What's New

Axiom Software Version 2019.4

KaufmanHall

AXIOM

Contents

Introduction

Kaufman Hall is pleased to announce the release of **Axiom Software Version 2019.4**. This release features enhancements to various areas of the software, such as:

- Fixed Report component enhancements to accommodate a wider variety of report needs, including greater flexibility to define the rows of dynamic row sections, and the ability to designate contra accounts to automatically subtract from subtotals
- Export Formatted Grid components to a spreadsheet with formatting automatically applied
- Import Wizard enhancements to assist in testing and troubleshooting imports
- Expanded support for Ellucian imports, including the ability to import from Colleague systems and specify default connections

This *What's New* document provides information on all new features and enhancements in this release. Reviewing this document should give you a basic understanding of how these new features work, and what benefits they may provide to your organization. For full details on any new feature, please see the Axiom Software Help files or the PDF guides.

> **IMPORTANT:** Before upgrading to version 2019.4, make sure you have reviewed the separate *Release Notes* document to understand any important technical changes and upgrade considerations in this release.

Axiom forms

This section details the new features and enhancements made to Axiom forms.

Fixed Report enhancements

Fixed Report components were enhanced to provide greater flexibility in generating data rows dynamically, and to accommodate a wider variety of reporting use cases.

Define a display format for a data row section

When dynamically generating the rows in a data row section of a Fixed Report component, you can now define a display format for the rows in each section. This feature provides greater flexibility to determine how rows are labeled for dynamic sections.

In previous versions, it was possible to define an alternate label column for the dynamically generated rows. For example, you could specify `Acct.Acct;Acct.Description` for the `[RowData]` of a data row section. The section would contain one row per account (as limited by the section filter), but the rows would be labeled using the account description instead of the account code.

You can now optionally define a display format instead, and the rows will be labeled using the display format. The display format follows the same rules used elsewhere in the system, such as in the `[DisplayFormat]` of the FixedReportColumns data source. You can list one or more compatible Table.Columns using curly brackets, including other display text and characters such as dashes or parentheses. For example, you could define the display format as:

[FixedReportConfig;Report]	[HeaderText]	[RowData]	[SectionFilter]
[DataRowSection]	Revenue	Acct.Acct; Account {Acct.Acct} - {Acct.Description}	Acct.Category='Revenue'

In this example, each row will display with the account description appended to the account code with a dash, such as: `Account 4800 - Other Revenue`.

Sum by multiple columns in a data row section

When configuring a data row section of a Fixed Report component to generate rows dynamically, you specify a table column to use as the "sum by" level for the rows. When the form is viewed, the section contains one row for each value in the specified table column, as limited by the section filter.

You can now specify multiple columns to use as the "sum by" level for a section, separated by commas. If multiple columns are specified in the first parameter of the `[RowData]` property, then the section contains one row for each unique combination of values in the table columns, as limited by the section filter. This works like an Axiom query that is summed by multiple columns.

For example, the following data row section sums rows by a combination of Position and Employee, with the second parameter specifying a label column of Position.

[FixedReportConfig;Roster]	[HeaderText]	[RowData]	[SectionFilter]
[DataRowSection]	Staff Non Exempt	Position.Position,Employee.Employee; Position.Position	Position.Active=1 AND Position.Planfile = 'd000010' AND Position.PlanningCategory='Staff Non Exempt'

When the fixed report is rendered, each row in the section is a unique combination of position and employee. In this example, the Employee column has been added to the FixedReportColumns data source, so that you can separately see each employee associated with the position code.

Position ID	Description	Employee
Staff Non Exempt		
H000172	Executive Assistant	Bree Sigman
H000172	Executive Assistant	David Prince
N000010001	Open Part Time Office Assistant	Vacancy
Total Staff Non Exempt		

By default, if no label column is specified for the data row section, the header column displays both column values separated by commas. In this example, if no label column were defined for the section, you would see values such as: `H000172, Bree Sigman` in the first column. Alternatively, you can define a display format for the data row section, as discussed in the previous section. For example, you could remove the separate Description column and instead display the position descriptions appended to the position ID.

Designate "contra" accounts in data row sections

You can now designate certain rows in a data row section as "contra" accounts, so that the row values are subtracted from the section subtotal instead of added. This can be used to accommodate a section that contains both debit and credit accounts.

When configuring a dynamic data row section, you can designate contra account rows by defining a conditional expression within the `[RowData]` syntax. Any row in the section that matches this expression is flagged as a contra row and subtracted from the total. The `[RowData]` syntax now supports an optional fourth parameter for this expression:

```
ValueColumn; LabelColumnorDisplayFormat; SortColumn; ContraExpression
```

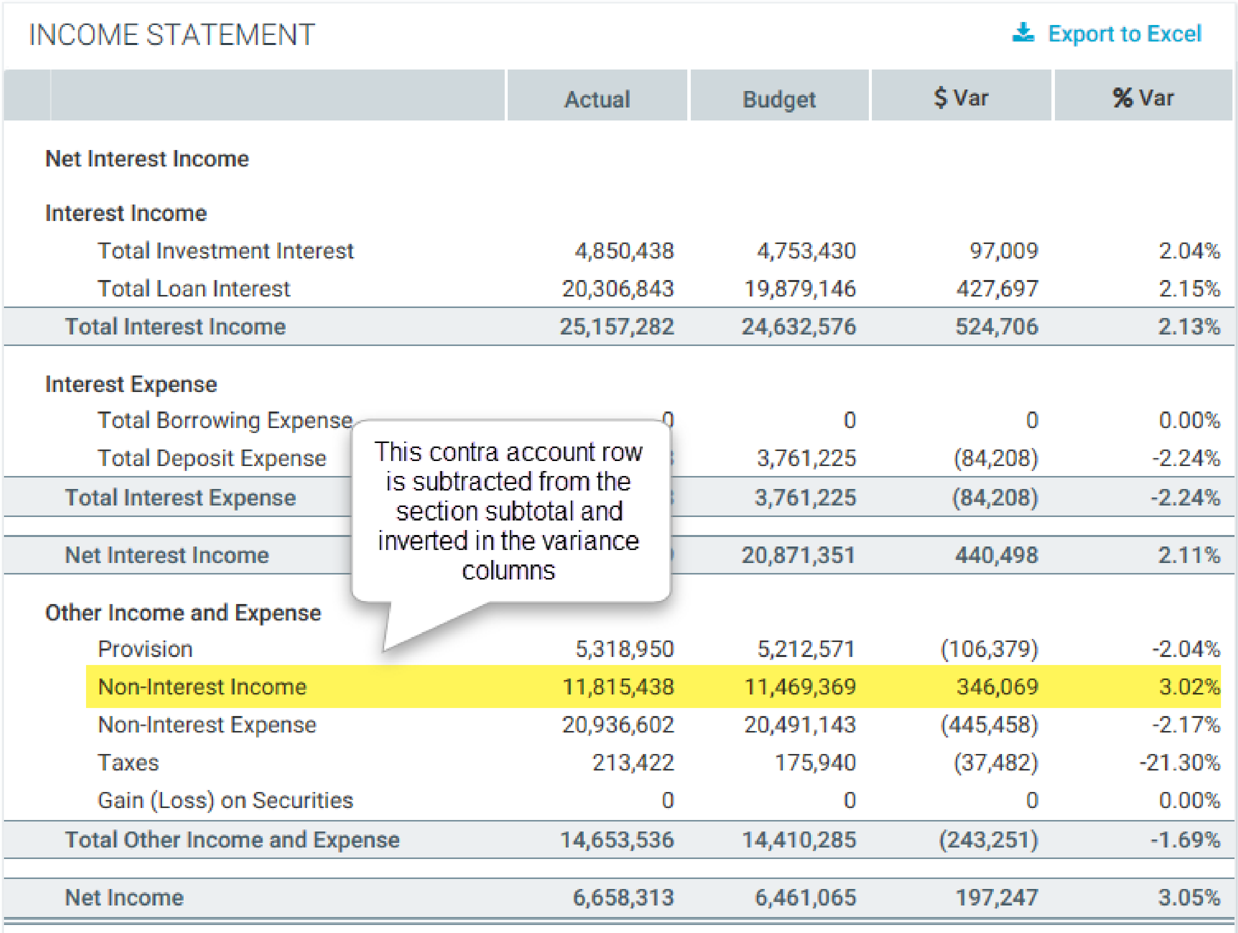
For example, the following configuration creates a data row section showing fixed asset accounts. Any account with `C` in the Acct.Credit column is subtracted from the section subtotal.

	A	E	F	G	H	I
2						
3		[FixedReportConfig;Report]	[HeaderText]	[RowData]	[SectionFilter]	[ID]
4						
5		[DataRowSection]	Fixed Assets	Acct.Acct;{Acct.Acct} - {Acct.Description};;Acct.Credit='C'	Acct.Category='Fixed Assets'	
6		[SectionSubTotal]	Total			FA

When using a fixed data row section, the FixedReportSectionConfig data source now supports a new column tag of `[IsContraAccount]`. The right-click data source wizard includes this new tag when creating a new data source, or you can manually add the tag to an existing data source. If a row is flagged as True in this column, that row will be subtracted from the section subtotal instead of added. If the column tag is not present, or if a row is blank or flagged as False, it is treated as normal and added to the section subtotal.

	F	G	H	I	J
19					
20		[FixedReportSectionConfig;OtherSection]	[Label]	[FixedRowFilter]	[IsContraAccount]
21		[FixedRow]	Provision	Acct.Balancing='Provision'	FALSE
22		[FixedRow]	Non-Interest Income	Acct.Balancing='Non Interest Income'	TRUE
23		[FixedRow]	Non-Interest Expense	Acct.Balancing='Non Interest Expense'	FALSE
24		[FixedRow]	Taxes	Acct.Balancing='Taxes'	FALSE
25		[FixedRow]	Gain (Loss) on Securities	Acct.Balancing='Gain Loss on Securities'	FALSE

The following screenshot shows the Non-Interest Income row in this example being subtracted from the section subtotal.



	Actual	Budget	$ Var	% Var
Net Interest Income				
Interest Income				
Total Investment Interest	4,850,438	4,753,430	97,009	2.04%
Total Loan Interest	20,306,843	19,879,146	427,697	2.15%
Total Interest Income	**25,157,282**	**24,632,576**	**524,706**	**2.13%**
Interest Expense				
Total Borrowing Expense	0	0	0	0.00%
Total Deposit Expense	[illegible]	3,761,225	(84,208)	-2.24%
Total Interest Expense	[illegible]	**3,761,225**	**(84,208)**	**-2.24%**
Net Interest Income	[illegible]	**20,871,351**	**440,498**	**2.11%**
Other Income and Expense				
Provision	5,318,950	5,212,571	(106,379)	-2.04%
Non-Interest Income	11,815,438	11,469,369	346,069	3.02%
Non-Interest Expense	20,936,602	20,491,143	(445,458)	-2.17%
Taxes	213,422	175,940	(37,482)	-21.30%
Gain (Loss) on Securities	0	0	0	0.00%
Total Other Income and Expense	**14,653,536**	**14,410,285**	**(243,251)**	**-1.69%**
Net Income	**6,658,313**	**6,461,065**	**197,247**	**3.05%**

Contra account rows also have special treatment in calculated columns designated as variance columns using `[IsVarianceColumn]`. If a row is designated as a contra account within a data row section, the variance column value for that row is inverted (meaning the number sign is reversed). Additionally, if the variance column is itself inverted using the `[InvertVarianceColumns]` property, then the inverted contra value is inverted again (so that it continues to use the opposite sign of non-contra rows).

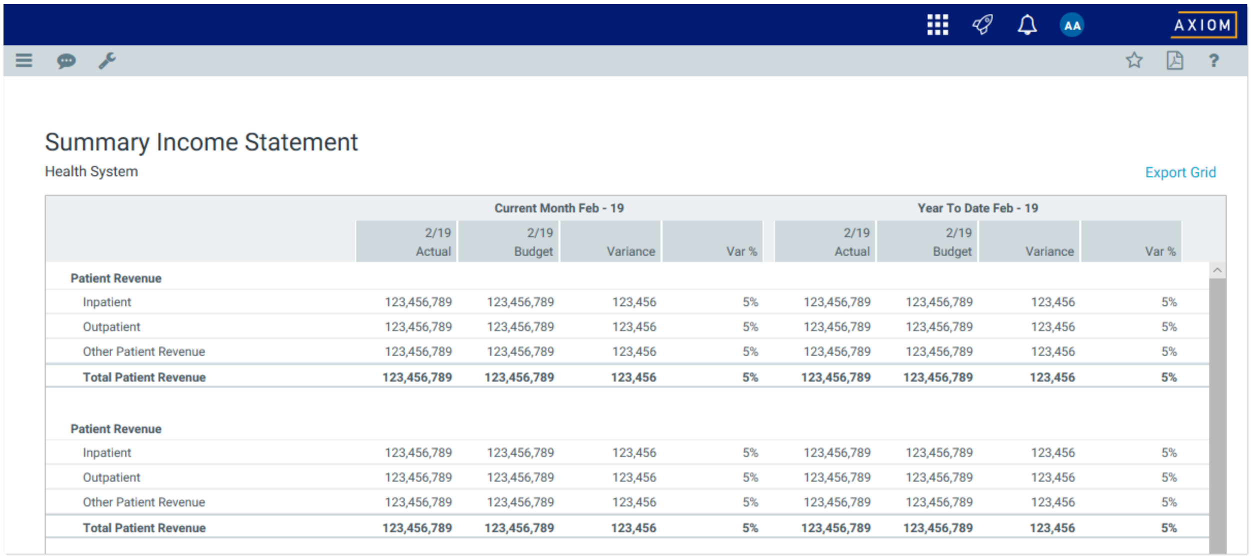
Apply formatting when exporting a Formatted Grid

You can now export a Formatted Grid component to a spreadsheet with most of the key formatting elements intact. In previous releases, only the number formatting was retained on grid export.

The following additional formatting elements are now applied to the spreadsheet when a thematic Formatted Grid component is exported:

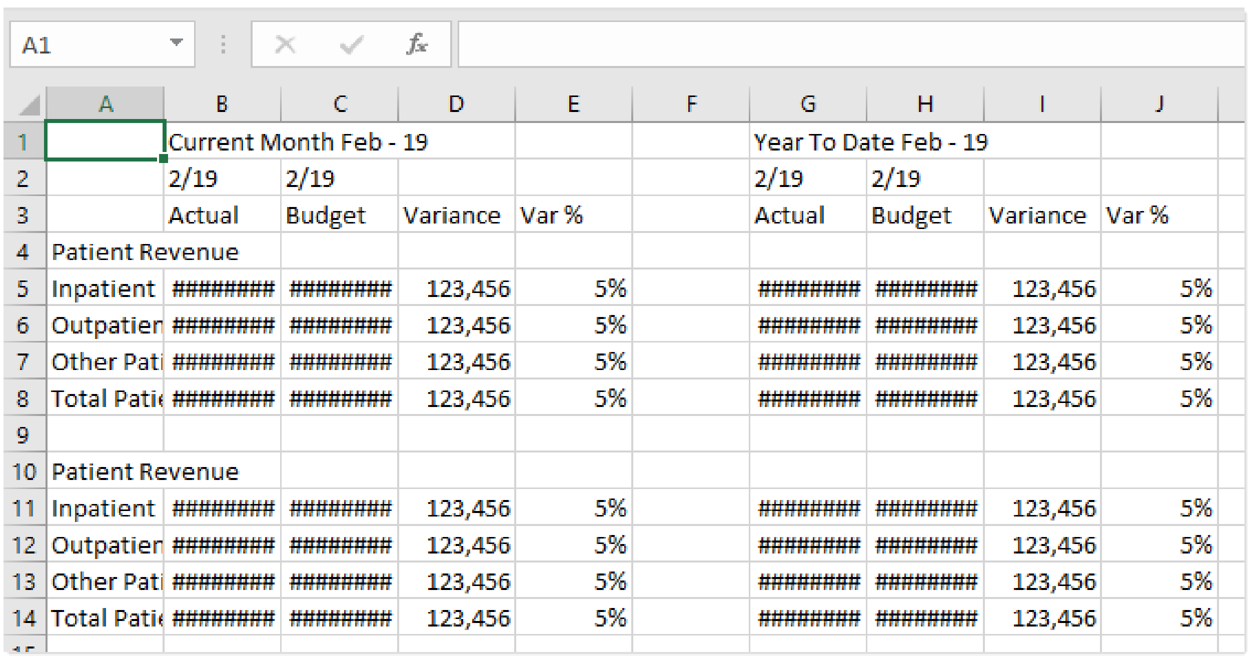
- Row height
- Column width
- Background color
- Font color, size, and weight
- Borders

For example, imagine the following Axiom form with a Formatted Grid component:



	Current Month Feb - 19				Year To Date Feb - 19			
	2/19 Actual	2/19 Budget	Variance	Var %	2/19 Actual	2/19 Budget	Variance	Var %
Patient Revenue								
Inpatient	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Outpatient	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Other Patient Revenue	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Total Patient Revenue	**123,456,789**	**123,456,789**	**123,456**	**5%**	**123,456,789**	**123,456,789**	**123,456**	**5%**
Patient Revenue								
Inpatient	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Outpatient	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Other Patient Revenue	123,456,789	123,456,789	123,456	5%	123,456,789	123,456,789	123,456	5%
Total Patient Revenue	**123,456,789**	**123,456,789**	**123,456**	**5%**	**123,456,789**	**123,456,789**	**123,456**	**5%**

In previous releases, the exported spreadsheet looked as shown in the following screenshot. At minimum you would need to adjust the column widths in order to review the data.



	A	B	C	D	E	F	G	H	I	J
1		Current Month Feb - 19					Year To Date Feb - 19			
2		2/19	2/19				2/19	2/19		
3		Actual	Budget	Variance	Var %		Actual	Budget	Variance	Var %
4	Patient Revenue									
5	Inpatient	#########	#########	123,456	5%		#########	#########	123,456	5%
6	Outpatien	#########	#########	123,456	5%		#########	#########	123,456	5%
7	Other Pati	#########	#########	123,456	5%		#########	#########	123,456	5%
8	Total Patie	#########	#########	123,456	5%		#########	#########	123,456	5%
9										
10	Patient Revenue									
11	Inpatient	#########	#########	123,456	5%		#########	#########	123,456	5%
12	Outpatien	#########	#########	123,456	5%		#########	#########	123,456	5%
13	Other Pati	#########	#########	123,456	5%		#########	#########	123,456	5%
14	Total Patie	#########	#########	123,456	5%		#########	#########	123,456	5%

Now, the exported spreadsheet looks as shown in the following screenshot. This is much closer to the original grid formatting, providing exported grid contents that are easier to review offline.

	A	B	C	D	E	F	G	H	I	J
1		**Current Month Feb - 19**					**Year To Date Feb - 19**			
2		2/19	2/19				2/19	2/19		
3		Actual	Budget	Variance	Var %		Actual	Budget	Variance	Var %
4	**Patient Revenue**									
5	Inpatient	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
6	Outpatient	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
7	Other Patient Revenue	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
8	**Total Patient Revenue**	**123,456,789**	**123,456,789**	**123,456**	**5%**		**123,456,789**	**123,456,789**	**123,456**	**5%**
9										
10	**Patient Revenue**									
11	Inpatient	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
12	Outpatient	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
13	Other Patient Revenue	123,456,789	123,456,789	123,456	5%		123,456,789	123,456,789	123,456	5%
14	**Total Patient Revenue**	**123,456,789**	**123,456,789**	**123,456**	**5%**		**123,456,789**	**123,456,789**	**123,456**	**5%**
15										

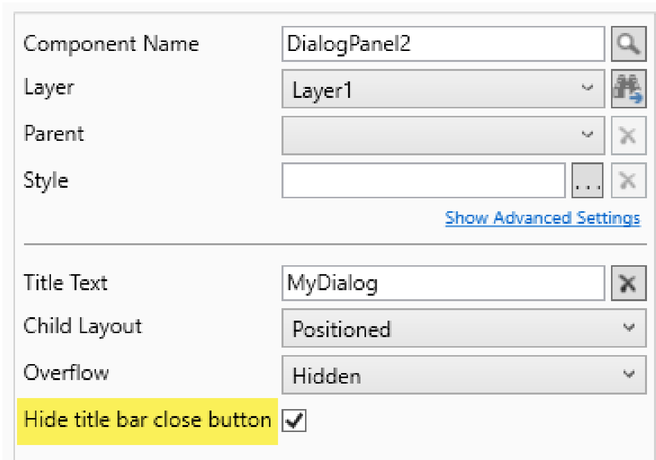
The grid formatting is applied automatically when exporting the grid using the existing Export Grid command. It is not necessary to adjust the command in order to retain the formatting. All other behavior of the Export Grid command remains as is.

Additional Axiom form enhancements

The following additional enhancements were made to Axiom forms.

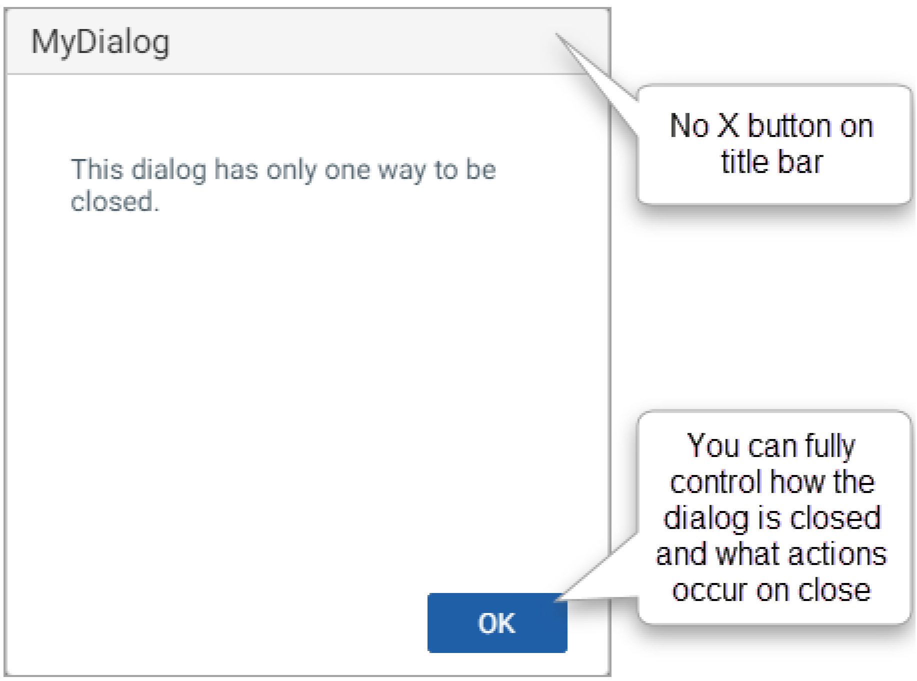
▶ Option to hide the close button on the title bar for Dialog Panel components

Dialog Panel components can now be configured to hide the **X** (close) button on the title bar of the dialog. This option is intended for cases when certain commands or other actions need to occur whenever the dialog is closed. You can configure the action buttons for the Dialog Panel component as needed, and then hide the **X** button so that the user must use those action buttons to close the dialog.



New option to hide the X button on a dialog panel

If this option is enabled, the Escape key is also suppressed so that it cannot be used to close the dialog.



This option is disabled by default, so that all existing Dialog Panel components will continue to have a close button on the title bar.

Imports

This section details the new features and enhancements for import utilities.

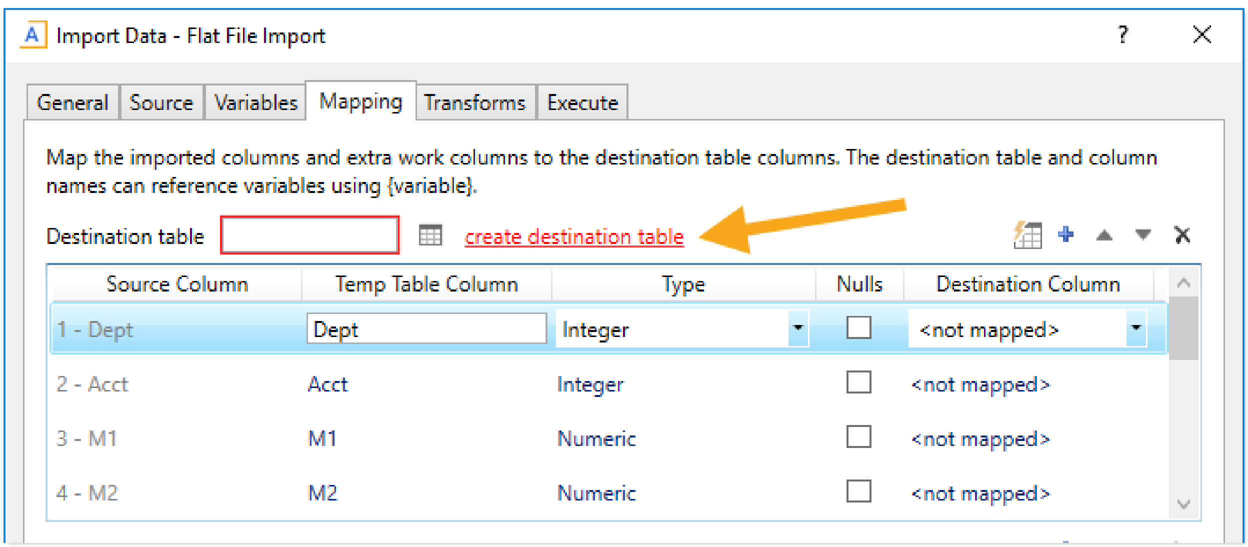
Import Wizard enhancements

The Import Wizard now provides additional options to assist with the creation and testing of imports.

Create new table based on import mappings

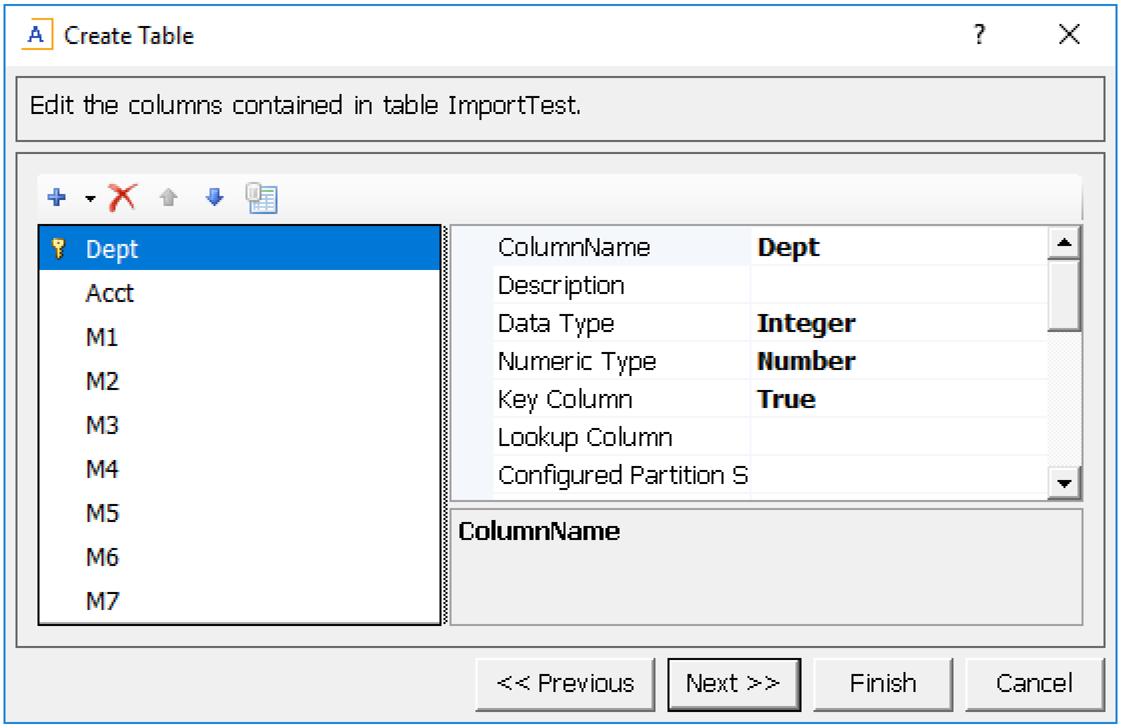
You can now create the destination table for an import from within the Import Wizard, using the import mappings to define the table columns. This feature can be especially useful when developing and testing imports, to easily create tables to hold the imported data.

To support this feature, you can now auto-generate mappings on the **Mapping** tab when no destination table is set. This will populate the tab with the columns from the import source. You can then click the **create destination table** link at the top of the tab to create a new table that contains these columns.



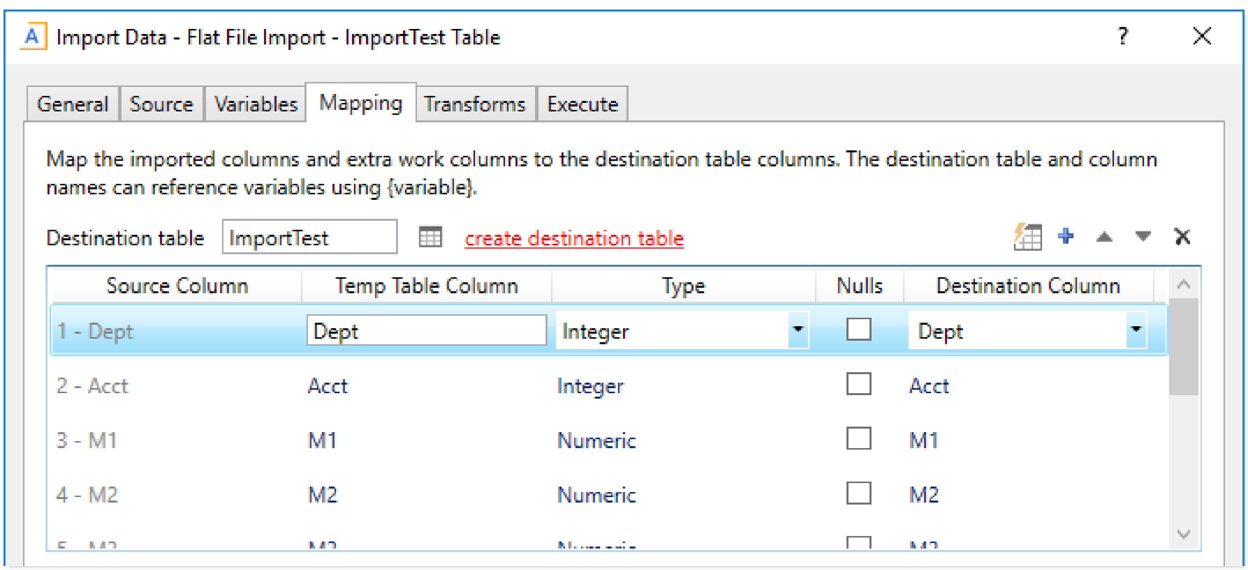
New option on Mapping tab to create destination table

The **create destination table** feature opens the **Create Table** wizard. Once you define table properties such as the name, folder, and classification, you can click Next to configure the columns. This screen is automatically populated with the columns from the Mapping tab. Depending on the source data, you may need to manually adjust some column properties, such as to designate additional key columns, assign lookup columns, and modify data types.



New table created from import mappings

Once the new table is created, the Mapping tab is automatically updated to specify the new table as the destination table, and to populate the destination columns.



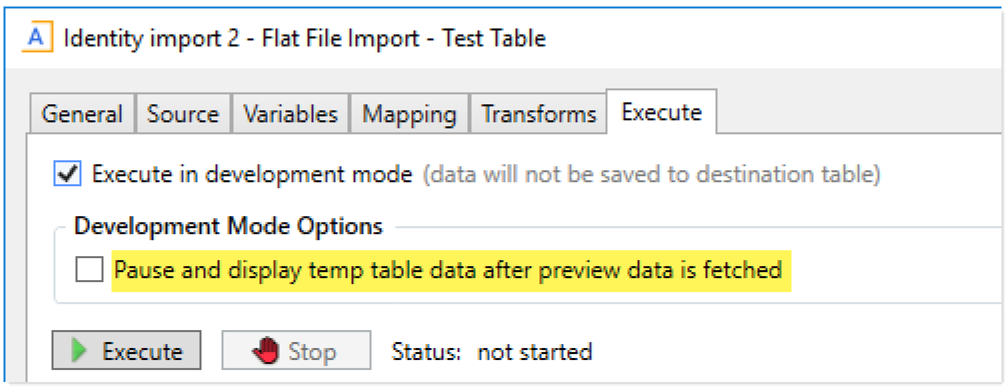
Mapping tab updated for newly created table

The ability to create the destination table from within the Import Wizard is only available to users who can normally create new tables (administrators and users with the **Administer Tables** permission).

Preview data in development mode without transform pauses

Development mode for imports has an existing feature where you can pause after performing certain transforms and view the import data. However, if your import does not use any transforms, you would have to add a "dummy" transform in order to enable this pause behavior. Although most imports have transforms, sometimes it is useful during development and testing to be able quickly view import data without defining any transforms.

The wording for this option now changes if the import does not have any transforms: **Pause and display temp table data after preview data is fetched**. When this option is enabled, the import queries data from the source to populate the temp table, then pauses and displays the data for review—without needing any defined transforms.



Option to pause import and view data when no transforms are present

If the import has transforms, then option displays and works the same way as it did before.

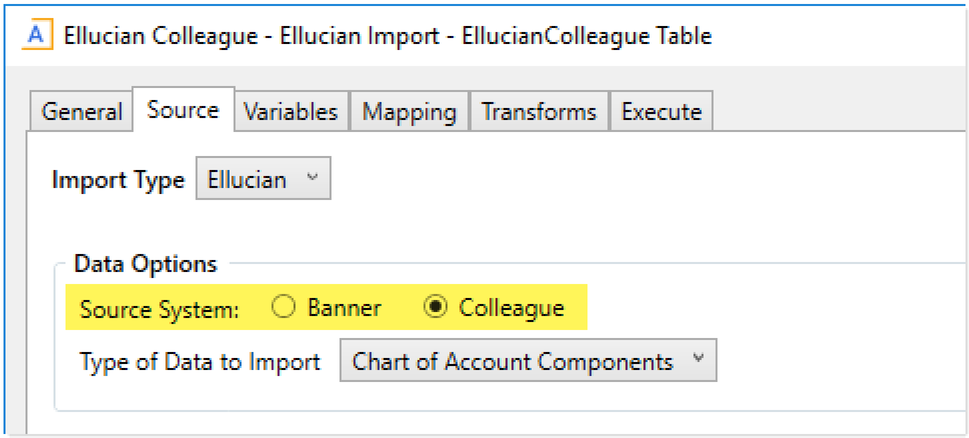
Ellucian import enhancements

Ellucian imports were enhanced to support additional data sources and to streamline the use of the connection.

Import from Colleague systems

You can now import from Ellucian Colleague systems in addition to the existing support for Ellucian Banner systems. Ellucian Banner and Colleague are enterprise resource planning (ERP) systems for higher education.

When configuring an Ellucian import, you now specify the source system type and data type.



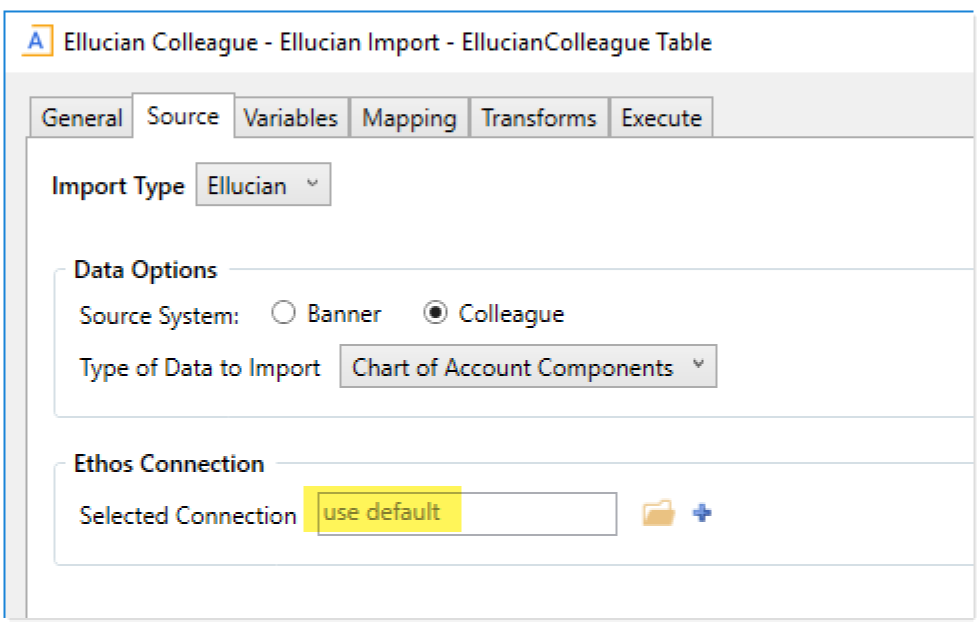
New option to specify import from either Banner or Colleague

Additionally, you can now create connections for either a Banner system or a Colleague system and reference the appropriate connection type in the import.

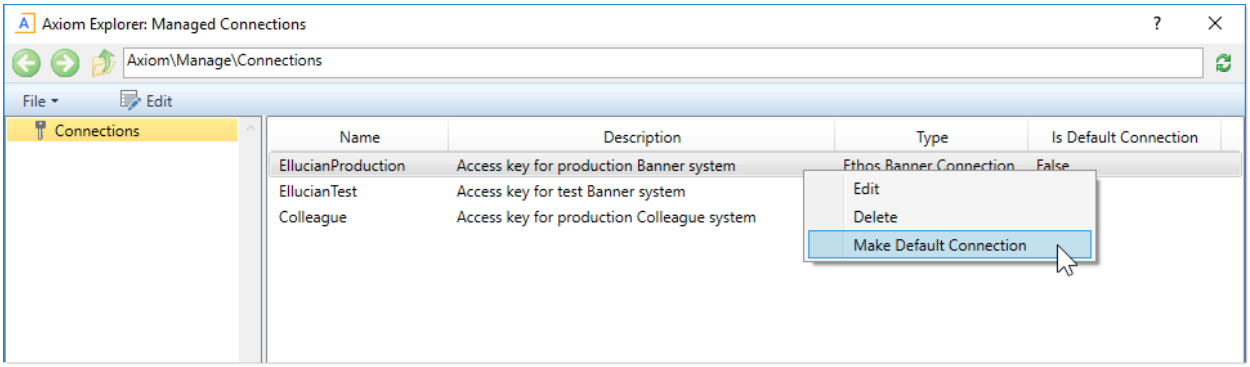
Specify a default connection

Ellucian imports can now use a designated default connection to access the source Ellucian or Colleague system, instead of needing to specify a particular named connection.

When you create a new Ellucian import, it now uses the default connection by default. You can leave it as is, or select a particular named connection.



When defining connections in the Managed Connections dialog, you can now designate a connection as the default connection. This designation is per connection type, such as Banner or Colleague. When an import is configured to use the default connection, it uses the connection that is flagged as default for the corresponding import type.



If you change the default connection, all imports configured to use the default connection will now use the newly designated connection.

Additional enhancements

Consider additional tables when using time-stamped Axiom queries

When using time-stamped Axiom queries, you can now optionally specify a list of additional tables to consider. This means that you can now use time-stamped Axiom queries if the query returns data from multiple tables, or if the query settings depend on data from another table. The logic to determine whether the query refreshes is no longer limited to just the primary table.

A new setting is available on the Control Sheet, named **Additional table dependencies**. This setting is located in the **Refresh behavior** section, along with the other settings relating to time-stamped refresh behavior. If you want the query to consider additional tables, list those tables here, separated by commas. It is not necessary to list the primary table here, as the primary table is always considered when using time-stamped refresh behavior.

Refresh behavior	
Refresh on manual refresh	On
Refresh during document processing	On
Refresh during template processing	Off
Refresh on file open	Off
Refresh once before multipass processing (advanced)	Off
Refresh after save data	Off
DataLookups to run	
Refresh only if primary table changed since last refresh	On
Additional table dependencies	Acct
Last refresh time	2019-10-23T16:12:13Z

New setting to list additional tables for time-stamped refresh behavior

If **Refresh only if primary table changed since last refresh** is enabled, then the Axiom query is run if the primary table has changed *or* if any of the listed additional table dependencies have changed since the last refresh time. In this example, the Axiom query will be run if the Acct table has changed, regardless of whether the primary table has changed.

Configuring security for plan file processes

A known issue was fixed in this release, so that permission "elevation" due to step ownership in a plan file process now works as intended for all security configurations. To clarify, the setting **Interacts with Process Management** on plan file permission sets is used as follows:

- If the process step owner is assigned to a specific user, and the user's permission to the plan file is configured as **No Access**, the setting **Interacts with Process Management** must be enabled on the permission set to indicate that the user is eligible for step ownership. However, if the user has at least **Read Only** access, then the "interacts" setting is not necessary and the user is already eligible for step ownership when using direct user assignments.

- If the process step owner is assigned to a role, then the setting **Interacts with Process Management** must be enabled on the permission set, to indicate that the user should be considered for step ownership through the role. This behavior is further modified based on whether the step is configured to consider all permissions sets on the user, or just permission sets associated with the role. In either case, if the "interacts" setting is not enabled then the permission set is not considered for step ownership through the role.

The behavior where the step owner's permissions to the plan file are "elevated" as needed based on the step type does *not* depend on the "interacts" setting. If the user is successfully made a step owner, then the user's permissions are elevated as appropriate so that they can complete the step. The "interacts" setting simply helps determine when the user is eligible to be a step owner.

The fixed issue in this release affects configurations where the step owner is assigned to a specific user, and the user has Read Only permission to the plan file with **Interacts with Process Management** disabled. In this case, the permissions of the user were only being partially elevated when the user was step owner. The user was being granted the Allow Save Data permission but not Read/Write access. Due to this issue, it was effectively required to enable the "interacts" setting when directly assigning users as step owners, even though that was not the intention of the feature. Now that the issue is fixed, it is no longer necessary to enable the "interacts" setting for this particular use case.

The plan file process and security documentation have been updated to reflect the intended behavior of this feature.

Miscellaneous

- When performing file processing and sending email, you can now include bracketed text in the subject and body text of the email. To do this, you must escape the bracketed text in an additional set of brackets, to differentiate the text from file processing variables such as `[Current_Value]`. For example, if you want to include the text `[Axiom Message]` in the subject line, you must include it as follows in the **Subject Line** field of file processing: `[[Axiom Message]]`. The extra set of brackets will be removed in the actual email.

- The **Save Lock Administration** page in the Web Client now provides the option to manually clear view-only records for forms that use save locks. This can be useful if an issue occurs that prevents a view-only record from being cleared normally. A view-only record displays in the Save Lock Administration page if a user opens the form with the ability to save data, but does not have the save lock (either because another user has it, or because they have manually released it). Normally the view-only record is cleared automatically if a user closes the form or navigates away from it.

- When aborting a running Scheduler job, the message on the confirmation dialog has been updated to clarify that any SQL or other server processing tasks that have already been initiated by the job will continue until completed. Once these tasks are completed, the job is aborted and no further tasks will be initiated.
- A new system configuration setting, **ETLAccessibleFolders**, is available to optionally restrict import access to specified folders on the network. This setting only applies to on-premise installations (Cloud Service systems already have an equivalent setting used by the Cloud Integration Service). This setting can only be configured using the Axiom Software Manager.
- The default port for the **System.SMTPMessageDelivery** event handler is now 587. This change only applies to newly created instances of the event handler. Existing systems will continue to use the currently configured port (unless the existing event handler is deleted and re-created), therefore this change does not affect existing systems. The SMTP event handler is used to send email from Axiom Software.