Working with User Controlled Attributes & Master Data Import Stratum. Viewer 7



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Definitions

- Corporate Controlled Attribute
- Regular Measure Item

- <u>Target Dimension For Master</u> Data Import
- User Controlled Attribute

Getting Started

Access To Master Data Import

Security and view administrators have full access to Master Data Import functionality. Administrators have access to this functionality from a Master Data Import option in the Analyst Tools menu off of the main menu in Stratum.

Advanced and casual users can access some Master Data Import features if administrators given them direct access to the Master Data Import window – and in that case, they can only work with their own master data imports. The Master Data Import option will not display in the left panel for advanced and casual users, but there are two options for giving access to those types of users. Administrators can set up a global user link that points to the Data Import window and add it to the view groups of the applicable advanced or casual users who need access to Data Import. Or, administrators can send those users a direct URL to the Master Data Import window.

Note: Master Data Import functionality requires a Stratum Analyst Hub license and is available only for Stratum. Viewer implementations where Stratum. Server is running on a Windows server. It is not available for implementations running Stratum. Server on an IBM i Server.

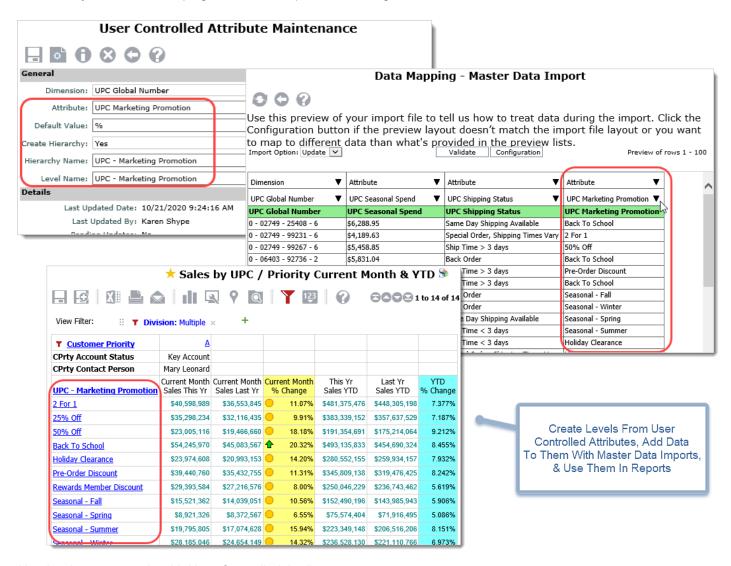
Access To User Controlled Attribute Maintenance

Security and view administrators have full access to User Controlled Attributes functionality. Administrators have access to this functionality from a User Controlled Attribute option in the Manage Things menu off of the main menu in Stratum.

Note: User Controlled Attributes functionality is available only for Stratum. Viewer implementations where Stratum. Server is running on a Windows server. It is not available for implementations running Stratum. Server on an IBM i Server.

Introduction To User Controlled Attributes & Master Data Import

User Controlled Attributes gives you the ability to define and populate master data that supplements existing core Stratum data. Add new attributes on-demand that can be used to describe Stratum dimensions and support new levels of data summarization – as done in the example below. A new attribute for the UPC Global Number dimension had a hierarchy created for it, which is then used in the rows of a YTD sales report. Master Data Import is used to update those attributes with current data and is a quick way to add new dimension key values into the Stratum Data Hub. Security built into the Data Hub maintains the integrity of attributes originating from corporate business systems while keeping track of the separate incoming streams of data for User Controlled Attributes.



Here's what can you do with User Controlled Attributes:

- Add Attributes To Compliment Corporate Data Attributes provide additional descriptive details about
 your dimensions. Examples are Marketing Promotions and Product Groupings that are controlled and
 managed outside of your corporate systems.
- Import Master Data Anytime Update or replace data for User Controlled Attributes. In seconds, import
 master data from Excel spreadsheets. Do so without IT assistance and without waiting for the next
 scheduled database update.
- **Define New Data Summarizations** Group data into new analytical categories by creating virtual hierarchies from User Controlled Attributes. This makes the attribute available as a level to use in rows / columns of Viewer reports. See data summarized by attributes via their virtual levels. Use them the same as all other Stratum levels. Drill, filter, build calculations, and more. Master data imported for attributes will

- populate their virtual hierarchies. For example, create a Customer Parent roll-up for Customer Sold-To's as an avenue for swiftly linking like customers together.
- Add New Dimension Key Values Master Data Import functionality enhances Budget and Forecasting tasks. Add new key values for items you need to plan on that do not exist yet in corporate business systems. Is there a new Product under development that you need to account for in next year's plan? Include rows with dimension key values in the Excel file for a Master Data Import. The import adds the new key values to Stratum. Then use Viewer's Planning or Data Import to populate the items with budget / forecast measure data.

Master Data Import Requirements Checklist

A Stratum implementation that uses Master Data Import must meet the following server and software requirements. With these conditions met, administrators can finalize the setup of Master Data Import in Stratum Viewer – see the topic Master Data Import Initial Setup Checklist. Then, Master Data Imports can be added and processed by users.

- 1. The Stratum.Server application for the implementation must be on a Windows SQL server. Master Data Import is not available for implementations running Stratum.Server on an IBM i Server.
- 2. Stratum.Connector and Stratum.Viewer must be upgraded to version 7.2 or greater. If they aren't at 7.2 yet, obtain the necessary software and upgrade as you have in the past using the separate install/upgrade guide for instructions.
- 3. The Stratum.Viewer implementation must have a valid license for the Stratum Analyst Hub. If you don't have the Stratum Analyst Hub, contact your Silvon Sales Representative at (800) 874-5866 or email us at info@silvon.com. A registration key for a valid license must be specified in the Stratum Analyst Hub section of the Viewer Application window.

Master Data Import Initial Setup Checklist

Here's a few things administrators need to do in Stratum. Viewer and Stratum. Connector to prepare Master Data Import functionality for users. After this setup has been completed, users can access Master Data Import features in Stratum. Viewer to add and process their master data imports.

1. Stratum. Viewer Application Settings -

- Verify a registration key is specified in the Stratum Analyst Hub section of the Application window. Master Data Import is part of the Stratum Analyst Hub.
- Specify an upload file location for Master Data Imports using the Master Data Import property in the Stratum Analyst Hub section of the Application window. Copies of import data files are stored in that location. Import files are your Microsoft Excel files that contain imported data. See Specify Upload Location.

2. Stratum.Connector Parameter Settings -

- Review The "Process Pending User Controlled Attribute Update" Settings Properties in that section
 of the General tab in Connector's Parameter Settings window determine how pending changes for User
 Controlled Attributes added or edited in Stratum. Viewer are treated by Limited and Standard processes.
 Setting a process type to No means it won't process any pending changes. Setting a process type to Yes
 means pending changes will be processed. The process will check for pending changes then switch to a
 Full process if changes are found so all changes can be processed. See Connector help for complete
 details.
- Review The "User Controlled Attribute Update Notification" Settings Properties in that section of the
 Email tab in Connector's Parameter Settings window control the email that's sent when a Stratum. Viewer
 user has added, made changes to, or deleted a User Controlled Attribute. The email tells the recipient that
 a Full process may be required in Connector to process the change.

- 3. Stratum.Connector's Consolidation Writeback Process --- If you are using Master Data Import and the Planning application to update the Stratum warehouse, make sure that your custom Consolidation Writeback process for Stratum Connector runs the LOADOLAP and CRTOMAST commands.
 - Master Data Import allows users to import data for dimension key values that don't exist in a Mast table. When a key value does not exist, then a key value will be added to the UCA Master and MembersN tables.

Note: The dimension key value is NOT added to the MASTER and MAST tables.

- Once the dimension key value is added using Master Data Import, users can add planning data for that key value. This means that there will be transactions in the Planning Writeback tables for key values that don't exist in the Mast table.
- The custom Consolidation Writeback process for Connector needs to run the LOADOLAP and CRTOMAST commands so that any new dimension key values will be properly added to the Mast table.

Tasks – Setting Up User Controlled Attributes

Add A User Controlled Attribute To Stratum

- 1. Click Manage Things then User Controlled Attribute from the main menu in the top panel of Stratum.
- 2. In the <u>User Controlled Attribute list window</u>, click New User Controlled Attribute



- 3. Set up the properties for the new attribute in the User Controlled Attribute Maintenance window.
 - **Dimension** Choose the dimension to which you want the attribute added.
 - Attribute Enter a name for the attribute.
 - Default Value Specify a character(s) to display as the default value for the attribute. That value will be used for key values that do not yet have data for the attribute. When you see the default value for an attribute in a view, that indicates data does not currently exist for the attribute. For example, if you have not imported data for the attribute using Master Data Import functionality, all key values will be set to the default value. This property defaults to "?" but you can customize it to any text you prefer to use, up to 50 characters.
 - Create Hierarchy? Optionally create a hierarchy based on the new attribute. Creating a hierarchy for it lets you see your data summarized by that attribute by making the attribute available as a level that can be included in rows / columns of a view. "Yes" will create it and enable the name fields below it. You can customize the name of the hierarchy and the level that gets created for it. Names must be different than the attribute on which they are based. The hierarchy and level name default to the name of the dimension for the attribute followed by the name given to the attribute. "No" will skip creating the hierarchy.
- 4. Save properties for the new attribute. You are returned to the list window where the addition shows with a Pending Updates status of Yes. The attribute will be added and available in Stratum Viewer after the next Full process occurs in Stratum. Connector. Contact your Stratum administrator for information about when the next Full process is scheduled.

Create A Hierarchy Based On A User Controlled Attribute

Creating a hierarchy for an attribute lets you see your data summarized by that attribute by making the attribute available as a level that can be included in rows / columns of a view. Data imported into the attribute will populate the hierarchy/level created off the attribute. Use the new level in rows or columns of a view as you would any other level

- 1. Click Manage Things then User Controlled Attribute from the main menu in the top panel of Stratum.
- 2. In the User Controlled Attribute list window, select the attribute you previously added and click Edit



- Select "Yes" for Create Hierarchy property when the attribute opens in the <u>User Controlled Attribute</u> Maintenance window.
- 4. Enter a name for the hierarchy and its level. The names must be different than the attribute on which they are based.
- 5. Save the changes. You are returned to the list window where the change shows with a Pending Updates status of Yes. The hierarchy and level will be added and available in Stratum. Viewer *after* the next Full process occurs in Stratum. Connector. Contact your Stratum administrator for information about when the next Full process is scheduled

Note: Steps above show how to edit an attribute you already added to create a hierarchy from it. You also can create the hierarchy when first adding the attribute. See <u>Add A User Controlled Attribute To Stratum</u>.

Process Pending User Controlled Attribute Additions/Changes (Uses Stratum.Connector)

Adding or changing a User Controlled Attribute is done in Stratum. Viewer. Those additions and changes won't be reflected in Stratum. Viewer until a Full process has been done by Stratum. Connector. A Full process can be scheduled to occur on a regular basis, done in batch, or kicked off manually in Stratum. Connector. Emails configured in Stratum. Connector notify your administrator when Viewer users add or change a User Controlled Attribute. The emails tell the recipients that there are pending changes to process. The timing of when a Full process happens should be done when it won't impact the use of Viewer. Users will not have access to views or most administrator features in Viewer during a Full Process.

See the Connector help for details about parameters and processes managed in that application.

Note: See also Master Data Import Initial Setup Checklist.

Tasks - Importing Master Data For User Controlled Attributes

Specify Upload File Location For Master Data Imports

- 1. Click Manage Things then Application from the main menu in the top panel of Stratum.
- 2. Scroll to the Upload File Location properties in the Stratum Analyst Hub section of the Application window.
- 3. Use the Master Data Import property to specify the path for the folder that will be used by Master Data Imports. The Master Data Import location is used when importing values into User Controlled Attributes.

- When specifying the location, use the full UNC path format \host-name\share-name\file_path\ and include
 a backslash mark \ as the final character. For example:
 \serverabc\D\$\User Controlled Data\Uploaded Import Files\
- The location must be one that exists already and one to which your implementation's Viewer Impersonation account has access rights.

4.	Save	the changes

Import Master Data For User Controlled Attributes

- 1. Click Analyst Tools then Master Data Import from the main menu in the top panel of Stratum.
- 2. In the Master Data Import list window, click New
- 3. When prompted, choose the Excel file to import. Then click Open.
- 4. Use the <u>Import Configuration window</u> to select the Target dimension for the import and make other selections that tell Master Data Import about data in the file. The Target dimension has the User Controlled Attributes where imported data is meant to be added, and the selection impacts the attributes available during Step 5.

Note: Once you have done a few imports, Master Data Import learns about your import data habits and can do some automatic configuration and Data Mapping. When that happens, the Import Configuration window is bypassed. You can open it anytime by clicking the Configuration button in the Data Mapping window.

- Import Option Choose Update or Replace. An Update will update existing data and add any new data included in the import file. A Replace clears existing data for all of the User Controlled Attributes that belong to the import's Target dimension then adds data from the import file to the applicable attributes. Care should be taken when using a Replace since it removes data for all of a dimension's User Controlled Attributes even if the attributes aren't included in the import file. If there is existing data you don't want to lose, then set the import configuration to Update instead of Replace. See also When To Do An Update Vs. When To Do A Replace For Your Master Data Imports.
- Target Dimension The Target dimension is the one with the attribute(s) that will receive imported data.
 User Controlled Attributes from that dimension will be available to select when you map imported data to Stratum.
- **Header Rows In File** Specify how many header rows are in the import file. Header rows contain descriptive details that aid you in mapping but do not get imported. For example, the row(s) contain dimension names, descriptions, or attribute names.
- 5. Use the <u>Data Mapping window</u> to finish telling Stratum what dimensions and attribute data are in the import file. Drop-down lists are provided at the top of the data preview. Use them to make mapping selections.
 - **Ignore** For any columns you don't want considered, select Ignore.
 - **Dimension** Choose Dimension for the column that contains the dimension key values, then use the Select A Target drop-down list to select the name of the Target dimension for the data.
 - Attribute Choose Attribute for columns that contain attribute data (values), then use the Select A Target drop-down list to select the name of the Target attribute for the data.
- 6. Click the Validate button to check that import data is in the proper format and contains the needed details to proceed.
- 7. Master Data Imports are meant to be processed after you are done mapping their data to Stratum. Click the Submit The Master Data Import For Processing icon. When prompted, confirm that you want to proceed with the process.

Adjust Data Mapping And Import Configuration For Master Data Import

You can edit an import's mapping and other configuration details at any time while previewing the data.

Configuration

To adjust general import properties like the Target dimension, click the Configuration button. Use the Import Configuration window to make changes, then click OK.

- Import Option Choose Update or Replace. An Update will update existing data and add any new data included in the import file. A Replace clears existing data for all of the User Controlled Attributes that belong to the import's Target dimension then adds data from the import file to the applicable attributes. Care should be taken when using a Replace since it removes data for all of a dimension's User Controlled Attributes even if the attributes aren't included in the import file. If there is existing data you don't want to lose, then set the import configuration to Update instead of Replace. See also When To Do An Update Vs. When To Do A Replace For Your Master Data Imports.
- **Target Dimension** The Target dimension is the one with the attribute(s) that will receive imported data. User Controlled Attributes from that dimension will be available to select when you map imported data to Stratum.
- Header Rows In File Specify how many header rows are in the import file. Header rows contain
 descriptive details that aid you in mapping but do not get imported. For example, the rows contain
 dimension names, descriptions, or attribute names.

Mapping

Use the provided drop-down selection lists in the preview to adjust mapping for each column in the import.

- **Ignore** For any columns you don't want considered, select Ignore.
- **Dimension** Choose Dimension for column that contains the dimension key values, then use the Select A Target drop-down list to select the name of the Target dimension for the data.
- **Attribute** Choose Attribute for columns that contain attribute data (values), then use the Select A Target drop-down list to select the name of the Target attribute for the data.

Delete a Master Data Import

- 1. Click Analyst Tools then Master Data Import from the main menu in the top panel of Stratum.
- 2. In the Master Data Import list window, select the Master Data Import you need to delete.
- 3. Click Delete S.
- 4. Click Yes in the prompt that displays to proceed with the deletion.

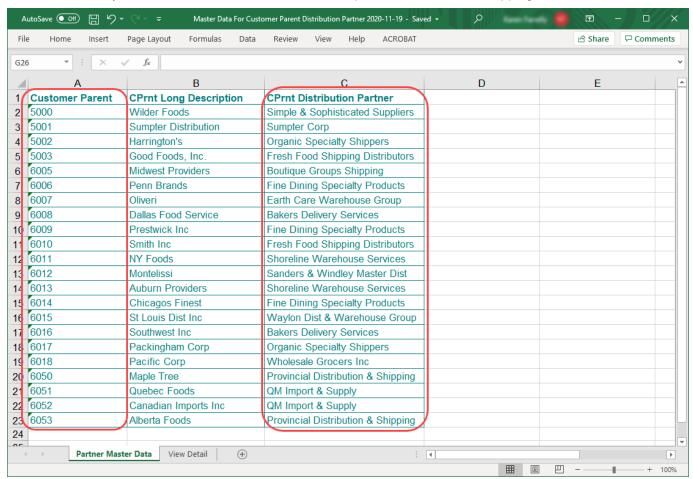
Import File Setup & Examples

Import Data For Single User Controlled Attribute

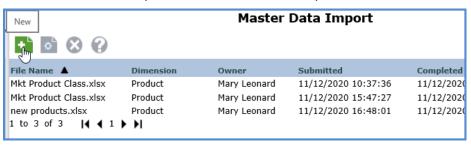
This view contains a "Distribution Partner" User Controlled Attribute that was created for the Customer Parent dimension. This example will show master data being imported to populate the attribute with data.

★ Sales by Customer Parent									
View Filter: # RepBroker: Multiple × +									
Customer Pare		CPrnt Distribution Partner	Actual Sales Amount	Actual Sales Return Amount	Sales After Returns				
5000	Wilder Foods	?	\$6,855,423,729	(\$55,695,398)	\$6,711,895,521				
5001	Sumpter Distribution	?	\$1,898,425,417	(\$40,429,542)	\$1,864,313,623				
5002	Harrington's	?	\$3,009,239,993	(\$38,851,820)	\$2,962,646,046				
5003	Good Foods, Inc.	?	\$2,492,017,550		\$2,454,810,986				
6005	Midwest Providers	?	\$435,349,922	(\$9,657,062)	\$428,297,334				
6006	Penn Brands	?	\$535,114,379	(\$12,335,779)	\$526,653,133				
6007	Oliveri	?	\$804,857,876	(\$18,207,034)	\$789,983,617				
6008	Dallas Food Service	?	\$221,068,080	(\$5,618,071)	\$217,432,126				
6009	Prestwick Inc	?	\$461,253,044	(\$10,245,029)	\$453,364,978				
6010	Smith Inc	?	\$221,735,020	(\$6,203,748)	\$218,010,043				
6011	NY Foods	?	\$234,484,912	(\$4,419,089)	\$230,744,232				
6012	Montelissi	?	\$182,311,244	(\$5,434,565)	\$179,344,822				
6013	Auburn Providers	?	\$190,343,561	(\$6,242,803)	\$187,258,969				
6014	Chicagos Finest	?	\$294,095,820	(\$5,974,907)	\$289,540,961				
6015	St Louis Dist Inc	?	\$239,053,005	(\$6,713,245)	\$235,189,362				
6016	Southwest Inc	?	\$316,841,712	(\$6,139,052)	\$311,737,337				
6017	Packingham Corp	?	\$232,102,356	(\$7,639,327)	\$228,392,482				
6018	Pacific Corp	?	\$198,442,293	(\$5,269,047)	\$195,262,336				
6050	Maple Tree	?	\$200,691,863		\$197,425,255				
6051	Quebec Foods	?	\$263,533,537	(\$4,993,940)	\$259,477,918				
6052	Canadian Imports Inc	?	\$241,255,957	(\$7,871,756)	\$237,332,333				
6053	Alberta Foods	?	\$224,217,288		\$220,599,075				
Grand Total			\$19,751,858,558	(\$301,390,581)	\$19,399,712,491				

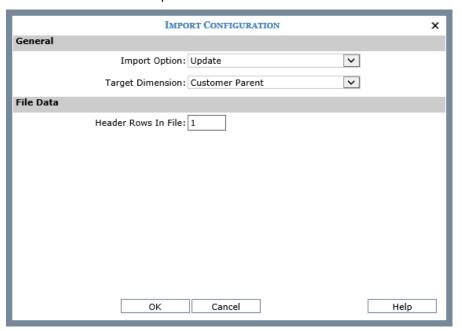
An import file containing key values for the associated dimension and master data values for the attribute was set up in Excel. One column has dimension key values while the other has attribute values. A heading row contains names that identify information in the columns, which is helpful to the user when mapping data into Stratum.



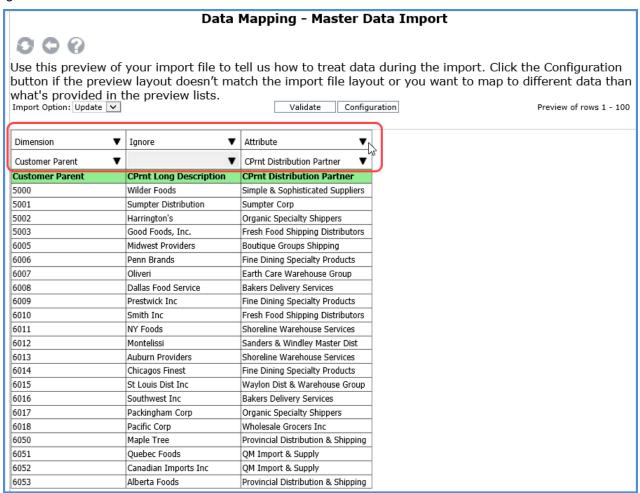
The user initiates the import from the Master Data Import list window.



After choosing the Excel file for the import, the user provides basic import configuration details including which dimension to use in the import.



Then, the user maps the import data to Stratum. The mapping window has drop-down lists to define the type of information in each column, where in Stratum to import data from the import file, and which columns, if any, to ignore in the file.



Imported data can be used in views as soon as the import completes processing. Here is the view from earlier in the example, showing the "Distribution Partner" User Controlled Attribute populated with the imported master data.

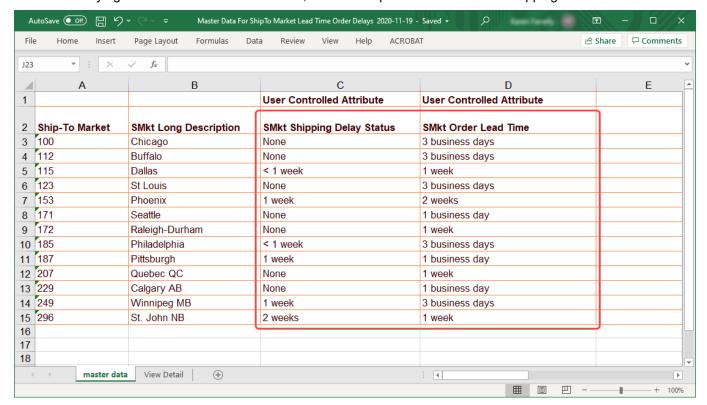
★ Sales by Customer Parent									
View Filter: RepBroker: Multiple × +									
Customer Pare	ent CPrnt Long Description	CPrnt Distribution Partner	Actual Sales Amount	Actual Sales Return Amount	Sales After Returns				
5000	Wilder Foods	Simple & Sophisticated Suppliers	\$6,855,423,729	(\$55,695,398)	\$6,711,895,521				
5001	Sumpter Distribution	Sumpter Corp	\$1,898,425,417	(\$40,429,542)	\$1,864,313,623				
5002	Harrington's	Organic Specialty Shippers	\$3,009,239,993	(\$38,851,820)	\$2,962,646,046				
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Grand Total			\$19,751,858,558	(\$301,390,581)	\$19,399,712,491				

Import Data For Multiple User Controlled Attributes

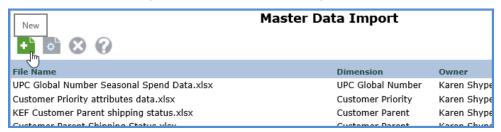
Master data can be imported for multiple User Controlled Attributes at that same time, as long as they belong to the same dimension. Here is a view containing two User Controlled Attributes for Ship-To Market. Their default value of "?" shows in the view since no data has been imported yet. This example will show master data being imported to populate both attributes with data.

★ Distribution Sales, Costs by Ship-To Market											
Image: Second of the secon											
			Distribution Center Warehouse	Omaha	Omaha	Omaha	Omaha	Charlotte	Charlotte	Charlotte	Cha
<u>Ship-To</u> <u>Market</u>	SMkt Long Description	SMkt Shipping Delay Status	SMkt Order Lead Time	Budget ASP Frozen Current Month/Yr	Sales Units Current Month/Yr	Ext Standard Cost Current Month/Yr	Avg Sell Price Current Month/Yr	Budget ASP Frozen Current Month/Yr	Sales Units Current Month/Yr	Ext Standard Cost Current Month/Yr	Avg Pi Cui Mor
100	Chicago	?	?	\$116,798.68	605,275	\$21,494,231	\$54.09	\$120,702.43	638,721	\$23,484,863	\$
112	Buffalo	?	?	\$106,426.05	743,410	\$26,955,363	\$52.29	\$101,234.33	722,335	\$27,229,819	\$!
<u>115</u>	Dallas	?	?	\$96,118.53	330,929	\$12,175,833	\$57.86	\$91,420.06	394,384	\$16,533,229	\$(
123	St Louis	?	?	\$100,165.09	948,391	\$36,586,796	\$52.82	\$103,423.02	1,253,709	\$48,131,924	\$
<u>153</u>	Phoenix	?	?	\$80,774.75	361,809	\$15,080,848	\$64.81	\$85,123.08	363,367	\$13,876,535	\$
<u>171</u>	Seattle	?	?	\$79,438.39	404,784	\$15,153,515	\$59.29	\$73,925.55	319,200	\$12,799,799	\$
<u>172</u>	Raleigh-Durharn	?	?	\$107,598.23	499,440	\$19,526,501	\$54.66	\$120,964.65	620,669	\$23,630,837	\$
<u>185</u>	Philadelphia	?	?	\$86,182.52	534,123	\$20,272,073	\$53.87	\$76,619.39	583,375	\$22,553,967	\$!
187	Pittsburgh	?	?	\$43,501.93	103,544	\$4,302,948	\$59.53	\$41,117.40	164,892	\$7,562,591	\$(
207	Quebec QC	?	?	\$94,122.66	581,588	\$22,442,621	\$54.58	\$119,143.34	681,421	\$26,743,905	\$
229	Calgary AB	?	?	\$93,500.90	580,214	\$20,528,907	\$54.09	\$89,516.86	394,934	\$15,067,517	\$!
<u>249</u>	Winnipeg MB	?	?	\$86,466.49	482,122	\$20,993,451	\$65.64	\$79,527.81	373,263	\$15,318,962	\$6
<u>296</u>	St. John NB	?	?	\$34,772.34	143,679	\$5,655,364	\$68.72	\$33,452.05	121,092	\$4,487,239	\$!
Grand Total	1			\$1,125,866.55	6,319,309	\$241,168,450	\$56.21	\$1,136,170.00	6,631,362	\$257.421.188	\$!

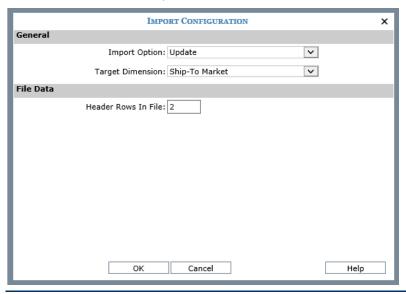
An import file containing key values for the associated dimension and master data values for the attributes was set up in Excel. One column has dimension key values while the others have attribute values. Two heading rows contain identifying information about the columns, which is helpful to the user when mapping data into Stratum.



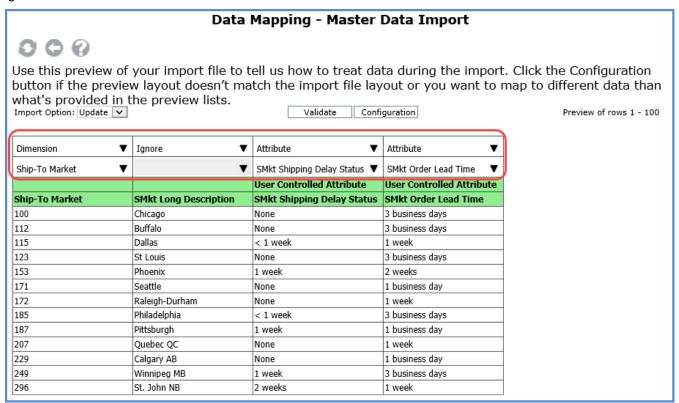
The user initiates the import from the Master Data Import list window.



After choosing the Excel file for the import, the user provides basic import configuration details including which dimension to use in the import.



Then, the user maps the import data to Stratum. The mapping window has drop-down lists to define the type of information in each column, where in Stratum to import data from the import file, and which columns, if any, to ignore in the file.



Imported data can be used in views as soon as the import completes processing. Here is the view from earlier in the example, showing the two Ship-Market attributes populated with their imported master data.

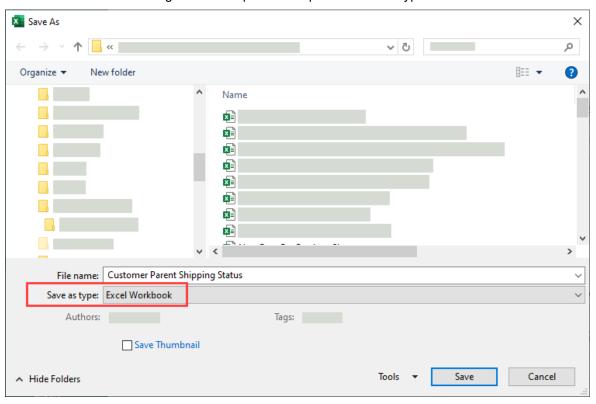


Tips For Setting Up Your Master Data Imports

The first step in prepping for a master data import is to collect your data into an Excel file. Familiarize yourself with the following tips and revisit this topic for guidance while setting up import files for Data Imports.

Save File As "Excel Workbook"

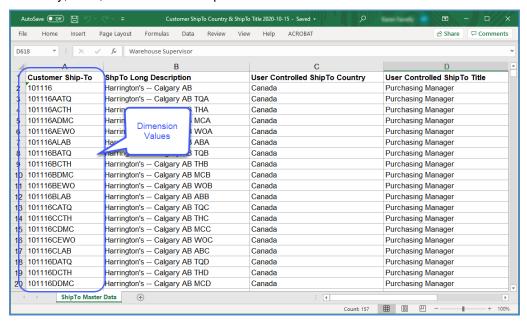
Save your file as an Excel Workbook file type and to a location that you can access while signed onto Stratum. Viewer. Avoid using the Strict Open XML Spreadsheet file type.



Include Dimension Key Values and Master Data Values

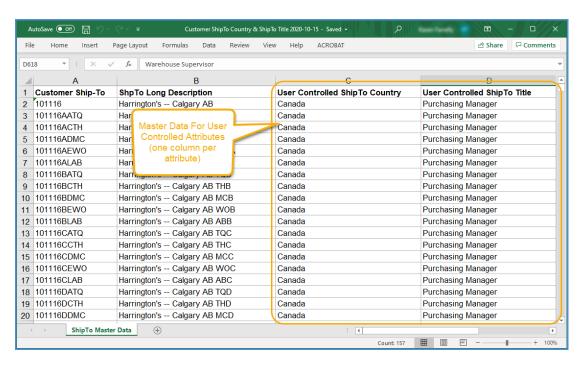
Your import file must include dimension key values and master data values.

• Target Dimension and Dimension Key Values – One column needs to contain the import dimension's key values. Use a name at the top of the column that helps you identify the associated Stratum dimension, such as the name that shows up for the dimension in Viewer. Examples of dimensions are Product, Inventory, UPC, and Customer Ship-To.



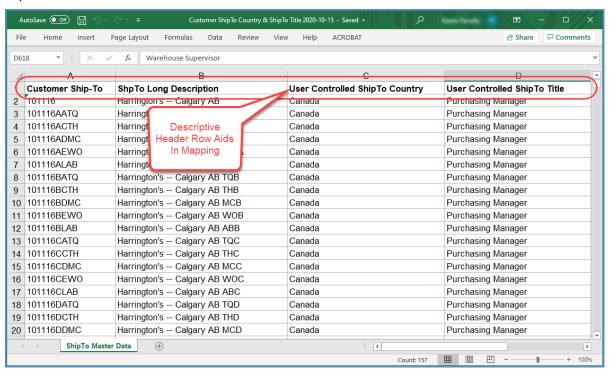
Note: If your import contains columns of descriptive info about the dimension that you don't plan to use for the import (such as some of its Corporate Controlled Attributes), you can tell Master Data Import to ignore the columns.

• Master Data Values For User Controlled Attributes – Include a column for each User Controlled Attribute where data will be imported. Use a name at the top of each column that helps you identify the associated attribute. If you include columns for more than one User Controlled Attribute, make sure they belong to the same dimension. Imports handle a single dimension at a time.



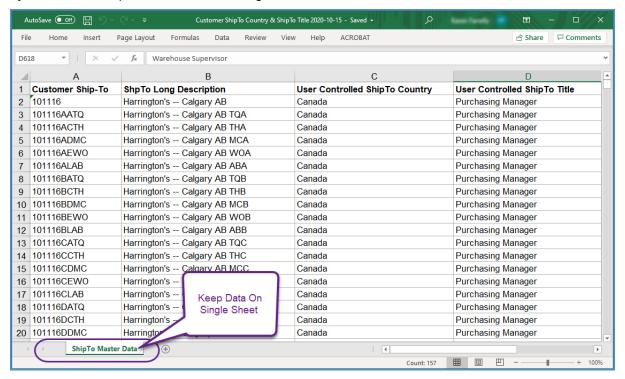
Use Descriptive Info In Header Row(s) To Help Map To Stratum Data

Identifying information about the data contained in each column of your file can be included in the header row(s) of your import file. They help identity what is in each column – saving you time as you map columns or mark them to be ignored while setting up your import. The example shown in the next image uses one header row. You can use more than one header row if needed. All header rows must be located at the top of your file, above the rows of import data.



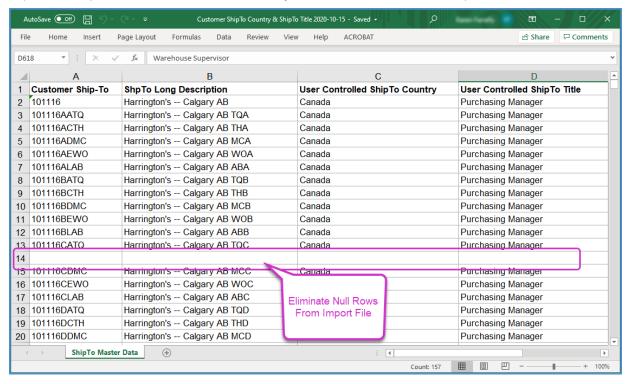
Keep Data On Single Worksheet

The data for your import needs to be in the first worksheet of your import file. Only the first worksheet is considered by Master Data Import and all others are ignored.



Avoid Null Rows (They're Treated As The End of an Import)

Make sure you don't have a null row interspersed with rows of data in your import file. A Null row is a row without any data (note that a cell with all blank spaces or with zeroes in it is not considered null). The first null row that Master Data Import encounters in an import file will be treated as the end of your file. Master Data Import stops looking for data to import once it finds a null row. In this example, you'd want to remove row 14. If you don't, the import will stop at that row and not consider any of the rows of data after that point.



Exclude Unnecessary Extras

Certain types of information should be excluded either because they don't make sense for an import, aren't necessary for an import, could disrupt the upload process*, or could throw off the integrity of the import such as bring in unwanted data.

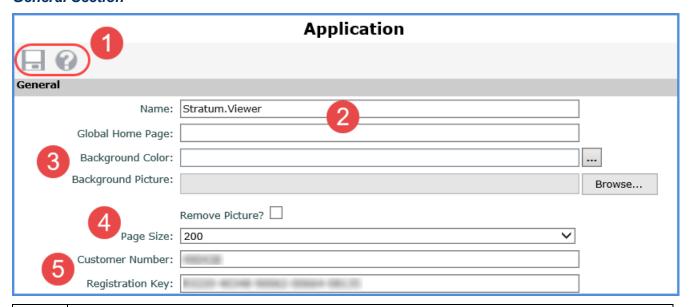
- Exclude measure values, grand totals, and subtotals. Only include dimension and master data in import files
- **Delete any hidden rows from the Excel file**, otherwise they will show up in the data import preview and be included in the data that gets imported. If you don't want data from hidden rows, delete the rows from the Excel file before you import it.
- **Delete hidden columns from the Excel file**, otherwise they will show up in the data import preview. If you don't want data from hidden columns included in your import, delete the columns from the Excel file before you import it OR mark the columns as Ignore when mapping the data.
- In cases where you use an exported Stratum. Viewer view as the starting point when creating an import file, it is recommended that you disable or exclude the following Viewer features before exporting the view.
 - "All Others" rows or columns related to filtering.
 - Conditional format icons or formatting.
 - o Charts.
 - Hyperlinks.
 - o Calculated measure items that return images.
 - Pop-up labels on measure items.
 - o Drilldown views linked up to rows, columns, or measure items.
- Also consider excluding specialty Excel items like the items listed below.
 - Images.

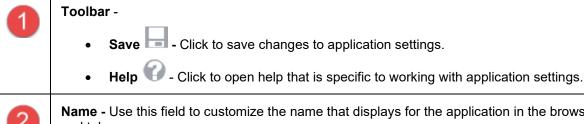
- Charts.
- Cell borders.
- Comments or notes.
- Excel features such as text boxes.

Windows

Application Window

General Section





Name - Use this field to customize the name that displays for the application in the browser title bar and tab.

Global Home Page - Use this field to define a custom, global home page for Stratum.Viewer. The home page can open to a web site, document, directory, or other supplementary information that would be meaningful for users.

If you leave this field blank, the application home page defaults to a Stratum home page that has links to Stratum. Viewer videos and other resources.

If needed, administrators can define different home pages for particular users or user groups through settings in the User Profile or User Profile Group windows.

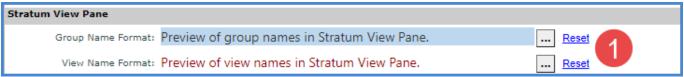
Background Color and Background Picture - Use these settings to control the background of the home page, Stratum View Pane, and view grid area. Use the respective Browse buttons to browse to a color selection window or to browse to an image file. If you choose an image file, it will repeat as needed to fill up the size of the background area.

To remove a background picture, select the Remove Picture? checkbox.

- Page Size This setting controls how many objects display per page in windows where lists of objects display. For example, the setting controls page size in the View list, User List, Role, Select Members, Select User, and Select User List Filter windows. There are many page sizes to choose from, as low as 25 or as high as 5000 objects per page.
- Customer Number This is a unique identification number for your Stratum.Viewer implementation. Contact Silvon Support at (800) 474-5866 or CustomerSupport@silvon.com mailto:if you do not have a valid customer number.

Registration Key – A valid registration key is required for licensed copies of Stratum. If you receive a message about a missing or invalid key, contact Silvon Support at (800) 474-5866 or CustomerSupport@silvon.com.

Stratum View Pane Section

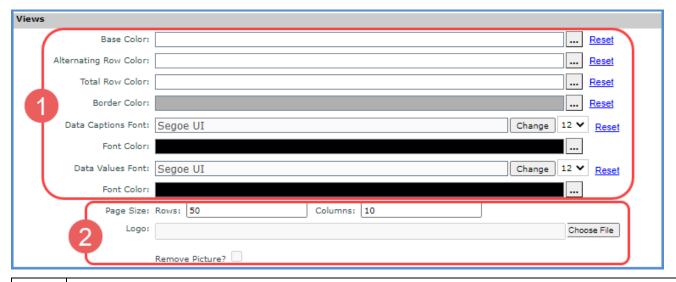


Group Name Format - This property controls the format of group names in the Stratum View Pane. Click the Browse button to open a window where you can customize group background and font color, the font and size, font style (Regular, Italic, Bold, Bold Italic), and font effect (such as underline). This property shows a preview of what your group format selections will look like once applied. Click the Reset link to restore to the default look.

View Name Format – This property controls the format of view names in the Stratum View Pane.

Click the Browse button to open a window where you can customize background and font color, the font and size, font style (Regular, Italic, Bold, Bold Italic), and font effect (such as underline). This property shows a preview of what your view name format selections will look like

Views Section



- Properties That Control Default Look Of All View Grids The properties described below control the default look assigned to the grid for all views.* Properties available to control the look of the grid are:
 - Base Color The fill color for all cells in rows and columns.

once applied. Click the Reset link to restore to the default look.

- Alternating Row Color A secondary fill color used for every other row in grid.
- Total Row Color The fill color for subtotal and grand total rows and columns.
- **Border Color** The color for borders in the grid. You can give the grid an appearance of having no visible borders by setting this Border color to be the same as the Base color for the grid. That will make the borders blend into the grid background. For example, make borders white if the Base color is white.
- **Data Captions Font** The font, font size, and font color used for captions of measure items, levels, and attribute relationships in the grid.
- Data Values Font The font, font size, and font color used for values of measures in the grid.

If you want to revert a property back to its default, click Reset for the property. Resetting all properties reverts to a default look of white for the base, alternating, and total row fill colors; light gray borders; font settings of Segoe UI/Black/12pt for all captions; and font settings of Segoe UI/Black/12pt for all measure item values in the grid.

*Note: All of these properties can be overridden by users in their individual views.



Page Size, Rows and Columns - Controls how many rows and columns display per page for views that use paging. Enter a numeric value in the Rows and Columns fields. Security administrators can define different view page sizes for particular users through User Profile settings. Individual users can override administrator settings and define their own, custom view page sizes for all views through an override setting in their User Options or for individual views through a view's Display Options.

Logo – Optionally specify an image to display as a logo in views. The image will display near the view name in the grid when users run views. Click the Choose File button to navigate to the image, then click Open in the Choose File window to upload a copy of the image. The image file will be copied to the Viewer application folder. To remove a logo, select the Remove Picture? checkbox.

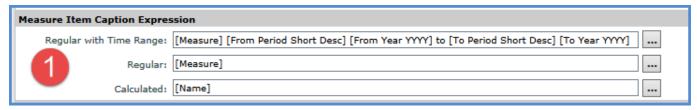
Excel Files Section





Font Name and Size – Click the Change button and use the Select Font window to control the font type for data for Excel spreadsheets generated by Stratum. Viewer's Export to Excel and Stratum Broadcast Manager functionality. To control the font size of that data, enter the numeric size in the Font Size field.

Measure Item Caption Expression Section





Settings in the Measure Item Caption Expression section control the captions that will be assigned to new measure items created in views by default. Users can customize captions within each view if they prefer a caption other than the application default. If you change the application default, the captions of existing measure items will remain as is. Only new measures items added to views after your change will be assigned the new default. You can set up unique caption defaults for each type of measure item.

The fields in this section are read only, but you can click the Browse button next to each field to access the <u>Caption Expression window</u> and customize the caption default. See also <u>Edit</u>

Application Defaults for Measure Item Captions.

• **Regular with Time Range** - The expression that will determine caption defaults of regular measure items with time ranges. The default will be the following unless you make adjustments to this application setting.

[Measure][From Period Short Desc] [From Year YYYY] to [To Period Short Desc] [To Year YYYY]

 Regular - The expression that will determine caption defaults of regular measure items without time. The default will be the following unless you make adjustments to this application setting.

[Measure]

 Calculated - The expression that will determine caption defaults of calculated measure items. The default will be the following unless you make adjustments to this application setting.

[Name]

Stratum. Viewer Server Section



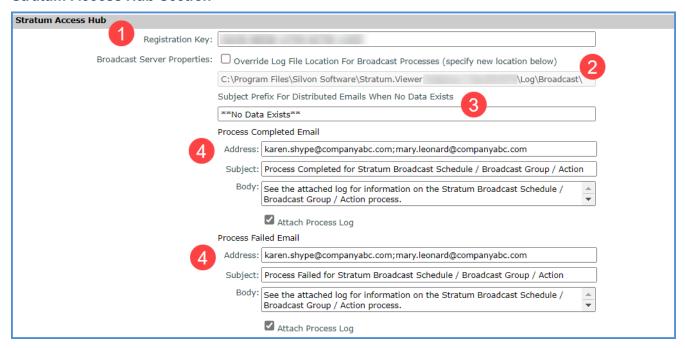


SMTP Server - This setting controls how Stratum. Viewer delivers the emails that it generates. The property defaults to a "localhost" value, in which case Stratum. Viewer emails will be delivered using the SMTP configurations for the server where Stratum. Viewer resides.

If you plan to use an SMTP server other than the default for delivering Stratum. Viewer generated emails, enter that server name in the SMTP Server field. Enter the server name in a format that will be recognized by your network. For example, the server name or IP address or in the format of server name.network name.com.

Note: If you are not sure which default SMTP server is used for the Stratum. Viewer server, access Microsoft Internet Information Services Manager on the server and look at the Default SMTP Virtual Server settings.

Stratum Access Hub Section



- Registration Key A valid key is required to activate licensed copies of the Stratum Access Hub which includes the Broadcast Manager (controls broadcast schedules, broadcast groups, and actions processing) plus Excel and Stratum Power BI Connectors. If you receive a message about a missing or invalid key, contact Silvon Support at (800) 474-5866 or CustomerSupport@silvon.com. If your company is not using this functionality, leave this key field blank.
- Override Log File Location For Broadcast Processes This Broadcast Server property can be used to customize where log files from Broadcast Server processing are stored. The logs are from the processing of broadcast schedules, broadcast groups, and actions. By default, logs are stored in the '\Logs\Broadcast Server' sub-folder in the directory where your Stratum. Viewer implementation is installed. If you want to change the log file location, select the Override Log File Location checkbox and enter the location in the related field. The location you specify must exist already and be one to which your company's Action Processing Account has access rights.



Subject Prefix For Distributed Emails When No Data Exists – This text controls the default subject prefix for emails of actions that would generate blank results – an action where no data is available to generate a report. Those cases occur when an Email action would result in no data to send to the designated user or a File action would result in no data in the resulting shared file. For example, if there are no rows and columns returned for a view that tracks excessive returns because no rows satisfy filter criteria of YTD Return Amount greater than \$40,000.

The prefix is only used when an action's "Send Email when no Data Exists" property has been set to Yes and when no data exists. The prefix defined here will be used in the action email subject line before the rest of the Subject field text unless the user customized the prefix text for their specific action.

Note: If a user sets an action's "Send Email when no Data Exists" property to No and a no data case occurs, then no email will be generated by the action.

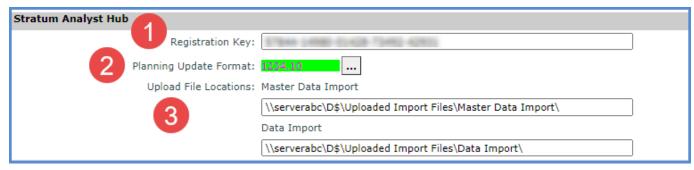


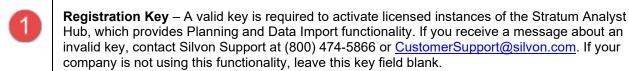
Process Completed Email / Process Failed Email – The properties in these two sections are used to automatically send emails to the designated recipients that tell them about processing of Broadcast Schedules, Broadcast Groups, and Actions. Process Completed emails indicate a process completed. Process Failed emails indicate a process failed. The emails give greater visibility into what's happening with the Stratum Access Hub's Broadcast Manager.

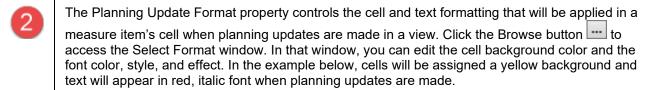
For each type of email, specify the email addresses, subject, and body text for the messages. Typical recipients will be Broadcast Manager administrators or other interest parties who need to know what's happening with the Broadcast Manager. Use a semicolon or comma to separate email addresses if you specify more than one recipient.

Processing logs can be attached to these emails to provide more detailed information about a process.

Stratum Analyst Hub Section

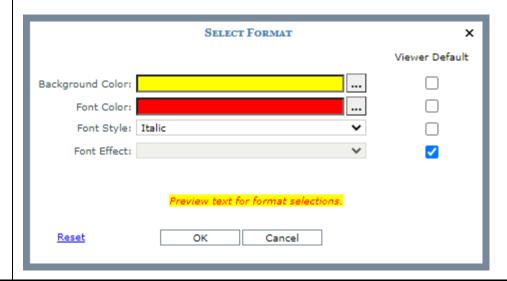






These administrative settings control the format of planning updates for all users. Security administrators can define different planning update formats for particular users through User Profile settings. Individual users can override administrator settings and define their own, custom planning format through an override setting in their User Options.

Note: The Planning Update formats only apply to pending planning changes. For example, once you submit your planning changes and the grid refreshes, changed values will display in the same standard format as other values in the grid.



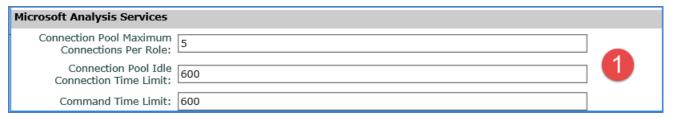


Upload File Locations – This property is applicable when Master Data Import or Data Import functionality are used with your implementation. These locations are used by Data Import and Master Data Import.

- The Master Data Import location is used when importing values into User Controlled Attributes.
- The Data Import location is used when importing values into User Controlled Measures.
- When specifying the location, use the full UNC path format \host-name\share-name\file_path\ and include a backslash mark \ as the final character. For example: \serverabc\D\$\User Controlled Data\Uploaded Import Files\

The location must be one that exists already and one for which your implementation's Viewer Impersonation account has access rights (read and write access). See account access requirements defined in the Master Data Import and Data Import sections of help.

Microsoft Analysis Services Sections





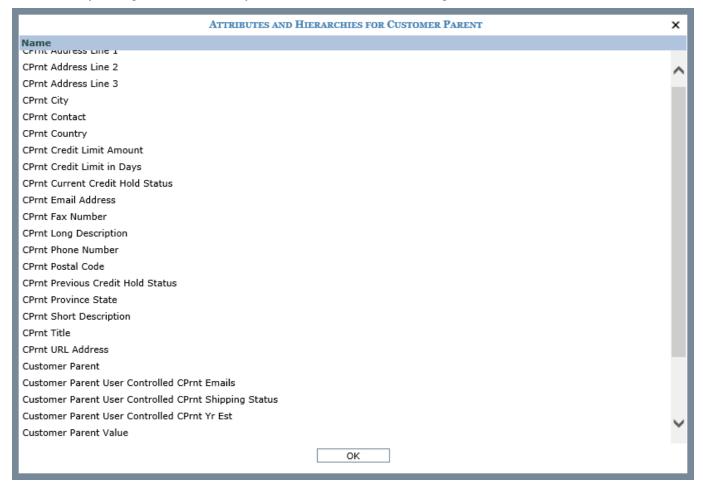
Microsoft Analysis Services -

- Connection Pool Settings Connection pools for Stratum. Viewer are managed via Stratum. Viewer rather than via Microsoft Analysis Services. To support this connection pooling, two parameters are available. The settings determine how many connection pool connections can exist for each user's role and how long idle connections can be left open before Stratum. Viewer closes them.
 - Connection Pool Maximum Connections Per Role The value for this parameter determines how many open connections will be maintained in the connection pool for each user's role. The default and recommended value is 5. That means that a

- maximum of five open data connections will be maintained in the pool for each user's role. In most cases, this setting allows for an optimal balance between the performance time of connecting to retrieve data from the Stratum.Connector Analysis Services database and the resources required on the Stratum.Viewer server to maintain the connection pool.
- Connection Pool Idle Connection Time Limit The value for this parameter determines how many seconds a connection can remain idle before its times out and is removed from the connection pool. The default and recommended value is 600. In most cases, this setting allows for an optimal balance between the performance time of connecting to retrieve data from the Stratum.Connector Analysis Services database and the resources required on the Stratum.Viewer server to maintain the connection pool.
- Command Time Limit This setting should **not** be changed unless you are directed to by Silvon Support. The setting impacts how long parts of processes handled by Stratum.Connector are given to complete those parts before the process times out.

Attributes And Hierarchies Window

This window shows all attributes and hierarchies that exist for a dimension. The window is accessible when you are working with a User Controlled Attribute in the <u>User Controlled Attribute Maintenance window</u>. The attributes and hierarchies for a dimension must have unique names. This window helps you plan out names for new attributes and hierarchies by seeing the names already used for the dimension's existing ones.



Data Mapping - Master Data Import Window

Data Mapping - Master Data Import Use this preview of your import file to tell us how to treat data during the import. Click the Configuration button if the preview layout doesn't match the import file layout or you want to map to different data than what's provided in t Import Option: Update 🗸 Preview of rows 1 - 100 Dimension ▼ Attribute ₹ Attribute Attribute ▼ Ignore ₹ Tanore ₹ ₹ Customer Priority User Controlled CPrty .. User Controlled CPrty ... ₹ - Select a Target -User Controlled CPrty Contact Email **Customer Priority CPrty Service Level CPrty Contact Person** es Sales Amount Actual Sales User Controlled CPrty Contact Person Premium Mary Leonard ,846 75,695,959 User Controlled CPrty Service Level Phil Wilson 76 Professional 5,069,254 Standard Karon Shype chypo@companyabc.com 9,416,902 Standard 2 Karen Shype kshype@companyabc.com \$532,635,185 8,416,802 Phil Wilson 8,416,802 E Professional 2 pwilson@companyabc.com \$532,635,185 8,416,802 Premium Pro Mary Leonard mleaonard@companyabc.com \$532,635,185 8,416,802 Pro Admin Gary Stevens gstevens@companyabc.com \$532,635,185 Standard Admin Karen Shype \$532,635,185 8,416,802 kshype@companyabc.com Certified Partner Ruth Garrette \$532,635,185 8,416,802 rgarrette@companyabc.com

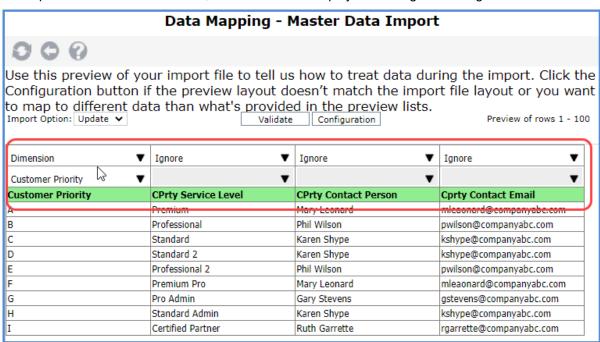


- Submit The Master Data Import For Processing - Click to process the Master Data Import. Once you confirm you want to proceed, the mapping window closes and you're returned to the Master Data Import list window.
- Exit Click to exit this window and return to the Master Data Import list window. Nothing will be saved or processed for the import you were setting up.
- Help Click to open help that is specific to working with Master Data Imports.
- Import Option Choose Update or Replace. An Update will update existing data and add any new data included in the import file. A Replace clears existing data for all of the User Controlled Attributes that belong to the import's Target dimension then adds data from the import file to the applicable attributes. Care should be taken when using a Replace since it removes data for all of a dimension's User Controlled Attributes even if the attributes aren't included in the import file. If there is existing data you don't want to lose, then set the import configuration to Update instead of Replace. See also When To Do An Update Vs. When To Do A Replace For Your Master Data Imports.
 - **Data Mapping Preview** This section shows up to a 100-row preview of your import file. The drop-down lists in the first two rows are for use in mapping import file data to Stratum use them to tell Viewer what's in each column, what to do with the data during the import, and what columns if any to ignore. Row(s) highlighted in green are the start of you import file and what you indicated to Viewer were the header rows in the file (through a property in Import Configuration).

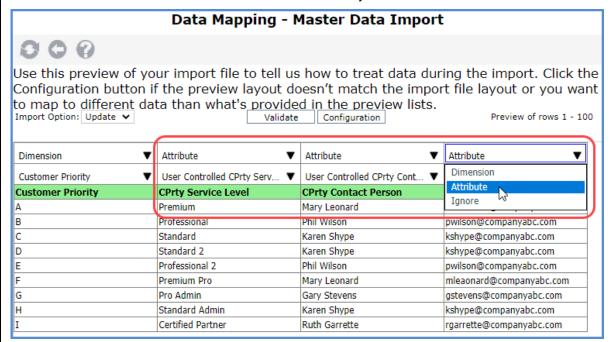
Note: Header rows contain descriptive details that aid you in mapping but do not get imported. For example, the header rows contain dimension names, descriptions, and attribute names.

This example shows a progression of identifying what's in your import file using drop-down lists in the mapping window. As you do more imports in Viewer after your initial one, some mapping may be done for you automatically based on what Viewer has learned about your prior import habits. You can change automatic selections if needed.

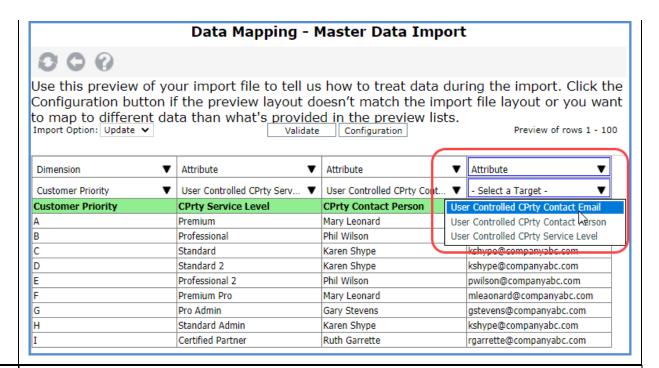
Here is the initial state of the import preview. Viewer was able to map the first column to a dimension through automatic mapping. That column mapped to the Type of Dimension and a Target dimension of Customer Priority. All other columns defaulted to Ignore. Also, Master Data Import assumed that the import file had one header row, which is the row displayed with a green background.



Drop-down lists for the next three columns were used to identify each of them as attributes. They have the values to be import for the dimension. For each column, Attribute was chosen for the type then the Target drop-down lists for each column were used to choose the User Controlled Attributes to receive the imported data. These types of attributes must be set up in advance of the import using Viewer's User Controlled Attribute Maintenance functionality.



Here's the Target attribute being selected for the last attribute column in the preview. The mapping is complete, and the user can process the import.

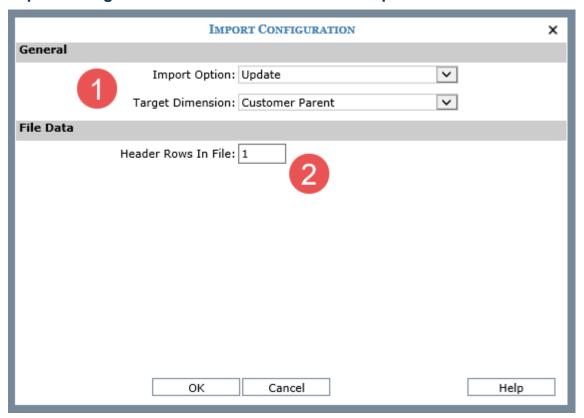




Validate – Click anytime while mapping your data to validate the mapping. If Viewer encounters something like a row that's missing key values for the Target dimension or mapping selections that are required but haven't been made yet, it will present a message about those issues.

Configuration – Click to access the <u>Import Configuration window</u>. From there, you can edit basic properties that tell Viewer how to treat the import file, the Target dimension, and how many header rows are in the import file.

Import Configuration Window For Master Data Imports





General -

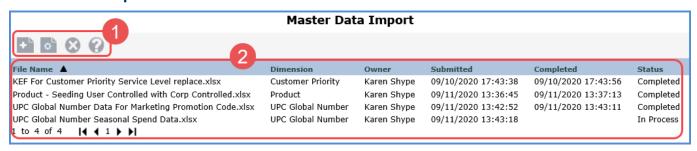
- Import Option Choose Update or Replace.
 - An Update will update existing data and add any new data included in the import file.
 - A Replace clears existing data for all of the User Controlled Attributes that belong to the import's Target dimension then adds data from the import file to the applicable attributes. Care should be taken when using a Replace since it removes data for all of a dimension's User Controlled Attributes even if the attributes aren't included in the import file. If there is existing data you don't want to lose, then set the import configuration to Update instead of Replace. See also When To Do An Update Vs. When To Do A Replace For Your Master Data Imports.
- Target Dimension The Target dimension is the one with the attribute(s) that will receive imported data. User Controlled Attributes from that dimension will be available to select when you map imported data to Stratum.

Note: Once you have done a few imports, Master Data Import learns about your import data habits and can do some automatic configuration and Data Mapping. When that happens, the Import Configuration window is bypassed. You can open it anytime by clicking the Configuration button in the Data Mapping window.



File Data – Make selections about how your file is set up. Use **Header Rows In File** to specify how many header rows are in the import file. Header rows contain descriptive details that aid you in mapping but do not get imported. For example, the row(s) contain dimension names, descriptions, or attribute names.

Master Data Import List Window





Toolbar -

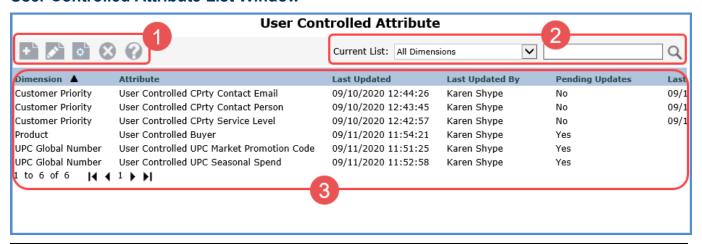
- New Click to set up a new Master Data Import, which will import data into User Controlled Attributes.
- See Processing Details For A Master Data Import

 - Select an import and then click
 this button to see a summary of all properties for the import. See also Review Processing

 Details For A Master Data Import.
- **Delete** Select an import and then click the Delete button to delete its applicable records such as its processing report details and upload file. The imported data is not impacted by the delete.
- ▶ **Help** Click to open help that is specific to working with Master Data Imports.
- 2

Master Data Imports and Status Information – The list window shows all Master Data Imports that users have created and submitted for processing. Details include the name of the import file, dimension involved in the import, when imports were submitted and when their processing was completed. The status for a Master Data Import will be In Process, Completed, or Error.

User Controlled Attribute List Window





Toolbar -

- New Click to set up a new User Controlled Attribute.*
- Edit Select the attribute you want to edit and then click the Edit button.*
- See A History Of Changes For This Attribute Select an attribute then click this button to see a summary of its properties when it was first added and any changes made to

its properties since that time. See also <u>Review History Of Changes For User Controlled</u> Attribute.

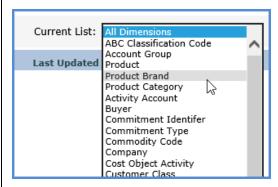
Note: If you click the history button on the list window without first selecting an attribute, a history file opens for all User Controlled Attributes including any previously deleted attributes.

- **Delete** Select the attribute to delete and then click the Delete button. Deleting the attribute means the attribute and any data you imported for it will be removed and no longer available in Stratum.Viewer.*
- Help Click to open help that is specific to working with User Controlled Attributes.

*Note: Your additions, edits, and deletions done for User Controlled Attributes will be reflected in Stratum. Viewer after the next Full process occurs in Stratum. Connector.



Current List – Use this drop-down list to filter the list window. Choose a specific dimension to see only the User Controlled Attributes that exist, if any, for that dimension. Or leave the list set to All Dimensions to see all User Controlled Attributes for all dimensions.



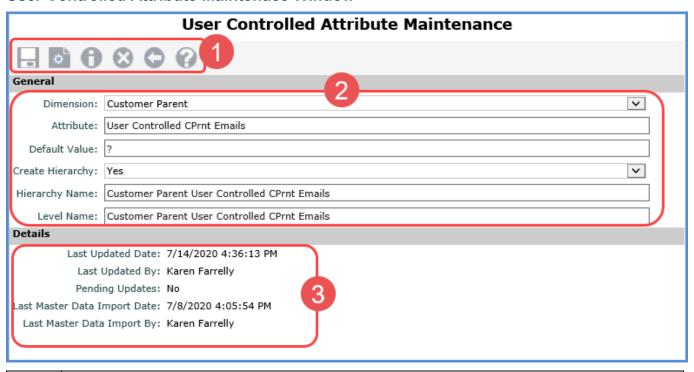
Search – Search by attribute name. Type in your text and then click the search icon or press the Enter key on your keyboard.



Attributes, Pending Status, and Other Status Information – The list window provides a number of details about a User Controlled Attribute including its dimension, name, when it was created or last updated, if it has pending changes for it, and details of any master data imports done for the attribute.

- **Pending Updates** Indicates whether there are pending changes for the attribute that are not yet available in Viewer. "Yes" means there are pending changes. The attribute's current state as shown here may not match what is in Viewer. "No" means there are no pending attribute updates. The attribute's current state as shown here matches what is in Stratum.Viewer. If Pending Updates = "Yes", then a Full process in Stratum.Connector is required. Contact your Stratum administrator for information about when the next Full process is scheduled.
- Last Import / Last Imported By Shows the last date of any master data import done for the attribute and who did the import.

User Controlled Attribute Maintenace Window





Toolbar -

- Save Click to save the new or edited attribute.*

- **Delete** Click to delete the attribute. Deleting the attribute means the attribute and any data you imported for it will be removed and no longer available in Stratum. Viewer.*
- Exit Click to exit this window and return to the User Controlled Attribute list window.
- Help Click to open help that is specific to working with User Controlled Attributes.

*Note: Your additions, edits, and deletions done for User Controlled Attributes will not be reflected in Stratum. Viewer until *after* the next Full process occurs in Stratum. Connector.



General – Control all the properties for the User Controlled Attribute from this section. Also use the section to optionally add a hierarchy based on the attribute.

- **Dimension** Choose the dimension to which you want the attribute added.
- Attribute Enter a name for the attribute.

- **Default Value** Specify a character(s) to display as the default value for the attribute. That value will be used for key values that do not yet have data for the attribute. When you see the default value for an attribute in a view, that indicates data does not currently exist for the attribute. For example, if you have not imported data for the attribute using Master Data Import functionality, all key values will be set to the default value. This property defaults to "?" but you can customize it to any text you prefer to use, up to 50 characters.
- Create Hierarchy? Optionally create a hierarchy based on the new attribute. Creating a hierarchy for it lets you see your data summarized by that attribute by making the attribute available as a level that can be included in rows / columns of a view. "Yes" will create it and enable the name fields below it. You can customize the name of the hierarchy and the level that gets created for it. Names must be different than the attribute on which they are based. The hierarchy and level name default to the name of the dimension for the attribute followed by the name given to the attribute. "No" will skip creating the hierarchy.



Attribute Details – This section tells you when the attribute was created or last updated, and the person who made the changes. Other details tell you if there are pending changes for the attribute and show details of the most recent master data import done for the attribute.

- **Pending Updates** Indicates whether there are pending changes for the attribute that are not yet available in Viewer. "Yes" means there are pending changes. The attribute's current state as shown here may not match what is in Viewer. "No" means there are no pending attribute updates. The attribute's current state as shown here matches what is in Stratum.Viewer. If Pending Updates = "Yes", then a Full process in Stratum.Connector is required. Contact your Stratum administrator for information about when the next Full process is scheduled.
- Last Master Data Import Date / By Shows the last date of any master data import done for the attribute and who did the import.

Advanced Concepts

Edit Names Of User Controlled Attributes

- 1. Click Manage Things then User Controlled Attributes from the main menu in the top panel of Stratum.
- 2. In the <u>User Controlled Attribute list window</u>, double-click the name of the applicable attribute or click it then click
- 3. Edit the name using the Attribute property in the <u>User Controlled Attribute Maintenance window</u>.
- 4. Save the change. You are returned to the list window where the change shows with a Pending Updates status of Yes. The name change will be reflected in Stratum. Viewer once pending updates are processed. That happens *after* the next Full process occurs in Stratum. Connector. Contact your Stratum administrator for information about when the next Full process is scheduled.

Edit Names Of Hierarchies And Levels Based On User Controlled Attributes

- 1. Click Manage Things then User Controlled Attributes from the main menu in the top panel of Stratum.
- 2. In the <u>User Controlled Attribute list window</u>, double-click the name of the attribute for the hierarchy or level. You can also click it then click Edit ...

	Maintenance window.
4.	Save the changes. You are returned to the list window where the change shows with a Pending Updates status of Yes. The name change will be reflected in Stratum. Viewer once pending updates are processed. That happens <i>after</i> the next Full process occurs in Stratum. Connector. Contact your Stratum administrator for information about when the next Full process is scheduled.
Remove User Controlled Attributes	
1.	Click Manage Things then User Controlled Attributes from the main menu in the top panel of Stratum.
2.	In the <u>User Controlled Attribute list window</u> , click the name of the attribute.
3.	Click Delete .
4.	Click OK in the prompt that displays to proceed with the deletion. The deletion will take place after the next Full process occurs in Stratum.Connector. It will remove the User Controlled Attribute, any key values created for it, and any master data previously imported for it.
Remove Hierarchies Based On User Controlled Attributes	
1.	Click Manage Things then User Controlled Attributes from the main menu in the top panel of Stratum.
2.	In the <u>User Controlled Attribute list window</u> , double-click the name of the attribute for the hierarchy. You can also click it then click Edit
3.	Change the Create Hierarchy property to No in the <u>User Controlled Attribute Maintenance window</u> .
4.	Save the changes. You are returned to the list window where the change shows with a Pending Updates status of Yes. The hierarchy and its level will be removed from Stratum. Viewer once pending updates are processed. That happens <i>after</i> the next Full process occurs in Stratum. Connector. The hierarchy and level will no longer be available to add to views, and they will be removed from views in which they were previously used. Contact your Stratum administrator for information about when the next Full process is scheduled.

3. Edit the name of the hierarchy and/or level using their Name properties in the <u>User Controlled Attribute</u>

Review History Of Changes For User Controlled Attribute

The history file for a User Controlled Attribute captures information about when it was added, changed, or deleted. The file includes the date and time of the change, user details identifying who did the change, the dimension the attribute belongs to, and all related properties captured about the change from the User Controlled Attribute Maintenance window. To see a history file, follow these steps.

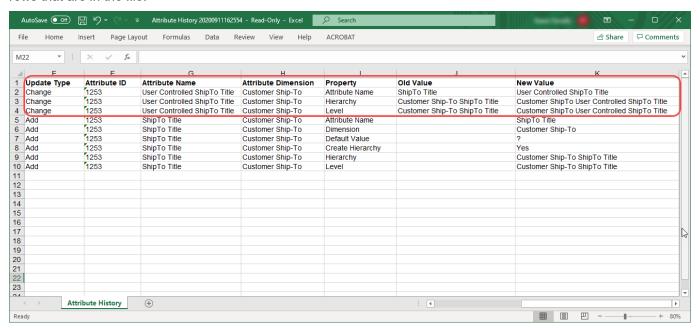
1. If you already have the attribute open in the maintenance window, click See A History Of Changes For This Attribute .

OR

- 1. Click Manage Things then User Controlled Attributes from the main menu in the top panel of Stratum.
- 2. In the <u>User Controlled Attribute list window</u>, select the applicable attribute then click See A History Of Changes For This Attribute.

Note: If you click the history button on the list window without first selecting an attribute, a history file opens for all User Controlled Attributes including any previously deleted attributes.

Here's a portion of a history file showing a recent change impacting an attribute for the Customer Ship-To dimension. The Update Type tells you the attribute was changed. The Property, Old Value, and New Value columns indicate what property changed and what the property was set to before and after the change. This change was an edit to the name of the attribute and to the names of the hierarchy and level based on that attribute. A newly added attribute doesn't have any information listed in the Old Value column, as you can see in the "Add" rows that are in the file.

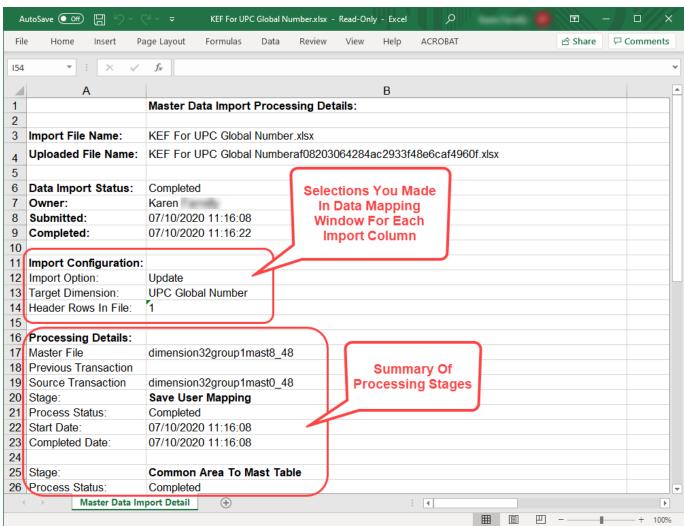


Review Processing Details For A Master Data Import

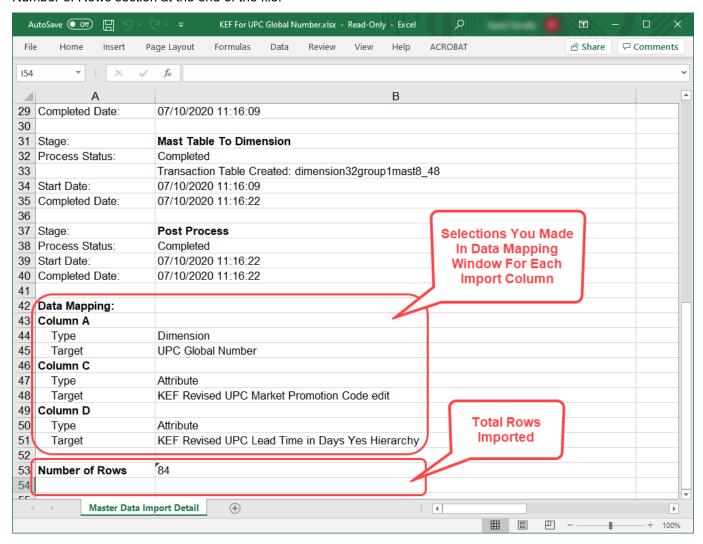
The Processing report provides detailed summaries of a Master Data Import. The report is an Excel file containing all details about an import, such as the <u>Target dimension</u> for the import and the User Controlled Attributes to which data was imported. The report also indicates the status of the different stages of processing for an import. To open a report:

- 1. Click Analyst Tools then Master Data Import from the main menu in the top panel of Stratum.
- 2. In the Master Data Import list window, select the applicable import then click See Processing Details For A Master Data Import.

Here's an example report. The start of it shows general details like the name of the import file, who created and submitted the import for processing, and when processing was completed. Next are Import Configuration details that show selections made in that window. The next section, which contains Processing Details, show the names of database tables involved in the import then the names and status details for each processing stage.



Here are examples of the other two main sections of the file, The Data Mapping section shows each column in your import file and how it was mapped to Stratum items in the <u>Data Mapping window</u>. The Target dimension and User Controlled Attributes for the import are listed there. The total number of rows that were imported displays in the Number of Rows section at the end of the file.



Understanding Your Imported Master Data

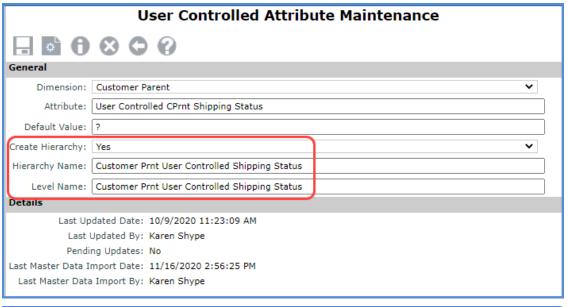
The following information helps you understand what data will display in views for the User Controlled Attributes that you create and for any hierarchies created from those attributes.

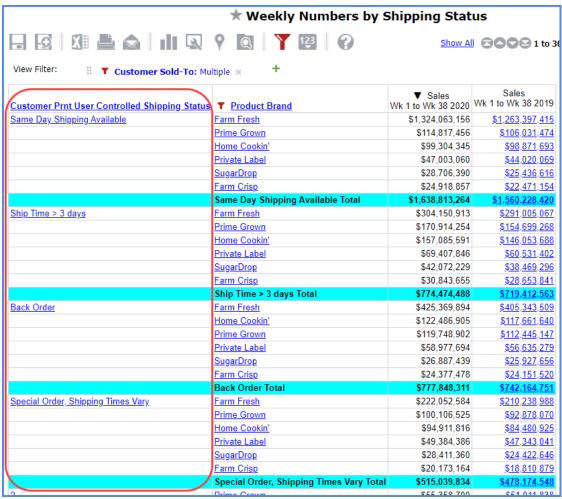
• Default Values Show For User Controlled Attributes Until You Import Master Data —The default value assigned to a User Controlled Attribute at the time you created it will display for all of its members that do not yet have master data. As you begin importing master data for them, the default value members will be replaced with your imported data. In the following example, the User Controlled CPrnt Shipping Status attribute has had master data imported for some but not all of its members. The default value assigned to the attribute was a question mark? The five members displaying that mark are ones for which master data has not been imported yet.



• Imported Values Are Used As Hierarchy Members For Hierarchies Created From User Controlled Attributes — You have the option to create a hierarchy from an User Controlled Attribute. This lets you see your data summarized by that attribute by making the attribute available as a level that can be included in rows / columns of a view. The master data you import for a User Controlled Attribute also is used to populate the members of its hierarchy/level if you opted to create a hierarchy from that attribute. In this example, the first level on rows is from a hierarchy that was created from a User Controlled Attribute. The values a user imported for the attribute are what became the members for that hierarchy's level.

The Shipping Status attribute in the prior example had a hierarchy created from it. The first image that follows shows the related properties for that hierarchy and its level in the User Controlled Attribute Maintenance window. The second image that follows shows the hierarchy's level used in a view. It is used as the first level on rows. Subsequent levels drilled to are grouped by their respective Shipping Status member. This example shows Product Brand results summarized by each Shipping Status member.

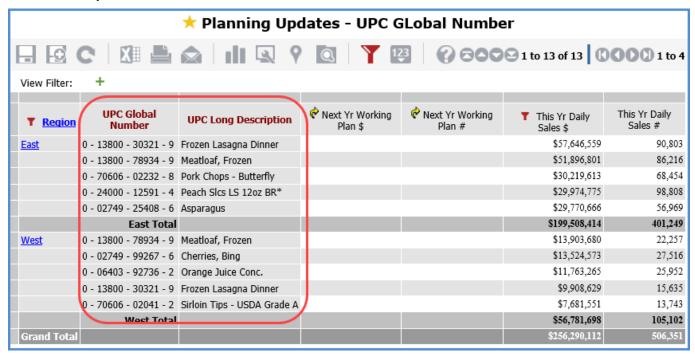




Using Master Data Import To Add New Dimension Key Values

Master Data Imports are primarily used to import data in User Controlled Attributes, whose set up is controlled through Stratum. Viewer's Used Controlled Attribute Maintenance. Another way you can use Master Data Import functionality is to add new dimension key values to Stratum. Doing that is useful during Budget or Forecasting activities when a new customer or product you need to budget / forecast for doesn't exist yet in your Corporate business system. For example, there's a new Customer Account that'll be activated soon or there's a new Product under development – and you want to account for them in Next Year's plan that you are setting up. You can include a row(s) with a key value for the dimension's new item(s) in a Master Data Import file. The import will add the new key values to Stratum for you, and then you can use Planning or Data Import functionality in Viewer to add budget / forecast data to the new items.

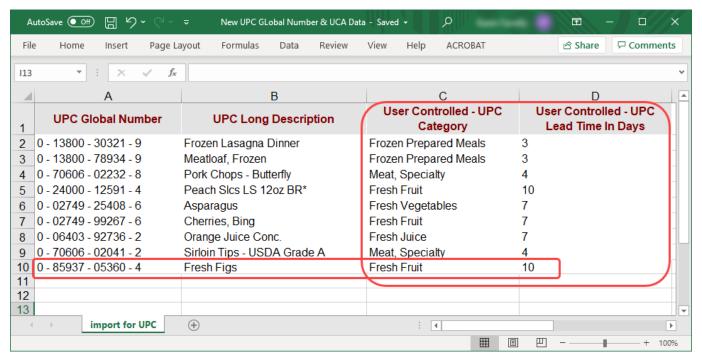
The following example shows a case for the UPC Global Number dimension. The user wants to add a couple User Controlled Attributes for the dimension and wants to add a new UPC Global Number to use while drafting next year's working plan. The view they'll use for planning is shown below before anything was added. The attributes get added with User Controlled Maintenance. Then, a Master Data Import is used to add data for the new attributes and add the key value for the new UPC Global Number.



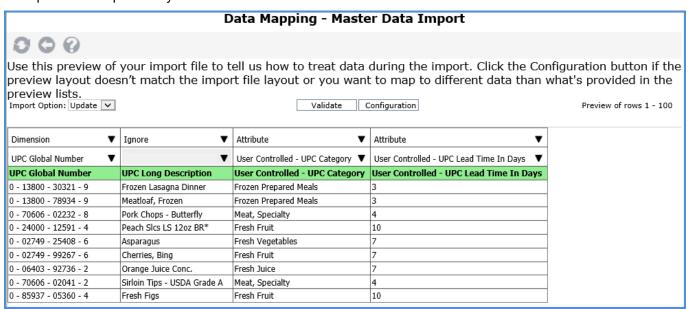
Here's the view after the new User Controlled Attributes were created then added to the view. No data has been imported yet, so their default value of ? shows in the view for them.



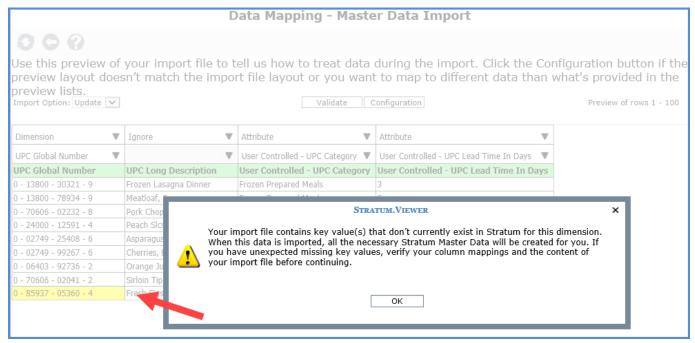
Here's an import file that includes data for the attributes. There's also a row in the file containing the key value for the new UPC Global Number the user wants added to Stratum. It's in the last row.

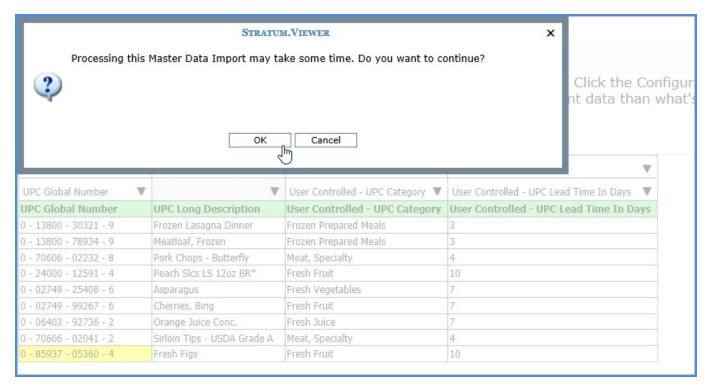


A preview of the import displays in the Data Mapping - Master Data Import window once the user starts setting up an import with the previously shown file.



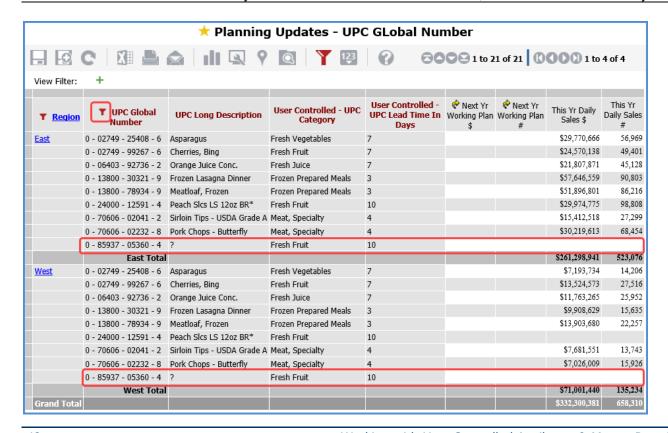
When the user submits the import for processing, a message displays about the new key value found in the import file. They click OK there then click OK in the subsequent message about proceeding with the import.





After the import completed, new attribute data populates the view and the new UPC Global Number key value is available in Viewer. The next images is the updated view showing the added data and the new key value.* Planning or Data Import can be used at this point to populate UPC Global Numbers with measure data.

*Note: Some filtering adjustments were needed in this view to see the new key value since it does not have data yet and existing filters were set to filter out items without data. The Relationship Filter and Empty Filter properties for the Rows axis were changed to No. Also, the Top Count measure item filter was removed. The UPC Global Number level was filtered to show only the UPC's the user wants to work with, which includes the new key value.



When To Do An Update Vs. When To Do A Replace For Your Master Data Imports

There are two ways to configure your Master Data Imports. They can be set up to do an Update or a Replace, and the choice impacts the treatment of existing data. More information and examples follow to help you decide what type of import to use.

An **Update** is the more common type of import. It's the default configuration for Master Data Imports. An Update will update existing data and add any new data included in the import file.

A **Replace** is the less commonly used type of import. It clears existing data for **all** of the User Controlled Attributes that belong to the import's Target dimension then adds data from the import file to the applicable attributes.

- When might you need to do a Replace? You want to start over with a clean slate for a dimension. For example, you've done multiple imports for a dimension and want to start over with a fresh set of data or you mistakenly added new key values to the dimension and aren't using them.* A replace deletes all data for all of the dimension's User Controlled Attributes and removes any unused dimension key values added by past Master Data Imports unused key values are those that don't have any measure data. Key values that have measure data won't be removed by a Replace.
- Care should be taken when using a Replace since it removes data for **all** of a dimension's User Controlled Attributes. If there is existing data you don't want to lose, then set the import configuration to Update instead of Replace.
- Make sure the import file you use for the Replace includes all User Controlled Attributes for all key values you want updated for the dimension.

*Note: To avoid adding new key values you don't need, make sure your import file only includes rows for the desired key values you want to update. See also the topic 'What Does "Import File Contains Key Values That Don't Currently Exist In Stratum" Message Mean?'.

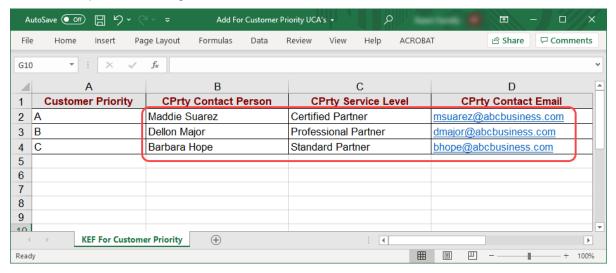
The following examples show an Update and a Replace to illustrate cases when you might choose to use each type of import.

Update Example

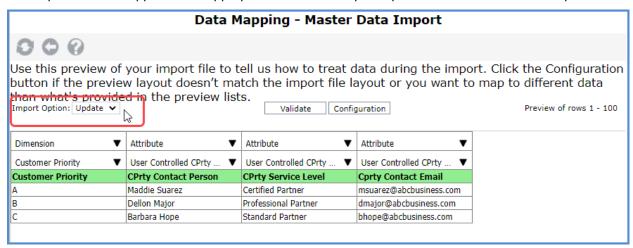
This view has three new User Controlled Attributes for the Customer Priority level. Their default value of "?" displays because no master data has been imported yet. Data will be added with an Update type of Master Data Import.



Here's the import file showing data to be added.



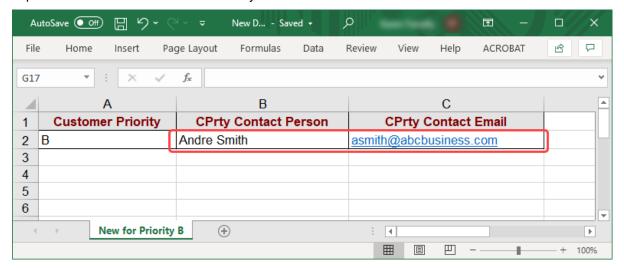
The import data is mapped to the appropriate attributes. Import Option is left at the default of Update.



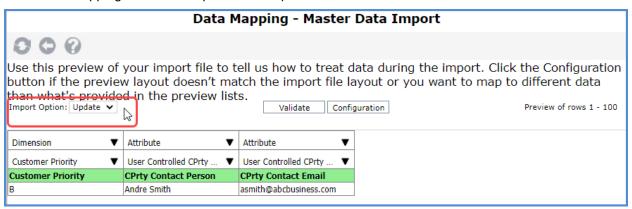
Here's the view after the import was finished. Attribute columns show their new data. The user can change any of this attribute data in the future, if needed, by doing another Update import. The images that follow this view show how another Update accomplishes that.



The contact person and email attributes for Priority B need to be changed at some point after the initial import. This import file shows the new data for Priority B.



Next is the mapping window set up to do this Update.



Here's the view reflecting the changed data after the import was completed. No other data changed other than what was included in the import file.

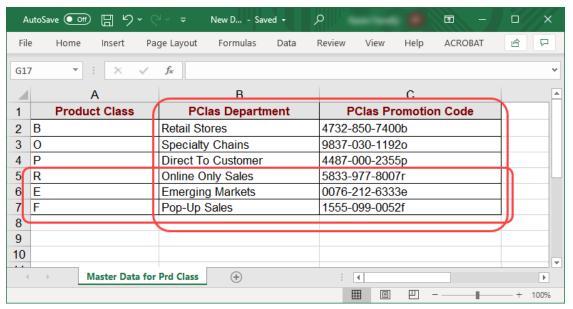


Replace Example

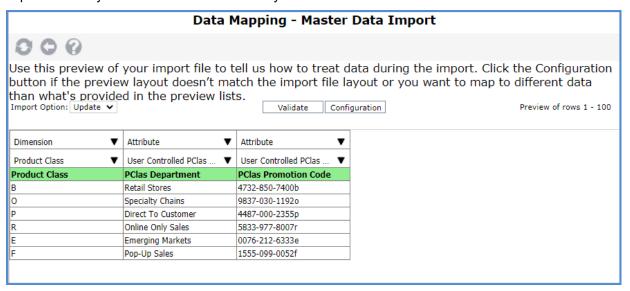
This view shows all existing members (key values) for the Product Class level and two new User Controlled Attributes for the level. The default value of "% displays for the attributes because no master data has been imported yet. Data will be added with a Master Data Import.

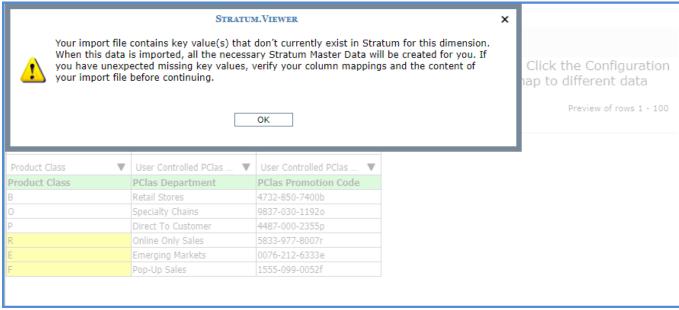


This import file is used for the import. The user overlooks the fact that the file includes key values R, E, and F that do not exist in Stratum yet – values the user does not mean to add to Stratum.



The user maps the data and proceeds with the import, still overlooking the new key values in the import file and that displayed in the mapping window. They also ignore an import validation message that tells them to check their import file if they did not intend to add new key values.

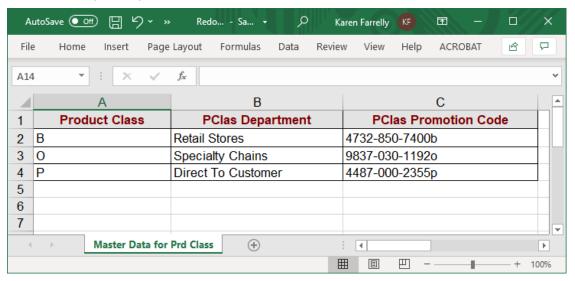




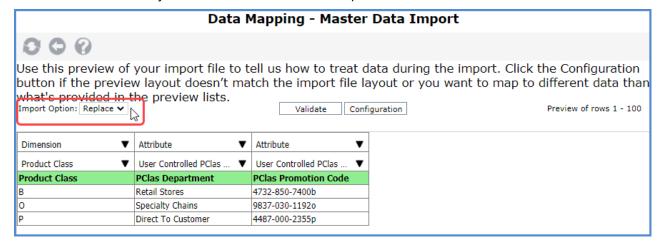
Here's the view after the import was finished. Attribute columns show their new data. There are rows for the new key values. At this point, the user realizes their mistake of including new key values in their import file. Revising the import file and doing an import type of Replace will remove the unwanted values. The rest of this topic shows that Replace.



The original import file is revised to remove the unwanted new key values. The rest of the content is left the same as used in the prior import.



The Import Option is set to Replace in the mapping window. The Replace will clear all master data for all User Controlled Attributes, clear the new key values because they do not have measure data yet, and then import the attributes data for the key values in this iteration of the import file.



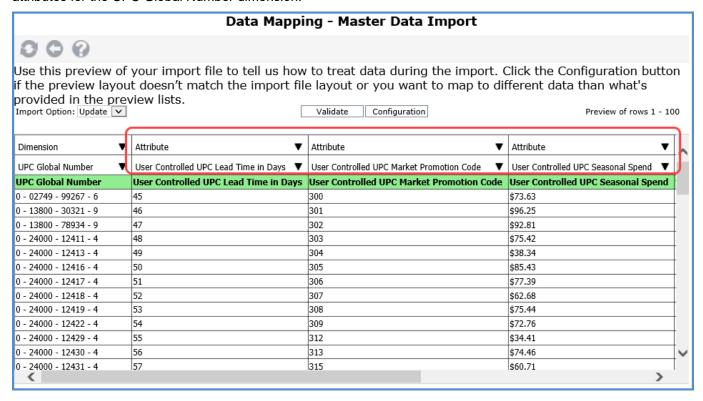
Here's the view after the Replace was carried out. Only the desired Product Classes B, O, and P show up. Their User Controlled Attributes show the imported data. The unwanted key values R, E, and F were removed.



Frequently Asked Questions (FAQ's)

Can I Import Data Into More Than One Attribute At A Time?

Yes, if the User Controlled Attributes belong to the same dimension. Your import file can handle importing data for more than one attribute for the same dimension. In the following example, data is being imported into three attributes for the UPC Global Number dimension.



Can I Import Data Into Corporate Controlled Attributes?

No. Data for Corporate Controlled Attributes always originates from your Corporate business systems and is stored in your Stratum. Server database.

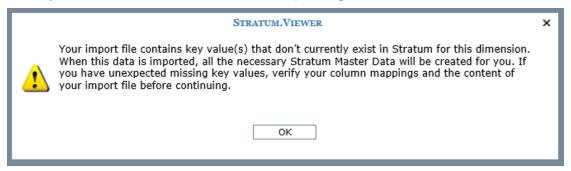
Is There A Limit To How Many User Controlled Attributes I Can Set Up?

Yes. You can add a maximum of 99 User Controlled Attributes per dimension.

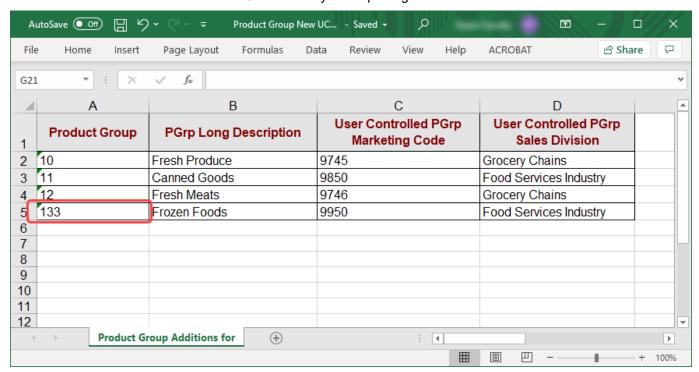
What Does "Import File Contains Key Values That Don't Currently Exist In Stratum" Message Mean?

If your import file includes dimension key values that don't currently exist in Stratum, you will get the following message. It tells you "Your import file contains key value(s) that don't currently exist in Stratum". Key values are unique identifiers of the members belonging to your Stratum dimensions.

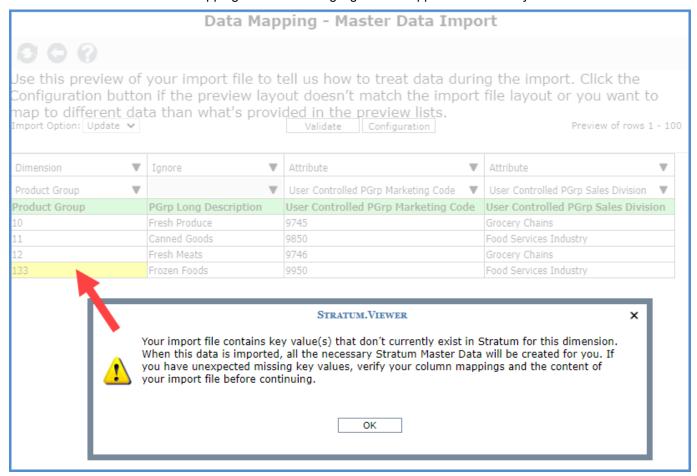
- If you **did not** intend to add new key values for the dimension, then you need to cancel this import, remove rows containing the values from your import file, and try again. To cancel the import, click OK in this message and then click Exit in the mapping window, which returns you to the Master Data Import list window. Nothing will be saved or processed for the import you were setting up
- If you did intend to add the new key value, then click OK and proceed with your import. See also <u>Using</u>
 <u>Master Data Import To Add New Dimension Key Values</u>. That topic shows an example of an import where
 new key values were included to aid in business planning activities.



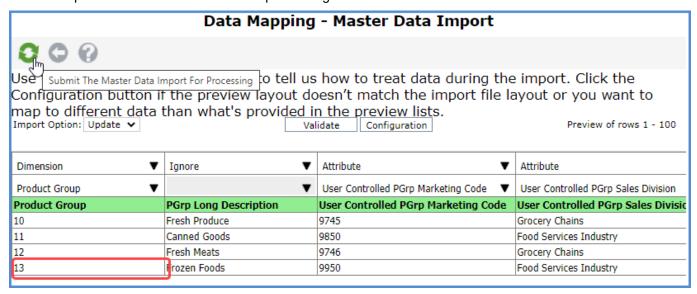
Here's an example where a user didn't intend to include a new key value. The dimension Product Group has four members 10, 11, 12, and 13. The user set up some User Controlled Attributes for the dimension and wants to import some data for them using the following import file. The last row was intended to be for existing key value 13, but there is a typo which makes the value there 133. Master Data Import will treat that value as a new key value. The user needs to correct the value to 13 and then try the import again.



Here's the key value message that showed when the import file with the typo displayed in the mapping window and the user clicked Validate. The mapping window also highlighted the applicable value in yellow.



Here's the mapping window after the typo was fixed in the import file and the user initiated a new import using that file. The import is about to be submitted for processing.



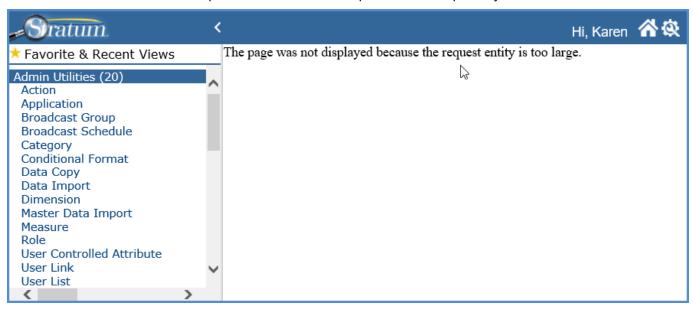
What Happens If I Delete a Master Data Import That's Been Processed?

The definition for the import and its processing report will be deleted. The data that got imported when the import was processed remains in Stratum for you to use.

What Should I Do If An Import File Size Exceeds Maximum Allowed Size?

A technical message from your browser telling you "the request entity is too large" or "content length exceeds the configured value" means that the size of your import file exceeds the maximum allowed file size. Files around the 28MB size or higher may result in this type of message and stop an import file upload.

A work around for this scenario is to split up your import into multiple, smaller files each with less rows and/or columns of data. Divide the data up into smaller files and import each file separately.

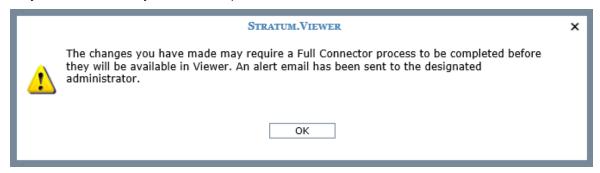


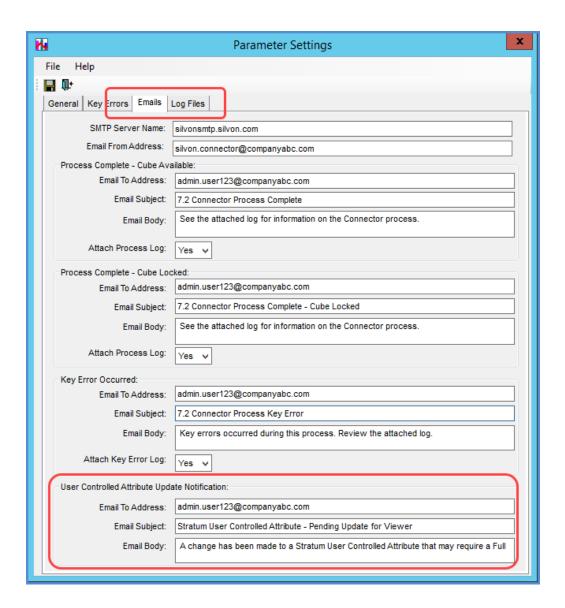
Why Can't I Delete A Master Data Import?

Master Data Import definitions can only be deleted if they have a status of Completed or Error. An import that has a status of In Process cannot be deleted because Master Data Import is actively working with the import definition and import file.

Why Did I Get An Email About Pending Changes For A User Controlled Attribute?

You will receive that type of email if related Stratum email settings identify you as a recipient for that type of notification. The email is sent out when someone adds a new User Controlled Attribute or changes an existing User Controlled Attribute. The email helps tell the recipients, typically your Stratum.Connector administrators, that changes exist and a Full process may be needed to update Viewer with the changes. The last image below shows the Parameter setting window in Connector where this type of email notification is controlled. The recipients, email subject, and email body text are set up in that window.





Why Didn't I Get An Email About A Master Data Import After It Finished Processing?

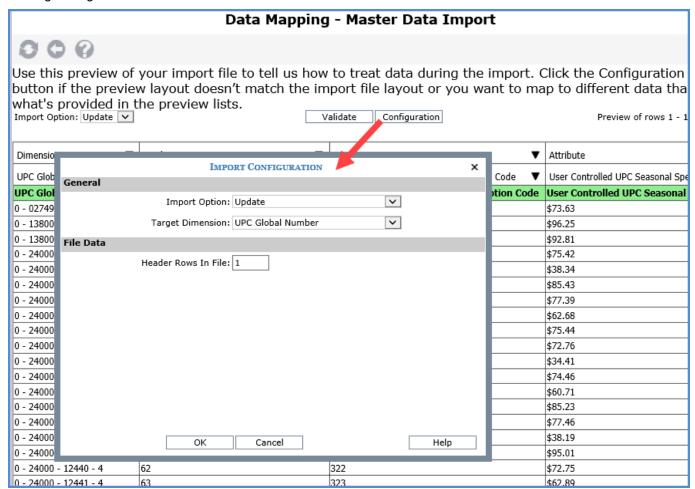
A few things can influence email delivery.

- 1. The Master Data Import may still be processing. Check its status in the <u>Master Data Import list window</u> or open its Processing Report to review processing stage details. See the topic <u>Review Processing Details For A Master Data Import.</u>
- 2. An email address might not be specified for your user profile in Stratum. Viewer. An administrator can check your profile and verify it has an email defined for it.
- 3. The email may have been routed to your Junk email folder instead of your Inbox.

Why Didn't The Import Configuration Window Show When I Uploaded An Import File?

Master Data Import makes configuration selections for you automatically when it picks up on and remembers selections from prior imports. Automatic configuration can save you steps in the import setup process.

You can open the import configuration window and make changes anytime from the <u>Data Mapping</u> preview by clicking Configuration.



Why Isn't A User Controlled Attribute Available In My Views?

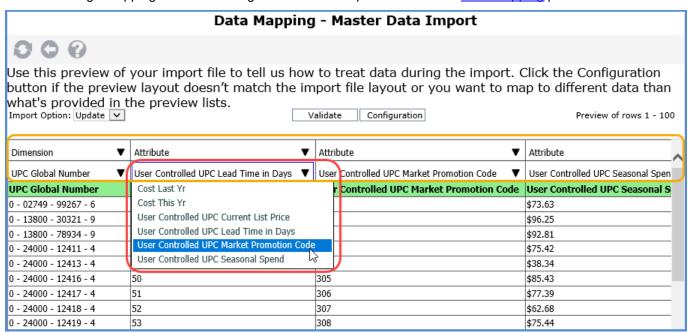
A few things may cause a User Controlled Attribute not to show up in your views:

- The level for the attribute isn't included in the view. Verify the level has been added to the rows, columns, or view filter. You may also need to edit attribute relationship selections to select if for use in the view using the Edit Attribute Relationships window for the level.
- The attribute may have been disabled for use in administrator settings. Administrators can disable attributes from a Dimension window in Stratum. Viewer.
- The attribute is newly added and the pending updates to Viewer have not yet been processed. Additions or edits made in User Controlled Attribute Maintenance won't be reflected in Viewer until after the next Full process happens in Stratum.Connector.

Why Were Some Mapping Selections Made For Me Automatically & Can I Change Selections?

Master Data Import makes mapping selections for you automatically when it picks up on and remembers selections from prior imports. For example, if you imported into a User Controlled Attribute for the Product dimension. The next time you do an import with a file that includes that dimension, automatic mapping will set the column for that dimension to Product in the mapping preview. Automatic mapping can save you steps in the import setup process.

You can change mapping selections using controls in the top two rows of the Data Mapping preview.



Definitions

Corporate Controlled Attribute

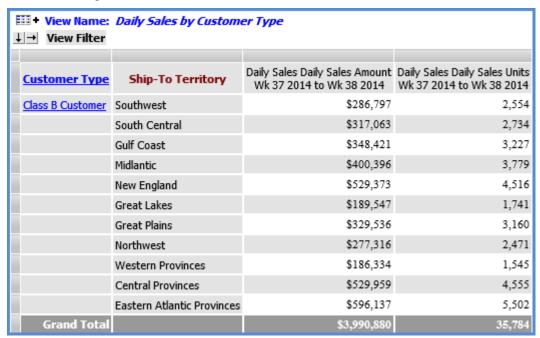
Attribute values are controlled either on the corporate side of things in Stratum. Server or using Stratum. Viewer's Master Data Import functionality. Both types can be used in the same way in Viewer. Values for Corporate Controlled Attributes originate from your Corporate business systems and are stored in your Stratum. Server database.

Regular Measure Item

Regular measure items are items based on the measures in the Analysis Services database for your Stratum. Viewer environment.

Regular measure items can be created with or without time ranges, depending on the Time Range property for a view. If the Time Range property is Yes for a view, you can specify time ranges for its measure items. If the Time Range property is No, then time range functionality is disabled, but you can use time hierarchies in the view.

The regular measure items in the following view are based on Daily Sales measures and have a time range of Week 37 through 38 of 2014.



Target Dimension For Master Data Import

Master Data Imports have data mapping properties that define where imported data belongs after the import gets processed. Data can be imported into User Controlled Attributes of the dimension that has been selected as the Target Dimension for the Master Data Import.

User Controlled Attribute

Attribute values are controlled either on the corporate side of things in Stratum.Server or using Stratum.Viewer's Master Data Import functionality. Both types can be used in the same way in Viewer. User Controlled Attributes are ones whose values originate from an Excel spreadsheet and become part of Stratum using Stratum.Viewer's Master Data Import functionality.* Use Stratum.Viewer's User Controlled Attribute Maintenance functionality to define attributes, maintain attribute properties, create or remove hierarchies based on the attributes, or delete the attributes. In Connector, you can view their properties including seeing any hierarchy created from the attribute.

*Note: User Controlled Attribute Maintenance functionality is only available for implementations running Stratum.Server on a Windows SQL server and that have a license for the Stratum Analyst Hub. It is not available for implementations running Stratum.Server on an IBM i Server.