Distribution

V150 Field Services: Advanced

Training Guide

Acumatica
The Cloud ERP

Last Revision: 01/26/2018
Acumatica ERP 2017 R2

Contents

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Software Version - 2017 R2

Introduction

This course introduces the advanced functionality of the Equipment Management and Route Management modules of the Service suite. The course is based on a set of examples that demonstrate the use of these modules for a small company. The course consists of lessons that guide you step by step through the basics of the configuration and use of Acumatica ERP. You will start by using the Equipment Management module for selling equipment and its components, providing services on sold equipment, including component upgrade and replacement. Then you will use the Route Management module to plan and manage your organization's routes and the route services (that is, the services provided when each route is executed), along with processing the contracts related to the routes.

After you complete the course, you will have an understanding of how to work with service orders and keep track of equipment by using Acumatica ERP. You will also learn about procedures related to processing routes and related documents and entities.

How to Complete This Course

You will start learning how to use the equipment management and route management functionality of Acumatica ERP with very simple business processes and then proceed to more advanced processes as you go through this course.

To complete the course, perform the lessons from each part of the course in the order they are presented in, and pass the assessment test. Specifically, you will do the following:

1. Create a company with the *V150* data on an instance of Acumatica ERP 2017 R2. You will continue to develop this configuration and implement more processes in this course. (See the instructions below.)
2. Start with Part 1, and complete the lessons, which are dedicated to the Equipment Management module.
3. In Part 2, complete the lessons, which describe the Route Management module.
4. In Part 3, complete the lessons, which are dedicated to using the Acumatica mobile app with the Route Management module.
5. On Acumatica University, take the Certification Test.

   After you pass the assessment test, you will get the Acumatica University certificate of course completion.

What Is in a Part?

Each of the three parts of the course is dedicated to a particular Acumatica ERP module and consists of lessons you are supposed to complete. Each part begins with a *Company Story* topic that explains the situation in which you will use Acumatica ERP in the lessons of the part.

What Is in a Lesson?

The lessons within each part outline the procedures you are completing and describe the related concepts you are learning. Review questions, which are included in each *Lesson Summary* topic, help you remember the key ideas of a lesson.

What Are the Documentation Resources?

Some the links listed in the *Related Links* sections refer to the documentation available on the *https://help.acumatica.com/* website. These and other topics are also included in the Acumatica ERP instance, and you can find them under the **Help** menu.

Course Prerequisites

For this course, you should be familiar with the Acumatica ERP user interface and the main principles of the system. Knowledge of the Service Management module of Acumatica ERP is mandatory, as is knowledge of the Distribution and Finance modules of Acumatica ERP. This course is designed for use with Acumatica ERP 2017 R2 with the *V150* company instance.

You can add a company with the needed data during the deployment of a new Acumatica ERP instance or after the instance has been deployed. Below are the instructions to add a company with the *V150* data to an existing Acumatica ERP instance. Do the following:

1. Upgrade to the latest version of Acumatica ERP 2017 R2, which is available on our Partner Portal *https://partners.acumatica.com/* (sign-in required).
2. Open the Acumatica ERP Configuration Wizard, and click **Perform Application Maintenance**.
3. On the **Application Maintenance** page of the wizard, click the **Company Maintenance** button.
4. In the **SQL Server Authentication** dialog box, which appears, specify the credentials for connecting to the database server, and click **OK**. The **Company Setup** page opens.
5. To create a new company, click **New**, and in the **Insert Data** column, select *V150* so that this data will be preloaded.
6. Click **Next**, and on the **Confirm Configuration** page, click **Finish**.

   The system will add a new company to the Acumatica ERP instance and preload the *V150* data.
7. Launch the instance you have created.

   The first user name is *admin* and the password to sign in to the new company is *setup*; then change the password to *123*.

Important: The *V150* company data that you preload for the training course may include documents and transactions for other training courses. Thus, the reference numbers of the batches, documents and entities that you will create while competing the course may differ from those shown in the screenshots and instructions in the training guide.

Related Links

Updating Acumatica ERP Locally

Installing Acumatica ERP Locally

Introduction to the Acumatica ERP User Interface

Acumatica ERP now offers two user interfaces:

- *Modern*, introduced in 2017 R2, which is now used by default
- *Classic*, which is the user interface used in previous Acumatica ERP versions

The following sections describe the main aspects of working with the Acumatica ERP user interface when you complete this training guide:

1. *Completing the Training in the Modern UI*
2. *Configuring the Quick Menu for the Training*
3. *Completing the Training in the Classic UI*
4. *Navigating to Forms: Tips*

1. Completing the Training in the Modern UI

For completing the training, we recommend that you use the modern user interface, which provides an enhanced new look and easy navigation in the system. The following sections provide an overview of the modern UI and explain how to navigate in the system during the completion of the training.

To Configure Workspaces in the Main Menu

In the modern UI, the links to forms and reports are organized in workspaces, each of which corresponds to a functional area in the system. The main menu displays menu items corresponding to these workspaces (such as **Finance** or **Banking**); you can click any menu item (see the screenshot below).

You can configure the list of workspaces displayed on the main menu panel by pinning and unpinning workspaces. Workspaces you can access that are unpinned from the panel are hidden under **More Items**.

To pin a workspace to the main menu panel, open the needed workspace, and, on the workspace title bar, click Pin (see the following screenshot).

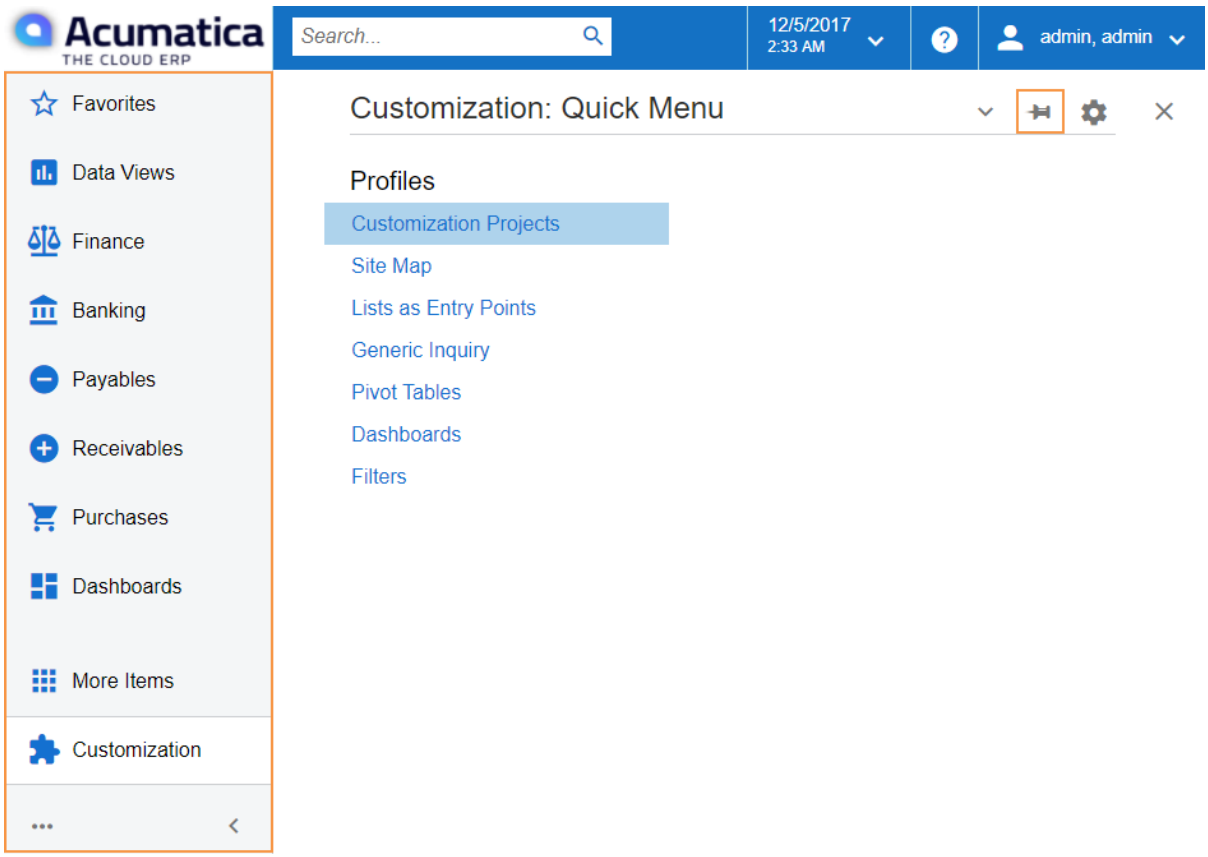


Figure: A workspace unpinned from the main menu

To unpin a workspace from the main menu, on the workspace title bar, click Unpin (see the following screenshot).

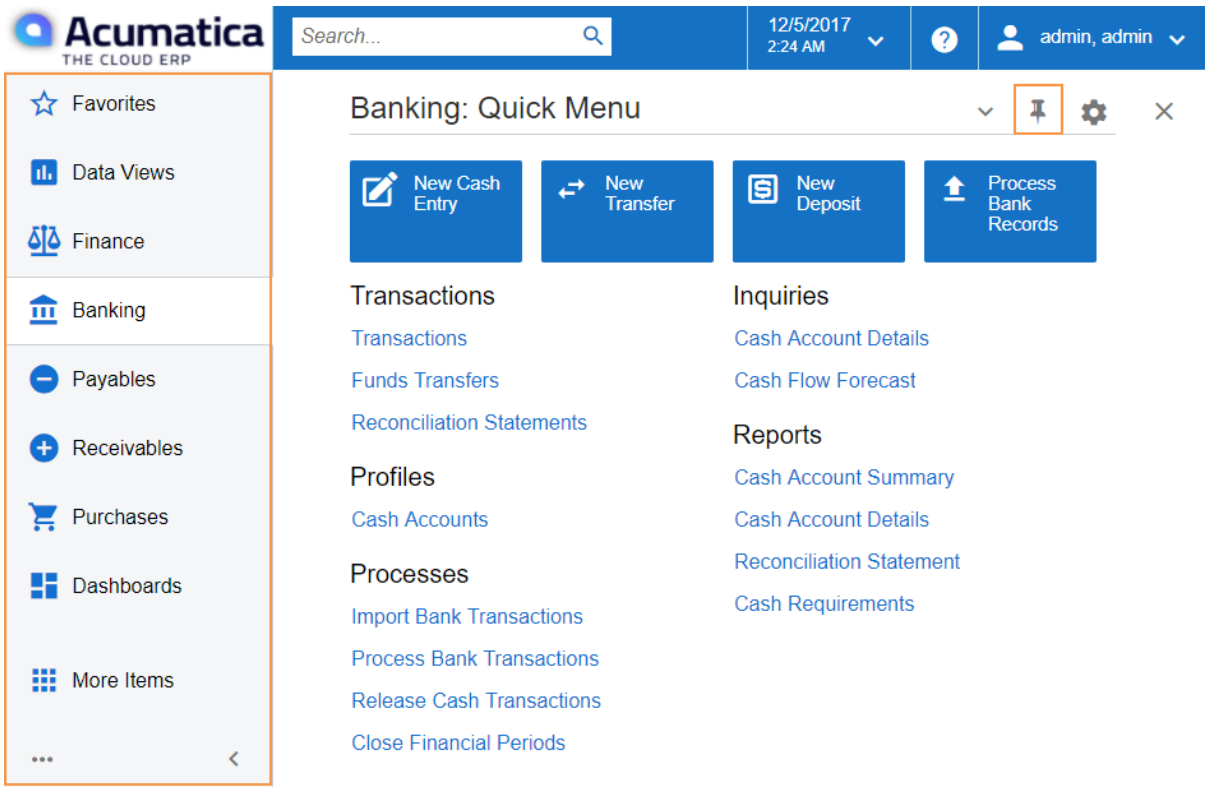


Figure: A workspace pinned to the main menu

To Navigate to a Form from a Quick Menu

Forms in the modern UI are grouped by workspaces, which are shown on the main menu on the left side of the screen. When you select a workspace, the system shows its Quick Menu, which has links to the most commonly used forms and reports of the workspace (see the screenshot below), listed under categories to further organize them. You can click a form name to navigate to it.

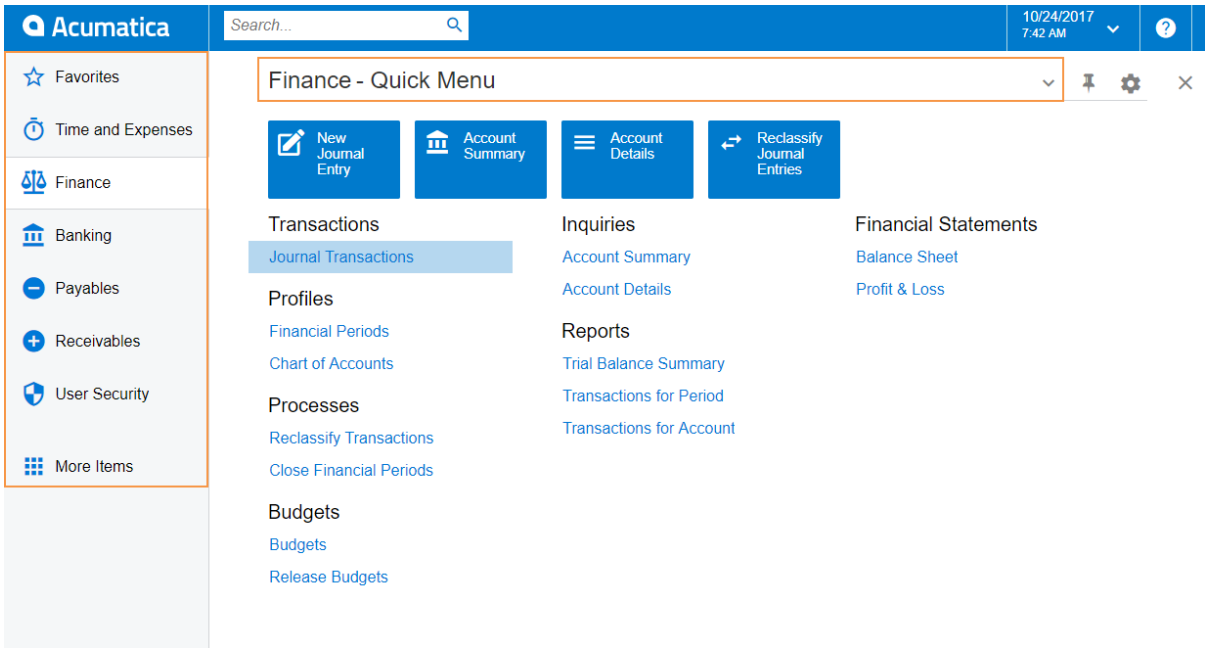


Figure: Navigating to a form from a Quick Menu

To View All Forms in a Workspace

To find any form of a workspace that is not shown on the Quick Menu, you can click the Quick Menu title bar to switch to **All Items** mode. In this mode, you can see the links to all forms that are included in the selected workspace (see the screenshot below).

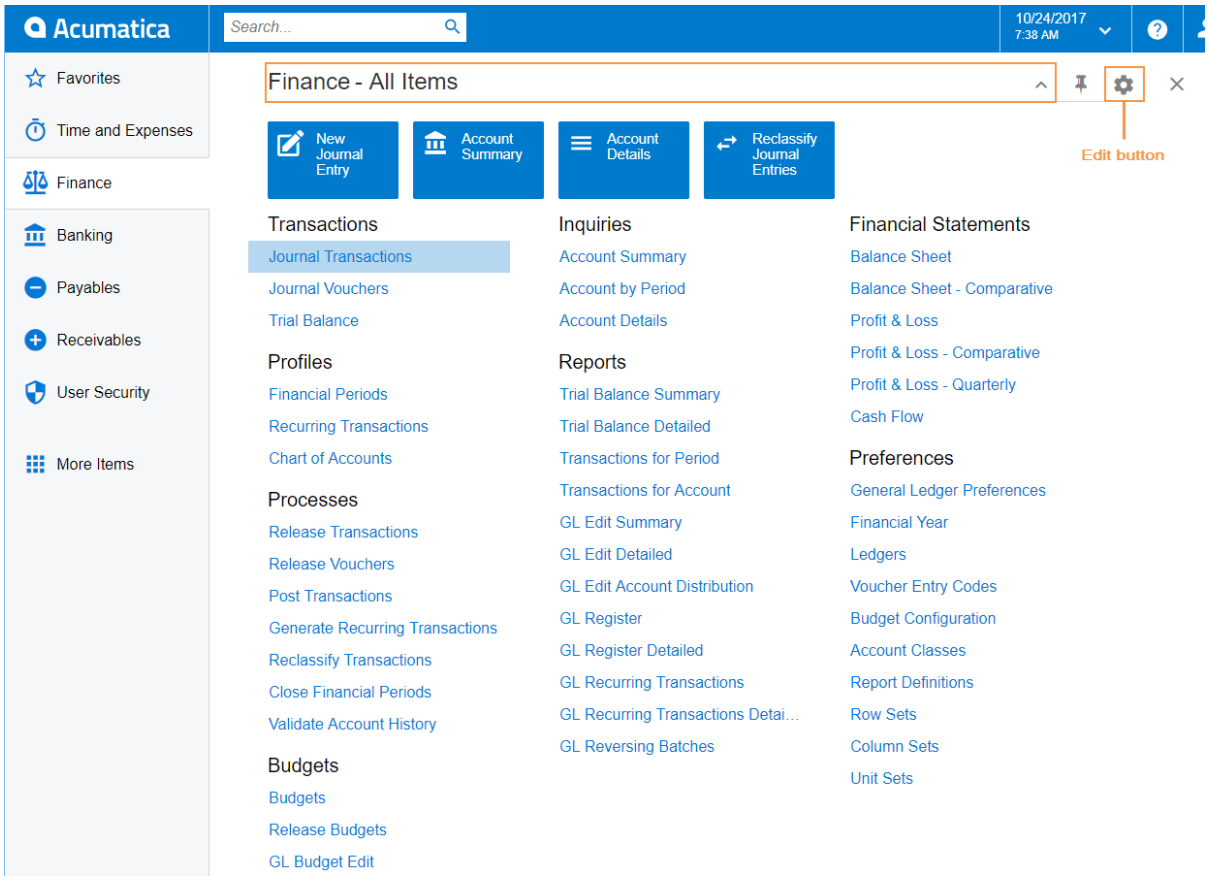


Figure: Displaying all items of the Finance workspace

To Add Forms to a Quick Menu

To add a form that currently is not shown on a Quick Menu of a particular workspace, open the needed workspace, and on the workspace title bar, click the **Edit** button (see the previous screenshot). In **Configuration** mode, select the check boxes next to the needed forms, and then click **Exit** to apply your changes and exit **Configuration** mode.

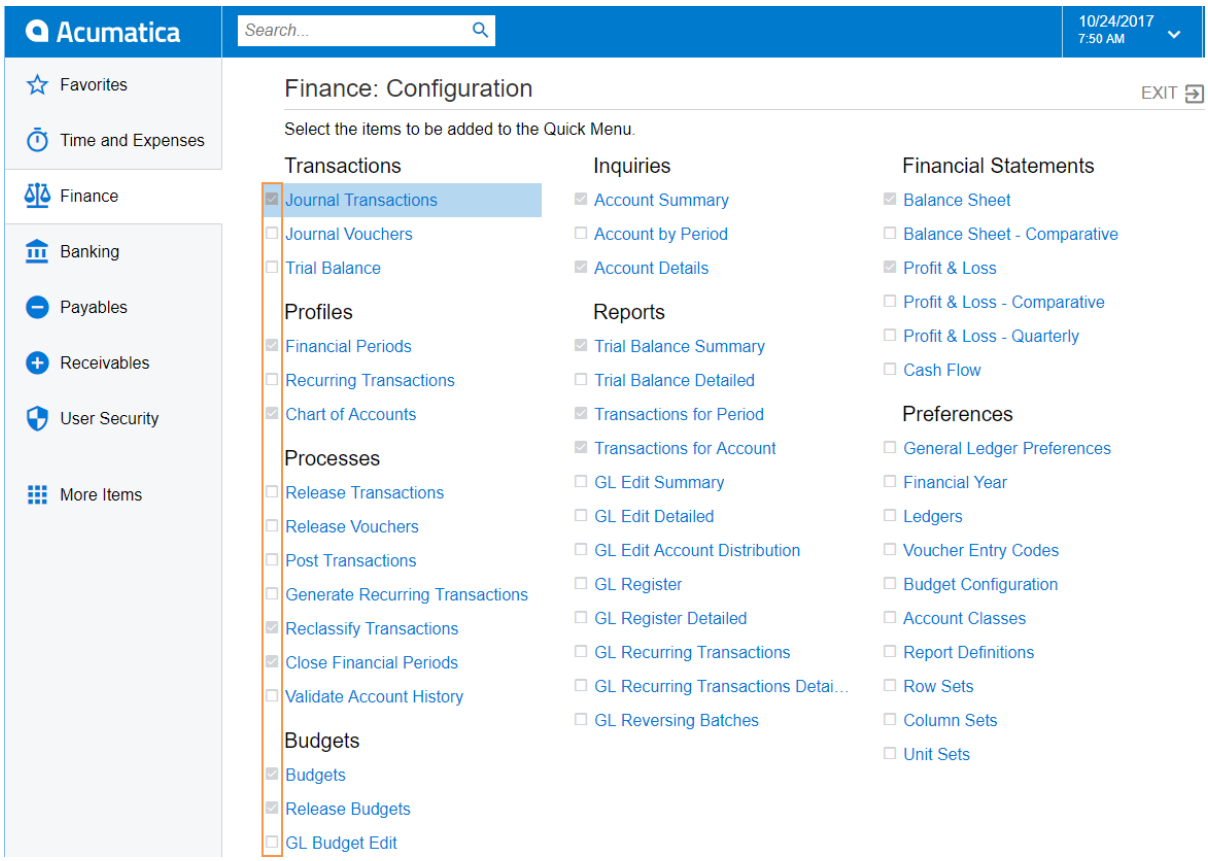


Figure: Adding forms to a Quick Menu

The full list of forms used during the completion of this training is provided below in this topic. We recommend that you be sure all these forms have been added to the applicable quick menus, to simplify navigation during the completion of the training.

To Review and Open Documents on Substitute Forms

Substitute forms provide a quick and easy way to review the list of records created on the applicable data entry forms. A substitute form is a generic inquiry that shows the summary information on the records entered on the particular entry form. Substitute forms are initially brought up instead of the corresponding entry forms when a user navigates to these forms in the Quick Menu.

For example, if you click **Journal Transactions** (under the **Transactions** category) on the Quick Menu of the **Finance** workspace, the system opens the Journal Transactions substitute form (GL3010PL), which shows the list of all transactions in the system (see the screenshot below). The substitute form may show tabs that filter the documents by their type or status.

To open the Journal Transactions entry form (GL301000) for entering a new batch of transactions from the Journal Transactions substitute form (GL3010PL), you need to click **Add New Record** button on the form toolbar.

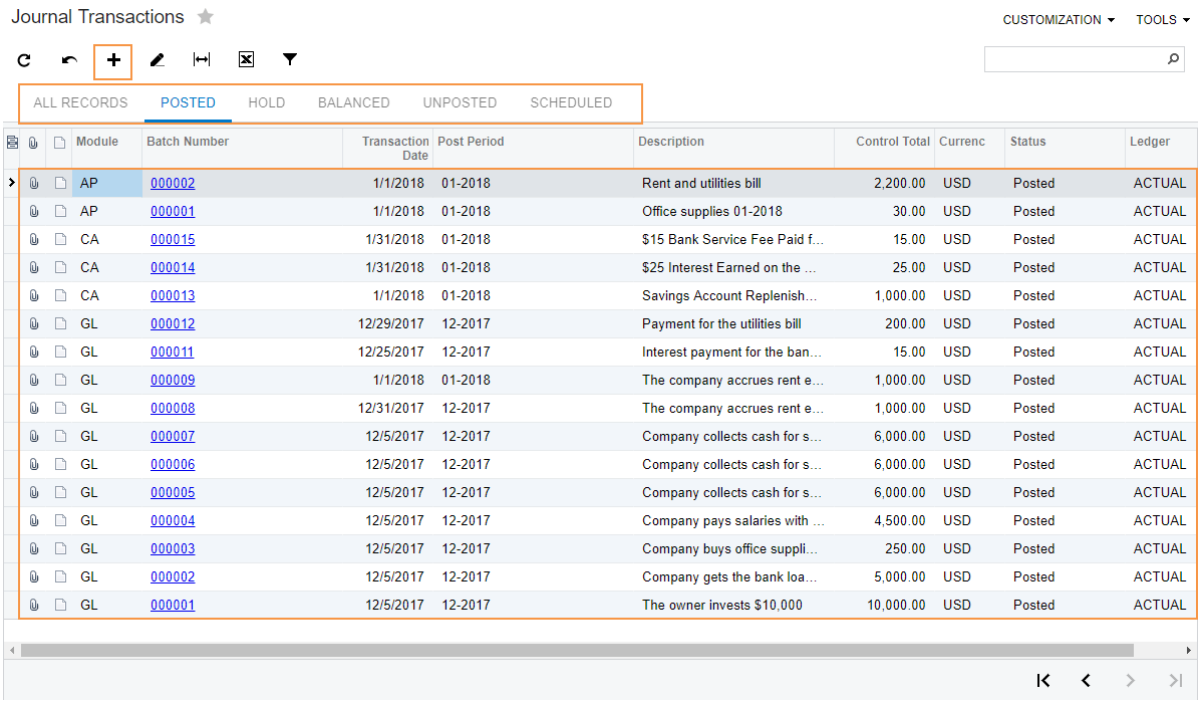


Figure: Viewing the Journal Transactions substitute form

If the training instructions ask you to open a particular document (such as a batch, an Accounts Payable bill, or an Accounts Receivable invoice), you can find this document on the appropriate substitute form and then click its reference number link to open this document on the data entry form. Alternatively, you can open the data entry form itself, select the module or document type (depending on the form), and in the **Reference Nbr.** box, click the selector icon and select the document by its reference number (see the screenshot below).

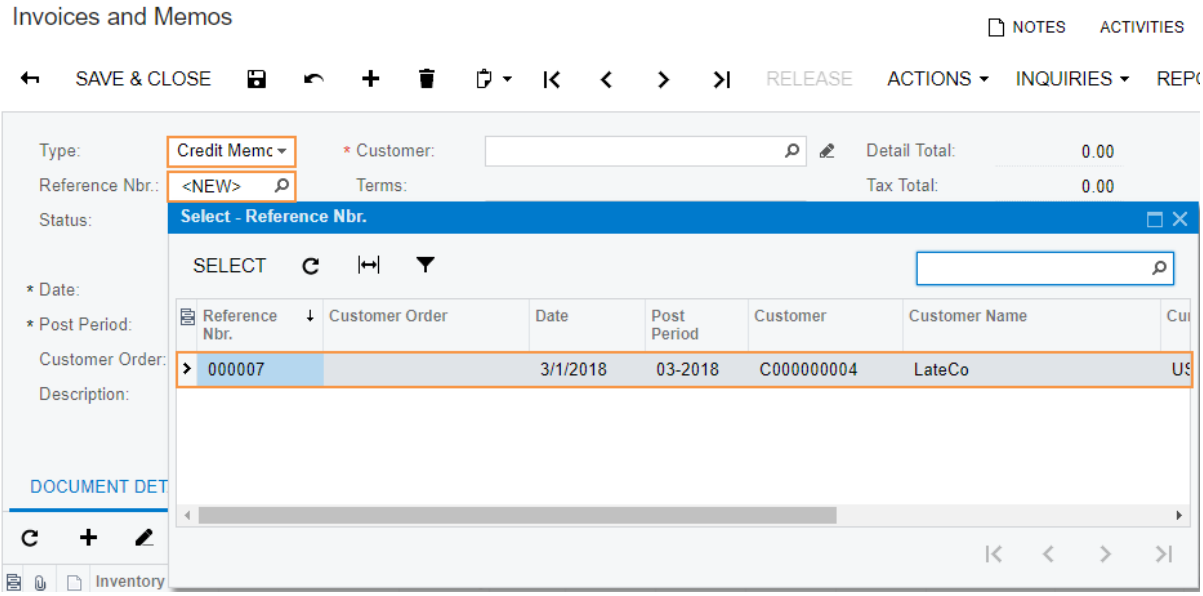


Figure: Opening a document by its reference number

2. Configuring the Quick Menu for the Training

Before you start to complete the training, make sure the needed workspaces (listed below) are pinned to the main menu and menu items (listed below along with the categories of the workspace they should

be listed under) are shown in the Quick Menus of the corresponding workspaces and add the forms that are not shown. This will help you access the forms quickly.

The following workspaces should be pinned to the main menu:

- System Management
- Sales Orders
- Inventory
- Services
- Equipment
- Routes

You can temporarily unpin workspaces other than the workspaces listed above from the main menu for your convenience.

The following items should be included in the Quick Menu of the corresponding workspaces:

- **System Management**
  - Licensing > Enable/Disable Features
- **Sales Orders** workspace:
  - Transactions > Sales Orders
- **Inventory** workspace:
  - Transactions > Receipts
  - Transactions > Issues
  - Inquiries > Inventory Summary
  - Preferences > Item Classes
  - Profiles > Stock Items
  - Profiles > Non-Stock Items
- **Services** workspace:
  - Transactions > Service Orders
  - Transactions > Appointments
  - Profiles > Services
  - Profiles > Staff
  - Preferences > Service Management Preferences
  - Preferences > Service Order Types
  - Preferences > Service Classes
  - Boards and Maps > Calendar Board
  - Boards and Maps > Staff Calendar Board
  - Boards and Maps > Staff Appointments on Map
  - Processes > Generate Invoices from Appointments
  - Reports > Appointment Summary
  - Inquiries > Appointment History

    - Inquiries > Invoice Generation Batches
- **Equipment** workspace:
    - Profiles > Service Contracts
    - Profiles > Equipment
    - Profiles > Manufacturers
    - Preferences > Equipment Management Preferences
    - Processes > Generate from Service Contracts
    - Inquiries > Appointment History
    - Inquiries > Model Equipment and Component Summary
- **Routes** workspace:
    - Transactions > Route Document Details
    - Transactions > Routes Closing
    - Preferences > Route Management Preferences
    - Preferences > Vehicle Types
    - Profiles > Routes
    - Profiles > Route Service Contracts
    - Profiles > Route Sequences
    - Profiles > Vehicles
    - Boards and Maps > Staff Routes on Map
    - Processes > Generate Route Appointments
    - Processes > Complete Routes
    - Processes > Close Routes
    - Processes > Inventory Updates
    - Inquiries > Route Document Worksheets
    - Inquiries > Inventory Update Batches

3. Completing the Training in the Classic UI

The following sections provide a quick overview of the classic UI and explain how to navigate in the system during the completion of the training.

To Switch Back to the Classic UI

When you have created a new company and signed in to it, the modern user interface is enabled by default. If you need to switch back to the classic UI, do the following:

1. In the top right corner, click the name of the current user, and click **My Profile**, as shown in the following screenshot.

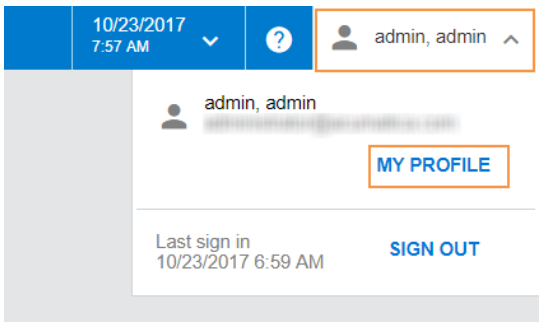


Figure: Opening the user profile

2. On the User Profile form (SM203010), which opens, select the **Show Classic UI by Default** check box, and save your changes.

To switch back to the modern UI, again click the name of the current user in the top right corner and click **Switch to Modern UI** in the menu (see the screenshot below).

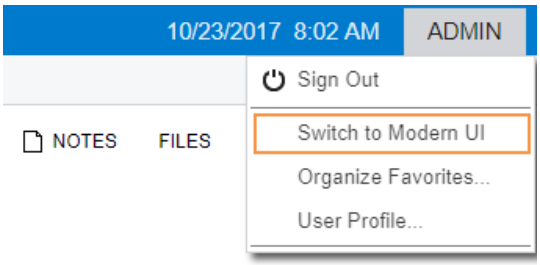


Figure: Switching to the modern UI

To Navigate to Forms in the Classic UI

To help learners to search for particular forms during the training completion in the classic UI, the paths to forms in this training guide are based on the classic UI. The main menu, at the top of the screen, shows suites and the modules of the selected suite. The navigation pane, located on the left side of the screen, shows the forms of the modules grouped by their functions. The path to a particular form is specified as follows in the training:

Form Title (Form ID; Suite > Module > Tab > Node)

For example, the form with the following path is shown in the screenshot below:

General Ledger Preferences form (GL102000; Finance > General Ledger > Configuration > Setup)

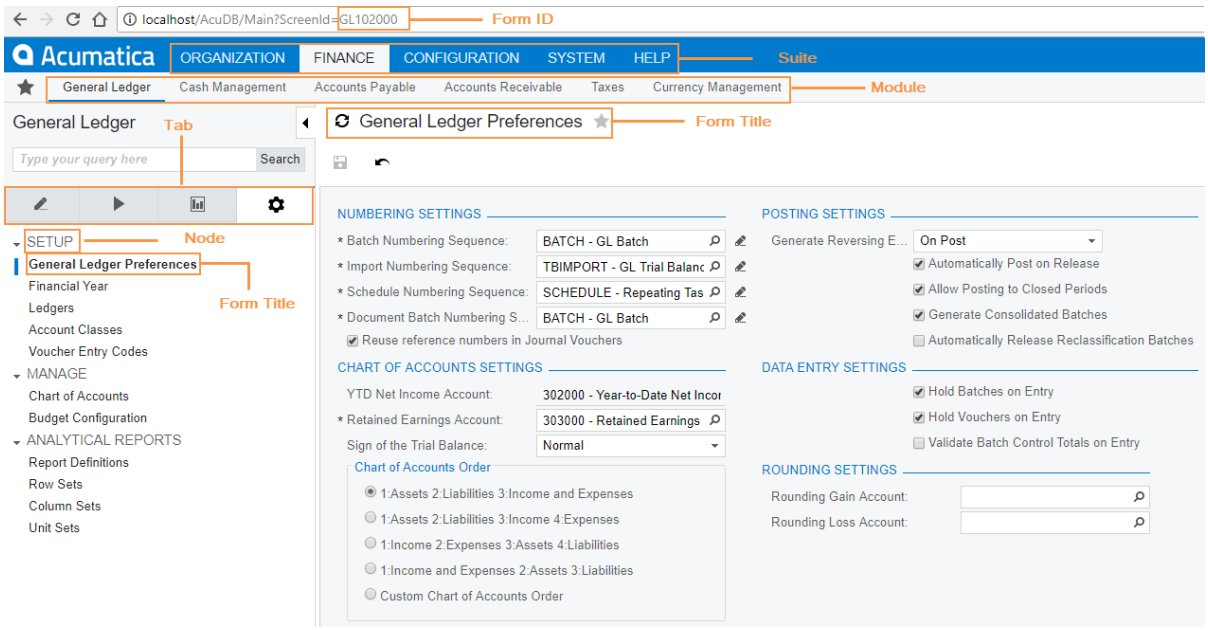


Figure: General Ledger Preferences form in the classic UI

4. Navigating to Forms: Tips

The following tips apply to the modern and classic user interfaces and will help you to quickly find and open any form.

How To Search for a Form by Its Title or ID

At any time, you can quickly search for a particular form by typing its title or ID in the Search box:

- In the modern UI, type the text in the Search box on the top of the screen (see the following screenshot). The system shows the search results in the Search window, which opens when you start typing the text in the Search box. Then on the **Menu Items** tab of the Search window, you click the link to open the needed form.

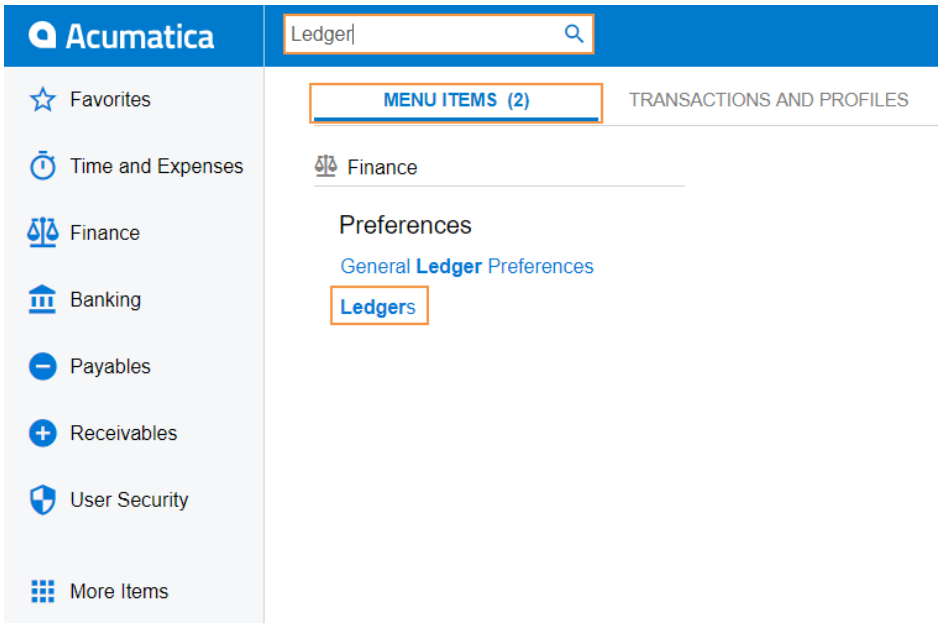


Figure: Searching for a form by title in the modern UI

- In the classic UI, type the text in the Search box at the top of the navigation pane (see the following screenshot). To navigate to the needed form, click it in the drop-down list with the search results.

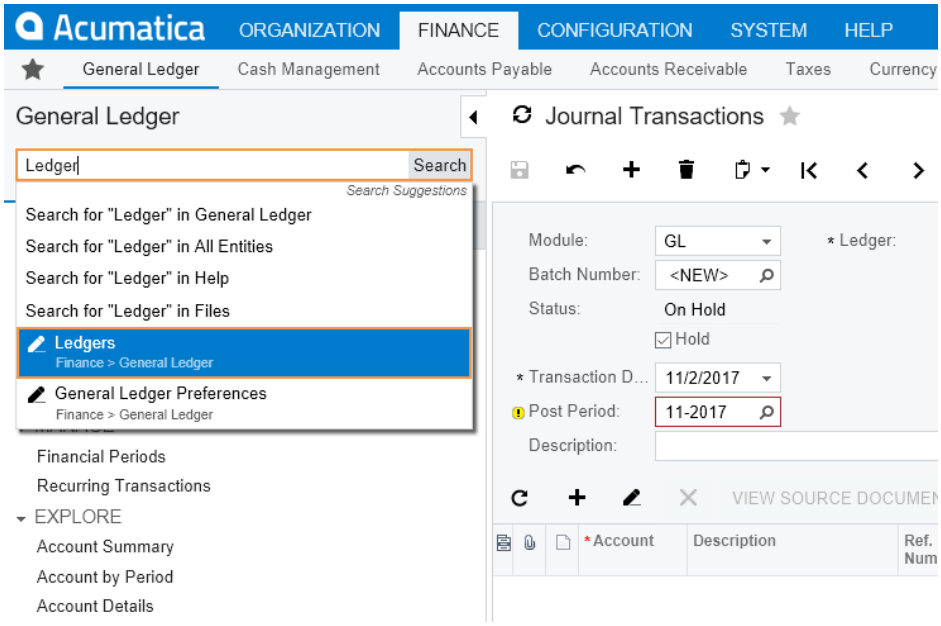


Figure: Searching for a form by its title in the classic UI

How To Navigate to Forms by Using the Form ID

In the training guide, each form is referred to by its ID. If you are not sure in which area a particular form is located, instead of searching for the form, you can simply open it by using its form ID. You can do this in both the modern UI and the classic UI as follows:

1. In the browser's address bar, change the form ID of the currently opened form to the form ID of the needed form (see the screenshot below).

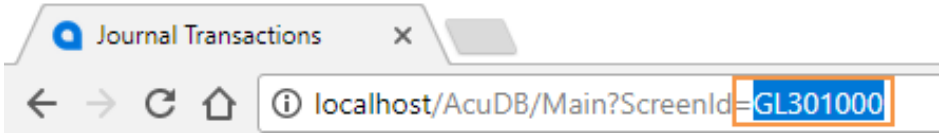


Figure: Entering the form ID

2. Press Enter. The system navigates to the form.

Part 1: Equipment Management

In this part of the course, you will learn the basics of configuring and using the Equipment Management module for handling equipment in Acumatica ERP. In particular, you will develop an understanding of the main concepts of the Equipment Management module and will perform the following tasks:

- Creating manufacturers
- Creating item classes for model equipment and components
- Creating model equipment with and without components
- Selling model equipment (that is, converting it to target equipment) and keeping track of sold equipment
- Selling components of model equipment
- Creating target equipment manually
- Replacing target equipment
- Replacing components of target equipment
- Managing service contracts

Lesson 1: Introduction to Equipment Management

In this lesson, you will perform the initial configuration of the Equipment Management module so that you can start working with it. You will learn the module capabilities and the entities this module uses. You will also learn the difference between target and model equipment, and get ready to perform basic procedures while working with the equipment in further lessons.

Once you complete this lesson, the Equipment Management module will be ready for use.

Lesson Objectives

You will do the following:

- Enable the *Equipment Management* feature on the Enable/Disable Features form (CS100000)
- Perform the minimum required configuration for the Equipment Management module

Equipment Management Module Overview

By using the Equipment Management module, which is a part of the Service suite, you can do the following:

- Manage and track equipment: You can track and manage information about the equipment that your company uses to provide services and the equipment for which your company provides services.
- Process service contracts: You can process customers' contracts that cover recurring service delivery—that is, enter service contract information, create schedules for the service delivery, and generate service orders for the contracts.

The Equipment Management module is integrated with the Service Management module, as well as with the Inventory module and the modules of the Finance suite. With the integration between the Equipment Management module and the Service Management module of Acumatica ERP, you can easily process service orders related to schedules of equipment maintenance.

Equipment Types

You can work with three types of equipment in the Equipment Management module:

- Model equipment: A piece of model equipment is a stock item intended to be sold to a customer and tracked by your company after it is sold. Model equipment may or may not consist of parts, also called *components*. Before it is sold, model equipment is located at one of your company's warehouses.
- Target equipment: Target equipment is equipment that your company performs particular services upon, such as repair and maintenance. When a piece of model equipment is sold to the customer, it is automatically converted to target equipment in the system. Target equipment can be owned by either the customer or your company.
- Resource equipment: Resource equipment is equipment (such as a drill) that a staff member takes from your company and uses during the appointments to perform the services. This equipment is not sold to customers.

In some cases, one piece of equipment can be both target equipment and resource equipment. For example, when you create appointments for a customer, you might include a drill as resource equipment, but if you want to repair your own drill, you could create an internal appointment and select the same drill as target equipment.

Ways to Use Equipment Entities in the System

In the Equipment Management module of Acumatica ERP, you can track the serial numbers of equipment after it is sold. You can track the warranties, upgrades, and other pertinent information for the equipment by using its serial number. You can also track the service history for the equipment, including every part that has been added to it. The system also supports tracking multiple serial numbers for the same equipment and tracking serial numbers for different components. An unlimited number of serial numbers can be tracked.

With the Equipment Management module, you can easily create and manage multiple schedules of equipment service delivery for each customer. You then generate service orders in the Service Management module, and plan and schedule all the appointments by using calendar boards.

Interaction of the Equipment Management Module with Other Modules

From the Equipment Management module, you can generate service orders and appointments in the Service Management module according to the schedules of service contracts. After appointments and service orders have been completed or closed, you can generate billing documents in the appropriate module, depending on the settings of the Service Management module. The following options are available:

- Generating documents in the Accounts Receivable module
- Generating documents in the Sales Order module

The documents are further processed in the respective modules, and financial transactions are posted to the General Ledger module. In the following diagram, you can see the flow of documents from the Equipment Management module (shown at the bottom of the diagram).

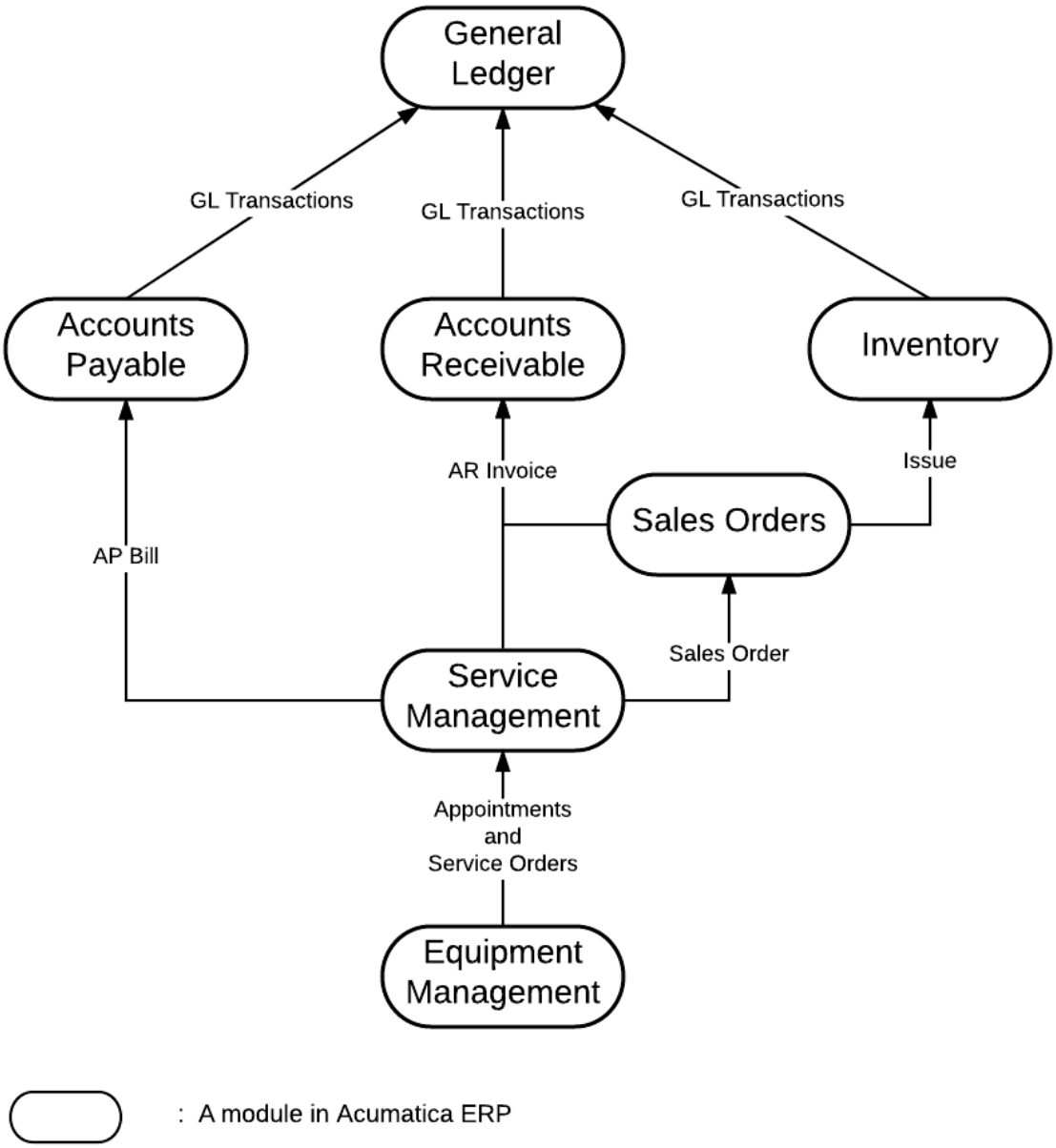


Figure: Document flow from Equipment Management

Step 1.1: Enabling the Equipment Management Feature

In this step, you will enable the *Equipment Management* feature to activate the Equipment Management module.

Each particular feature may be subject to additional licensing; please consult the Acumatica ERP sales policy for details.

Perform the following instructions:

1. On the Enable/Disable Features form (CS100000; Configuration > Common Settings > Licensing), click **Modify** to be able to change the features that are activated in the system.
2. Under **Service Management**, select the **Equipment Management** check box, as shown in the following screenshot.

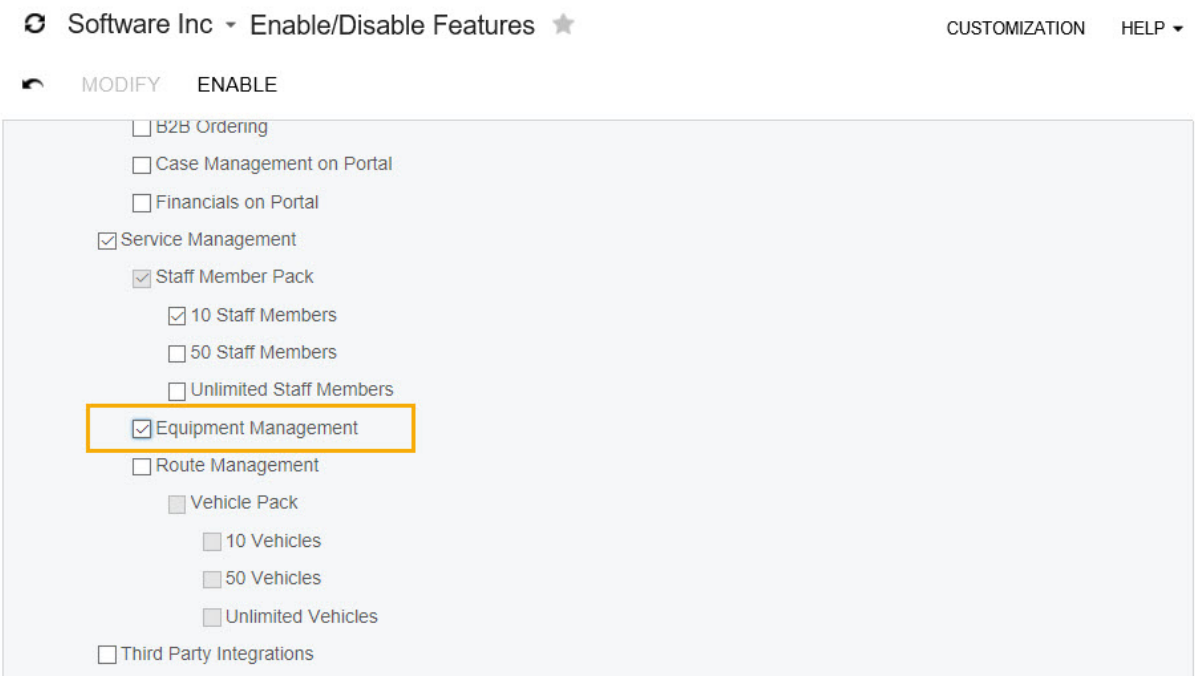


Figure: Equipment Management feature

3. On the toolbar, click **Enable**.

Step 1.2: Configuring the Equipment Management Module

In this step, you will specify a numbering option that is mandatory for the Equipment Management module to be used. Normally, you develop numbering rules (which will later determine how the autonumbering sequences are configured) for equipment. For this training, the numbering sequence, which you will select, is preconfigured and has been uploaded with the *V150* data.

Because the Service Management and Equipment Management modules of the Service suite are integrated, the Equipment Management module cannot operate if you have not done the following in the Service Management module:

- Specified the general settings of the module on the Service Management Preferences form (FS100100)
- Created service order types, service classes, and services that will be used by the Equipment Management module

Also, the initial system configuration must be completed and the General Ledger module must be configured (for example, financial periods for the current year are created or any needed General Ledger accounts or subaccounts are created) before you implement the Equipment Management module.

In the *V150* dataset that you have used to create a company for the training, the settings related to service management have been configured already, so you can specify the configuration related directly to equipment management (which involves defining the numbering sequence to be used for equipment).

To define the numbering sequence for the Equipment Management module, perform the following instructions:

1. On the Equipment Management Preferences form (FS100300; Service > Equipment Management > Configuration > Setup), specify the following setting (as shown below):
   - **Equipment Numbering Sequence**: *SMEQUIPMNT*

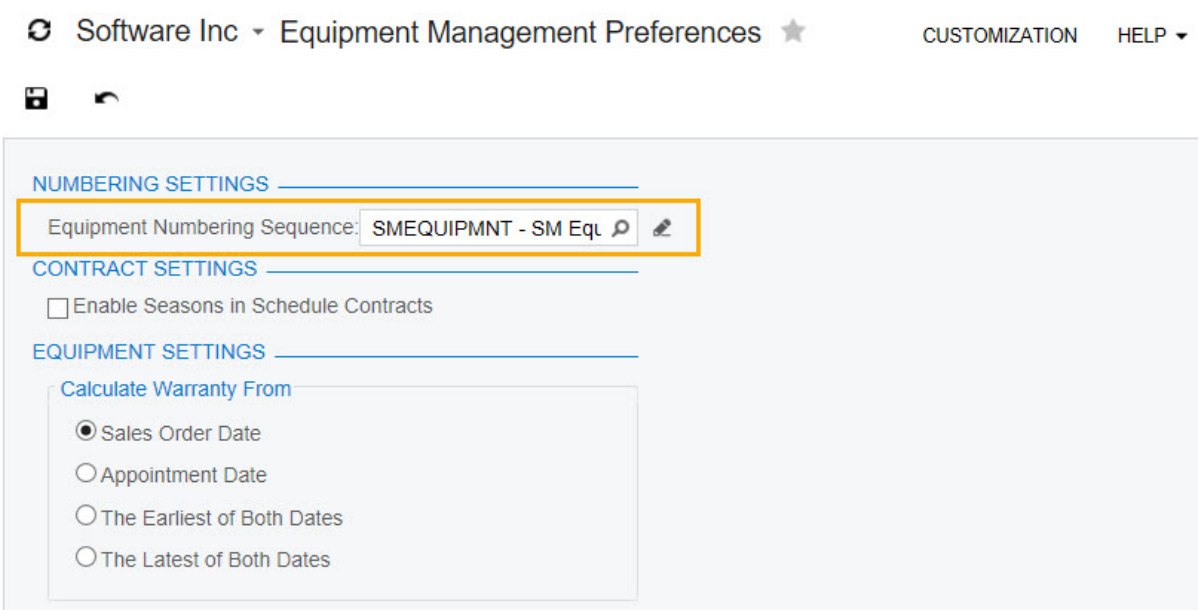


Figure: Numbering sequence for Equipment Management module

2. Save your changes.

Now you are ready to use the Equipment Management module.

Related Links

Configuring Equipment Management

Lesson Summary

In this lesson, you have been introduced to model equipment, target equipment, and resource equipment in Acumatica ERP.

Also, you have prepared the initial configuration of the Equipment Management module so that you can start using Acumatica ERP for MyCompany's management of target equipment.

Review Questions:

- On which form of Acumatica ERP do you configure the settings of the Equipment Management module?
- Can you start using the Equipment Management module if you have not performed the initial Service Management configuration?
- What is the difference between the types of equipment in the Acumatica ERP system?
- Can one piece of equipment be model equipment and target equipment at the same time?
- Can one piece of equipment be resource equipment and target equipment at the same time?

Lesson 2: Managing Model Equipment

In this lesson, you will perform basic procedures while working with the model equipment.

Once you complete this lesson, you will have two pieces of model equipment ready for use.

Lesson Objectives

You will create the following in the system:

- A manufacturer
- An item class for model equipment
- An item class for components
- A model equipment entity without components
- A model equipment entity with components

Step 2.1: Creating a Manufacturer

In this step, you will create in the system a manufacturer of the equipment MyCompany has in stock: the *DEELL* manufacturer, a producer of the laptops and computers that MyCompany sells to its customers.

To create this manufacturer, perform the following instructions:

1. On the Manufacturers form (FS204400; Service > Equipment Management > Work Area > Manage), create a new manufacturer with the following settings:
   - **Manufacturer ID**: `DEELL`
   - **Description**: `Deell`

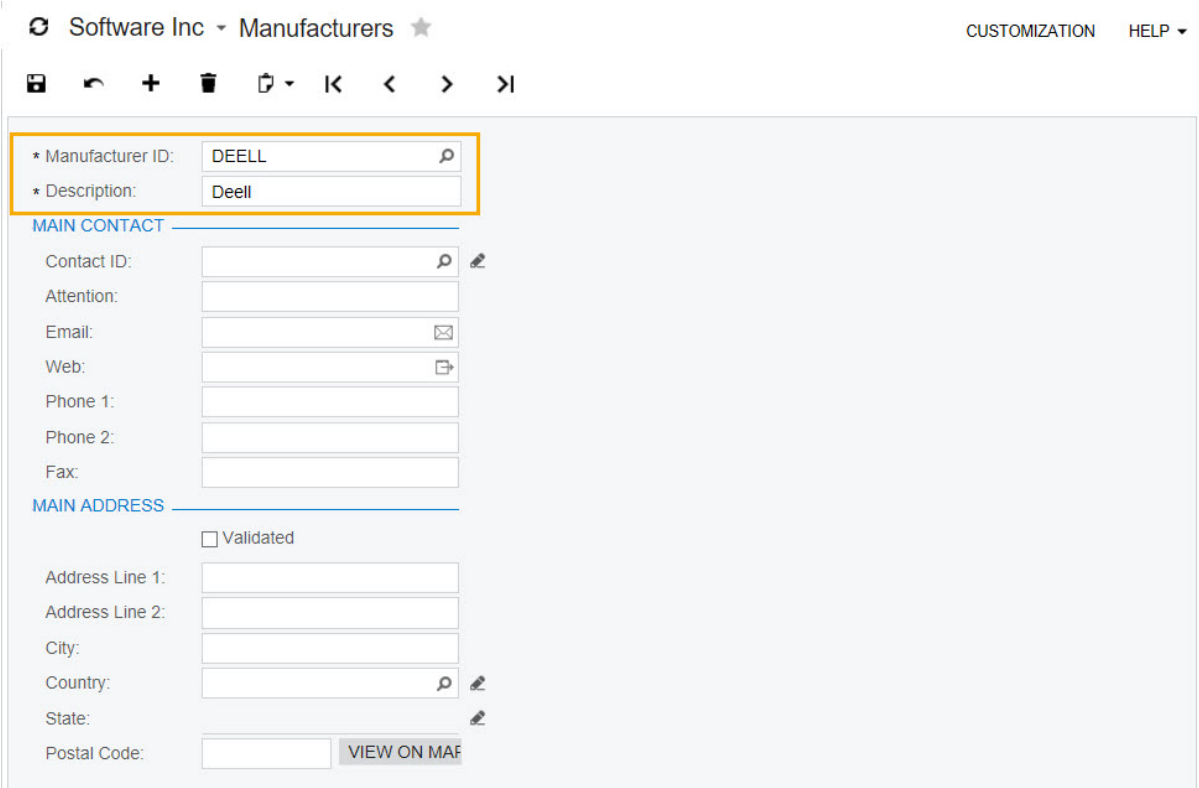


Figure: Creating a manufacturer

2. Save your changes.

Step 2.2: Creating an Item Class for Model Equipment

To keep track of stock items and their parts after they are sold, you need to create appropriate item classes. Item classes, which are created and maintained on the Item Classes (IN201000) form, are used to group stock or non-stock items with similar properties and to provide default settings for new items.

When the *Equipment Management* feature is enabled, on the **Service Management tab** of the Item Classes form (201000), you select one of the following option buttons, which define the type of stock items in the equipment item class:

- **Part or Other Inventory Item** (default): Stock items of this type are either parts of equipment entities that should not be tracked in the system or inventory items that are not related to equipment entities.
- **Model Equipment**: Stock items of this type should be tracked (either for preventive maintenance or for warranty handling) after they are sold.
- **Component**: Stock items of this type can be sold as parts of equipment entities. Components can have warranties, serial numbers, and other settings that are independent from these settings for the equipment entity.
- **Consumable**: Stock items of this type are sold as parts of equipment entities but are not under a warranty.

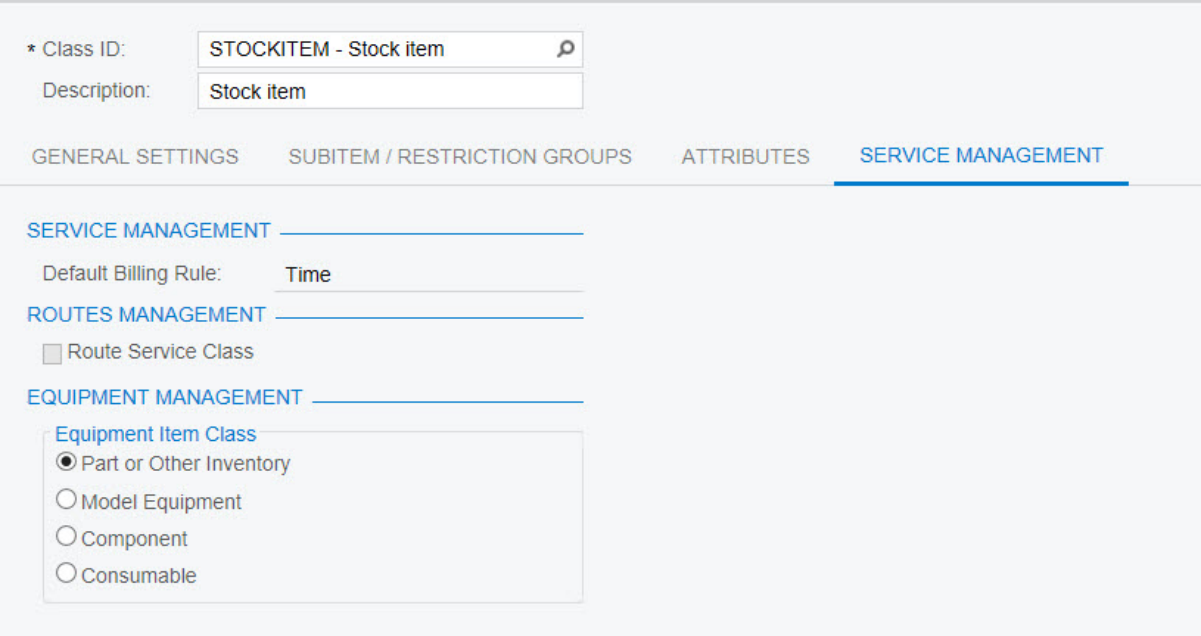


Figure: Equipment item class

In this step, you will create the *LAPTOP* equipment item class. This model equipment that does not have components.

Perform the following instructions:

1. On the Item Classes form (IN201000; Distribution > Inventory > Configuration > Manage), create a new item class, and specify the following settings in the Summary area:
   - **Class ID**: `LAPTOP`
   - **Description**: `Laptops`
2. On the **General Settings** tab, in the **General Settings** section, specify the following settings, as shown in the screenshot below:
   - **Stock Item**: Selected
   - **Item Type**: *Finished Good*

- **Tax Category**: *EXEMPT*
- **Posting Class**: *STOCKITEM*
- **Default Warehouse**: *MAIN*
- **Availability Calculation Rule**: *STOCKITEM*

3. In the **Unit of Measure** section of the tab, specify the following settings (also shown in the following screenshot):

- **Base Unit**: *PIECE*
- **Sales Unit**: *PIECE*
- **Purchase Unit**: *PIECE*

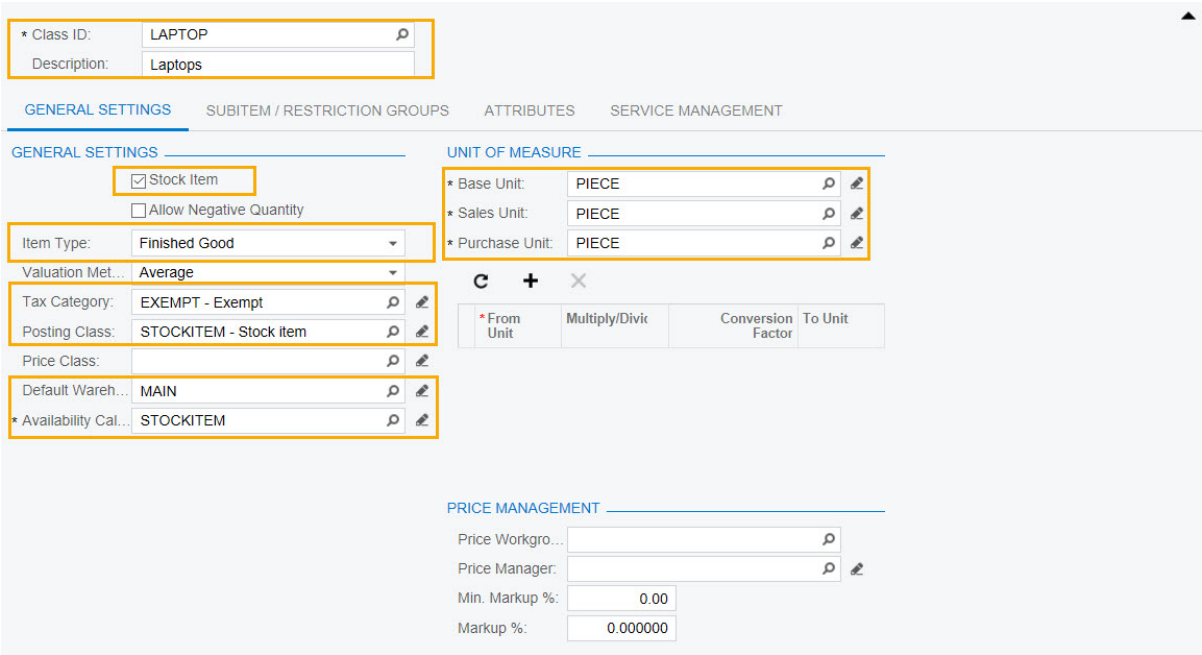


Figure: Creation of a new item class

4. On the **Service Management** tab, in the **Equipment Management** area, select **Model Equipment** under **Equipment Item Class**.

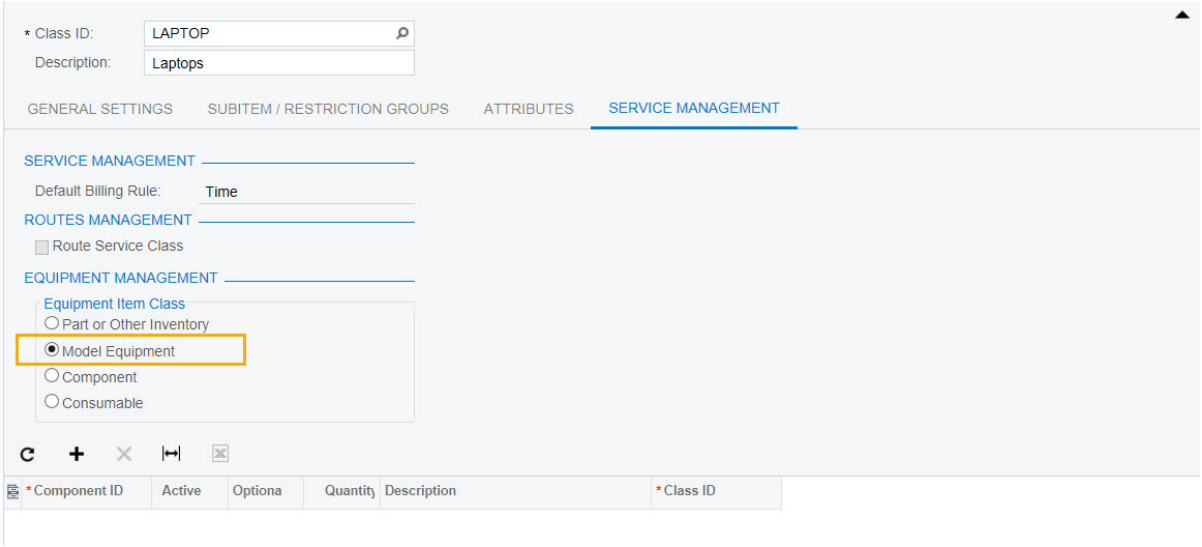


Figure: Creation of a new item class

5. Save your changes.

Step 2.3: Creating Model Equipment with No Components

In this step, you will create a piece of model equipment without components—the *XPS15* laptop.

To create this model equipment, perform the following instructions:

1. On the Stock Items form (IN202500; Distribution > Inventory > Work Area > Manage), create a new stock item, and specify the following settings in the Summary area:
   - **Inventory ID**: `XPS15`
   - **Item Status**: *Active*
   - **Description**: `Laptop DEELL XPS 15`
2. On the **General Settings** tab (**Item Defaults** section), select *LAPTOP* as the **Item Class**.

   The **Tax Category**, **Posting Class**, and **Default Warehouse** boxes, as well as the boxes in the **Unit of Measure** section, have been populated with the values from the item class you selected. If needed, you can override these settings.
3. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*, as shown in the following screenshot.

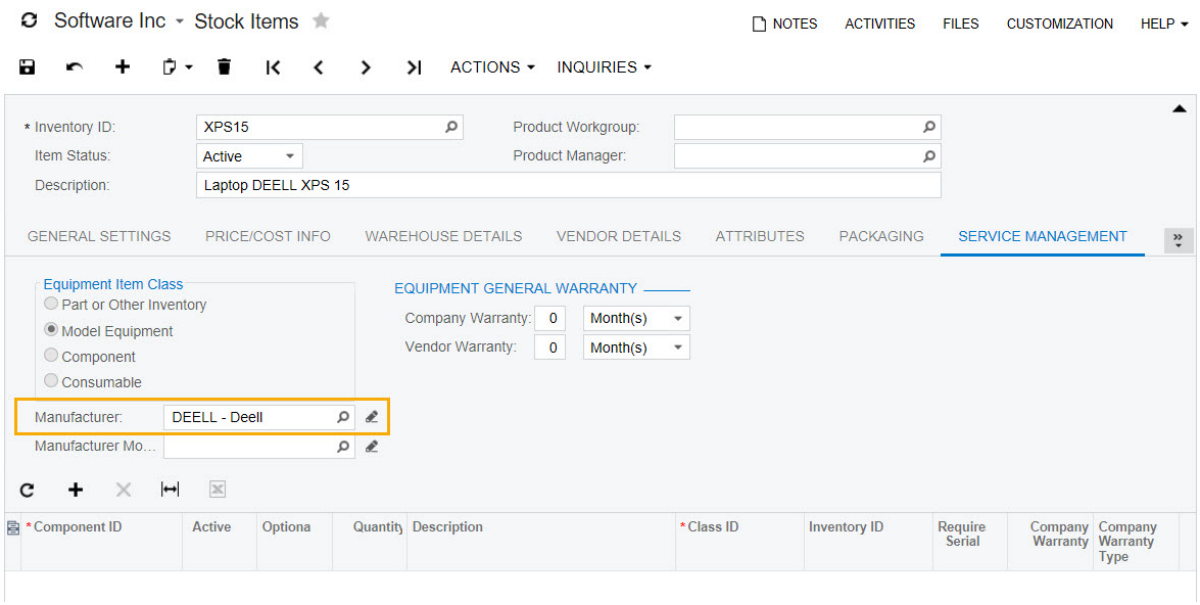


Figure: Model equipment without components

   Notice that the **Model Equipment** option button on this tab (under **Equipment Item Class**) has been selected based on the settings of the item class. Unlike most settings of the item class, this setting cannot be overridden.
4. Save your changes.

Step 2.4: Creating Item Classes for Components

In this step, you will create four equipment item classes: *MONITOR*, *MTBOARD*, *RAM*, and *OTHER* to represent the components of a particular model equipment (in our case, a computer). The components defined by these classes are the components that make up the model equipment.

To create item classes for components of model equipment, perform the following instructions:

1. On the Item Classes form (IN201000; Distribution > Inventory > Configuration > Manage), create a new item class, and specify the following settings in the Summary area:
   - **Class ID**: `MONITOR`
   - **Description**: `Computer monitors`
2. On the **General Settings** tab, in the **General Settings** section, specify the following settings, as shown in the screenshot below:
   - **Stock Item**: Selected
   - **Item Type**: *Finished Good*
   - **Tax Category**: *EXEMPT*
   - **Posting Class**: *STOCKITEM*
   - **Default Warehouse**: *MAIN*
   - **Availability Calculation Rule**: *STOCKITEM*
3. In the **Unit of Measure** section, specify the following settings, also shown in the screenshot below:
   - **Base Unit**: *PIECE*
   - **Sales Unit**: *PIECE*
   - **Purchase Unit**: *PIECE*

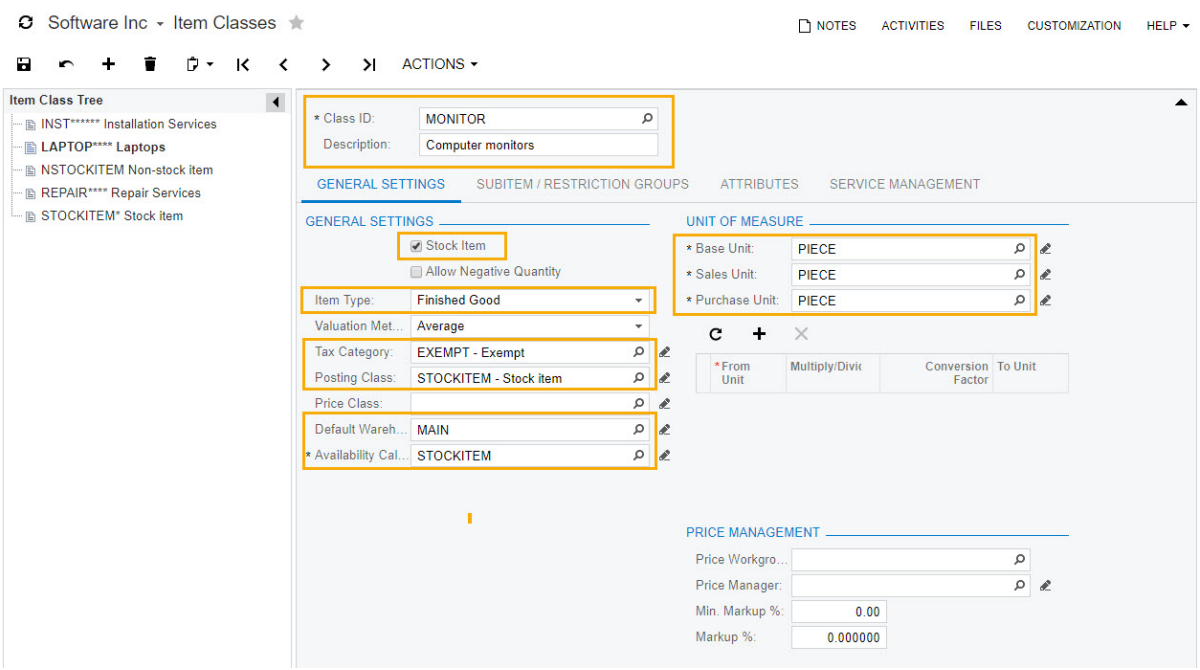


Figure: New item class for components of the computer model equipment

4. On the **Service Management** tab, in the **Equipment Management** section, select **Component** under **Equipment Item Class**, as shown in the following screenshot.

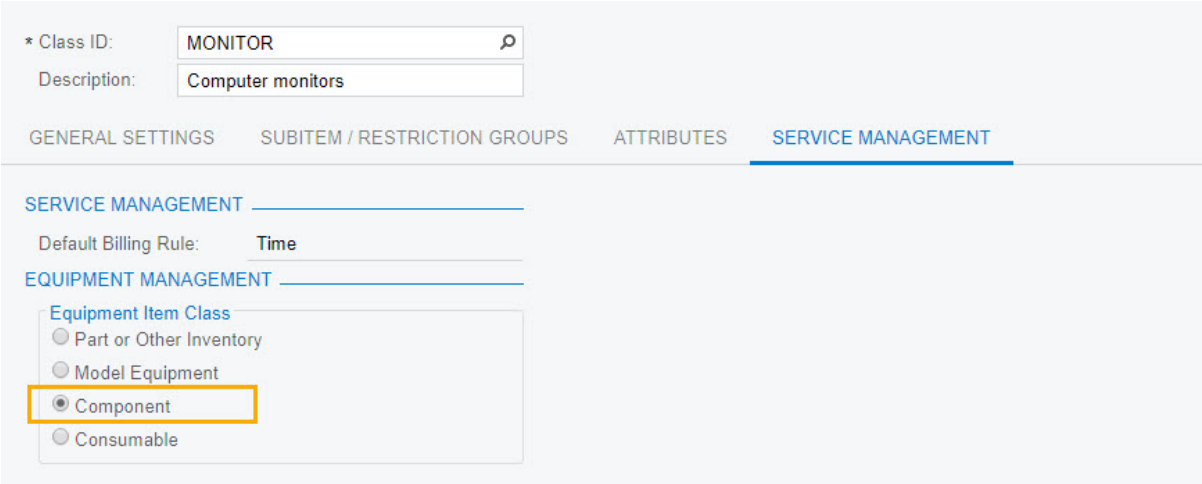


Figure: Selection of the equipment item class type

5. Save your changes.
6. Repeat steps 1–5 to create three more item classes with the same settings and the following names:
   - **Class ID**: `RAM` and **Description**: `RAM`
   - **Class ID**: `MTBOARD` and **Description**: `Motherboards`
   - **Class ID**: `OTHER` and **Description**: `Other Computer Components`

   To facilitate the process of creating item classes, you can use the **Clipboard** button on the form toolbar to copy and paste the form contents.

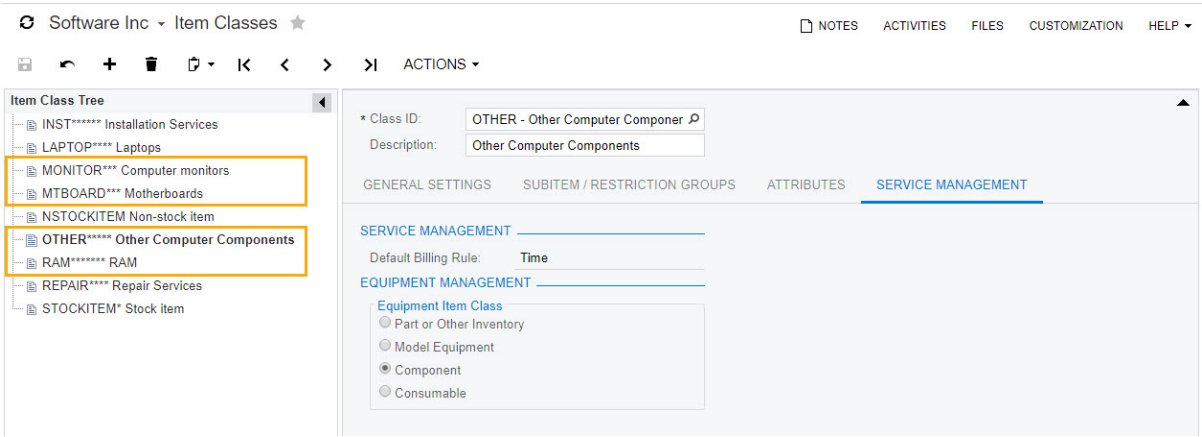


Figure: Created item classes

Now you can create the stock items (that is, the components) in the item classes you have created.

Step 2.5: Creating Components

In this step, you will create several stock items of the equipment item classes with the *Component* type: a motherboard, a RAM stick, two monitors, a keyboard, and a mouse. You will also specify warranty settings for these components.

On the **Service Management** tab of the Stock Items form (IN202500), you can track the duration of two types of warranties:

- The warranty that your company provides to the customer for the stock item, which you specify in the **Company Warranty** box
- The warranty that vendor provides the warranty to your company for the stock item, which you specify in the **Vendor Warranty** box on the **Service Management** tab of the Stock Items form (IN202500)

For each stock item of the *Model Equipment* or *Component* equipment item class, you can specify either of the warranties, both of them, or neither of them.

On the Equipment Management Preferences (FS100300) form, you can also select how the warranty duration is calculated based on the sales order or appointment date.

In this step, you will create the components listed in the table below.

Description	Inventory ID	Company Warranty	Vendor Warranty
Main monitor	MMONIT	2 years	6 months
Additional monitor	OMONIT	1 year	6 months
Motherboard	MBOARD	6 months	1 year
RAM memory	RAM	6 months	1 year
Keyboard	KBOARD	N/A	18 months
Mouse	MOUSE3050	6 months	N/A

Perform the following instructions:

1. On the Stock Items form (IN202500; Distribution > Inventory > Work Area > Manage), create a new stock item, and specify the following settings in the Summary area:
   - **Inventory ID**: `MMONIT`
   - **Item Status**: *Active*
   - **Description**: `Main monitor`
2. On the **General Settings** tab (**Item Defaults** section), select *MONITOR* as the **Item Class**.

   The **Tax Category**, **Posting Class**, and **Default Warehouse** boxes, as well as those in the **Unit of Measure** section, have been populated with the values from the selected item class.
3. On the **Price/Cost Info** tab, set the **Default Price** to `300`.
4. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*, as shown in the following screenshot.
5. In the **Equipment General Warranty** area, set **Company Warranty** to *2 Year(s)* and **Vendor Warranty** to *6 Month(s)*, as also shown in the following screenshot.

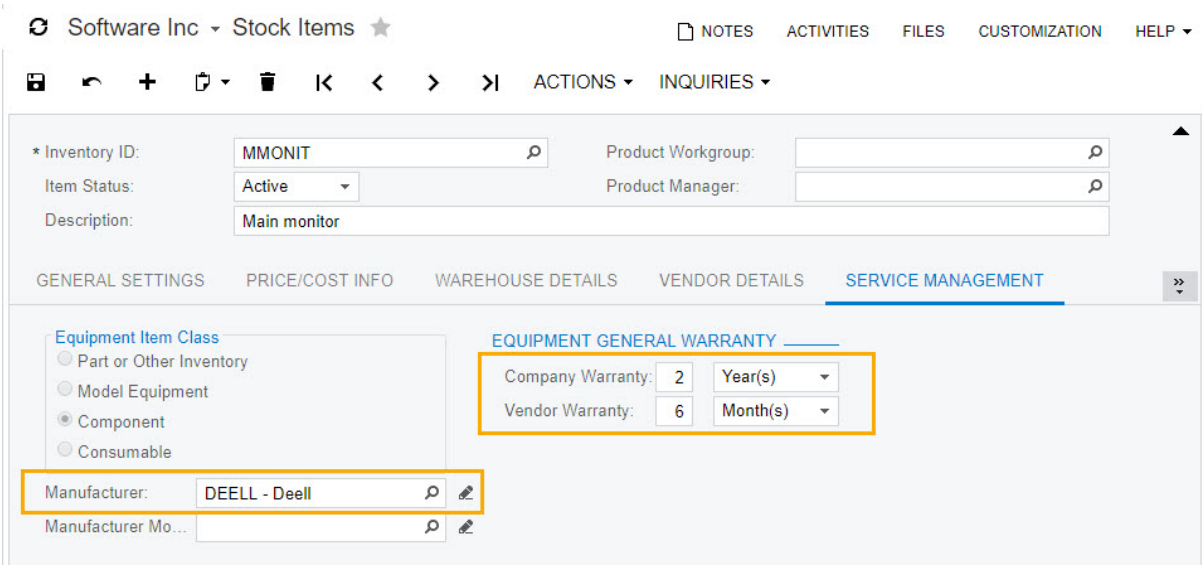


Figure: New component

Notice that the **Component** option button (under **Equipment Item Class**) has been selected based on the settings of the item class you selected, and you cannot change this setting.

6. Save your changes.
7. On the form toolbar, click **Add New Record** to create a new stock item, and specify the following settings in the Summary area:
   - **Inventory ID**: `OMONIT`
   - **Item Status**: *Active*
   - **Description**: `Additional monitor`
8. On the **General Settings** tab (**Item Defaults** section), select *MONITOR* as the **Item Class**.
9. On the **Price/Cost Info** tab, set the **Default Price** to `300`.
10. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*.
11. In the **Equipment General Warranty** area, set **Company Warranty** to *1 Year(s)* and **Vendor Warranty** to *6 Month(s)*, as shown in the following screenshot.

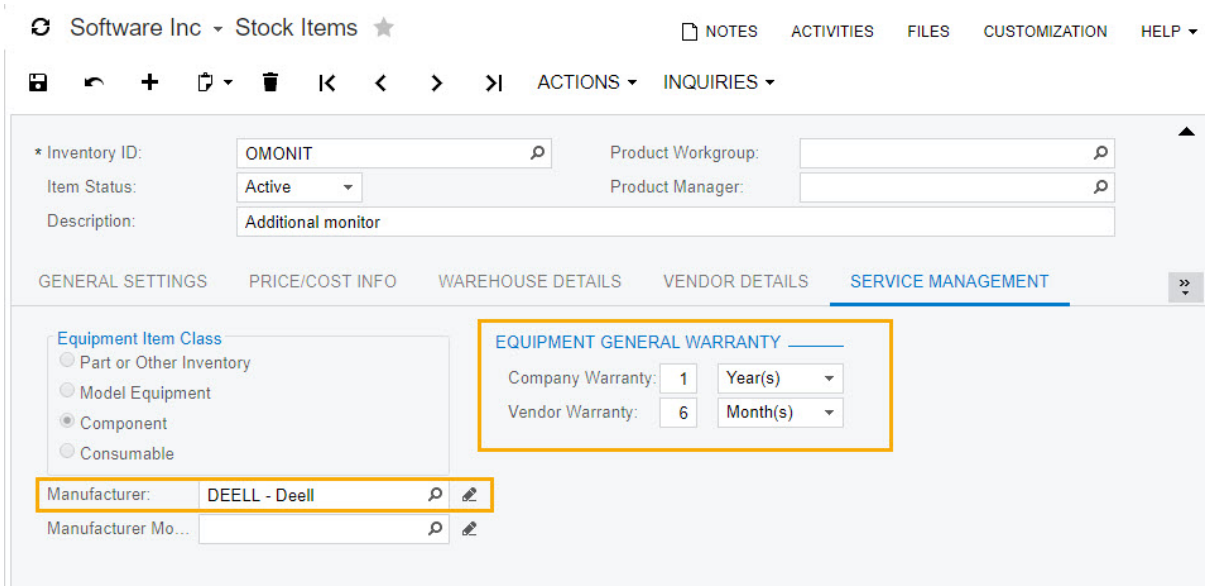


Figure: New component

12. Save your changes.
13. On the form toolbar, click **Add New Record** to create a new stock item, and specify the following settings in the Summary area:
    - **Inventory ID**: `RAM`
    - **Item Status**: *Active*
    - **Description**: `RAM Memory`
14. On the **General Settings** tab (**Item Defaults** section), select *RAM* as the **Item Class**.
15. On the **Price/Cost Info** tab, set the **Default Price** to `200`.
16. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*.
17. In the **Equipment General Warranty** area, set **Company Warranty** to *6 Month(s)* and **Vendor Warranty** to *12 Month(s)*, as shown in the following screenshot.

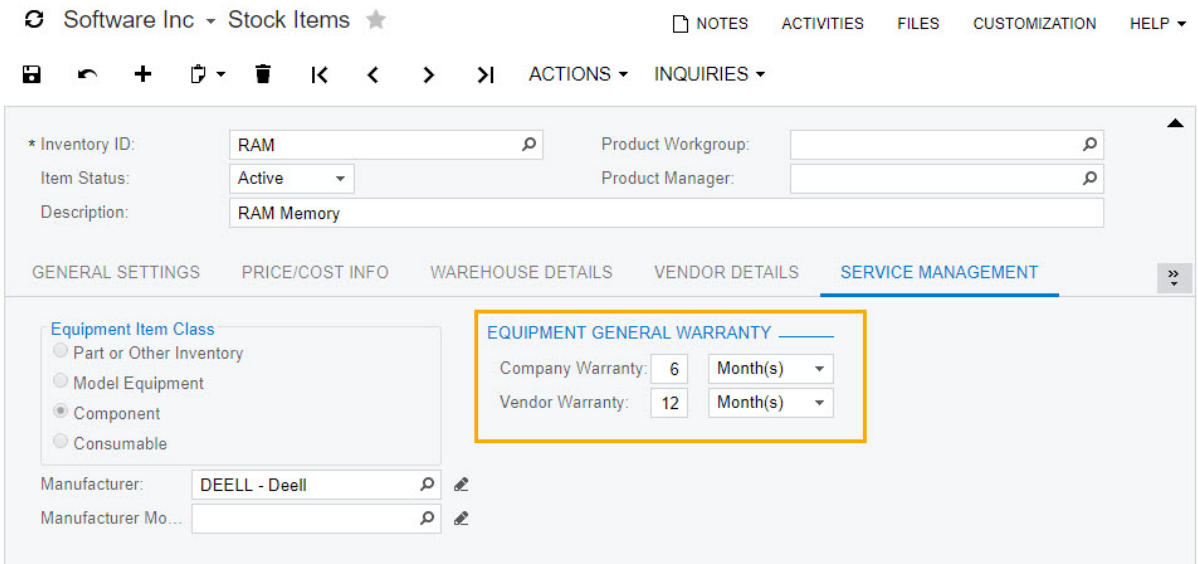


Figure: New component

18. Save your changes.

19. On the form toolbar, click **Add New Record** to create a new stock item, and specify the following settings in the Summary area:

- **Inventory ID**: `MBOARD`
- **Item Status**: *Active*
- **Description**: `Motherboard`

20. On the **General Settings** tab (**Item Defaults** section), select *MTBOARD* as the **Item Class**.

21. On the **Price/Cost Info** tab, set the **Default Price** to `500`.

22. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*.

23. In the **Equipment General Warranty** area, set **Company Warranty** to *6 Month(s)* and **Vendor Warranty** to *12 Month(s)*, as shown in the following screenshot.

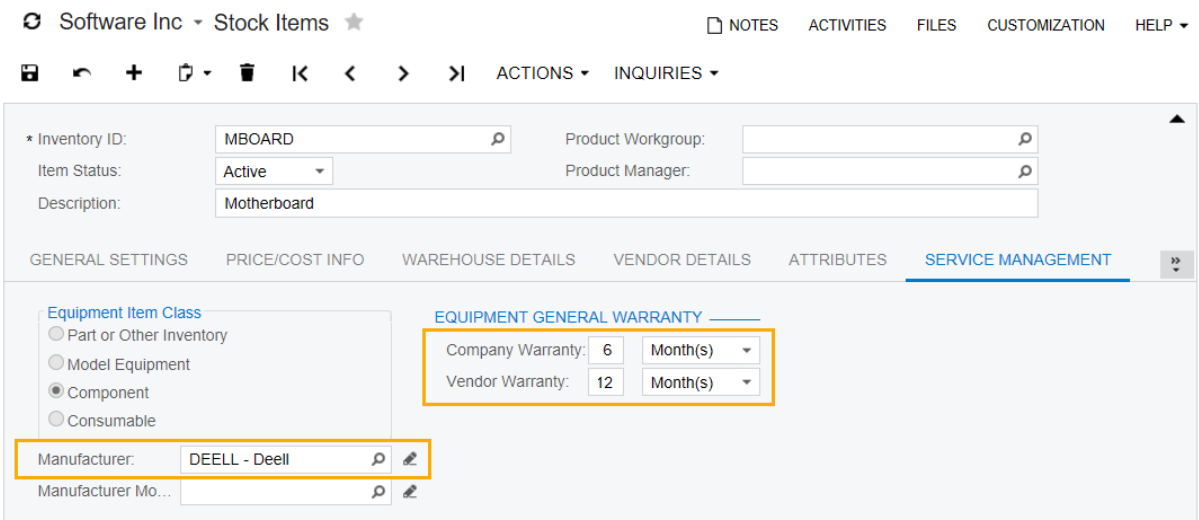


Figure: New component

24. Save your changes.

25. On the form toolbar, click **Add New Record** to create a new stock item, and specify the following settings in the Summary area:

- **Inventory ID**: `KBOARD`
- **Item Status**: *Active*
- **Description**: `Keyboard`

26. On the **General Settings** tab (**Item Defaults** section), select *OTHER* as the **Item Class**.

27. On the **Price/Cost Info** tab, set the **Default Price** to `20`.

28. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*.

29. In the **Equipment General Warranty** area, set **Vendor Warranty** to *18 Month(s)*, as shown in the following screenshot.

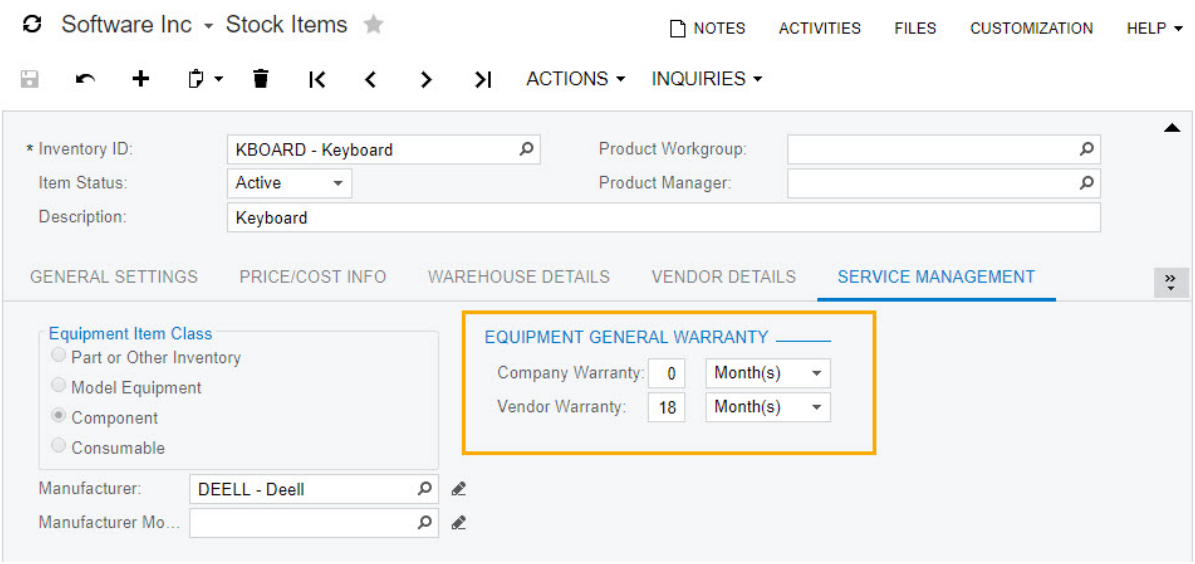


Figure: New component

30. Save your changes.

31. On the form toolbar, click **Add New Record** to create a new stock item, and specify the following settings in the Summary area:

- **Inventory ID**: `MOUSE3050`
- **Item Status**: *Active*
- **Description**: `Mouse`

32. On the **General Settings** tab (**Item Defaults** section), select *OTHER* as the **Item Class**.

33. On the **Price/Cost Info** tab, set the **Default Price** to `10`.

34. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*.

35. In the **Equipment General Warranty** area, set **Company Warranty** to *6 Month(s)*, as shown in the following screenshot.

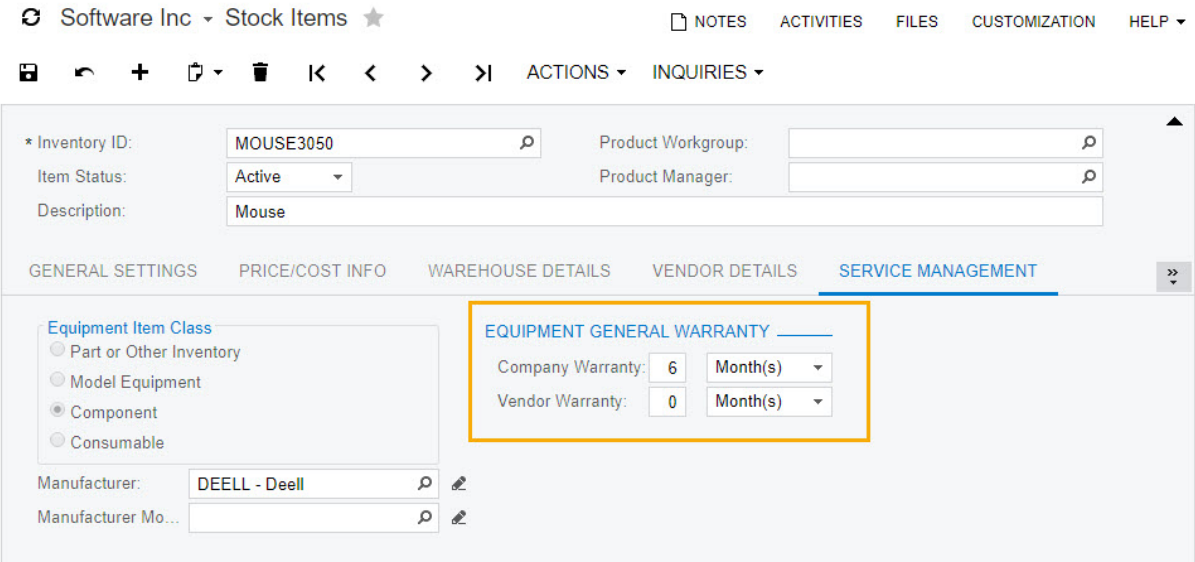


Figure: New component

36. Save your changes.

Now you are ready to create an item class for model equipment with components. You will then create model equipment entity based on this class.

Step 2.6: Creating an Item Class for Model Equipment with Components

In this step, you will create the *COMPUTER* equipment item class for model equipment (in this case, a computer) that has components. You will specify some components (additional monitor) as optional, which means the items of this equipment items class can be sold without this optional component. You will also specify the quantity of every component in the piece of model equipment.

Perform the following instructions:

1. On the Item Classes form (IN201000; Distribution > Inventory > Configuration > Manage), create a new item class, and specify the following settings in the Summary area:
   - **Class ID**: `COMPUTER`
   - **Description**: `Computers`
2. On the **General Settings** tab, in the **General Settings** section, specify the following settings, as shown in the screenshot below:
   - **Stock Item**: Selected
   - **Item Type**: *Finished Good*
   - **Tax Category**: *EXEMPT*
   - **Posting Class**: *STOCKITEM*
   - **Default Warehouse**: *MAIN*
   - **Availability Calculation Rule**: *STOCKITEM*
3. In the **Unit of Measure** section of the tab, specify the following settings (also shown in the following screenshot):
   - **Base Unit**: *PIECE*
   - **Sales Unit**: *PIECE*
   - **Purchase Unit**: *PIECE*

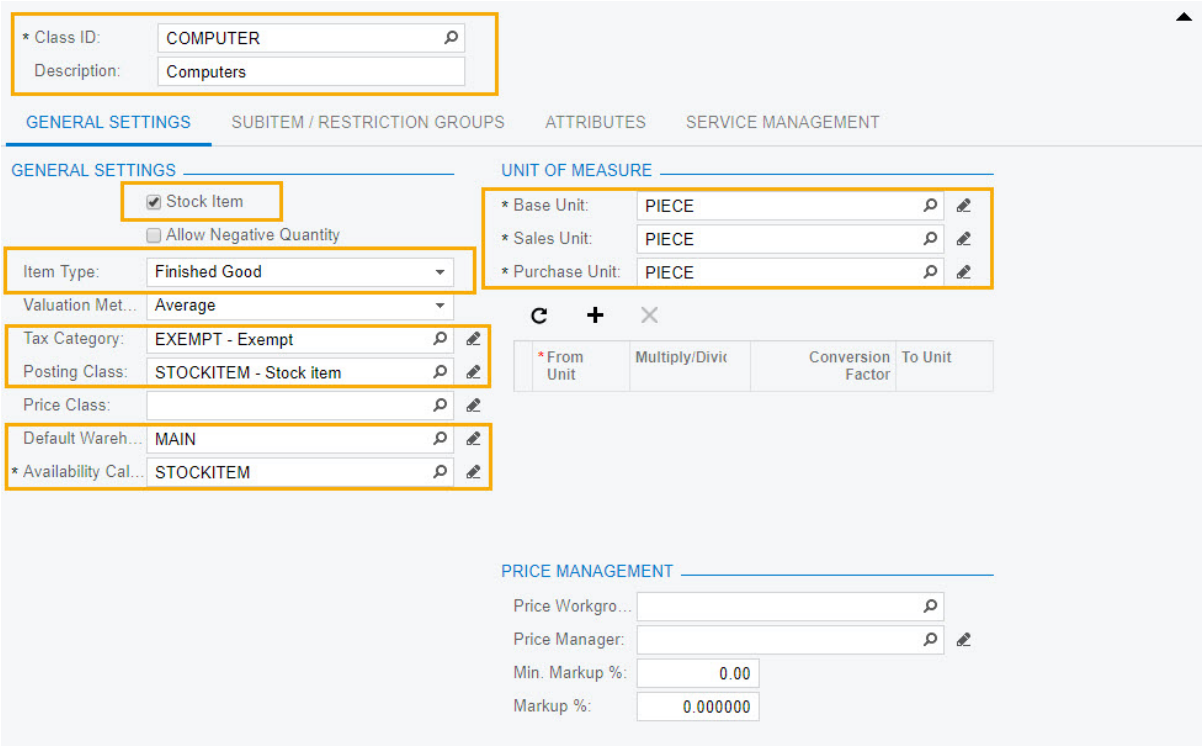


Figure: Creation of a new item class

4. On the **Service Management** tab, in the **Equipment Management** area, select **Model Equipment** under **Equipment Item Class**.

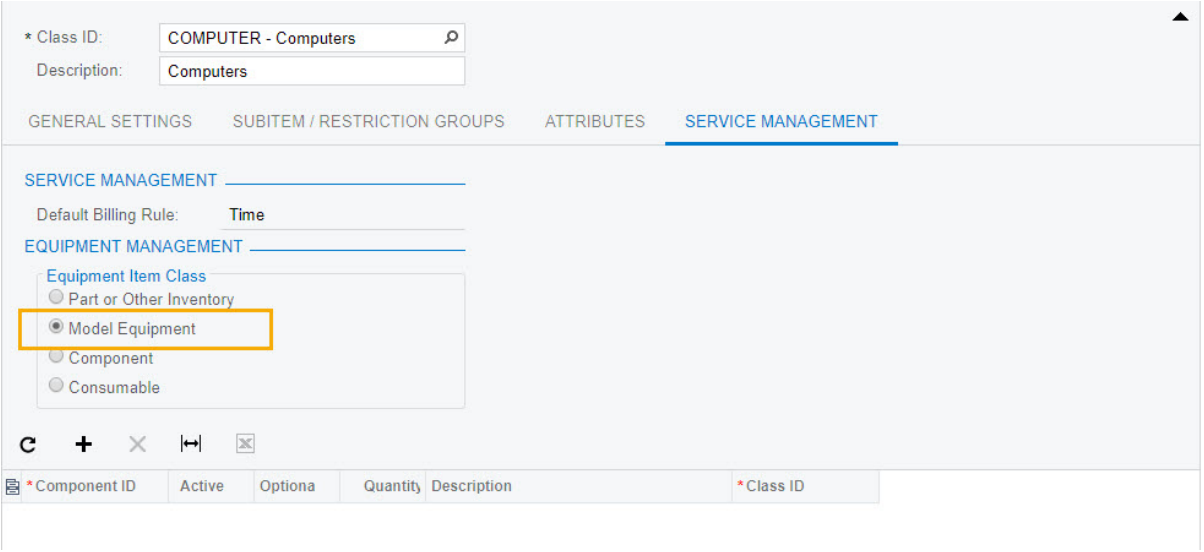


Figure: Creation of a new item class

5. Save your changes.

6. On the table toolbar, click **Add Row** and specify the following settings to add the component to the item class:

   - **Component ID**: `MMONIT`
   - **Active**: Selected

     Selecting this check box means that the component is active in the system and can be used in the Equipment Management module.

- **Optional**: Cleared
- **Quantity**: `1`
- **Description**: `Main monitor`
- **Class ID**: *MONITOR*

7. On the table toolbar, click **Add Row** and specify the following settings to add the component to the item class:
   - **Component ID**: `OMONIT`
   - **Active**: Selected
   - **Optional**: Selected

     Selecting this check box means that you can sell stock items without this component.
   - **Quantity**: `1`
   - **Description**: `Additional monitor`
   - **Class ID**: *MONITOR*
8. On the table toolbar, click **Add Row** and specify the following settings to add the component to the item class:
   - **Component ID**: `MBOARD`
   - **Active**: Selected
   - **Optional**: Cleared
   - **Quantity**: `1`
   - **Description**: `Motherboard`
   - **Class ID**: *MTBOARD*
9. Click **Add Row** and specify the following settings to add another component to the item class:
   - **Component ID**: `RAM`
   - **Active**: Selected
   - **Optional**: Cleared
   - **Quantity**: `2`
   - **Description**: `RAM`
   - **Class ID**: *RAM*
10. Click **Add Row** and specify the following settings to add another component to the item class:
    - **Component ID**: `KBOARD`
    - **Active**: Selected
    - **Optional**: Cleared
    - **Quantity**: `1`
    - **Description**: `Keyboard`
    - **Class ID**: *OTHER*
11. Click **Add Row** and specify the following settings to add another component to the item class:
    - **Component ID**: `MOUSE3050`
    - **Active**: Selected
    - **Optional**: Cleared
    - **Quantity**: `1`

- **Description**: `Mouse`
- **Class ID**: *OTHER*

12. Save your changes.

The components have been added to the *COMPUTER* item class, as shown in the following screenshot.

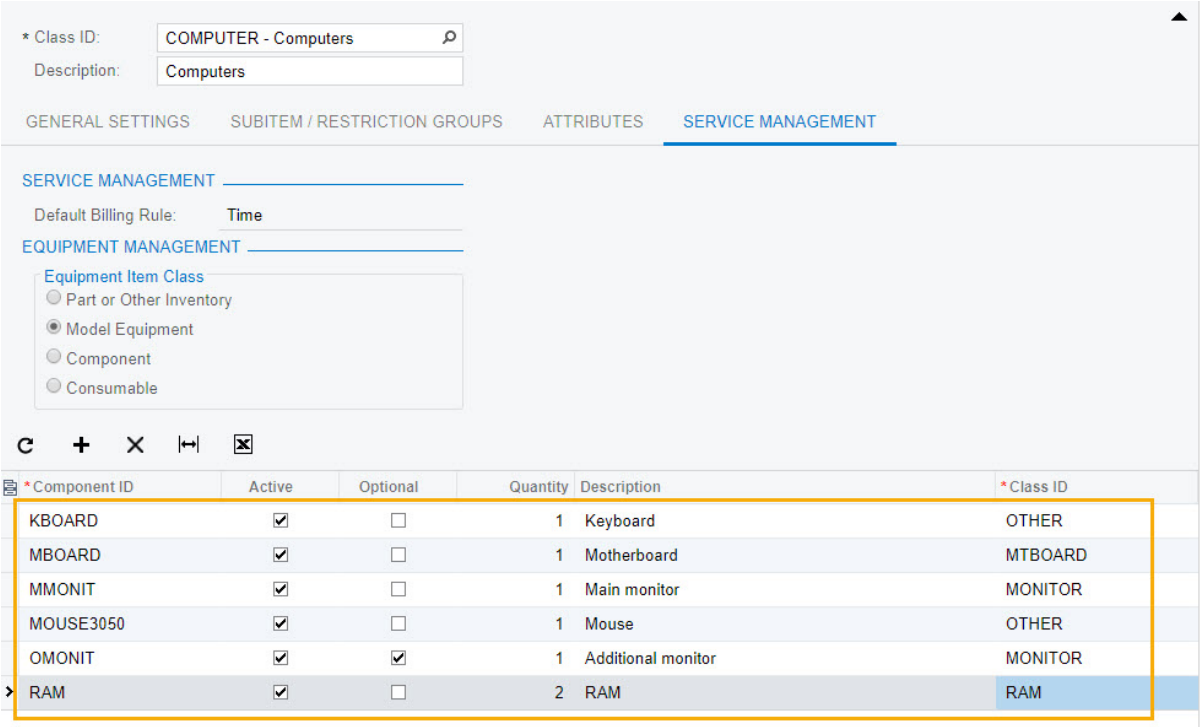


Figure: The updated item class

Step 2.7: Creating Model Equipment With Components

In this step, you will create a piece of model equipment with components—the *INSPRN3050* desktop computer.

Perform the following instructions:

1. On the Stock Items form (IN202500; Distribution > Inventory > Work Area > Manage), create a new stock item, and specify the following settings in the Summary area:
   - **Inventory ID**: `INSPRN3050`
   - **Item Status**: *Active*
   - **Description**: `Desktop Inspiron 3050`
2. On the **General Settings** tab (**Item Defaults** section), select *COMPUTER* as the **Item Class**.

   The **Tax Category**, **Posting Class**, and **Default Warehouse** boxes, as well as the boxes in the **Unit of Measure** section, have been populated with the values from the selected item class.
3. On the **Price/Cost Info** tab, set the **Default Price** to `1000`.
4. On the **Service Management** tab, in the **Manufacturer** box, select *DEELL*, as shown in the following screenshot.

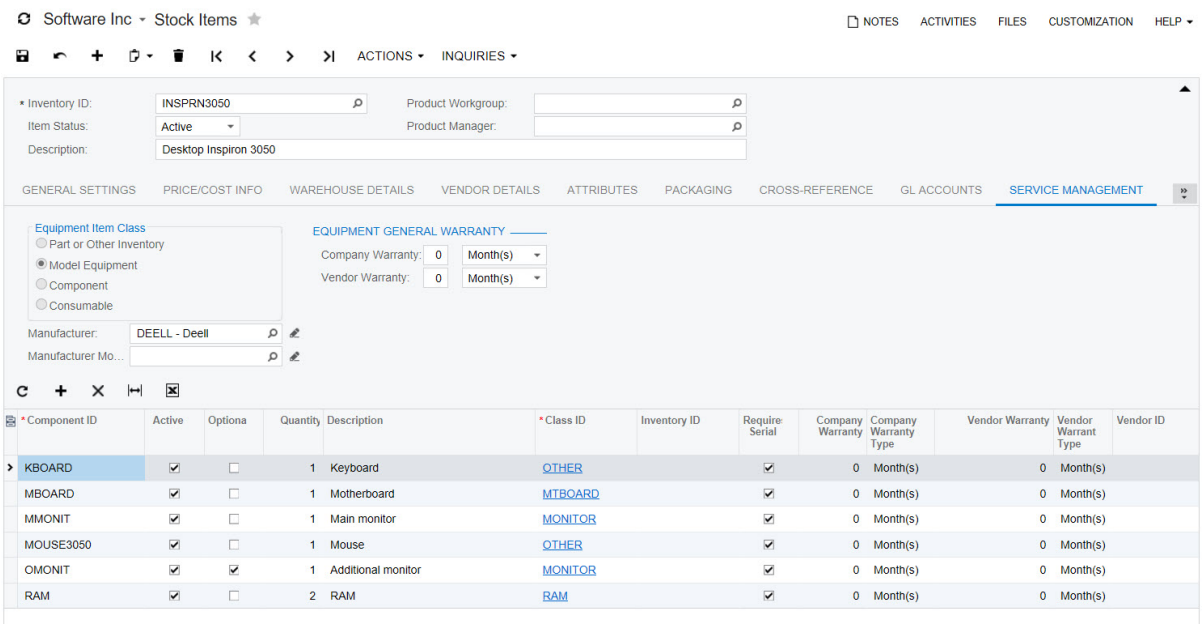


Figure: Model equipment with components

   Notice that the **Model Equipment** option button has been selected based on the settings of the item class, and you cannot change this setting.
5. Save your changes.
6. In the table, specify the following settings in the **Inventory ID** column for the rows with these **Component ID** settings:
   - *KBOARD*: *KBOARD*
   - *MBOARD*: *MBOARD*
   - *MMONIT*: *MMONIT*
   - *MOUSE3050*: *MOUSE3050*
   - *OMONIT*: *OMONIT*
   - *RAM*: *RAM*

Notice that the system updates the warranty settings as you select the inventory IDs, as you can see in the screenshot below.

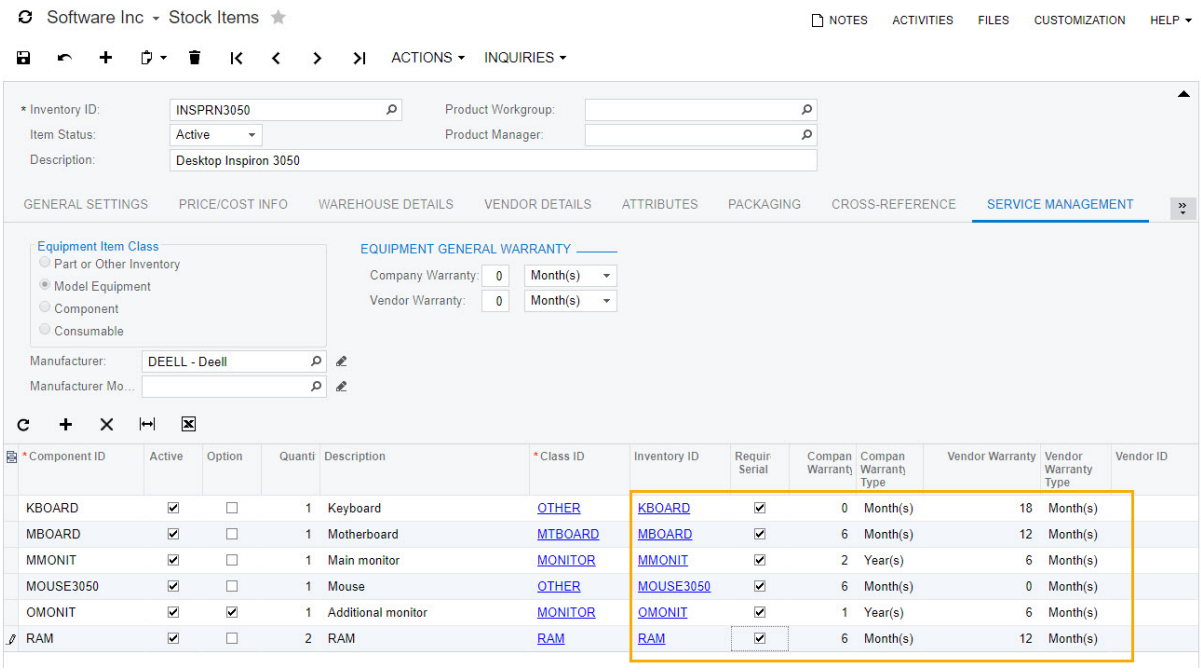


Figure: Piece of model equipment with components

7. In the row with the **KBOARD** component, clear the **Require Serial** check box.
8. In the row with the **MBOARD** component, in the **Vendor ID** column, select *V00000007*.
9. In the **Equipment General Warranty** area, specify the following warranty settings for the model equipment as a whole:
   - **Company Warranty**: *6 Month(s)*
   - **Vendor Warranty**: *12 Month(s)*
10. Save your changes.

    The model equipment you have created is shown in the following screenshot.

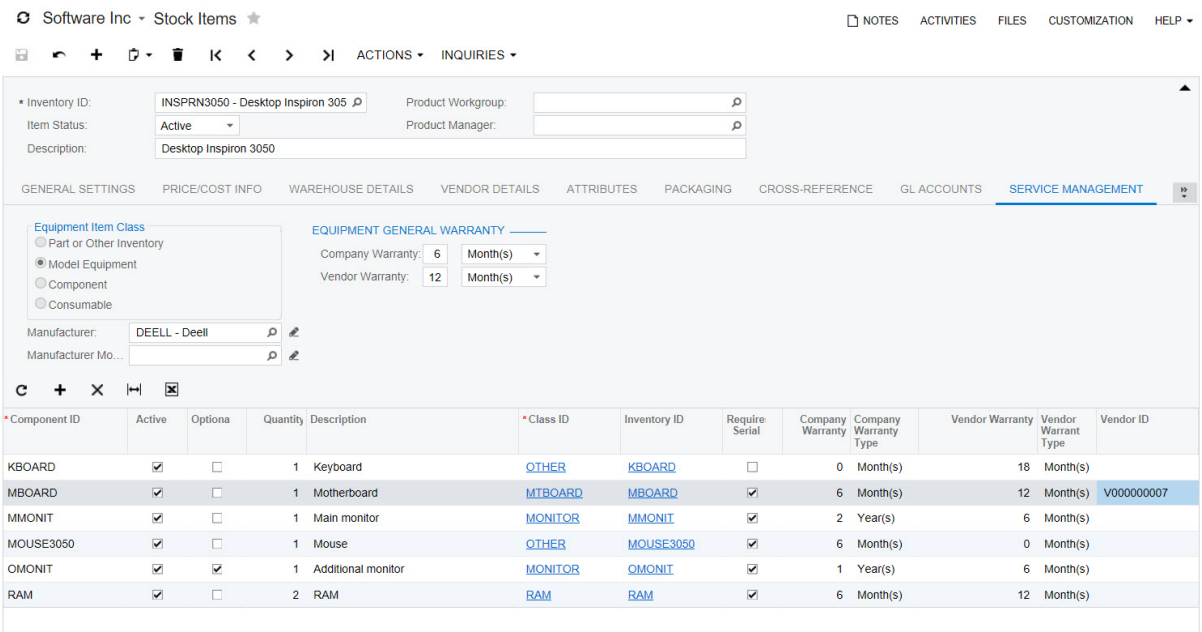


Figure: Piece of model equipment with components

11. Navigate to the Model Equipment Summary form (FS400400; Service > Equipment Management > Work Area > Explore), and verify that both pieces of model equipment you have created (in this step and Step 2.3) are listed. All components created in the previous step are also listed here.

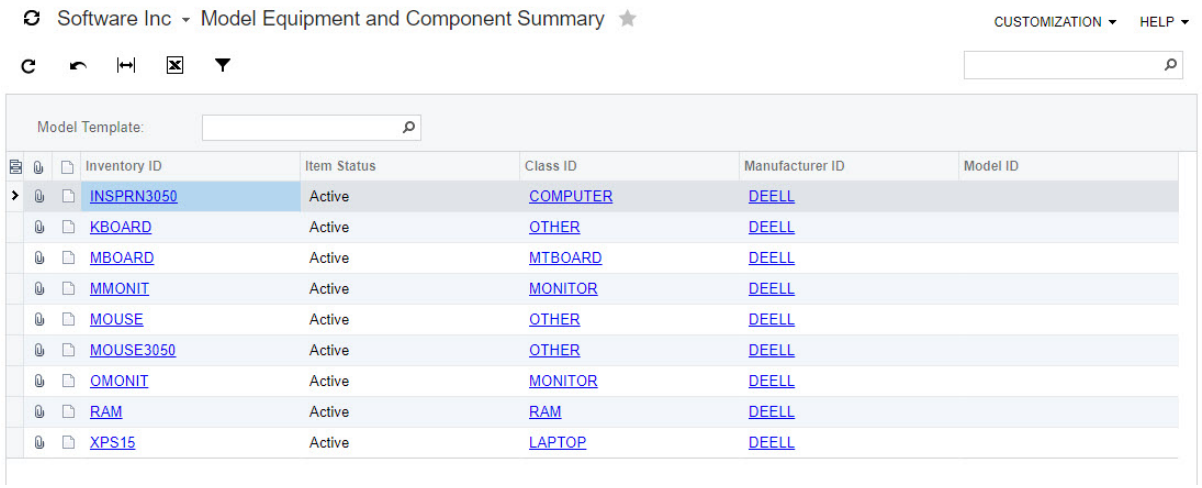


Figure: The defined model equipment

Lesson Summary

In this lesson, you have created a manufacturer, six item classes and two pieces of model equipment: one with components (a computer) and one without (a laptop). You have also created components that can be sold or replaced separately.

Now you can register target equipment in the system and create the appointments for which service is performed on this equipment.

Review Questions:

- What is the purpose of creating model equipment with components?
- What is the difference between the four types of equipment item classes (*Part or Other Inventory*, *Model Equipment*, *Component*, and *Consumable*)?
- Is it possible to create model equipment entities without having at least one dedicated item class?
- What is the purpose of specifying warranty settings for components in the system?

Lesson 3: Managing Target Equipment

In this lesson, you will learn how to create and manage target equipment in the system. Target equipment is equipment that needs to be serviced at the customer site or at your company.

Once you complete this lesson, you will have two pieces of target equipment ready for use, and you will have completed and billed the appointment at which service will be performed on the target equipment.

Lesson Objectives

You will do the following:

- Register stock items in the system
- Create a sales order that includes model equipment (which is converted to target equipment)
- Review the target equipment that a particular customer possesses
- Specify in the system the serial numbers of equipment components of target equipment
- Create an appointment for services performed on the customer's target equipment
- Create target equipment manually
- Sell a piece of model equipment and an optional component
- Sell an optional component to upgrade target equipment
- Upgrade a default component of a model equipment being sold
- Replace target equipment
- Replace a component of target equipment

Creating Target Equipment and Selling Model Equipment

You can create target equipment in the following ways:

- By selling a piece of model equipment, thus causing the system to create the corresponding target equipment automatically. The target equipment is created when you release the invoice document (associated with the sales order) on the Invoices form (SO303000).
- By creating a target equipment entity directly on the Equipment form (FS205000).
- By modifying the item class of the stock items you have already sold to indicate that these stock items will now be handled as model equipment, and then converting these stock items into target equipment on the Create Equipment for Sold Items form (FS500900).

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can easily register the sale of model equipment entities.

In the diagram below, you can see the entire process of selling model equipment within a service order (starting from the top).

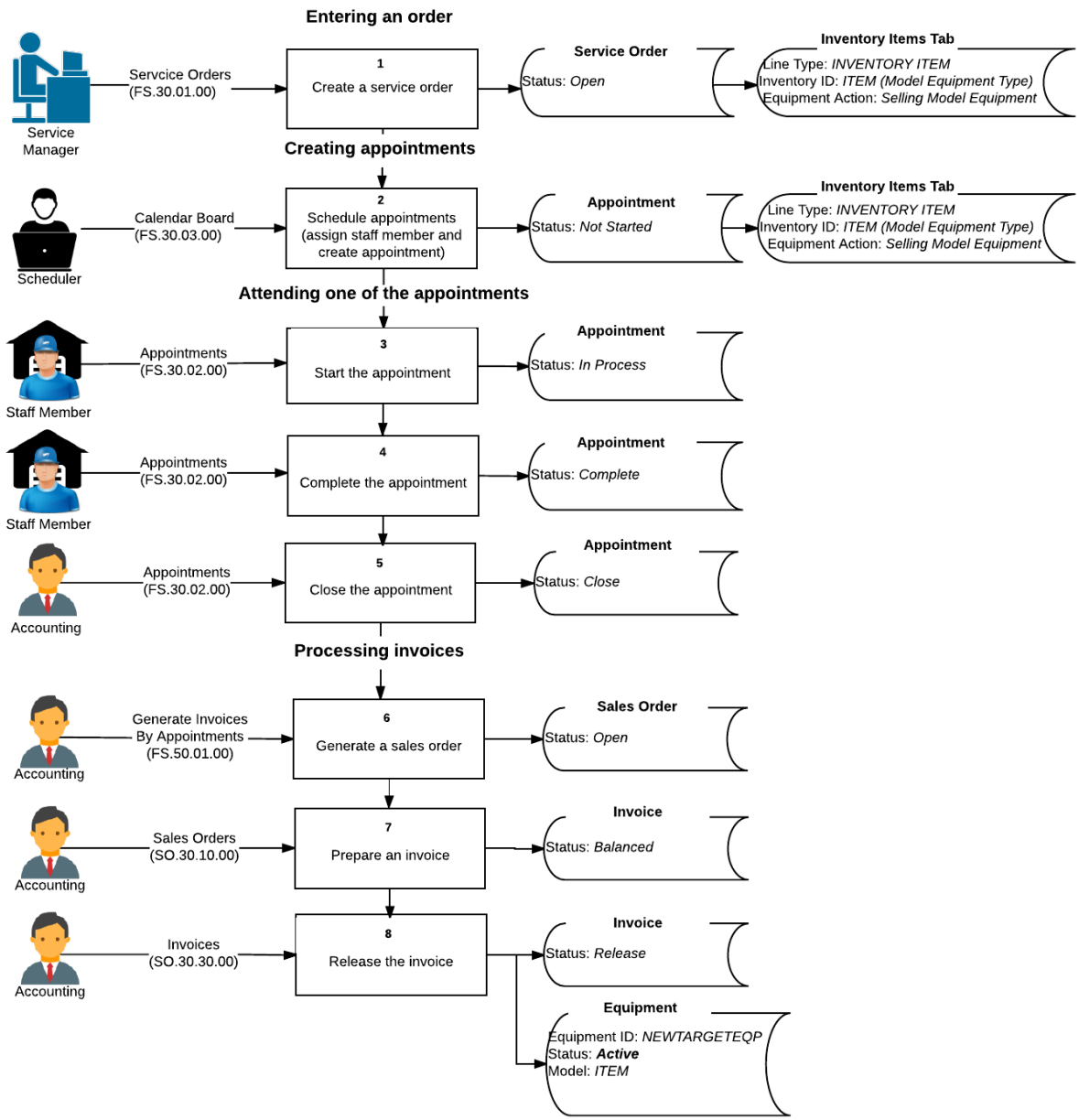


Figure: Selling an entity of model equipment within a service order

1. Entering an order.

   When a service manager receives a customer request, he or she enters a service order by using the Service Orders (FS300100) form (see 1 in the diagram above). In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where the services are delivered, the services that should be performed.

   In addition, on the **Inventory Item** tab of this form, the service manager adds a model equipment entity that is sold.

2. Creating appointments.

   After the service order has been created in the system, a scheduler of your company (that is, a person who is responsible for planning the appointments) uses the Calendar Board form (FS300300) to schedule the appointments (2 in the diagram above) that are needed to perform the services requested by the customer.

   When the scheduler selects a staff member to attend an appointment, he or she takes into consideration the work schedule of the staff member and filters the displayed staff members by

the skills and licenses needed to perform the service and the service area where the services are provided. The scheduler checks the information on each appointment and enters additional information, such as the resource equipment used to perform the services and the stock items purchased by the customer along with the service. (The system assigns the *Not Started* status to the created appointments.)

3. Attending an appointment.

The staff member who is assigned to an appointment looks through his or her upcoming appointments on the Staff Calendar Board form (FS300400), identifies which appointment he or she has to attend currently, and goes to the location where the service has to be performed, which usually is the customer location). When the staff member starts to perform the service, he or she starts the appointment on the Appointments form (FS300200), 3 in the diagram above. The appointment is assigned the *In Process* status.

While the services are being performed, the staff member adds the information on services (such as statuses, quantities, and extra stock items that were used) to the appointment on the Appointments form. When the services are done, the staff member checks the details of the appointment. When everything is correct and complete, the staff member completes the appointment (4), which gives it the *Completed* status.

When all appointments of a particular service order are completed, the system assigns the service order the *Completed* status.

4. Processing invoices.

Further processing of the service order is performed by an accountant. On the Appointments form, the accountant opens the completed appointment and verifies quantities and prices. When all information is verified and the appointments are ready for invoicing, the accountant closes the appointments and the service order (5). (The appointments and service order get the *Closed* status.)

The accountant generates a sales order document with the *Open* status in the Sales Orders module by using the Generate Invoices from Appointments (FS500100) form (6 in the diagram above).

The accountant then prepares the invoice (7) by using the Sales Orders form (SO301000), and processes and releases the invoice in the Sales Orders module on the Invoices form (SO303000), 8 in the diagram above.

When the invoice related to the service order is released, the sold model equipment converts to a target equipment, and the system adds a record for the new target equipment entity with the *Active* status on the Equipment form (FS205000).

Related Links

To Create a Service Order
To Schedule an Appointment
To Start an Appointment
To Complete an Appointment
To Close Service Orders
To Generate Invoices from Appointments

Step 3.1: Recording the Receipt of Stock Items

In this step, you will record the receipt of stock items defined as model equipment, so that you can create sales orders for the model equipment. Once you complete the step, you will have 20 laptops and 10 desktop computers on hand in your *MAIN* warehouse.

Perform the following instructions:

1. On the Receipts form (IN301000; Distribution > Inventory > Work Area > Enter), create a new receipt, and on the **Transaction Details** tab, add a new row with the following settings:
   - **Inventory ID**: *INSPRN3050*
   - **Quantity**: `20`
   - **Unit Cost**: `800`
2. Again click **Add Row**, and specify the following settings:
   - **Inventory ID**: *XPS15*
   - **Quantity**: `20`
   - **Unit Cost**: `700`
3. Again click **Add Row**, and specify the following settings:
   - **Inventory ID**: *MBOARD*
   - **Quantity**: `20`
   - **Unit Cost**: `200`
4. Click **Add Row** again, and specify the following settings:
   - **Inventory ID**: *MMONIT*
   - **Quantity**: `20`
   - **Unit Cost**: `200`
5. Again click **Add Row**, and specify the following settings:
   - **Inventory ID**: *OMONIT*
   - **Quantity**: `20`
   - **Unit Cost**: `200`
6. Click **Add Row** once again, and specify the following settings:
   - **Inventory ID**: *KBOARD*
   - **Quantity**: `20`
   - **Unit Cost**: `10`
7. Click **Add Row** once again, and specify the following settings:
   - **Inventory ID**: *RAM*
   - **Quantity**: `20`
   - **Unit Cost**: `100`
8. Again click **Add Row**, and specify the following settings:
   - **Inventory ID**: *MOUSE3050*
   - **Quantity**: `20`
   - **Unit Cost**: `10`
9. Save your changes.

The receipt for the model equipment has been created in the system, as shown in the following screenshot.

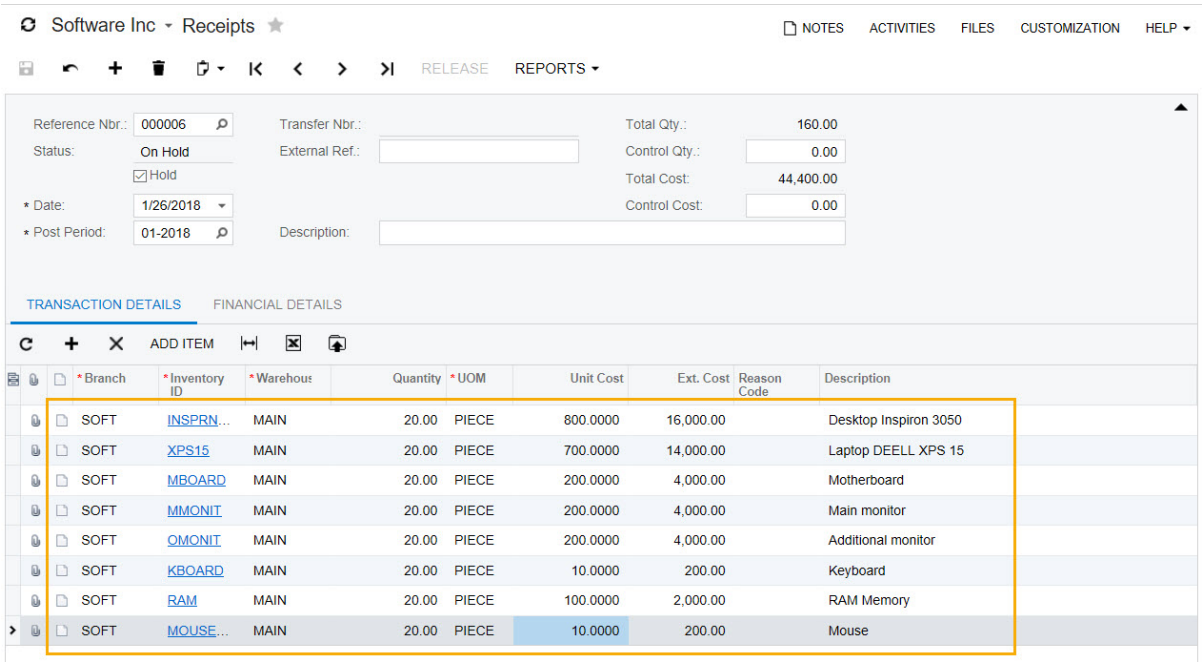


Figure: Creation of the receipt

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

11. In the **Control Qty.** box, enter `160`.

You have to enter this value manually to confirm the total quantity of inventory items received as compared to the automatically calculated quantity of inventory items included in this document.

12. In the **Control Cost** box, enter `44400`.

You have to enter this value manually to confirm the total cost as calculated automatically for the document.

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

Now you can proceed to creating a sales order for equipment.

Step 3.2: Creating a Sales Order for Equipment

For the use case considered in Steps 3.2–3.4, suppose that the customer has requested two model equipment entities, along with installation services from your company. A service manager of your company then receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In this step, you will create a sales order that includes a laptop and a computer. You will also create and complete the corresponding shipment, reflecting in the system that the customer has purchased model equipment (the *XPS15* laptop and the *INSPRN3050* computer). When you release the invoice associated with the sale, the system will convert the model equipment into target equipment automatically.

In the process of creating a sales order, you will select an equipment-related action that is performed by a staff member (or multiple staff members). The **Equipment Action** column becomes available on the Acumatica ERP forms (Sales Orders (SO301000), Service Orders (FS300100) and Appointment (FS300200)) only if the *Equipment Management* feature is enabled. The following options are available:

- *Selling Model Equipment*: Registers a sale of the stock item of the *Model Equipment* type whose identifier is selected in the **Inventory ID** column. When the related invoice is released, a target equipment entity corresponding to the stock item is created in the system.
- *Replacing Target Equipment*: Registers the replacement of the target equipment entity specified in the next column with a new stock item of the *Model Equipment* type whose identifier is selected in the **Inventory ID** column.
- *Selling Optional Component*: Registers a sale of the optional stock item of the *Component* type.
- *Upgrading Component*: Registers the upgraded component (which replaces the default component) of a piece of model equipment during a sale of the model equipment.
- *Replacing Component*: Registers the replacement of a component of the specified piece of target equipment.
- *N/A*: Registers the sale of an inventory item in the system to the customer. If model equipment, target equipment, or a component is specified for the line, the record will not be created or modified on the Equipment form (FS205000).

In this step, you will select the *Selling Model Equipment* action as you are going to sell the stock items to the *C00000026* customer.

To create a sales order, perform the following instructions:

1. On the Sales Orders form (SO301000; Service > Service Management > Work Area > Enter), create a new sales order with the following settings in the Summary area, and save your changes:
   - **Order Type**: *SO*
   - **Customer**: *C000000026 (Active Staffing Service)*
2. On the **Document Details** tab, click **Add Row** on the table toolbar, and add one piece of model equipment (a laptop) to the sales order by specifying the following settings in the row:
   - **Branch**: *SOFT*
   - **Inventory ID**: *XPS15*
   - **Equipment Action**: *Selling Model Equipment*
   - **Quantity**: `1.00`
   - **Unit Price**: `900.0000`
3. On the table toolbar, again click **Add Row**, and specify the following settings (see the screenshot below) in the row to add another piece of model equipment (a computer) to the sales order:
   - **Branch**: *SOFT*
   - **Inventory ID**: *INSPRN3050*
   - **Equipment Action**: *Selling Model Equipment*

- **Quantity**: `1.00`
- **Unit Price**: `1000.0000`

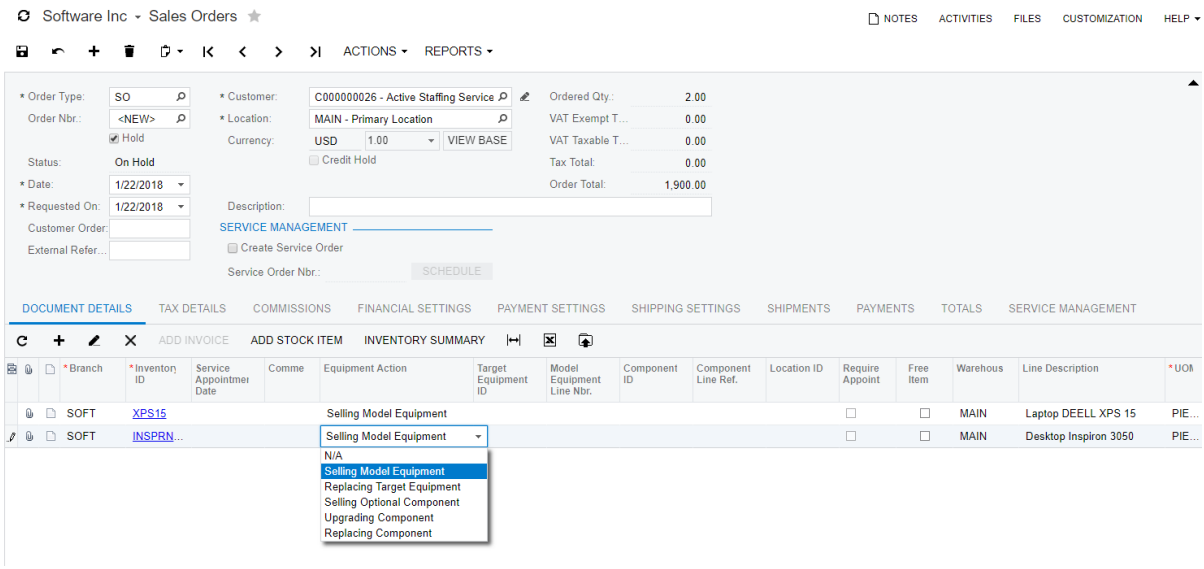


Figure: The process of adding inventory items to the sales order

4. Save your changes; the following screenshot shows the sales order you have created.

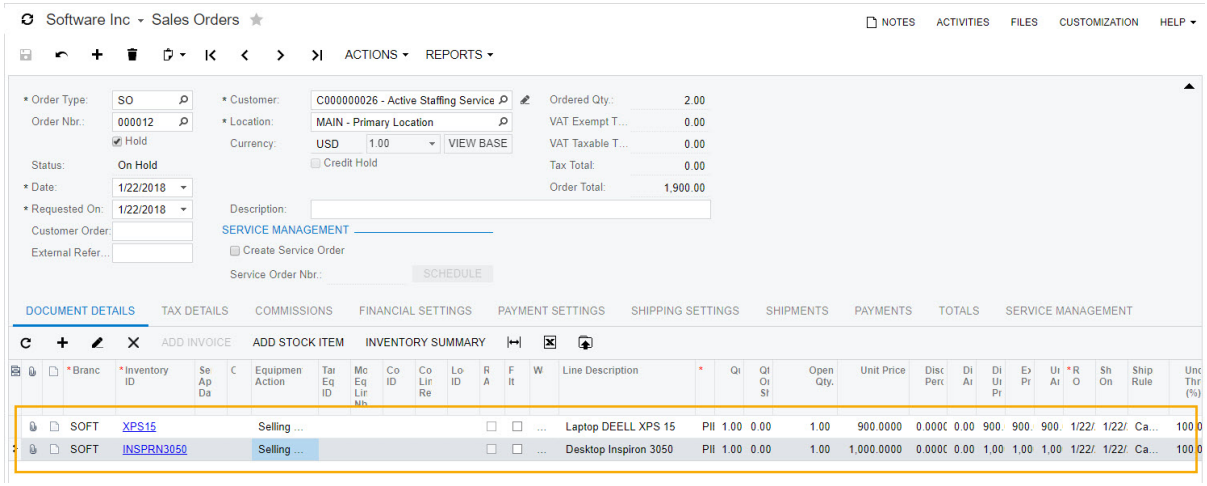


Figure: The created sales order

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

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

7. In the confirmation dialog box, click **OK** to create a shipment for the current date and default warehouse of your branch location (*MAIN* warehouse).

The system has opened the Shipments form (SO302000), as shown in the following screenshot, with the details copied from the corresponding sales order.

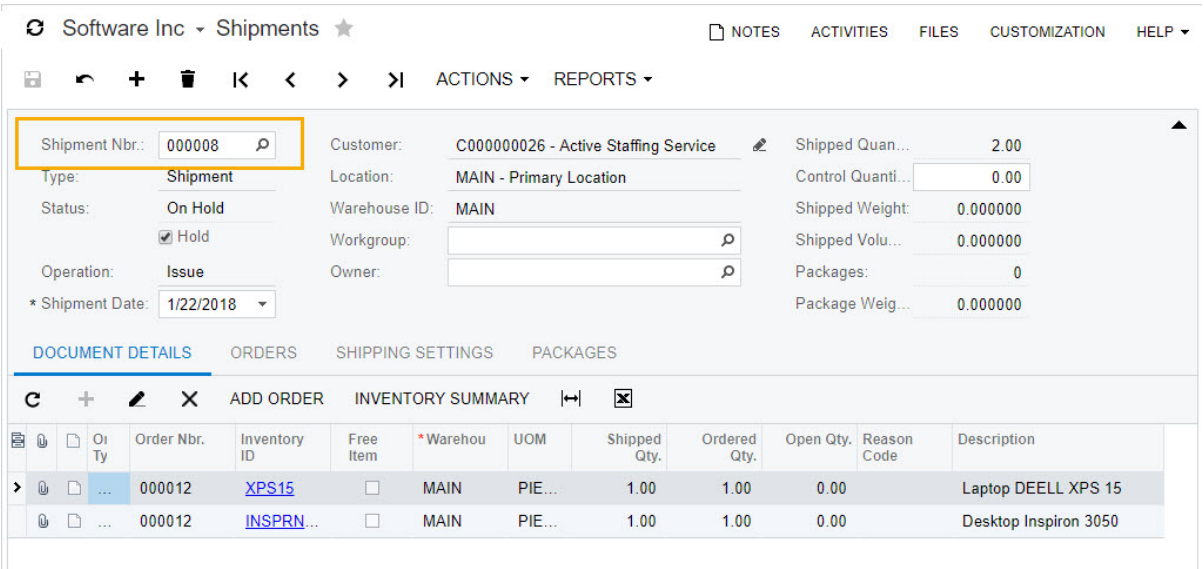


Figure: The created shipment for the sales order

8. On this form, in the Summary area, enter `2.00` in the **Control Quantity** box and clear the **Hold** check box.
9. Save your changes.
10. On the form toolbar, click **Actions > Confirm Shipment** to change the shipment's status to *Confirmed*.
11. Click **Actions > Prepare Invoice**; the system has opened the Invoices form (SO303000), which is shown in the following screenshot, with the details copied from the shipment.

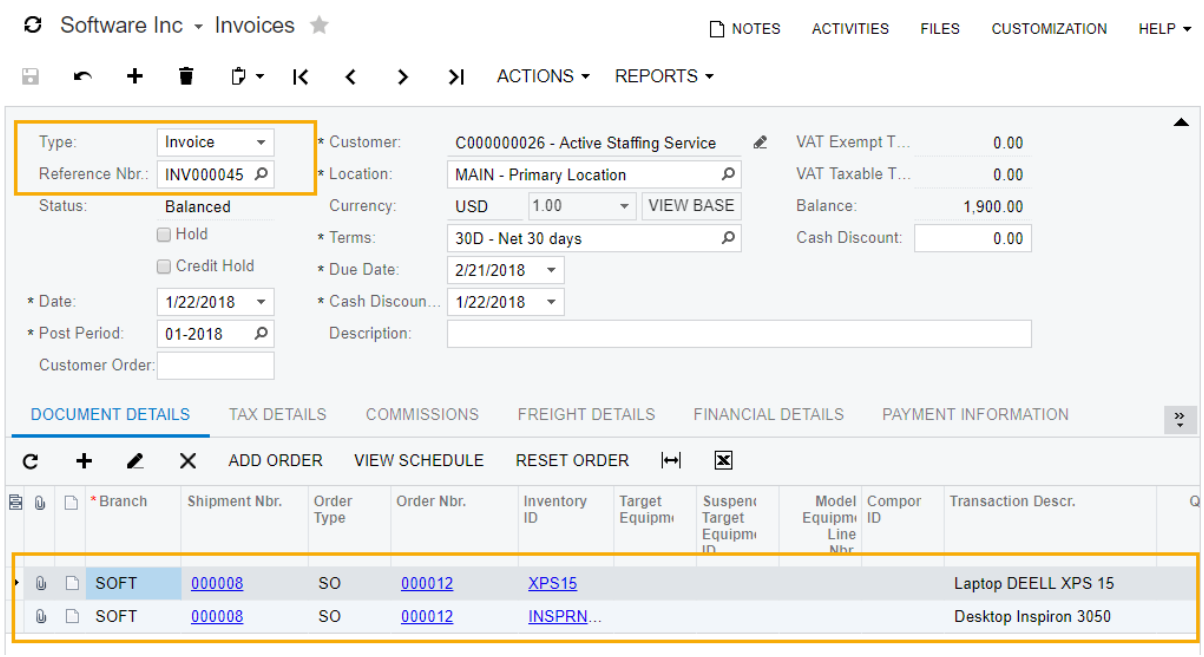


Figure: The created Sales Orders invoice for the shipment

12. On the form toolbar of the opened form, click **Actions > Release**.

    Now you are ready to verify that the target equipment has been created in the system with the customer location assigned.

Step 3.3: Checking the Target Equipment of a Customer

In this step, you will check all the target equipment owned by the *C000000026 (Active Staffing Service)* customer.

Perform the following instructions:

1. Open the Equipment Summary form (FS400200; Service > Service Management > Work Area > Explore), shown in the following screenshot.

   This form shows you all the equipment entered into the system. Notice that the **Target Equipment** check boxes for the just created pieces of equipment are selected meaning that for this equipment service is needed. In the **Model** column, you can view the inventory identifier of the corresponding equipment.

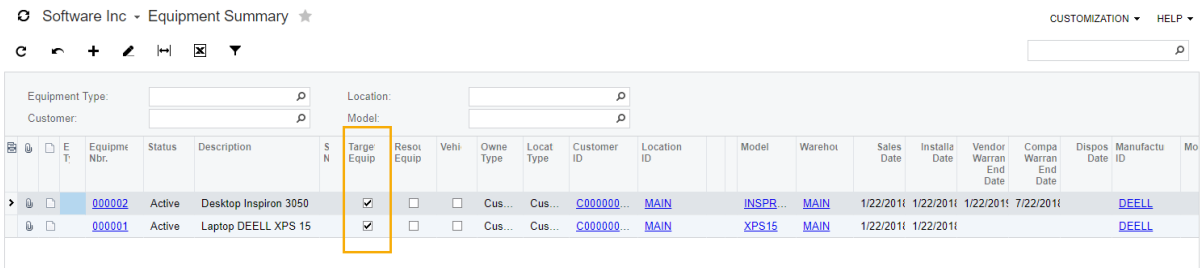


Figure: Equipment Summary form

   Notice that the **Customer** column displays the *C000000026 (Active Staffing Service)* customer for both pieces of equipment defined in the system.

2. In the table, click the *000001* link in the **Equipment Nbr.** column.

   The Equipment form (FS205000) has been opened in a new window with this target equipment selected (as shown in the following screenshot) .

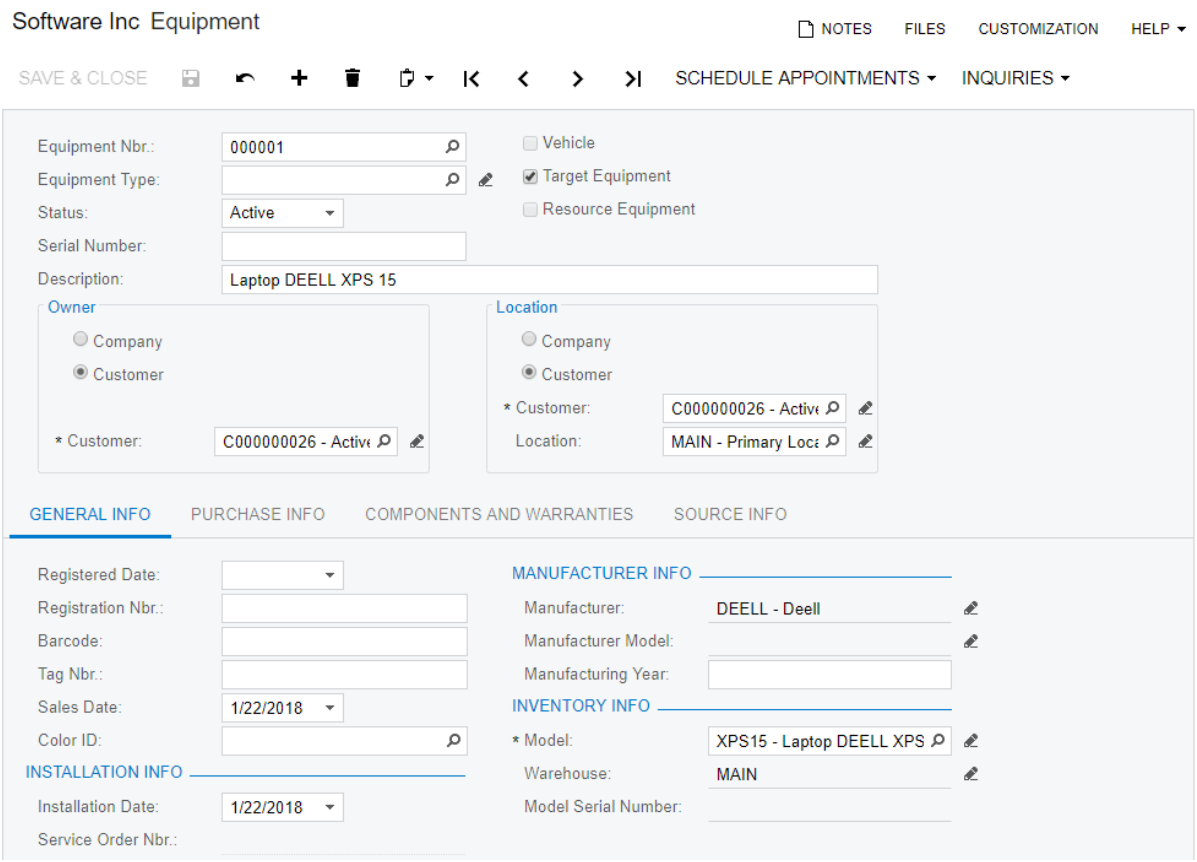


Figure: Details of the target equipment

You can also open the Equipment form (FS205000) by navigating to it directly: Service > Equipment Management > Work Area > Manage. You then select the equipment by its ID (for example, *000001*).

3. On the **General Info** tab, notice that the **Installation Date** box has been filled with the date of the Sales Orders invoice.

4. On the **Components and Warranties** tab, verify that no settings have been filled in. This is because this equipment has no parts or warranties.

   If you are handling lot- and serial-number tracking in the Distribution suite, the serial numbers of the equipment (but not its components) will be automatically filled on this tab when the equipment is created.

5. On the **Source Info** tab, verify that the **Document Reference Nbr.** and **Sales Order Nbr.** boxes contain links to the documents confirming the purchase of this equipment by the customer (as shown in the following screenshot).

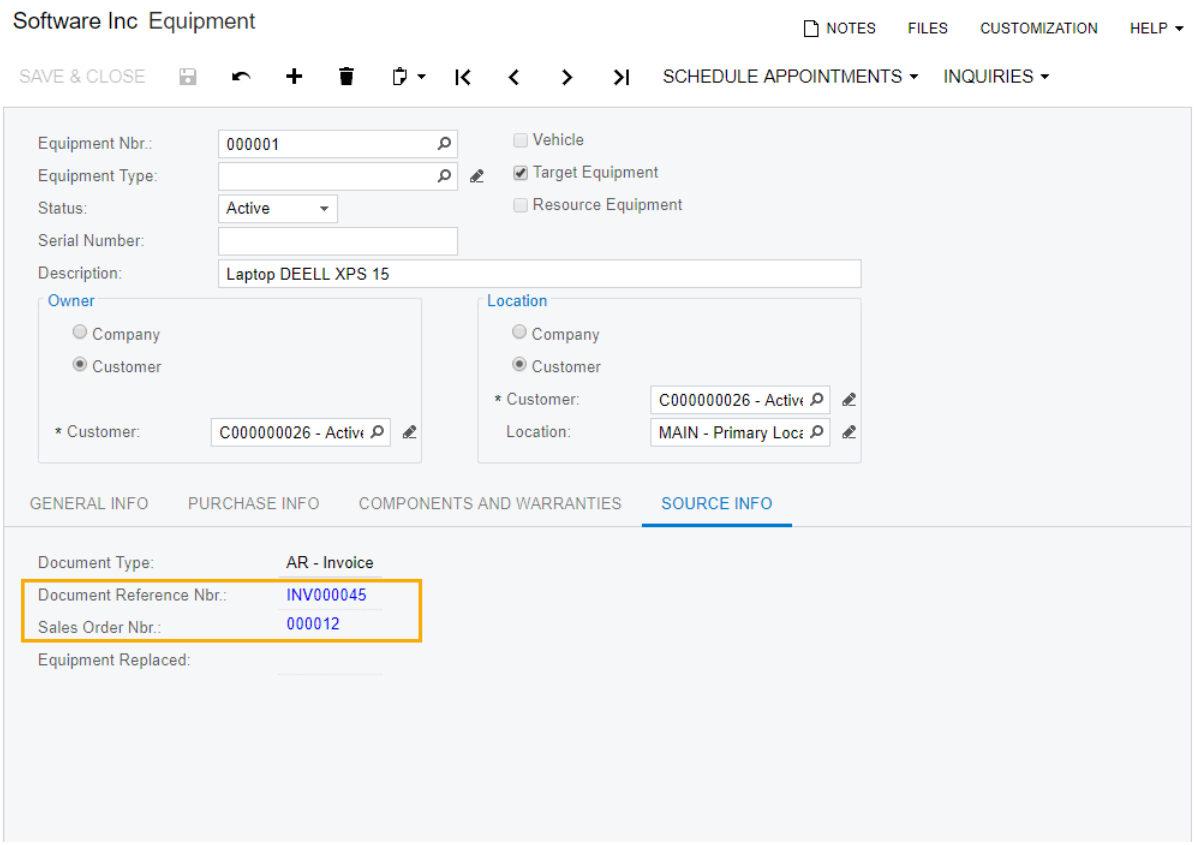


Figure: Source information about the equipment

6. Close the Equipment form (FS205000).
7. On the Equipment Summary form (FS400200), click the *000002* link in the **Equipment Nbr.** column.
8. On the Equipment form (FS205000), which the system has opened, click the **Components and Warranties** tab.

   Notice that the component parts of the computer are listed on this tab, as shown in the following screenshot. The warranty end dates for the components that have warranties (which you defined in Lesson 2) are automatically calculated based on the equipment invoice date and the warranty duration defined for the corresponding model equipment.

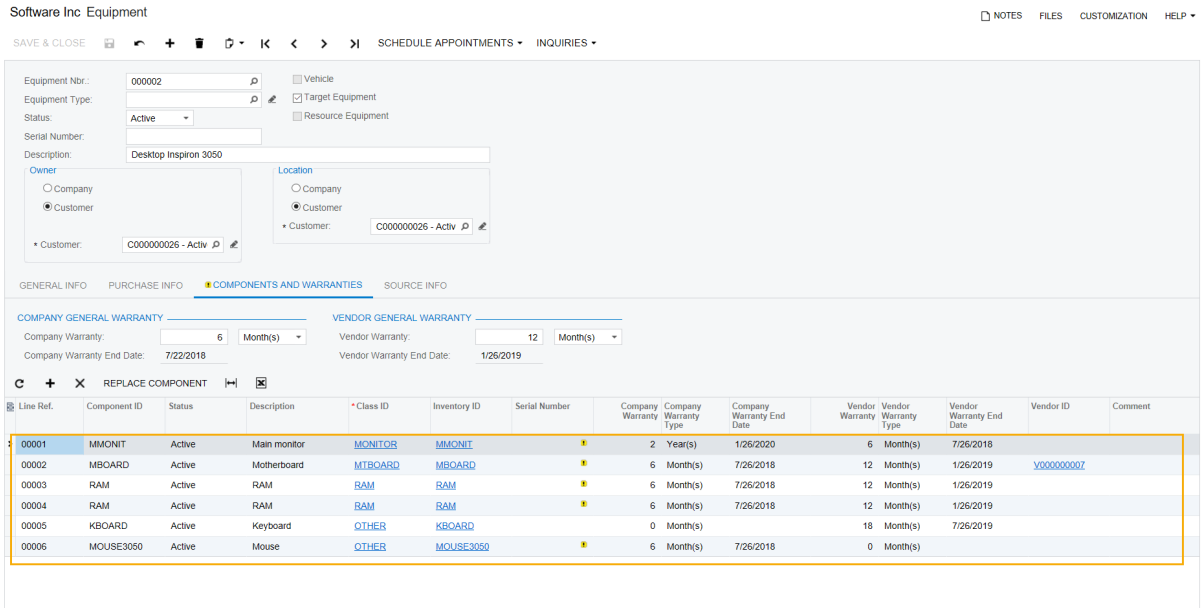


Figure: Components and warranties of the equipment

9. Close the Equipment form (FS205000).

10. On the Component Summary form (FS400700; Service > Equipment Management > Work Area > Explore), view the list of components serviced by MyCompany.

Notice that for the equipment with components, the **Component ID** column contains a value, and for the laptop (which has no components defined), the column is empty.

Also notice that the target equipment entities now all have the *Active* status.

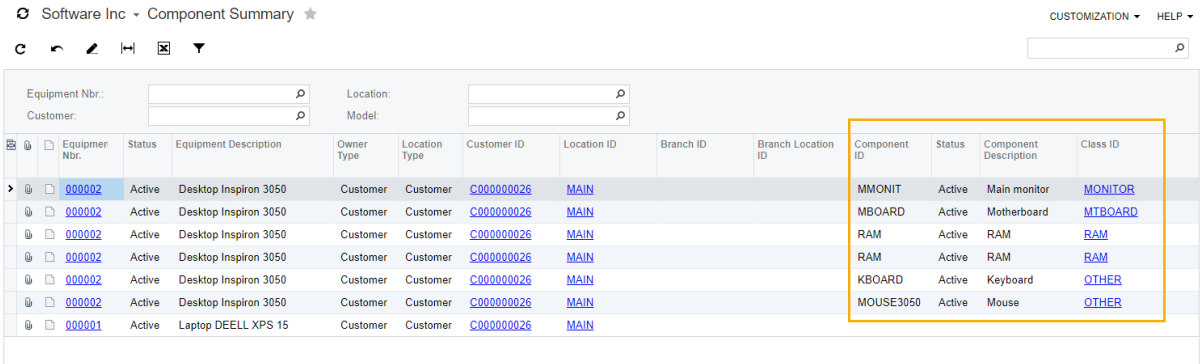


Figure: Component Summary form

Step 3.4: Creating an Appointment for Service on Target Equipment

In this step, you will create an appointment to deliver setup services for the target equipment located at the *C000000026 (Active Staffing)* customer premises. The customer wants MyCompany to perform the software installation (*INST SOFT*) service on the purchased laptop and the *HARD INST* and *SOFT INST* on the purchased computer. The assigned staff member will also check and add the serial numbers of the required components to the system.

Proceed as follows:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REG*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Installation services`
2. On the **Services** tab, click **Add Row** to add a row with the following settings:
   - **Service ID**: *INST SOFT*
   - **Target Equipment ID**: *000001*
3. Click **Add Row** again, specify the following settings, and save your changes:
   - **Service ID**: *INST HARD*
   - **Target Equipment ID**: *000002*
4. Click **Add Row** again, specify the following settings, and save your changes:
   - **Service ID**: *INST SOFT*
   - **Target Equipment ID**: *000002*

   The following screenshot shows the appointment you have created with the specified services.

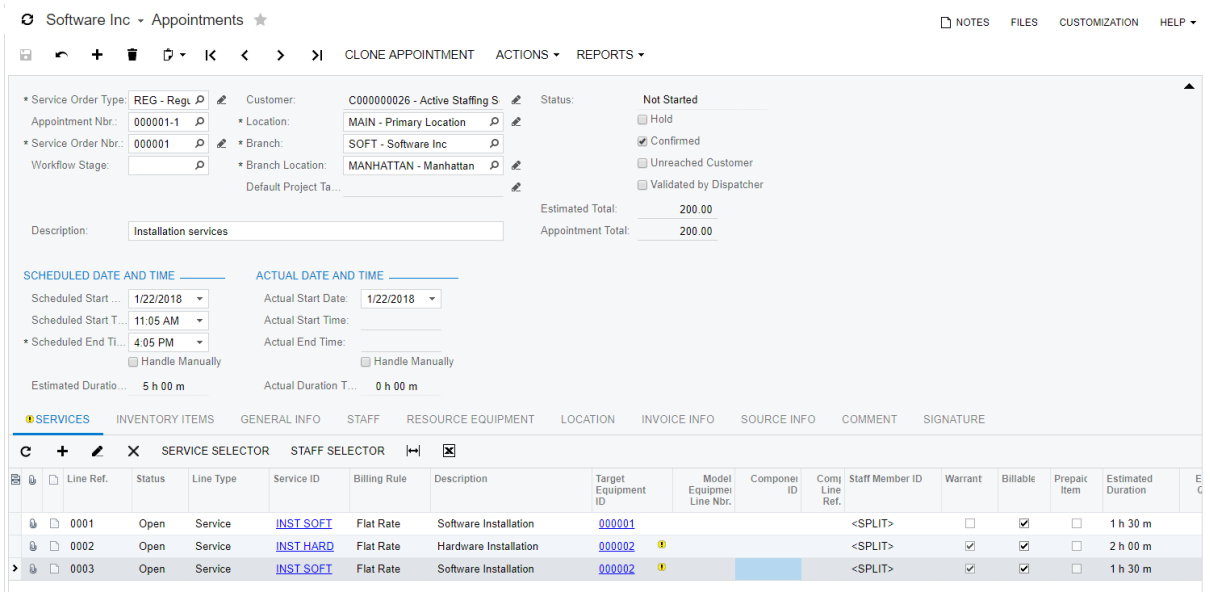


Figure: Creation of an appointment for work on target equipment

5. On the **Staff** tab, click **Add Row**, specify *EP00000004 (Joseph Becher)* as the **Staff Member**, and save your changes.

6. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Joseph Becher arriving at the appointment).

7. On the **Services** tab, click the *000001* link in the **Target Equipment ID** column.

   The system has opened the Equipment form (FS205000), where the staff member attending the appointment can see information on the equipment the service is going to be performed.

8. On the form toolbar of this form, click **Inquiries > Target Equipment History**, as shown in the screenshot below.

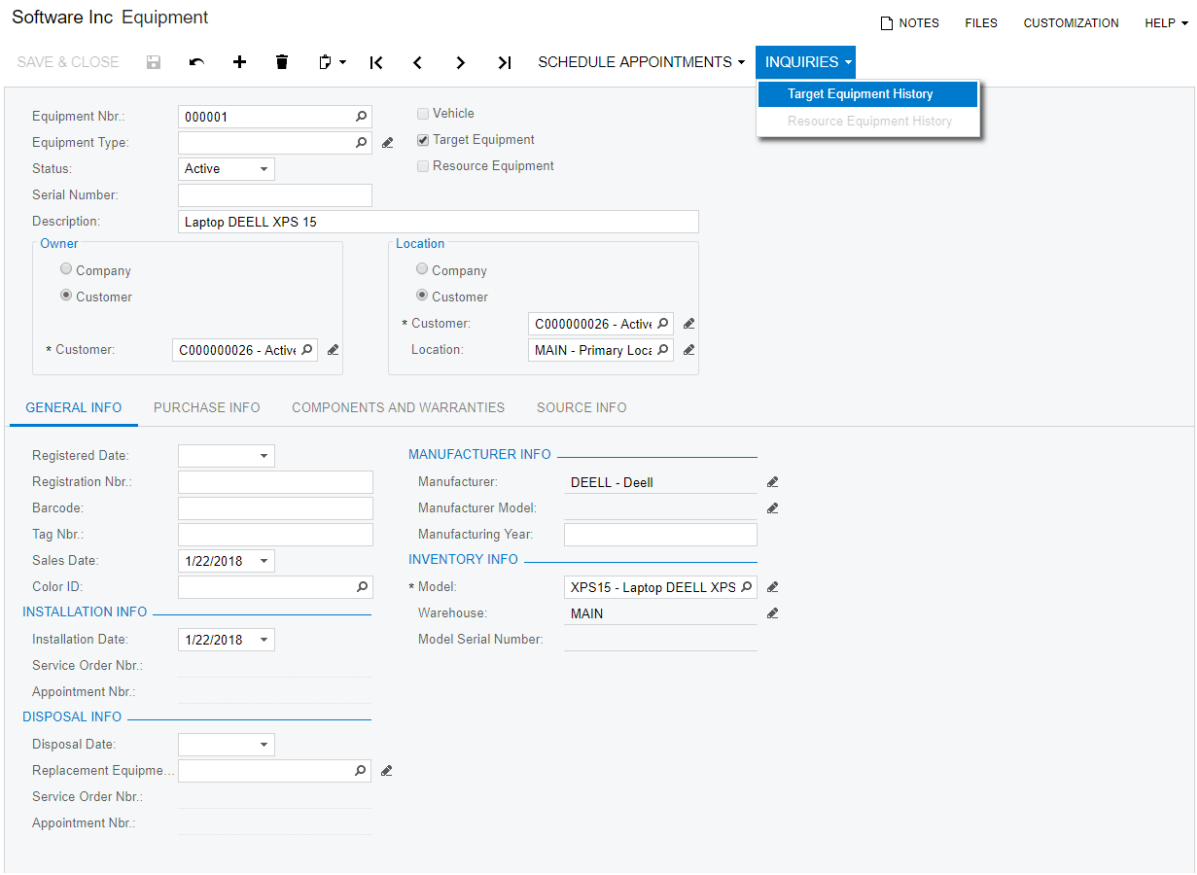


Figure: Equipment inquiries

The system has opened the Appointment Details History form (FS400500), which lists the appointments created on the selected piece of equipment; at this time, only the current appointment is listed. (See the following screenshot.)

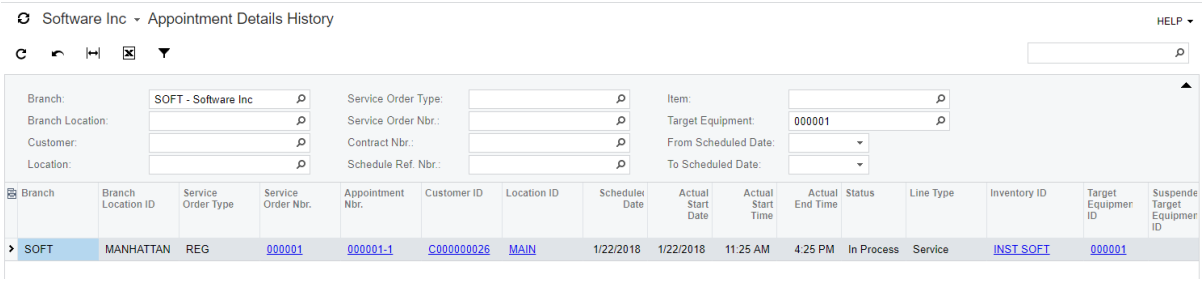


Figure: Appointment history for the target equipment

9. Return to the Appointments form (FS300200) with the *000001-1* appointment, and on the **Services** tab, click the *000002* link in the **Target Equipment ID** column to view the details of the desktop computer to be assembled.

10. On the Equipment form (FS205000), which the system has opened, click the **Components and Warranties** tab.

11. In the **Serial Number** column of the components table, enter serial numbers for the following components (for which the attention sign is displayed, indicating that the serial number is missing):

- `111111` for the *MMONIT* component
- `222222` for the *MBOARD* component
- `333333` for the *RAM* component
- `444444` for another *RAM* component
- `555555` for the *MOUSE3050* component

12. Save your changes.

Notice that no warnings are displayed now, as you can see in the following screenshot.

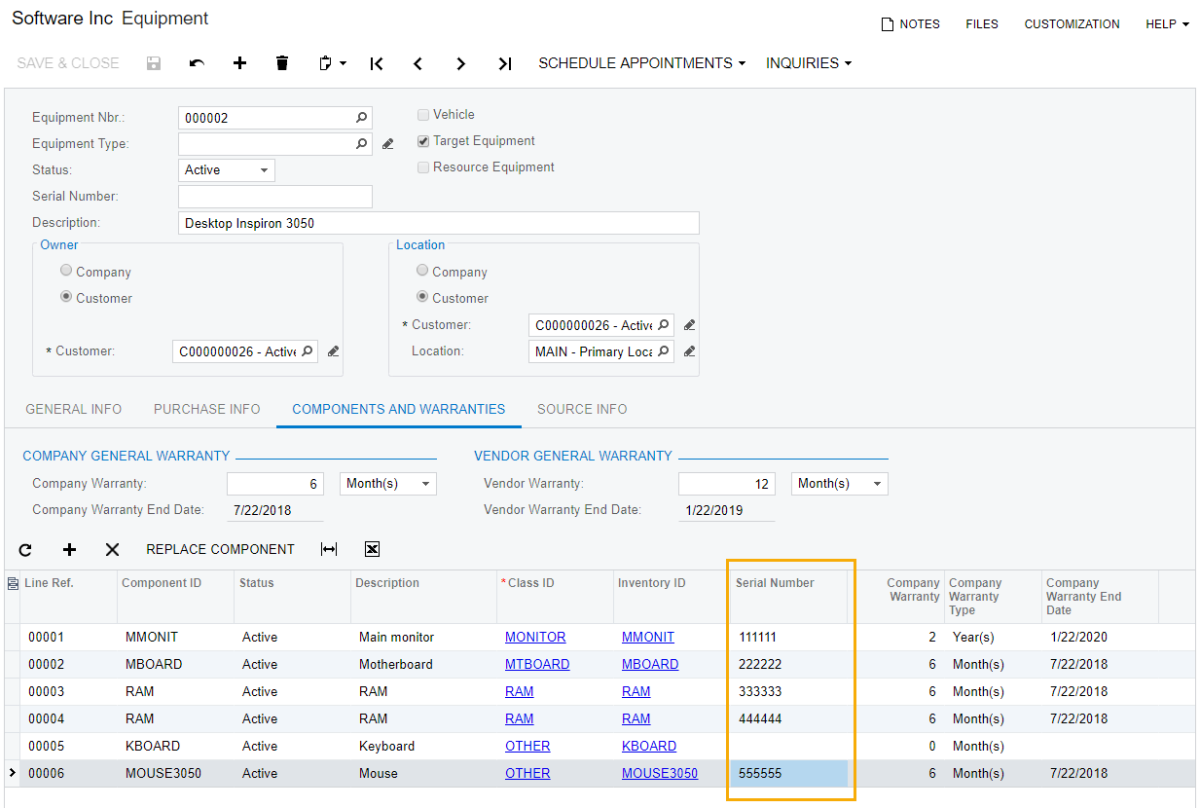


Figure: Serial numbers added to the system during the appointment

13. Close the Equipment form (FS205000), and return to the Appointments form (FS300200).

14. On the form toolbar, click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

(For the purposes of this exercise, you are acting as an accountant).

15. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:

- **Generate Invoices In**: *Accounts Receivable and/or Accounts Payable*
- **Billing Customer**: *C000000026 (Active Staffing Services)*

16. Click the row with the *000001-1* appointment, and on the form toolbar, click **Process**.

17. After the batch generation process has completed, click the *000001* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

On the Invoice Generation Batches form (FS305800), which the system has opened, notice that the **Document** column shows that the document is posted to *AR*—the Accounts Receivable module.

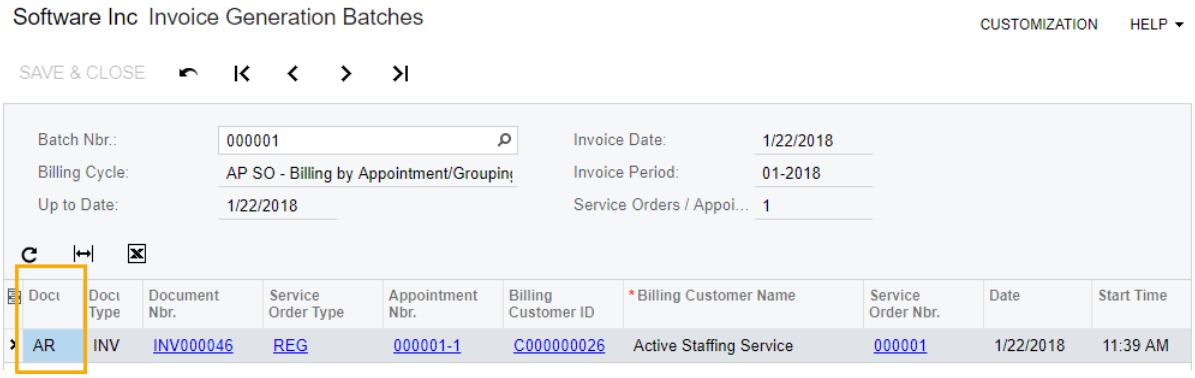


Figure: Invoices generated to the Accounts Receivable module

18. In the **Document Nbr.** column, click the *INV000046* document of the *IN* type to open the Invoices and Memos form (AR301000) to review the document details.

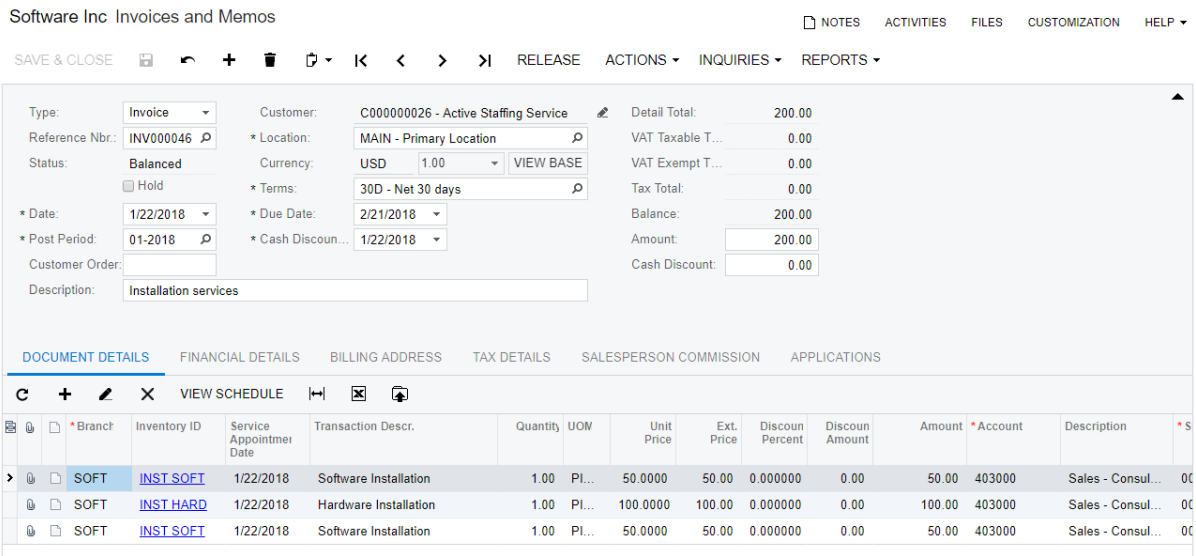


Figure: Invoice generated to the Accounts Receivable module

Step 3.5: Creating Target Equipment Manually

MyCompany can perform services on equipment that was sold to the customer by a third party. In this step, you will create in the system a piece of equipment (a laptop) that the customer already has and that will be serviced by MyCompany.

To create a piece of target equipment, perform the following instructions:

1. On the Equipment form (FS205000; Service > Equipment Management > Work Area > Manage), add a new piece of equipment, and specify the following settings in the Summary area:
   - **Serial Number**: `12345`
   - **Description**: `Laptop`
   - **Target Equipment**: Selected
2. Under **Owner**, select the **Customer** option button and in the **Customer ID** box, select *C000000026 (Active Staffing Service)*.
3. In the **Customer ID** box under **Location**, select *C000000026 (Active Staffing Service)*.
4. On the **General Info** tab (**Installation Info** section), in the **Installation Date** box, select the current date.
5. In the **Model** box of the **Inventory Info** section, select *XPS15*, as shown below.

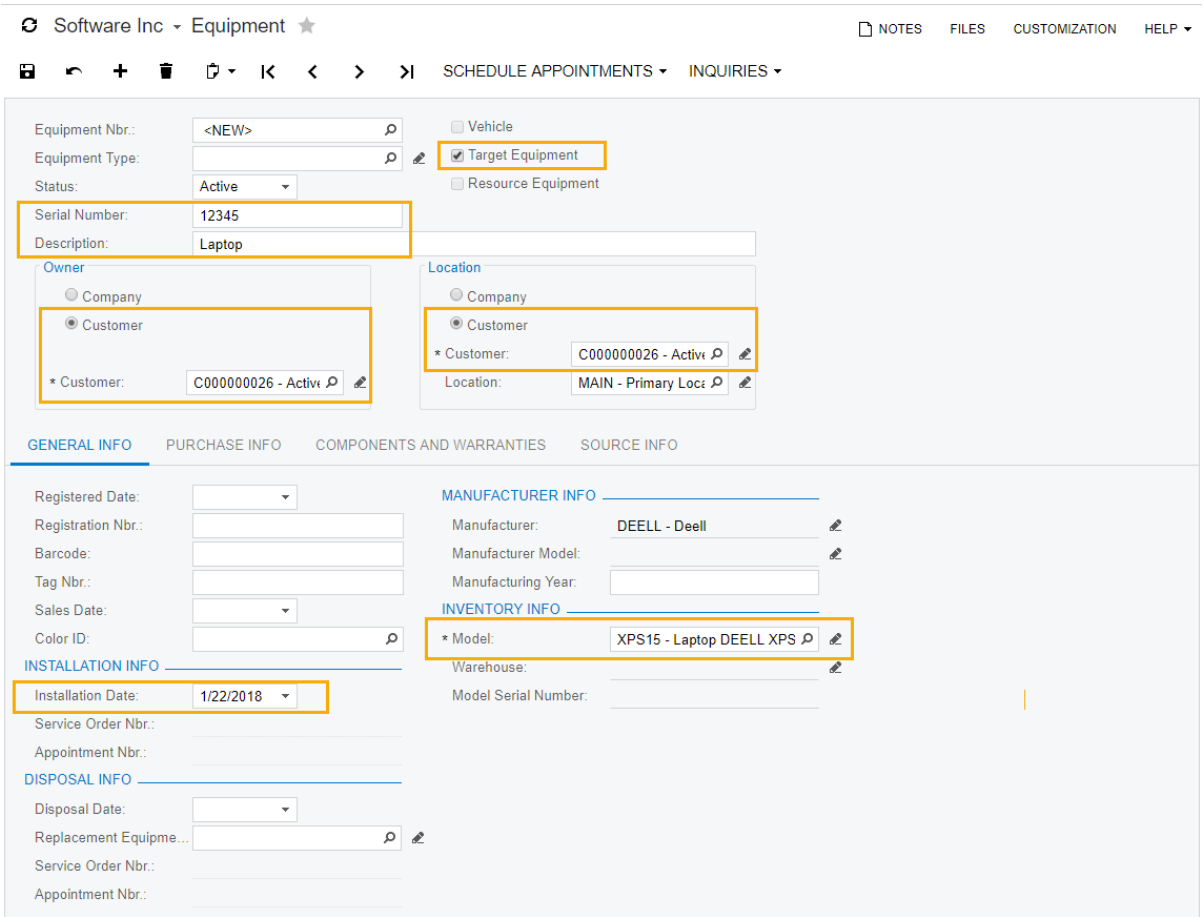


Figure: Manual creation of target equipment

6. Save your changes.
7. On the Equipment Summary form (FS400200; Service > Service Management > Work Area > Explore), in the **Customer** box of the Summary area, select *C000000026 (Active Staffing Service)*.

8. In the table, make sure the *000003* equipment record is present, as shown in the screenshot below.

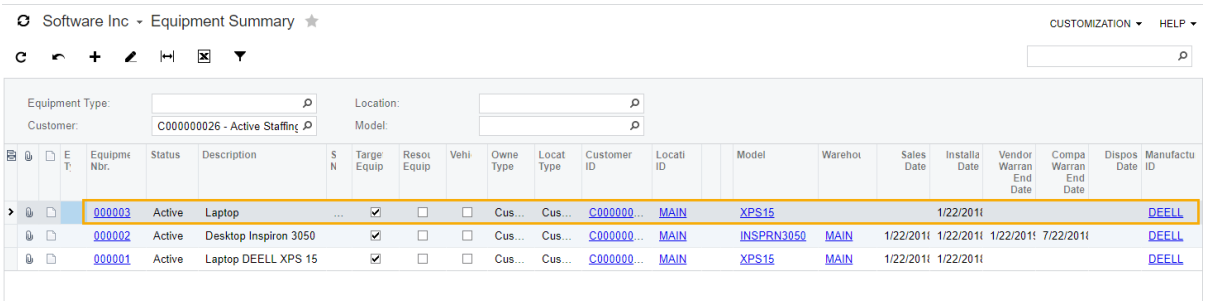


Figure: Created target equipment

If you click the *000003* link in the **Equipment Nbr.** column, the system will open the Equipment form (FS205000), where you just created the target equipment.

Step 3.6: Selling a Piece of Model Equipment and an Optional Component

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can easily register the sale of model equipment entities and optional components of it.

Suppose that the customer has requested a computer and an additional monitor, that is a model equipment entity *INSPRN3050* and an optional component *OMONIT*, along with installation services from MyCompany. A service manager of your company receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In the diagram below, you can see the entire process of selling model equipment and its optional component within a service order.

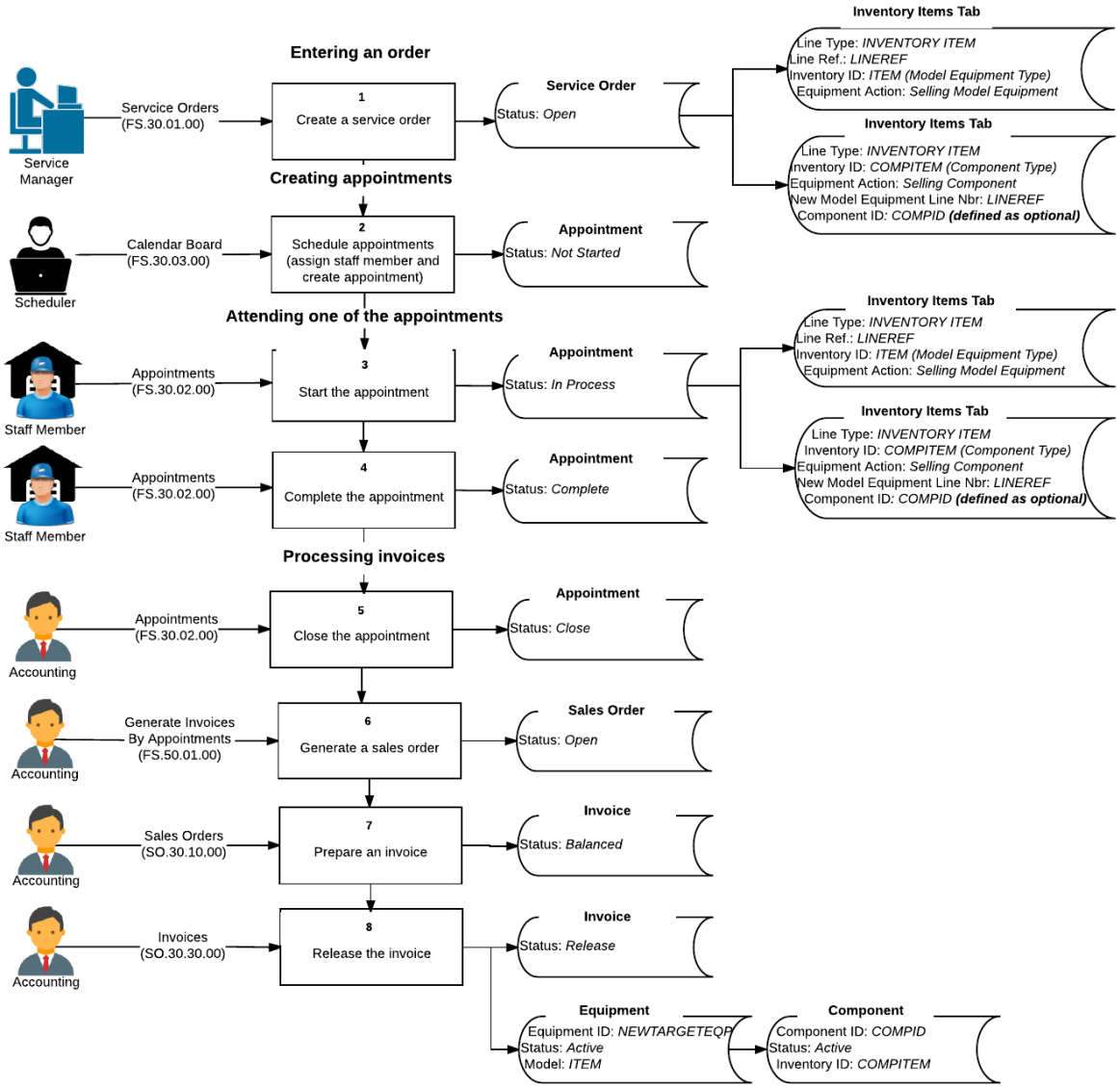


Figure: Selling model equipment and its optional component within a service order

When a service manager receives a customer request, he or she enters a service order by using the Service Orders form (FS300100), see 1 in the diagram above. In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where the services are delivered, the services that should be performed.

In addition, on the **Inventory Item** tab of this form, the service manager adds the model equipment entity and the optional component to be sold as follows:

1. For the model equipment entity (*INSPRN3050*), the service manager selects *Selling Model Equipment* in the **Equipment Action** column.
2. For the optional component (*OMONIT*), the service manager selects *Selling Optional Component* in the **Equipment Action** column, specifies the related model equipment in the **Model Equipment Line Nbr.** column, and selects the identifier of the equipment component in the **Component ID** column.

The further process of selling a model equipment and optional component is identical to selling model equipment.

In this step, you will create an appointment (and the corresponding service order) that includes installation services (*INST SOFT* and *INST HARD*) and a computer and an additional monitor as inventory items. You will go through the whole process until generating invoice both for the services and the sold equipment.

Perform the following instructions:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REAC*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Selling computer with optional monitor`
2. On the **Services** tab, add two rows with the following **Service ID** values and save the changes, as shown in the following screenshot:
   - *INST HARD*
   - *INST SOFT*

   Notice that you do not specify target equipment IDs as the corresponding records in the system have not yet been created.

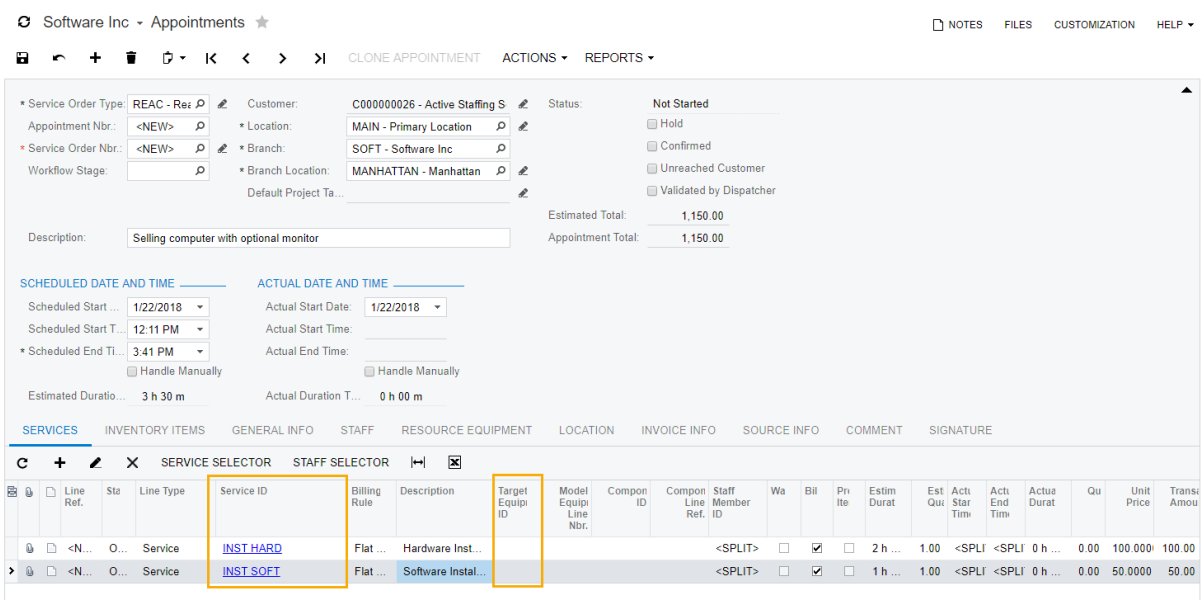


Figure: Service lines added to appointment

3. On the **Inventory Items** form, on the table toolbar, click **Add Row**, and specify the following settings (see the screenshot below) in the row to add a piece of model equipment (a computer) to the appointment:
   - **Inventory ID**: *INSPRN3050*
   - **Equipment Action**: *Selling Model Equipment*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `1000.0000`
4. Save the changes.
5. Click **Add Row** again, and specify the following settings in the row to add another piece of model equipment (an additional monitor) to the appointment and save your changes:
   - **Inventory ID**: *OMONIT*
   - **Equipment Action**: *Selling Optional Component*
   - **Model Equipment Line Nbr.**: *0003*
   - **Component ID**: *OMONIT*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `300.0000`

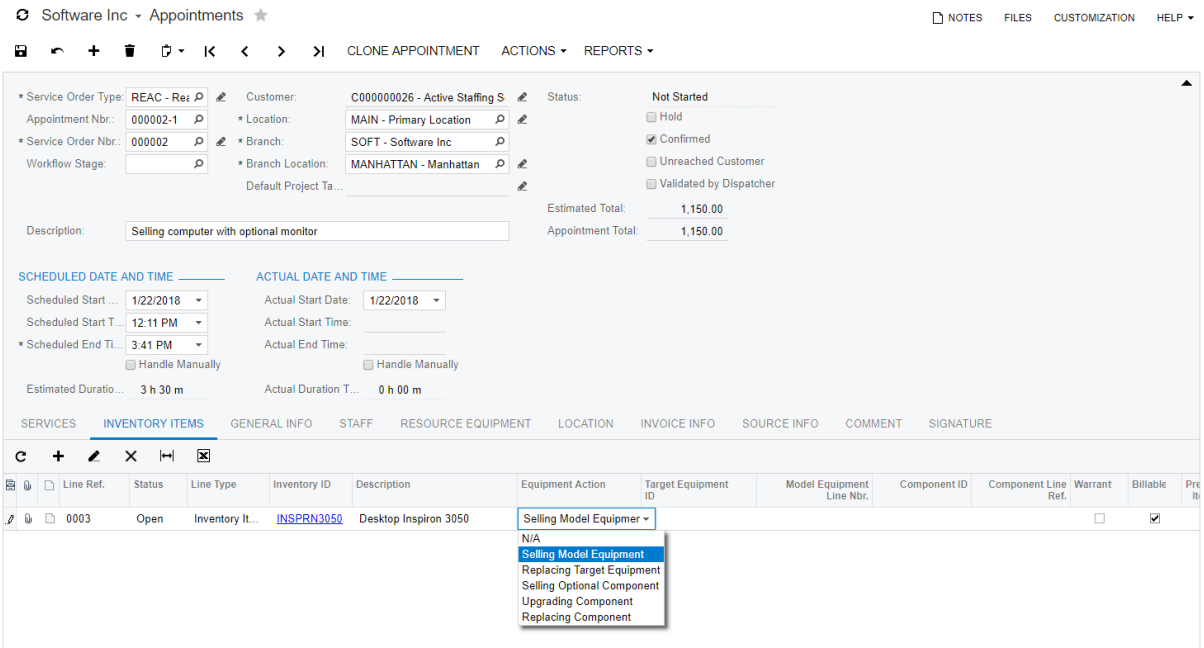


Figure: The process of adding inventory items to the appointment

6. Save your changes; the following screenshot shows the appointment you have created.

   Notice that for the optional component, you have specified the related model equipment in the **Model Equipment Line Nbr.** column, and selected the identifier of the equipment component in the **Component ID** column.

   Now you can assign the appointment and proceed with the services. At this stage, the corresponding target equipment has not yet created.

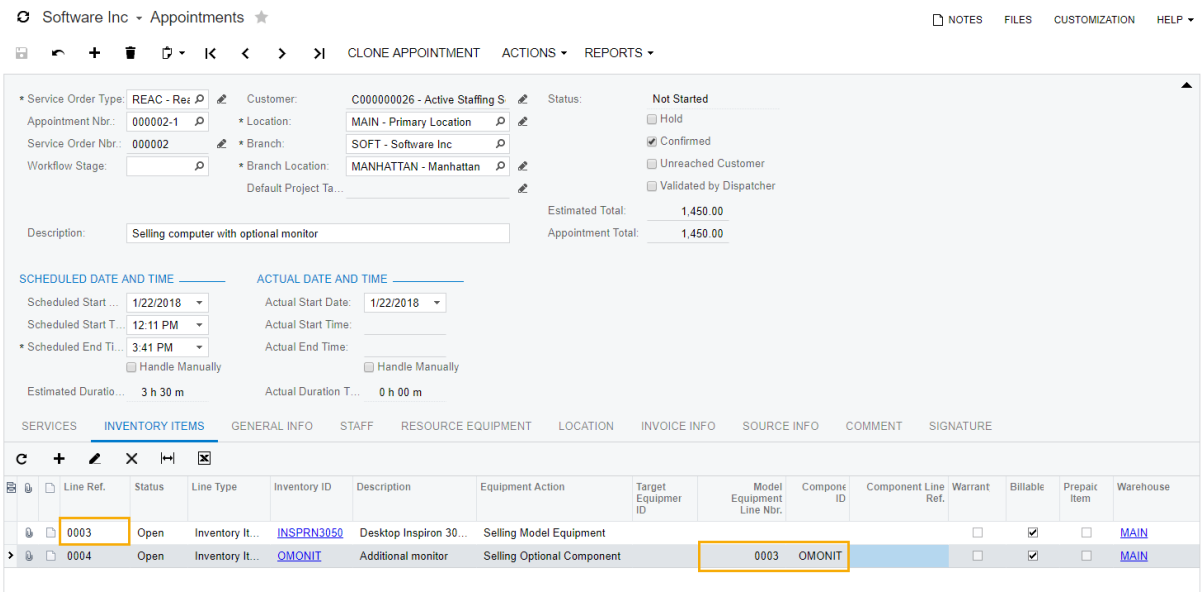


Figure: The created appointment

7. On the **Staff** tab, click **Add Row**, specify *EP00000003 (Layla Beauvoir)* as the **Staff Member**, and save your changes.

8. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Layla Beauvoir arriving at the appointment).

9. Click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

   (For the purposes of this exercise, you are now acting as an accountant).

10. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:

    - **Generate Invoices In**: *Sales Orders*
    - **Billing Customer**: *C000000026 (Active Staffing Services)*

11. Click the row with the *000002-1* appointment, and on the form toolbar, click **Process**.

12. After the batch generation process has completed, click the *000002* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

    On the Invoice Generation Batches form (FS305800), which the system has opened, notice that the **Document** column shows that the document is posted to *SO*—the Sales Orders module.

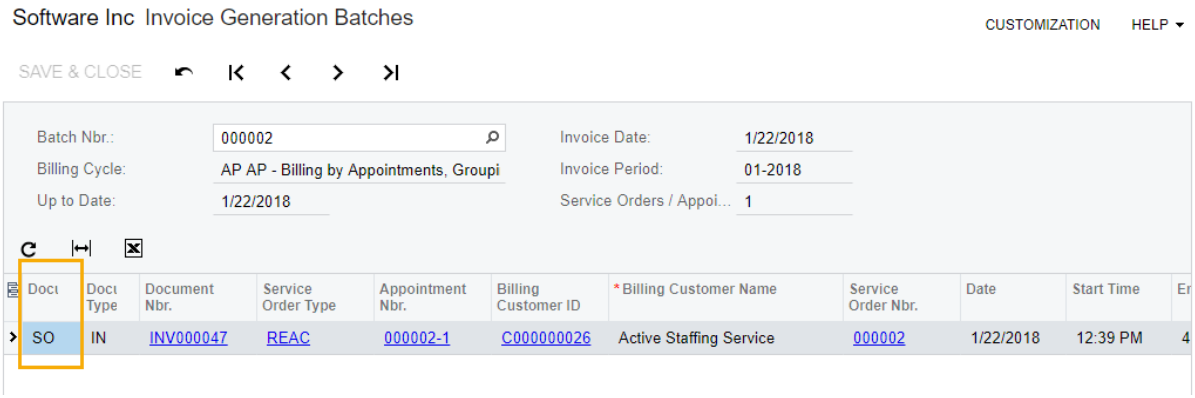


Figure: Invoice generation batch

13. In the **Document Nbr.** column, click the *INV000047* document of the *IN* type to open the Sales Orders form (SO301000) to review the document details.

Notice that the **Service Management** section of the form for this sales order of the *IN* type is unavailable because this order originated from the Service Management module.

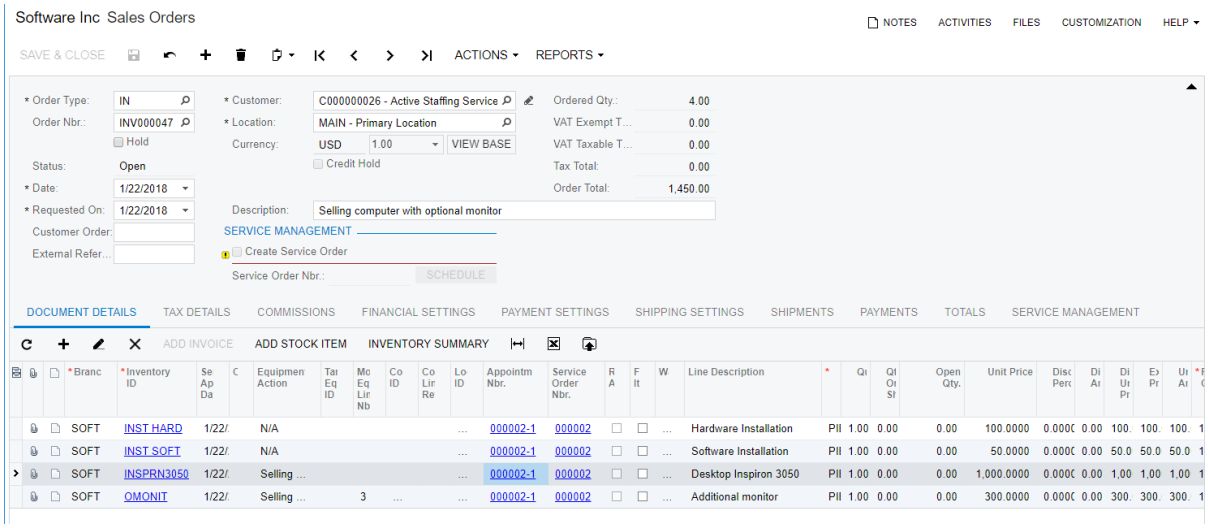


Figure: Invoice generated to the Sales Orders module

14. On the form toolbar, click **Actions > Prepare Invoice**, then **Actions > Release**.

When the invoice is released, the target equipment entity is created (as shown in the following screenshot).

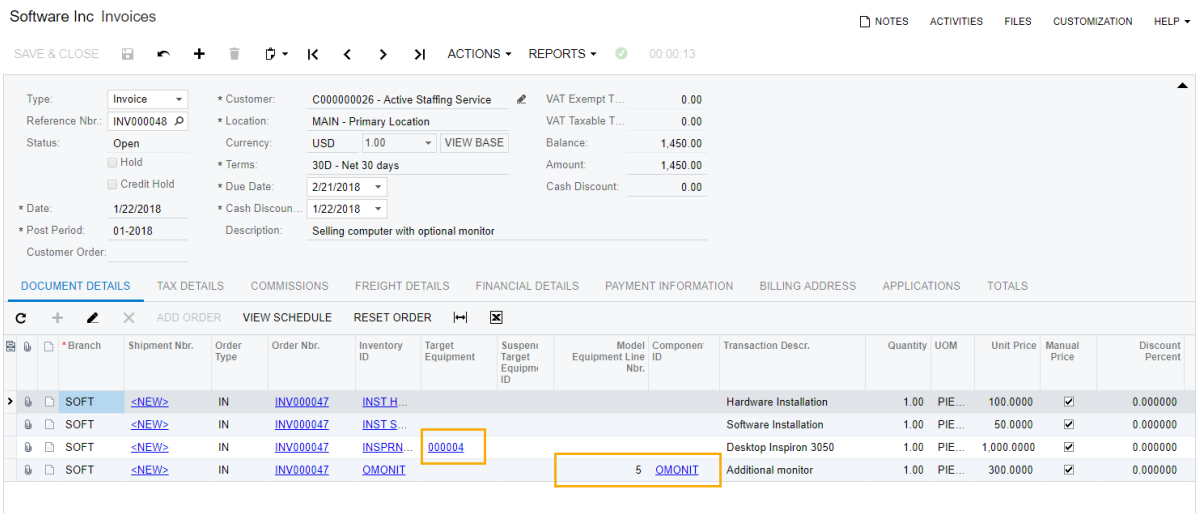


Figure: Target equipment created

15. Click the *000004* link to open the Equipment (FS205000) form.

16. Open the **Components and Warranties** tab to verify that the system has added additional component of the model equipment entity that has been sold within the same order (see the following screenshot).

Software Inc - Equipment

NOTES FILES CUSTOMIZATION HELP

SCHEDULE APPOINTMENTS INQUIRIES

Equipment Nbr.: 000004
Equipment Type:
Status: Active
Serial Number:
Description: Desktop Inspiron 3050

Vehicle
Target Equipment
Resource Equipment

Owner
Company
Customer
* Customer: C000000026 - Activ

Location
Company
Customer
* Customer: C000000026 - Activ
Location: MAIN - Primary Loca

GENERAL INFO | PURCHASE INFO | COMPONENTS AND WARRANTIES | SOURCE INFO

COMPANY GENERAL WARRANTY
Company Warranty: 6 Month(s)
Company Warranty End Date: 7/22/2018

VENDOR GENERAL WARRANTY
Vendor Warranty: 12 Month(s)
Vendor Warranty End Date: 1/22/2019

REPLACE COMPONENT

Line Ref.	Component ID	Status	Description	* Class ID	Inventory ID	S N	Company Warranty	Company Warranty Type	Company Warranty End Date	Vendor Warranty	Vendor Warranty Type	Vendor Warranty End Date	Venc
00001	MMONIT	Active	Main monitor	MONITOR	MMONIT	!	2	Year(s)	1/22/2020	6	Month(s)	7/22/2018	
00002	MBOARD	Active	Motherboard	MTBOARD	MBOARD	!	6	Month(s)	7/22/2018	12	Month(s)	1/22/2019	V00
00003	RAM	Active	RAM	RAM	RAM	!	6	Month(s)	7/22/2018	12	Month(s)	1/22/2019	
00004	RAM	Active	RAM	RAM	RAM	!	6	Month(s)	7/22/2018	12	Month(s)	1/22/2019	
00005	KBOARD	Active	Keyboard	OTHER	KBOARD		0	Month(s)		18	Month(s)	7/22/2019	
00006	MOUSE3050	Active	Mouse	OTHER	MOUSE3050	!	6	Month(s)	7/22/2018	0	Month(s)		
00007	OMONIT	Active	Additional monitor	MONITOR	OMONIT		1	Year(s)	1/22/2019	6	Month(s)	7/22/2018	

Figure: Equipment entity with the additional component

Step 3.7: Selling an Optional Component of Target Equipment

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can easily register a sale of an optional component of target equipment.

Suppose that the customer has requested that an optional component (*OMONIT*) of target equipment (which the company already has, the computer with the equipment number *000002*) be installed at the customer site, along with installation services from MyCompany. A service manager of your company receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In the diagram below, you can see the entire process of selling an optional component of target equipment within a service order.

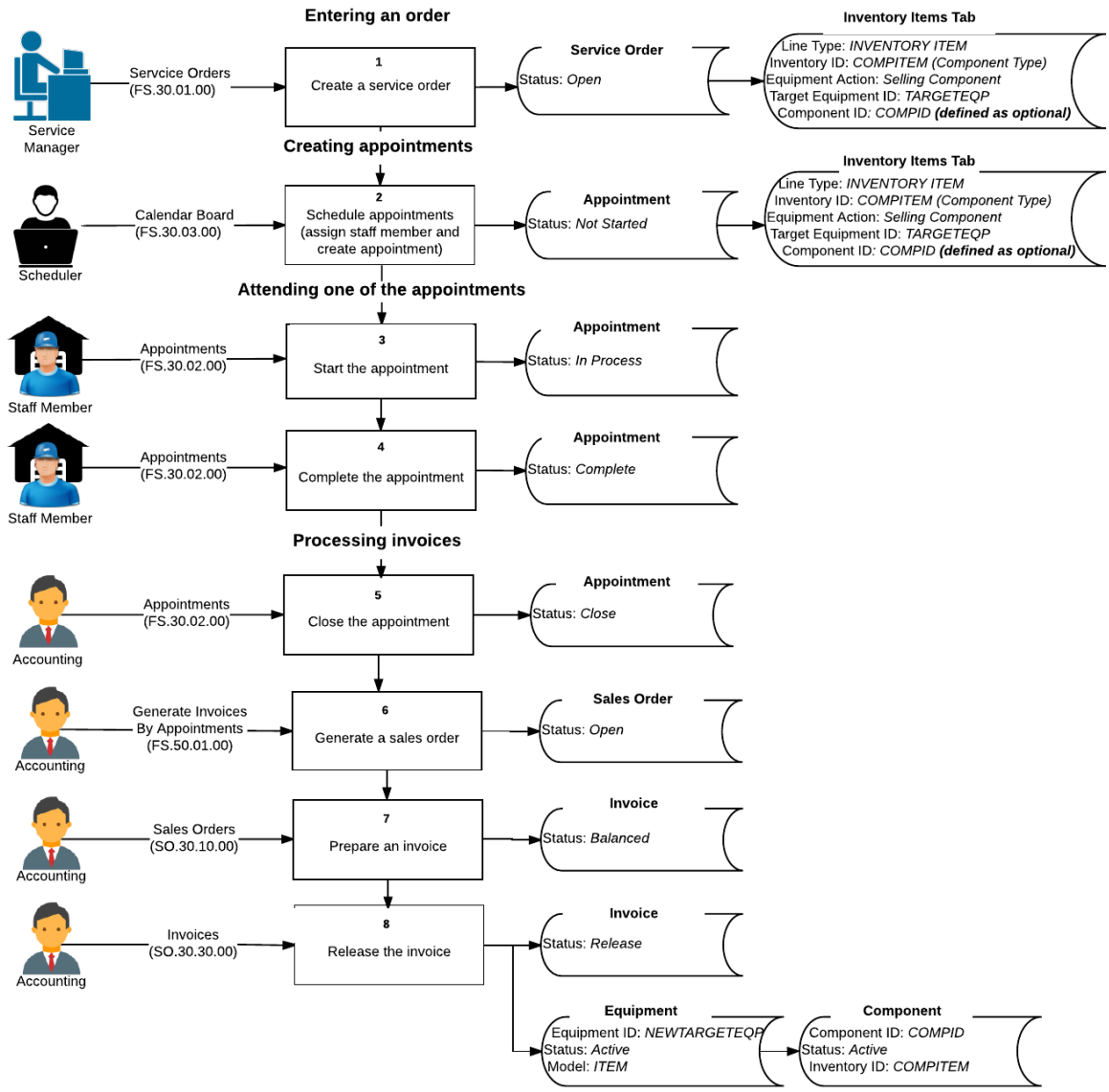


Figure: Selling an optional component of target equipment within a service order

When a service manager receives a customer request, he or she enters a service order by using the Service Orders form (FS300100), see 1 in the diagram above. In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where the services are delivered, the services that should be performed. The service manager can also create an appointment with all the above details, and the service order will be created automatically.

In addition, on the **Inventory Item** tab of the Service Orders (FS300100) or Appointments (FS300200) form, the service manager adds the optional component to be sold. For the optional component, the service manager selects *Selling Optional Component* in the **Equipment Action** column, specifies the related target equipment (*000002*) in the **Target Equipment ID** column, and selects the identifier of the equipment component (*OMONIT*) in the **Component ID** column.

The further process of selling a model equipment and optional component is identical to selling model equipment.

In this step, you will create an appointment (and the corresponding service order) that includes installation service (*INST HARD*) and a additional monitor as inventory item. You will go through the whole process until releasing the corresponding invoice both for the service and the sold equipment.

Perform the following instructions:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REAC*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Selling optional component for target equipment`
2. On the **Services** tab, add the *INST HARD* service.
3. On the **Inventory Items** form, on the table toolbar, click **Add Row**, and specify the following settings in the row to add another piece of model equipment (an additional monitor) to the appointment and save your changes:
   - **Inventory ID**: *OMONIT*
   - **Equipment Action**: *Selling Optional Component*
   - **Target Equipment ID**: *000002*
   - **Component ID**: *OMONIT*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `300.0000`
4. Save your changes; the following screenshot shows the appointment you have created.

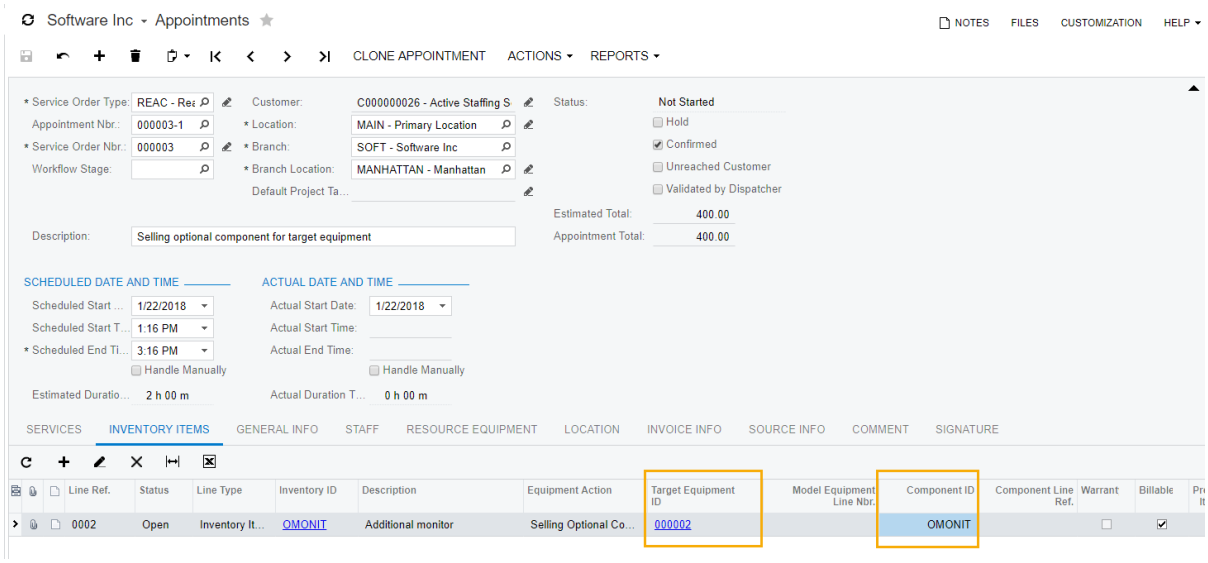


Figure: The created appointment

5. On the **Staff** tab, click **Add Row**, specify *EP00000002 (Maxwell Baker)* as the **Staff Member**, and save your changes.
6. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Maxwell Baker arriving at the appointment).
7. Click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

   (For the purposes of this exercise, you are now acting as an accountant).
8. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:
   - **Generate Invoices In**: *Sales Orders*
   - **Billing Customer**: *C000000026 (Active Staffing Services)*
9. Click the row with the *000003-1* appointment, and on the form toolbar, click **Process**.
10. After the batch generation process has completed, click the *000003* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

    On the Invoice Generation Batches form (FS305800), which the system has opened, notice that the **Document** column shows that the document is posted to *SO*—the Sales Orders module.

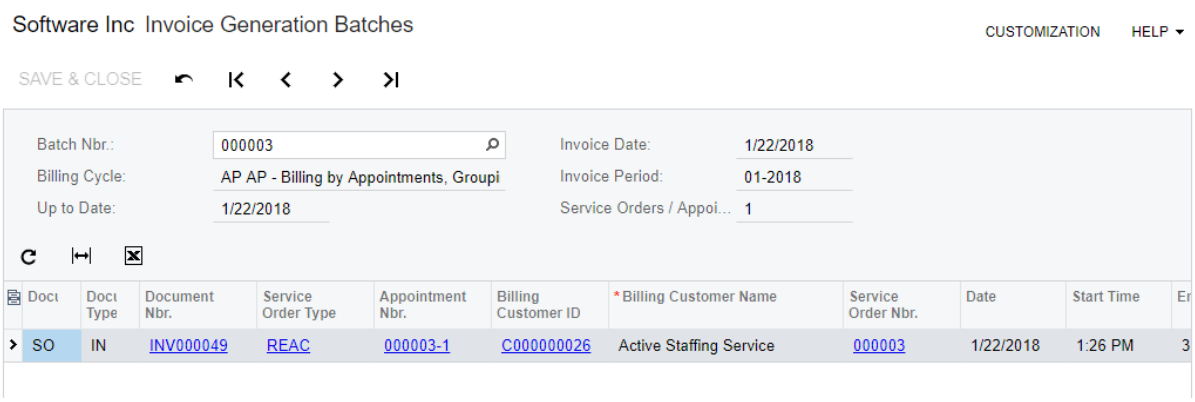


Figure: Invoice generation batch

11. In the **Document Nbr.** column, click the *INV000049* document of the IN type to open the Sales Orders form (SO301000) to review the document details.

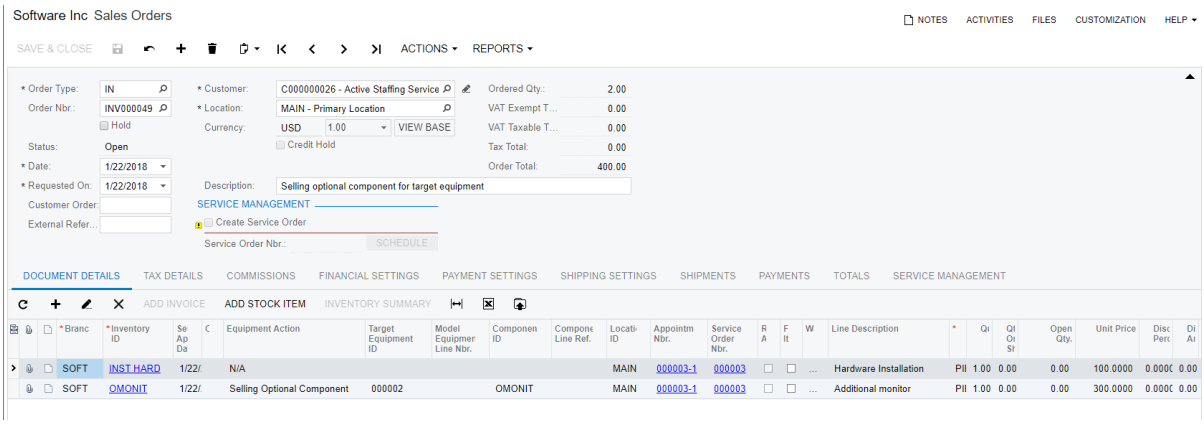


Figure: Invoice generated to the Sales Orders module

12. On the form toolbar, click **Actions > Prepare Invoice**, then **Actions > Release**.

    When the invoice is released (as shown in the following screenshot), the target equipment entity is updated.

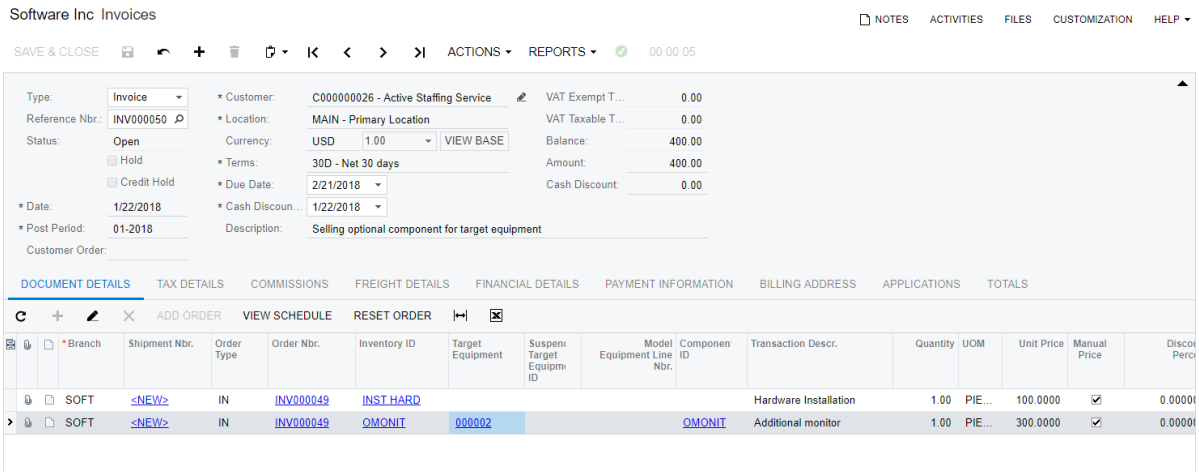


Figure: Target equipment created

13. Click the *000002* link to open the Equipment (FS205000) form.

14. Open the **Components and Warranties** tab to verify that the system has added the optional component to the target equipment entity (see the following screenshot).

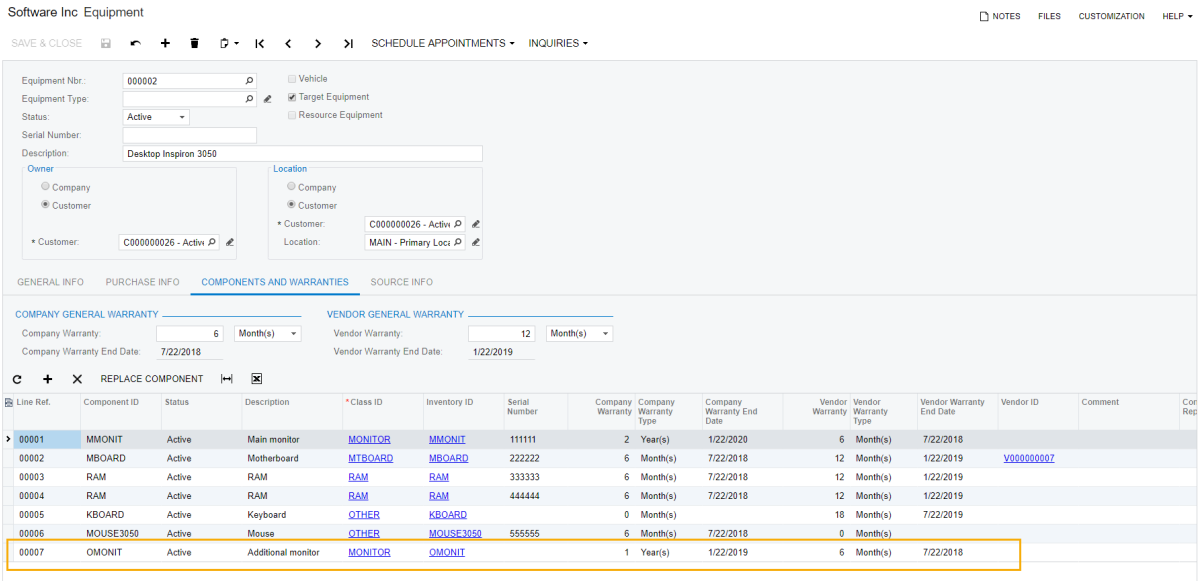


Figure: Equipment entity with the additional component

Step 3.8: Upgrading a Default Component of Model Equipment to Be Sold

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can easily register the sale of model equipment and replacement of a default component in it.

Suppose that the customer has requested a model equipment entity (*INSPRN3050*) and a replacement of one of the default components of this equipment entity (*OMONIT* monitor instead of *MMONIT* monitor), along with installation services from your company. A service manager of MyCompany receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In the diagram below, you can see the entire process of selling a piece of model equipment and upgrading a default component of model equipment within a service order.

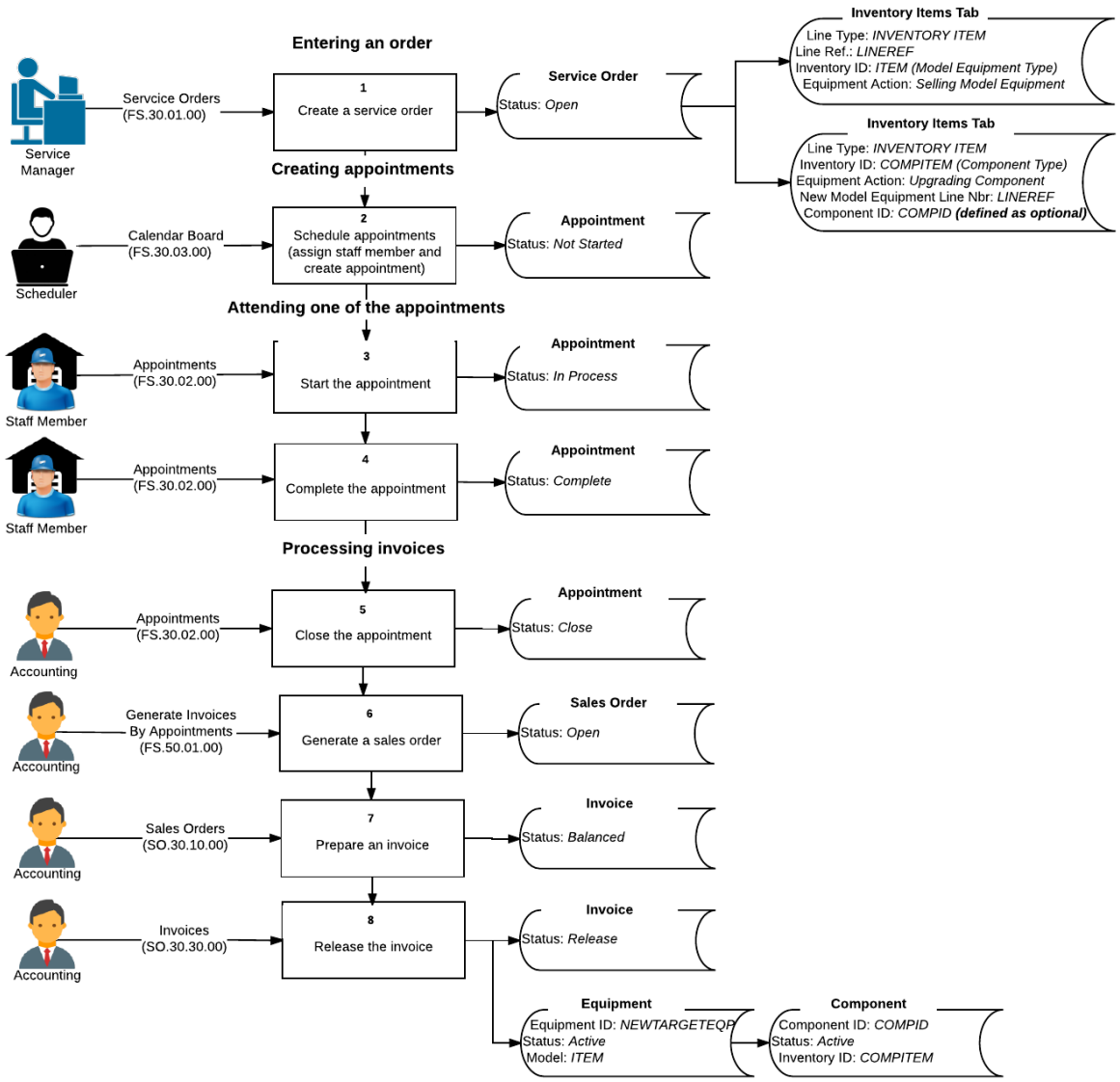


Figure: Selling model equipment and upgrading a default component within a service order

When a service manager receives a customer request, he or she enters a service order by using the Service Orders form (FS300100), see 1 in the diagram above. In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where

the services are delivered, the services that should be performed. The service manager can also create an appointment with all the above details, and the service order will be created automatically.

In addition, on the **Inventory Item** tab of this form, the service manager adds the model equipment entity and the component to be sold as follows:

1. For the model equipment entity, the service manager selects *Selling Model Equipment* in the **Equipment Action** column.
2. For the component, the service manager selects *Upgrading Component* in the **Equipment Action** column, specifies the related model equipment in the **Model Equipment Line Nbr.** column, and selects the identifier of the equipment component in the **Component ID** column.

The further process of selling a model equipment with upgraded component is identical to selling model equipment.

In this step, you will create an appointment (and the corresponding service order) that includes installation service (*INST HARD*) and the *INSPRN3050* as an inventory item as well as the *OMONIT* additional monitor replacing the *MMONIT* default monitor. You will go through the whole process until releasing the corresponding invoice both for the service and the sold equipment.

Perform the following instructions:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REAC*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Selling computer with upgraded monitor`
2. On the **Services** tab, add the *INST HARD* service.
3. On the **Inventory Items** form, on the table toolbar, click **Add Row**, and specify the following settings in the row to add a model equipment to this appointment and save the changes:
   - **Inventory ID**: *INSPRN3050*
   - **Equipment Action**: *Selling Model Equipment*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `1000.0000`
4. Click **Add Row** again, and specify the following settings in the row to add another piece of model equipment (an additional monitor) to the appointment and save your changes:
   - **Inventory ID**: *OMONIT*
   - **Equipment Action**: *Upgrading Component*

     This action registers the upgraded component (which replaces the default component) of a piece of model equipment.
   - **Model Equipment Line Nbr.**: *0002*

     This is a piece of model equipment which is being upgraded during a sale of the model equipment.
   - **Component ID**: *MMONIT*
   - This is the identifier of the component being upgraded in the model equipment.
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `300.0000`
5. Save your changes; the following screenshot shows the appointment you have created.

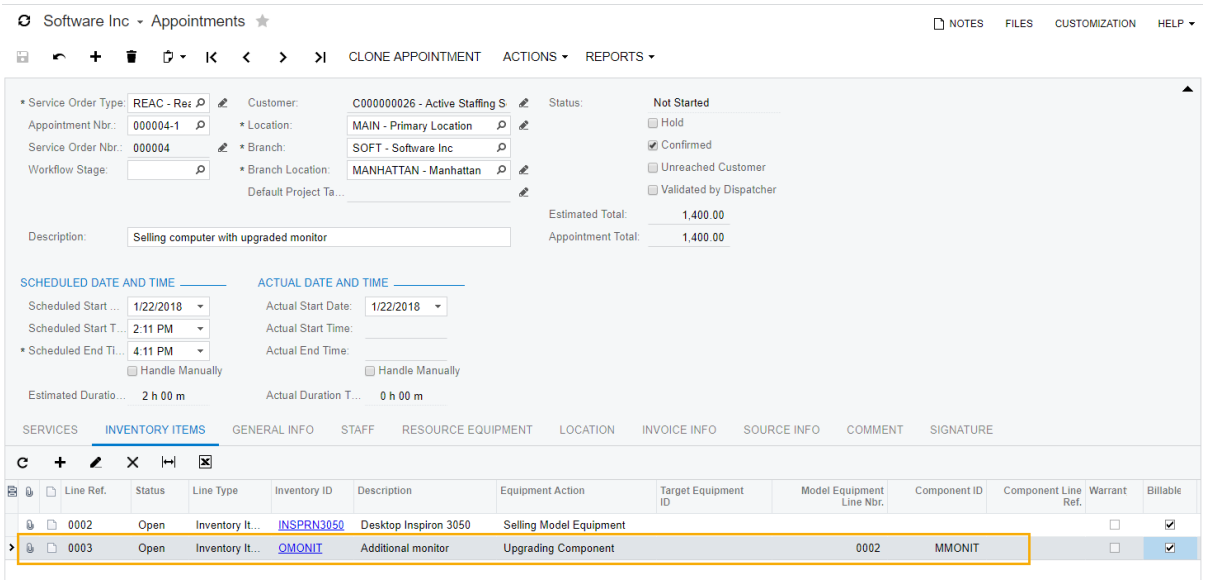


Figure: The created appointment

6. On the **Staff** tab, click **Add Row**, specify *EP00000001 (Michael Andrews)* as the **Staff Member**, and save your changes.
7. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Michael Andrews arriving at the appointment).
8. Click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

   (For the purposes of this exercise, you are now acting as an accountant).
9. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:
   - **Generate Invoices In**: *Sales Orders*
   - **Billing Customer**: *C000000026 (Active Staffing Services)*
10. Click the row with the *000004-1* appointment, and on the form toolbar, click **Process**.
11. After the batch generation process has completed, click the *000004* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

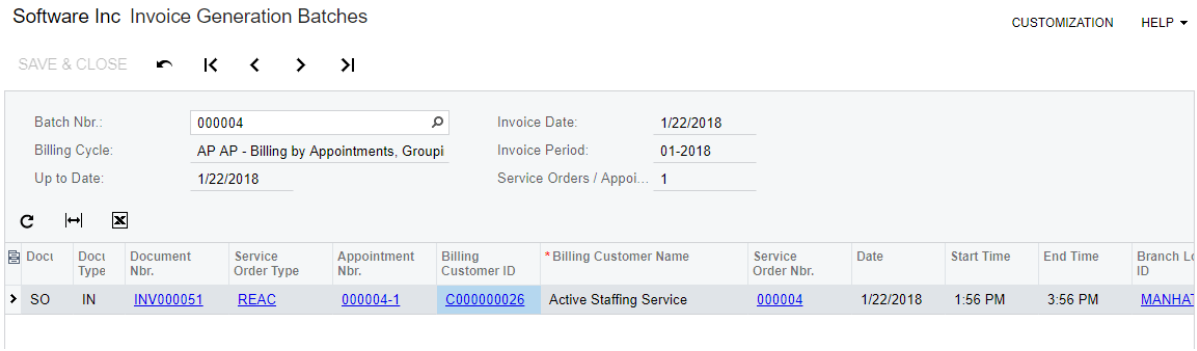


Figure: Invoice generation batch

12. On the Invoice Generation Batches form (FS305800), which the system has opened, in the **Document Nbr.** column, click the *INV000051* document of the *IN* type to open the Sales Orders form (SO301000) to review the document details.

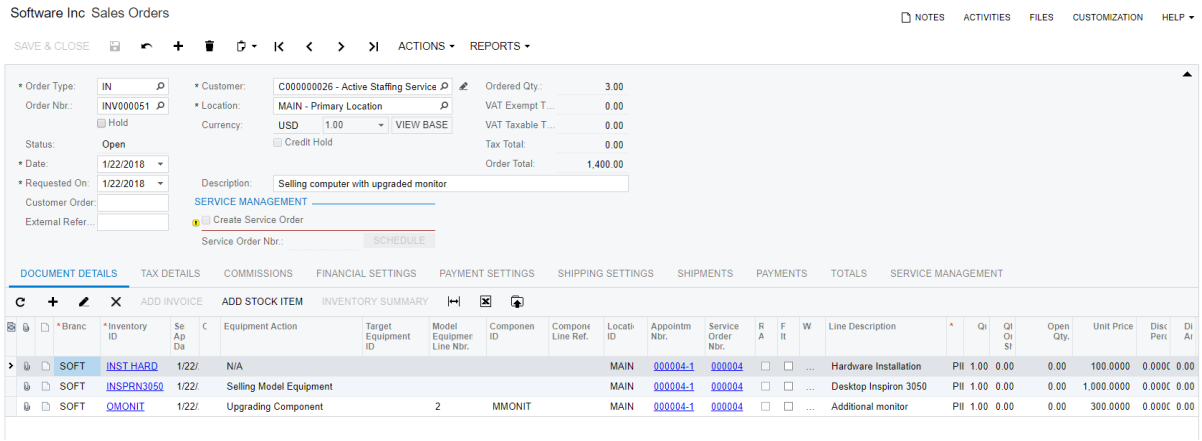


Figure: Invoice generated to the Sales Orders module

13. On the form toolbar, click **Actions > Prepare Invoice**, then **Actions > Release**.

When the invoice is released (as shown in the following screenshot), the target equipment entity is updated.

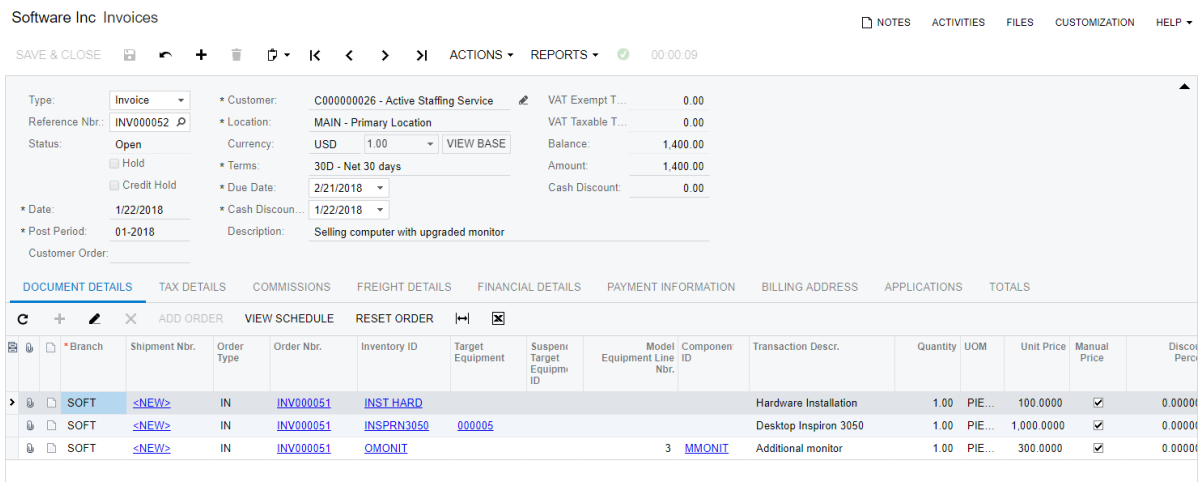


Figure: Target equipment created

14. Click the *000005* link in the **Target Equipment** column to open the Equipment (FS205000) form.

15. Open the **Components and Warranties** tab to verify that the system has replaced the default monitor with the one you have selected when creating an appointment (see the following screenshot).

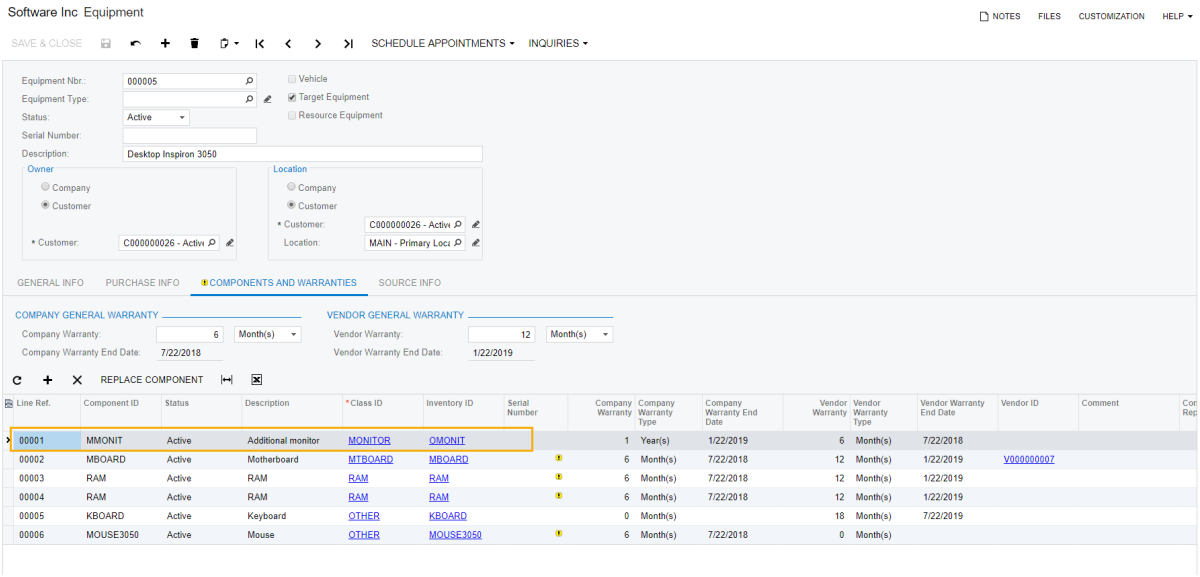


Figure: Equipment entity with the additional component

Step 3.9: Replacing Target Equipment

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can easily register the replacement of an existing target equipment entity with a new entity.

Suppose that the customer has requested a new equipment entity (a new laptop) to replace an old one, along with replacement services from your company. A service manager of your company receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In the diagram below, you can see the entire process of replacing target equipment within a service order.

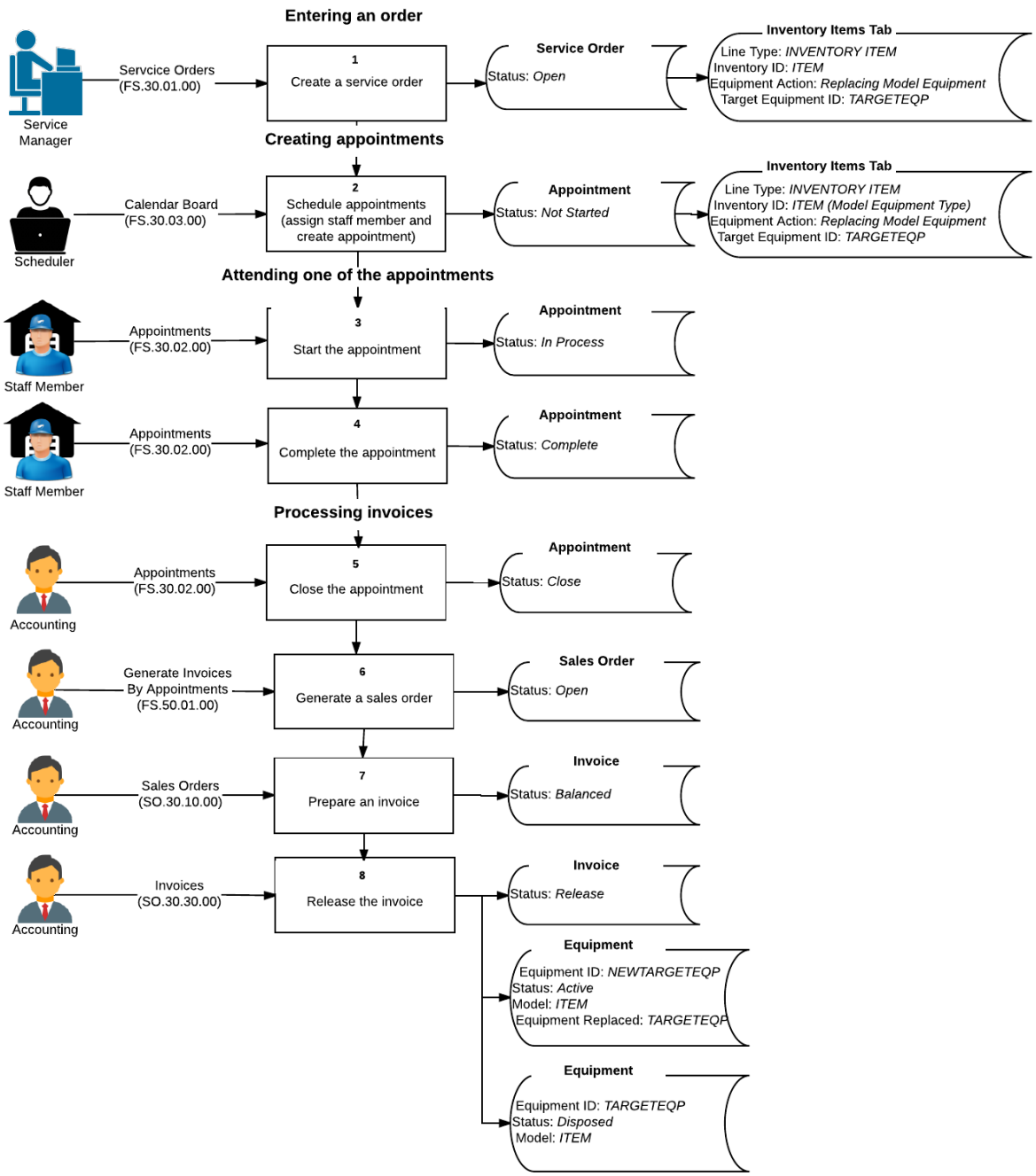


Figure: Replacing target equipment within a service order

When a service manager receives a customer request, he or she enters a service order by using the Service Orders form (FS300100), see 1 in the diagram above. In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where the services are delivered, the services that should be performed. The service manager can also create an appointment with all the above details, and the service order will be created automatically.

In addition, on the **Inventory Item** tab of this form, the service manager adds a model equipment entity that will replace the old target equipment entity. To specify that the replacement is being performed, for the model equipment entity, the service manager selects *Replacing Target Equipment* in the **Equipment Action** column and specifies the target equipment entity to be replaced in the **Target Equipment ID** column.

The further process of replacement a target equipment is identical to selling model equipment.

In this step, you will create an appointment (and the corresponding service order) that includes installation service (*INST HARD*) and the *XPS15* as an inventory item replacing the target equipment with equipment number *000001*. You will go through the whole process until releasing the corresponding invoice both for the service and the sold equipment.

Perform the following instructions:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REAC*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Replacing laptop`
2. On the **Services** tab, add the *INST HARD* service.
3. On the **Inventory Items** form, on the table toolbar, click **Add Row**, and specify the following settings in the row to add a model equipment to this appointment and save the changes:
   - **Inventory ID**: *XPS15*
   - **Equipment Action**: *Replacing Target Equipment*
   - **Target Equipment ID**: *000001*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `900.0000`
4. Save your changes; the following screenshot shows the appointment you have created.

   Now you can assign the appointment and proceed with the services.

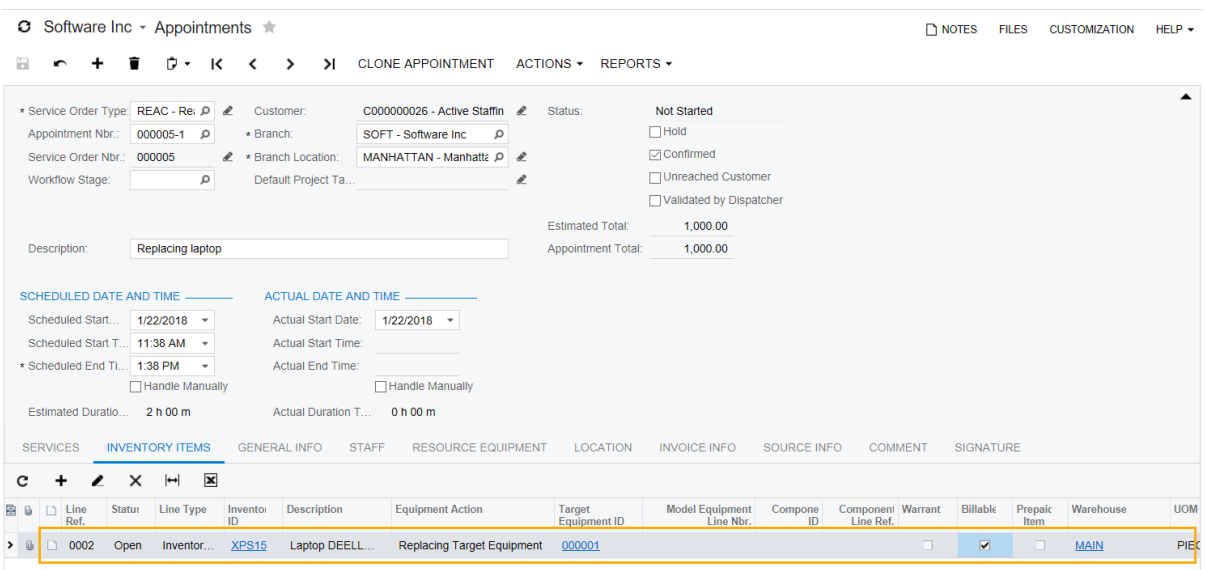


Figure: The created appointment

5. On the **Staff** tab, click **Add Row**, specify *EP00000001 (Michael Andrews)* as the **Staff Member**, and save your changes.
6. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Michael Andrews arriving at the appointment).
7. Click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

   (For the purposes of this exercise, you are now acting as an accountant).

8. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:
   - **Generate Invoices In**: *Sales Orders*
   - **Billing Customer**: *C000000026 (Active Staffing Services)*
9. Click the row with the *000005-1* appointment, and on the form toolbar, click **Process**.
10. After the batch generation process has completed, click the *000005* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

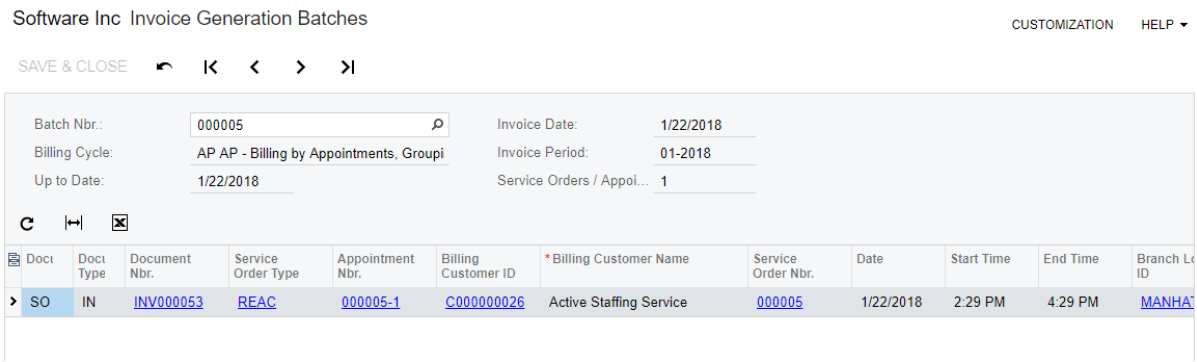


Figure: Invoice generation batch

11. On the Invoice Generation Batches form (FS305800), which the system has opened, in the **Document Nbr.** column, click the *INV000053* document of the *IN* type to open the Sales Orders form (SO301000) to review the document details.

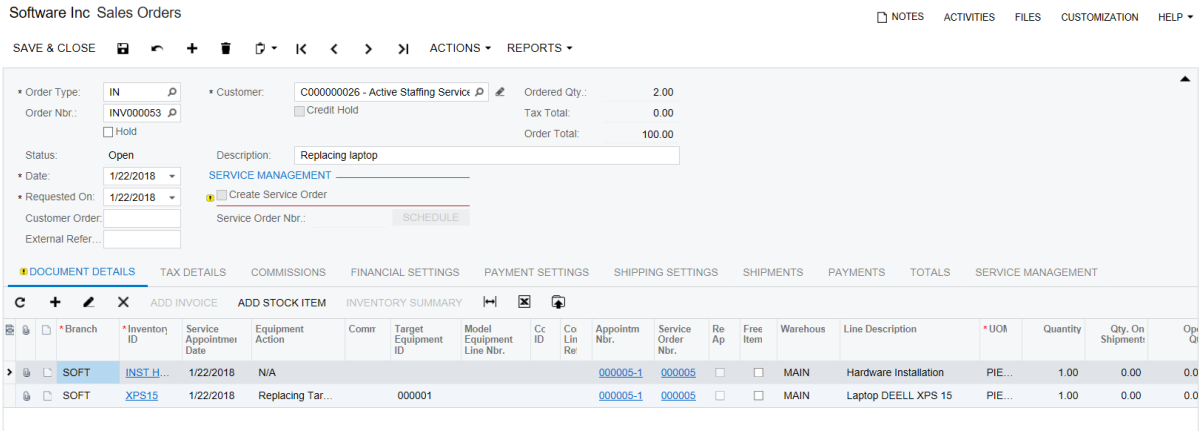


Figure: Invoice generated to the Sales Orders module

12. On the form toolbar, click **Actions > Prepare Invoice**, then **Actions > Release**.

    When the invoice is released (as shown in the following screenshot), the new target equipment entity is created; the replaced equipment is suspended.

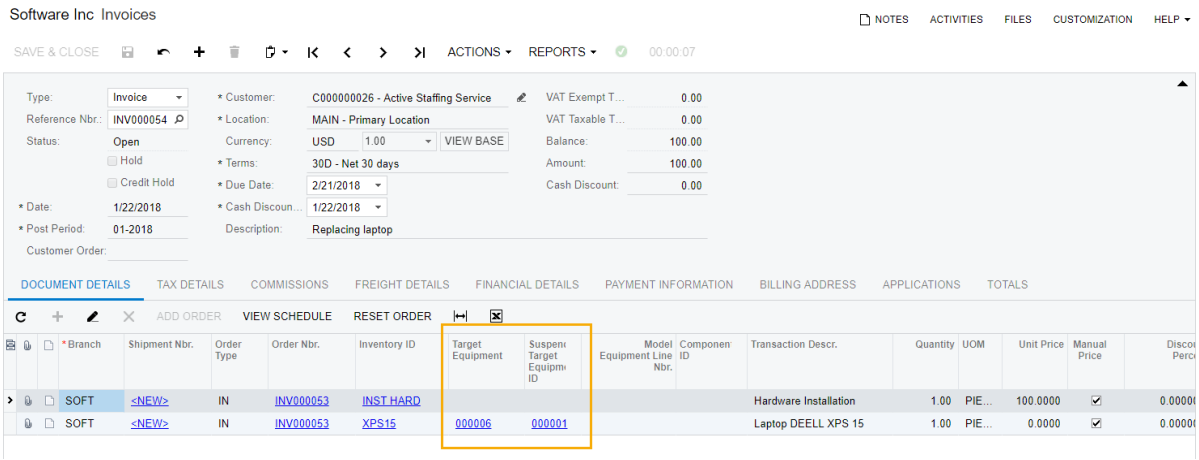


Figure: Target equipment replaced

13. Click the *000001* link to open the Equipment (FS205000) form and verify the status of the *000001* equipment is *Disposed* (see the following screenshot).

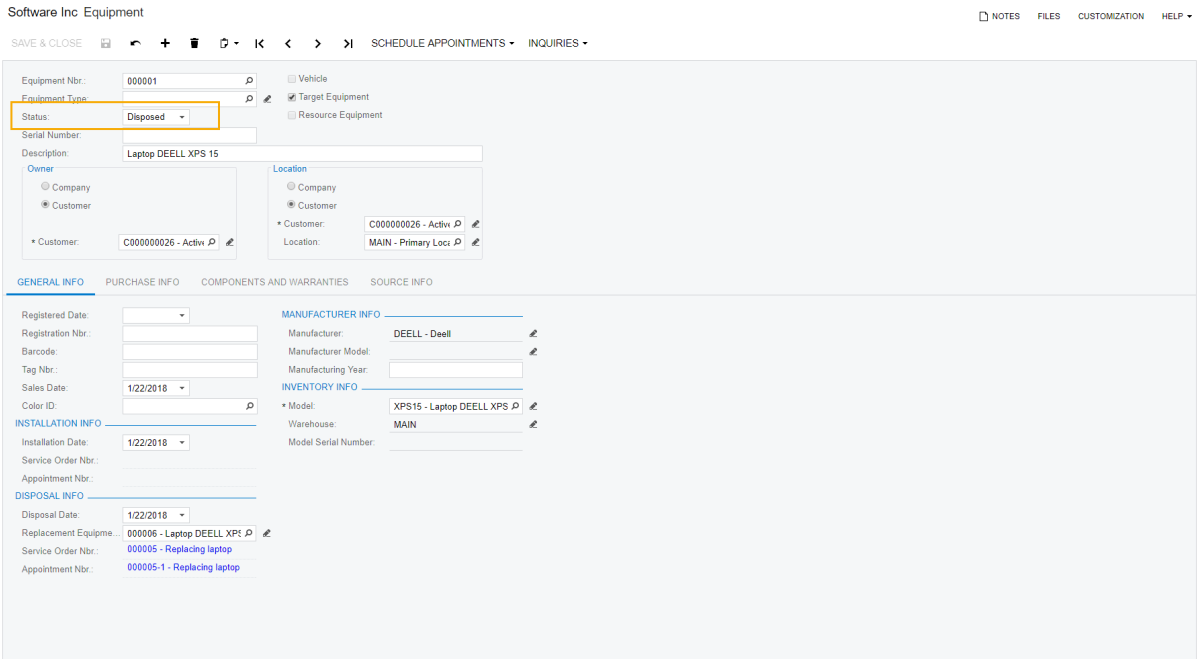


Figure: Disposed equipment

14. In the **Equipment Nbr.**, select *000006* to open the just created equipment.

15. Open the **Source Info** tab to verify that the system has replaced the target equipment (see the following screenshot).

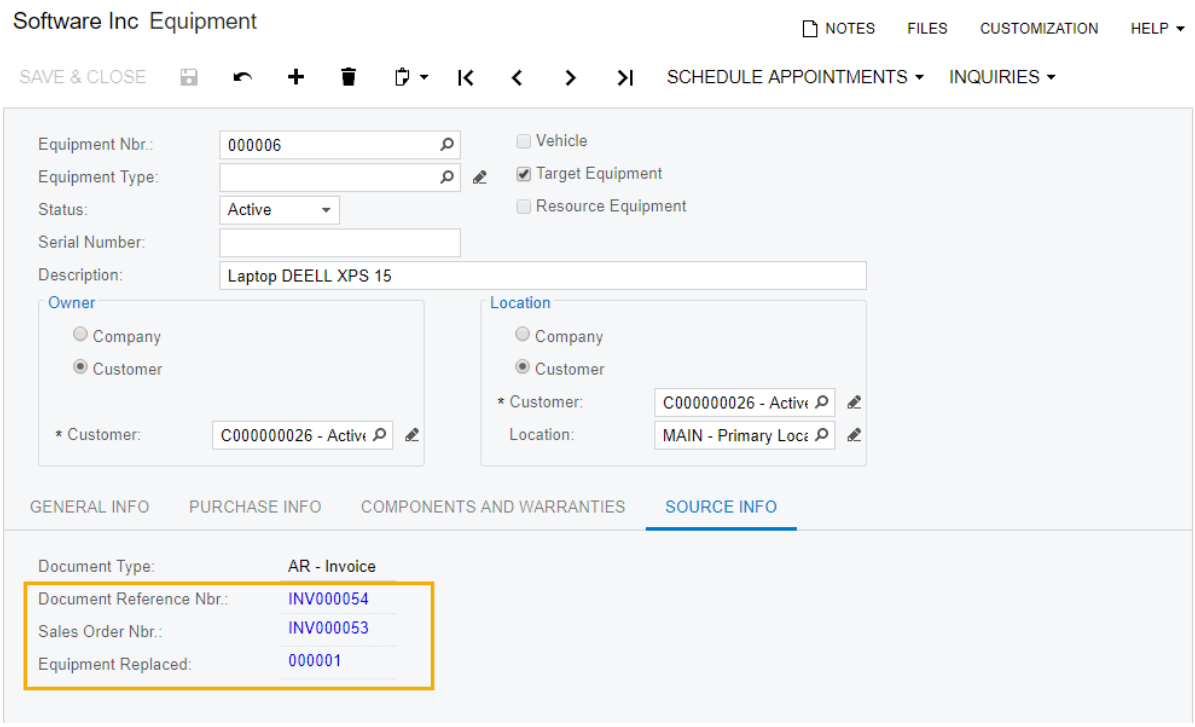


Figure: Info about replaced equipment

Step 3.10: Replacing a Component of Target Equipment

In Acumatica ERP, while you are working with a sales order, service order, or appointment on the applicable form, you can register the replacement of components of target equipment with new components.

Suppose that the customer has requested a new component (new motherboard) to replace an old one in the existing target equipment (computer), along with replacement services from your company. A service manager of your company receives the request and enters it into Acumatica ERP. Further processing is then performed by the scheduler, the assigned staff members, and the accountant who prepares invoices for the customer and processes them in the system.

In the diagram below, you can see the entire process of replacing target equipment within a service order.

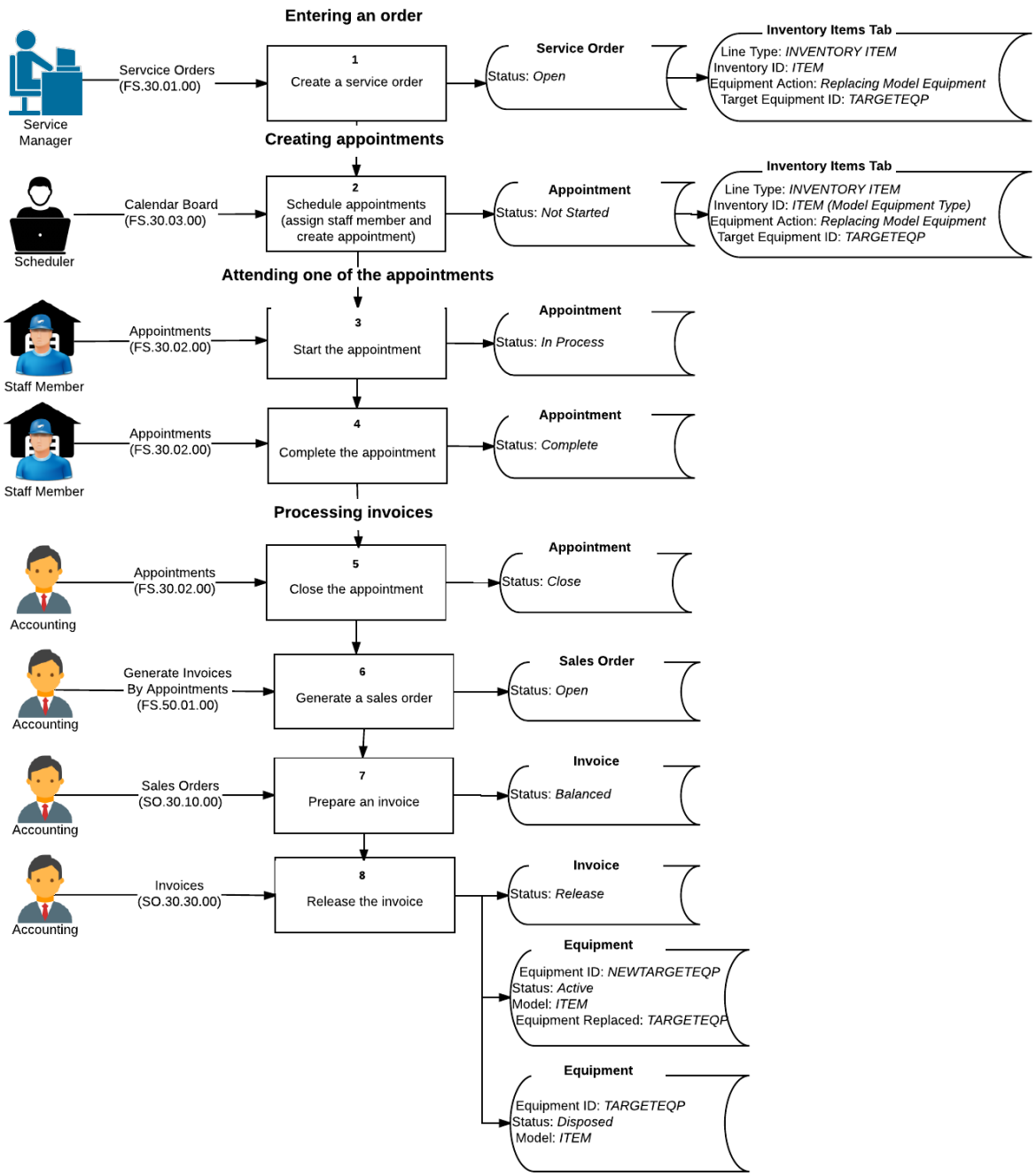


Figure: Replacing target equipment within a service order

When a service manager receives a customer request, he or she enters a service order by using the Service Orders form (FS300100), see 1 in the diagram above. In the service order, the service manager specifies the customer from which the request has been received, the branch and branch location where the services are delivered, the services that should be performed. The service manager can also create an appointment with all the above details, and the service order will be created automatically.

In addition, on the **Inventory Item** tab of this form, the service manager adds a component that will replace the old component. To specify that the replacement is performed, for the new component, the service manager selects *Replacing Component* in the **Equipment Action** column, specifies the target equipment entity in which the component has to be replaced in the **Target Equipment ID** column, and specifies the component to be replaced in the **Component Line Ref.** column.

The further process of replacement a target equipment is identical to selling model equipment.

In this step, you will create an appointment (and the corresponding service order) that includes repair service (*REPAIR*) and the *MBOARD* as an inventory item replacing the target equipment with equipment number *000002*. You will go through the whole process until releasing the corresponding invoice both for the service and the replaced component.

Perform the following instructions:

1. On the Appointments form (FS300200; Service > Service Management > Work Area > Enter), create a new appointment, specify the following settings in the Summary area, and save your changes:
   - **Service Order Type**: *REAC*
   - **Customer ID**: *C000000026 (Active Staffing)*
   - **Branch Location ID**: *MANHATTAN*
   - **Description**: `Replacing motherboard`
2. On the **Services** tab, add the row with the following settings:
   - **Service ID**: *REPAIR*
   - **Target Equipment ID**: *000002*
3. Save your changes.
4. On the **Inventory Items** form, on the table toolbar, click **Add Row**, and specify the following settings in the row to add a component to this appointment and save the changes:
   - **Inventory ID**: *MBOARD*
   - **Equipment Action**: *Replacing Component*
   - **Target Equipment ID**: *000002*
   - **Component ID**: *MBOARD*
   - **Component Line Ref.**: *00002*
   - **Estimated Quantity**: `1.00`
   - **Unit Price**: `500.0000`
5. Save your changes; the following screenshot shows the appointment you have created.

   Notice that the **Warranty** check box is selected for the selected component meaning that it is under warranty.

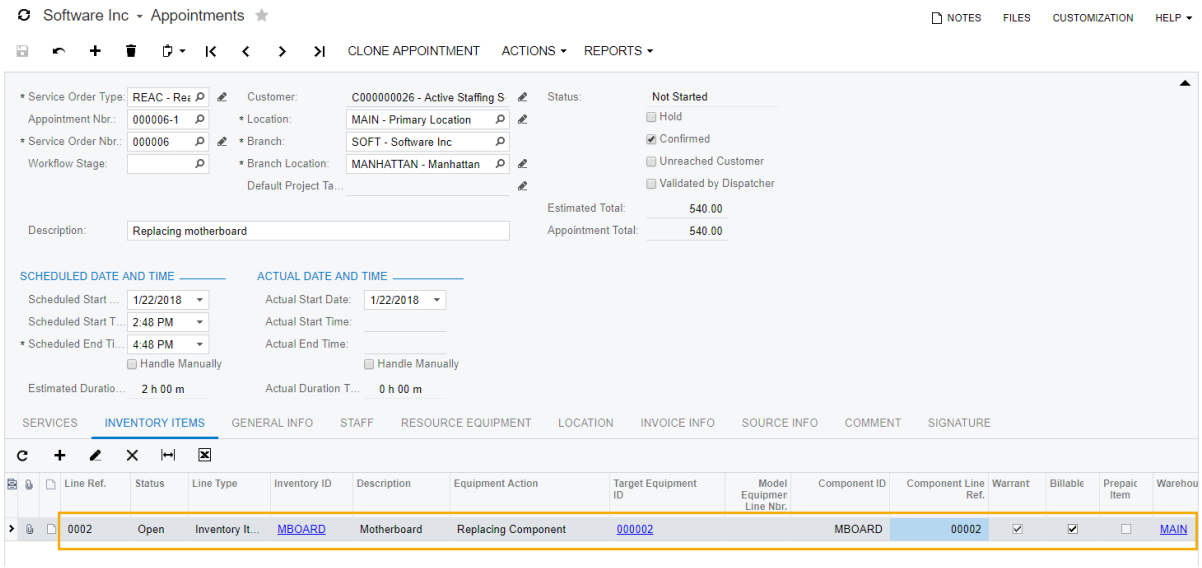


Figure: The created appointment

6. On the **Staff** tab, click **Add Row**, specify *EP00000001 (Michael Andrews)* as the **Staff Member**, and save your changes.
7. On the form toolbar, click **Actions > Start Appointment**.

   (For the purposes of this exercise, you are acting as Michael Andrews arriving at the appointment).
8. Click **Actions > Complete Appointment** and then **Actions > Close Appointment**.

   (For the purposes of this exercise, you are now acting as an accountant).
9. On the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring), specify the following settings in the Summary area:
   - **Generate Invoices In**: *Sales Orders*
   - **Billing Customer**: *C000000026 (Active Staffing Services)*
10. Click the row with the *000006-1* appointment, and on the form toolbar, click **Process**.
11. After the batch generation process has completed, click the *000006* link in the **Batch Nbr.** column to review the generated batch (shown in the following screenshot).

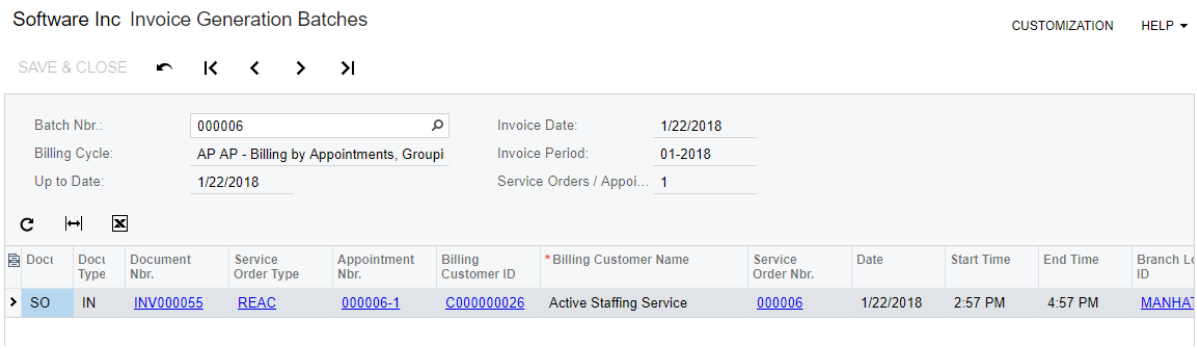


Figure: Invoice generation batch

12. On the Invoice Generation Batches form (FS305800), which the system has opened, in the **Document Nbr.** column, click the *INV000055* document of the IN type to open the Sales Orders form (SO301000) to review the document details.

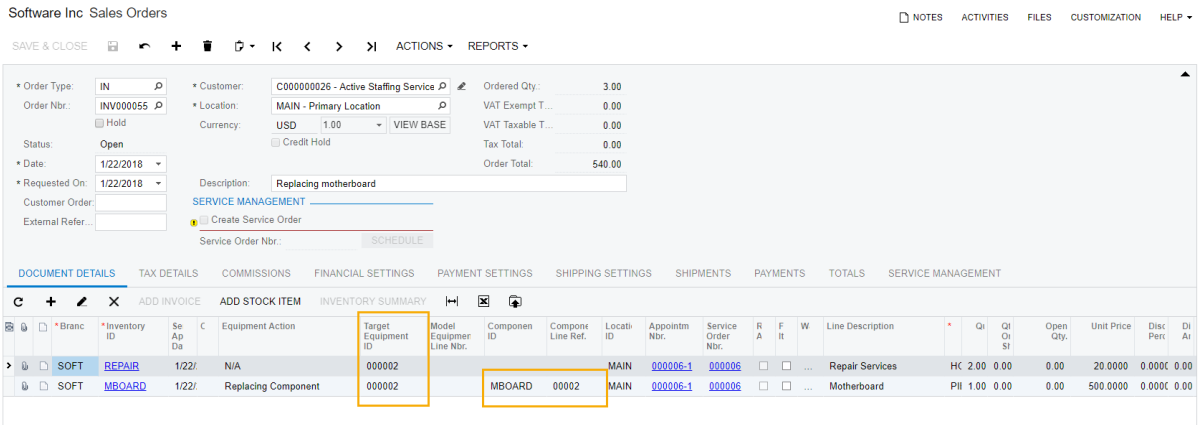


Figure: Invoices generated to the Sales Orders module

13. On the form toolbar, click **Actions > Prepare Invoice**, then **Actions > Release**.

    When the invoice is released (as shown in the following screenshot), the new component of a target equipment entity is created; the replaced component is suspended.

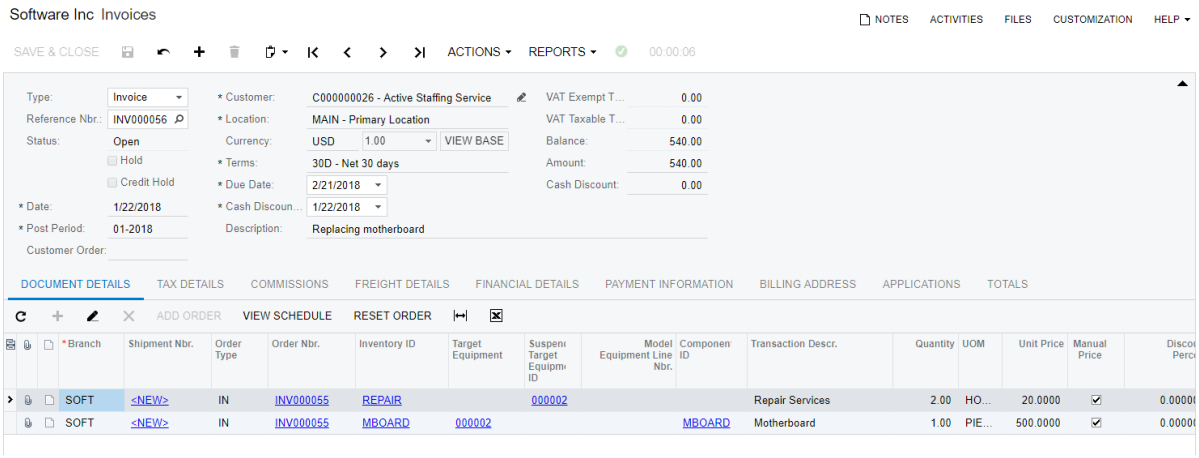


Figure: Target equipment replaced

14. Click the *000002* link in the **Target Equipment** column to open the Equipment (FS205000) form.

15. On the **Components and Warranties** tab, verify the status of the 00002 line is *Disposed* (see the following screenshot). It is replaced with line 00008.

You can also replace a component of a target equipment by clicking the **Replace** button on the table toolbar of the **Components and Warranties** tab on the Equipment form (FS205000). In the dialog that opens, you can manually select the installation and sales date of the component being replaced.

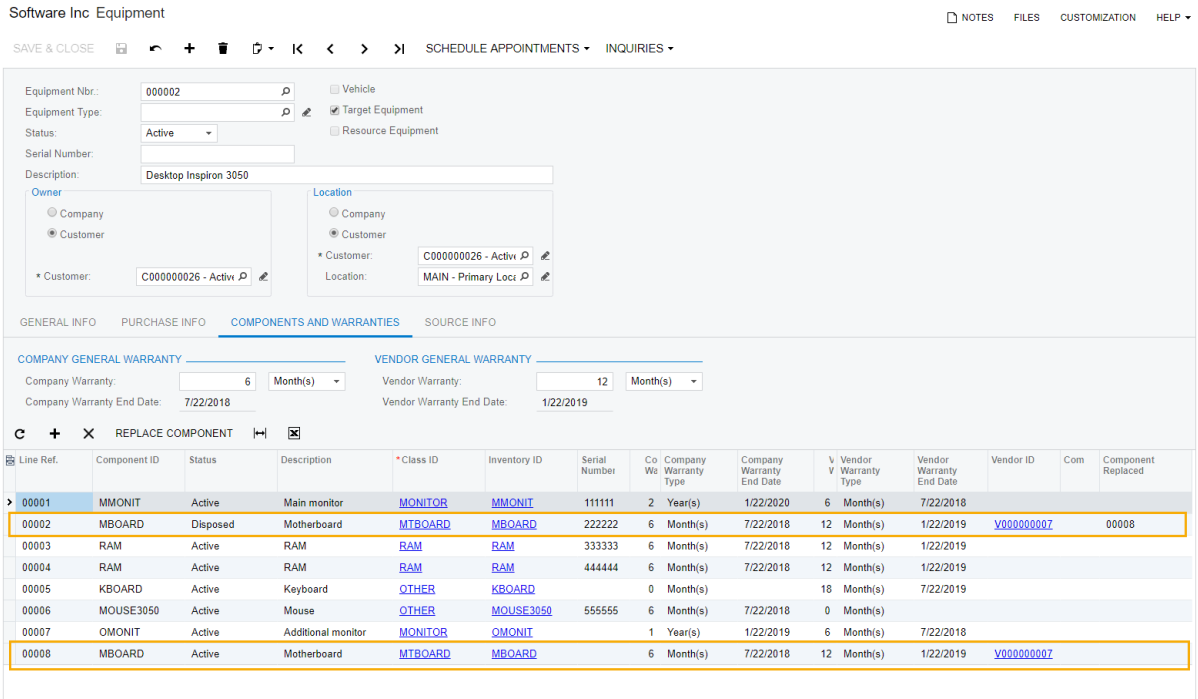


Figure: Disposed component

16. On the form toolbar, click **Inquiries > Target Equipment History** and verify that the information about replaced motherboard is on the list, along with other information related to this equipment.

Software Inc Appointment Details History

HELP

Branch: SOFT - Software Inc
Branch Location:
Customer:
Location:
Service Order Type:
Service Order Nbr.:
Contract Nbr.:
Schedule Ref. Nbr.:
Item:
Target Equipment: 000002
From Scheduled Date:
To Scheduled Date:

Branch	Branch Location ID	Service Order Type	Service Order Nbr.	Appointment Nbr.	Customer ID	Location ID	Schedule Date	Actual Start Date	Actual Start Time	Actual End Time	Status	Line Type	Inventory ID	Target Equipmer ID	Suspende Target Equipmer ID	Component ID	Billable
SOFT	MANHATTAN	REAC	000003	000003-1	C000000026	MAIN	1/22/2018	1/22/2018	1:26 PM	3:26 PM	Closed	Inventory It...	OMONIT	000002		OMONIT	☑
SOFT	MANHATTAN	REAC	000006	000006-1	C000000026	MAIN	1/22/2018	1/22/2018	2:57 PM	4:57 PM	Closed	Service	REPAIR	000002			☑
SOFT	MANHATTAN	REAC	000006	000006-1	C000000026	MAIN	1/22/2018	1/22/2018	2:57 PM	4:57 PM	Closed	Inventory It...	MBOARD	000002		MBOARD	☑
SOFT	MANHATTAN	REG	000001	000001-1	C000000026	MAIN	1/22/2018	1/22/2018	11:39 AM	4:39 PM	Closed	Service	INST HARD	000002			☑
SOFT	MANHATTAN	REG	000001	000001-1	C000000026	MAIN	1/22/2018	1/22/2018	11:39 AM	4:39 PM	Closed	Service	INST SOFT	000002			☑

Figure: Target equipment history

Lesson Summary

In this lesson, you have learned two ways of creating target equipment in the system. You have manually created target equipment, and you have learned how to start with a sales order that includes model equipment and go through the whole process of selling the equipment, which causes the system to create target equipment. You have created an appointment for performing particular services on target equipment.

You have also learned how to sell model equipment (thus converting it to target equipment) together with the services by adding inventory items to appointments or service orders. Now you know how to sell optional components of equipment, and how to replace default components with optional during the sale. You can also learned how to keep track of replaced equipment and its components.

Review Questions:

- Do you need to specify warranty end dates for the target equipment?
- If you create a sales order or a service order that sells model equipment, when the target equipment record appears in the system?
- How will you register a replacement of a broken component of a target equipment in the system?

Lesson 4: Service Contracts

For frequently maintained target equipment, you can create schedules of the services to be provided.

In this lesson, you will learn about service contracts. With service contracts, which are based on the agreement between the customer and your company, the predefined services are performed at the predefined frequency.

Once you complete this lesson, you will have created a service contract and the corresponding service orders; the appointments for the service orders will be scheduled, completed, and ready to be billed.

Lesson Objectives

You will do the following:

- Create a service contract
- Create a schedule for the service contract
- Generate service orders for the service contract
- Find the generated service orders in the system and schedule appointments for one of them
- Complete the appointments and generate sales orders of the *IN* (*Invoice*) type for the provided services

Step 4.1: Creating a Service Contract

You can use *service contracts* to create maintenance schedules for target equipment. In the system, a service contract contains basic information—such as the branch, customer, and dates—and the schedule or schedules associated with the contract. A contract schedule defines the settings that of each service order to be generated for the contract: applicable customer, the schedule that determines when services are needed, the services to be provided, any inventory items to be sold as part of the service order, and the prices of the included services and inventory items. It also specifies the recurrence of the generation.

You can define a specific contract price for each item in the contract. (This will not be covered in this training.)

After the contract and its schedules have been created, service orders based on their settings can be generated and processed as usual.

In general, the processing of a service contract consists of the following stages:

1. Entering the service contract: The scheduler or service manager enters the service contract into the system.
2. Creating the schedule: The scheduler creates the schedule (or schedules) for service delivery for the contract.
3. Generating the service orders: The scheduler generates service orders in the Service Management module.

In this step, you will create a contract for the existing customer *Active Staffing Service*. The customer requires appointments on Mondays and Fridays of each week for one year, starting next week. The service to be performed is the *REPAIR* service on the customer equipment. The generation of service orders will be done weekly by the scheduler of MyCompany to create service orders for each upcoming week.

To create a service contract, perform the following instructions:

1. On the Service Contracts form (FS305700; Service > Equipment Management > Work Area > Enter), create a new contract, specify the following settings (see the following screenshot), and save your changes:
   - **Customer ID**: *C000000026 (Active Staffing Service)*
   - **Description**: `Maintenance Contract`
   - **Branch Location**: *MANHATTAN*
   - **Start Date**: The first Monday after today
   - **Enable Expiration Date**: Selected
   - **Expiration Date**: One year from the start date

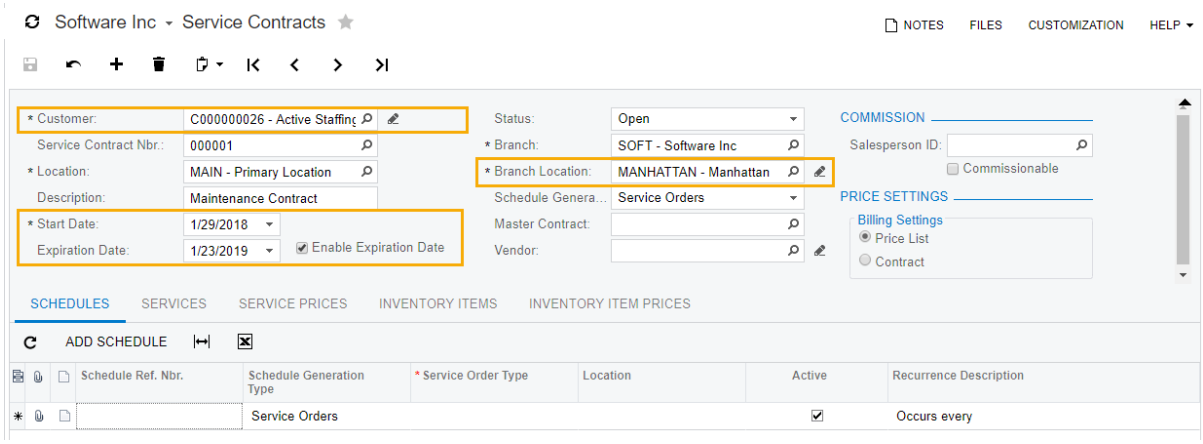


Figure: The new service contract

Now that you have created the service contract, you have to define the schedule of work for this contract.

2. On the table toolbar of the **Schedules** tab, click **Add Schedule**.
3. In the Service Contract Schedules form (FS305100), which the system has opened, create a new schedule, and do the following (see the screenshot below):
   - In the **Service Order Type** box, select *REAC*.
   - On the **Services** tab, add a service line, and specify *REPAIR* as the **Service ID**.
   - On the **Recurrence** tab, under **Frequency Type**, select **Weekly**, and do the following:
     - Leave **Every** *1* **Week(s)**.
     - Select the **Monday** and **Friday** check boxes.
     - Leave the remaining weekdays cleared.

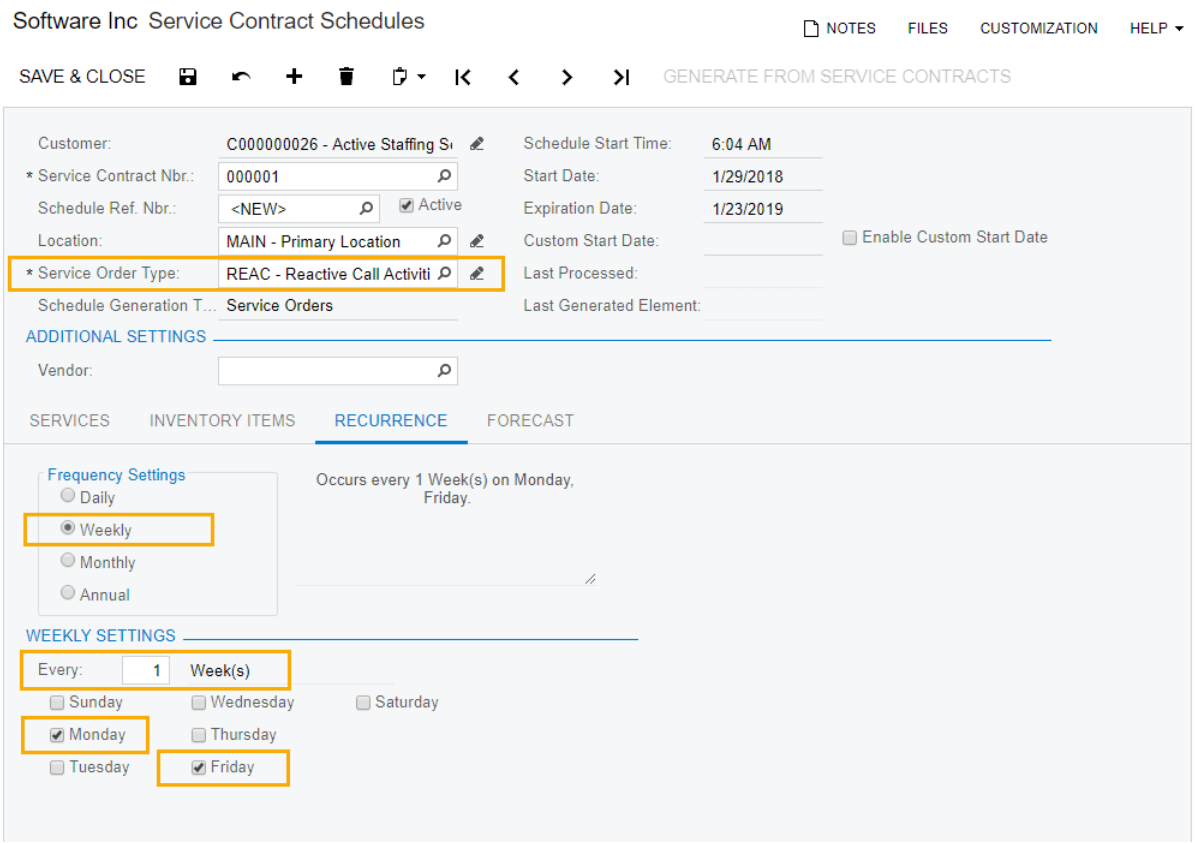


Figure: The new contract schedule

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

The system has created the schedule and added it to the service contract (as shown in the following screenshot). The reference number for the schedule is based on the reference number of the related service contract and the sequence number of the schedule created for this service contract (*1* for the first schedule, *2* for the second, and so on).

Notice that you have left the default *Service Orders* value of the **Schedule Generation Type** box. This means that service orders are generated for this contract schedule. You should then create appointments for the service orders.

If you select *Appointments* in the **Schedule Generation Type** box, appointments will be generated for the contract schedule. For each appointment related service order is generated.

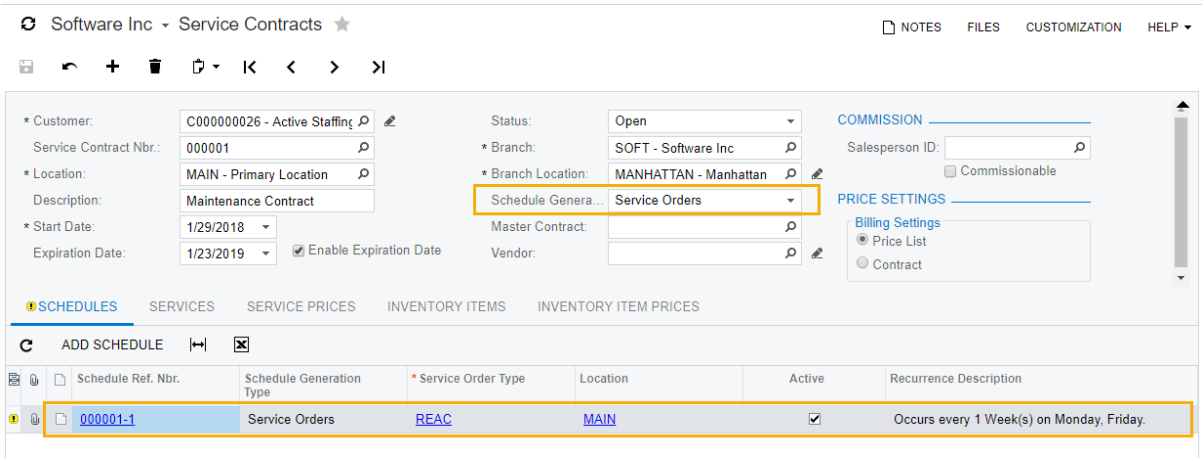


Figure: The schedule for the contract

As with the staff schedules, the created service contract schedule does not affect the system until a generation process takes place. That is, no service orders or appointments are automatically generated until you do this. If you change the existing schedule, new service orders or appointments are not automatically generated either.

Now you can proceed to the generation of the service orders based on the schedule.

Step 4.2: Generating a Service Order from a Contract

In Acumatica ERP, the final step of processing a service contract is generating the service orders or appointments for it. You can generate service orders or appointments manually or create an automation schedule to generate the service orders or appointments.

In this step, you (acting as the scheduler) will manually generate the service orders for the *000001* service contract created in Step 4.1.

To generate a service order from the service contract, perform the following instructions:

1. Open the Generate from Service Contracts form (FS500300; Service > Equipment Management > Processes > Recurring), and specify the following settings, as shown in the screenshot below:
   - **Customer ID**: *C000000026 (Active Staffing Service)*
   - **Generate Up to**: Two Sundays from the current date

   You can also open the Generate from Service Contracts form with the **Generate Up to** date already set to the last day of the schedule and the required schedule selected from the Service Contract Schedules (FS305100) form by clicking **Generate From Service Contracts** on the toolbar.

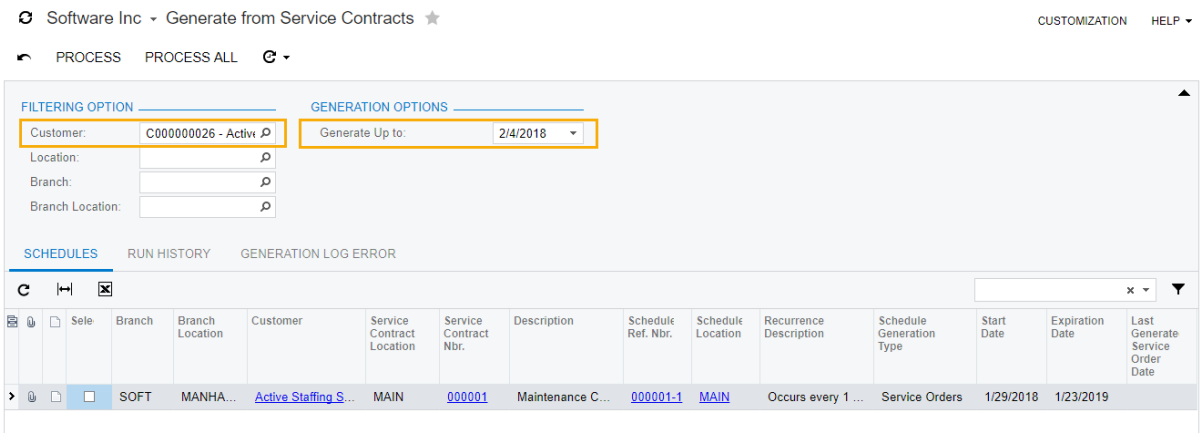


Figure: Service contract schedules that match the specified criteria

2. Select the unlabeled check box in the row with the *000001-1* schedule (in the **Schedule Ref. Nbr.** column), and on the form toolbar, click **Process**.

   Wait for the generation process to complete. The system has generated the corresponding service orders (one for each of the scheduled days of the week, Monday and Friday), and they can be found in the system.

3. Click the **Run History** tab and view the history of generated service orders and appointments, including the date until which the service orders or appointments are generated (as shown in the following screenshot).

   If you have accidentally generated the wrong service orders or appointments, you can cancel the last generation process by clicking the **Roll Back Latest Generation Process** button.

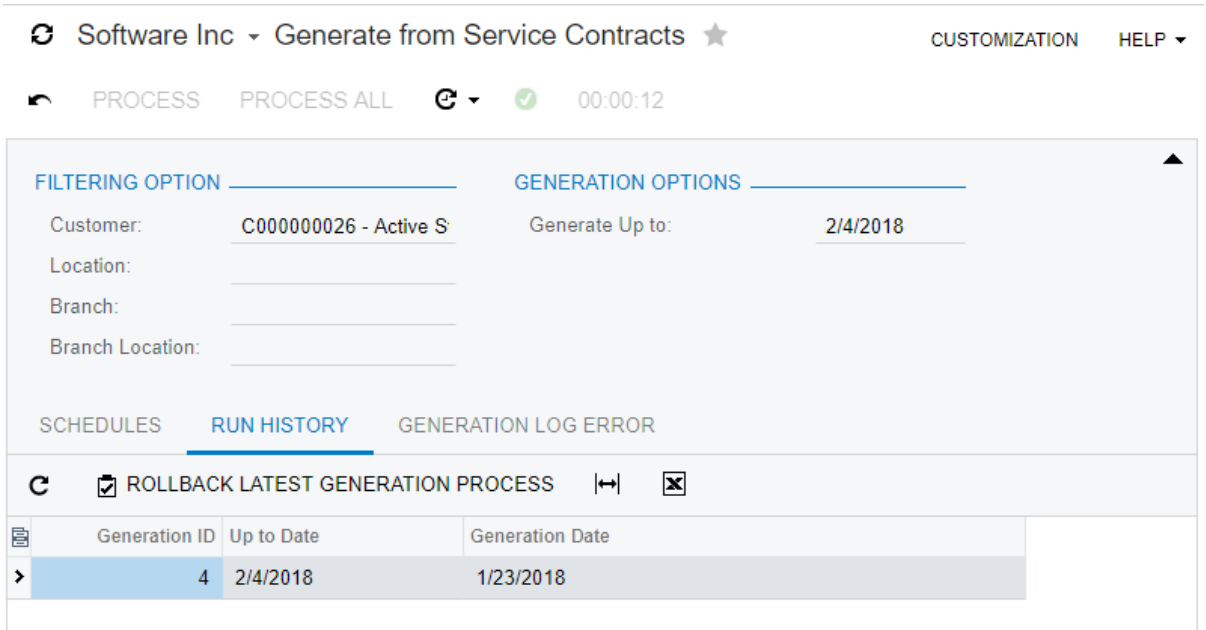


Figure: Service orders generation history

Related Links

Scheduled Processing

Step 4.3: Reviewing Service Orders and Performing Contract Services

In this step, you (acting as the scheduler) will review the upcoming service orders through the Calendar Board to confirm the appointments with the customer and to verify the availability of staff members. Then, acting as the assigned staff member, you will complete and close the appointments; after that, as the accountant, you will generate sales orders of the *IN* (*Invoice*) type for the performed services.

Perform the following instructions:

1. In the Summary area of the Service Order History form (FS400300; Service > Service Management > Work Area > Explore), in the **Customer** box, select *C000000026 (Active Staffing Service*), and in the **Service Contract Nbr.** box, select *000001*.

   Notice that one service order has been created for each scheduled day (one for Monday and one for Friday).

   You can also see the generated service orders on the Calendar Board form (on the **Service Orders** tab).

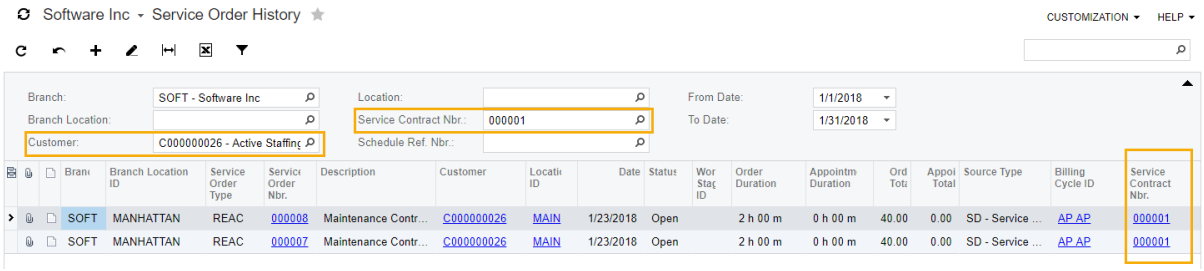


Figure: Generated service orders for the service contract

2. In the **Service Order Nbr.** column of the table, click the link for one of the generated service orders: *000007*.

3. On the Service Orders form (FS300100), which the system has opened, review the details of the service order you selected. (See the following screenshot.)

   Notice that the service order already contains a service line (for the *REPAIR* service), the customer (*C000000026*), and the **Promised Date** value, which is calculated based on the contract schedule (Mondays and Fridays). The system filled in these settings when it created the service order, based on the settings of the service contract for which the service order was generated.

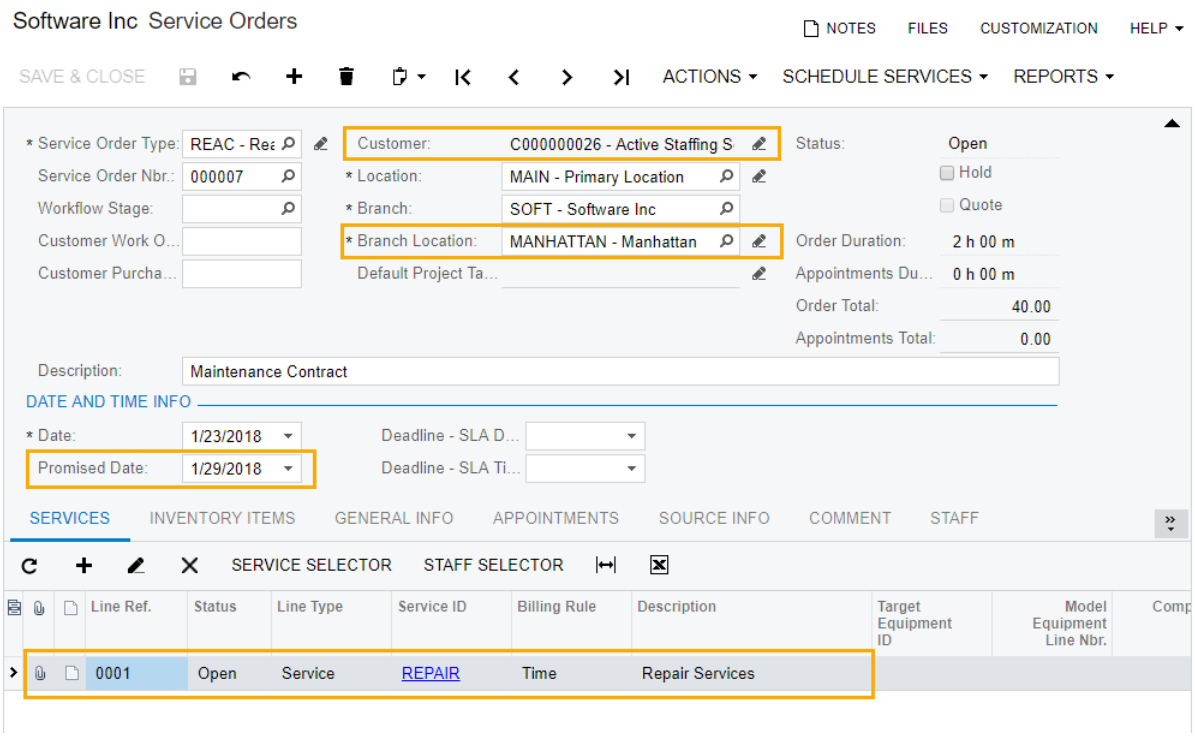


Figure: Service order details

4. In the **Deadline - SLA Date** and **Deadline - SLA Time** boxes, select any date and time later than the promised date.

   This is the latest date and time when the service order can be completed.

5. Save your changes, and close the Service Orders form (FS300100).

6. Navigate to the Calendar Board form (FS300300; Service > Service Management > Work Area > Boards and Maps) and review the **Service Orders** tab.

   Notice that the SLA value has appeared for the *000007* service order, as shown in the following screenshot. It is how long you have to deliver the service.

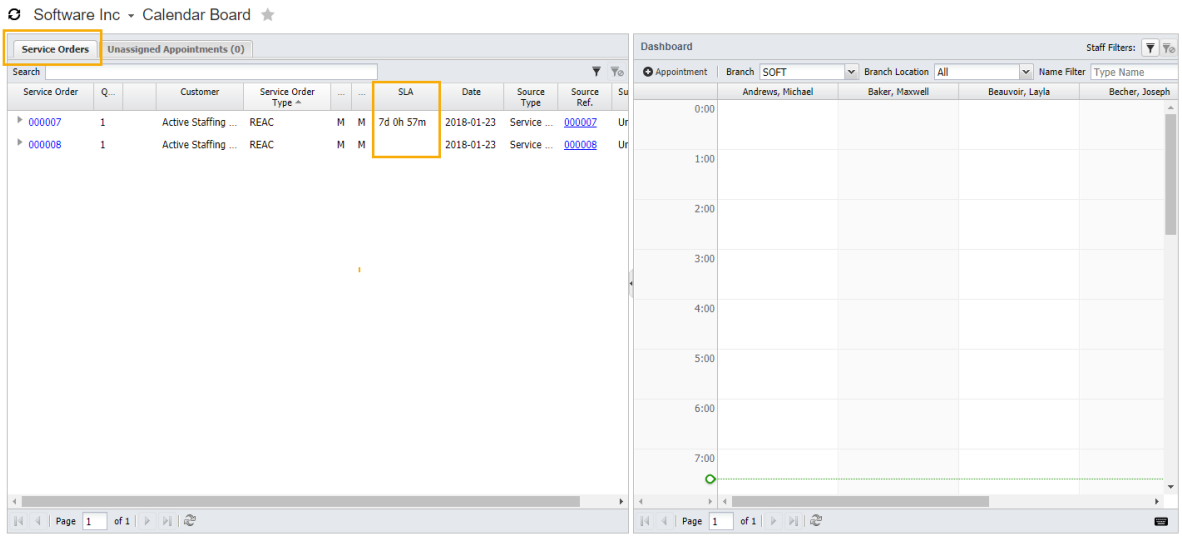


Figure: Calendar Board

7. On the right side of the dashboard action section, switch the date to the next Monday.

8. Drag the *000007* service order to the dashboard area to create an appointment for Joseph Becher starting at 10:00 AM.
9. On the Appointments form (FS300200), which the system has opened in a new window, click **Save**.
10. On the form toolbar, click **Actions > Start Appointment**, then **Actions > Complete Appointment**, and then **Actions > Close Appointment**.
11. Close the Appointments form (FS300200), and review the closed appointment on the Calendar Board, as shown in the following screenshot.

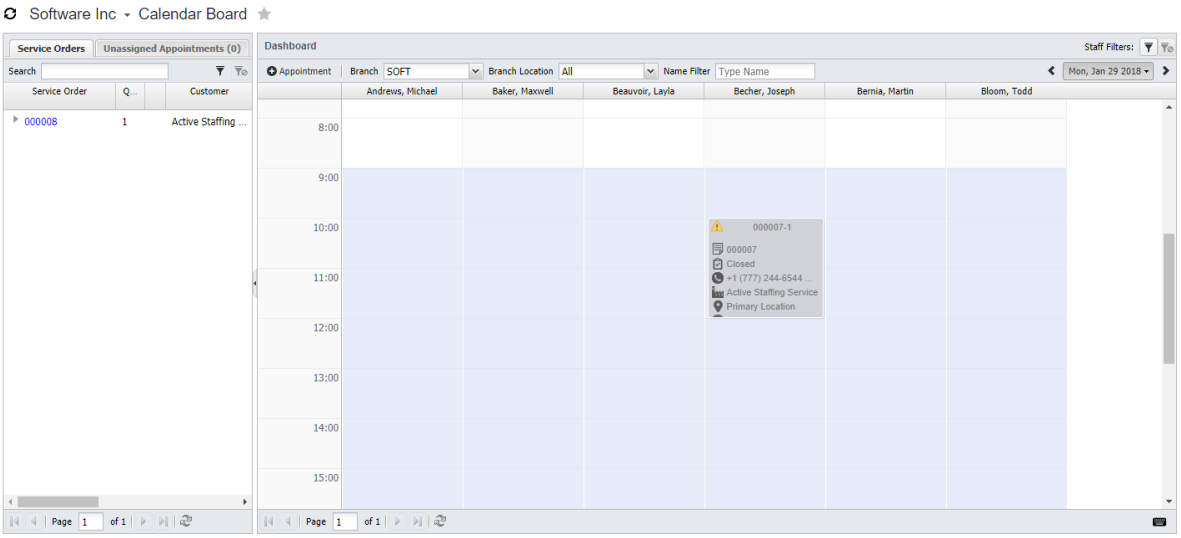


Figure: Closed appointment that originated from the service contract

12. On the right side of the dashboard action section, switch the date to the next Friday.
13. Drag the *000008* service order to the dashboard area to create an appointment for Layla Beauvoir.
14. On the Appointments form (FS300200), which opens in a new window, click **Save** on the form toolbar.
15. On the form toolbar, click **Actions > Start Appointment**, then **Actions > Complete Appointment**, and then **Actions > Close Appointment**.
16. Close the Appointments form (FS300200).
17. Open the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes > Recurring).
18. In the **Generate Invoices In** box, select *Sales Orders*.
19. In the **Up to Date** box, select the Saturday after the second appointment date.

    The two closed appointments created during this step are displayed in the table, as shown in the following screenshot.

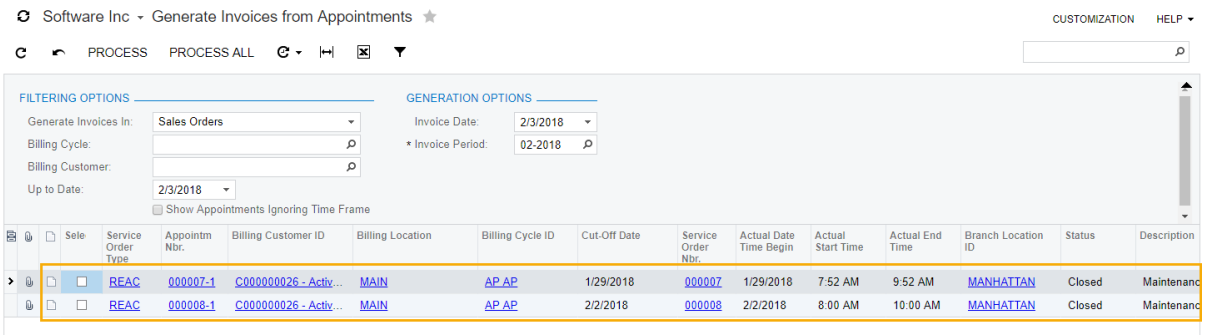


Figure: Closed appointments for the service contract

20. On the toolbar, click **Process All**.

21. Open the Invoice Generation Batches form (FS305800; Service > Service Management > Work Area > Explore) to review the batch that was just generated (*000007*).

The batch contains the *INV000058* and *INV000057* sales orders of the *IN* (*Invoice*) type for both appointments that you created while you performed this step, as shown in the following screenshot. Notice that the invoice date is set to the Saturday after both appointments.

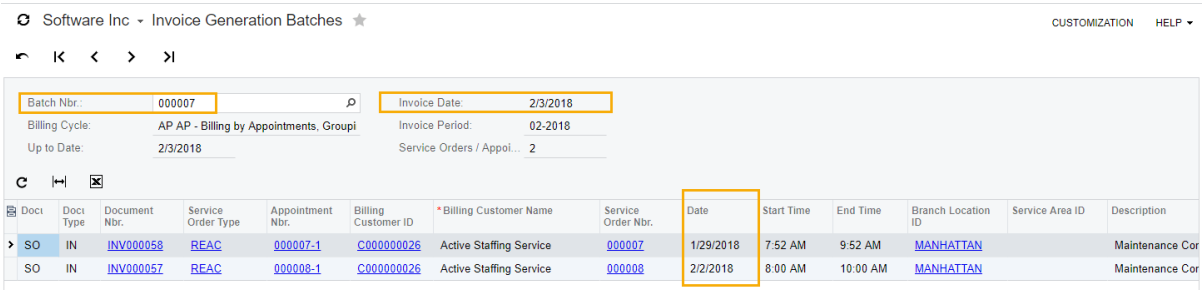


Figure: Sales orders for appointments

Lesson Summary

In this lesson, you have learned about the service contracts and how you can use them to perform the predefined services at the predefined frequency. The process of creating recurring service orders in the system consists of the following steps:

1. Creating a service contract
2. Creating a schedule for the contract
3. Generating service orders for a period of time (with services planned for the days set in the contract schedule)

After the service orders have been generated, you can manage them as usual, including assigning and reassigning staff members and rescheduling appointments for different dates, if needed.

Review Questions:

- What is the purpose of having service contracts in the system?
- What can you define in the contract schedule?
- Can a single contract have many schedules?
- Is it possible to update existing service contract schedules?

Part 2: Route Management

In this part of the course, you will learn the basics of configuring and using the Route Management module for handling route services in Acumatica ERP. In particular, you will develop an understanding of the main concepts of the Route Management module and will perform the following tasks:

- Creating service order type with *Route* behavior
- Creating and assigning driver skill
- Creating vehicle type
- Creating vehicles
- Creating an item class for route services
- Creating route services
- Creating routes
- Managing route appointments
- Managing route service contracts

Lesson 5: Introduction to Route Management

In this lesson, you will perform the initial configuration of the Route Management module so you can start working with it. You will learn the module capabilities and get to know the entities this module uses to operate. You will get ready to perform basic procedures while working with the route appointments in further lessons.

Once you complete this lesson, the Route Management module will be ready for use.

Lesson Objectives

You will do the following:

- Enable the *Route Management* feature
- Perform the minimum required configuration for the Route Management module
- Create a service order type with the *Route* behavior
- Create a driver skill
- Assign the driver skill to staff members
- Create a vehicle type
- Create vehicles
- Create an item class for route services
- Create routes
- Create route services

Route Management Module Overview

The Route Management module, which is a part of the Service suite, works directly with the Service Management module to handle appointments associated with routes. The routes can be generated through contracts or can be created manually for a specific day.

Through the Route Management module, you can assign a driver and a vehicle based on the required skills for the route. You can reorganize the scheduled appointments for a route by adding them, deleting them, moving them, and changing their order. For each generated route, useful statistics, such as driving time and distance, will help you make better decisions to optimize your route management.

When the driver of a route also performs pickups and delivery items, the driver can generate inventory documents in the Inventory module.

By using the capabilities of the Route Management module, you can do the following:

- Manage staff members (drivers): You can define drivers in the system so you can track them and assign them to routes. A driver is a staff member who can perform services related to routes. You can quickly and easily select the most appropriate available person to deliver your services.
- Manage vehicles: You can enter and store information about each vehicle your company uses to execute routes. Because the Route Management module is integrated with the Equipment Management module, each vehicle can be also tracked there. In the Route Management module, you can quickly select a vehicle from all available vehicles to execute a route.
- Manage inventory items: You can register the items that are transferred to or from warehouses while route services are performed. For each route execution that you process in the system, you can generate inventory documents to account for the transactions that result in changing inventory quantities and costs.
- Manage and process routes: You can create and process routes quickly and optimize them to minimize gas consumption and travel time. With Bing Maps integrated into the Route Management module, the system calculates the distances and time of the executed route. If you rearrange the order of the appointments in the route to be executed, Bing Maps plots and calculates the route again. By using Bing Maps, you can easily track executed routes and their appointments for particular days and staff members that execute routes.
- Process route service contracts: You can ease the processing of repeat customers' appointments that require route planning. You can create schedules when the services need to be performed, and based on these schedules, the system can generate the routes to be executed, with appointments automatically assigned to them. This reduces time and errors when users are entering the necessary routes into the system.

Integration of the Route Management Module with Other Modules

Each route execution created or generated in the Route Management module has appointments (which are related to service orders) that have been created in the Service Management module. After the appointments and the route execution are completed or closed, you can generate billing documents in the appropriate module, depending on the settings of the Service Management module. The following options are available:

- Generating documents in the Accounts Receivable or Accounts Payable module
- Generating documents in the Sales Orders module

You can also generate inventory documents (such as issues and receipts) in the Inventory module; this requires additional configuration of the Route Management module.

The documents are further processed in the respective modules, and financial transactions are posted to the General Ledger module. In the following figure, you can see the flow of documents from the Route Management module.

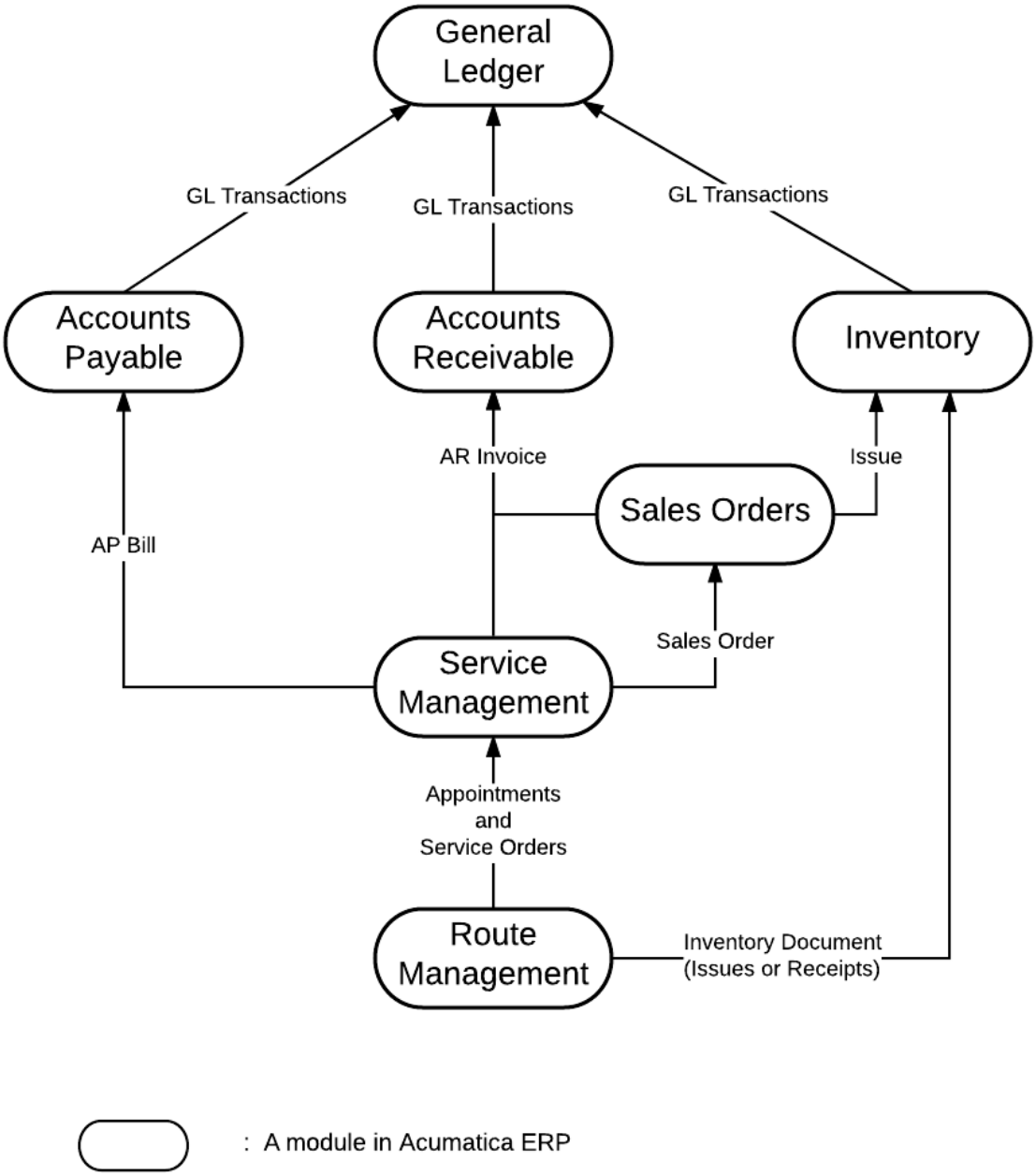


Figure: Document flow from Route Management

Step 5.1: Enabling the Route Management Feature

In this step, you will enable the *Route Management* feature so you can activate the Route Management module, which is a part of the Service suite.

Each particular feature may be subject to additional licensing; please consult the Acumatica ERP sales policy for details.

Perform the following instructions:

1. On the Enable/Disable Features form (CS100000; Configuration > Common Settings > Licensing), click **Modify** to be able to change the features that are activated in the system.
2. Under **Service Management**, select the **Route Management** check box, as shown below.

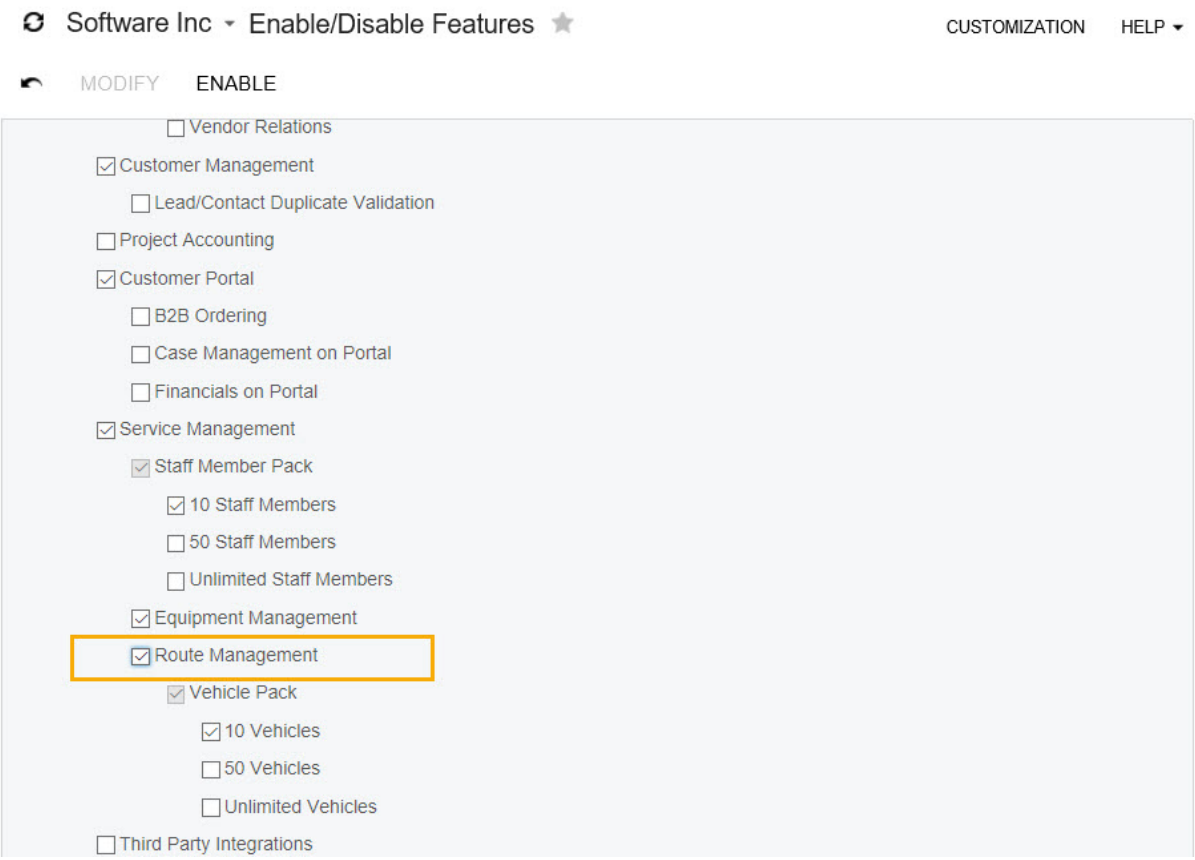


Figure: Route Management feature

3. On the toolbar, click **Enable**.

Step 5.2: Selecting the Route Management Preferences

In this step, you will perform the initial configuration steps that are mandatory for the Route Management module to be used.

Because the Service Management and Route Management modules of the Service suite are integrated, the Route Management module cannot operate if you have not specified the general settings of the Service Management module, such as the numbering sequences and working calendar, and if you have not created any services, service classes, and service order types. Before you implement the Route Management module, the initial system configuration must be completed and the General Ledger module must be configured.

In the *V150* dataset that you have used to create a company for the training, the settings related to service management have been already configured, so you can continue by configuring the settings related directly to route management.

In this step, you will specify a numbering option that is mandatory for the Route Management module to be used. Normally, you develop numbering rules (which will later determine how the autonumbering sequences are configured) for route executions. For this training, the numbering sequence, which you will select, is preconfigured and has been uploaded with the *V150* data.

You will also create Bing Map API key on the *Bing Maps Dev Center* website and specify this key in the Service Management module preferences. With Bing Maps integrated into the Route Management module, the system calculates the distances and time of the executed route. If you rearrange the order of the appointments in the route to be executed, Bing Maps plots and calculates the route again. You can easily track executed routes and their appointments for particular days and staff members that execute routes by using Bing Maps.

You need to have an existing Microsoft Account or create a new one to get started with Bing Maps.

Perform the following instructions:

1. On the Route Management Preferences form (FS100400; Service > Route Management > Configuration > Setup), specify the following settings for the module (as shown below):
   - **Route Numbering Sequence**: *SMROUTE*

     This is the numbering sequence to be used to assign identifiers to the route executions in the Route Management module.
   - **Calculate Route Statistics Automatically**: Selected

     Selecting this check box means that the route executions are automatically calculated with Bing Maps API.

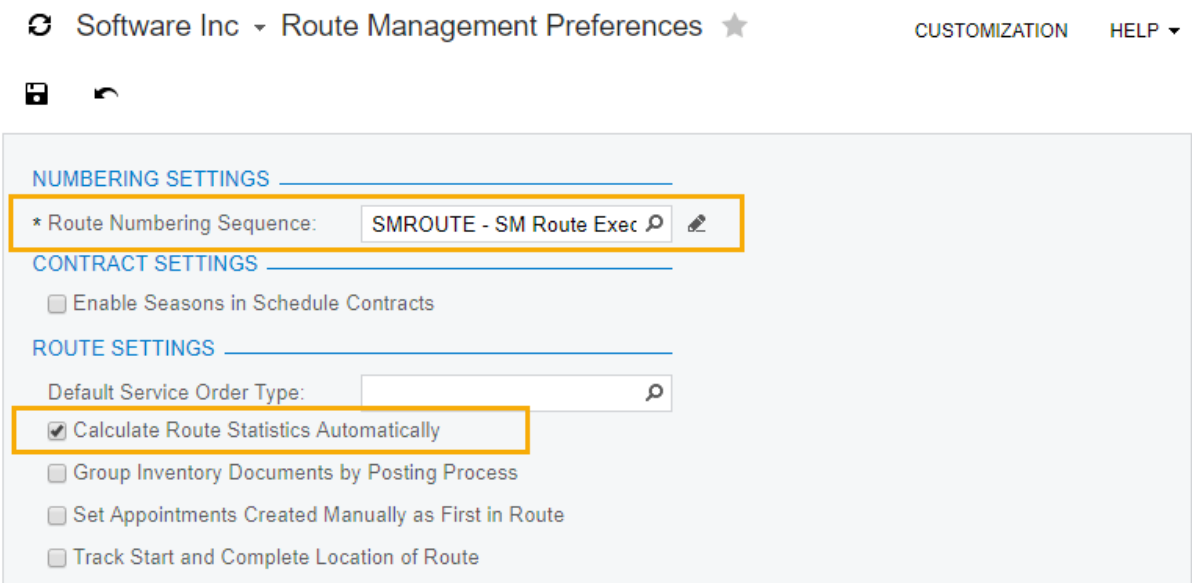


Figure: Preferences for the Route Management module

2. Save your changes.
3. Go to the Bing Maps Dev Center at *https://www.bingmapsportal.com/*.
4. If you have a Bing Maps account, sign in. In other cases, sign in using your existing Microsoft Account, accept the suggestion to use it as your new Bing Maps account, then follow the instructions to create Bing Maps account.
5. Select **My keys** under **My Account**.
6. Select the option to create a new key.
7. Provide the following information, as shown in the following screenshot, and click **Create**:
   - **Application name**: `V150`
   - **Key type**: *Basic*.
   - **Application type**: *Dev/Test*.

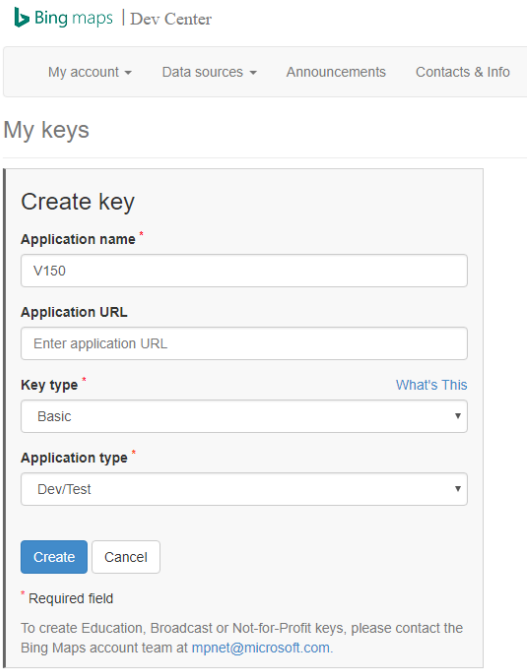


Figure: The process of creating Bing Maps key

The new key displays in the list of available keys, as shown in the following screenshot. Use this key to authenticate your Bing Maps application as described in the documentation for the Bing Maps API you are using.

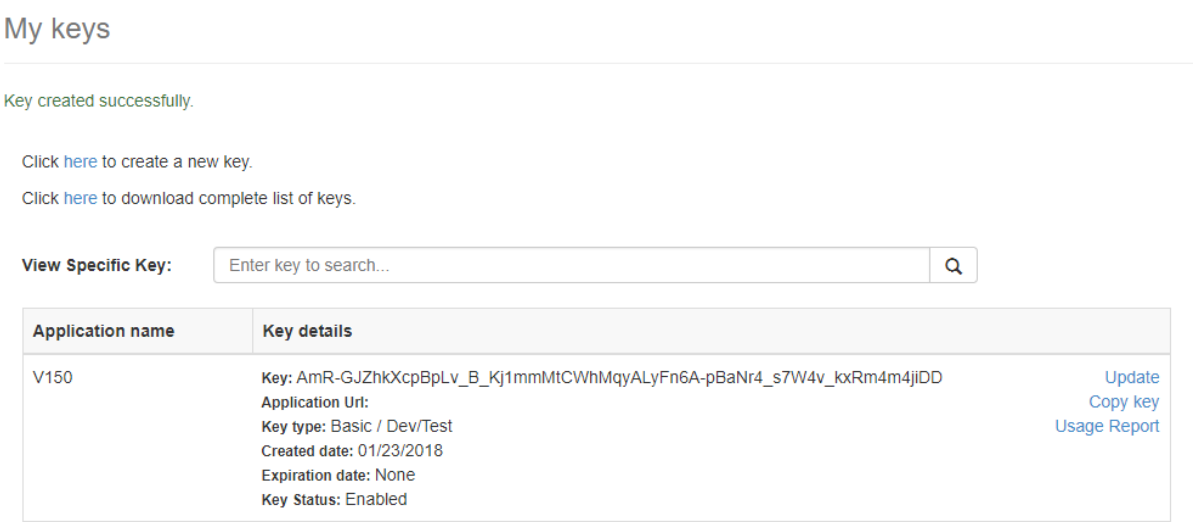


Figure: Created key

8. Click the **Copy key** link.
9. On the Service Management Preferences form (FS100100; Service > Service Management > Configuration > Setup), in the **Calendar Board Settings** area, specify the copied value for the **Bing Map API Key**:

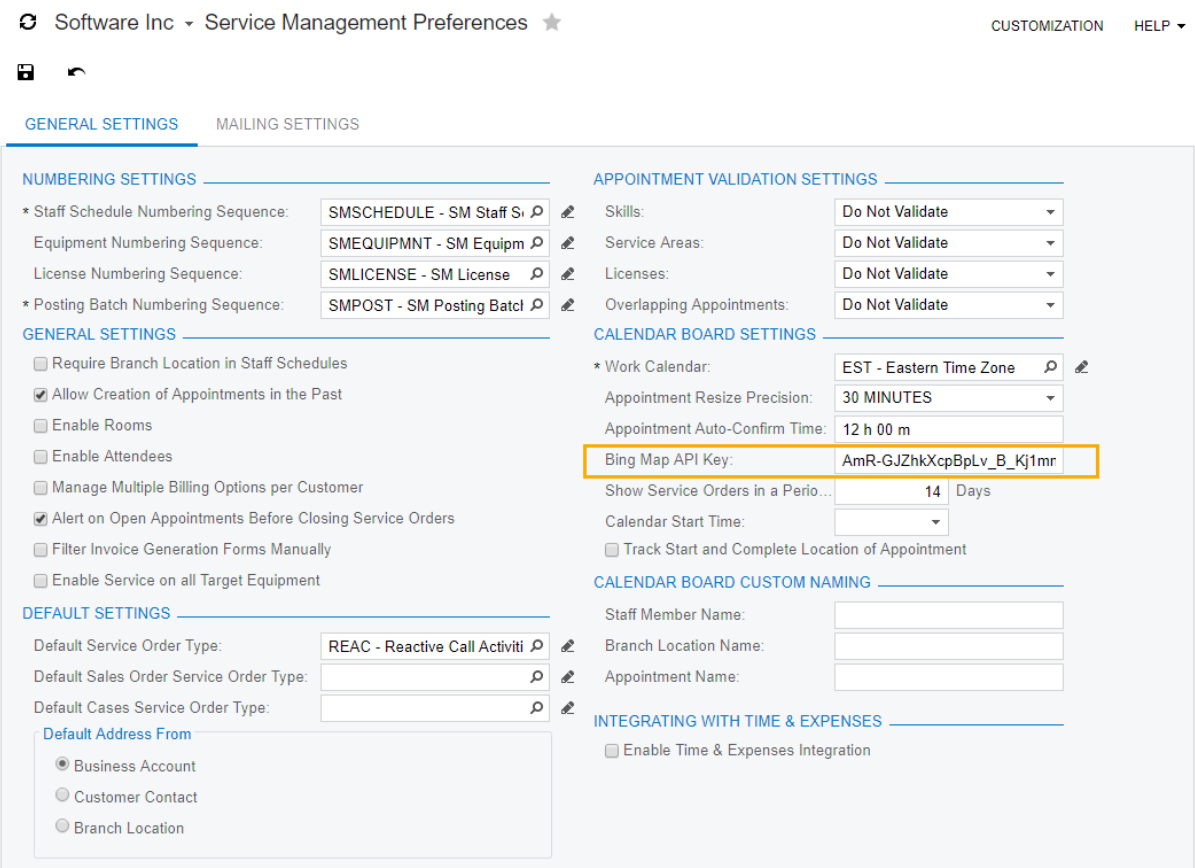


Figure: Bing Map API key inserted

10. Save your changes.

Now you are ready to proceed to creating a route service type.

Related Links

Configuring Route Management
Creating a Bing Maps Account
Getting a Bing Maps Key

Step 5.3: Creating a Service Order Type with Route Behavior

In Acumatica ERP, you can maintain all the necessary information about the routes that your company executes and each specific route execution. The *route* contains common information for route executions performed by your company—that is, the starting and ending locations of the route, the schedule when it can be performed, and the employees (drivers) who can be assigned to execute the route. A *route execution* is a predefined path with appointment stops to perform services or deliver and receive inventory items. Each stop in the route execution is a *route appointment*—that is, an appointment with a service order type of the *Route* behavior. Also, you can create service orders with the *Route* behavior that are fulfilled by route appointments to provide a route service to a customer. You can enter all the information about each execution of a route, such as its start and end locations, time, appointments to be attended, and the staff member (driver) and vehicle used to execute the route. With this information in the system, users can quickly process customers' orders that require route planning.

In this step, you will create in Acumatica ERP a service order type with the *Route* behavior and with invoices generated in the Accounts Receivable module.

Perform the following instructions:

1. On the Service Order Types form (FS202300; Service > Service Management > Configuration > Setup), add a new record, and then specify the following settings:
   - **Service Order Type**: `ROUT`
   - **Service Order Numbering Sequence**: *SMSO*

     This is the numbering sequence that all service orders of this type will follow. For this training, the preconfigured *SMSO* numbering sequence has been uploaded with the *V150* data.
   - **Description**: `Routes`
   - **Behavior**: *Route*
2. On the **Preferences** tab, specify the following settings (as shown in the screenshot below):
   - **Business Account** (in the **Appointment Settings** section, under **Take Address and Contact Information From**): Selected

     This option button indicates that the service fulfillment for a service order of this type will take place at the customer's location.
   - **Accounts Receivable** (in the **Invoice Generation Settings** section, under **Generate Invoices In**) : Selected

     This option button indicates that invoices for service orders of this type will be generated in the Accounts Receivable module.
   - **Default Terms for AR and SO** (in the **Invoice Generation Settings** section): *30D*

     These are the credit terms to be used for processing the invoice for a service order or an appointment of this type if no default credit terms are defined for the particular customer on the Customers form (AR303000). For this training, the predefined *30D* terms have been preloaded with the *V150* training data.
   - **Generation of Invoices Requires Appointments to be Closed** (in the **Invoice Generation Settings** section): Cleared

     When this check box is selected, the appointment status must be *Closed* before you can generate an invoice document for this appointment.

     If the check box is cleared, an appointment of this type will be available for invoice generation after the appointment gets the *Completed* status.

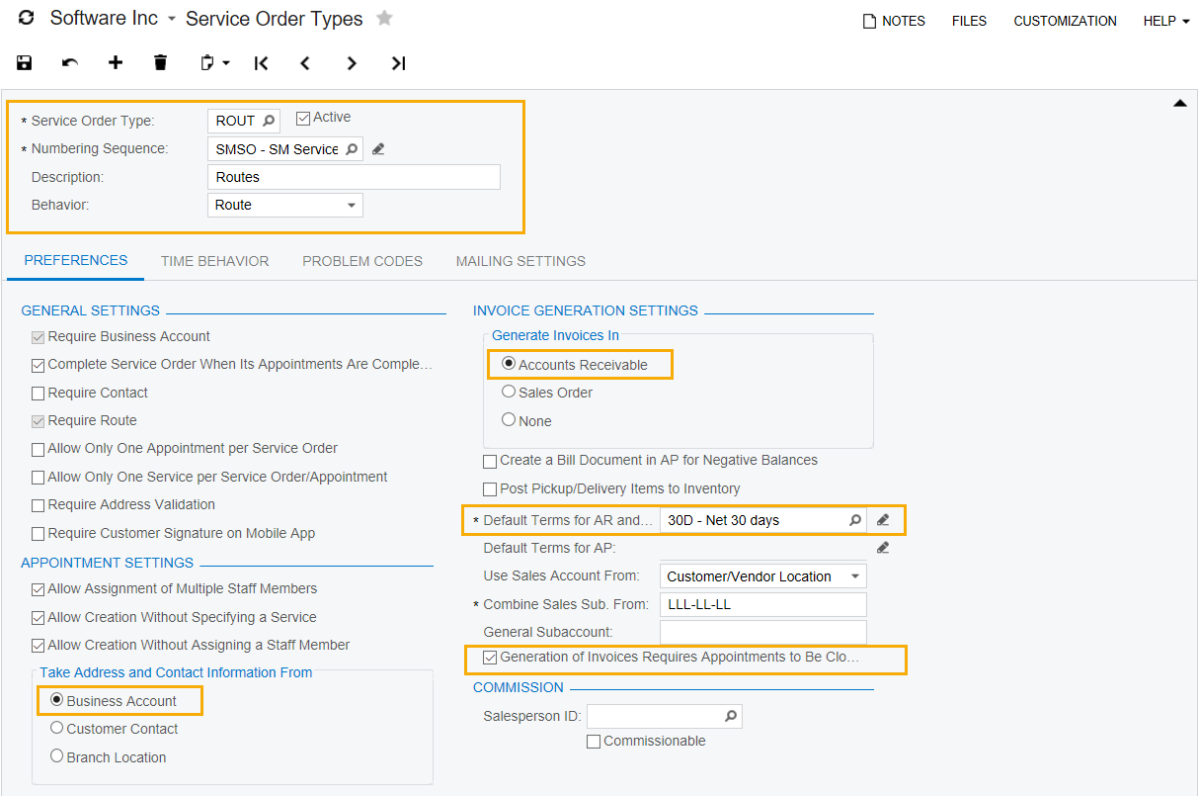


Figure: Creation of the route service order type

3. Save your changes.

You have created the *ROUT* service order type; now you can set this type as default service order type in Route Management preferences.

4. On the Route Management Preferences form (FS100400; Service > Route Management > Configuration > Setup), in the **Default Service Order Type**, select *ROUT* (see the following screenshot).

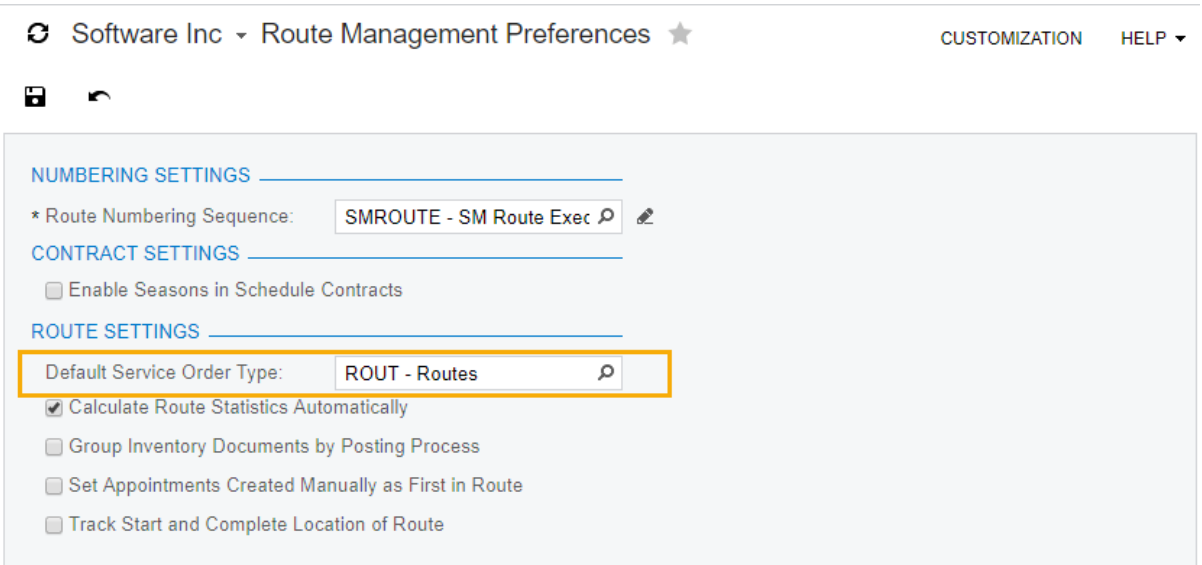


Figure: Default service order type

5. Save your changes.

Now you can proceed to creating a driver skill.

Step 5.4: Creating and Assigning Driver Skill

In Acumatica ERP, a skill is a characteristic that can be assigned to an employee and that can be used as an employee requirement to perform a service. An example of a skill is a particular language spoken by the employee. A *driver skill* implies that this skill is associated with driving a vehicle. Only employees who have driving skills can use vehicles while providing company's services.

In this step, you will create in the system the driver skill that is required to fulfill the company's route services. You will also assign this skill to four staff members (assuming that not all staff members have the driving license).

Perform the following instructions:

1. Open the Skills form (FS200600; Service > Service Management > Configuration > Staff).
2. Click **Add Row** on the form toolbar, and specify the following settings in the row (as shown in the screenshot below):
   - **Skill ID**: `DRIVER`
   - **Description**: `Driver Skill`
   - **Driver Skill**: Selected

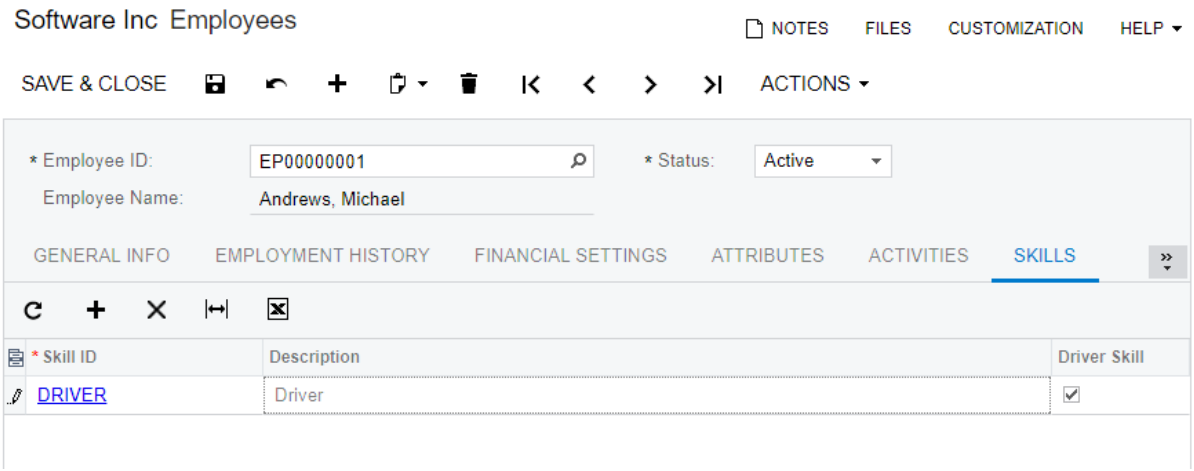


Figure: Creation of the Driver skill

3. Save your changes.

   You have created the new skill; now it can be assigned to employees and to services. This gives you the ability to filter staff members for appointments requiring the skill.
4. On the Staff form (FS205500; Service > Service Management > Work Area > Staff), click *EP00000001 (Michael Andrews)*.
5. On the Employees form (EP203000), which the system has opened, click the **Skills** tab, and add a row with the **Skill ID** set to *DRIVER*.

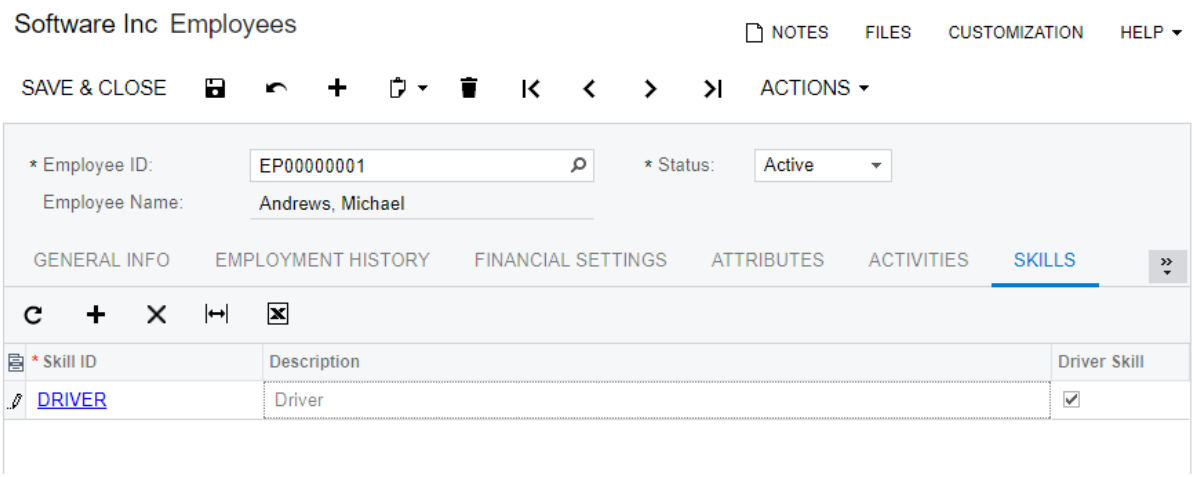


Figure: Skill assigned to a staff member

6. Click **Save&Close**.
7. Repeat steps 5–6 for the staff members with the following IDs:
   - *EP00000002 (Maxwell Baker)*
   - *EP00000003 (Layla Beauvoir)*
   - *EP00000004 (Joseph Becher)*
8. Click *EP00000004 (Joseph Becher)*, and on the Employees form (EP203000), which the system has opened, on the **General Info** tab in the **Service Management** area, verify that this employee has got the read-only **Driver** check box selected. (As you can see in the following screenshot.)

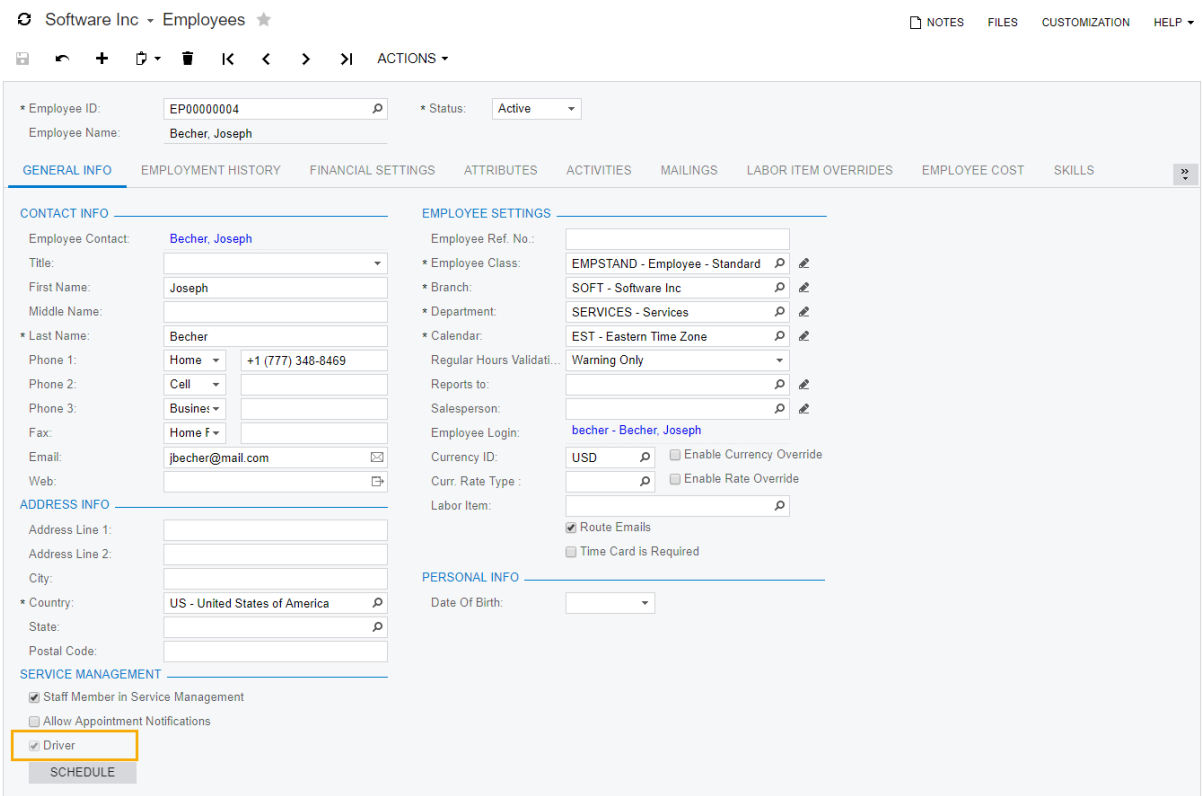


Figure: Driver check box

Now you can proceed to creating a vehicle type.

Step 5.5: Creating a Vehicle Type

In Acumatica ERP, *vehicle types* are used to group vehicles that your company uses; for example, you can have limousines and vans. You have to create at least one vehicle type to be able to create vehicles.

In this step, you will create the *VAN* type.

Perform the following instructions:

1. On the Vehicle Types form (FS204200; Service > Route Management > Configuration > Manage), add a new record, and specify the following settings:
   - **Vehicle Type ID**: `VAN`
   - **Description**: `Vans`

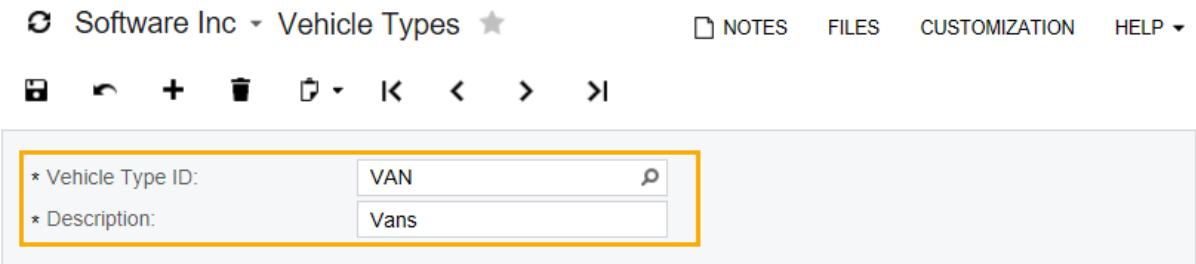


Figure: Creation of the vehicle type

2. Save your changes.

   You have created the *VAN* vehicle type; you can proceed to entering vehicles that your company uses for executing routes.

Step 5.6: Creating Vehicles

In Acumatica ERP, a *vehicle* is a record created on the Vehicles form (FS203600) that contains the details of the vehicle used by your company to perform route services for customers. When you create a new vehicle, the system automatically creates a new piece of equipment on the Equipment form (FS205000) with the **Vehicle** check box selected; the details of the equipment are read-only.

If the vehicle has already been entered as a fixed asset in the system, you can associate the fixed asset with the vehicle. To do this, you select the identifier of the necessary fixed asset. If the serial number (that is, the vehicle identification number or VIN) and purchase information has been specified for the vehicle on the Fixed Assets form (FA303000), the system fills this information on the Vehicles form.

In this step, you will create two vehicles in Acumatica ERP.

Perform the following instructions:

1. On the Vehicles form (FS203600; Service > Route Management > Configuration > Manage), create a new entity with the following settings:
   - **Vehicle Type ID**: *VAN*
   - **Branch Location**: *MANHATTAN*

     The branch location where the vehicle is located and from where it departs to attend route appointments.
   - **VIN**: `1234567890`
   - **Description**: `White Foord`
2. On the **General Info** tab, in the **Color ID** box, select *White*.

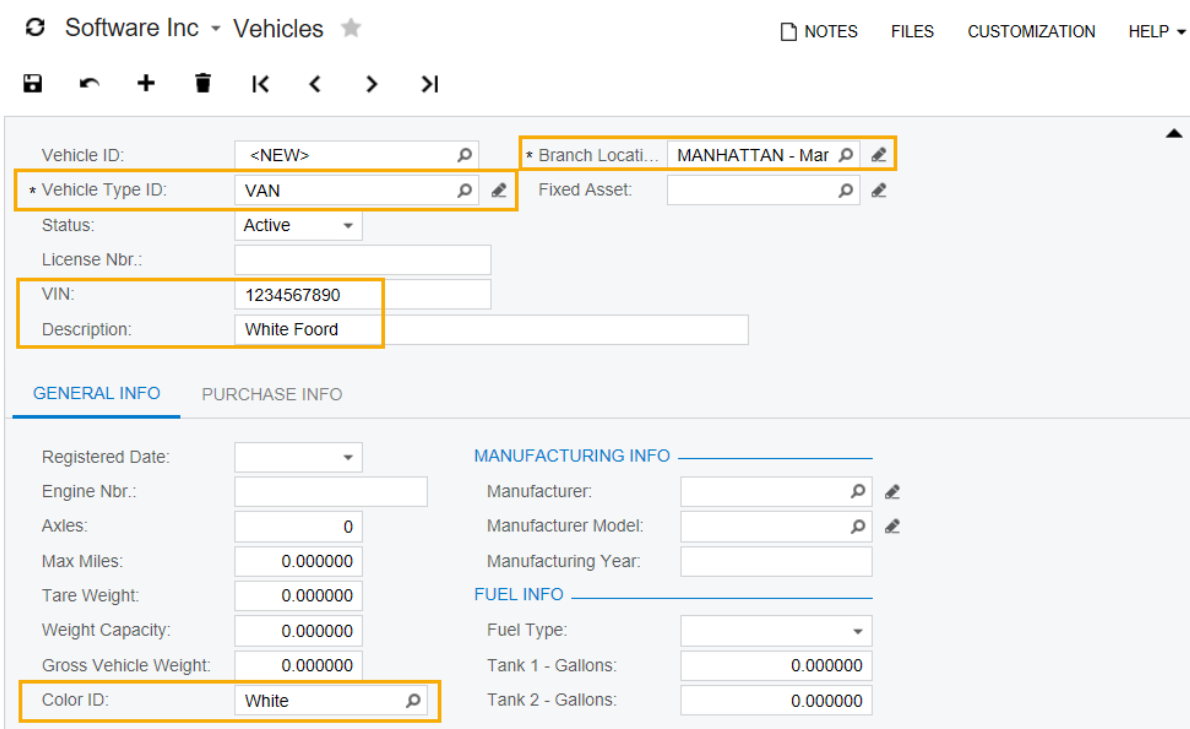


Figure: Creation of the vehicle

3. Save your changes.

   When you save the vehicle information you have entered, the system creates an equipment entity that corresponds to the vehicle on the Equipment form (FS205000). In the **Equipment Nbr.** box, the system assigns an identifier to the equipment based on the numbering sequence specified in the **Equipment Numbering Sequence** box on the Service Management Preferences form (FS100100). The system copies this number into the **Vehicle ID** box of the

Vehicles form when you save a new vehicle. That is why you have created the *000007* vehicle although this is the first vehicle entered to the system.

4. Open the Equipment form (FS205000; Service > Equipment Management > Work Area > Manage), and in the **Equipment Nbr.** box, select *000007*.

5. Verify that for this equipment, the read-only **Vehicle** check box is selected, as shown in the following screenshot.

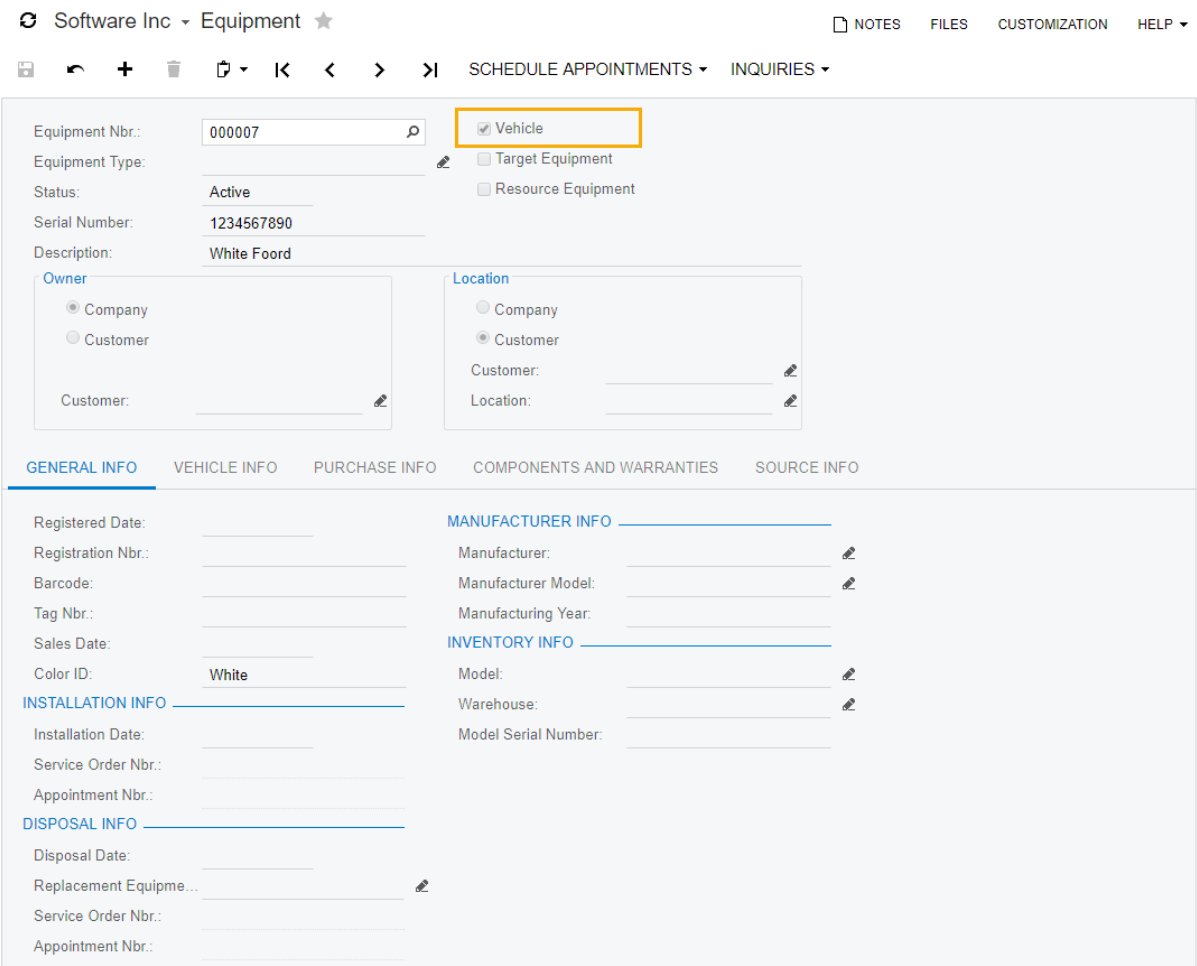


Figure: Vehicle check box selected

6. On the Vehicles form (FS203600), create another vehicle with the following settings:
   - **Vehicle Type ID**: *VAN*
   - **Branch Location**: *MANHATTAN*
   - **VIN**: `987654321`
   - **Description**: `Brown Niissan`
   - **Color ID**: *Brown*

7. Save your changes.

   The system has created the *000008* vehicle.

8. Open the Component Summary form (FS400700; Service > Equipment Management > Work Area > Explore), and review the created vehicles, as shown in the following screenshot.

Software Inc - Component Summary

CUSTOMIZATION HELP

Equipment Nbr.: Location:
Customer: Model:

Equipmer Nbr.	Status	Equipment Description	Owner Type	Location Type	Customer ID	Locatic ID	Branc ID	Br Lo ID	Component ID	Status	Component Description	Class ID	Inventory ID	Serial Numbe	Vendor Warranty End Date	Ve
000008	Active	Brown Niissan	Company	Customer			SOFT									
000007	Active	White Foord	Company	Customer			SOFT									
000006	Active	Laptop DEELL XPS 15	Customer	Customer	C000000026	MAIN										
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MMONIT	Active	Additional mon...	MONITOR	OMONIT		7/22/2018	
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MBOARD	Active	Motherboard	MTBOARD	MBOARD		1/22/2019	V(
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM		1/22/2019	
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM		1/22/2019	
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			KBOARD	Active	Keyboard	OTHER	KBOARD		7/22/2019	
000005	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MOUSE3050	Active	Mouse	OTHER	MOUSE3050			
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MMONIT	Active	Main monitor	MONITOR	MMONIT		7/22/2018	
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MBOARD	Active	Motherboard	MTBOARD	MBOARD		1/22/2019	V(
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM		1/22/2019	
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM		1/22/2019	
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			KBOARD	Active	Keyboard	OTHER	KBOARD		7/22/2019	
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MOUSE3050	Active	Mouse	OTHER	MOUSE3050			
000004	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			OMONIT	Active	Additional mon...	MONITOR	OMONIT		7/22/2018	
000003	Active	Laptop	Customer	Customer	C000000026	MAIN										
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MMONIT	Active	Main monitor	MONITOR	MMONIT	111111	7/22/2018	
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MBOARD	Disp...	Motherboard	MTBOARD	MBOARD	222222	1/22/2019	V(
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM	333333	1/22/2019	
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			RAM	Active	RAM	RAM	RAM	444444	1/22/2019	
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			KBOARD	Active	Keyboard	OTHER	KBOARD		7/22/2019	
000002	Active	Desktop Inspiron 3050	Customer	Customer	C000000026	MAIN			MOUSE3050	Disp...	Mouse	OTHER	MOUSE3050	555555		

Figure: Vehicles shown on the Component Summary form

9. Click the *000008* hyperlink in the **Equipment Nbr.** column.

When you click the ID, the Equipment form (FS205000) is brought up.

10. Verify that for the *000008* vehicle the **Vehicle** check box is also selected, and that this setting cannot be changed.

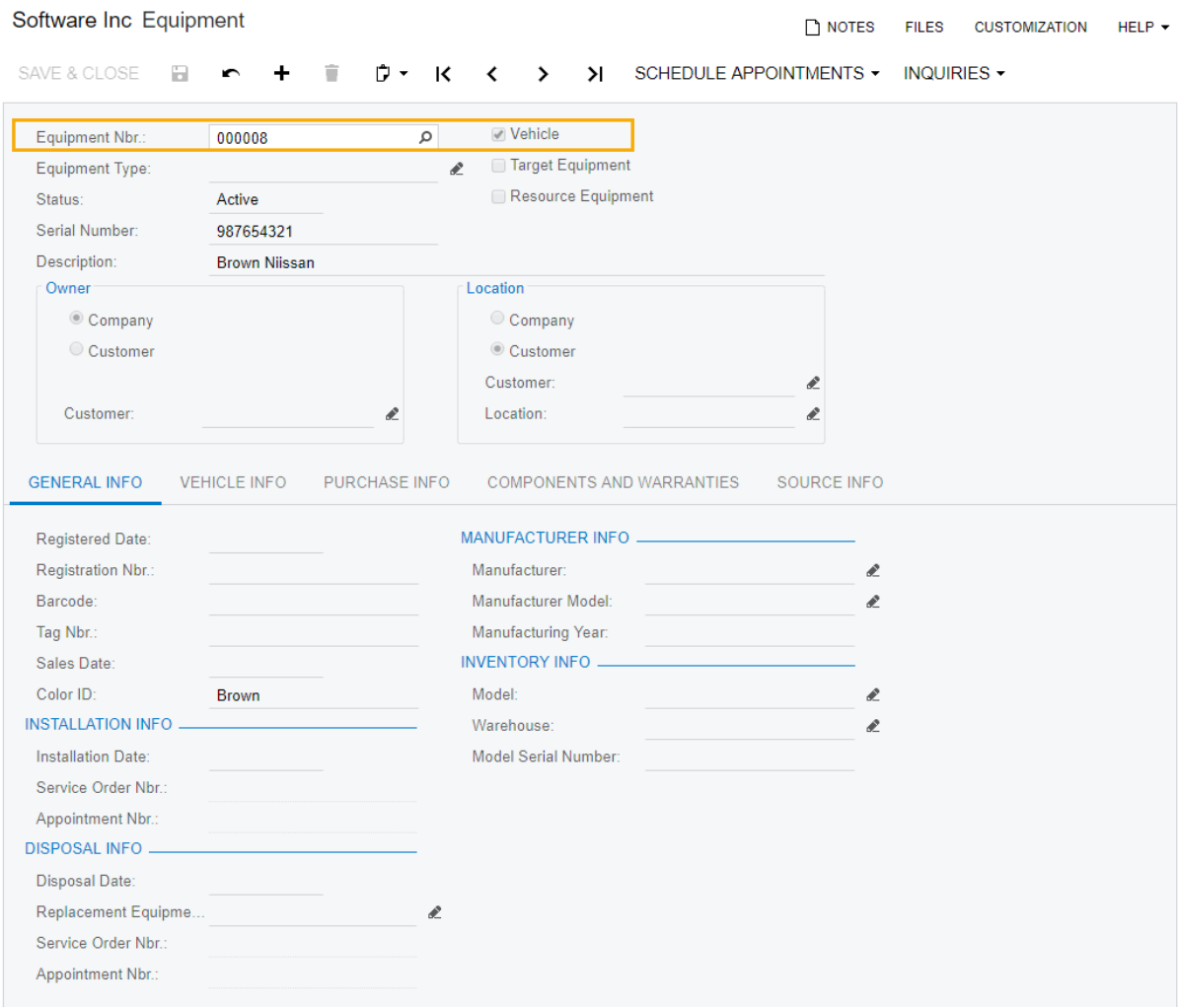


Figure: Created vehicle

Related Links

To Enter an Asset

Step 5.7: Creating an Item Class for Route Services

In this step, you will create an item class, *ROUTE*, to group route services. You need to create at least one such class for the non-stock items that are used in the Route Management module to represent route services.

To create an item class for route services, perform the following instructions:

1. On the Item Classes form (IN201000; Distribution > Inventory > Configuration > Manage), create a new item class, and specify the following settings:
   - **Class ID**: `ROUTE`
   - **Description**: `Route services`
2. On the **General Settings** tab, in the **General Settings** section, specify the following settings, as shown in the screenshot below:
   - **Stock Item**: Cleared
   - **Item Type**: *Service*
   - **Tax Category**: *EXEMPT*
   - **Posting Class**: *NSTOCKITEM*
   - **Default Warehouse**: *MAIN*
3. In the **Unit of Measure** section, specify the following settings, also shown in the screenshot below:
   - **Base Unit**: *HOUR*
   - **Sales Unit**: *HOUR*
   - **Purchase Unit**: *HOUR*

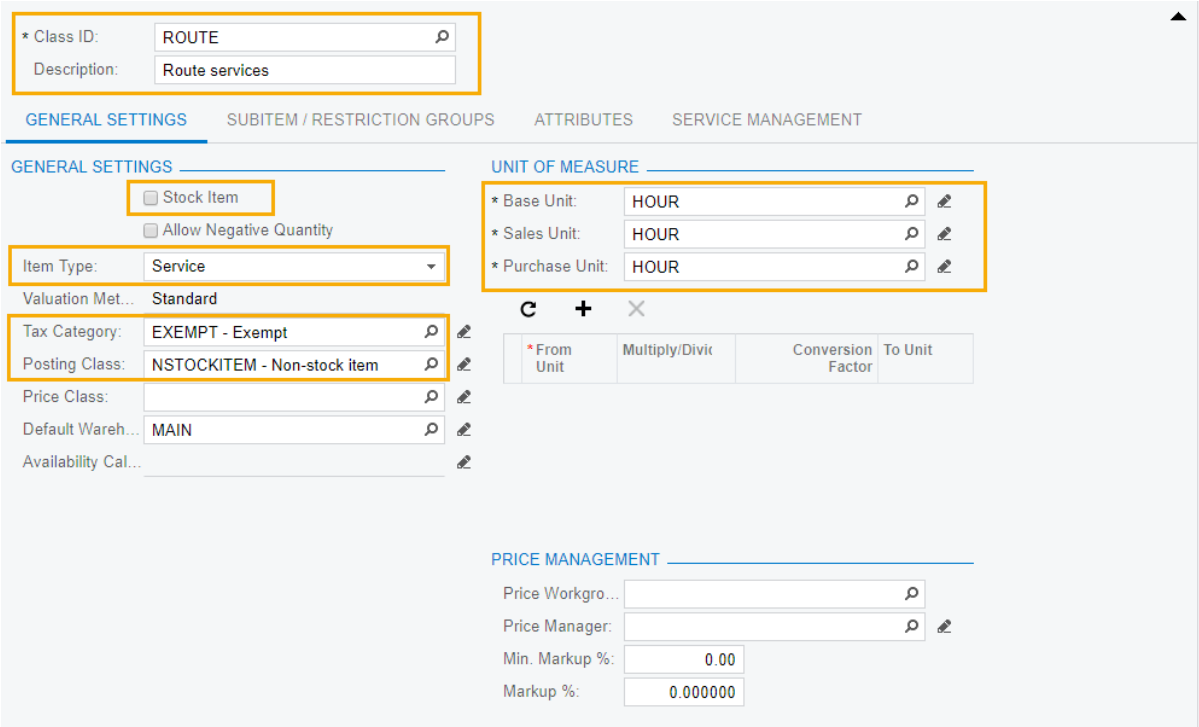


Figure: New item class for route services

4. On the **Service Management** tab, in the **Route Management** section, select the **Route Service Class** check box, as shown in the following screenshot.

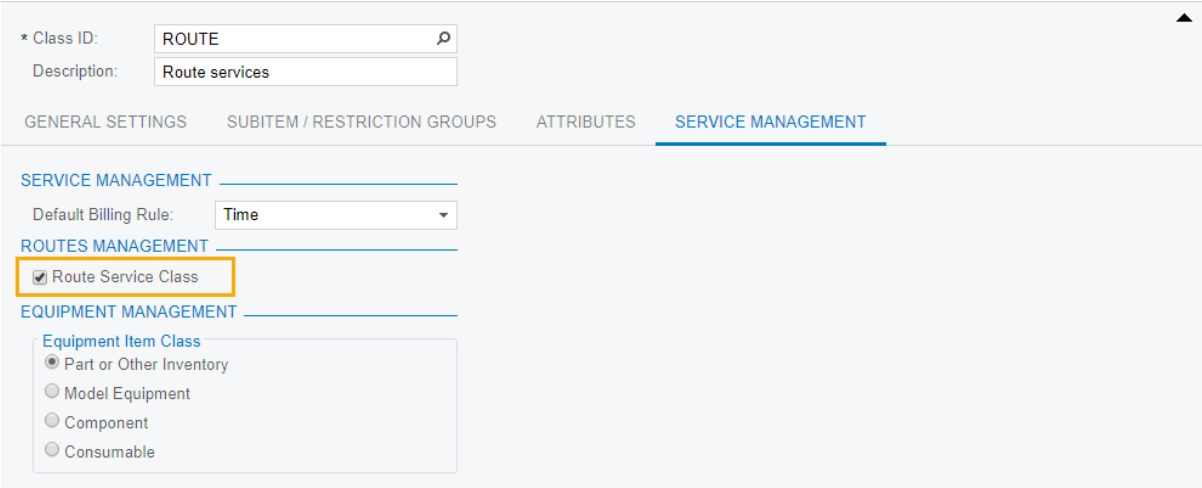


Figure: New item class for route services

5. Save your changes.

Now you can proceed to creating route services—items in the class you have created.

Step 5.8: Creating a Route Service

Route services are services that performed during a route, which could include just the pickup and delivery services and could include more extensive services.

In this step, you will create a route service that has no related items (the items are not picked up or delivered during the performing the service, or they are not tracked in Acumatica ERP).

Perform the following instructions:

1. On the Services form (FS400800; Service > Service Management > Work Area > Manage), click **Add New Record**.
2. In the **Enter Keys** dialog box, which the system has opened, in the **Value** column, type `VISIT`, and click **Finish**.

   The Non-Stock Items form (IN202000) opens.
3. In the **Description** box, type `Demonstration visit`.
4. On the **General Settings** tab (**Item Defaults** section), select *ROUTE* as the **Item Class**.

   The **Tax Category**, **Posting Class**, and **Default Warehouse** boxes, as well as those in the **Unit of Measure** section, have been populated with the values from the selected item class.
5. On the **Price/Cost Information** tab, set **Default Price** to `15`.
6. On the **Service Management** tab, in the **Estimated Duration** box, type `1h 30 min`.

   Notice that the **Route Service** check box is already selected and unavailable, as shown in the following screenshot.

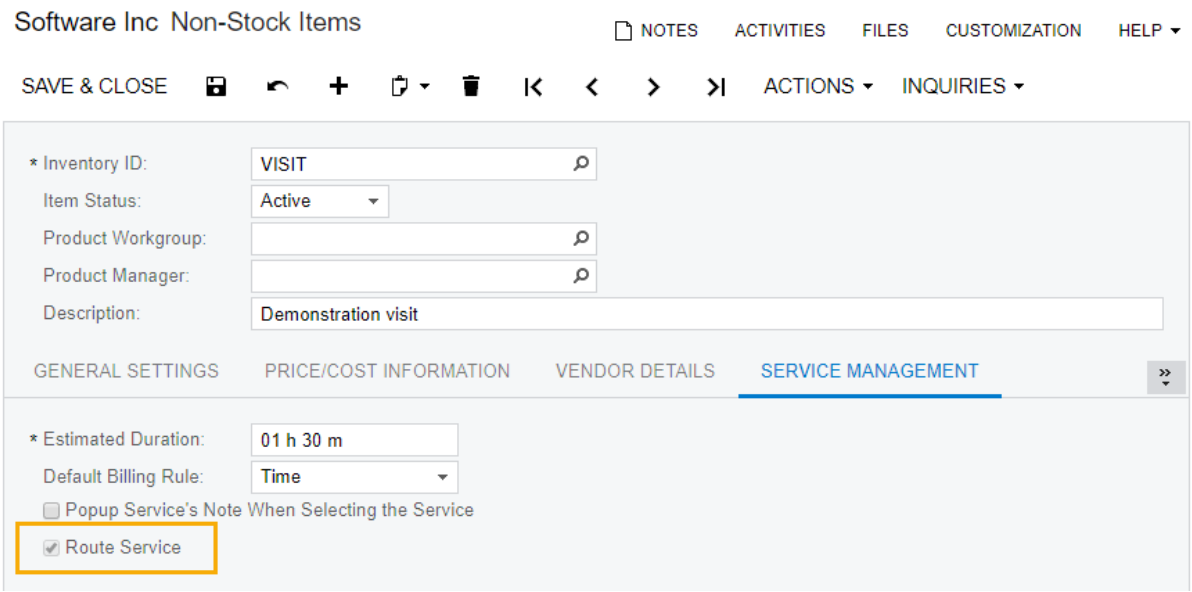


Figure: Process of creating route service

7. On the **Pickup/Delivery Item** tab, in the **Pickup/Delivery Items** box leave *No Item Related*, as shown in the following screenshot.

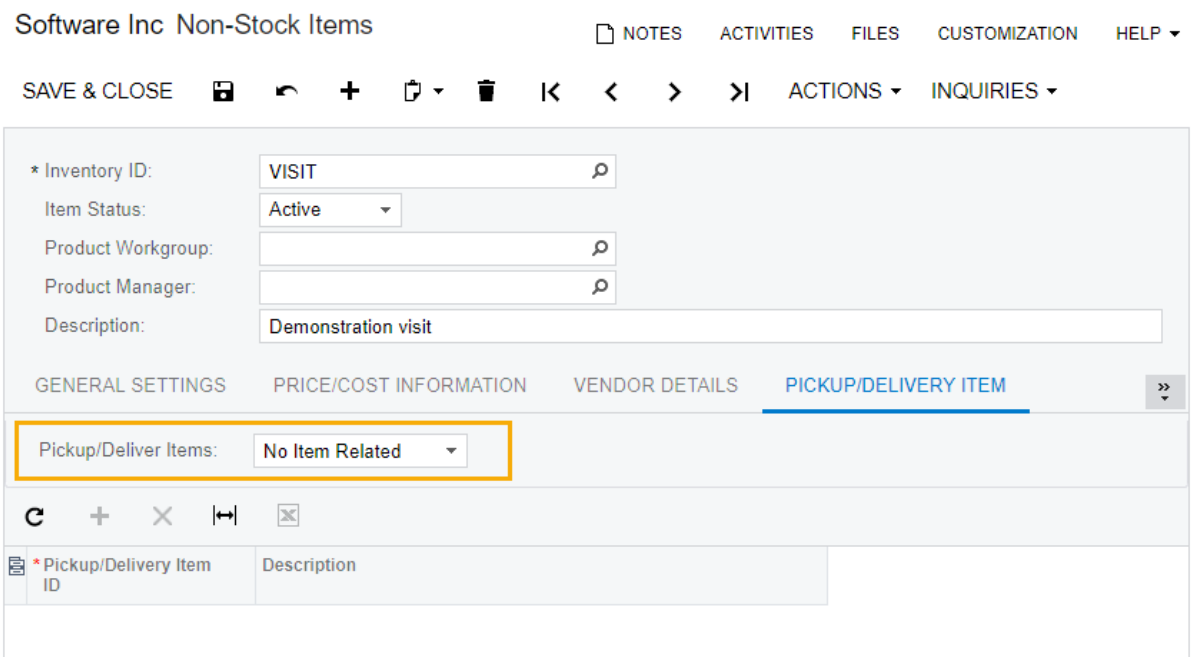


Figure: New route service

8. Click **Save&Close**.
9. On the Services form (FS400800), verify that the new service has appeared on the list, as shown in the following screenshot.

   Notice that this service has the **Route** check box selected.

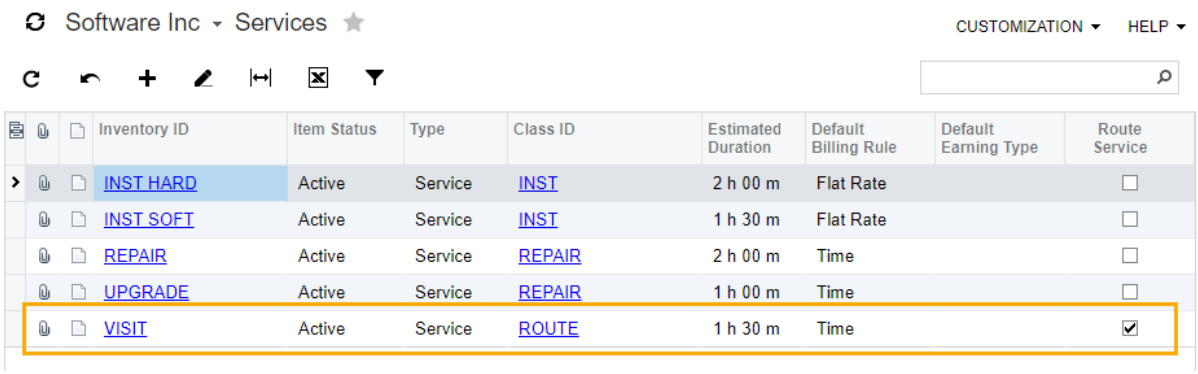


Figure: Route service

Step 5.9: Creating Routes

In Acumatica ERP, a *route* contains information that is generally common for multiple route executions performed by your company—that is, the starting and ending locations of the route, the schedule when it can be performed, and the employees (drivers) who can be assigned to execute the route. The route executions are tied to a particular day, a particular driver, a specific vehicle, and particular appointments and services, whereas the route is a template with only particular settings that will be common to the executions of a route.

While creating a route, the following information:

- The starting and ending locations of the route
- The schedule when the route can be executed
- The drivers who can execute this route and their priority

In this step, you will create two routes. The first route (*ROUTE*) can be executed on any working day and by any of four drivers in your company. The second route (*TU-ROUTE*) can be executed only on Tuesdays, starting no earlier than 01:00 PM, and only two drivers can execute this route.

Perform the following instructions:

1. On the Routes form (FS203700; Service > Route Management > Work Area > Manage), create a new entity with the following settings:
   - **Route ID**: *ROUTE*
   - **Description**: `Regular route`
2. Under **Start Location**, in the **Branch Location** box, select *MANHATTAN*.
3. Under **End Location**, in the **Branch Location** box, select *MANHATTAN*.
4. On the **Execution Days** tab, select the check boxes next to *Monday*, *Tuesday*, *Wednesday*, *Thursday*, and *Friday* and leave other check boxes cleared, as shown in the following screenshot.
5. In the **Start Time** boxes of all selected days of week, select *9:00 AM*, as also shown in the following screenshot.

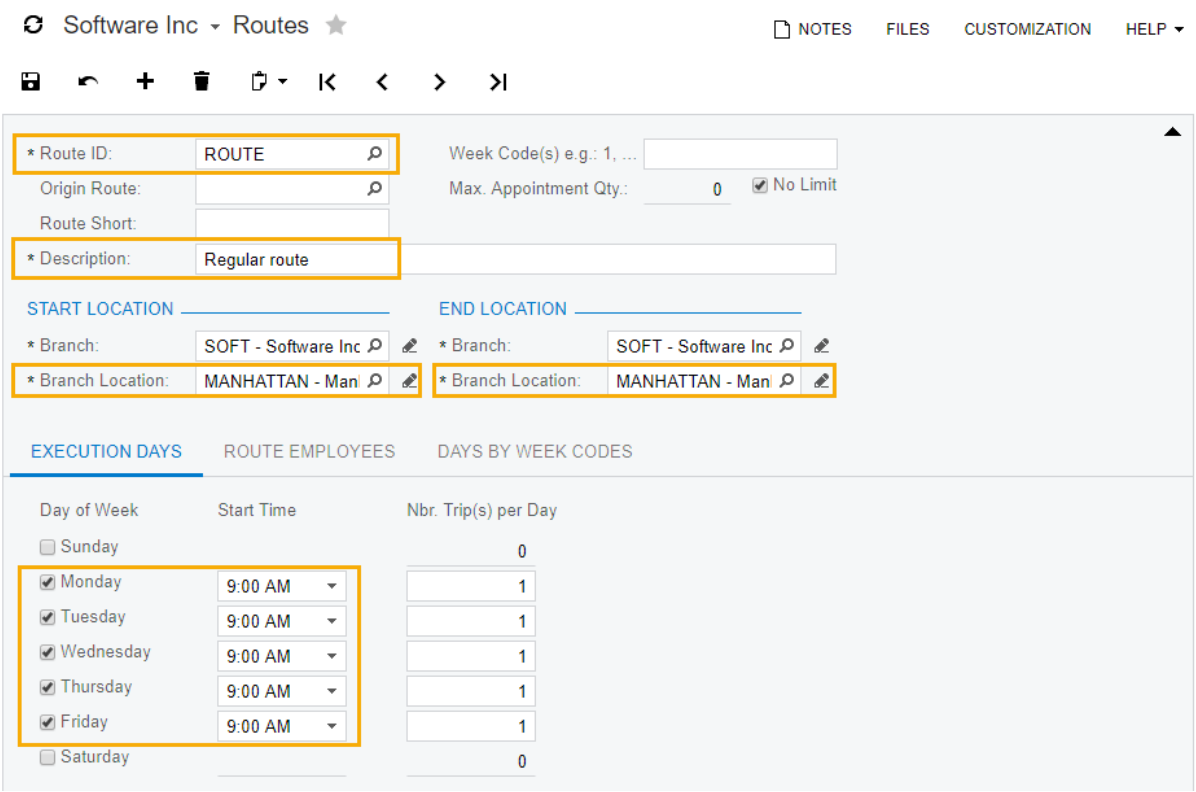


Figure: Creation of the route

6. On the **Route Employees** tab, add four rows with the following settings in the **Employee ID** box:

   - *EP00000001 (Michael Andrews)*
   - *EP00000002 (Maxwell Baker)*
   - *EP00000003 (Layla Beauvoir)*
   - *EP00000004 (Joseph Becher)*

   Notice that only the staff members with the *Driver* skill can be selected on this tab.

7. In the **Priority Preference** box, change the priority of Layla Beavoiur to `2`, and set the priority of Michael Andrews and Maxwell Baker to `3`, as shown in the following screenshot.

   The lower is the integer, the higher is the priority of the driver. Negative numbers and 0 are not allowed. If the drivers have the same priority, they are listed according their reference number in the system.

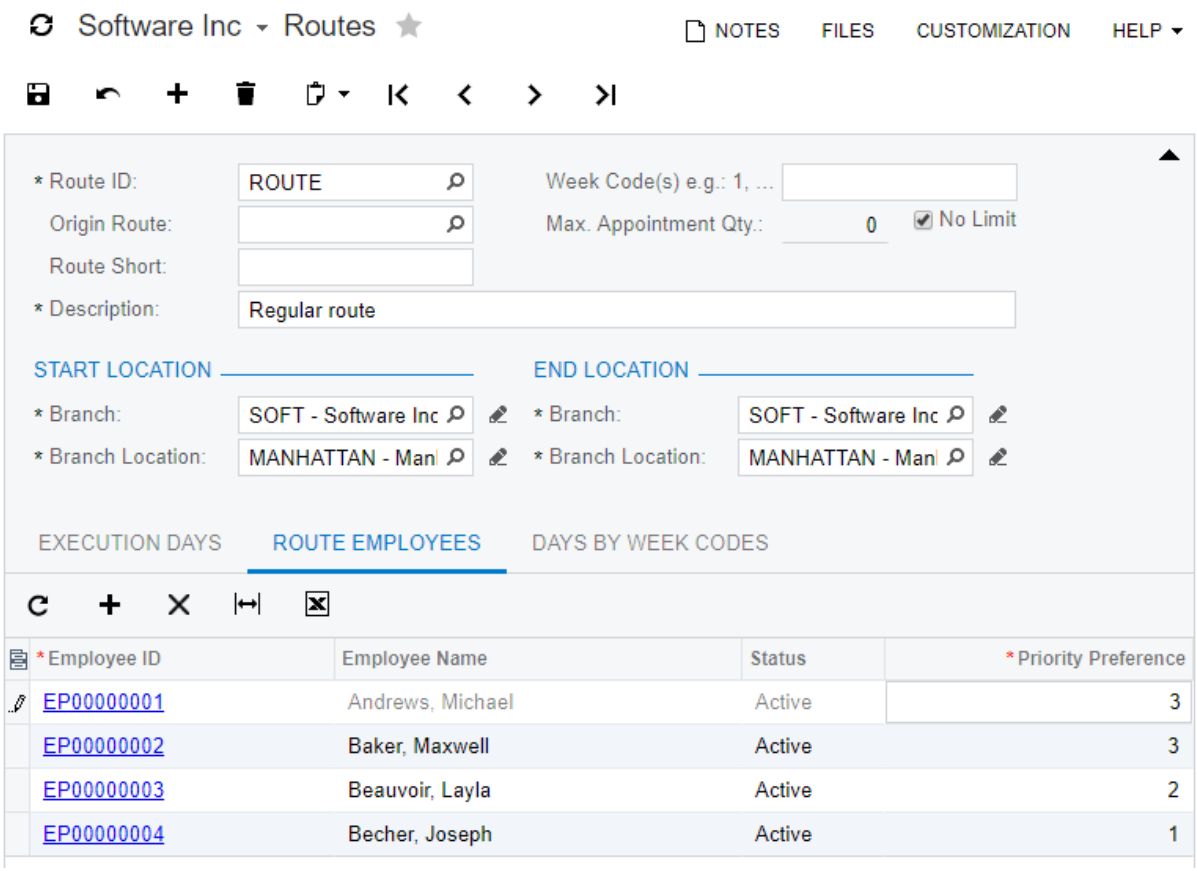


Figure: Priority settings for drivers that can execute the route

8. Save your changes.
9. On the form toolbar, click **Add New Record** and create one more route with the following settings:
   - **Route ID**: *TU-ROUTE*
   - **Description**: `Tuesday route`
10. Under **Start Location**, in the **Branch Location** box, select *MANHATTAN*.
11. Under **End Location**, in the **Branch Location** box, select *MANHATTAN*.
12. On the **Execution Days** tab, select the check box next to *Tuesday* and leave other check boxes cleared.
13. In the **Start Time** box of the selected day of week, select *1:00 PM*.
14. On the **Route Employees** tab, add two rows with the following settings in the **Employee ID** box, as shown in the following screenshot:
    - *EP00000001 (Michael Andrews)*
    - *EP00000004 (Joseph Becher)*

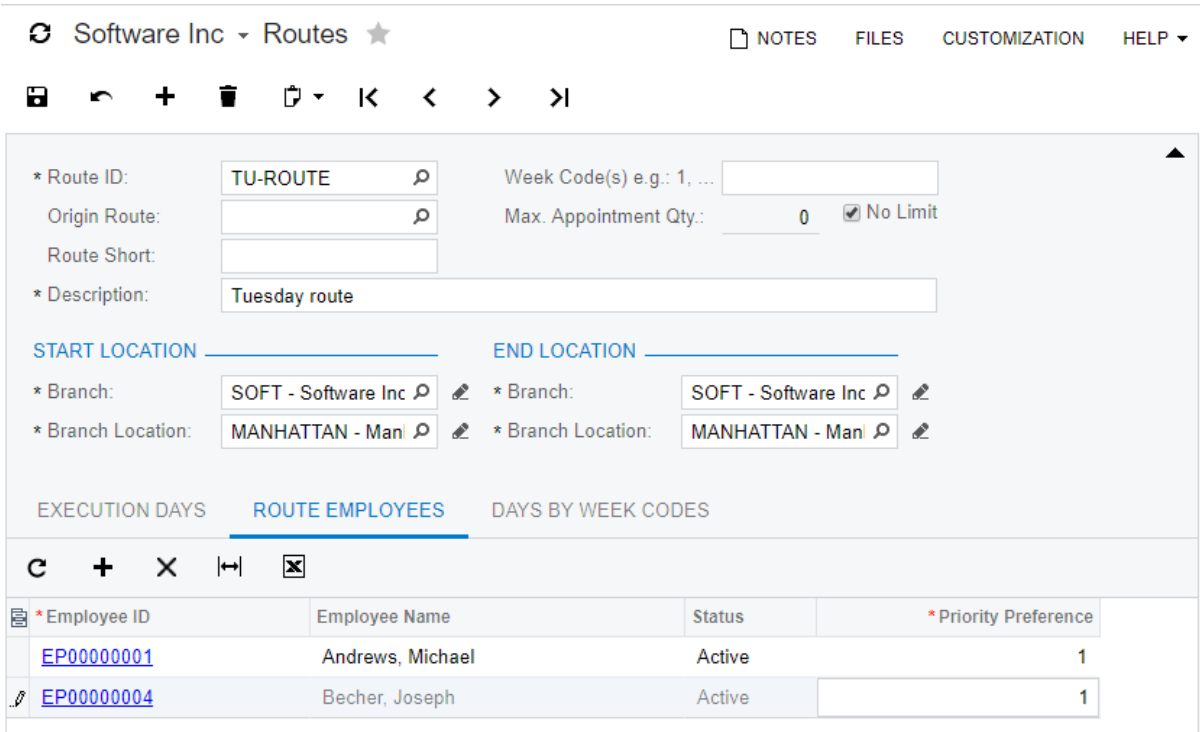


Figure: Process of creating the route

15. Save your changes.

You have created two routes in the system. No you can create route executions and select these routes, the system fills in appropriate settings.

Lesson Summary

In this lesson, you have been introduced to the concepts of the vehicle, driver skill, route, and route service in Acumatica ERP.

You have prepared the initial pool of drivers and set up the Route Management module so that you can start using Acumatica ERP for MyCompany's route service order processing. You have created a vehicle type and two vehicles, a service class for route services and a route service, defined a service order type with *Route* behavior, entered two routes and their possible execution days and drivers. You have also specified the minimum required configuration of the module.

Now the Route Management module is ready for the creating and processing of route executions.

Review Questions:

- On which form of Acumatica ERP do you configure the Route Management module settings?
- If you are going to generate invoices sometimes in the Accounts Receivable module and the Sales Orders module, can you have only one service order type with *Route* behavior in the system?
- When you create a route service and select a route service class, some of the service settings are populated with the default values. Can they be overwritten?
- Can you create a vehicle of the Equipment form (FS205000)?
- Can you set a vehicle as a target equipment or resource equipment?
- Can you have only one route service class and select it for all route services created in your system?
- Is any employee defined in the Organization suite defined as a driver in the Service suite?

Lesson 6: Processing Route Appointments

To process the routes that are executed by your company, you have to create route execution documents in the system for each specific day when the route services are provided.

In this lesson, you will learn how to enter a route execution manually. Once you complete this lesson, you will have completed and billed one route execution. You will also learn how to process route services that involve movement of inventory items.

Lesson Objectives

You will do the following:

- Create a route execution document
- Add route appointments to the route
- View the route on the map
- Modify routes and the order of appointments in the route
- Start, complete, and close routes
- Create pickup route service
- Create delivery route service
- Configure the system so as you can process Inventory updates originated from route appointments

Route Processing Workflow

In general, the simplest way of processing of a route and its executions in the system consists of the following steps:

1. Creating a route: If a route has not been created yet, a manager creates a route with the common details of the route to be executed.
2. Creating route executions with appointments: The scheduler creates a route execution and adds appointments for the route execution.
3. Adding details to the route execution: The scheduler assigns drivers and vehicles to the route execution defined in the system. Also, he or she adds, deletes, or changes the details and order of the appointments if necessary. The scheduler can manually add or delete appointments if he or she received customers' reactive calls.
4. Starting to perform route services: On the day of the route execution, the driver finds in the system the route execution that he or she is assigned to, checks the details, goes to the start location, and starts executing the route.
5. Attending the appointments of the route: At each appointment location, the driver starts the appointment, performs services, and adds to the system additional information (such as any items that are picked up or delivered), if necessary. After all the work on the appointment is done and all information has been entered into the system and checked, the driver completes the appointment in the system. The driver then proceeds to the other appointments that are associated with the route execution and performs them.
6. Completing the execution of the route: After all appointments have been completed, the driver goes to the end location of the route, specifies the end time, and competes the route.
7. Generating inventory documents for the customers (optional): If inventory items were picked up or delivered, an accountant generates inventory documents to register transferred items and processes the documents in the system.
8. Closing the execution of the route: The accountant verifies information on the route document and its appointments, and closes the route.
9. Generating invoices for the customers: An accountant generates invoices for the completed or closed appointments and processes them in the system.

Step 6.1: Creating a Route Execution with Appointments

When you create a route execution, you specify the following information:

- The route to which the route execution relates.
- The date of the route execution. You can select a date that is one of the days of the week specified for the associated route.
- The driver or drivers who will perform the services of the route execution.
- The vehicle or vehicles to be used for the route execution.

After you have specified and saved this information, you can create and add appointments for the route execution.

In this step, you will create a route execution document that includes one trip to the *C000000004* customer in order to demonstrate goods. You will schedule the route for the specific day and time (next Thursday, 10:00 AM) and add the route appointment where you will select the customer and the service to be performed. You will also view the route on a map.

On this form, you can view on a map the routes to which the staff members are assigned on a particular date.

Perform the following instructions:

1. On the Route Document Details form (FS304000; Service > Service Management > Work Area > Enter), create a new route execution with the following settings in the Summary area, as you can see in the following screenshot:
   - **Route**: *ROUTE*
   - **Date**: Select next Thursday.
   - **Start Time**: *10:00 AM*
   - **Driver**: *EP00000004 (Joseph Becher)*
   - **Vehicle**: *000007 (White Foord)*

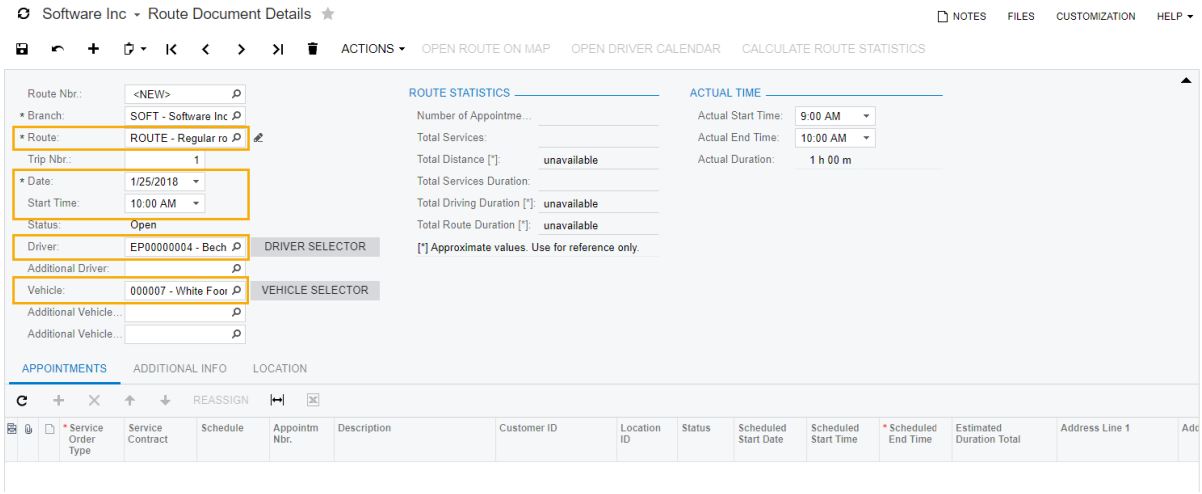


Figure: Creation of a route execution document

2. Save your changes.

   The route execution document with reference number *000001* is created. The reference number is specified by the system according to the numbering sequence you have selected in the Route Management module preferences.

   If you edit the route you have selected for this route execution document, it will not affect route executions that have already been created based on the route.

3. On the **Appointments** tab, click **Add Row** on the table toolbar.

The **Select the Service Order Type for the New Appointment** dialog has opened by the system (see the following screenshot).

In this dialog, you can select only the existing service order types with the *Route* behavior.

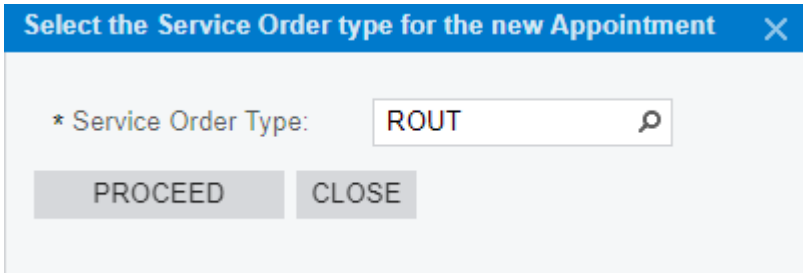


Figure: Selection of the order type

4. In the dialog, select *ROUT* and click **Proceed**.

This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.

5. Specify the following settings for the appointment and save the changes:

- **Customer**: *C00000004 (KRK Consulting Service)*
- **Branch Location**: *MANHATTAN*
- **Description**: `Demonstration of goods for prospective customer`

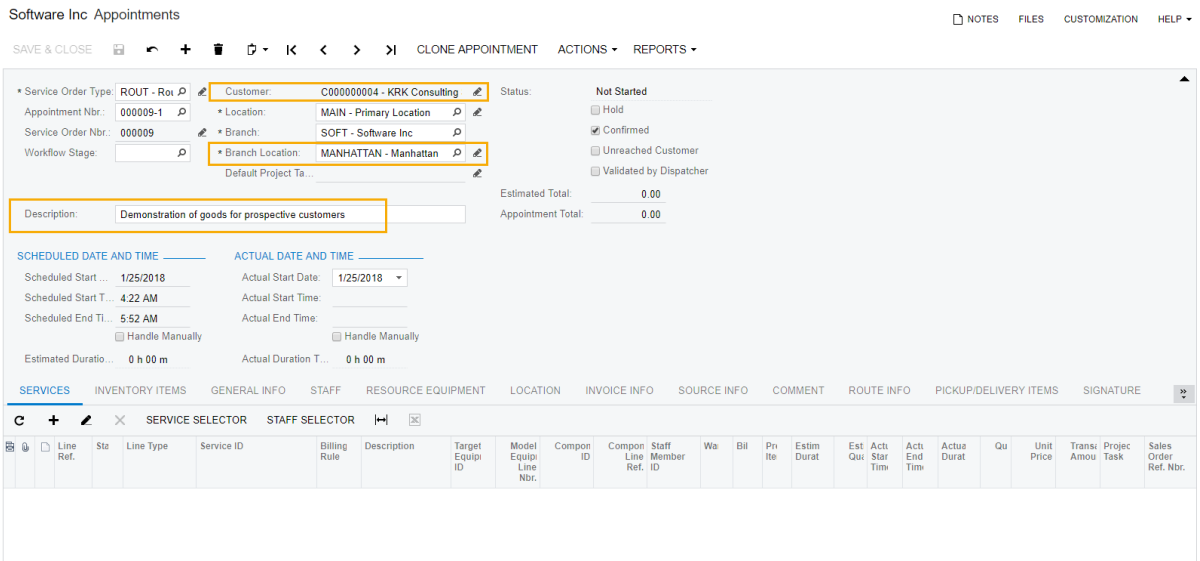


Figure: Creation of the route appointment

6. On the **Services** toolbar, click **Add Row**, and add the *VISIT* service to the appointment.

You can select only route services for route appointments.

7. Click **Save&Close** and return to the Route Document Details form to review the created *000009-1* appointment, as shown in the following screenshot.

Notice that the system inserts the customer's address to the appointment details.

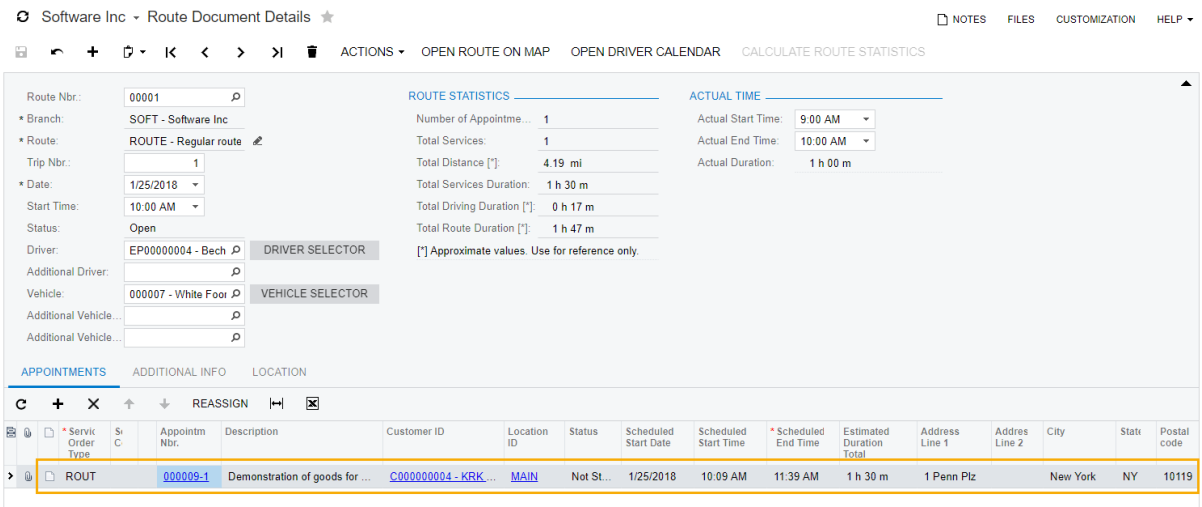


Figure: Appointment added to the route execution document

8. On the form toolbar, click **Open Driver Calendar**.

The system brings up the Staff Calendar Board form (FS300900) for the driver assigned to execute the route (Joseph Becher).

9. Verify that the *000009-1* appointment is present on the Staff Calendar Board.

Notice that the appointment is scheduled for the date you have selected, but the scheduled start time of the appointment is later than the scheduled start time of route execution. The system calculates the approximate time for the driver to get to the appointment location based on the customer address, distance from the route start point and traffic statistics.

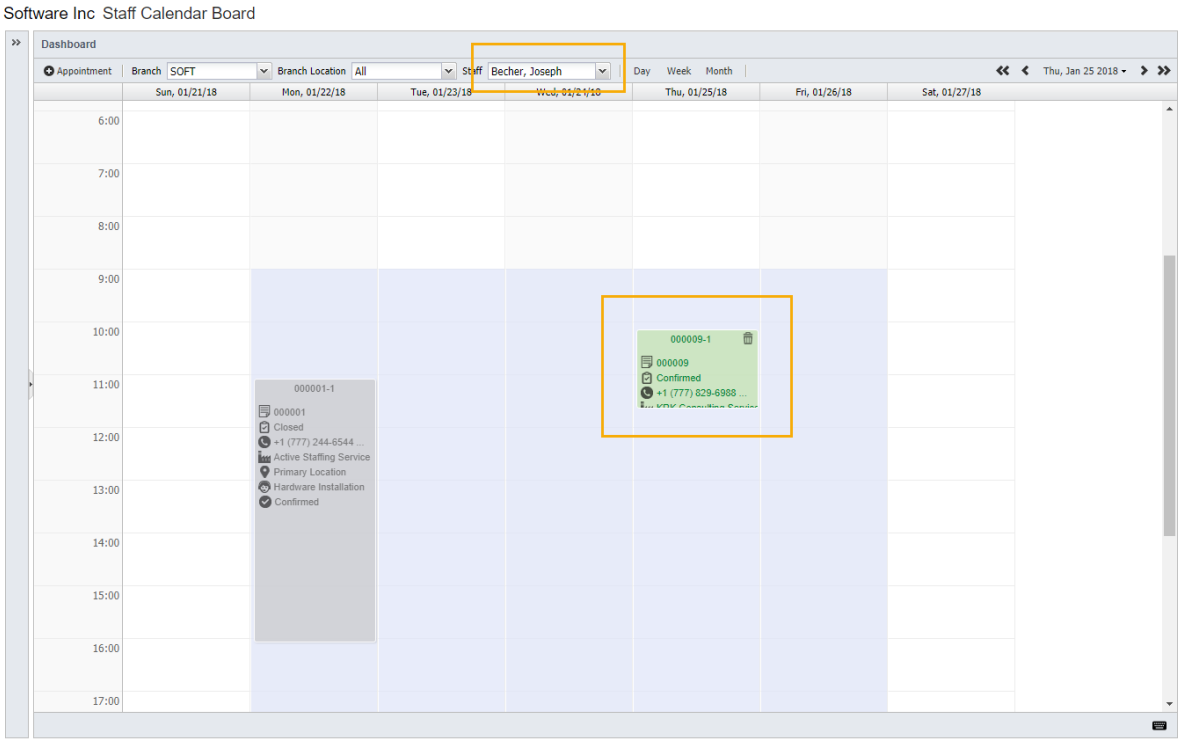


Figure: Staff Calendar Board

10. Close the Staff Calendar Board form.

11. Navigate to the Staff Routes on Map form (FS301000; Service > Route Management > Work Area > Boards and Maps) and select the date for which you have scheduled the route execution (next Thursday).

Here you can view on a map the routes to which the staff members are assigned on a particular date.

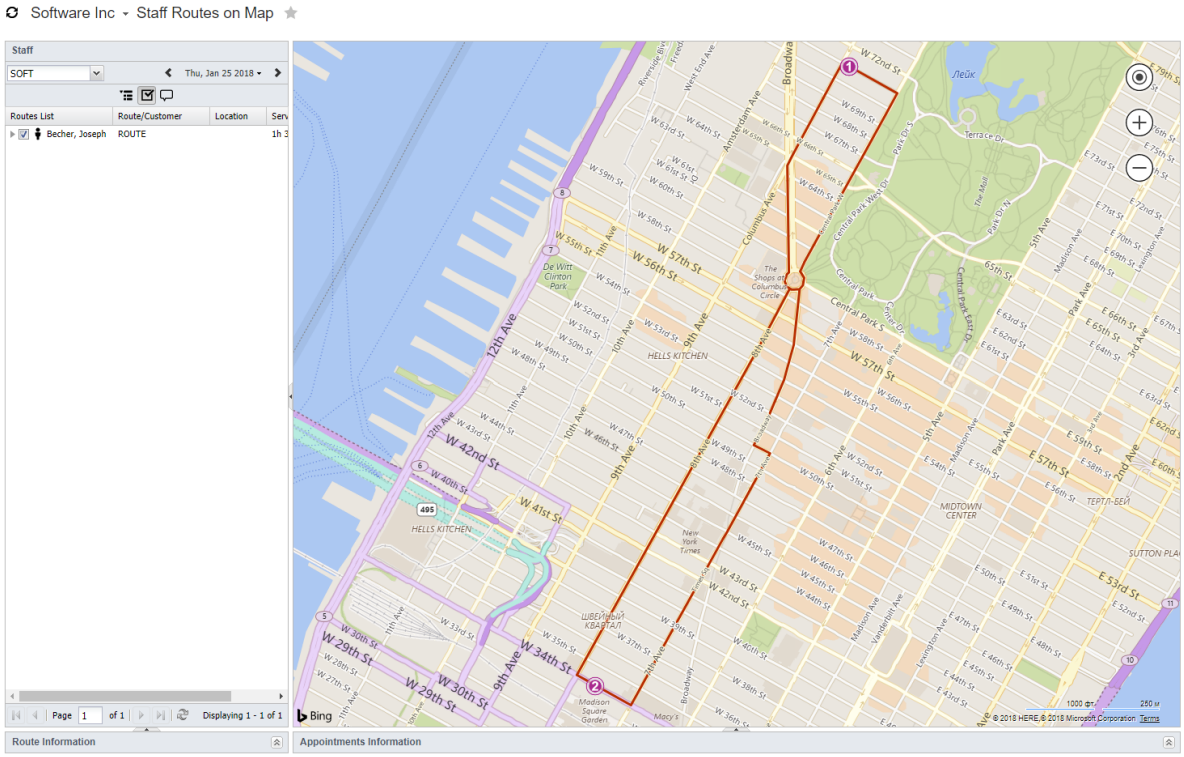


Figure: Route on Map

12. Click the arrow button at the left of the driver's name (Becher, Joseph) to view the appointment details of this driver (see the following screenshot).

In particular, you can view the customer with which an appointment takes place, the identifiers of appointment locations and the total time that performing the services of appointment is expected to take.

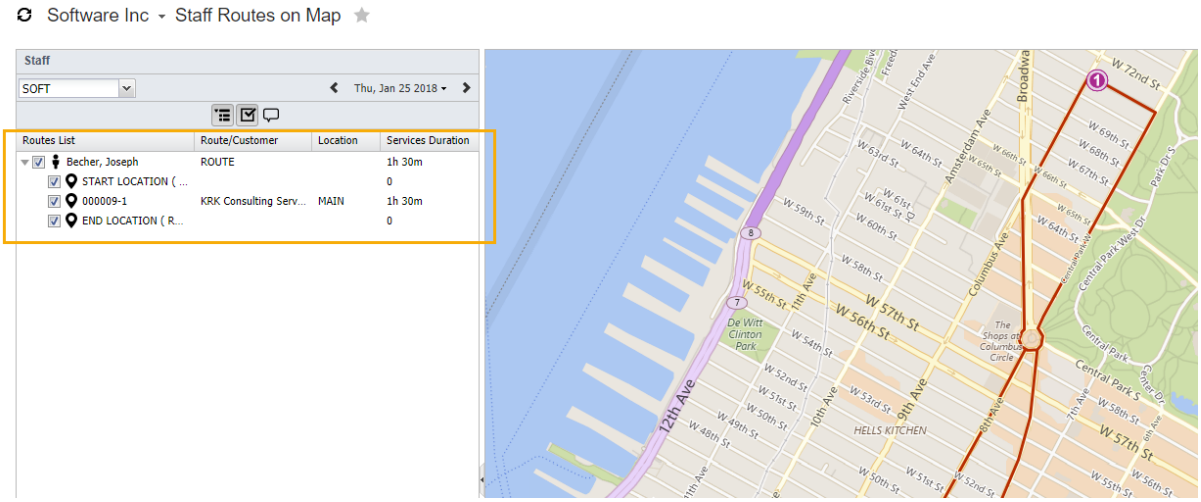


Figure: Appointment details

13. Click the driver's name (Becher, Joseph) and open the **Route Information** tab in the bottom left corner of the Staff Routes on Map form (see the following screenshot).

You are shown the route duration, distance, and number of appointments for the selected driver.

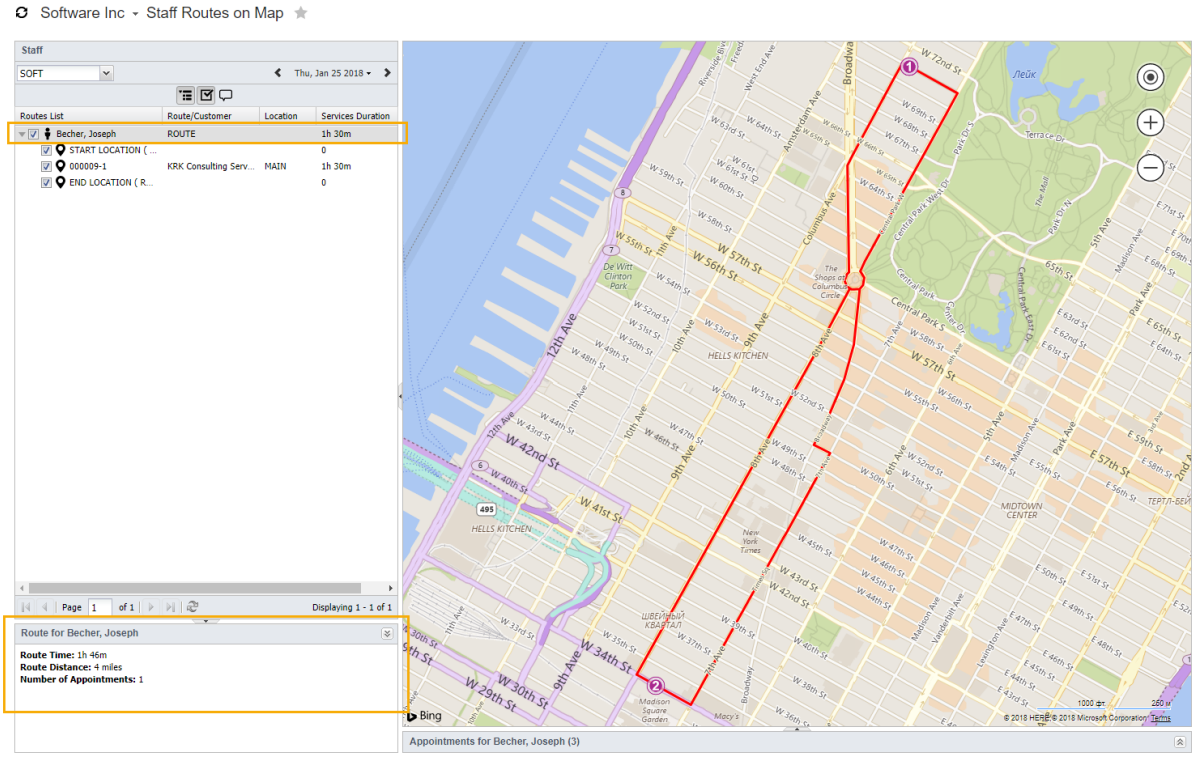


Figure: Route details for the driver

14. Open the **Appointment Information** tab in the bottom part of the map on the Staff Routes on Map form (see the following screenshot).

You are shown the name of the customer with which an appointment takes place, the time that is needed to travel between points of the route, and the addresses of the route locations.

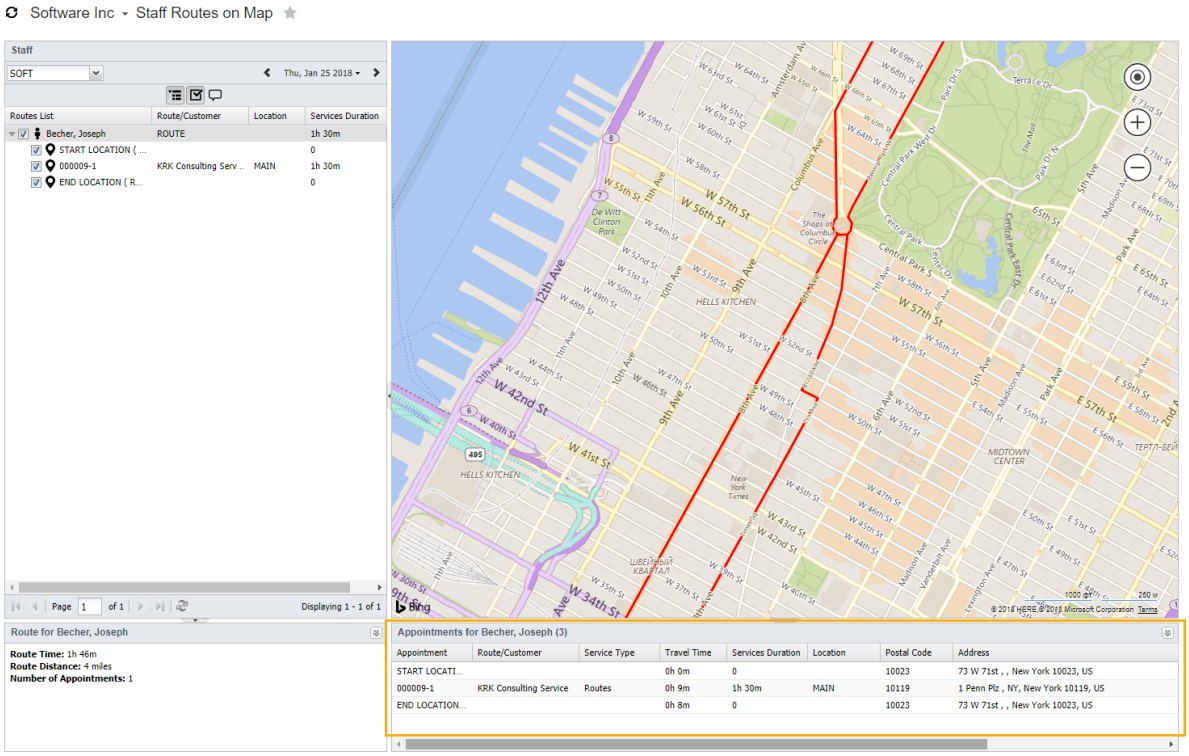


Figure: Appointment information

Step 6.2: Modifying the Route Execution Document

In this step, you will modify the existing route document: change the scheduled date and time, add more appointments, create another route execution and reassign appointment from one route to another.

Perform the following instructions:

1. On the Route Document Details form (FS304000; Service > Service Management > Work Area > Enter), in the **Route Nbr.** box, select *00001*.
2. In the **Date** box, select another date—next Tuesday (see the following screenshot).

   Notice that the start time of the route execution document automatically changes to 9:00 AM—this is the time specified in the route settings as the earliest route execution start time.

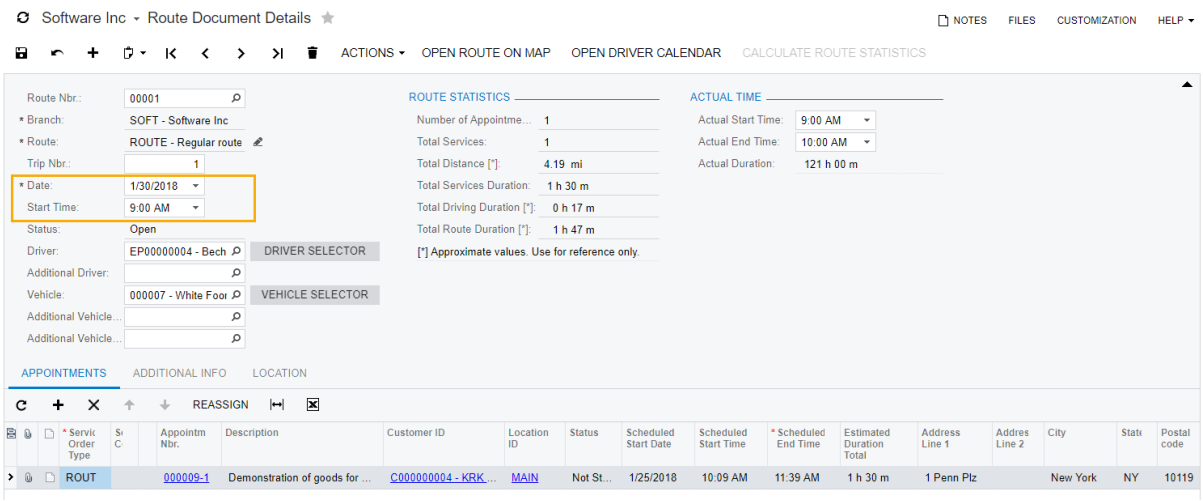


Figure: New date selected for the route execution

3. Save your changes.

   Notice that the date and time settings of the corresponding appointment are automatically changed to match your edits, as shown in the following screenshot.

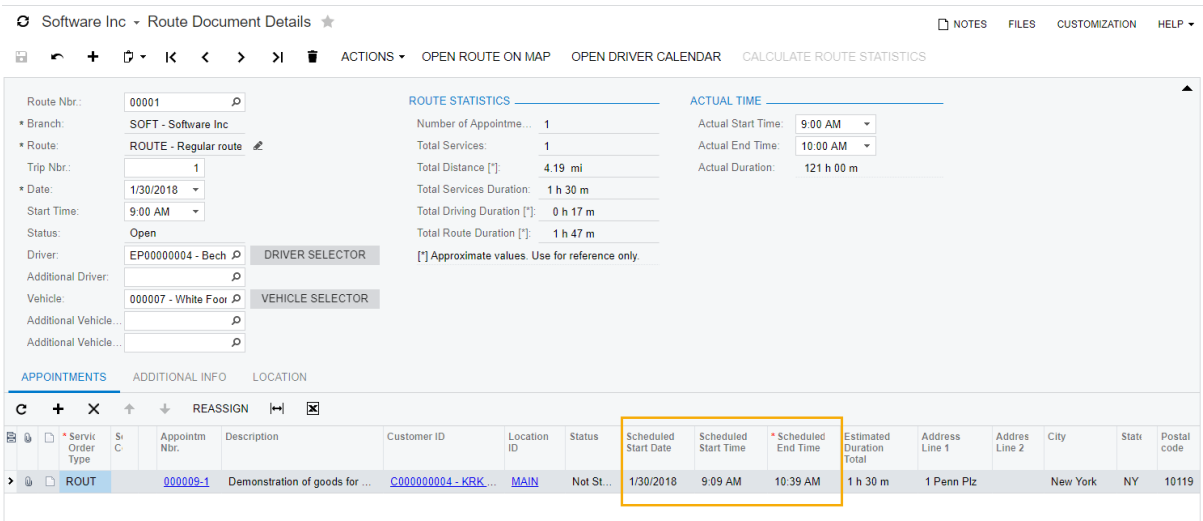


Figure: Scheduled date and time of the appointment

4. On the **Appointments** tab, click **Add Row** on the table toolbar.
5. In the dialog that opens, select *ROUT* and click **Proceed**.

This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.

6. Specify the following settings for the new appointment and save the changes:

- **Customer**: *C00000026 (Active Staffing Service)*
- **Branch Location**: *MANHATTAN*
- **Description**: `Demonstration of goods for prospective customer`

7. On the **Services** tab, click **Add Row**, and add the *VISIT* service to the appointment (see the following screenshot).

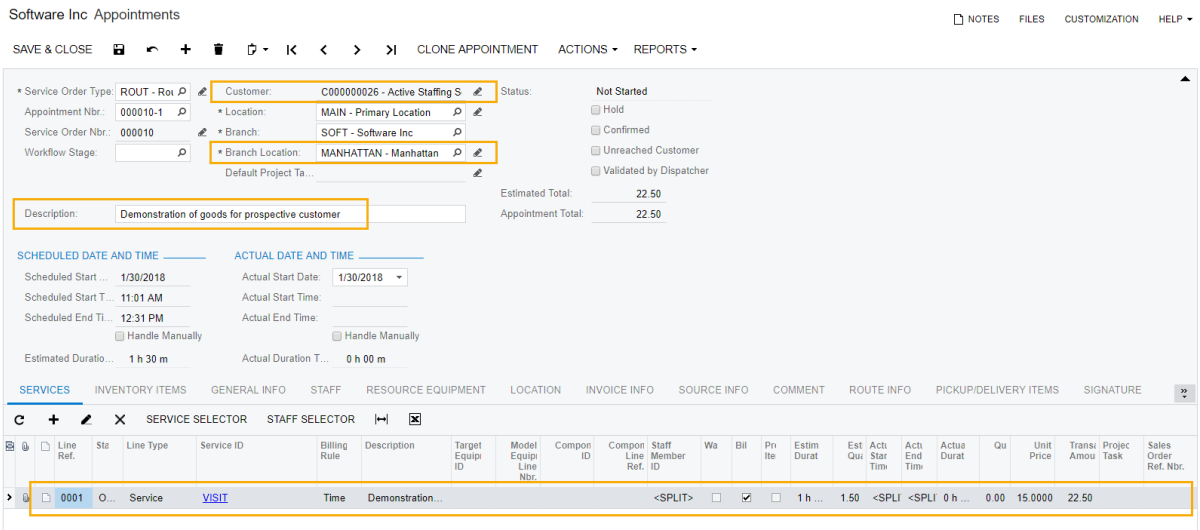


Figure: Creation of the route appointment

8. Click **Save&Close** and return to the Route Document Details form to review the created *000010-1* appointment, as shown in the following screenshot.

Notice that the system automatically inserts the scheduled date, start time and end time for the appointment.

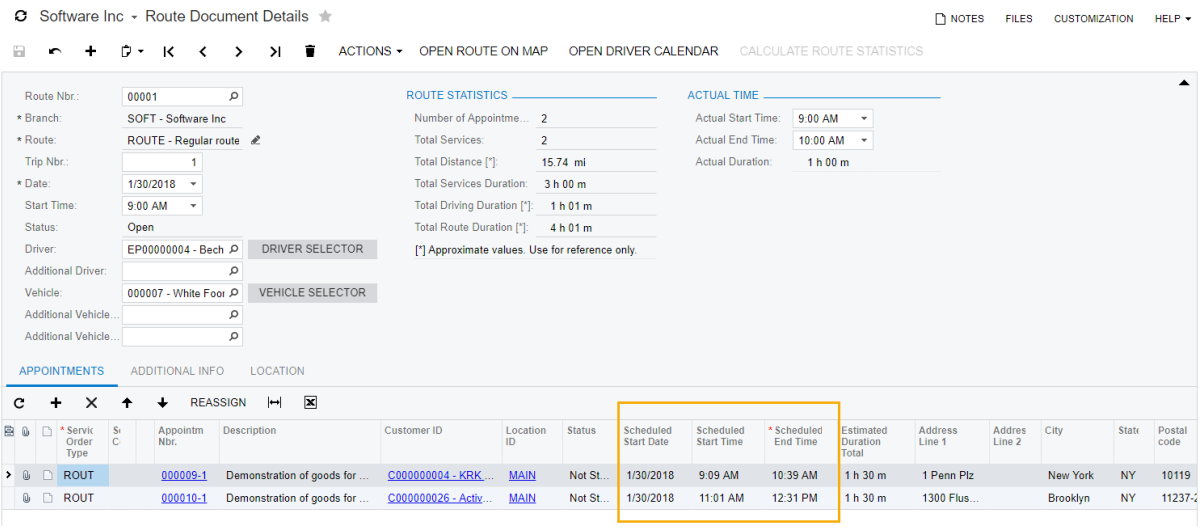


Figure: Appointment added to the route execution document

9. Navigate to the Staff Routes on Map form (FS301000; Service > Route Management > Work Area > Boards and Maps) and select the date for which you have scheduled the route execution (next Tuesday).

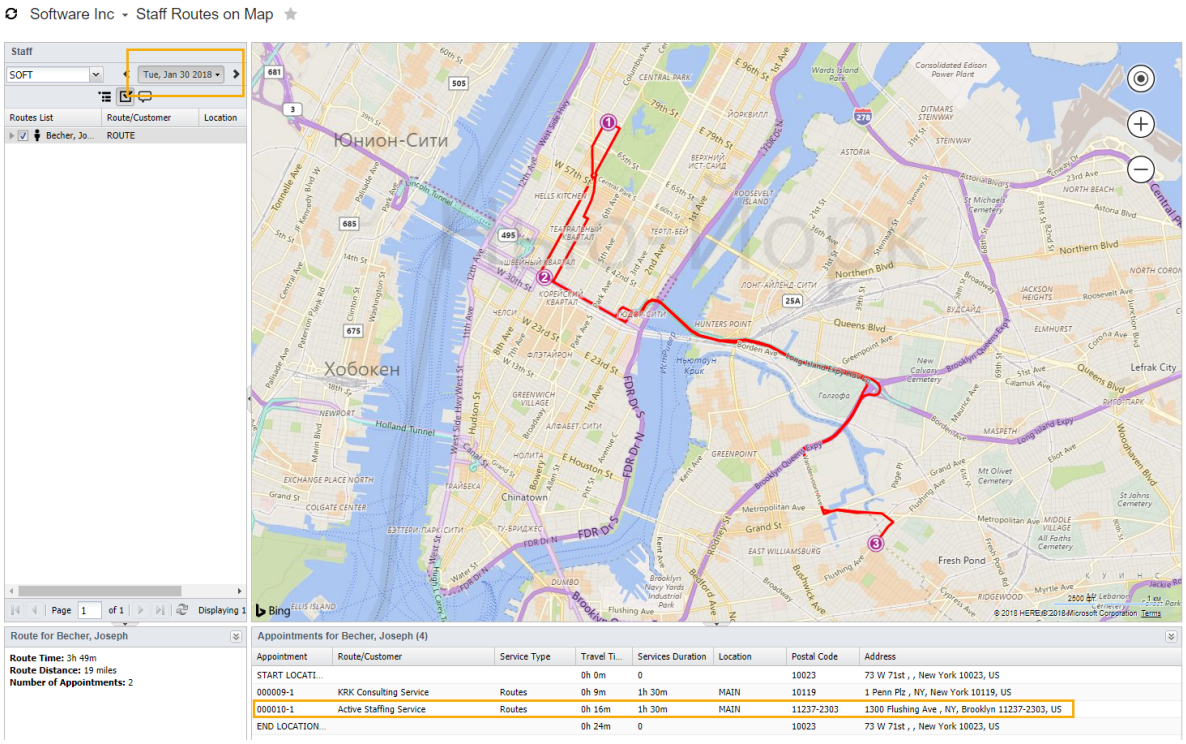


Figure: Route on Map

10. Open the Route Document Details form (FS304000) and create a new route execution with the following settings in the Summary area and save the changes, as you can see in the following screenshot:

- **Route**: *TU-ROUTE*
- **Date**: Select next Tuesday
- **Start Time**: *3:00 PM*

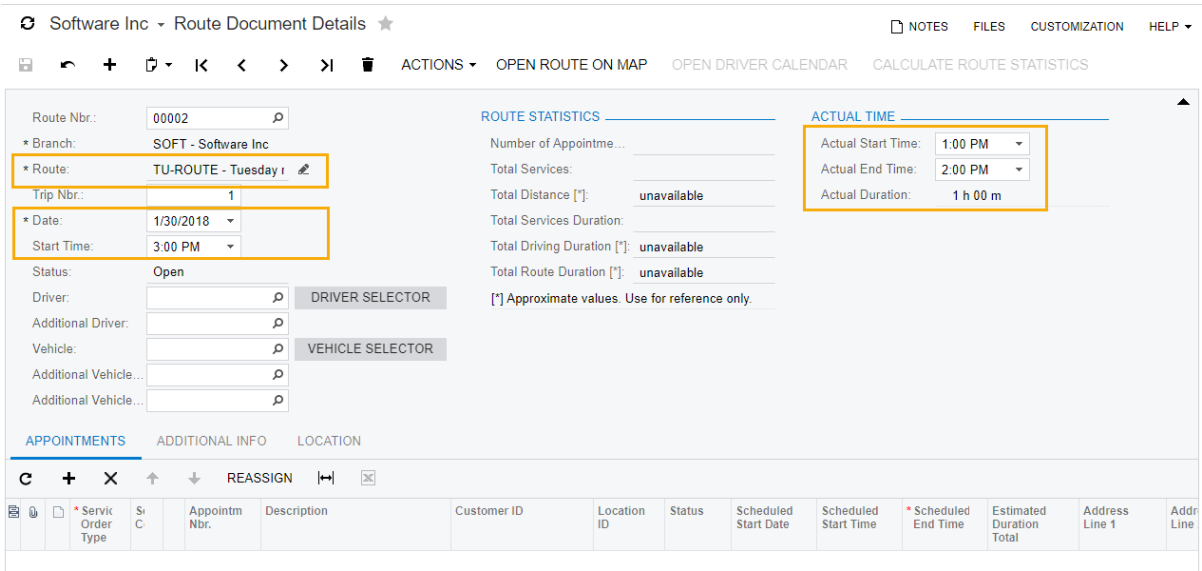


Figure: Creation of a route execution document

11. Click **Driver Selector** next to the **Driver** box.

The **Driver Selector** dialog box opens (see the following screenshot) where you can select a driver with the skills to execute the route available for the specific day. Notice that only one driver is available because you have assigned two possible drivers to the *TU-ROUTE* on the **Route Employees** tab, and one of them is already assigned.

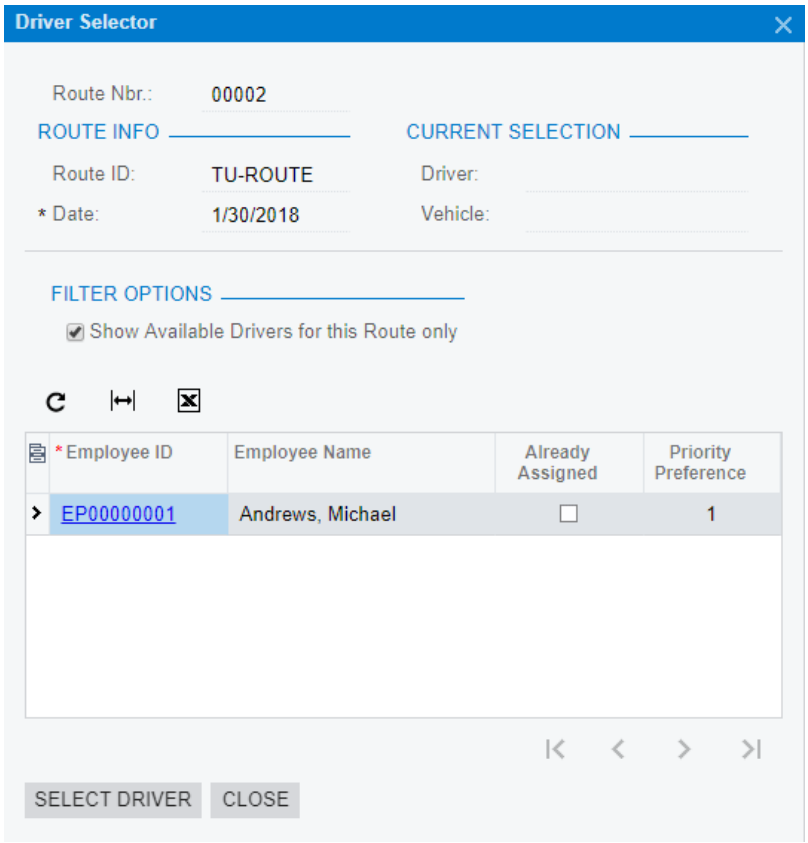


Figure: Driver Selector dialog box

12. Clear the **Show Available Drivers for this Route only** check box.

13. Verify that only two drivers are shown, and the second driver has the **Assigned** check box selected, as you can see in the following screenshot.

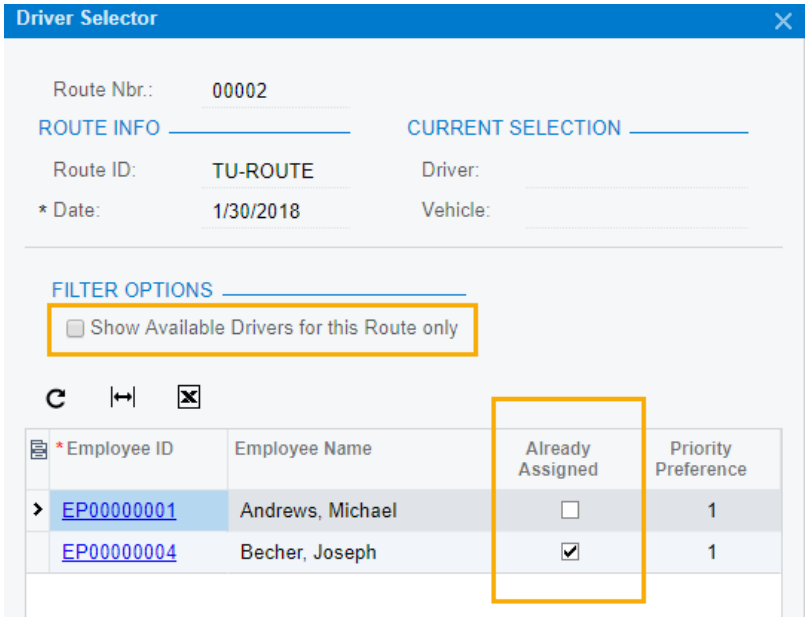


Figure: Driver Selector dialog box displaying all available drivers for route

14. Select *EP00000001 (Michael Andrews)* and click the **Select Driver** button.

The selected driver appears in the **Driver** box.

15. Click **Vehicle Selector** next to the **Vehicle** box.

The **Vehicle Selector** dialog box opens (see the following screenshot) select a vehicle to execute the route available for the given day. Notice that only one vehicle is available because one of the vehicles is already assigned.

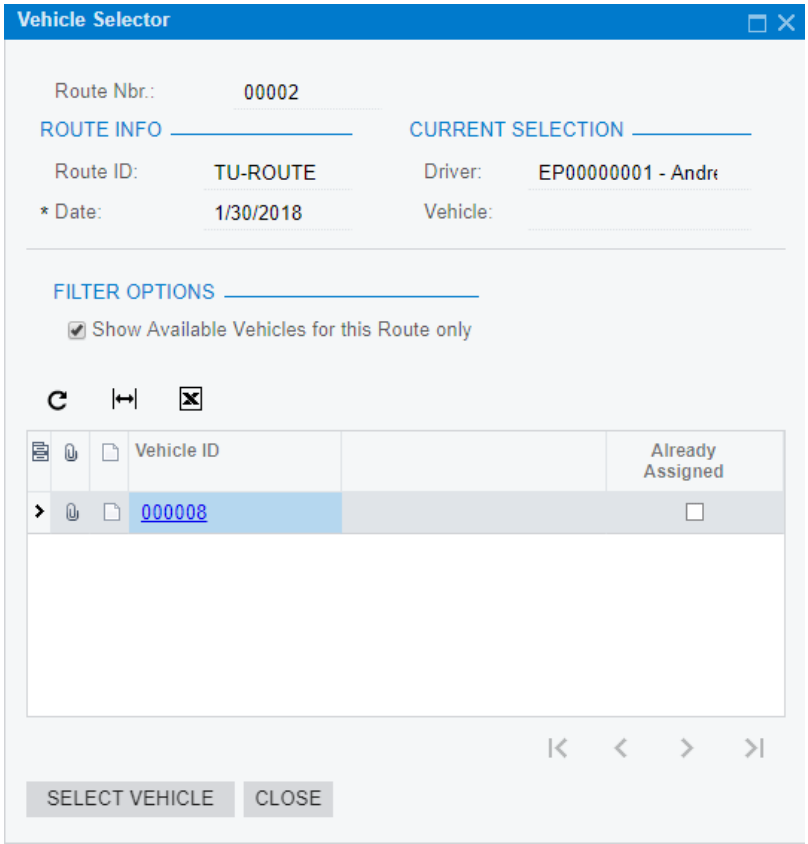


Figure: Vehicle Selector dialog box

16. Select *000008* and click the **Select Vehicle** button.

The selected vehicle appears in the **Vehicle** box.

17. Save your changes.

18. On the **Appointments** tab, click **Add Row** on the table toolbar.

19. In the dialog that opens, select *ROUT* and click **Proceed**.

This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.

20. Specify the following settings for the new appointment and save the changes:

- **Customer**: *C00000005 (Active Staffing Service)*
- **Branch Location**: *MANHATTAN*
- **Description**: `Demonstration of goods for prospective customer`

21. On the **Services** toolbar, click **Add Row**, and add the *VISIT* service to the appointment (see the following screenshot).

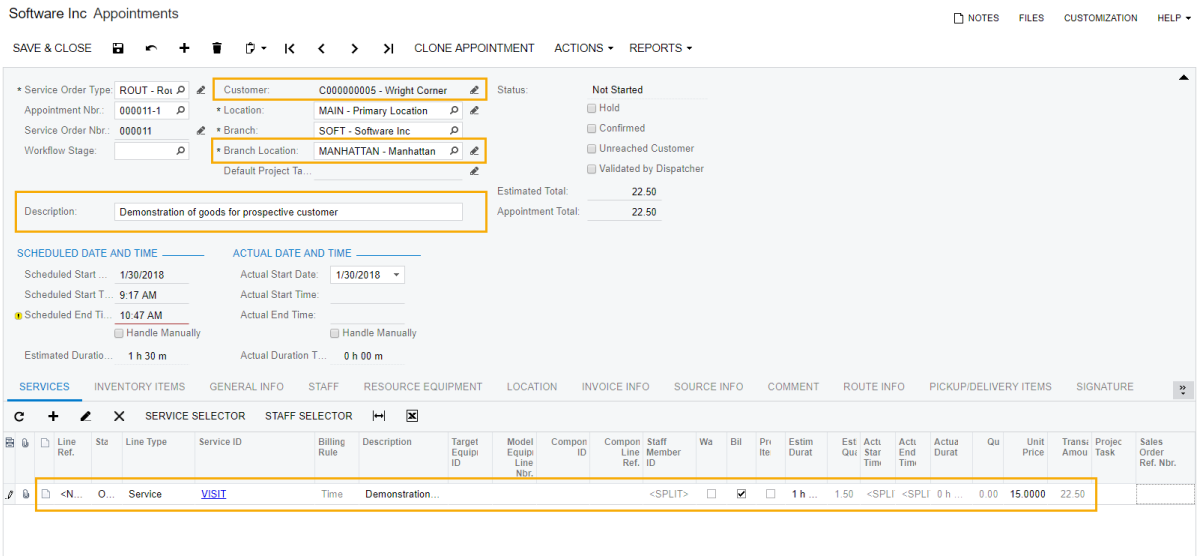


Figure: Creation of the route appointment

22. Click **Save&Close** and return to the Route Document Details form to review the created *000011-1* appointment, as shown in the following screenshot.

23. On the **Appointments** tab, select the *000011-1* appointment, and on the tab toolbar, click **Reassign**.

The **Route Appointment Assignment** dialog box opens (see the following screenshot), in which you can reassign the selected appointment to another route execution.

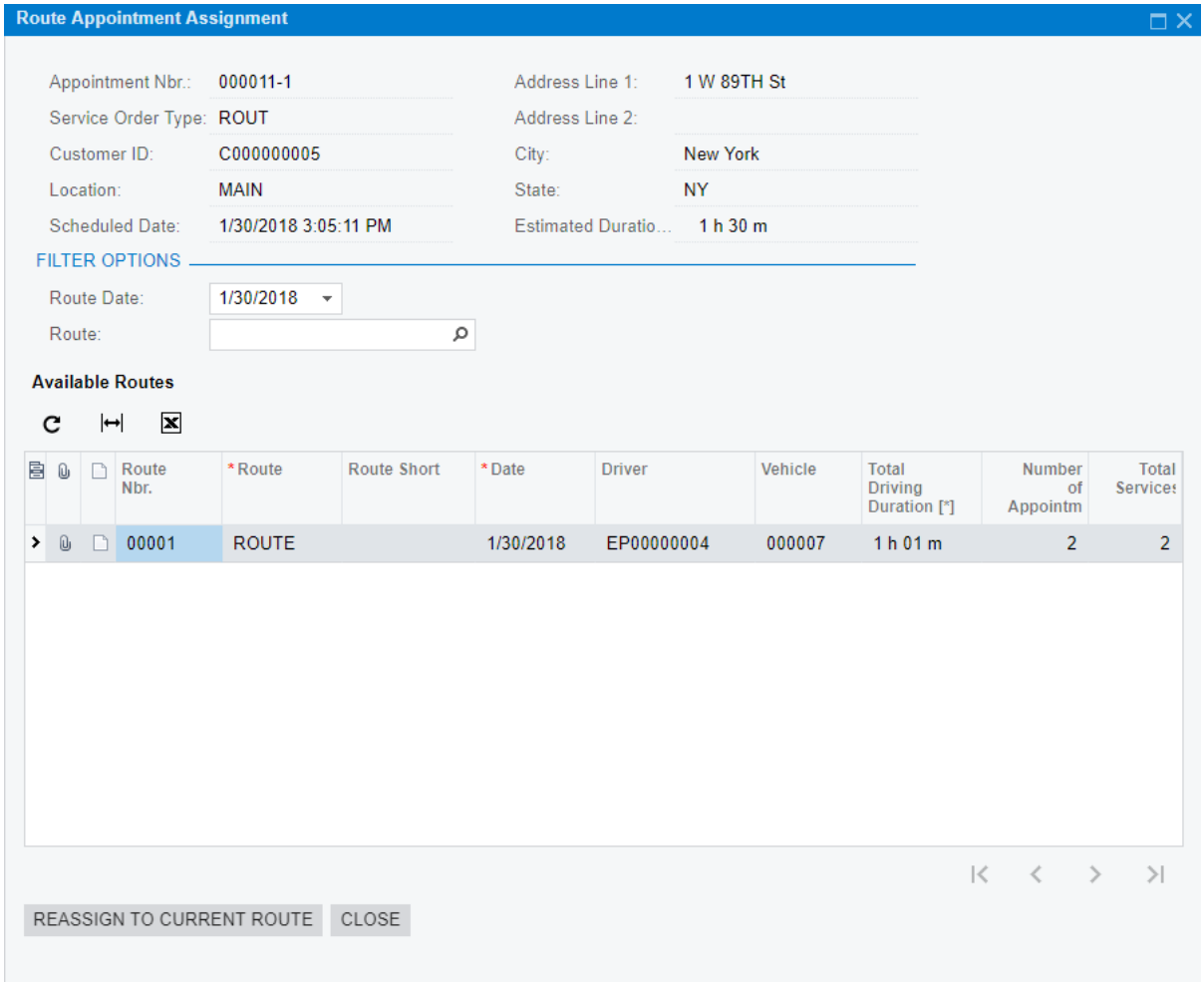


Figure: The process of appointment reassignment

24. In the **Available Routes** table, select route with reference number *00001* and click **Reassign to Current Route**.

The *000011-1* appointment is now assigned to the *00001* route.

25. In the **Route Nbr.** box, select *00001* and verify that the reassigned appointment has appeared on the **Appointments** tab, as shown in the following screenshot.

Notice that the assigned driver has automatically been changed for the *000011-1* appointment.

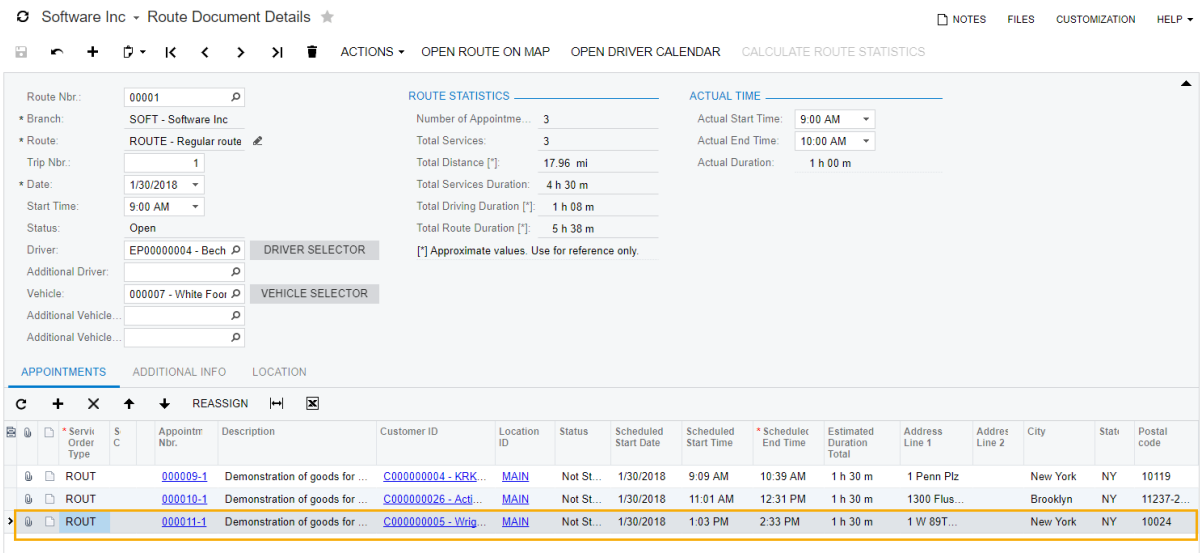


Figure: Third appointment in the 000001 route execution

26. Select the line with *000011-1* appointment and click **Move Up** to move up the selected appointment within the route execution (see the following screenshot).

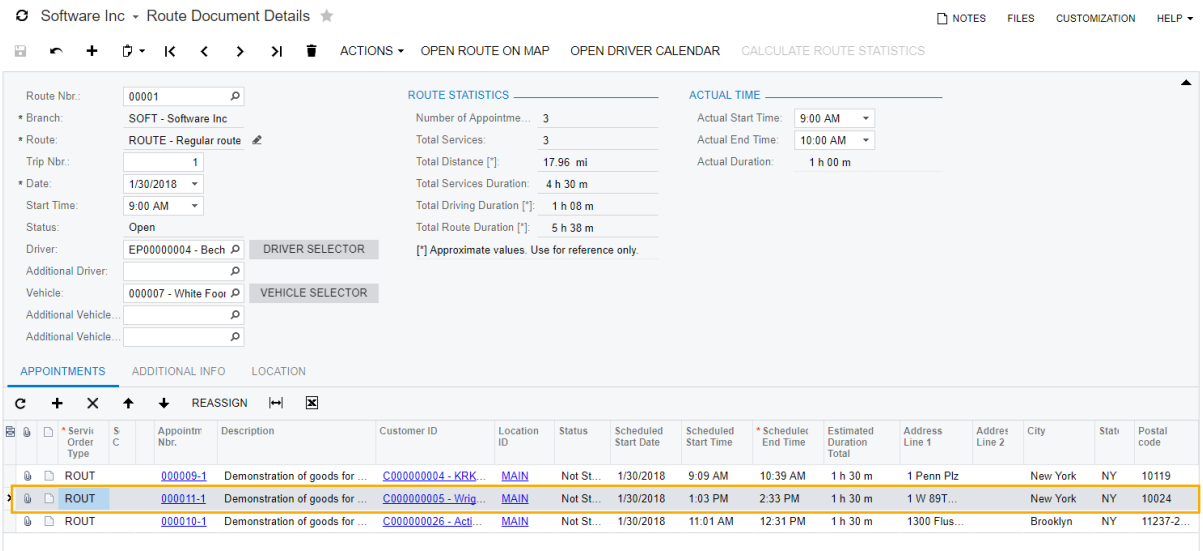


Figure: Changed order of appointments

27. Navigate to the Staff Routes on Map form (FS301000; Service > Route Management > Work Area > Boards and Maps) and select the date for which you have scheduled the route execution (next Tuesday).

28. On the **Staff** tab, click the **Expand all routes** button.

29. Select Joseph Becher and open the **Route Information** and **Appointment Information** tabs.

30. Verify that all three route appointments are assigned to the *000001* route execution, and that they will be performed in the order you have selected, as shown in the following screenshot.

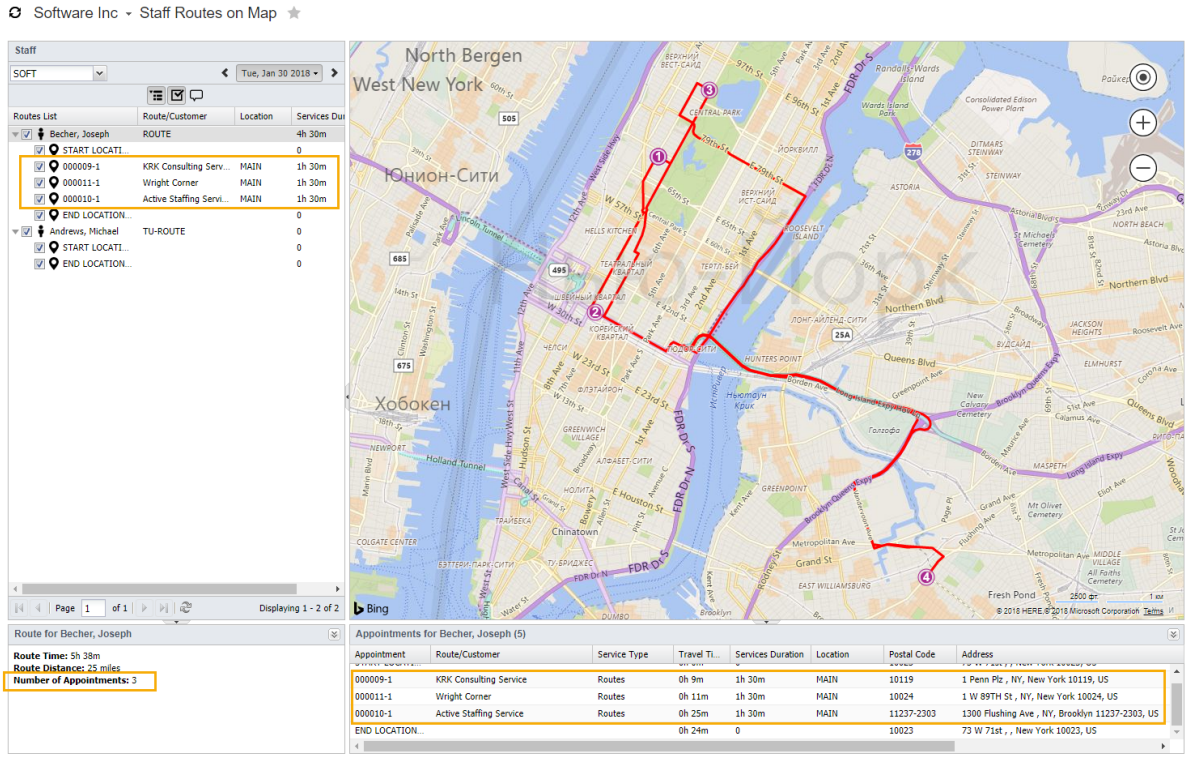


Figure: Modified route execution

31. On the **Staff** tab, click the *000009-1* appointment.

Its location is indicated on the map.

32. Drag and drop this appointment in the list so as it becomes the second appointment in the route execution, as shown in the following screenshot.

33. Select Joseph Becher and open the **Route Information** tab.

Notice that the route distance has changed to 22 miles, and the route time has also shortened, as also shown in the following screenshot.

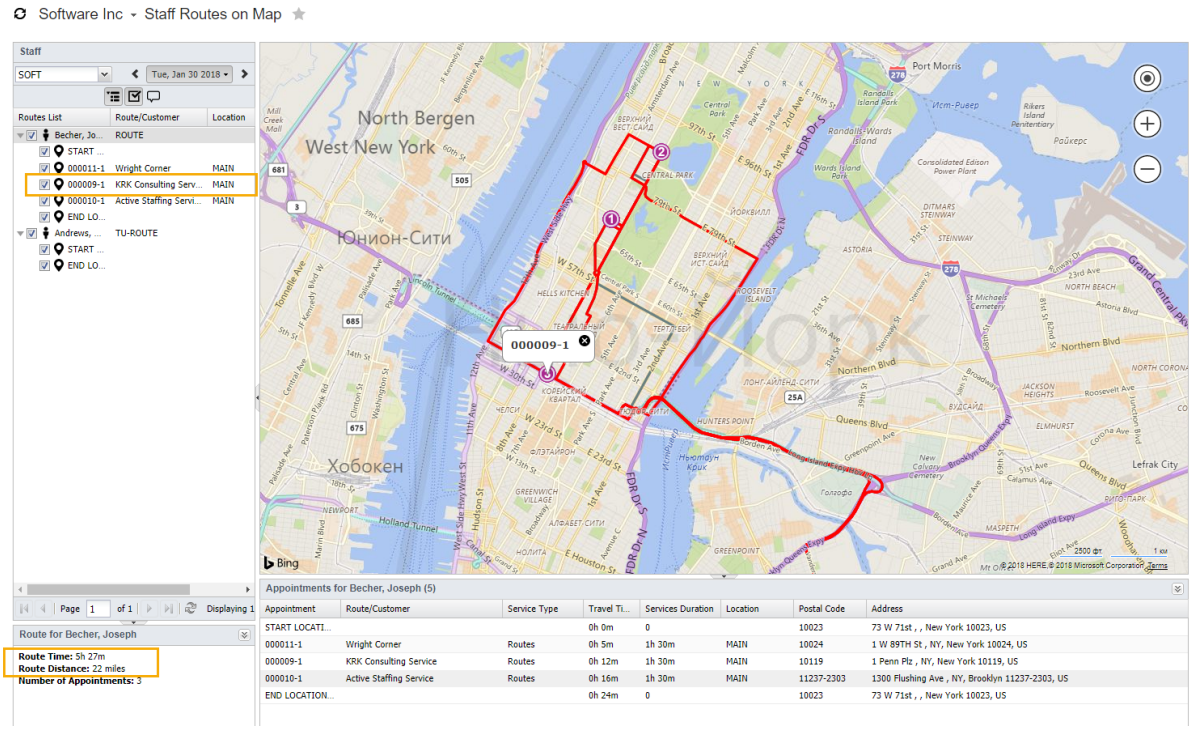


Figure: Appointment order changed on the map

Now you can proceed to starting the route execution.

Step 6.3: Starting, Completing, and Closing the Route Appointment

Route execution statuses keep managers informed about the route service delivery. The system changes the statuses based on user actions. A route execution normally has the following statuses, which are displayed on the Route Document Details form (FS304000):

1. *Open*: The route execution has been created and can be populated with route appointments. The system assigns this default status when you create a new route execution.
2. *In Process*: The route execution has been started; the driver can process the route appointments.
3. *Completed*: The driver has finished all the activities related to the route. The route execution document with this status can be reopened or closed.
4. *Closed*: The manager has reviewed the record and confirmed that everything has been done. All administrative activities for this route document are over. The route execution document cannot be edited when it has this status. If needed, you can unclose the route execution.

In this step, on behalf of the assigned staff member (Joseph Becher), you will start the route execution, attend the appointments and enter the actual time and date the appointments have been carried out, and complete the execution of a route. Also, you will learn how to close the appointment on behalf of the manager. (To ease the training process, you will not log out and log in as each involved employee. In production, however, the drivers are supposed to start and complete route executions assigned to them.)

You will perform the following tasks, which are described in detail in the following sections:

1. *Start* the *000001* route execution
2. *Complete* the *000001* route execution
3. *Close* the *000001* route execution

1. Starting the Route Execution

To start the route execution, perform the following instructions:

1. Open the Route Document Worksheets form (FS403900; Service > Route Management > Work Area > Enter).
2. Set business date to the next Tuesday.

   The **From** and **To** boxes are now displaying next Tuesday.
3. In the **Driver** box, select *EP000000004 (Joseph Becher)*.

   You are now shown all routes assigned to the selected driver for the next Tuesday.
4. Click the *00001* link to open the Route Document Details form (FS304000).
5. On the form toolbar, click **Actions > Start Route**, as shown in the following screenshot.

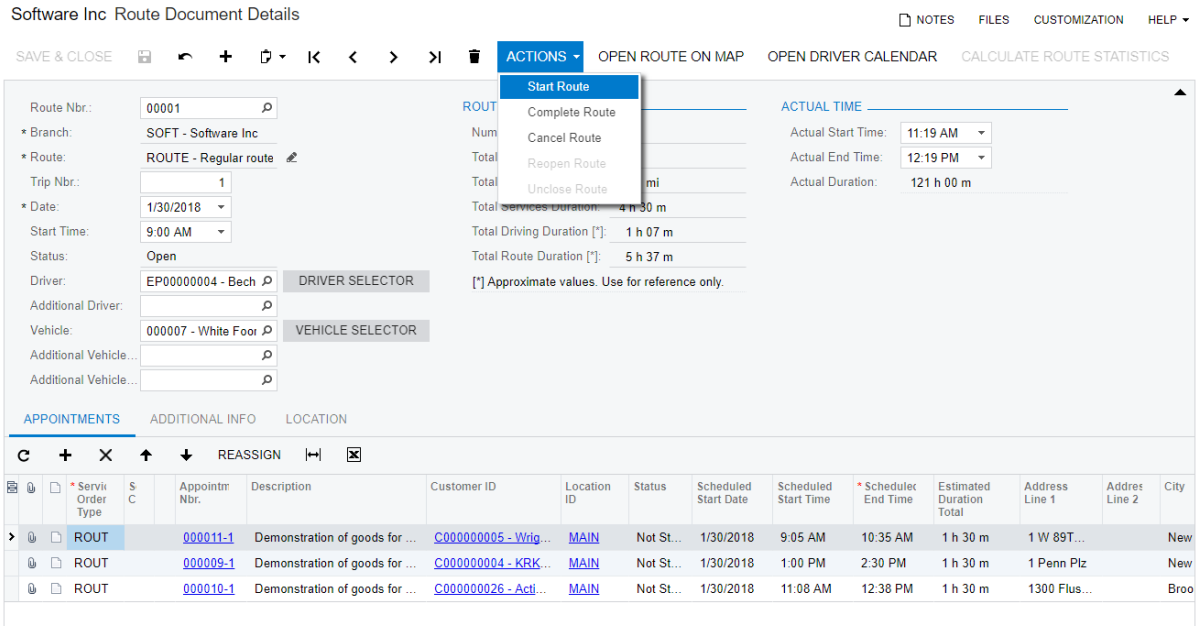


Figure: Start Route menu command

Notice that the **Actual Start Time** value is set to the current date and time.

2. Completing the Route execution

To complete the route execution, do the following:

1. While you are still viewing the *00001* route execution document on the Route Document Details form, on the **Appointments** tab, click the first assigned appointment (000011-1).

   The system brings up the Appointments form (FS300200).

2. On the form toolbar, click **Actions > Start Appointment**.
3. In the **Actual Date and Time** area, leave the default value in the **Actual End Time** box.
4. On the form toolbar, click **Actions > Complete Appointment**.
5. Close the Appointments form and return to Route Document Details form.
6. Refresh the form and verify that the status of the 000011-1 appointment has changed to *Completed*, as you can see in the following screenshot.

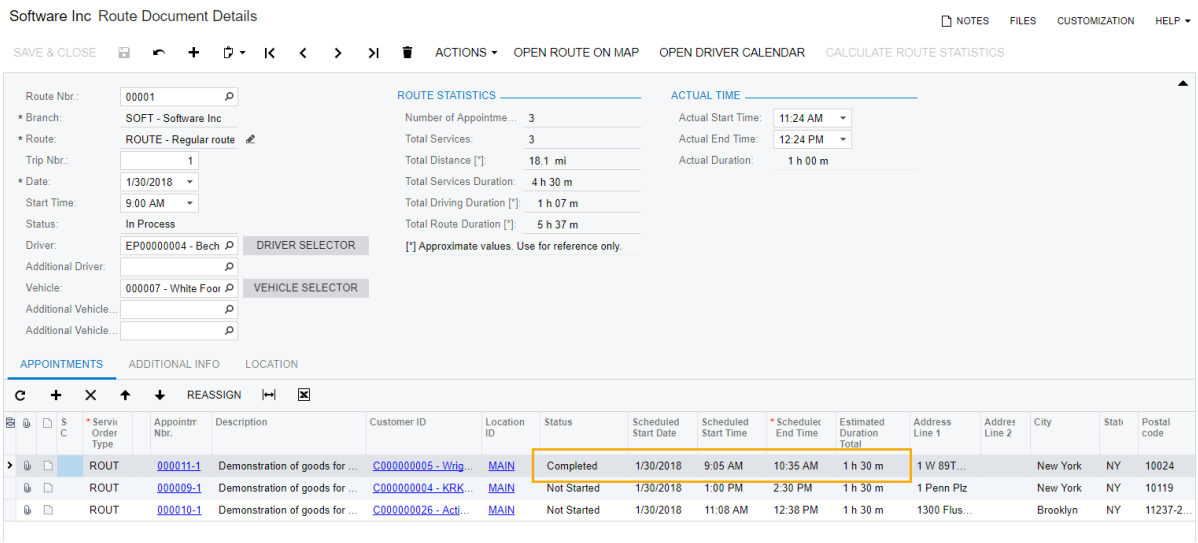


Figure: Completed appointment

7. Repeat instructions 1–5 to complete the 000009-1 and 000010-1 appointments (see the following screenshot).

Now you can complete the route execution (before the related appointments are not completed, you cannot complete the route).

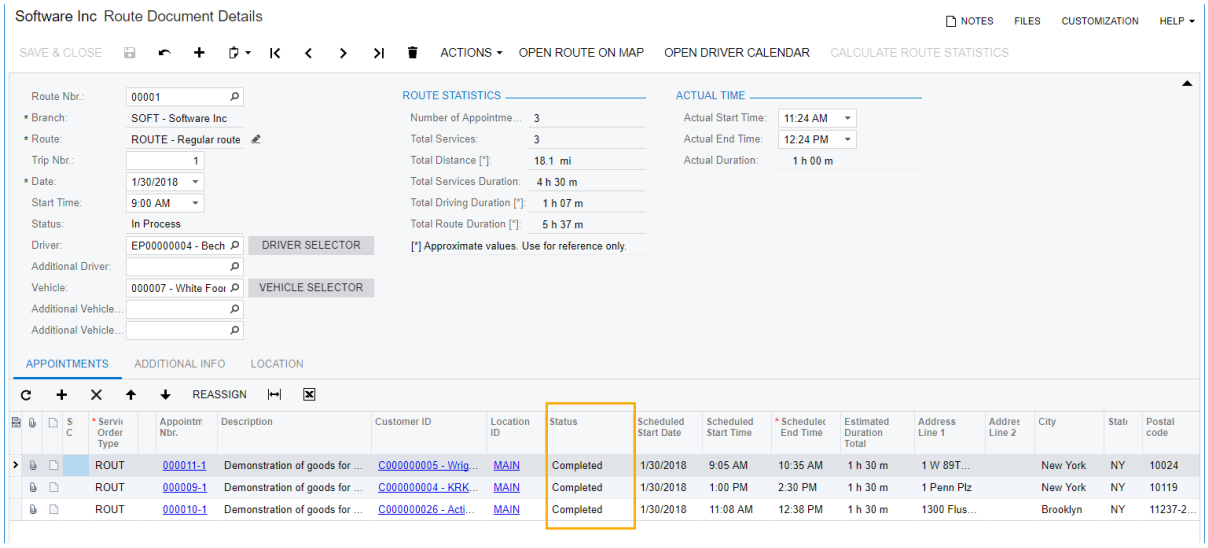


Figure: All completed appointments of the route execution document

8. On the form toolbar, click **Actions > Complete Route**.

The status of the route execution document gets *Completed*, as shown in the following screenshot.

You can also complete one or many route execution documents at a time on the Complete Routes form (FS500700).

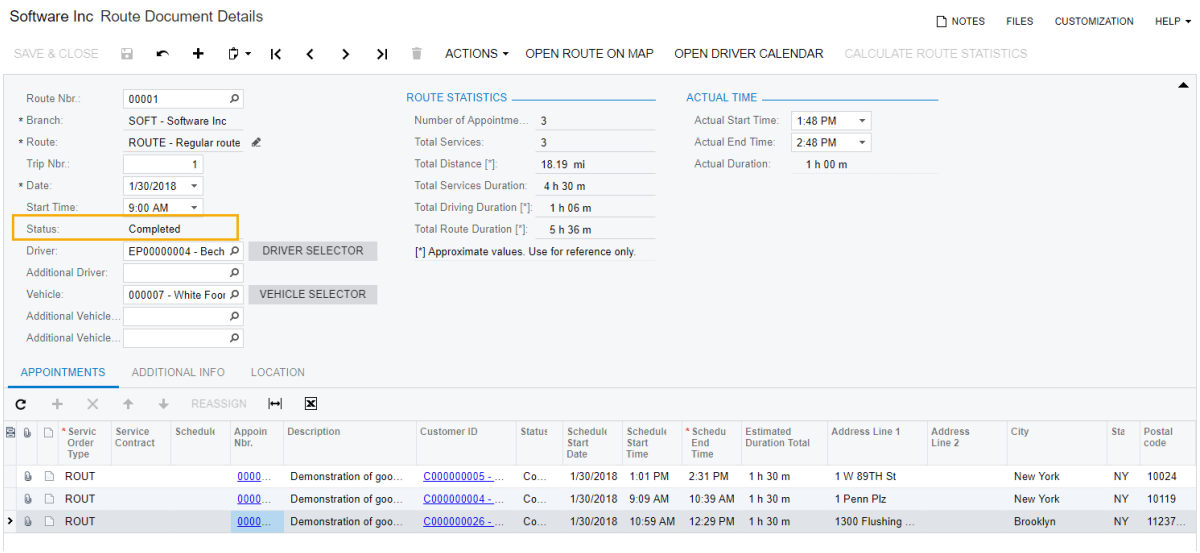


Figure: Completed status of the route execution document

3. Closing the Route Execution Documents

To close the route execution document, perform the following instructions:

1. Open the Close Routes form (FS500800; Service > Processes > Process).

   This form displays only completed or closed (or both) route execution documents, depending on the settings in the form Summary area.

2. In the table of route execution documents, select the line with the *00001* reference number.

3. On the form toolbar, click **Process**.

   Notice that the route execution status has been changed to *Closed* (as shown in the following screenshot), reflecting that the document is closed; the document details cannot be edited.

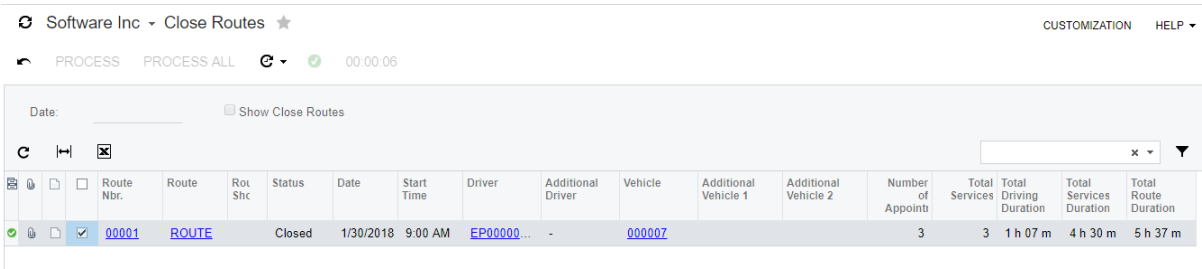


Figure: Closed route

You can now proceed to generating invoices for this appointments.

Step 6.4: Generating Invoices for the Route Appointments

In Acumatica ERP, you can generate an invoice for completed or closed appointments, depending on the service order type settings. Once the appointments get the *Closed* (or *Completed*) status, you can bill the customer for the services delivered in these appointments.

In this step, you will generate an invoice for the *000009-1*,*000010-1*, and *000011-1* appointments, which were completed and closed in the previous step. Based on the settings of service order type of the appointments (created in step 5.3), the invoice will be generated in the Accounts Receivable module, and the appointments should be closed.

To generate the invoices for the appointments, perform the following instructions:

1. Open the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes> Recurring).

   This form displays only completed or closed (or both) appointments, depending on the setting in the service order type of each appointment. That is, it shows only appointments for which invoices can be generated.

2. Make sure *Accounts Receivable and/or Accounts Payable* is selected in the **Generate Invoices In** box, as shown in the following screenshot.

   This setting defines the appointments to be displayed. The *ROUT* service order type, which you have selected for route appointments *000009-1*, *000010-1*, and *000011-1*, defines that the invoice will be generated in the Accounts Receivable module.

3. In the **Up to Date** box, select next Tuesday, as shown in the following screenshot.

   This date is already selected if you have changed the business date to next Tuesday.

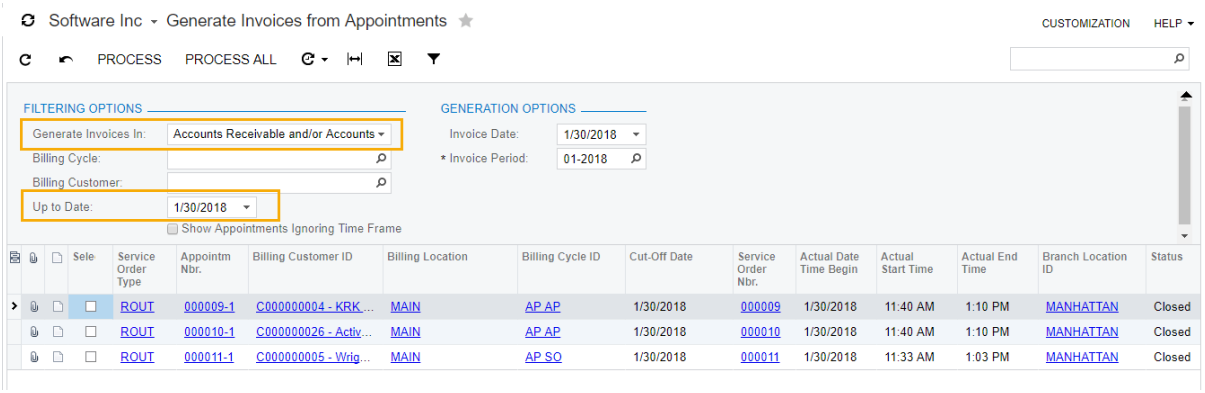


Figure: Closed route appointments

4. On the form toolbar, click **Process All**.

   Invoices has been generated in the Accounts Receivable module for your appointments (as shown in the following screenshot).

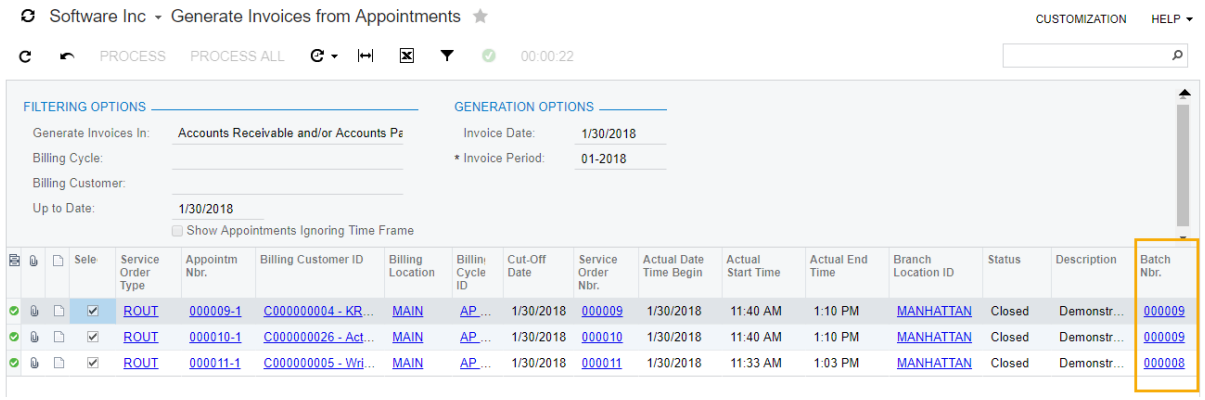


Figure: The generated invoices

Step 6.5: Configuring Updates to the Inventory Module

Before you start execution of routes that involve moving inventory items from and to warehouses, you need to configure the system and the services to make the applicable updates to the Inventory module.

In this step, you modify the service order type with the *Route* behavior, and specify required settings in the Inventory module preferences.

Perform the following instructions:

1. On the Service Order Types form (FS202300; Service > Service Management > Configuration > Setup), in the **Service Order Type** box, select *ROUT*.
2. On the **Preferences** tab, select the **Post Pickup/Delivery Items to Inventory** check box, as shown in the following screenshot.

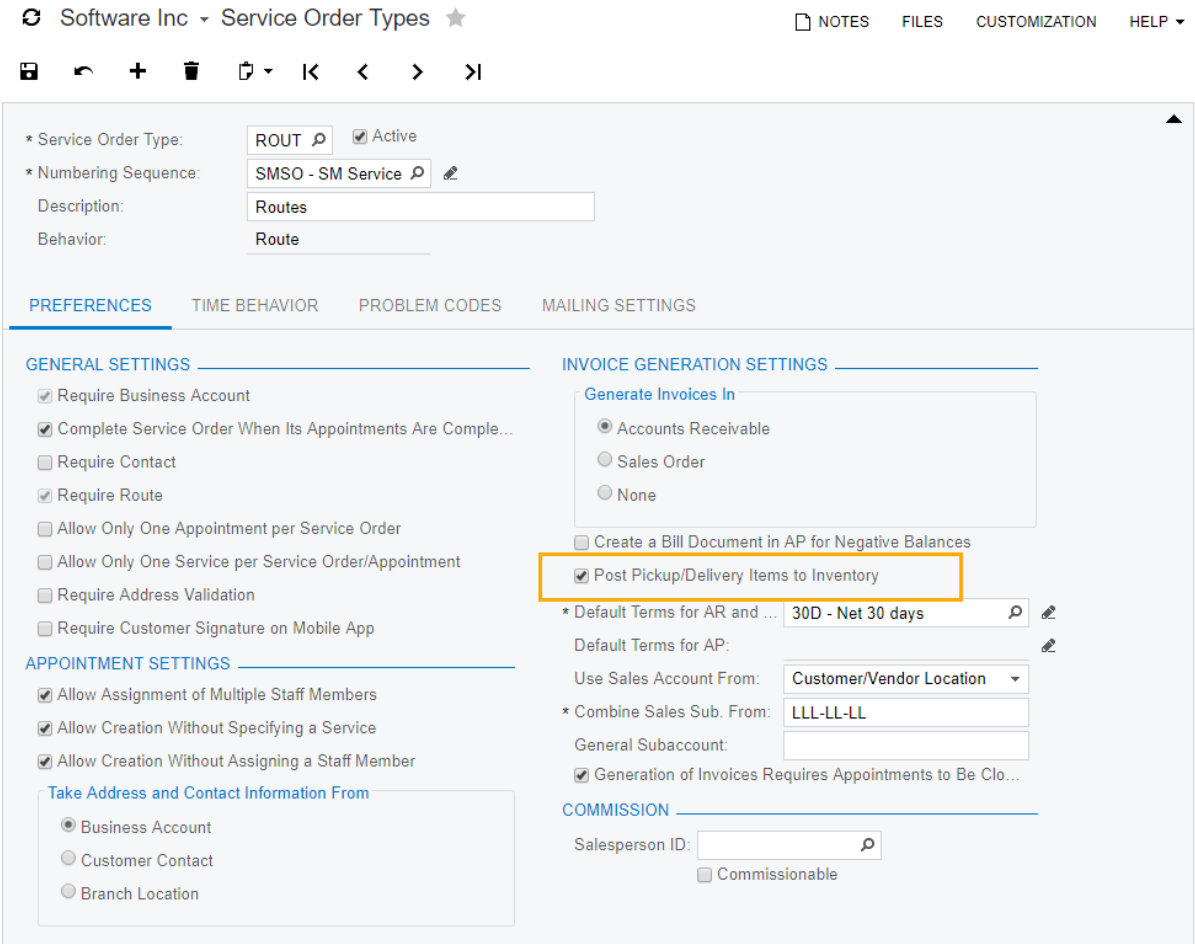


Figure: Modification of the route service order type

3. Save your changes.
4. Open the Inventory Preferences form (IN101000; Distribution > Inventory > Configuration > Setup) and clear the **Validate Document Totals on Entry** check box, as shown in the following screenshot.

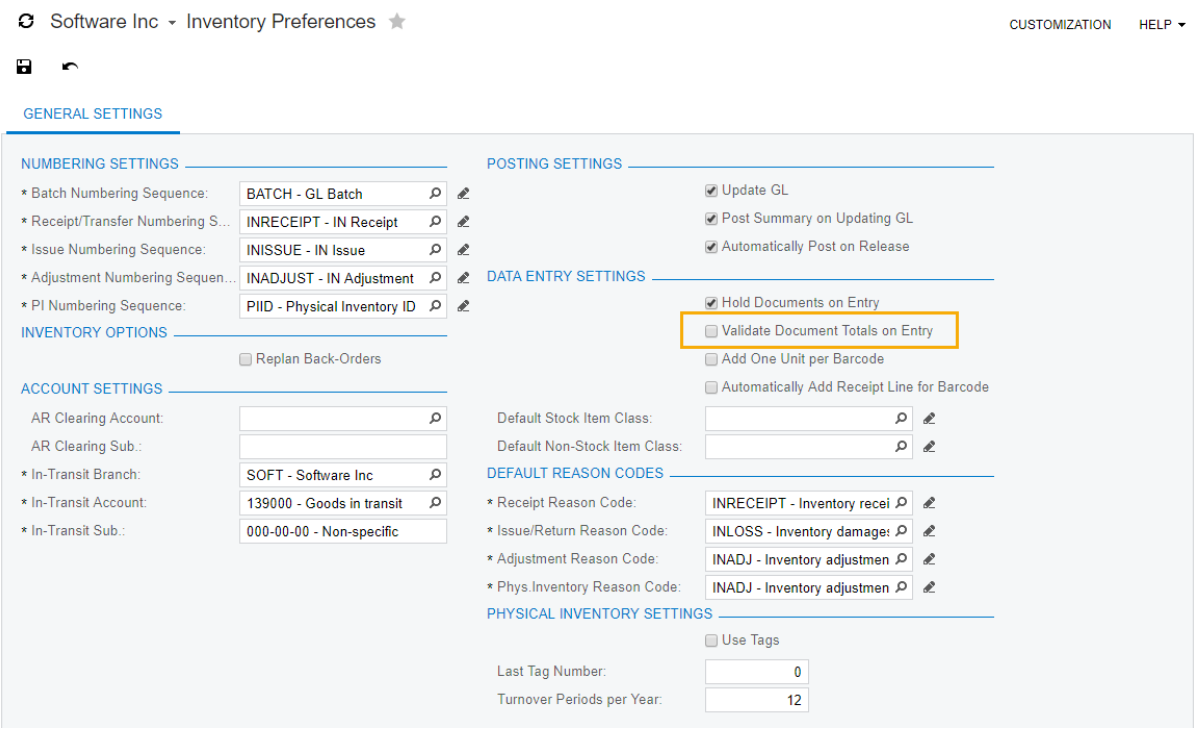


Figure: Inventory preferences

5. Save your changes.

Now you can proceed to creating route services that involve transferred inventory items.

Step 6.6: Creating Pickup and Delivery Route Services

In this step, you will create two route services: delivery of office supplies (*SUPP OFFIC*) and pickup of used toner (*PICK TONER*).

Perform the following instructions:

1. On the Services form (FS400800; Service > Service Management > Work Area > Manage), click **Add New Record**.
2. In the **Enter Keys** dialog box, which the system has opened, in the **Value** column, type `SUPP OFFIC`, and click **Finish**.

   The Non-Stock Items form (IN202000) opens.
3. In the **Description** box, type `Delivery of office supplies`.
4. On the **General Settings** tab (**Item Defaults** section), select *ROUTE* as the **Item Class**.

   The **Tax Category**, **Posting Class**, and **Default Warehouse** boxes, as well as those in the **Unit of Measure** section, have been populated with the values from the selected item class.
5. On the **Price/Cost Information** tab, set **Default Price** to `15`.
6. On the **Service Management** tab, in the **Estimated Duration** box, type `30 min`.

   Notice that the **Route Service** check box is already selected and unavailable, as shown in the following screenshot.

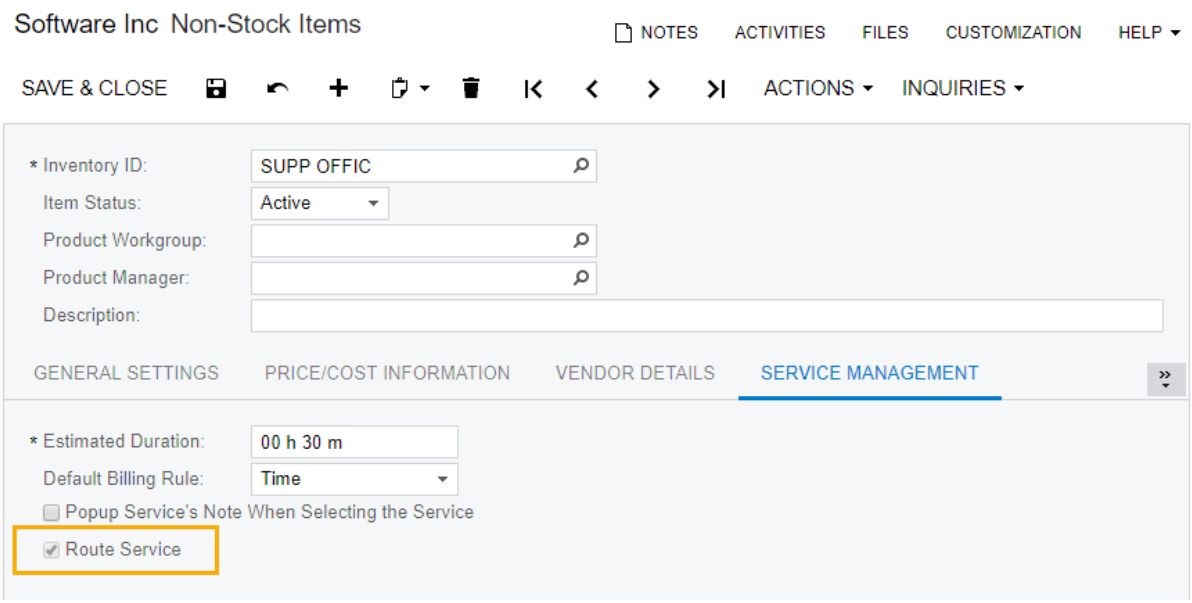


Figure: Process of creating route service

7. On the **Pickup/Delivery Item** tab, in the **Pickup/Delivery Items** box select *Items Will Be Delivered*, as shown in the following screenshot.
8. On the table toolbar, click **Add Row** and select *PAPERBLOCK* in the **Pickup/Delivery Item ID** box to add this stock item. Repeat this step to add the *PEN BOX* stock item. (Again see the following screenshot.)

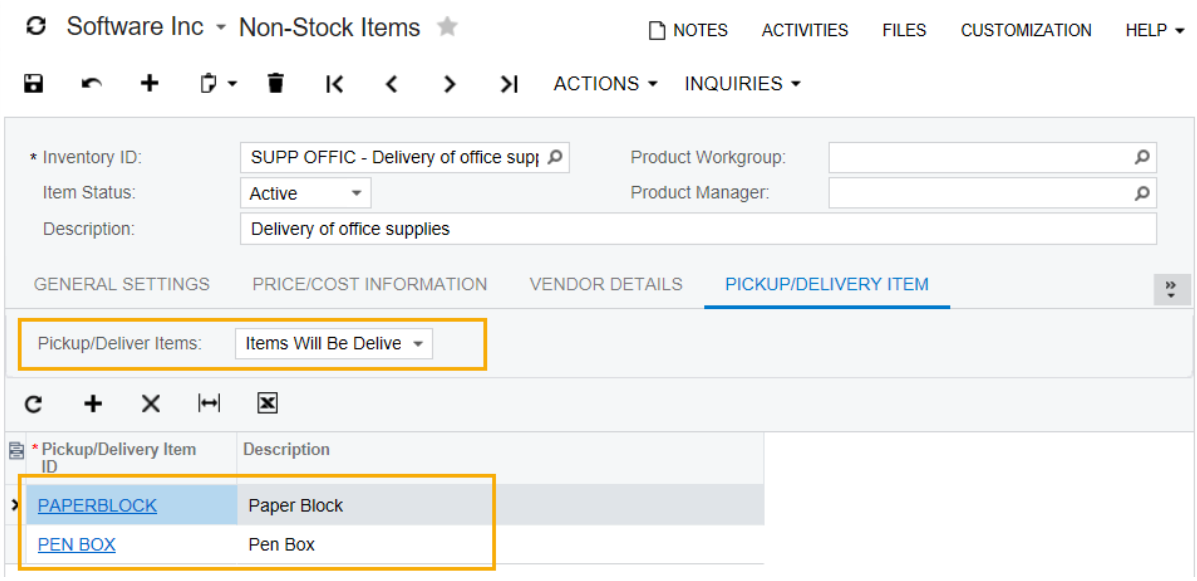


Figure: New route service

9. Save your changes.
10. On the form toolbar, click **Add New Record** to create another non-stock item, and specify the following settings:
    - **Inventory ID**: `PICK TONER`
    - **Item Status**: *Active*
    - **Description**: `Pickup Used Toner`
11. On the **General Settings** tab (**Item Defaults** section), select *ROUTE* as the **Item Class**.
12. On the **Price/Cost Information** tab, leave **Default Price** set to *0*.
13. On the **Service Management** tab, in the **Estimated Duration** box, type *30 min*.
14. On the **Pickup/Delivery Item** tab, in the **Pickup/Delivery Items** box select *Items Will Be Picked Up*, as shown in the following screenshot.
15. On the table toolbar, click **Add Row**, and in the **Pickup/Delivery Item ID** column, select *USED TONER*.

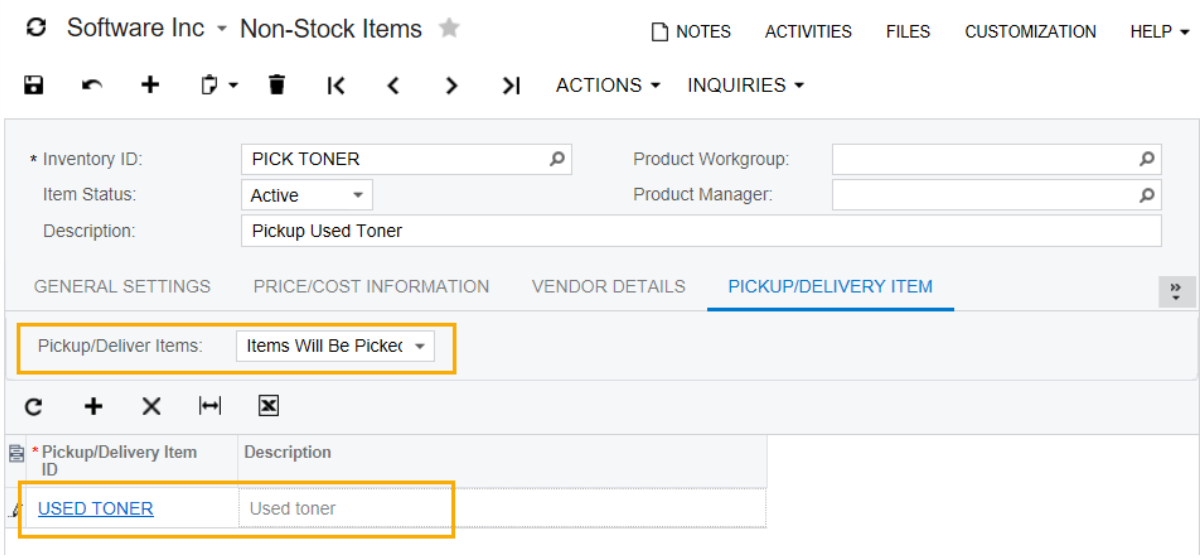


Figure: New route service

16. Click **Save&Close**.

17. Return to the Services form and review the created route services (see the following screenshot).

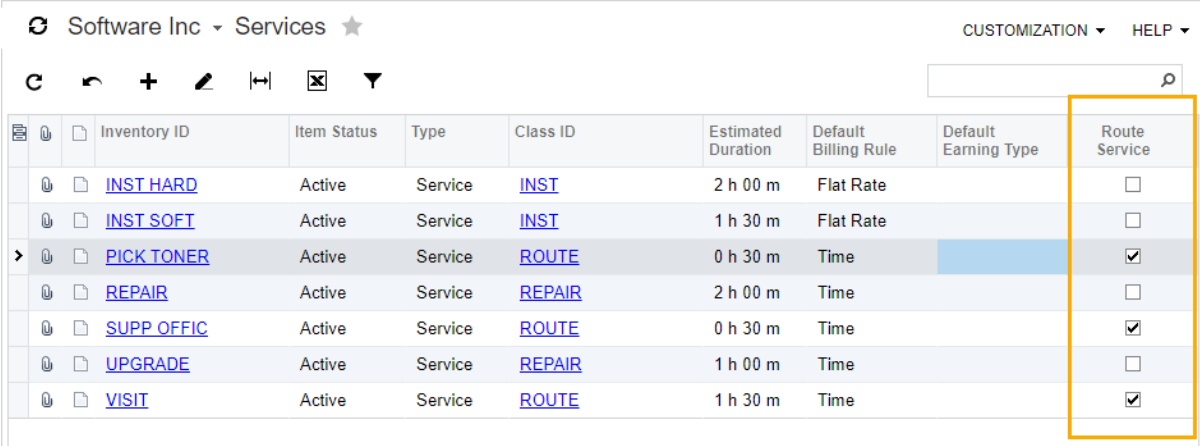


Figure: Created services

18. On the Inventory Summary form (IN401000; Distribution > Inventory > Work Area > Explorer), select *PAPERBLOCK* in the **Inventory ID** box and *MAIN* in the **Warehouse** box to ensure that the items you plan to deliver are available in the *MAIN* warehouse (see the following screenshot). Repeat this step for the *PEN BOX* stock item.

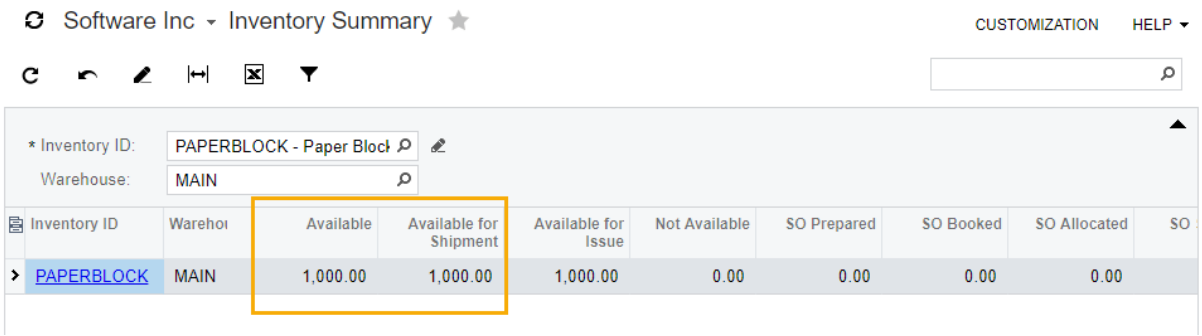


Figure: Availability of stock item

Now you can proceed to creating route execution documents and adding the delivery and pickup services to route appointments.

Step 6.7: Processing Pickup and Delivery Route Services

In this step, you will create a route execution with an appointment which is scheduled to deliver office supplies. For the route appointment, you will select the *SUPP OFFIC* service and specify that you transfer 10 pieces of *PAPERBLOCK* and 20 pieces of *PEN BOX*.

Perform the following instructions:

1. On the Route Document Details form (FS304000; Service > Service Management > Work Area > Enter), create a new route execution with the following settings in the Summary area, and save your changes (as you can see in the following screenshot):
   - **Route**: *ROUTE*
   - **Date**: Select next Wednesday.

     If you select next Tuesday and try to save, you will receive an error. This is because the maximum number of trips per day for the selected route (*ROUTE*) is set to 1 by default. You can update the maximum number of trips per day on the **Execution Days** tab of the Routes form (FS203700).
   - **Driver**: *EP00000003 (Layla Beauvoir)*
   - **Vehicle**: *000007 (White Foord)*

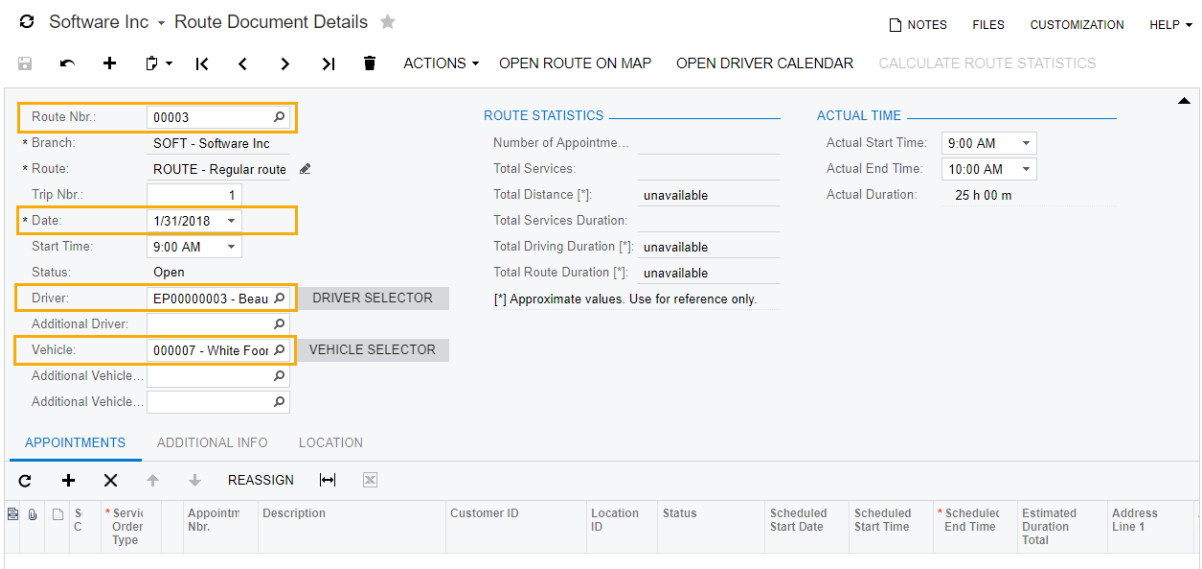


Figure: New route execution document

   The route execution document with reference number *000003* is created.

2. On the **Appointments** tab, click **Add Row** on the table toolbar.
3. In the dialog that opens, select *ROUT* and click **Proceed**.

   This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.
4. Specify the following settings for the new appointment and save the changes:
   - **Customer**: *C00000004 (KRK Consulting Service)*
   - **Branch Location**: *MANHATTAN*
   - **Description**: `Office supplies delivery`
5. On the **Services** toolbar, click **Add Row**, add the *SUPP OFFIC* service to the appointment and save the changes (see the following screenshot).

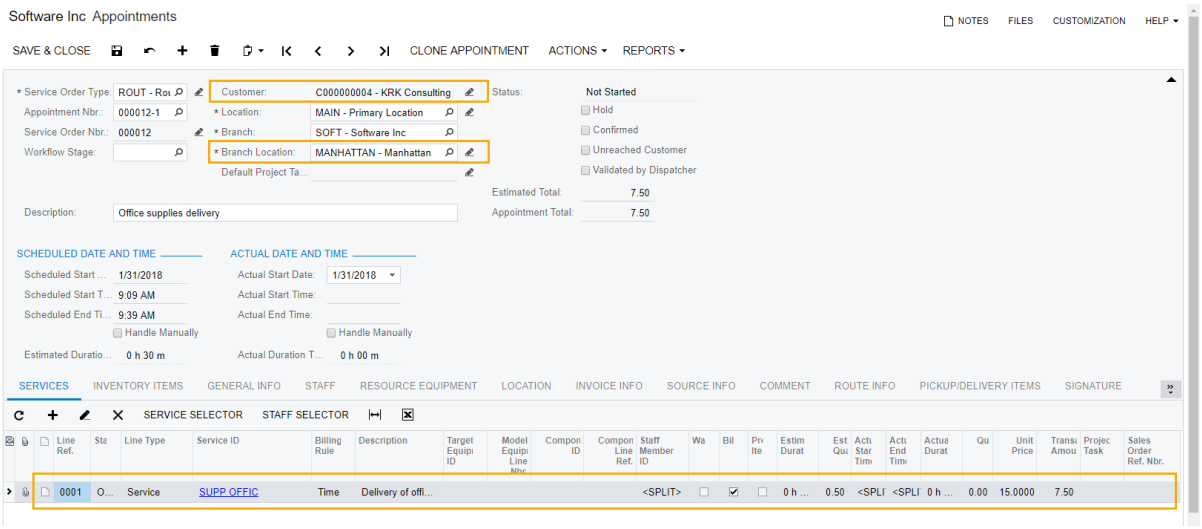


Figure: Creation of the route appointment

6. On the **Pickup/Delivery Items** tab, click **Add Row**, and add the line with the following settings:

- **Service ID**: *SUPP OFFIC*
- **Pickup/Delivery Item ID**: *PAPERBLOCK*

  In this column, you can select only those stock items, which you have specified for the selected route service on the **Pickup/Delivery Item** tab of the Non-Stock Items form (IN202000).

- **Quantity**: 10

7. Again click **Add Row** and add the line with the following settings (see the following screenshot):

- **Service ID**: *SUPP OFFIC*
- **Pickup/Delivery Item ID**: *PEN BOX*
- **Quantity**: 20

Notice that the **Appointment Total** in the Summary area displays the total amount due for the delivery service and for the items to be delivered.

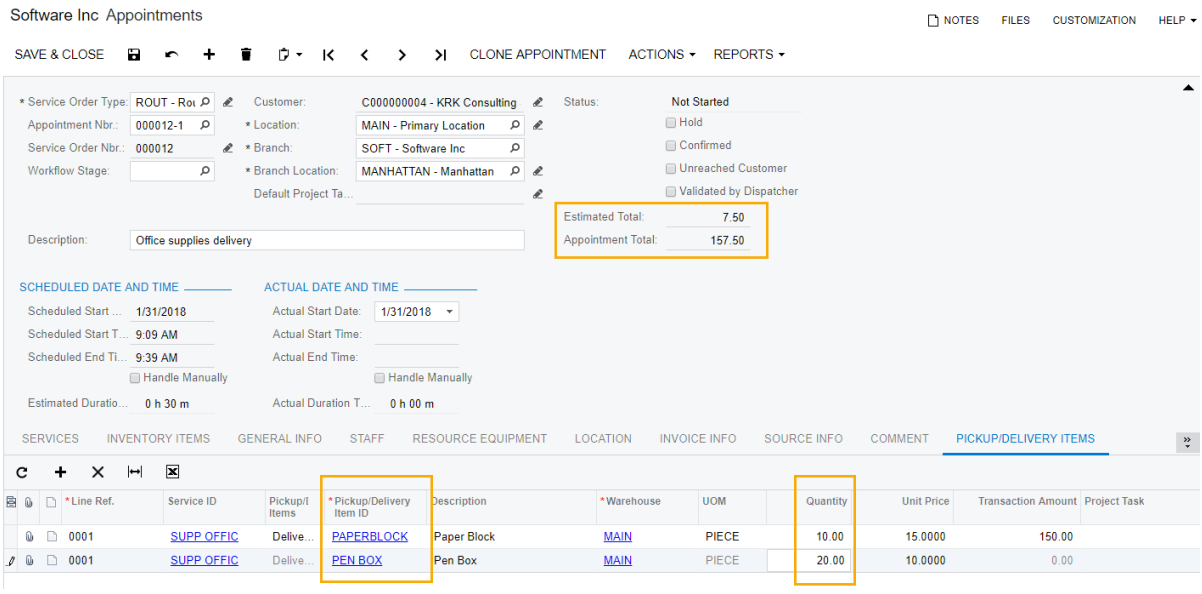


Figure: Stock items added to route appointment

8. Click **Save&Close** and return to the Route Document Details form.

   (For the purposes of this exercise, you are now acting as Layla Beauvoir performing the route execution and arriving at the appointment).

9. Set the business date to next Wednesday.

10. On the form toolbar, click **Actions > Start Route**.

11. On the **Appointments** tab, click the *000012-1* link to open the Appointments form (FS300200).

12. On the form toolbar, click **Actions > Start Appointment**.

13. Leave the default values for the appointment and then click **Actions > Complete Appointment**, then **Actions > Close Appointment**.

14. Close the Appointments form and on the Route Document Details form, click **Actions > Complete Route**.

    Now you can generate the inventory documents to reflect the movement of the items. You can generate this documents for the multiple route executions at one operation on the Inventory Updates form (FS304000; Service > Route Management > Processes > Recurring). If items have been delivered to the customer from the warehouse, the system generates inventory documents of the *Issue* type. If items have been picked up from the customer and delivered to the warehouse, the system generates inventory documents of the *Receipt* type, and you further can process the documents in the Inventory module.

    After the Inventory is updated, you can close the corresponding route execution document.

Related Links

Inventory Update

Lesson Summary

In this lesson, you have learned how to create route execution documents in Acumatica ERP, and how to view the created routes on a map. You have also processed the route execution from creation to generating invoices for the customers.

Review Questions:

- On which form of Acumatica ERP do you create route execution documents?
- On which form of Acumatica ERP do you create route appointments? Is it possible to create a route appointment on the Appointments form (FS300200).
- If you are going to provide delivery and pickup services, what is the additional configuration of the system?

Lesson 7: Route Service Contracts

In Acumatica ERP, you can create route executions in the following ways:

- If your company performs services for the customer rarely or you have no contract that defines the details of the services provided, you can create route execution documents manually.
- If your company regularly performs route services for a customer on a contract basis, you enter a contract in the Route Management module and set it up so that routes can be generated.

You have already learned how to create route execution documents manually, and in this lesson, you will learn about route service contracts. A *route service contract* represents a document that contains information on the predefined services that are going to be performed at the predefined frequency, according to the agreement between the customer and the company.

In this lesson, you will about creation of route service contracts, their schedules, and the generation of appointments for the contracts.

Lesson Objectives

You will do the following:

- Create a route
- Create a route service contract
- Create a schedule for the route service contract
- Setup the order in which appointments for the route will be generated
- Generate appointments for the service contract
- Find the generated route execution documents in the system and assign drivers and vehicles

Step 7.1: Creating Route Service Contracts

With a route service contract, which is based on the agreement between the customer and the company, the predefined route services are performed at the predefined frequency. In the system, a route service contract contains basic information—such as the customer, customer location, and dates—and the schedule or schedules associated with the contract. A route contract schedule defines the route service (or services), inventory items, and other settings that the generated appointments of route executions will have. It also specifies the recurrence of the generation.

After the contract and its schedules have been created, route appointments based on their settings can be generated and processed as usual.

In general, the processing of a route service contract consists of the following stages:

1. Entering the route service contract: The scheduler or service manager enters the route service contract into the system.
2. Creating the schedule: The scheduler creates the schedule (or schedules) for service delivery for the route contract.
3. Checking and editing (if necessary) the order in which appointments for a contract will be generated in the route execution.
4. Generating the appointments on the route: The scheduler generates appointments.

In this step, you will create a contract for the existing customer *C00000004 (KRK Consulting Services)*. The customer requires weekly appointments on Fridays of each week for one year, starting next week. The service to be performed is the *PICK TONER* service. Another customer—*C000000005 (Wright Corner)* requires weekly delivery of office supplies (the *SUPP OFFIC* service). The scheduler will generate schedules every week.

Perform the following instructions:

1. On the Routes form (FS203700; Service > Route Management > Work Area > Manage), create a new route with the following settings:
   - **Route ID**: `FR-ROUTE`
   - **Description**: `Friday route NY`
2. Under **Start Location**, in the **Branch Location** box, select *MANHATTAN*.
3. Under **End Location**, in the **Branch Location** box, select *MANHATTAN*.
4. On the **Execution Days** tab, select the check box next to *Friday* and leave other check boxes cleared.
5. In the **Start Time** box of the selected day of week, select 09:00 AM.
6. On the **Route Employees** tab, add two rows with the following settings in the **Employee ID** box, as shown in the following screenshot:
   - *EP00000001 (Michael Andrews)*
   - *EP00000002 (Maxwell Baker)*

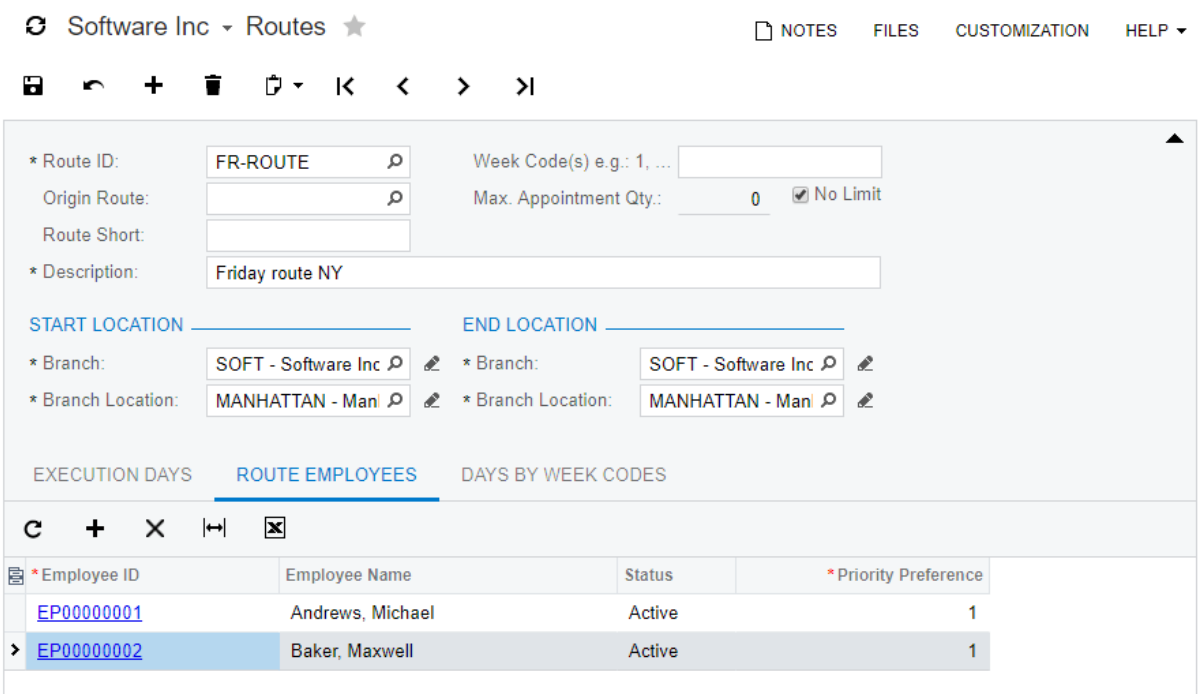


Figure: Process of creating the route

7. Save your changes.

8. On the Route Service Contracts form (FS305700; Service > Route Management > Work Area > Enter), create a new contract, specify the following settings (see the following screenshot), and save your changes:

- **Customer ID**: *C000000004 (KRK Consulting Service)*
- **Description**: `Toner Pickup`
- **Branch Location**: *MANHATTAN*
- **Start Date**: The first Monday after today
- **Enable Expiration Date**: Selected
- **Expiration Date**: One year from the start date

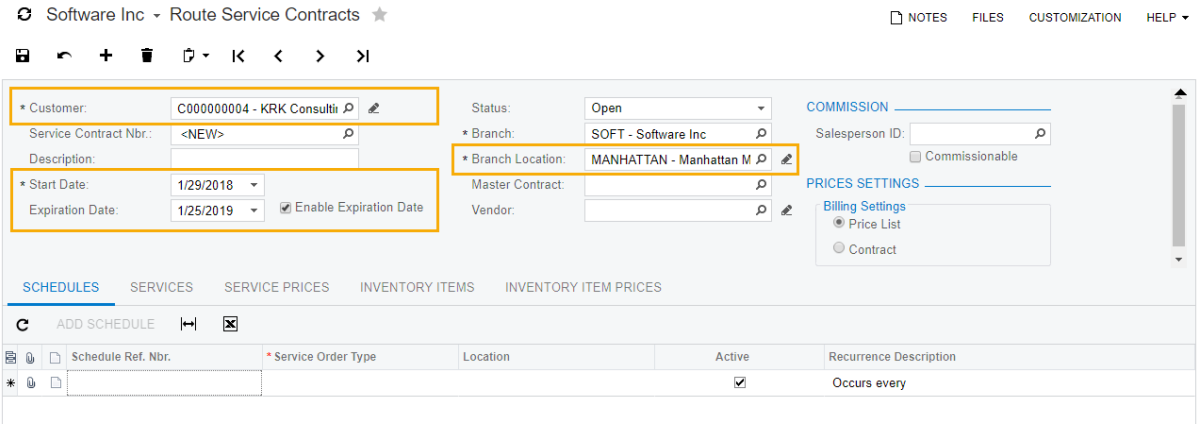


Figure: The new service contract

Now that you have created the service contract, you have to define the schedule of work for this contract.

9. On the table toolbar of the **Schedules** tab, click **Add Schedule**.

10. In the Route Service Contract Schedules form (FS305600), which the system has opened, create a new schedule, and do the following (see the screenshot below):

- In the **Service Order Type** box, select *ROUT*.
- On the **Services** tab, add a service line, and specify *PICK TONER* as the **Service ID**.
- On the **Recurrence** tab, under **Frequency Type**, select **Weekly**, and do the following:
  - Leave **Every** *1* **Week(s)**.
  - Select the **Friday** check box.
  - Leave the remaining weekdays cleared.
- On the **Route** tab, select *FR-ROUTE* as **Route ID**.

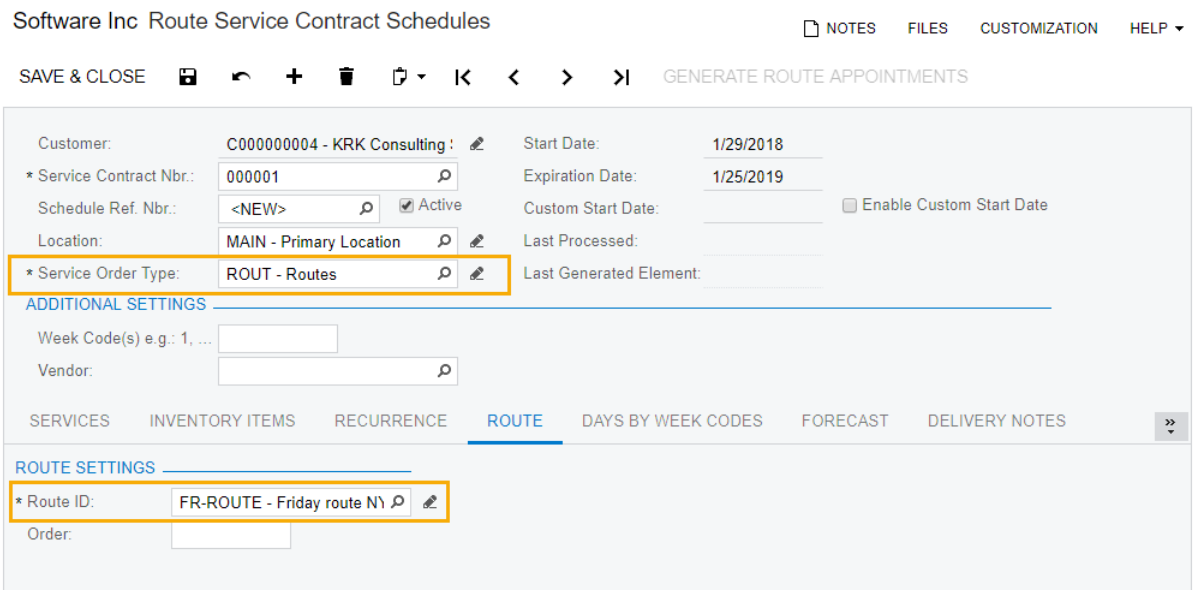


Figure: The new contract schedule

11. On the form toolbar, click **Save & Close**.

The system has created the schedule and added it to the route service contract (as shown in the following screenshot). The reference number for the schedule is based on the reference number of the related service contract and the sequence number of the schedule created for this route service contract (*1* for the first schedule, *2* for the second, and so on).

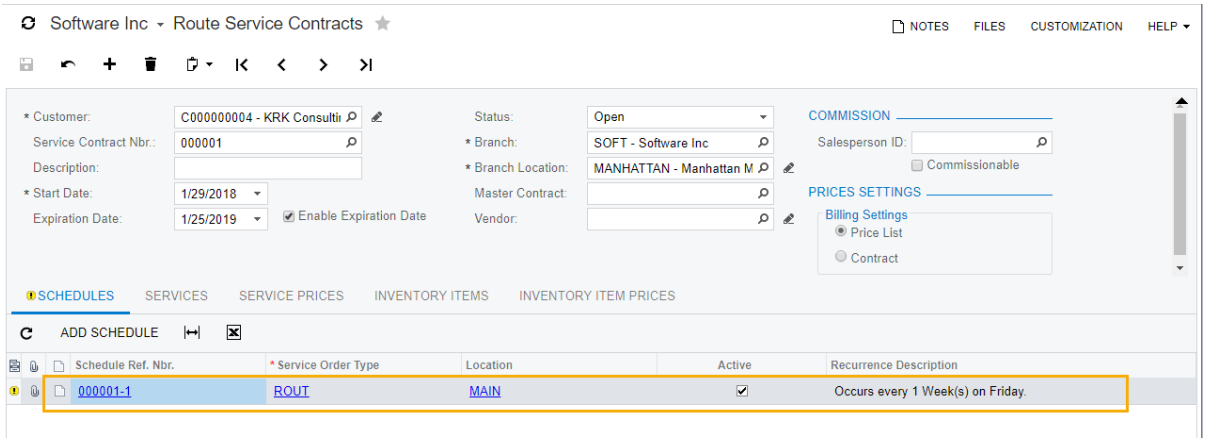


Figure: The schedule for the contract

As with the staff schedules and service contract schedules, the created route service contract schedule does not affect the system until a generation process takes place. That is, no route appointments are automatically generated until you do this. If you change the existing schedule, new route appointments are not automatically generated either.

12. On the toolbar, click **Add New Record** to create another new contract, specify the following settings (see the following screenshot), and save your changes:

- **Customer ID**: *C000000005 (Wright Corner)*
- **Description**: `Office supply`
- **Branch Location**: *MANHATTAN*
- **Start Date**: The first Monday after today
- **Enable Expiration Date**: Selected
- **Expiration Date**: One year from the start date

13. On the table toolbar of the **Schedules** tab, click **Add Schedule**.

14. In the Route Service Contract Schedules form (FS305600), which the system has opened, create a new schedule, and do the following (see the screenshot below):

- In the **Service Order Type** box, select *ROUT*.
- On the **Services** tab, add a service line, and specify *SUPP OFFIC* as the **Service ID**.
- On the **Recurrence** tab, under **Frequency Type**, select **Weekly**, and do the following:
  - Leave **Every** *1* **Week(s)**.
  - Select the **Friday** check box.
  - Leave the remaining weekdays cleared.
- On the **Route** tab, select *FR-ROUTE* as **Route ID**.

15. On the form toolbar, click **Save & Close**.

Now you can proceed to setting up the route order.

Step 7.2: Setting Route Order

You can view and change the default order in which customers will be visited on a particular route. When you create a route service schedule, the system automatically assigns it a sequence number on the **Routes** tab of the Route Service Contract Schedules form (FS305600). This number looks like 00010, 00020, 00030 and represents the default sequence of the appointment within the route, which you can change.

In this step, you will change the order in which the customers will be visited for the *FR-ROUTE* route definition.

Perform the following instructions:

1. On the Route Sequences form (FS203700; Service > Route Management > Work Area > Manage), select the following route:

   - **Route ID**: `FR-ROUTE`

   For the selected route definition, the system shows the sequence in which the appointments will be generated (see the following screenshot).

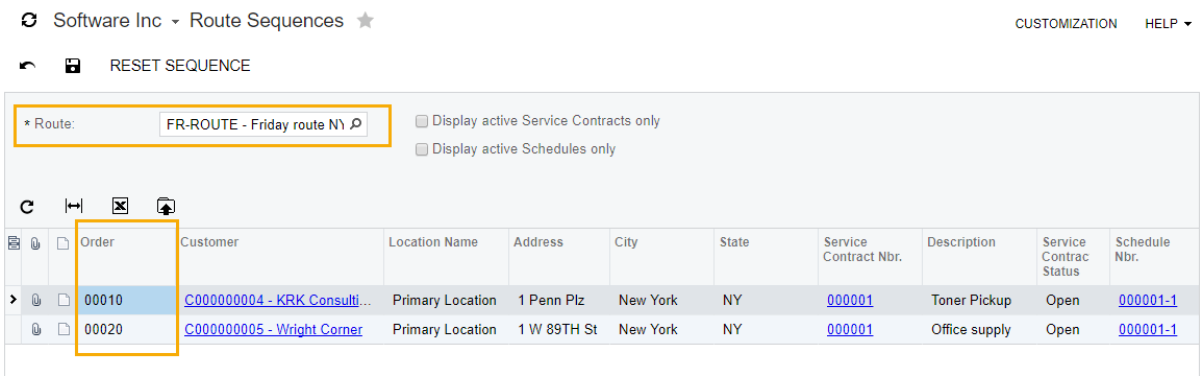


Figure: Route sequence

2. In the **Order** column, type `00005` in the line with the *C000000005* customer.

3. Save your changes.

   The order is changed, as shown in the following screenshot.

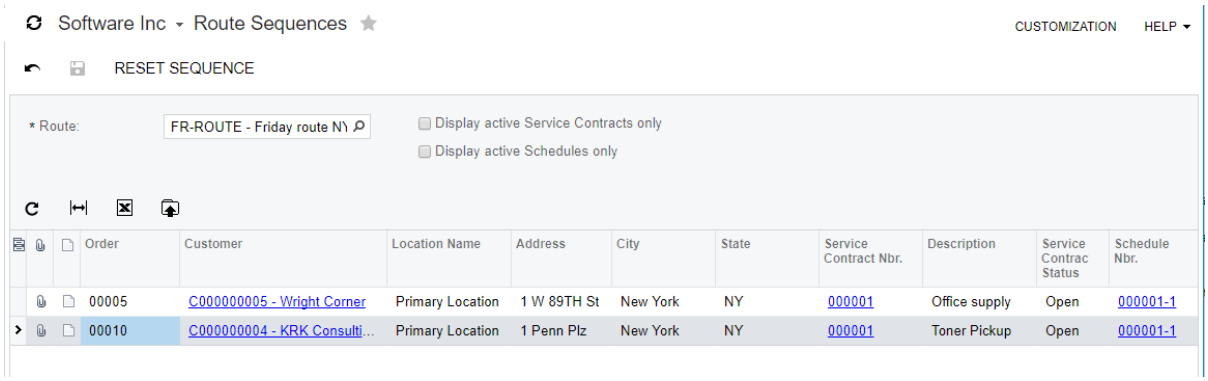


Figure: Updated sequence

4. On the toolbar, click **Reset Sequence**.

   The order numbers have been updated with default ones but kept the specified order (see the following screenshot).

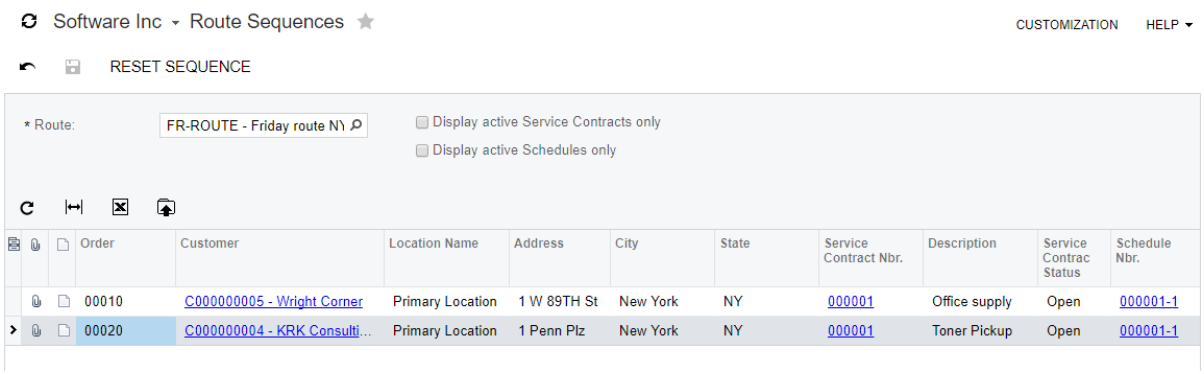


Figure: Updated order numbers

Step 7.3: Generating Route Appointments

In Acumatica ERP, the next step of processing a route service contract is generating the route appointments. You can generate route appointments manually or create an automation schedule to generate them.

To generate route appointments from the route service contract, perform the following instructions:

1. Open the Route Sequences form (FS500300; Service > Route Management > Processes > Recurring) and specify the following settings, as shown in the screenshot below:
   - **Route**: *FR-ROUTE*
   - **Generate Up to**: Two Sundays from the current date

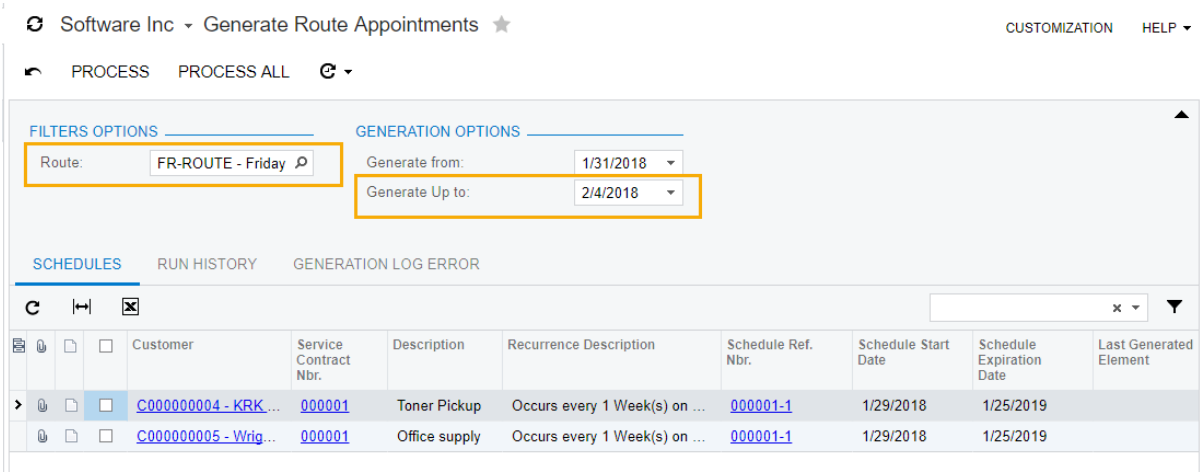


Figure: Route service contract schedules that match the specified criteria

2. On the form toolbar, click **Process All**.

   Wait for the generation process to complete. The system has generated the corresponding route appointments (one for each customer for the scheduled days of the week, Friday), and they can be found in the system.

   a. Click the **Run History** tab and view the history of generated service orders and appointments, including the date until which the service orders or appointments are generated (as shown in the following screenshot).

   If you have accidentally generated the wrong service orders or appointments, you can cancel the last generation process by clicking the **Roll Back Latest Generation Process** button.

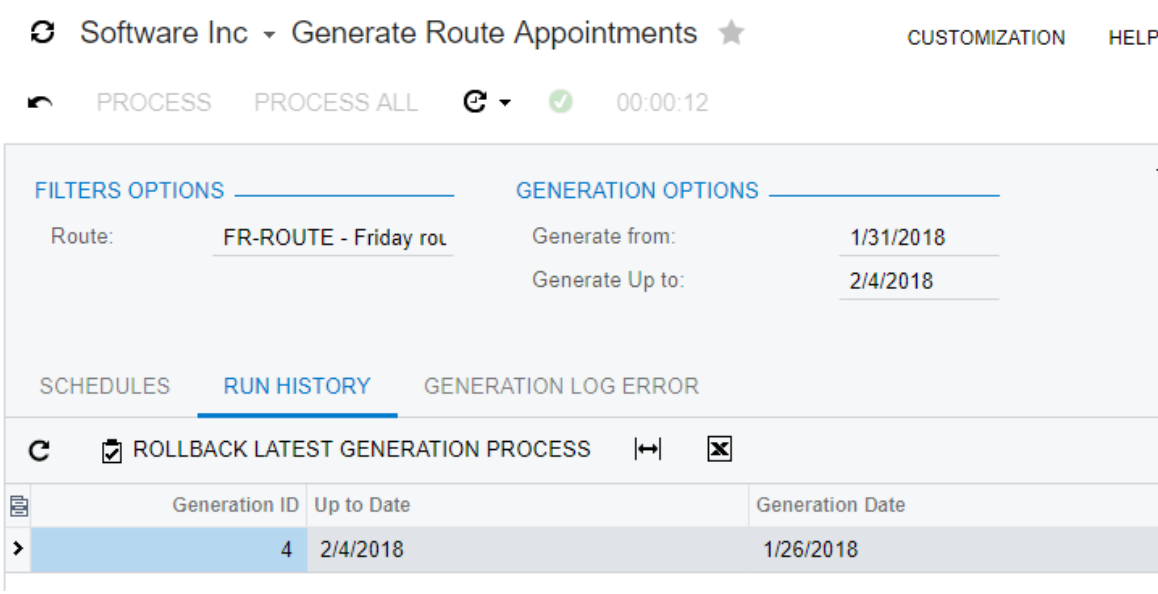


Figure: Route appointments generation history

Step 7.4: Assigning Drivers and Vehicles

In Acumatica ERP, the next step of route execution is assigning drivers and vehicles.

Perform the following instructions:

1. Open the Route Document Worksheets form (FS403900; Service > Route Management > Work Area > Enter) and specify the following settings, as shown in the screenshot below:
   - **To**: next Friday
   - **Driver**: cleared

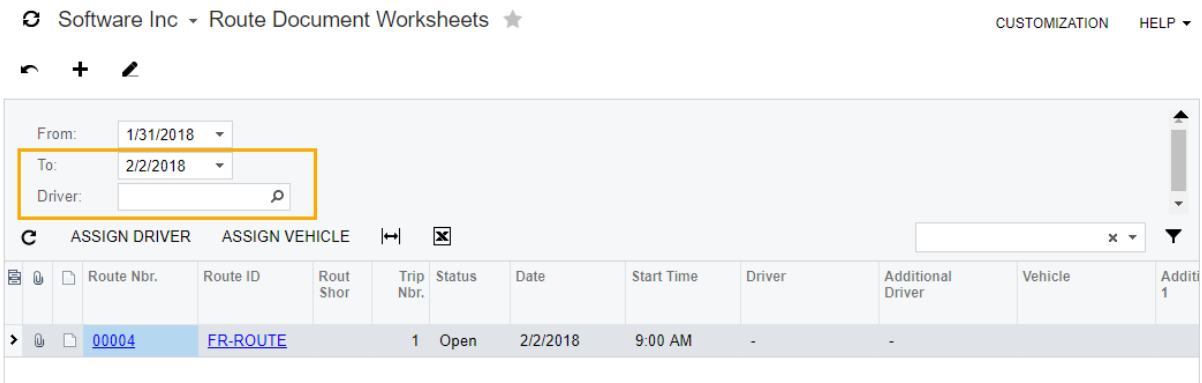


Figure: Route document worksheet

2. On the table toolbar, click **Assign Driver**.

   In the Driver Selector dialog box that opens, select *EP00000001 (Michael Andrews)* and click **Select Driver**.

3. On the table toolbar, click **Assign Vehicle**.

   In the Vehicle Selector dialog box that opens, select the 000007 vehicle and click **Select Vehicle**.

4. Click the 00004 link in the **Route Nbr.** column and in the Route Document Details form (FS304000), which the system has opened, verify that the driver and vehicle are assigned.

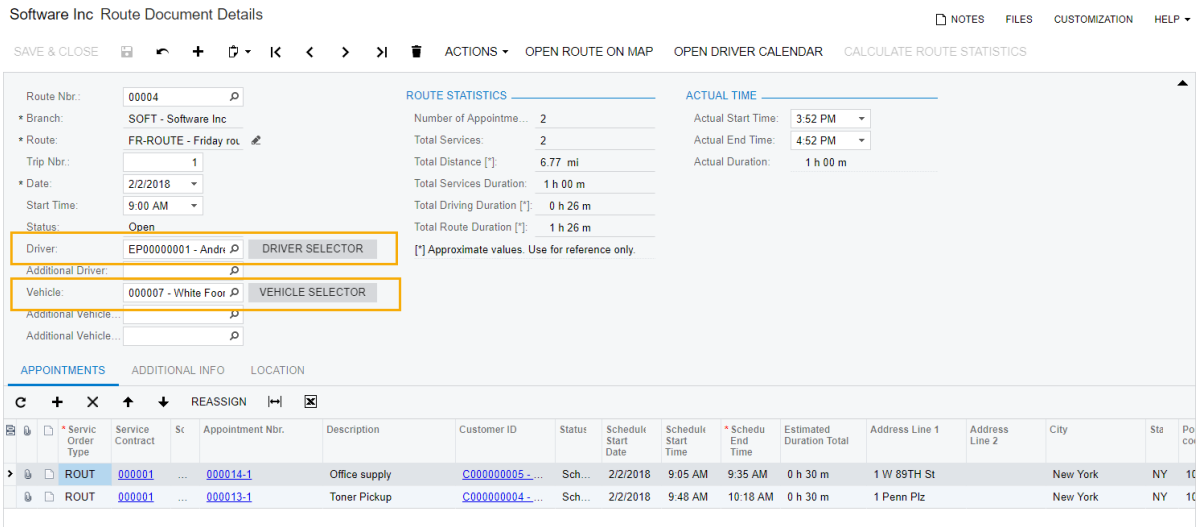


Figure: Route document with assigned driver and vehicle

Step 7.5: Reviewing the Route Appointment and Performing Contract Services

You can add route appointments created manually to the route execution documents generated by the system.

Suppose, that today is Friday and one of your customers—*C0000000026* (Active Staffing Service) calls because it needs the last minute service (*SUPP OFFIC*). In this step, you will add an appointment to the *00004* route document.

Perform the following instructions:

1. Open the Route Document Worksheets form (FS403900; Service > Route Management > Work Area > Enter) and specify the following settings to find the route scheduled for the next Friday:
   - **To**: next Friday
   - **Driver**: *EP00000001 (Michael Andrews)*
2. Click the 00004 link in the **Route Nbr.** column to open the Route Document Details form (FS304000).
3. On the **Appointments** tab, click **Add Row** on the table toolbar.
4. In the dialog that opens, select *ROUT* and click **Proceed**.

   This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.
5. Specify the following settings for the new appointment and save the changes:
   - **Customer**: *C00000026 (Active Staffing Service)*
   - **Branch Location**: *MANHATTAN*
   - **Description**: `Office supply`
6. On the **Services** toolbar, click **Add Row**, and add the *SUPP OFFIC* service to the appointment (see the following screenshot).
7. Click **Save&Close** and return to the Route Document Details form to review the created *000015-1* appointment, as shown in the following screenshot.

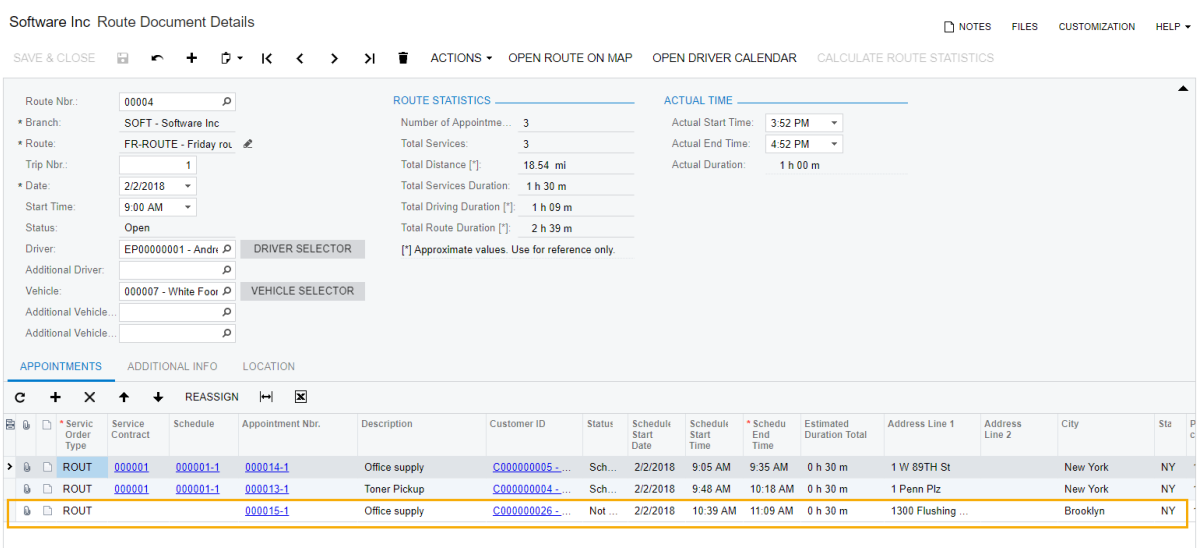


Figure: Appointment added to route execution document

If you need, you can click up and down arrow buttons on the table toolbar to reorder appointments.

Now you can proceed to the service delivery and appointment processing.

Lesson Summary

In this lesson, you have learned about the route service contracts and how you can use them to perform the predefined route services at the predefined frequency. After the route appointments have been generated, you can manage them as usual, including assigning and reassigning staff members and rescheduling appointments for different dates, if needed.

Review Questions:

- What is the purpose of having route service contracts in the system?
- What can you define in the route contract schedule?
- Can a single route service contract have many schedules?
- Is it possible to update existing route service contract schedules?
- Is it possible to assign one route definition to multiple contracts?

Part 3: Mobile Application and the Field Services Suite

In this part of the course, you will learn how to use the mobile application for handling route services in Acumatica ERP. In particular, you will perform the following tasks:

- Install the mobile application to an iOS device
- Install the mobile application to an Android device
- Process route appointments in the mobile application

Lesson 8: Introduction to Acumatica Mobile App

The Acumatica mobile application has been developed for users of Acumatica ERP who may need to access Acumatica ERP from anywhere by using their mobile devices. In the mobile app, users can easily enter sales orders and purchase orders, create tasks, follow events, and add contacts. With regard to the Service suite, mobile users can use their devices to work with appointments and route document worksheets.

In this lesson, you will learn how install this free Acumatica mobile application to your device. You do not have to complete the instructions to pass the training. If you do not have a mobile device that meets the system requirements, you can just read about how you would install an application and then use it to process route document worksheets.

Lesson Objectives

You will do the following:

- Learn the software requirements for the Acumatica mobile application
- Learn how to install the Acumatica mobile app to an iOS device
- Learn how to install the Acumatica mobile app to an Android device

Mobile Application Overview

The Acumatica mobile application is an out-of-the-box solution that empowers your employees to access Acumatica ERP from mobile devices to enter and submit their expenses and manage their work documents.

The Acumatica mobile app is available for iOS and Android mobile devices and provides the following key features:

- *Real-time access*: The mobile app connects to your Acumatica ERP instance in real time, so you always have access to up-to-date information.
- *Automatic synchronization*: Changes made in the mobile app are synchronized within Acumatica ERP automatically, and the changes made in Acumatica ERP are visible in your mobile app.
- *Mobile device integration*: While you are using the Acumatica mobile app, you can use the capabilities of the mobile device, such as using the camera to attach images of documents and products.

If needed, your company can easily extend this solution by using the Acumatica Mobile Framework. The framework gives you the ability to configure the mobile app without coding. You do not need to learn how to program for iOS or Android to support more Acumatica ERP forms in the mobile app.

Step 8.1: Installing the Mobile Application to an iOS Device

You can install the Acumatica mobile app on a mobile device (iPhone, iPad, or iPod Touch) that runs iOS 10 or later. The mobile application can connect to Acumatica ERP instances running Version 5.3 and later (also including 2017 R2).

The Acumatica mobile application is a free app distributed via the App Store. You must create and verify your Apple ID before you download the Acumatica mobile application. The App Store may not be available in some countries or regions.

To install the Acumatica mobile app using the App Store on your iPhone, perform the following instructions:

1. Open the App Store app.
2. Tap **Search** at the bottom of the screen, and find the free app Acumatica app.

   The app has the following icon: .
3. Tap GET next to the Acumatica mobile application and follow the on-screen instructions.

   The app needs to access data and specific settings on your device in order to work properly; give these permissions to the app when prompted.
4. Wait for the app to be installed, and launch the app by tapping its icon ( ) on the home screen.

Related Links

Create or use your Apple ID

Step 8.2: Installing the Mobile Application to an Android Device

You can install the Acumatica mobile app on a mobile device that runs Android 4.0 or above. The mobile application can connect to Acumatica ERP instances running Version 5.3 and later (also including 2017 R2).

The Acumatica mobile application is a free app distributed via Play Store. You must create and verify your Google Account before you download the Acumatica mobile application. The Play Store may not be available in some countries or regions.

To install Acumatica mobile app using the Play Store on your device running Android, perform the following instructions:

1. Open the Play Store app.
2. From the Play Store home screen, find the free *Acumatica app*.

   The app has the following icon: .
3. Tap **Install** next to the Acumatica mobile application and follow the on-screen instructions.

   The app needs to access data and specific settings on your device in order to work properly; give these permissions to the app when prompted.
4.

   Wait for the app to be installed, and launch the app by tapping its icon ( ) on the home screen.

Related Links

Create your Google Account

Lesson Summary

In this lesson, you have learned how to install the Acumatica mobile app and which devices are supported.

Review Questions:

- What is the purpose of using the Acumatica mobile app?
- Do you need to buy a license to use the mobile app?
- Do you need to manually synchronize changes that have been made in the mobile app?
- How would you install the app to a mobile device running iOS?
- How would you install the app to a mobile device running Android?
- What are the system requirements for the mobile app?

Lesson 9: Using the Mobile Application for Processing Route Appointments

The Acumatica mobile application installed on your mobile device provides most of the functionality of the most frequently used Acumatica ERP forms. By using the intuitive interface, you can easily start and complete routes, enter appointment details, and promptly view your tasks.

In this lesson, you will learn how to start and finish a route appointment and add services to this appointment by using the mobile app.

> You do not have to complete the instructions to pass the training. If you do not have a mobile device that meets the system requirements, you can just read about how you would use the app.

The screenshots have been made on an iOS device, and the instructions are also written for the iOS version of the mobile app, but the mobile app has the same interface for iOS and Android and the steps are essentially the same.

Lesson Objectives

You will do the following:

- Sign in to the Acumatica mobile application
- Learn how to navigate between the app forms
- Learn how to make selections and enter data on the forms
- Start a route appointment in the mobile app
- Modify the route appointment in the mobile app
- Complete a route in the mobile app
- Generate an invoice for the appointment

Step 9.1: Signing In to the Mobile Application

To sign in to the Acumatica mobile app on a mobile device, you use the same user accounts that you use to sign in to your instance of Acumatica ERP.

To use the Acumatica mobile application, your device must be connected to the Internet.

To sign in to the mobile app, perform the following actions:

1. On the mobile device, tap the application icon ( ) to launch the app.
2. Enter the URL of your Acumatica ERP instance (for example, *http://my.site.acumatica.com*).
3. Enter user name and password (*admin* and *123*), as shown in the following screenshot.

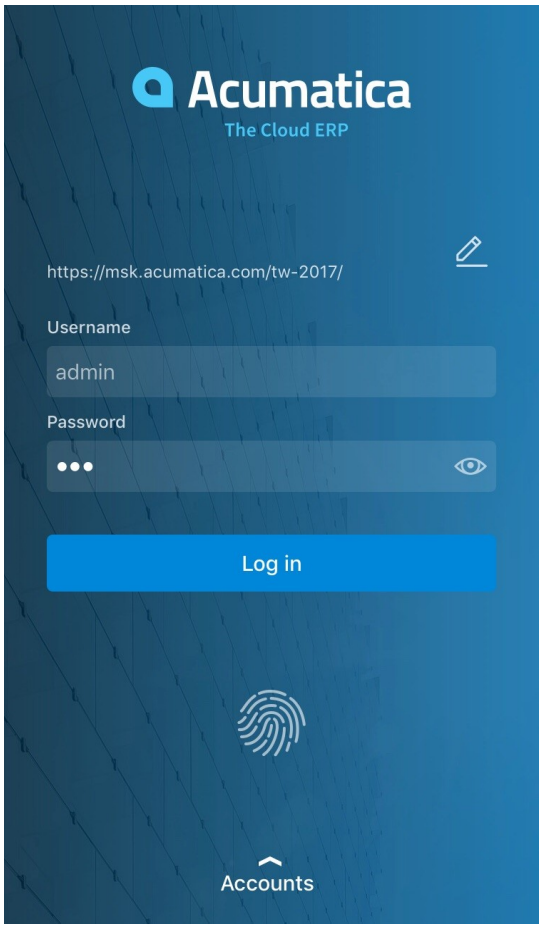


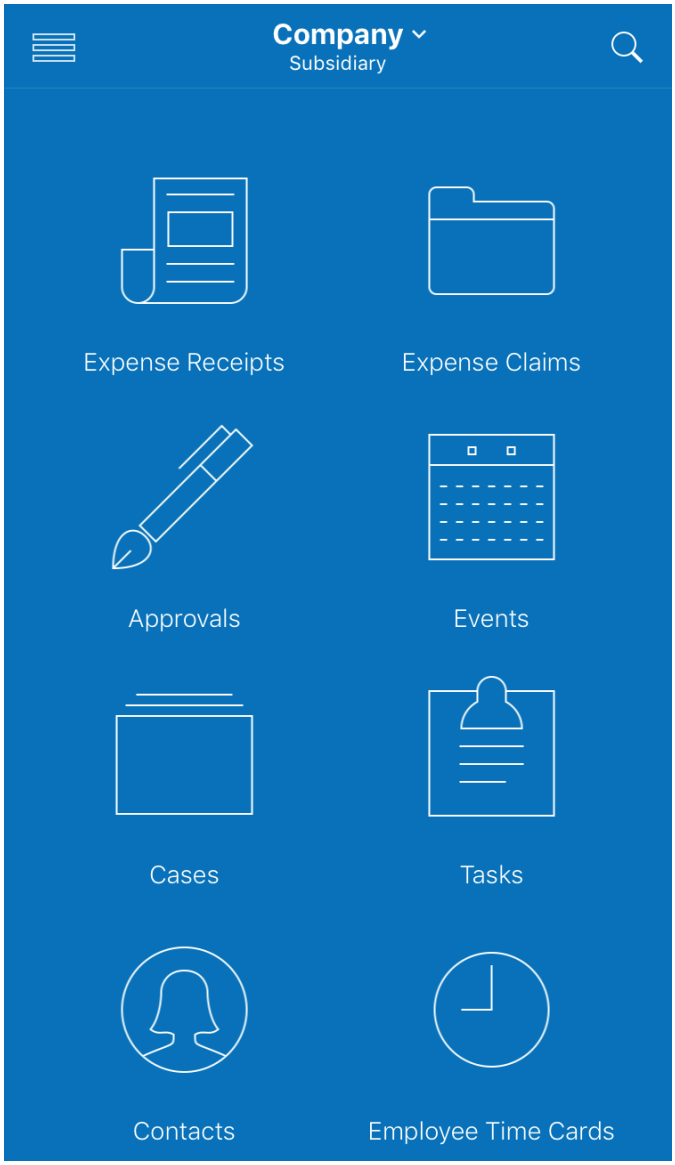
Figure: Mobile app Welcome page

4. Tap **Log in** to enter the website. The app connects to the Acumatica ERP application.

   If you are an authorized user, you are signed in to the Acumatica mobile app, and its home screen opens.

Home Screen of Acumatica Mobile App

Once you sign in to the mobile app, you see the Acumatica home screen (shown in the following screenshot), with the navigation bar on the top and the main menu in the content area.



Main Menu

The *main menu* includes the icons of the *app forms*, which are the mobile versions of Acumatica ERP forms. You swipe the screen up to view all the icons.

You can tap any icon to open the corresponding app form.

Navigation Bar

By using the *navigation bar*, you can navigate through the app and manage what is displayed in the screen content area.

On the Acumatica home screen, the navigation bar generally includes the following elements:

- *Side Menu button* (to the left): When tapped, opens the side menu (navigation drawer).

- *Company name* (in the middle): Displays the name of the company to which you are signed in. If only one company is configured in your instance of Acumatica ERP, the company name is not shown.
- *Branch name* (below the company name): Displays the name of the branch to which you are signed in.

Side Menu

You can open the side menu on the home screen of the Acumatica app by tapping on the navigation bar. The side menu (shown below) includes the **Sign Out** action, the user name of the user that you used to sign in, and the list of the app forms that are the default favorites (generally those that are used most frequently).

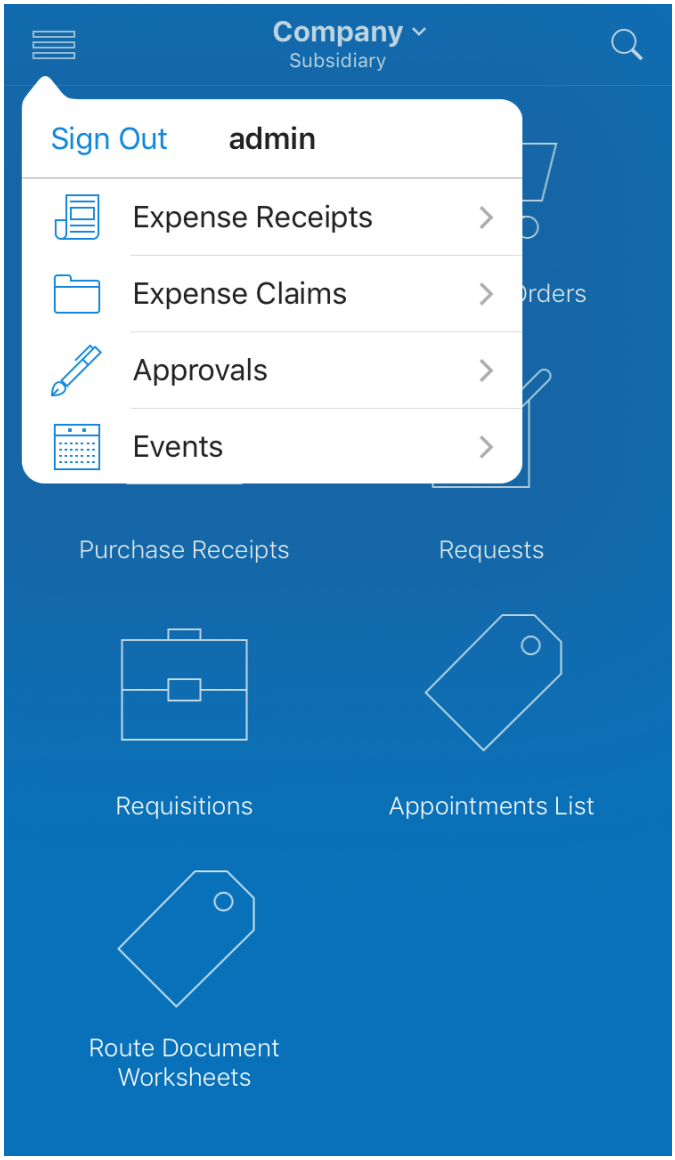


Figure: Side menu

Mobile App Interface

The mobile application includes *app forms*, which are versions of Acumatica ERP forms that have been mapped to be used on mobile devices. The app forms available in the mobile application correspond to the data entry forms in Acumatica ERP that are used to create documents and other records. You can work with documents or other records when they are presented in list view or form view.

List View

An app form may have one panel or multiple panels, each with the documents or records displayed in list view. When the app form is invoked, either its only panel or its default panel is displayed. If the app form has multiple panels, each panel displays a list of documents or records that are filtered by a type or another built-in criterion.

For example, the Expense Receipts app form has the following panels: **All**, **On Hold**, **Open**, and **Pending Approval**. The **On Hold**, **Open**, and **Pending Approval** panels list the expense receipts with the respective statuses, while the **All** panel lists all available expense receipts.

As another example, the Purchase Orders app form has the following panels, which filter orders by their type: **Normal**, **Standard**, **Drop-Ship**, and **Blanket**. (The following screenshots show the **Normal** and **Drop Ship** panels of the Purchase Orders app form.)

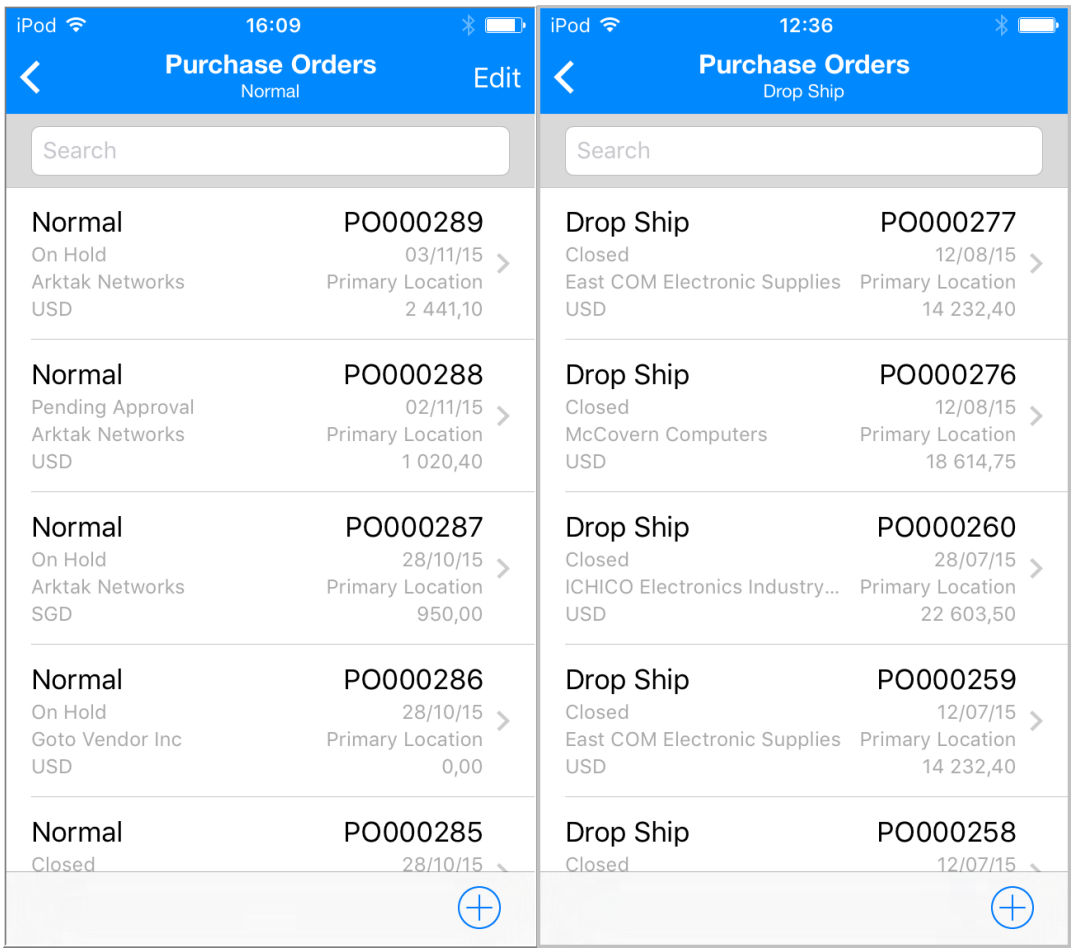


Figure: Panels of the app form

Each panel of the app form has a content area, which displays the list of documents or records, and a navigation bar, which has navigation and processing actions.

To see which panels are available, tap the panel name below the app form name on the navigation bar. (See the following screenshot.) To open another panel, tap the appropriate panel name.

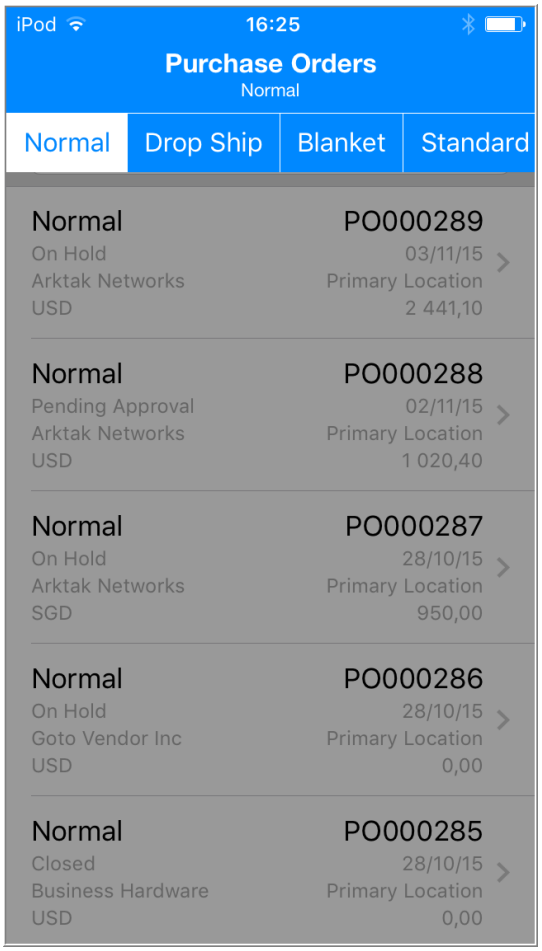


Figure: Available panels

You can open any listed document or record for editing by tapping it (or tapping anywhere between the two horizontal lines separating the document or record from others in the list) or by tapping > to the right of the document or record.

Navigation Bar in List View

In list view, the navigation bar on any panel may include the actions specific to the app form, as well as the standard actions that are available for many other app forms. Generally, the navigation bar may include the following elements, which are shown in the screenshot below:

1. *Edit button*: To switch to selection mode (which is described in the following section).
2. *App form title*: To provide information about the app form you are using. If any items are selected in the list, this area instead displays the number of selected items.
3. *Panel title*: To convey the name of the panel you are viewing.
4. *Search*: To give you the ability to search the list of documents or records.
5. *Back button*: To return to the screen you previously accessed.
6. *Filter*: To display the conditions of an additional filter, which you can edit.

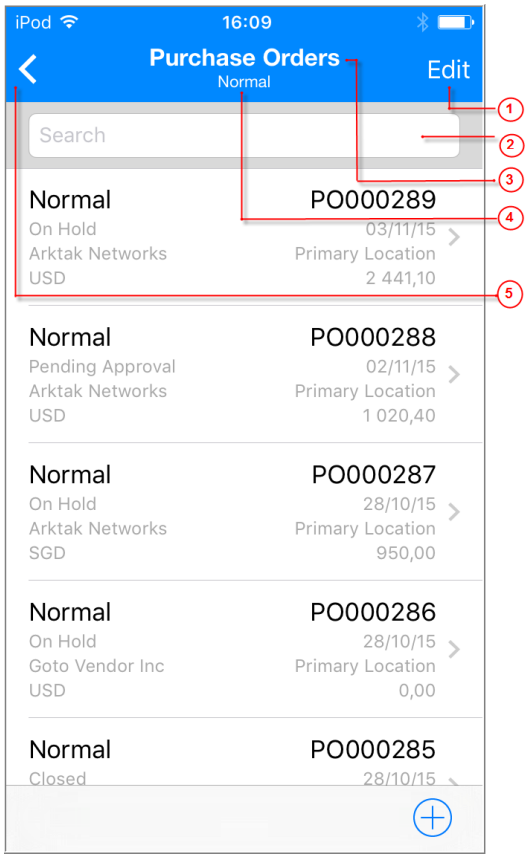


Figure: Navigation bar in list view

Also, you can initiate the creation of a new document or record by tapping the **Add Record** button on the task bar in the lower right of the screen. The app opens a blank new document or record in form view.

Selection Mode

In list view, you can switch to selection mode to select any number of documents or records for further processing. To switch to selection mode, tap **Edit** on the navigation bar.

In selection mode, to select a document or record, tap the circle to the left of it ( ). The circle turns blue ( ) and contains a check mark (see the first screenshot below).

You can select multiple documents or records for processing. When any documents or records are selected, the task bar includes the standard actions as well as the actions that are specific for the selection mode and for the particular app form. Tap the ellipsis button (∘∘∘) on the task bar to view the actions (which are specific to this app form) that you can use to process the documents or records that you have selected in the list; see the second screenshot below. The selected expense receipts can be submitted or the selection can be canceled.

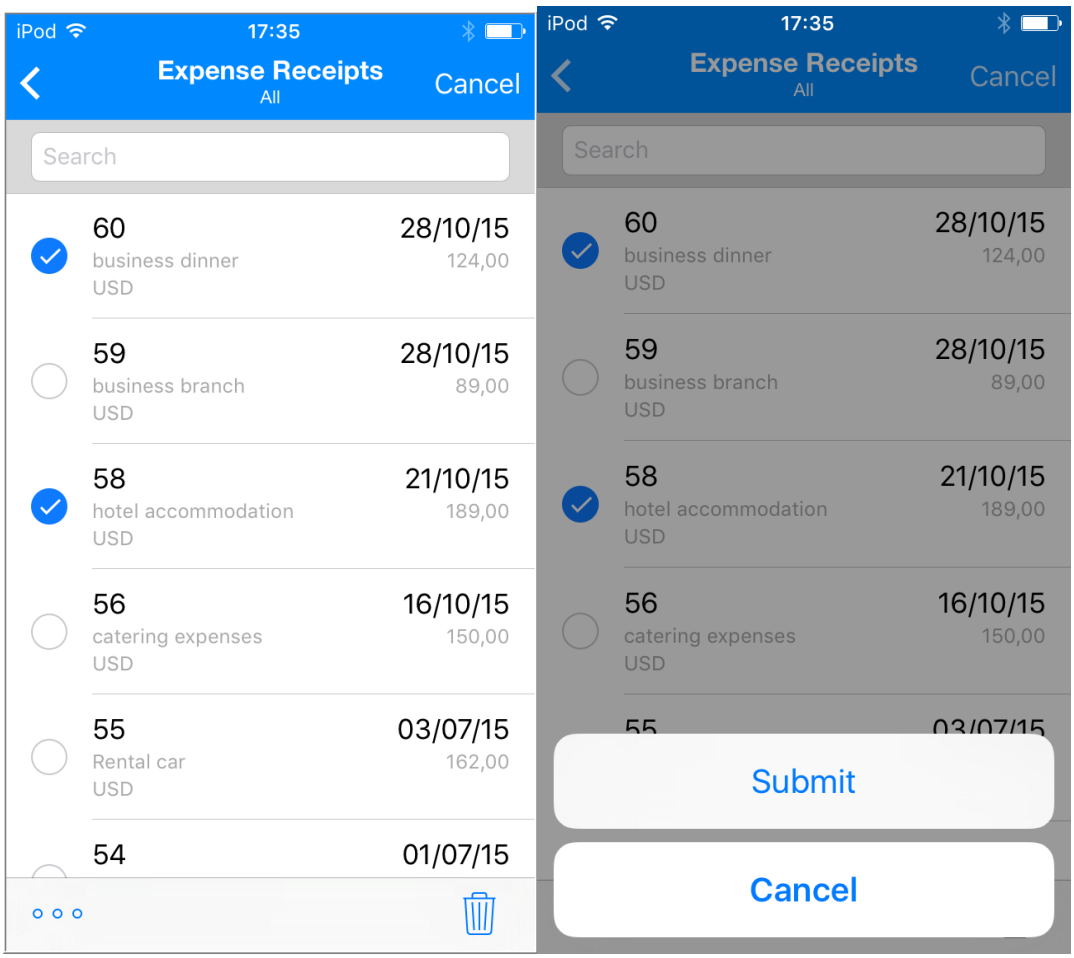


Figure: Selection mode

Form View

From list view, you can select any existing document or record for viewing or editing by tapping **>** to the right of the document. The app opens the document or record in form view, which displays all of the elements separated by horizontal lines. (See the first screenshot below.) When you are creating a new document or record, it is also opened in form view. You swipe upward to view all the elements of the document or record. For an existing document or record, the elements have values, while for a new document or record, some elements have default values and other elements are empty.

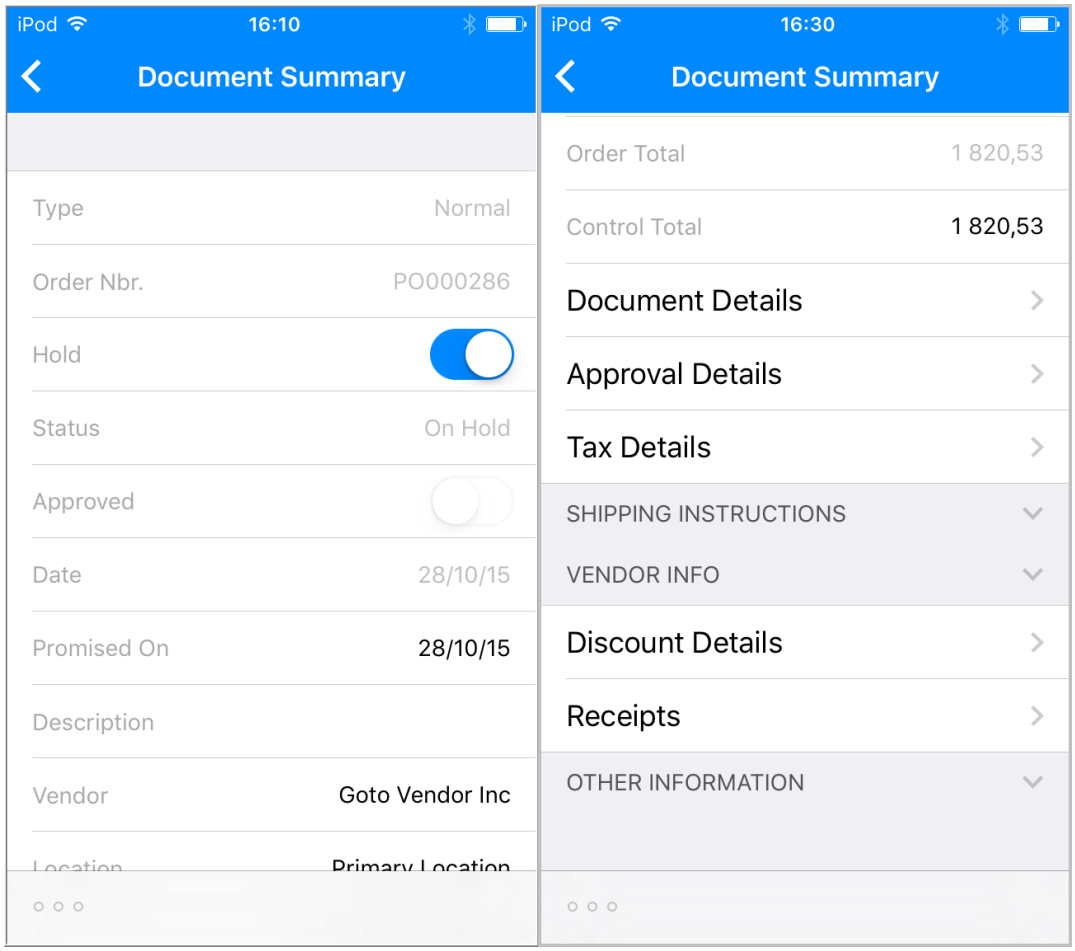


Figure: Form view

If the form in Acumatica ERP that corresponds to the app form has any tabs, they appear in the app form as links to the appropriate information, as shown in the second screenshot above. If a document or record has detail lines, you can view them in list view by tapping the **Details** (or **Document Details**) link, and you can tap any detail to view it in form view.

You can tap any element to bring up (depending on the element type) a selection dialog or an on-screen keyboard that you can use to enter a value for this element. You can save a document or record only if all the required elements have valid values; otherwise, you will see an error message and will not be able to save the document or record.

Task Bar in Form View

The task bar in form view may include the actions specific to the app form (such as the **Assign** action in the first screenshot below). If there are more than two available actions, some of them are available when you tap the ellipsis button (∘∘∘) on the task bar (as shown in the second screenshot below).

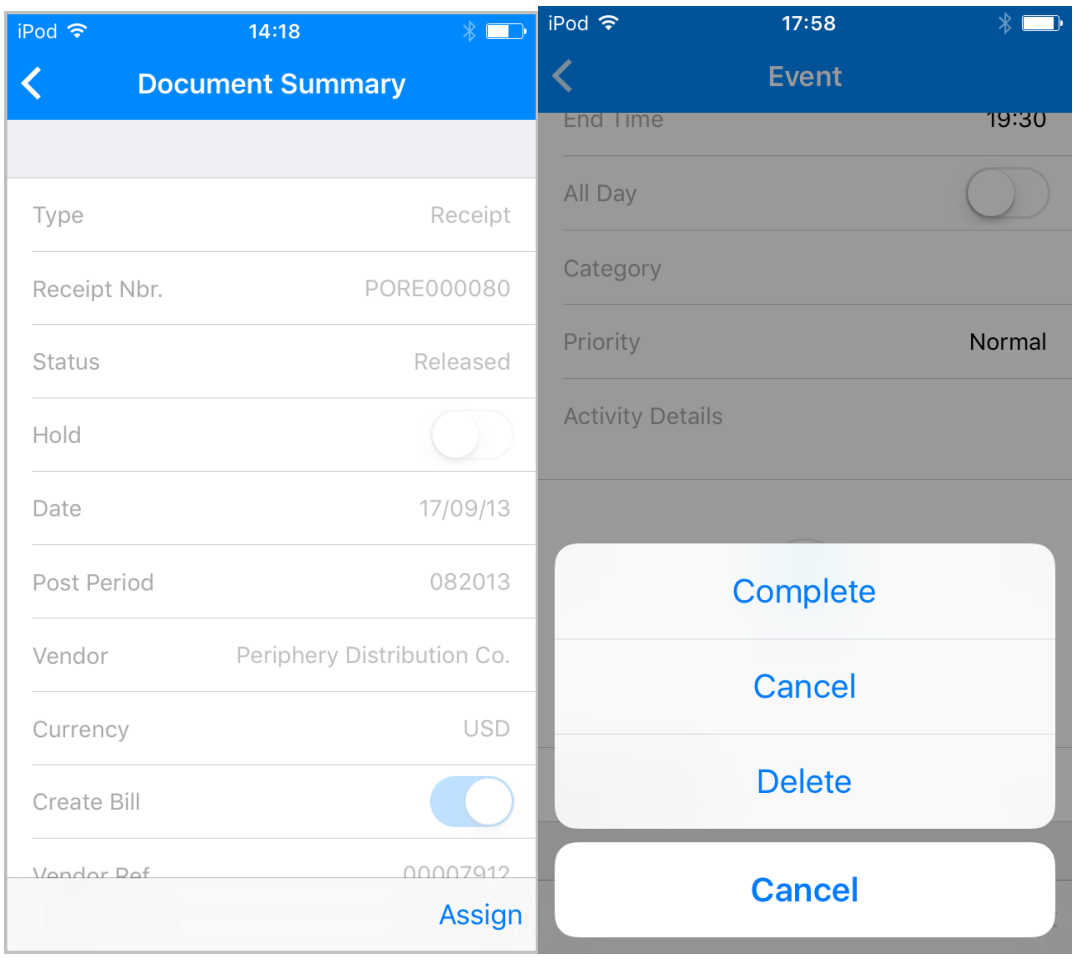


Figure: Task bar in form view

Step 9.2: Processing Routes in the Mobile Application

In this step, you will add an appointment to the *00002* route execution document (created in step 6.2), for which Michael Andrews is assigned as a driver. Then, on behalf of this staff member, you will find this route document in the mobile application, start the route, complete the appointment, and complete the route.

Perform the following instructions:

1. On the Route Document Details form (FS304000; Service > Service Management > Work Area > Enter), in the **Route Nbr.** box, select *00002*.
2. On the **Appointments** tab, click **Add Row** on the table toolbar.
3. In the dialog that opens, select *ROUT* and click **Proceed**.

   This brings up the Appointments form (FS300200) where you can add appointment details for the first appointment in the route execution.
4. Specify the following settings for the new appointment and save the changes:
   - **Customer**: *C00000004 (KRK Consulting Service)*
   - **Branch Location**: *MANHATTAN*
   - **Description**: `Demo visit`
5. On the **Services** tab, click **Add Row**, and add the *VISIT* service to the appointment.
6. Click **Save&Close** and return to the Route Document Details form to review the created appointment, as shown in the following screenshot.

   (Now you are acting on behalf of Michael Andrews on the scheduled appointment date—next Tuesday. You use the mobile application to perform the following steps)
7. Sign in to the mobile application.
8. On the home screen, tap **Route Document Worksheets**.
9. Filter the route display dates so as you can view the next Tuesday, as shown in the following screenshot.

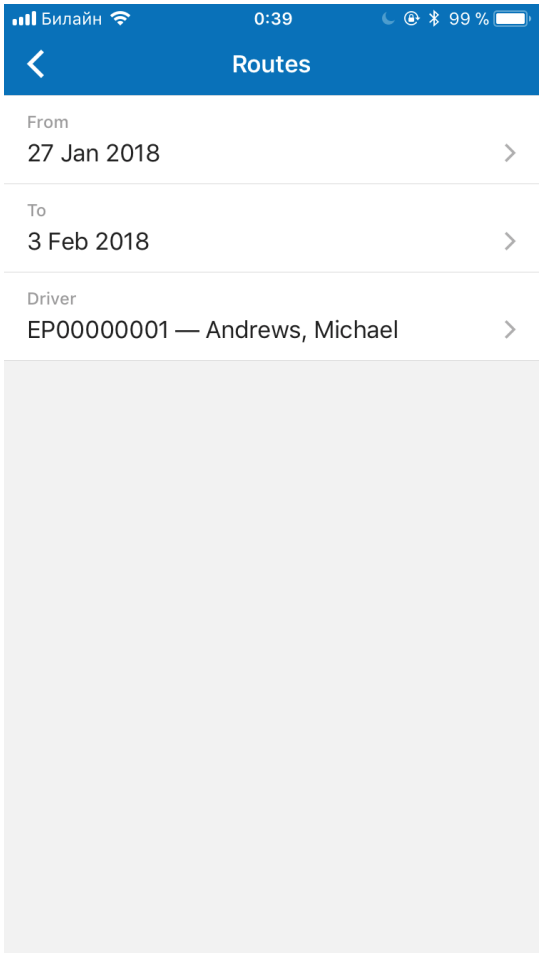


Figure: Filtering the dates

10. Tap the route with reference number *00002* to view the route execution document, as shown in the following screenshots.

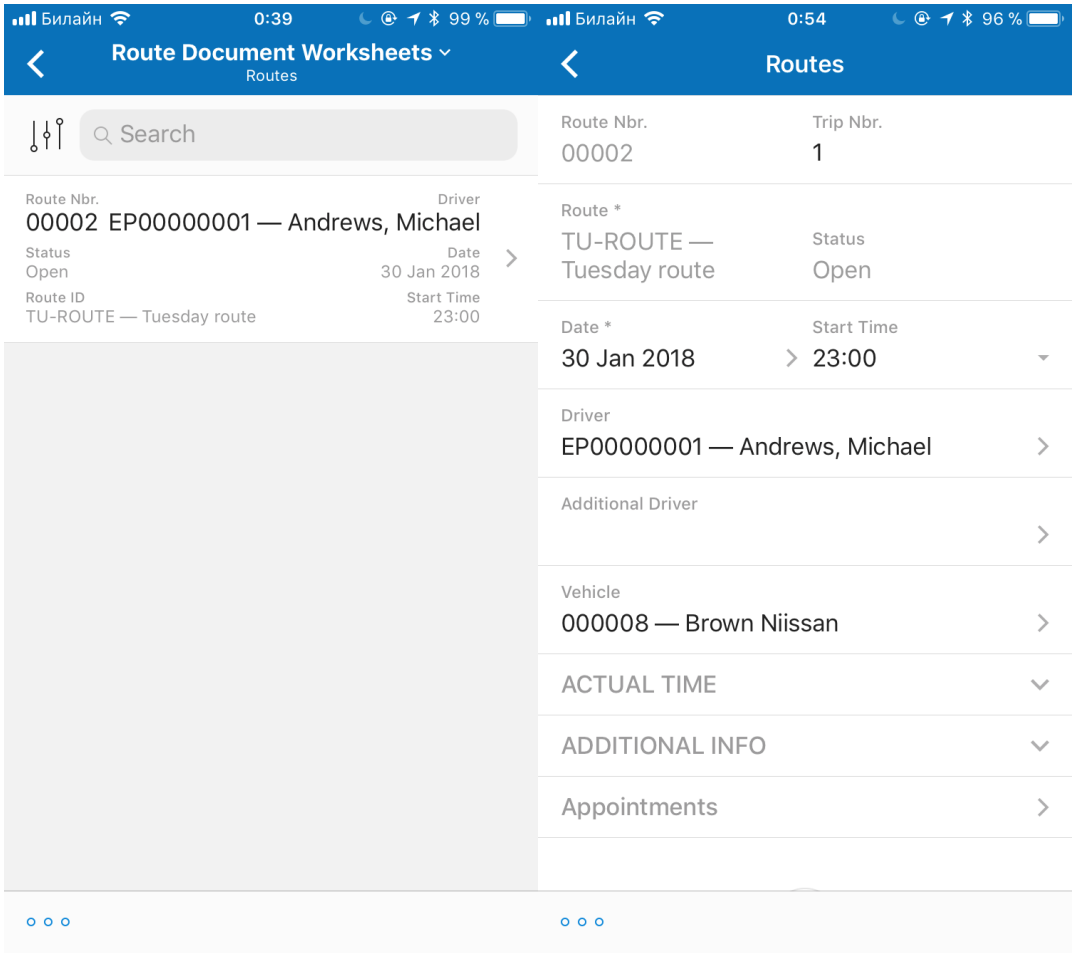


Figure: Route execution document

11. Click ○○○ on the task bar, and select the **Start Route** action.

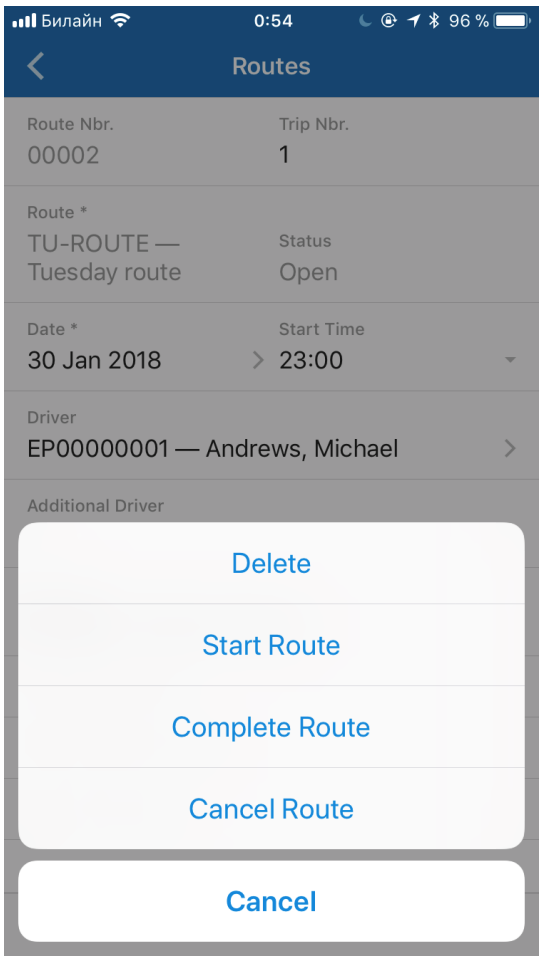


Figure: Filtering the dates

12. On the **Appointments** tab, tap the *000014-1* route appointment that you have created for the *00002* route execution (see the following screenshot).

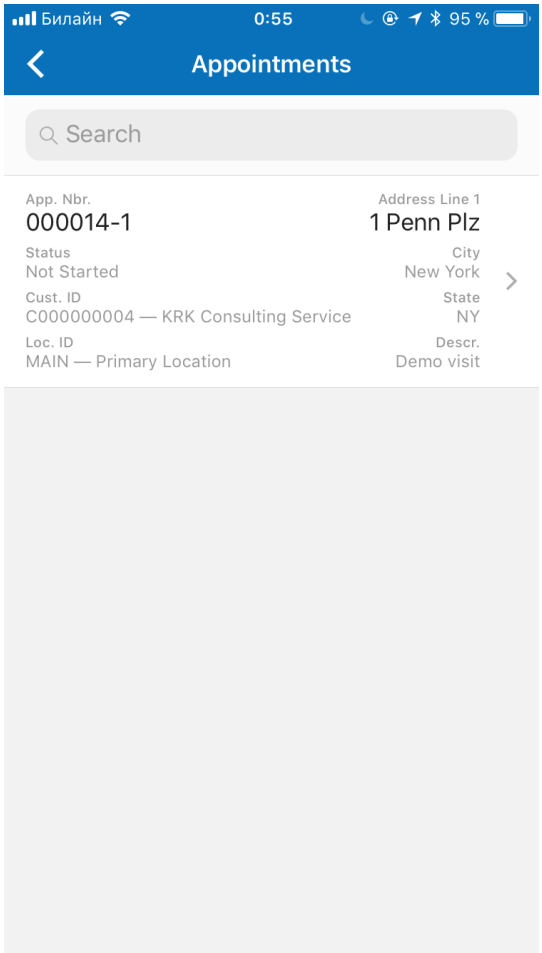


Figure: Filtering the dates

13. Click ∘∘∘ on the task bar, and select the **Start Appointment** action (see the following screenshot), then tap **Complete Appointment**.

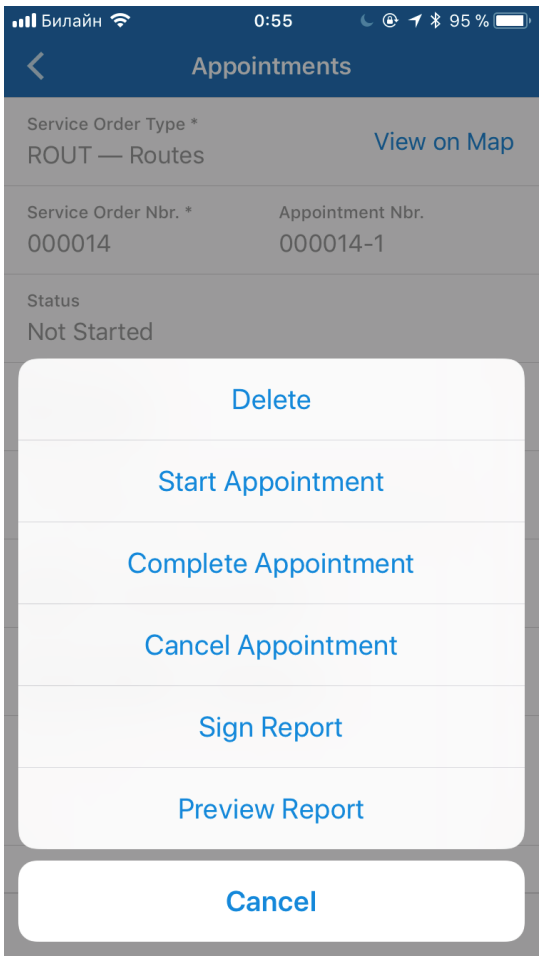


Figure: Filtering the dates

14. Return to the *00002* route document, then click ∘∘∘ on the task bar, and select the **Complete Route** action.

Now you can proceed to viewing Acumatica ERP forms from the browser. Closing routes and generating invoices cannot be done by using the mobile interface.

Step 9.3: Closing the Route Execution and Generating an Invoice

In this step, you will close the route execution document and generate an invoice for the *000014-1* appointment, which was completed in the previous step. Based on the settings of service order type of the appointments (created in step 5.3), the invoice will be generated in the Accounts Receivable module, and the appointments should be closed.

Perform the following instructions:

1. Open the Close Routes form (FS500800; Service > Processes > Process).

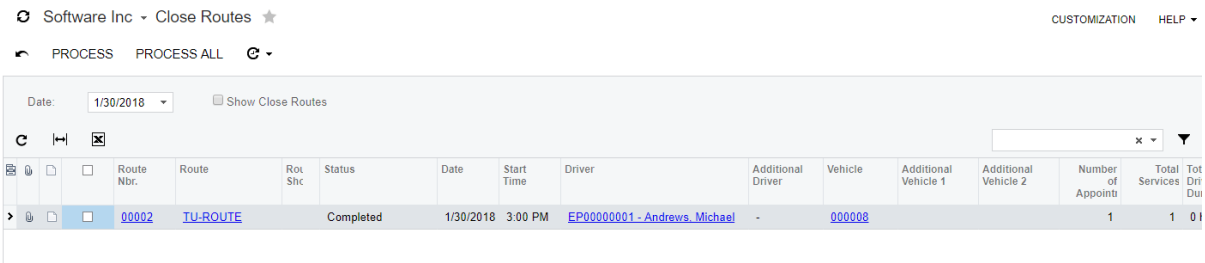


Figure: Route to be closed

2. In the table of route execution documents, select the line with the *00002* reference number.
3. On the form toolbar, click **Process**.

   You can now proceed to generating invoices for the related appointment.
4. Open the Generate Invoices from Appointments form (FS500100; Service > Service Management > Processes> Recurring).
5. Make sure *Accounts Receivable and/or Accounts Payable* is selected in the **Generate Invoices In** box, as shown in the following screenshot.
6. In the **Up to Date** box, select next Tuesday, as shown in the following screenshot.

   This date is already selected if you have changed the business date to next Tuesday.

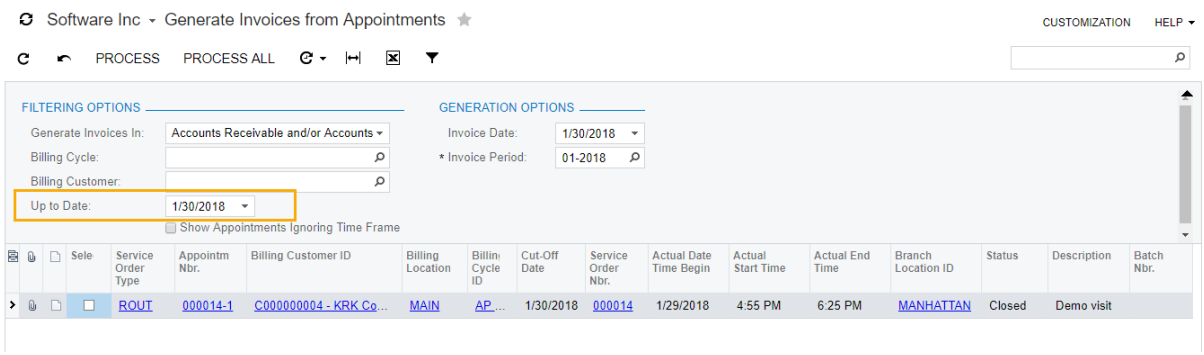


Figure: Closed route appointment

7. On the form toolbar, click **Process All**.

   Invoice has been generated in the Accounts Receivable module for your appointment.

Lesson Summary

In this lesson, you have learned how to use the Acumatica mobile app to process route appointments.

Review Questions:

- What actions can you perform with route appointments and related entities by using the Acumatica mobile app?
- Is it possible to create a new route service by using the Acumatica mobile app?