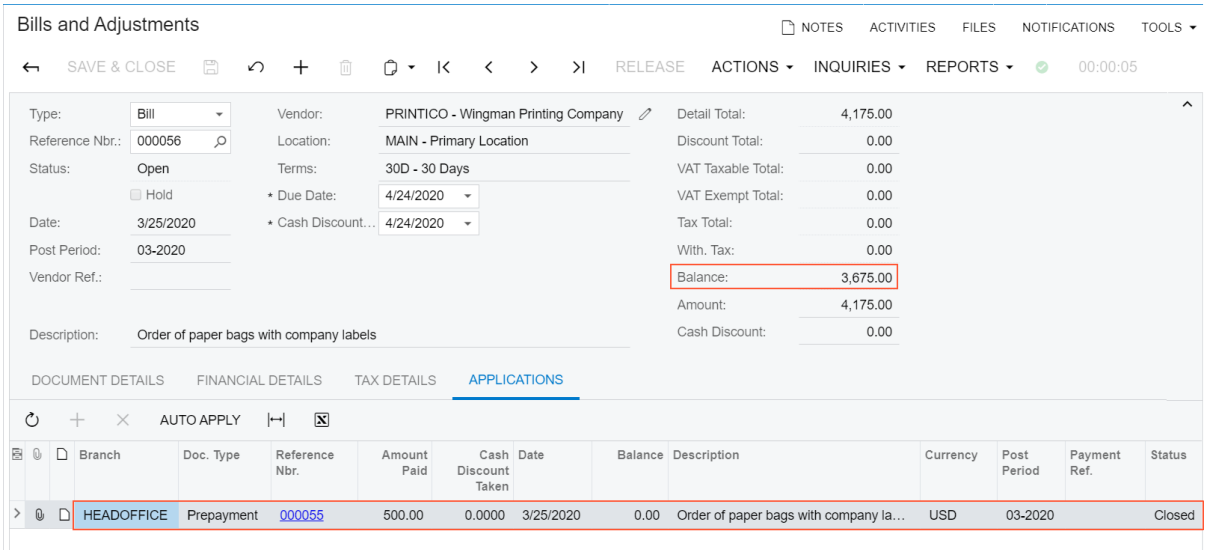


Figure: Prepayment applied to the bill prepared for the purchase order

You have applied the prepayment you made for the vendor to the vendor's bill and released the application.

Step 6: Processing the Purchase Receipt

To complete the processing of the purchase order, create the purchase receipt for the purchase order as follows:

1. Return to the purchase order to *PRINTICO* on the *Purchase Orders* (PO301000) form, which still has a status of *Open*, and review the **Prepayments** tab. Notice that the prepayment is now closed and that the full amount of the prepayment was applied to the order (as the **Applied to Order** column displays).

2. On the form toolbar, click **Actions > Enter PO Receipt**. The system prepares the purchase receipt for the selected purchase order and opens it on the *Purchase Receipts* (PO302000) form.

3. In the Summary area, make sure the **Create Bill** check box is cleared (because you have already prepared a bill for the entire quantity), and save the prepared purchase receipt.

4. On the form toolbar, click **Release**.

5. On the **Purchase Orders** tab, make sure that the related purchase order now has a status of *Closed*.

Prepayments for Purchase Orders: To Process Multiple Prepayments for a Purchase Order

The following activity will walk you through the process of preparing multiple prepayments for a single purchase order, and applying these prepayments to an AP bill prepared for the vendor.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that on January 30, 2020, the SweetLife Fruits & Jams company has ordered a large quantity of labeled paper bags for SweetLife's needs. The Wingman Printing Company vendor has requested an advance payment in the amount of $500. Suppose that on February 7, 2020, the vendor notifies you that additional prepayment in the amount of $200 is needed for the order. Also suppose that the first prepayment request has not been paid yet.

Acting as the purchasing manager in SweetLife, you have to enter the purchase order and record the prepayment request. Then you need to create the second prepayment for the same purchase order, and pay both prepayment requests with the same check. Finally, you process the order to completion and make sure that both prepayments have been applied to the AP bill that you prepare for the purchase order.

Configuration Overview

For the purposes of this activity, the *Inventory* feature, which provides the ability to create purchase orders that include stock items, has been enabled on the *Enable/Disable Features* (CS101000) form.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Vendors* (AP303000) form, the *PRINTICO (Wingman Printing Company)* vendor has been configured. The **Allow AP Bill Before Receipt** check box has been selected for the vendor on the **Purchase Settings** tab (which means that for this vendor, accounts payable bills can be processed before purchase receipts).
- On the *Stock Items* (IN202500) form, the *PAPERBAG* stock item have been configured.

Process Overview

In this activity, to process a purchase order when multiple prepayments are required, you will start with creating a purchase order on the *Purchase Orders* (PO301000) form and adding the purchased items to it. Then you will create the first prepayment request by clicking **Actions > Create Prepayment Request**; on the *Bills and Adjustments* (AP301000) form, you will specify the prepayment amount for each line copied from the purchase order. Then you

will create a subsequent prepayment request, and release both prepayment requests on the *Release AP Documents* (AP501000) form.

Then you will pay two prepayment requests with a single AP check; you will do this by clicking **Actions > Pay Bill / Apply Adjustment** on the *Bills and Adjustments* form while viewing one of the prepayment requests, and adding the second prepayment request to the check on the *Checks and Payments* (AP302000) form. Then you will print the check, and release the check and its application to two prepayment requests.

To complete the processing of the purchase order, you will create a purchase receipt for the ordered items on the *Purchase Receipts* (PO302000) form, and an accounts payable bill to the vendor on the *Bills and Adjustments* (AP301000) form. On release of the AP bill, the system automatically applies the prepayments to the bill and updates the vendor's balance.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales and purchasing manager, use the *wiley* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2020*. If a different date is displayed, click the Business Date menu button, and select *1/30/2020* on the calendar. For simplicity, in this activity, you will create and process all documents in the system during this business date.
3. On the company and branch selection menu, on the top pane of the Acumatica ERP screen, make sure the *SweetLife Head Office and Wholesale Center* branch is selected.

Step 1: Creating the Purchase Order

To create a purchase order, do the following:

1. On the *Purchase Orders* (PO301000) form, create a purchase order with the following settings in the Summary area:
   - **Type**: *Normal*
   - **Vendor**: *PRINTICO*
   - **Date**: 1/30/2020
   - **Promised On**: 1/30/2020
   - **Description**: `Order of paper bags with company labels`
2. On the **Document Details** tab, add a row with the following settings:
   - **Branch**: *HEADOFFICE*
   - **Inventory ID**: *PAPERBAG*

- **Warehouse**: *WHOLESALE*
- **Order Qty.**: `250`
- **Unit Cost**: `16.70`

3. In the Summary area, clear the **Hold** check box to prepare the purchase order for further processing.
4. On the form toolbar, click **Save**.

Step 2: Creating Prepayment Requests

Prepare the two prepayment requests for the purchase order as follows:

1. While you are still viewing the purchase order on the *Purchase Orders* (PO301000) form, on the form toolbar, click **Actions > Create Prepayment Request**.
2. On the *Bills and Adjustments* (AP301000) form, which opens, in the only line of the prepared prepayment request, specify the following settings:
   - **Ext. Cost**: `2000`
   - **Account**: *81000*
3. Make sure that the calculated **Prepayment Amount** is *500* in the prepayment request line.
4. In the Summary area, clear the **Hold** check box.
5. On the form toolbar, click **Save & Close** to save the prepayment request and return to the purchase order on the *Purchase Orders* form.
6. On this form, review the **Prepayments** tab. The line with the prepared prepayment request in the amount of $500 is shown in the table.
7. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, click the Business Date menu button, and select *2/7/2020* from the calendar to change the business date.
8. On the form toolbar, click **Actions > Create Prepayment Request**.
9. On the *Bills and Adjustments* form, which opens, in the only line of the prepared prepayment request, specify the following settings:
   - **Ext. Cost**: `800`
   - **Account**: *81000*
10. Make sure that the calculated **Prepayment Amount** is *200* in the prepayment request line.
11. In the Summary area, clear the **Hold** check box; on the form toolbar, click **Save & Close** to save the prepayment request and return to the purchase order.

12. Open the *Release AP Documents* (AP501000) form.

13. In the rows with prepayment requests that you have prepared in this step, select the unlabeled check boxes and, on the form toolbar, click **Release**. In the **Processing** pop-up window, which is opened, click **Close** after the processing finishes.

Step 3: Creating a Check to Pay for the Prepayment Requests

Prepare an AP check for both prepayment requests as follows:

1. On the *Bills and Adjustments* (AP301000) form, open the $500 prepayment request that you have prepared for the purchase order.

2. On the form toolbar, click **Actions > Pay Bill/Apply Adjustment**.

3. On the *Checks and Payments* (AP302000) form, which is opened, review the check and verify that it has the following settings in the Summary area:

- **Type**: *Check*
- **Vendor**: *PRINTICO*
- **Payment Method**: *CHECK*
- **Cash Account**: *10200WH*
- **Application Date**: *2/7/2020*
- **Application Period**: *02-2020*

4. Change **Description** to `Prepayments for label printing`.

5. Change the **Payment Amount** to `700`. (The **Unapplied Balance** of $200 appears in the Summary area.)

6. On the **Documents to Apply** tab, verify the details of the row with the following settings:

- **Document Type**: *Prepayment*
- **Reference Nbr.**: The reference number of the $500 prepayment you created in Step 2
- **Amount Paid**: `500`

7. On the table toolbar, click **Add Row**. In the new row, do the following:

a. In the **Document Type** column, select *Prepayment*.

b. In the **Reference Nbr.** column, select the reference number of the $200 prepayment you created in Step 2.

8. In the Summary area, clear the **Hold** check box and, on the form toolbar, click **Save**. The check is assigned the *Pending Print* status, which means that the check needs to be printed before it can be released.

Step 4: Processing the Check

Apply the check to the prepayment requests by doing the following:

1. While you are still viewing the check on the *Checks and Payments* (AP302000) form, on the form toolbar, click **Actions > Print Check**.
2. On the *Process Payments / Print Checks* (AP505000) form, which is opened, notice that the system has added a line with the check and selected the unlabeled check box for it.
3. On the form toolbar, click **Process**.

   A separate browser tab has opened showing a printable version of the selected check.
4. Review the printable version of the printed check. (In a production system, you would click **Print** on the form toolbar to print the check.) Close the browser tab.
5. On the *Release Payments* (AP505200) form, which is opened, click **Process** to process the line for which the unlabeled check box was selected automatically. In the **Processing** pop-up window, which is opened, click **Close**.

You have created a check and applied it to the prepayment requests that you created earlier. Now the prepayment is ready to be applied to the vendor's bill.

Step 5: Processing the Accounts Payable Bill with the Prepayments

To create an accounts payable bill for the purchase order, do the following:

1. On the *Purchase Orders* (PO301000) form, open the purchase order that you have created earlier in this activity.
2. On the **Other Information** tab, review the amount in the **Unpaid Amount** box: It is the order total minus the prepaid amount.
3. On the form toolbar, click **Actions > Enter AP Bill**. The system generates an accounts payable bill for the vendor of the goods and shows the created document on the *Bills and Adjustments* (AP301000) form.
4. On the **Applications** tab, make sure that two lines with the prepayments have been automatically added to the table. Make sure that in each line, the **Amount Paid** equal to prepayment balance is specified ($500 and $200, respectively).
5. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Release** to release the bill. Make sure that the bill now has the *Open* status, and that the bill's open balance has been decreased by the prepaid amount (see the following screenshot).

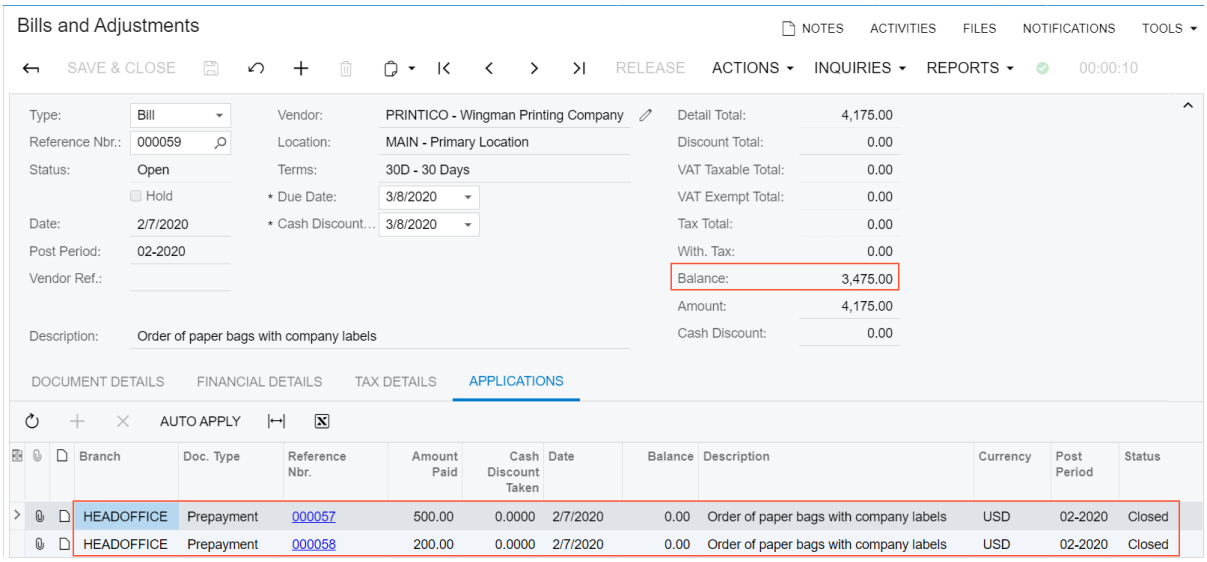


Figure: Prepayment applied to the bill prepared for the purchase order

You have applied the prepayments you made for the vendor to the vendor's bill and released the application.

Step 6: Processing the Purchase Receipt

To complete the processing of the purchase order, create the purchase receipt for the purchase order as follows:

1. Return to the purchase order to *PRINTICO* on the *Purchase Orders* (PO301000) form, which still has a status of *Open*, and open the **Prepayments** tab. Notice that the prepayments are now closed and that the full amount of the prepayments was applied to the order (as the **Applied to Order** column displays).

2. On the form toolbar, click **Actions > Enter PO Receipt**. The system prepares the purchase receipt for the selected purchase order and opens it on the *Purchase Receipts* (PO302000) form.

3. In the Summary area, make sure the **Create Bill** check box is cleared (because you have already prepared a bill for the entire quantity), and save the prepared purchase receipt.

4. On the form toolbar, click **Release**.

5. On the **Purchase Orders** tab, make sure that the related purchase order now has a status of *Closed*.

Prepayments for Purchase Orders: Generated Transactions

To process a prepayment for a purchase order, you create a prepayment request and pay it with a check. Then you apply a prepayment document to an AP bill. During these processes, the system generates GL transactions described in the following sections.

Transaction Generated on Applying AP Check to Prepayment Request

When the check that has been applied to a prepayment request is released, the system generates a batch of the following transactions.

Account	Source of Account	Debit	Credit
Cash account	Vendor	0.00	Prepayment Amount
Prepayment account, if specified, or Accounts Payable account otherwise	Vendor	Prepayment Amount	0.00

You can view the reference number of the GL batch generated for a particular AP check application on the **Financial Details** tab of the *Checks and Payments* (AP302000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Transaction Generated on Applying Prepayment to AP Bill

When a prepayment application to the accounts payable bill is released, the system creates a batch of the following transactions.

Account	Source of Account	Debit	Credit
Prepayment account, if specified, or Accounts Payable account otherwise	Vendor	0.00	Prepayment Amount
Accounts Payable account	Vendor	Prepayment Amount	0.00

You can view the reference number of the GL batch generated for application of prepayment to particular bill in the **Batch Number** box on the **Application History** tab of the *Checks and Payments* (AP302000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

For the list of transactions that are generated during the processing of a purchase, see *Standard Inventory Purchases: Generated Transactions*.

Prepayments for Purchase Orders: Related Reports and Inquiries

This topic describes reports, inquiries, and forms you may review to gather information about prepayments and their balances.

If you do not see a report or inquiry, this could mean that you have signed in to the system with a user account that does not have access rights to the particular form. Sign in as the *admin* user, or contact your system administrator.

Reviewing Prepayment Balances

You use the *Vendor Summary* (AP401000) form to review the total prepayment balance of all vendors. The table of this form shows the prepayment balances of the listed vendors.

Reviewing a Vendor's Prepayments

You use the *Vendor Details* (AP402000) form to review the prepayments and the prepayment balance of a particular vendor.

Reviewing All Prepayments

You run the *AP Balance by GL Account* (AP632000) report to view all prepayments collected on the prepayment account. To review the balance of the prepayment account, you select *Account Summary* in the **Report Format** box on the **Report Parameters** tab of the report form.

Lesson 11: Processing Direct Sales

Direct Sales: General Information

A point-of-sale (POS) system is an electronic system that is used to record the sales, payment, and return transactions of a retail store. The POS system can be operated by a cashier or can be a self-service terminal where customers perform all operations. Your organization can integrate Acumatica ERP with an external POS system for simplified processing of direct sales if the *Advanced SO Invoices* feature is enabled on the *Enable/Disable Features* (CS100000) form.

With a *direct sale*, a customer purchases and immediately procures goods and services in the retail store. These purchased items may or may not be linked to a sales order that the customer has placed previously. In the POS system, a direct sale is processed through the creation of an SO invoice on the *Invoices* (SO303000) form. The processing of the SO invoice records the sale and updates inventory without a sales order and a shipment being processed.

Learning Objectives

In this chapter, you will learn how to do the following:

- Create an SO invoice for a direct sale
- Add to the SO invoice a sale line not linked to a previously prepared sales order
- Add to the SO invoice a line with a link to a previously prepared sales order

- Process the direct sale to completion

Applicable Scenarios

You create and process an SO invoice in the following cases:

- The customer comes to the retail store, purchases goods, and directly procures the items, so that you need to process a direct sale through the POS system. In this case, you create and process only the SO invoice; there is no need to process a related shipment or sales order.
- The customer picks up all or a part of items included in a sales order that has been added to the system based on a phone or online sale. In this case, you need to process a direct sale through the POS system by linking the SO invoice you create to the related sales order.

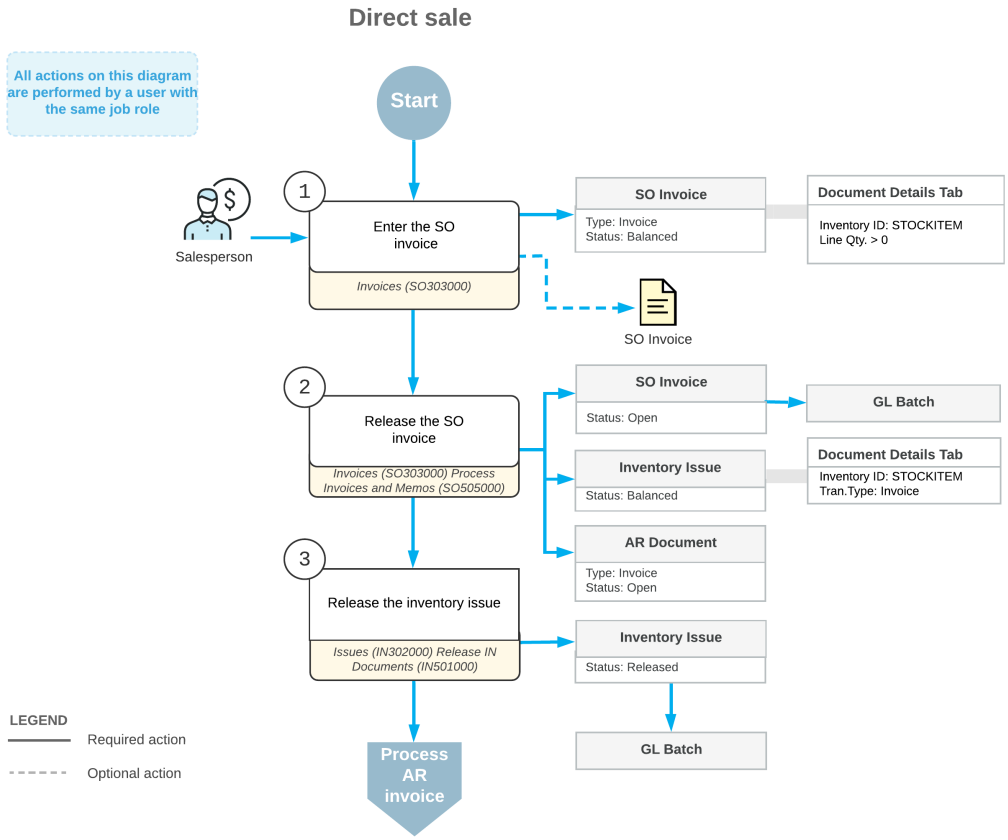
Direct Sale Process

To process a direct sale, you create an SO invoice of the *Invoice* type on the *Invoices* (SO303000) form. To the SO invoice, you add a line for each item included in the sale, and specify the quantity of items to be sold. For serialized items, you should add a separate invoice line with this item and a quantity of 1 for each serial number.

To release the SO invoice, you click **Actions > Release** on the form toolbar. This causes the system to automatically generate a batch of general ledger transactions, as well as an inventory issue for the stock items. For sales lines in the SO invoice, the system adds to the inventory issue lines with the *Invoice* transaction type. Also, when you release the SO invoice, the related AR invoice becomes available for review and further processing on the *Invoices and Memos* (AR301000) form. On release of the generated inventory issue, a batch of GL transactions is generated.

Workflow of a Direct Sale

For an SO invoice created for processing a direct sale, the typical processing involves the actions and generated documents shown in the following diagram.



Direct Sales: Direct Sale with a Link to the Related Sales Order

The customer may want to pick up in the retail store all or a part of items included in a sales order that has been added to the system based on a phone or online sale. In this case, you need to process a direct sale through the POS system with a link to the related sales order to record in the system that some of the items from the order have been taken by the customer.

To process a direct sale, you create an SO invoice on the *Invoices* (*SO303000*) form. If the customer is picking up items as recorded in a sales order that has already been added to the system, you can add a sales line in a direct sale document that you create on the *Invoices* form with a link to this sales order.

Linking a Direct Sale Line to a Sales Order

To add a line (or multiple lines) linked to a sales order, you click the **Add SO Line** button on the table toolbar of the **Document Details** tab of the *Invoices* form. In the dialog box that opens, you select the line or lines of one or multiple open sales orders to be added to the SO invoice. The details of the added line or lines are filled in automatically by the system

and are not available for editing. The reference number of the sales order to which a line is linked is shown in the **Order Nbr.** column of the line.

If a line of the SO invoice is linked to an open line of a sales order, the released SO invoice functions as a shipment does for the linked sales order line: On release of the SO invoice, on the *Sales Orders* (SO301000) form, the system updates **Shipped Qty.** of the sales order line (**Document Details** tab) by the quantity specified in the invoice line. Also, on the **Shipments** tab of this form, the system inserts the reference number of the SO invoice in the **Shipment Nbr.** box.

Direct Sales: Process Activity

In this activity, you will learn how to process a direct sale through a point-of-sale (POS) terminal, and how to link an existing sales order to the direct sale.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that on January 29, 2020, an individual customer (that is, a customer purchasing items for personal use rather than for a company) ordered five small jars of apple jam and 15 pounds of oranges on the company’s website, and selected the option to pick up these items and pay for them in the SweetLife retail store. When the customer submitted the order on the website, a sales order was created in Acumatica ERP.

Then on January 30, 2020, the customer comes to SweetLife store and picks up ordered apple jam (five small jars) from the store shelves; the customer also picks up one small jar of orange jam (which was not in the online sales order). For the remainder of the website order, the customer asks to have the items shipped to the customer's address. The sales manager of the SweetLife store needs to scan the goods that the customer has picked up, enter them by using the POS terminal, and collect payment from the customer. After the customer pays for the picked goods, the sales manager needs to give him a receipt. You will act as the sales manager in performing the needed actions in the system.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*, which provides the ability to create sales and purchase orders that include stock items
- *Advanced SO Invoices*, which provides support for direct sales and returns and integration with POS systems

In the SweetLife store, the integration between the store’s POS system and Acumatica ERP has been configured to work as follows:

- When the sales manager processes a sale through the POS system, the POS system creates two documents in Acumatica ERP by using the API: an SO invoice on the *Invoices* (SO303000) form with all the lines from the receipt given to the customer, and a released payment on the *Payments and Applications* (AR302000) form that is linked to the SO invoice.
- If any lines of a direct sale relate to an existing sales order, the POS operator selects the needed lines directly via the POS terminal when processing a sale.

  In this activity, to simulate the POS functionality that occurs in a production system, you will link lines of an existing sales order to lines of the SO invoice.

- When the sales manager releases the SO invoice, Acumatica ERP creates an inventory issue that decreases the quantities of items in inventory by the quantity of the sold items.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Customers* (AR303000) form, the *RETSALE (Individual Retail Customer)* customer has been defined. This is the customer account used to represent any individual customer making a retail purchase in the store.
- On the *Stock Items* (IN202500) form, the *APJAM08*, *ORANGES*, and *ORJAM08* stock items have been defined. In the *RETAIL* warehouse, which has been configured on the *Warehouses* (IN204000) form, sufficient quantities of the *APJAM08*, *ORJAM08*, and *ORANGES* items are on hand.

Process Overview

In this activity, to process a direct sale with a link to a sales order, you will create a payment on the *Payments and Applications* (AR302000) form that will later be applied to the SO invoice used to record the direct sale. Then you will create this SO invoice on the *Invoices* (SO303000) form. You will add the appropriate lines to the SO invoice. Then you will apply the payment to the SO invoice and release the SO invoice.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales manager, use the *becher* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2020*. If a different date is displayed, click the Business Date menu button, and select *1/30/2020* on the calendar. For simplicity, in this activity, you will create and process all documents in the system during this business date.

Step 1: Preparing a Payment

To prepare a payment document that represents the customer's payment for the direct sale, perform the following instructions:

1. On the *Payments and Applications* (AR302000) form, create a payment with the following settings:
   - **Type**: *Payment*
   - **Customer**: *RETSALE*
   - **Payment Method**: *CASH*
   - **Cash Account**: *10100ST*
   - **Application Date**: *1/30/2020*
   - **Application Period**: *01-2020*
   - **Description**: `Payment for retail sale`
   - **Payment Amount**: `26.34`
   - **Hold**: Cleared
2. On the form toolbar, click **Release** to release the payment.

You could instead enter the SO invoice prior to entering a payment.

Step 2: Entering an SO Invoice

To enter an SO invoice to record the direct sale, do the following:

1. On the *Invoices* (SO303000) form, create the SO invoice, and specify the following settings in the Summary area:
   - **Type**: *Invoice*
   - **Customer**: *RETSALE*
   - **Date**: *1/30/2020*
   - **Post Period**: *01-2020*
   - **Description**: `Retail sale, website order #00687 partial`
2. On the **Document Details** tab, add a row for the jar of orange jam the customer picks up in the retail store, and specify the following settings:
   - **Inventory ID**: *ORJAM08*
   - **Warehouse**: *RETAIL*

- **Quantity**: `1`
- **Unit Price**: `3.44`

3. To add a line for the jars of apple jam in the already-entered sales order, on the table toolbar of the **Document Details** tab, click **Add SO Line**.

4. In the **Add SO Line** dialog box, which opens, select the unlabeled check box in the line with *APJAM08* item, and click **Add & Close**.

   The system adds the line to the SO invoice with a link to the sales order on which the item was added. Notice that in the **Order Type** and **Order Nbr.** columns in this line, the system has inserted the type of the related sales order and the link to the order. In the other line that you have added, these columns are empty thus indicating that this line is not related to a sales order.

5. In the Summary area, clear the **Hold** check box, and on the form toolbar, click **Save**; the invoice now has the *Balanced* status.

Step 3: Applying the Payment to Invoice

To apply the payment to the invoice, do the following while you are still viewing the invoice on the *Invoices* (SO303000) form:

1. On the table toolbar of the **Applications** tab, click **Load Documents**. The system adds a line with the payment that you have created earlier in this activity.

2. In the **Amount Paid** column, specify `26.34` (which is the payment amount to be applied to the invoice).

3. On the form toolbar, click **Save**.

Step 4: Releasing the SO Invoice

To release the invoice, do the following:

1. While you are still viewing the SO invoice on the *Invoices* (SO303000) form, click **Actions > Release** on the form toolbar. Notice that the invoice now has a status of *Closed*.

2. On the **Document Details** tab, in either of the invoice lines, click the link in the **Inventory Ref. Nbr.** column. The system opens the *Issues* (IN302000) form with the inventory issue that was generated on release of the SO invoice.

3. On this form, review the details of the inventory issue, and make sure that it includes both invoice lines, and it has a status of *Released*.

4. Return to the *Invoices* (SO303000) form with the SO invoice that you have processed, and on the **Document Details** tab, click the **Order Nbr.** link in the *APJAM08* line to open the related sales order.

5. On the *Sales Orders* (SO301000) form, which is opened, review its details. On the **Document Details** tab, in the *APJAM08* line, notice that **Qty. on Shipments** is 5 and the **Open Qty.** is 0, which means that the line was shipped in full.

6. Review the **Shipments** tab. The processed SO invoice acts as a shipment for the related SO line with *APJAM08* item (see the following screenshot): On release of the SO invoice, the inventory issue that records the issuing of the items from inventory has been generated and released. The sales order retains a status of *Open*; the sales manager can process a shipment for the rest of the items to the customer's location.

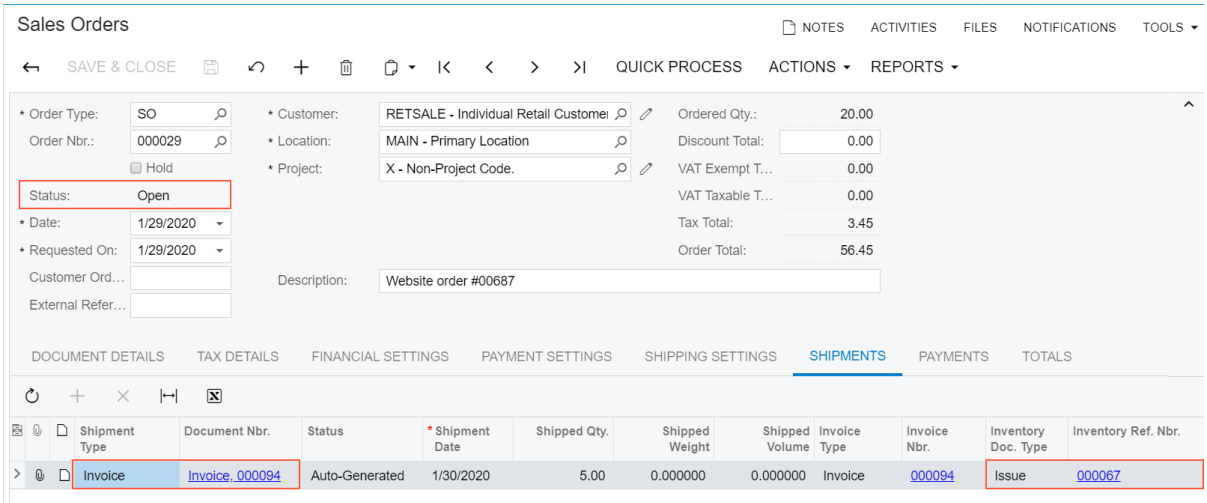


Figure: Partial shipment of the sales order via the SO invoice

Self-Test Exercise

Process to completion the sales order that you have partially completed in this lesson by creating and processing one more SO invoice.

Direct Sales: Generated Transactions

To be able to process a direct sale of stock items, you create and process an SO invoice. The following sections describe the GL transactions generated during the complete processing of an SO invoice with a sale line.

Transactions Generated for an SO Invoice

When you create and release an SO invoice with one sale line (that is, a line with a positive amount), the system generates the following general ledger transactions.

Account	Source of Account	Debit	Credit
Accounts Receivable account	Customer	Amount	0.00
Sales account	Item	0.00	Amount

You can view the reference number of the GL batch in the **Batch Nbr.** box on the **Financial Details** tab of the *Invoices* (SO303000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Transactions Generated for an Inventory Issue

On release of the SO invoice, the system generates an inventory issue transaction with sales lines of the *Invoice* transaction type. When an inventory issue with one line of the *Invoice* type is released, the system generates the following general ledger transactions.

Account	Source of Account	Debit	Credit
Inventory account	Item	0.00	Amount
GOGS account	Item	Amount	0.00

You can view the reference number of the GL batch in the **Batch Nbr.** box on the **Financial Details** tab of the *Issues* (IN302000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Lesson 12: Processing Direct Returns

Direct Returns: General Information

A point-of-sale (POS) system is an electronic system that is used to record the sales, payment, and return transactions of a retail store. The POS system can be operated by a cashier or can be a self-service terminal where customers perform all operations. Your organization can integrate Acumatica ERP with an external POS system for simplified processing of direct returns if the *Advanced SO Invoices* feature is enabled on the *Enable/Disable Features* (CS100000) form.

With a *direct return*, a customer returns stock items directly to the retail store rather than shipping them. In the POS system, a direct return is processed through the creation of an SO credit memo—a sales-related document of the *Credit Memo* type created on the *Invoices* (SO303000) form.

Learning Objectives

In this chapter, you will learn how to do the following:

- Create an SO credit memo for a direct return
- Add to the SO credit memo a return line with a link to an original sales document
- Add to the SO credit memo a replacement line
- Process the direct return to completion

Applicable Scenarios

You create and process a direct return in the following cases:

- When the customer returns goods directly at the store. In this case, you process an SO credit memo in the system.

- When the customer returns goods directly at the store and requests the replacement of returned items. In this case, you process either an SO credit memo or an SO invoice, and the document includes both return lines and replacement (sales) lines.

Direct Return Process

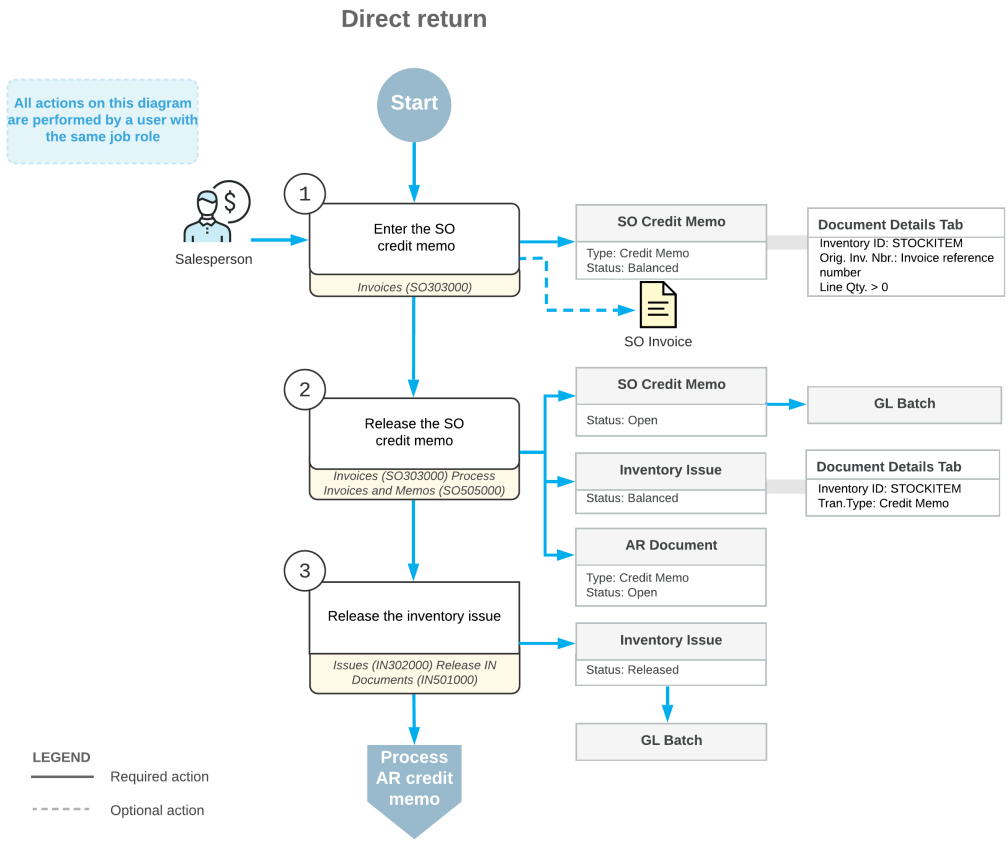
You use the *Invoices* (SO303000) form to enter an SO credit memo, and you add a line for each returned or replaced item. To add a line (or multiple lines) with a link to related SO invoice, you click **Add Return Line** on the table toolbar of the **Document Details** tab. In the dialog box that opens, you select the invoice line or lines to be added as return lines to the document you are creating. In the added line, you can correct the quantity to be returned if partial return of the item quantity is requested (for example, if four units of the item were purchased and the customer is returning only two). For serialized items, you should add a separate line with this item and a quantity of 1 for each serial number.

To release the SO credit memo, you click **Actions > Release** on the form toolbar. This causes the system to automatically generate a batch of general ledger transaction, as well as an inventory issue for the stock items. For return lines, the system adds to the inventory issue lines with the *Credit Memo* transaction type. On release of the generated inventory issue, the items are received to inventory, and a batch of GL transactions is generated.

Also, when you release the SO credit memo, the related AR credit memo becomes available for review and further processing on the *Invoices and Memos* (AR301000) form.

Workflow of a Direct Return

For an SO credit memo created for processing a direct return, the typical processing involves the actions and generated documents shown in the following diagram.



Direct Returns: Direct Return with Replacement

If a customer returns stock items directly to the retail store and requests for the exact replacement of these items, you can process both return and replacement in a single document.

Processing Direct Return with Replacement

To process a direct return with replacement, you create an SO invoice or SO credit memo on the *Invoices* (*SO303000*) form, and add to the document the lines with items to be returned and the lines with items for replacement.

In the created document, return and replacement lines will have different signs. In an SO credit memo, return lines have quantities with positive sign, and replacement lines have quantities with negative sign. In an SO invoice, return lines have quantities with negative sign, and replacement lines have quantities with positive sign. You must select the type of the document for processing a direct return for replacement so that the total balance of the document will be equal to zero or above zero.

When the SO invoice or SO credit memo is released, the system generates an inventory issue transaction to update the item information in inventory. The inventory operation to be specified in the inventory issue is generated on the line level. For a replacement line, an inventory issue line with the *Invoice* type is generated to issue the replacement item from inventory. For a return line, an inventory issue line with the *Credit Memo* type is generated to return an item to inventory.

Also, on release of the SO invoice or SO credit memo, the related AR invoice or AR credit memo, respectively, becomes available for review and further processing on the *Invoices and Memos* (AR301000) form.

Direct Returns: Process Activity

In this activity, you will learn how to process a direct return of stock items through a point-of-sale (POS) terminal, and how to process a replacement of the returned items.

The following activity is based on the *U100* dataset. If you are using another dataset, or if any system settings have been changed in *U100*, these changes can affect the workflow of the activity and the results of the processing. To avoid any issues, restore the *U100* dataset to its initial state.

Story

Suppose that on January 30, 2020, an employee of the small retail customer FourStar Coffee & Sweets Shop has come to the SweetLife store and asked for an exact replacement of a large jar of apple jam that is leaking. This jar is one of ten jars that were bought two days ago, on January 28, 2020.

Acting as the sales manager of the SweetLife company, you need to process the return of the jar and the sale of the new jar by using the POS terminal. The previous sale, dated January 28, 2020, was recorded through the SO invoice (created automatically through the integration of the POS system and Acumatica ERP), which was paid in full and now has the *Closed* status. You need to replace the inventory item with the same item at the same price, so that no payment needs to be processed.

Configuration Overview

For the purposes of this activity, the following features have been enabled on the *Enable/Disable Features* (CS101000) form:

- *Inventory*, which provides the ability to create sales and purchase orders that include stock items
- *Advanced SO Invoices*, which provides support for direct sales and returns and integration with POS systems

In the SweetLife store, the integration between the store's POS system and Acumatica ERP has been configured to work as follows:

- When the sales manager processes a return through the POS system, the POS system creates an SO credit memo with the item or items being returned on the *Invoices* (SO303000) form.
- If any lines of a direct return relate to an existing sales order, the POS operator selects the needed order directly via the terminal when processing a return.

  In this activity, to simulate the POS functionality that occurs in a production system, you will add a return line with a link to the original SO invoice.

- To process a replacement, the sales manager adds to this SO credit memo a line with the same inventory item or items and a quantity with the opposite sign.
- When the sales manager releases the SO credit memo, Acumatica ERP creates an inventory issue that includes two lines with different operation types: one line adds the returned item or items to inventory, and another line issues the replacement item or items from inventory.

The following entities, which you will use in this activity, have been predefined in the system:

- On the *Customers* (AR303000) form, the *COFFEESHOP* customer has been defined.
- On the *Stock Items* (IN202500) form, the *APJAM96* stock item has been defined. In the *RETAIL* warehouse, which has been defined on the *Warehouses* (IN204000) form, a sufficient quantity of the *APJAM96* item is on hand for the processing of the return in this activity.

Additionally, the SO invoice for which you will process a return has been entered into the system on the *Invoices* form.

Process Overview

In this activity, to handle a direct return, you will create an SO credit memo on the *Invoices* (SO303000) form. You will add the appropriate lines to the SO credit memo, some of which are linked to the original sales order and some of which are for replacement items and have a negative quantity. Then you will release the invoice to process both the receipt of returned items to inventory and the issue of replacement items from inventory.

System Preparation

Do the following:

1. Launch the Acumatica ERP website, and sign in to a company with the *U100* dataset preloaded. To sign in as a sales manager, use the *becher* login and the *123* password.
2. In the info area, in the upper-right corner of the top pane of the Acumatica ERP screen, make sure that the business date in your system is set to *1/30/2020*. If a different date is displayed, click the Business Date menu button, and select *1/30/2020* on the calendar. For simplicity, in this activity, you will create and process all documents in the system during this business date.

Step 1: Entering a Credit Memo

To enter an SO credit memo, do the following:

1. On the *Invoices* (SO303000) form, create a credit memo, and specify the following settings in the Summary area:
   - **Type**: *Credit Memo*
   - **Customer**: *COFFEESHOP*
   - **Date**: *1/30/2020*
   - **Post Period**: *01-2020*
   - **Description**: `Replacement of the leaked jar`
   - **Hold**: Cleared
2. Save the credit memo; notice that it has the *Balanced* status.

Step 2: Adding the Return Line

To add a line with the item to be returned, perform the following instructions while you are still viewing the SO credit memo on the *Invoices* (SO303000) form:

1. On the table toolbar of the **Document Details** tab, click **Add Return Line**. The **Add Return Line** dialog box opens.
2. In the dialog box, select the unlabeled check box in the line dated *1/28/2020* with the *APJAM96* item, and click **Add & Close**. The system adds the return line to the credit memo and closes the dialog box.
3. In the line added to the credit memo, change the **Quantity** to `1` (because only one of the jars is being returned). In the **Orig. Inv. Nbr.** column in the line, notice that the system has inserted the reference number of the original invoice for which the return is being performed.

Step 3: Adding the Replacement Line

While you are still viewing the SO credit memo on the *Invoices* (SO303000) form, add the line with the replacement item as follows:

1. On the **Document Details** tab, add one more line (for the replacement item) with the following settings:
   - **Inventory ID**: *APJAM96*
   - **Warehouse**: *RETAIL*
   - **Quantity**: `-1`

     The quantity is negative because the item is to be issued from inventory.

- **Unit Price**: `45.15` (the same as in the line with the item being returned)

2. On the form toolbar, click **Save**.

Step 4: Releasing the Credit Memo

To release the credit memo, do the following:

1. While you are still viewing the credit memo on the *Invoices* (SO303000) form, on the form toolbar, click **Actions > Release**.

   Notice that the status of the credit memo is now *Closed*. On release of the credit memo, the returned item has been received to inventory, and the replacement item has been issued from inventory. Because the price of the returned item was the same as the price of the replacement item, the credit memo total is *0.00*; thus, no payment needs to be processed.

2. On the **Document Details** tab, in either of the lines, click the link in the **Inventory Ref. Nbr.** column. On the *Issues* (IN302000) form, the system opens the inventory issue that was generated on release of the credit memo.

3. On this form, review the details of the inventory issue, and make sure the inventory issue has the *Released* status, as shown in the following screenshot. Notice that the line with the returned item has the *Credit Memo* transaction type, while the line with the replacement item has the *Invoice* transaction type.

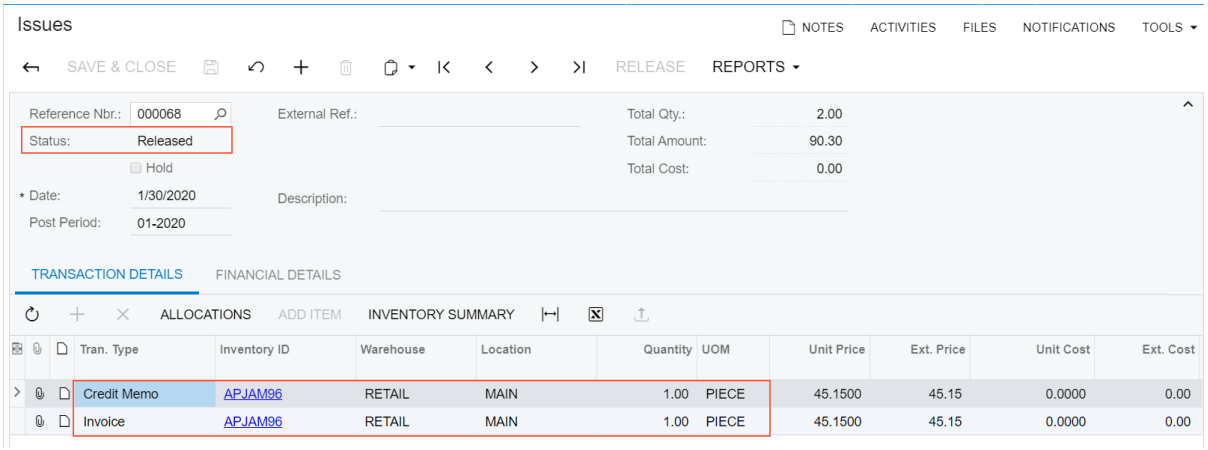


Figure: Inventory document generated for processing the direct return

Self-Test Exercise

For the same original invoice, process a direct return of one *APJAM96* item and one *ORJAM96* item, and a sale of two *ORJAM08* items through a single SO invoice.

Direct Returns: Generated Transactions

To be able to process a direct return of stock items, you create and process an SO credit memo. The following sections describe the GL transactions generated during the complete processing of an SO credit memo with a return line.

Transactions Generated for an SO Credit Memo

When you create and release an SO credit memo with one return line (that is, a line with a positive amount), the system generates the following general ledger transactions.

Account	Source of Account	Debit	Credit
Accounts Receivable account	Customer	0.00	Amount
Sales account	Item	Amount	0.00

You can view the reference number of the GL batch in the **Batch Nbr.** box on the **Financial Details** tab of the *Invoices* (SO303000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.

Transactions Generated for an Inventory Issue

On release of the SO credit memo, the system generates an inventory issue transaction with return lines of the *Credit Memo* transaction type. When an inventory issue with one line of the *Credit Memo* type is released, the system generates the following general ledger transactions.

Account	Source of Account	Debit	Credit
Inventory account	Item	Amount	0.00
GOGS account	Item	0.00	Amount

You can view the reference number of the GL batch in the **Batch Nbr.** box on the **Financial Details** tab of the *Issues* (IN302000) form. You can click the link in this box to view the details of the batch on the *Journal Transactions* (GL301000) form.