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Software Version: 2017 R2

Last updated: August 31, 2017

Introduction

This document provides important information about fixes, enhancements, and key features that are available in Acumatica ERP 2017 R2. The document is designed particularly for those who install Acumatica ERP or develop applications for it. All users can benefit from reviewing this content to determine how they may benefit from the changes in this release.

To try new features and improvements, you can use the demo company, which you can easily deploy by selecting the *SalesDemo* item in the Acumatica ERP Configuration Wizard. For detailed information on deploying the demo company and working with the demo data, see [Demo Materials](#) on the Acumatica partner portal.

Beta Disclaimer

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Installation and Upgrade Notes

For a detailed description of the general procedure of updating Acumatica ERP, see [Updating Acumatica ERP](#) in the Installation Guide.

We strongly recommend that before you update to a newer product version, you back up all configuration files and databases used by the application instances. An upgrade to Acumatica ERP 2017 R2 from previous major versions (such as Version 6.1) may cause issues with customizations and dashboards.

Dashboards that were created in versions of Acumatica ERP before Version 6 will be converted into the new format during upgrade. We recommend that you check all dashboards after upgrade and adjust them to meet your needs.

Multiple changes have been made in Acumatica ERP 2017 R2 in comparison to Version 6.1 that may affect customizations and integrations. For details, see [Upgrade Procedure: Customizations](#).

If your Acumatica ERP instance was integrated with software provided by an independent software vendor (ISV) partner, we recommend that you consult with your partner about the compatibility of its products with Acumatica ERP 2017 R2.

Upgrade Policy

On the *Apply Updates (SM203510)* form, only minor updates for your current version of Acumatica ERP are available. You should upgrade your Acumatica ERP instance from previous major versions of the system to Version 2017 R2 manually on the server. (Upgrade by using the web interface is not supported because customization of your Acumatica ERP instance may be incompatible with Version 2017 R2 due to breaking changes in the version 2017 R2.)

Upgrade Notes

You can upgrade your Acumatica ERP instance directly to Version 2017 R2 if your current version is 5.3 or higher (For the list of versions that support a direct upgrade to Version 2017 R2, see the table below.)



: Acumatica ERP 2017 R2 supports only Integrated mode of the Internet Information Services application pool. Classic mode is not supported. Before you start the upgrade, switch the application pool to Integrated mode. Otherwise, the upgrade will not be performed, and an error message will be displayed.

From Version	Upgrade Path
6.2	Direct upgrade to Acumatica ERP 2017 R2 is supported.
6.1	Direct upgrade to Acumatica ERP 2017 R2 is supported.
6	Direct upgrade to Acumatica ERP 2017 R2 is supported.
5.3	Direct upgrade to Acumatica ERP 2017 R2 is supported.



: You cannot upgrade from Acumatica ERP 5.3X and 6.1X to Acumatica ERP 2017 R2 if your build of Acumatica ERP 5.3X or 6.1X was released later than the build of Acumatica ERP 2017 R2 that you are going to upgrade, because in this case some Acumatica ERP 5.3X and 6.1X fixes might not be included in Version 2017 R2.

Known Issues

Customization

If users modified a generic inquiry in CRM modules (such as Contacts, Cases, or Opportunities) in a previous version of the system and then upgraded the system to 2017 R2, then the generic inquiry becomes broken.

Workaround: Before upgrade, users can export all modified generic inquiries to XML files. After upgrade, users can import these files to the system.

Upgrade Procedure: Customizations

Multiple changes have been made since Acumatica ERP 2017 R2 Preview 2 (17.200.0113), which may affect reports, customizations, and integrations that were implemented by the developers for the prior versions.

To prevent breaking changes in the customizations, the developer should do the following:

1. Analyze the customization projects.
2. Carefully read the list of breaking changes in the [Upgrade Procedure: Breaking Changes](#) section.
3. Replace the changed objects with their alternatives. See additional recommendations in the sections below.
4. If the objects used in the customization projects were removed and no alternatives were provided, consider creating new customization projects.

After an upgrade to Acumatica ERP 2017 R2, to detect the changes that break existing customization projects, the developer can check the compatibility of the code included in all published customization projects with the original code. For details, see [To Validate the Compatibility of the Published Customization with a New Version Before an Upgrade](#) in the Customization Guide.



: The validation that detects breaking changes is turned on by default in Acumatica ERP 2017 R2. If any errors occur during the validation, see [To Resolve an Issue Discovered During the Validation](#) topic in the Customization Guide.

For the complete list of the changes with the suggested alternatives, see the Acumatica ERP 2017 R2 *Technical Release Notes* document.

If a customized mobile site map was published on the Acumatica ERP instance, follow the instructions provided in the [Upgrade Procedure: Customizations of Mobile Site Maps](#) section to upgrade the instance.

Changes in the `INItemClass` Table and the *Item Classes (IN201000)* form

The `INItemClass` table had only a natural key (`ItemClassID`, `nvarchar`) before. Now it has a surrogate key (`ItemClassID`, `int` with identity) and a natural key (`ItemClassCD`, `nvarchar`).

All references to `INItemClass` in the standard tables (such as `INItemClassRep`, `INItemClassSubItemSegment`, `INUnit`, `InventoryItem`) are updated with the surrogate key. Because the data type of the field has been changed, many methods have changed their signature (such as `set_ItemClassID(String)`).

If the customization includes custom tables with a reference to `INItemClass` or a table extension of `INItemClass`, a special script should be added to the customization project to update the references to the new surrogate key. The following code shows an example of the script for Microsoft SQL.

```
IF EXISTS (
    SELECT * FROM INFORMATION_SCHEMA.COLUMNS
    WHERE TABLE_NAME = 'CustomInventory' -- custom table
    AND COLUMN_NAME = 'ItemClassID' AND DATA_TYPE = 'nvarchar')
BEGIN
    exec sp_rename 'CustomInventory.ItemClassID', 'ItemClassCD', 'COLUMN';
    exec ('ALTER TABLE CustomInventory ADD ItemClassID INT NULL');
    exec ('update CustomInventory
        set ItemClassID = c.ItemClassID
        from CustomInventory ci
        inner join INItemClass c on c.CompanyID = ci.CompanyID
        and c.ItemClassCD = ci.ItemClassCD');
    exec ('ALTER TABLE CustomInventory DROP COLUMN ItemClassCD');
END
```


If the customization includes custom import or export scenarios, or custom endpoints for the contract-based SOAP or REST API working with the *Item Classes (IN201000)* form, these scenarios or endpoints should be updated to work with the new natural key (`ItemClassCD`) instead of the old one (`ItemClassID`).

Availability calculation rules have been moved from the `INItemClass` table to the new `INAvailabilityScheme` entity, which is set up on a separate form.

If the availability calculation flags (`INItemClass.InclQty*`) are used in the customization, the developer should find an appropriate `INAvailabilityScheme` record (or join this record in a query) by the `INItemClass.INAvailabilitySchemeID` value.

Changes in the `INSetup` Table and the *Inventory Preferences (IN101000)* form

The **Default Item Class** box on the *Inventory Preferences (IN101000)* form (`INSetup.DfltItemClassID`) has been replaced with **Default Stock Item Class** (`INSetup.DfltStkItemClassID`) and **Default Non-Stock Item Class** (`INSetup.DfltNonStkItemClassID`) boxes. In the customizations, the `INSetup.DfltItemClassID` field should be replaced with `INSetup.DfltStkItemClassID` or `INSetup.DfltNonStkItemClassID`.

Changes in the `INPIClass` Table and the *Physical Inventory Types (IN208900)* form

On the *Physical Inventory Types (IN208900)* form, multiple item classes can be selected now. Therefore, the `INPIClass.ItemClassID` field has been replaced with the `INPIClassItemClass` entity. In the customizations, the fields of the `INPIClassItemClass` table should be used instead of the `INPIClass.ItemClassID` field.

Upgrade Procedure: Customizations of Mobile Site Maps

For previous versions of Acumatica ERP, during each update of the application website, the mobile site map (the `mobilesitemap.xml` file and other predefined files in the `\App_Data\Mobile` folder of the website) was overridden with a new version. That is, if a customized mobile site map was published on the Acumatica ERP instance, after each update of the application website, the custom changes to the mobile site map had to be applied once again.

In Acumatica ERP 2017 R2, the developer can generate a delta of the original site map and the customized site map, and publish this delta file on the Acumatica ERP instance, along with other customization changes. The delta file is a MSDL script file that contains the difference of two mobile site maps. Once this file is placed in the `\App_Data\Mobile` folder of the Acumatica ERP application instance, Acumatica ERP applies the delta automatically when a user starts the mobile application connected to this instance. The custom delta file is not overridden during an update of the website.

The delta file can be generated with the `ac.exe` command-line utility. The developer can also use the utility to convert an XML mobile site map to MSDL format. For details on the corresponding commands of the `ac.exe` utility, see the [To Generate a Delta from Two Mobile Site Maps](#) topic and the [To Convert an XML Mobile Site Map to MSDL Format](#) topic in the [Mobile Framework > Mobile Site Map](#) chapter of the [Acumatica Framework Development Guide](#).

Upgrade of an Acumatica ERP Instance That Includes a Customized Mobile Site Map to Acumatica ERP 2017 R2

To upgrade an Acumatica ERP instance that includes a customized mobile site map to Acumatica ERP 2017 R2, do the following:

1. Create a test copy of your production instance of Acumatica ERP.
2. Generate the delta from the original mobile site map of the current version of your test instance of Acumatica ERP and the customized mobile site map.
3. Place this delta file in the `\App_Data\Mobile` folder of the test instance.
4. Update the test copy of your Acumatica ERP instance to Acumatica ERP 2017 R2.
5. Test the mobile application with the updated test copy of your Acumatica ERP instance.
6. Place the delta file in the `\App_Data\Mobile` folder of the production instance.
7. Update the production instance of Acumatica ERP to Acumatica ERP 2017 R2.

Upgrade Procedure: Breaking Changes

Multiple changes have been made since Version 2017 R2 Preview 1 (7.00.0048) that may affect reports, customizations, and integrations that were implemented by the developers for the prior versions. The basic changes are listed in this topic. The complete list of the changes with the possible alternatives is provided in the Acumatica ERP 2017 R2 *Technical Release Notes* document.



: If Acumatica ERP 6.1 is being upgraded, see also the following lists of breaking changes:

- Breaking changes between Version 6.1 Update 3 (6.10.0373) and Version 2017 R2 Preview 1 (7.00.0048) in [Acumatica 2017 R2 Preview 1 Technical Release Notes](#)
- Breaking changes between Version 2017R2 Preview 1 (7.00.0048) and Version 2017 R2 Preview 2 (17.200.0113) in [Acumatica 2017 R2 Preview 2 Technical Release Notes](#)

Removed Screens

No screens that were present in prior versions have been removed.

Removed Tables

The following tables that were present in prior versions have been removed from the database.

Table Name
CustomizationDesign
CustomizationPublished
DynamicAttachment
ExportFieldSettings
ExportScreen
ExportTableSettings
ExtraField
ExtraFieldOnGraph
ExtraFieldValue
KBCategory
KBSetup
LogRecord
MetaColumn
MetaTable
SMLanguageSearchSettings
SMLongOperationCommand
SMPerformanceValues
SPDemoAccess
SystemTask
SystemTaskInfo

Table Name
TaskCryptography
UploadFileInScreen
UPPackageFiles

Removed Fields

The following fields that were present in prior versions have been removed.

Table Name	Field Name
ARTran	PMTranID
Contract	VisibleInEP
Country	AllowStateEdit
CRCampaign	DefaultMemberStatus
CRCampaign	ActualCost
CRCampaignMembers	Status
CRMarketingList	IsSelfManaged
CRMarketingListMember	Activated
CRMassMailCampaign	TargetStatus
CRMassMailCampaign	DestinationStatus
INItemClass	InclQtySOBackOrdered
INItemClass	InclQtySOPrepared
INItemClass	InclQtySOBooked
INItemClass	InclQtySOShipped
INItemClass	InclQtySOShipping
INItemClass	InclQtyInTransit
INItemClass	InclQtyPORceipts
INItemClass	InclQtyPOPprepared
INItemClass	InclQtyPOOrders
INItemClass	InclQtyINIssues
INItemClass	InclQtyINReceipts
INItemClass	InclQtyINAssemblyDemand
INItemClass	InclQtyINAssemblySupply
INItemClass	InclQtySOReverse
INItemSite	LastPurchaseDate
INItemSite	LastPurchasePrice
INItemSite	LastVendorID
INItemStats	LastPurchasePrice

Table Name	Field Name
INItemStats	LastPurchaseDate
INItemStats	LastVendorID
INPIClass	ItemClassID
INSetup	DfltItemClassID
OAuthClient	CompanyMask
OAuthClient	RequireConsent
OAuthClient	AllowRememberConsent
OAuthClient	AllowClientCredentialsOnly
OAuthClientSecret	CompanyMask
PivotField	DateRounding
PivotFieldPreferences	Type
PivotFieldPreferences	Expression
PMBillingRule	WipAccountGroupID
PMBillingRule	InvoiceDescription
PMBillingRule	LimitQty
PMBillingRule	LimitAmt
PMBillingRule	CapsAccountGroupID
PMBillingRule	OverflowAccountGroupID
PMHistory	BudgetQty
PMHistory	BudgetAmount
PMHistory	RevisedQty
PMHistory	RevisedAmount
PMHistory	CommittedQty
PMHistory	CommittedAmount
PMHistory	CommittedOpenQty
PMHistory	CommittedOpenAmount
PMHistory	CommittedReceivedQty
PMHistory	CommittedInvoicedQty
PMHistory	CommittedInvoicedAmount
PMHistory	PTDBudgetAmount
PMHistory	PTDBudgetQty
PMHistory	PTDRevisedAmount
PMHistory	PTDRevisedQty
PMSetup	VisibleInEP

Table Name	Field Name
PMTask	CompletedPct
PMTask	VisibleInEP
POSetup	VendorPriceUpdate
SOSetup	ConsolidateIN
UserPreferences	HeaderFont
UserPreferences	HeaderFontSize
UserPreferences	HeaderFontColor
UserPreferences	HeaderFillColor
UserPreferences	HeaderFontType
UserPreferences	BodyFont
UserPreferences	BodyFontSize
UserPreferences	BodyFontColor
UserPreferences	BodyFillColor
UserPreferences	BodyFontType
UserPreferences	Border
UserPreferences	BorderColor
UserPreferences	HiddenSkip
Vendor	EnableTaxStartDate
Vendor	TaxYearStartDate

Modified Field Types

The following table lists the fields whose types have been modified.

Table Name	Field Name	Old Type	New Type	Old Max. Length	New Max. Length
CRCampaignType	Description	NVarChar	NVarChar	30	250
INItemClass	ItemClassID	NVarChar	Int	10	0
INItemClassRep	ItemClassID	NVarChar	Int	10	0
INItemClassSubItemSegment	ItemClassID	NVarChar	Int	10	0
INLocation	PrimaryItemClassID	NVarChar	Int	10	0
INReplenishmentLine	PONbr	VarChar	NVarChar	15	15
INUnit	ItemClassID	NVarChar	Int	10	0
InventoryItem	ItemClassID	NVarChar	Int	10	0
POOrder	soordernbr	VarChar	NVarChar	15	15
SOOrderSite	OrderNbr	VarChar	NVarChar	15	15

Removed Data Access Classes

The following data access classes that were present in prior versions have been removed.

Namespace	Class Name
PX.SM	SMPPerformanceValues
PX.SM	AUNotificationProcess+AUNotificationFilter
PX.SM	KBSetup
PX.SM	UploadFileInScreen
PX.Data	LogRecord
PX.Data	ExtraFieldValue
PX.Data	ExtraField
PX.Data	ExtraFieldOnGraph
PX.Data.EP	DynamicAttachment
PX.SM	SMLanguageSearchSettings
PX.Objects.PM	ProjectBalanceValidationProcess+PMProjectStatusEx
PX.Objects.PM	ProjectBalanceByPeriodEntry+ProjectBalanceFilter
PX.Objects.PM	PMHistory2Accum
PX.Objects.PM	PMProjectStatus
PX.Objects.PM	PMProjectStatusAccum
PX.Objects.PM	PMProjectStatusEx
PX.Objects.PM	ProjectBalanceEntry+ProjectBalanceFilter
PX.Objects.CR	CampaignMemberMassProcess+CampaignOperationParam
PX.Objects.CR	SelCampaignMembers
PX.Objects.CR	CRMarketingListMaint+MailSubscriptionInfo
PX.Objects.CR	CRMarketingListMaint+MailUnsubscriptionInfo
PX.Objects.CR	CRMarketingListMaint+MarketingListInfo
PX.Objects.AR	ARDunningLetterProcess+ARDunningLetterDetail2

Removed Graphs

The following graphs that were present in prior versions have been removed.

Namespace	Name
PX.Objects.PM	ProjectBalanceByPeriodEntry
PX.Objects.PM	ProjectBalanceEntry
PX.Objects.CR	CampaignMemberMassProcess

Removed Constants

The following table lists the constants that have been removed from the database.

Namespace	Name
PX.Objects.IN	InventoryAttribute+dimensionName
PX.Objects.CR	CampaignMemberMassProcess+CampaignOperationParam+ActionList+add
PX.Objects.CR	CampaignMemberMassProcess+CampaignOperationParam+ActionList+update
PX.Objects.CR	CampaignMemberMassProcess+CampaignOperationParam+ActionList+remove

Configuration: Recognition of Addresses Imported from External Systems

Data imported to Acumatica ERP from an external system may include country or state data that does not comply with ISO standards or that contains typographical mistakes. The system now provides the capability to compare invalid country and state data with variants of possible spellings, which the user can define through regular expressions for each country and state on the *Countries/States (CS204000)* form. With this capability, the system can recognize country and state data that is imported from external systems or manually entered; also, the capability reduces the probability of data import failure.

Acumatica ERP entities that may contain country or state data include business accounts, contacts, leads, customers, vendors, sales orders, purchase orders, and payments. Users can import these entities to Acumatica ERP by using any of the following integration tools:

- Integration scenarios
- Web services API
- Integration with Exchange Server

Distribution: Ability to Use Sales Orders and Purchase Orders Without Inventory Setup

A new *Inventory* feature switch has been added to the **Standard Distribution** group on the *Enable/Disable Features (CS100000)* form. With this feature enabled, a user can maintain stock items in the Inventory module and use the Sales Orders, Purchase Orders, and Purchase Requisitions modules of the Distribution suite for creating and processing documents that may include stock items.

If the Acumatica ERP license does not include the *Inventory* feature, most of the forms of the Inventory module are not available. A user will be able to use other modules of the Distribution suite for creating and processing documents with non-stock items and services only. Specifically, the following types of documents with non-stock items and services can be created and processed if the *Inventory* feature is not enabled:

- Sales orders and Sales Orders invoices
- Purchase orders and purchase receipts
- Purchase requests and purchase requisitions (if the *Purchase Requisitions* feature is enabled on the *Enable/Disable Features* form)

Also, the following additional features of the Distribution suite can be enabled and used if the *Inventory* feature is not enabled:

- *Multiple Units of Measure*
- *Blanket and Standard Purchase Orders*
- *Custom Order Types*
- *Purchase Requisitions*

Other User Interface Changes

The **Volume UOM** and **Weight UOM** settings have been moved from the *Inventory Preferences (IN101000)* form to the *Branches (CS102000)* form.

Distribution: Enhanced Process of Posting to Inventory

When a Sales Orders invoice is processed, the costs and corresponding revenues can now be recorded to the same financial period, regardless of when the inventory issue is generated. Previously, when a Sales Orders invoice was released, the system always assigned the shipment date and the corresponding financial period to the inventory issue if it was created during the process of releasing the invoice. If the post period of the Sales Orders invoice was different from the period of the inventory issue, the COGS and revenues could have been recorded to different financial periods, causing an incorrect income statement for the issue period. To avoid this situation, the logic used for generating and posting inventory issues on release of sales invoices has been improved.

To help users review documents for which inventory issues have not been created yet, the new *Unposted to IN Documents (IN656500)* report has been introduced (see the screenshot below). The report is available in the **Reports > Audit** section of the Inventory module.

Unposted to IN Documents				
Company:	Revision Two HQ		From Period:	04-2013
User:	admin, admin		To Period:	04-2013
Page: 1 of 1 Date: 8/30/2017				
Doc. Type	Ref. Nbr.	Doc. Date	Period	Status
Shipment	001301	4/3/2013	04-2013	Confirmed
Shipment	001303	4/22/2013	04-2013	Confirmed
Invoice	AR004259	4/29/2013	04-2013	Balanced
Invoice	AR004263	4/30/2013	04-2013	Balanced

Figure: Unposted to IN Documents report

The Post Period of the Inventory Issue

Now users can configure the following processes in the system (so that in either case, the financial period of the costs will match the financial period of the corresponding revenues):

- Updating the inventory as of the shipment date: A user can run the Update IN process on the *Shipments (SO302000)* or *Process Shipments(SO503000)* form to create inventory issues from confirmed shipments with the post period of the inventory issue as of the shipment date. In this case, we recommend that the user specify the **Shipped-Not-Invoiced** account on the *Sales Orders Preferences form (SO101000)*; the system will temporarily post to this account the issued costs until the invoice for the sale is processed. On release of the Sales Orders invoice prepared for the shipment, the system will create a General Ledger transaction that clears the shipped-not-invoiced amount and posts the costs and revenues to the same financial period.



The system will show a warning when a user performs the **Update IN** action on the *Shipments (SO302000)* form or *Process Shipments (SO503000)* form if the **Use Shipped-Not-Invoiced Account** and **Use Shipment Date for Invoice Date** check boxes are both cleared on the *Sales Orders Preferences form (SO101000)*; the warning will notify the user that the revenue might be posted to a financial period that does not match the COGS period.

- Updating the inventory as of the invoice date: In this case, the user does not need to run the Update IN process; inventory issues are automatically generated on release of the corresponding Sales Orders invoices. The system generates the inventory issues with the post period and date of the Sales Orders invoices, so that the costs and revenues match the financial period on the income statement.

New Report for Reviewing Documents That Haven't Been Posted to Inventory

A new *Unposted to IN Documents (IN656500)* report has been introduced. A user can generate this report from the *Close Financial Periods (IN509000)* form or open it directly from the **Reports > Audit**

section in the left pane, and review the list of documents that need to be posted to the Inventory module. This report is for informational purposes; the user can close financial periods without cleaning the report. The report lists the following documents whose document dates belong to the specified range of periods:

- Unreleased Sales Orders invoices having lines with stock items for which no inventory transactions have been posted to the Inventory module.
- Confirmed shipments for which no invoice has been created and no inventory transaction has been posted to the Inventory module.

Distribution: Item Class Hierarchy

With Acumatica ERP, users can now configure multi-segment item class IDs so that each segment defines a nested level of hierarchy. Thus, a user can set up item classes as a tree-like structure with parent-child relationships between item classes. Some other settings related to item class configuration have also been redesigned.

Defining the Hierarchy of Item Classes

The new *INITEMCLASS* segmented key, to which the item class entity is linked, has been added to the system. This segmented key can consist of one segment or multiple segments, each defining a nested level of hierarchy. For a detailed description of segmented keys, see the Common Settings > Overview > Segmented Identifiers topic in the User Guide.

The **Item Class Tree** pane has been added to the *Item Classes (IN201000)* form; this tree view shows the hierarchical structure of item classes configured in the system (see the following screenshot).

The screenshot displays the 'Item Classes' form for 'Revision Two HQ'. The 'Item Class Tree' pane on the left shows a hierarchical structure of item classes:

- 10-**-** PAINT
 - 10-10-**-** Alkyd
 - 10-10-02 Exterior
 - 10-11-**-** Enamel
 - 10-20-01 Interior
 - 10-20-03 Exterior
 - 10-20-04 Other Items
 - 10-30-**-** Services
 - 10-30-05 Painting works
 - 10-30-07 Wall leveling
 - 10-30-10
 - 10-30-11 For kitchen
 - 10-30-20 Interior
- 20-**-** WALLPAPER
 - 20-10-**-** Vinyl
 - 20-30-**-** Photo
 - 20-30-01 Nature
 - 20-30-02 Animals
 - 20-30-09 Descr
 - 20-40-81 For drawing

The right pane shows the 'General Settings' for the selected item class '10- - - Paint'. The settings include:

- * Class ID: 10- - - Paint
- Description: Paint
- General Settings: Stock Item, Allow Negative Quantity
- Item Type: Finished Good
- Valuation Met...: Average
- Tax Category: TAXABLE - Taxable Goods and Servi
- Posting Class: CON - Consumer Goods
- Lot/Serial Class: NOTTRACKED - Not Tracked
- Price Class: ECOM - Ecommerce price class
- Default Wareh...: WHOLESALE - HQ Wholesale Waret
- * Availability Cal...: ALLOTHER

Figure: Item Class Tree pane on the Item Classes form

The new *Inventory by Item Class (IN408000)* form has been added: On this form, a user can inspect the item class hierarchy and review which inventory items belong to a particular item class. Also on this form, a user can perform mass-change of the item class for multiple inventory items.

For details on configuring and using the hierarchical structure of item class IDs, see the Inventory > Managing Inventory Items > Hierarchy of Item Classes topic in the User Guide.

Specifying Default Item Classes

The **Default Item Class** setting on the *Inventory Preferences (IN101000)* form has been split into two settings. Now a user can define separate item classes as the default for stock items in the **Default Stock Item** class box, and as the default for non-stock items in the **Default Non-Stock Item Class** box.

Configuring Availability Calculation Rules

The **Availability Calculation** section of the *Item Classes (IN201000)* form has been replaced with a single **Availability Calculation** box in which a user specifies the availability calculation rule that applies to the item class. The new *Availability Calculation Rules (IN201500)* form has been added, on which a user can configure the availability calculation rules.

Noting Other User Interface Changes

The following changes have been made to the user interface:

- On the *Physical Inventory Types (IN208900)* form, the *By Item Classes* generation method has been added; the **Item Class Selection** tab (which is displayed if this method is selected) now allows a user to specify one item class or multiple item classes. (The **Item Classes** box has been replaced with the **Item Classes** table.)
- The **Item Class ID** box has been added to the Summary area of the *Prepare Replenishment (IN508000)* form.
- The *Inventory Balance (IN615000)*, *Inventory Valuation (IN615500)*, and *Sales Profitability by Item Class and Item (AR674000)* reports now support hierarchical ordering of item classes.

Distribution: Non-Invoicable Expense Lines in Drop-Ship Purchase Orders

Users can now add expense lines to drop-ship purchase orders and purchase receipts to process extra charges that do not need to be invoiced to the customer. In particular, the system supports the following drop-ship order workflow when charges such as this are involved:

1. A user creates a drop-ship purchase order for goods ordered by a customer. To the purchase order, the user adds the expense line that has been additionally claimed by the vendor and that is not supposed to be invoiced to the customer. To add this expense line, the user should select a non-stock item for which both the **Require Shipment** and **Require Receipt** check boxes are cleared on the *Non-Stock Items (IN202000)* form.
2. When the user prepares the Sales Orders invoice for the drop-shipped goods, the expense line is not invoiced. When the Sales Orders invoice is released, the system generates the General Ledger transaction for the sales revenue and for the cost of the drop-shipped goods.
3. The user enters the Accounts Payable bill; the system copies the expense line to the bill. When the Accounts Payable bill is released, the system creates the General Ledger transaction to the expense account of the non-stock item.

Distribution: Processing of Service Lines in Purchase Orders via Purchase Receipts

To streamline the purchase order billing process, users can have the system copy the service lines (the lines with non-stock items for which the **Require Receipt** check box is cleared on the *Non-Stock Items (IN202000)* form) from purchase orders to purchase receipts without processing them via accrual. To set up the system to copy these lines for purchase orders, users can select the corresponding check box on the *Purchase Orders Preferences (PO101000)* form, which is one of the following:

- **Process Service Lines from Normal Purchase Orders via Purchase Receipt**

By default, this check box is cleared and the system works as it did before: Service lines are not copied from a purchase order to the corresponding purchase receipt; they also cannot be added manually to the purchase receipt by clicking **Add PO** or **Add PO Line** on the toolbar of the **Documents Details** tab of the *Purchase Receipts (PO302000)* form. Service lines are billed directly from the purchase order. After an Accounts Payable bill has been prepared for a purchase order line, it is not possible to create a second unreleased bill for this line.

If this check box is selected, service lines are copied to a purchase receipt prepared for a purchase order that includes these lines; these lines cannot be billed directly from the purchase order.

- **Process Service Lines from Drop-Ship Purchase Orders via Purchase Receipt**

By default, this check box is cleared and the system works as it did before: Service lines are not copied from a drop-ship order to the corresponding purchase receipt; they also cannot be added manually to the purchase receipt by clicking **Add PO** or **Add PO Line** on the toolbar of the **Documents Details** tab of the *Purchase Receipts (PO302000)* form. Service lines are billed directly from the drop-ship order. After an Accounts Payable bill has been prepared for a purchase order line, it is not possible to create a second unreleased bill for this line.

If this check box is selected, service lines are copied to a purchase receipt prepared for a drop-ship order that includes these lines; these lines cannot be billed directly from the drop-ship purchase order.

Straightforward Line Completion Rules for Lines of the Service Type

Service lines in purchase orders are now closed based on the **Complete PO Line** setting of the non-stock item selected in the line. The **Complete PO Line** rule is preserved in the purchase order line and is not changed if the user changes the setting for the corresponding non-stock item; that is, the lines of the existing purchase orders are closed based on the settings that were specified when the purchase order was entered. The following completion rules have been introduced:

- A line with the *By Quantity* setting is closed in any of the following cases:
 - The purchase receipt with the full quantity of the order line has been released. The **Complete PO Line** check box is selected automatically for the purchase receipt line on the *Purchase Receipts* form.
 - The purchase receipt with a partial quantity of the order line has been released, and the **Complete PO Line** check box has been manually selected for the purchase receipt line on the *Purchase Receipts* form.
 - The Accounts Payable bill has been released, and the billed quantity is greater than or equal to the purchase order line quantity of all released Accounts Payable bills that refer to this line.
- A line with the *By Amount* setting is closed in either of the following cases:
 - The purchase receipt has been released, and the **Complete PO Line** check box has been manually selected for the purchase receipt line on the *Purchase Receipts* form.

- The Accounts Payable bill has been released and the billed amount is greater than or equal to the purchase order line amount of all released Accounts Payable bills that refer to this line.

Distribution: Unit of Measure and Pricing Improvements

The pricing mechanism has been significantly improved to give users more ways to configure sales and vendor prices. The main changes are described in the sections below.

Configuring Warehouse-Specific Prices

Now a user can define sales and vendor prices for each warehouse. The tables on the *Sales Prices (AR202000)*, *Sales Price Worksheets (AR202010)*, *Vendor Prices (AP202000)*, and *Vendor Price Worksheets (AR202010)* forms now have the **Warehouse** column, in which a user can specify the warehouse to which the price applies. If the warehouse is not specified, the price applies to all warehouses defined in the system. The warehouse-specific price has a higher priority than a price of the same type that is not specific to a warehouse.

Uploading Prices by Alternate IDs

Users can now specify inventory items by their alternate IDs on the *Sales Prices*, *Sales Price Worksheets*, *Vendor Prices*, and *Vendor Price Worksheets* forms. A user can make it possible to upload prices in worksheets by alternate IDs instead of item IDs and to create alternate IDs from worksheets by selecting the following new settings:

- The **Load Sales Prices by Alternate ID** check box on the **Price/Discount Settings** tab of the *Accounts Receivable Preferences (AR101000)* form
- The **Load Vendor Prices by Alternate ID** check box on the **Price/Discount Settings** tab of the *Accounts Payable Preferences (AP101000)* form

Specifying a Price Adjustment Multiplier

The system now provides the ability to keep and update the sales price for only one unit of measure, and to configure the system to update the prices for other units of measure automatically based on this price. To enable this ability, a user needs to select the new **Use a Price Adjustment Multiplier** check box on the **General Settings** tab of the *Sales Orders Preferences (SO101000)* form. After that, the adjustment multiplier can be specified in the **Price Adjustment Multiplier** column on the **General Settings** tab of the *Stock Items (IN202500)* form (for stock items) or the *Non-Stock Items (IN202000)* form (for non-stock items).

Specifying Cross-Reference Units of Measure

The table on the **Cross-Reference** tab of *Stock Items* and *Non-Stock Items* forms has been extended with the **UOM** column. If an alternate ID has the cross-reference unit of measure specified in this column, this unit of measure (UOM) will be used in any document in which a user specifies the inventory item by using this alternate ID. If the alternate IDs have this column empty, then the default unit of measure (the sales unit of measure for Accounts Receivable and Sales Orders documents, and the purchase unit of measure for Accounts Payable and Purchase Orders documents) will be used in documents.

Calculating Discounts in Different Units of Measure

The new **Apply Quantity Discounts To** box has been added to the **Discount Application** section on the **Price/Discount Settings** tab of the *Accounts Receivable Preferences (AR100000)* and *Accounts Payable Preferences (AP100000)* forms. If *Base UOM* is selected in this box, the quantity discounts are applied to the base quantity in the document; free items are also added in the base UOM. If *Document Line UOM* is selected, the system applies quantity discounts based on the quantity in the units of measure specified in the document line; free items are also added in the document line UOM.

The *Sales Orders (SO301000)*, *Invoices (SO303000)*, *Purchase Orders (PO301000)*, *Purchase Receipts (PO302000)*, *Invoices and Memos (AR301000)*, and *Bills and Adjustments (AP301000)* forms have been extended with the **Base Qty.** column, which shows the quantity in the base UOM of the inventory item specified in the document line.

Noting Other User Interface Changes

The following changes have been made to the user interface:

- The **Price/Discount Settings** tab added to the *Accounts Payable Preferences (AP100000)* form. The **Vendor Price Update** box has been moved from the *Purchase Orders Preferences form (PO101000)* to the *Accounts Payable Preferences* form. The **Price Retention** section of settings has been moved from the **General Info** tab to the **Price/Discount Settings** tab of the *Accounts Payable Preferences* form.
- The **Ignore Line Discounts if the Customer-Specific Price is Available** check box on the *Accounts Receivable Preferences (AR100000)* form has been replaced with the **Apply Line Discounts to Prices Specific To** group of check boxes. By selecting or clearing these check boxes, the user can specify whether the system should apply line discounts to prices specific to the customer or to the customer price class.
- The **Apply Line Discount To** setting on the *Accounts Receivable Preferences* form has been renamed to **Line Discount Basis**.

Finance: Ability to Close Tax Periods and 1099 Year by Company

A significant improvement has been implemented in the Taxes module. Now multiple branches that represent legal entities and use the same tenant in Acumatica ERP can configure their own tax periods and close the periods independently of one another.

To support the functionality of preparing tax reports and closing tax periods by company, the following changes have been made in the product:

- On the **Tax Agency Settings** tab of the *Vendors (AP303000)* form, the **Reporting Period Type** box was renamed to **Default Tax Period Type**. In this box, users now can specify a default tax period for the selected tax agency which can be overridden for a particular company. Option names available in this box were changed to the following names: *Half a Month, Month, Two Months, Quarter, Half a Year, Year, or Financial Period* (see the following screenshot).

The screenshot shows the 'Vendors' form for 'Revision Two HQ'. The 'Tax Agency Settings' tab is active. The 'Default Tax Period Type' dropdown menu is open, showing the following options: Half a Month, Month, Two Months, Quarter, Half a Year, Year, and Financial Period. The 'Financial Period' option is highlighted. Other settings visible include Vendor ID: TAXILLINOI, Vendor Name: Illinois Department of Revenue, Status: Active, Balance: 0.00, and Prepayment Balance: 0.00.

Figure: The Default Tax Period Type box

- The new *Tax Periods (TX207000)* form, shown in the following screenshot, has been added to the Taxes module. By using the form, users of a particular company can specify a tax year structure that differs from the default one set for a tax agency in the **Default Tax Period Type** box on the *Vendors* form. On the *Tax Periods* form, users can change the period type or the end date for the selected tax year, review the tax periods of the current and past tax years, and view the net tax amount (if any) for each tax period.

Revision Two HQ - Tax Periods ★

ACTIONS ▾ REPORTS ▾

★ Branch: HQ - Revision Two HQ

★ Tax Agency: TAXILLINOJ - Illinois Department of Re

★ Tax Year: 2014 Short Tax Year

Start Date: 1/1/2014

Tax Period Type: Month

Tax Period	Start Date	End Date	Status	Net Tax Amount
> 01-2014	1/1/2014	1/31/2014	Closed	
02-2014	2/1/2014	2/28/2014	Closed	
03-2014	3/1/2014	3/31/2014	Closed	
04-2014	4/1/2014	4/30/2014	Closed	
05-2014	5/1/2014	5/31/2014	Closed	
06-2014	6/1/2014	6/30/2014	Closed	
07-2014	7/1/2014	7/31/2014	Closed	
08-2014	8/1/2014	8/31/2014	Closed	
09-2014	9/1/2014	9/30/2014	Closed	210.10
10-2014	10/1/2014	10/31/2014	Open	
11-2014	11/1/2014	11/30/2014	Open	
12-2014	12/1/2014	12/31/2014	Open	

Figure: The Tax Periods form

- On the *Release Tax Report (TX502000)* form, users can close a tax period for the selected legal entity only.

Closing 1099 Year

The 1099 year can now be closed independently for each particular branch that represents a legal entity. The new **Branch** lookup box has been added to the *Close 1099 Year (AP507000)* form. By default, the current branch is selected but a user can select any other branch to which he or she has access.

Revision Two HQ - **Close 1099 Year** ★

CLOSE YEAR

• Branch:

• 1099 Year:

Status: Open

Box	Description	Amount
> 1	Rents	
2	Royalties	
3	Other Income	
4	Federal Tax Withheld	
5	Fishing Boat Proceeds	
6	Medical and Health Care Payments	
7	Nonemployee Compensation	24,000.00
8	Substitute Payments	
9	Direct Sales	
10	Crop Insurance Proceeds	
13	Excess Golden Parachute	
14	Gross Proceeds to Attorney	
16	State Tax Withheld	
18	State Income	
151	Section 409A Deferral	
152	Section 409A Income	

Figure: The enhanced Close 1099 Year form

For more information about the new functionality related to closing tax periods and the 1099 year in Acumatica ERP, see the Taxes module in the User Guide.

Finance: Approval of Outgoing Cash Transactions

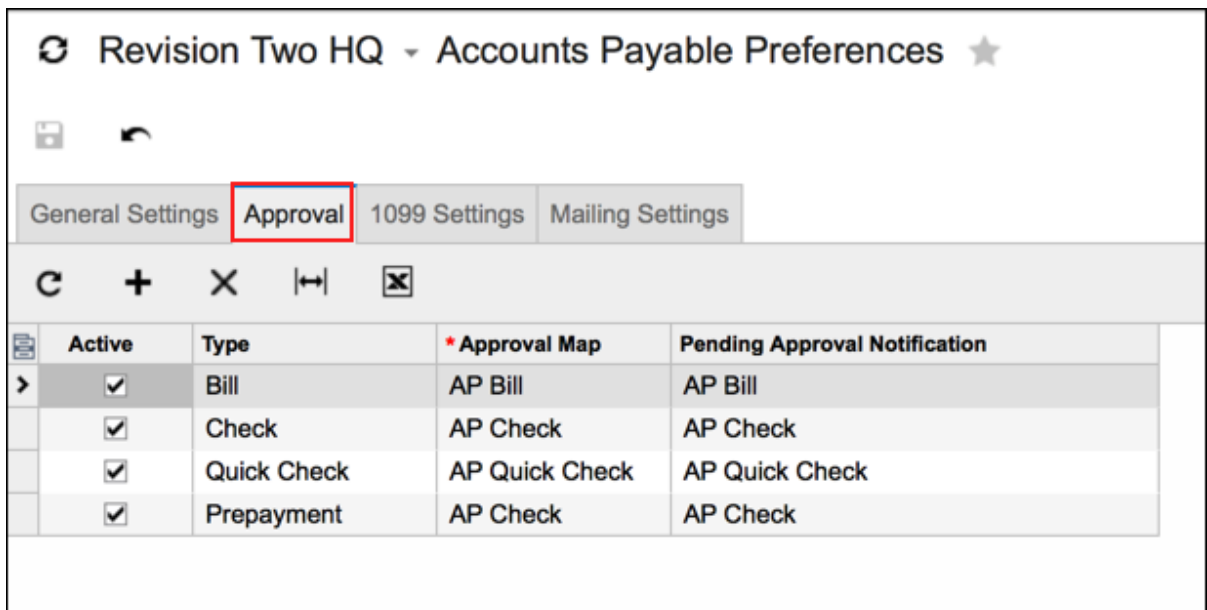
Every cash outflow might require approval, and the previous product functionality gave users the ability to approve cash transactions. With the new functionality, users can also approve the following documents:

- In the Accounts Payable module:
 - Checks
 - Prepayments
 - Quick checks
- In the Accounts Receivable module:
 - Customer refunds
 - Cash returns

Configuration

For a site to implement the approval of cash outflows, the following conditions must be met:

1. Approvals must be available in Acumatica ERP. That is, the *Approval Workflow* feature (found under **Monitoring & Automation**) must be activated on the *Enable/Disable Features (CS100000)* form.
2. Approval maps must be created for each document type to be approved. (Checks and prepayments can share the same approval map if they are created on the same data entry form.)
3. Approval maps must be assigned to the applicable document types on the **Approval** tab of the *Accounts Payable Preferences (AP100000)* form, as shown in the following screenshot.



Active	Type	* Approval Map	Pending Approval Notification
<input checked="" type="checkbox"/>	Bill	AP Bill	AP Bill
<input checked="" type="checkbox"/>	Check	AP Check	AP Check
<input checked="" type="checkbox"/>	Quick Check	AP Quick Check	AP Quick Check
<input checked="" type="checkbox"/>	Prepayment	AP Check	AP Check

Figure: The Approval tab of the Accounts Payable Preferences form

Also, approval maps should be assigned to the applicable document types on the *Accounts Receivable Preferences (AR100000)* form, as shown in the following screenshot.

Revision Two HQ - Accounts Receivable Preferences

General Settings **Approval** Price/Discount Calculation Dunning Settings Mailing Settings

Active	Type	* Approval Map	Pending Approval Notification
<input checked="" type="checkbox"/>	Customer Refund	AR Customer Refund	AR Customer Refund
<input checked="" type="checkbox"/>	Cash Return	AR Cash Return	AR Cash Return

Figure: The Approval tab of the Accounts Receivable Preferences form

Users can now activate or deactivate approvals for each document type independently, as described in the next section.

Also, users may want to assign notification templates to each document type. Based on these templates, users who are assigned to perform approvals will receive notification messages about documents that are ready for approval or rejection. Users can use predefined templates, modify them, or prepare their own templates.

Usage

If approvals are activated, the following forms will have the **Approval Details** tab that is new to this version of Acumatica ERP:

- *Checks and Payments (AP302000)*
- *Quick Checks (AP304000)*
- *Payments and Applications (AR302000)*
- *Cash Sales (AR304000)*

On each of these forms, the new menu commands **Approve** and **Reject** are available on the **Actions** menu, as shown in the following screenshot.

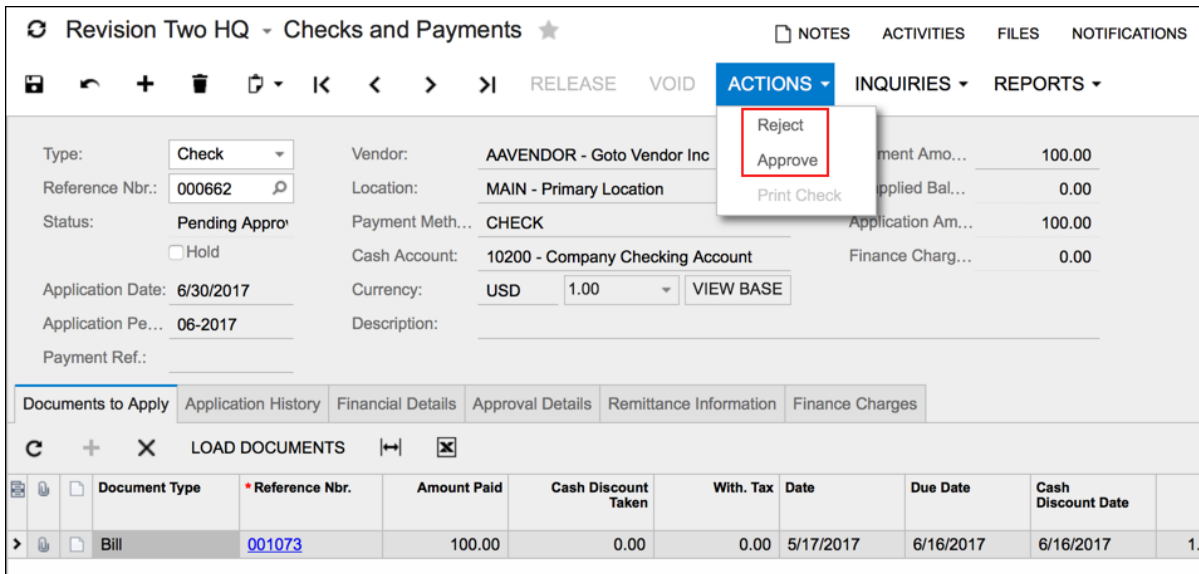
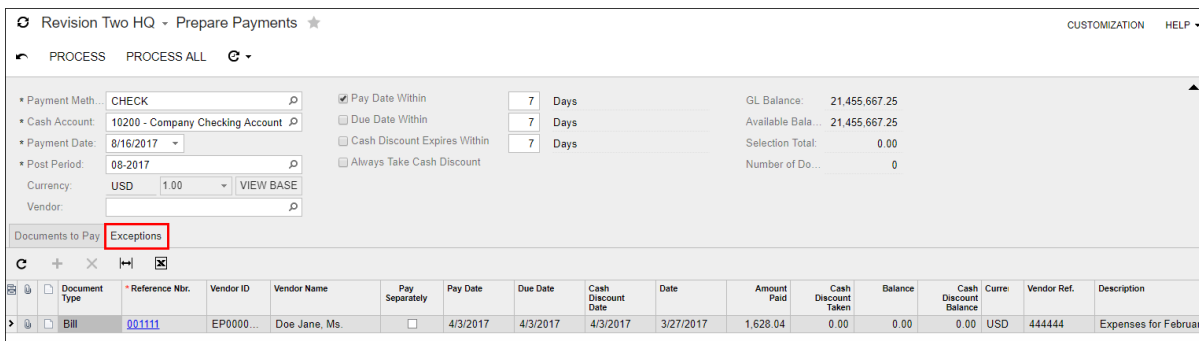


Figure: The Approve and Reject menu commands

When a document that requires approval is taken off hold (that is, when the **Hold** check box is cleared on the form used to create the document), the document is assigned the *Pending Approval* status and an approval request is sent to the employee specified in the applicable approval map. Once the document has been completely approved by all assigned employees, it is assigned the *Balanced* (or *Pending Print*, if the payment method requires printing of checks or processing of batch payments) status, and its processing may be continued as usual. Rejected documents may be put on hold, edited, or deleted.

On the *Prepare Payments (AP503000)* form, users can apply payments to documents that are displayed on the **Documents to Pay** tab. To the table on this tab, the system loads documents based on the criteria specified in the selection area. However, users can select manually any open bill that is not used in any unreleased payments. Documents to which payments with *Rejected* status has been applied are displayed on the new **Exceptions** tab, as shown in the screenshot below. Payments cannot be applied to these documents even though they are not yet closed. Users can use this tab to review and process the documents with rejected payments.



Finance: Enhancements of Customer Statement Processing

The processing of statements has been enhanced in Acumatica ERP 2017 R2. The following changes have been made, as described in the sections below:

- A statement can now be prepared on the last day of the financial period or on a specific day of the week.
- The ability to generate statements of the *Open Item* type on demand has been added.
- The ability to select the scheduled date for statement preparation has been added to the *Prepare Statements (AR503000)* form.
- Outstanding documents can now be aged based on their document dates and aged by using financial periods.
- The ability to edit the aging period descriptions that are printed on the *Customer Statement (AR641500)* report has been added.
- It is now possible to not print or email statements that have no details.
- Messages can now be added to statement reports.
- Additional details (such as a branch logo and email address) have been added to the *Customer Statement (AR641500)* and the *Customer Statement MC (AR642000)* reports.
- Issues with incorrect calculation of statement balance have been fixed.

Enhanced Schedule Options of the Statement Preparation Process

Now it is possible to prepare a statement on the last day of the financial period or on the specific day of the week.

On the *Statement Cycles (AR202800)* form, the following options have been added to the **Schedule Type** box (which was the **Prepare On** box in previous versions of Acumatica ERP):

- *End of Financial Period*: Statements will be prepared on the last day of the financial period. With this schedule type selected, the system uses the end date of a financial period specified in the **End Date** column on the *Financial Periods (GL201000)* form as the day on which statements should be prepared.
- *Weekly*: Statements will be prepared on the specific day of the week. With this schedule type selected, the **Day of Week** box appears on the *Statement Cycles* form. In this box, a user selects the day on which statements should be prepared.

Also, the *Custom* option was renamed to *Twice a Month*. (All of the current options are shown in the following screenshot.)

Revision Two HQ - Statement Cycles ★

REGENERATE LAST STATEMENT

GENERAL SETTINGS

* Cycle ID:

* Description:

Schedule Type: **Twice a Month** ▼

Last Statement Date: Weekly
Twice a Month
Fixed Day of Month
End of Month
End of Financial Period

AGING SETTINGS

Figure: The Schedule Type box on the Statement Cycles form

On-Demand Statement Preparation

The new **Generate Statement on Demand** menu command has been added to the **Actions** menu on the *Customers (AR303000)* form, so that a user can prepare a statement on any date for a customer with the *Open Item* statement type selected on the **Billing Settings** tab of the form.

When the user invokes this action, the **Generate On-Demand Statement** dialog box opens. In the **Statement Date** box, the user selects the date on which the statement will be generated (see the following screenshot).

Generate On-Demand Statement X

* Statement Date:

OK CANCEL

Figure: The Generate On-Demand Statement dialog box

Users can print on-demand statements in one of the following ways:

- By clicking the **Print Statement** button on the *Customer Statement History (AR404600)* form
- By selecting the *Print Statement* action and processing selected statements on the *Print Statements (AR503500)* form
- By invoking the *Customer Statement* report from the *Customers (AR303000)* form and clicking **Print**

To give users the ability to view statements that were prepared on-demand along with scheduled statements, one can select the **Include On-Demand Statements** check box, which has been added to the Selection area of the *Statement History Summary (AR404000)* form (see the following screenshot).

Revision Two HQ - Statement History Summary ★

STATEMENT HISTORY DETAILS PRINT STATEMENTS

Statement Cycle ID:

Start Date:

End Date:

Include On-Demand Statements

Figure: The Include On-Demand Statements check box on the Statement History Summary form

Also, the **On-Demand Statement** column has been added to the tables on the *Customer Statement History (AR404600)* and *Statement History Details (AR404300)* forms. If this check box is selected, it indicates that the statement in the row was generated on demand. The date when each statements was generated is displayed in the **Prepared On** column (see the following screenshot).

Revision Two HQ - Customer Statement History ★

PRINT STATEMENT

* Customer:

Statement Cycle	Statement Date	Statement Balance	Overdue Balance	Don't Print	Printed	Don't Email	Emailed	On-Demand Statement	Prepared On
EOM	12/31/2013	500.00	0.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4/12/2017

Figure: Changes on the Customer Statement History form

Scheduled Date of Statement Preparation

On the *Prepare Statements* form, the new **Prepare For** box has been added (see the following screenshot).

Revision Two HQ - Prepare Statements ★

PROCESS PROCESS ALL

Prepare For:

Cycle ID	Description	Last Statement Date	Last Finance Charge Date	Schedule Type	Next Statement Date
EOM	End of Month	12/31/2013	10/31/2016	End of Month	3/31/2017

Figure: The Prepare For box on the Prepare Statements form

In the **Prepare For** box, users can select the date for which statements will be prepared on the form instead of changing the business date. All statement cycles that have a **Next Statement Date** that is before or the same as the **Prepare For** date are loaded to the table along with the newly created statement cycles with blank next statement dates. Thus, users can prepare the statements in advance without touching the business date, which is important because a non-actual business date could affect their data entry and other processes.

The default value is the current business date.

Aging of Outstanding Documents Options

To provide the ability to age outstanding documents by using the financial periods, the **Use Financial Periods for Aging** check box has been added to the **Aging Settings** section of the *Statement Cycles (AR202800)* form. With this check box selected, the system generates customer statements and aging reports with aging broken down into financial periods.

In addition to aging outstanding documents based on their due date, a user can now age outstanding documents based on their document date by using the new **Age Based On** box, which was added to the *Statement Cycles* form. In this box, a user can do one of the following:

- If the outstanding documents need to be aged based on their due date, select the *Due Date* option. (This option is the default option).
- If the outstanding documents need to be aged based on their document date, select the *Document Date* option.

On the following screenshot, you can see the newly added interface elements.

AGING SETTINGS

Use Financial Periods for Aging

Aging Period (Days)	Description
Current	Current
1 - 10	0 to 10 Days
11 - 30	11 to 30 Days
31 - 60	31 to 60 Days
Over 60	Over 60 Days

Age Based On: **Due Date** ▼

FINANCE CHARGE SE **Due Date**

Document Date

Figure: The Aging Settings section on the Statement Cycles form

Edited Aging Descriptions in Customer Statement Reports

If users edit the descriptions of the aging periods in the **Description** box of the *Statement Cycles* (AR202800) form, the descriptions now will be printed in the customer statement reports.

Statement Printing Options

It is now possible not to print or sent by email statements of the *Open Items* type with no open documents, and statements of the *Balance Brought Forward* type with no activity in the period and zero balance on the previous statement. The **Print Empty Statements** check box has been added to the *Statement Cycles* form (see the following screenshot).

Revision Two HQ - Statement Cycles ★

REGENERATE LAST STATEMENT

GENERAL SETTINGS

* Cycle ID:

* Description:

Schedule Type: **End of Month** ▼

Last Statement Date:

Require Payment Application Before Statement

Print Empty Statements

Figure: The Print Empty Statements check box on the Statement Cycles form

If a user does not want the statements with no details to be printed, this check box must be unselected for statement cycles on the *Statement Cycles* form. After the process of preparing the statement, users can view these statements with the **Don't Print** and **Don't Email** check boxes selected on the *Statement History Details*, *Customer Statement History*, and *Print Statements* forms.

Messages on Customer Statements

Now a user can add any message to customer statements by typing it in the **Message** box on the *Print Statements* (AR503500) form (see the following screenshot). The same message will be printed on all statements.

Revision Two HQ - Print Statements ★ CUSTOMIZA

PROCESS PROCESS ALL INQUIRIES

Actions: * Branch:

* Statement Cycle: Foreign Currency Statements

Statement Date: Show All

Message:

<input type="checkbox"/>	Customer	Customer Name	Statement Balance	Overdue Balance	Currency	FC Statement Balance	FC Overdue Balance	FC Statement	Don't Print	Printed	Don't Email	Emailed
<input type="checkbox"/>	ABARTENDE	USA Bartending School	95,710.60	95,710.60	USD	95,710.60	95,710.60	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ABCHOLDI...	ABC Holdings Inc	192,387.42	192,387.42	USD	192,387.42	192,387.42	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	AMROBANK	AMRO Bank N.V.	0.00	0.00	USD	0.00	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	APOSTELS...	Church of The Apostles	0.00	0.00	USD	0.00	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ARTCAGES	Artcages	0.00	0.00	USD	0.00	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ASBLBAR	Nautilus Bar SABL	0.00	0.00	USD	0.00	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure: The Message box on the Print Statements form


The message will be printed on the first page of each customer statement. See the [Figure: Example of Customer Statement report](#) screenshot in the next section.

Enhancements of Customer Statement Reports

The *Customer Statement (AR641500)* and *Customer Statement MC (AR642000)* reports have been modified and now include the following information:

- The logo of the branch
- The company name (instead of the branch name) that is specified on the *Branches (CS102000)* form.
- Branch and customer emails (if specified)
- Branch tax registration ID (if specified)

These changes allow using out of the box report by most of the companies. You can see the changes in red on the following screenshot.



Company Name of HQ Branch
4030 Lake Washington Blvd NE
Suite 100
Kirkland, WA, 98033
Phone: 206-555-1212
Tax Registration ID: 1234567890
Email: admin@revisiontwo.com
Web: www.revisiontwo.com

Customer Statement

Customer ID: ELEVATION
Date: 12/31/2016

To:
Elevation Computers
8557 S Commercial Ave
Chicago IL 60617
United States of America
djohnson@acumatica.com

Wishing you a season of joy and looking forward to continued success in 2017!

Date	Due Date	Doc. Type	Ref. Nbr.	Ext. Ref. Nbr.	Orig. Amount	Amount Due	Balance
10/1/2016	10/31/2016	INVOICE	AR004539	ELEVATION20 1609008	26,941.26	26,941.26	26,941.26
Electronics Computing Order							
10/6/2016	11/5/2016	INVOICE	AR004546	ELEVATION20 1610008	138,060.90	138,060.90	165,002.16
Electronics Computing Order							

Figure: Example of Customer Statement report



: If a user has customized the *Customer Statements (AR641500)* and *Customer Statements MC (AR642000)* reports, these reports will not work after the upgrade. The user should customize the new version of the reports.

Fixes of Calculation Issues in Statements

Now the system correctly calculates the balances of *Balance Brought Forward* statements if either of the following is true:

- Documents included in the statement have applications with cash discounts, write-offs, or realized gains or losses. (Statements also display information on these applications.)
- The **Consolidate Statements for All Branches** check box is not selected on the *Accounts Receivable Preferences (AR101000)* form and a payment is applied to an invoice that was created in the branch that is different from the branch of the payment.
- The **Multi-Currency Statements** check box is selected for a customer on the *Customers* form and a payment or payments applied to documents in another currency are included to the statement.

Also, the system correctly calculates the balances of the *Open Item* statements if the statements have been generated after some payments from the next statement period have been applied to the invoices included into the current statement.

Finance: New Authorize.Net Plug-In

Because Authorize.Net has introduced a new API, Acumatica ERP has implemented a new *Authorize.Net API* plug-in for integration with Authorize.Net.



Important: We recommend that users use the new Authorize.Net API plug-in for configuring integration with Authorize.Net. The Authorize.Net company has also announced the end of life on March 1, 2018, for the Authorize.Net CIM plug-in, which is currently used by Acumatica ERP to work with customer profiles in the tokenized plug-in.

The New Authorize.Net API Plug-In

The new *Authorize.Net API* plug-in provides PCI DSS-compliant integration with Authorize.Net, and sensitive credit card information is not stored in the Acumatica ERP database. The system sends customer credit card details to the processing center through an encrypted channel.

A user can use either an Acumatica ERP form or a form hosted by Authorize.Net to fill in customer credit card details.

The plug-in supports fraud detection services enabled in the Authorize.Net Merchant Interface when a user adds a new credit card for a customer by using the form hosted by Authorize.Net.

Restriction of the Number of Payment Methods

Authorize.Net allows up to ten payment profiles for a single customer profile. If some of the company's customers use more than 10 credit or debit cards to pay for goods or services, the **Create Additional Customer Profiles** check box should be selected on the **Connection Preferences** tab of the *Processing Centers (CA205000)* form (see the screenshot below).

Revision Two HQ ▾ Processing Centers ★










 TEST CREDENTIALS

* Proc. Center ID:	<input type="text" value="NEW"/>
* Name:	<input type="text" value="Authorize.net API"/>
* Cash Account:	<input type="text" value="10600 - Credit Card Account"/>
Currency:	<input type="text" value="USD"/>
	<input checked="" type="checkbox"/> Active
Payment Plug-In (Type):	<input type="text" value="PX.CCProcessing.V2.Authne"/>
	<input type="checkbox"/> Allow Direct Input <input checked="" type="checkbox"/> Synchronize Deletion

Settings	Payment Methods	Connection Preferences
----------	-----------------	------------------------

CONNECTION SETTINGS

Transaction Timeout (s):	<input type="text" value="0"/>
Number of Additional Synchronization Attempts:	<input type="text" value="3"/>
Delay Between Synchronization Attempts (ms):	<input type="text" value="500"/>

PROFILE CREATION SETTINGS

<input checked="" type="checkbox"/> Create Additional Customer Profiles
Maximum Credit Cards per Profile: <input type="text" value="10"/>

Figure: The Connection Preferences tab

With this check box selected, each time the number of payment profiles exceeds 10 (if a lower value is not set in the **Maximum Credit Cards per Profile** box) for a customer profile in Authorize.Net, the system creates an additional customer profile at Authorize.Net to be associated with the respective customer account in Acumatica ERP.

Migration to a New Plug-In

If a plug-in has been specified for integration between Acumatica ERP and Authorize.Net previously, a user can change the plug-in for payment methods. To do so, on the *Payment Method Converter (CA207000)* form, a user should change the processing center with an old plug-in to the processing center with a new plug-in for each payment method.

For more information about the integration between Acumatica ERP and Authorize.Net through the API plug-in, see the Setup of Card Payment Processing > Integration with Authorize.Net Through the API Plug-in topic of the Cash Management chapter in the User Guide.

Finance: Migration Mode in the Accounts Payable and Accounts Receivable Modules

With new system functionality, users can migrate historical data from a legacy system to Acumatica ERP. A user can now turn on migration mode on the *Accounts Payable Preferences (AP101000)* and *Accounts Receivable Preferences (AR101000)* forms and then load Accounts Payable and Accounts Receivable documents with their open balances, original amounts, and dates without affecting the general ledger. On release of those documents, the system will update only vendor or customer balances but will not post transactions to the General Ledger module.

To provide the ability to activate migration mode for Accounts Payable and Accounts Receivable documents, the new **Activate Migration Mode** check box has been added to the **Posting Settings** section of the *Accounts Payable Preferences* and *Accounts Receivable Preferences* forms, as shown in the following screenshot.

The screenshot displays the 'Accounts Payable Preferences' form for 'Branch #1'. The 'General Settings' tab is selected. The form is divided into several sections:

- NUMBERING SETTINGS:** Includes fields for Batch, Bill, Debit Adjustment, Credit Adjustment, Payment, and Price Worksheet numbering sequences.
- DATA ENTRY SETTINGS:** Includes fields for Default Vendor Class ID, Combine Expense Sub. from, and Payment Lead Time, along with checkboxes for 'Hold Documents on Entry', 'Require Approval of Bills Prior to Payment', 'Enable Early Checks', 'Validate Document Totals on Entry', and 'Require Vendor Reference'.
- POSTING SETTINGS:** Includes checkboxes for 'Automatically Post on Release', 'Post Summary on Updating GL', and the newly added 'Activate Migration Mode' checkbox, which is highlighted with a red box.
- AGING SETTINGS:** Includes fields for Aging Period 1 (7 Days), Aging Period 2 (14 Days), and Aging Period 3 (30 Days).
- PRICE RETENTION SETTINGS:** Includes fields for Retention Type (Last Price) and Number of Months (12).

Figure: The new Activate Migration Mode check box

With migration mode activated, a user can import or manually enter documents of the following types:

- *Invoice, Debit Memo, and Credit Memo* on the *Invoices and Memos (AR301000)* form
- *Payment, Prepayment and Customer Refund* on the *Payments and Applications (AR302000)* form
- *Cash Sales and Cash Return* on the *Cash Sales (AR304000)* form
- *Bill, Debit Adjustment, and Credit Adjustment* on the *Bills and Adjustments (AP301000)* form
- *Check, Prepayment, and Vendor Refund* on the *Checks and Payments (AP302000)* form
- *Quick Check* on the *Quick Checks (AR304000)* form

For a migrated document, on the **Financial Details** tab of the document entry form (such as *Bills and Adjustments* or *Quick Checks*), **MIGRATED** is displayed in the **Batch Nbr.** box.

When migration mode is deactivated, the migrated documents are available for regular processing.

For more information about migration mode in the Accounts Payable and Accounts Receivable modules, see the Accounts Payable and Accounts Receivable modules in the User Guide.

Finance: Pay-to Vendor Relations

Acumatica ERP now gives users the ability to set up the process of purchasing goods or services from one vendor and paying for those goods or services to another vendor. For example, in a company that consists of multiple branches (such as corporate chain stores) where a corporate head office pays all external bills, a branch (store) that is using Acumatica ERP orders and is supplied goods from an external vendor but pays for the supplied goods to its corporate office.

Setup of Vendor Relations

In the system, the following vendor roles can be defined for vendors:

- **Supplied-by Vendor:** A vendor that supplies goods or services (for example, an external vendor that supplies goods to a store)
- **Pay-to Vendor:** A vendor to which payments should be made (for example, a corporate office that pays for all goods or services supplied to its stores, and to which a store should make a payment)

In Acumatica ERP, a user sets up these vendor relations in the Accounts Payable module on the *Vendors (AP303000)* form. For each vendor that will function as a supplied-by vendor, on the **Payment Settings** tab of the *Vendors* form, a user specifies the pay-to vendor (for example, a corporate office) in the new **Pay-to Vendor** box.

The screenshot shows the 'Vendors' form in the Accounts Payable module, specifically the 'Payment Settings' tab. The form displays details for a vendor named 'Goto Vendor Inc' (Vendor ID: AAVENDOR, Status: Active). Key information includes a balance of 11,000 and a prepayment balance of 60,000. The 'Payment Settings' section is divided into 'REMITTANCE CONTACT' and 'DEFAULT PAYMENT SETTINGS'. The 'REMITTANCE CONTACT' section includes fields for Web, Email (purchase@gotovend.con), Fax, Phone 1 (+1 (816) 222-0066), Phone 2, Attention, and Company Name (Goto Vendor Inc). The 'DEFAULT PAYMENT SETTINGS' section includes Payment Method (CHECK - Check), Cash Account (10200 - Company Checking Account), Payment By (Discount Date), Payment Lead Time (0), and the 'Pay-to Vendor' field, which is highlighted with a red box and contains 'BUSINSOFT'. Below this is a 'Pay Separately' checkbox and a 'Payment Instructions' table with columns for Description and Value.

Figure: The new Pay-to Vendor box

Purchase Order and Receipt Processing with Relations Set Up

With vendor relations set up, when a user creates a purchase order or a purchase receipt in which a supplied-by vendor is specified in the **Vendor** box, the system inserts into this document the pay-to vendor defined in the settings of the supplied-by vendor. The user can change the pay-to vendor, if needed. Once the purchase order or purchase receipt is released, the pay-to vendor cannot be changed and will be used in the associated bill.

When a user clicks **Actions > Enter AP Bill** on the *Purchase Orders (PO301000)* form or *Purchase Receipts (PO302000)* form, the system creates an Accounts Payable bill based on the current purchase order or purchase receipt. The bill has all the details copied from the initial document except for the vendor specified in the **Vendor** box.

Reports Affected by Vendor Relations

The following reports have been modified to display both the supplied-by vendor and the pay-to vendor. These reports have a new area with the data grouped by pay-to vendor:

- *AP Balance by Account (AP632000)*
- *AP Balance by Vendor (AP632500)*
- *AP Balance by Vendor MC (AP633000)*
- *AP Aged Past Due (AP631000)*
- *AP Aged Past Due MC (AP631100)*
- *AP Aged Outstanding (AP631500)*
- *AP Aged Outstanding MC (AP631600)*
- *AP Aged Period Sensitive (AP630500)*
- *Bills Pending Payment (AP611500)*
- *Bills Pending Approval (AP611000)*
- *Payments Pending Processing (AP651000)*
- *Checks Pending Printing (AP612500)*
- *AP Edit (AP610700)*
- *AP Edit Detailed (AP610500)*

The following reports have the new **Supplied-by Vendor** and **Supplied-by Vendor Name** columns:

- *Check Form with Remittance (AP641000)*
- *Additional Remittance Form (AP642000)*
- *Vendor Details (AP655500)*
- *Purchase Order (PO641000)*
- *Purchase Order Details by Vendor (PO611000)*
- *Purchase Receipt Details by Vendor (PO621000)*
- *Purchase Receipt Billing Details (PO632000)*
- *Purchase Receipt Accrual Details (PO631000)*



: If vendor relations are not set up, those reports display the regular vendor only.

For more information about the vendor relations functionality, see the Accounts Payable > Overview > Managing Vendor Relations topic in the User Guide.



: This functionality is available only if the *Vendor Relations* feature is enabled on the *Enable/Disable Features (CS100000)* form.

Organization: Handling of Obsolete Attributes

In Acumatica ERP, a set of attributes may be defined for a particular class of entities, which may be set up on the *Contact & Lead Classes (CR207000)*, *Business Account Classes (CR208000)*, *Opportunity Classes (CR209000)*, *Case Classes (CR206000)*, *Employee Classes (EP202000)*, *Vendor Classes (AP201000)*, *Item Classes (IN201000)*, *Customer Classes (AR201000)*, or *Contract Templates (CT202000)* form. The complete list of all attributes that may be used throughout the system is maintained on the *Attributes (PM202000)* form.

On the **Attributes** tab of each entity class form, an **Active** check box has been added for each attribute (see the screenshot below). This check box indicates, if selected, that the attribute is available for all entities of the class.



Active	* Attribute ID	Description	Sort Order	Required	Internal	Control Type	Default Value
<input checked="" type="checkbox"/>	LOCATION	Position Location	1	<input type="checkbox"/>	<input type="checkbox"/>	Combo	
<input checked="" type="checkbox"/>	POSITION	Job Position Title	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Combo	

Figure: The Attributes tab on the Contact & Lead Classes form

A user can deactivate an obsolete attribute for a particular entity class by clearing the **Active** check box. In this case, the deactivated attribute will no longer be displayed for entities of the class, but all attribute values that have already been specified for existing entities still will be stored in the database. If a user decides to re-activate the attribute, its values will become visible in the system again.

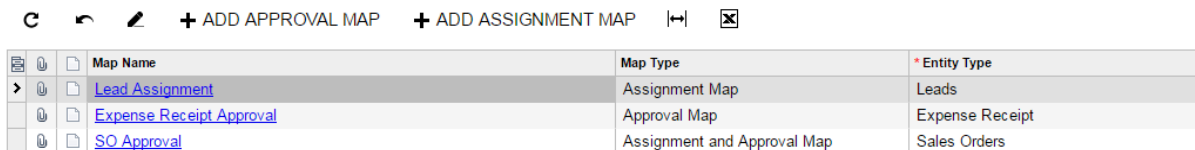
However, if it is not necessary to preserve the data related to an obsolete attribute, a user can deactivate the attribute and then delete it by using the Delete Row button on the table toolbar. In this case, the attribute will be permanently deleted from the class and all attribute values will be cleared for the entities of the class.

Organization: Improved Assignment and Approval Maps

The way a user interacts with assignment and approval maps in Acumatica ERP has been significantly simplified and improved.

The *Assignment and Approval Maps (EP205500)* form displays a list of all assignment and approval maps available in the system (see the screenshot below). Each map has a type, which can be one of the following:

- *Assignment Map*: Used for assigning business accounts, cases, contacts, email activities, leads, opportunities, purchase receipts, requests, or requisitions to owners for further processing.
- *Approval Map*: Used for assigning approvers to projects or documents, such as bills and adjustments, employee time cards, equipment time cards, expense claims, expense receipts, projects, purchase orders, requests, requisitions, sales orders, or transactions.
- *Assignment and Approval Map*: Used for either assigning entities to owners or assigning approvers to documents. Maps of this type were created in previous versions of Acumatica ERP. This type remains supported by the system to avoid data loss and facilitate transition from the old functionality to the new design.



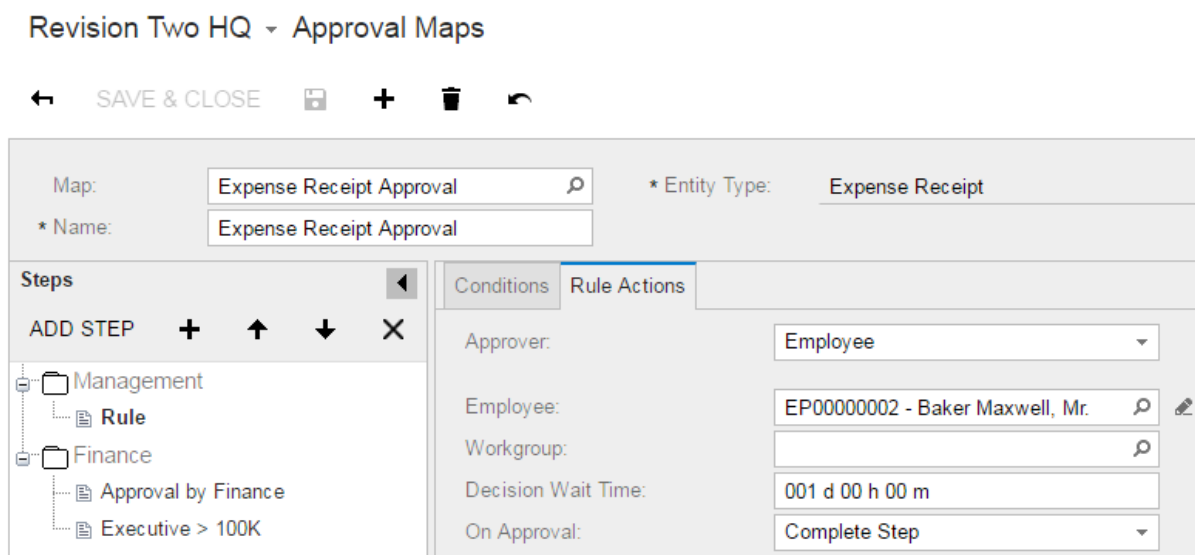
Navigation: Refresh, Undo, Edit, + ADD APPROVAL MAP, + ADD ASSIGNMENT MAP, Filter, Close

Map Name	Map Type	* Entity Type
Lead Assignment	Assignment Map	Leads
Expense Receipt Approval	Approval Map	Expense Receipt
SO Approval	Assignment and Approval Map	Sales Orders

Figure: A list of available assignment and approval maps on the Assignment and Approval Maps form

Approval Maps

A user creates a new map of the *Approval* type or modifies an existing one by using the *Approval Maps (EP205015)* form, which is shown in the screenshot below.



Revision Two HQ ▾ Approval Maps

Navigation: Back, SAVE & CLOSE, Save, Add, Delete, Refresh

Map: Expense Receipt Approval * Entity Type: Expense Receipt

* Name: Expense Receipt Approval

Steps: ADD STEP + ↑ ↓ ×

- Management
 - Rule
- Finance
 - Approval by Finance
 - Executive > 100K

Conditions | Rule Actions

Approver: Employee

Employee: EP00000002 - Baker Maxwell, Mr.

Workgroup:

Decision Wait Time: 001 d 00 h 00 m

On Approval: Complete Step

Figure: The Approval Maps form

The **Steps** pane may include any number of steps, each of which may include any number of rules. Steps may be executed in a sequential, parallel, or sequential-parallel fashion.

For each step, a user selects an action that should be performed if no approver has been assigned in accordance with the rules specified for this step, so the document becomes automatically approved or rejected or the next step (if any) gets executed.

For each rule, a user specifies conditions, which the system checks for the document, and actions to be performed if the conditions are met. As a result, multiple approvers may be assigned to one document. A user can configure a rule so that after one approver approves the document, the system waits until other appointed approvers (if any) also approve the document, executes the next step in the approval map, or marks the document as approved.

The new design of approval maps allows assigning approvers to a document based on individual document detail lines. On the **Approval Details** tab of a corresponding document entry form, all approvers assigned to the document are listed, and for each approver, additional information is displayed that helps track which approval map and which step and rule in this map is the reason this approver has been assigned.

Assignment Maps

Assignment maps are created and modified on the *Assignment Maps (EP205010)* form, which is shown in the screenshot below.

Revision Two HQ ▾ Assignment Maps

← SAVE & CLOSE 📄 + 🗑️ ↶

Map:	Lead Assignment 🔍	* Entity Type:	Leads
* Name:	Lead Assignment		

Rules	Conditions	Rule Actions
+ ↑ ↓ X 📄 Rule		Assign Ownership To: Employee ▾ Employee: EP00000010 - Church Steve, Mr. 🔍 ✎ Workgroup: Product Sales 🔍

Figure: The Assignment Maps form

The **Rules** pane may include any number of rules executed sequentially. Similarly to a rule in an approval map, a rule in an assignment map includes conditions and actions to be performed if the conditions are met.

In other respects, the assignment process is similar to that used in older versions of Acumatica ERP.

Assignment and Approval Maps

The *Assignment and Approval Maps (EP205000)* form is the form that was used for creating and modifying assignment and approval maps in older versions of Acumatica ERP. The form has been moved to the *Hidden* folder of the site map, but otherwise, it remains fully functional. Thus, a user can work with both new and old types of assignment and approval maps.

Organization: Improved Marketing Lists and Campaigns

Marketing lists and campaigns have been significantly improved, so users can more efficiently perform marketing activities, track relevant expenses and revenue, and analyze statistical information on campaigns.

Marketing Campaigns

Instead of the previously used statuses, stages have been introduced for marketing campaigns. An appropriate stage should be selected for each campaign in the **Stage** box on the *Marketing Campaigns (CR202000)* form.

On the *Campaign Classes (CR202500)* form, a campaign class should be defined for each type of campaign used in the company. For each campaign class, a list of attributes may be defined. For information about how classes and attributes can be used in Acumatica ERP, see the Customer Management > Managing Leads and Contacts > Classes and Attributes topic in the User Guide.

Now the user can specify as a source of campaign members any generic inquiry form that displays contacts. This can be done through the **Add Members** dialog box (shown in the screenshot below), which opens when the user clicks **Add New Members** on the table toolbar of the **Members** tab of the *Marketing Campaigns* form. In this dialog box, the user can select campaign members from a specific data source, which can be either an existing marketing list or a generic inquiry form. The user can select a shared filter available for the specified inquiry form to be able to select members from only relevant records.

Type	Display Name	Job Title	Company Name	Active	Email	Phone 1
<input type="checkbox"/>	Con... Anguelova, Bo...	Sales Manager	Arktak Networks	<input checked="" type="checkbox"/>		+1 (777) 342-...
<input checked="" type="checkbox"/>	Con... Binder, Phillip	Fitter	CW Installation Service	<input checked="" type="checkbox"/>		+1 (777) 834-...
<input type="checkbox"/>	Con... Bell, Dave	Consultant	D&B Construction Cons...	<input checked="" type="checkbox"/>		+1 (777) 225-...
<input type="checkbox"/>	Con... Air, Jane	Account Manager	Empire BlueCross BlueS...	<input checked="" type="checkbox"/>	user@somewhere.con	
<input checked="" type="checkbox"/>	Con... Bienhaus, And...	Sales Manager	Qvik Process GmbH	<input checked="" type="checkbox"/>	bienhaus@qvik-proces...	
<input checked="" type="checkbox"/>	Con... Aliev, Anar	Consultant	Global Industrial Tools	<input checked="" type="checkbox"/>		+1 (777) 652-...
<input checked="" type="checkbox"/>	Con... Ameres, Mark	Chief Financial Officer	Global Industrial Tools	<input checked="" type="checkbox"/>	ameres@mail.com	+1 (777) 628-...
<input type="checkbox"/>	Con... Baxter, Robert	Administrator	Jevy Computers	<input checked="" type="checkbox"/>	info@jevy-comp.con	+1 (777) 380-...
<input type="checkbox"/>	Con... Backhaus, Ellie	business-manager	Microchip Restaurant	<input checked="" type="checkbox"/>		+1 (777) 459-...
<input type="checkbox"/>	Con... Bilello, Leonardo	Sales Manager	Midcity Utilities	<input checked="" type="checkbox"/>		+1 (777) 294-...
<input type="checkbox"/>	Con... Backhaus, Ellie	Accountant	NETCAFE NY	<input checked="" type="checkbox"/>	ny@netvafe.con	+1 (777) 673-...
<input type="checkbox"/>	Con... Baumgarten, ...	Consultant	Veracity Credit Consultants	<input checked="" type="checkbox"/>	user@somewhere.con	+1 (777) 893-...

Figure: The Add Members dialog box

If a lead or opportunity has been created as a result of marketing activities related to a particular campaign, a user can associate this lead or opportunity with the campaign in either of the following ways:

- By clicking the **Add Row** button on the table toolbar of the **Generated Leads** or **Opportunities** tab of the *Marketing Campaigns* form and creating a lead or opportunity record on the entry form that opens
- By specifying the campaign in the **Source Campaign** box on the *Leads (CR301000)* or *Opportunities (CR304000)* form

Users can create activities associated with particular campaigns (by clicking the buttons on the table toolbar of the **Activities** tab of the *Marketing Campaigns* form) or with particular campaign members (by using the commands on the **Add Activity** menu on the **Members** tab of the same form).

Also, on the **Members** tab of the *Marketing Campaigns* form, users can review the number of opportunities, activities, and emails related to the campaign and associated with a particular campaign member. On the *Mass Email (CR308000)* form, the user can set up a mass email to be sent to all members of a particular marketing campaign or to only those members who have not previously been sent emails as part of the campaign.

To facilitate the tracking of expenses and revenue related to a particular marketing campaign, Acumatica ERP now gives users the ability to associate various documents—such as sales orders and invoices—with campaigns. As a result, the total amounts of the related sales orders are added together and displayed in the **Sales Order Total** box on the **Campaign Details** tab of the *Marketing Campaigns* form.

Marketing Lists

The capability to configure a marketing list as either dynamic or static has been improved. If the **Dynamic List** check box on the **Configuration Options** tab of the *Marketing Lists (CR204000)* form is selected (as shown in the following screenshot), the marketing list is considered dynamic—that is, it is formed and updated automatically according to a set of user-defined rules. If the **Dynamic List** check box is cleared, the marketing list is considered static—that is, it can be formed and updated only manually.

The screenshot shows the 'Marketing Lists' form in Acumatica ERP. The breadcrumb trail is 'Revision Two HQ > Marketing Lists > Active Lists'. The toolbar includes 'SAVE & CLOSE', a save icon, a refresh icon, a plus icon, a trash icon, a dropdown icon, and navigation arrows. The form fields are:

- * Marketing List ID: NEWS (with a search icon) and an Active checkbox.
- * List Name: Company News
- Workgroup: (empty field with a search icon)
- Owner: (empty field with a search icon)
- Configuration Options tab is selected, with sub-tabs for List Members and Activities.
- The Dynamic List checkbox is highlighted with a red box.
- Generic Inquiry: CR-Contacts (with a search icon and an edit icon)
- Shared Filter to Apply: My Contacts (dropdown menu)
- A rich text editor toolbar is visible below the form fields, showing options like Paragraph, Bold, Italic, Underline, and text color.
- The text 'Upcoming events and seminars, latest company news, and more.' is displayed in the text area.

Figure: The Dynamic List check box

A user can specify the rules for a dynamic marketing list in one of the following ways:

- The user specifies necessary selection criteria on the **Selection Criteria** tab so that list members are automatically selected from all leads, contacts, and employees that exist in the system.

- The user specifies the generic inquiry form that lists contact records as the source of list members in the **Generic Inquiry** box on the **Configuration Options** tab; a shared filter available for the specified inquiry form may be selected so that only relevant records are added to the list.

The system applies the rules to existing and newly added records, and the records that match the specified criteria are automatically included in the list.

A user can form a static marketing list in any of the following ways:

- By clicking the **Add Row** button on the table toolbar of the **List Members** tab of the *Marketing Lists* form. The user then adds the needed data for the contact in the row and repeats this step as needed.
- By using the **Add Members** dialog box, which opens when the user clicks **Add New Members** on the toolbar of the **List Members** tab of the form. This dialog box is identical to the one used for adding members to marketing campaigns.
- By uploading an Excel file with a list of contacts, which the user does by clicking the **Load Records from File** button on the **List Members** tab of the form.
- By clicking the **Add Row** button on the table toolbar of the **Marketing Lists** tab on the *Leads (CR301000)*, *Contacts (CR302000)*, or *Business Accounts (CR303000)* form. The user then adds the needed data for the marketing list in the row; this step is repeated as needed.

A user can temporarily unsubscribe a member from a marketing list by doing any of the following:

- By clearing the check box in the **Subscribed** column for the particular member on the **List Members** tab of the *Marketing Lists* form populated with the details of the marketing list
- By clearing the check box in the **Subscribed** column for the particular marketing list on the **Marketing Lists** tab of the *Leads*, *Contacts*, or *Business Accounts* form populated with the details of the list member

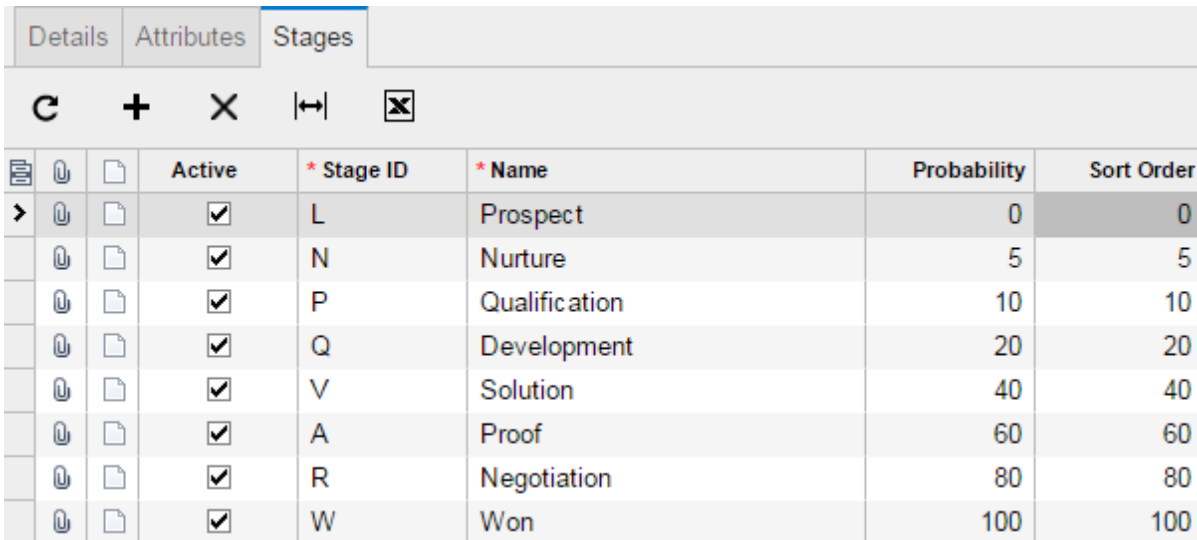
To turn the member's subscription back on, the user needs to select the previously cleared check box.

Users can create activities associated with particular marketing lists by clicking the buttons on the table toolbar of the **Activities** tab of the *Marketing Lists* form.

Organization: Opportunity Stages for Each Opportunity Class

Acumatica ERP now provides the functionality that a user can use to set up different opportunity stages for different opportunity classes.

The **Opportunity Probability** tab has been removed from the *Customer Management Preferences (CR101000)* form. Instead, the **Stages** tab has been added to the *Opportunity Classes (CR209000)* form (see the screenshot below). On this tab, a user can configure a list of opportunity stages, which is shared by all opportunity classes; if a stage is modified for any opportunity class, the changes affect all existing opportunity classes. When setting up a particular opportunity class, a user should make sure that the **Active** check box is selected for the opportunity stages that need to be included in this class and cleared for the opportunity stages that are not intended for this class.




		Details	Attributes	Stages			
							
			Active	* Stage ID	* Name	Probability	Sort Order
>			<input checked="" type="checkbox"/>	L	Prospect	0	0
			<input checked="" type="checkbox"/>	N	Nurture	5	5
			<input checked="" type="checkbox"/>	P	Qualification	10	10
			<input checked="" type="checkbox"/>	Q	Development	20	20
			<input checked="" type="checkbox"/>	V	Solution	40	40
			<input checked="" type="checkbox"/>	A	Proof	60	60
			<input checked="" type="checkbox"/>	R	Negotiation	80	80
			<input checked="" type="checkbox"/>	W	Won	100	100

Figure: The Stages tab on the Opportunity Classes form

The system offers a predefined list of opportunity stages, which includes the following options:

- *Prospect*: The contact associated with the opportunity is a known prospect but it is not clear whether they are interested in the offered products or services.
- *Nurture*: Information about the prospect's interest in products and services is being collected.
- *Qualification*: The prospect's interest in purchasing particular products or services is being determined.
- *Development*: The prospect's requirements, budget, and time frame are being clarified.
- *Solution*: A solution is under development.
- *Proof*: A concept is ready and pending approval.
- *Negotiation*: A proposal has been prepared or a contract is ready to be signed.
- *Won*: The deal has been successfully closed.

A user can add custom stages to reflect an established sales process. For each stage, an identifier, name, probability percentage, and sort order should be specified.

In reports, data is shown for deactivated stages too, if the included opportunities had been assigned these stages before they were deactivated.

Organization: Real-Time Synchronization Between Acumatica ERP and Salesforce CRM

Acumatica ERP now supports bi-directional real-time synchronization of data between Acumatica ERP and Salesforce CRM, so simultaneous work can be done in both systems. This capability is enabled if the **Salesforce Integration** check box is selected on the *Enable/Disable Features (CS100000)* form.

Supported Data

The following entities can be created, modified, or deleted in either of the systems, with the changes reflected in both systems:

- Leads and contacts
- Business accounts
- Opportunities, including information about opportunity products represented by inventory items

Initial Configuration

Before any data can be synchronized between Acumatica ERP and Salesforce CRM, the systems should be configured as follows:

- Because Acumatica ERP validates values specified in the **Country, State, and Postal/Zip Code** boxes on the *Business Accounts (CR303000)*, *Leads (CR301000)*, and *Contacts (CR302000)* forms, one of the following steps should be taken to avoid errors during the real-time synchronization:
 - On the *Countries/States (CS204000)* form, the **Allow State Edit** check box should be selected and the **Postal Code Validation Reg. Exp.** box should be cleared.
 - Corresponding validation rules should be properly configured in Salesforce CRM.
- On the *Data Providers (SM206015)* form, the *Salesforce Realtime Sync* data provider, which is predefined in the system, should be properly configured and defined as active.
- On the *Import Scenarios (SM206025)* and *Export Scenarios (SM207025)* forms, the predefined import and export scenarios to be used for the synchronization of data between Acumatica ERP and Salesforce CRM should be reviewed and modified, if needed. If only particular records should be synchronized, relevant source and target restrictions should be specified for the corresponding integration scenarios.
- On the *Salesforce Real-Time Sync (SF205020)* form, the predefined configuration of entities to be synchronized should be reviewed and properly modified, if needed.

Synchronization Process

If Salesforce CRM is used in the company as the primary CRM system, the data stored in this system should be initially synchronized with Acumatica ERP, which the administrator can do by initiating the synchronization process on the *Salesforce Data Resync (SF205035)* form with *Full Data Resync* selected in the **Sync to Start** box.

The bi-directional real-time synchronization process is initiated on the *Salesforce Sync (SF205030)* form.

The current status of the synchronization process can be reviewed on the *Salesforce Sync State (SF205040)* form.

Limitations

The synchronization process has the following limitations:

- If a schedule was created for the *Failed & Missed Data Resync* process on the *Salesforce Data Resync (SF205035)* form so that it runs every five minutes, the schedule should be activated manually after the *Salesforce Integration* feature has been enabled on the *Enable/Disable Features (CS100000)* form.
- If the **Clone** action is initiated in Salesforce, a duplicate of the `Acumatica_NoteID` custom property is created. Because this property is used in the synchronization process, Salesforce should be configured so that the value of `Acumatica_NoteID` is cleared when the **Clone** action is used.
- If a lead is converted to a contact in Acumatica ERP, the changes are not synchronized with Salesforce.
- If a lead is converted to a contact in Salesforce, the resynchronization process should be performed for the changes to be synchronized with Acumatica ERP. The changes may be synchronized automatically if a schedule for the *Failed & Missed Data Resync* process is activated. As a result, an inactive lead record and an active contact record appear in Acumatica ERP.

Platform: Aggregation by Date Parts in Pivot Tables

In pivot tables, users may want to aggregate data by various periods of time. Now the data from a form can be aggregated by a particular part of a date.

In the **Date Part** box of the **Properties** pane on the *Pivot Tables (SM208010)* form, users can select the part of a date field by which they want to aggregate data in a pivot table (see the following screenshot).

The screenshot shows the 'Pivot Tables' form interface. At the top, there are navigation buttons and a search bar. Below that, there are input fields for 'Screen ID' (Invoiced Items), 'Shared Filter to Apply' (All Records), 'Site Map Location', 'Pivot Table ID' (Sales by Product by Quarter), and 'Name' (Sales by Product by Quarter). The main area is divided into four panes: Fields, Filters, Columns, and Properties. The Properties pane is expanded, showing various settings for the pivot table. The 'Date Part' box is highlighted with a red border, and the 'Month' option is selected in the dropdown menu.

Fields	Filters	Columns	Properties
Account ID Account Name Address Line 1 City Description Ext. Cost Ext. Profit Financial Period Invoice Date Item Class Quantity Reference Nbr. State Type Unit Cost Unit Price Unit Profit	Customer Class Country	Invoice Date	Caption: Invoice Date Aggregate: Max Sort Order: Ascending Show Percent: <input type="checkbox"/> Show Total: <input checked="" type="checkbox"/> Total Label: Width: 100 Format: MMM Round to: None Date Part: Month
	Rows Inventory ID	Values Ext. Amount	

Figure: The Date Part box on the Pivot Tables form

For example, suppose that a marketing manager wants to analyze the seasonal demand on T-shirts for the last five years. The manager can build a pivot table that displays sales amounts aggregated by month. Suppose that the date field in the generic inquiry with sales amounts for T-shirts contains the month and the year (such as *July 2017*). To make the system aggregate data by month and display only months in the pivot table, in the **Date Part** box, the manager selects *Month*.

In addition, users can set up a hierarchical structure of the parts of the dates. For example, suppose that a senior sales manager wants to analyze the amount of shipped laptops by month for the last three years. Suppose that the date in the generic inquiry contains the day, the month, and the year (such as *04/11/2016*). In the pivot table, the manager can display a one-level column, which will contain the following date values: *Jan 2015*, *Feb 2015*, and so on until *Jun 2017*. Alternatively, the manager can configure the system so that it displays two levels of column headers: In the first level, the system displays the years, and under each year, the system displays the months.

To configure the system in this way, the manager can add two copies of the date field to the **Columns** pane of the *Pivot Tables (SM208010)* form. For the first copy, in the **Round To** box, the manager

selects *Years*; for the second copy, in the **Date Part** box, the manager selects *Month*. (See the following screenshots, which illustrate these settings.)

Revision Two HQ ▾ Pivot Tables ★ CUSTOMIZATION HELP ▾

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* Screen ID: Shared Filter to Apply:

Site Map Location: * Name: Is Shared

Fields	Filters	Columns	Properties
C Account ID Account Name Address Line 1 City Description Ext. Cost Ext. Profit Financial Period Invoice Date Item Class Quantity Reference Nbr. State Type Unit Cost Unit Price Unit Profit	C + X Customer Class Country Rows C + X Inventory ID	C + X Invoice Date ① Invoice Date Values C + X Ext. Amount	Caption: Invoice Date Aggregate: Max Sort Order: Ascending Show Percent: <input type="checkbox"/> Show Total: <input checked="" type="checkbox"/> Total Label: Width: 100 Format: yyyy Round to: Years Date Part: None

Figure: Properties of the first copy of the date field

Revision Two HQ ▾ Pivot Tables ★ CUSTOMIZATION HELP ▾

VIEW PIVOT EDIT INQUIRY

• Screen ID: Invoiced Items Shared Filter to Apply: All Records

Site Map Location:

Pivot Table ID: Sales by Product by Quarter • Name: Sales by Product by Quarter Is Shared

Fields	Filters	Columns	Properties
Account ID	Customer Class	Invoice Date	Caption Invoice Date
Account Name	Country	Invoice Date	Aggregate Max
Address Line 1			Sort Order Ascending
City			Show Percent <input type="checkbox"/>
Description			Show Total <input checked="" type="checkbox"/>
Ext. Cost			Total Label
Ext. Profit			Width 100
Financial Period			Format MMM
Invoice Date			Round to None
Item Class			Date Part Month
Quantity			
Reference Nbr.			
State			
Type			
Unit Cost			
Unit Price			
Unit Profit			

Figure: Properties of the second copy of the date field

Platform: Aggregation by Segments in Pivot Tables

For fields for which segmented keys are configured to have multiple segments, users can now aggregate data by selected segments.

In the **Segment** box of the **Properties** pane on the *Pivot Tables (SM208010)* form, users can select a segment by which they want to aggregate data in a pivot table (see the following screenshot).

The screenshot shows the Pivot Tables form interface. At the top, there is a navigation bar with "Revision Two HQ", "Pivot Tables", and a star icon. On the right, there are links for "CUSTOMIZATION" and "HELP". Below the navigation bar is a toolbar with icons for home, back, forward, and other actions, along with "VIEW PIVOT" and "EDIT INQUIRY" buttons.

The main form area contains several input fields:

- Screen ID: Invoiced Items
- Shared Filter to Apply: All Records
- Site Map Location: (empty)
- Pivot Table ID: Sales by Product Class by M
- Name: Sales by Product Class by Mon
- Is Shared: (checkbox)

The form is divided into four main panes:

- Fields:** A list of available fields including Account ID, Account Name, Address Line 1, City, Description, Ext. Cost, Ext. Profit, Financial Period, Inventory ID, Item Class, Quantity, Reference Nbr., State, Type, Unit Cost, Unit Price, and Unit Profit.
- Filters:** A pane containing "Country" and "Customer Class".
- Columns:** A pane containing "Invoice Date".
- Properties:** A pane for configuring the selected field. It includes:
 - Caption: Item Class
 - Aggregate: Count
 - Sort Order: Ascending
 - Show Percent:
 - Show Total:
 - Total Label: (empty)
 - Width: 100
 - Format: (empty)
 - Segment:** A dropdown menu with "Category" selected. This box is highlighted with a red border in the screenshot.

Figure: The Segment box on the Pivot Tables form

For example, suppose that an organization sells fruit and vegetables to restaurants. Suppose that the item class values consist of the following segments: the item category (*FR* or *VEG*), the item type (*APL*, *ORG*, *CBR*, or *PTO*), and the country of origin (such as *ES*, *CN*, or *MA*). If a distribution manager wants to analyze the amounts of item types shipped to each customer by using a pivot table, in the **Segment** box, for the item class field, the manager selects the segment that corresponds to the item type. With these settings, the system will aggregate sales data by the item type (such as apples, designated by *APL*).

In addition, users can set up a hierarchical structure of column or row headers if they want to analyze data by a combination of two segments of a field value. Suppose that in the example described in the previous paragraph, the manager also wants to add to the pivot table the country of origin for each item type. To address this task, the manager adds two copies of the *Item Class* field to the **Columns** pane. For the first copy, in the **Segment** box, the manager selects the segment used for the item category; for the second copy, in the **Segment** box, the manager selects the segment used for the country of origin. (These settings are shown in the following screenshots.)

Revision Two HQ ▾ Pivot Tables ★ CUSTOMIZATION HELP ▾

Screen ID: Invoiced Items Shared Filter to Apply: All Records

Site Map Location: Pivot Table ID: Sales by Product Class by M Name: Sales by Product Class by Mon Is Shared

Fields	Filters	Columns	Properties
<ul style="list-style-type: none"> Account ID Account Name Address Line 1 City Description Ext. Cost Ext. Profit Financial Period Inventory ID Item Class Quantity Reference Nbr. State Type Unit Cost Unit Price Unit Profit 	<ul style="list-style-type: none"> Country Customer Class 	<ul style="list-style-type: none"> Invoice Date 	<ul style="list-style-type: none"> Caption: Item Class Aggregate: Count Sort Order: Ascending Show Percent: <input type="checkbox"/> Show Total: <input checked="" type="checkbox"/> Total Label: 100 Width: 100 Format: Segment Type: Type
	<p>Rows</p> <ul style="list-style-type: none"> Item Class 1 Item Class 	<p>Values</p> <ul style="list-style-type: none"> Ext. Amount 	

Figure: The Type segment selected for the first copy of the Item Class field

Revision Two HQ ▾ Pivot Tables ★ CUSTOMIZATION HELP ▾

Screen ID: Invoiced Items Shared Filter to Apply: All Records

Site Map Location: Pivot Table ID: Sales by Product Class by M Name: Sales by Product Class by Mon Is Shared

Fields	Filters	Columns	Properties
<ul style="list-style-type: none"> Account ID Account Name Address Line 1 City Description Ext. Cost Ext. Profit Financial Period Inventory ID Item Class Quantity Reference Nbr. State Type Unit Cost Unit Price Unit Profit 	<ul style="list-style-type: none"> Country Customer Class 	<ul style="list-style-type: none"> Invoice Date 	<ul style="list-style-type: none"> Caption: Item Class Aggregate: Count Sort Order: Ascending Show Percent: <input type="checkbox"/> Show Total: <input checked="" type="checkbox"/> Total Label: 100 Width: 100 Format: Segment Country: Country
	<p>Rows</p> <ul style="list-style-type: none"> Item Class Item Class 2 	<p>Values</p> <ul style="list-style-type: none"> Ext. Amount 	

Figure: The Country segment selected for the second copy of the Item Class field

Platform: Authorization of Client Applications

Acumatica ERP 2017 R2 supports the OAuth 2.0 mechanism of authorization for applications that are integrated with Acumatica ERP through application programming interfaces (APIs). When a client application of Acumatica ERP uses the OAuth 2.0 mechanism of authorization, the client application does not operate with the Acumatica ERP credentials to log in a user to Acumatica ERP; instead, the application obtains an access token from Acumatica ERP and uses this token when it requests data from Acumatica ERP.

Depending on the OAuth 2.0 flow that the client application implements, the client application either has no information on the credentials of an Acumatica ERP user or uses this information only once to obtain the access token. The OAuth 2.0 mechanism of authorization improves the security of the Acumatica ERP data accessed by the application and simplifies the management of access rights.

The client application that implements the OAuth 2.0 authorization mechanism can use one of the following OAuth 2.0 authorization flows supported by Acumatica ERP:

- **Authorization code:** With this flow, the client application never gets the credentials of the applicable Acumatica ERP user. After the user is authenticated in Acumatica ERP, the client application receives an authorization code, exchanges it for an access token, and then uses the access token to work with data in Acumatica ERP. When the access token expires, the client application can request a new access token by providing a refresh token.
- **Implicit:** With this flow, the client application never gets the credentials of the applicable Acumatica ERP user. When the user is authenticated in Acumatica ERP, the client application does not receive an authorization code (as with the authorization code flow); instead, the client application directly receives an access token, and then uses the access token to work with data in Acumatica ERP. The access token is valid for a limited period of time and cannot be renewed.
- **Resource owner password credentials:** With this flow, the credentials (username and password) of the Acumatica ERP user are provided directly to the client application, which uses the credentials to obtain the access token. When the access token expires, the client application can request a new access token by providing a refresh token.

The administrator uses the *Connected Applications (SM303010)* form, which is shown in the following screenshot, to register an OAuth 2.0 client application.

Software Inc ▾ Connected Applications ★ CUSTOMIZATION HELP ▾

REVOKE ACCESS

Client ID: 4FA874FB-FE7A-3C39-3E3B-CB680C758AF

* Client Name: MyStoreRestIntegration

Active

OAuth 2.0 Flow: Authorization Code

Secrets Redirect URIs

ADD SHARED SECRET

Type	Description	Expires On (UTC)
Shared Secret	MyStoreSecret	8/14/2018 12:00:00 PM

Figure: The Connected Applications form

To revoke the access of an OAuth 2.0 client application, either the *Connected Applications (SM303010)* form or the *User Profile (SM203010)* form can be used.

For more information on OAuth 2.0 authorization of client applications, see the Integration > Authorizing Client Applications to Work with Acumatica ERP chapter in the User Guide.

Platform: List View of Forms

In the new user interface, introduced in Acumatica ERP2017 R2, the data entry, management, and configuration forms of all system suites are opened in list view: as lists of documents or entities. With this new functionality, users can quickly search for documents or entities in the list, filter these documents or entities in list, and manage the list of documents or entities. The documents or entities on the form are sorted by date and time of creation, in descending order (that is, newest to oldest).

When a user clicks a form name in the navigation pane, the list view is presented (see the following screenshot for an example of a list view of a form). Users can click the identifier of one of these documents or entities to bring up the appropriate data entry, management, or configuration form with the document or entity selected. To add a new document or entity, users click the **Add New Record** button, and the data entry, manage, or configuration form opens.

Revision Two HQ ▾ Journal Transactions ★

All Records										
GL AP AR										
Module	Batch Number	Transacti Date	Post Period	Description	Control Total	Currency	Status	Ledger ID		
GL	GL000805	8/4/2017	08-2017	test	91,261.165	USD	Posted	ACTUAL		
AR	AR003107	3/2/2017	03-2017	Warehouse pickup - ...	22,000.00	USD	Posted	ACTUAL		
AR	AR003106	7/31/2017	07-2017		800.00	USD	Posted	ACTUAL		
CA	CA000112	7/30/2017	07-2017	test GI	142.21	EUR	Posted	ACTUAL		
CA	CA000111	7/30/2017	07-2017	test GI	150.00	USD	Posted	ACTUAL		
AP	AP001576	7/29/2017	07-2017	Payment for services	1,500.00	USD	Posted	ACTUAL		
AP	AP001575	7/29/2017	07-2017		1,500.00	USD	Posted	ACTUAL		
AP	AP001574	7/29/2017	07-2017		1,500.00	USD	Posted	ACTUAL		
AP	AP001573	7/27/2017	07-2017		0.00	USD	Posted	ACTUAL		
AR	AR003105	7/11/2017	07-2017		4,532.60	EUR	Posted	ACTUAL		
CA	CA000110	7/11/2017	07-2017		60.00	USD	Posted	ACTUAL		
AP	AP001572	7/11/2017	07-2017		560.00	USD	Posted	ACTUAL		
AP	AP001571	7/11/2017	07-2017		700.00	USD	Posted	ACTUAL		
IN	00002150	3/1/2017	03-2017		65,116.00	USD	Posted	ACTUAL		
IN	00002149	3/21/2017	03-2017		86,772.91	USD	Posted	ACTUAL		
IN	00002148	3/14/2017	03-2017		20,992.10	USD	Posted	ACTUAL		
IN	00002147	3/14/2017	03-2017		67,841.39	USD	Posted	ACTUAL		
IN	00002146	3/7/2017	03-2017		85,145.90	USD	Posted	ACTUAL		
IN	00002145	2/12/2017	02-2017		43,837.00	USD	Posted	ACTUAL		
IN	00002144	2/28/2017	02-2017		157,134.36	USD	Posted	ACTUAL		
IN	00002143	2/14/2017	02-2017		2,800.00	USD	Posted	ACTUAL		
IN	00002142	2/7/2017	02-2017		237,877.34	USD	Posted	ACTUAL		
IN	00002141	2/7/2017	02-2017		60,282.37	USD	Posted	ACTUAL		
IN	00002140	1/12/2017	01-2017		56,023.00	USD	Posted	ACTUAL		
IN	00002139	1/30/2017	01-2017		157,134.36	USD	Posted	ACTUAL		
IN	00002138	1/24/2017	01-2017		313,603.82	USD	Posted	ACTUAL		
IN	00002137	1/31/2017	01-2017		1,433.56	USD	Posted	ACTUAL		
IN	00002136	1/24/2017	01-2017		26,183.52	USD	Posted	ACTUAL		
IN	00002135	1/17/2017	01-2017		14,532.98	USD	Posted	ACTUAL		

Figure: The list view of the Journal Transactions form

Form IDs have eight characters. For a form displayed in list view, the first six digits are those of the corresponding data entry, management, or configuration form, and the last two characters are *PL* (or if there are duplicates, *P1*, *P2*, and so on). For example, the *GL3010PL* form ID is assigned to the *Journal Transactions* form displayed in list view (as a list of journal transactions), and the *GL301000* form ID is assigned to the form of the same name where an individual journal transaction can be entered or edited.

Platform: Localization of Acumatica Self-Service Portal

Acumatica Self-Service Portal now provides functionality that system administrators can use to localize the system in multiple languages. Self-Service Portal can be localized in the following ways:

- Translation of the strings used in the application interface: A portal administrator can translate into multiple languages the strings used in the portal interface, such as box and column labels, error messages, and warnings.
- Translation of the user input in the boxes with multi-language support: When users log in to Self-Service Portal with a particular locale, they can see values in particular text boxes and table columns in the language of the locale if the values have been translated in Acumatica ERP.
- Translation of wiki articles: A portal administrator can translate wiki articles into multiple languages so that users can read the articles in the language of the locale with which they are logged in to Self-Service Portal.

For more information about the localization of Self-Service Portal, see the Self-Service Portal > Managing Localization of Self-Service Portal chapter in the User Guide.

Platform: Lookup Modes of Segmented Keys

In the versions of Acumatica ERP before 2017 R2, the **On-the-Fly Entry** check box on the *Segmented Keys (CS202000)* form influenced both which lookup mode was used for object values and whether users could enter new object values on the fly when they were using data entry forms.

Now the new **Lookup Mode** box has been added to the *Segmented Keys* form (as shown in the following screenshot). In this box, users can select the mode the system uses to look up object identifiers when a user is typing the identifier in a box on a data entry form that holds the identifier described by this segmented key. In addition, the caption of the **On-the-Fly Entry** check box has been changed to **Allow Adding New Values On the Fly**. Now if this check box is selected, users can enter new values of the object identifier defined by the segmented key on data entry forms. If the check box is cleared, users can specify the values of the object identifier on data entry forms only by typing or selecting existing values of the identifier and its segments.

Segment ID	Description	Length	Align	Edit Mask	Case Conversion	Validat	Auto Number	Separator	Const Order	Num of chara
1	Product Group	3	Left	Alphanumeric	Uppercase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	1	3
2	Department	3	Left	Alphanumeric	Uppercase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	2	3

Figure: The Segmented Keys form

The following options are available in the **Lookup Mode** box:

- *By Segment: All Avail. Segment Values:* With this mode, a user enters an identifier segment by segment. While typing a segment value, the user can press F3 to open the list of the segment values (as specified on the *Segment Values (CS203000)* form) and select a value from this list. If this mode is selected, the **Allow Adding New Values On the Fly** check box becomes selected and unavailable for the segmented key.

With this mode selected, the system works on the same way as it did when the **On-the-Fly Entry** check box was selected in the previous versions of Acumatica ERP.

- *By Segment: Child Segment Values:* With this mode, a user enters an identifier segment by segment. While typing a segment value, the user can press F3 to open the list of the segment values that have been specified on the object management form, such as the *Item Classes (IN201000)* form. This list is filtered by the value of the previous segment or segments. When the user is typing segment values, the system lists the existing object identifiers. This mode is displayed for only the *INITEMCLASS* segmented key, which supports the hierarchical structure of segments. For details on hierarchy in item class identifiers, see [Distribution: Item Class Hierarchy](#). With this mode selected, the **Allow Adding New Values On the Fly** check box is cleared by default but is available for editing.

This mode does not have a similar mode in the previous versions of Acumatica ERP.

- *By Segmented Key*: With this mode, a user enters the entire identifier. When the user is typing the identifier on the data entry form, the system displays the list of existing identifiers. The user can select one of the existing values from the list. When this mode is selected, the **Allow Adding New Values On the Fly** check box is cleared and unavailable for the segmented key.

With this mode selected, the system works as it did when the **On-the-Fly Entry** check box was cleared in the previous versions of Acumatica ERP.

For details on the lookup modes for segmented keys, see the Common Settings > Overview > Segmented Identifiers topic in the User Guide.

Platform: New User Interface

In Acumatica ERP 2017 R2, the new user interface is introduced, where users can flexibly configure navigation in the system according to the business processes of their organizations. Personalized navigation makes work with the system more effective because users can easily access forms that they use frequently.

By default, the system is opened with the legacy user interface. Users can switch to the new user interface by clicking the user name in the info area and clicking **Switch to New UI** (see the following screenshot).

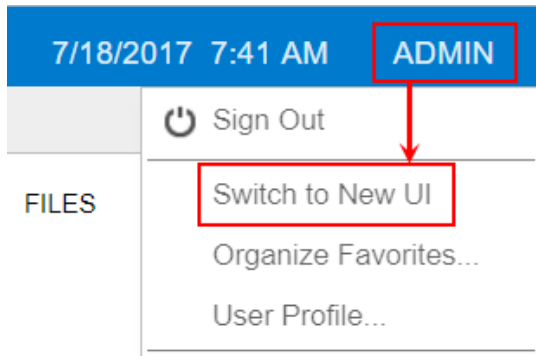


Figure: The Switch to New UI menu command

In the new user interface, suites and modules are replaced with workspaces. A workspace includes forms and reports combined by the functional area. The following screenshot shows an example of a workspace.

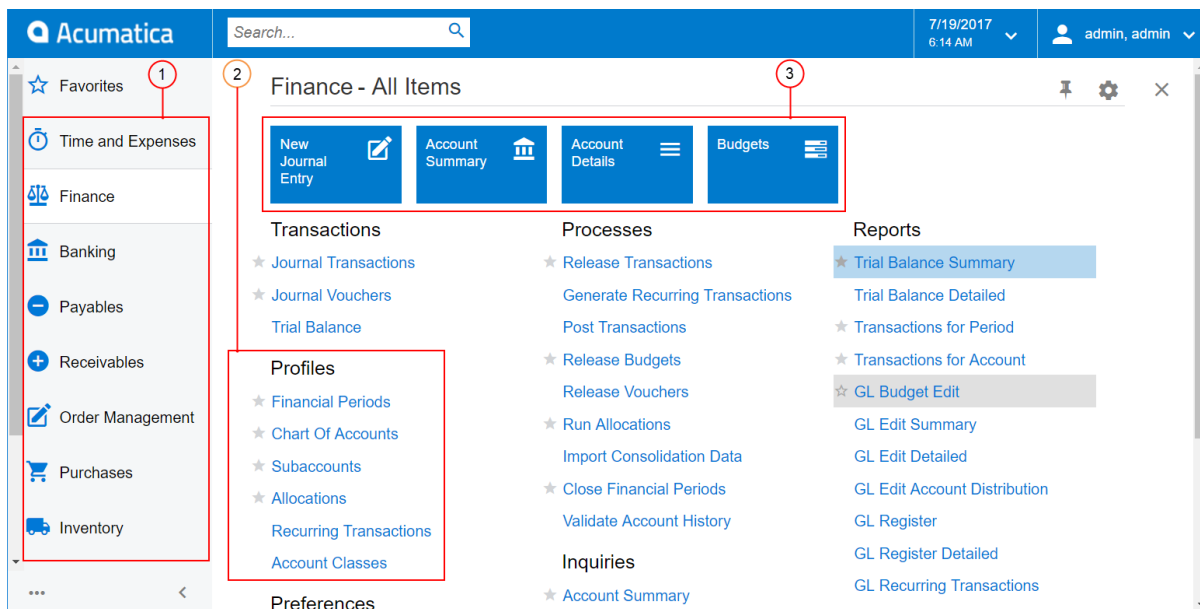


Figure: The Finance workspace in the new user interface

1. The navigation pane with workspaces
2. Links to forms
3. Tiles (links with additional parameters to forms)

A user with the *Administrator* role assigned can configure navigation in the new user interface as follows, with the changes being visible to all users of the system:

- Pin and unpin workspaces on the navigation pane
- Add and remove links to forms and reports in a workspace
- Manage tiles in a workspace

Every user of the system can personalize the user interface as follows:

- Add forms to Favorites
- Configure Quick Menu items

To switch to the legacy user interface, a user needs to select the **Show Legacy User Interface by Default** check box on the *User Profile (SM203010)* form and save these changes. (The user can open the *User Profile* form by clicking the user name in the info area and clicking **My Profile**, as shown in the following screenshot).

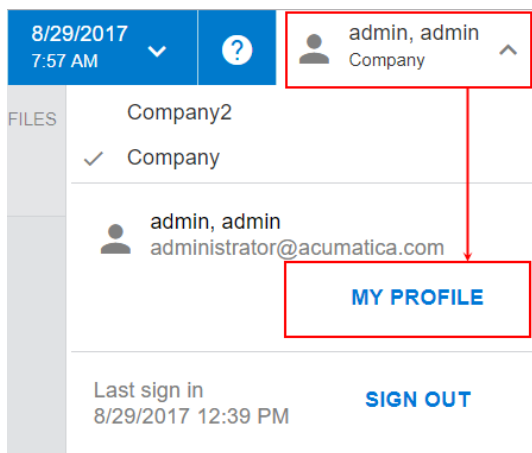


Figure: The My Details button

Platform: OpenAPI 2.0 Specification for the Contract-Based REST API

Acumatica ERP 2017 R2 provides the reference information for the methods of a contract-based REST API endpoint in the `swagger.json` file, which is an OpenAPI 2.0 (formerly known as Swagger 2.0) file. The developer can use this file to review the API of the endpoint and build the client applications of Acumatica ERP based on this file.



: For more information about the OpenAPI specification, see <https://www.openapis.org>.

Acumatica ERP 2017 R2 does not provide a user interface to view the `swagger.json` file. External tools can be used to view the file.

The developer can retrieve the `swagger.json` file by clicking **View Endpoint Service** > **OpenAPI 2.0** on the *Web Service Endpoints (SM207060)* form, as shown in the following screenshot.

The screenshot shows the 'Web Service Endpoints' form for 'Software Inc'. The 'VIEW ENDPOINT SERVICE' dropdown menu is open, showing 'OpenAPI 2.0' as the selected option. The 'Endpoint Properties' pane displays the following information:

* Endpoint Name:	Default	Base Endpoint Name:
* Endpoint Version:	17.200.001	Base Endpoint Version:
System Contract:	3	

Figure: The Web Service Endpoints form

The developer can also retrieve the file by using the following URL.

```
http://<Base endpoint URL>/swagger.json
```

In this URL, <Base endpoint URL> is the URL of a contract-based endpoint of Acumatica ERP. This URL has the following format: `http://<Acumatica ERP instance URL>/entity/<Endpoint name>/<Endpoint version>/`.

For more information on the `swagger.json` file, see the **Integration > Contract-Based REST API Reference** topic in the User Guide.

Platform: Push Notifications

External applications that worked with data in the previous versions of Acumatica ERP needed to continually poll for the data to find out whether there were any changes in this data, which could slow down the performance of the external application. In Acumatica ERP 2017 R2, the external applications can track the data changes by processing push notifications sent by Acumatica ERP. That is, the administrator can configure Acumatica ERP to send notifications to a destination (such as an HTTP address) when specific data changes occur in Acumatica ERP. The external applications can receive these notifications and process the information on the data changes, if necessary.

To work with Acumatica ERP push notifications, the administrator needs to configure the following items:

- The data query that defines the data changes for which Acumatica ERP should send notifications. The data query is defined by either a generic inquiry or a built-in definition (which is a data query defined in code).
- The destination to which Acumatica ERP should send notifications. The following predefined notification destinations are provided: webhook (HTTP address), Microsoft message queue, and SignalR hub. The developer can also implement a custom destination type in code.
- The way the external application processes the notifications. Acumatica ERP sends notifications in JSON format to notification destinations. The external application can process the notifications and extract the information about the data changes.
- The definition of the push notification in Acumatica ERP. In the definition of the push notification on the *Push Notifications (SM302000)* form, which is shown in the following screenshot, the user specifies the notification destination and the data queries for which the notifications should be sent.

MyStore - Push Notifications CUSTOMIZATION HELP ▾

+

* Destination Name: Header Name: Active
 * Destination Type: Header Value:
 * Address:

Active	Inquiry Title
<input checked="" type="checkbox"/>	Item Availability Data

Figure: The Push Notifications form

The developer can include the configured push notification definitions in an Acumatica ERP customization project.

For more information on push notifications, see the [Integration > Configuring Push Notifications](#) chapter in the User Guide.

For information on the creation of built-in definitions, the implementation of custom destination types, and connection to the SignalR hub, see the [Programming Tasks > Defining Push Notifications](#) chapter in the Acumatica Framework Development Guide.

For information on adding the push notification definitions to an Acumatica ERP customization project, see the [Managing Items in a Project > Push Notifications](#) chapter in the Customization Guide.

Platform: Shared Configuration of Table Columns Across System Users

An organization may have specific requirements for processing documents in Acumatica ERP, which can be reflected in the table layout on particular forms. Users of the system whose user account is assigned the *Administrator* role in Acumatica ERP can set the default column configuration for all users of the system or configure table layouts for particular users.

A user who is logged in to a user account that has the *Administrator* role can now configure the required table layout (such as the order of columns and the set of columns to be displayed) and set this configuration as the new default layout. If users have personalized layouts of a particular table, the administrator can override their table settings with these default settings.

If particular users have specific requirements for the table layout on a form, the administrator can set up the required configuration while logged in to a user account that has the *Administrator* role, and this configuration can be applied to these users only. These users will see this table configuration when they navigate to the form, but other users will not. Users can change this default table configuration at any time.

Details on the new functionality for sharing table layouts can be found in the [Tables > Adjusting Table Layout > Default Table Layout](#) topic of the Interface Guide.

User Interface Changes

The following user interface elements have been added to the user interface to support the sharing of table layouts:

- The **Help > Share Column Configuration** menu command on the form title bar: Opens the **Share Column Configuration** dialog box. This menu command is visible for only users with the *Administrator* role.
- The **Share Column Configuration** dialog box: System administrators can use this dialog box to set the current layout of a table on a particular form as the default layout and to share the settings with multiple users. The pages of the dialog box are shown in the following screenshots. A detailed description of this dialog box can be found in the [Tables > Table Reference > Share Column Configuration Dialog Box](#) topic in the Interface Guide.

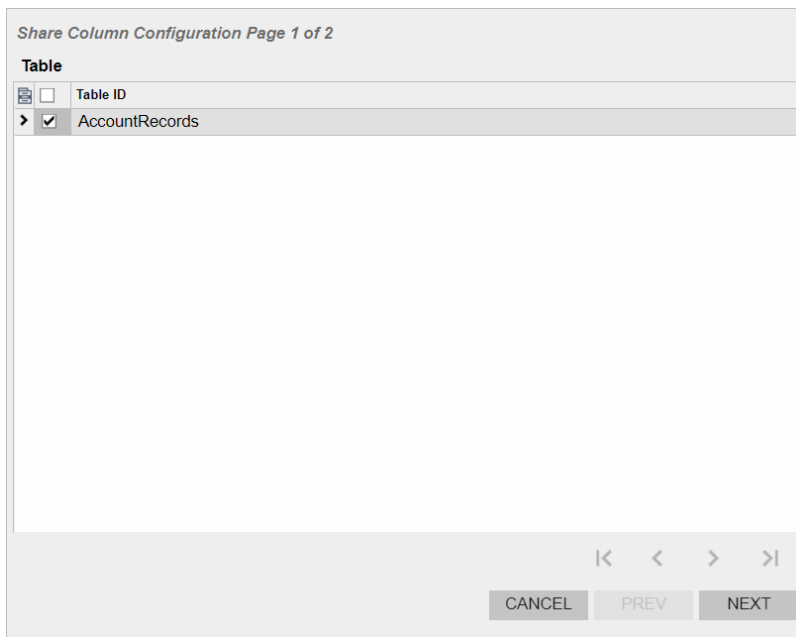


Figure: Page 1 of the Share Column Configuration dialog box

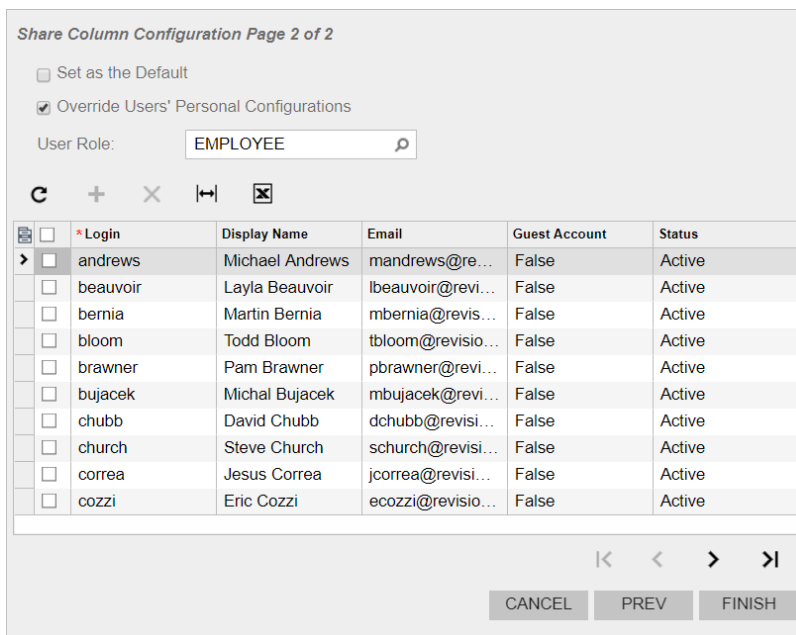


Figure: Page 2 of the Share Column Configuration dialog box

- The **Delete Default Configuration** button in the **Column Configuration** dialog box: Deletes the default configuration of the table columns. This button is visible to users with the *Administrator* role and is available if the default configuration has been set previously. The button is shown in the following screenshot.

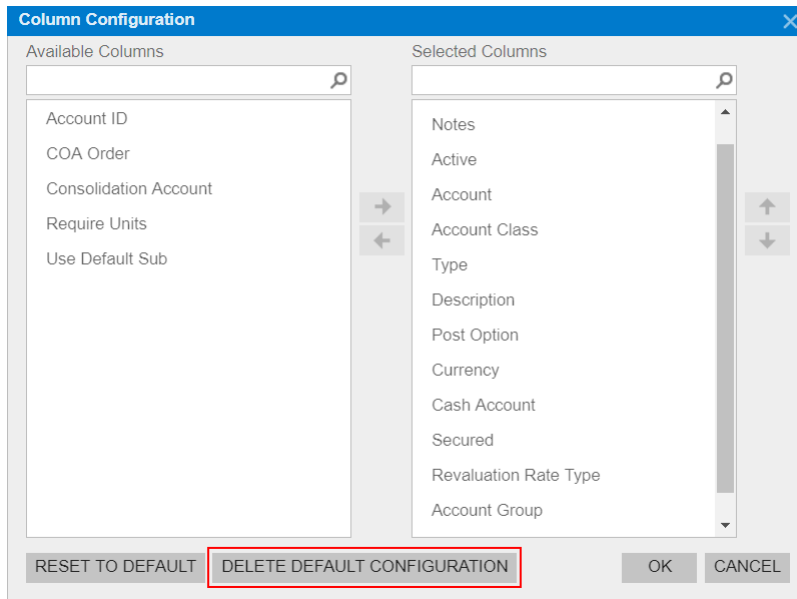


Figure: The Delete Default Configuration button

Projects: Billing Workflow Enhancements and Invoice Preview

Substantial changes have been made to the Projects module in order to provide a more flexible billing workflow, enhance reporting capabilities, and simplify project setup. These changes include the following ones listed below:

- Simplified budget structure and reporting:
 - The project budget is exposed at the project level. Budget records are stored in a plain structure, which is available directly on the *Projects (PM301000)* form. The project balances and profitability can now be easily analyzed in multiple dimensions by means of pivot tables created on top of budget records.
 - The revenue budget can be defined by task or by task and item—that is, with an extra level of detail for large projects.
 - A cost budget line can be linked to a revenue budget line. These links give users flexible profitability analysis by the revenue structure, which may not exactly match the cost structure.
- A flexible draft invoice workflow:
 - A project manager can work with a draft invoice that originates from the Projects module and is isolated from the Accounts Receivable module.
 - A project manager can review billable amounts, make decisions about the amounts that exceed a limit, and correct a draft invoice right away.
 - An internal approval workflow of a draft invoice can be performed before the document is sent to a client and processed by the accounting team, which minimizes corrections in the Accounts Receivable module.
 - A draft invoice can be printed in a project-specific format and emailed in a project-specific notification format.
- Dedicated support for billing from a fixed amount (progress billing):
 - The billing workflow is straightforward and requires no allocations.
- Flexible transaction-based billing:
 - Time and material transactions can be billed immediately after they have been recorded in the system because the allocation process is optional.
 - Billing rules now support formulas and grouping of billed transactions in invoices by date, employee, vendor, and inventory item.
 - A user can process over-limit amounts in draft invoices.
 - A user can interact with the application process of a billing limit amount and select particular lines that should be included in the available limit of the invoice.
 - A user can add adjustment lines to draft invoices to correct billable transactions.
 - A user can postpone billing of a certain amount until the next invoice or write off a billable amount.
- Comprehensive billing rules:
 - Project invoices can be segregated by project task.
 - The description of the invoice can be dynamically composed based on the formula specified in the billing rule.
 - The branch to which the project revenues are recorded can be flexibly configured in the billing rule.

- Enhanced project rates:
 - A project can be billed based on prices that are defined in the Accounts Receivable sales price lists, including foreign currency prices.
- Multiple UI and UX enhancements.

You can find more information about these features in the following sections:

- [Simplified Budget Structure and Reporting](#)
- [Draft Invoice Workflow](#)
- [Project-Specific Invoice Format](#)
- [Dedicated Support for Billing from a Fixed Amount](#)
- [Flexible Transaction-Based Billing](#)
- [Comprehensive Billing Rules](#)
- [Enhanced Project Rates](#)
- [Other Enhancements](#)

Simplified Budget Structure and Reporting

The following enhancements have been implemented for the budget structure:

- The project budget is now defined at the project level directly on the *Projects (PM301000)* form.
- On the *Projects (PM301000)* form, the budget is split into two parts: **Revenue Budget** and **Cost Budget**. However, all budget records are stored in the new *PMBudget* table.
- The revenue budget of each project can be defined with different level of detail, depending on the **Revenue Budget Level** setting of the project, which can be *Task* or *Task and Item*.
- If a user wants to restructure a revenue budget—for example, if a project was started with a revenue budget by task and then an extra level of detail became needed—the user can remove records from the **Revenue Budget** tab of the *Projects* form, change the revenue budget level, upload new budget records, and validate the project balance on the *Validate Project Balances (PM504000)* form to make the system rebuild the actual and committed amounts and quantities with the new structure.
- A user can analyze a project's profitability by revenue budget line regardless of the structure of the cost budget. A project can have a set of tasks for revenue budgeting and billing, and a different set of tasks for cost accounting. For profitability analysis, the user can link the cost budget lines of the project to the appropriate revenue budget lines by specifying the **Revenue Task** and **Revenue Item** on the **Cost Budget** tab of the *Projects* form and aggregate costs by specified links in reports.

The following tools are suggested for budget analysis:

- Users can use a quick filter by project task on the **Revenue Budget** and **Cost Budget** tabs of the *Projects* form, as shown in the following screenshot, and continue working with the budget records in a filtered view. That is, they can add new budget lines to the current task and modify the filtered records.

Main - Projects

Project ID: PR00000087 Status: Active Assets: 0.00
 Customer: customer1 - James Bond Liabilities: 0.00
 Template: PR00000049 - Customization package for the customer Income: 0.00
 Description: Customization package for the customer Expenses: 21,400.00

SUMMARY TASKS REVENUE BUDGET **COST BUDGET** BALANCES INVOICES ACTIVITY HISTORY EMPLOYEES EQUIPMENT GL ACCOUNTS ATTRIBUTES APPROVAL DETAILS

Project Task: TASK1 - Business requirements analysis Group by Task

Project Task	Inventory ID	Account Group	Description	UOM	Unit Rate	Budgeted Quantity	Budgeted Amount	Revised Quantity	Revised Amount	Committed Amount	Committed Open Amount	Actual Quantity	Actual Amount	Actual + Open Committed Amount
TASK1	ANALYSIS	LABOR	Requirement analysis - specification	HOUR	50.00	20.00	1,000.00	20.00	1,000.00	1,900.00	1,900.00	23.00	0.00	1,900.00
TASK1	TRAINING	LABOR	End-user training & documentation	HOUR	35.00	40.00	1,400.00	40.00	1,400.00	5,400.00	5,400.00	0.00	1,400.00	6,800.00
TASK1	DEVELOP	SUBCON	Application development & testing	HOUR	40.00	80.00	3,200.00	80.00	3,200.00	0.00	0.00	0.00	3,400.00	3,400.00
TASK1	ANALYSIS	TRAVEL	Requirement analysis - client interview	HOUR	0.00	0.00	2,000.00	0.00	2,000.00	0.00	0.00	0.00	1,900.00	1,900.00
TASK1	TRAINING	TRAVEL	End-user training on site	HOUR	0.00	0.00	4,000.00	0.00	4,000.00	0.00	0.00	0.00	4,000.00	4,000.00
TASK1	N/A				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Figure: Lines of the cost budget of a project filtered by task

- Users can quickly aggregate budget amounts by selecting the **Group by Task** check box on the **Revenue Budget** and **Cost Budget** tabs of the *Projects* form to review totals by task without running any report, as shown in the screenshot below.

Main - Projects

Project ID: PR00000087 Status: Active Assets: 0.00
 Customer: customer1 - James Bond Liabilities: 0.00
 Template: PR00000049 - Customization package for the customer Income: 0.00
 Description: Customization package for the customer Expenses: 21,400.00

SUMMARY TASKS REVENUE BUDGET **COST BUDGET** BALANCES INVOICES ACTIVITY HISTORY EMPLOYEES EQUIPMENT GL ACCOUNTS

Project Task: Group by Task

Project Task	Description	UOM	Budgeted Amount	Revised Amount	Committed Amount	Committed Open Amount	Actual Amount	Actual + Open Committed Amount	Variance Amount	Performance (%)
TASK1	Requirement analysis - specification		11,600.00	11,600.00	7,300.00	7,300.00	10,700.00	18,000.00	-6,400.00	155.17
TASK2	Requirement analysis - specification		6,800.00	6,800.00	0.00	0.00	0.00	6,800.00	0.00	0.00
TASK3	Requirement analysis - specification		11,600.00	11,600.00	7,300.00	7,300.00	10,700.00	18,000.00	-6,400.00	155.17

Figure: The quick aggregation of the cost budget amounts of a project by task

- Users can easily analyze project balances by task, inventory item, and account group by using pivot tables that can be created on top of a generic inquiry that retrieves data from the *PMBudget* table. The following generic inquiry and pivot table are now available out of the box in the *Projects* module for budget analysis and export of budget records to MS Excel:
 - Budget Details (PMGI0010)* generic inquiry.
 - Budget Summary by Account Group (PMPV0010)* pivot table: This pivot table shows the project balances by account group. A user can drill down from a balance amount in the pivot table to the list of budget records that result in that amount.

The screenshot below shows a pivot table prepared for the *Budget Details* generic inquiry to break down the balances of a selected project by task, account group type, and account group.

Revision Two HQ -

BUDGET SUMMARY BY ACCOUNT GROUP MY PROJ TMR02

C			TMR02						
Task ID	Balance	Account Group	Budgeted Amount	Revised Amount	Committed Open Amount	Draft Invoices Amount	Pending Invoice Amount	Actual Amount	Revised-Open Comm. Actual-Prepared
101 PM	Expense	LABOR	8,640.00	8,640.00	8,000.00			538.48	101.52
		MATERIAL			494.14				-494.14
		TRAVEL	3,000.00	3,000.00			1,800.00		1,200.00
	Total		11,640.00	11,640.00	8,494.14			2,338.48	807.38
	Income	REVENUE	4,600.00	4,600.00		1,300.00	500.00	3,350.00	-550.00
		Total	4,600.00	4,600.00		1,300.00	500.00	3,350.00	-550.00
201 SRCONS	Expense	LABOR	2,400.00	2,400.00				1,600.00	800.00
		SUBCON	2,000.00	2,000.00				2,000.00	
		Total	4,400.00	4,400.00			3,600.00		800.00
	Income	REVENUE	8,400.00	8,400.00	700.00		900.00	8,400.00	-1,600.00
		Total	8,400.00	8,400.00	700.00		900.00	8,400.00	-1,600.00
	401 MATERI	Expense	MATERIAL	90,300.00	90,300.00				90,370.00
Total			90,300.00	90,300.00				90,370.00	-70.00
REVENUE			108,360.00	108,360.00		1,100.00	1,350.00	108,444.00	-2,534.00
Total		108,360.00	108,360.00		1,100.00	1,350.00	108,444.00	-2,534.00	
Income		REVENUE							
		Total							
Total		227,700.00	227,700.00	8,494.14	3,100.00	2,750.00	216,502.48	-3,146.62	

Figure: A pivot table prepared for the Budget Details inquiry

Draft Invoice Workflow

Now a project manager can enable draft invoices in the project billing workflow. A draft invoice is a new type of a document that is displayed on the *Pro Forma Invoices (PM307000)* form, as shown in the screenshots below. A user can work with pro forma invoices that are isolated from the Accounts Receivable module. A user can review and modify billable transactions and amounts in a pro forma invoice and reach agreement about the document with all required parties before the accounting team prepares the final Accounts Receivable invoice. An accountant simply releases the pro forma invoice, and the system creates the Accounts Receivable invoice with all information copied from the pro forma invoice. With this process, the company can minimize corrections in the Accounts Receivable module.

Revision Two HQ - Pro Forma Invoices

SAVE & CLOSE HOLD RELEASE ACTIONS REPORTS

Reference Nbr.: 000001	Project: TMR02 - T&M project with inventory issu	Progress Billing Total: 2,100.00									
Status: On Hold	Customer: ROADBUILD - Road Builder Company	Time and Material Total: 1,000.00									
<input checked="" type="checkbox"/> Hold	Location: MAIN - Primary Location	Detail Total: 3,100.00									
* Invoice Date: 10/2/2013	Currency: USD 1.00										
* Post Period: 10-2013											
Description: Pro forma invoice for project											
PROGRESS BILLING TIME AND MATERIAL FINANCIAL DETAILS APPROVAL DETAILS BILLING SETTINGS											
Branch	Project Task	Inventory ID	Description	Revised Amount	Previously Invoiced	Total Completed (%)	Amount to Invoice	Current Invoiced (%)	Sales Account	Sales Subaccount	Deferral Code
HQ	101 PM	<N/A>	Other	3,000.00	1,750.00	95.00	100.00	3.33	40000	000-000	
HQ	101 PM	CONSULTPM	Project Manager	1,600.00	1,600.00	112.50	200.00	12.50	40000	000-000	
HQ	201 SRCONS	<N/A>	Other	2,800.00	2,800.00	110.71	300.00	10.71	40000	000-000	
HQ	201 SRCONS	CONSULTSR	Senior Consultant	5,600.00	5,600.00	107.14	400.00	7.14	40000	000-000	
HQ	401 MATERI	<N/A>	Other	0.00	84.00	0.00	500.00	0.00	40000	000-000	
HQ	401 MATERI	INDCAT01	2006 Cat D6N XL	108,360.00	108,360.00	100.55	600.00	0.55	40000	000-000	

Figure: The progress billing lines of a pro forma invoice

map to assign the pro forma invoice to a workgroup or to particular employees for approval. The list of approvers appears on the **Approval Details** tab of the *Pro Forma Invoices* form. The pro forma invoice that is pending approval appears on the *Approvals (EP503010)* form.

- *Rejected*: The pro forma invoice has been rejected by an approver and requires further review and editing.
- *Open*: The pro forma invoice has been approved (if an approval workflow has been configured) and is ready for release.
- *Closed*: The pro forma invoice has been released and the Accounts Receivable invoice exists. If the Accounts Receivable invoice is deleted, the pro forma invoice is again given the *Open* status.

Project-Specific Invoice Format

A user can use different formats of a printable pro forma invoice depending on the particular project. On the **Mailing Settings** tab of the *Projects (PM301000)* form, the user can specify a custom format and email notification template that should be used for the printing and emailing of the pro forma invoices prepared for that project.

In the **Bill-to Contact** and **Bill-to Address** sections of the **Summary** tab of the *Projects* form, a user can specify the contact information of the customer to whom the pro forma invoices should be sent. This information is copied to each pro forma invoice created for the project and can be modified at the invoice level.

The default *Pro Forma Invoice (PM642000)* form used for printing is shown in the following screenshot. This form supports printing of header-level and line-level notes by default.

Main W 124th St Bld 15 NY, NY, 10001 Phone: 88002000600		PRO FORMA INVOICE Pro Forma Reference Nbr.: 000130 Date: 11-Aug-2017 Due Date: 10-Sep-2017 Customer ID: customer1 Currency: USD Project ID: PR00000080 Terms: Net 30 days					
BILL TO James Bond 767 5th Ave, New York NY 10153, USA United States of America							
PROGRESS BILLING							
#	PROJECT TASK	ITEM	DESCRIPTION	TOTAL REVISED AMOUNT	PREVIOUSLY INVOICED	CURRENT INVOICED (%)	AMOUNT
1	Business requirements analysis	<N/A>	Business requirements analysis	15,000.00	7500.00	30.00%	4,500.00
NOTE: BRDs are to be approved by 10 Sep 2017							
2	Prototype development	<N/A>	Prototype Development	20,000.00	15700.00	20.00%	4,000.00
TIME AND MATERIAL							
#	PROJECT TASK	ITEM	DESCRIPTION	QTY.	UOM	UNIT PRICE	AMOUNT
1	Business requirements analysis	ANALYSIS	Business requirements analysis; labor	15.00	HOUR	160.00	2,000.00
2	Business requirements analysis	TRAVEL	Business requirements analysis travel	10.00	HOUR	200.00	2,000.00
NOTE: Business travel for refining software requirements							
3	Business requirements analysis	<N/A>	Business requirements analysis equipment	1.00	PC	2,000.00	2,500.00
4	Prototype development	DEVELOP	Prototype development; labor	40.00	HOUR	150.00	5,500.00
5	Prototype development	TRAINING	Prototype development travel	20.00	HOUR	300.00	6,000.00
NOTE: Onsite training for customers							
6	Prototype development	ANALYSIS	Prototype development subcon	20.00	HOUR	120.00	2,400.00
7	Prototype development	TRAINING	Prototype development other	10.00	HOUR	180.00	1,800.00
8	Business requirements analysis	<N/A>	Adjustment line	0.00		0.00	1,000.00
NOTE: This is a draft invoice.							
						Progress Billing Total (USD): Time and Material Total (USD): Total (USD):	8,500.00 23,200.00 31,700.00
Page: 1 of 1							

Figure: The default printing form of pro forma invoices



- Pro forma invoices of a project can be released only one by one, starting from the earliest one. The only exception is when multiple pro forma invoices segregated by invoice group have been generated during a single iteration of the billing process; in this case, these pro forma invoices can be released in any order.
- A pro forma invoice can be released only after the Accounts Receivable invoice of the preceding pro forma invoice has been released.
- If the **Detail Total** of a pro forma invoice is negative on the *Pro Forma Invoices (PM307000)* form (for example, if a user has added a negative adjustment line in an amount greater than the amount of billable lines), the system creates an Accounts Receivable credit memo on release of the pro forma invoice.

- The document details of an unreleased Accounts Receivable document that originates from a pro forma invoice are displayed in read-only mode on the *Invoices and Memos (AR301000)* form. To make a correction of the Accounts Receivable document, a user needs to delete this document and start over from the pro forma invoice.
- Tax calculation is temporarily not supported in pro forma invoices.
- A pro forma invoice can be created only through the project billing process and only assigned an auto-numerated reference number. Users cannot manually enter new pro forma invoices on the *Pro Forma Invoices* form.

Dedicated Support for Billing from a Fixed Amount

A simple workflow is now provided for projects that are gradually billed from a fixed contract amount. Variety of these billing processes include the progress billing and fixed price billing models. On the *Billing Rules (PM207000)* form, the new *Progress Billing* type of a billing step has been introduced, as shown in the screenshot below. Progress billing does not involve allocations and can be executed right after a pending invoice amount is provisioned in a revenue budget line of a project.

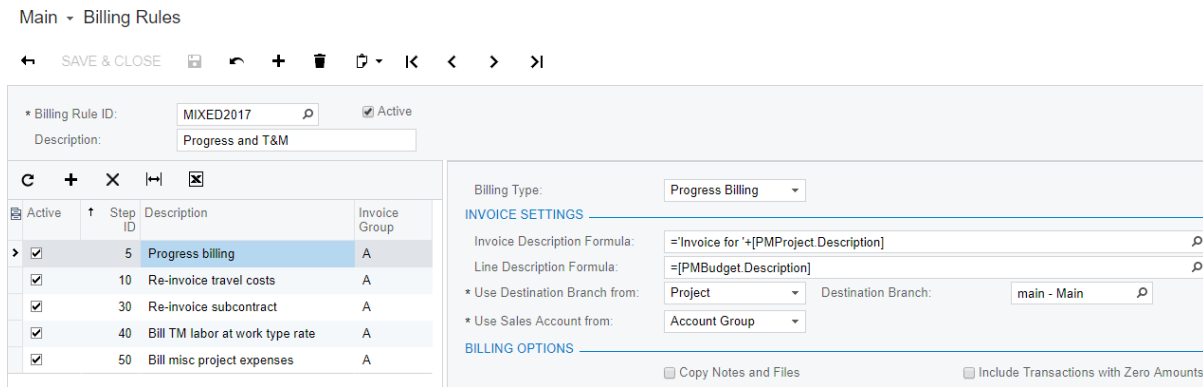


Figure: A Progress Billing step of a billing rule

With the new billing rule, the project setup and the billing workflow proceed as follows:

- A user adds a revenue budget line with the **Revised Amount** to a project on the **Revenue Budget** tab of the *Projects (PM301000)* form.
- To provide a billable amount (for example, on a monthly basis), the user populates the **Pending Invoice Amount** or **Completed (%)** column on the **Revenue Budget** tab of the *Projects* form for the revenue budget lines to make the system calculate the **Pending Invoice Amount** as follows:

$$\text{Pending Invoice Amount} = \text{Revised Amount} * \text{Completed (\%)} / 100 - \text{Draft Invoices Amount} - \text{Actual Amount}$$

- The user runs the project billing process to create a pro forma invoice (or an Accounts Receivable invoice depending on the selected workflow).
- The system creates the invoice with the amounts taken from the **Pending Invoice Amount** column of the **Revenue Budget** tab of the *Projects* form for the revenue budget lines. The system updates the **Draft Invoices Amount** of the revenue budget lines with the **Pending Invoice Amount** and clears the **Pending Invoice Amount**.

The invoice lines that are produced by the progress billing are displayed on the **Progress Billing** tab of the *Pro Forma Invoices (PM307000)* form, as shown in the following screenshot.

Main ▾ Projects ★

NOTES FILES CUSTOMIZATION HELP ▾

RUN PROJECT BILLING ACTIONS ▾

* Project ID: PR0000084 Status: Active Assets: 0.00
 Customer: customer1 - James Bond Liabilities: 0.00
 Template: PR0000049 - Customization package fi Income: 0.00
 * Description: Customization package for the customer Expenses: 1,180.00

SUMMARY TASKS **REVENUE BUDGET** COST BUDGET BALANCES INVOICES ACTIVITY HISTORY EMPLOYEES EQUIPMENT GL ACCOUNTS ATTRIBUTES APPROVAL DETAILS MAILING SETTINGS

Project Task: Group by Task

VIEW COMMITMENTS VIEW TRANSACTIONS

Project Task	Inventory ID	Account Group	Description	Budgeted Quantity	UOM	Unit Rate	Budgeted Amount	Revised Quantity	Revised Amount	Draft Invoices Amount	Actual Quantity	Actual Amount	Variance Amount	Completed (%)	Pending Invoice Amount	Performance (%)	Tax Category
TASK1	<N/A>	REVENUE	misc expenses	0.00		0.00	3,000.00	0.00	3,000.00	0.00	0.00	0.00	3,000.00	10.00	300.00	0.00	
TASK1	ANALYSIS	REVENUE	Requirement analysis	40.00	HOUR	100.00	4,500.00	40.00	4,500.00	1,350.00	0.00	0.00	4,500.00	50.00	900.00	0.00	
TASK1	CONSULT	REVENUE	consulting	0.00	HOUR	0.00	3,000.00	0.00	3,000.00	900.00	0.00	0.00	3,000.00	60.00	900.00	0.00	
TASK1	DEVELOP	REVENUE	Application development	0.00	HOUR	0.00	15,000.00	0.00	15,000.00	1,000.00	0.00	0.00	14,200.00	20.00	2,000.00	5.33	
TASK1	TRAVEL	REVENUE	Business Travel	20.00	HOUR	40.00	800.00	20.00	800.00	0.00	0.00	0.00	800.00	30.00	240.00	0.00	
TASK2	TRAINING	REVENUE	End-user consulting, tra...	10.00	HOUR	100.00	1,000.00	10.00	1,000.00	0.00	0.00	0.00	1,000.00	20.00	200.00	0.00	
TASK2	TRAVEL	REVENUE	Business Travel	0.00	HOUR	0.00	2,000.00	0.00	2,000.00	0.00	0.00	0.00	2,000.00	20.00	400.00	0.00	

Figure: The progress billing lines of a pro forma invoice



- If a project task uses a billing rule that has no *Progress Billing* step, the system does not recalculate the **Pending Invoice Amount** on update of the **Completed (%)** column of the **Revenue Budget** tab of the *Projects* form for the revenue budget lines that belong to the task, and the system ignores any pending invoice amount of these lines during the billing process.
- The **Actual Quantity** of the **Revenue Budget** tab of the *Projects* form is always zero in the revenue budget lines that are billed only by progress billing.

Flexible Transaction-Based Billing

A simple workflow is now provided for projects that are billed based on project transactions. To support a variety of billing models, on the *Billing Rules (PM207000)* form, the new *Time and Material* type of billing step has been introduced, as shown in the screenshot below. A billing rule may have a number of *Time and Material* steps for different account groups of transactions that should be used to determine the invoiced amounts by different formulas. The *Time and Material* billing can be executed right after the project transactions that match the selection criteria have been provisioned in the system. The allocation process can be executed before billing if necessary.

Main ▾ Billing Rules

SAVE & CLOSE

* Billing Rule ID: MIXED2017 Active
 Description: Progress and T&M

Active	Step ID	Description	Invoice Group
<input checked="" type="checkbox"/>	5	Progress billing	A
<input checked="" type="checkbox"/>	10	Re-invoice travel costs	A
<input checked="" type="checkbox"/>	30	Re-invoice subcontract	A
<input checked="" type="checkbox"/>	40	Bill TM labor at work type rate	A
<input checked="" type="checkbox"/>	50	Bill misc project expenses	A

Billing Type: Time and Material

TRANSACTION SELECTION CRITERIA

Account Group: LABOR - Project lab
 Rate Type: If @Rate is not defined: Set @Rate to 0

INVOICE SETTINGS

Invoice Description Formula: =Invoice for '+[PMProject.Description]
 Line Quantity Formula:
 Line Amount Formula: =[PMTran.BillableQty]*@Price
 Line Description Formula: =[PMAccountGroup.GroupCD]+'+[PMTran.Description]

* Use Destination Branch from: Task Destination Branch: main - Main
 * Use Sales Account from: Project Sales Account: 42000 - Project Inco

BILLING OPTIONS

Copy Notes and Files Include Transactions with Zero Amounts
 Include Non-Billable Transactions Include Transactions with Zero Quantities

AGGREGATE TRANSACTIONS BY

Date Employee Vendor Inventory ID

Figure: A *Time and Material* step of a billing rule

With the new billing rule, the project setup and billing workflow proceed as follows:

- In the **Line Quantity Formula** and **Line Amount Formula** of a *Time and Material* billing step, a user can use fields and attributes from such entities as the project, project budget, project task, project transaction, customer, vendor, employee, inventory item, and account group. The user can also use different sources of the project rates: those from the rate tables that can be configured in the Projects module, and those from sales price lists that are defined in the Accounts Receivable module.
- The invoice lines that are produced by the *Time and Material* billing are displayed on the **Time and Material** tab of the *Pro Forma Invoices (PM307000)* form.
- The *Time and Material* billing rule supports the aggregation of project transactions by date, employee, vendor, and inventory item. For a selected pro forma invoice line, the user can click **View Transactions Details** on the table toolbar of the **Time and Material** tab of the *Pro Forma Invoices* form to drill down to the list of project transactions for which the **Billed Quantity** and **Billed Amount** have been calculated by the formula of the billing rule (as shown in the following screenshot). These values compose the respective **Billed Quantity** and **Billed Amount** of the pro forma invoice line.

The screenshot displays the 'Pro Forma Invoices' form with the 'TIME AND MATERIAL' tab selected. The form includes fields for Reference Nbr (000145), Project (PR00000076 - Customization package fi), Status (On Hold), Customer (customer1 - James Bond), Invoice Date (8/25/2017), and Post Period (08-2017). Below these fields are tabs for PROGRESS BILLING, TIME AND MATERIAL, FINANCIAL DETAILS, APPROVAL DETAILS, and BILLING SETTINGS. The 'VIEW TRANSACTION DETAILS' button is active, opening a dialog box with the following table:

Ref. Number	Inventory ID	Description	*Date	Billable	Quantity	UOM	Amount	Billed Quantity	Billed Amount
PM00000197	DEVELOP	Application development	7/28/2017	<input checked="" type="checkbox"/>	8.00	HOUR	600.00	8.00	2,400.00
PM00000207	DEVELOP	Application development	7/28/2017	<input checked="" type="checkbox"/>	8.00	HOUR	600.00	8.00	2,400.00
PM00000208	DEVELOP	Application development	7/28/2017	<input checked="" type="checkbox"/>	8.00	HOUR	600.00	8.00	2,400.00
PM00000215	DEVELOP	Application development	7/28/2017	<input checked="" type="checkbox"/>	7.00	HOUR	525.00	7.00	2,100.00

Figure: The project transactions behind a pro forma invoice line

- A user can remove a line from the **Transaction Details** dialog box or from the **Time and Material** tab, and the line will appear in the next invoice.
- A user can modify the **Amount to Invoice** in a pro forma invoice line and make a decision about the difference between the calculated **Billed Amount** and the corrected **Amount to Invoice** by selecting the needed option in the **Status** column of the invoice line, as shown in the screenshot below. The difference can be postponed until the next invoice (*Hold Remainder*) or written off by this invoice (*Write off Remainder*). The whole amount of the pro forma invoice line can also be written off and will no longer show up in the next invoices (*Write off*).



: The remaining amount will not be added to a pro forma invoice if the Accounts Receivable invoice that contains the line from which the remainder originates is not released.

Main > Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS REPORTS

Reference Nbr.: 000145 Project: PR00000076 - Customization package fr Progress Billing Total: 0.00
 Status: On Hold Customer: customer1 - James Bond Time and Material Total: 22,410.00
 Hold * Location: MAIN - Primary Location Detail Total: 22,410.00
 * Invoice Date: 8/25/2017 * Post Period: 08-2017
 Description: Invoice for Customization package for the customer

PROGRESS BILLING TIME AND MATERIAL FINANCIAL DETAILS APPROVAL DETAILS BILLING SETTINGS

VIEW TRANSACTION DETAILS

*Status	*Branch	Project Task	Inventory ID	Description	*Date	Billed Quantity	Billed Amount	Quantity to Invoice	UOM	Unit Price	Amount to Invoice	*Sales Account
Hold Rema	main	TASK1	ANALYSIS	TRAVEL Business Travel	7/27/2017	39.00	3,900.00	39.00	HOUR	100.00	3,900.00	42000
Hold Remainder		TASK1	ANALYSIS	LABOR Requirement analysis	7/28/2017	57.00	11,400.00	57.00	HOUR	200.00	11,400.00	42000
Write off Remainder		TASK2	DEVELOP	LABOR Application develop...	7/28/2017	24.00	7,200.00	24.00	HOUR	300.00	7,200.00	42000
Write off		TASK2	TRAINING	OTHER End-user consultin...	7/28/2017	9.00	810.00	9.00	HOUR	90.00	810.00	42000

Figure: Selection of the status of a pro forma invoice line

- If the billing limit amounts are defined for the lines of the revenue budget of the project, the system applies the limit amounts to the invoice lines as a running total starting from the first line on the **Time and Material** tab of the *Pro Forma Invoices* form. For each line of the invoice, the system subtracts the **Amount to Invoice** from the **Max Available Amount** and uses the reduced amount as the available limit for the next line. Invoice lines for which the **Over Limit Amount** becomes non-zero exceed the limit. The user can rearrange lines within the invoice by dragging them to appropriate positions to make the system apply the limit amounts to the needed lines of the invoice.
- The user can also insert an adjustment line into the pro forma invoice and move it to the needed position, as shown in the screenshot below. Such lines are also included in the limit application and can decrease or increase the limit total.

Main > Pro Forma Invoices

SAVE & CLOSE RELEASE ACTIONS REPORTS

Reference Nbr.: 000146 Project: PR00000076 - Customization package fr Progress Billing Total: 0.00
 Status: On Hold Customer: customer1 - James Bond Time and Material Total: 24,470.00
 Hold * Location: MAIN - Primary Location Detail Total: 24,470.00
 * Invoice Date: 8/25/2017 * Post Period: 08-2017 Over Limit Total: 2,500.00
 Description: Invoice for Customization package for the customer

PROGRESS BILLING TIME AND MATERIAL FINANCIAL DETAILS APPROVAL DETAILS BILLING SETTINGS

VIEW TRANSACTION DETAILS

*Status	*Branch	Project Task	Inventory ID	Description	*Date	Billed Quantity	Billed Amount	Quantity to Invoice	UOM	Unit Price	Max Limit Amount	Max Available Amount	Amount to Invoice	Over Limit Amount	*Sales Account
Bill	main	TASK1	ANALYSIS	TRAVEL Business Travel	7/27/2017	39.00	3,900.00	39.00	HOUR	100.00	14,000.00	12,800.00	3,900.00	0.00	42000
Bill	main	TASK1	ANALYSIS	LABOR Requirement analysis	7/28/2017	57.00	11,400.00	57.00	HOUR	200.00	14,000.00	8,900.00	11,400.00	2,500.00	42000
Bill	main	TASK1	<N/A>	correction discount	8/25/2017	0.00	0.00	0.00		0.00	14,000.00	0.00	-2500.00	0.00	42000
Bill	main	TASK2	DEVELOP	LABOR Application develop...	7/28/2017	26.00	1,560.00	26.00	HOUR	60.00	18,000.00	18,000.00	1,560.00	0.00	42000
Bill	main	TASK2	DEVELOP	LABOR Application develop...	7/28/2017	31.00	9,300.00	31.00	HOUR	300.00	18,000.00	16,440.00	9,300.00	0.00	42000
Bill	main	TASK2	TRAINING	OTHER End-user consultin...	7/28/2017	9.00	810.00	9.00	HOUR	90.00	18,000.00	7,140.00	810.00	0.00	42000

Figure: A line added to a pro forma invoice to adjust the billing limit total

Comprehensive Billing Rules

The following additional enhancements have been implemented for the billing rules:

- A user can select the **Bill Separately** check box for a task on the *Project Tasks (PM302000)* form to make the system create separate invoices for that task during the project billing (either pro forma invoices or Accounts Receivable invoices, depending on the billing workflow of a project). During the billing process, the system groups the billable amounts into invoices by customer, customer location, **Bill Separately** setting of each project task, and **Invoice Group** of the billing rules to which the project tasks refer.
- On the *Billing Rules (PM207000)* form, for either the *Progress Billing* or *Time and Material* billing step, in the **Invoice Description Formula** box, a user can specify an expression to make the system compose the document description dynamically for each invoice during the billing process.
- On the *Billing Rules (PM207000)* form, a user can specify a dynamic source of the destination branch for an invoice line, which can be one of the following entities:
 - *None*: The default branch that is used by the user at the moment of running the billing process
 - *Billing Rule*
 - *Project*
 - *Task*
 - *Inventory Item*
 - *Customer*: The shipping branch of the customer's location
 - *Resource*: The branch of the employee associated with the transaction (applied to only the time and material steps)

The billing process uses the originating branch from the project settings on the *Projects (PM301000)* form and the destination branches from the sources according to the billing rules. On release of an Accounts Receivable invoice, the Accounts Receivable account is updated under the originating branch of the invoice, while the revenue amounts are recorded to the destination branches of the invoice lines.

Enhanced Project Rates

As an alternative to the rate tables of the Projects module, it is now possible to use the sales prices that are defined on the *Sales Prices (AR202000)* form as the project billing rates. This adds the following new billing options:

- Promotional and regular rates
- Price class-specific and customer-specific rates
- Multi-currency rates
- UOM-specific rates
- Volume-specific rates
- Warehouse-specific rates for materials

A user can use the *@Price* parameter in a formula that calculates the billing amount to retrieve the effective sales price during the project billing process, as shown in the following screenshot.

Main ▾ Billing Rules

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* Billing Rule ID: MIXED2017 Active
 Description: Progress and T&M

Active	Step ID	Description	Invoice Group
<input checked="" type="checkbox"/>	5	Progress billing	A
<input checked="" type="checkbox"/>	10	Re-invoice travel costs	A
<input checked="" type="checkbox"/>	30	Re-invoice subcontract	A
<input checked="" type="checkbox"/>	40	Bill TM labor at work type rate	A
<input checked="" type="checkbox"/>	50	Bill misc project expenses	A

Billing Type: Time and Material

TRANSACTION SELECTION CRITERIA

Account Group: LABOR - Project lab
 Rate Type: If @Rate is not defined: Set @Rate to 0

INVOICE SETTINGS

Invoice Description Formula: =["Invoice for " + [PMProject.Description]]
 Line Quantity Formula:
 Line Amount Formula: =[PMTran.BillableQty] * @Price
 Line Description Formula: =[PMAccountGroup.GroupCD] + " " + [PMTran.Description]
 * Use Destination Branch from: Task Destination Branch: main - Main
 * Use Sales Account from: Project Sales Account: 42000 - Project Inco

BILLING OPTIONS

Copy Notes and Files Include Transactions with Zero Amounts
 Include Non-Billable Transactions Include Transactions with Zero Quantities

AGGREGATE TRANSACTIONS BY

Date Employee Vendor Inventory ID

Figure: The usage of the @Price parameter in a billing rule

Other Enhancements

The following enhancements have been also implemented for the Projects module:

- On the **Tasks** tab of the *Projects (PM301000)* form, a user can now activate all tasks of a project and complete all tasks of a project in a single click.
- The ability to edit original budget amounts and quantities on the *Projects* form now depends on the budget lock status and is independent from the project and task statuses. A user can now protect the **Budgeted Amount** and **Budgeted Quantity** columns of a budget line from editing by applying the **Lock Budget** action to the project. The lock applies to both the **Revenue Budget** and **Cost Budget** tabs. The **Unlock Budget** action reverses the **Lock Budget** action and makes the columns available for editing again. The access to the **Unlock Budget** action can be restricted to a particular user role in the system configuration.
- The following separate check boxes have been introduced on the **Summary** tab of the *Projects* and *Project Tasks (PM302000)* forms to control the visibility of a project or project task in the Time & Expenses module:
 - **Time Entries:** The visibility for the time activity and time card entry against the project or project task
 - **Expenses:** The visibility for the expense receipt and expense claim entry against the project or project task
- Edit buttons have been added to the Project and Customer selectors across data entry forms in the system.
- Hyperlinks have been added to Accounts Receivable document references on the **Invoices** tab of the *Projects* form.
- On the *Projects* form, the selector of the **Project ID** box has been extended with additional columns, including **Customer**, **Customer Name**, and **Project Manager**.
- On the *Projects Preferences (PM101000)* form, in the new **Restrict Project Selection** box, a user can select whether all projects or only projects that belong to the selected customer should be displayed in the project selector on data entry forms in the Accounts Receivable and Sales Orders modules.

- The new *TMPROJECT* segmented key, which can be viewed and edited on the *Segmented Keys (CS202000)* form, defines the format of project template identifiers on the *Project Templates (PM208000)* form. The auto-numbering that can be specified in the *PROJECT* segmented key now applies to project identifiers only. The auto-numbered projects and project templates may still share the same numbering sequence if needed.
- On the *Enable/Disable Features (CS100000)* form, the feature that enables the Projects module is now called *Project Accounting*.

Projects: Tracking of Commitments

Acumatica ERP now supports tracking purchase orders and sales orders by project as the project cost and revenue commitments, respectively. These commitments affect the execution status of a project. A user can track the budget and actual amounts of a project, as well as the original commitments that remain open.

A user can perform the following tasks with commitments:

- [Tracking Committed Cost by Purchase Order](#)
- [Tracking Committed Revenue by Sales Order](#)
- [Aggregating Committed Data for Reports](#)
- [Integrating Commitments with External Systems](#)

Tracking Committed Cost by Purchase Order

The system tracks the commitment cost in the base currency for the *Normal* and *Drop-Ship* lines of the purchase orders associated with a project. These commitments are called *internal* because they originate from documents created in the system, in contrast to *external* commitments that can be imported into Acumatica ERP.

The system tracks the internal commitment cost if the **Internal Commitment Tracking** check box is selected on the *Project Preferences (PM101000)* form.

When a user saves a purchase order created on the *Purchase Orders (PO301000)* form with the *Open* status and the order refers to a project, the system creates a commitment record for each purchase order line in the amount of the **Ext. Cost** of the line. These commitments are updated as soon as the order line is changed (for example, when the quantity or amount of the line is corrected or the order line is completed or canceled).

Users can review the commitment records on the *Commitments (PM306000)* form, which is shown in the screenshot below. The original commitment amount is displayed in the **Amount** column of the line. For a new commitment, the **Open Amount** equals the original committed amount.

When a purchase order is received, the system updates the **Received Quantity** and reduces the **Open Amount** of the commitment line by an amount proportional to the received or billed quantity as follows: $\text{Open Amount} = \text{Open Amount} - \text{Amount} * \text{Received Quantity}$.

The system updates the **Received Quantity** of the commitment line depending on the type of the purchase order line as follows:

- For the purchase order lines that are processed through a purchase receipt, the commitment lines are updated with the received quantity on release of the purchase receipt.
- For the purchase order lines that are billed directly without a purchase receipt being processed, the commitment lines are updated with the invoiced quantity on release of the Accounts Payable bill.

When an Accounts Payable bill that corresponds to the purchase order is released, the **Invoiced Amount** is updated with the **Ext. Cost** of the bill line.

After a purchase order has been closed, the **Open Amount** of the commitment lines becomes zero. If a purchase order has been received partially or canceled, the incomplete amounts are also subtracted from the **Open Amount**.

☰ Main - Commitments ★

CREATE EXTERNAL COMMITMENT

Project:		Quantity:	6.00	Received Quantity:	0.00
Account Group:		Amount:	8,470.00	Invoiced Quantity:	0.00
Project Task:		Open Quantity:	6.00	Invoiced Amount:	3,700.00
Inventory ID:	<N/A>	Open Amount:	4,770.00		

Type	*Project	*Account Group	*Project Task	Inventory ID	*Fin. Period	External Ref. Nbr	UOM	Quantity	Amount	Open Quantity	Open Amount	Received Quantity	Invoiced Quantity	Invoiced Amount	Related Document
Internal	PR00000021	MATERIAL	20	MATERIAL	08-2017		PC	5.00	4,500.00	5.00	4,500.00	0.00	0.00	0.00	Normal_000002
Internal	PR00000021	SUBCON	10	SUBCON	08-2017		PC	0.00	1,200.00	0.00	0.00	0.00	0.00	1,200.00	Normal_000001
Internal	PR00000021	MATERIAL	10	MATERIAL	08-2017		PC	1.00	270.00	1.00	270.00	0.00	0.00	0.00	Normal_000002
Internal	PR00000021	SUBCON	20	SUBCON	08-2017		PC	0.00	2,500.00	0.00	0.00	0.00	0.00	2,500.00	Normal_000001

Figure: Commitments (PM306000) form

The validate process on the *Validate Project Balances (PM504000)* form recreates internal commitment records based on the amounts and quantities in the lines of purchase orders if the tracking of project commitments is enabled.

Tracking Committed Revenue by Sales Order

The system tracks the commitment revenue in the base currency for the lines of sales orders associated with a project. These commitments are also internal.

The system tracks the internal commitment revenue if the **Internal Commitment Tracking** check box is selected on the *Project Preferences (PM101000)* form. The **Committed Tracking** check box is also should be selected on the *Order Types (SO201000)* form for the order type for which the commitment tracking is required.

When a user saves a sales order created on the *Sales Orders (SO301000)* form with the *Open* status and the sales order refers to a project, the system creates a commitment record for each sales order line in the amount of the **Ext. Cost** of the line. These commitments are updated as soon as the order line is changed (for example, when the quantity or amount of the line is corrected, or the order line is completed or canceled).

On the *Commitments (PM306000)* form, the original commitment amount is displayed in the **Amount** column. For a new commitment, the **Open Amount** equals the original committed amount.

When a sales order is shipped, the system updates the **Received Quantity** and reduces the **Open Amount** of the commitment line by an amount proportional to the shipped or invoiced quantity as follows: $Open\ Amount = Open\ Amount - Amount * Received\ Quantity$.

The system updates the **Received Quantity** of the commitment line depending on whether a shipment is processed for the sales order as follows:

- For the sales order lines that are processed through a shipment, the commitment lines are updated with the shipped quantity on shipment confirmation.
- For the sales order lines that are invoiced directly without shipment processing, the commitment lines are updated with the invoiced quantity on release of the Sales Orders invoice.

When an Accounts Receivable invoice that corresponds to the sales order is released, the **Invoiced Amount** is updated with the **Amount** of the invoice line.

After a sales order has been completed, the **Open Amount** of the commitment lines becomes zero. If a sales order has been delivered partially or canceled, the incomplete amounts are also subtracted from the **Open Amount**.

Return lines of sales orders are recorded as commitment lines with the negative sign if commitment tracking is enabled for the applicable return order type (for example, a credit memo).

The validate process on *Validate Project Balances (PM504000)* form recreates internal commitment records based on the amounts and quantities in the lines of sales orders for which the tracking of project commitments is enabled.

Aggregating Committed Data for Reports

The commitment data aggregated by the project budget line key (Project ID, Project Task ID, Inventory ID, and Account Group ID) is available in the analytical reports and on the following forms:

- On the *Projects (PM301000)* form, in the respective columns on the **Revenue Budget** and **Cost Budget** tabs. For a selected budget line, a user can click **View Commitments** on the table toolbar to review the detailed commitment records on the *Commitments (PM306000)* form.
- On the *Row Sets (CS206010)* form, in the **Amount Type** box of the **Data Source** of a row, for row sets of the *PM* type.
- On the *Column Sets (CS206020)* form, in the **Amount Type** box of the **Data Source** of a column, for column sets of the *PM* type.
- On the *Unit Sets (CS206030)* form, in the **Amount Type** box of the **Data Source** of a unit, for unit sets of the *PM* type.

Integrating Commitments with External Systems

Project commitments do not necessarily have to originate from purchase orders or sales orders that exist in the system. Users can import commitment records from an external system into Acumatica ERP for further analysis against budget and actual figures. These commitment records are called *external* in contrast to internal ones that originate from documents created in the system. After the initial import, users can update imported commitment records as the project goes on and the system changes the applicable open committed amounts and invoiced amounts. Imported commitment records have the *External* type on the *Commitments (PM306000)* form and are identified in Acumatica ERP by the external reference number, as shown in the screenshot below.

External Commitments

Main External Commitments NOTES FILES CUSTOMIZATION HELP ▾

SAVE & CLOSE [Save] [Refresh] + [Trash] [Dropdown] < < > >|

* External Ref. Nbr.:	EXT000010
* Account Group:	REVENUE - Project revenue
* Project:	PR00000021 - Jim Brown's a
Project Task:	10 - Bathroom remodeling
* Fin. Period:	08-2017
Inventory ID:	<N/A>
UOM:	HOUR
Amount:	4,000.00
Quantity:	20.00
Open Amount:	1,000.00
Open Quantity:	5.00
Received Quantity:	15.00
Invoiced Amount:	3,000.00
Invoiced Quantity:	15.00

Figure: The External Commitments (PM209000) form

The selection of the **Internal Commitment Tracking** check box on the *Project Preferences (PM101000)* form is not necessary for the import of external commitment records.

To create an external commitment record, on the toolbar of the *Commitments (PM306000)* form, a user can click **Create External Commitment** and then populate the necessary settings of the *External Commitments (PM209000)* form, which opens. This form is also available for writing import and export scenarios and via the Web Services API.

Projects: Upgrade Notes

Before an instance of Acumatica ERP is upgraded from a previous version to 2017 R2, we recommend that users who will perform upgrade read the information listed below that is related to the changes made to the Projects module:

- [The Upgrade Process](#)
- [Actions After the Upgrade Process](#)
- [Migration of Projects with the Billing Limit Amount Controlled](#)
- [Functional Changes](#)
- [Renamed Elements](#)
- [Changed Forms](#)
- [Custom Reports and Generic Inquiries](#)
- [Changes to the Acumatica Mobile App](#)

The Upgrade Process

The existing projects and the configuration should be updated smoothly. During the upgrade process, the system migrates the project budget records to the new data structure, so users can view them on the *Projects (PM301000)* form after the upgrade.

While the billing rules are upgraded, for each account group in a billing rule, the system creates a step of the *Time and Material* type with an empty line amount formula. The billing rules may continue to work with an allocation process that creates transactions on these account groups. The billing rules with no line amount formula uses the value of the *PMTran.Amount* data field so that the billing result is consistent with the result in the system previously.

Actions After the Upgrade Process

After the upgrade process is complete, user need to perform the following steps:

1. On the *Validate Project Balances (PM504000)* form, select the **Recalculate Unbilled Summary** check box, and on the form toolbar, click **Validate All** to recalculate the amounts of the project budget records based on the project transactions generated as a result of the upgrade.
2. Optional: If a user wants to enable the pro forma invoice workflow for an existing project, he or she should do the following:
 - a. On the **Invoices** tab of the *Projects (PM301000)* form, make sure there are no unreleased Accounts Receivable documents related to the project.
 - b. On the **Summary** tab, select the **Create Pro Forma on Billing** check box for the project.



: Later, if the user want to return back to processing direct Accounts Receivable invoices for the project, he or she have to make sure there are no unreleased pro forma invoices or Accounts Receivable documents related to the project, and clear the **Create Pro Forma on Billing** check box for the project.

Migration of Projects with the Billing Limit Amount Controlled

During the upgrade, the system copies the limit amount from the account group of a billing rule that was specified in the **Max. Limits Account Group** setting on the *Billing Rules (PM207000)* form to the **Revenue Budget** tab of the *Projects (PM301000)* form for project tasks that use that billing rule if the limit amount was enabled in the billing rule.

To migrate a project with the billing limit amount controlled, do the following:

- After the upgrade, before the next iteration of the allocation process is run for the project, a user should enable the pro forma invoice workflow for the project for which he or she wants to continue using the limit amount control.
- After the user has enabled the pro forma invoice workflow for the project, he or she should resume processing the project—that is, run the allocation process, and then run the billing process, which creates a pro forma invoice where the limits are verified.



: On the *Projects Preferences (PM101000)* form, in the **Validate T&M Revenue Budget Limits** box, the user can select whether users should receive a warning or error message on the *Pro Forma Invoices (PM307000)* form if an invoice exceeds a limit.

Functional Changes

The following functional changes have been made to the module:

- The project budget is now defined on the *Projects (PM301000)* form instead of the *Project Tasks (PM302000)* form.
- The following forms have been removed:
 - *Project Budget (PM303000)*: The new *Budget Details (PMGI0010)* generic inquiry can be used to view the list of records of a project budget in the system, and the **Revenue Budget** and **Cost Budget** tabs of the *Projects* form can be used to import budget records.
 - *Project Budget by Period (PM305000)*: The project budget is no longer broken down by period.
- For project templates, the budget is now defined on the *Project Templates (PM208000)* form instead of the *Project Template Tasks (PM208010)* form, which is consistent with the changes on the *Projects* form.
- The new *TMPROJECT* segmented key, which can be viewed and edited on the *Segmented Keys (CS202000)* form, now defines the format of project template identifiers on the *Project Templates (PM208000)* form. The auto-numbering that can be specified in the *PROJECT* segmented key now applies to only the project identifiers. Auto-numbered projects and project templates may still share the same numbering sequence, if needed.
- The ability to postpone a certain amount of an invoice line till the next invoice (Billing Option) has been changed as follows:
 - A user can now postpone a certain amount and quantity of a line of a pro forma invoice until the next invoice or write it off. This functionality is now available on the *Pro Forma Invoices (PM307000)* form. For more information, see the [Projects: Billing Workflow Enhancements and Invoice Preview > Flexible Transaction-Based Billing](#) section.
 - The **Billing Option** column is no longer available on the **Document Details** tab of the *Invoices and Memos (AR301000)* form.
 - The billing option by quantity condition is temporarily not supported.
- The validation of the billing limit has been changed as follows:
 - The validation of the billing limit is now performed as part of the billing process instead of the allocation process.

In the previous versions of Acumatica ERP, the allocation process did not create a transaction if the allocated amount exceeded the limit. The billing process created the Accounts Receivable invoice in the full unbilled amount.

Now the allocation process does not validate limits and creates all transactions according to the allocation rule. The billing process creates a pro forma invoice with all billable transactions.

- Now users can interact with the application process of the limit. They can review the transactions that violated the limit and take the corrective actions on the *Pro Forma Invoices* form. The validation level may vary, from a simple warning, which does not block the processing of the pro forma invoice, to an error, which prevents the pro forma invoice from further processing until the invoice amount is within the limit. The desired behavior is specified on the *Projects Preferences (PM101000)* form.

For more information on this functionality, see the [Projects: Billing Workflow Enhancements and Invoice Preview > Flexible Transaction-Based Billing](#) section.

- The validation of the billing limit is no longer performed if the Accounts Receivable invoice is created directly without a pro forma invoice being processed first.
- The amount of the billing limit is now defined for a revenue budget line on the **Revenue Budget** tab of the *Projects* form instead of a billing rule.
- The **Over the Limits Account Group** setting that existed on the *Billing Rules (PM207000)* form is deprecated. With the new limit validation workflow, a user can preview over-limit amounts in a pro forma invoice and make the necessary decisions without having the allocation process that temporarily posts these amounts to an account group for further review and adjustment.
- The billing limit by quantity is temporarily not supported.
- The ability to edit original budget amounts and quantities now depends on the budget lock status instead of the project and task statuses. The **Budgeted Amount** and **Budgeted Quantity** columns of the budget lines of a project on the *Projects* form can now be protected from editing if a user applies the **Lock Budget** action to the project. The lock applies to both the **Revenue Budget** and **Cost Budget** tabs of the form. The **Unlock Budget** action reverses the **Lock Budget** action and makes the columns available for editing again.
- The auto-calculation of the percentage of task completion by amount or quantity can now be based on the cost budget lines only—that is, the budget lines that can be added to the **Cost Budget** tab of the *Projects* form. The **Production** column of this tab has been renamed to **Auto Completed (%)**.
- The **WIP Account Group** is now specified at the task level on the *Project Tasks* form instead of the billing rule level on the *Billing Rules* form. During the upgrade, the system copies the WIP account group from the billing rule of a project task to the settings of the project task.
The logic for reversing the WIP amount remains the same—that is, on release of an Accounts Receivable invoice, the system reverses the amount on the WIP account group that is specified for the project task that is being billed.
- Budgeting against an off-balance account group is available on the **Cost Budget** tab of the *Projects* form only if the account group has the **Expense** check box selected on the *Account Groups (PM201000)* form. Off-balance expense budget records are included in the *Expense Totals* row on the **Balances** tab of the *Projects* form. Budget records by non-expense off-balance account groups are included in the *Off-Balance Totals* row on the **Balances** tab.
- The ability to budget against asset, liability, and non-expense off-balance account groups is temporarily unavailable. Actual amounts for these account groups are displayed on the **Balances** tab of the *Projects* form and in the *Budget Details* generic inquiry.
- The auto-budget function is temporarily not supported.

Renamed Elements

The following elements that are not mentioned in the previous section have been renamed:

- On the *Enable/Disable Features (CS100000)* form, the feature that provides the ability to use the Projects module has been renamed to *Project Accounting*.
- On the *Projects (PM301000)* form, account-task mapping settings are now available in the **Default Task for GL Account** section of the **GL Accounts** tab.

Changed Forms

Multiple enhancements have been made to the UI of the forms listed below:



: Custom objects, such as customizations, import/export scenarios, and screen-based API that refer to fields on these forms may need to be updated.

- *Projects (PM301000)*
- *Project Tasks (PM302000)*
- *Project Transactions (PM304000)*
- *Budget Details (PMGI0010)*: A new generic inquiry under Organization > Projects > Work Area > Explore
- *Budget Summary by Account Group (PMPV0010)*: A new pivot table under Organization > Projects > Work Area > Explore
- *Project Budget (PM303000)*: A removed form
- *Project Budget by Period (PM305000)*: A removed form
- *Pro Forma Invoices (PM307000)*: A new form under Organization > Projects > Work Area > Manage
- *Project Transactions (PM401000)*
- *Commitments (PM306000)*: A new form under Organization > Projects > Work Area > Explore
- *Tasks by Employee (PM402000)*
- *Reverse Unbilled Transactions (PM505000)*
- *Run Project Billing (PM503000)*
- *Process Pro Forma Invoices (PM506000)*: A new form under Organization > Projects > Processes > Recurring
- *Project Balance (PM621000)*
- *Pro Forma Invoice (PM642000)*: A new report under Organization > Projects > Reports > Forms
- *Projects Preferences (PM101000)*
- *Billing Rules (PM207000)*
- *Attributes (PM202000)*
- *Project Templates (PM208000)*
- *Project Template Tasks (PM208010)*
- *Common Tasks (PM208030)*

Custom Reports and Generic Inquiries

The project budget is now stored in the new *PMBudget* database table. Custom generic inquiries and reports should be updated so that users can use this table to retrieve the project budget data instead of the *PMProjectStatus* or *PMHistory* tables. The *PMProjectStatus* table will no longer be updated. This table is deprecated and soon will be removed from the database schema.

Because the project budget is no longer kept by period, the columns that are listed below have been removed from the *PMHistory* table. In analytical reports, the respective options of the **Amount Type** setting of the data source of *PM* type are no longer available on the *Row Sets (CS206010)*, *Column Sets (CS206020)*, and *Unit Sets (CS206030)* forms:

- *Budget PTD Amount*
- *Budget PTD Quantity*
- *Revised PTD Amount*
- *Revised PTD Quantity*

Changes to the Acumatica Mobile App

The following mobile screens have been updated to reflect the changes made to the respective forms:

- *Projects*: Multiple enhancements have been made to this screen.
- *Project Tasks*: This screen is hidden in the site map of the mobile app and opens only if the user selects the **View Task** action in the detailed view of a project task on the *Projects* mobile screen.

Service: Enhancements in Equipment Management

Acumatica ERP2017 R2 provides enhancements in the Equipment Management module that help users track components and warranties.

A piece of *model equipment* is a stock item that the organization sells to customers and then provides preventive maintenance or warranty handling (or both) for. Preventive maintenance and warranty handling should be tracked in the system as well as the sale of the equipment. A *component* is a part of a piece of model equipment, which may have a separate warranty and a serial number. Components can also be subject to preventive maintenance.

In the previous version of Acumatica ERP, components and warranties could be used with the following limitations:

- If a component of a piece of equipment needed to be replaced in an appointment or a sale, the user had to register the replacement manually on the *Equipment (FS205000)* form.
- If a customer needed to replace or upgrade a component during the sale of a piece of model equipment and wanted a sales manager to include the corresponding item in a sales order, this operation could not be reflected in the record for the equipment in the system.
- If a piece of equipment needed to be replaced, a user had to register the disposal of the old equipment in the system manually. Additionally, users could not specify a connection between the two equipment entities in the system.
- On the *Appointments (FS300200)* form, the user could not view warranty information about equipment (if equipment was involved in the appointment). A user needed to open the *Equipment* form and make sure that the warranties were applied to the equipment.

Now when employees replace components, they can reflect this in the system and create new components for an equipment entity. Users can perform these actions when they are registering a new sale for a customer. For example, when a sales manager sells a computer, the customer may want to replace a default component (such as a hard disk) with an upgraded version, or add a new component that the computer didn't include originally (such as a second monitor). The sales manager can also sell a component and add it in the system to an equipment entity that was already sold (for example, an additional memory stick for a computer). The system now keeps track of warranties, serial numbers, default vendors, sale date, and installation date for each component.

If a piece of equipment needs to be replaced, the record of the discontinued equipment entity will remain in the system.

On the *Appointments* and *Service Orders (FS300100)* forms, users can now find out if a service was provided for a particular component of a piece of target equipment. Additionally, when a user registers a service or sale of an equipment entity or one of its components, these forms will display a notification that the equipment entity or a component is under warranty.

The following sections describe the changes on forms of the Services and Distribution suites that have been made to support the enhanced functionality.

Upgrade Notes

If at least one equipment entity with components was created in the previous version of Acumatica ERP, users should do the following for each equipment entity with components before the upgrade:

1. Select the equipment entity with components by its ID on the *Equipment (FS205000)* form, switch to the **Components and Warranties** tab, and save or record the settings for each component (such as serial number, vendor ID, and installation date) outside the system. Users will need to enter these settings anew after they add the components.

2. On the *Item Classes (IN201000)* form, create at least one model item class as follows:
 - a. In the **General Settings** section of the **General Settings** tab, make sure that the **Stock Item** check box is selected.
 - b. In the **Equipment Management** section of the **Service Management** tab (under **Equipment Item Class**), select the **Model Equipment** option button.
3. For at least one stock item that corresponds to the equipment entity with components, perform the following steps on the *Stock Items (IN202500)* form:
 - a. In the **Item Class** box of the **Item Defaults** section on the **General Settings** tab, select the model item class.
 - b. On the **Service Management** tab, add components to the stock item and specify the default settings for the components, such as vendor warranty and company warranty.
4. On the *Equipment (FS205000)* form, do the following:
 - a. Select the equipment entity with components.
 - b. In the **Model** box of the **Inventory Info** section on the **General Info** tab, select the stock item that has been modified in Step 3.

This change will replace the previously defined components with new components on the **Components and Warranties** tab.
 - c. For each component, add the previously saved or recorded settings (those recorded in Step 1) to the Components table.

To configure the system to process the equipment entities with components correctly in Version 2017 R2, users should do the following after the system upgrade:

1. On the *Item Classes (IN201000)* form, create at least one component item class and specify its settings as follows:
 - In the **Equipment Management** section of the **Service Management** tab (under **Equipment Item Class**), select the **Component** option button.
 - In the **General Settings** section of the **General Settings** tab, make sure that the **Stock Item** check box is selected.
2. For each model item class, do the following on the *Item Classes (IN201000)* form:
 - a. Select the item class by its ID.
 - b. In the **Class ID** column of the Components table on the **Service Management** tab, select the component item class for each listed component of this item class.
3. For each stock item with components, do the following on the *Stock Items (IN202500)* form:
 - a. Select the stock item by its ID.
 - b. In the **Class ID** column of the Components table on the **Service Management** tab, select the component item class for each listed component.
4. For each equipment entity with components, do the following on the *Equipment (FS205000)* form:
 - a. Select the equipment entity by its ID.
 - b. In the **Class ID** column of the Components table on the **Components and Warranties** tab, select the component item class for each listed component.

The Equipment Management Preferences Form

The *Equipment Management Preferences (FS100300)* form (see the screenshot below) includes the **Calculate Warranty From** group of the following option buttons, which affect how warranties are calculated for equipment entities and components:

- **Sales Order Date:** For equipment entities, the system calculates a warranty based on the value in the **Sales Date** box on the **General Info** tab of the *Equipment (FS205000)* form. For components, the system calculates a warranty based on the value in the **Sales Date** column on the **Component and Warranties** tab of the same form.

The system sets automatically a sales date in the **Sales Date** box on the *Equipment* form when an equipment entity or component is created based on a sales order document.

- **Appointment Date:** For equipment entities, the system calculates a warranty based on the value in the **Installation Date** box, in the **Installation Info** section of the **General Info** tab of the *Equipment* form. For components, the system calculates a warranty based on the value of the **Installation Date** column, on the **Component and Warranties** tab of the same form.

The system sets automatically an installation date in the **Installation Date** box on the *Equipment* form when the equipment or component is included in a sales order document that was associated with an appointment or service order.

- **The Earliest of Both Dates:** For equipment entities, the system calculates a warranty based on the earliest date between values in the **Sales Date** box (on the **General Info** tab of the *Equipment* form) and the **Installation Date** box (in the **Installation Info** section of the **General Info** tab of the same form). For components, the system calculates a warranty based on the earliest date between the values of the **Sales Date** and **Installation Date** columns (both located on the **Component and Warranties** tab of the same form).
- **The Latest of Both Dates:** For equipment entities, the system calculates a warranty based on the latest date between the **Sales Date** value (located on the **General Info** tab of the *Equipment* form) and the **Installation Date** value (located in the **Installation Info** section of the **General Info** tab of the same form). For components, the system calculates a warranty based on the latest date between the values of the **Sales Date** and **Installation Date** columns (both located on the **Component and Warranties** tab of the same form).

Revision Two HQ ▾ Equipment Management Preferences ★

The screenshot shows the 'EQUIPMENT SETTINGS' section of the 'Equipment Management Preferences' form. A red box highlights the 'Calculate Warranty From' group, which contains four radio button options: 'Sales Order Date' (selected), 'Appointment Date', 'The Earliest of Both Dates', and 'The Latest of Both Dates'. Above this section, the 'CONTRACT SETTINGS' section is visible with a checkbox for 'Enable Seasons in Schedule Contracts'.

Figure: The Calculate Warranty From group of option buttons

The Item Class Form

The **Equipment Item Class** group of option buttons has been added to the **Equipment Management** section of the **Service Management** tab of the *Item Classes (IN201000)* form (see the screenshot below). For each class, a user can select one of the following option buttons, each of which corresponds to a particular type of stock item:

- **Part or Other Inventory** (default): This button is selected for items that 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**: This button is selected for equipment entities that should be tracked (either for preventive maintenance or for warranty handling) after they are sold.
- **Components**: This button is selected for items that can be sold as parts of equipment entities. Components can have warranties, serial numbers, and other settings, which are independent from these settings for the equipment entity.
- **Consumable**: This button is selected for items that are sold as a parts of equipment entities but are not under a warranty.

Revision Two HQ ▾ Item Classes ★

Revision Two HQ ▾ Item Classes ★

Item Class Tree

- ▾ ALLOTHER** All Others
- ▾ CHARGE**** Miscellaneous Charges
- ▾ CONSUMER** Consumer Goods
- ▾ DEPOSIT*** Deposit Item
- ▾ DISTRIB*** Supply Distribution
- ▾ ELECCOMP** Electronics & Computers
- ▾ EXPENSES** Expenses
- ▾ FOOD***** Food Items
- ▾ FOODNS** Food Item - NonStock
- ▾ INDAC**** Air Conditioning Items
- ▾ INDACMODEL Air Conditioning Units
- ▾ INDEQUIP*** Industrial Equipment
- ▾ INSTALL*** Installation
- ▾ INTERNAL** Internal Service
- ▾ NONSTOCK** Non-Stock Items
- ▾ OPERATIONS Operations
- ▾ PMLABOR*** Project Labor
- ▾ PMNONSTOCK Project non-stock items
- ▾ SERVICE*** Warranty and Service
- ▾ SOFTWARE** Software
- ▾ SUPPORT*** Case Labor
- ▾ TECH*SUPP* Tech Support
- ▾ TRAINING** Customer Training
- ▾ UPGRADE*** System upgrade
- ▾ WIDGETS*** Widget Class

* Class ID: ⌵

Description:

GENERAL SETTINGS REPLENISHMENT SETTINGS SUBITEM / RESTRICTION GROUPS ATTRIBUTES **SERVICE MANAGEMENT**

SERVICE MANAGEMENT

Default Billing Rule: **None**

ROUTES MANAGEMENT

Route Service Class

EQUIPMENT MANAGEMENT

Equipment Item Class

Part or Other Inventory

Model Equipment

Component

Consumable

C + X |←| →| ☒

Component ID	Active	Optiona	Quantity	Description	* Class ID
COMPRESS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Compressor	INDAC
CONTROL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Control remote	INDAC
INDOORUNIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Evaporator Unit	INDAC
INFANMOTOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Indoor Fan Motor Condenser Unit	INDAC
OUTDOORUNIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Condensator Unit	INDAC
OUTFANMOT...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Outdoor Fan Motor Condenser Unit	INDAC

Figure: Component settings in an item class of the Model Equipment type

The Stock Items Form

The **Equipment General Warranty** section has been added to the **Service Management** tab of the *Stock Items (IN202500)* form (see the following screenshot). In this section, users can now specify the default values (timeframes) for the company warranty (that is, the warranty of the company that sold the item) and the vendor warranty.

Revision Two HQ ▾ Stock Items Filter Applied x

* Inventory ID: ⌵

Item Status:

Description:

Product Workgroup:

Product Manager:

GENERAL SETTINGS PRICE/COST INFO WAREHOUSE DETAILS VENDOR DETAILS ATTRIBUTES PACKAGING CROSS-REFERENCE REPLENISHMENT INFO DEFERRAL SETTINGS **SERVICE MANAGEMENT**

Equipment Item Class

Part or Other Inventory

Model Equipment

Component

Consumable

Manufacturer: ⌵

Manufacturer Mo.:

EQUIPMENT GENERAL WARRANTY

Company Warranty: Year(s)

Vendor Warranty: Year(s)

Figure: The Equipment General Warranty section on the Stock Items form

In the Components table of the same section, if the stock item belongs to an item class with the **Model Equipment** option button selected in the **Equipment Item Class** group, users can also specify default values (timeframes) of the company warranty and vendor warranty for each component of the stock item. (See the following screenshot.)

Revision Two HQ ▾ Stock Items Filter Applied x

NOTES ACTIVITIES FILES (1) CUSTOMIZAT

SAVE & CLOSE [Icons] ACTIONS ▾ INQUIRIES ▾

Inventory ID: IND24ANB1 Product Workgroup: [Field]
 Item Status: Active Product Manager: [Field]
 Description: Infinity 21 Central Air Conditioner by Carrier

GENERAL SETTINGS PRICE/COST INFO WAREHOUSE DETAILS VENDOR DETAILS ATTRIBUTES PACKAGING CROSS-REFERENCE REPLENISHMENT INFO DEFERRAL SETTINGS **SERVICE MANAGEMENT**

EQUIPMENT GENERAL WARRANTY
 Company Warranty: 2 Year(s)
 Vendor Warranty: 2 Year(s)

Component ID	Active	Options	Quantity	Description	Class ID	Inventory ID	Require Serial	Company Warranty	Company Warranty Type	Vendor Warranty	Vendor Warranty Type	Vendor ID
COMPRESS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Compressor	INDAC	IND24COM01	<input checked="" type="checkbox"/>	3	Year(s)	3	Year(s)	AAVENDOR
CONTROL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	Control remote	INDAC		<input type="checkbox"/>	0	Year(s)	0	Year(s)	
INDOORUNIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Evaporator Unit	INDAC	IND24IND01	<input checked="" type="checkbox"/>	2	Year(s)	1	Year(s)	AAVENDOR
INFANMOTOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Indoor Fan Motor Condenser Unit	INDAC	IND24FAN01	<input type="checkbox"/>	2	Year(s)	1	Year(s)	AAVENDOR
OUTDOORUNIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Condensator Unit	INDAC	IND24OUT01	<input checked="" type="checkbox"/>	2	Year(s)	1	Year(s)	AAVENDOR
OUTFANMOTOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Outdoor Fan Motor Condenser Unit	INDAC	IND24FAN01	<input type="checkbox"/>	2	Year(s)	1	Year(s)	AAVENDOR

Figure: The warranty settings for a stock item

For the components of a model equipment entity, users can also specify additional default settings, such as quantity and vendor ID.

The Equipment Form

The following changes have been made to the *Equipment (FS205000)* form to provide the ability to enter and track more details on the components and warranties:

- The following options are now available in the **Status** box of the Summary area (see the screenshot below):
 - Suspended*: This option had the *Inactive* name in the previous version.
 - Disposed*: This new option indicates that this equipment is out of service.

Revision Two HQ Equipment

SAVE & CLOSE [Icons] SCHEDULE APPOINTMENTS ▾ INQUIRIES ▾

Equipment Nbr.: 000001 Vehicle
 Equipment Type: [Field] Target Equipment
 Status: Disposed Resource Equipment
 Serial Number: Active
 Description: [Field] al Air Conditioner by Carrier

Owner
 Company
 Customer
 * Customer: ABARTENDE - USA

Location
 Company
 Customer
 * Customer: ABARTENDE - USA
 Location: MAIN - Primary Loc

Figure: New statuses of an equipment entity

- On the **General Info** tab, the following sections have been added (shown in the screenshot below):
 - Installation Info**: This section includes the **Installation Date** box (which existed in the previous version), and the new **Service Order Nbr.** and **Appointment Nbr.** boxes. The

system will fill in the last two boxes automatically if an appointment is associated with the sale of this equipment entity.

- **Disposal Info:** This section holds additional information about the disposal of this piece of equipment. The section includes the following boxes: **Disposal Date, Replacement Equipment Nbr., Appointment Nbr.,** and **Service Order Nbr.**

Revision Two HQ Equipment

SAVE & CLOSE [Icons] SCHEDULE APPOINTMENTS ▾ INQUIRIES ▾

Equipment Nbr.: 000001 Vehicle
 Equipment Type: Target Equipment
 Status: Disposed Resource Equipment
 Serial Number:
 Description: Central Air Conditioner by Carrier
 Owner: Company Customer
 * Customer: ABARTENDE - USA
 Location: Company Customer
 * Customer: ABARTENDE - USA
 Location: MAIN - Primary Locz

GENERAL INFO PURCHASE INFO COMPONENTS AND WARRANTIES SOURCE INFO

Registered Date:
 Registration Nbr.:
 Barcode:
 Tag Nbr.:
 Sales Date: 8/22/2017
 Color ID:

MANUFACTURER INFO
 Manufacturer: BELQUIN - Belquin Internationa
 Manufacturer Model:
 Manufacturing Year:

INVENTORY INFO
 * Model: IND24ANB1 - Infinity 21 Cen
 Warehouse: WHOLESALE - HQ Wholesale
 Warehouse Location:
 Model Serial Number: SRF000001

INSTALLATION INFO
 Installation Date: 8/22/2017
 Service Order Nbr.: 006293 - Data Backup
 Appointment Nbr.: 006293-1 - Data Backup

DISPOSAL INFO
 Disposal Date: 8/31/2017
 Replacement Equipme... 000002 - Infinity 21 Central /
 Service Order Nbr.: 006294 - Data Backup
 Appointment Nbr.: 006294-1 - Data Backup

Figure: New sections on the General Info tab

- On the **Components and Warranties** tab, the following changes have been made (displayed in the screenshot below):
 1. The **Company General Warranty** and **Vendor General Warranty** sections have been added, which display the timeframes and end dates of warranties for the selected equipment entity.
 2. The following columns have been added to the table: **Line Ref., Status, Description, Class ID, Inventory ID, Company Warranty Type, Vendor Warranty Type, Comment, Component Replaced, Installation Appointment Nbr., Installation Service Order Nbr., Invoice Reference Nbr., Sales Date,** and **Sales Order Nbr.**

GENERAL INFO		PURCHASE INFO		COMPONENTS AND WARRANTIES										SOURCE INFO						
COMPANY GENERAL WARRANTY				VENDOR GENERAL WARRANTY																
Company Warranty:		2 Year(s)		Vendor Warranty:		2 Year(s)														
Company Warranty End Date:		8/22/2019		Vendor Warranty End Date:		8/22/2019														
<input type="checkbox"/> + <input type="checkbox"/> X REPLACE COMPONENT <input type="checkbox"/> <input type="checkbox"/>																				
Line Ref.	Component ID	Status	Description	* Class ID	Inventory ID	Serial Number	Compar Warrant Type	Compar Warrant End Date	Company Warranty End Date	Vendor Warrant Type	Vendor Warrant End Date	Vendor ID	Comment	Componer Replaced	Installation Appointme Nbr.	Installation Date	Installation Service Order Nbr.	Invoice Reference Nbr.	Sales Date	Sales Order Nbr.
00001	INDOOR...	Active	Evaporator ...	INDACIN	IND24IN	1234	2	Year(s)	8/22/2019	1	Year(s)	8/22/2018	AAVEND...		006293-1	8/22/2017	006293	AR004918	8/22/2017	AR004917
00002	OUTDO...	Active	Condensator...	INDACOUT	IND24O	4567	2	Year(s)	8/22/2019	1	Year(s)	8/22/2018	AAVEND...		006293-1	8/22/2017	006293	AR004918	8/22/2017	AR004917
00003	COMPR...	Disposed	Compressor	INDAC	IND24C	SRF000001	3	Year(s)	8/22/2020	3	Year(s)	8/22/2020	AAVEND...	00006	006293-1	8/22/2017	006293	AR004918	8/22/2017	AR004917
00004	INFANM...	Active	Indoor Fan ...	INDAC	IND24FA		2	Year(s)	8/22/2019	1	Year(s)	8/22/2018	AAVEND...		006293-1	8/22/2017	006293	AR004918	8/22/2017	AR004917
00005	OUTFAN...	Active	Outdoor Fan ...	INDAC	IND24FA		2	Year(s)	8/22/2019	1	Year(s)	8/22/2018	AAVEND...		006293-1	8/22/2017	006293	AR004918	8/22/2017	AR004917
00006	COMPR...	Active	Carrier Com...	INDAC	IND24C...	SRF000002	3	Year(s)	8/22/2020	3	Year(s)	8/22/2020	AAVEND...		006295-1	8/22/2017	006293	AR004922	8/22/2017	AR004921

Figure: The Companies and Warranties tab of the Equipment form

- On the **Source Info** tab, the **Sales Order Nbr.** and **Equipment Replaced** boxes have been added (see the following screenshot).

GENERAL INFO		PURCHASE INFO		COMPONENTS AND WARRANTIES		SOURCE INFO	
Document Type:	AR - Invoice						
Document Reference Nbr.:	AR004920						
Sales Order Nbr.:	AR004919						
Equipment Replaced:	000001						

Figure: The Source Info tab of the Equipment form

The Service Orders, Appointments, and Sales Orders Forms

On the *Service Orders (FS300100)*, *Appointments (FS300200)*, and *Sales Orders (SO301000)* forms, the following changes have been made:

- Users can now enter equipment-related actions performed by staff members. For each inventory item on the **Inventory Items** tab, a user can select one of the following actions in the **Equipment Action** column:
 - Selling Model Equipment:* By selecting this option, the user can register a sale of this stock item of the *Model Equipment* type. After the order is processed and released, a target equipment entity corresponding to the stock item will be created in the system.
 - Replacing Target Equipment:* By selecting this option, the user can register the replacement of a target equipment entity with a new stock item of the *Model Equipment* type.
 - Selling Optional Component:* By selecting this option, the user can register a sale of a stock item of the *Component* type that is optional. After the related invoice is released, on the **Components and Warranties** tab of the *Equipment (FS205000)* form, the system creates a new component of the previously added target equipment entity or of the model equipment entity that is being sold within the same order.
 - Upgrading Component:* By selecting this option, the user can register the upgraded component (which replaces the default component) of a piece of model equipment during a sale of the model equipment.
 - Replacing Component:* By selecting this option, the user can register the replacement of a component of a piece of target equipment.
 - N/A:* By selecting this option, the user can register a sale of an inventory item in the system to the customer.
- The **Warranty** check box has been added to the tables on the **Services** and **Inventory Items** tabs. The user selects this check box if the item is under warranty and therefore is not billable.

- On the **Services** tab, users now can register a service for a component of a piece of target equipment and for a piece of model equipment sold in the same order with its components.

The Service Contract Schedules Form

On the *Service Contract Schedules (FS305100)* form, the **Component ID** and **Component Line Ref.** columns have been added to the table on the **Services** and **Inventory Items** tabs (see the following screenshots). With these columns, users now can register services for components of target equipment entities.

Revision Two HQ Service Contract Schedules NOTES FILES NOTIFICATIONS CUSTO

SAVE & CLOSE GENERATE FROM SERVICE CONTRACTS

* Service Contract Nbr.: 000002 Schedule Start Time: _____
 Schedule Ref. Nbr.: 000002-1 Active Start Date: 2/5/2015
 Customer: ABARTEDE - USA Bartending Expiration Date: _____
 Location: MAIN - Primary Location Custom Start Date: _____ Enable Custom Start Date
 * Service Order Type: MRO - Maintenance, repair & _____ Last Processed: 11/4/2017
 Schedule Generation T... Service Orders Last Generated Element: 11/1/2017

ADDITIONAL SETTINGS

Vendor: _____

SERVICES INVENTORY ITEMS RECURRENCE FORECAST

Line Type	Service ID	Billing Rule	Service Template ID	Quantity	Equipment ID	Component ID	Component Line Ref.	Transaction Description
Service	IND24FILLE	Time		1.00	000002	OUTFANMOT...	00002	Fill Freezer

Figure: The Services tab of the Service Contract Schedules form

SERVICES **INVENTORY ITEMS** RECURRENCE FORECAST

Line Type	Inventory ID	Quantity	Equipment Action	Equipment ID	Component ID	Component Line Ref.	Transaction Description
Inventory Item	IND24FREON	1.00	N/A	000002	OUTDOORUNIT	00002	Freon R22 refrigerant

Figure: The Inventory Items tab of the Service Contract Schedules form

Service: Integration

Now the Service suite is fully integrated with Acumatica ERP and its license policies. The modules of the Service suite will no longer be provided as a customization and now are offered as a feature of Acumatica ERP.



Important: If the Service Management customization has been used, users have to prepare the system before upgrading it, as described below.

System Upgrade Procedure

If the Service Management customization has been used, to upgrade the system for the new version, users should perform the following steps:

1. On the *Customization Projects (SM204505)* form, install the latest Service Management customization release for Acumatica 6.10 (with the **Publish with Cleanup** check box selected in the **Publish to Multiple Companies** dialog box). Customization can be downloaded from the [Partner Portal](#). On the portal, users can find instructions.
2. Unpublish the Service Management customization file. It also can be deleted.
3. Upload and publish the `hotfixDB.zip` customization file (which can also be downloaded from the [Partner Portal](#)). This step clears the site map for the Service suite.
4. Unpublish the `hotfixDB.zip` customization file. It also can be deleted.
5. Install the release 2017R2 Beta.
6. Upgrade the environment.
7. On the *Enable/Disable Features (CS100000)* form, enable the necessary features of the Service suite: *Service Management*, *Equipment Management*, and *Route Management*. Under the *Service Management* feature, also select a *Staff Member Pack* to be used in the system, which is one of the following: *10 Staff Members*, *50 Staff Members*, or *Unlimited Staff Members*. Under the *Route Management* feature, also select a *Vehicle Pack* to be used in the system, which is one of the following: *10 Vehicles*, *50 Vehicles*, or *Unlimited Vehicles*.



: Make sure that the license includes the necessary features for the company's needs.

Service Implementation Through Features

The Service suite—which consists of the Service Management, Equipment Management, and Route Management modules—is now fully integrated with Acumatica ERP.

Before the integration, the user had to install the Service suite by using a customization file. Now the Service suite code is fully integrated with the core Acumatica ERP code. That is, the features of the Service suite can be enabled or disabled on the *Enable/Disable Features (CS100000)* form (see the following screenshot).

Revision Two HQ ▾ Enable/Disable Features ★

MODIFY **ENABLE**

- Customer Portal
 - B2B Ordering
 - Case Management on Portal
 - Financials on Portal
- Services Management
 - Staff Members Pack
 - 10 Staff Members
 - 50 Staff Members
 - Unlimited Staff Members
 - Equipment Management
 - Routes Management
 - Vehicles Pack
 - 10 Vehicles
 - 50 Vehicles
 - Unlimited Vehicles

Figure: The features of the Service suite on the Enable/Disable Features (CS100000) form

In addition, this new functionality restricts the number of staff members—that is, active employees and vendors that perform services—that can be maintained in the Service Management module. The options are 10 staff members (the default option of the *Service Management* feature), 50 staff members, or an unlimited number of staff members. Users should make sure that their license includes the correct staff member pack for their company's needs.

As with the staff member pack, the number of active vehicles in the system is restricted by the new functionality. The options are 10 vehicles (the default option of the *Route Management* feature), 50 vehicles, or an unlimited number of vehicles. Users should make sure that their license includes the correct vehicle pack for their company's needs.

Changed Form IDs from *SD* to *FS*

All form IDs in the Service suite have changed to replace the *SD* (for *Service Dispatch*) abbreviation with the *FS* (for *Field Service*) abbreviation. This modification was made so that the form IDs match the suite abbreviation of the Service suite database tables and code references. Now all screen IDs and database and code references follow the same standard.

For example, the form ID *SD100100* (for the *Service Management Preferences* form) is now *FS100100*.



: We recommend that the users take these changes into consideration and update any customizations and reports made for the Service suite as follows:

- Modify every file name from `SDXXXXXX` to `FSXXXXXX`.
- Modify every directory file name from `/SD/` to `/FS/`.
- Modify every solution name space from `FieldService.ServiceDispatch` to `PX.Objects.FS`.

Service: Other Improvements

Multiple new improvements have been implemented for the Service suite. These features are briefly described below.

Default Salesperson for Service Orders of a Particular Type

A company may have a single salesperson assigned to a particular subset of services. For this reason, users of Acumatica ERP can now define a default salesperson for each service order type. On the *Service Order Types (FS202300)* form, a salesperson can be specified in the **Salesperson ID** box of the new **Commission** section (see the following screenshot) if by default the orders are commissionable and this particular salesperson generally gets the commission.

Revision Two HQ - Service Order Types ★

* Service Order Type: Active
 * Numbering Sequence:
 Description:
 Behavior:

Preferences | Time Behavior | Problem Codes | Mailing Settings

GENERAL SETTINGS

- Require Business Account
- Complete Service Order When Its Appointments Are Completed
- Require Contact
- Require Route
- Allow Only One Appointment per Service Order
- Allow Only One Service per Service Order/Appointment
- Require Address Validation
- Require Customer Signature

APPOINTMENT SETTINGS

- Allow Assignment of Multiple Staff Members
- Allow Creation Without Specifying a Service
- Allow Creation Without Assigning a Staff Member

Take Address and Contact Information From

- Business Account
- Customer Contact
- Branch Location

INVOICE GENERATION SETTINGS

- Generate Invoices In
 - Accounts Receivable
 - Sales Order
 - None
- Post Pickup/Delivery Items to Inventory
- * Default Sales Order Type:
- * Default Sales Order Type f...:
- * Default Terms for AR and ...:
- Use Sales Account From:
- * Combine Sales Sub. From:
- General Subaccount:
- Generation of Invoices Requires Appointments to Be Clos...

COMMISSION

- Salesperson ID:
- Commissionable

Figure: The Commission section

In new appointments and service orders, the default salesperson specified for the service order type has a higher priority than the default salesperson specified for the customer (if both defaults have been specified), and will be selected as the salesperson of the appointment or service order. For new service contracts, the highest priority is the contract's salesperson, then the service order type's salesperson,

and finally the customer's default salesperson. The default salesperson can be overwritten on the *Service Orders (FS300100)* and *Appointments (FS300200)* forms.

Schedule Generation Options for Service Contracts

On the *Service Contracts (FS305700)* form, it is now possible to select whether service orders or appointments will be generated for the service contract. Previously, only service orders could be generated, and a user had to later create appointments for the service order. With the new functionality, appointments can be generated with the defined frequency and schedule start time.

In the Summary area of the *Service Contracts* form, the new **Schedule Generation Type** box has been added (see the following screenshot). In this box, users can select the type of document to be generated from service orders: *Service Orders* or *Appointments*. If the service contract is set to generate appointments, on the *Service Contract Schedules (FS305100)* form, the start time of appointments has to be specified in the new **Scheduled Start Time** box of the form.

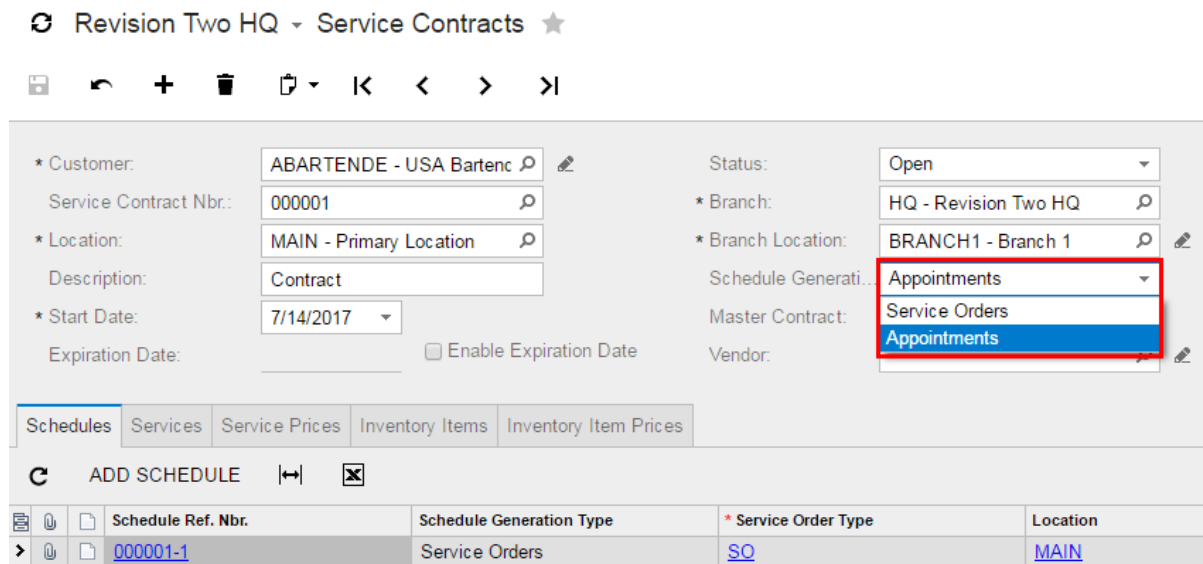


Figure: The Schedule Generation Type box

Ability to Control Invoice Generation from Service Orders by Billing Cycle

On the *Billing Cycles (FS206000)* form, the **Generate Invoices for Only Completed or Closed Service Orders** check box is now available for billing cycles that are defined to generate invoices from service orders (see the screenshot below)—that is, for billing cycles for which the **Service Orders** option button is selected under **Generate Invoices From**. If this check box is selected, the system prevents the generation of invoices for service orders that are not yet completed or closed. Before this functionality was implemented, invoices could be generated regardless of the status of the service order.

Revision Two HQ ▾ Billing Cycles ★



* Billing Cycle ID: Generate Invoices for Only Completed or Closed Service Ord...

* Description:

Generate Invoices From

Appointments

Service Orders

Group Invoices By

Appointments

Service Orders

Work Order

Purchase Order

Time Frame

Separate Generation of Invoices by Customer Locations

Figure: The Generate Invoices for Only Completed or Closed Service Orders check box

Ability to Clone an Appointment Multiple Times

Acumatica ERP now provides an easy way to clone an appointment. The *Clone Appointments (FS500201)* form now has two types of appointment cloning:

- *Single*: One appointment will be cloned from the existing appointment. The user specifies the date and the start and end time of the new appointment.
- *Multiple*: Multiple appointments will be cloned from the existing appointment. The user specifies the range of dates in which new appointments should be created in the **From Date** and **To Date** boxes, and the start and end times of the new appointments. The user also selects the days of the week (of the selected range of dates) for which the appointments can be created (see the screenshot below).

Revision Two HQ Clone Appointments

CLONE APPOINTMENT

ORIGINAL APPOINTMENT INFO

Appointment Nbr.: 000004-1 Customer: ABARTENDE - USA B: Status: Not Started
 Service Order Nbr.: 000004 Branch Location: BRANCH1 - Branch 1 Confirmed
 Service Order Type: SO Room ID: _____

NEW DATE AND TIME

Cloning Type: Multiple Start Time: 7:00 AM From Date: 1/1/2017 Sunday Thursday
 End Time: 8:00 AM To Date: 7/31/2017 Monday Friday
 Tuesday Saturday
 Wednes...

Cloned Appointments

⏪ ⏩ ⏹

Appointment Nbr.	Service Order Type	Service Order Nbr.	Confrir	Status	Room ID	Scheduled Date	Scheduled Start Time	* Scheduled End Time
------------------	--------------------	--------------------	---------	--------	---------	----------------	----------------------	----------------------

Figure: The Clone Appointments (FS500201) form

Ability to Handle Start and End Dates of Appointments Manually

By default, the system calculates the scheduled end time, shown in the Summary area of the *Appointments (FS300200)* form, as the scheduled start time plus the sum of the estimated duration of the services. However, this formula is not applicable when services are performed simultaneously, or when the estimated duration of an appointment is longer than the estimated duration of the services performed during the appointment. Similarly, the system calculates the actual end time, shown on the same form, as the actual start time plus the sum of actual duration of services. However, the users might not have wanted the system to overwrite the actual times specified by an employee.

To provide greater user control in these situations, the **Handle Manually** check boxes have been added in the **Scheduled Date and Time** and **Actual Date and Time** sections of the Summary area on the *Appointments* form (see the following screenshot). If the **Handle Manually** check box is selected in the **Scheduled Date and Time** section, the system will not modify the values in the **Scheduled Start Time** and **Scheduled End Time** boxes automatically. If the **Handle Manually** check box is selected in the **Actual Date and Time** section, the system will not modify the values in the **Actual Start Time** and **Actual End Time** boxes automatically.

Revision Two HQ - Appointments ★

CLONE APPOINTMENT ACTIONS REPORTS

* Service Order Type: MRO - Mair Customer: WIDROTON - ROTON Services Status: In Process
 Appointment Nbr.: 004704-1 * Location: MAIN - Primary Location Confirmed
 Service Order Nbr.: 004704 * Branch: HQ - Revision Two HQ Unreached Customer
 Workflow Stage: PROCESSI * Branch Location: BRONX - Bronx Location Validated by Dispatcher
 Project: X - Non-Project Code. Appointment Total: 275.00
 Default Project Ta...
 Description: Weekly

SCHEDULED DATE AND TIME ACTUAL DATE AND TIME

Scheduled Start ... 11/4/2017 Actual Start Date: 7/12/2017
 Scheduled Start T... 5:00 AM Actual Start Time: 8:08 AM
 * Scheduled End Ti... 8:00 AM Actual End Time: 11:08 AM
 Handle Manually Handle Manually
 Estimated Duratio... 3 h 00 m Actual Duration T... 3 h 00 m

SERVICES INVENTORY ITEMS GENERAL INFO STAFF RESOURCE EQUIPMENT LOCATION INVOICE INFO SOURCE INFO

SERVICE SELECTOR STAFF SELECTOR

Line Ref.	Status	Line Type	Service ID	Billing Rule	Description	Target Equipment ID	Model Equipment Line Nbr.	Compo
0001	Open	Service	BACKUP	Time	Backup Data from Servers			

Figure: The Handle Manually check boxes on the Appointments form

If a user creates an appointment by using the calendar board forms and selects specific start and end dates, the system automatically selects the **Handle Manually** check box in the **Scheduled Date and Time** section on the *Appointments* form and does not overwrite this time information when users add services to the appointment.

Ability to Send Emails to Salespersons

The ability to send emails to a salesperson assigned to an appointment has been implemented. If a salesperson receives a commission for an appointment, he or she will receive a notification by email when a service order is scheduled on the *Appointments (FS300200)* form. To activate this feature, in the **Recipients** table on the **Mailing Settings** tab of the *Service Order Types (FS202300)* form, a user can select *Salesperson* (see the following screenshot) and then select the needed **Contact ID**.

Recipients

Contact Type	Contact ID	Forms	Active	Bcc
Customer		Html	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Billing				
Employee				
Customer				
Staff Members				
Vendor				
Service Area Staff				
Salesperson				

Figure: Values of the Contact Type column on the Service Order Type form

In addition to the configuration step for the needed service order types, to configure the sending of emails for each salesperson to receive email notifications, the following steps should be performed:

1. Make sure that an employee record is created for the salesperson on the *Employees (EP203000)* form and that the needed settings are specified as follows:

- In the **Contact Info** section on the **General Info** tab, an email address is specified in the **Email** box
- In the **Employee Settings** section on the **General Info** tab, the salesperson record of the employee is specified in the **Salesperson** box.

2. On the **General Info** tab of the *Appointments (FS300200)* form, make sure that the salesperson is specified in the **Salesperson ID** box of the **Commission** section.

A user can also specify the *Salesperson* contact type in the **Default Recipients** table on the **Mailing Settings** tab of the *Service Management Preferences (FS100100)* form. The system uses *Salesperson* as the default contact type when new service orders are created.

Separate Schedules for Multiple Locations of the Same Contract

On the *Service Contract Schedules (FS305100)* and *Route Service Contract Schedule (FS305600)* forms, the **Location** box is now available for editing. (Previously, the box was on both forms but the system filled it in based on the default location specified on the **Locations** tab of the *Customers (AR303000)* form.) If a particular customer has multiple locations (such as buildings or rooms), users can create a separate schedule for each location within the same contract.

Customer Location on Forms with a Map

Users now can view the customer location where appointments are scheduled in the new **Location** column on the **Staff** and **Appointment Information** panels on the *Routes on Map (FS300900)*, *Staff Routes on Map (FS301000)*, and *Staff Appointments on Maps (FS301100)* (shown in the following screenshot) forms.

Revision Two HQ - Staff Appointments on Map ★

Appointment	Route/Customer	Service Type	Travel T...	Services Duration	Location	Postal Code	Address
EP00000004-00...	ABC Capital Ventures	Maintenance, re...	0h 0m	4h 0m	MAIN	11235	1613 Oriental Blvd , NY, Brooklyn 11235, US
EP00000004-00...	Asahi Sun Tours	Maintenance, re...	0h 23m	2h 0m	MAIN	11201	100 Warren St , NY, Brooklyn 11201, US

Figure: The Location columns on the Staff and Appointments panels

Type of Service Order on Forms with Calendar Boards

Users now can view the type of service order in the **Service Order Type** column of the **Service Orders** tab on the *Calendar Board (FS300300)*, *Staff Calendar Board (FS300400)*, and *Room Calendar Board (FS300700)* forms (see the following screenshot).

Revision Two HQ - Calendar Board ★

Service Order	Q...	Customer	Service Order Type
▶ 006292	1	Antun's of Wes...	INST
▶ 006290	1	USA Bartendin...	MRO
▶ 006291	2	ABC Capital Ve...	MRO

Figure: The Service Order Type column on a calendar board

Configuration of Equipment Management and Route Management on Separate Forms

In the previous version of Acumatica ERP, users specified preferences for the Equipment Management and Route Management modules on the *Service Management Preferences (FS100100)* form. Now the following separate forms are available in the respective modules for users' convenience:

- *Equipment Management Preferences (FS100300)*: On this form, users can specify preferences for the Equipment Management module, such as numbering, contract, and equipment settings (see the following screenshot).

Revision Two HQ ▾ Equipment Management Preferences ★

NUMBERING SETTINGS

Equipment Numbering Sequen... SMEQUIPMNT - SM Equipm 🔍 ✎

CONTRACT SETTINGS

Enable Seasons in Schedule Contracts

EQUIPMENT SETTINGS

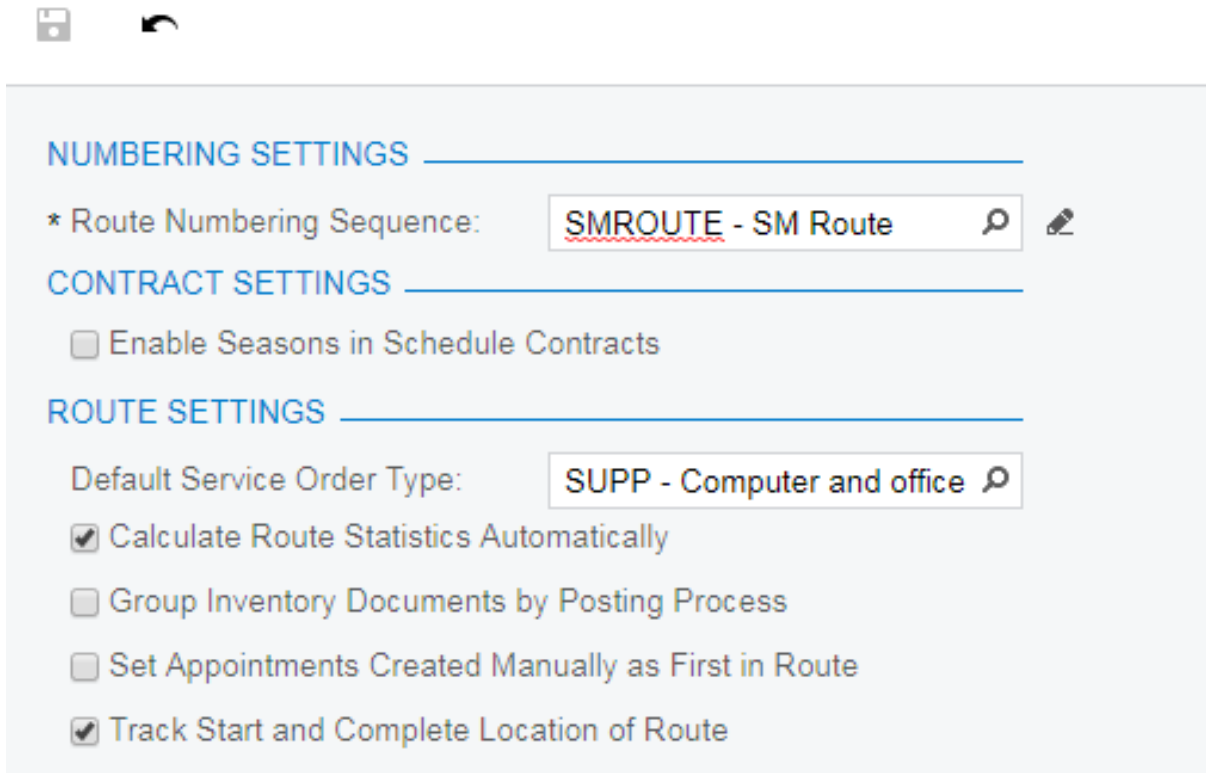
Calculate Warranty From

- Sales Order Date
- Appointment Date
- The Earliest of Both Dates
- The Latest of Both Dates

Figure: The Equipment Management Preferences form

- *Route Management Preferences (FS100300)*: On this form, users can specify preferences for the Route Management module, such as numbering, contract, and route settings (see the following screenshot).

Revision Two HQ ▾ Route Management Preferences ★



NUMBERING SETTINGS

* Route Numbering Sequence:

CONTRACT SETTINGS

Enable Seasons in Schedule Contracts

ROUTE SETTINGS

Default Service Order Type:

Calculate Route Statistics Automatically
 Group Inventory Documents by Posting Process
 Set Appointments Created Manually as First in Route
 Track Start and Complete Location of Route

Figure: The Route Management Preferences form

Microsoft Bing Maps as the Web Mapping Service

The web mapping service used in the Service suite is Microsoft Bing Maps, as the following screenshot shows. The caption of the **API Key** box has been changed to **Bing Map API Key** in the **Calendar Board Settings** section of the **General Setting** tab on the *Service Management Preferences (FS100100)* form.

To start using Bing Maps, a system administrator should create an API key on the <http://www.bingmapsportal.com> website and copy this key to the **Bing Map API Key** box on the *Service Management Preferences* form.

Revision Two HQ - Routes on Map ★

The screenshot displays a map of the New York City area with several colored routes (purple, red, blue) connecting various locations. A sidebar on the left lists routes and appointments, and a table at the bottom provides details for the selected route.

Routes List:

- 000019 NYNSUPP
- 000051 NYCSUPP
- START
- 004990-1 ABC Studios Inc MAIN
- 005878-1 New York Public Lib... MAIN
- 005904-1 Office Depot MAIN
- 005068-1 Active Staffing Serv... MAIN
- 004957-1 ABC Holdings Inc MAIN
- 005995-1 Real Estate Institute MAIN
- 005414-1 Computer World MAIN
- 005793-1 NPC Call Center MAIN
- END LO...
- 000110 LISUPP

Appointment Details:

Route: 000051 - New York City Supply Route
 Appointments on Route: 000051 (10)
 Route Time: 4h 54m
 Route Distance: 18 miles
 Number of Appointments: 8
 Status: Open

Appointment	Route/Customer	Service Type	Travel T...	Services Duration	Location	Postal Code	Address
START LOCATI...			0h 0m	0		10023	73 W 71st, NY, Manhattan 10023, US
004990-1	ABC Studios Inc	Computer and o...	0h 2m	0h 30m	MAIN	10023	77 W 66th St # 13, NY, New York 10023, US
005878-1	New York Public Library for the Perf...	Computer and o...	0h 2m	0h 30m	MAIN	10023-7486	10 Lincoln Center Plz, NY, New York 10023-7486, US
005904-1	Office Depot	Computer and o...	0h 2m	0h 30m	MAIN	10023	3740 Broadway, NY, New York 10023, US

Figure: Microsoft Bing Maps in Acumatica ERP

Service: New Reports for Equipment Management

New reports added to the Equipment Management module provide users with the ability to generate statistics and gather information related to the use of equipment in this module. These reports will help users make informed decisions to increase productivity and customer satisfaction. The new reports are located in Service > Equipment Management > Reports > Audit.

Contract List Report

The *Contract List (FS657000)* report displays a summary of service contracts (see the following screenshot). Users can include the details of schedules in this report to see the services and equipment items for each schedule of a service contract. This report can be used, for example, by a supervisor to display a list of all service contracts for a customer in a period of time, or all service contracts that are close to expiring. By including the details by schedule, the user can analyze the quantity of services and materials included in recurrent schedules in the system, and see the recurrence details.

Users can build the report to show data for a specific customer or customer location, or leave the corresponding boxes on the report form blank to view a broader range of data.

Contract List

Company: Revision Two HQ
User: admin, admin

Date: 8/22/2017 1:07 PM
Page: 1 of 103

Service Contract Nbr.	Customer ID	Location ID	Description	Status	Start Date	Expiration Date
000001	ABCSTUDIOS	CAL-LA	ABCSTUDIOS Wifi Maint	Open	2/5/2015	
Schedule Ref. Nbr.	Service Order Type	Active	Recurrence Description			
000001-1	MRO	True	Occurs every 6 Month(s) on the First Sunday of that month.			
Line Type	Inventory ID	Transaction Description	Billing Rule	Qty.	Price	Equipment
Service	MRO NETWORK	Network Support	Time	1.00	75.00	
000001	ABARTENDE	CHICAGO	ABARTENDE DC Maint Contract	Open	1/1/2015	
Schedule Ref. Nbr.	Service Order Type	Active	Recurrence Description			
000001-1	MRO	True	Occurs every 6 Month(s) on the 1st day of that month.			
Line Type	Inventory ID	Transaction Description	Billing Rule	Qty.	Price	Equipment
Service	MRO DATA	Data Center Support	Time	1.00	75.00	900126 - Cysco MDS 9148 Multilayer Fabric
000002	ABARTENDE	CHICAGO	ABARTENDE DC Brook Maint	Open	2/5/2015	
Schedule Ref. Nbr.	Service Order Type	Active	Recurrence Description			
000002-1	MRO	True	Occurs every 1 Week(s) on Wednesday.			
Line Type	Inventory ID	Transaction Description	Billing Rule	Qty.	Price	Equipment
Service	IND24FILLF	Fill Freezer	Time	1.00	0.00	000002 - Infinity 21 Central Air Conditioner by
Inventory Item	IND24FREON	Freon R22 refrigerant		1.00	0.00	000002 - Infinity 21 Central Air Conditioner by

Figure: Contract List report

Service Order Details by Contract Report

The *Service Order Details by Contract (FS657500)* report displays details on service orders, which are grouped by contract. This report can be used, for example, by a supervisor who wants to list all services performed and materials used on a target equipment item of a customer in the system over some date range.

The report can be built in the following formats:

- Detailed format: In this format, for each contract, the list of equipment items in the service orders is displayed, along with such information as the estimated duration, quantity, and transaction amount (see the following screenshot).

Appointment Details by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:17 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Service Contract Nbr	Customer ID	Customer Name	Type	Schedule Ref. Nbr.	Appointment Nbr.	Date	Status	Location ID	Location Name	Inventory ID	Billing Rule	Estimated Duration	Actual Duration	Qty.	Transaction Amount
000004															
ABARTENDE USA Bartending School															
MRO	000004-1	006304-1	8/22/2017	Scheduled by	MAIN	Primary Location	IND24FILLF - Fill Freezer	Time	1 h 00 m	1 h 00 m	1.00	0.00			
MRO	000004-1	006304-1	8/22/2017	Scheduled by	MAIN	Primary Location	IND24FREON - Freon R22	None	0 h 00 m	0 h 00 m	1.00	0.00			
MRO	000004-2	006307-1	8/22/2017	Scheduled by	MAIN	Primary Location	BACKUP - Data Backup	Time	1 h 00 m	1 h 00 m	1.00	100.00			
Total:												2 h 00 m	2 h 00 m	3.00	100.00
000005															
ARTCAGES Artcages															
MRO	000005-1	006310-1	8/22/2017	Scheduled by	MAIN	Primary Location	MRO AC - Air Conditioner	Flat Rate	0 h 01 m	0 h 01 m	1.00	75.00			
Total:												0 h 1 m	0 h 1 m	1.00	75.00

Figure: Detailed format of the Service Order Details by Contract report

- Summary format: In this format, the total transaction amount by contract is displayed (see the following screenshot).

Service Order Details by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:15 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Service Contract Nbr.	Customer ID	Customer Name	Estimated Duration	Qty.	Transaction Amount
000004	ABARTENDE	USA Bartending School	6 h 00	9.00	300.00
000005	ARTCAGES	Artcages	0 h 3	3.00	225.00

Figure: Summary format of the Service Order Details by Contract report

Users can build the report to show data for a specific customer, contract, or schedule, or they can leave the corresponding boxes on the report form blank to view a broader range of data.

Appointment Details by Contract Report

The *Appointment Details by Contract (FS658000)* report displays the details of appointments, which are grouped by contract. This report can be used, for example, by a supervisor who wants to revise all appointments related to contracts in the company during a period of time. The supervisor may also want to analyze the total amount, duration, and quantity of services and items included in service contract appointments that would typically correspond to preventive maintenance.

The report can be built in the following formats:

- Detailed format: In this format, for each contract, the list of equipment items is displayed, along with such information as the estimated duration, actual duration, quantity, and transaction amount (see the following screenshot).

Appointment Details by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:17 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Service Contract Nbr	Customer ID	Customer Name	Type	Schedule Ref. Nbr.	Appointment Nbr.	Date	Status	Location ID	Location Name	Inventory ID	Billing Rule	Estimated Duration	Actual Duration	Qty.	Transaction Amount
000004															
ABARTENDE USA Bartending School															
MRO	000004-1	006304-1	8/22/2017	Scheduled by	MAIN	Primary Location	IND24FILLF - Fill Freezer	Time	1 h 00 m	1 h 00 m	1.00	0.00			
MRO	000004-1	006304-1	8/22/2017	Scheduled by	MAIN	Primary Location	IND24FREON - Freon R22	None	0 h 00 m	0 h 00 m	1.00	0.00			
MRO	000004-2	006307-1	8/22/2017	Scheduled by	MAIN	Primary Location	BACKUP - Data Backup	Time	1 h 00 m	1 h 00 m	1.00	100.00			
Total:												2 h 00 m	2 h 00 m	3.00	100.00
000005															
ARTCAGES Artcages															
MRO	000005-1	006310-1	8/22/2017	Scheduled by	MAIN	Primary Location	MRO AC - Air Conditioner	Flat Rate	0 h 01 m	0 h 01 m	1.00	75.00			
Total:												0 h 1 m	0 h 1 m	1.00	75.00

Figure: Detailed format of the Appointment Details by Contract report

- Summary format: In this format, the total transaction amount by contract is displayed (see the following screenshot).

Appointment Details by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:17 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Service Contract Nbr	Customer ID	Customer Name	Estimated Duration	Actual Duration	Qty.	Transaction Amount
000004	ABARTENDE	USA Bartending School	2 h 00 m	2 h 00 m	3.00	100.00
000005	ARTCAGES	Artcages	0 h 1 m	0 h 1 m	1.00	75.00

Figure: Summary format of the Appointment Details by Contract report

Users can build the report to show data for a specific customer, contract, or schedule, or they can leave the corresponding boxes on the report form blank to view a broader range of data.

Service Time Activity by Contract Report

The *Service Time Activity by Contract (FS658500)* report displays information about the service hours that staff members spent on appointments for each contract. This report can be used, for example, by a supervisor who wants to review how many hours his or her team spent on preventive maintenance.

The report can be built in the following formats:

- Detailed format: In this format, for each contract, the list of service times spent for appointments for each contract is displayed (see the following screenshot). Information for each appointment includes the staff member, actual start time, earning type, and actual duration.

Service Time Activity by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:20 PM
 User: admin, admin End Date: 8/23/2017 Page: 1 of 1

Service Contract Nbr	Customer ID	Customer Name											
000004	ABARTENDE	USA Bartending School											
Type	Schedule Ref. Nbr.	Appointment Nbr.	Date	Status	Location ID	Location Name	Staff Member ID	Staff Member Name	Service ID	Actual Start Time	Actual End Time	Earning Type	Actual Duration
MRO	000004-1	006304-1	8/22/2017	Scheduled by	MAIN	Primary Location	EP00000001	Andrews, Michael					0 h 00 m
MRO	000004-2	006307-1	8/22/2017	In Process	MAIN	Primary Location	EP00000001	Andrews, Michael	BACKUP	1:18 AM	2:18 AM		1 h 00 m
Total:												1 h 00 m	
000005	ARTCAGES	Artcages											
Type	Schedule Ref. Nbr.	Appointment Nbr.	Date	Status	Location ID	Location Name	Staff Member ID	Staff Member Name	Service ID	Actual Start Time	Actual End Time	Earning Type	Actual Duration
MRO	000005-1	006310-1	8/22/2017	In Process	MAIN	Primary Location	EP00000011	Correa, Jesus, Mr.		1:19 PM	6:00 PM		4 h 40 m
Total:												4 h 40 m	

Figure: Detailed format of the Service Time Activity by Contract report

- Summary format: In this format, the total transaction amount by contract is displayed (see the following screenshot).

Service Time Activity by Contract

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/28/2017 1:43 PM
 User: admin, admin End Date: 8/28/2017 Page: 1 of 1

Service Contract Nbr	Customer ID	Customer Name	Actual Duration
000004	ABARTENDE	USA Bartending School	1 h 00 m
000005	ARTCAGES	Artcages	4 h 40 m

Figure: Summary format of the Service Time Activity by Contract report

Users can build the report to show data for a specific customer, contract, or schedule, or they can leave the corresponding boxes on the report form blank to view a broader range of data.

Target Equipment List Report

The *Target Equipment List (FS659000)* report displays a summary of target equipment. Information in the report can be filtered by equipment type and can include component details. This report can be used, for example, by a supervisor who wants to revise the list of customer equipment items the company is keeping track of, either for maintenance or for warranty handling. By using the **Component Details** option, the supervisor can see which components have warranties that are close to expiring.

The report includes the following information about each target equipment entity: owner, location, sales date, installation date, status, and model type (see the following screenshot, which shows the version of the report without components).

Target Equipment List Page: 8 of 8
Date: 8/22/2017 1:24 PM

Company: Revision Two HQ
User: admin, admin

Equipment Nbr.	Equipment Type	Description	Owner	Location	Serial Number	Sales Date	Installation Date	Status	Model
000001		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000001	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21
000002		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000002	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21
000003		LP19 Portable Air	ABARTENDE - USA	ABARTENDE - USA	SRF000001	8/22/2017	8/22/2017	Disposed	IND24APT1 - LP19
000004		LP19 Portable Air	ABARTENDE - USA	ABARTENDE - USA	SRF000002	8/22/2017	8/22/2017	Active	IND24APT1 - LP19
000005		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000003	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21
000006		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000004	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21

Figure: Target Equipment List report without components

If the report includes component details, it also displays the following information for each component: serial number, company warranty end date, vendor warranty end date, and vendor (see the following screenshot).

Target Equipment List Page: 1 of 2
Date: 8/22/2017 1:30 PM

Company: Revision Two HQ
User: admin, admin

Equipment Nbr.	Equipment Type	Description	Owner	Location	Serial Number	Sales Date	Installation Date	Status	Model					
000001		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000001	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21					
										Component ID	Serial Number	Company Warranty End Date	Vendor Warranty End Date	Vendor ID
										INDOORUNIT	1234	8/22/2019	8/22/2018	AAVENDOR
										OUTDOORUNIT	4567	8/22/2019	8/22/2018	AAVENDOR
										COMPRESS	SRF000001	8/22/2020	8/22/2020	AAVENDOR
										INFANMOTOR		8/22/2019	8/22/2018	AAVENDOR
										OUTFANMOTOR		8/22/2019	8/22/2018	AAVENDOR
COMPRESS	SRF000002	8/22/2020	8/22/2020	AAVENDOR										
000002		Infinity 21 Central Air	ABARTENDE - USA	ABARTENDE - USA	SRF000002	8/22/2017	8/22/2017	Active	IND24ANB1 - Infinity 21					
										Component ID	Serial Number	Company Warranty End Date	Vendor Warranty End Date	Vendor ID
										INDOORUNIT		8/22/2019	8/22/2018	AAVENDOR
		OUTDOORUNIT		8/22/2019	8/22/2018	AAVENDOR								

Figure: Target Equipment List report with components

Appointment Details by Target Equipment Report

The *Appointment Details by Target Equipment (FS659500)* report displays details on both stock items and non-stock items related to target equipment in appointments. This report can be used, for example, by a supervisor who wants to list all services performed and materials used for a target equipment item of a customer in the system, over some date range.

The report can be built in the following formats:

- Detailed format: In this format, the list of appointments is displayed for each target equipment entity. Information about each appointment includes the following: estimated duration, actual duration, quantity, and transaction amount (see the following screenshot).

Appointment Details By Target Equipment

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:32 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Target Equipment ID	Description	Customer	Location	Type	Appointment Nbr.	Date	Status	Inventory	Billing Rule	Estimated Duration	Actual Duration	Qty.	Transaction Amount
000001	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location										
MRO	006294-1	8/22/2017	Closed	IND24ANB1 - Infinity 21 Central Air								1.00	3,995.00
MRO	006295-1	8/22/2017	Closed	IND24COM01 - Carrier Compressor								1.00	300.00
MRO	006298-1	8/22/2017	Not Started	IND24RMCTL - Carrier Air Conditioner								1.00	15.00
Total										0 h 00 m	0 h 00 m	3.00	4,310.00
000002	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location										
MRO	006296-1	8/22/2017	Closed	IND24APT1 - LP19 Portable Air								1.00	0.00
MRO	006300-1	8/22/2017	Closed	IND24RMCTL - Carrier Air Conditioner								1.00	15.00
MRO	006304-1	8/22/2017	Scheduled by	IND24FILLF - Fill Freezer	Time					1 h 00 m	1 h 00 m	1.00	0.00
MRO	006304-1	8/22/2017	Scheduled by	IND24FREON - Freon R22 refrigerant								1.00	0.00
Total										1 h 00 m	1 h 00 m	4.00	15.00
000003	LP19 Portable Air	ABARTENDE - USA Bartending	MAIN - Primary Location										
MRO	006298-1	8/22/2017	Closed	IND24APT1 - LP19 Portable Air								1.00	0.00
Total										0 h 00 m	0 h 00 m	1.00	0.00
000006	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location										
MRO	006302-1	8/22/2017	Closed	IND24COM01 - Carrier Compressor								1.00	300.00
MRO	006303-1	8/22/2017	Not Started	IND24FREON - Freon R22 refrigerant								1.00	0.00
Total										0 h 00 m	0 h 00 m	2.00	300.00

Figure: Detailed format of the Appointment Details by Target Equipment report

- Summary format: In this format, the total transaction amount by target equipment is displayed (see the following screenshot).

Appointment Details By Target Equipment

Company: Revision Two HQ Start Date: 8/1/2017 Date: 8/22/2017 1:31 PM
 User: admin, admin End Date: 8/22/2017 Page: 1 of 1

Target Equipment ID	Description	Customer	Location	Estimated Duration	Actual Duration	Qty.	Transaction Amount
000001	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location	0 h 00 m	0 h 00 m	3.00	4,310.00
000002	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location	1 h 00 m	1 h 00 m	4.00	15.00
000003	LP19 Portable Air	ABARTENDE - USA Bartending	MAIN - Primary Location	0 h 00 m	0 h 00 m	1.00	0.00
000006	Infinity 21 Central Air	ABARTENDE - USA Bartending	MAIN - Primary Location	0 h 00 m	0 h 00 m	2.00	300.00

Figure: Summary format of the Appointment Details by Target Equipment report

Users can build the report by a specific customer or target equipment entity, or leave the corresponding boxes on the report form blank to view a broader range of data.

Other Improvements

Organization

AC-42418: Predefined filter tabs on the *Leads (CR3010PL)*, *Contacts (CR3020PL)*, *Business Accounts (CR3030PL)*, *Opportunities (CR3040PL)*, and *Cases (CR3060PL)* forms have been revised so the user can view only most relevant information about the listed records. Also, filtering, exporting, and navigation among records on these forms has become easier and faster.

AC-88806: During the synchronization of emails from Microsoft Exchange Server to Acumatica ERP, the system now converts any attachments of the .MSG type to attachments of the .EML type, which is supported by Acumatica ERP.

Finance

AC-55075: The **Fin. Period** box has been added to the *Validate Account History (GL509900)* form. The validation of account balances in ledgers can now be performed starting from the period that a user specifies in this box. By default, the first period that is open in the General Ledger module is selected in this box. If the user leaves the box blank, the validation will be performed for all periods.

AC-88426: The *Customer Details (AR651000)* and *Vendor Details (AP655500)* reports have been renamed to *Customer Profiles* and *Vendor Profiles*, respectively.

Platform

AC-92594: If a table on any form in the system (except data entry forms) is empty, now the system displays a message that explains the reasons no records are displayed in the table.