2.1 Business Intelligence v4

Introduction to Ad hoc Reporting



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After completing this module, you will be able to:

- ✓ Navigate the Analysis Area Workspace
- Define, Modify and Delete an Analysis Area
- ✓ Understand the Advanced Functions and best practices of the Analysis Area tool

Duration: 2 hours

Lesson 01

Ad hoc Reporting Overview

Ad hoc Reporting Overview

What is an Ad hoc Report?

- A report built from an "ANALYSIS AREA" or pre-defined aggregated transactional data table for on-demand reporting.
- After build, users can:
 - 1. Save as an analysis workspace to My Documents
 - Export as analysis view (data source) for Webl



Who can create ad hoc reports?

Only **BI Power Users** & **Analytical Users**

Typical use?

To produce on-demand reports and/or detailed analysis for Senior Management, auditors, & functional supervisors



Overview for Creating an Ad hoc Report

PROCESS STEPS FOR CREATING AN AD HOC REPORT FROM AN ANALYSIS AREA

From the Documents Tab



NAVIGATE TO A FUNCTIONAL AREA FOLDER / OPEN ANALYSIS AREA

Into the Analysis Edition for OLAP



COMPLETE PROMPTS
TO RUN REPORT
(always save prompts)



SAVE ANALYSIS AREA TO MY FAVORITES

Working in the Analysis Edition for OLAP (Cont.)



XX1234 XX1234 XX1234

REVIEW METADATA EXPLORER FOR AVAILABLE OBJECTS



DRAG & DROP OBJECTS INTO LAYOUT PANEL



FILTER
CHARACTERISTICS/
KEY FIGURES





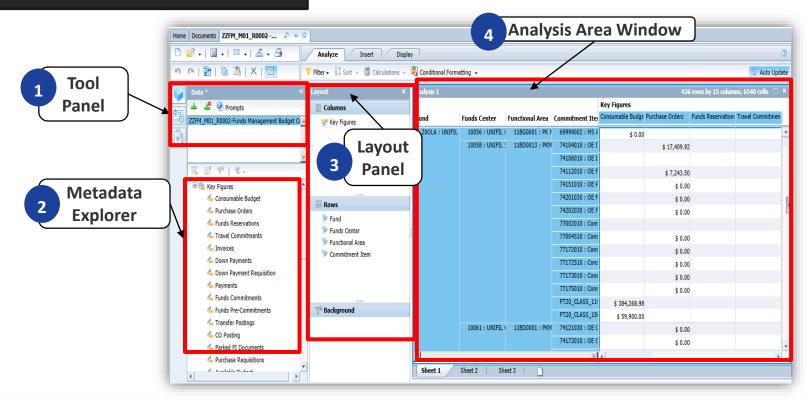
ANALYZE DATA & FORMAT REPORT



Analysis Area Breakdown

To access an Analysis Area, navigate from the Documents tab to launch a new window for further customization.

SCREEN BREAKDOWN





Frequently Used Icons

Note frequently used icons when modifying & defining analysis areas:

Name	lcon	Description	Examples
Key Figures	Figure 1	Numerical values that are used in the analysis	Value and Volume
Single Figure	₹ w	By default, all Key Figures are displayed in the analysis area. Single Figures/metrics can be displayed instead	Value
Characteristics	6	Fields that are used to differentiate and analyze Key Figures	Fund and Purchasing Organizations
Attribute	*	Used to describe Characteristics in more detail	Address is an attribute of Vendor
Filter	\triangle_t	Method to focus the analysis on a specific characteristic or key figure	Filter Fund by UNIFIL



Lesson 02

Analysis Area Basic Actions

Basic Actions Overview

ANALYSIS AREA BASIC ACTIONS

- ✓ DEFINE & SAVE A NEW ANALYSIS AREA
- ✓ MODIFY AN ANALYSIS AREA



Throughout this lesson your instructor will perform live demonstration of each action. Please follow along.



Define a New Analysis Area

Define a New Analysis Area

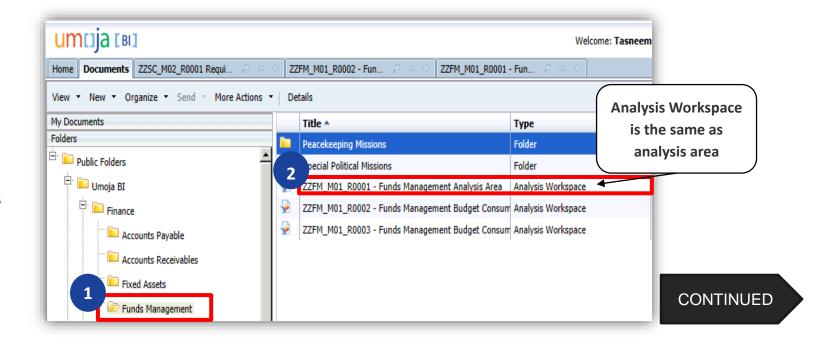


To "define" a new analysis area or "create an ad hoc report":

- 1. Select a Functional Area folder under Umoja BI
- 2. Double click desired **Analysis Workspace**

FACT

Analysis areas
CANNOT be
created from
scratch – they
always derives
from a preexisting
analysis area.







Define New (Cont.)

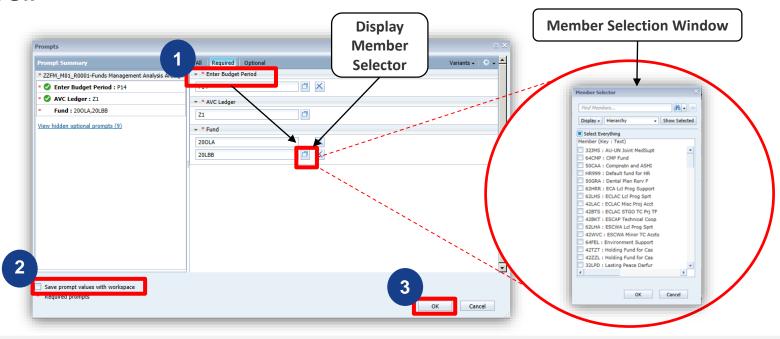


A prompts window will launch to require further defining:

- Complete *required prompts and/or select the Display Member Selector icon to specify from Member Selection window
- 2. Check the box to "Save prompt values with workspace" as a best practice
- 3. Select Ok

FACT

Users MUST select "Save Prompt values" when exporting as analysis view (data source) to Webl.





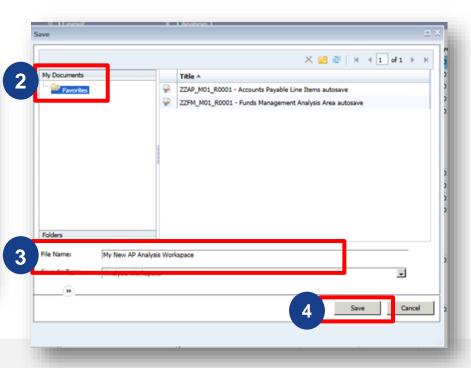
Save an Analysis Area



To save the new defined analysis area/ad hoc report:

- 1. Click the Save icon (floppy disk) & select "Save As..."
- 2. After the Save window appears, navigate to your "My Documents" folder
- 3. Change "File Name" to something unique related to the analysis area
- 4. Click "Save"





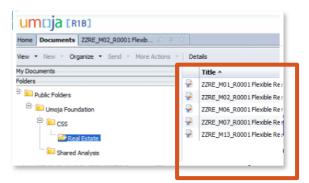
FACT

Users
CANNOT
overwrite
existing
analysis
areas.

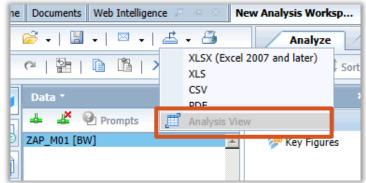


Export an Analysis View











Navigate to the desired Analysis Area

STEP 2

Save as workspace to Favorites folder & modify accordingly (must Save prompt values) STEP 3

Export the analysis workspace as an **Analysis View** to My Favorites folder



Modify an Analysis Area

Breakdown: Tool Panel

User access data sources, properties, & display changes.



DATA ICON

- Opens the Data tab to add/remove data sources
- Performs navigation functions (e.g. add hierarchy to rows or columns, add a background filter)



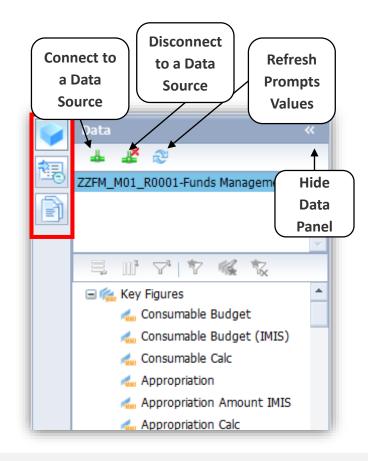
PROPERTIES ICON

Opens the Properties tab to display properties of a selected component of the report (i.e. column width, field name change)



OUTLINE ICON

Opens the Outline tab to provide an overview of the current workspace (e.g. the # of sheets)





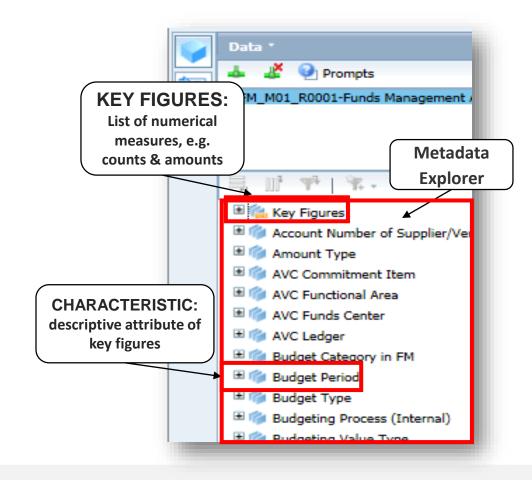


Breakdown: Metadata Explorer

To display the Metadata Explorer Panel, select the Data tab.

Good to know:

- Contains all Key Figures &Characteristics of the analysis area
- To display all associated data fields for a given area, drag the Key Figures into the Layout Panel
- Additional customization available by dragging single characteristics into the Layout Panel





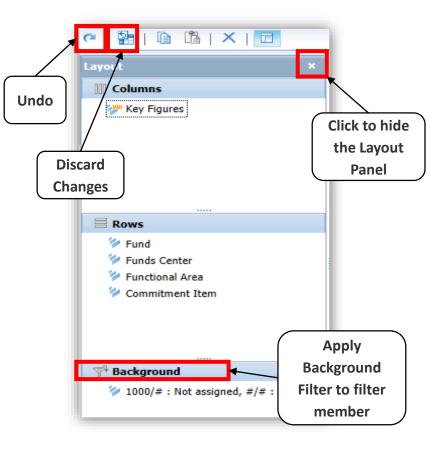
Breakdown: Layout Panel

A dynamic, customization tool for user report build.

Good to know:

▶ Rows & Columns in analysis areas allow users to build a report similar to a pivot table in excel

- Users can view data hierarchies & measures
- Users can add/remove Single Figures/
 Characteristics/Attributes from the Layout Panel
- Background filters can be applied to filter by member that is not currently displayed directly in the data (e.g. budget period affecting the whole report)





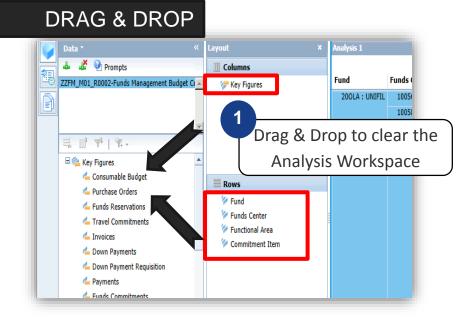


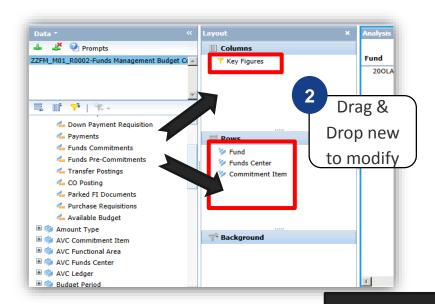
Modify an Analysis Area



Start on the Data panel & activate "Auto Update" to avoid system load delays (right-side pane complete the following:

 Clear all applied Key Figures/Characteristics by dragging out of the Layout panel into the Metadata Explorer Area Drag & drop chosen Single Figures/Characteristics/Attributes into the Layout Panel











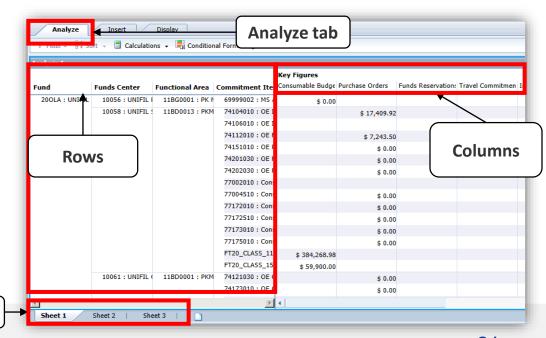
Breakdown: Analysis Area Window

Active user view of the report as it is being built.

Good to know:

- ▶ Best practice: **KEY FIGURES in "COLUMNS" & CHARACTERISTICS in "ROWS"** use according to preference or select "Swap Axes" from the Display tab
- Sometimes users cannot see Key Figures, expand window as needed
- Create a copy sheet to avoid overwriting work
- Conditional formatting & calculations are examples of advanced functions that can be applied from the Analyze tab

Sheets





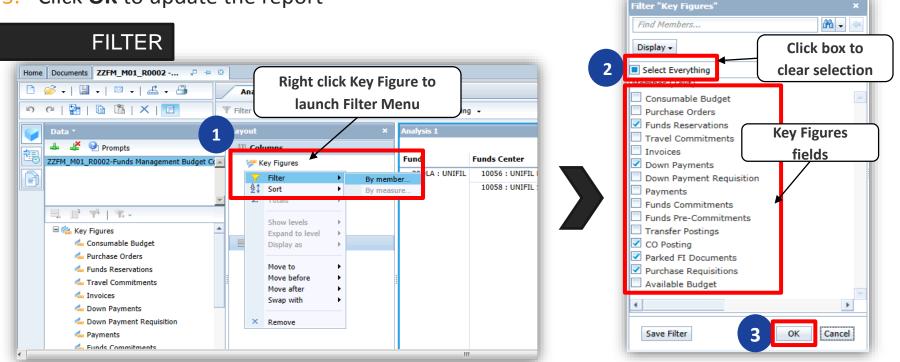
Filters



To apply new filters to Key Figures or Characteristics:

- 1. Right click on the **Key Figure** or **Characteristic**, select **Filter**, then **By member**
- 2. Click on Select Everything box to clear current selection & select applicable field boxes

3. Click **OK** to update the report







Note: The Filter window can also be accessed by double-clicking on a Key Figure or Characteristic.

Display As



Display As provides users the flexibility to display characteristics according to Key, Text, and more detailed Descriptions. Apply the following to change displays:

- 1. Right click on a characteristic of choice, select the **Display As** menu
- 2. The **Display as** menu will allow users to choose from a selection of descriptions
- 3. Upon selecting a description, contents of the chosen characteristic will auto-update

DISPLAY AS Budget Control WBSE Project Definition Fun Key: Text SB-000001 : Sur SB-000001: Support to SGB Sort Totals Show levels Expand to leve Key Project Definition Text Move to Medium description SB-000001 : Support to SGBV in Haiti Move before Kev : Text Move after Key: Medium description Swap with Text: Key Attributes SB-000021: NG SB-000021: NGA-MDTF-WP/





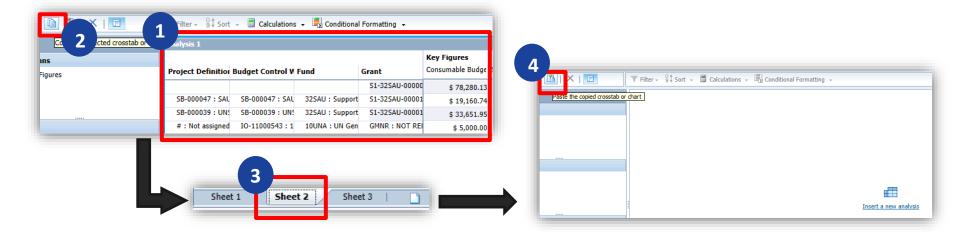
Copy / Paste Sheets



Copy and Pasting sheets is useful for users who are interested in continuing analysis, but want to keep work open. Apply the following:

- 1. Select the Analysis Area to be copied
- 2. Select the Copy icon
- 3. Navigate to Sheet 2 (rename sheet accordingly)
- 4. Select the Paste icon

COPY/PASTE

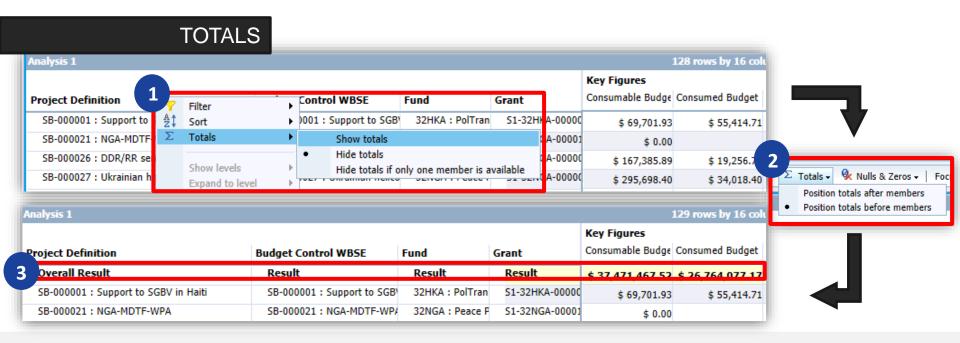




Totals

Totals are most frequently used in analysis areas for aggregating data on multiple levels. Apply totals by the following method:

- 1. Right click on a column of choice, select the **Totals** menu and choose **Show totals**
- 2. On the **Display** tab, select the **Totals** icon to **Position totals before/after members**
- 3. An **Overall Result**/sub-total will appear on the **Key Figures** (top right of analysis)





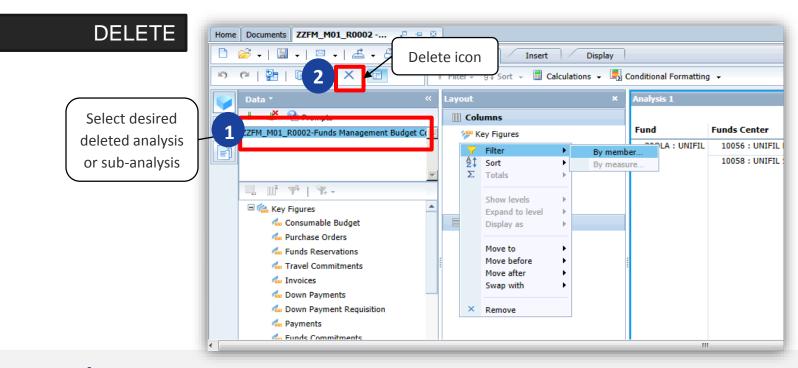


Note: To apply an Overall Result, show totals on the **FIRST** column. To apply sub-totals, show totals on the column to the **RIGHT** of the desired sub-totaled characteristic.

Delete an Analysis Area

To delete an analysis area or sub-analysis:

- 1. Select a desired **Analysis** from the Data panel
- Select the **Delete** Icon





Learning Checkpoint



Please answer the following questions

- 1. The Metadata Explorer window can be found in the:
 - a) Layout Panel
 - b) Data Panel
 - c) Properties Tab
 - d) Analysis Workspace
- 2. True or False: Key Figures can only display in columns of the Analysis Area
- 3. True or False: All BI Users may access Analysis Areas.



Learning Checkpoint Answers



Please answer the following questions

- 1. The Metadata Explorer window can be found in the:
 - a) Layout Panel



- b) Data Panel
- c) Properties Tab
- d) Analysis Workspace
- 2. True or False: Key Figures can only display in columns of the Analysis Area



False: It is a best practice, but Key Figures can be displayed in both rows and columns.

3. True or False: All BI Users may access Analysis Areas.



False: Only Analytical and Power Users may access Analysis Areas.



Practice Exercise: Let's Try It

To engage hand-on experience within the BI Portal, users are encouraged to try it themselves. Let's take the time to complete the exercise for **Define a New Analysis Area**.



DURATION: 20 MIN

REPORT

- Grants Management
- GM/FM Budget Analysis Area

PROMPTS

- As Of Date: August 11, 2015
- Fund Hierarchy: All Fund Groups

TASKS

- Drag and drop so that Grant and FundsCenter are the only Characteristics in Rows
- ☐ Filter Grant to only display GMNR : NOT RELEVANT GRANT
- Scroll to the bottom to see all values
- Clear all Key Figures
- Add in Pre-Commitments, Commitments and Total Committed into the Key Figures
- Display text only



Tip: Disable the AutoUpdate feature while dragging characteristics, and enable to refresh the Analysis Area

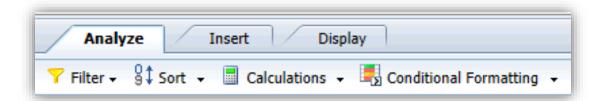


Lesson 03

Navigating Functional Tools

Analyze Tab Overview

ANALYZE TAB TOPICS



- ✓ FILTER
- ✓ CALCULATIONS (Custom & Dynamic)

✓ SORT

✓ CONDITIONAL FORMATTING



Throughout this lesson your instructor will perform live demonstration of each action. Please follow along.



Analyze Tab

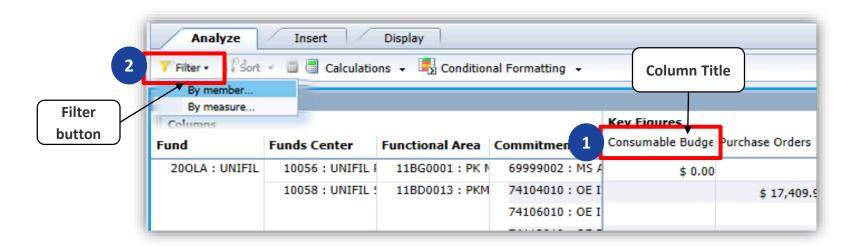
Filter



Good to know:

Data can be filtered by either MEASURE or MEMBER

- 1. Right click on either a **Key Figure or Characteristic** from the **column title**
- 2. Select **Filter** button from the **Analyze** tab

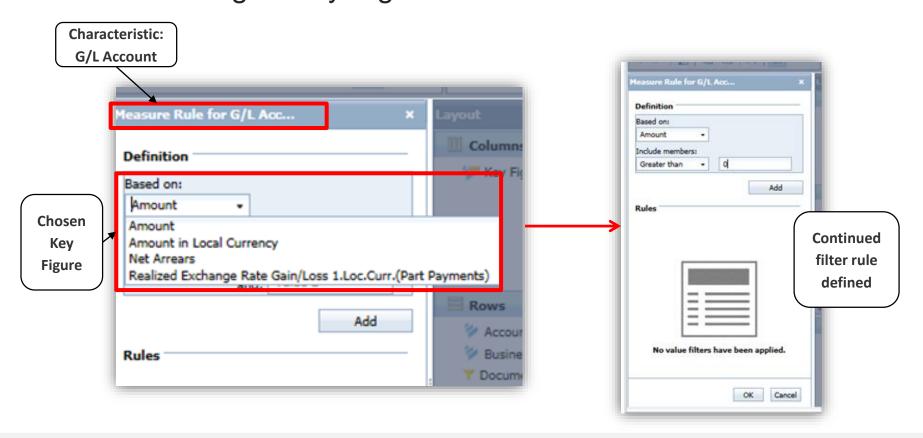




Filter by Measure



Filter by Measure is available to Characteristics only, allowing users to filter according to Key Figure values.

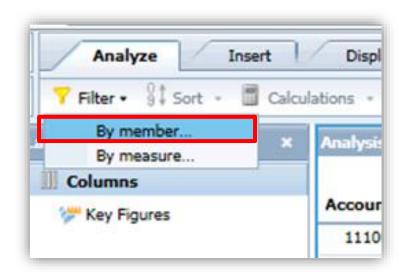




Filter by Member



Filtering by Member differs significantly between Key Figures and Characteristics.



Expectations for filters:

- When applied to a Characteristic, it filters by available values
- When applied to Key Figures, it only allows list selection of Key Figures to be included in the analysis



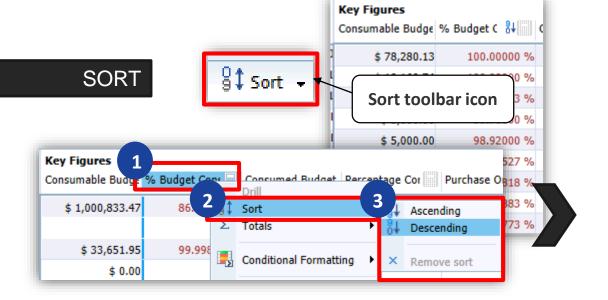
Sort



Data can be sorted by Ascending/Descending order.

- 1. Right click on the desired **Key Figure**
- 2. Display the **Sort** menu

- 3. Select to sort data by **Ascending/Descending** order
- The chosen Key Figure will sort accordingly









Calculations

Calculations allow users to further analyze Key Figures by applying custom or dynamic formulas to the data.

There are 2 types of Calculations, as noted below: Calculations -**Dynamic Calculation Custom Calculation ICON** Custom Calculation... Dynamic Calculation **Calculation window for customization** Pre-defined drop-down menu MENU Calculations based on multiple Key Figures Calculation based on single Key Figure Ex: Moving Averages, Accumulative Customize formulas or use pre-defined **KEY** Sum, Percentage of Overall Result / formulas **FEATURES Parent** ✓ Ex: % of Key Figure A over B



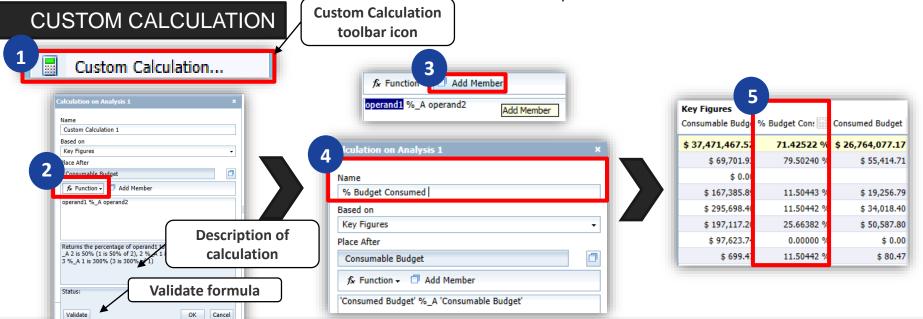


Custom Calculation



To create a Custom Calculation apply the following steps:

- Click on the Calculations button & Select Custom Calculation
- 2. A Calculation window will appear to specify desired **Functions** (use **Percent A** for a traditional percent rather than a deviation)
- Replace operands with Key Figures by selecting Add Member
- Name the custom calculation
- A new Key Figure will be added to your report as per the custom calculation created





No

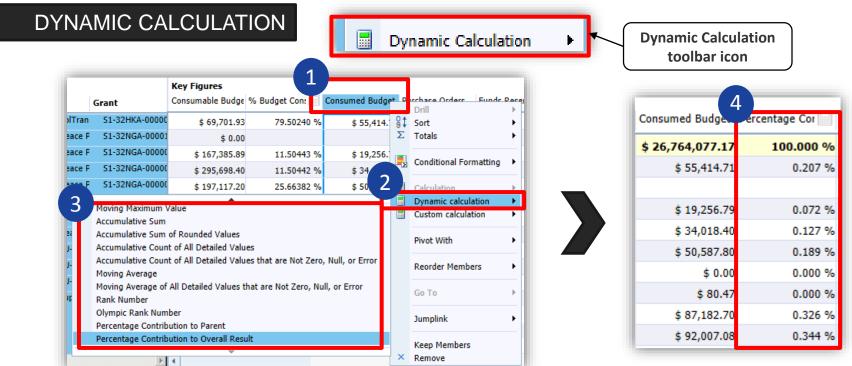
Dynamic Calculation



To create a Dynamic Calculation apply the following steps:

- Right click on the desired Key Figure
- 2. Display the **Dynamic Calculation** menu

- 3. Select the desired function
- 4. A new Key Figure will be added to your report based on the dynamic calculation





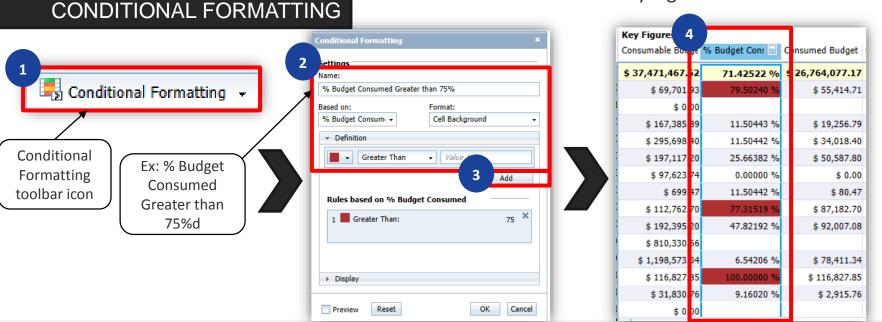


Conditional Formatting



Conditional formatting is used to highlight Key Figure values that meet or exceed a certain threshold by applying the following:

- Click on the Conditional Formatting icon
- A window will appear where format settings/ rules can be defined based on Key Figures
- Select the Add button to create the defined formatting rule then select OK
- Specified formatting will apply to the selected Key Figure



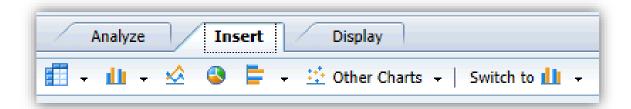




Insert Tab

Insert Tab Overview

INSERT TAB TOPICS



- ✓ CREATE A SUB-ANALYSIS AREA
- ✓ ADD A CHART
- ✓ CHART WITH FOCUSED ANALYSIS



Throughout this lesson your instructor will perform live demonstration of each action. Please follow along.

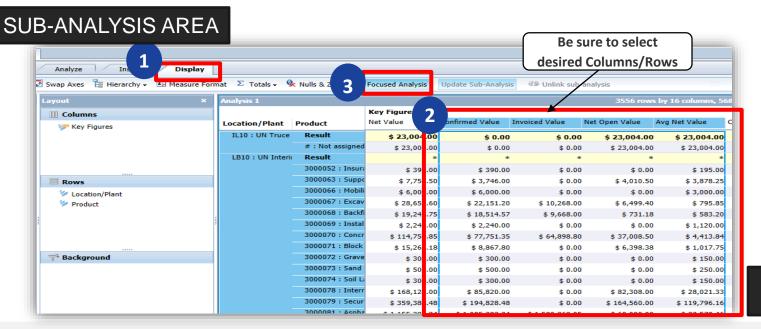


Create a Sub-Analysis Area



Sub-Analysis Areas are used to section off a sub-set of data from an existing Analysis Workspace by completing the following steps:

- 1. Select the **Display tab**
- 2. Highlight desired Columns and Rows for the sub-analysis area
- 3. Select Focused Analysis



CONTINUED

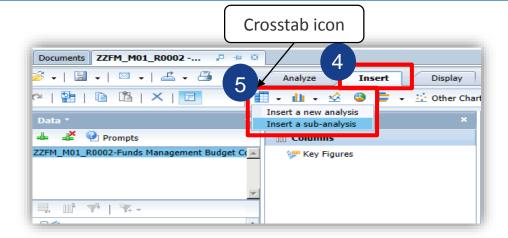




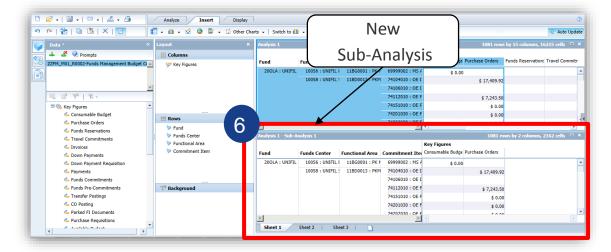
Sub-Analysis (Cont.)



- 4. Click the Insert tab
- Select the Insert a Crosstab icon and click Insert a Sub-Analysis from the drop-down menu



The new Sub-Analysis will appear in the AnalysisWorkspace







Add a Chart

Charts are added to workspaces to present data graphically & illustrate trends within reports. Chart types noted below:

CHART TYPES

- ✓ Clustered bar and column charts
- ✓ Stacked bar and column charts
- 100% stacked bar and column charts
- 3D column charts
- Multi-line charts
- ✓ Pie charts
- ✓ Scatter charts
- ✓ Box plot charts
- ✓ Bubble charts
- ✓ Radar charts



CONTINUED





Add a Chart



To add a chart to a report complete the following:

- 1. Select the **Insert tab**
- 2. Select the Chart icon from the toolbar (as noted below)
- 3. The chart will appear in a new Sub-Analysis

Good to Know: Unless highlighting specific columns/rows, multiple charts will appear.

ADD A CHART

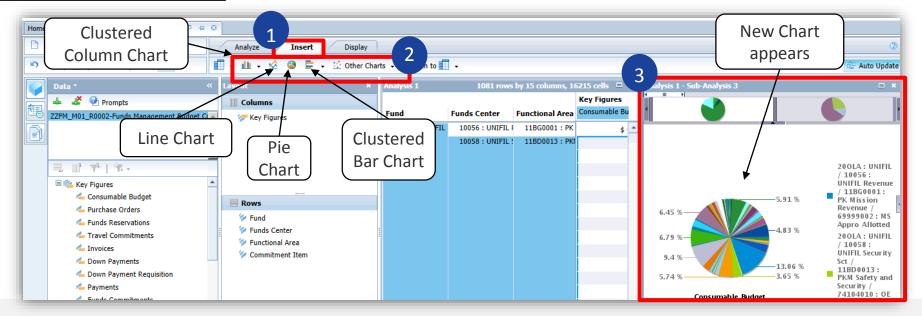






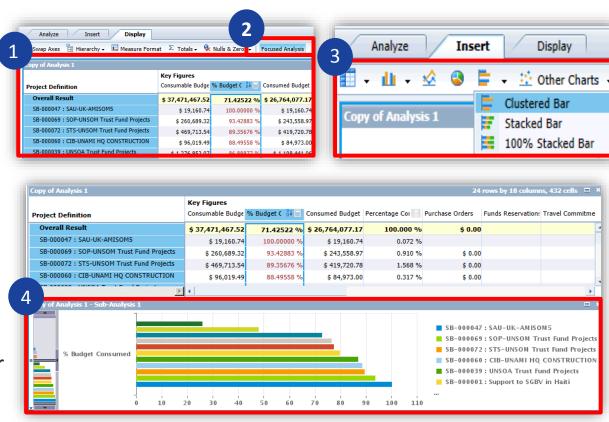
Chart with Focused Analysis



To create a focused analysis chart with a specific sub-set of data, complete the following:

FOCUSED CHART

- Highlight the desired
 Characteristic/Key Figure
- Select Focused Analysis on the Display Tab
- Select a Chart type on the Insert Tab (i.e. Clustered Bar)
- 4. The focused chart will appear in a new **Sub-Analysis**





Learning Checkpoint



Please answer the following questions

- 1. In order to Add a Chart users must select:
 - a) Metadata Explorer
 - b) Insert Tab
 - c) Analyze Tab
 - d) Background Panel
- 2. True or False: A Sub-Analysis Area can be renamed in the Data tab?



Learning Checkpoint Answers



Please answer the following questions

- 1. In order to Add a Chart users must select:
 - a) Metadata Explorer



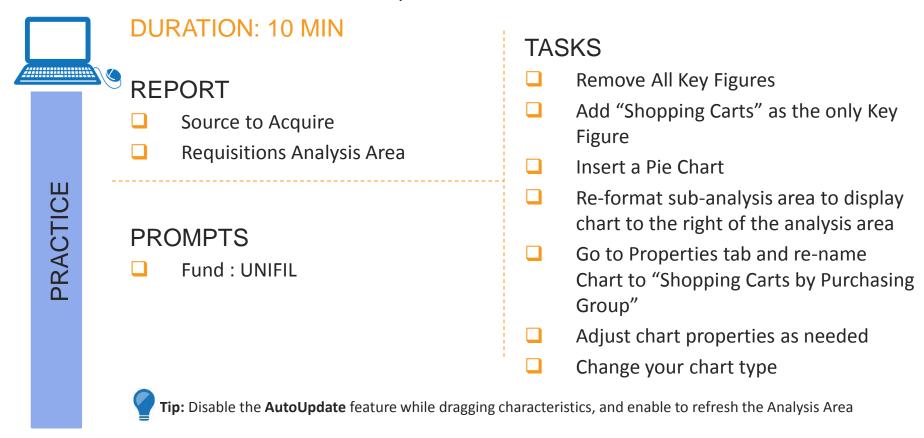
-) Insert Tab
- c) Analyze Tab
- d) Background Panel
- 2. True or False: A Sub-Analysis Area can be renamed in the Properties tab?





Practice Exercise: Let's Try It

To engage hand-on experience within the BI Portal, users are encouraged to try it themselves. Let's take the time to complete the exercise for **Add a Chart.**





Display Tab

Display Tab Overview

DISPLAY TAB TOPICS



- ✓ SWAP AXES
- ✓ HIERARCHY
- ✓ MEASURE FORMAT
- ✓ NULLS & ZEROS

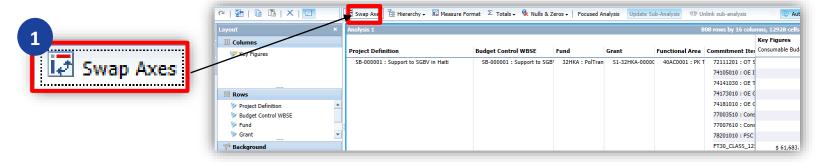


Swap Axes

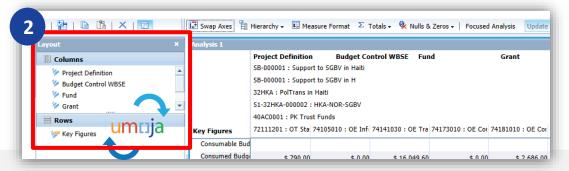
The Swap Axes function allows users to swap contents from Columns & Rows fields in the Layout Panel with a single click of a button:

SWAP AXES

1. Click on the **Swap Axes** icon on the **Display Tab**



2. The contents of the Layout Panel swap and the data in the analysis workspace reloads

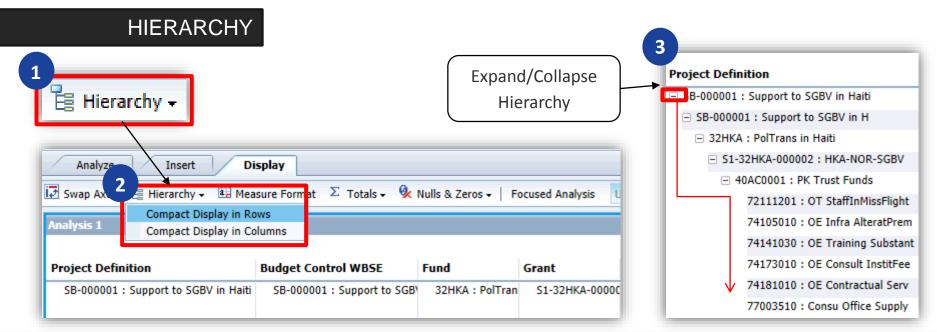




Hierarchy

Hierarchy is used to display row/column Characteristics in a hierarchical tree rather than side-by-side. To display a hierarchy:

- 1. Click on the **Hierarchy** button in the **Display** tab
- 2. Select a Compact Display in Rows or Columns
- 3. Characteristics are organized in an expandable tree hierarchy



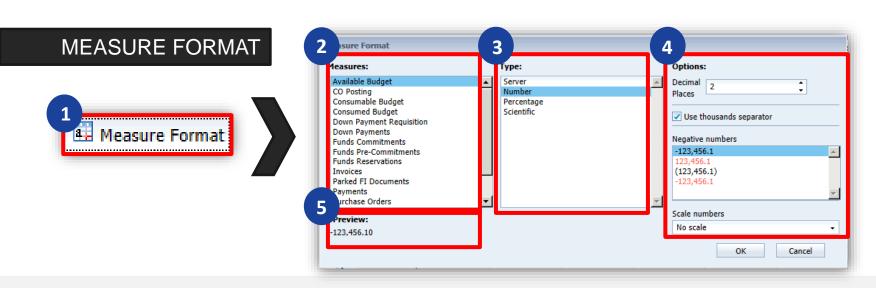




Measure Format

Users can specify the format of each Measure (i.e. Key Figure) by applying the following:

- 1. Click on the Measure Format button in the Display tab and Prompt window will appear
- 2. Select the **Measures** to be formatted
- 3. Specify the Measure **Type** (i.e. Server, Number, Percentage, Scientific)
- 4. Specify **Options** (i.e. Decimal Places, Thousands separator, Negative numbers, etc)
- 5. **Preview** your Measures and click **OK** to apply all format changes



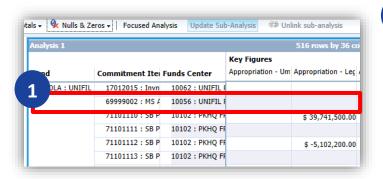


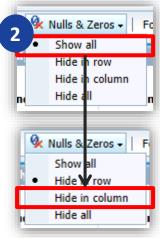
Nulls & Zeros

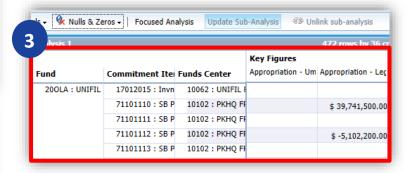
Users can hide all nulls and zeros from displaying in the report by applying the following:

- 1. Notice that several rows in the report have nulls & zeros that should be hidden
- 2. Click on the Nulls & Zeros drop-down list in the Display tab, and select Hide in row
- 3. The Analysis Area will update with hidden rows as specified (no impact to report)

NULLS & ZEROS









Training Material Reference Sheet

Listed below is related training material for the **Introduction to Ad hoc Reporting** module:



Video Demos

- Open an Existing Workspace
- Define a New Analysis Area
- Add a Chart



Practice Exercises

- Define a New Analysis Area
- Add a Chart



Thank You