SAS Beginner CFR Training

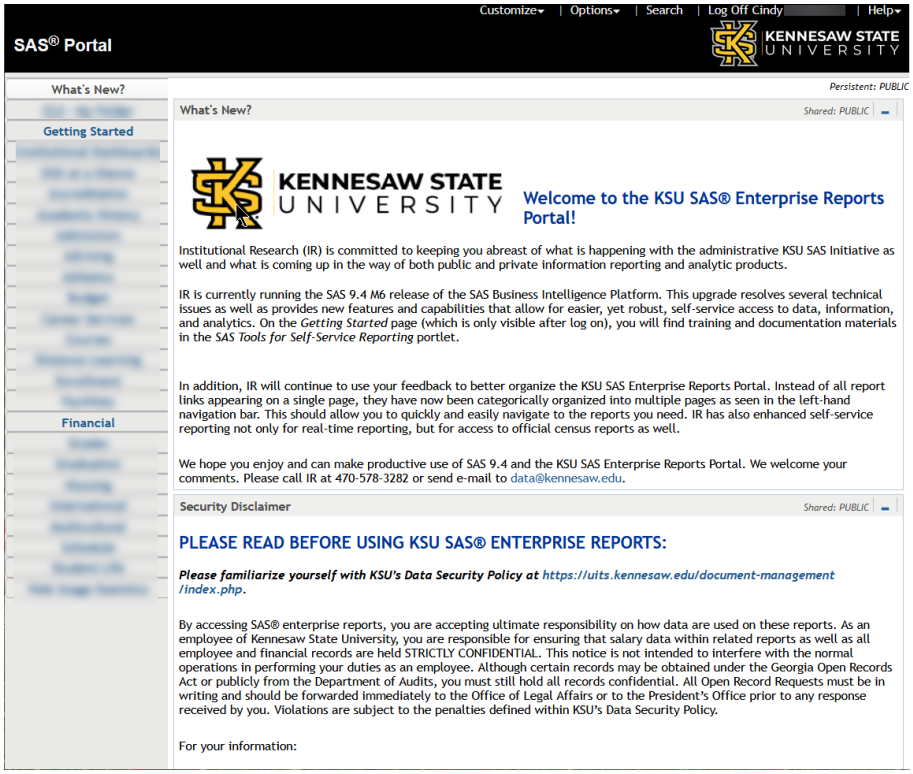
The SAS Beginner CFR Training is intended for new users to SAS Web Report Studio and the CFR. The Comprehensive Financial Report (CFR) is the reporting example used to teach how to use the Web Report Studio software, in addition to understanding the CFR financial data and how it aligns with KSU's business practices.

Log In to SAS Web Report Studio

1. Navigate to the SAS login screen:
2. Enter your NetID and normal KSU Password
3. Click Sign In

SAS Portal

This is the landing page after login. What is seen here is dependent upon user permissions. The "What's New" landing page is where Institutional Research shares information about the SAS Platform.



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Getting Started

Select **Getting Started** from the left-hand list of pages. The Getting Started page offers SAS training materials and links to explore. The SAS Web Report Studio link in the upper right-hand corner is a short-cut to the SAS folder structure, where you can open a custom report from a Division folder, or open your own personal report from your "My Folder", SAS's name for your own personal storage space on the SAS drive.

Financial Portal

A Portal is a term SAS uses to describe the environment that manages the reports and materials related to using SAS applications.

1. Select **Financial** – from the left-hand menu of pages.
2. **Security** – Your security level dictates the menu items, the folders, reports and data that you will see going forward. While you may be able to open the report, your ability to see data in these reports are based upon your permissions.
3. **Reference Guides for Financial Reporting** – PDF documents that provide training and insight specifically to the CFR and Position Management financial reports.
4. **Report Groupings** – These groups are called "portlets" and group similar reports together. The number of portlets you can see are dependent upon your permissions.
5. **Financial Reports Section** – **Click** on the Financial - Comprehensive Financial Reports Summary.srx to open the CFR.

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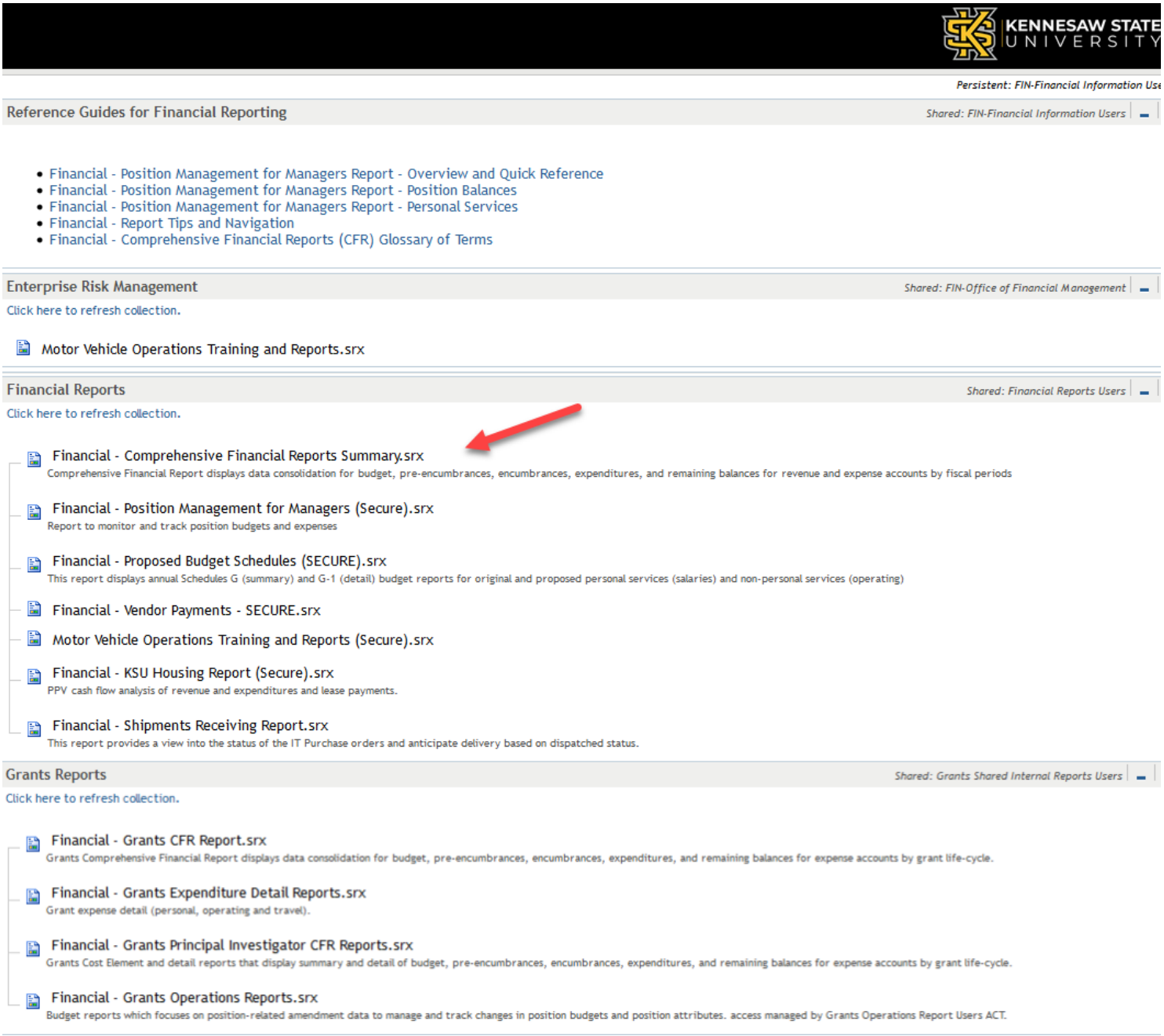

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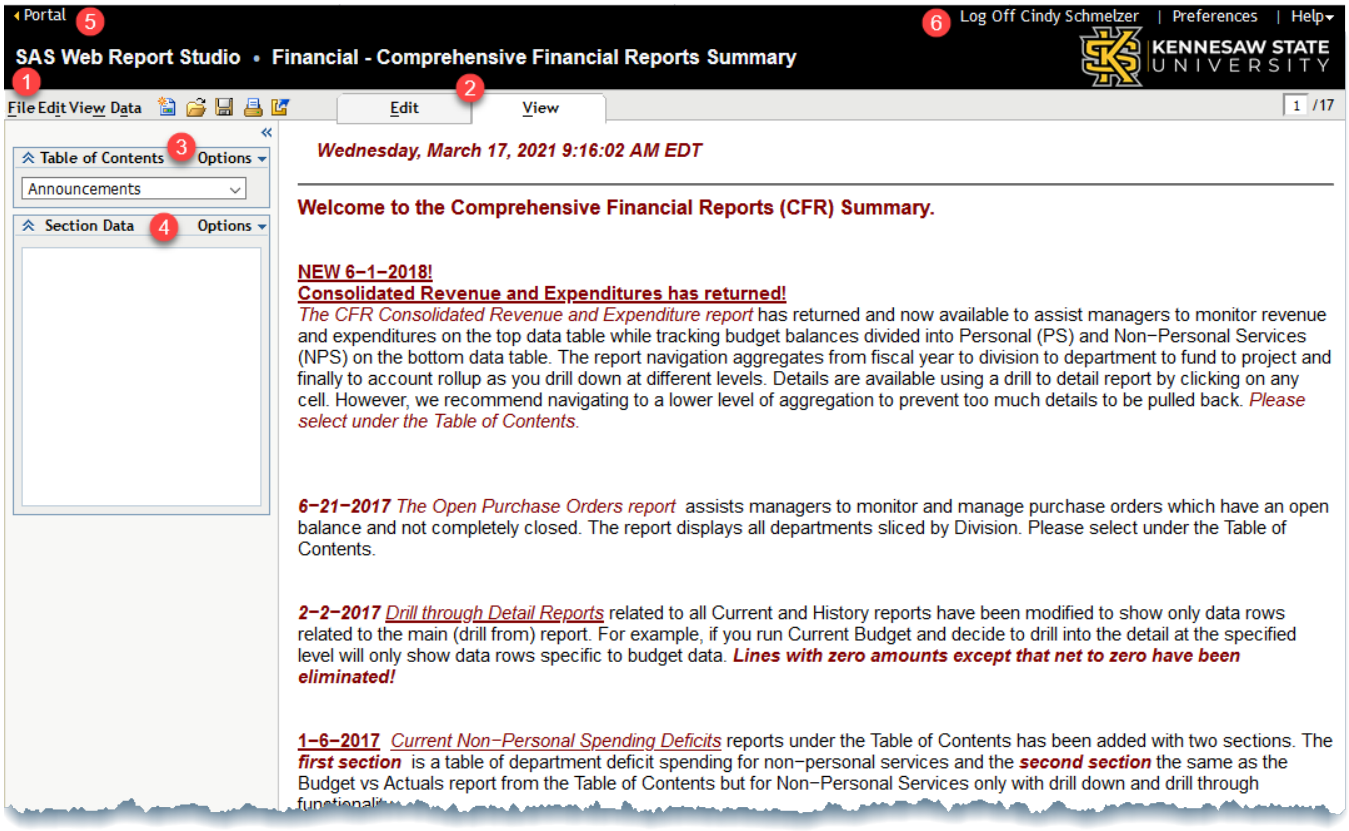
Web Report Studio Interface

1. **Menus** – These drop-down menus offer a variety of options such as open a file, save a file along with report specific functions.
2. **Tabs** – Web Report Studio offers two tabs, one to View the open report, the other to Edit it. Many options in the menu change, depending upon which tab is active.
3. **Table of Contents** – The Table of Contents drop-down menu offers all of the sub-reports that make up and are contained in the opened report.
4. **Section Data** – Section Data shows the data source being used for the current report.
5. **Portal** – Use the Portal link in the upper left corner of the screen to close the current report, exit Web Report Studio, and return to the SAS Financial Portal.
6. **Log Off** – Click Log Off in the upper right corner to close the report and log out of SAS.



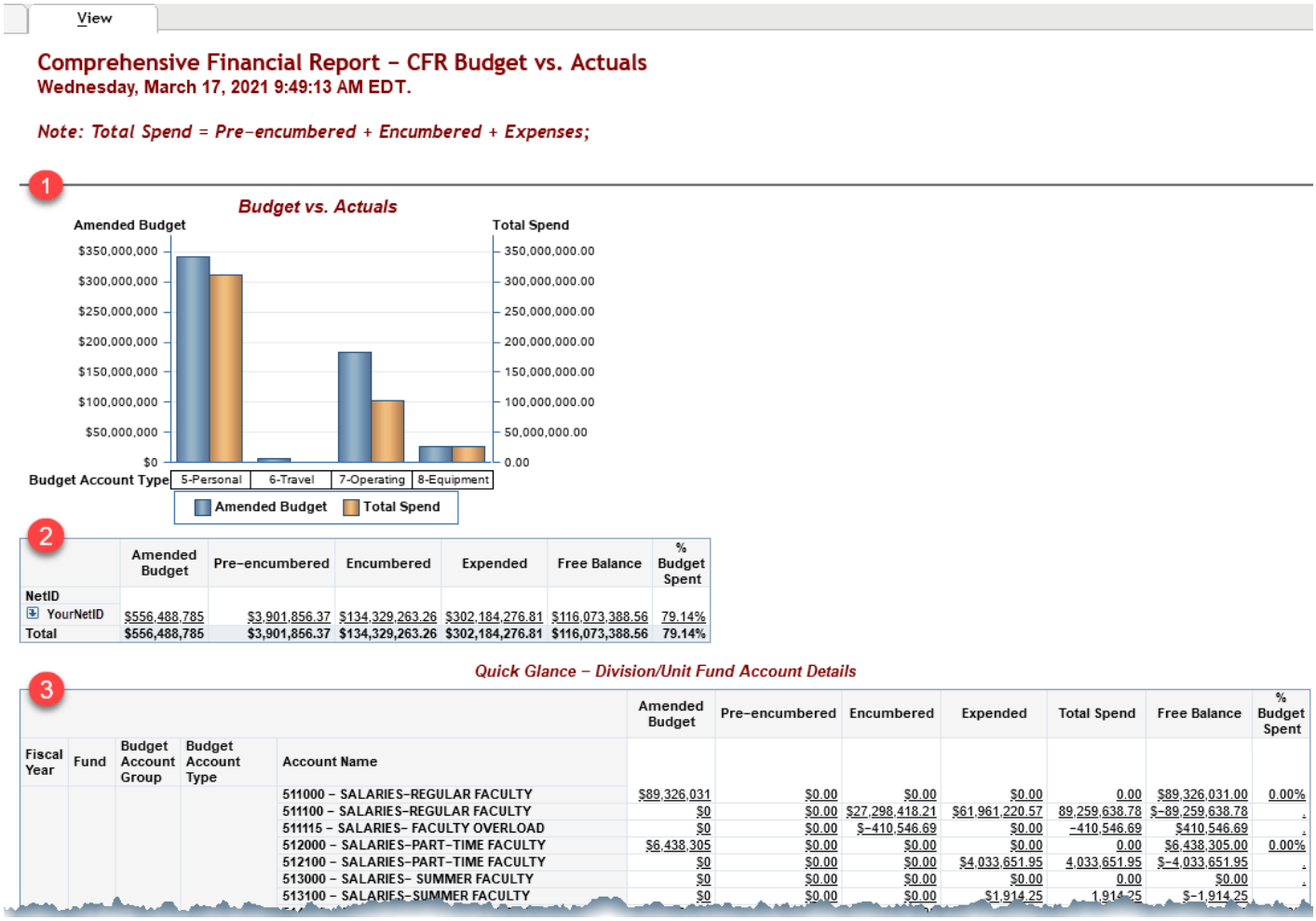
Comprehensive Financial Report (CFR)

The most commonly used sub-report under the Table of Contents is the Budget vs Actuals report. This documentation will go through this report as a tool to learn how to navigate through Web Report Studio reports. As a reminder, navigation through the remaining sub-reports will act similarly, and all report column definitions can be found in the Glossary of Terms.

View Tab

The View Tab shows the active report components of the CFR.

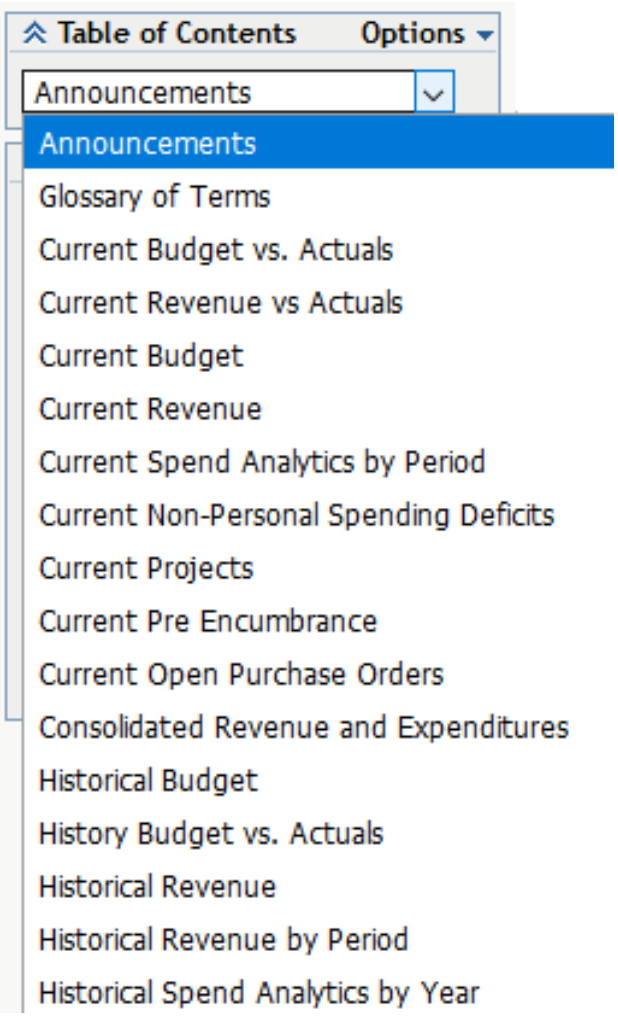
1. **Graph** – an overview comparing Amended Budget versus Total Spend
2. **Drill Through Report** – this report in the middle is an interactive report type which allows you to click through your report, filtering as you move through the various levels of data. Each click shows more detail which contribute to the dollar amounts in the table.
3. **Quick Glance** – Division/Unit Fund Account Details



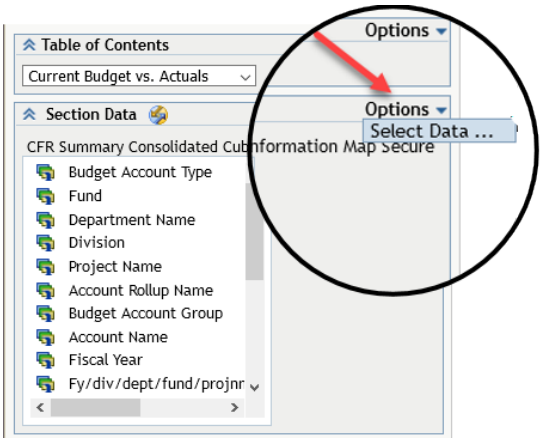
CFR's Table of Contents

1. **Glossary of Terms** includes definitions for all fields and calculated fields used in the CFR.
2. **Current Fiscal Year Reports** include the reports that start with the word Current as well as the Consolidated Revenue and Expenditures reports and only show data for the current Fiscal Year.
3. **Historical** reports go back 5 years starting with previous Fiscal Year.

★ *A description of each of these reports contained in the CFR can be found at the end of this documentation.*



Section Data



Displays the selected "information map" (data) for a report.

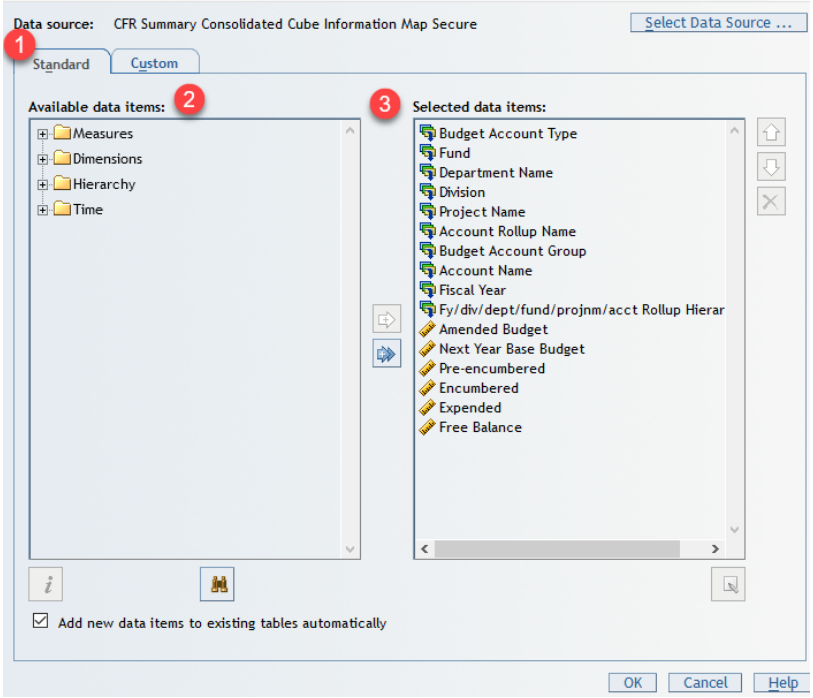
From the lower panel on the left side of the screen:

4. Select "**Options**"
5. Select "**Select Data**" to preview the data available in the Information Map. Data is refreshed nightly.

The Data Source dialog window displays, and is made up of Tabs, Data Items and Selected Data Items.

1. **Standard and Custom Tabs**
    a. **Standard Tab** – Data fields available from the information map.
    b. **Custom Tab** – Custom calculated fields being used in the current report. Additional custom fields can also be created from this tab.
2. **Data Items – Each data item falls into a data type category.**
    a. **Measures** are numeric values like Revenue and Expenses.
    b. **Dimensions** are character fields like Division, Department or Project Name.
    c. **Hierarchies** - Hierarchies define the order or path that allows drilling down into the data.
    d. **Time** – Time fields for time analysis.

3. **Selected Data Items** – This window shows the selected fields to be used in the current report.

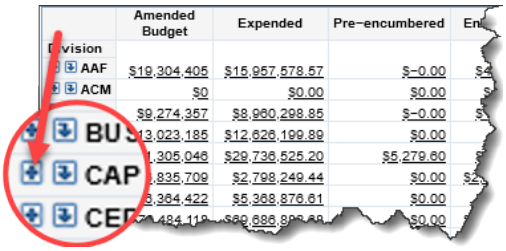


Budget Vs Actuals Report Column Definitions

1. **Amended Budget** – The original budget plus any amendments.
2. **Pre-encumbered** – recognizing monies that identify encumbrances coming down the pipeline. For example, using Set-Asides to put aside money that you know you will spend later so that it comes off your free balance on your budget.
3. **Encumbered** – The money is committed to being spent but not yet paid. For example, obtaining a PO which is promising payment that has not yet been made.
4. **Expended** – Total expenses that have been paid.
5. **Free Balance** – Amended Budget minus the Expended leaves the balance still left to spend in the budget for the fiscal year.
6. **% Budget Spent** – ([Pre-encumbered] + [Encumbered] + [Expended]) / [Amended Budget]
7. **Total Spend is** – [Pre-encumbered] + [Encumbered] + [Expended]

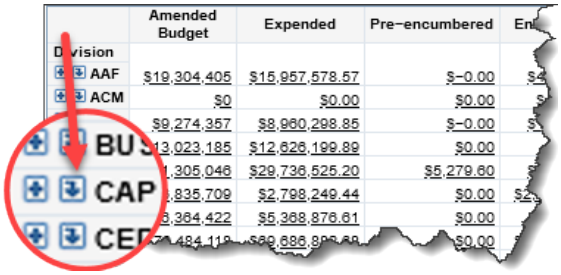
Navigating the Interactive Drill Through Report

1. **Click the Plus sign** (**+**) to expand the report to see the next level of data (Departments, in this example), while continuing to display the other Divisions rolled up.



Division	Department	Amended Budget	Expended	Pre-encumbered	Encumbered	Free Balance	% Budget Spent
AAF		$19,304,405	$15,957,578.57	$-0.00	$471,821.08	$2,875,005.06	85.11%
ACM		$0	$0.00	$0.00	$45,189.04	$-45,189.04	.
ART		$9,274,357	$8,960,298.85	$-0.00	$126,294.22	$187,763.93	97.98%
ATH		$13,023,185	$12,626,199.89	$0.00	$1,095.56	$395,889.99	96.96%
BUS		$31,305,046	$29,736,525.20	$5,279.60	$626,266.85	$936,974.35	97.01%
CAP	1001100 – CAP – MRR PROJECTS	$736,478	$568,309.93	$0.00	$168,168.07	$0.00	100.00%
	1001200 – CAP – GSFIC PROJECTS	$4,406,359	$2,033,634.19	$0.00	$650,589.79	$1,722,135.02	60.92%
	1001300 – CAP – INTEREST FUNDED PROJECTS	$163,576	$0.00	$0.00	$0.00	$163,576.00	0.00%
	1001500 – CAP–CAPITAL PROJECTS OTHER	$1,529,296	$196,305.32	$0.00	$2,124,773.50	$-791,782.82	151.77%
CED		$6,364,422	$5,368,876.61	$0.00	$54,534.90	$941,010.49	85.21%
COO		$79,484,118	$69,686,882.68	$0.00	$4,850,954.27	$4,946,280.97	93.78%
CSE		$2,057,667	$2,009,871.78	$0.00	$25,574.38	$22,220.84	98.92%

2. **Down arrow** (**🡻**)– filters the report for only that Division down to the next level of the hierarchy, which in this example is the Department level.



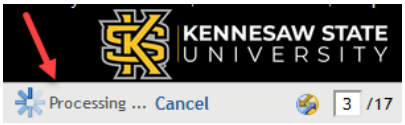
Department	Amended Budget	Pre-encumbered	Encumbered	Expended	Free Balance	% Budget Spent
1001100 – CAP – MRR PROJECTS	$2,470,000	$221,446.68	$460,501.06	$830,946.50	$957,105.76	61.25%
1001200 – CAP – GSFIC PROJECTS	$10,739,726	$0.00	$2,655,116.11	$1,514,909.86	$6,569,700.03	38.83%
1001300 – CAP – INTEREST FUNDED PROJECTS	$75,000	$0.00	$25,825.00	$1,000.00	$48,175.00	35.77%
1001500 – CAP–CAPITAL PROJECTS OTHER	$850,000	$0.00	$10,474.97	$808,653.14	$30,871.89	96.37%
1001600 – CAP–CAPITAL PROJECTS OTHER IT	$0	$0.00	$0.00	$0.00	$0.00	.
Subtotal: CAP	$14,134,726	$221,446.68	$3,151,917.14	$3,155,509.50	$7,605,852.68	46.19%
Total	$14,134,726	$221,446.68	$3,151,917.14	$3,155,509.50	$7,605,852.68	46.19%

★ *As the data changes in the drill through, notice that the graph and the Quick glance also change as the three report components are synchronized!*

3. **Navigation Breadcrumb** – The data fields defined in the hierarchy indicate the order of drilling down into the report. The breadcrumb is made up of the hierarchy and field location within the hierarchy. This breadcrumb **is** your ***navigation tool***! It shows above the chart. Click anywhere in the breadcrumb to move back to that level in the report.

   FY/Div/Dept/Fund/ProjNm/Acct Rollup Hierarchy > YourNetID > 2021 > CAP

4. **Drill Thru** – Clicking on any row value in the body of the report to bring back the data that make up the numbers in that row. This opens a new detailed report comprised of all the transactions which calculate to the amounts seen on that row. Notice in the upper right corner the "Processing" indicator as it pulls up your report.



View

Return to previous report: Financial - Comprehensive Financial Reports Summary

Comprehensive Financial Report – CFR Budget vs Actuals Details
Wednesday, March 10, 2021 4:02:43 PM EST

Fiscal Year : 2021
Division Name : CAP–CAPITAL PROJECTS ; Amended Budget : $4,668,605.00 ; Free Balance : $993,356.86
Department : 1001200 – CAP – GSFIC PROJECTS

Acctg Month	Journal Date	Original Base Budget	Amended Budget	Pre–Encumbered	Encumbered	Expended	Vendor Id	Vendor Name
08–FEBRUARY	23FEB2021	$0.00	$0.00	$–52,845.00	$52,845.00	$0.00	0000008106	THE COMTRAN GROUP
08–FEBRUARY	23FEB2021	$0.00	$0.00	$–45,303.00	$45,303.00	$0.00	0000008106	THE COMTRAN GROUP
08–FEBRUARY	18FEB2021	$0.00	$0.00	$–26,551.40	$26,551.40	$0.00	CAT0000005	TECHNOLOGY INTEGRATION GROUP
08–FEBRUARY	09FEB2021	$0.00	$0.00	$26,551.40	$0.00	$0.00	CAT0000005	TECHNOLOGY INTEGRATION GROUP

★ *Keep in mind that if you "drill thru" at a high level, you will get too many rows returned and can hang your system. Drill down, filtering to the level of detail and category of data you need first, then drill thru for a reasonably sized dataset consisting of the desired transactions.*

5. **"Return to previous report: …"** – after you have drilled through, click to return to the original report location. Notice it drops you back at the point of exit in the breadcrumb.

Return to previous report: Financial - Comprehensive Financial Reports Summary

Comprehensive Financial Report – CFR Budget vs Actuals Details
Friday, April 9, 2021 10:52:32 AM EDT

Fiscal Year: 2021

Division Name: CAP–CAPITAL PROJECTS; Amended Budget: $2,470,000.00; Free Balance: $957,105.76

Department: 1001100 – CAP – MRR PROJECTS

Acctg Month	Journal Date	Original Base Budget	Amended Budget	Pre–Encumbered	Encumbered	Expended	Vendor Id	Vendor Name

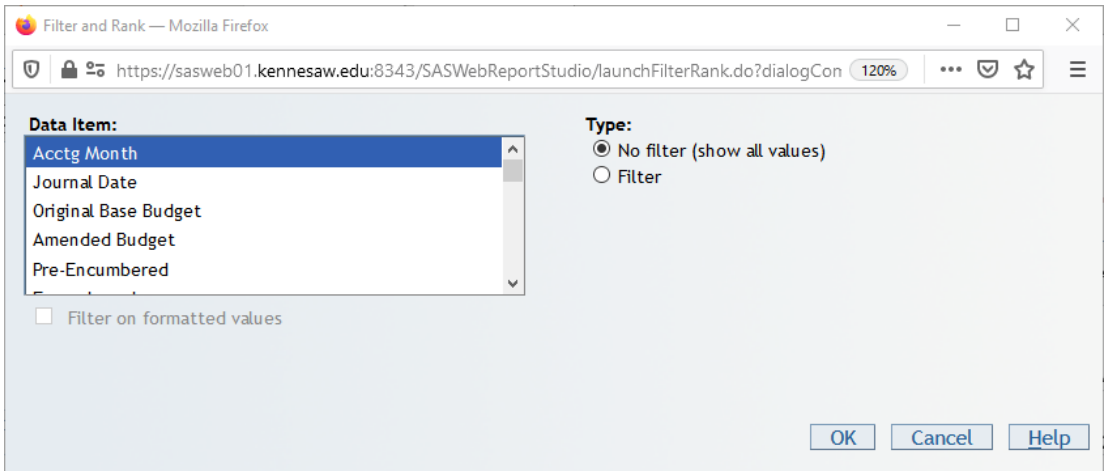
View Tab

Menu options change depending upon where in the report you right click (column headers, row headers and in the body of the report, all have a different right click menu). For these examples, the CFR Budget Vs Actuals Details (the drill through) will be used.

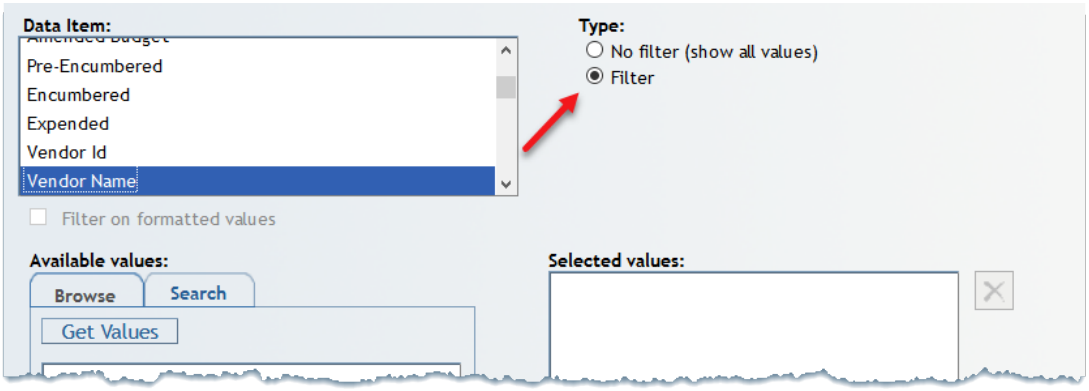
Filtering Data

1. **Right click** in the body of the report

2. **Select** "Filter and Rank". The dialogue window below will open.



3. **Highlight** the Data Item that you want to set the filter on.
4. **Click** the radio button to tell the report you want to set a Filter on that column. In this example, Vendor Name is a character field and SAS opens the character filter dialogue window.



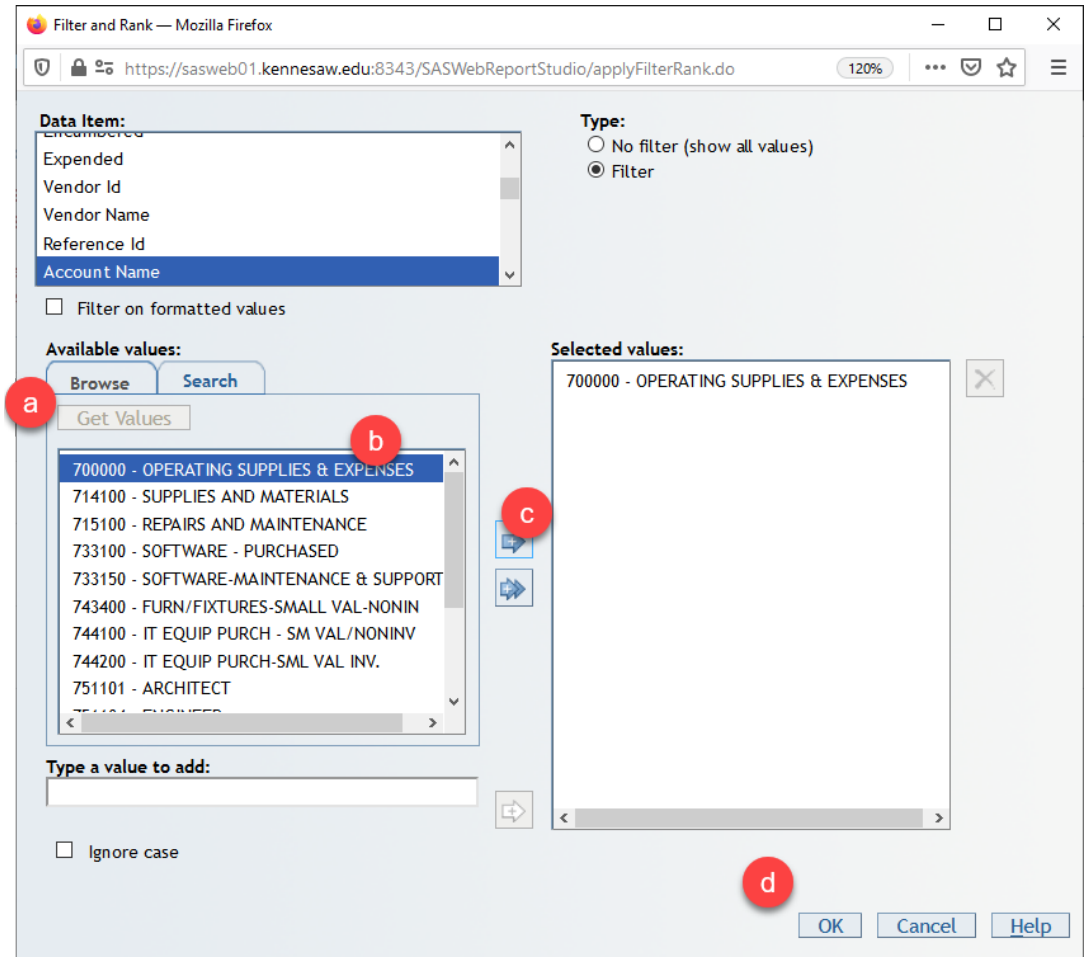
5. At this point, depending upon if the data item is character or numeric, either the character filter dialogue or the numeric filter dialogue window will appear.

★ *Always remember to highlight the Data Item column name PRIOR TO modifying a filter. Each column name is always set to be either filtered or not filtered as identified by the Type radio buttons. There is no way to clear all filters at once – they have to be cleared individually and must be highlighted first to change the setting.*

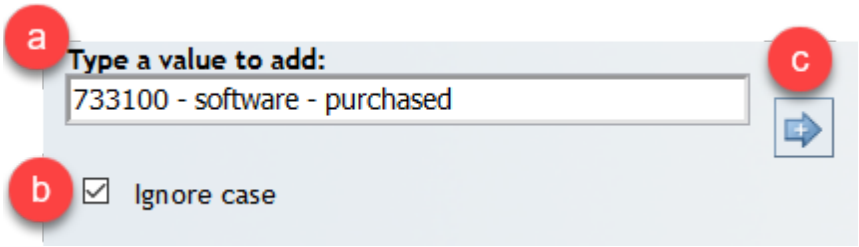
Apply a Character Filter

There are three methods available to search for character data. Open the filter dialogue window and highlight a character Data Item and try these methods:

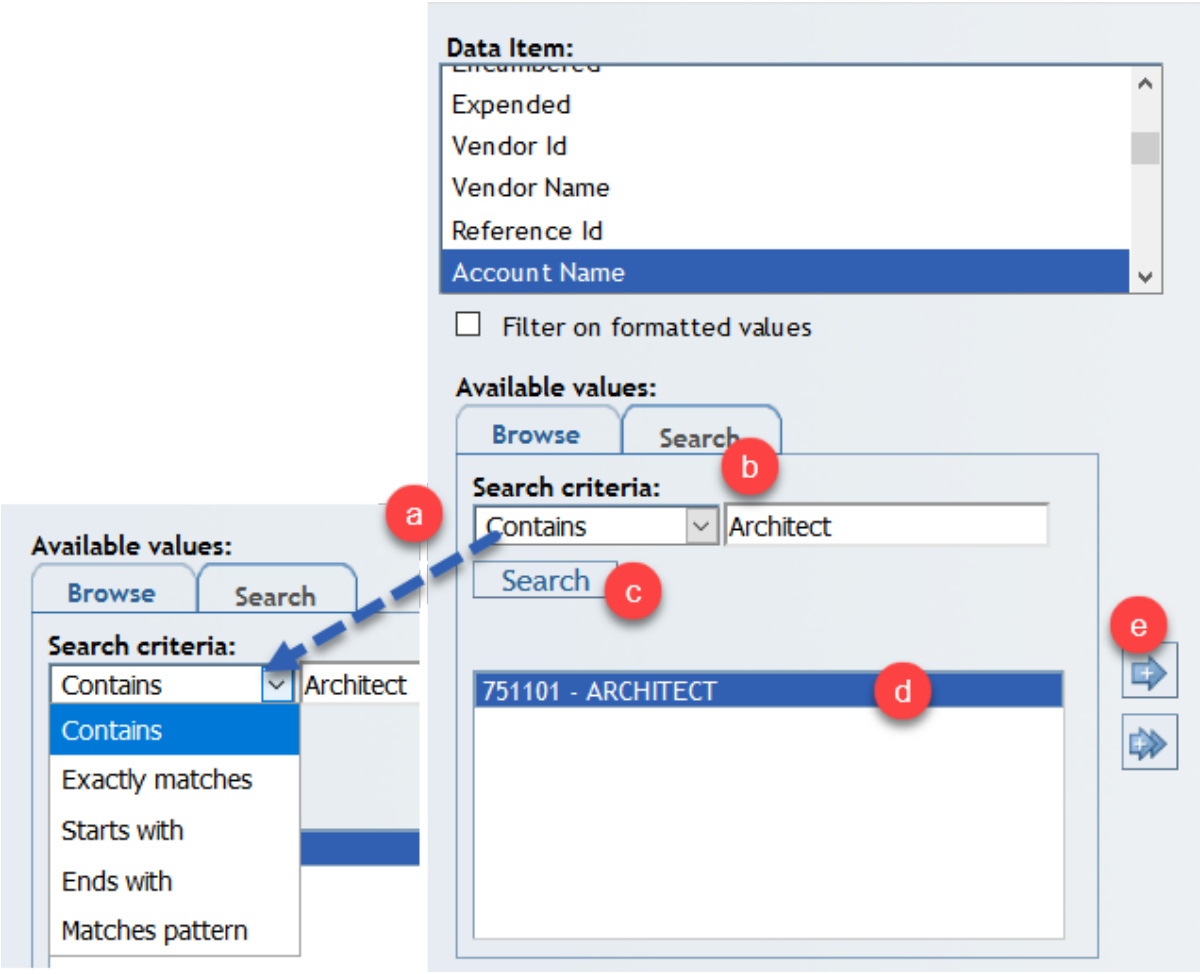
1. <u>Get Values</u> (Browse Tab) - If the Data Item supports displaying values, you can choose from a list, otherwise, you may not have this option available for all character fields
    a. **Click** "Get Values" to choose from a list.
    b. **Highlight** the item to filter.
    c. **Click** the ➔ to move them to the Selected Values box
    d. **Click OK.**



2. **Type a Value to Add** (available from the Browse and Search tabs) –
    a. **Enter text** to search. What is typed here must match exactly.
    b. **Click "Ignore case"** checkbox to ignore the case of the text.
    c. **Click the right arrow** to move the selection to the Selected Values window.



3. <u>Search Criteria</u> (Search Tab) - This method allows you to use search criteria to help find the data you are looking for. For example, you are looking for the Architect account but do not have the Account number available, which is also part of the name. Use "Contains" to find any Account Names that have the word Architect as part of the text.



(Search Criteria (Search Tab) continued)

a. **Choose** your preferred search criteria

b. **Enter** your search string

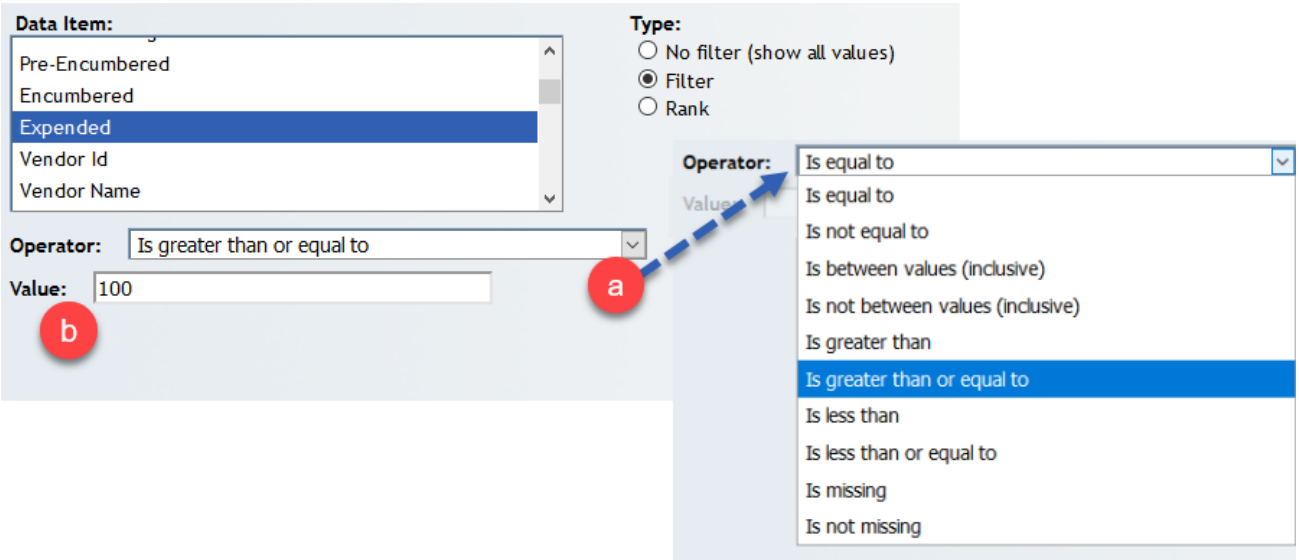
c. **Click Search** button

d. **Highlight** the items to filter by

e. **Click the right arrow** to move the items to the Selected values window

f. **Click** OK

4. **Setting a Numeric Filter -** Open the filter dialogue and highlight a numeric Data Item.



a. **Select** an Operator to compare the numeric field against (for example, "Is greater than or equal to").

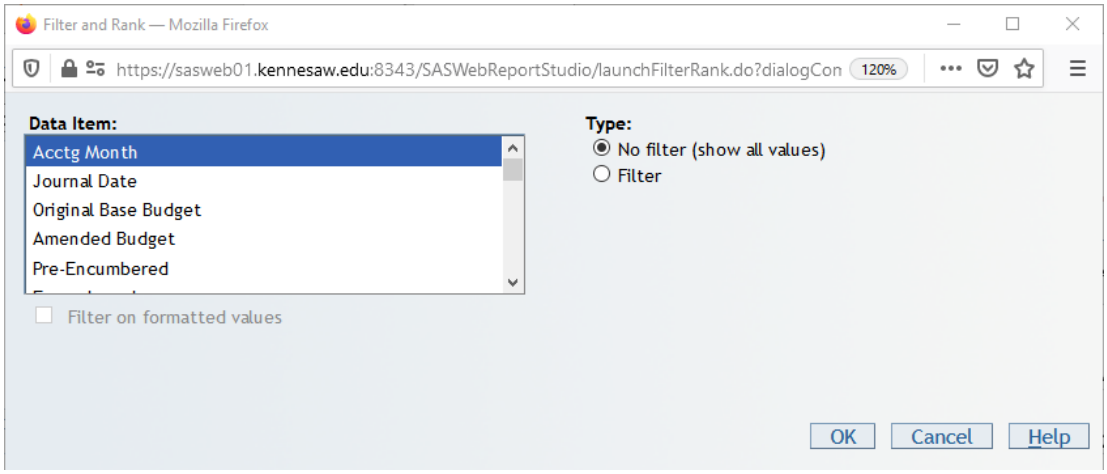
b. **Type** a value to complete the filter expression.
This example is interpreted as: Expended is greater than or equal to 100.

c. **Click** OK.

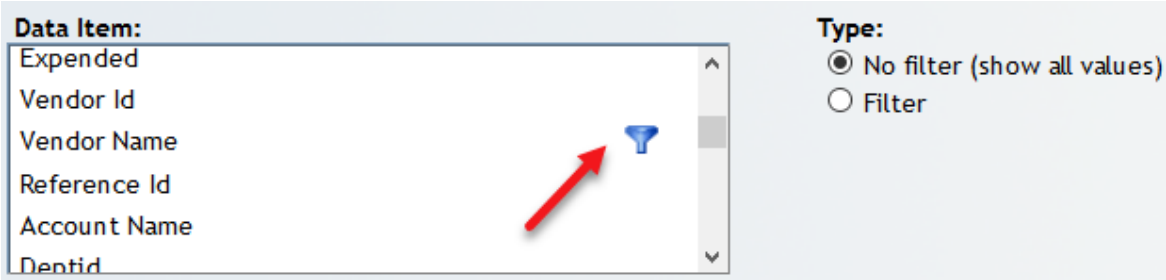
5. Remove a Filter

a. **Right click** in the body of the report .

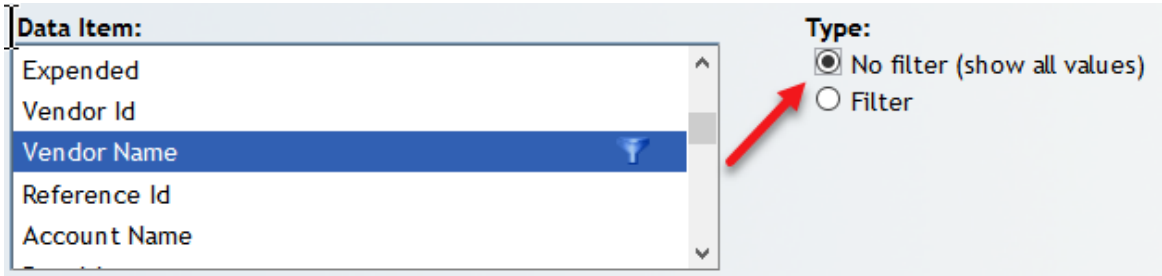
b. **Select** "Filter and Rank". The dialogue window below will open.



c. **Find** the data item that has the filter to be removed. Notice that when a filter is present on a field, a funnel shaped icon appears to its right.



d. **Highlight** the filtered data item.

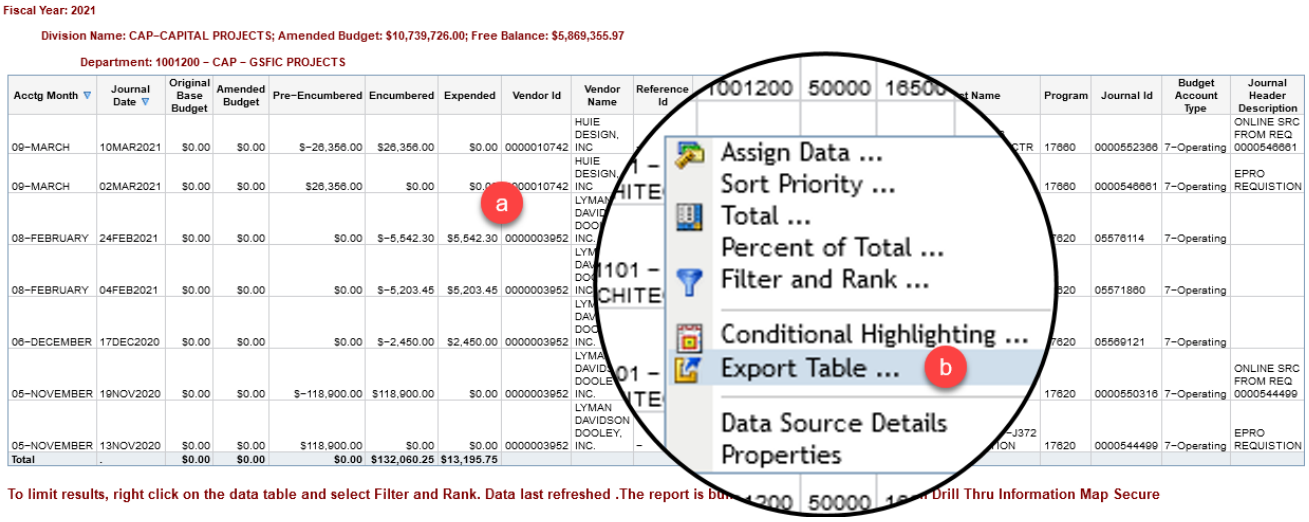


e. **Click** the "No Filter" (show all values) radio button to tell the report you want to remove the filter.

f. **Click** OK.

Export

Data may also be exported to Excel. Best practice is to filter the data to a reasonable size prior to exporting it to a spreadsheet.



1. **Open the Report Menu to Export**
   a. **Right click** in the body of the report to pull up the menu.

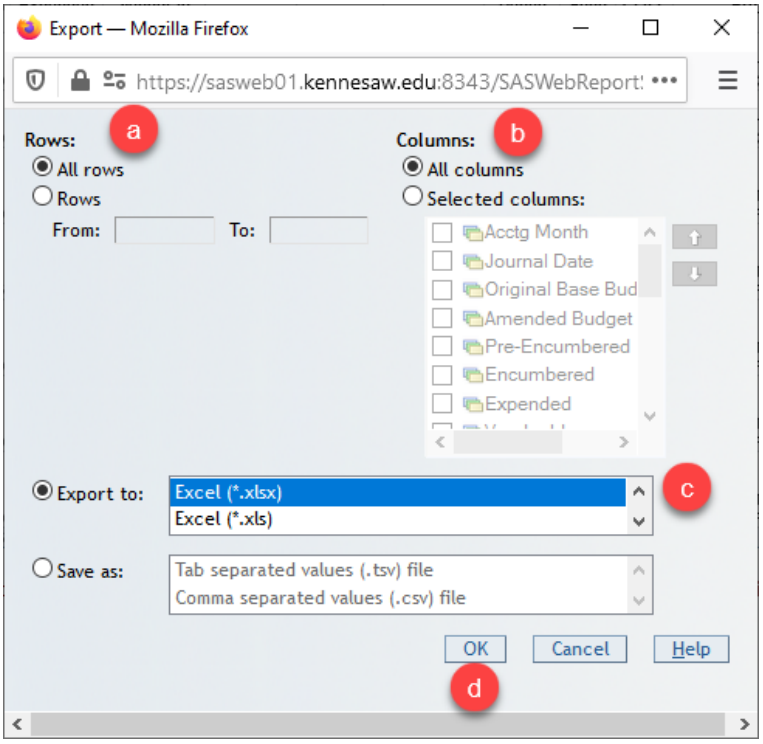
   b. **Click** Export Table.

2. **Export to Excel**
   a. **Click** on "All rows" OR click "Rows" and enter a sample of rows to export.

   b. **Click** on "All columns" OR choose Selected columns and click the check boxes to choose desired columns to export.

   Leave the default as the .xlsx file. The older Excel format is offered if needed for backward compatibility with older versions of Excel. **Click** OK.

   c. **Save** the file. The file may automatically save in your download folder, or you may be prompted to navigate to a folder. The browser you are using dictates this behavior.



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Saving a Report

You may customize reports with your preferred selections and can save it in your personal folder named "My Folder" or save it into your shared Department Folder to share with others. These reports will also be refreshed nightly.

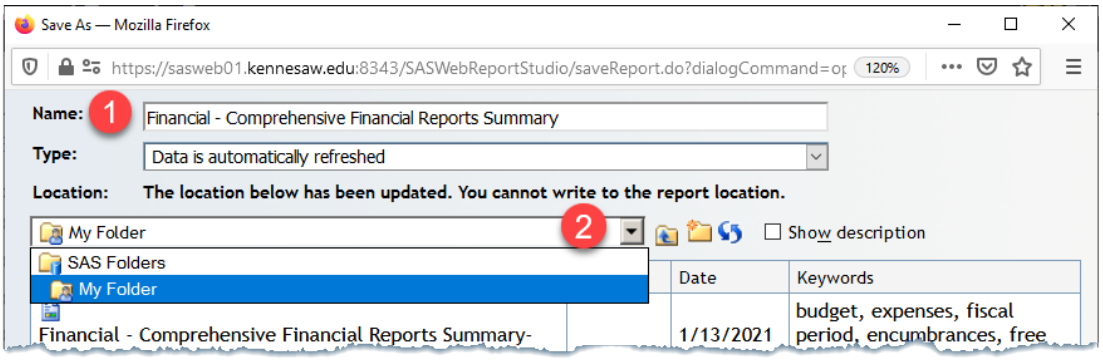
a. **Select File** from the menu in the upper left corner of the screen

b. **Select Save or Save As** to open the dialogue window

Save to your "My Folder" (your personal folder)

a. **Enter** a new file name.

b. **Click** the drop-down arrow to see folders and choose "My Folder" to save the report in your personal folder if it is not already selected.



Save to a Division or Department Folder

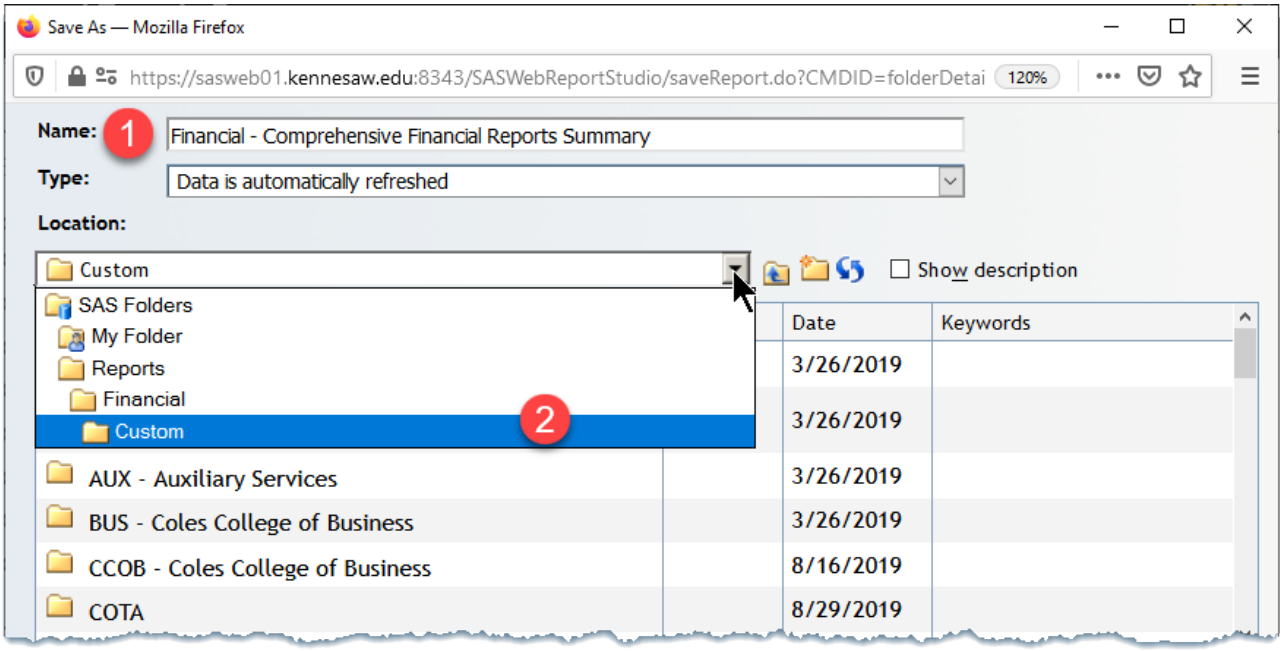
If you have permission, you may save to a shared folder so that more than one person can use the report. Note that this also means that others will be able to open, use, edit and save over this report! You may want to keep a copy in your personal folder as a backup.

c. **Enter** a new file name.

d. **Click** the drop-down arrow and choose SAS Folders to go up one level from "My Folder" in the folder tree.

e. **Navigate** to this path: SAS Folders/Reports/Financial/Custom/ [Your Division or Department]

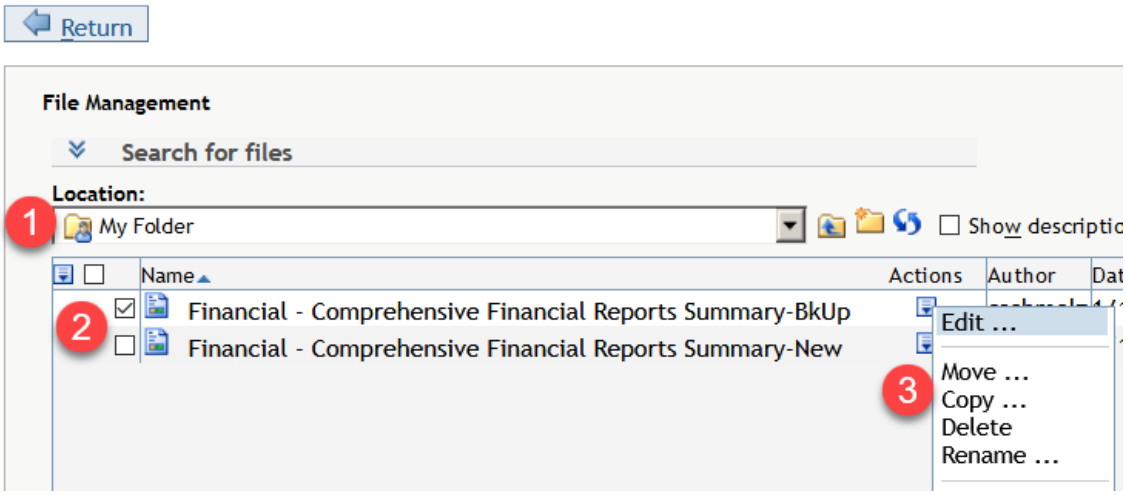
f. **Click** OK.



Manage Files

To Manage your files and perform actions such as Move, Copy, Delete or Rename

1. **Select** File from the menu in the upper left corner.
2. **Select** Manage Files.
3. **Click** the report that you want to Move, Copy, Delete or Rename.
4. **Choose** the Action from the Action Menu.



Two Methods to Open an Existing Report

1. **From the SAS Portal - Financial**

    a. Select Financial in the left menu panel.

    b. Choose an existing Financial Report from the Financial Portlet.

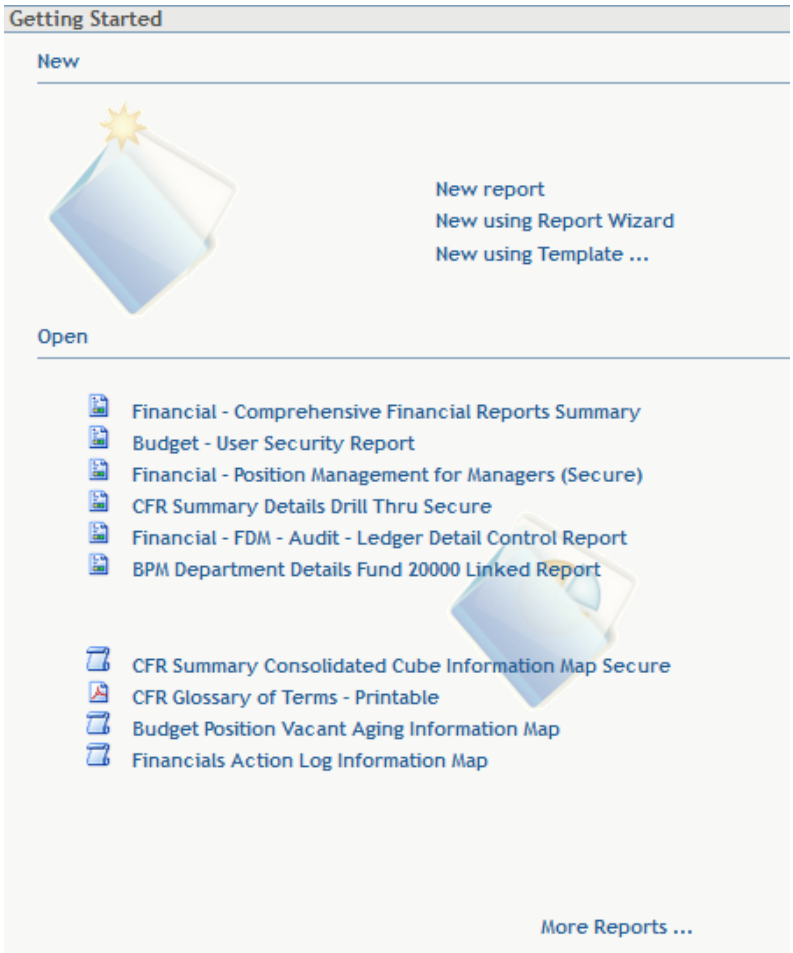
2. **From SAS Portal - Getting Started**

    a. Choose "Getting Started" from left menu panel in the Portal

    b. Select SAS Web Report Studio from the top right corner in the Portal

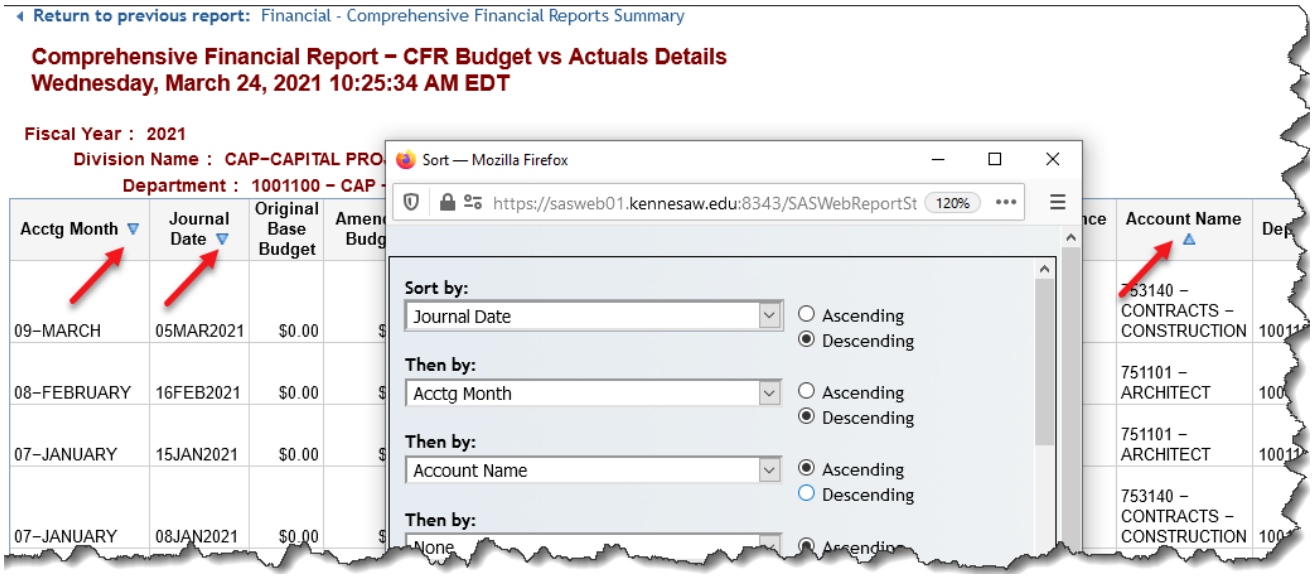
    c. This first dialog box provides a short cut to your recently accessed reports.

    d. Or, select "More Reports" to navigate through the SAS Folders to locate your desired report.

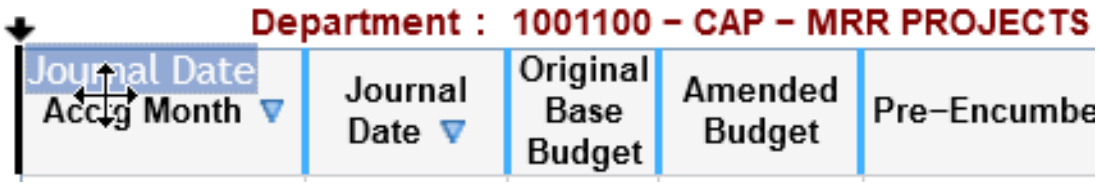


Additional Functionality on the View Tab

1. **Sort** – This example is shown in the detail drill through report. If there is already a sort applied in the report, it will be indicated by the upside-down blue triangles. To change the sort, right click in the body of the report and choose "Sort Priority…" to bring up the sort dialogue window. Choose the fields to sort on and click "OK".



2. **Rearrange Columns** – click on the column name and drag the column to a new location

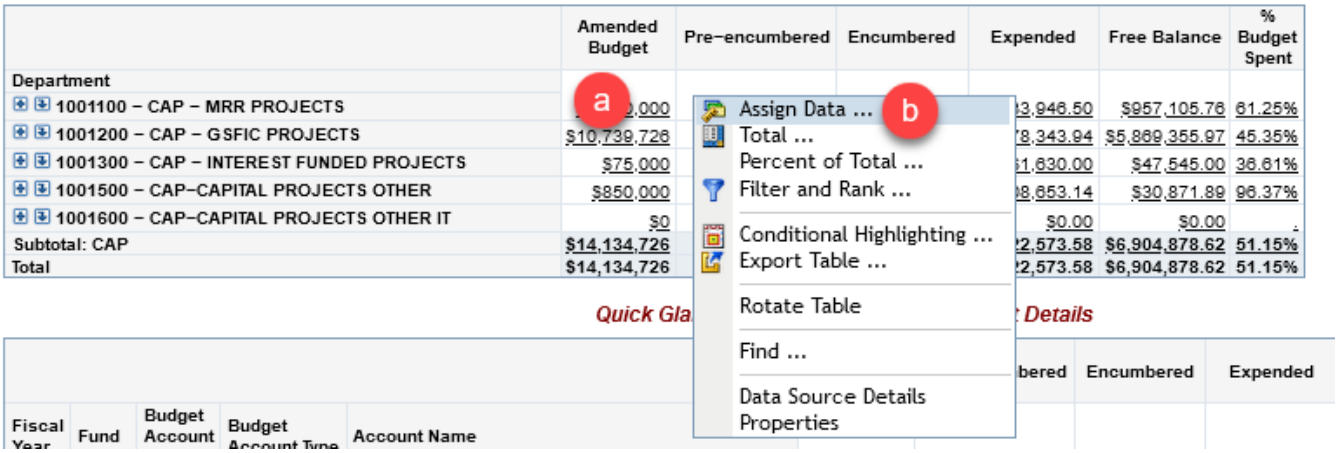


3. **Adjust Column Width** – hover between the column names to find the double arrow, then click and drag to adjust column width.

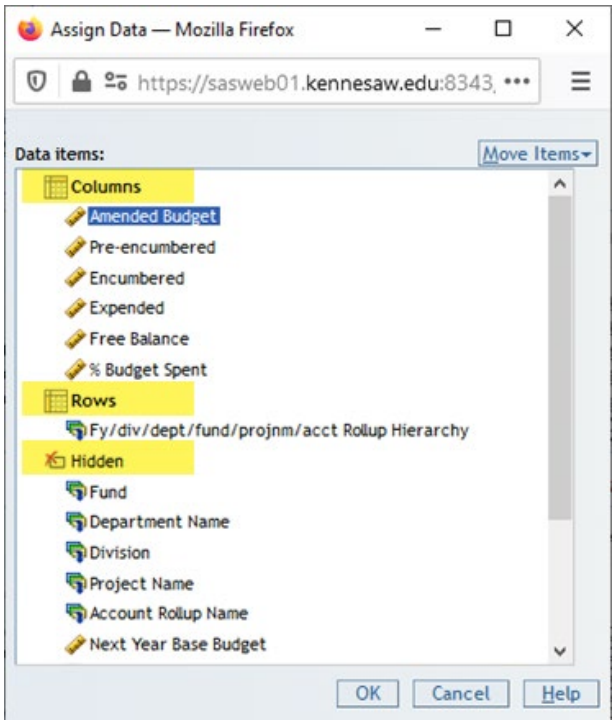
4. **Assign Data** - While Select Data in the left panel selects the data items to be used somewhere in the report, **Assign Data** provides the means to move these selected fields in and out of the report as needed.

   a. **Right click** in the body of the report

   b. **Select** Assign Data



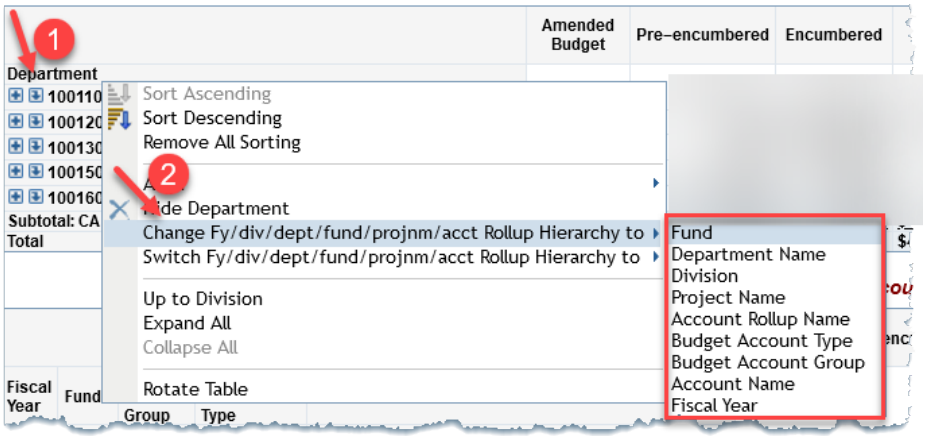
The Assign Data dialog box is divided vertically into sections. These sections are designated as **Columns**, **Rows** and **Hidden**. The items in the columns or rows section are visible on the report. The Hidden items are available to be used but are not currently visible on the report. Also notice that in this case, the Row section has the Hierarchy as the item, which provides the drill down feature. Click and drag to move items from one section to another.



Change the Row Field

Right clicking on the row header allows you to swap out the row field (left column) without having to use the Assign Data panel.

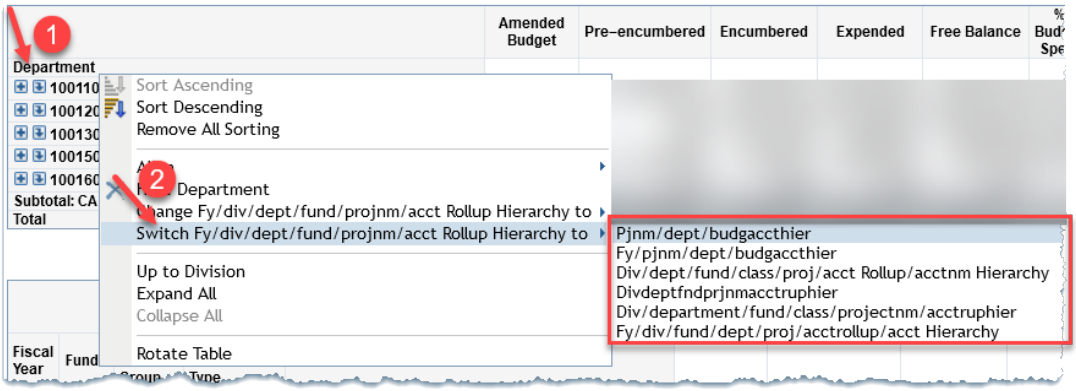
1. Right click on the row header. In this example below, right click directly on the word “Department”.
2. Select “Change FY/div/dept/fund/projnm/acct Rollup Hierarchy to”.
3. Select what field you would like to swap out for the hierarchy.



Switch the Row Hierarchy

Right clicking on the row header and selecting “Switch” allows you to swap to a new hierarchy.

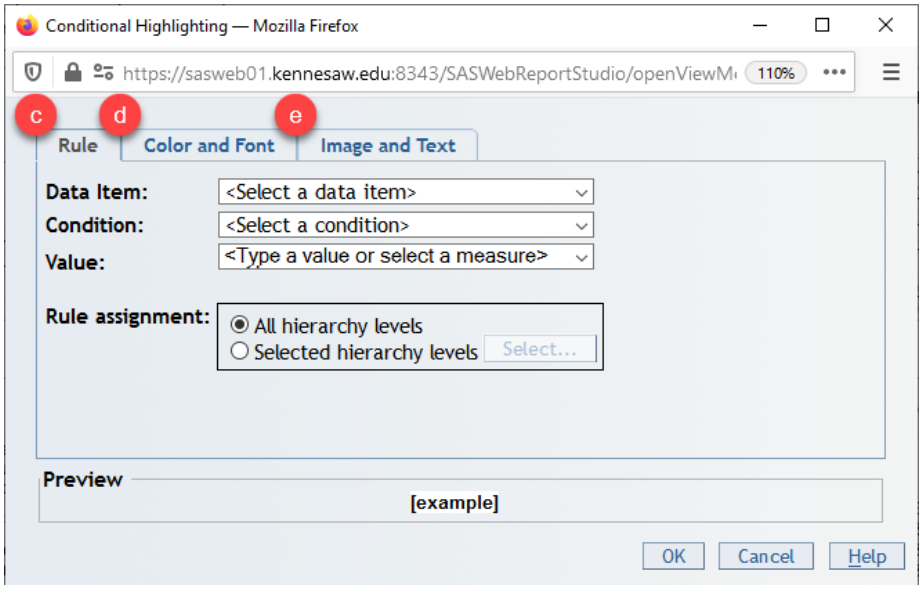
1. Right click on the row header. In this example below, right click directly on the word “Department”.
2. Select “Switch FY/div/dept/fund/projnm/acct Rollup Hierarchy to”.
3. Select another hierarchy to swap for the current one.



Conditional Highlighting – Conditional highlighting allows you to add color or images to draw attention to areas of the report.

a. **Right click** in the body of the report

b. **Select** Conditional Highlighting … - Notice there are three tabs provided to set up the conditional highlighting.

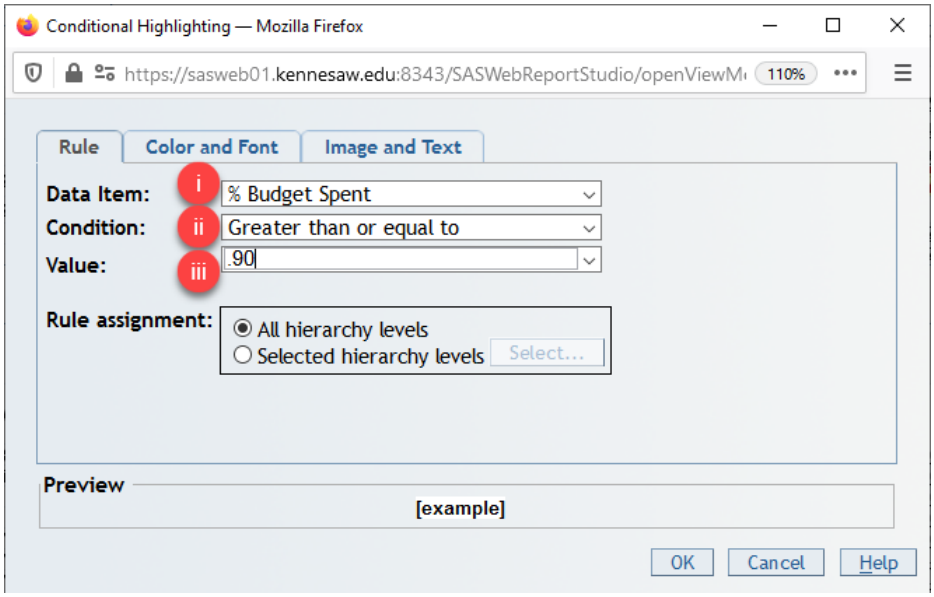


c. The **Rule** tab is required and is where the condition is defined.

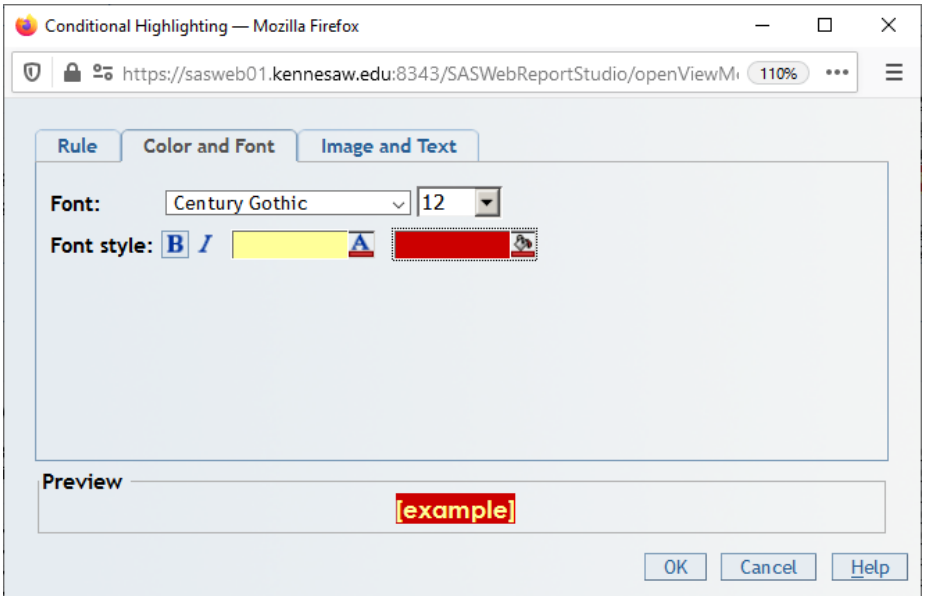
   i. Select the data item to which the condition will be applied

   ii. Select the condition

   iii. Enter the comparison value



d. The **Color and Font** tab offers color and font choices for the chosen data item. Select the font, font size, font style and color choices.



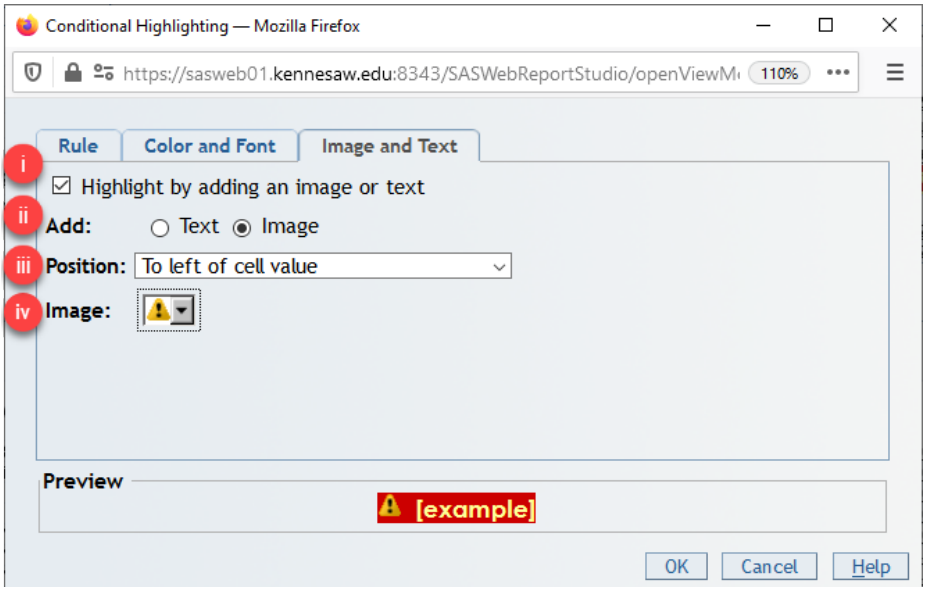
e. The **Image and Text** tab offers an image or custom text option to be placed next to the chosen data item. Click the "Highlight by adding an image or text" checkbox then add text or an image to appear besides the item that meets the condition.

   i. **Click** the **Highlight by adding an image or text** checkbox. This checkbox must be checked for the Image and Text to take effect.

   ii. **Click** the radio button to indicate adding text or an image.

   iii. **Select** the position from the drop-down menu for the text or image.

   iv. **Select** an image from the drop down or alternatively, enter text in the box.



SAS Beginner CFR Training

Table of Contents Report Definitions

1. **Announcements** – Information about any updates or changes to the reports.
2. **Glossary of Terms** – Defines columns in all CFR reports.
3. **Current Budget vs. Actuals** - Comprehensive Financial Report displays Amended Budgets, Pre-encumbrances, Encumbrances, Expenses, Free Balance and % Budget Spent.
4. **Current Revenue vs Actuals** – The Revenue vs Actuals includes Projected Revenue Budget, Recognized Balance, Variance, Amended Budget, Pre-encumbered, Encumbered, Expended, Free Balance, and Actual Surplus Deficit.
5. **Current Budget** – The Current Budget report focuses on the Budget, including the Original Budget, Amended Budget, % Change, Next Year's Base Budget, and % Change from the Original Budget.
6. **Current Revenue** – Current Revenue data including Revenue Budget, Recognized, Revenue Variance, Carry Forward, Projected Budget, and Recognized Balance.
7. **Current Spend Analytics by Period** – This report shows monthly and quarterly spend activity including Pre-encumbered, Encumbered and Expended data.
8. **Current Non-Personal Spending Deficits** – Amended Budget, Total Spend, Free Balance and % Available are available in this report which is filtered to Non-Personal Expenditures.
9. **Current Projects** – This report is filtered to show only Non-Sponsored Projects (i.e. no grants). Columns include Amended Budget, Pre-encumbered, Encumbered, Expended, Free Balance and % Available.
10. **Current Pre-Encumbrance** – Owlpay, PCard, Requisitions, Reserves (Set-Asides), and Travel amounts are all shown in this Pre-encumbrance report, showcasing expenses that are in the pipeline but not yet paid.
11. **Current Open Purchase Orders** – All open purchase orders with details are shown on this report.
12. **Consolidated Revenue and Expenditures** – This report combines the Current Budget vs. Actuals and the Current Revenue vs. Actuals into one report.
13. **Historical Budget** – Mirrors the Current Budget Report but data included is one year previous to the current fiscal year and goes five years back.
14. **History Budget vs. Actuals** - Mirrors the Current Budget vs. Actuals Report but data included is one year previous to the current fiscal year and goes five years back.
15. **Historical Revenue** – Similar to the Revenue report, including data one year previous to the current fiscal year and goes five years back.
16. **Historical Revenue by Period** – This report shows Revenue Analytics monthly and quarterly going back to 2015.
17. **Historical Spend Analytics by Year** – Similar to the Current Spend Analytics, this report goes back showing monthly and quarterly spend analytics to 2015.