Contents

Astuity BPM Excel

What is Astuity BPM Excel?

Astuity BPM Excel is the Excel Add-in that enables the user to interact with the Astuity BPM data through the familiar Excel Interface. With Astuity BPM Excel the user is able to retrieve and update Astuity BPM data, manage the lock status of the Astuity BPM data, and create & use reports and input forms. It is suggested that if you want to quickly learn more about the Astuity BPM Excel functions, create a new spreadsheet with the spreadsheet wizard.

Requirements

- An Astuity BPM Server to connect to.
- Windows 7 or greater.
- Excel 2010, 2013, or 2016, either 32 bit or 64 bit.
- .Net 4.5+ client libraries installed (here).

Installation

To install Astuity BPM Excel see the installation guide for details.

Astuity BPM Tasks

The Astuity BPM Tasks can be accessed from the Astuity BPM Excel ribbon. The position of the Astuity BPM Excel tab is dependent on the order that Excel uses to load Add-Ins.

Several standard Excel page groups have been added to the Astuity BPM Excel ribbon for the users' convenience. These Excel page groups are **Function Library**, **Formula Auditing**, **Window**, and **Zoom**.
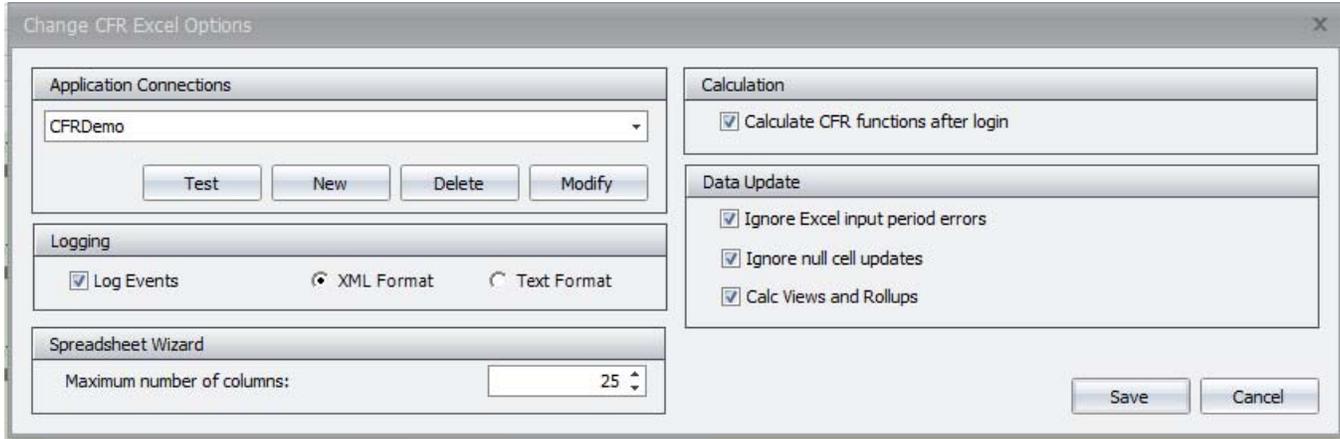
Help

Starts up the Astuity BPM Help System.

Options

Control the behavior of selected aspects of the Astuity BPM Excel Add-In.

Application Connections

The application connections are maintained here. The application connection refers to the URL that points to the Astuity BPM Cloud Server location. Since Astuity BPM uses the HTTP protocol, the first portion of the connection is always http://. The Astuity BPM Data service is named "CFRWcfDataService.svc", the last portion is always "/CFRWcfDataService.svc". The middle portion of the connection will vary by implementation depending upon where the Astuity BPM Data Service is hosted. See the "Installation Guide" for more detail regarding the connection.

If a user decides that a different Astuity BPM Cloud Server should be used, then that Astuity BPM Cloud Server can be selected from the dropdown list. The "Test" button should be pressed to make sure the Astuity BPM Cloud Server is operational, and the save button should be pressed to save the change. The Astuity BPM application will restart and re-initialize itself. The system administrator should be able to tell you what your connection(s) are.

- Application Connections – Enables the user to maintain the Astuity BPM Application database connections.
    o Test – Check to determine if the Astuity BPM Application server is available.
    o New – Create a new connection.
    o Delete – Delete a connection.
    o Modify – Modify an existing connection.
    o Use – Use the selected connection immediately.
- Logging – When activated the Astuity BPM Excel Add-In will save to the Astuity BPM Excel log file any exceptions that it encounters. The log would come in handy to debug Add-In Issues if they ever arise.
    o Log Events – Turns logging on/off.
    o XML Format – Logs written to in XML format.
    o Text Format – Logs written to in text format.
- Spreadsheet Wizard Columns – maximum number of columns on the "Select the row and column labels to display" step of the "Create a Spreadsheet Wizard".
- Calculation
    o Checked - all metadata related Astuity BPM Excel formulas are executed after login.
    o Unchecked - all metadata related Astuity BPM Excel formulas are executed when the Retrieve or Update buttons are pressed.
- Data Update

- o Ignore Excel input period errors – The normal behavior of Astuity BPM Excel during data update is to report all errors in each cell, and abort the update. Checking this option will allow the data to be updated and any update errors relating to an invalid period are ignored. Effectively the data for the invalid period is discarded. Checking this option enables updating data when input periods and non-input periods are displayed on the same spreadsheet.
- o Ignore null cell updates – The normal behavior of Astuity BPM Excel during data update is to update the data in the database wherever all six range functions intersect. When unchecked, all cells, even null cells will be sent to the Astuity BPM Cloud Server. When checked, only cells with values will be sent to the Astuity BPM Cloud server. If checked, it is not possible to override a value in the database with an empty spreadsheet cell, a zero must be used.
- o Calc Views and Rollups – Checking this options will calculate the views and rollups during the data update, it will not calculate entity formulas.

Login

All the tasks to the right of the Login button will be grayed out after the Astuity BPM Excel add-in starts up. The Login Dialog is used to login to the Astuity BPM Excel Add-In. You cannot perform any Astuity BPM Excel Tasks without providing a valid user name, domain, and password.

There are two types of authentication that can be used to login to the Astuity BPM Excel Add-In:
- Windows Authentication – The user's credentials are verified against the network credentials, your network system administrators keep & maintain all the details. The administrator of Astuity BPM will define the valid Astuity BPM users and their domains.
- Application Authentication – The user's credentials are maintained by Astuity BPM. The user has the ability to change their own password subject to Astuity BPM system complexity requirements set up by the Astuity BPM administrator. The domain refers to the machine name that the user is logging in from.

Note:
- Optionally, the Astuity BPM administrator, on a user by user basis, can set up Application Authenticated users in a Windows Authenticated Astuity BPM application.
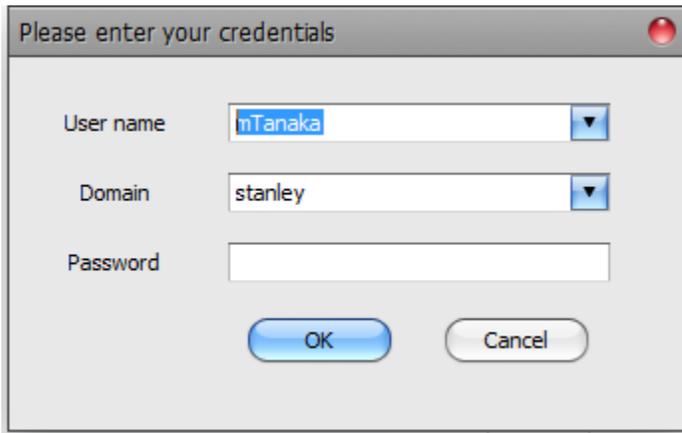
- User name - Type in the user name, the field keeps the most recent user names used. To delete any of the recent user names, click on the drop down, hover over the user name that you want to delete, and click the red "**X**".
- Domain - Type in the domain, the field keeps the most recent domains used. To delete any of the recent domains, click on the drop down, hover over the domain that you want to delete, and click the red "**X**".
- Password - Type in the password, Astuity BPM will never send an unencrypted password over a network.

Click on the **OK** button when finished to login to Astuity BPM Excel

Refresh Metadata

When clicked, Astuity BPM Excel will refresh the lists it keeps in memory, security information, and other data. This action would be an alternative to restarting Excel if, for example, an accounts' user defined field were changed, and the change was needed by a formula in the spreadsheet.

Check Ranges

This task only applies to the AstuityRange formulas. When clicked, Astuity BPM Excel will count the Astuity BPM Range functions that affect a cell. Ideally that number should 111,111 – if any digit is zero, this will result in no data being retrieved into or updated from that cell. Any digit greater than 1 would result in ambiguous data in the cell. This is to be used as a spreadsheet debugging tool to help the user ensure the integrity of their spreadsheet.

It is always a good idea to check your ranges after you have changed your spreadsheets' structure.

Number	Where "X" is the
X11,111	Number of AstuityScenarioRange functions that affect the cell
1X1,111	Number of AstuityEntityRange functions that affect the cell
11X,111	Number of AstuityAccountRange functions that affect the cell
111,X11	Number of AstuityPeriodRange functions that affect the cell
111,1X1	Number of AstuityFrequencyRange functions that affect the cell
111,11X	Number of AstuityViewRange functions that affect the cell

Retrieve

When clicked, Astuity BPM Excel will retrieve the data from the Astuity BPM Application database. The retrieval can be canceled at any time by clicking on the cancel button on the wait form.

When using the AstuityRange functions, the intersection of Scenario, Entity, Account, Frequency, View and Period ranges will determine the data value to be retrieved. If the range intersection does not include all six dimensions, then no data value is retrieved for the cell. If an intersection happens to have more than one intersection of the same dimension (i.e. 2+ Entities for the same cell), then the last AstuityRange function to be evaluated wins. It is always a good idea to check your ranges after you have changed your spreadsheets' structure (see previous topic).

When using the AstuityValue function, all the parameters are defined within the function and the value retrieved is never ambiguous. The advantage of AstuityValue is the cell by cell control you have of your spreadsheet. However, AstuityValue may be little slower (up to 5 percent) depending on the size of the spreadsheet.

Both AstuityRange and AstuityValue functions use exactly the same algorithm to retrieve data. For two identical spreadsheets, the first using AstuityRange and the second using AstuityValue, the larger the spreadsheet (more cells), the greater the speed advantage of AstuityRange due to the number of cells Excel has to evaluate.

Update

When clicked, the data in the spreadsheet is used to update the Astuity BPM Application database. The data is rounded according to the precision specified by the account. Only AstuityRange functions can be used to update the Astuity BPM Application database. The entire update can be canceled at any time by clicking on the cancel button on the wait form. It is always a good idea to check your ranges after you have changed your spreadsheets' structure (see previous topic).

If errors are encountered by Astuity BPM Excel when the Astuity BPM Cloud Server checks the data, the entire update is terminated and no data is updated on the server.

Following is a list of possible errors when attempting an update.

- **Native frequency must be used to update data from Astuity BPM Excel.** For example this error would occur when an attempt to update a monthly scenario with quarterly data is attempted.
- **Native view must be used to update data from Astuity BPM Excel.** For example, pushing Year-to-Date data into a periodic scenario.
- **Invalid time period**. For example, attempting to update period 13 in a 12 period scenario.
- **Data entry via Astuity BPM Excel not allowed for this scenario.** Scenario security is setup to disallow input via Excel.
- **Time period closed.** The time period for the Scenario does not allow input via Excel. See options section to find out how ignore this error.
- **Write access needed to update entity.** The entity security is not setup for write access by the user.
- **Data for the entity/scenario is locked.** A user has locked the data.

Pivot Table

Astuity BPM Data can be imported into Excel in a table format that can be used to create an Excel Pivot Table. Clicking the Pivot Table button will start up the "Extract Pivot Table Data" dialog.
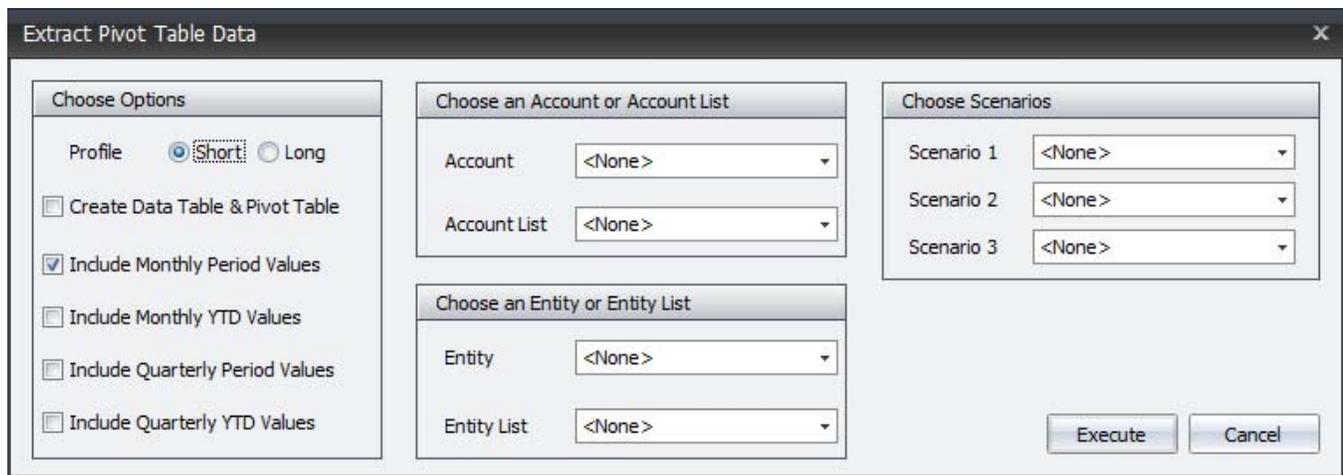
Choose Options
- The profile refers to the set of columns that will be extracted for each table row. Two choices, Short and Long, are available. The columns that each profile extracts are determined during implementation and can be changed by a technical administrator.
- The data that is extracted will be formatted as a table. If the "Create Data Table and Pivot Table" Option is checked, a pivot table will also be created and added to a new worksheet.
- All four of the other options refer to the values that are extracted.

Choose an Account or an Account List
- A single account or a list of accounts can be extracted, one or the other needs to be chosen. Right clicking the combo box will reset the choice back to none.

Choose an Entity or an Entity List

- A single entity or a list of entities can be extracted, one or the other needs to be chosen. Right clicking the combo box will reset the choice back to none.

Choose Scenarios

- Up to three Scenarios can be chosen and be extracted. Right clicking the combo box will reset the choice back to none.

Execute

- When the Execute button is clicked, the choices are validated and the extract process is started. A progress window will provide information on the number of rows that have been extracted. Pressing the cancel button on the progress window will stop the extract.

The extracted data will look like this in Excel.

	A	B	C	D	E	F	G	H	I	J	K	L
1	ScenarioLabel	ScenarioName	EntityFullLabel	EntityFullName	AccountFullLabel	AccountFullName	TimePeriod	Frequency	PeriodNumber	View	MonthName	Value
2	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M01PER	M	1	PER	Jan	4,268
3	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M02PER	M	2	PER	Feb	4,359
4	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M03PER	M	3	PER	Mar	4,359
5	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M04PER	M	4	PER	Apr	4,359
6	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M05PER	M	5	PER	May	4,359
7	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M06PER	M	6	PER	Jun	4,359
8	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M07PER	M	7	PER	Jul	4,359
9	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M08PER	M	8	PER	Aug	4,359
10	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M09PER	M	9	PER	Sep	4,359
11	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M10PER	M	10	PER	Oct	4,359
12	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M11PER	M	11	PER	Nov	4,359
13	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Commercial	Domestic Revenue.Commercial	M12PER	M	12	PER	Dec	4,359
14	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M01PER	M	1	PER	Jan	4,357
15	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M02PER	M	2	PER	Feb	4,186
16	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M03PER	M	3	PER	Mar	4,186
17	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M04PER	M	4	PER	Apr	4,186
18	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M05PER	M	5	PER	May	4,186
19	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M06PER	M	6	PER	Jun	4,186
20	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M07PER	M	7	PER	Jul	4,186
21	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M08PER	M	8	PER	Aug	4,186
22	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M09PER	M	9	PER	Sep	4,186
23	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M10PER	M	10	PER	Oct	4,186
24	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M11PER	M	11	PER	Nov	4,186
25	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Consumer	Domestic Revenue.Consumer	M12PER	M	12	PER	Dec	4,186
26	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M01PER	M	1	PER	Jan	4,492
27	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M02PER	M	2	PER	Feb	4,316
28	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M03PER	M	3	PER	Mar	4,316
29	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M04PER	M	4	PER	Apr	4,316
30	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M05PER	M	5	PER	May	4,316
31	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M06PER	M	6	PER	Jun	4,316
32	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M07PER	M	7	PER	Jul	4,316
33	CurrentYear	Actual 2016	AeronauticsUS	US Aeronautics Division	01100.Government	Domestic Revenue.Government	M08PER	M	8	PER	Aug	4,316

The following instructions will have the same effect as selecting the "Create Data Table and Pivot Table" option.

1. Click somewhere inside the table. On the Excel "Home" ribbon, in the "Style" group, click on "Format as Table" and pick a table style.
2. Click somewhere inside the table. On the Excel "Insert" ribbon, in the "Tables" group, click on "Pivot Table" to create a pivot table.

Work with the Pivot Table and arrange the fields into Filters, Columns, Rows, and Values – and begin your analysis.
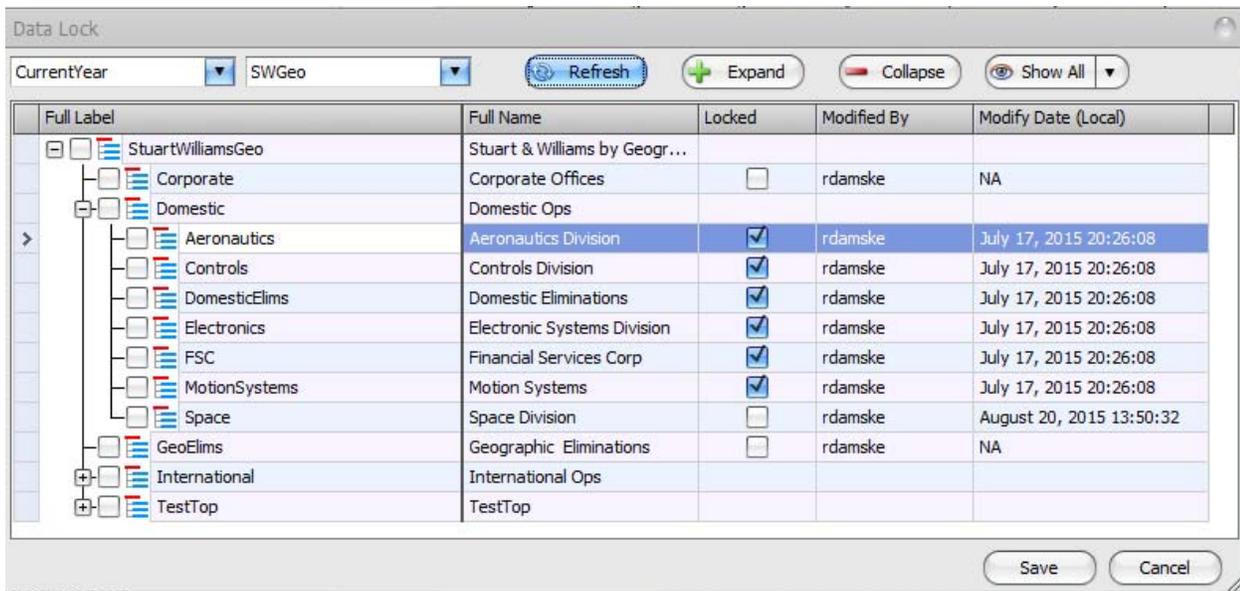
User Data Locking

If the scenario allows Excel data input and a user has read/write access to an entity, then the user is able to lock the data for the scenario/entity combination. The act of locking the data is to disallow any further data updates. Only administrators or designated users can unlock data.

When the Lock dialog is presented, and valid selections for the scenario and hierarchy are chosen, click the refresh button to get the list of entities and their status for the scenario. To expand/collapse the entities in the hierarchy tree, use the expand/collapse buttons. To show only the locked and/or unlocked entities, click the dropdown on the "Show" button. To show the default display, click on the "Show" button.

In Astuity BPM, all grids and trees have sortable and filterable columns. To use these features, right click on a column header and select a function.

A check in the locked column means that the data is locked, only administrators or designated users can unlock the data. The "Modified By" column shows the last user to lock/unlock the data. The Modified Date (Local)" column shows the local time of the last (lock/unlock) modification.

To lock or unlock the entity data, all that is necessary it to change the checkmark and click save.

Label Picker

When clicked, a dialog box with five tabs is presented, one tab each for Scenario, Entity, Account, Frequency, and View. The user should select the appropriate tab and then select the items within the tab. The items that are selected will be pasted into the spreadsheet at the current cursor position and selected orientation when the OK button is clicked.
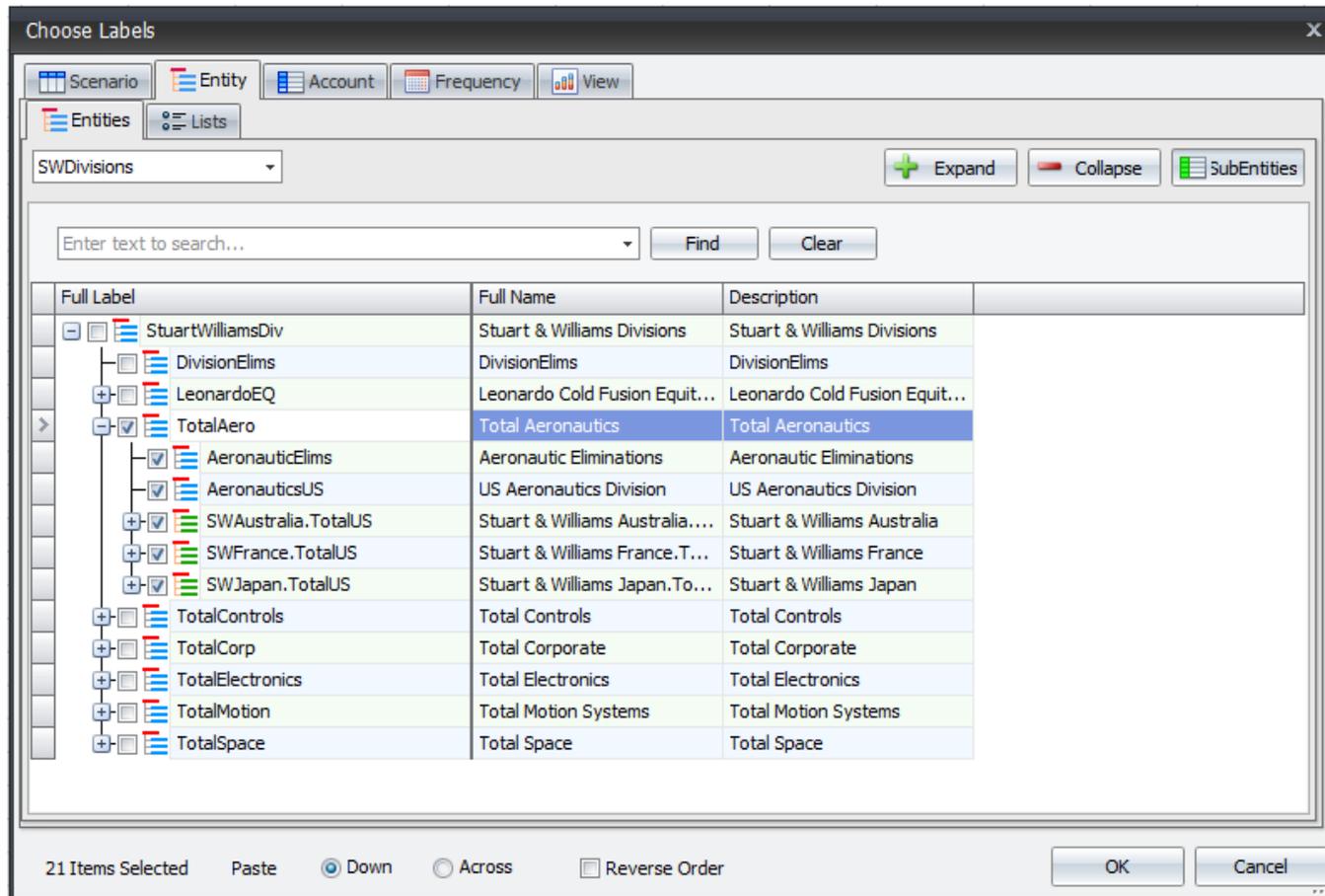
Buttons and Controls

- Find & Clear – Search for an entity or account.
- Expand – Expand the entire section of the account rollup.
- Collapse – Collapse the account rollup.
- Subaccounts/Subentities – When depressed, the subaccounts/subentities are also displayed.
- Paste – Down to copy into a column, Across to copy into a row
- Reverse Order – Check to reverse the hierarchical order of an account rollup or entity rollup.

Note:
- Both entity and account have sub-tabs that allow the selection of individual items or lists of items.
- Right clicking an entity and account item will activate a popup menu that enables the selection of multiple items in a hierarchical fashion.
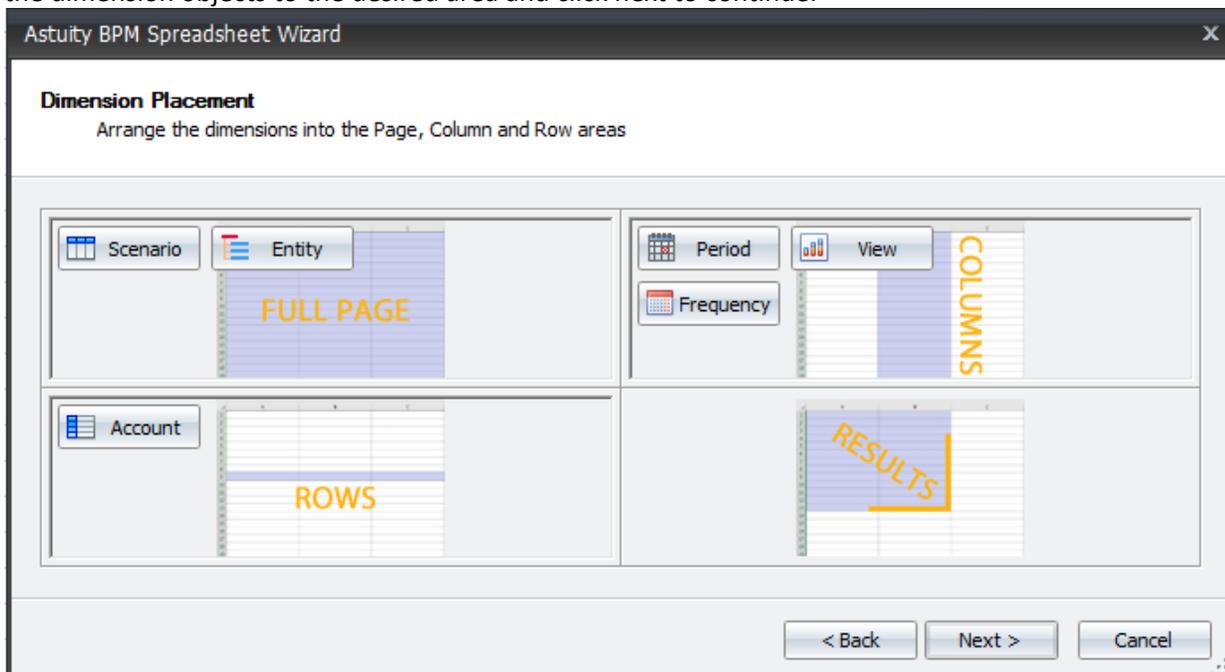
Spreadsheet Wizard

The Spreadsheet Creator is a 5 step wizard that guides the user through the process of creating an Astuity BPM Excel spreadsheet that is complete with the chosen formula types. The Spreadsheet Wizard is an excellent way to quickly learn the Astuity BPM Excel formulas by example.

When the wizard starts up, the welcome screen is presented, click next to continue.

The second step of the wizard is about arranging the dimensions onto pages, rows, and columns. Click and drag the dimension objects to the desired area and click next to continue.

For the third step of the wizard, fill in the yellow cells by typing in the labels for the rows and columns OR by right clicking a yellow cell to use the "Label Picker". There will be as many columns as you defined in the options dialog, rows will be added as needed. Click next to continue.

For the forth step of the wizard, type the text or use the "Label Picker" by clicking the buttons. Click next to continue.

The fifth step of the wizard prompts for the type of Astuity BPM Excel formulas to use for the spreadsheet. AstuityRange formulas would be the preferred choice if data input via Excel is the purpose of the spreadsheet, otherwise AstuityValue would be a good choice for reporting because of its flexibility.
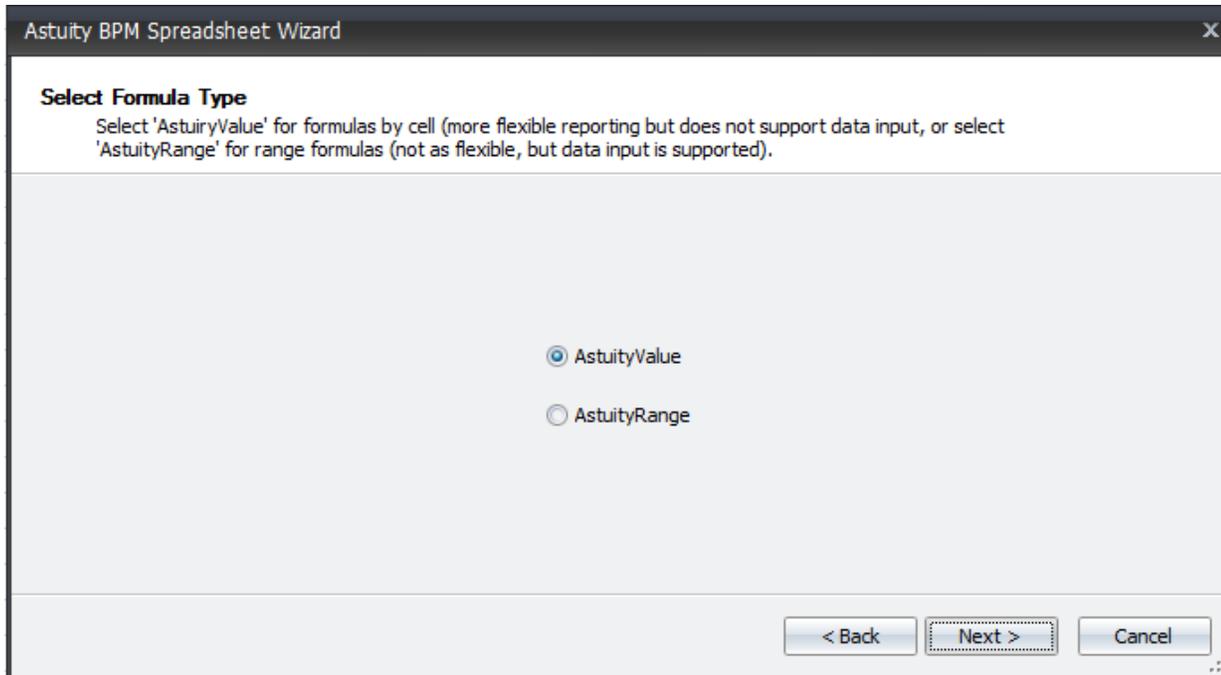
Click the "Next" button and the "Finish" button to complete the wizard. The current spreadsheet will be filled with the Astuity BPM Excel functions, click the "Retrieve" button on the Astuity BPM Excel ribbon to get the values. Format the spreadsheet to your preferences and add whatever you need to suit your intended use.
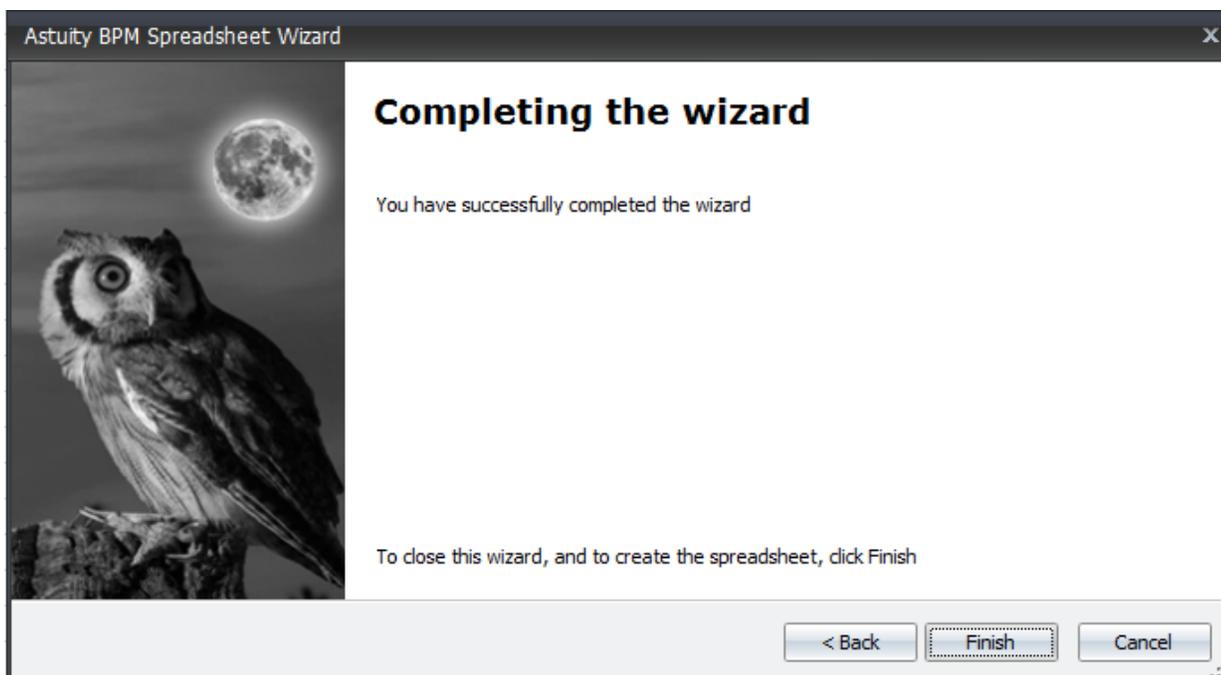
Astuity BPM Excel Functions

Range Functions

The range functions are used to setup a range of cells for the purpose of retrieving and/or updating a group of cells.   The intersection of Scenario, Entity, Account, Frequency, View and Period ranges will determine the data values to be retrieved for a particular cell.

If the intersection does not include all six dimensions, then no data value is retrieved for the cell. If an intersection happens to have more than one intersection of the same dimension (i.e. 2+ Entities for the same cell), then the last AstuityRange function to be calculated wins.

If the function has invalid parameters it will evaluate to #*Error* notation where *Error* will describe the problem. If the parameters are valid the range functions will echo back the label value.

The AstuityRange functions will retrieve values from the Astuity BPM Database when the retrieve button is clicked.

- AstuityScenarioRange(*ScenarioLabel*, *Range*) - Setup the retrieve/update range for the scenario.
    - *ScenarioLabel* – The scenario to be retrieved/updated in the range.
    - *Range* – The range of cells that the Scenario applies to using Excel standard "a1:b2" notation.
- AstuityEntityRange(*EntityLabel*, *Range*) - Setup the retrieve/update range for the Entity.
    - *EntityLabel* – The Entity to be retrieved/updated in the range.
    - *Range* – The range of cells that the Entity applies to using Excel standard "a1:b2" notation.
- AstuityAccountRange(*AccountLabel*, *Range*) - Setup the retrieve/update range for the Account.
    - *AccountLabel* – The Account to be retrieved/updated in the range.
    - *Range* – The range of cells that the Account applies to using Excel standard "a1:b2" notation.
- AstuityFrequencyRange(*FrequencyLabel*, *Range*) - Setup the retrieve/update range for the Frequency.
    - *FrequencyLabel* – The Frequency to be retrieved/updated in the range.
    - *Range* – The range of cells that the Frequency applies to using Excel standard "a1:b2" notation.
- AstuityViewRange(*ViewLabel*, *Range*) - Setup the retrieve/update range for the View.
    - *ViewLabel* – The View to be retrieved/updated in the range.
    - *Range* – The range of cells that the View applies to using Excel standard "a1:b2" notation.
- AstuityPeriodRange(*PeriodNumber*, *Range*) - Setup the retrieve/update range for the Period.
    - *PeriodNumber* – The Period to be retrieved/updated in the range.
    - *Range* – The range of cells that the Period applies to using Excel standard "a1:b2" notation.

Value Function

The Value function will retrieve data according to the parameters within the formula. If the function has invalid parameters it will evaluate to #*Error* notation where *Error* will describe the problem. If the parameters are valid the function will return 0. AstuityValue will retrieve its value from the Astuity BPM Database when the retrieve button is clicked.

- AstuityValue(ScenarioLabel, EntityLabel, AccountLabel, FrequencyLabel, ViewLabel, PeriodNumber)
    - ScenarioLabel – The label of the scenario.
    - EntityLabel– The label of the entity.
    - AccountLabel– The label of the account.
    - FrequencyLabel– The label of the frequency.
    - ViewLabel– The label of the view.
    - PeriodNumber– the Period number.

Property Functions

The Property functions will retrieve the properties of the items that the function refers to. If the function has invalid parameters it will evaluate to #*Error* notation where *Error* will describe the problem. If the parameters are valid the functions will return the value of the property. Click here to see a list of the valid properties.

- AstuityScenarioProperty(*ScenarioLabel*, *PropertyName*)
    - *ScenarioLabel* – the label of the scenario.
    - *PropertyName* – the property you are interested in.
- AstuityEntityProperty (*EntityLabel*, *PropertyName*)
    - *EntityLabel* – the label of the Entity.
    - *PropertyName* – the property you are interested in.
- AstuityAccountProperty (*AccountLabel*, *PropertyName*)
    - *AccountLabel* – the label of the Account.
    - *PropertyName* – the property you are interested in.
- AstuityFrequencyProperty (*FrequencyLabel*, *PropertyName*)
    - *FrequencyLabel* – the label of the Frequency.
    - *PropertyName* – the property you are interested in.
- AstuityViewProperty (*ViewLabel*, *PropertyName*)
    - *ViewLabel* – the label of the View.
    - *PropertyName* – the property you are interested in.
- AstuityPeriodProperty (*PeriodLabel*, *PropertyName*)
    - *PeriodLabel* – the label of the Period.
    - *PropertyName* – the property you are interested in.

Miscellaneous Functions

Theses are other functions that retrieve various bits of metadata that the Astuity BPM Property functions can't handle. If the function has invalid parameters it will evaluate to #*Error* notation where *Error* will describe the problem. If the parameters are valid the functions will return the value of the property.

- AstuityYear(*ScenarioLabel, PeriodNumber, Format*) – Retrieve the year of the data given the scenario and period.
  - o *ScenarioLabel* – the label of the scenario.
  - o *PeriodNumber* – The period number within the scenario above.
  - o *Format* – valid values are 2 or 4. 2 = two digit year, 4 for a 4 digit year.
- AstuityPeriodName(*ScenarioLabel, FrequencyLabel, PeriodNumber, Format*) – Retrieve the name of the period given the scenario, frequency and period.
  - o *ScenarioLabel* – the label of the scenario.
  - o *FrequencyLabel* – the label of the frequency.
  - o *PeriodNumber* – The period number within the scenario above.
  - o *Format*– valid values are 1 or 2. 1 = short format 2 = long format
- AstuityVariance*(AccountLabel, Value1, Value2)* – Retrieve the dollar variance between two values (i.e. Actual vs Budget) for the same account. Debit/Credit attribute of the account will determine sign. If the account has the credit attribute turned on then value1 - value2 is returned, otherwise value2 - value1 is returned.
  - o *AccountLabel* - the label of the account.
  - o *Value1* – the first value to evaluate.
  - o *Value2* – the second value to evaluate
- AstuityPercentVariance*(AccountLabel, Value1, Value2)* – Retrieve the percent variance between two values (i.e. Actual vs Budget) for the same account. Debit/Credit attribute of the account will determine sign. . If the account has the credit attribute turned on then (value1 - value2) / value2 is returned, otherwise (value2 - value1) / value2 is returned.
  - o *AccountLabel* - the label of the account.
  - o *Value1* – the first value to evaluate.
  - o *Value2* – the second value to evaluate
- AstuityInputPeriod(*ScenarioLabel*, *PeriodNumber*) - Evaluates to zero if input via Excel is not enabled, 1 if input via Excel is enabled.
  - o *ScenarioLabel* – the label of the scenario.
  - o *PeriodNumber* – The period number within the scenario above.
- AstuityIgnoreNullCellUpdates(*NullStatus*) – the has the same effect as checking the "Data Update, Ignore null cell updates" checkbox from the Astuity BPM Excel Options Dialog. The Astuity BPM Excel Options Dialog is applied to all workbooks in the Excel session. If you don't want the setting to apply to all workbooks, then each open workbook should have its own setting.
  - o NullStatus - True = Ignore empty values, False = Update empty values to Database

Structure Property Matrix

| Property	Type	Scenario	Entity	Account	Freq	View	Period
Id	Number	X	X	X	X	X	
IsActive	True/False	X	X	X			
Label	Text	X	X	X	X	X	
Name	Text	X	X	X	X	X	X
Description	Text	X	X	X	X	X	
UserDef1..8	Text	X	X	X			
Format1..8	Text			X			
StartDate	Date	X					
FiscalYear	Number	X					
StartPeriod	Number	X					
ViewLabel	Text	X					
FrequencyLabel	Text	X					
PriorScenarioLabel	Text	X					
IsLocked	True/False	X					
CurrentPeriod	Number	X					
NumberOfPeriods	Number	X					
AllowExcelDataEntry	True/False	X					
ExcelEntryStartPeriod	Number	X					
ExcelEntryEndPeriod	Number	X					
FullLabel	Text		X	X			
FullName	Text		X	X			
SubLabel	Text		X	X			
SubName	Text		X	X			
EntityCurrency	Text		X				
OverrideCurrency	Text		X				
EntityFormula	Text		X				
ConsolidationFormula	Text		X				
IsElimination	True/False		X	X			
IsIntercompany	True/False		X	X			
isSubentity	True/False		X				
IsEntity	True/False		X				
IsConsolidated	True/False		X				
AccountTypeLabel	Text			X			
IsFlow	True/False			X			
IsCredit	True/False			X			
IsConsolidated	True/False			X			
CurrencyRateTypeLabel	Text			X			
IsIntercompany	True/False			X			
IsElimination	True/False			X			
IntercompanyDifferenceAccount	Text			X			
IntercompanyEntity	Text			X			
Precision	Number			X			
SubaccountTable	Text			X			
IsAccount	True/False			X			
IsSubaccount	True/False			X			
XRBLTags	Text			X			

How to determine whether you have 32-bit or 64-bit Excel

Excel 2010

Select the **File** tab from the Excel ribbon and then select **Help**.

Your version of Excel will appear under **About Microsoft Excel**.
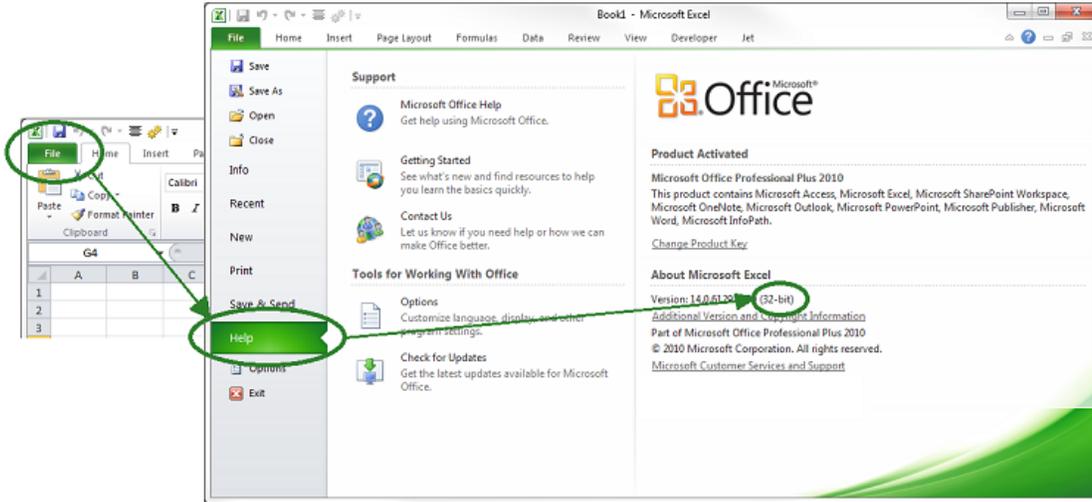
Excel 2013/2016

Select the **File** tab from the Excel ribbon, then select **Account** > **About Excel**.

Your version of Excel will appear in the top line of the window