

SAS Training for New Financial Users

SAS Training for New Financial Users

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Introduction

Under the Office of Fiscal Services (OFS) and Office of Budget and Planning (OBP), Enterprise Reporting and Training (ERT) is responsible for the design, development, and deployment of enterprise financial data, reporting, analytics, and training that supports operationalized financial reporting in SAS, Power BI, and Tableau for data-driven decision making.

SAS Training for New Financial Users introduces students to SAS Web Report Studio and the Comprehensive Financial Report (CFR). The CFR is used to teach how to use the Web Report Studio software, in addition to learning about KSU's financial data process.

Log In to SAS Web Report Studio

1. **Navigate** to the SAS login screen by clicking here:
[SAS® WRS Logon Manager](#)
1. Enter your **NetID** and normal KSU **Password**
2. 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 the SAS Administrators share information about the SAS Platform.

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SAS® Portal | Customize | Options | Search | Log Off Cindy | Help

KENNESAW STATE UNIVERSITY

What's New? | Shared: PUBLIC

Getting Started

Financial

Welcome to the KSU SAS® Enterprise Reports Portal!

Institutional Research (IR) is committed to keeping you abreast of what is happening with the administrative KSU SAS Initiative as well and what is coming up in the way of both public and private information reporting and analytic products.

IR is currently running the SAS 9.4 M6 release of the SAS Business Intelligence Platform. This upgrade resolves several technical issues as well as provides new features and capabilities that allow for easier, yet robust, self-service access to data, information, and analytics. On the *Getting Started* page (which is only visible after log on), you will find training and documentation materials in the *SAS Tools for Self-Service Reporting* portlet.

In addition, IR will continue to use your feedback to better organize the KSU SAS Enterprise Reports Portal. Instead of all report links appearing on a single page, they have now been categorically organized into multiple pages as seen in the left-hand navigation bar. This should allow you to quickly and easily navigate to the reports you need. IR has also enhanced self-service reporting not only for real-time reporting, but for access to official census reports as well.

We hope you enjoy and can make productive use of SAS 9.4 and the KSU SAS Enterprise Reports Portal. We welcome your comments. Please call IR at 470-578-3282 or send e-mail to data@kennesaw.edu.

Security Disclaimer | Shared: PUBLIC

PLEASE READ BEFORE USING KSU SAS® ENTERPRISE REPORTS:

Please familiarize yourself with KSU's Data Security Policy at <https://uits.kennesaw.edu/document-management/index.php>.

By accessing SAS® enterprise reports, you are accepting ultimate responsibility on how data are used on these reports. As an employee of Kennesaw State University, you are responsible for ensuring that salary data within related reports as well as all employee and financial records are held STRICTLY CONFIDENTIAL. This notice is not intended to interfere with the normal operations in performing your duties as an employee. Although certain records may be obtained under the Georgia Open Records Act or publicly from the Department of Audits, you must still hold all records confidential. All Open Record Requests must be in writing and should be forwarded immediately to the Office of Legal Affairs or to the President's Office prior to any response received by you. Violations are subject to the penalties defined within KSU's Data Security Policy.

For your information:

Getting Started

Select Getting Started from the left-hand menu panel. 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 shortcut 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.

SAS Tools for Self-Service Reporting | Shared: PUBLIC

[Click here to refresh collection.](#)

- SAS Classroom Training**
A schedule of SAS classroom training sessions.
- SAS Web Report Studio**
The SAS Web Report Studio application.
- SAS WRS Development Standards and Guidelines**
This PDF describes the naming and formatting conventions used for reports developed in the SAS environment.

Financial Portal

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

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1. **Select Financial** – from the left-hand menu panel.
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 is 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 is 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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Persistent: FIN-Financial Information Users

Reference Guides for Financial Reporting

Shared: FIN-Financial Information Users

- Financial - Position Management for Managers Report - Overview and Quick Reference
- Financial - Position Management for Managers Report - Position Balances
- Financial - Position Management for Managers Report - Personal Services
- Financial - Report Tips and Navigation
- Financial - Comprehensive Financial Reports (CFR) Glossary of Terms

Enterprise Risk Management

Shared: FIN-Office of Financial Management


[Click here to refresh collection.](#)

[Motor Vehicle Operations Training and Reports.srx](#)

Financial Reports

Shared: Financial Reports Users

[Click here to refresh collection.](#)

- 
- [Financial - Comprehensive Financial Reports Summary.srx](#)
Comprehensive Financial Report displays data consolidation for budget, pre-encumbrances, encumbrances, expenditures, and remaining balances for revenue and expense accounts by fiscal periods
 - [Financial - Position Management for Managers \(Secure\).srx](#)
Report to monitor and track position budgets and expenses
 - [Financial - Proposed Budget Schedules \(SECURE\).srx](#)
This report displays annual Schedules G (summary) and G-1 (detail) budget reports for original and proposed personal services (salaries) and non-personal services (operating)
 - [Financial - Vendor Payments - SECURE.srx](#)
 - [Motor Vehicle Operations Training and Reports \(Secure\).srx](#)
 - [Financial - KSU Housing Report \(Secure\).srx](#)
PPV cash flow analysis of revenue and expenditures and lease payments.
 - [Financial - Shipments Receiving Report.srx](#)
This report provides a view into the status of the IT Purchase orders and anticipate delivery based on dispatched status.

Grants Reports

Shared: Grants Shared Internal Reports Users

[Click here to refresh collection.](#)

- [Financial - Grants CFR Report.srx](#)
Grants Comprehensive Financial Report displays data consolidation for budget, pre-encumbrances, encumbrances, expenditures, and remaining balances for expense accounts by grant life-cycle.
- [Financial - Grants Expenditure Detail Reports.srx](#)
Grant expense detail (personal, operating and travel).
- [Financial - Grants Principal Investigator CFR Reports.srx](#)
Grants Cost Element and detail reports that display summary and detail of budget, pre-encumbrances, encumbrances, expenditures, and remaining balances for expense accounts by grant life-cycle.
- [Financial - Grants Operations Reports.srx](#)
Budget reports which focuses on position-related amendment data to manage and track changes in position budgets and position attributes. access managed by Grants Operations Report Users ACT.

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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. Options in the menu change, depending upon which tab is active.
3. **Table of Contents** – The Table of Contents drop-down menu offers all 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.

Portal 5 Log Off Cindy Schmelzer 6 Preferences Help

SAS Web Report Studio • Financial - Comprehensive Financial Reports Summary

File Edit View Data Edit View 1 / 17

Table of Contents 3 Options Announcements

Section Data 4 Options

Wednesday, March 17, 2021 9:16:02 AM EDT

Welcome to the Comprehensive Financial Reports (CFR) Summary.

NEW 6-1-2018! Consolidated Revenue and Expenditures has returned!
The CFR Consolidated Revenue and Expenditure report has returned and now available to assist managers to monitor revenue and expenditures on the top data table while tracking budget balances divided into Personal (PS) and Non-Personal Services (NPS) on the bottom data table. The report navigation aggregates from fiscal year to division to department to fund to project and finally to account rollup as you drill down at different levels. Details are available using a drill to detail report by clicking on any cell. However, we recommend navigating to a lower level of aggregation to prevent too much details to be pulled back. Please select under the Table of Contents.

6-21-2017 The Open Purchase Orders report assists managers to monitor and manage purchase orders which have an open balance and not completely closed. The report displays all departments sliced by Division. Please select under the Table of Contents.

2-2-2017 Drill through Detail Reports related to all Current and History reports have been modified to show only data rows related to the main (drill from) report. For example, if you run Current Budget and decide to drill into the detail at the specified level will only show data rows specific to budget data. **Lines with zero amounts except that net to zero have been eliminated!**

1-6-2017 Current Non-Personal Spending Deficits reports under the Table of Contents has been added with two sections. The **first section** is a table of department deficit spending for non-personal services and the **second section** the same as the Budget vs Actuals report from the Table of Contents but for Non-Personal Services only with drill down and drill through functionality.

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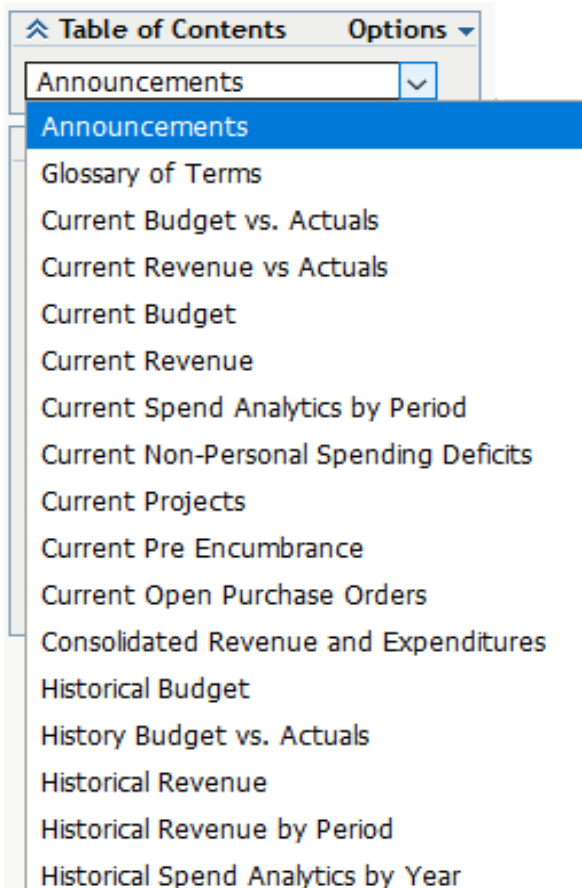
Comprehensive Financial Report (CFR)

The most used sub-report under the Table of Contents is the Budget vs Actuals report. This documentation will use that report as a tool to learn how to navigate through the reports in Web Report Studio. 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.

CFR's Table of Contents

1. The **Glossary of Terms** includes definitions for all fields and calculated fields used in the CFR.
2. The **Current** fiscal year reports start with the word "Current" in addition to the Consolidated Revenue and Expenditures report. As the name suggests, they only show data for the current Fiscal Year, except for a short time after July 1st, as we close out the previous fiscal year and show two years of data.
3. **Historical** reports go back 6 years starting with the previous Fiscal Year.

Note: A description of each of these reports contained in the CFR can be found in Appendix A.

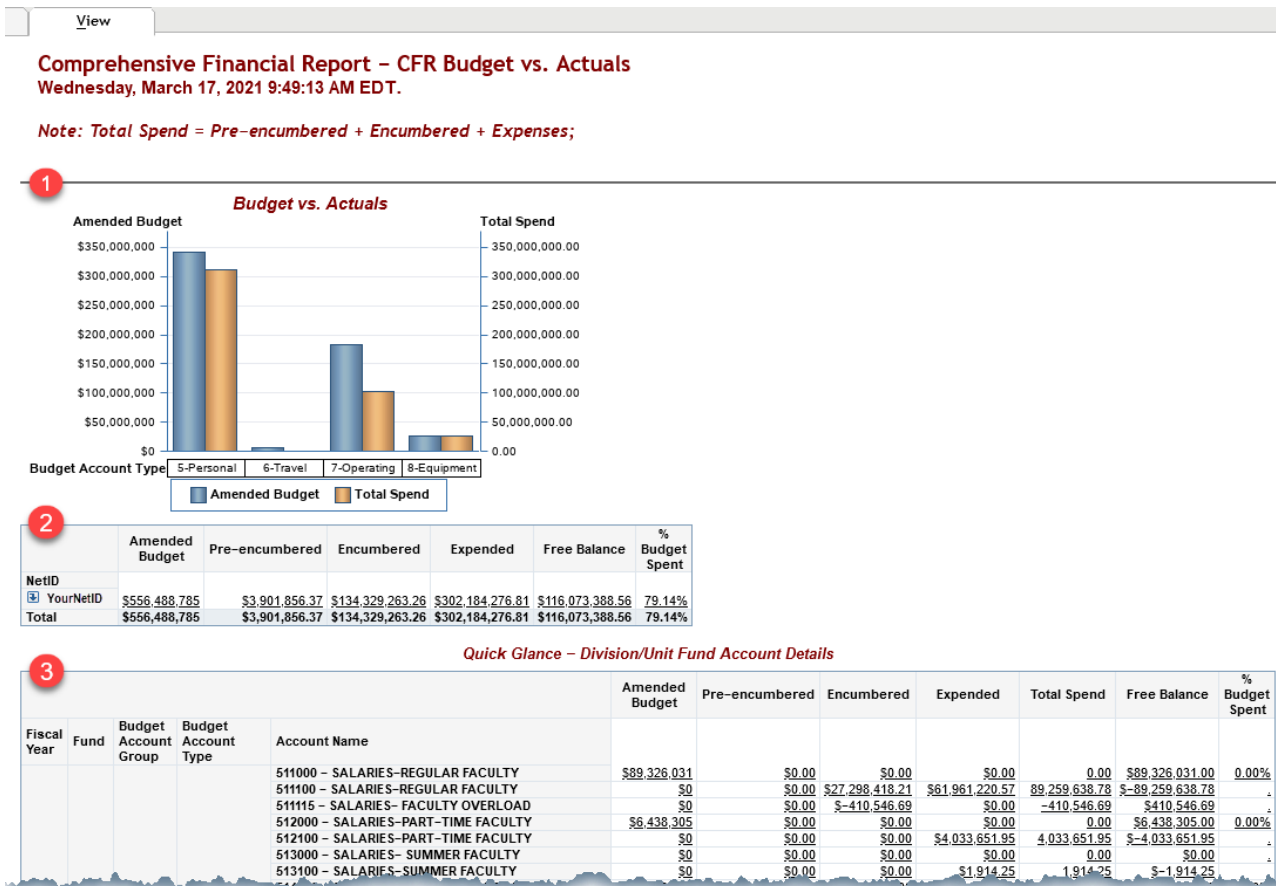


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View Tab

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

1. **Bar Chart** – an overview comparing Amended Budget versus Total Spend
2. **Drill Down 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



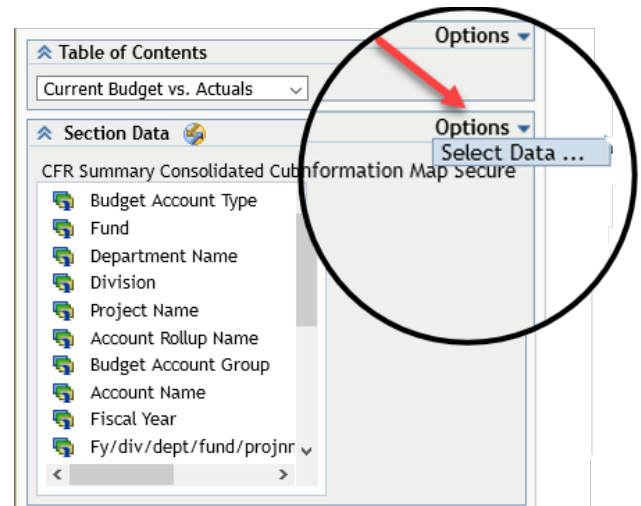
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Section Data

Section Data displays the selected “information map” (data) for a report. The Information Map is a type of SAS data set.

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

1. Select **Options**.
2. Choose **Select Data** to preview the data available in the Information Map. Data is refreshed nightly.



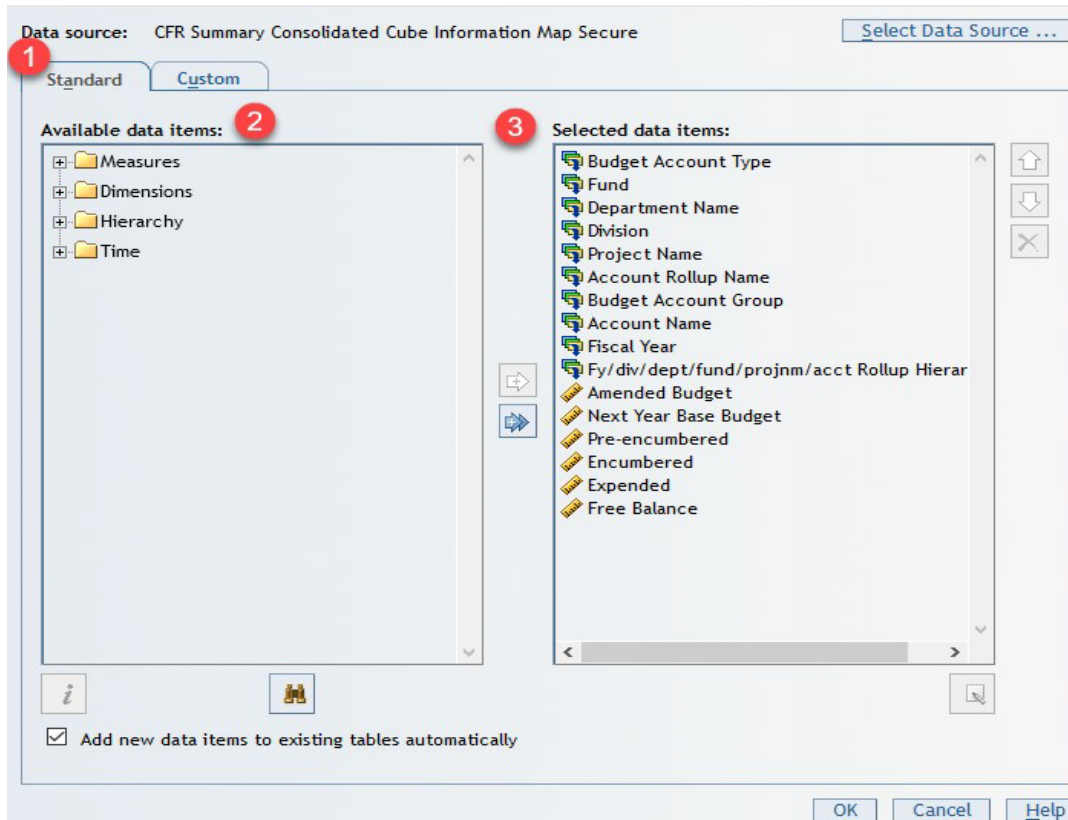
Data Source Window

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

1. **Tabs**
 - **Standard Tab** shows the data fields available from the information map.
 - **Custom Tab** shows **calculated fields** being used in the current report. Additional custom measure fields can also be created from this tab.
2. **Data Items** – Each data item falls into a data type category.
 - **Measures** – Are numeric values like Revenue and Expenses.
 - **Dimensions** - Are character fields like Division, Department or Project Name.
 - **Hierarchies** - Hierarchies define the order or path that is followed when drilling through the data. For example, choosing a division will then display the departments within that division, choosing a department could then display funds used in that department, and so on.
 - **Time** – Time fields for time analysis.
3. **Selected Data Items** – This window shows the fields selected to be used in the current report.

Note: Figure on next page.

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Data Source Window

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 obligates the department for future payment that has not yet been made.
4. **Expended** – Total expenses that have been paid.
5. **Free Balance** – Amended Budget minus the Total Spend.
6. **% Budget Spent** – A calculated field combining the impending expenses in the pipeline plus paid expenses divided by the percent budget spent: $(\text{Pre-encumbered} + \text{Encumbered} + \text{Expended}) / \text{Amended Budget}$
7. **Total Spend** – A calculated field combining Pre-encumbered, Encumbered, and Expended amounts to show total dollars.

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Exercise 1: Section Data

This exercise demonstrates how to add additional fields to the report from the Information Map available in the Section Data Options menu.

1. Select the **Options** drop down in the **Section Data** panel and click **Select Data**.
2. Expand the **Measures** section.
3. Highlight **Original Budget**.
4. Click the right arrow to move **Original Budget** to the **Selected Data Items** window.
5. Click **OK** and notice the new measure appears as the last column in the table.

(End of Exercise 1)

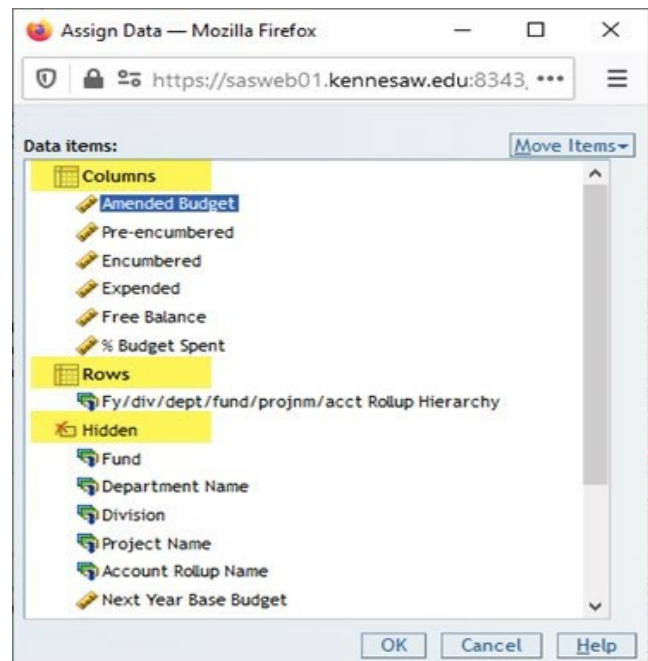
Assign Data

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

1. **Right click** in the **body** of the report.
2. 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 through feature in this report.



Click and drag to move items from one section to another. Notice they will appear on the report in this same order.

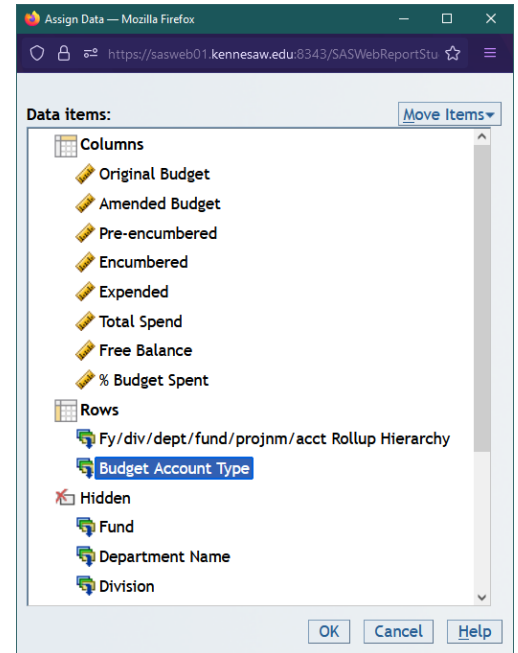
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Exercise 2: Assign Data

This exercise will use the **Assign Data** menu to add and remove fields on the report. Right click in the body of the report.

1. Select **Assign Data**.
2. Move “Total Spend” into the **Column** section to the right of Expended.
3. **Click OK**. Notice the column is added to the report in the same order as in the Assign Data window.
4. Reopen **Assign Data**.
5. Move “**Original Budget**” to the left of Amended Budget.
6. **Click OK**.

Your report at the end of this exercise should look like this:

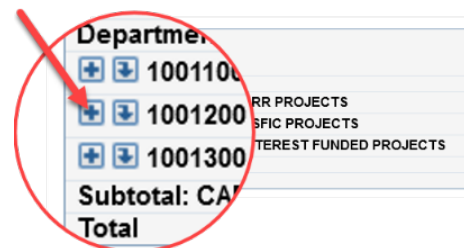


	Original Budget	Amended Budget	Pre-encumbered	Encumbered	Expended	Total Spend	Free Balance	% Budget Spent
Department								
+ 1001100 – CAP-MRR PROJECTS	1043396	\$3,689,396	\$0.00	\$987,059.60	\$60,519.00	1,047,578.60	\$2,641,817.40	28.39%
+ 1001200 – CAP-GSFIC PROJECTS	1996502	\$5,724,153	\$0.00	\$108,972.36	\$-4,486.99	104,485.37	\$5,619,667.63	1.83%
+ 1001300 – CAP-INTEREST FUNDED PROJECTS	95000	\$95,000	\$0.00	\$0.00	\$0.00	0.00	\$95,000.00	0.00%
Subtotal: CAP	3134898	\$9,508,549	\$0.00	\$1,096,031.96	\$56,032.01	1,152,063.97	\$8,356,485.03	12.12%
Total	3134898	\$9,508,549	\$0.00	\$1,096,031.96	\$56,032.01	1,152,063.97	\$8,356,485.03	12.12%

(End of Exercise 2)

Navigating the Interactive Drill Down Report

The Interactive Drill Down Report allows the user to control the level of detail needed on the report. In addition, some reports, indicated by the underlined numbers are hyperlinks, and open a second report showing transactional data.



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

Note: As the data changes in the drill down, notice that the graph and the Quick glance also change as the three report components are synchronized!

	Original Budget	Amended Budget	Pre-encumbered	Encumbered	Expended	Total Spend	Free Balance	% Budget Spent
Department								
+ 1001100 – CAP-MRR PROJECTS	1043396	\$3,689,396	\$0.00	\$987,059.60	\$60,519.00	1,047,578.60	\$2,641,817.40	28.39%
+ 1001200 – CAP-GSFIC PROJECTS	1996502	\$5,724,153	\$0.00	\$108,972.36	\$-4,486.99	104,485.37	\$5,619,667.63	1.83%
+ 1001300 – CAP-INTEREST FUNDED PROJECTS	95000	\$95,000	\$0.00	\$0.00	\$0.00	0.00	\$95,000.00	0.00%
Subtotal: CAP	3134898	\$9,508,549	\$0.00	\$1,096,031.96	\$56,032.01	1,152,063.97	\$8,356,485.03	12.12%
Total	3134898	\$9,508,549	\$0.00	\$1,096,031.96	\$56,032.01	1,152,063.97	\$8,356,485.03	12.12%

2. Click the **Plus sign (+)** to expand the report to see the next level of data. In this example on the next page, Fund, expands and displays while continuing to display the other Departments rolled up.

			Amended Budget
Department	Fund	Project Name	Amended Budget
+ 1001100 – CAP-MRR PROJECTS			\$3,689,396
+ 1001200 – CAP-GSFIC PROJECTS	50000	+ CJ296ALC-CAP-J296 ACADEMIC LEARNING CTR	\$653,643
		+ CJ321SCLAB-CAP-J321 SCIENCE LAB ADDITION	\$121,330
		+ CJ337ELABG-CAP-J337 ENG LAB BUILDING G	\$38,510
		+ CJ372CHEMLAB-CAP-J372 CHEMLABRENOVATION	\$324,970
		+ CJ384LABE-CAP-J384 CRAWFORD LAB BLDG E	\$4,585,700
		Subtotal: 50000	\$5,724,153
Subtotal: 1001200 – CAP-GSFIC PROJECTS			\$5,724,153
+ 1001300 – CAP-INTEREST FUNDED PROJECTS			\$95,000
Subtotal: CAP			\$9,508,549
Total			\$9,508,549

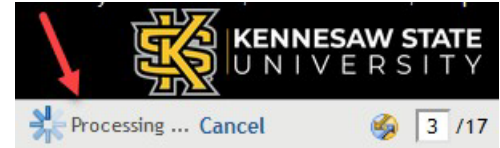
Report view when Department has been expanded using the Plus sign (+)

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 is shown 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](#)

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3. **Drill Through** – Click on any underlined row value in the body of the report to open the detailed transactions that make up the numbers in that row. This opens a new detailed report comprised of all the corresponding 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.



Note: Keep in mind that if you “drill through” at a high level, you will get too many rows returned and can hang the system. Drill down, filtering to the level of detail and category of data needed first, then drill through for a reasonably sized dataset consisting of the desired transactions.

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

Drill Through Detail Report Example

4. Click the “Return to previous report: Financial – Comprehensive Financial Reports Summary” breadcrumb above the report after you have drilled through to return back to the same location in the summary report. 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

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Exercise 3: Navigate Reports

This exercise demonstrates how to navigate across reports.

1. Navigate to the top level of the hierarchy, if you are not already there.
2. Click the **Down arrow** (↓) to *filter* your **NetID**.
3. Click (↓) to *filter* the **Fiscal Year**.
4. Click (↓) to *filter* the **Division**.
5. Click the **Plus sign** (+) to *expand* the **Departments**. This method of viewing allows comparisons between departments rather than simply filtering them out.
6. Click the (+) to *expand* the **Fund** column.
7. When you are done expanding the Fund column, Right Click on the word “Department” in the column header, and choose **Collapse All**.
8. Collapse the **Departments**.
9. Drill through to the detailed transaction report, selecting a department with more than zero expended dollars. We will use this view to learn how to filter in the next section.

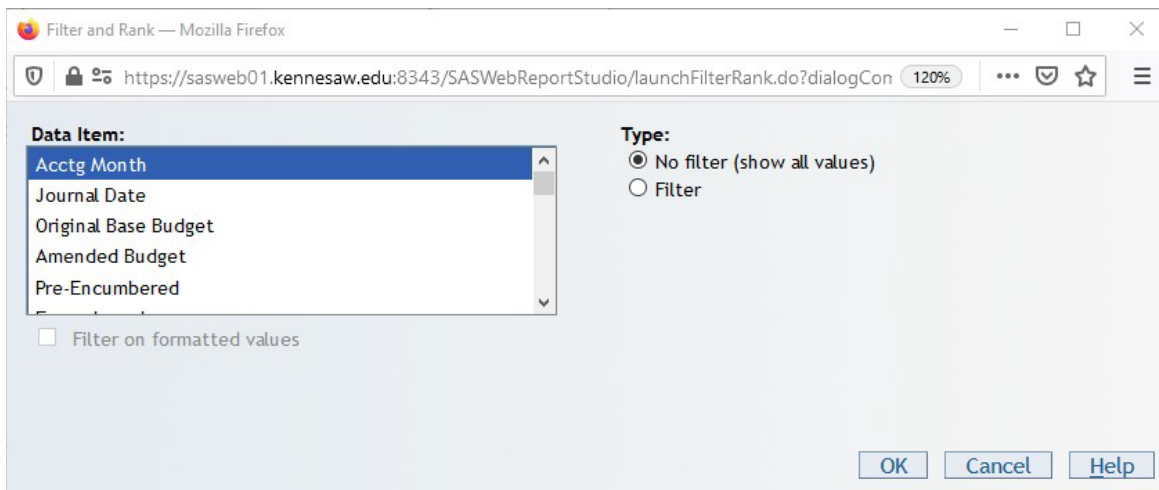
(End of Exercise 3)

View Tab

Menu options change depending upon where in the report you right-click in the View Tab, and also within each report type. For example, column headers, row headers and in the body of the report, all have a different right click menu. In these next examples, the CFR Budget vs Actuals Details (the drill through) will be used.

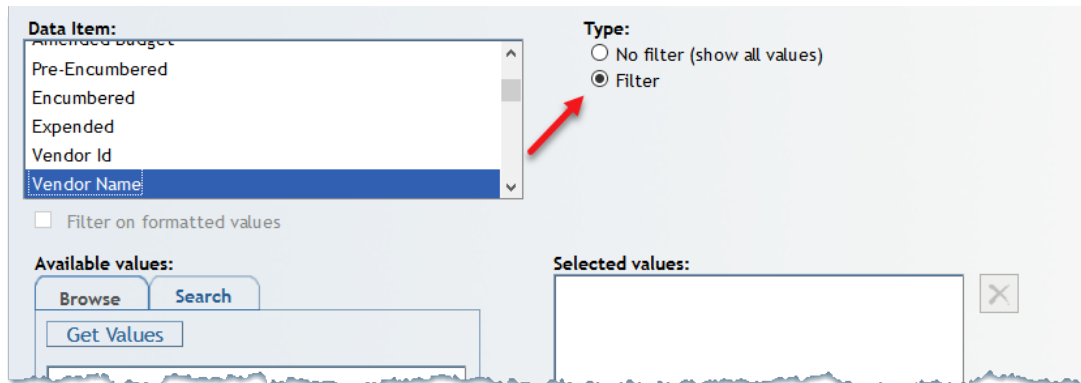
Filtering Data

1. **Right click** in the **body** of the report (the white area in the numbers)
2. Select **Filter and Rank**. The dialogue window below will open.



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3. **Highlight** the **Data Item** (column) that you want to set the filter on.
4. Click the **Radio Button** to tell the SAS 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.



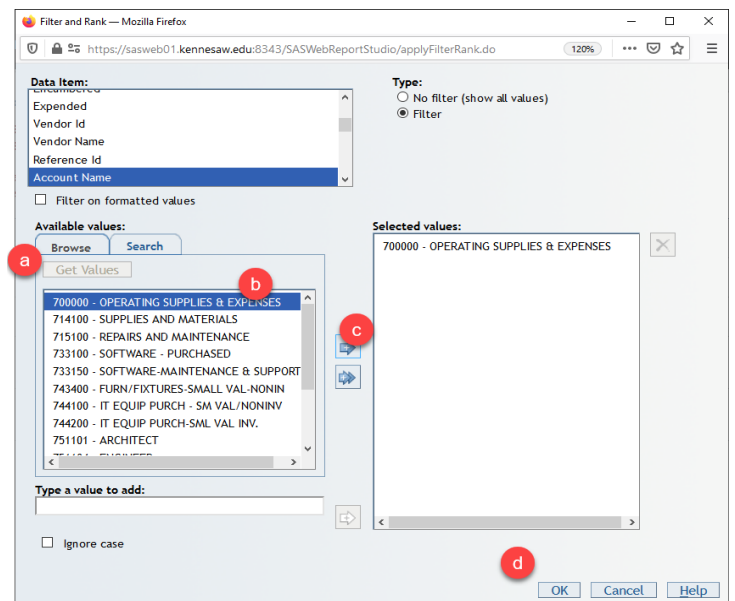
5. Either the character, numeric or date filter dialogue window will appear depending upon what type of field was clicked.

Note: Always remember to highlight the Data Item column name *PRIOR TO* modifying a filter. Each column's 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 must 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. **Get Values** (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 **arrow** to move them to the **Selected Values** window.
 - d. Click **OK**.



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2. Type a Value to Add (available from the Browse and Search tabs)

- Enter text** to search. What is typed here must match exactly and is case sensitive.
- If applicable, click the **Ignore case** checkbox to ignore the case of the text.
- Click the **right arrow** to move the selection to the **Selected Values** window.

Type a value to add:

733100 - software - purchased

☒ Ignore case

3. Search Criteria (Search Tab) - This method allows using search criteria to help find the desired data. For example, if looking for the Architect vendor but do not have the full name or vendor ID number, use the "Contains" option to find any Vendor Names that have the word Architect as part of the text.

Data Item:

Encumbered
Expended
Vendor Id
Vendor Name
Reference Id
Account Name

☐ Filter on formatted values

Available values:

Browse Search

Search criteria:

Contains Architect

Search

751101 - ARCHITECT

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(Search Criteria (Search Tab) continued)

- Choose your preferred search **criteria**.
- Enter your **search string**.
- Click Search** button.
- Highlight a **Character data item** to filter by.
- Click the right arrow** to move the items to the **Selected values** window.
- Click OK**.

Apply a Numeric Filter

Set a filter on a measure, which is a numeric field, based upon a condition.

- Open the **Filter and Rank** menu.
- Highlight a **Numeric data item** to filter by.
- Select an **Operator** to compare the numeric field against (for example, "Is greater than or equal to").
- Type a value** to complete the filter expression.
- Click OK**.

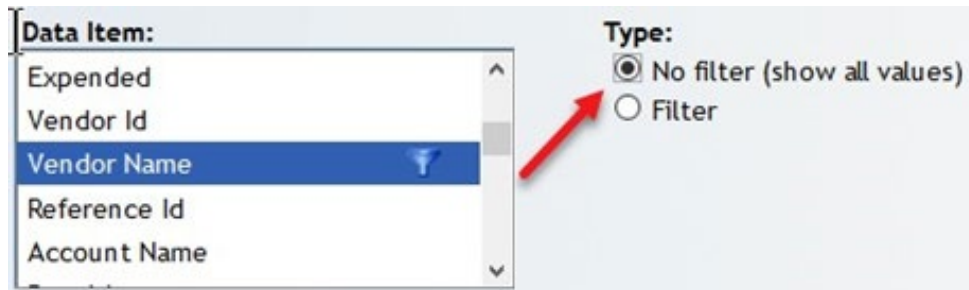
Note: This example is interpreted as: *Expended is greater than or equal to 100.*

The screenshot shows the 'Filter and Rank' dialog box in SAS. The 'Data Item' list on the left includes 'Pre-Encumbered', 'Encumbered', 'Expended', 'Vendor Id', and 'Vendor Name'. 'Expended' is selected. The 'Type' section on the right has three radio buttons: 'No filter (show all values)', 'Filter' (which is selected), and 'Rank'. Below this, the 'Operator' dropdown is open, showing a list of comparison operators. 'Is greater than or equal to' is selected in the list. The 'Value' field contains the number '100'. A red circle with the letter 'a' is placed over the 'Operator' dropdown, and a red circle with the letter 'b' is placed over the 'Value' field. A blue dashed arrow points from the 'a' circle to the 'b' circle.

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Remove a Filter

1. **Select Filter and Rank.** The dialogue window below will open.
2. **Find the data item** that has a filter applied. A **funnel shaped icon** appears to the right of items that have a filter applied.
3. **Highlight the filtered data item.**



- a. **Click the No Filter** (show all values) radio button to tell the report you want to remove the filter.
- b. **Click OK.**

Note: Filters build upon each other. If data is missing in the output, check for the blue funnel in the Data Item window to see if other filters are still applied.

Exercise 4: Adding and Removing Filters

Please drill through to your detailed transaction report for these exercises, if you are not already there.

Character Filter – Browse Tab Exercise

1. Right click in the body of the report and select **Filter and Rank**.
2. Highlight the **Vendor Name** column. Character fields are alphabetic and are not used in calculations.
3. **Click the radio button** indicating you want to **filter on Vendor Name**.
4. Click **Get Values** to display a list of vendors specific to your data.
5. **Highlight a vendor** then click the blue arrow to move that vendor into the **Selected Values window**.
6. **Click OK.** Notice that your data is now filtered.
7. **Re-open the Filter and Rank** menu option. Locate the **Vendor Name** field that has been filtered (via the blue funnel icon), highlight and **remove the applied filter**. (Highlight the Vendor Name and click the radio button to indicate 'no filter'.)
8. **Click OK.**

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Character Filter – Search Tab Exercise

1. Open the **Filter and Rank** menu.
2. Highlight **Account Name** and click the **radio button** to Filter.
3. Click the **Search Tab**.
4. Search using **Contains** for an **Account Name** with the word “**Supplies**”
 - a. Choose **Contains** in the Search criteria drop down menu.
 - b. Type the word **Supplies**.
 - c. **Click Search** button.
5. **Select items** to filter on by **highlighting** and move them into the **Selected Values window**.
6. **Click OK**. Notice your data is now filtered.
7. **Re-open the Filter and Rank** menu option. Locate the **Account Name** field that has been filtered (via the blue funnel icon), highlight and **remove the applied filter**. (Highlight the Account Name and click the radio button to indicate ‘no filter’.)
8. **Click OK**.

Numeric Filter Exercise

1. **Examine** the dollar amounts in the **Expended** column and choose a **middle value** in the data to use as a comparison. We want to **filter on items greater than this middle value**.
2. **Right click** in the body of the report select **Filter and Rank**.
3. **Highlight the Expended** field and click the **radio button to Filter** on this item. The Expended field is a measure, ie. numeric value.
4. Choose the **Operator “Is greater than or equal to”**.
5. Enter your **middle value** to filter.
6. **Click OK**. Notice how the table has filtered the Expended column based on what you entered.
7. Re-open Filter and Rank and **remove the filter**.

(End of Exercise 4)

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Export

Report data can be exported to Excel. Best practice is to filter the data to a reasonable size prior to exporting it to a spreadsheet.

1. Right click in the body of the report to pull up the menu.
2. Select **Export Table**.

Acctg Month ▼	Journal Date ▼	Original Base Budget	Amended Budget	Pre-Encumbered	Encumbered	Expended	Vendor Id	Vendor Name	
01-JULY	14FEB2023	\$0.00	\$0.00	\$13.00	\$0.00	\$0.00	-	FACEBK H45YEM7KT2	-
01-JULY	13FEB2023	\$0.00	\$0.00	\$10.00	\$0.00	\$0.00	-	FACEBK KDZGQMKJT2	-
08-FEBRUARY	10FEB2023	\$0.00	\$0.00	\$0.00	\$0.00	\$7			
08-FEBRUARY	10FEB2023	\$0.00	\$0.00	\$0.00	\$0.00	\$50			873094
08-FEBRUARY	10FEB2023	\$0.00	\$0.00	\$0.00	\$0.00	\$40			093944
01-JULY	10FEB2023	\$0.00	\$0.00	\$7.00	\$0.00	\$			
08-FEBRUARY	08FEB2023	\$0.00	\$0.00	\$0.00	\$-7,500.00	\$7,50			093867
01-JULY	06FEB2023	\$0.00	\$0.00	\$3.00	\$0.00	\$			
01-JULY	01FEB2023	\$0.00	\$0.00	\$5.00	\$0.00	\$			

3. Export to Excel.
 - a. Default is “All rows” OR click “Rows” and enter a sample of rows to export.
 - b. Default is “All columns” OR choose Selected columns and click the check boxes to choose desired columns to export.
 - c. Leave the default as the .xlsx file. The older Excel format is offered if needed for backward compatibility with older versions of Excel.
 - d. Click OK.

Note: The file may automatically be saved in your download folder, or you may be prompted to navigate to a folder to save. The browser and its settings dictate this behavior.

Export — Mozilla Firefox

https://sasweb01.kennesaw.edu:8343/SASWebReport! ...

Rows: **a**

- ☒ All rows
- ☐ Rows

From: To:

Columns: **b**

- ☒ All columns
- ☐ Selected columns:

- ☐ Acctg Month
- ☐ Journal Date
- ☐ Original Base Bud
- ☐ Amended Budget
- ☐ Pre-Encumbered
- ☐ Encumbered
- ☐ Expended

Export to: **c**

- ☒ Excel (*.xlsx)
- ☐ Excel (*.xls)

Save as:

- ☐ Tab separated values (.tsv) file
- ☐ Comma separated values (.csv) file

OK Cancel Help **d**

SAS Training for New Financial Users

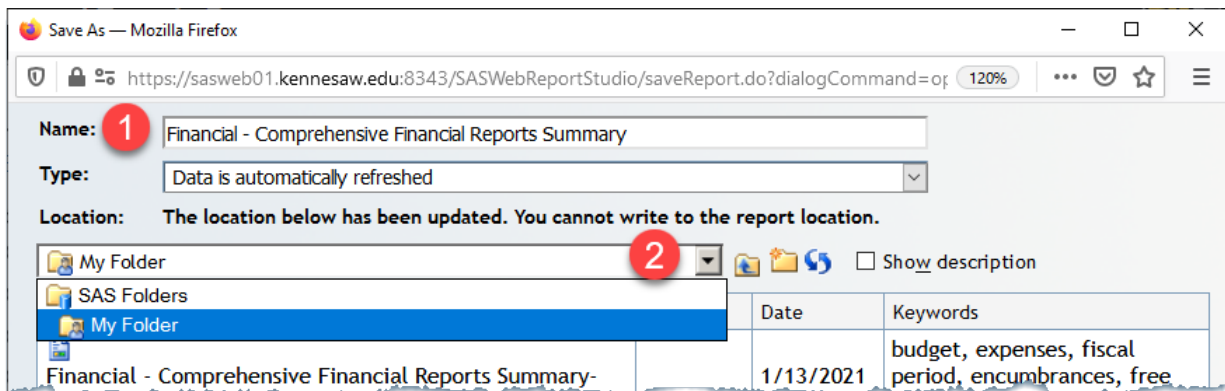
Saving a Report

You may customize reports with your preferred selections and can save them in your personal folder named “My Folder”, or save it in your Division Folder to share with others. Since the data set refreshes nightly, the custom reports will have current data each morning.

1. **Select File** from the menu in the upper left corner of the screen.
2. **Select Save or Save As** to open the dialogue window.

Save to your “My Folder” (your personal folder)

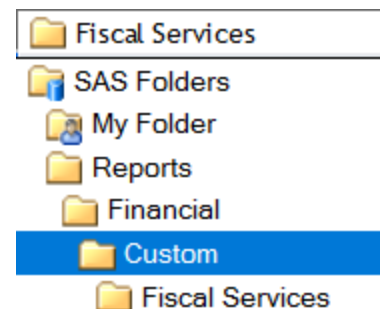
1. **Enter a new file name.**
2. **Click the drop-down arrow** to see folders and choose “**My Folder**” to save the report in your personal folder if it is not already selected.
3. **Click Save.**



Save to a Division or Department Folder

You can also save to a shared Division folder to share the report. Note that this also means that others will be able to open, use, edit and save over this report unless you save it as “read only”. You may want to keep a copy in your personal folder as a backup.

1. **Enter a new file name.**
2. Navigate to this path: **SAS Folders/Reports/Financial/Custom/[Your Division or Department]**
3. **Click Save.**



Note: Click the “Read Only” checkbox at the bottom of the save window to protect your report from accidentally being overwritten by another user.

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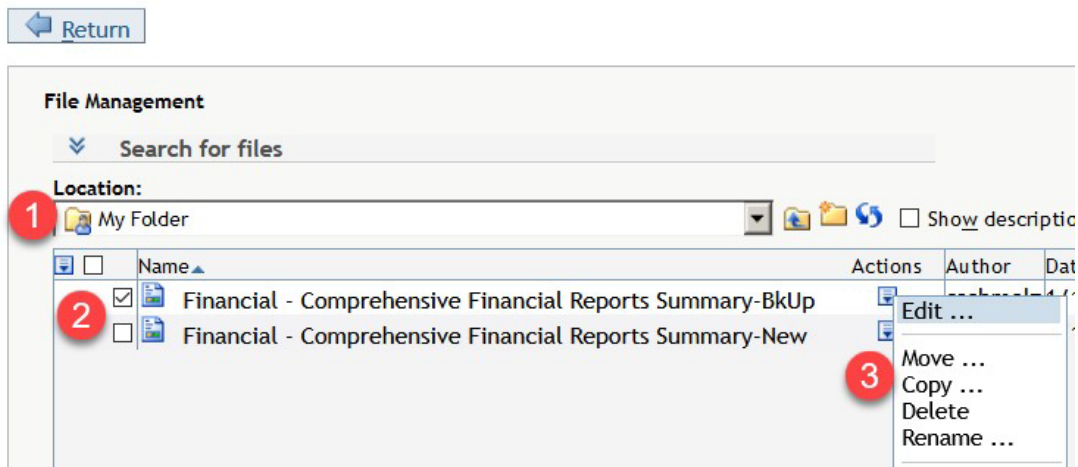
Manage Files

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**.

From the File Management Window

1. **Navigate** to your **My Folder** or your **Division Folder**
2. Click the report that you want to **Move, Copy, Delete or Rename**.
3. 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.

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Additional Functionality on the View Tab

Sort

This example shown is from the detail drill through report. If there is already a sort applied in the report, it is 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”**.

Return to previous report: Financial - Comprehensive Financial Reports Summary

Comprehensive Financial Report – CFR Budget vs Actuals Details
Wednesday, March 24, 2021 10:25:34 AM EDT

Fiscal Year : 2021
Division Name : CAP-CAPITAL PRO
Department : 1001100 – CAP

Acctg Month	Journal Date	Original Base Budget	Amended Budget	Account Name	Department
09-MARCH	05MAR2021	\$0.00	\$	753140 – CONTRACTS – CONSTRUCTION	1001100
08-FEBRUARY	16FEB2021	\$0.00	\$	751101 – ARCHITECT	1001100
07-JANUARY	15JAN2021	\$0.00	\$	751101 – ARCHITECT	1001100
07-JANUARY	08JAN2021	\$0.00	\$	753140 – CONTRACTS – CONSTRUCTION	1001100

Sort — Mozilla Firefox

Sort by: Journal Date
Then by: Acctg Month
Then by: Account Name
Then by: None

Ascending
Descending
Ascending
Descending
Ascending
Descending
Ascending

Reorder Columns

Click on the column name and drag the column to a new location.

Department : 1001100 – CAP – MRR PROJECTS

Journal Date	Journal Date	Original Base Budget	Amended Budget	Pre-Encumbe
--------------	--------------	----------------------	----------------	-------------

Adjust Column Width

Hover between the column names to find the **double arrow**, then **click and drag** to adjust column width.

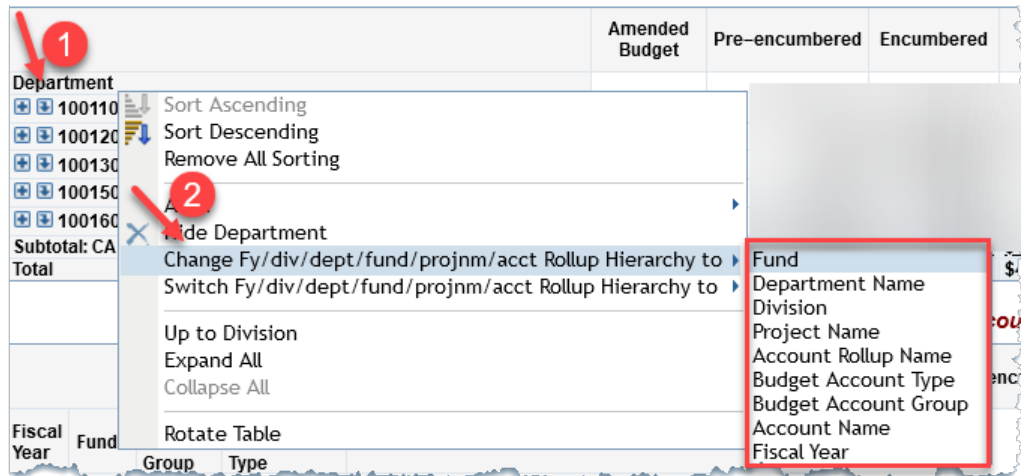
Vendor Id	Vendor Name	Reference Id
0000010215	CENTENNIAL CONTRACTORS ENTERPRISES, INC.	058720

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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 the **hierarchy**: “Change FY/div/dept/fund/projnm/acct Rollup Hierarchy to”.
3. **Select a field** in which you would like to swap out for the hierarchy.

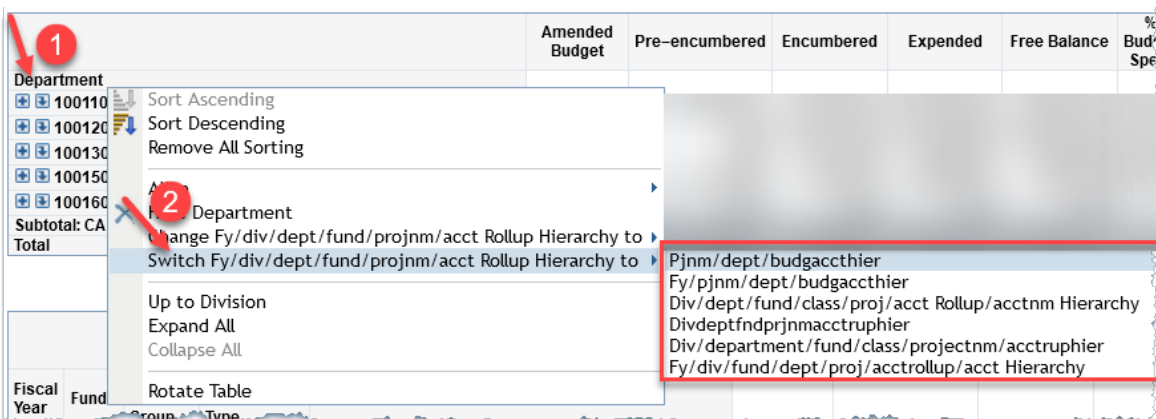


Shown above - Swapping a hierarchy for a field. (Note: If a detail report exists for the report, swapping a Hierarchy for an individual Field will hinder the drill through from working properly as it expects the hierarchy fields to filter the details.)

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 the hierarchy**: “Switch FY/div/dept/fund/projnm/acct Rollup Hierarchy to”.
3. **Select another hierarchy** to swap out for the current hierarchy.



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Conditional Highlighting

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

1. **Right click** in the body of the report
2. Select **Conditional Highlighting**. Notice there are three tabs provided to set up the conditional highlighting.
3. Select **New** to set up a new **Rule**.

There are three tabs. The **Rule** tab, **Color and Font**, and the **Image and Text** tabs. These tabs provide options to set up the condition and appearance of the formatting.

The screenshot shows the 'Conditional Highlighting' dialog box. At the top, there are three tabs: 'Rule' (annotated with a red circle and the number 1), 'Color and Font' (annotated with a red circle and the number 2), and 'Image and Text' (annotated with a red circle and the number 3). The 'Rule' tab is active. It contains the following fields:

- Data Item:** A dropdown menu with the text '<Select a data item>' and a downward arrow.
- Condition:** A dropdown menu with the text '<Select a condition>' and a downward arrow.
- Value:** A dropdown menu with the text '<Type a value or select a measure>' and a downward arrow.
- Rule assignment:** A section with two radio buttons: 'All hierarchy levels' (which is selected) and 'Selected hierarchy levels' (which has a 'Select...' button next to it).

At the bottom of the dialog, there is a 'Preview' section with a text box containing '[example]'. In the bottom right corner, there are three buttons: 'OK', 'Cancel', and 'Help'.

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1. **Rule Tab** - is required and is where the **condition** is defined.
 - a. Select the **data item** (column) to which the condition will be applied.
 - b. Select the **condition**.
 - c. Enter the **comparison value**.

The screenshot shows the 'Rule' tab of the SAS Rule Editor. It contains three dropdown menus: 'Data Item' (labeled 1), 'Condition' (labeled 2), and 'Value' (labeled 3). Below these is the 'Rule assignment' section with two radio buttons: 'All hierarchy levels' (selected) and 'Selected hierarchy levels' (with a 'Select...' button). At the bottom right, there is a 'Preview' section with the text '[example]' and a red circle labeled 4 next to the 'OK', 'Cancel', and 'Help' buttons.

2. **Color and Font Tab** - offers color and font choices for the chosen data item. Select the font, font size, font style and color choices.

The screenshot shows the 'Color and Font' tab of the SAS Rule Editor. It contains a 'Font' section with a dropdown menu set to 'Arial' and a size dropdown set to '9'. Below this is a 'Font style' section with buttons for 'B' (bold), 'I' (italic), a color selection box (black), and a font color selection box (blue). At the bottom right, there is a 'Preview' section with the text '[example]' and 'OK', 'Cancel', and 'Help' buttons.

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3. **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.

The screenshot shows the 'Image and Text' tab of a SAS configuration window. It includes a checkbox to 'Highlight by adding an image or text', radio buttons for 'Text' or 'Image', a 'Position' dropdown, a 'Text' input field, and a 'Font' section with font family, size, and style options. A 'Preview' section at the bottom shows the result of the configuration, and 'OK', 'Cancel', and 'Help' buttons are at the bottom right.

- a. Click the Highlight by adding an image or text checkbox. This checkbox must be checked to enable the Image and Text settings.
 - b. Click the radio button to indicate adding text or an image. Indicate the position to put the custom text or image and then enter the custom text or select an image.
 - c. Select the position from the drop-down menu for the text or image. Select an image from the drop down or alternatively, enter text in the box.
4. Once the Rule set up is complete, **click OK**.

Note: Notice the each of these tabs, the **Preview [Example]** changes as the options are selected.

Exercise 5: Conditional Highlighting

This exercise demonstrates how to use conditional highlighting.

1. **Navigate** through the CFR Summary report to the **Department** level. Find a **middle value** in the **% Budget Spent Column** to use as the field to conditionally highlight.
2. **Right click** in the body of the report and select **Conditional Highlighting**
3. Create a new rule by clicking on “**New**”.

From the Rule Tab – Set your condition.


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4. **Set a % Budget Spent** to be **Greater Than** your selected middle value. Note percentages must be entered as a decimal value, for example, .5 for 50%.

Color and Font Tab – Set your colors and font.

5. Select **Century Gothic, 12 pt.**
6. Change the **Color and Font** tab to a red font with a yellow background.

Image and Text Tab – Add an image.

7. Check the “**Highlight by add an image or text**” box.
 8. Select the **Image** radio button.
 9. Select the **position “To left of cell value”**.
 10. Select the **yellow caution triangle** as the image. 
-

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Appendix A

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 spending 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 and are already 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 in 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 – This mirrors the Current Budget Report. Data included starts one year prior to the current fiscal year and includes six years of historical data.

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14. History Budget vs. Actuals – This mirrors the Current Budget vs. Actuals Report. Data included starts one year prior to the current fiscal year and includes six years of historical data.
 15. Historical Revenue – This report is similar to the Revenue report. Data included starts one year prior to the current fiscal year and includes six years of historical data.
 16. Historical Revenue by Period – This report shows Revenue Analytics monthly and quarterly. Data included starts one year prior to the current fiscal year and includes six years of historical data.
 17. Historical Spend Analytics by Year – Similar to the Current Spend Analytics. Data included starts one year prior to the current fiscal year and includes six years of historical data.
-

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Appendix B

Purchasing Systems and Encumbrance Processes for Each

Data flows into the SAS reports through several systems used to purchase goods and services at KSU. Depending upon the process in each system, the intent to purchase is captured early and is called an encumbrance. Encumbrances are an accounting concept to help manage your budget from overspending, prior to actually paying for the goods or service. Encumbrances catch expenditures that are in the pipeline but not yet paid. This way, you know where you stand with your actual remaining spendable free balance in your budget.

Some purchasing processes populate as a pre-encumbrance, then an encumbrance and finally expended. Others only flow from an encumbrance to expended. Once the goods and/or services have been paid, the pre-encumbrance and/or encumbrance amounts are zeroed out, or reduced in some cases, and the expense is recorded in the Expended column. The systems at KSU that feed into the SAS Financial Reports include:

- **PeopleSoft Payments** (Owlpay replacement) – There is no encumbrance of any kind in this PeopleSoft system, as the payment is expended at the time of input. OwlPay is being replaced by PeopleSoft Payments and is expected to be retired by the end of fiscal year 2023.
- **Pcard** (Works) – These transactions are captured at the time the card is used as an expense to KSU, but the amount is shown as pre-encumbered in SAS until the monthly reconciliation has been completed to assign the expenses to the appropriate departments.
- **Requisitions** (PeopleSoft) – At the time a requisition is requested and approved, the requisition amount is listed in the Pre-encumbrance column. Once a Purchase Order (PO) is assigned, the amount is removed (zeroed out) from the Pre-encumbrance column and moved into the Encumbrance column. Once the PO is paid, the amount is removed (zeroed out) from the Encumbrance column and moved into the Expended column.
- **Reserve Amount** (also known as “set-asides”) – this is a special user controlled “bucket” to help with planning for expenses in the future. Amounts are entered into an Excel spreadsheet and populated in SAS under the Reserve amount column. The amount is assigned as a pre-encumbrance. Once the purchase process is started in one of the other purchasing systems, the row in the spreadsheet must be manually **adjusted or deleted by the department’s business manager** so as not to duplicate the expense. Once removed from Excel, it no longer appears in the SAS report.
- **Travel** (Concur) – A travel request includes both the airfare (paid by KSU) as well as the remaining items (hotel, car rental, food, tips, etc.). This amount is pre-encumbered when the traveler (or requester) enters an approved Travel Request. When the airline is paid by KSU, that amount is automatically expended. The remaining items stay in the pre-encumbered column until the traveler has submitted an approved expense report for reimbursement. Then, the pre-encumbrance is zeroed out and the amount is Expended to the appropriate department.
- **Payroll** – Actual Payroll is expended per each payroll cycle without any encumbrances in the SAS reports. The Budget does reflect Salary commitments for the year.