MARS Reporting & Querying "Power User" Guide

For the Power User only

Working with Ad hoc Documents

https://mars.rdc.noaa.gov

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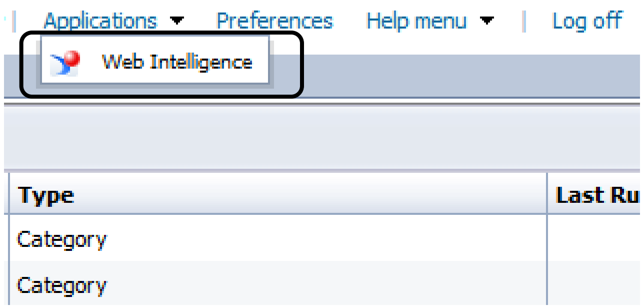
Creating WebI Documents

- The ***Creating Webi Documents*** section covers *query building* and *document management*. The resulting report is left in it's default format in this section.

- The next section called ***Report Formatting*** will teach you how to work with report formatting.

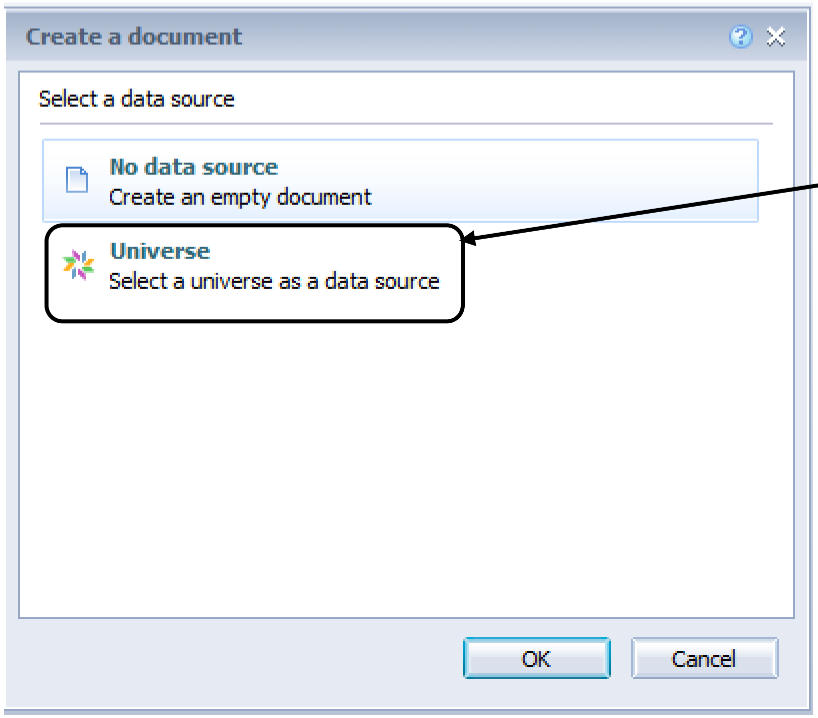
Creating WebI Documents: Query Building



- From the *Application* drop-down menu select *Web Intelligence*.
- You are now presented with Web Intelligence Application.
- Click on "*New*" icon to create New Web Intelligence document.

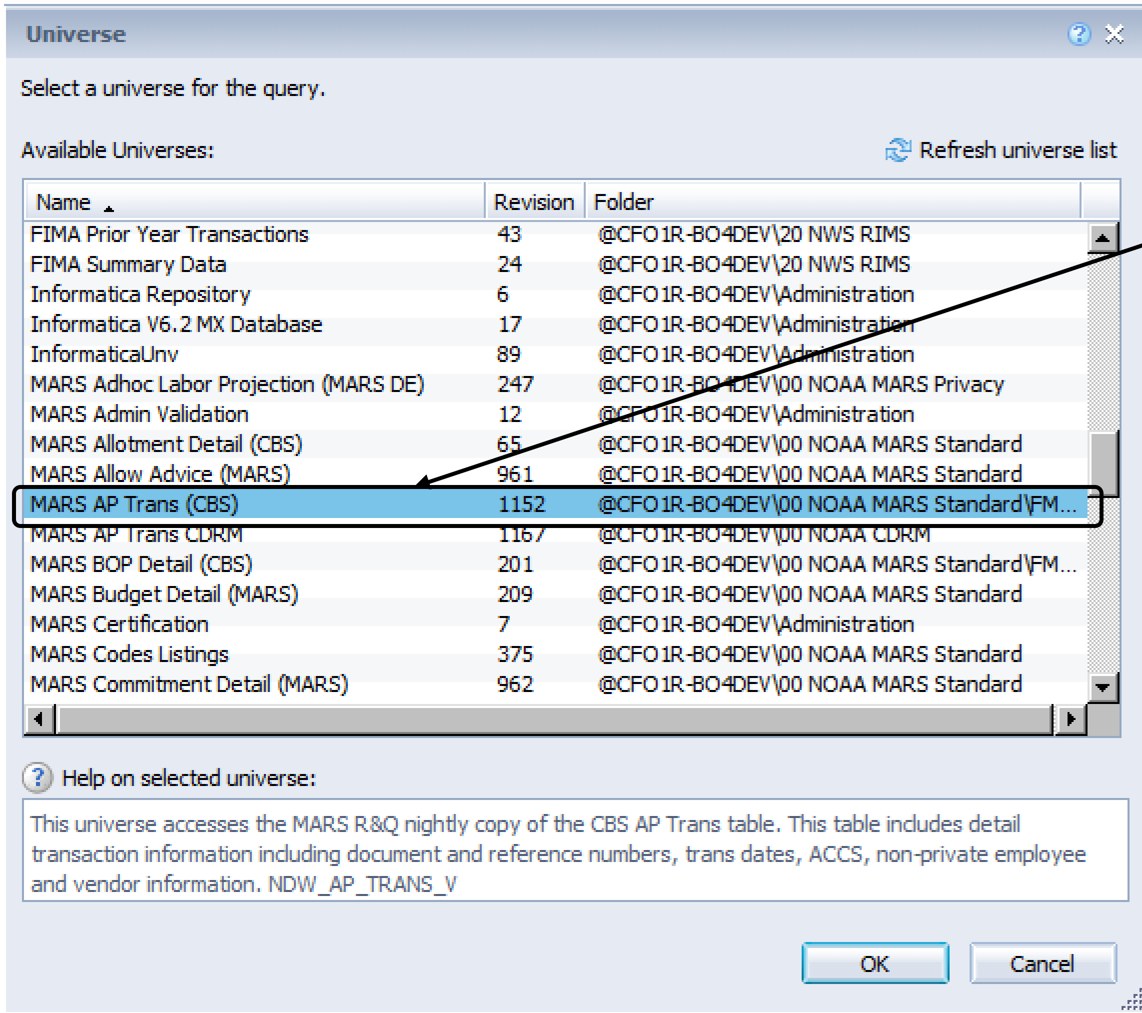
New Icon

Creating WebI Documents: Query Building



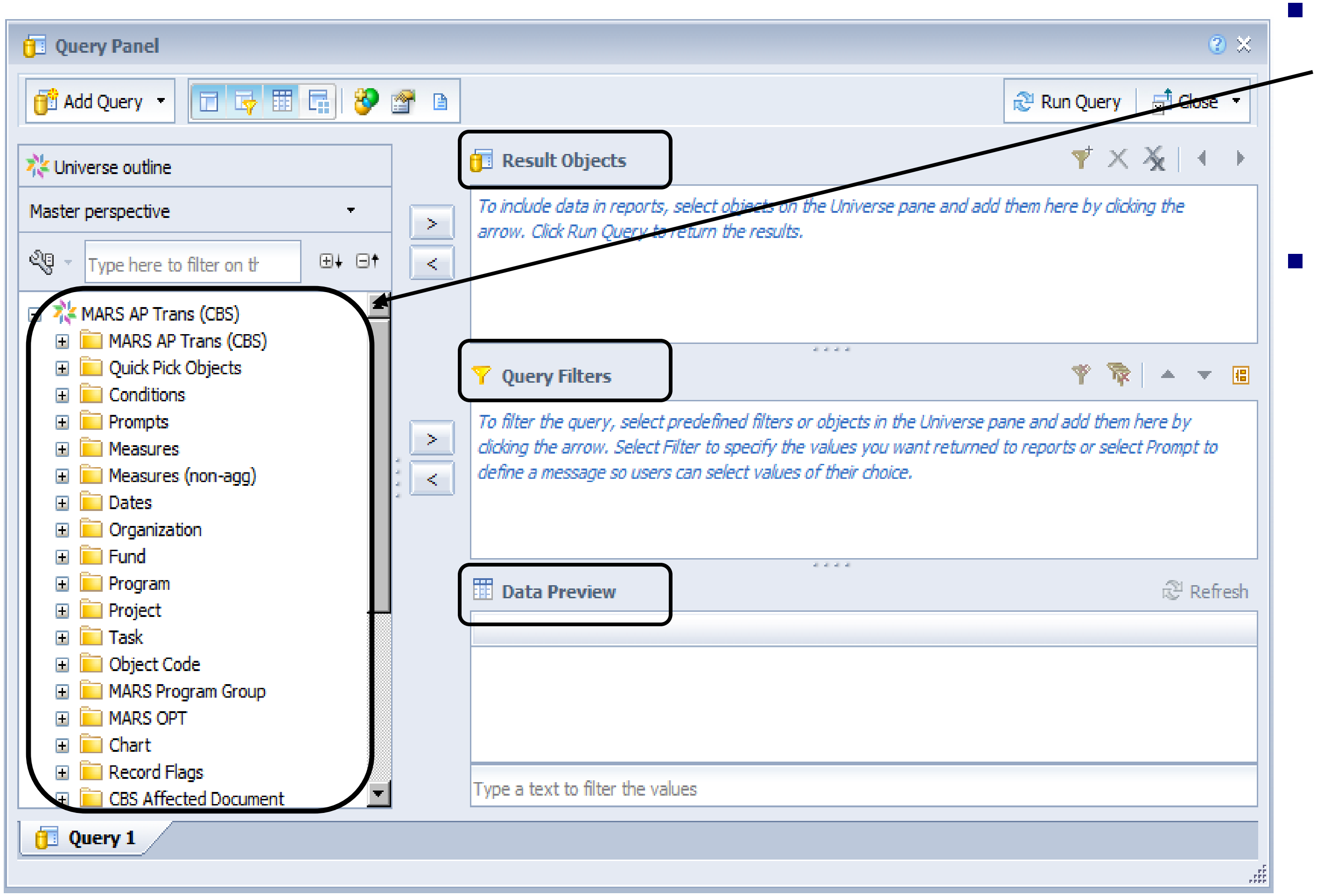
- In "*Create a document*" dialog box select "*Universe*" and click "*Ok*" button.

Creating WebI Documents: Query Building



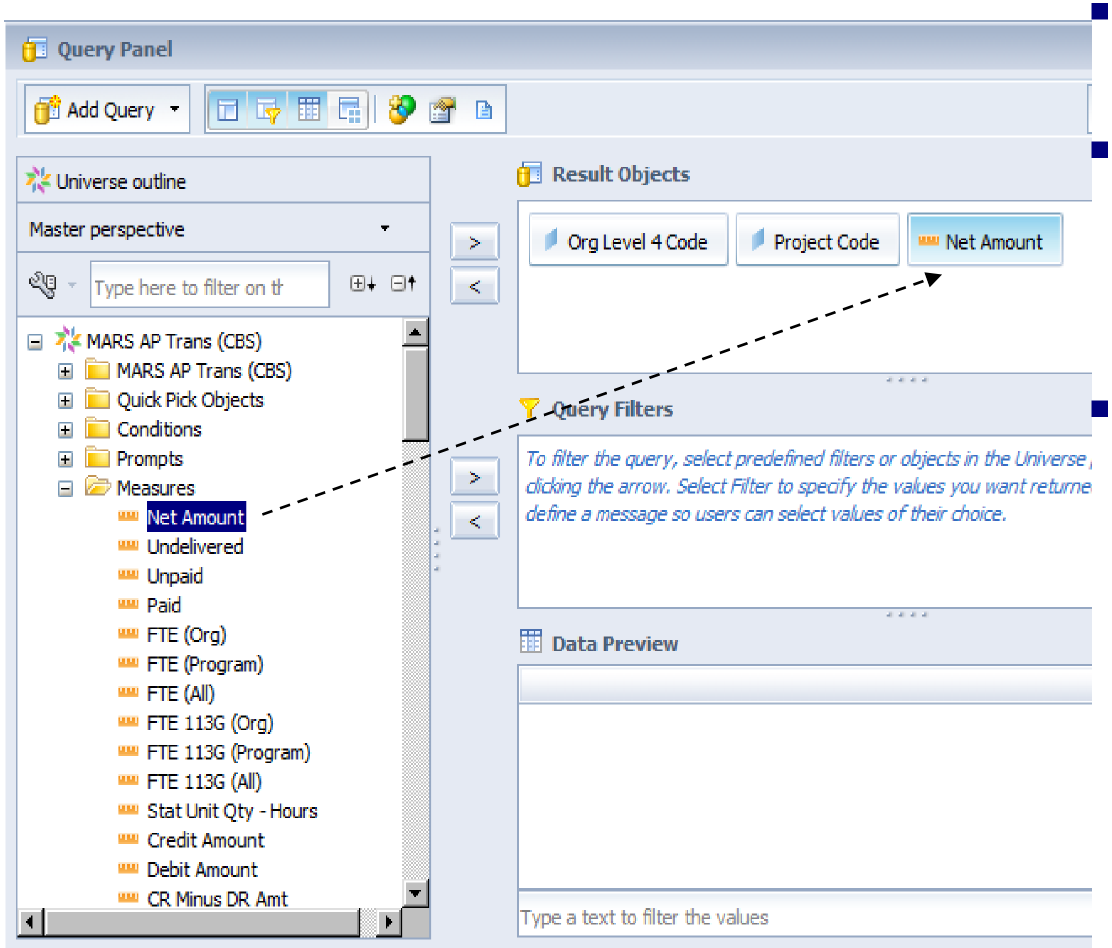
- You are presented with a list of universes.
- For this exercise choose *MARS AP Trans (CBS)*.
- And click “Ok” button.
- NOTE: The universes in the list is controlled by the user access rights.
- This screen is showing the universes available for use by a standard MARS user.

Creating WebI Documents: Query Building



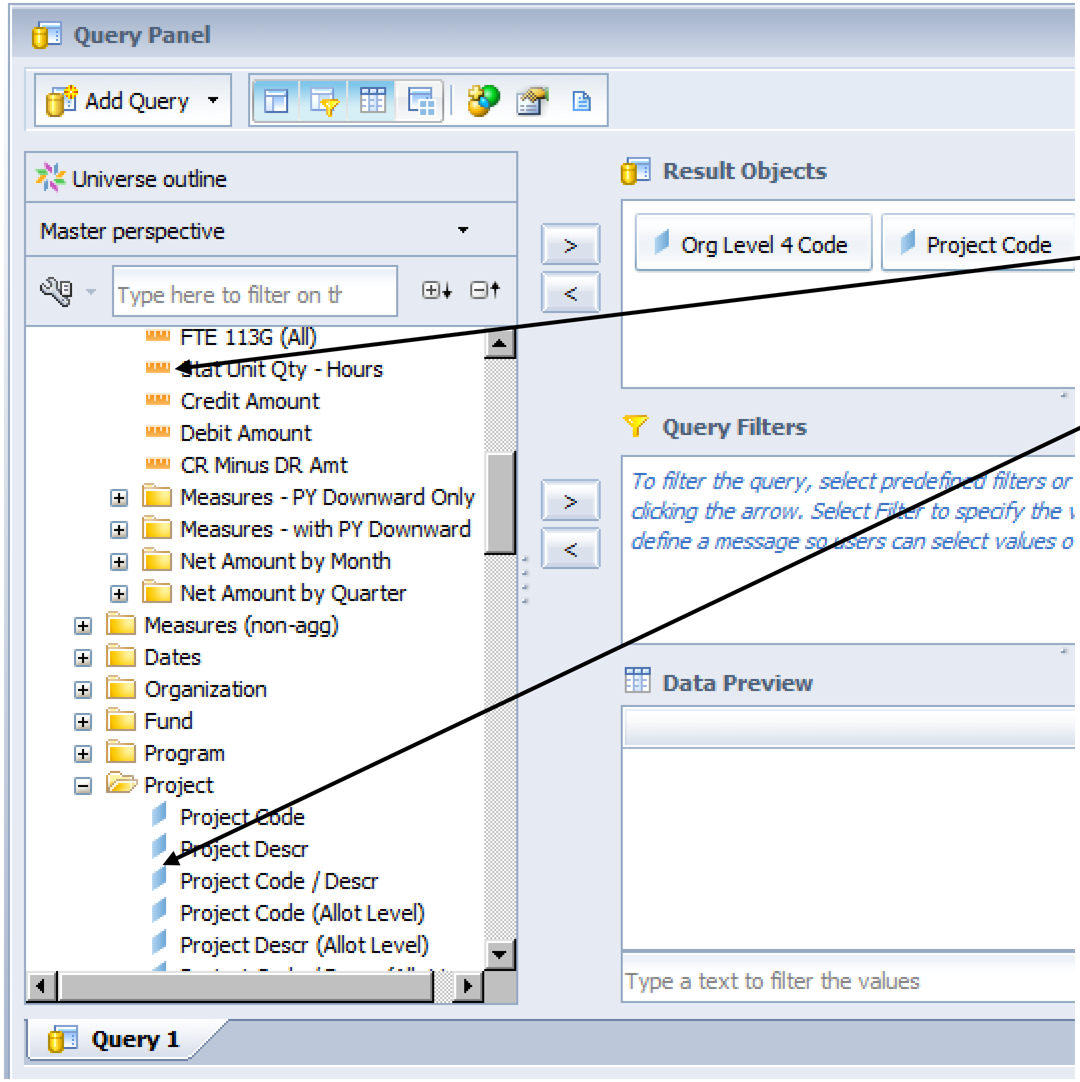
- The objects available in the Universe selected are in the folders to the left.
- Note that there is a *Result Objects* pane, a *Query Filters* pane and *Data Preview* pane.

Creating WebI Documents: Query Building



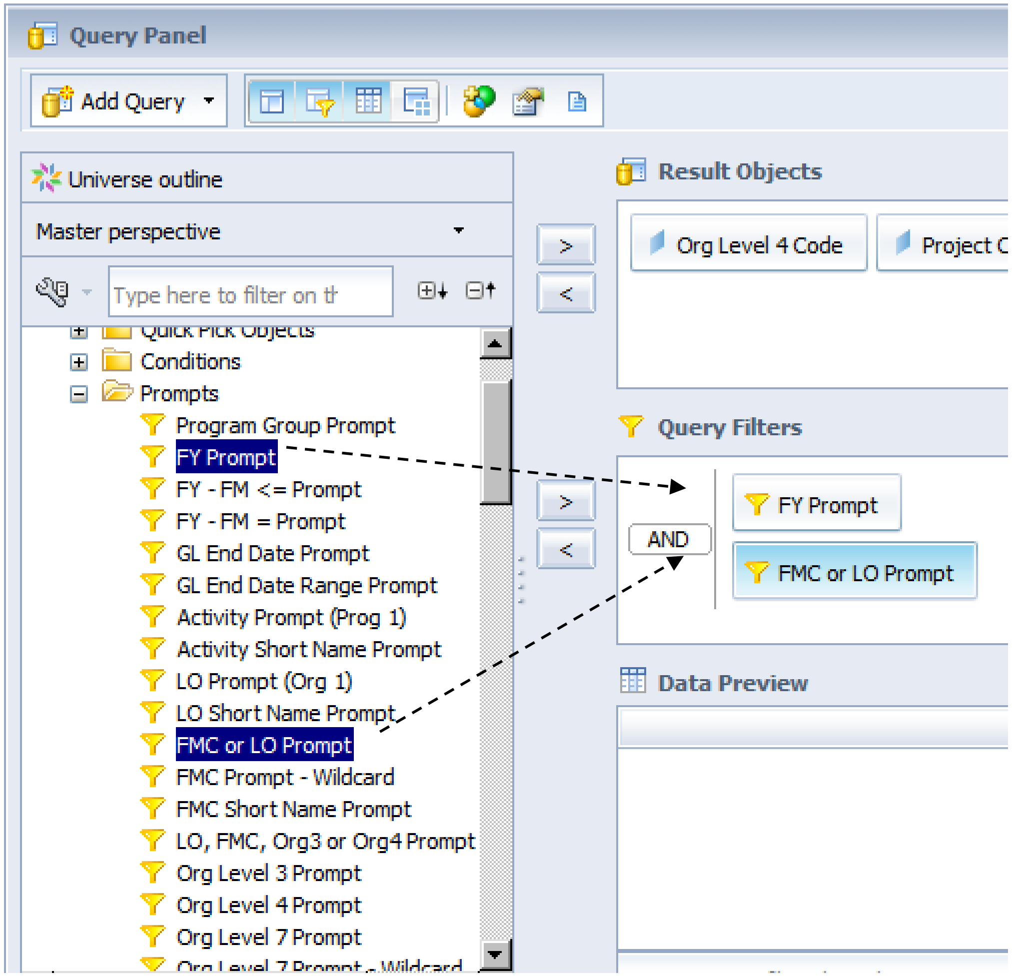
- Select desired objects to include in the document as follows:
- *Click "+"* to open the following folders to see the objects:
  - Measures
  - Organization
  - Project
- *Click and drag (or double click)* the following objects to include them on the *Result Objects* Pane:
  - Org Level 4 Code
  - Project Code
  - Net Amount

Creating WebI Documents: Query Building



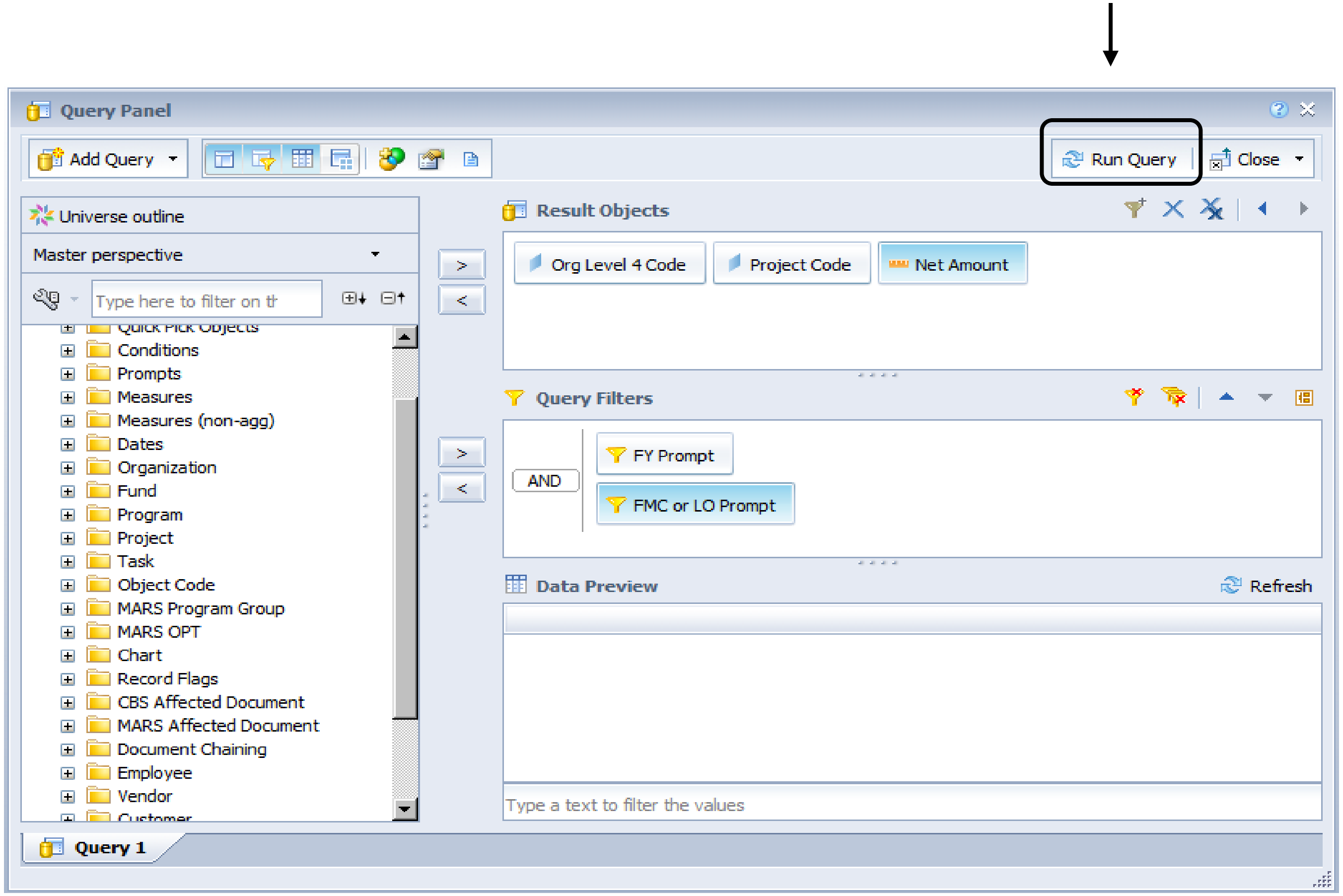
- Notice that the objects in the Measures folder have a gold icon and the objects in the Organization folder have a blue icon.
- The *gold icon* designates a *Measure* object.
- The *blue icon* designates a *Dimension* object.
- A Measure is a value that will be aggregated based on the selected dimensions, such as dollars, FTE and employee counts.
- A Dimension is a value that categorizes the Measure, such as Fund, Project, Organization or Object Class.
- Keep the terms Measure and Dimension in mind, as they may be used later in this User Guide.

Creating WebI Documents: Query Building



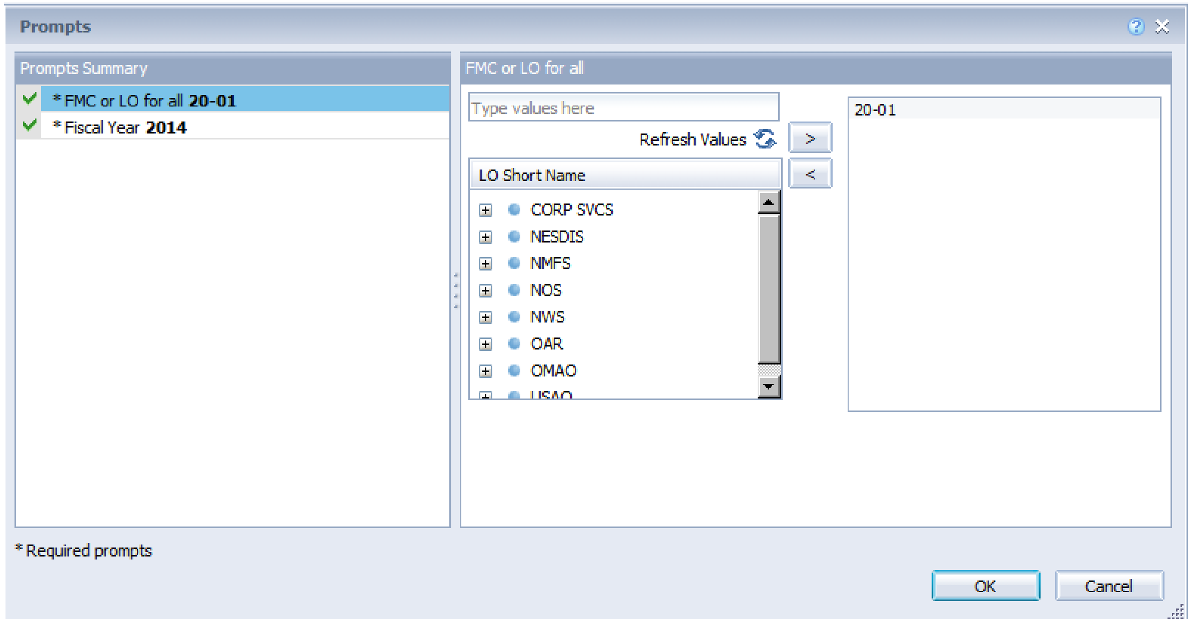
- To reduce the number of rows returned and speed up query performance, add some query filters. You will learn more about query filters later in this guide.
- *Click "+"* to open the following folders and see the objects:
  - Prompts
- *Click and drag (or double click)* the following objects to include them on the *Query Filters* Pane:
  - FY Prompt
  - FMC or LO Prompt

Creating WebI Documents: Query Building



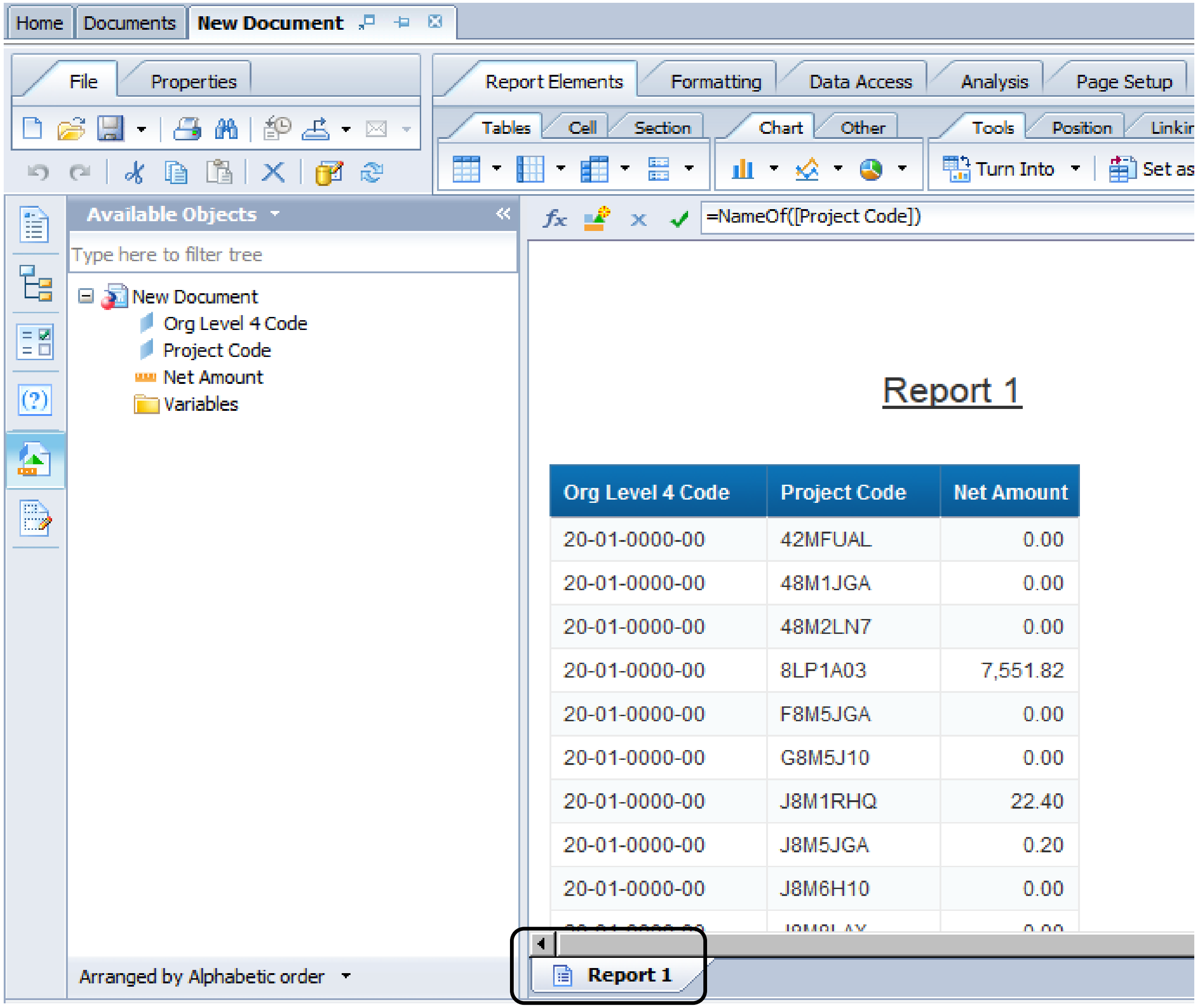
- Click *Run Query* to execute the query.

Creating WebI Documents: Query Building



- When the *Prompts* screen appears, click on the prompt text in the upper part of the screen and either type in the desired value or select it from the list of values in the lower part of the screen.
- If the list of values is empty, click the *Refresh Values* button.
- *Click Run Query* to execute the query with the select parameter.
- If the Run Query button is not available, it is because you have not answered all the prompts.

Creating WebI Documents: Query Building



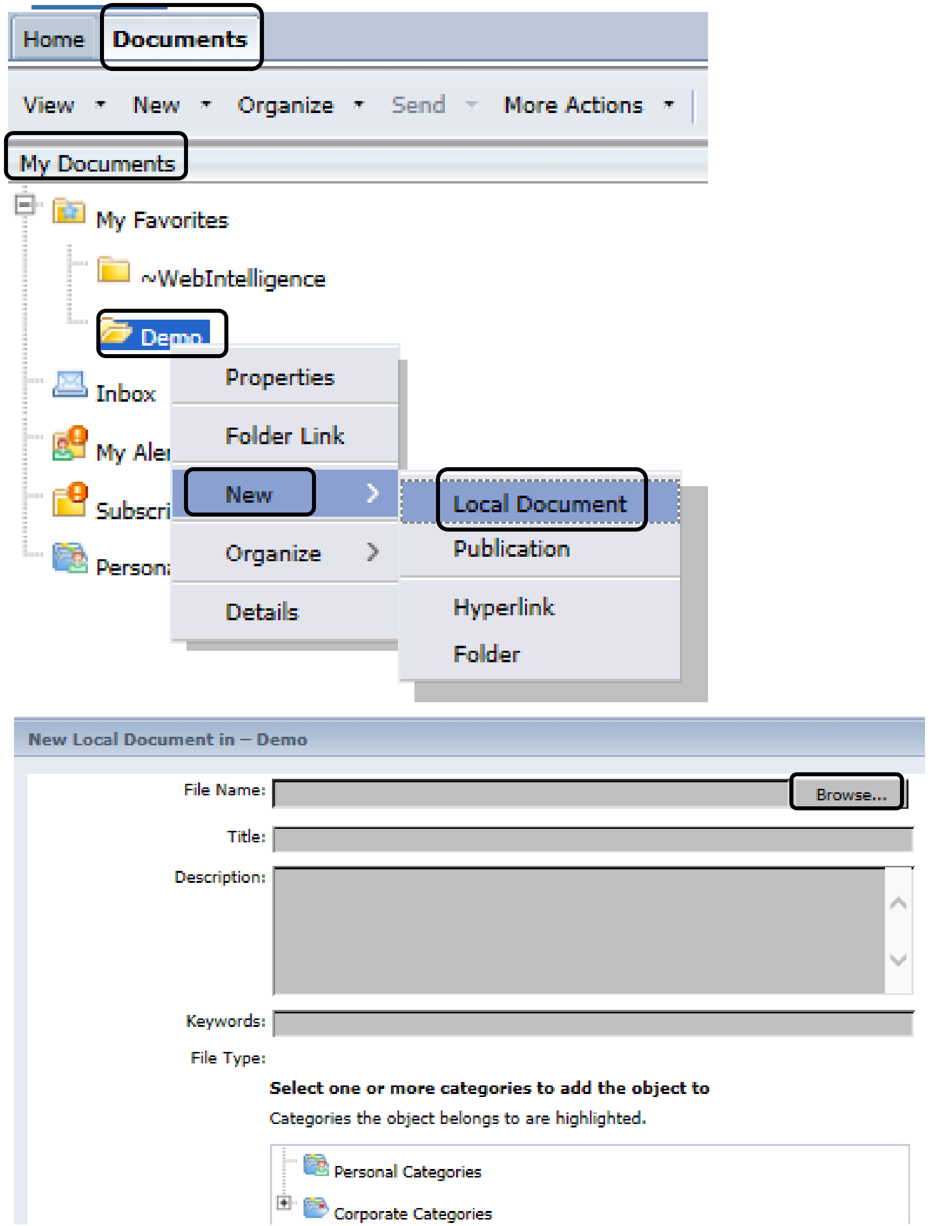
- The query is processed and your are switched to the *Design* mode.
- The results of the query are placed in a report tab *(Report 1)* in the default report format.
- The only time objects are placed in a report tab is the first time you run a query. New objects added to the query will have to be moved to the report tab(s) manually.
- Note that the rows going down are sorted first by column 1 (FCM), then column 2 (Project Code), etc. Column order and row sorting can be modified and will be covered in the Report Formatting section.

Creating WebI Documents: Excel as a Data Source

- An Excel Spreadsheet imported into your personal folder can be used as a data provider when creating your WebI report. This section provides instructions for:
- **1) Importing an Excel spreadsheet into the BI LaunchPad.**
- **2) Using the Excel spreadsheet to create a WebI report.**
- **3) Maintaining Excel spreadsheet so you don't lose your report.**

A	B	C	D	E	F	G	H	I	J	K	L	M	N
FMC	Fund Code	Project	Task	P1	P2	P3	P4	Template Name	Object Class	D_R	FY	$ DISTRIBUTION AMOUNT	HOURS DISTRIBUTION AMOUNT
10-01-0000	0016	12KC2LH	P00	1	7	2	0	1000LO	77-88-89-99	D	2016	117,465.03	(26.09)
10-01-0000	0016	12KC3LC	P00	1	7	3	0	1000LO	77-88-89-99	D	2016	138,194.16	(30.39)
10-01-0000	1033	P8KMMGX	P00	1	30	20	3	1000LO	77-88-89-99	D	2016	350,091.87	(76.72)
10-01-0000	1033	P8KMMMS	P00	1	30	50	1	1000LO	77-88-89-99	D	2016	2,499,011.03	(549.57)
10-01-0000	1033	P8KMMTX	P00	1	30	10	1	1000LO	77-88-89-99	D	2016	2,791,522.00	(613.76)
10-01-0000	1033	P8KNMC2	P00	1	10	10	1	1000LO	77-88-89-99	D	2016	73,703.55	(16.16)
10-01-0000	1033	P8KNMC8	P00	1	10	10	1	1000LO	77-88-89-99	D	2016	294,814.21	(64.64)
10-01-0000	1033	P8KNMC9	P00	1	10	10	1	1000LO	77-88-89-99	D	2016	3,305,143.62	(727.18)
10-01-0000	1033	P8KNMCD	P00	1	10	10	7	1000LO	77-88-89-99	D	2016	2,231,835.66	(490.48)
10-01-0000	1033	P8KNMGB	P00	1	10	10	5	1000LO	77-88-89-99	D	2016	2,503,617.50	(550.31)
10-01-0000	1033	P8KNMHQ	P00	1	10	10	8	1000LO	77-88-89-99	D	2016	469,860.14	(103.43)
10-01-0000	1033	P8KNMHR	P00	1	10	10	2	1000LO	77-88-89-99	D	2016	624,176.95	(137.54)
10-01-0000	1033	P8KNMHS	P00	1	10	20	0	1000LO	77-88-89-99	D	2016	1,884,047.03	(414.29)
10-01-0000	1033	P8KNMSM	P00	1	10	10	4	1000LO	77-88-89-99	D	2016	474,466.61	(104.43)
10-01-0000	1033	P8KSMCR	P00	1	20	20	0	1000LO	77-88-89-99	D	2016	628,783.42	(138.10)
10-01-0000	1033	P8KSMNC	P00	1	20	10	1	1000LO	77-88-89-99	D	2016	2,786,915.53	(612.58)

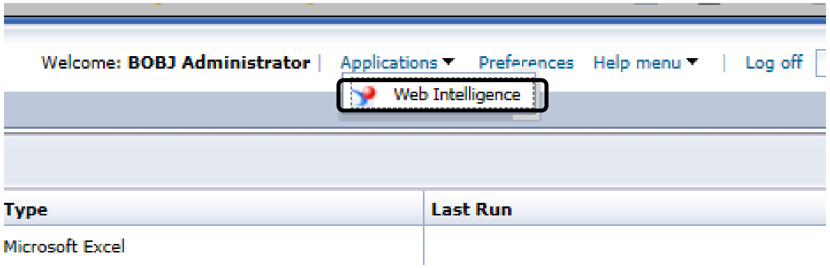
Creating WebI Documents: Excel as a Data Source

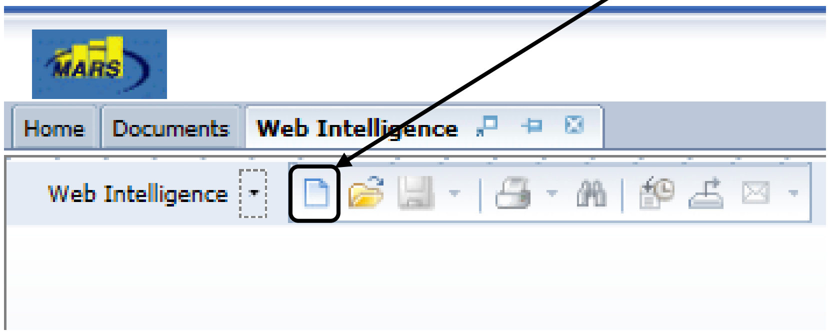


1) Steps to upload a New Microsoft Excel Spreadsheet to BI LaunchPad

- Within the Excel workbook, your column header titles should start in Column A, Row 1. Column titles should be short and descriptive. The second row will be your first row of data.
- Within BI LaunchPad in the Documents tab, *Click the My Documents* drawer.
- Right-click on the My Favorites folder ("Demo" folder on the screenshot) where you want to save the Excel spreadsheet, and *select New*, and then *select Local Document*.
- Browse to the Excel spreadsheet and *click Open* then *Add*.

Creating WebI Documents: Excel as a Data Source

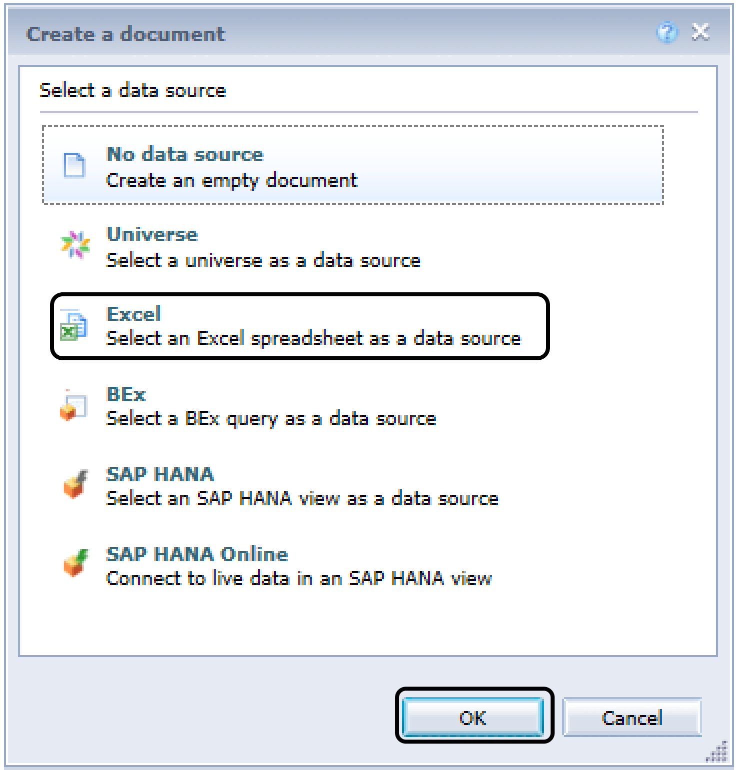




2) Using an Excel spreadsheet to create a WebI report

- *Select Web Intelligence* from the "Applications" menu at the top of your window, to the right of your name.
- *Click the "New report" icon* (which looks like a sheet of paper) in the upper left.

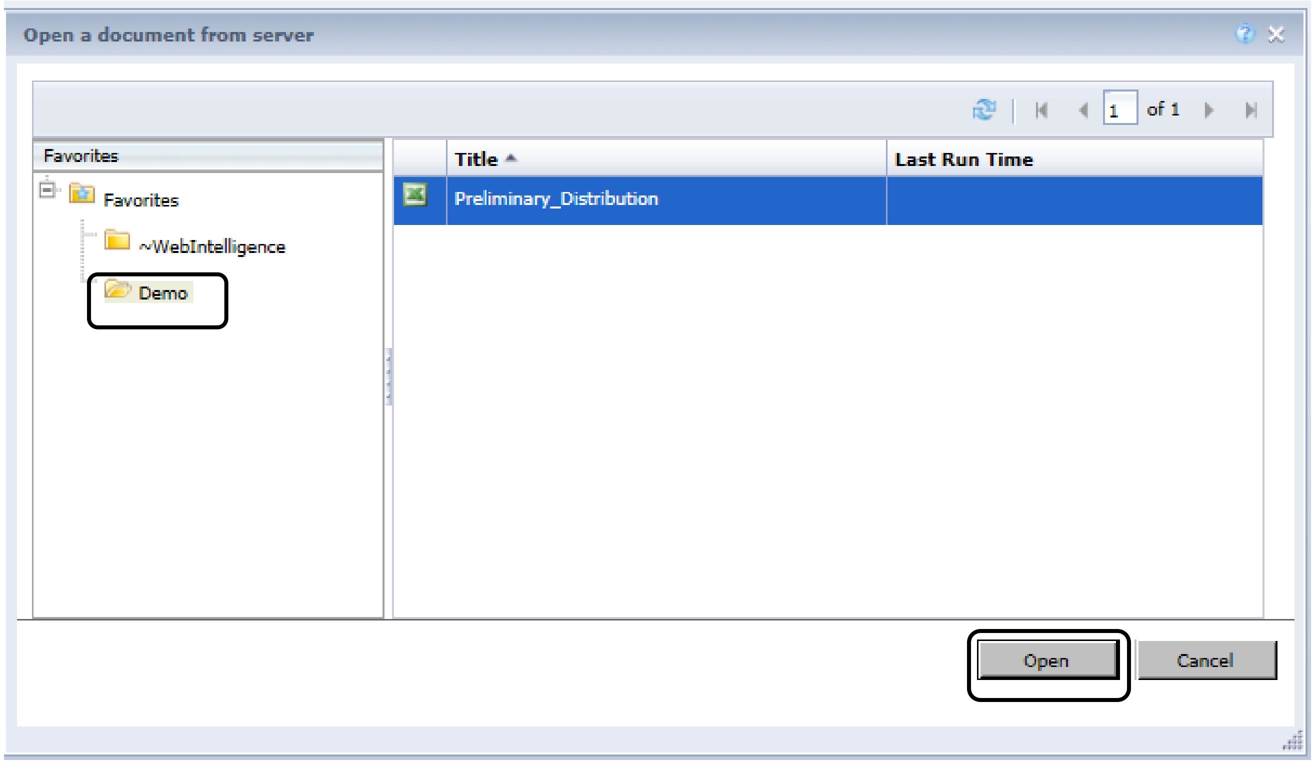
Creating WebI Documents: Excel as a Data Source



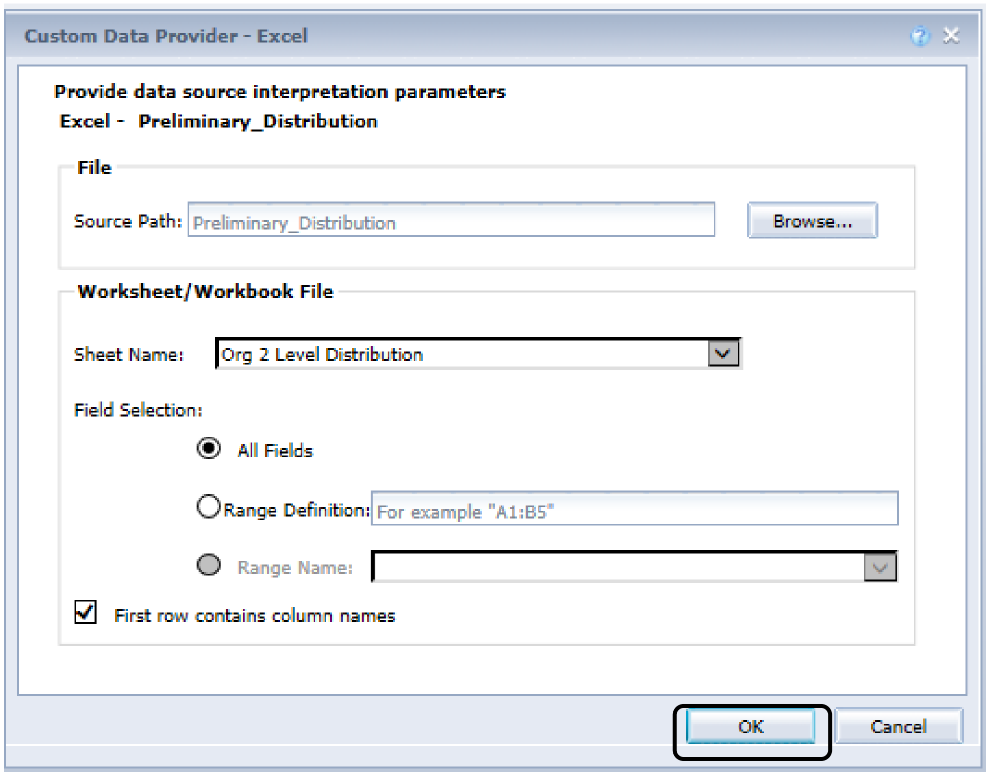
- The "**Create a Document**" dialog box will display. *Select Excel and click OK*.

Creating WebI Documents: Excel as a Data Source

- *Browse* to the Excel workbook that you previously stored in WebI BI Launchpad. *Click on Open.*
- The **Custom Data Provider** Dialog Box will display. If you have not imported the workbook into the repository, close the window and follow the previous steps, and then return to these steps.

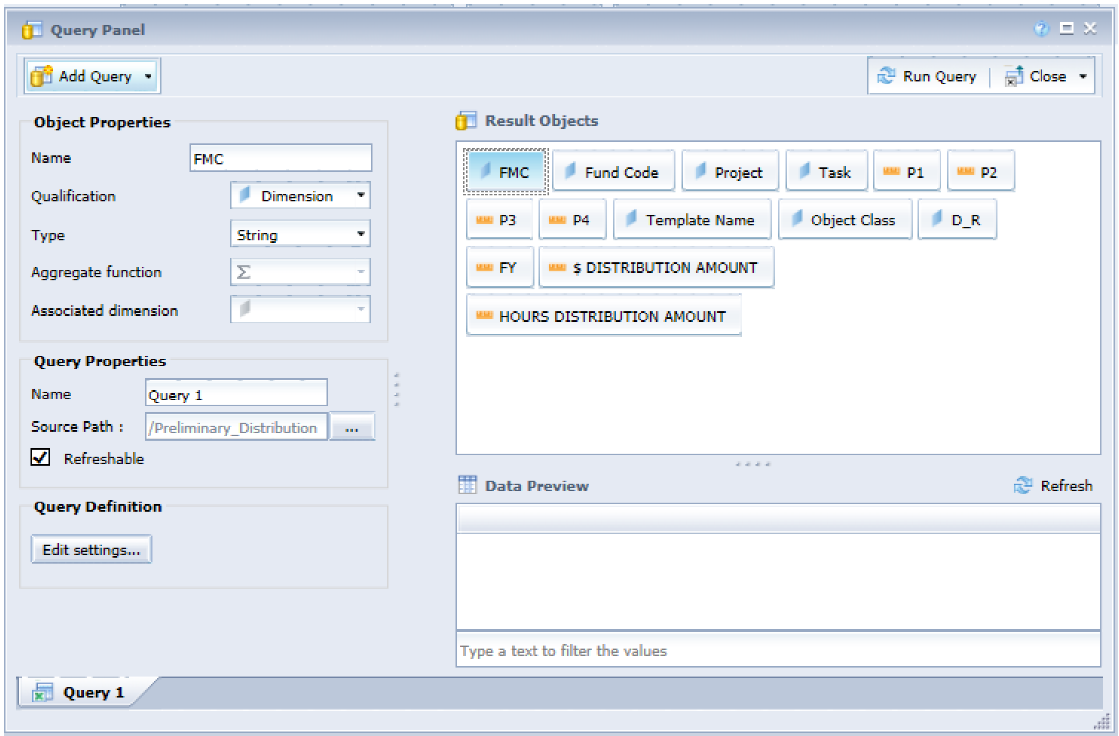


Creating WebI Documents: Excel as a Data Source



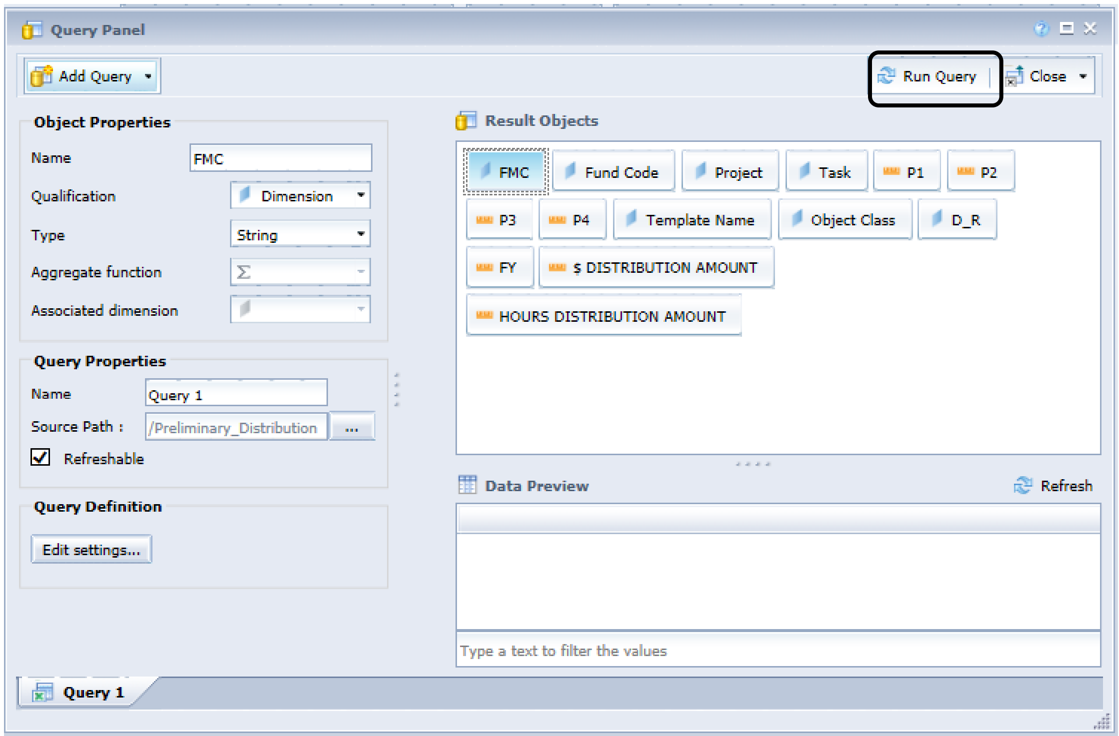
- *Select a Sheet Name* from the drop-down menu. You can select only one. If you need to use more than one, then you must create a report that uses more than one data provider.
- "**All Fields**" is the recommended radio button to select in the Fields Selection area.
- Selecting "**Range Definition**" will cause you issues if you add rows or columns later and is not recommended.
- Selecting "**Range Name**" is fine, but you will need to set up the named range in the original Excel workbook AND remember to change it whenever you update your rows and columns.
- Leave the box for "**First row contains column names**" checked.
- *Click OK*. The **Query Panel** for Excel Data Providers displays.

Creating WebI Documents: Excel as a Data Source



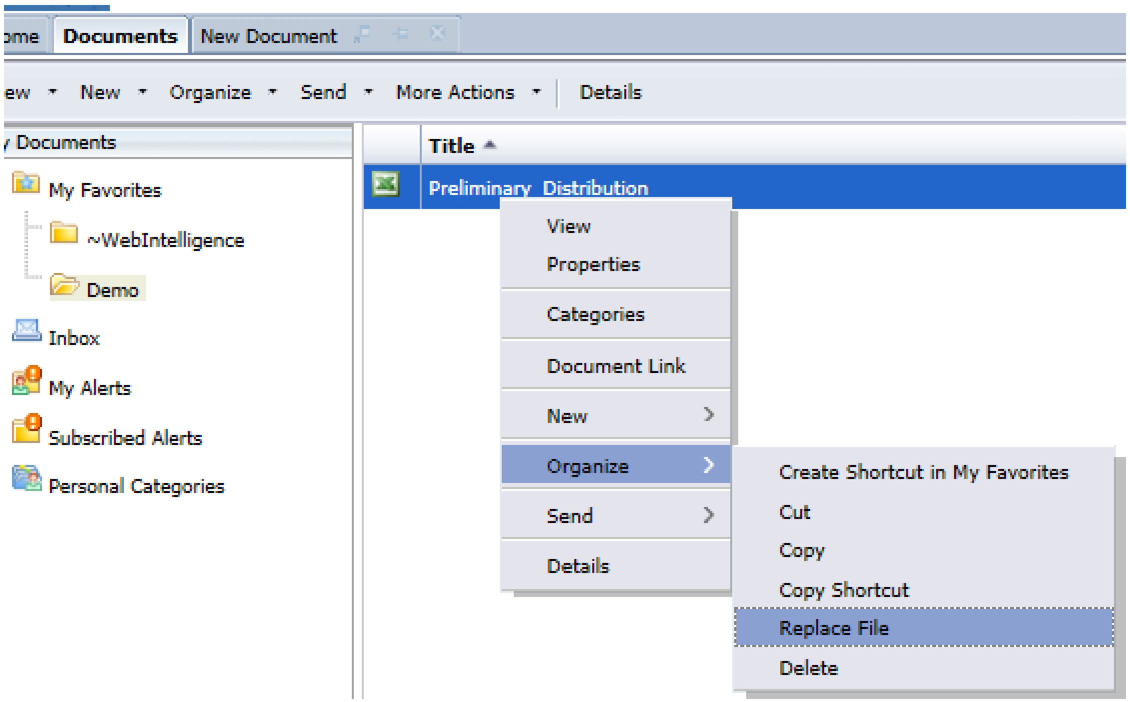
- There are three panels:
- On the left is the **Object Properties panel**:
  - In the top section, you can select a **result object** to change its name, qualification, type and aggregation. You can also set the object as a dimension related to another object.
  - Under **Query properties**, you can rename the query or change its source path. If you don't want the query to be refreshable, uncheck the "Refreshable" box, though this is usually not needed.
  - **Query Definition** allows you to change the Excel spreadsheet (tab) and the range of the data.
- The top right panel displays the columns on your selected spreadsheet. These objects can only be removed and updated by modifying your original Excel workbook and then refreshing the WebI workbook.

Creating WebI Documents: Excel as a Data Source



- The bottom right panel displays a sample of your data. You can only filter data rows or columns either within the source Excel file or by using report filters and input controls. You cannot filter the data or create prompts in the Query Panel.
- *Click Run Query*. A report tab with a table of your data will display.
- From here, you can design your report as you would with any other WebI report.

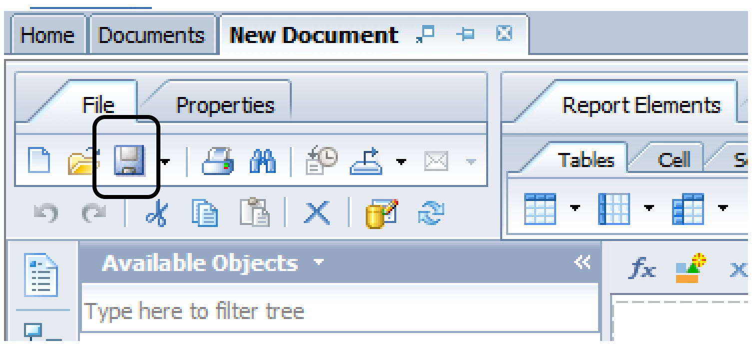
Creating WebI Documents: Excel as a Data Source



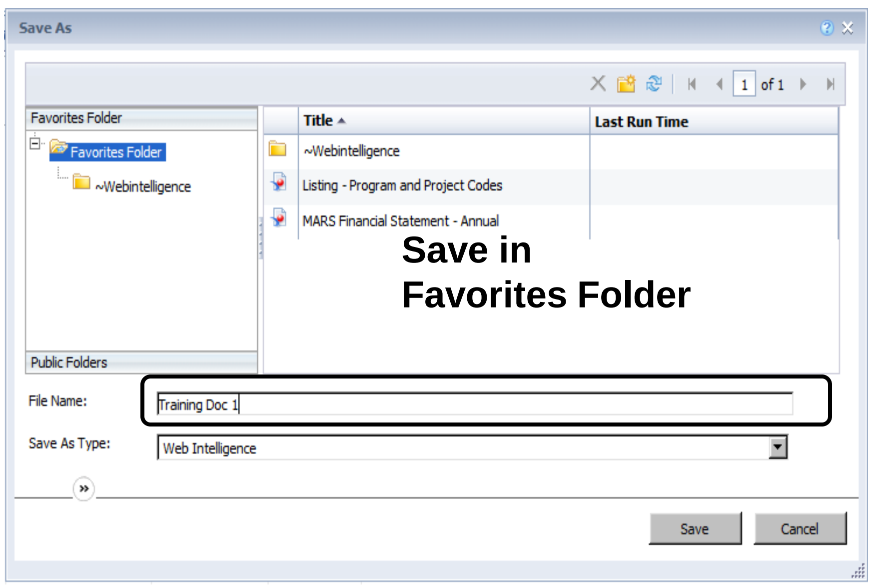
3) Maintaining the Excel Spreadsheet

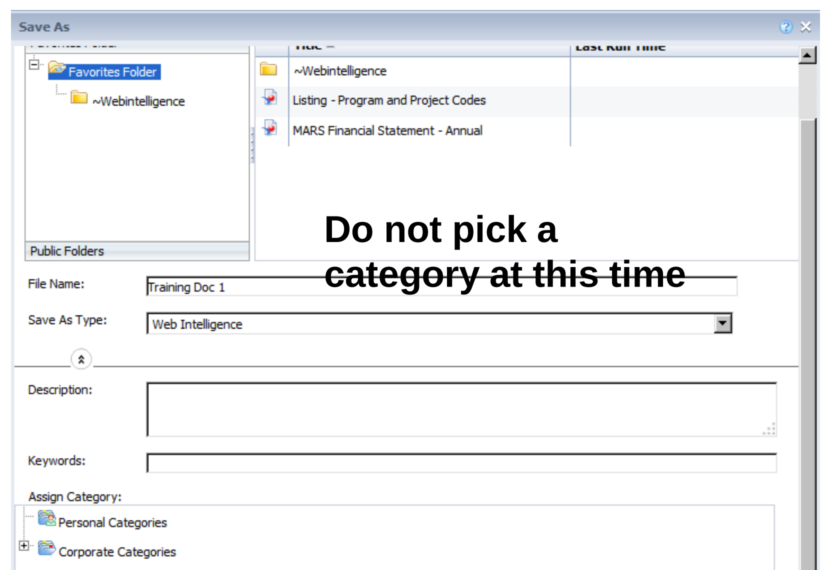
- You cannot maintain the Excel workbook within BI LaunchPad. You must update your spreadsheet's data in your local drive, then refresh the BI LaunchPad's version of the spreadsheet, using the steps below:
- *Open* the local copy of the Excel workbook.
- Update your data as needed. Do not rename, move or delete columns or tabs. You may add columns and tabs.
- Save the spreadsheet in the same location.
- In WebI's BI LaunchPad, *select the folder* that contains the Excel spreadsheet. *Right-click on the spreadsheet*, and from the *Organize menu, select Replace File*.

Creating WebI Documents: Document Storage and Organization

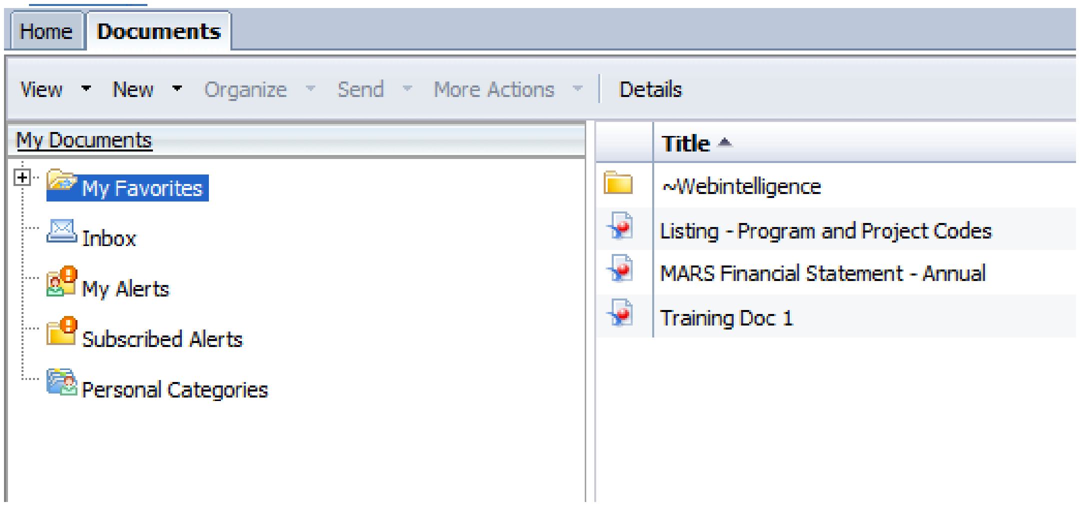


- *Click Save* (Diskette Icon) to save your document.
- The first time you click save, you will be prompted to select a folder and document name. Optionally you can specify a personal category.
- From the *Save Document* pop-up window, select *Favorites Folder* and do not select a Personal Category at this time.
- In the *Name* field, enter *'Training Doc 1'.*





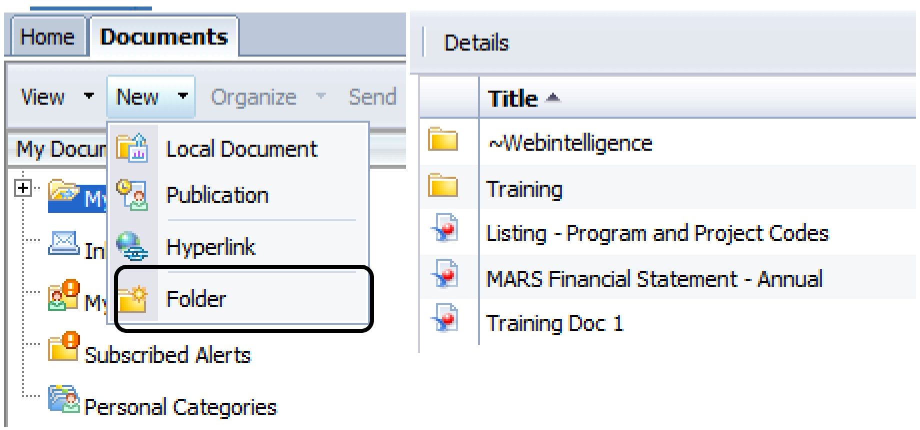
Creating WebI Documents: Document Storage and Organization



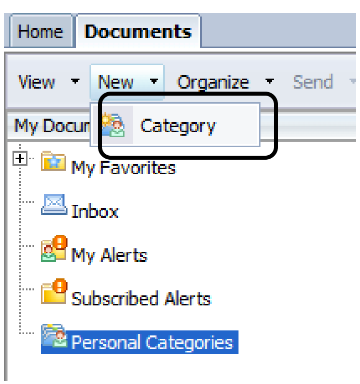
- Each user has a Personal Folder area for storing Personal Documents called *My Favorites*.
- Personal Documents are either:
  - Created by the user
  - Sent by another user
  - Copies from Corporate Documents
- To see Personal Folders click *Documents* -> *My Documents*.

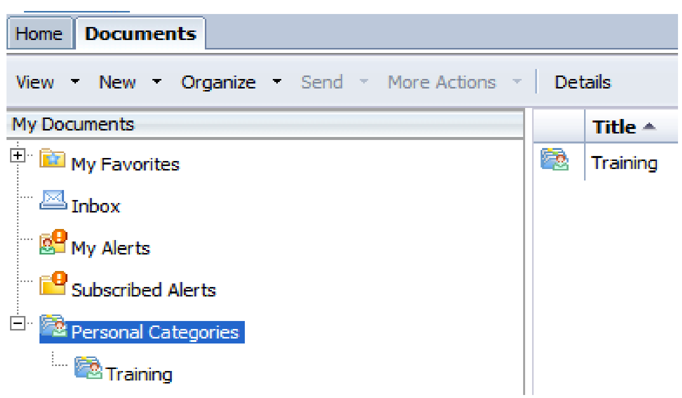
Creating WebI Documents: Document Storage and Organization

- Each user can create subfolders and/or sub-categories to keep their personal documents organized.
- Personal documents and folders are stored on the BusinessObjects server at the ITC, not locally on the user's PC.
- Note that the subfolders under the Public Folders folder are hidden by design. Users are unable to save to Public Folders or Corporate Categories.



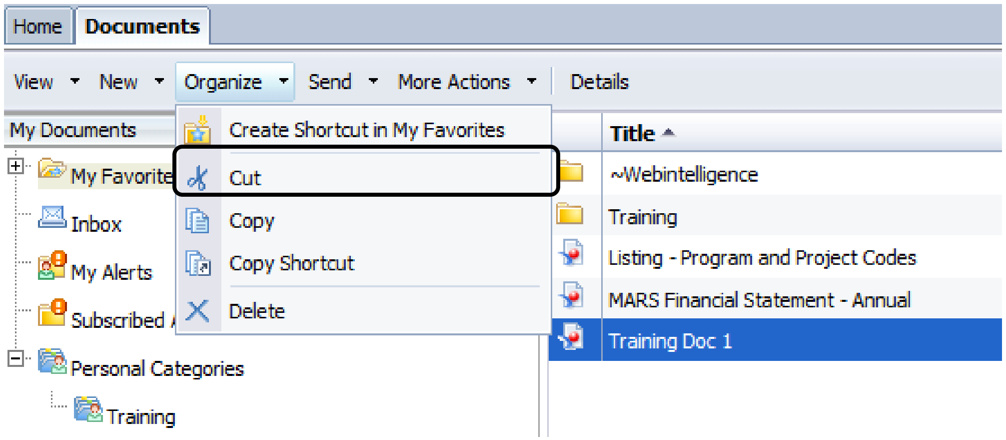
- *Create Training Folder:*
  - Highlight My Favorites
  - From New Menu select Folder
  - Name the folder 'Training'

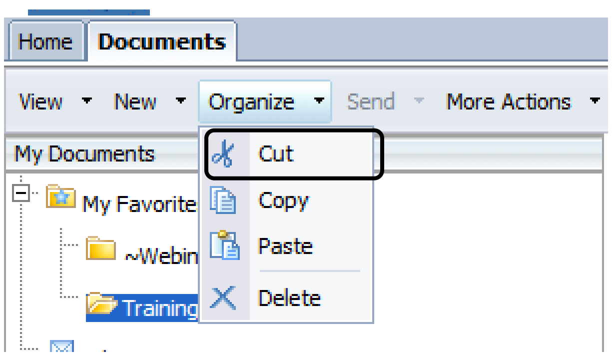




- *Create Training Category:*
  - Highlight Personal Categories
  - From New Menu select Category
  - Name the category 'Training'

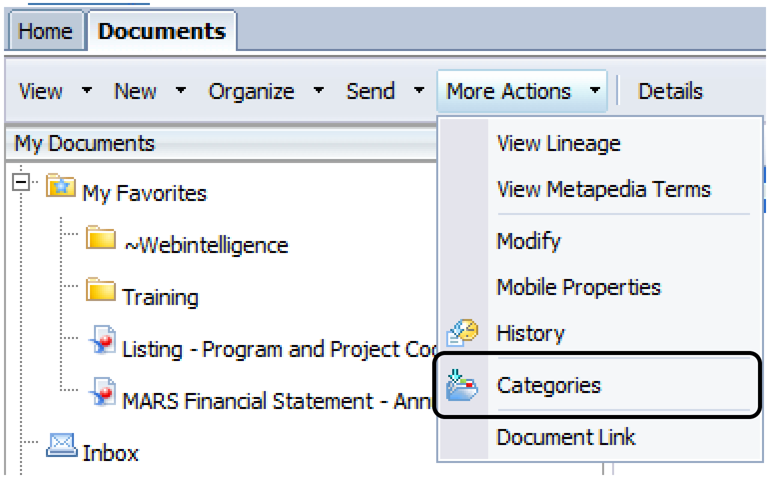
Creating WebI Documents: Document Storage and Organization

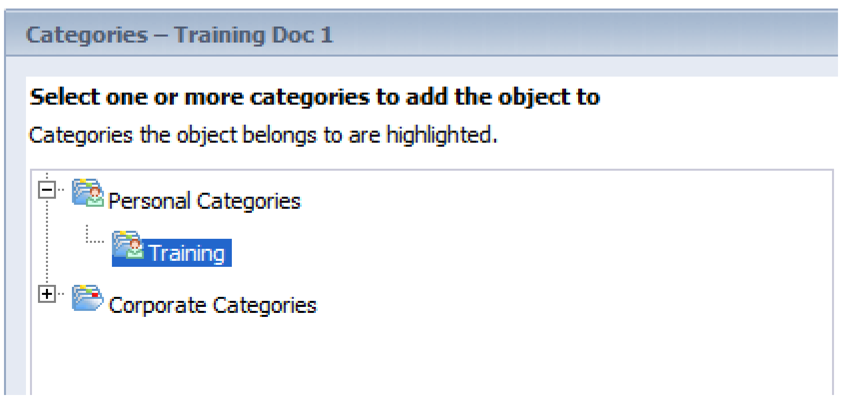




- Your document has been saved in the *My Favorites* folder.
- To find your document, click *Documents* -> *My Documents*. Click on the *My Favorites* folder.
- You can move a document using the *Cut* and *Paste* options under the *Organize Menu*.
- Move Training Doc 1 . . .
- *Cut from My Favorites*
  - Click on My Favorites
  - Click on the 'Training Doc 1'
  - From the Organize Menu, select Cut
- *Paste into Training*
  - Click on the + next to My Favorites
  - Click on the Training folder
  - From the Organize Menu, select Paste

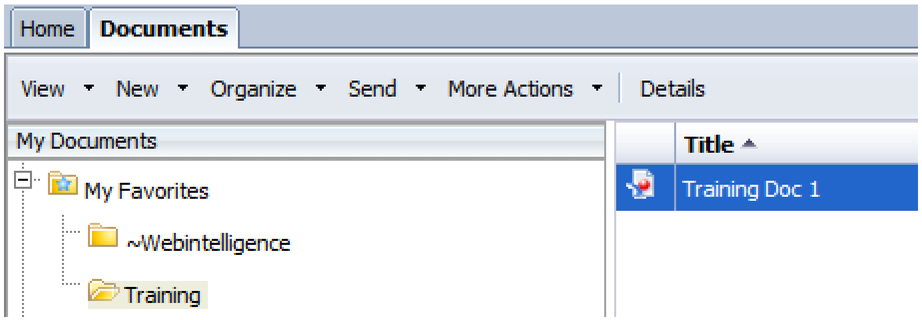
Creating WebI Documents: Document Storage and Organization

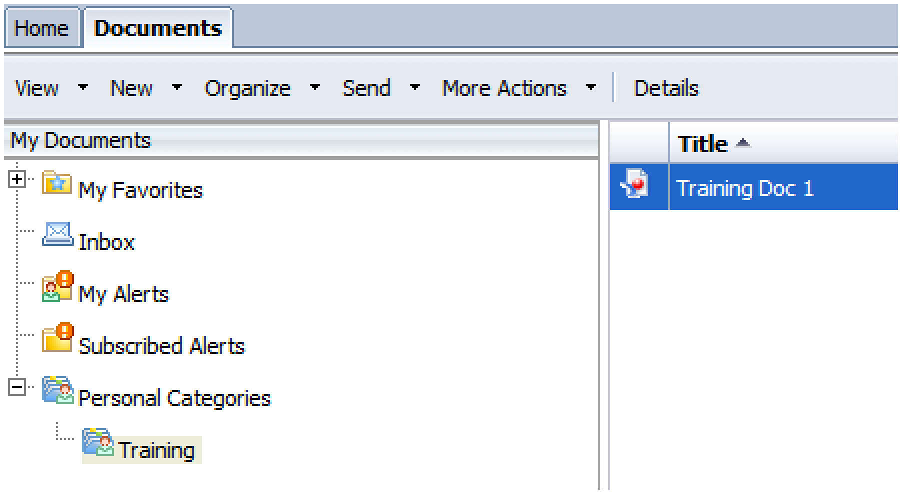




- When you saved Training Doc 1, you were instructed not to specify a category.
- In a subsequent step, you created the Training category.
- *Assign Training Doc 1 to the Training category as follows*:
  - From the More Actions Menu, select Categories
  - Open Personal Categories and click on Training
  - Click OK

Creating WebI Documents: Document Storage and Organization



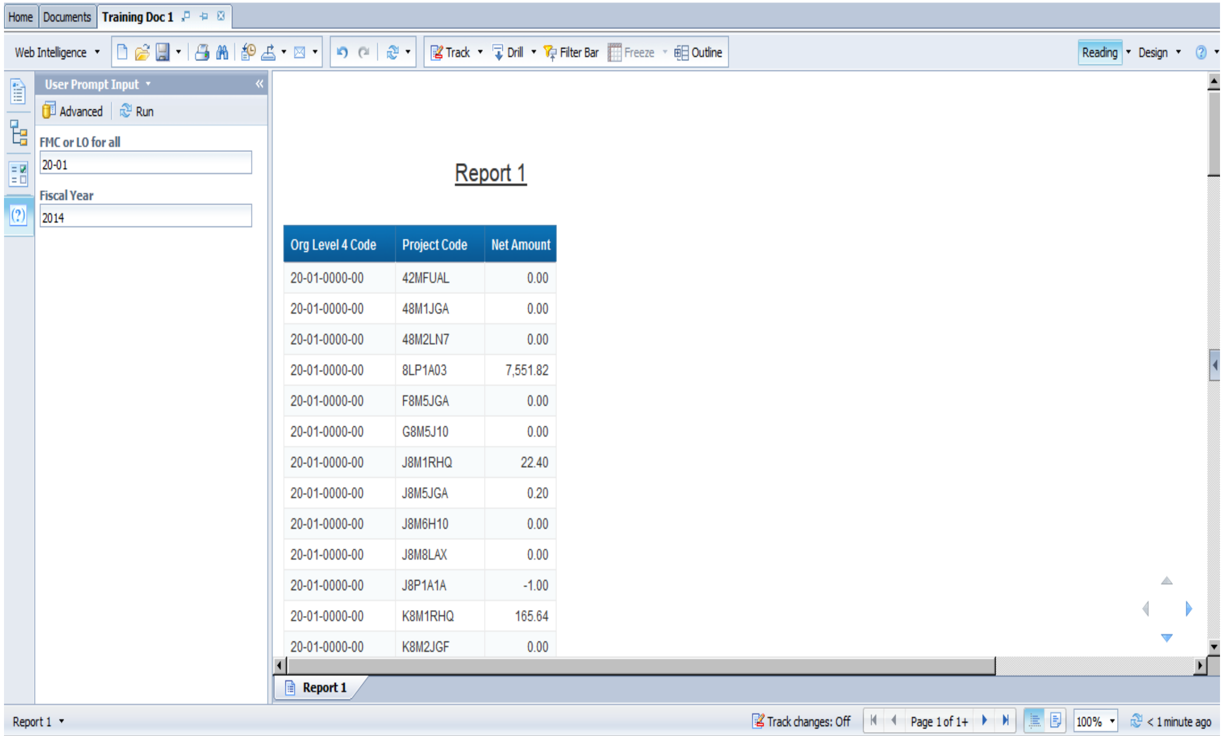


- Now you should be able to find your document in both the *Training folder* and the *Training category*.

- Typically, there would be no need to have both a category and folder for the same subject.

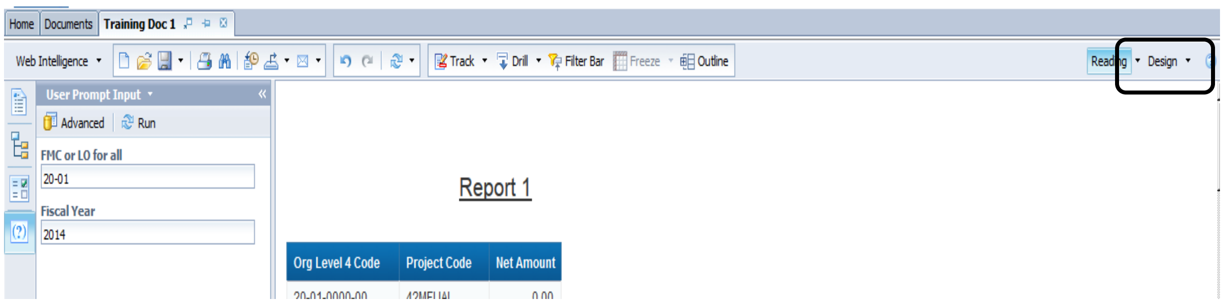
- You may choose to use only folders for organizing your documents, or you may choose to put all your documents in one folder and use categories to keep organized. Both were created in this exercise purely for training purposes.

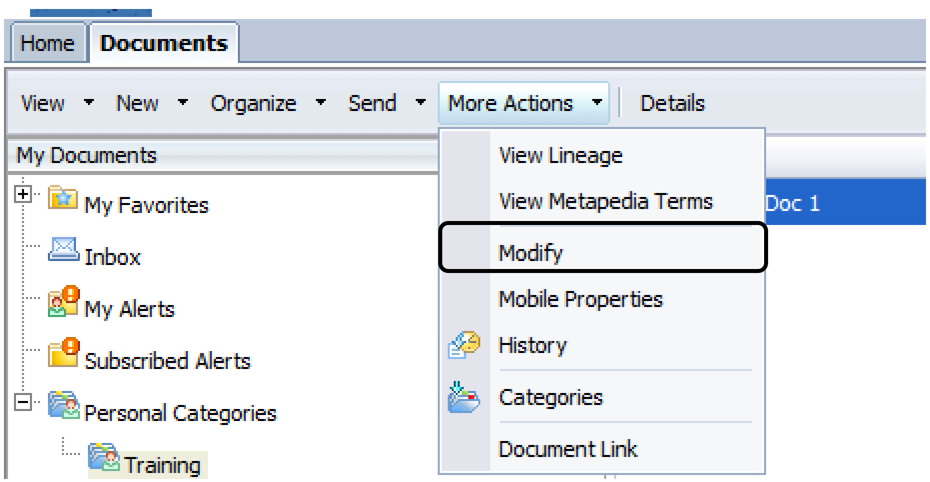
Creating WebI Documents: Recalling a Document



- To use the document you have just saved, simply navigate to the appropriate folder or category and double click on the document name.
- The document will be opened in Reading mode. You cannot change the query or report layout in Reading mode.
- The data you see when you open a document is the data from the last time the document was saved.
- *Open Training Doc 1*
- *Click Refresh Data* to retrieve the latest data and/or change the prompt parameters.

Creating WebI Documents: Editing a Document





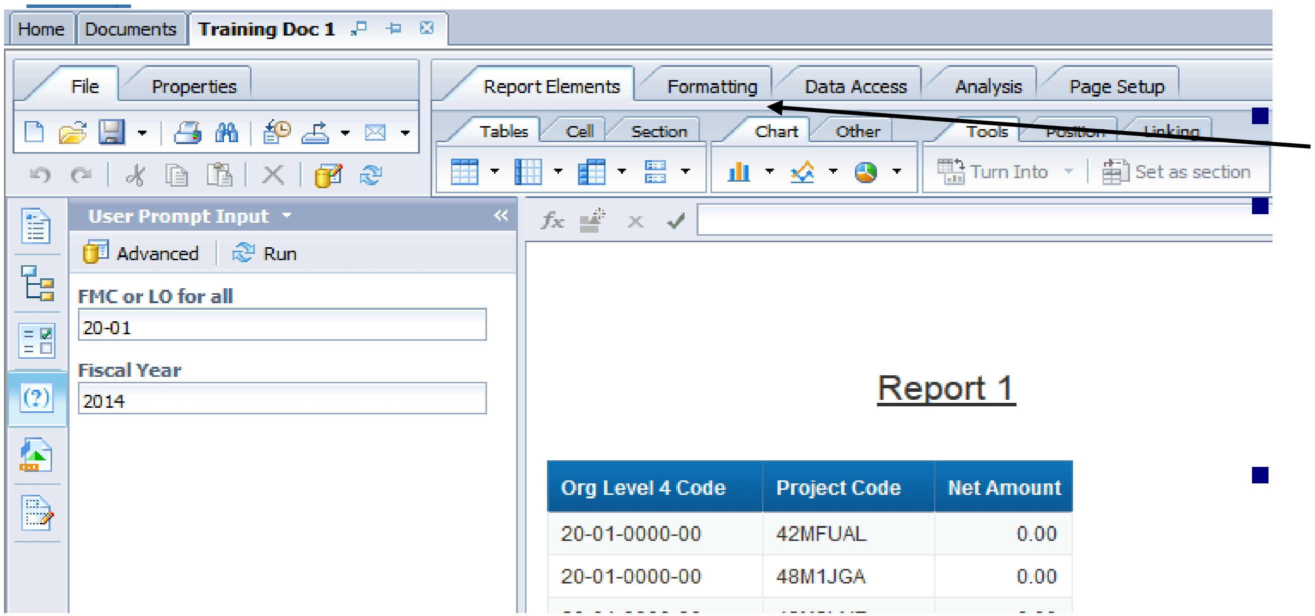
- To make changes to the query of report layout you must open the document for editing in one of two ways:

- While in view mode
  - Double click the document to return to *Reading mode*
  - Click on the *Design* option

Or . . .

- From the Detail Panel
  - *Highlight the document* in the Detail Panel
  - From the *More Actions Menu*, select *Modify*

Creating WebI Documents: Editing a Document



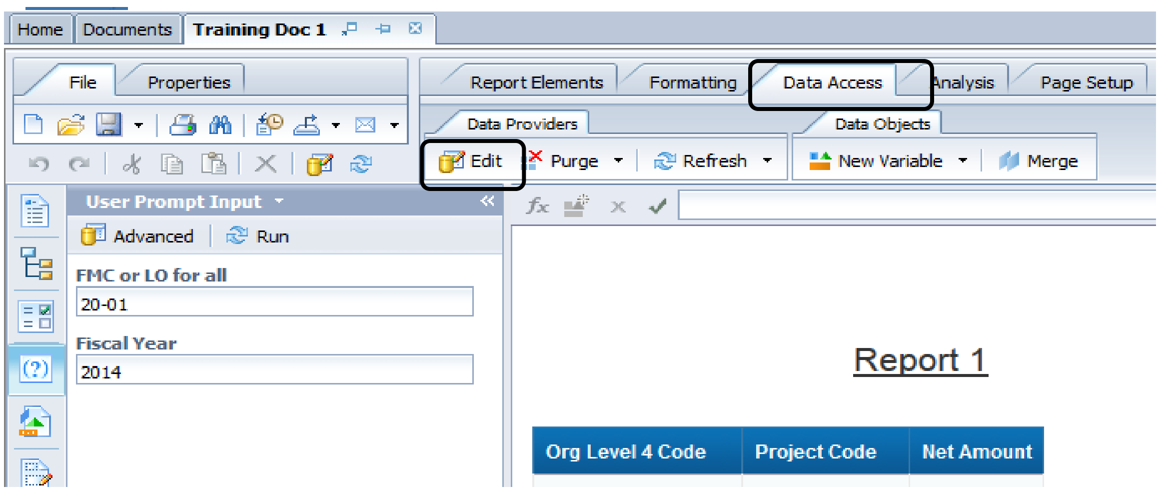
- *Open Training Doc 1 for editing.*

- You will be in *Design mode*.

- It is from the *Design mode* that you will be able to do the advanced report structuring and formatting that is covered in later sections.

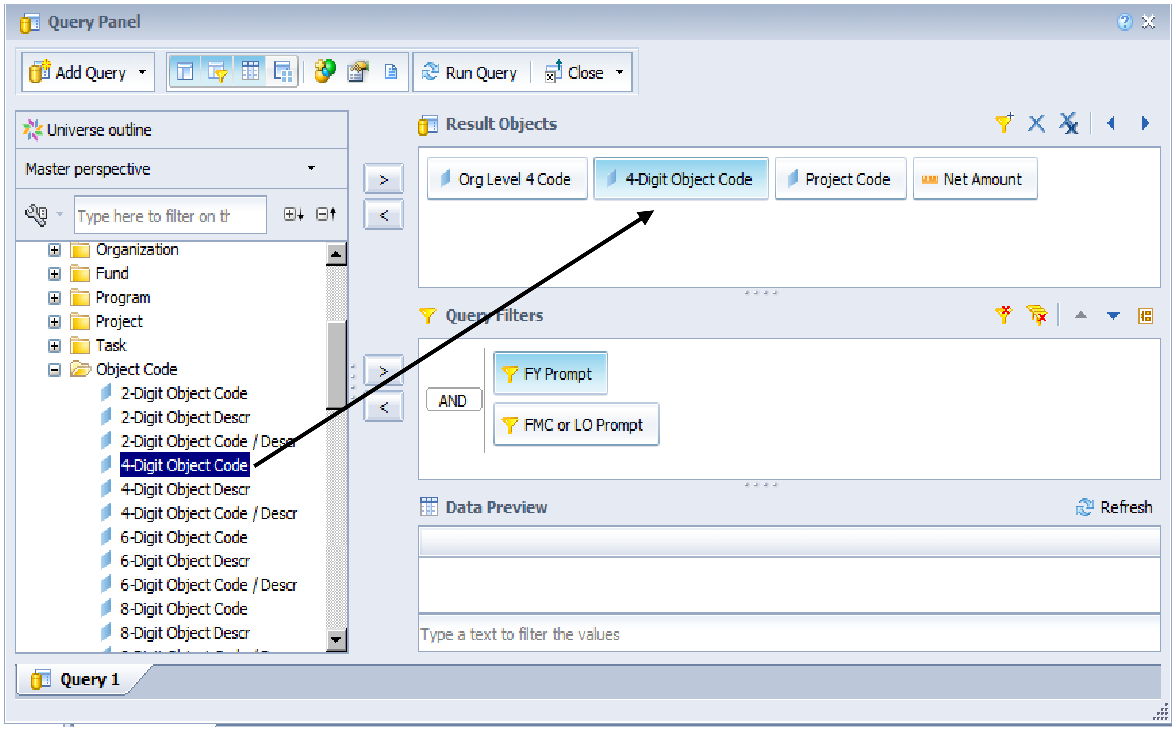
- For this lesson you will learn how to add and delete columns from the query and report.

Creating WebI Documents: Editing a Document



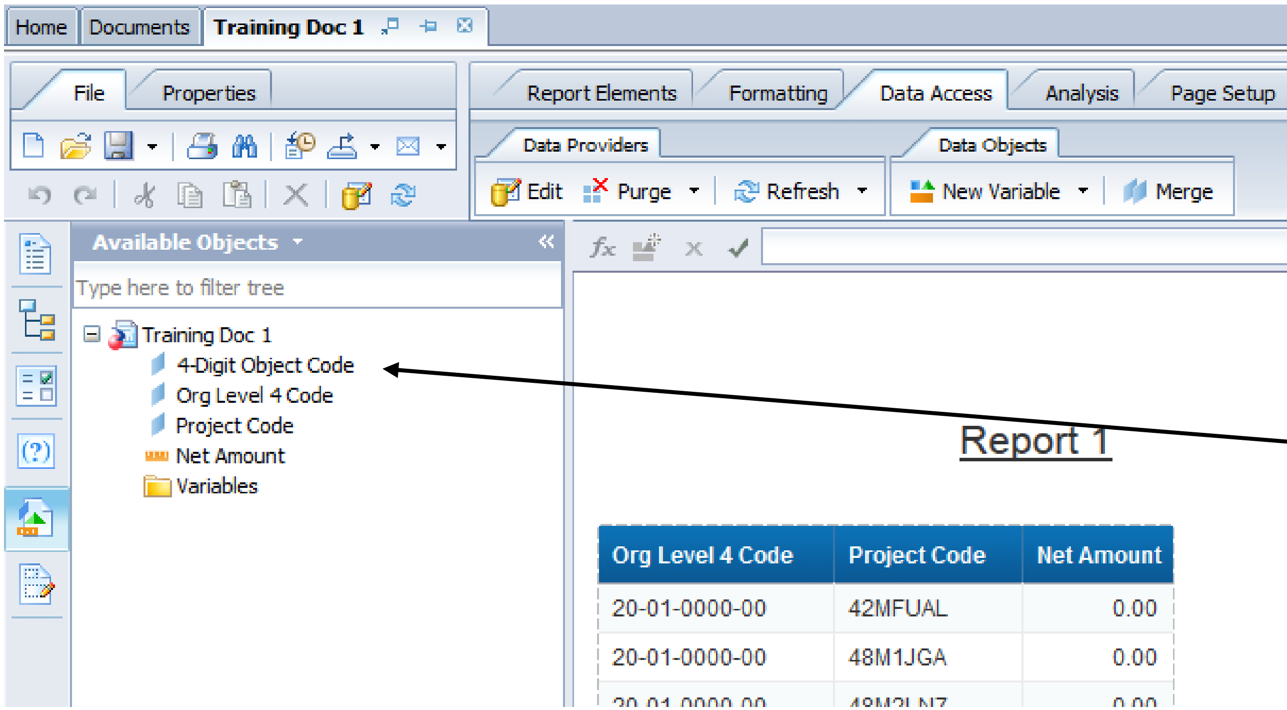
- To Edit the Query , click on *"Data Access"* and then click on *"Edit"* under *"Data Providers"*

Creating WebI Documents: Editing a Document



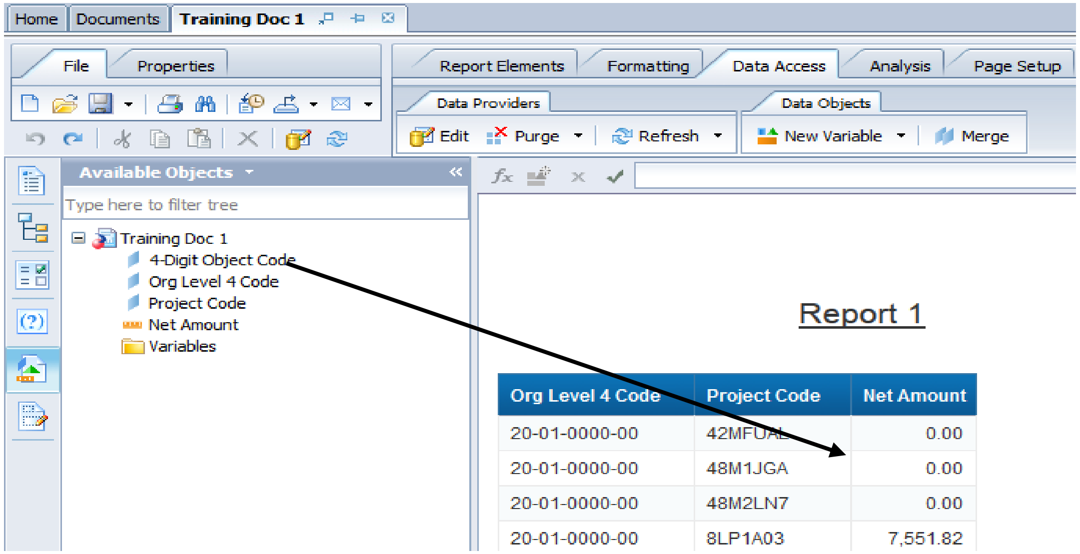
- *Add 4-Digit Object Code* to your query as follows:
  - Open the Object Code folder
  - Click and drag (or double click) the *4-Digit Object Code* so that it appears in the Result Objects
  - Click *Run Query*
- To remove objects from your query, simply click and drag them out of the Result Objects panel.
- Alternatively, you can highlight the object and press the delete key.

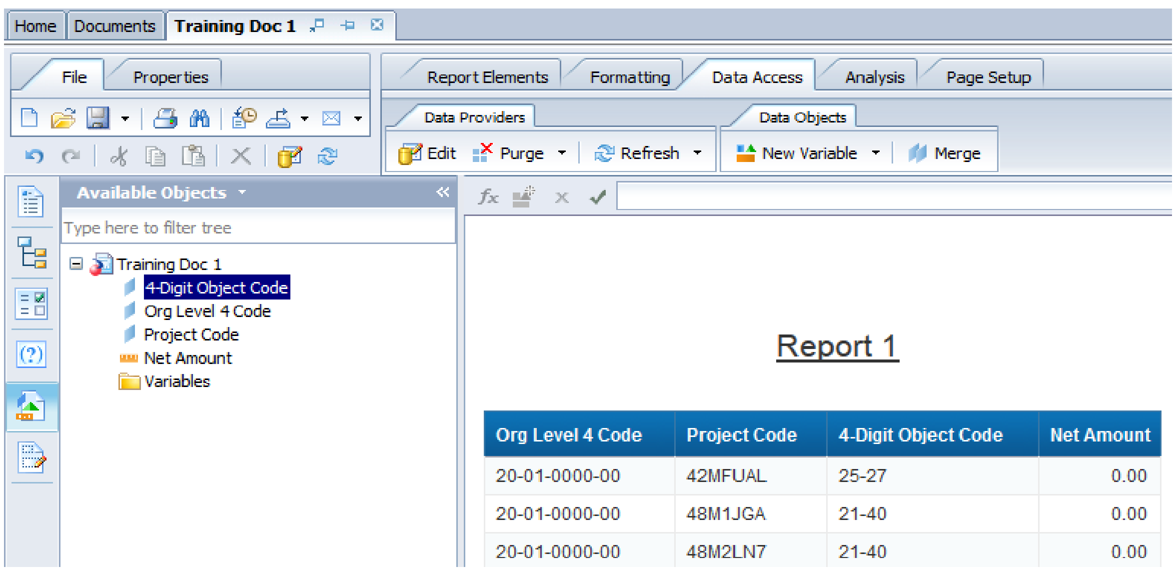
Creating WebI Documents: Editing a Document



- The query is processed and you are switched to the *Design Report* mode.
- Note that the newly added object does not appear automatically in the report.
- The newly added *4-Digit Object Code* object is available in the *Available Objects* tab.

Creating WebI Documents: Editing a Document





- To add objects from *Available Objects* tab to report, drag and drop onto appropriate place in the report.
- As you drag object over table, a tooltip will display, indicating the correct place to drop data object. The tooltip in the screen shown says *'Drop here to insert a cell'*. It is also possible to replace a cell.
- *Drag and drop the 4-Digit Object Code between Project Code and Net Amount.*
- Save your document after each change by clicking the *Save* button.

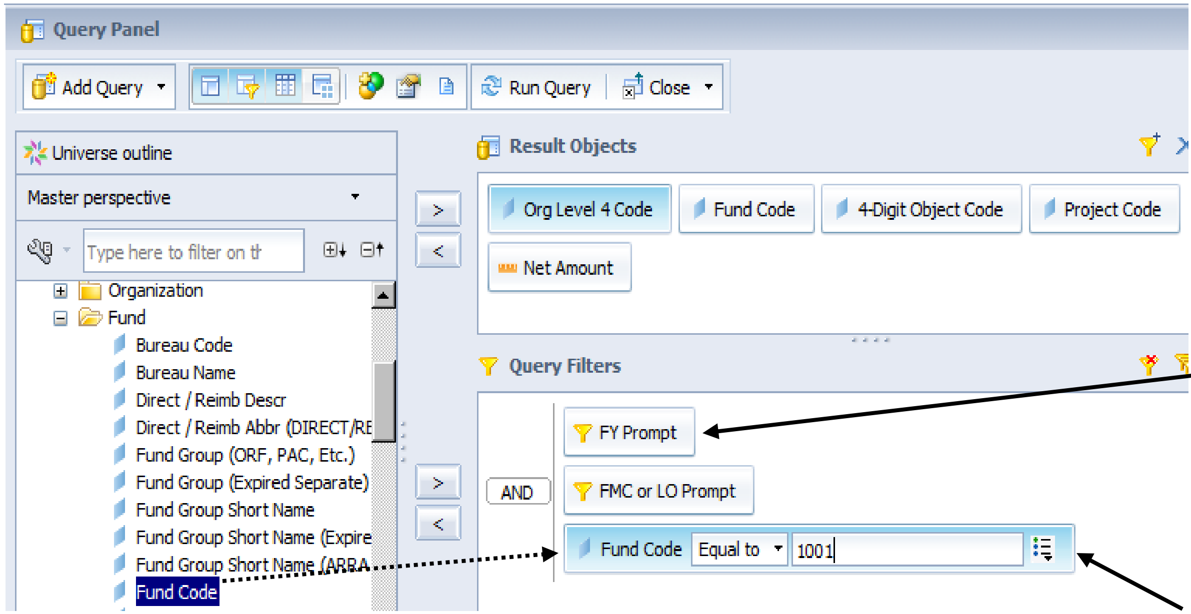
Filtering Document Queries

- What Are Documents Filters?
  - Restrictions or conditions OPTIONALLY added to queries to limit data retrieved from data sources
- Why Use Them?
  - To retrieve only pertinent data
  - Generally reduces query time

Filtering Document Queries

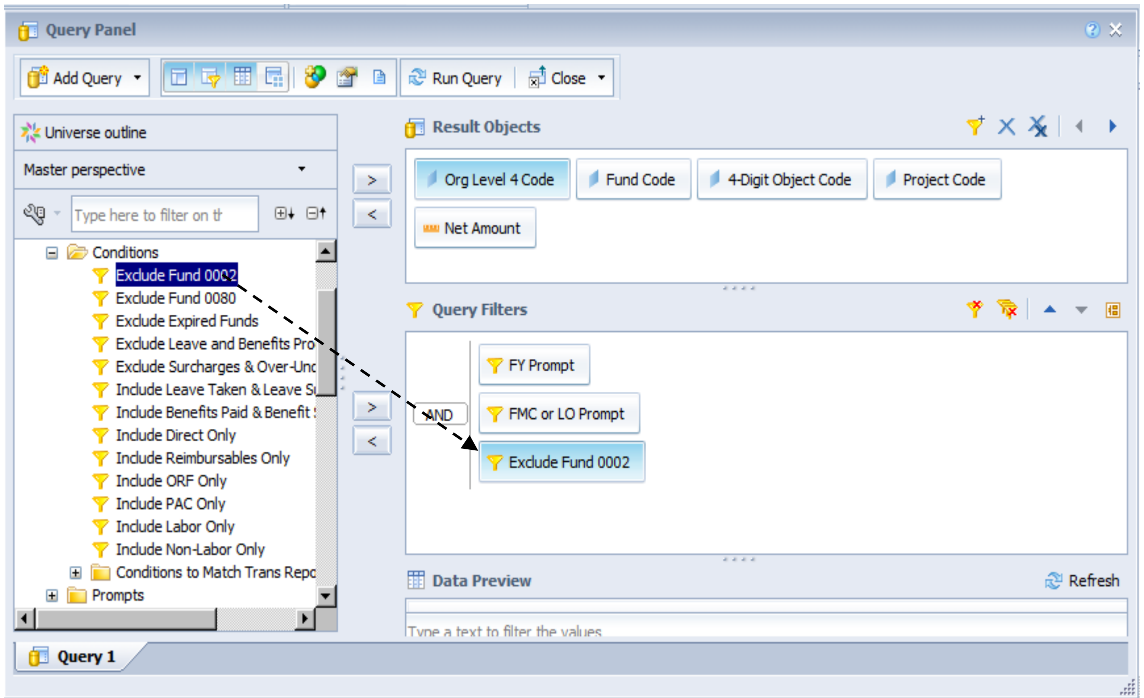
- Two Types
  - Predefined
    - Built by MARS administrators
    - Available in all universes for use in document creation
    - Can be found in Prompts and Conditions folders
  - User-Defined
    - Built within a document
    - Applicable only in that document

Filtering Document Queries



- *Predefined* query filters (denoted by yellow funnel icon).
- *User-defined* query filter.

Filtering Document Queries: Predefined Filters



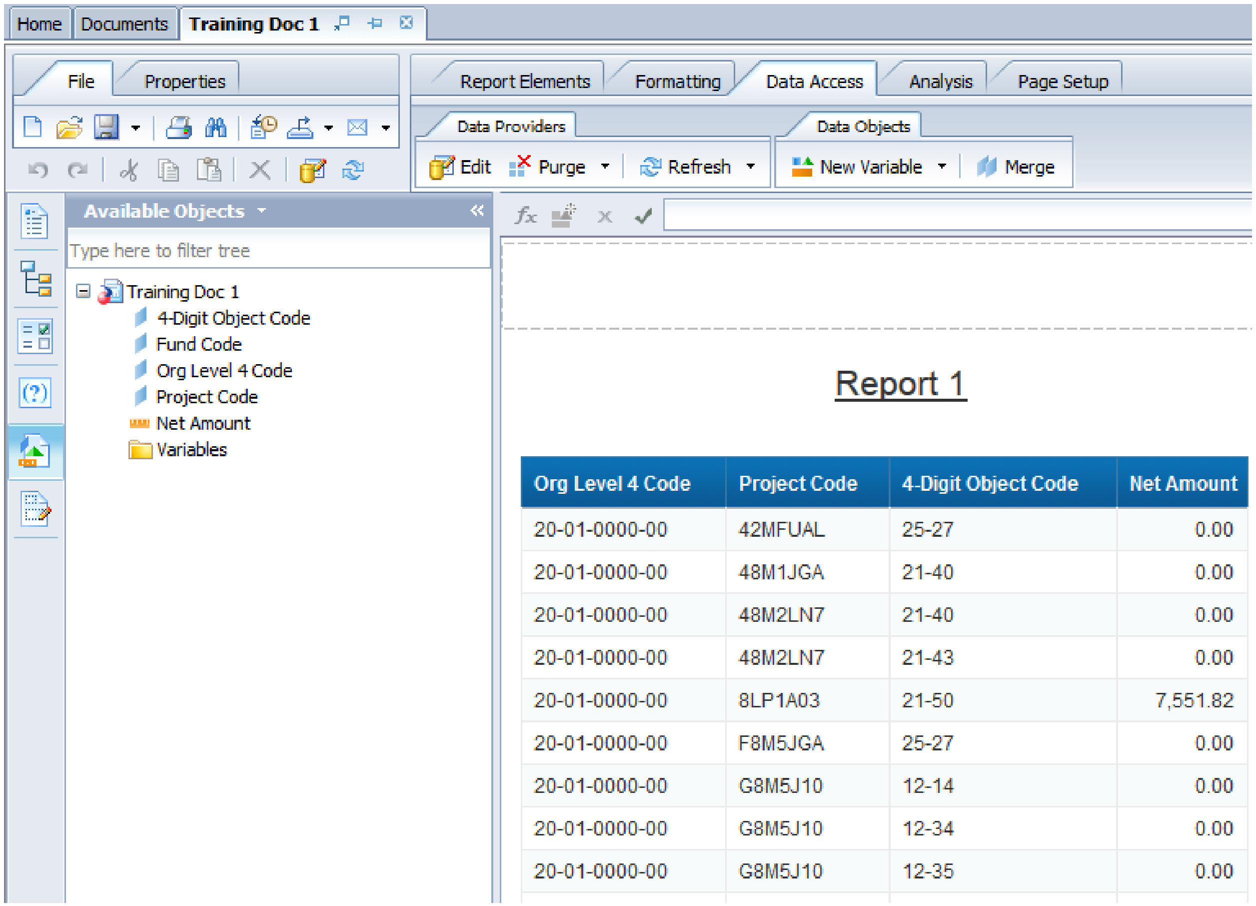
- Open for editing *Training 1 Doc* from the previous lesson.

- Switch to *Design mode*.
- Click on *"Data Access"* & then click on *"Edit"*
- Note that you have already used two predefined query filters from the *Prompts* folder
  - FY Prompt
  - FMC or LO Prompt

- Open the *Conditions* folder and add the following object to the Query Filters pane:
  - *Exclude Fund 0002*

- *Click Run Query*
- *Click Save*

Filtering Document Queries: Predefined Filters



- Note that the report no longer includes project codes from the Internal Fund (fund code 0002).
- *Click Save*

Filtering Document Queries: Pre-Defined Filters

- The pre-defined filters in the *Conditions folder* filter the data as stated in the object name, for example: ‘Exclude Fund 0002’.
- The pre-defined filters in the *Prompts folder* filter the data based on a value or values supplied by the user of the document.
- It is quicker to double click a pre-defined filter than it is to build a user-defined filter. Be sure to browse through these folders to see what is available. Every MARS Universe has a Conditions and Prompts folder.

Filtering Document Queries

- Query Filters—Different Types
  - Single Value
    FMC *Equal to* 20-01
  - Multi Value
    FMC *In List* 20-10; 20-20
  - Prompted Value
    FMC Equal to *("Enter FMC")*
    Prompted Values can be required or optional
  - Complex
    Fund Code Equal to 0085
    OR
    (Fund Code Fiscal Year Equal to 2005
    AND Fund Code Equal to 0036)

Filtering Document Queries

- Query Filters (including Predefined filters) have three components

	Object	Operator	Operand
Example:	LO	Equal to	’20’

1) Object: Object from the Universe
2) Operator: Identifies relationship to operand
    - (e.g. Equal to, Less Than, Matches Pattern, etc.)
3) Operand: A value
    - Can be explicit value, user supplied value (prompt), another object, or another query (subquery)

Filtering Document Queries

- Operators (page 1 of 2)

Operator	**Description**	**Example**
Equal to	Exactly matches value	*FMC* Equal to 20-01
Not Equal To	Anything other than value	*FMC* Not Equal To 20-01
Greater than	Greater than value	*FMC* Greater than 20-01
Greater than or equal to	Greater than or equal to value	*Net Amount* Greater than or equal to 10,000
Less than	Less than value	*Trans Date* Less than 9/1/2006
Less than or equal to	Less than or equal to value	*Net Amount* Less than or equal to 10,000
Between	Between the two values specified, also including the two values specified	*FMC* Between 20-10 and 20-60
Not Between	Not between TWO values specified nor equal to either value	*FMC* Not Between 20-10 and 20-60

Filtering Document Queries

- Operators (page 2 of 2)

Operator	**Description**	**Example**
In List	Matches at least one of the values listed	*FMC* In List 20-10;20-20
Not In List	Different from the values listed	*FMC* Not In List 20-10;20-20
Is null	Has no value, as when a data column is empty	*Affected Reference No* Is null
Is not null	Has a value, as when a column contains data	*Downward Net Amount* Is not null
Matches pattern	Includes the specified string	*Project Code* Matches pattern 8MIJ%
Different from pattern	Does not include the specified string	*Org Level 7 Code* Different from pattern 20-__-9%

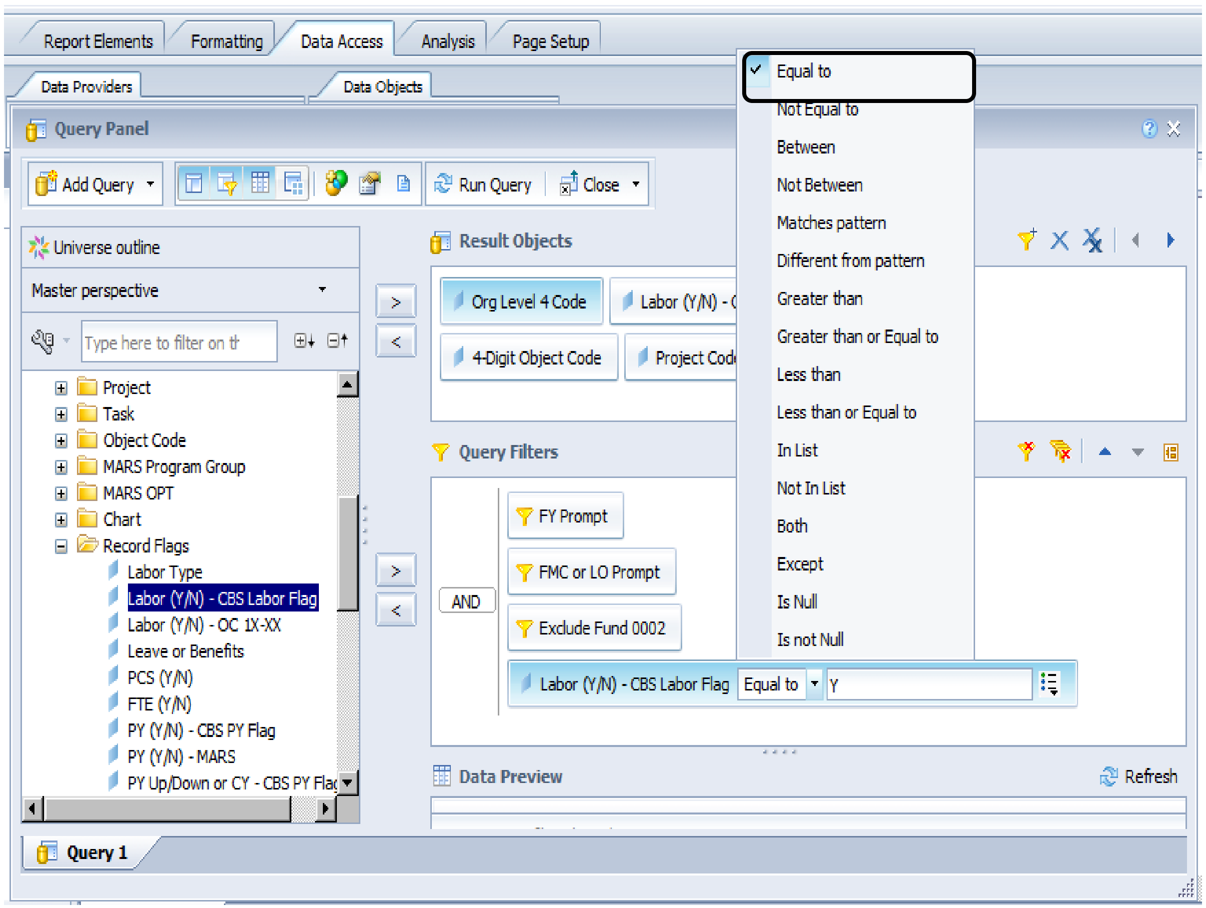
Filtering Document Queries

- Operators —A Few Notes
  - The following operators can be applied to strings (character data), numbers and dates:
    - Greater than / Greater than or equal to
    - Less than / Less than or equal to
    - Between / Not Between
  - The following operators can be applied to strings only!
    - Matches pattern / Different from pattern
  - Matches pattern / Different from pattern are only useful when used with wildcard patterns.
    - ‘%’ represents ZERO, one, or more characters
      - Example: Last Name Matches pattern ‘%N%G’ can return the last names NG, MANNING, and NEIBERG
    - ‘_’ represents one, and only one, character
      - Example: *Org Level 7 Code* Matches pattern 20-__-9%

Filtering Document Queries

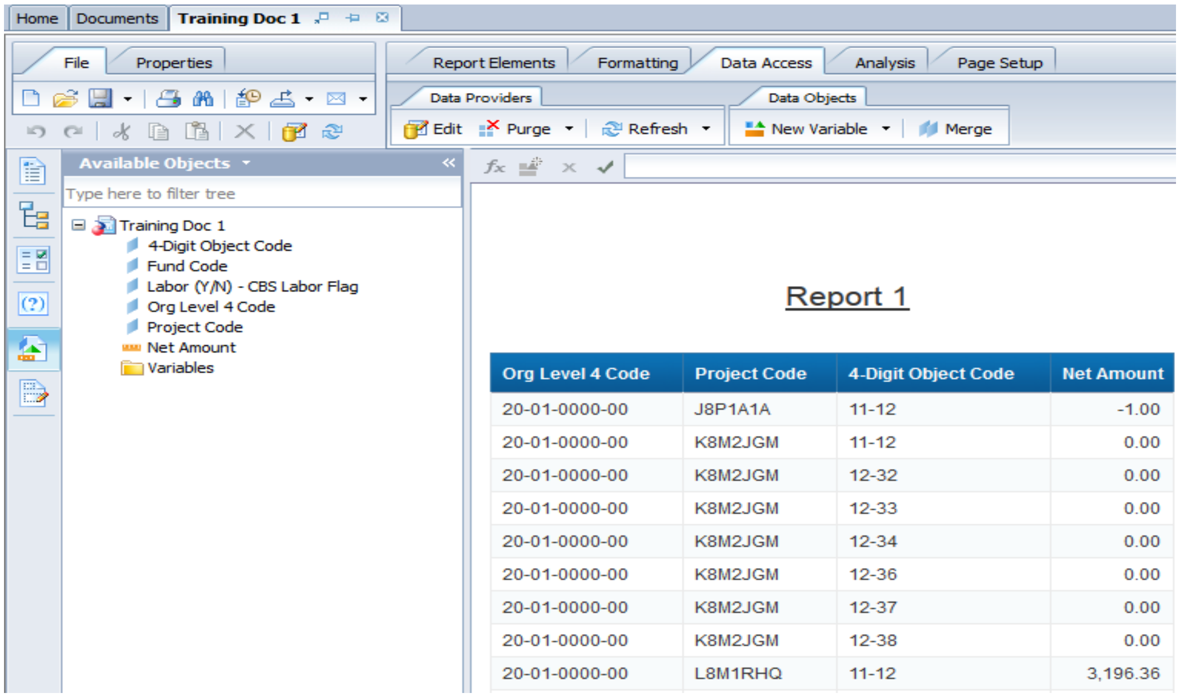
- Operands:
  - Constant (default)
    - Document builder will enter a specific value
      (e.g. Fiscal Year Equal To 2008)
  - Value(s) from list
    - Document builder will select values from a list of possible values for the object
      (e.g. Fiscal Year In List (2008;2009)
  - Prompt
    - Document builder will enter text describing the type of value the Document user should enter at document runtime
      (e.g. Fiscal Year Equal To "Enter Fiscal Year")
  - Result from another query (Any)
    - Document builder will create an additional query to use as a filter for the main query.
  - Object from this query
    - Document builder will specify another object
      (e.g. Fiscal Year Equal To Fund Code Fiscal Year)

Filtering Document Queries: User-defined Filters



- Open for editing *Training 1 Doc* and switch to *Design Report* mode, click on *"Data Access"* and then click on *"Edit"*, if you are not there already.
- Open the *Record Flags* folder and add the following object to the Query Filters pane:
  - *Labor (Y/N) – CBS Labor Flag*
- Drop down the list of *operators*
  - Select *equal to*
- In the *operand box* the default is '*Type a constant*'
  - Type *Y*
- *Click Run Query*
- *Click Save*

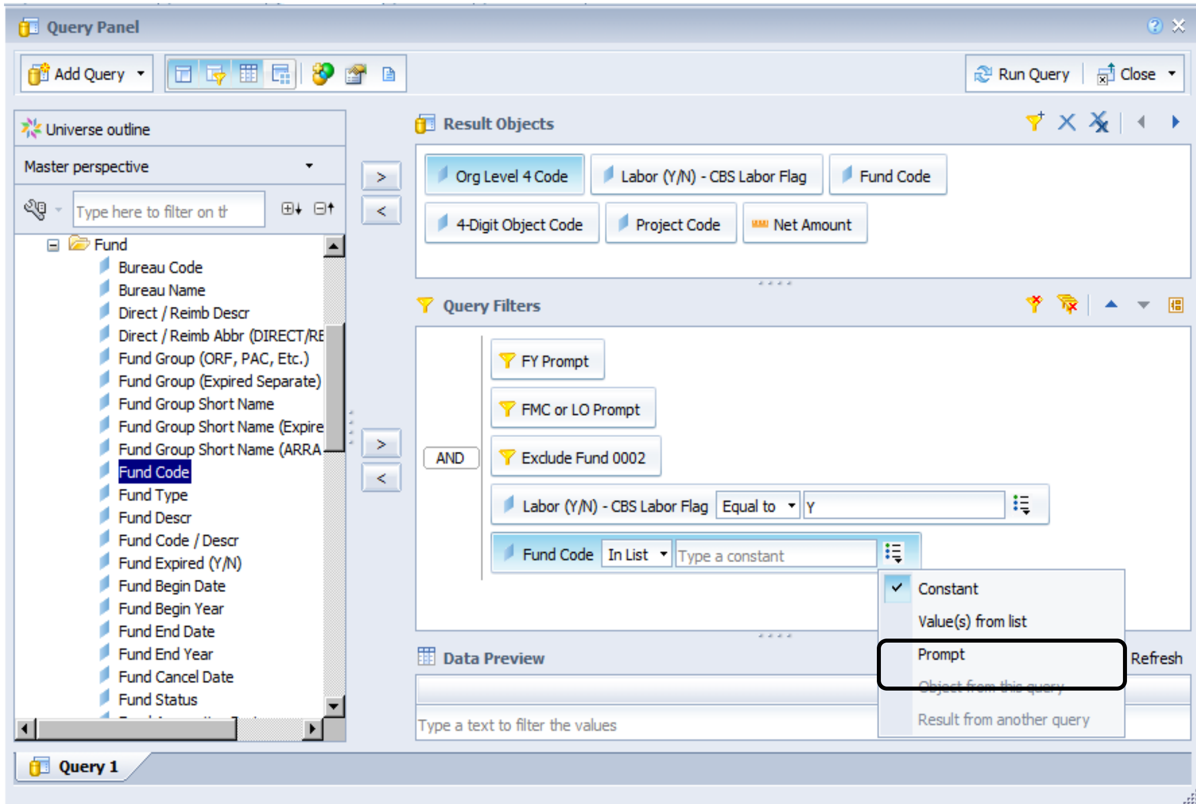
Filtering Document Queries: User-defined Filters



Org Level 4 Code	Project Code	4-Digit Object Code	Net Amount
20-01-0000-00	J8P1A1A	11-12	-1.00
20-01-0000-00	K8M2JGM	11-12	0.00
20-01-0000-00	K8M2JGM	12-32	0.00
20-01-0000-00	K8M2JGM	12-33	0.00
20-01-0000-00	K8M2JGM	12-34	0.00
20-01-0000-00	K8M2JGM	12-36	0.00
20-01-0000-00	K8M2JGM	12-37	0.00
20-01-0000-00	K8M2JGM	12-38	0.00
20-01-0000-00	L8M1RHQ	11-12	3,196.36

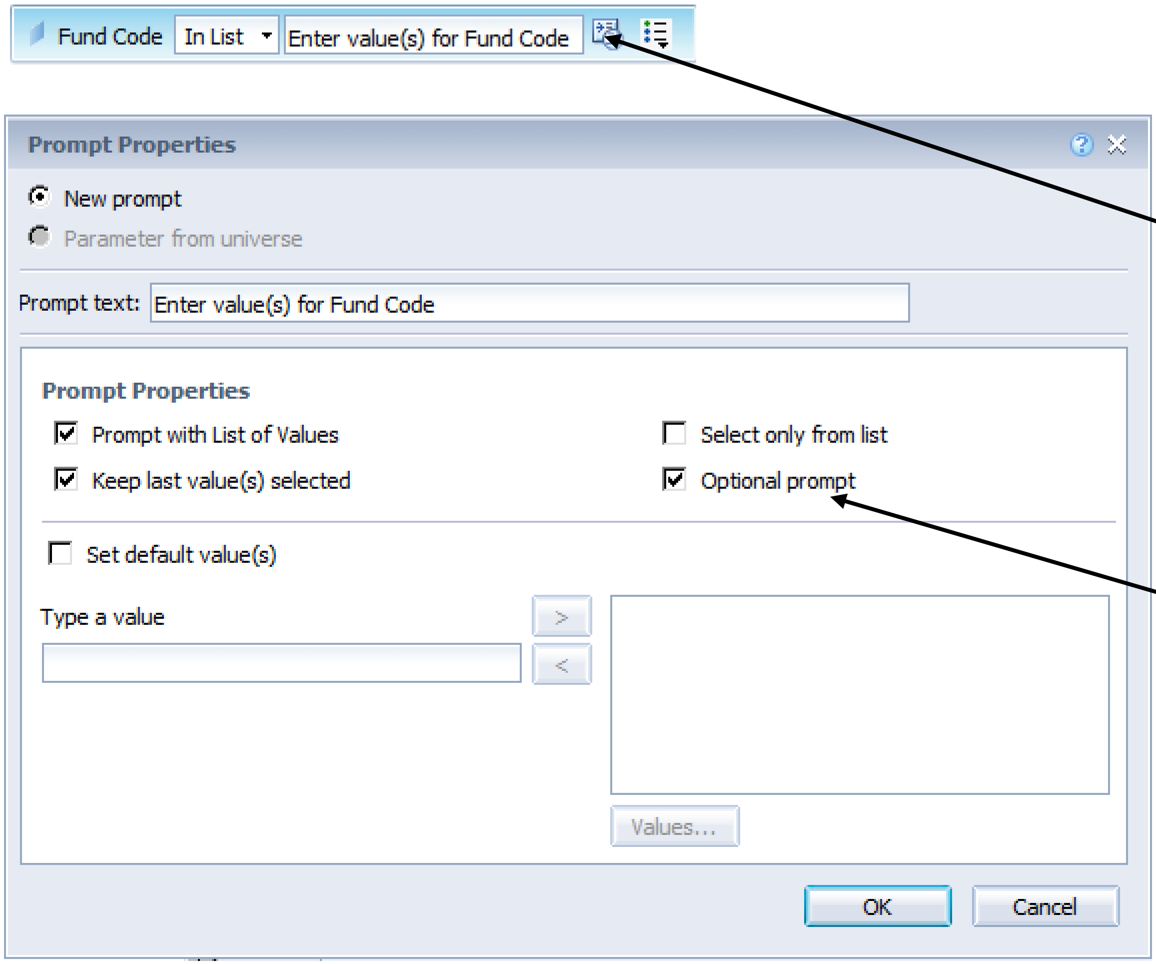
- Note that the report no longer contains object codes that are not labor.
- *Click Save*

Filtering Document Queries: User-defined Filters



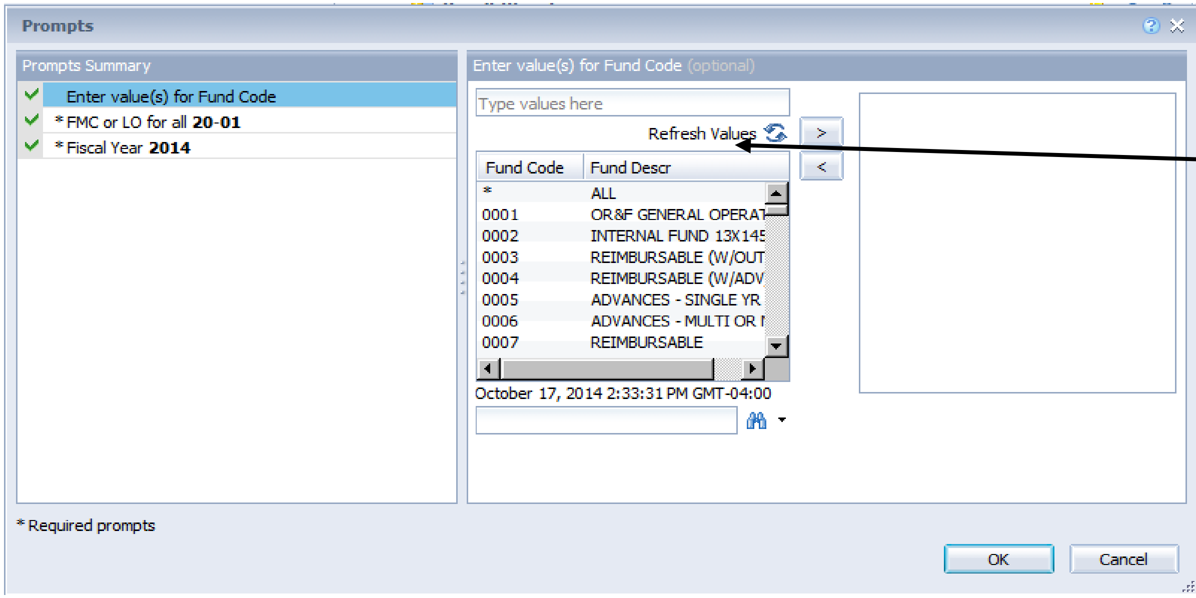
- Building a User Defined Filter that Prompts for a list of values . . .
- Open for editing *Training 1 Doc* and switch to *Design Report* mode, click on *"Data Access"* and then click on *"Edit"*, if you are not there already.
- Open the *Fund* folder and add the following object to the Query Filters pane:
  - *Fund Code*
- Leave *In List* as the *operator.*
- Select *Prompt* from the *operand* drop down.

Filtering Document Queries: User-defined Filters



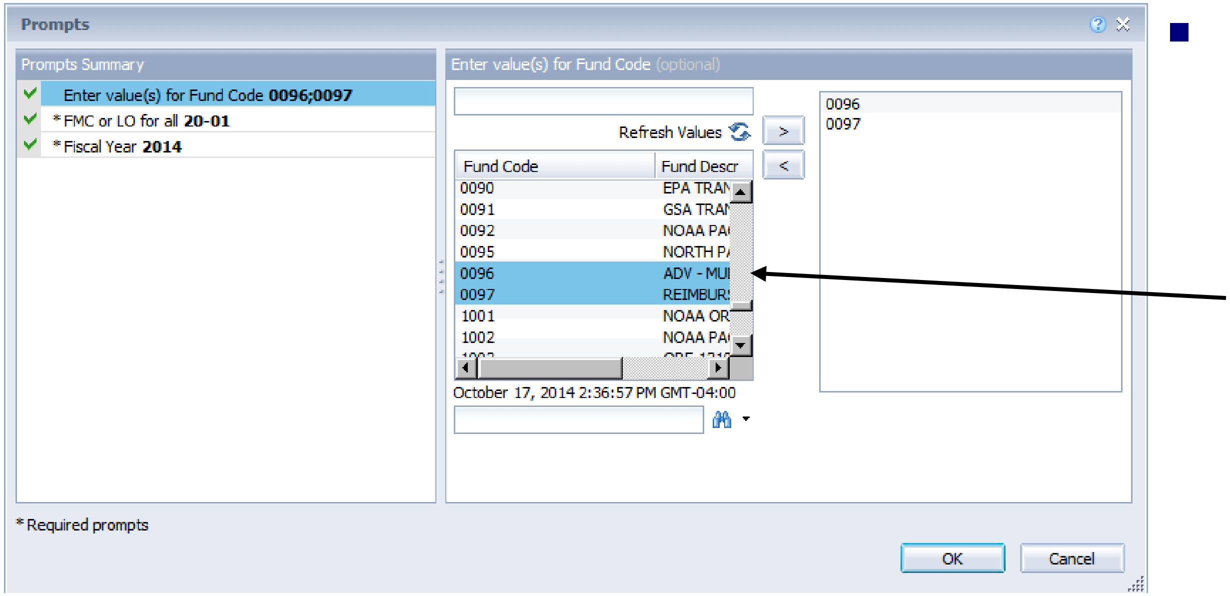
- The default prompt text is "Enter value(s) for Fund Code:" You may change the prompt text by typing over the default text and pressing enter.
- *Click the Prompt Properties* icon to open the properties dialog.
- Note that you can make the prompt optional and control the list of values and default values.
- *Check the Optional Prompt box.*
- *Click OK*
- *Click Run Query*

Filtering Document Queries: User-defined Filters



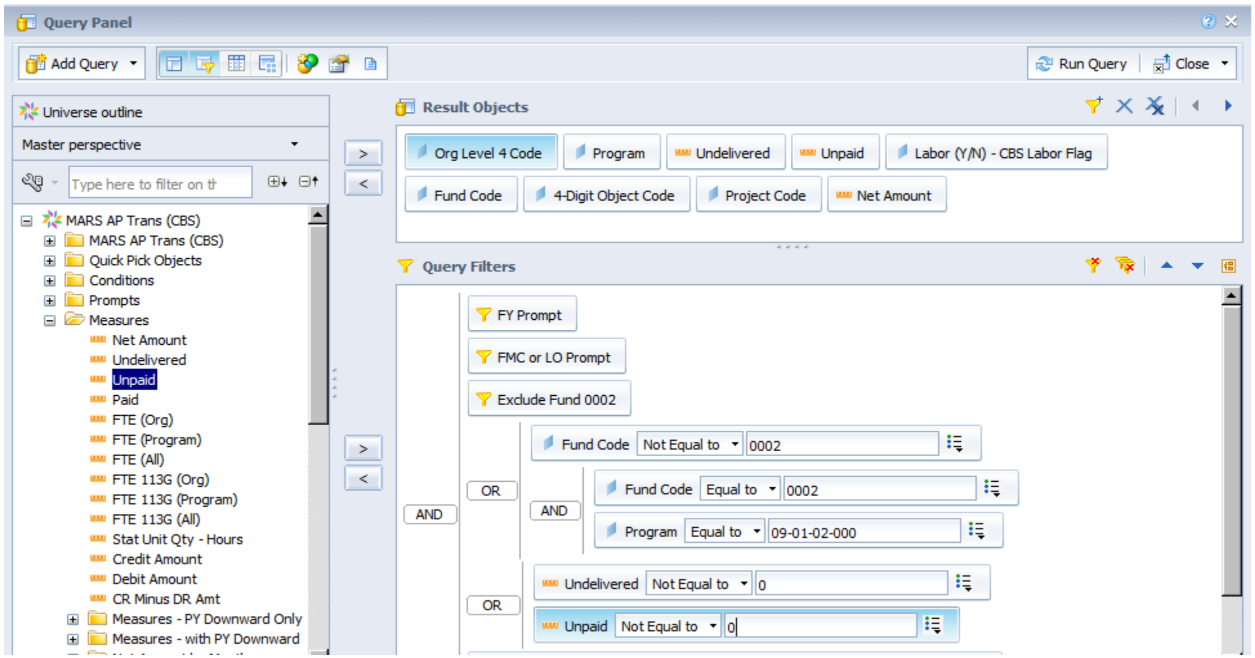
- When the query is run, the prompt box will be displayed.
- If the List of Values does not appear, click Refresh Values.
- With the new optional prompt you can either
  - Not select any funds
  - Select one fund
  - Select multiple funds
- Note – the "*" for All will not work with a User Defined Prompt. If you want all funds, do not select any funds.
- *Do not select any funds*
- *Click Run Query*
- *Click Save*

Filtering Document Queries: User-defined Filters



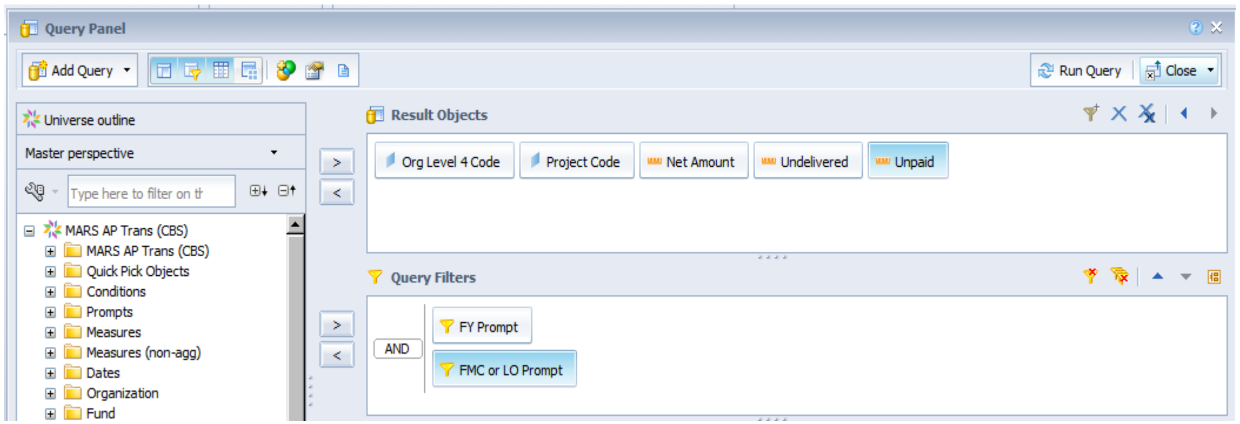
- Each time you run this query, you may choose to
  - select all funds by leaving the fund prompt blank
  - or pick particular funds you are currently analyzing

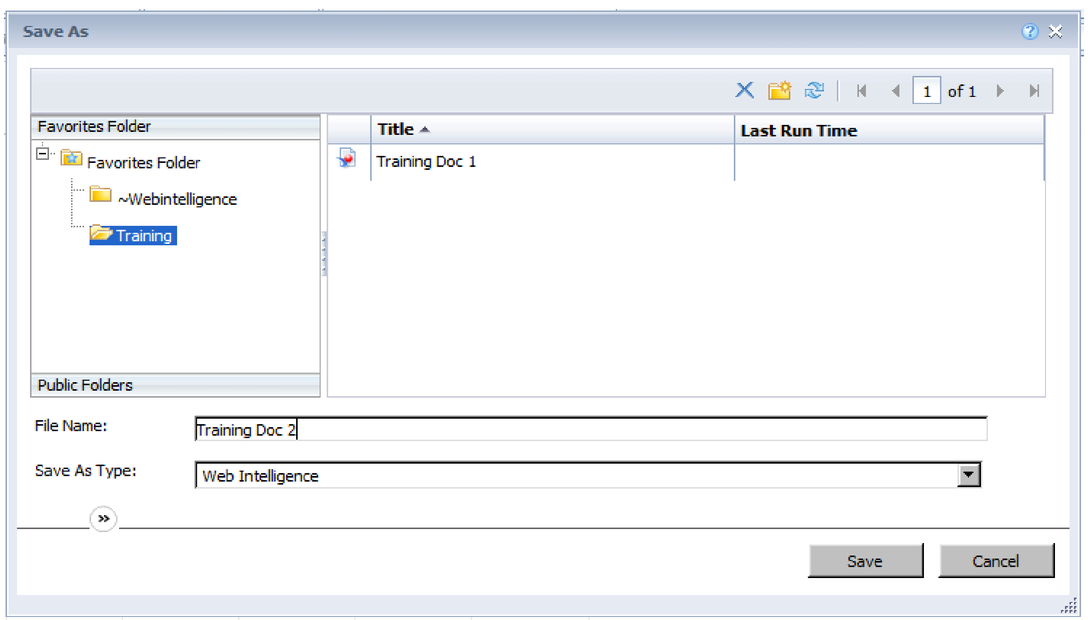
Filtering Document Queries: Complex Filters



- Filters are joined together with AND and OR conjunctions.
- The AND operator requires that both filters/filter groups be true.
- The OR operator requires that either filter/filter group be true.
- Groups of filters can be prioritized to be evaluated before other filters. This is designated by right indentation.

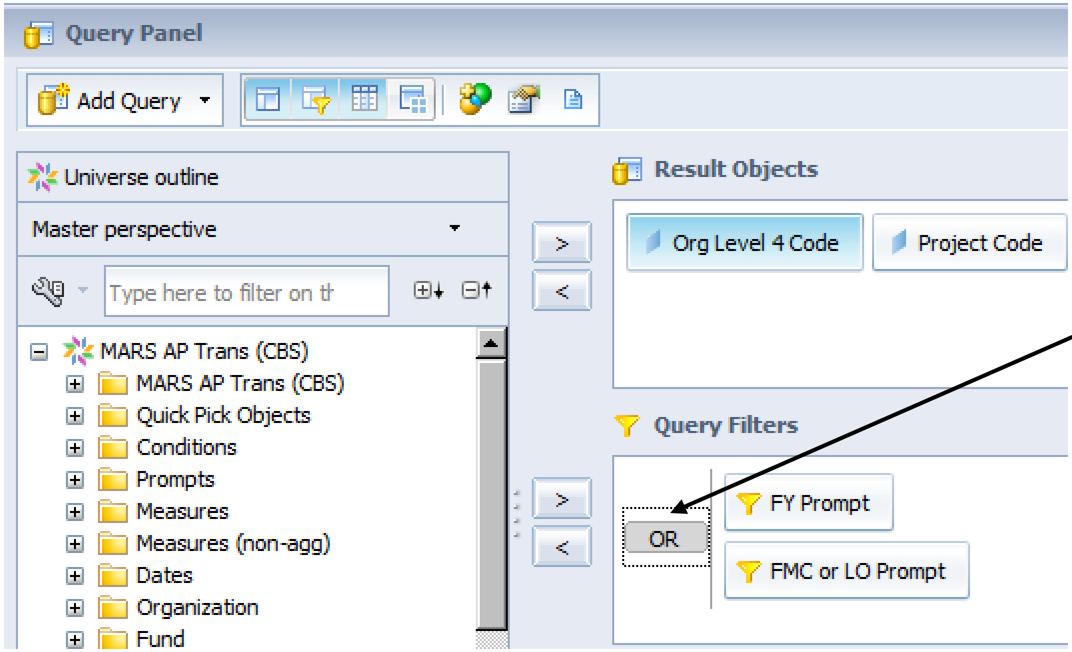
Filtering Document Queries: Complex Filters





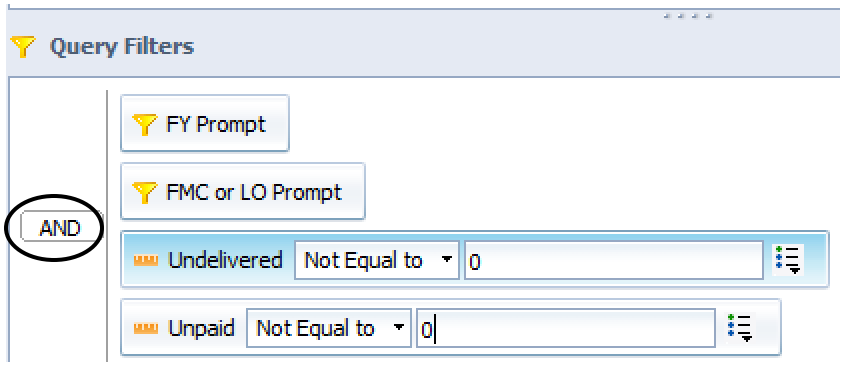
- Create a new WebIntelligence document using the *MARS AP Trans (CBS)* universe.
- *Include the following objects:*
  - Org Level 4 Code
  - Project Code
  - Net Amount
  - Undelivered
  - Unpaid
  - Paid
  - FY Prompt
  - FMC or LO Prompt
- *Click Run Query*
- *Fill in prompts*
- *Click Save*
- *Name the document Training Doc 2*

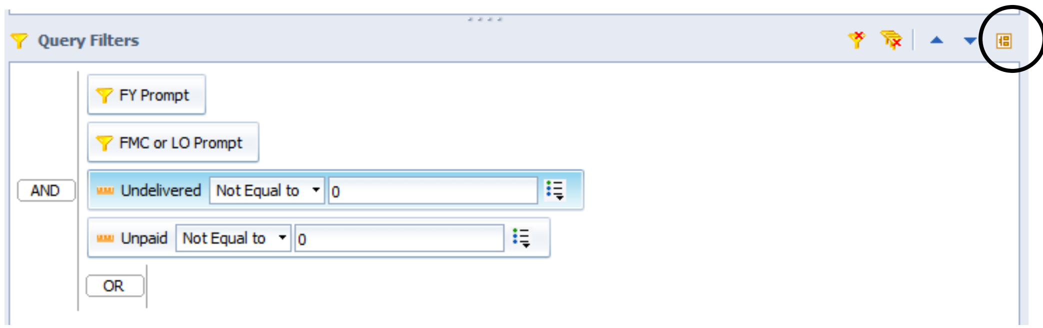
Filtering Document Queries: Complex Filters

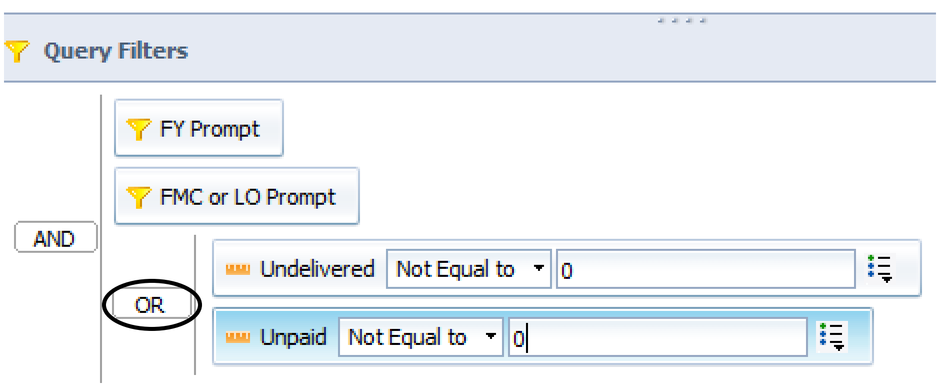


- Go to the *Design Report Mode*, Click on *Data Access*, then click on *Edit* .
- *Practice changing the 'And' to 'Or' and back again by doubling clicking on it.*

Filtering Document Queries: Complex Filters





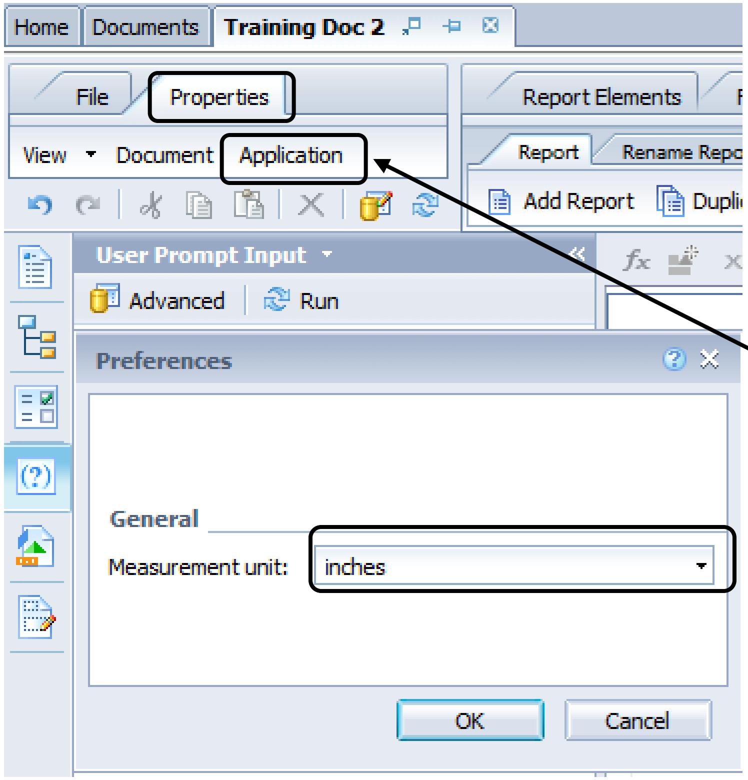


- *Change the operand back to 'And'.*
- *Add the following conditions*:
  - Undelivered Not Equal to 0
  - Unpaid Not Equal to 0
- Click on the *"Add nested filter".*
- *drag and drop* the Unpaid condition over the Undelivered condition when it shows the nested condition as shown to the left.
- *Click Run Query*
- *Click Save*
- This set of query filters will return data if either Undelivered or Unpaid are zero.

Report Formatting

- Introduction
- Page Layout
- Cell Formatting
- Report Tabs

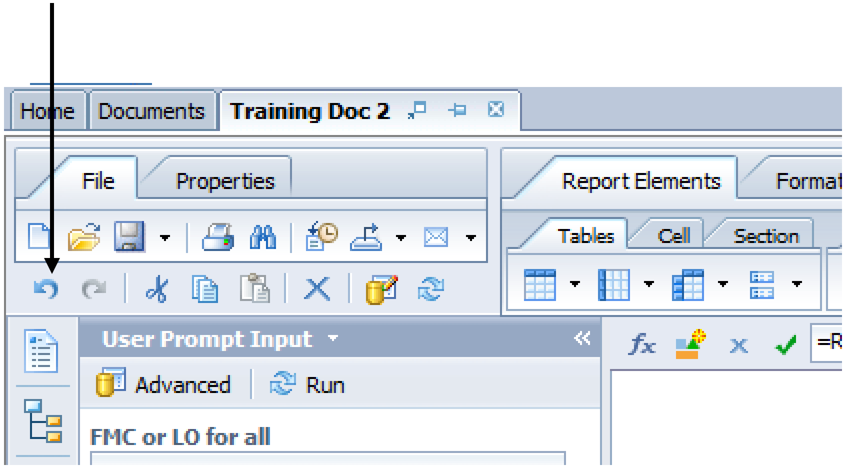
Report Formatting: WebIntelligence User Settings



- The following exercises will use 'Inch' as the measurement unit.
- The choices are:
  - Inch
  - Centimeter
- You may change this setting again later to meet your individual needs.
- *Open for editing Training 2 Doc.*
- Click *Properties -> Application*
- Change the *Measurement Unit* to *Inch.*
- *Click OK.*
- This setting only needs to be changed once. It will apply to all new and saved documents for your user ID.

Report Formatting: Undo Formatting

- If you make a mistake while formatting a report, you can click the *Undo* button.
- Be sure to Undo before you save. Saving clears the undo cache.

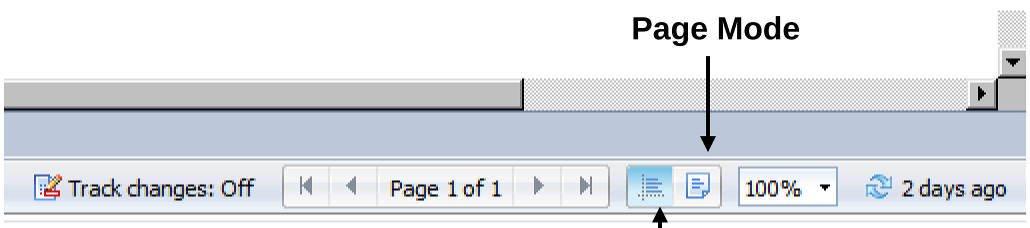


Report Formatting: Page Mode / Structure Mode

- Before we begin formatting, it is important to note the modes in which you may work on a report.
  - Page mode vs. Quick Display mode
  - Design With Data mode vs. Design Structure only mode

- Page mode vs. Quick Display mode:
  - Use Page mode to see how the report will look on the printed page.
  - Quick Display mode will show you more information on a page because there will not be any page breaks or margins displayed
  - Change to Page mode by clicking the *Switch Page/Quick Display* button.
  - The button will appear darker when Page mode is on.
  - Click again to change back to Quick Display mode.

Page Mode

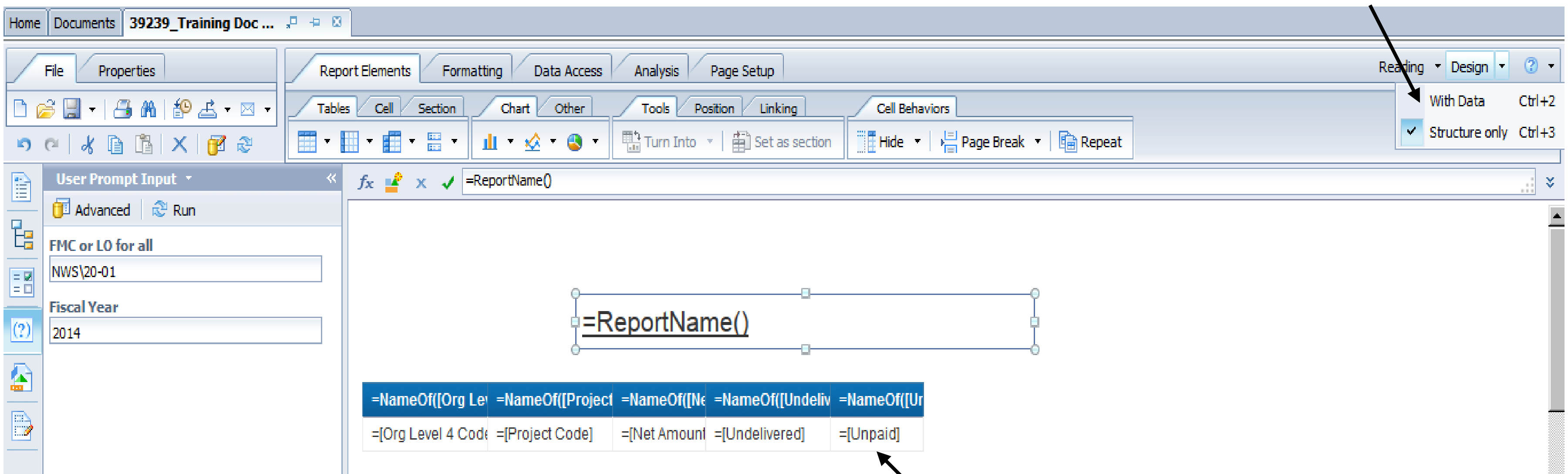


Quick Display Mode

Report Formatting: Page Mode / Structure Mode

- Design With Data mode vs. Design Structure only mode:
  - Design With Data mode will show you the data from the query
  - Design Structure only mode will show you formulas instead of data.
  - Use Structure only mode to see clearly report headers, footers, sections and formulas.
  - Change to Structure only mode by selecting *Structure only from Design drop-down menu.*

Toggle Design With Data / Structure only



Structure mode shows formulas instead of data

Report Formatting: Components of a Report

- Before we begin changing formats, it is important to understand the components of the report.
- It is especially important to understand that you sometimes must click on the *Column Data Cell(s)* rather than the *Column Title Cell(s)* in order to apply certain formats such as Breaks and Sections, which we will be covering later.

Page Margin

Free Standing Cell

Open Obligations

Column

Page Header

Column Title Cells

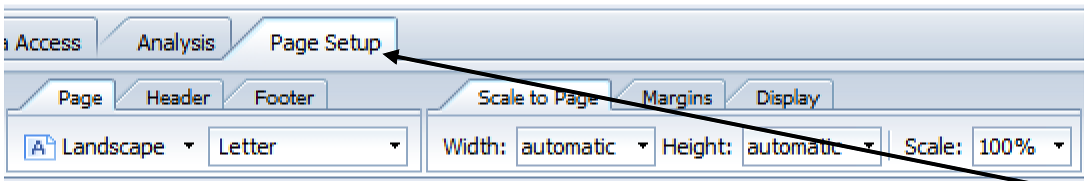
Org Level 4 Code	Project Code	Net Amount	Undelivered	Unpaid
20-01-0000-00	42MFUAL	0.00	-123,143.00	0.00
20-01-0000-00	J8M5JGA	0.20	-3,539.54	0.00
20-01-0000-00	J8M6H10	0.00	-818.71	0.00
20-01-0000-00	K8M1RHQ	165.64	-2,710.47	0.00
20-01-0000-00	[illegible]	0.00	-3,319.68	0.00
20-01-0000-00	K8M2JGM	0.00	-646.47	0.00
20-01-0000-00	K8M5JGA	0.00	-767.08	0.00
20-01-0000-00	L2MS8RM	-1,261.17	-166.50	0.00
20-01-0000-00	L8M1RHQ	4,022.57	-1,103.12	-7,108.92

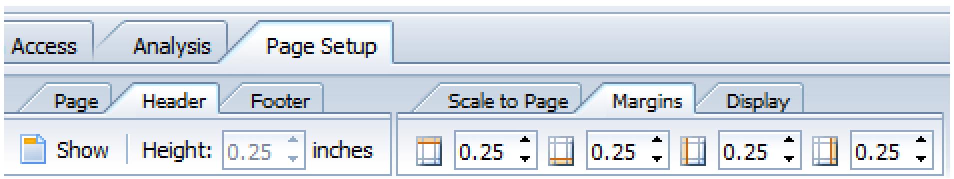
Table

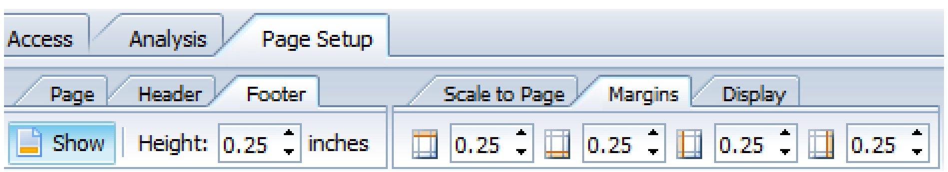
Row

Column Data Cells

Report Formatting: Page Layout







- The default page layout leaves a lot of unused space in the margins, headers and footers.
- To change the *Page Layout* click on *Page Setup*
- Change the *Page Layout settings* as follows:
  - Top Margin 0.25”
  - Bottom Margin 0.25”
  - Left Margin 0.25”
  - Right Margin 0.25”
  - Page size Letter
  - Page orientation Landscape
  - Header height 0”
  - Show page footer Yes
  - Footer height 0.25”
- The *Measurement Unit* for page margins should be in *Inches* if you have changed your User Settings as specified in the previous section.
- *Click Save*.

Report Formatting: Changing Column Titles

- Change the *Column Titles* by double clicking in the *Org Level 4 Code Table Title* cell.
- Change title to *‘Organization”* by typing over the text in the cell.
- *Click Save*.

Open Obligations

=NameOf([Org Level 4 Code])	Project Code	Net Amount	Undelivered	Unpaid
20-01-0000-00	42MFUAL	0.00	-123,143.00	0.00
20-01-0000-00	J8M5JGA	0.20	-3,539.54	0.00

Open Obligations

Organization	Project Code	Net Amount	Undelivered	Unpaid
20-01-0000-00	42MFUAL	0.00	-123,143.00	0.00
20-01-0000-00	J8M5JGA	0.20	-3,539.54	0.00
20-01-0000-00	J8M6H10	0.00	-818.71	0.00
20-01-0000-00	K8M1RHQ	165.64	-2,710.47	0.00

Report Formatting: Moving Columns

- Move columns by clicking, dragging and dropping.
- Move Net Amount after the Unpaid column. *Click, drag and drop the column* in the table.
- *Click Save.*
- Note this technique can also be used to swap columns.

Open Obligations

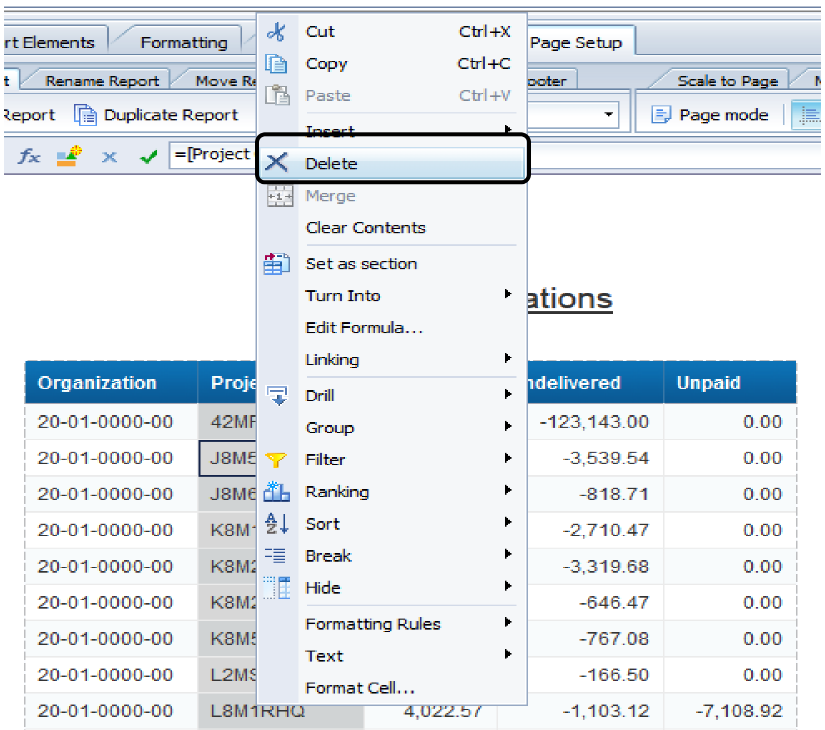
Organization	Project Code	Net Amount	Undelivered	Unpaid
20-01-0000-00	42MFUAL	0.00	-123,143.00	0.00
20-01-0000-00	J8M5JGA	0.20	-3,539.54	0.00
20-01-0000-00	J8M6H10	0.00	-818.71	0.00
20-01-0000-00	K8M1RHQ	165.64	-2,710.47	0.00

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64

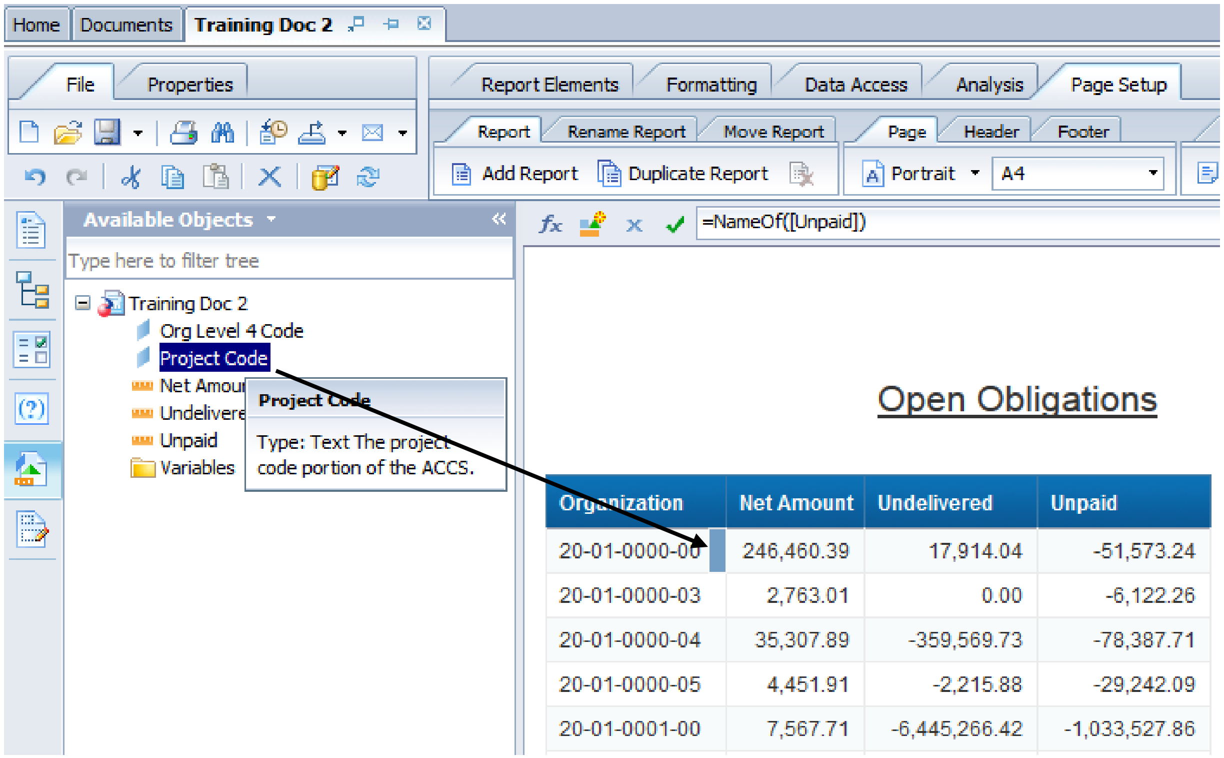
Report Formatting: Deleting Columns

- To delete a column, select the column you wish to delete.
- *Right click* on the *Project Code* column.
- Right clicking opens a *Shortcut Menu.*
- Select *Delete*.
- *Click Save.*



Report Formatting: Adding Columns

- If you add new objects to your query, they will not be automatically added to your report.
- Add columns from the *Available Objects Tab* by clicking, dragging and dropping.
- Put the Project Code back in the report after the Organization column.
- *Click and drag the column* and drop it in the table.
- *Click Save.*

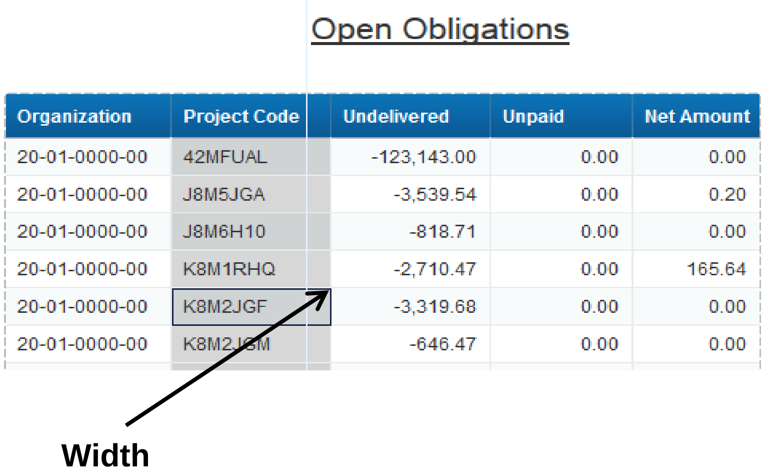


Report Formatting: Change Column Width / Row Height

- There are two ways to change Column Width and Row Height.

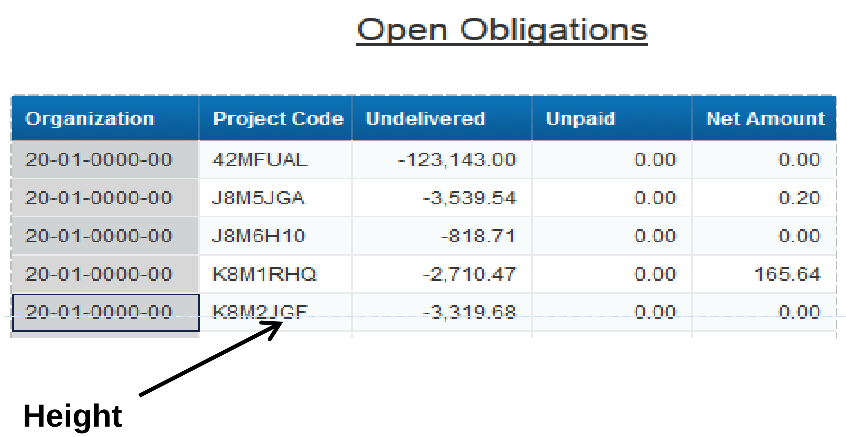
  1) Click and drag to resize
  2) Change the properties by typing the desired size

- Practice changing the width and height of the Project Code column by clicking and dragging.



Open Obligations

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64
20-01-0000-00	K8M2JGF	-3,319.68	0.00	0.00
20-01-0000-00	K8M2JGM	-646.47	0.00	0.00



Open Obligations

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64
20-01-0000-00	K8M2JGF	-3,319.68	0.00	0.00

Report Formatting: Change Column Width / Row Height

- The standard for MARS Corporate Reports is to use the following settings:
  - Fixed column widths (each sized appropriately so all columns fit the page width)
  - Autofit height checked (minimum height of 0.17” – 0.25” depending on font size)
  - Wrap text checked

- This standard ensures that the data does not go off the page as it might with Autofit widths. It also ensures that all data will be displayed even if the fixed width is not wide enough.

- The example below shows the standard settings and how it would impact the Undelivered column if it were not wide enough.

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.0 0	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Text is wrapped and column height is adjusted

Report Formatting: Free Standing Cells

- Single cells that stand alone in a report

- Often used in headers and footers
  - Report Title
  - Page Number
  - Last Refresh Date
  - Logos/Images
  - User Responses to Prompts

Report Formatting: Changing the Report Title

- Change the *Report Title* by double clicking in the *Free Standing Cell* containing the report title.
- Change the report title to *'Open Obligations".*
- *Click Save*.

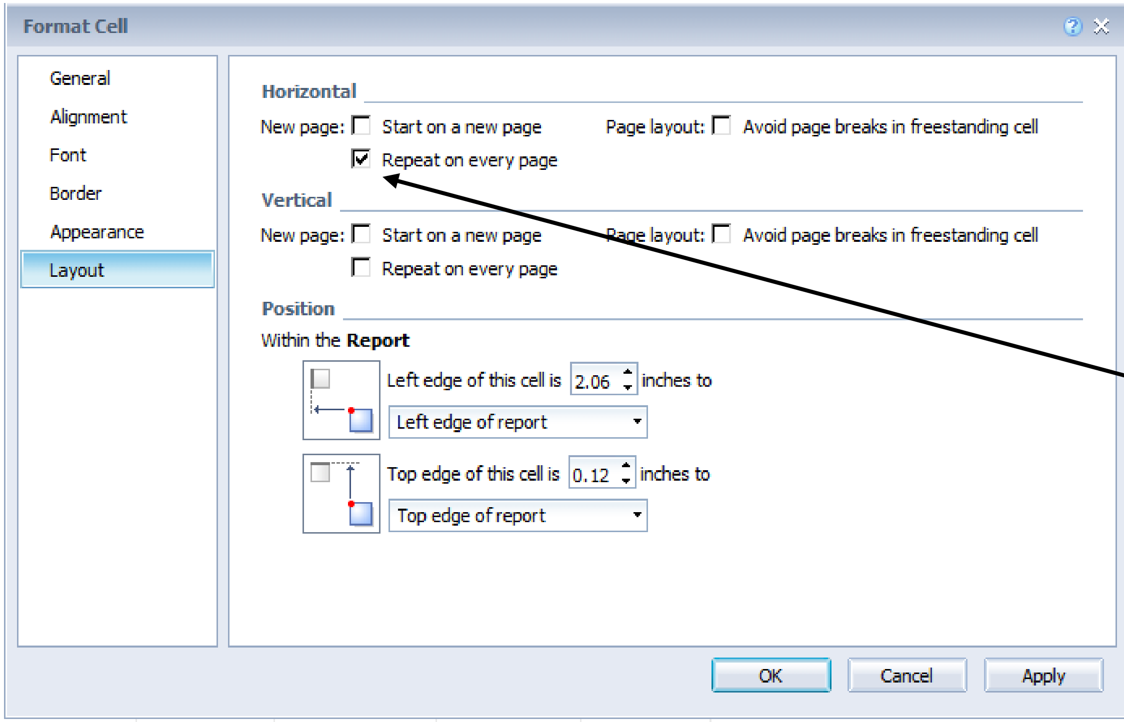
=ReportName()

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64

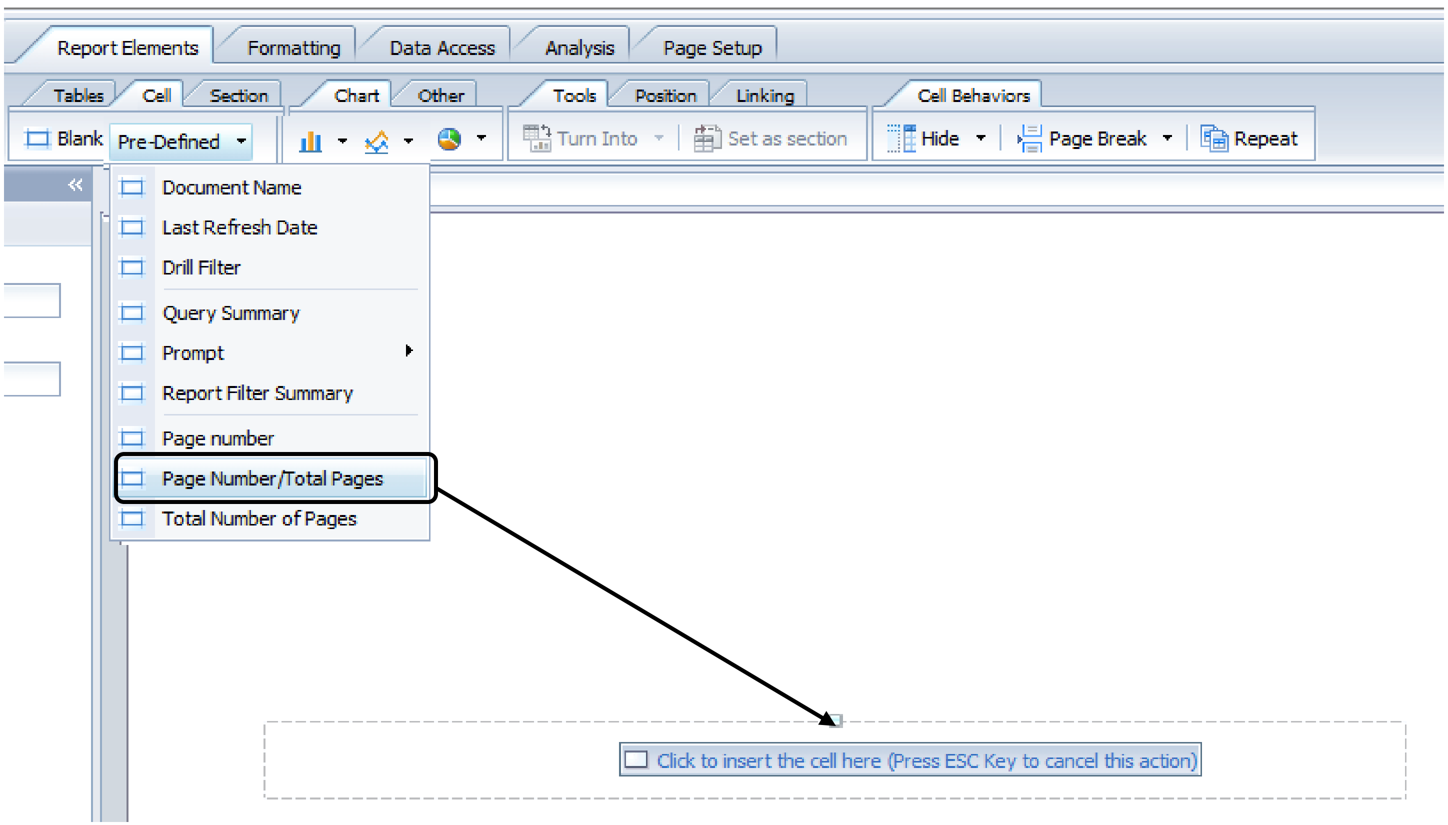
Report Formatting: Repeat on Every Page New Page



- *Free Standing Cells* like the *Report Title* will not repeat on every page by default.
- If you would like the title on every page
  - *Select the cell, right click & select "Format Cell…"*
  - Click on the *Layout* & Check the *Repeat on every new page* option.
- This setting should be considered each time you place a cell in the header of the report.

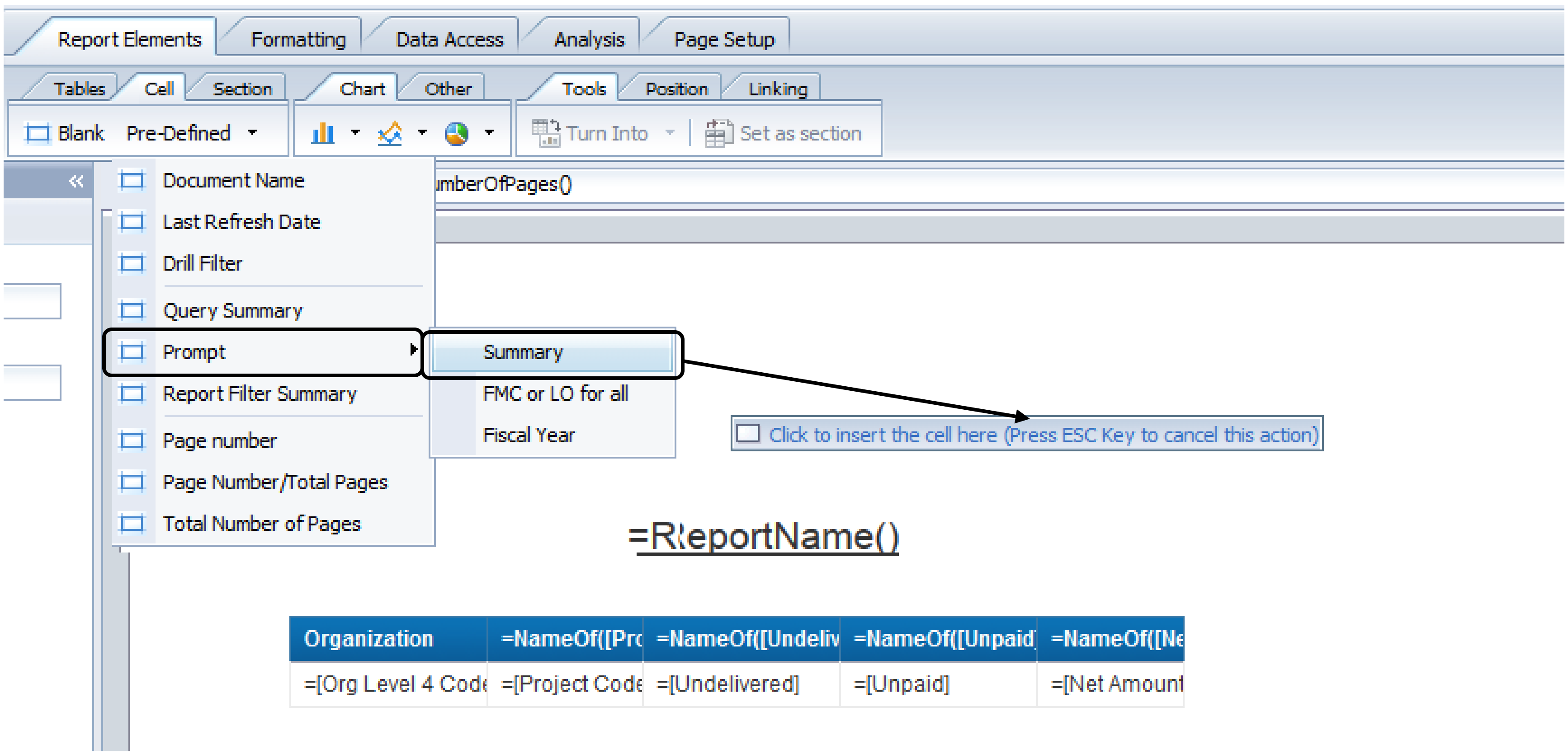
Report Formatting: Free-Standing Cell Templates

- Page Numbers can be added to the footer section of the page.
- It is easiest to see the footer section while in Page mode and Structure mode.
- *Switch to Page mode and Structure only mode.*
- Scroll down to the bottom of the page to see the report footer.
- Click on the *Report Elements -> Cell*, click on "*Pre-Defined*" drop-down
- Click and drag *Page Number / Total Pages* and drop on the Page Footer.

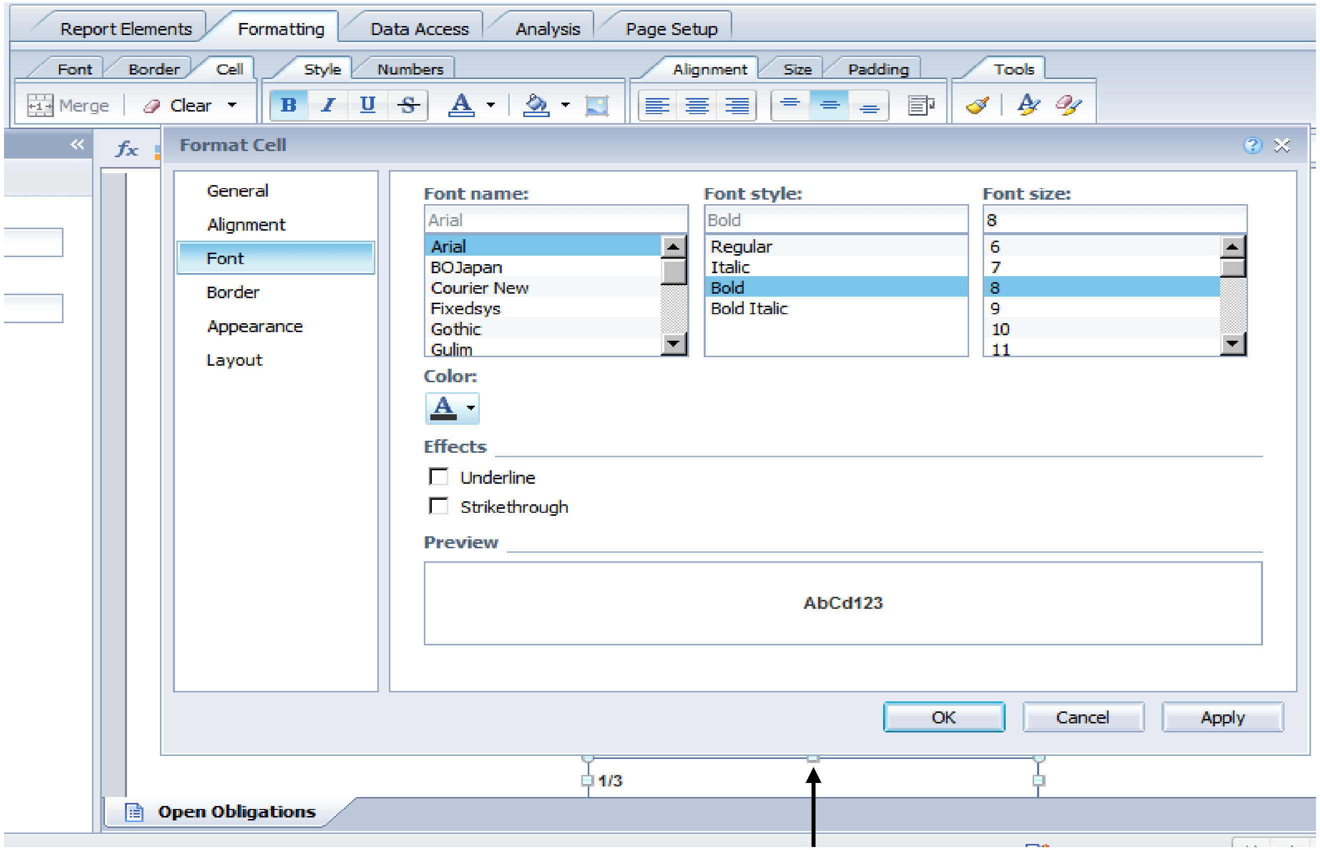


Report Formatting: Free Standing Cell Templates

- The answers to the query prompts can be added to the heading of the report.
- In the *Report Elements Tab*, click on *“Cell” -> “Pre-Defined”*.
- Click *Prompt -> Summary* and drop next to the report title.



Report Formatting: Formatting Toolbar

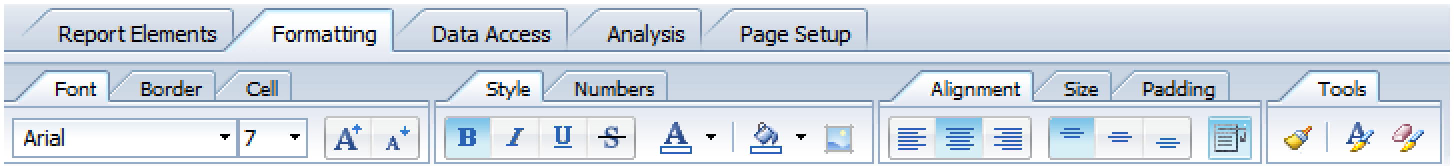


Cell is highlighted

- The page number cell may not be formatted optimally.

- To change a cells properties, first *click on the cell* to be modified.
- Right click & Select *Format Cell…*
- Change the following properties of the Page Number cell:
  - Font Size → 8
  - Remove borders
  - Horizontal text alignment → Center
  - Relative Position
    - Left edge → 4.5”
    - Top edge → 0”

Report Formatting: Formatting Toolbar - Font

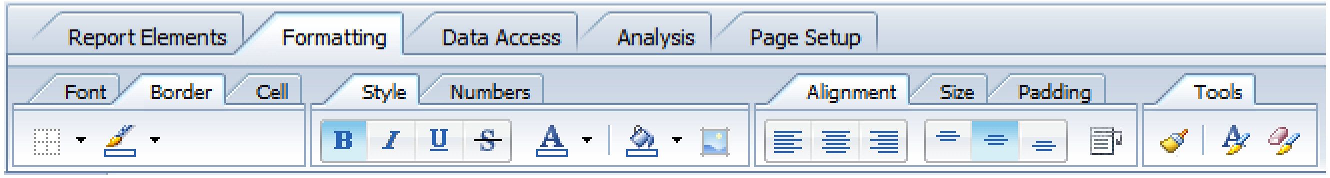


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

- Much of the formatting you have been changing via the *"Formatting Cell…"*, can also be changed via the *Formatting Toolbar*.
- *Formatting Toolbar* is divided into *Font, Border, Cell, Style, Numbers, Alignment, Size, Padding & Tools*

1. Font
2. Font size
3. Grow Font
4. Shrink Font
5. Bold
6. Italicize
7. Underline
8. Strikethrough
9. Font color
10. Background color
11. Background image
12. Align Left
13. Align Center
14. Align Right
15. Align Top
16. Align Center
17. Align Bottom
18. Wrap Text
19. Format Painter
20. Formatting (Display Formatting Options)
21. Clear Format

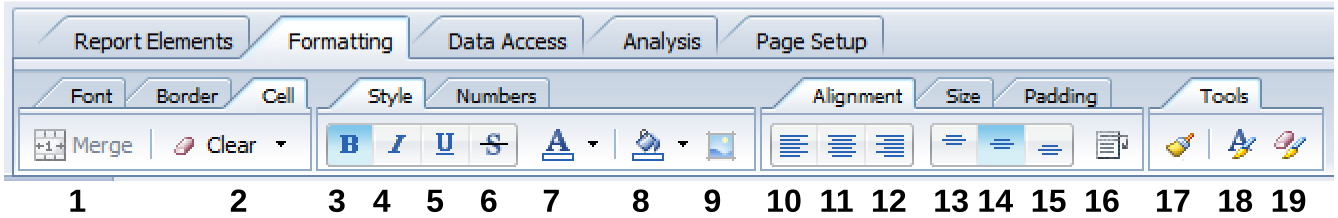
Report Formatting: Formatting Toolbar - Borders



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

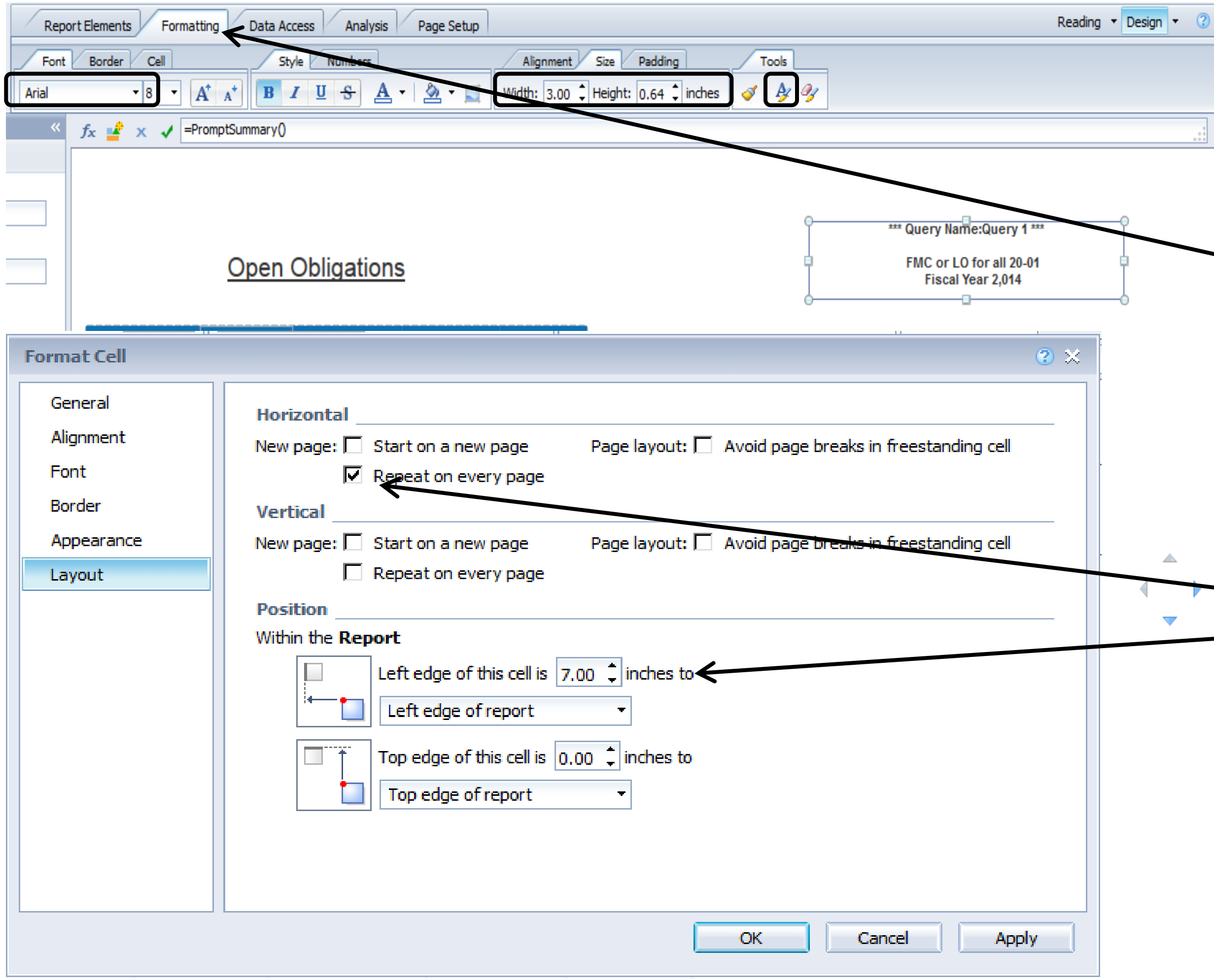
1. Borders
2. Borders Color
3. Bold
4. Italicize
5. Underline
6. Strikethrough
7. Font color
8. Background color
9. Background image
10. Align Left
11. Align Center
12. Align Right
13. Align Top
14. Align Center
15. Align Bottom
16. Wrap Text
17. Format Painter
18. Formatting (Display Formatting Options)
19. Clear Format

Report Formatting: Formatting Toolbar - Cell



1. Merge
2. Clear
3. Bold
4. Italicize
5. Underline
6. Strikethrough
7. Font color
8. Background color
9. Background image
10. Align Left
11. Align Center
12. Align Right
13. Align Top
14. Align Center
15. Align Bottom
16. Wrap Text
17. Format Painter
18. Formatting (Display Formatting Options)
19. Clear Format

Report Formatting: Formatting Toolbar



- The prompt summary cell may not be formatted optimally.
- To change a cells properties, first *click on the cell* to be modified.
- Use the *Formatting Toolbar* to change the following cell properties:
  - Font → Arial
  - Font Size → 8
  - Width → 3"
- Use the *Formatting* option change the following cell properties:
  - Check Repeat on every new page
  - Relative Position
    - Left edge → 7"
    - Top edge → 0"
- This cell would extend past the right margin if these settings were not adjusted.
- *Click Save*

Report Formatting: Formatting Toolbar

- Formatting changes can be made to multiple columns at one time.
- Hold down your CTRL key and single click on the cell(s) you would like to format.
- Single *click on the data cells in the Undelivered column* so that it is highlighted.
- *Hold CTRL key and click on the data cells in the Unpaid and Net Amount columns*.

Open Obligations

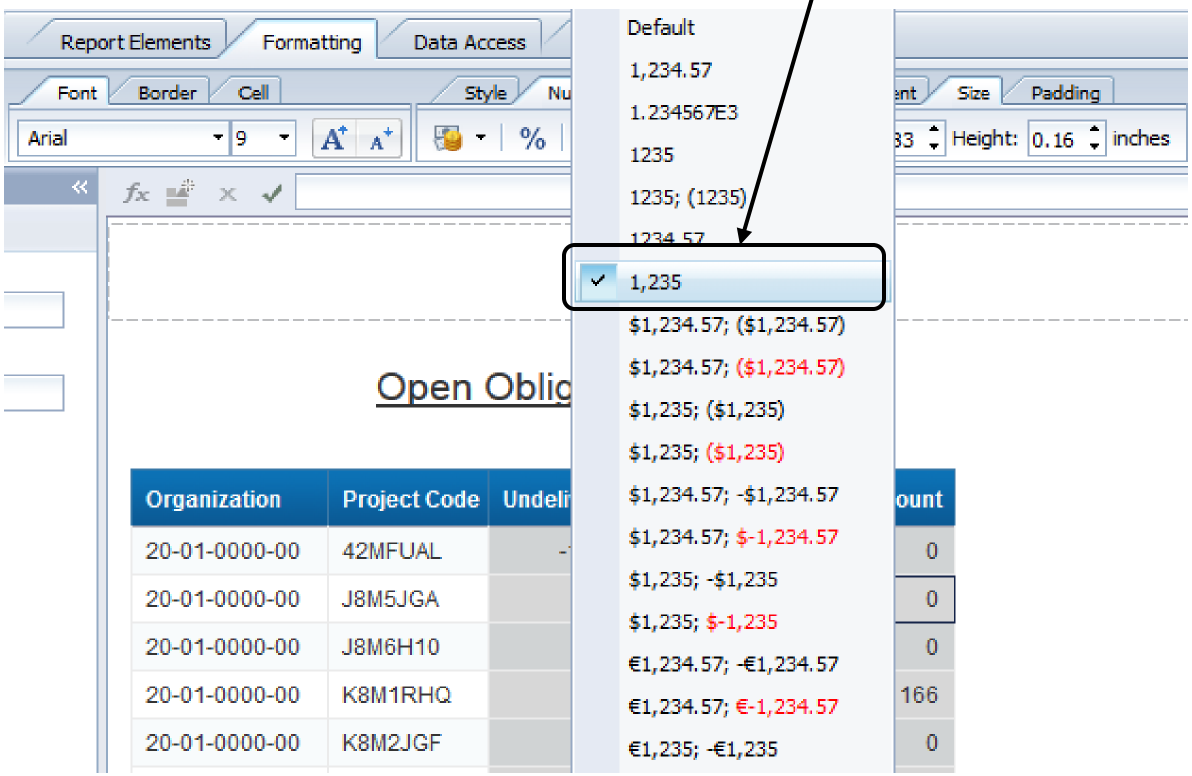
Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143.00	0.00	0.00
20-01-0000-00	J8M5JGA	-3,539.54	0.00	0.20
20-01-0000-00	J8M6H10	-818.71	0.00	0.00
20-01-0000-00	K8M1RHQ	-2,710.47	0.00	165.64
20-01-0000-00	K8M2JGF	-3,319.68	0.00	0.00

Column Title Cells

Column Data Cells

Report Formatting: Formatting Toolbar

- Once all cells have been highlighted, any properties changed will impact all selected cells.
- To change the Number Format , from Formatting Toolbar, click *Numbers and then click on format drop-down*.
- From the Number Format dialog *select the 1,234* format which will show the number without the decimals.
- *Click OK.*
- *Click Save.*

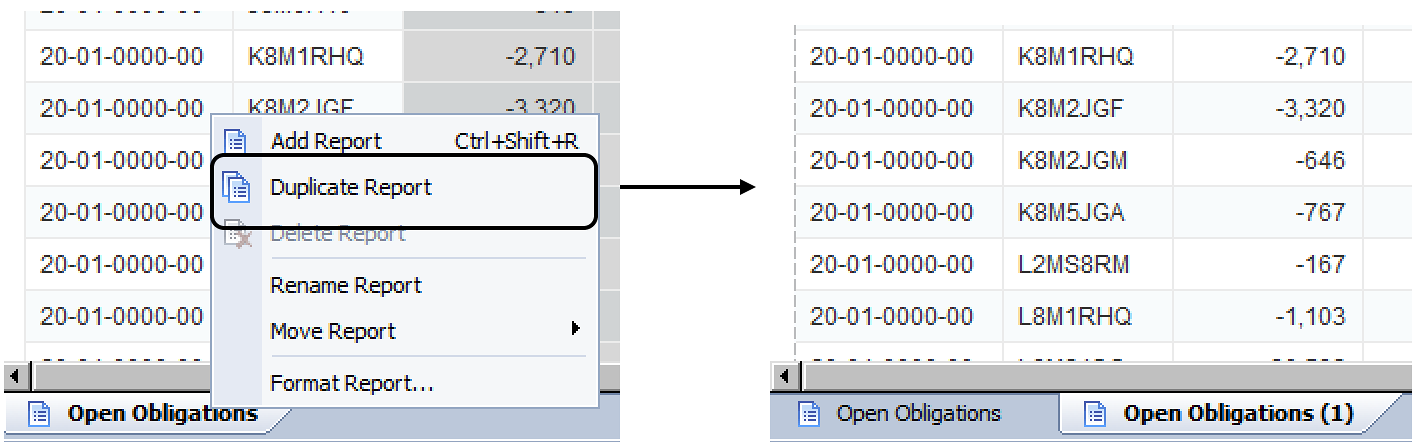


Report Formatting: Report Tabs

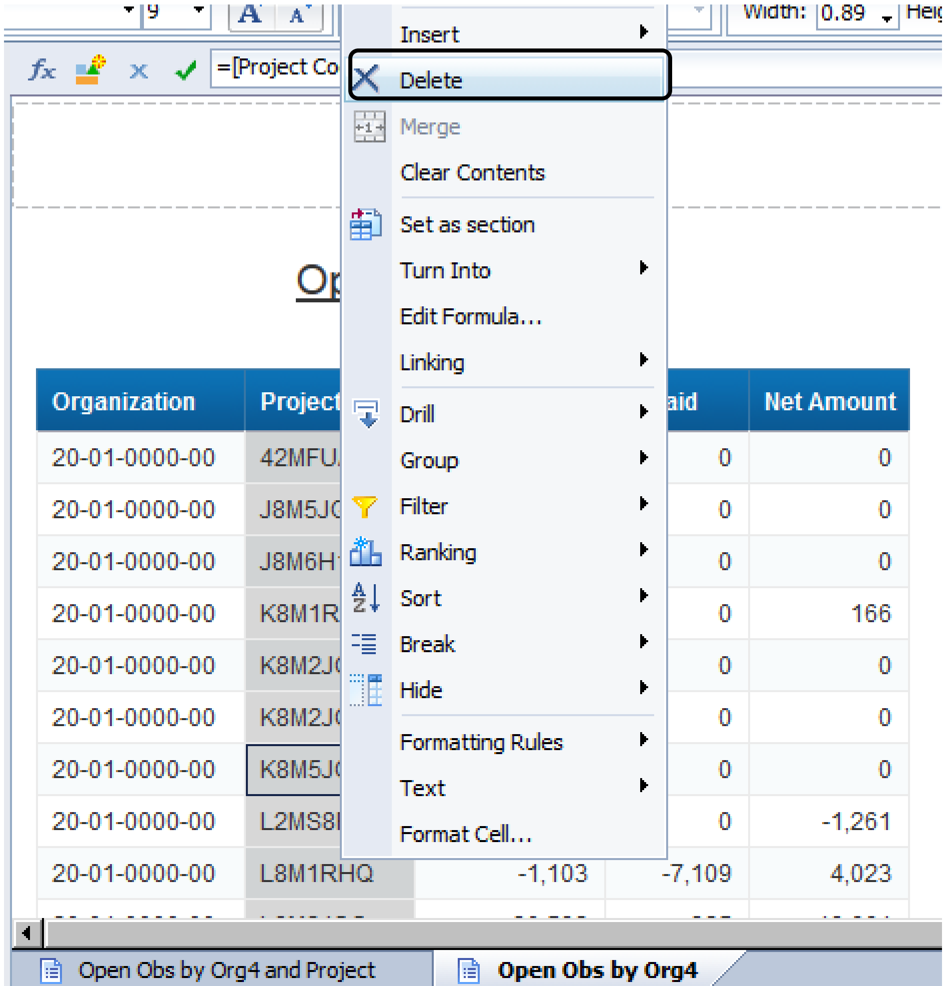
- Report Tabs allow you to present the data from the report query or queries in a variety of formats.
- When a report is refreshed, all the report queries are run at once and all the report tabs are updated with the new data.
- Each report tab could show similar information but at a different level of detail.
- Each report tab could be identical in formatting, but differ in the filters that are applied.

Report Formatting: Report Tabs

- Similar to an Excel worksheet, a Web Intelligence document can have multiple reports (aka tabs).
- Frequently new report tabs are created by duplicating an existing tab.
- To create a copy of Open Obligations, *right click on the Open Obligations tab*.
- From the *Shortcut Menu*, select *Duplicate Report*.

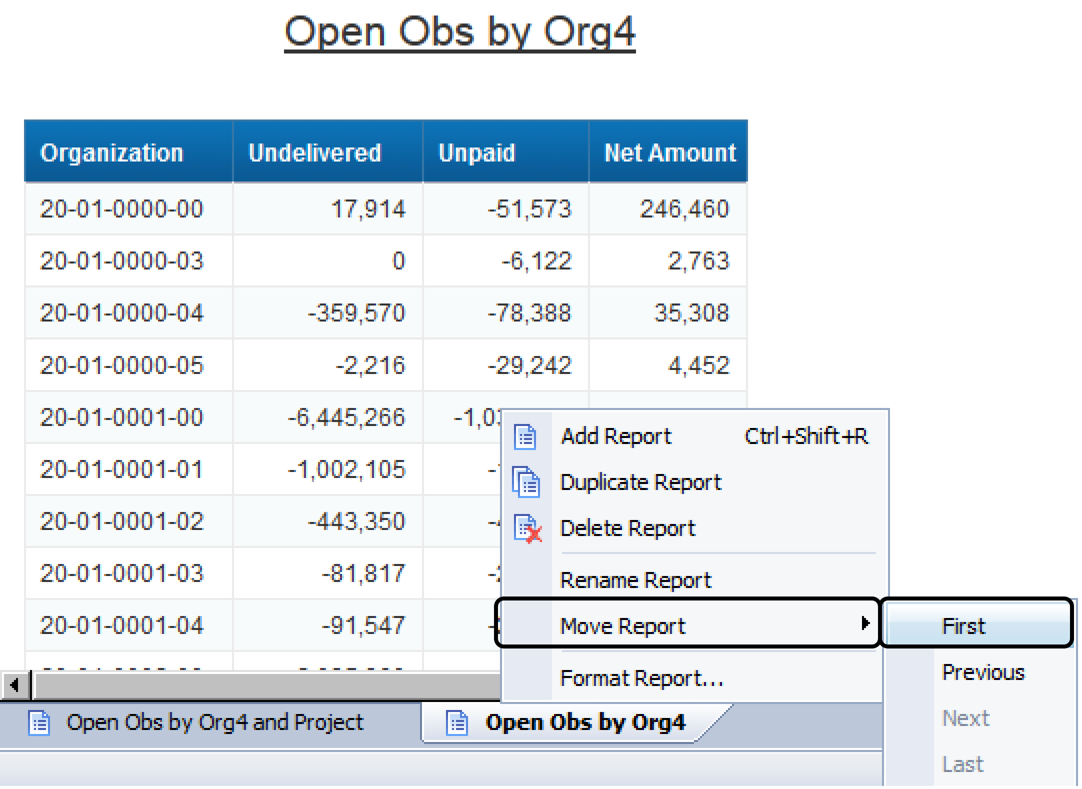


Report Formatting: Report Tabs



- To rename the Report Tabs, *right click on the Report and select Rename Report.*
- Change the names as follows:
  - Open Obligations → Open Obs by Org4 and Project
  - Open Obligations(1) → Open Obs by Org4
- *Remove Project Code* from the *Open Obs by Org4* tab
  - right click on the data in the project code column
  - select Remove / Remove Column from the Shortcut Menu
- Now you have an additional tab with the data summarized by Org4.
- *Click Save*

Report Formatting: Report Tabs



- In addition to Rename, the other Report Tab functions are:
  - Add
  - Duplicate
  - Delete
  - Move Report (First / Previous / Next / Last)
- Try moving a Report. *Right click on the Report Tab and select Move Report / First.*
- *Click Save.*

Advanced Report Formatting

- Breaks
  - Used to group report data within a table and provide a header and footer for each break value. The footer is used for placing sums and other calculations.
- Sections
  - Used to split report information into smaller, more comprehensible parts. Sections generate a navigation map used to jump from one section to another.
- Calculations
  - Calculations such as sum, min, max, average, percent can be applied to tables, breaks and sections.
- Sorts
  - Apply sorts to the values displayed in tables, breaks or sections. Sort in ascending, descending or customized sort order.
- Cross-Tabs (Pivot Tables)
  - Crosstabs display values for dimensions across the top axis and on the left axis. The body displays the values of a measure that correspond to the cross-section of the dimensions.

Advanced Report Formatting: Breaks

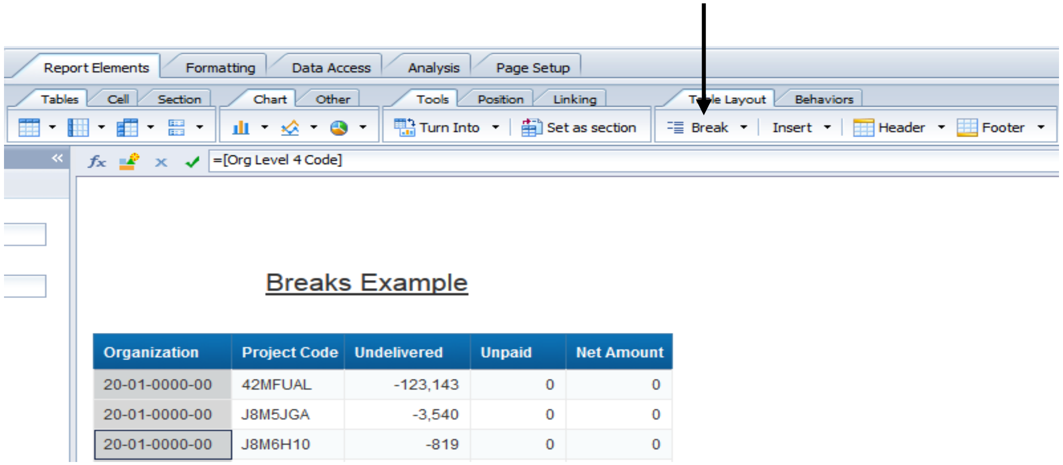
Breaks Example

Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143	0	0
20-01-0000-00	J8M5JGA	-3,540	0	0
20-01-0000-00	J8M6H10	-819	0	0
20-01-0000-00	K8M1RHQ	-2,710	0	166
20-01-0000-00	K8M2JGF	-3,320	0	0
20-01-0000-00	K8M2JGM	-646	0	0
20-01-0000-00	K8M5JGA	-767	0	0
20-01-0000-00	L2MS8RM	-167	0	-1,261
20-01-0000-00	L8M1RHQ	-1,103	-7,109	4,023

Open Obs by Org4 | Open Obs by Org4 and Project | **Breaks Example**

- Open for editing *Training Doc 2*.
- Duplicate the first tab to create a tab where you can practice applying Breaks.
- Switch to the *Open Obs by Org4 and Project* tab.
- *Right Click* on the tab name to open the *Shortcut menu*.
- Click *Duplicate Report*.
- *Right Click* on the tab name to open the *Shortcut menu*.
- Click *Rename Report*.
- Change the name to *Breaks Example*.
- *Click Save.*

Advanced Report Formatting: Breaks

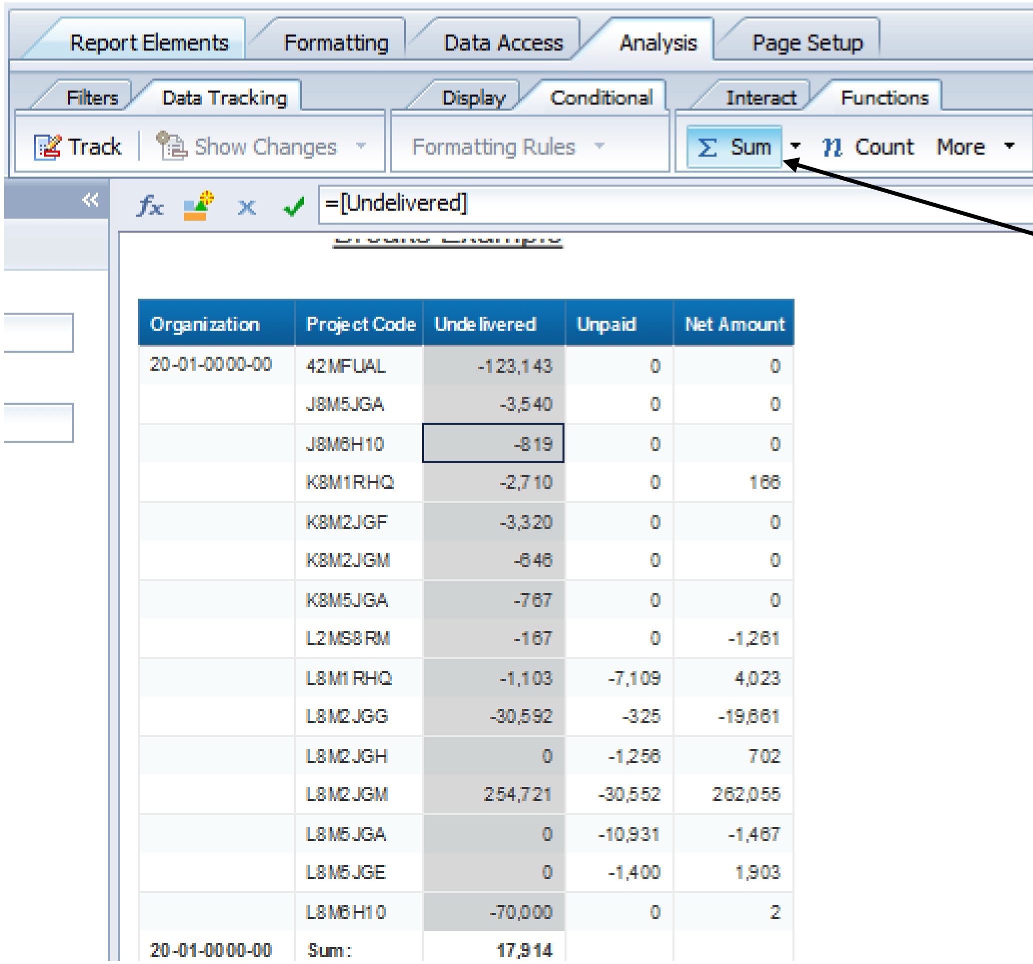


Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143	0	0
	J8M5JGA	-3,540	0	0
	J8M6H10	-819	0	0
	K8M1RHQ	-2,710	0	166
	K8M2JGF	-3,320	0	0
	K8M2JGM	-646	0	0
	K8M5JGA	-767	0	0
	L2MS8RM	-167	0	-1,261
	L8M1RHQ	-1,103	-7,109	4,023
	L8M2JGG	-30,592	-325	-19,661
	L8M2JGH	0	-1,256	702
	L8M2JGM	254,721	-30,552	262,055
	L8M5JGA	0	-10,931	-1,467
	L8M5JGE	0	-1,400	1,903
	L8M6H10	-70,000	0	2
20-01-0000-00				

Break footer

- Switch to the *Breaks Example* tab.
- To apply a *Break* to the Organization column, click on the *column data* in the *Organization* column.
- From *Report Elements Toolbar* ,Click the *Break* drop-down and select *Add*.
- Notice the following changes:
  - Header is repeated for each change in the break value
  - Break values are suppressed
  - Break Footer is added
- *Click Save.*

Advanced Report Formatting: Breaks w/Calculations



Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0000-00	42MFUAL	-123,143	0	0
	J8M5JGA	-3,540	0	0
	J8M6H10	-819	0	0
	K8M1RHQ	-2,710	0	166
	K8M2JGF	-3,320	0	0
	K8M2JGM	-646	0	0
	K8M5JGA	-767	0	0
	L2MS8RM	-167	0	-1,261
	L8M1RHQ	-1,103	-7,109	4,023
	L8M2JGG	-30,592	-325	-19,661
	L8M2JGH	0	-1,256	702
	L8M2JGM	254,721	-30,552	262,055
	L8M5JGA	0	-10,931	-1,467
	L8M5JGE	0	-1,400	1,903
	L8M6H10	-70,000	0	2
20-01-0000-00	Sum:	17,914		

- Switch to the *Breaks Example* tab.
- To apply a *Sum* in the *Break Footer*, click on the *data cells* in the *Undelivered* column.
- From the *Analysis Toolbar*, Click *Functions* and then click on *Sum* button.
- Notice the *Sum* has been placed in the *Break Footer*.
- Continue to insert Sums on the Unpaid and Net Amount columns.
- Scroll down to the last page and note that a *Table Footer* has been created with a *Sum for all Organizations*.
- *Click Save.*

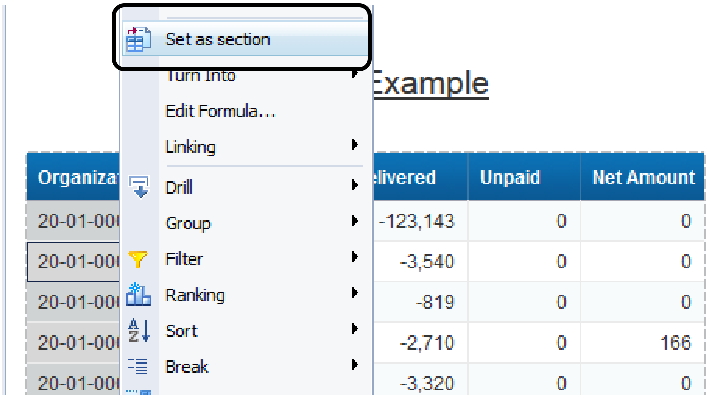
Advanced Report Formatting: Sections

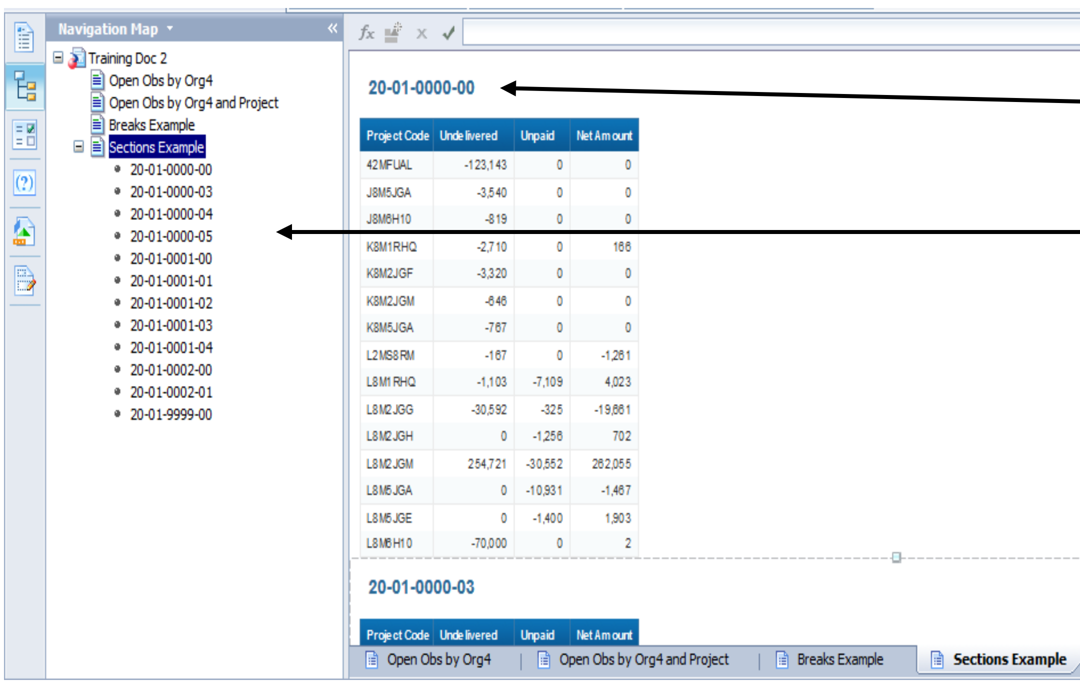
20-01-0000-00	K8M2JGF	-3,320	0	0
20-01-0000-00	K8M2JGM	-646	0	0
20-01-0000-00	K8M5JGA	-767	0	0
20-01-0000-00	L2MS8RM	-167	0	-1,261
20-01-0000-00	L8M1RHQ	-1,103	-7,109	4,023

Open Obs by Org4 | Open Obs by Org4 and Project | Breaks Example | **Sections Example**

- Duplicate the first tab again to create a tab where you can practice applying Sections.
- Rename the new tab *Sections Example*.
- *Click Save.*

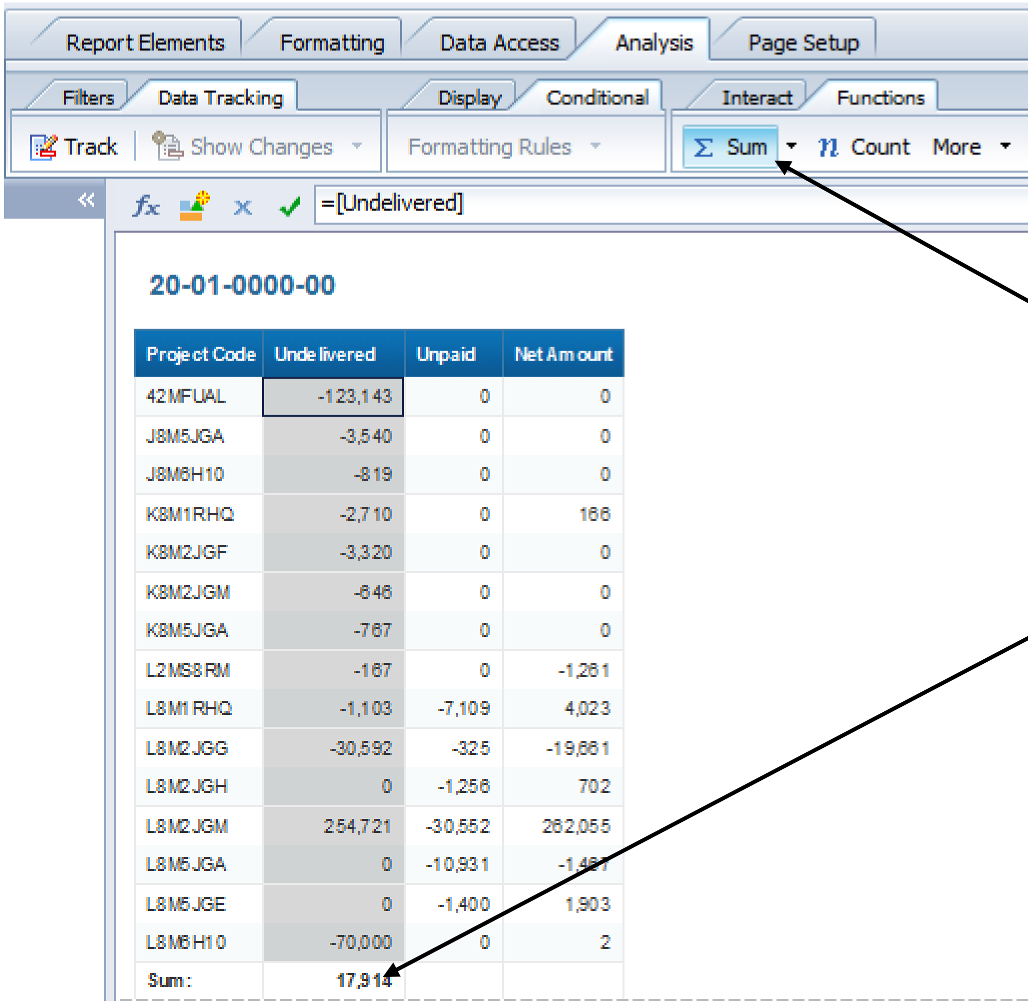
Advanced Report Formatting: Sections





- Switch to the *Sections Example* tab.
- To apply a *Section* to the Organization column, right click on the *data cells* in the *Organization* column to open the shortcut menu.
- Select *Set as Section*.
- Notice the following changes:
  - The Sectioned values is moved outside of the table into a *Free Standing Cell*
  - A *Navigation Map* is generated
- If you would like the *Free Standing Cell* for the *Section* to display on every page, be sure to check the *Repeat on every new page* option in the *properties tab*.
- *Click Save.*

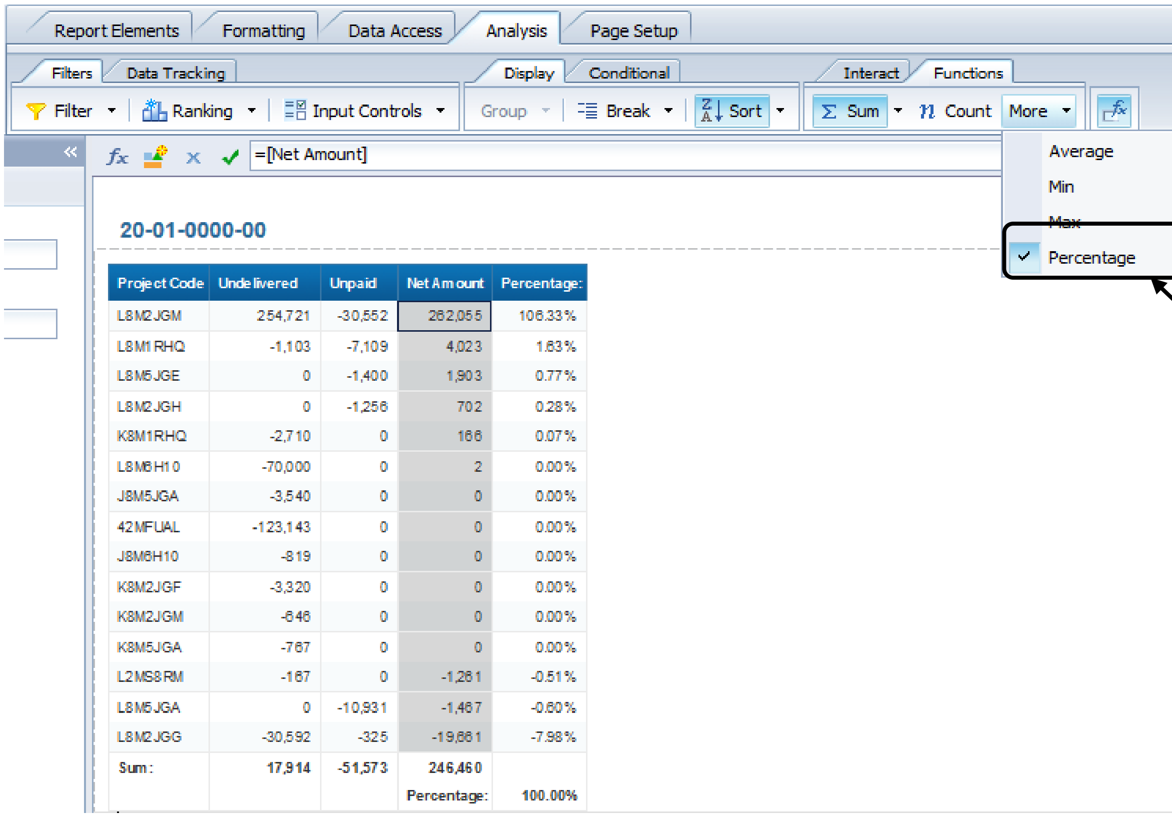
Advanced Report Formatting: Sections w/Calculations



Project Code	Undelivered	Unpaid	Net Amount
42MFUAL	-123,143	0	0
J8M5JGA	-3,540	0	0
J8M6H10	-819	0	0
K8M1RHQ	-2,710	0	166
K8M2JGF	-3,320	0	0
K8M2JGM	-646	0	0
K8M5JGA	-767	0	0
L2MS8RM	-167	0	-1,261
L8M1RHQ	-1,103	-7,109	4,023
L8M2JGG	-30,592	-325	-19,661
L8M2JGH	0	-1,256	702
L8M2JGM	254,721	-30,552	262,055
L8M5JGA	0	-10,931	-1,4[illegible]7
L8M5JGE	0	-1,400	1,903
L8M6H10	-70,000	0	2
Sum:	17,914		

- Switch to the *Sections Example* tab.
- To apply a *Sum* at the bottom of each section, click on the *data cells* in the *Undelivered* column.
- From the *Analysis Toolbar*, Click *Functions* and then click on *Sum* button.
- Notice the *Sum* has been placed in the *Table Footer* cell.
- Continue to insert Sums on the Unpaid, Paid and Net Amount columns.
- *Click Save.*

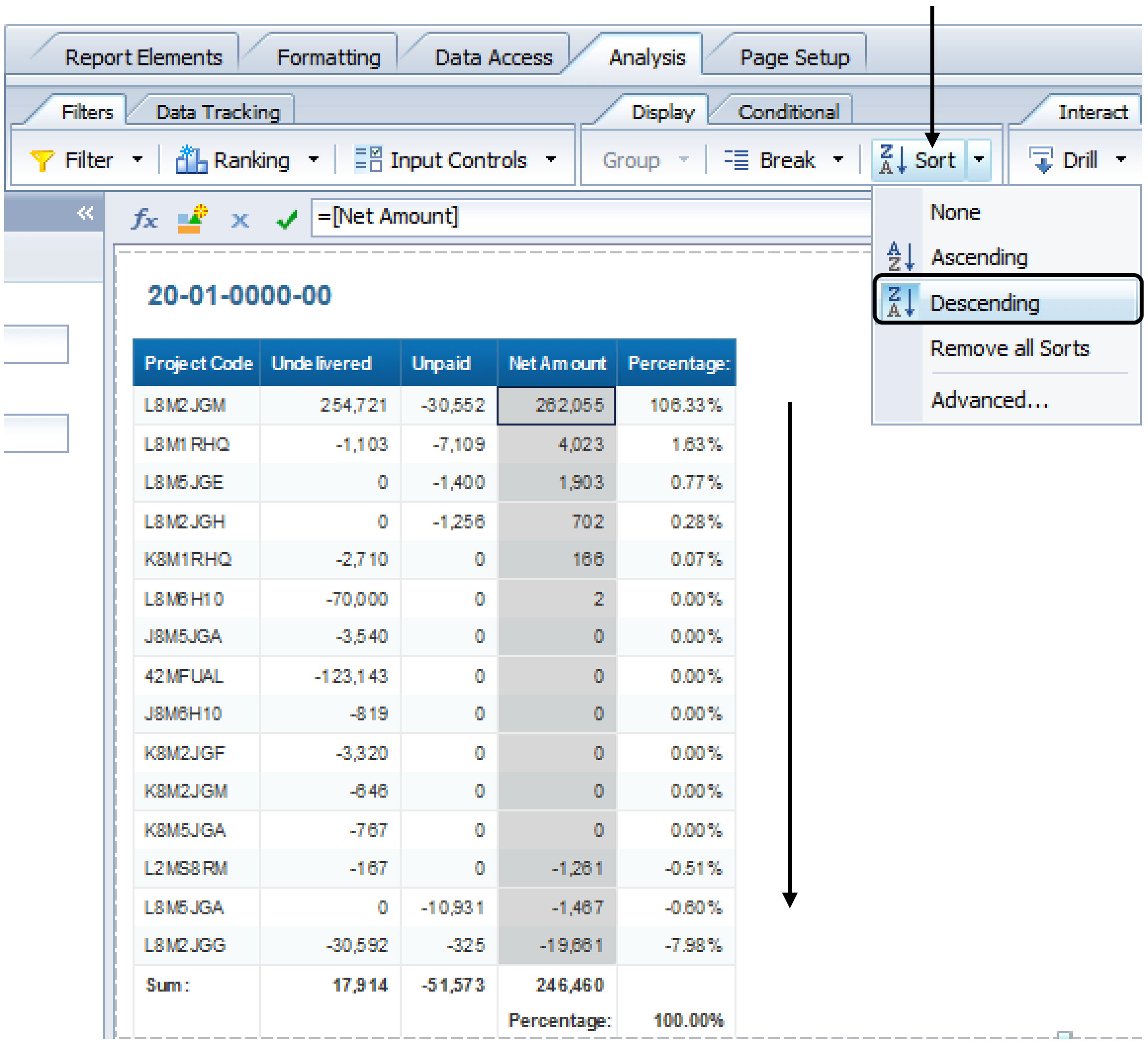
Advanced Report Formatting: Sections w/Calculations



Project Code	Undelivered	Unpaid	Net Amount	Percentage:
L8M2JGM	254,721	-30,552	262,055	106.33%
L8M1RHQ	-1,103	-7,109	4,023	1.63%
L8M5JGE	0	-1,400	1,903	0.77%
L8M2JGH	0	-1,256	702	0.28%
K8M1RHQ	-2,710	0	166	0.07%
L8M6H10	-70,000	0	2	0.00%
J8M5JGA	-3,540	0	0	0.00%
42MFUAL	-123,143	0	0	0.00%
J8M6H10	-819	0	0	0.00%
K8M2JGF	-3,320	0	0	0.00%
K8M2JGM	-646	0	0	0.00%
K8M5JGA	-767	0	0	0.00%
L2MS8RM	-167	0	-1,261	-0.51%
L8M5JGA	0	-10,931	-1,467	-0.60%
L8M2JGG	-30,592	-325	-19,661	-7.98%
Sum:	17,914	-51,573	246,460	
			Percentage:	100.00%

- Switch to the *Sections Example* tab.
- To show the *Percentage* of a measure, click on the *data cells* in the *Net Amount* column.
- From the *Analysis Toolbar*, Click *Functions*, and then click on *More* drop-down and select *Percentage*.
- Notice the *Percentage* has been placed next to the *Net Amount* and 100% in the *Table Footer* cell.
- Also available are Count, Average, Min and Max.
- *Click Save.*

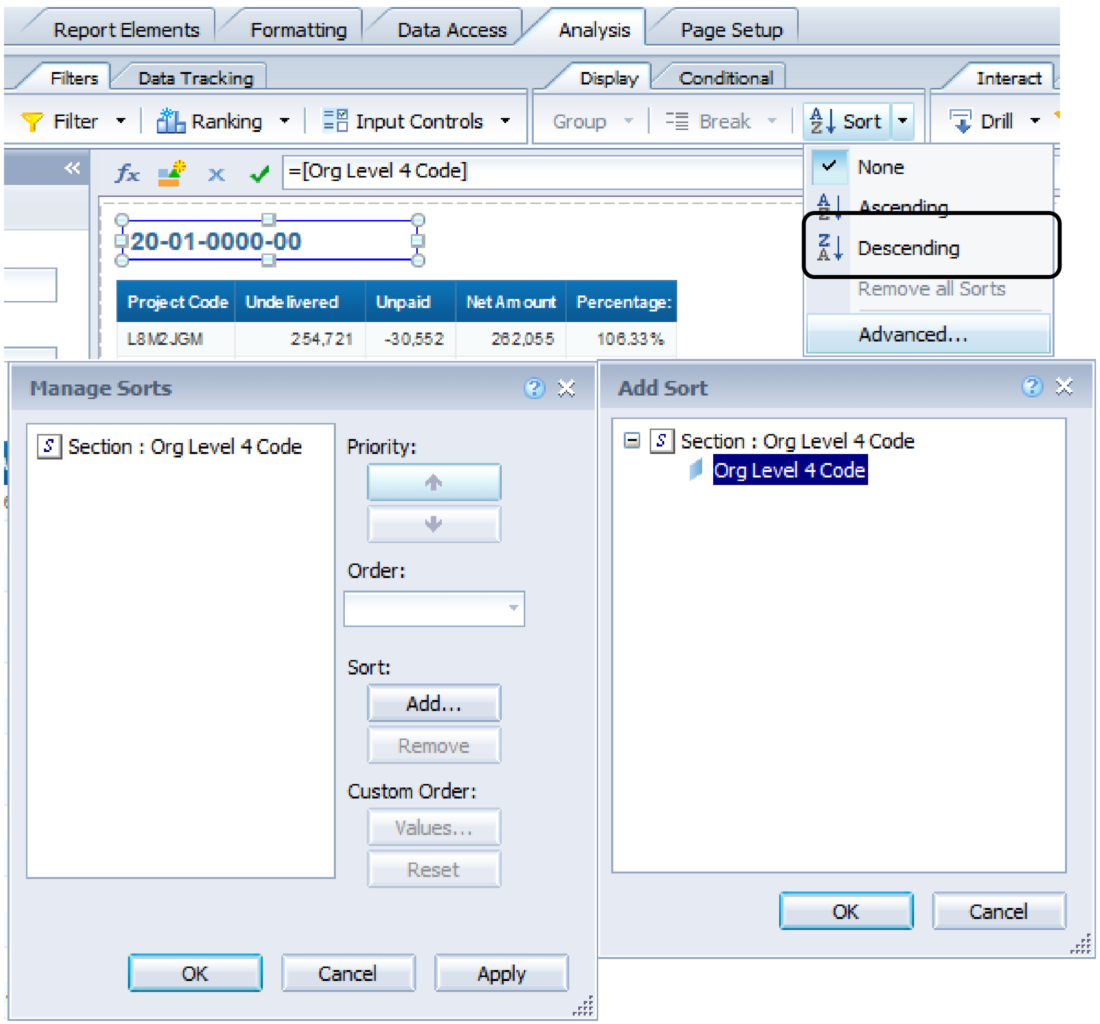
Advanced Report Formatting: Sorts



Project Code	Undelivered	Unpaid	Net Amount	Percentage:
L8M2JGM	254,721	-30,552	262,055	106.33%
L8M1RHQ	-1,103	-7,109	4,023	1.63%
L8M5JGE	0	-1,400	1,903	0.77%
L8M2JGH	0	-1,256	702	0.28%
K8M1RHQ	-2,710	0	166	0.07%
L8M6H10	-70,000	0	2	0.00%
J8M5JGA	-3,540	0	0	0.00%
42MFUAL	-123,143	0	0	0.00%
J8M6H10	-819	0	0	0.00%
K8M2JGF	-3,320	0	0	0.00%
K8M2JGM	-646	0	0	0.00%
K8M5JGA	-767	0	0	0.00%
L2MS8RM	-167	0	-1,261	-0.51%
L8M5JGA	0	-10,931	-1,467	-0.60%
L8M2JGG	-30,592	-325	-19,661	-7.98%
Sum:	17,914	-51,573	246,460	
			Percentage:	100.00%

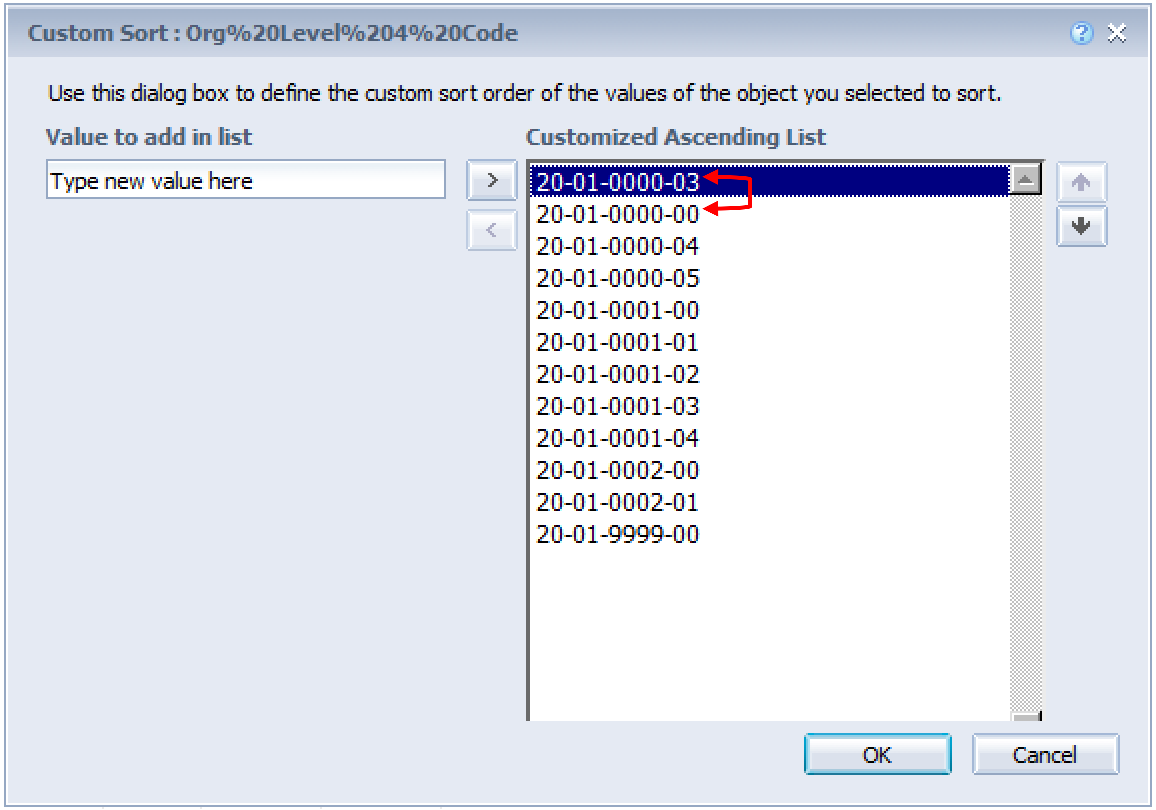
- Switch to the *Sections Example* tab.
- By default, the data in a Table is sorted by the Dimensions in the table from left to right. In this case the report is sorted by Project Code.
- You may override the default sort. For example, you may wish to have the rows with the largest Net Amount appear at the top of the table.
- Click in the *data cells* of the *Net Amount* column.
- From the *Analysis Toolbar*, Click *Display* and then click on *Sort* drop-down and Select *Descending*.
- Notice the data is now sorted in Descending order by Net Amount.
- *Click Save.*

Advanced Report Formatting: Sorts



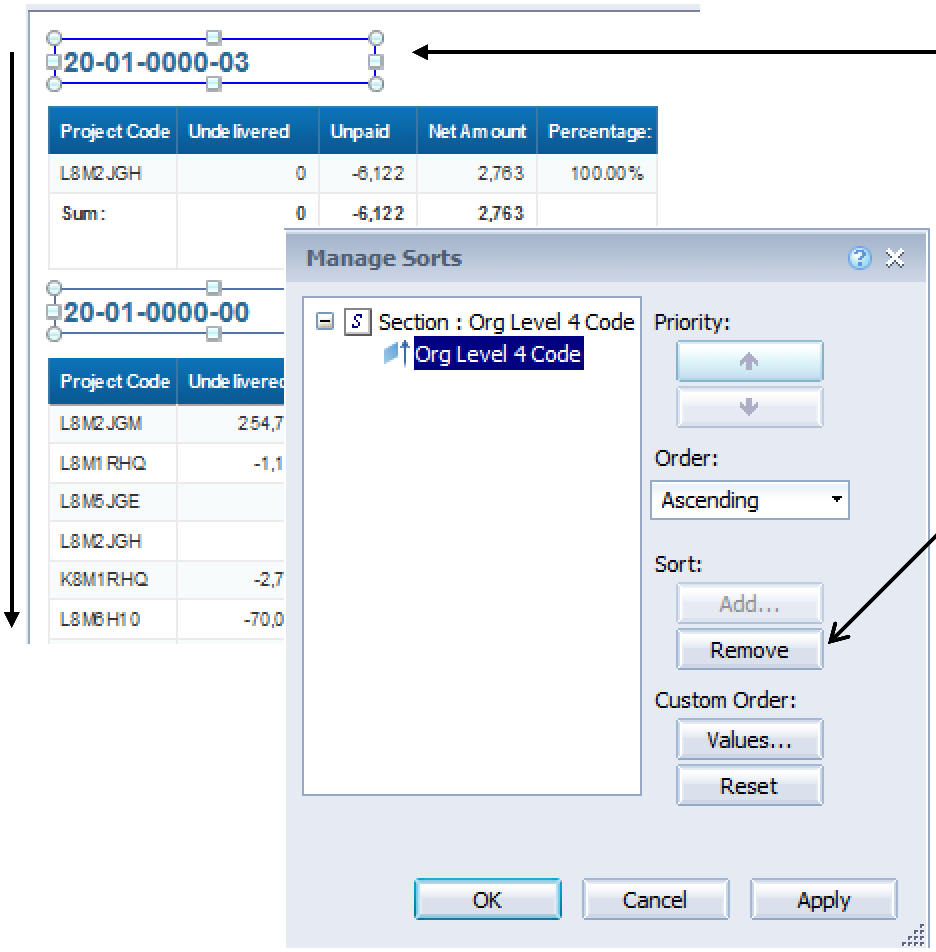
- In addition to Ascending and Descending, you can create a *Custom Sort*. For example, you may want to see all Organizations, but always have your Organization show at the top of the list.
- Click in the *data cells* of the *Organization* section cell.
- From the *Analysis Toolbar*, Click *Display* and then click on *Sort* drop-down and Select *Advanced*.
- In the *Manage Sorts,* click on *Add* button, and select *"Org Level 4 Code"* and click *Ok* button.

Advanced Report Formatting: Sorts



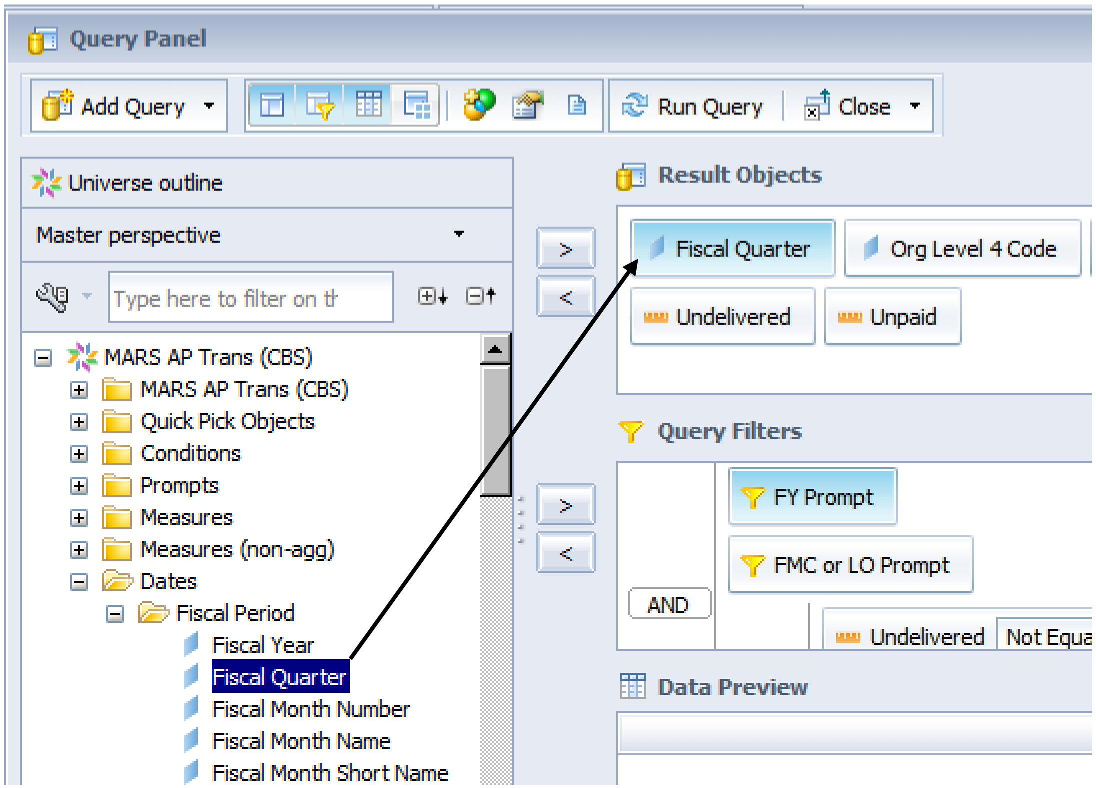
- From the Custom Sort panel you can use the up and down arrows to move the values around in any order. For this exercise move the second value to the first position.
- *Click OK. Click Save.*

Advanced Report Formatting: Sorts



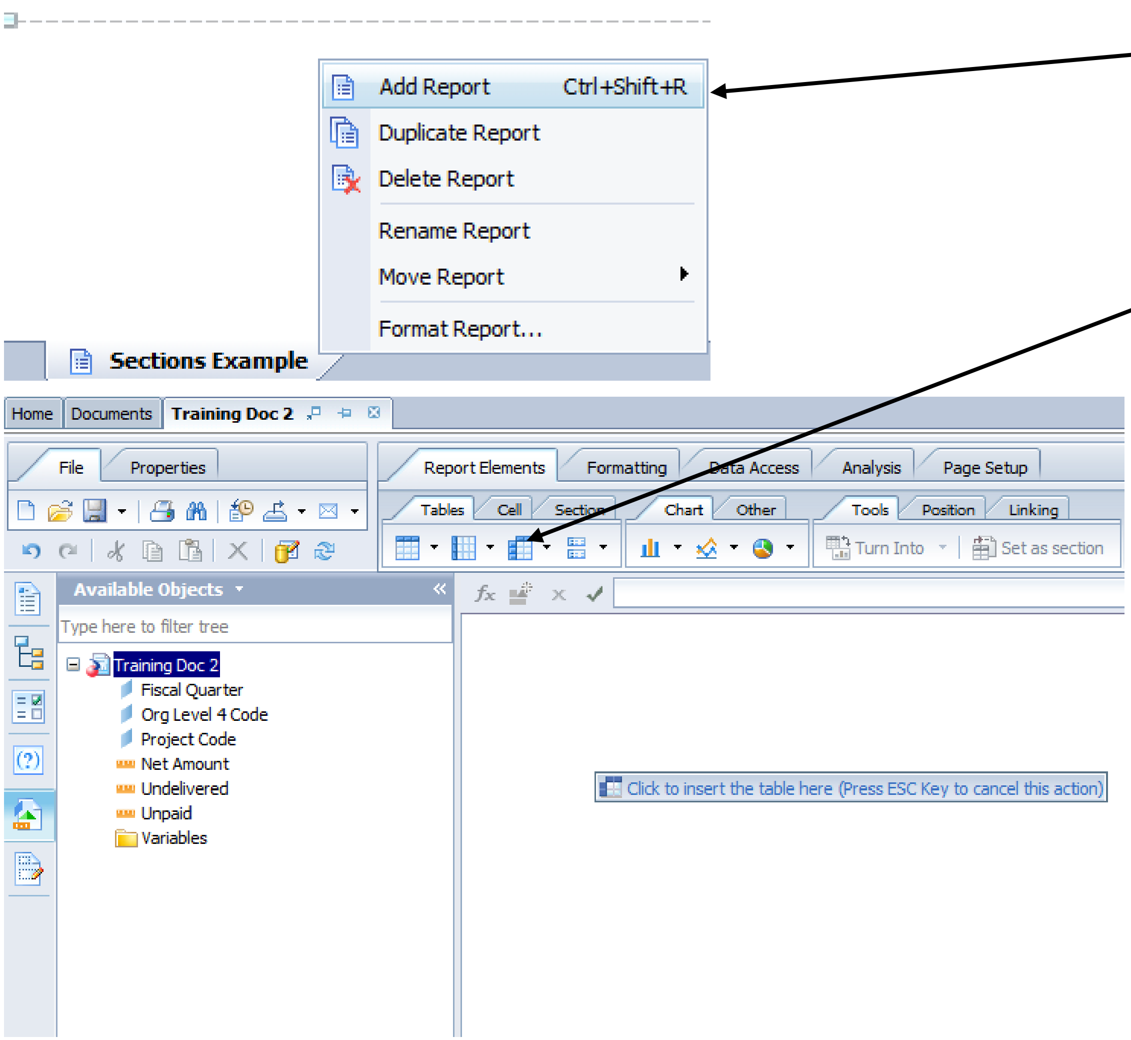
- Note that the first two Organizations are now switched on the report.
- Custom Sorts are applied to all report tabs.
- To *remove* a Custom Sort you must go back to the Custom Sort panel and click the *Remove* button.
- Simple Ascending and Descending sorts are only applied to the report tab they are applied on.

Advanced Report Formatting: Cross-Tabs



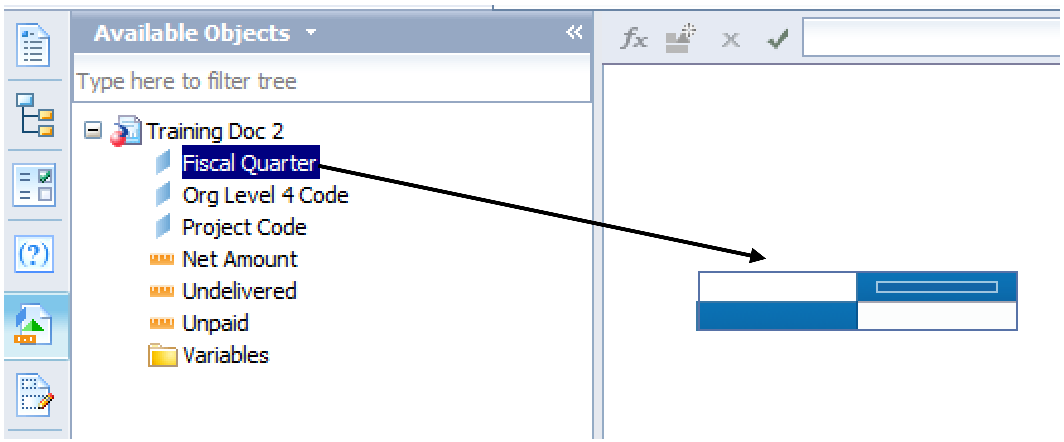
- Cross-Tab reports are similar to Microsoft Excel Pivot Tables.
- In this example you will cross-tab by Fiscal Quarter.
- You must first add *Fiscal Quarter* to the Query.
- *Open Training Doc 2.*
- *Click on Design -> Data Access -> Edit*
- Open the *Dates / Fiscal Period* folder.
- Drag and drop *Fiscal Quarter* to the *Results* panel.
- *Click Run Query.*
- *Click Save.*

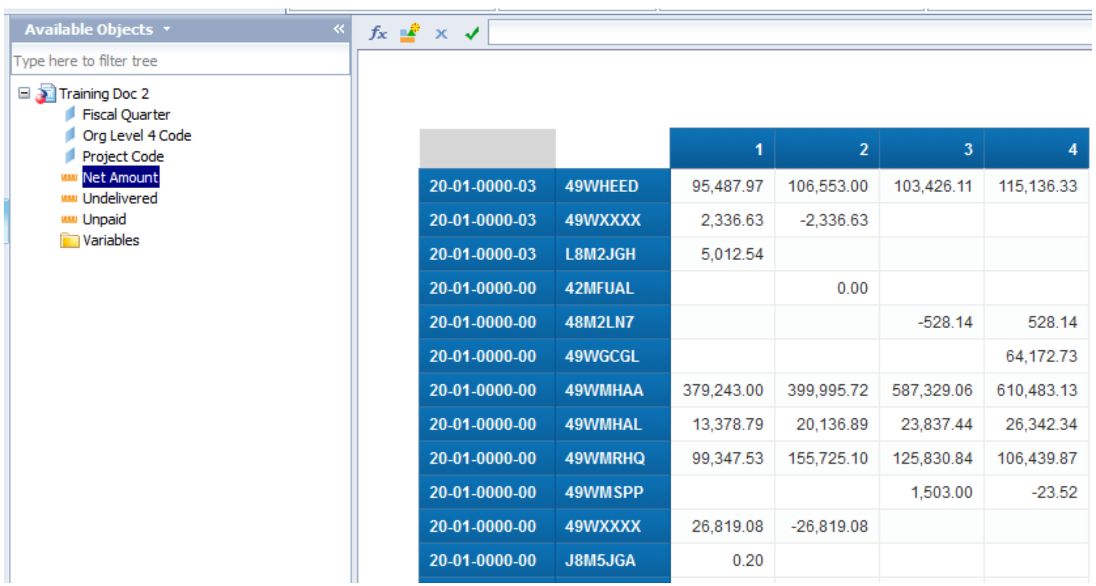
Advanced Report Formatting: Cross-Tabs



- Right Click on the tab and select *Add Report* and rename it to *Cross-Tab Example*.
- From the *Report Elements Toolbar,* click *Tables* and then click on *Define Cross-Tab* and drop it in the report body

Advanced Report Formatting: Cross-Tabs





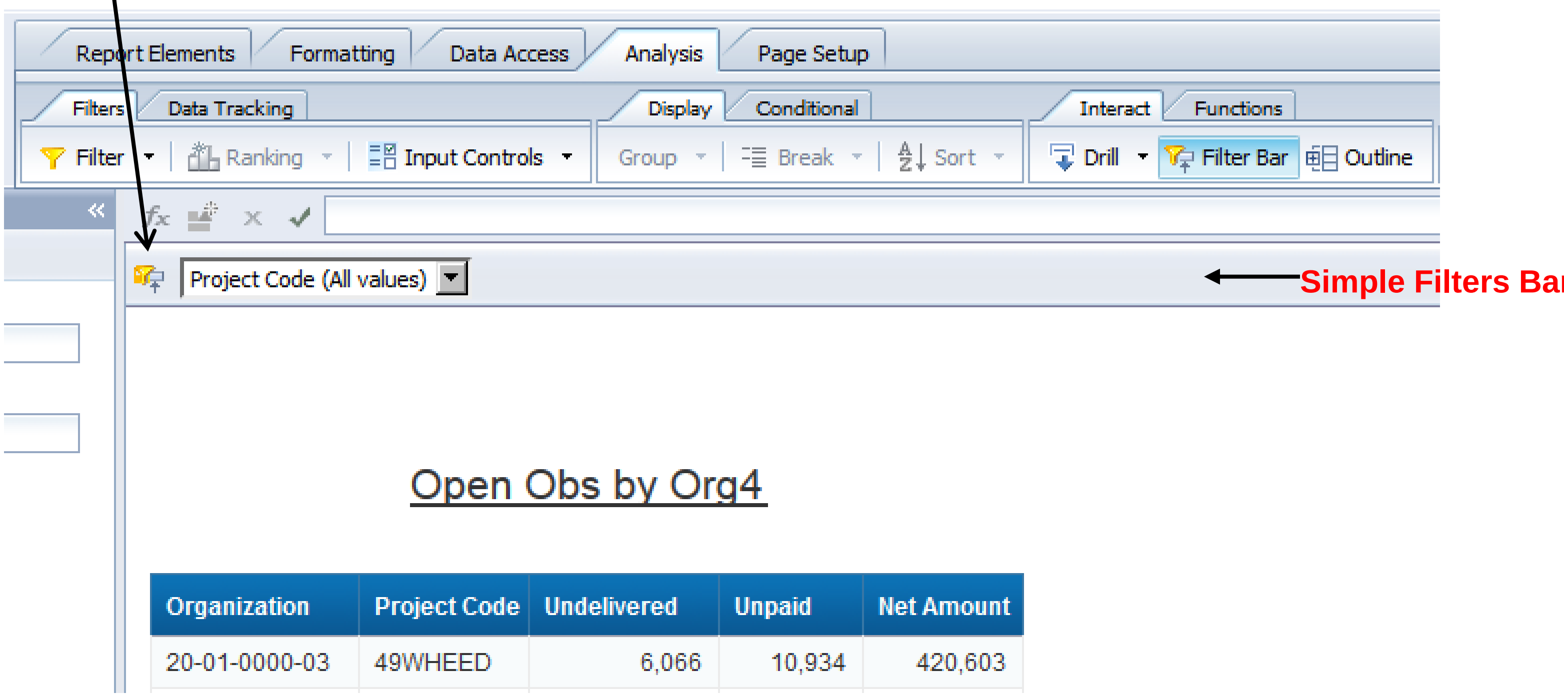
- Click and drag the *Fiscal Quarter* object and drop it above the *table title*.
- Drag & drop *Org Level 4 Code, Project Code & Net Amount* in to the Table
- *Click Save.*

Analytical Features

- Simple Filters
- Complex Filters
- Fold / Unfold
- Input Controls
- Groups of Input Controls
- Data Tracking

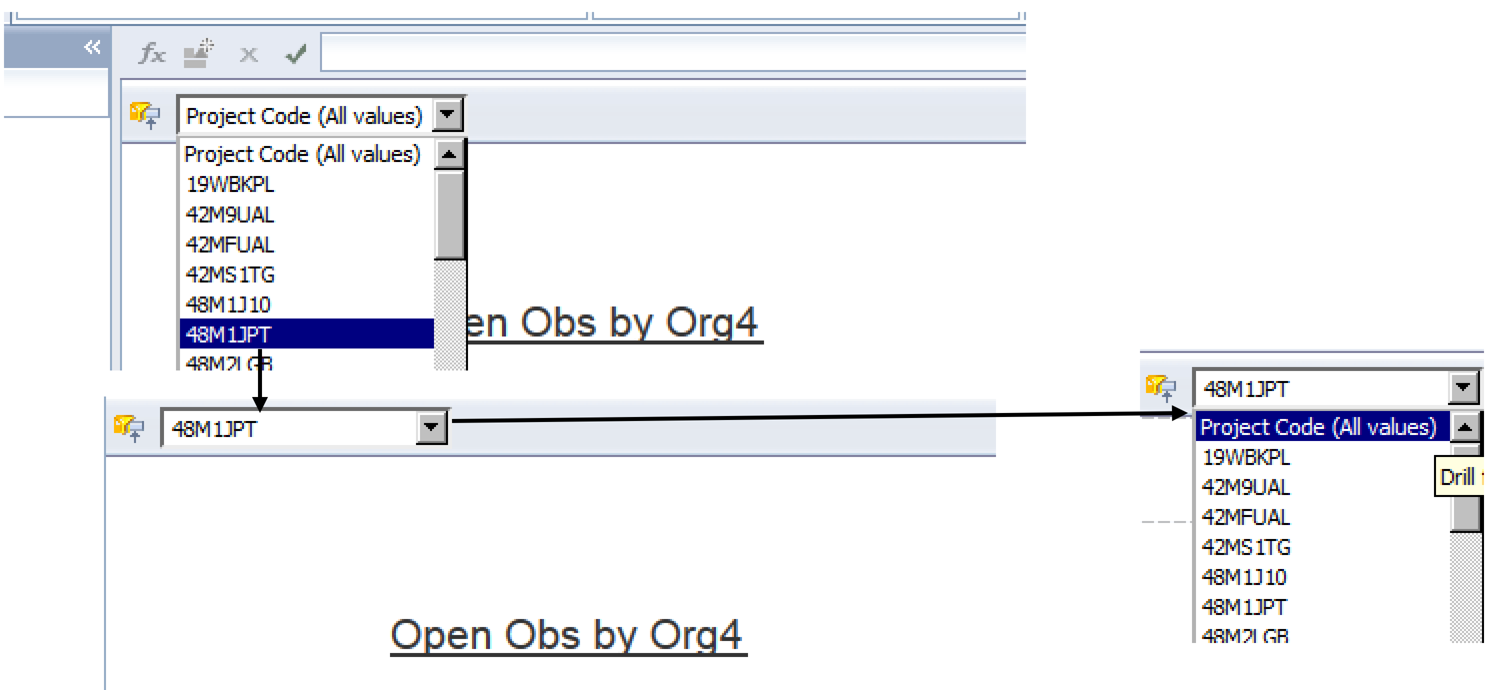
Analytical Features: Simple Filters

- Switch to the *Open Obs by Org4 and Project* tab.
- From the *Analysis Toolbar*, Click *Interact* and then click on *Filter Bar.*
- Drag and drop the *Project Code* object into the *Simple Filters* panel.
- Click on *"Add simple report filter"* icon, click *Others* and select *Project Code.*
- *Click Save.*



Analytical Features: Simple Filters

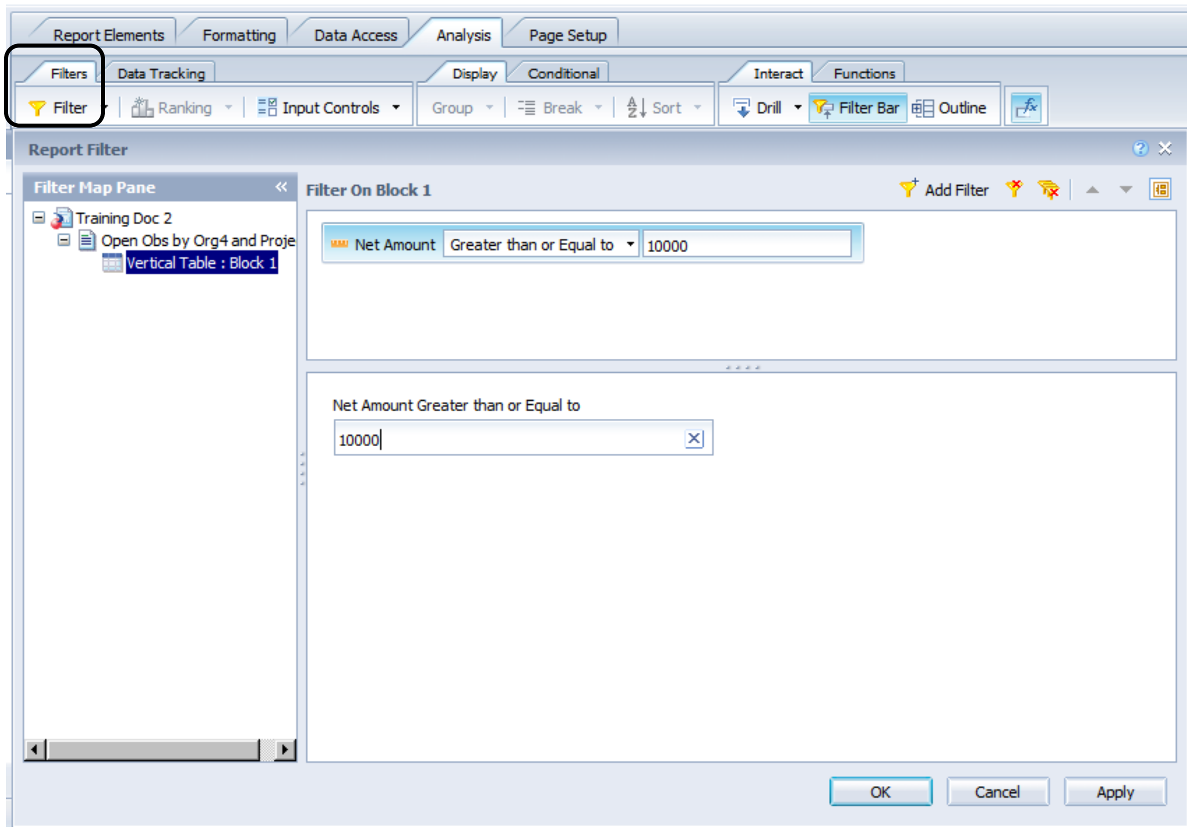
- Select a Project from the drop down list.
- Select *All Project Code* from the drop down list to show all Projects.



Organization	Project Code	Undelivered	Unpaid	Net Amount
20-01-0002-00	48M1JPT	-61,109	0	0

Analytical Features: Complex Filters

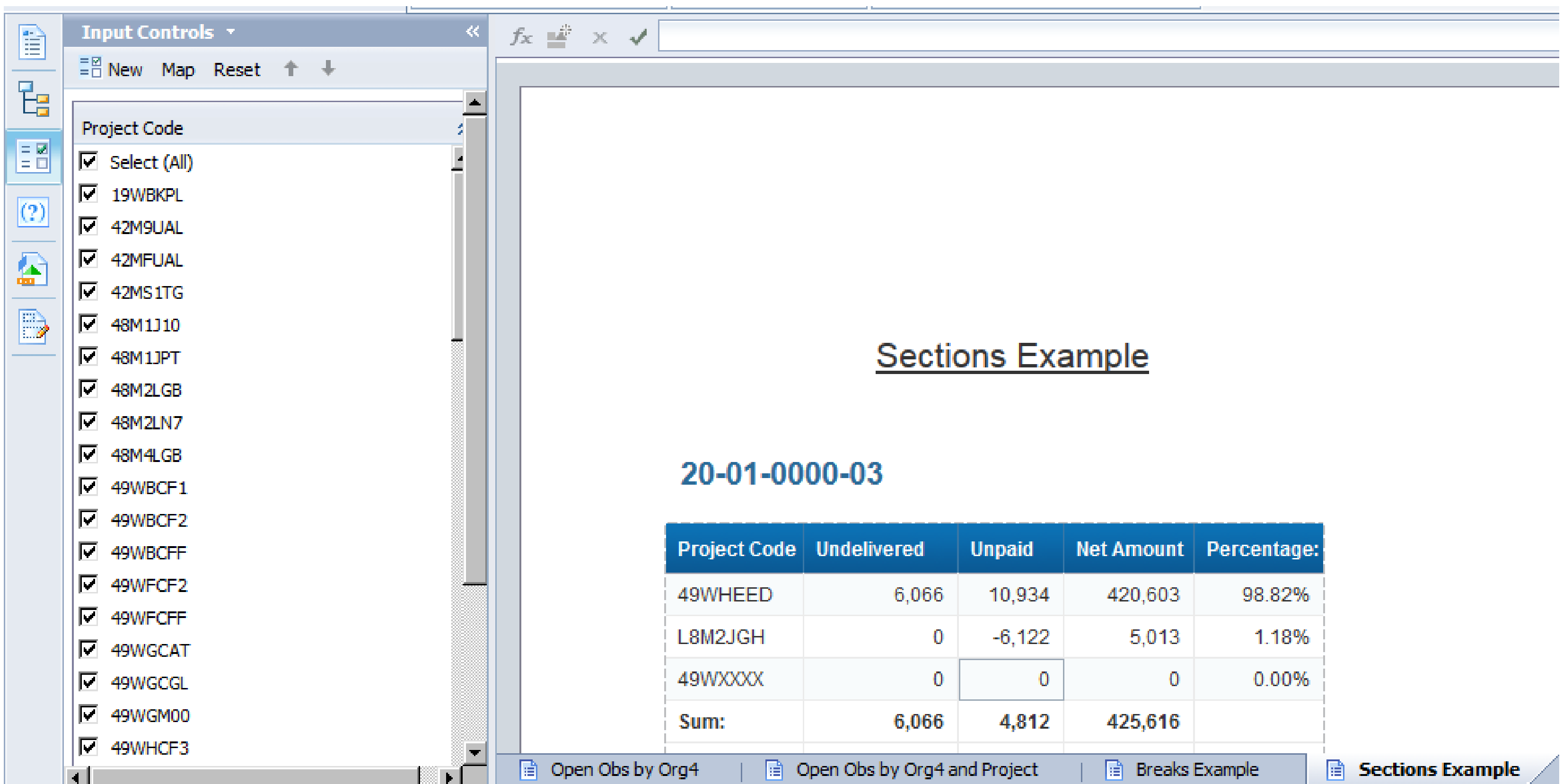
- For more complex filter conditions, from the Analysis Toolbar, click *Filters* and then *Filter* button.
- Click and drag the object to base the filter on into the Filters pane and the Filter Editor will open.
- In this example, drag *Net Amount* to the Filters pane.
- Select *Greater than or Equal to* as the Operator and *10000* as the value.
- *Click Save.*



Complex Filter Pane

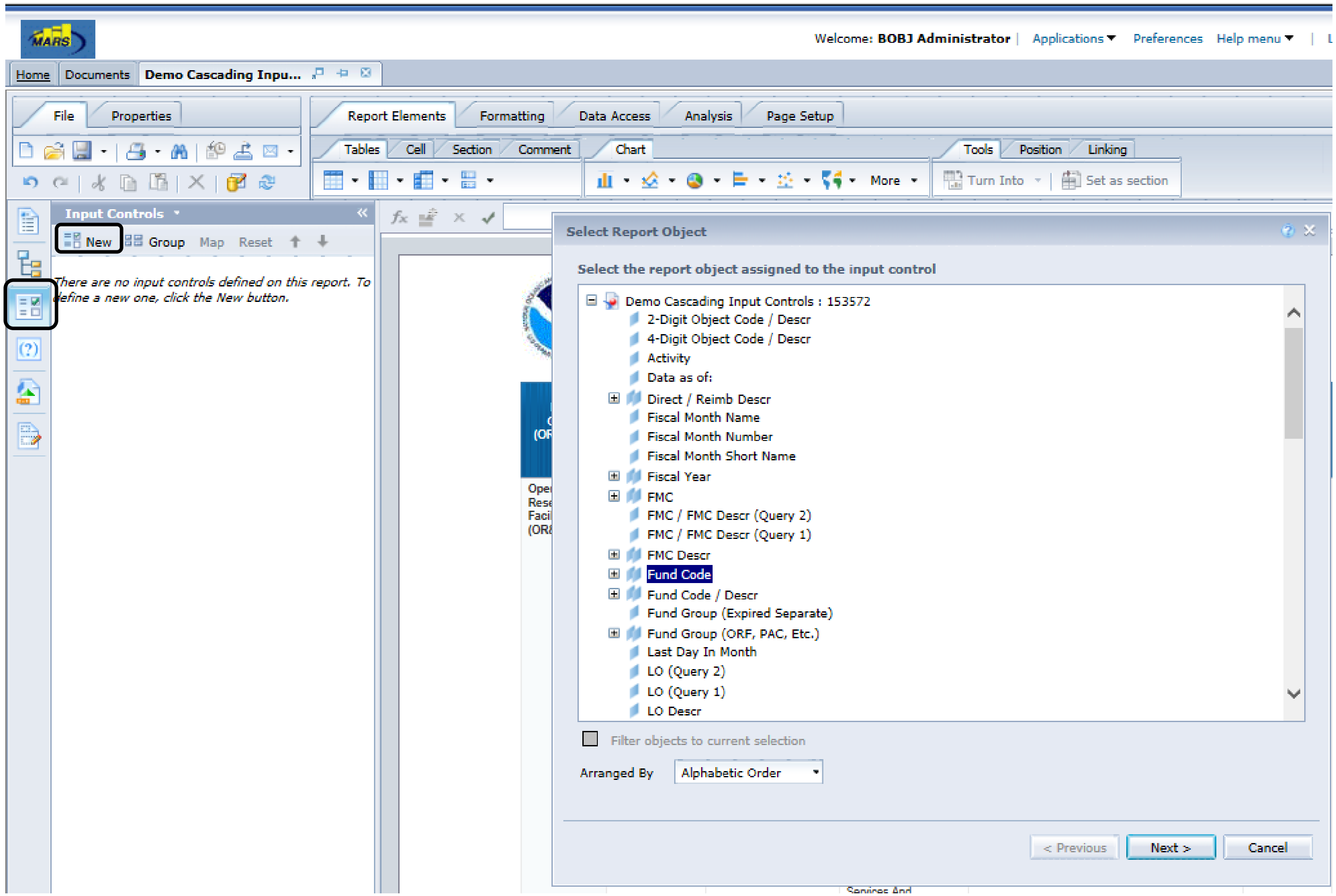
Analytical Features: Input Controls

- Input controls provide a convenient, easily-accessible method for filtering and analyzing report data. You define input controls using standard windows controls such as text boxes and radio buttons. You associate these controls with report elements such as tables or section headers, and use the controls to filter the data in the report elements. When you select values in the input control, Web Intelligence filters the values in the associated report elements.

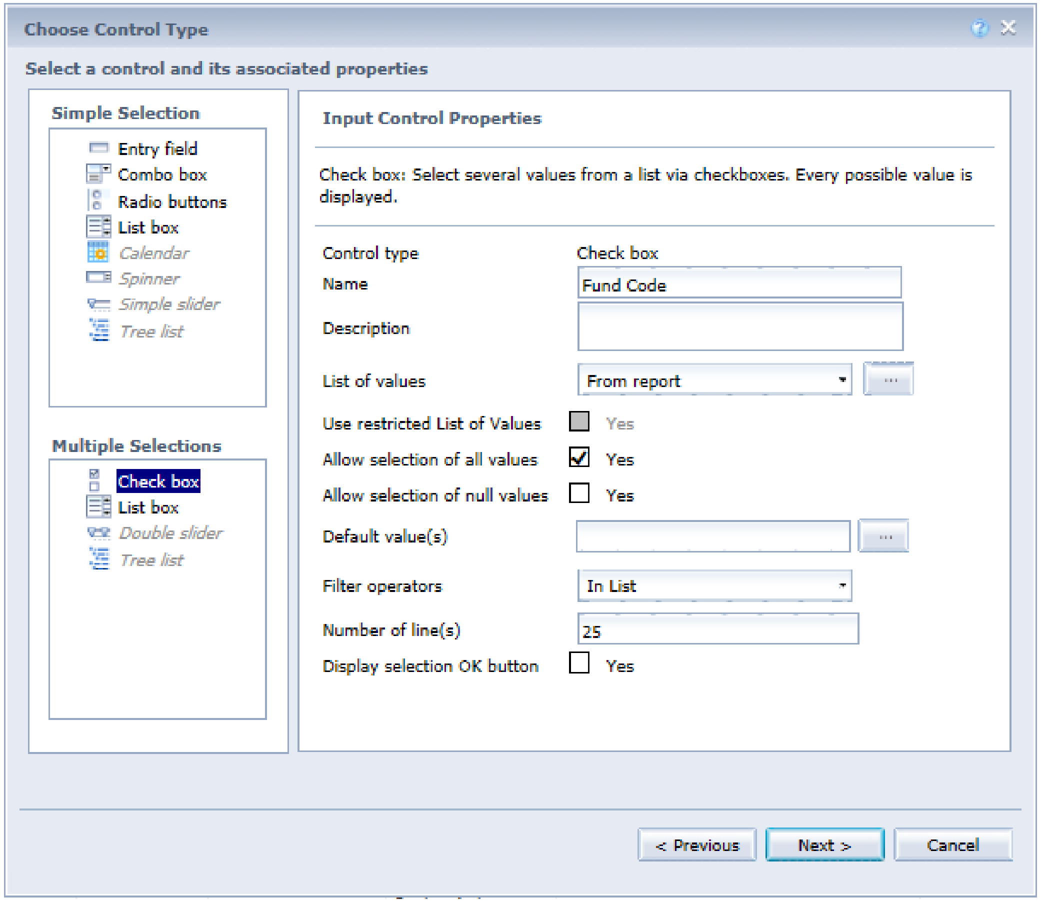


Analytical Features: Input Controls

- To create an input control, switch to the *Input Control tab*.
- Click *New*
- Select *Fund Code* to be assigned to the input control.

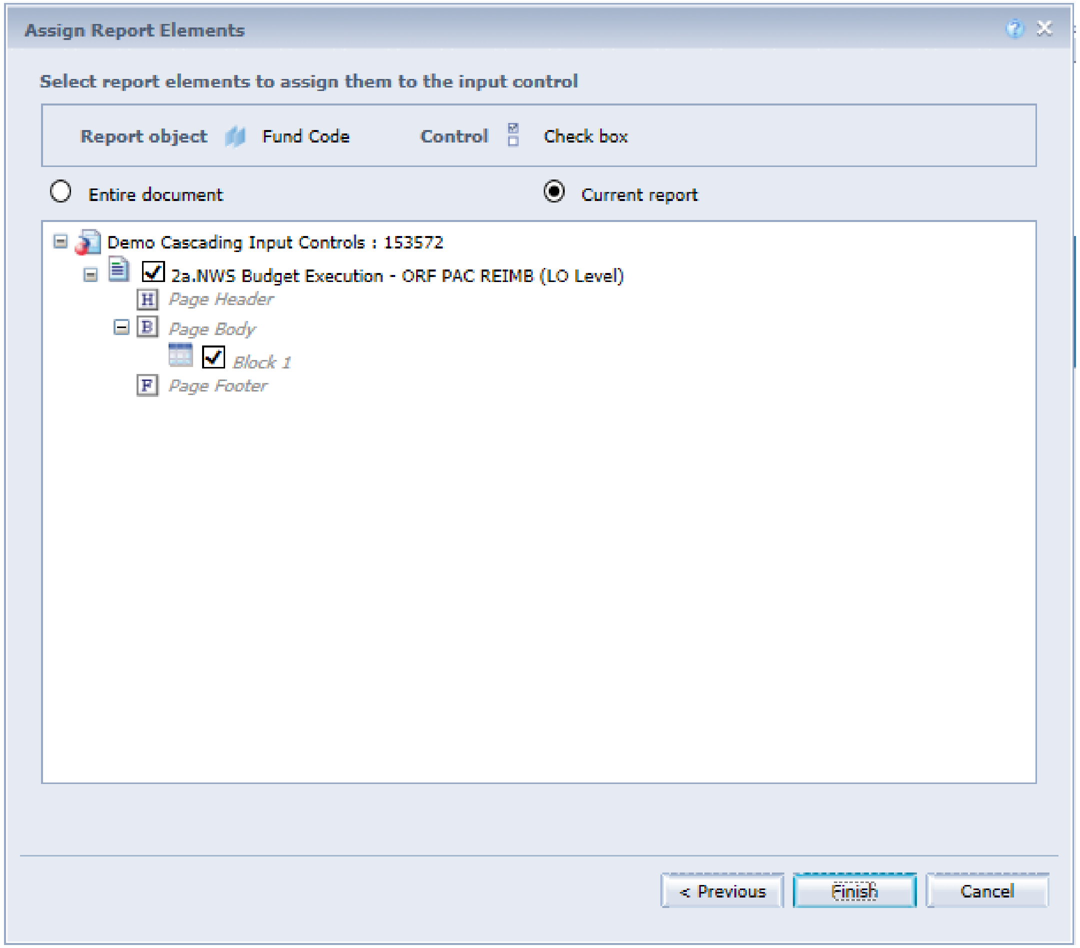


Analytical Features: Input Controls



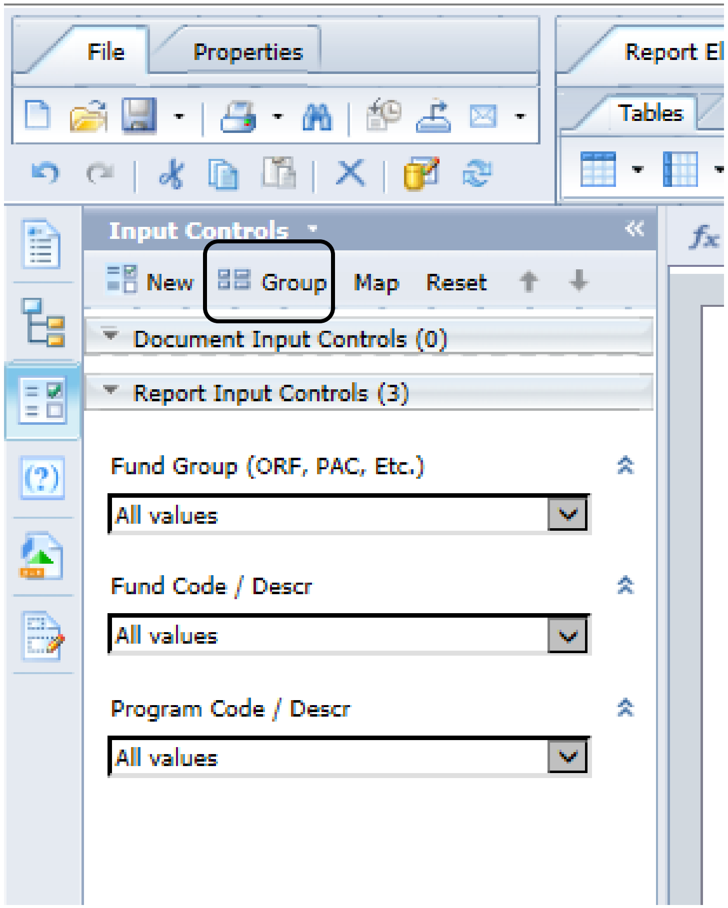
- First, decide if the control will allow a *Single Value* or *Multiple Value*.
- Second, pick a *Control Type*.
- The example on the previous page used a Multiple Value Check Box.

Analytical Features: Input Controls



- Finally, determine which *Report Elements* the Input Control will apply to.
- Click *Finish*
- *Click Save*

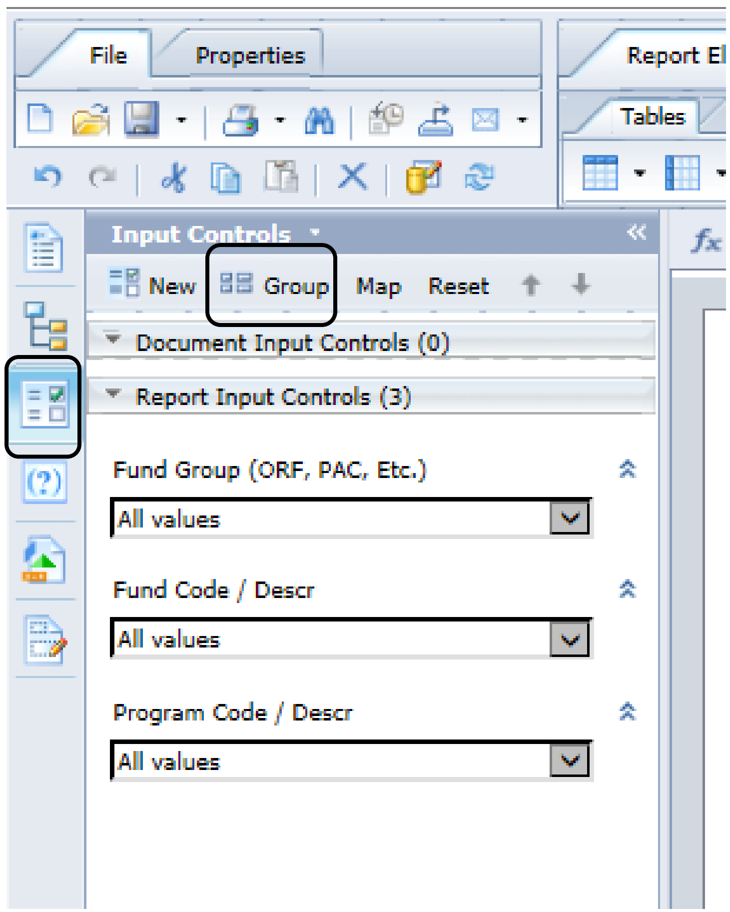
Analytical Features: Groups of Input Controls



- Two or more input controls can be logically linked and placed in **groups**, allowing you to dynamically restrict an input control's list of values based on previous input controls' selections.

- Example: Instead of selecting a Program from a large list of values, it is easier to:
  - Select a value for the Fund Group input control to narrow down the possible fund codes.
  - Select a value from the restricted list of fund codes for the Fund Code input control to further limit the number of potential programs.
  - Select a value from the restricted list of programs for the Programs input control.

Analytical Features: Groups of Input Controls

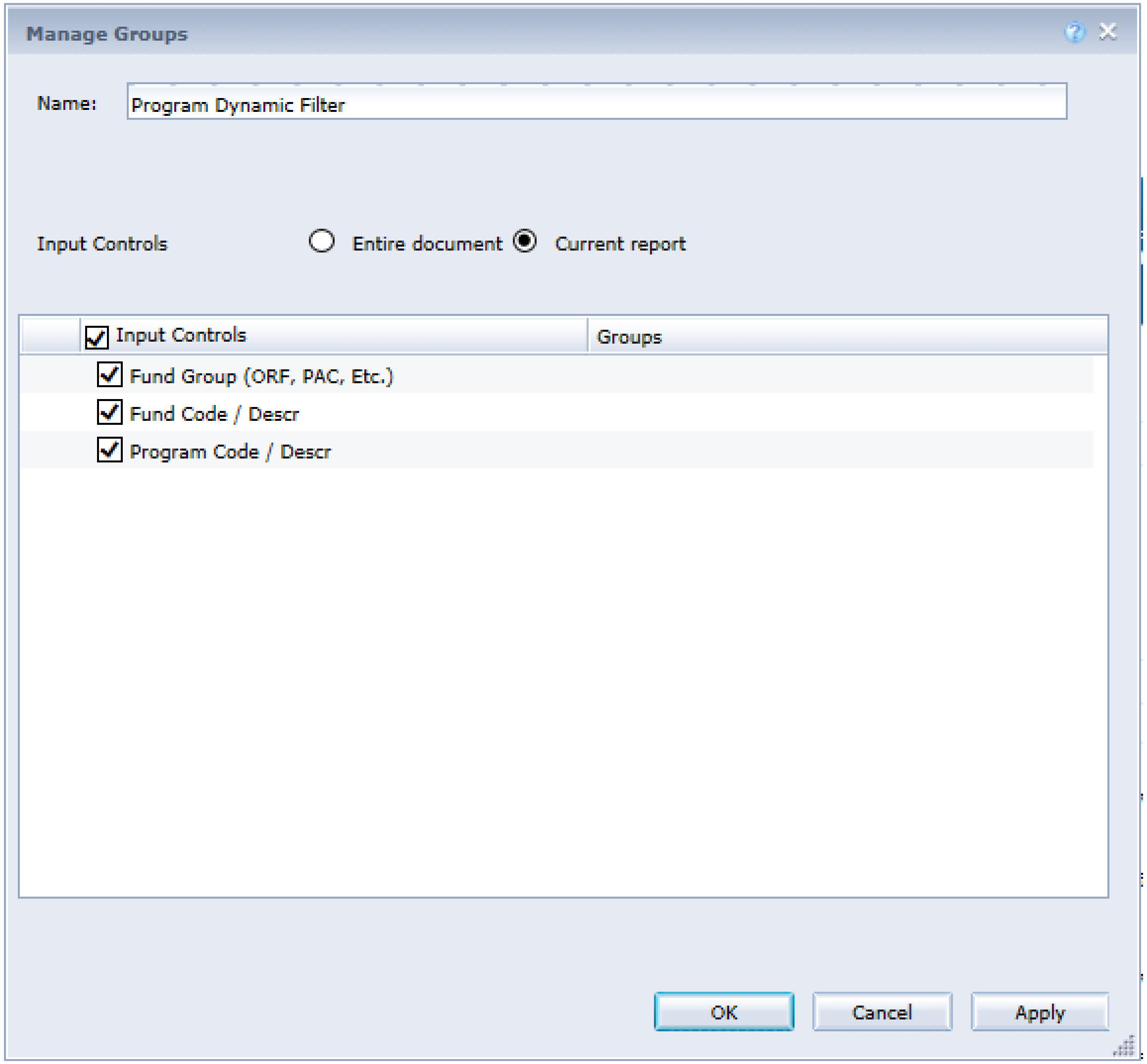


- Two or more input controls can be logically linked and placed in **groups**, allowing you to dynamically restrict an input control's list of values based on previous input controls' selections.

- **Example:** Instead of selecting a Program from a large list of values, it is easier to:
  - Select a value for the **Fund Group** input control to narrow down the possible fund codes.
  - Select a value from the restricted list of fund codes for the **Fund Code** input control to further limit the number of potential programs.
  - Select a value from the restricted list of programs for the **Programs** input control.

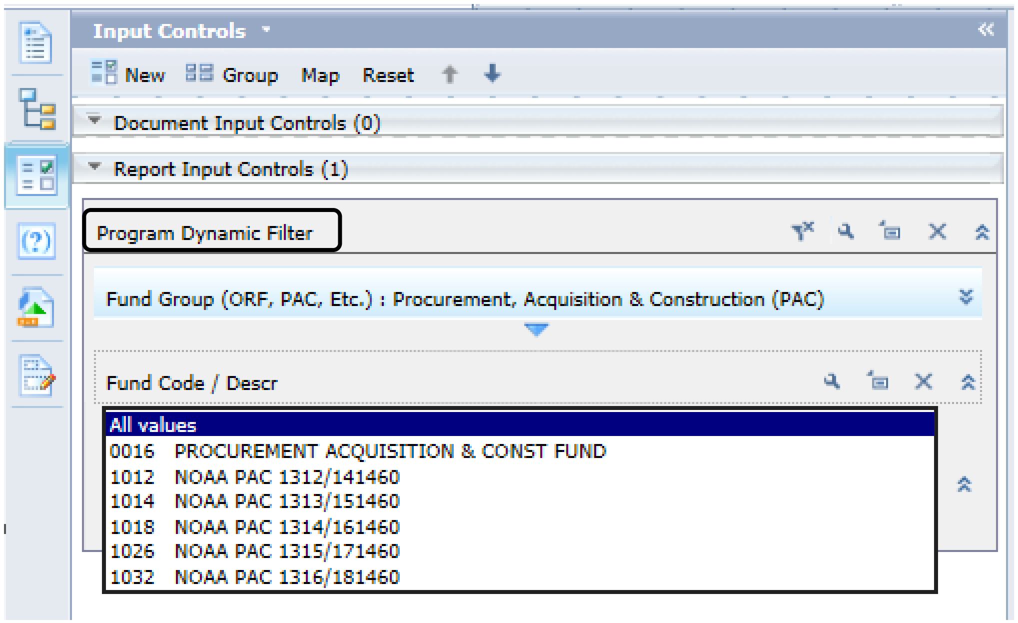
- To create a group of input controls:
- Switch to the *Design* mode.
- In the *Side Panel*, click the *Input Controls* pane.
- Click *Group*.

Analytical Features: Groups of Input Controls

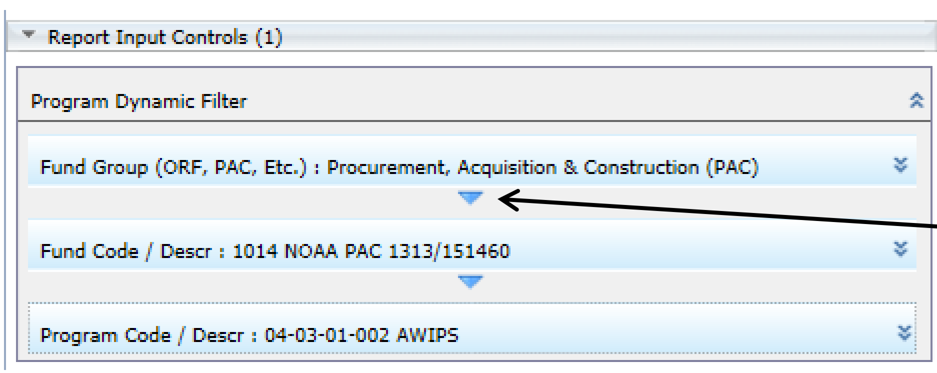


- *Enter a name* for the new group.
- *Click Document or Report* to select from a list of either document input controls or report input controls.
  - A group cannot contain both report and document input controls. Make sure that the input controls you add to a group are of the same type.
- *Select* at least two input controls.
- *Click OK.*

Analytical Features: Groups of Input Controls



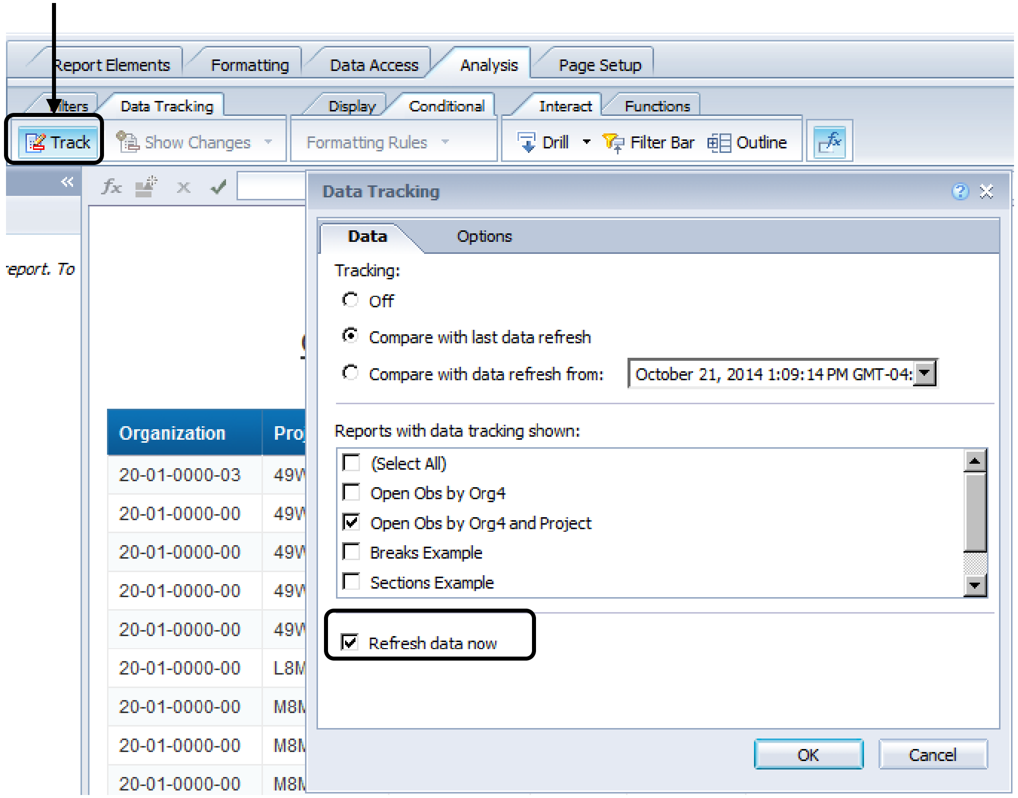
- *Select one value* for the Fund Group input control
- The report dynamically changes to display a restricted list of values for the Fund Code input control, filtered accordingly to the value of the Fund Group input control.
- The answered input controls are collapsed and displayed with their selected values.



- The successive selections made form a **Filter Path** indicated by blue arrow.

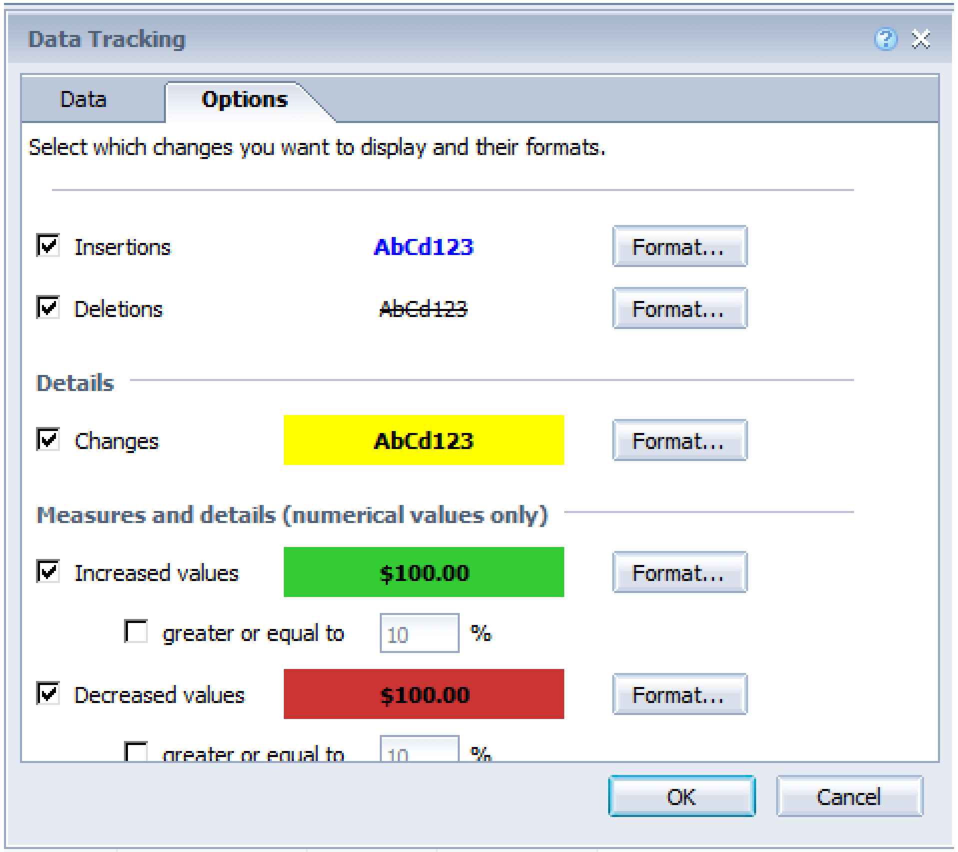
Analytical Features: Data Tracking

- When you track data changes, you select a particular data refresh as a reference point. When you display the data changes on subsequent report refreshes, Web Intelligence places your current data in context by showing how it relates to the reference data.
- To turn on Data Tracking, click the *Track* button.
- Determine if you want the reference data to be updated with each refresh, or to use a particular refresh date a fixed reference point.
- Check *Refresh Now* to see changes.



Analytical Features: Data Tracking

- You can control the Data Tracking Options:
  - Insertions
  - Deletions
  - Changes
  - Increased Values
  - Decreased Values



Geomaps

- Visualize Geographical Data on a Map
- Geo-Qualifying an Object
- Geomaps Charts

Geomaps: Visualize Geographical Data on a Map

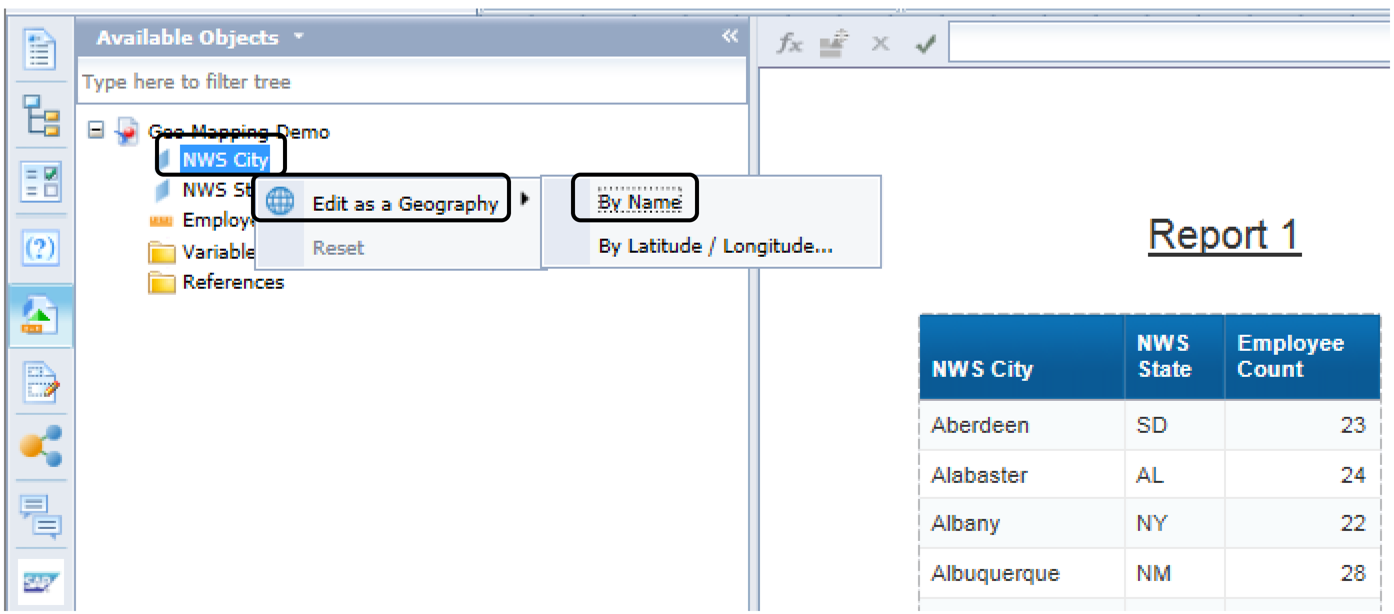
NWS City	NWS State	Employee Count
Aberdeen	SD	23
Alabaster	AL	24
Albany	NY	22
Albuquerque	NM	28
Amarillo	TX	22
Anchorage	AK	115
Annette Island	AK	3
Ashwaubenon	WI	22
Auburn	WA	4
Aurora	IL	4
Barrigada	GU	23
Barrow	AK	3
Bay St. Louis	MS	30

- You can leverage geographical data (Office, Regions…) to display data on a map and compare your data geographically.

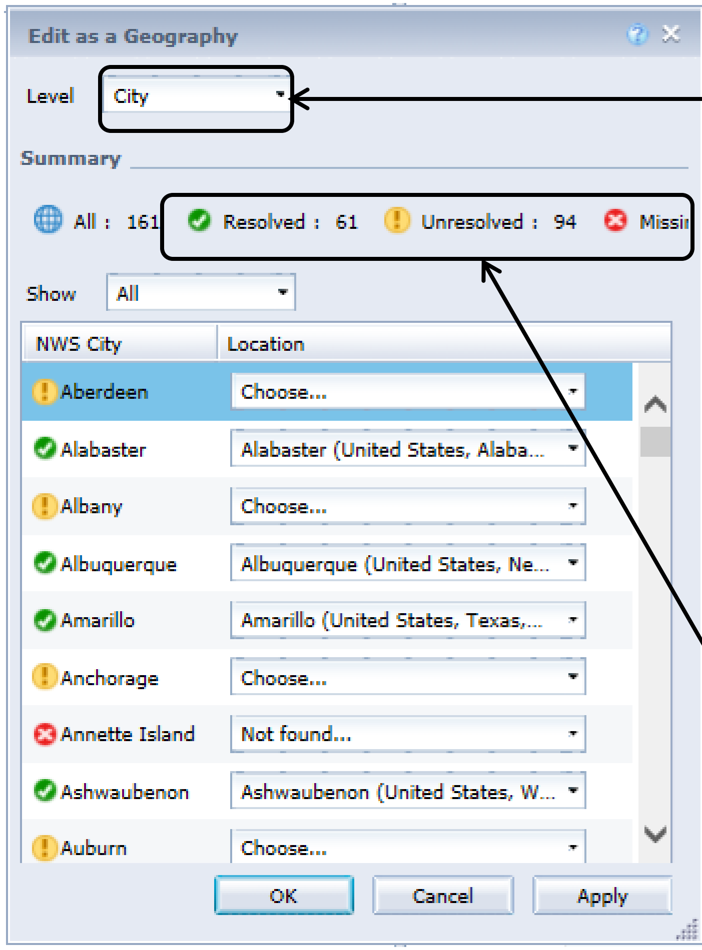
- **Example**: Display on a map the number of NWS Employees by Office Location (see screenshot).

Geomaps: Geo-qualifying an object

- Before you start using Geomaps, you first need to map geographical data contained in the report with the ones available in the geographical database embedded in Web Intelligence: that is the process of geo-qualification.
- In *Design Mode*, in the ***Available Objects*** side panel, *select a dimension* that returns geographical data (In this case "NWS City").
- *Right click* on "NWS City" and in the contextual menu, *select the Edit as a Geography* command (The geo-qualification can be done using either a location's name, or its latitude and longitude coordinates).
- We are going to use the geo-qualification by location's name: *Select "By Name*".

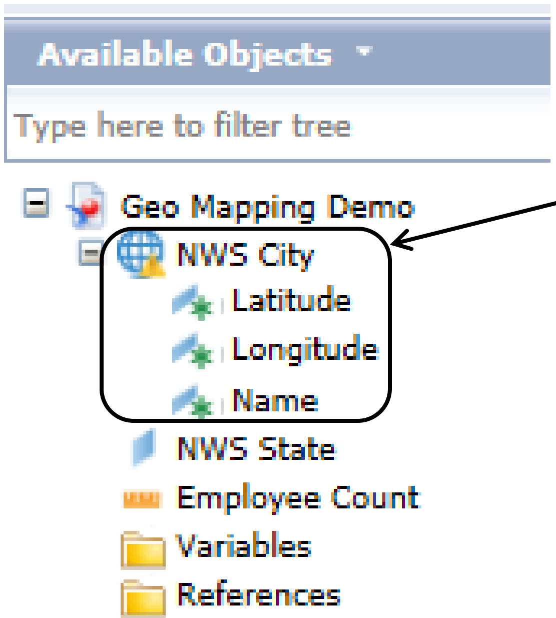


Geomaps: Geo-qualifying an object



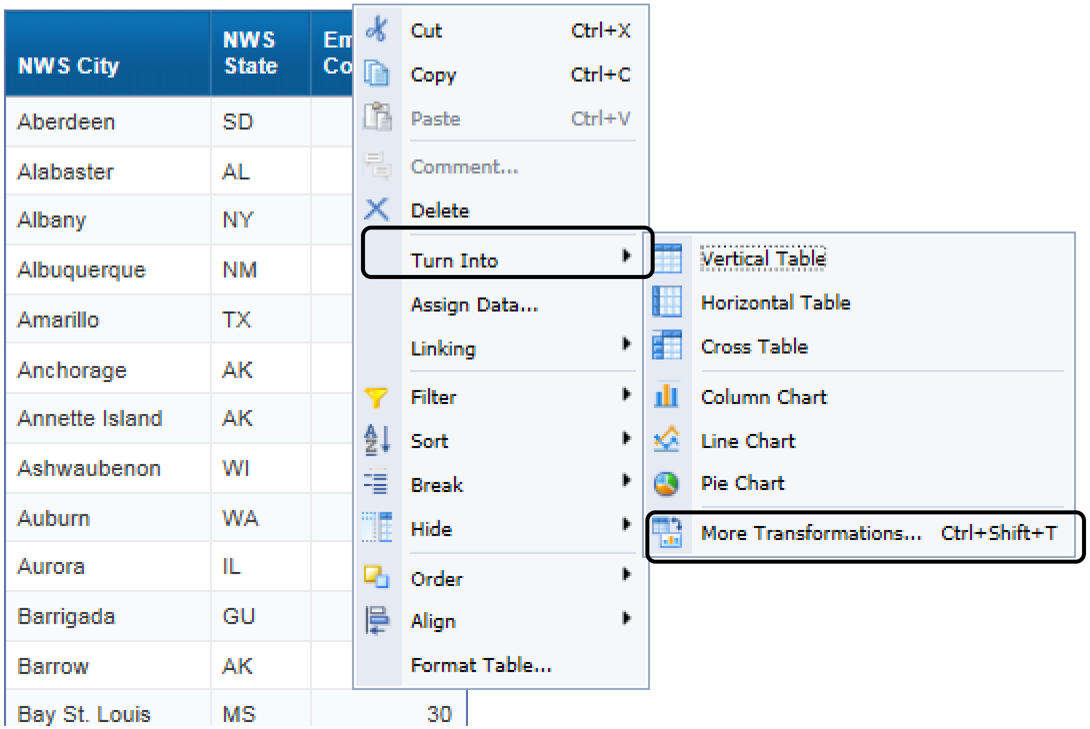
- In the ***Edit as a Geography*** dialog box, use the **Level** drop-down list to define the geographical level you want to assign to the dimension. It can be Country, Region, Sub-Region or City and assumes all data returned by the dimension is on the same level. In this example, we *select* "City".
- The table displays all values returned by the dimension and a match proposed by Web Intelligence regarding the selected level. You can manually modify these proposals by using the drop-down lists.
- The search engine creates 3 categories of values and automatically match them with locations:
  - **Resolved** : only one location matches at 100%, and is automatically bound to the value.
  - **Unresolved** : There is no obvious match, and you have to select the most appropriate one.
  - **Missing** : No location found. Search for the location you want to bind in the geographical database.

Geomaps: Geo-qualifying an object



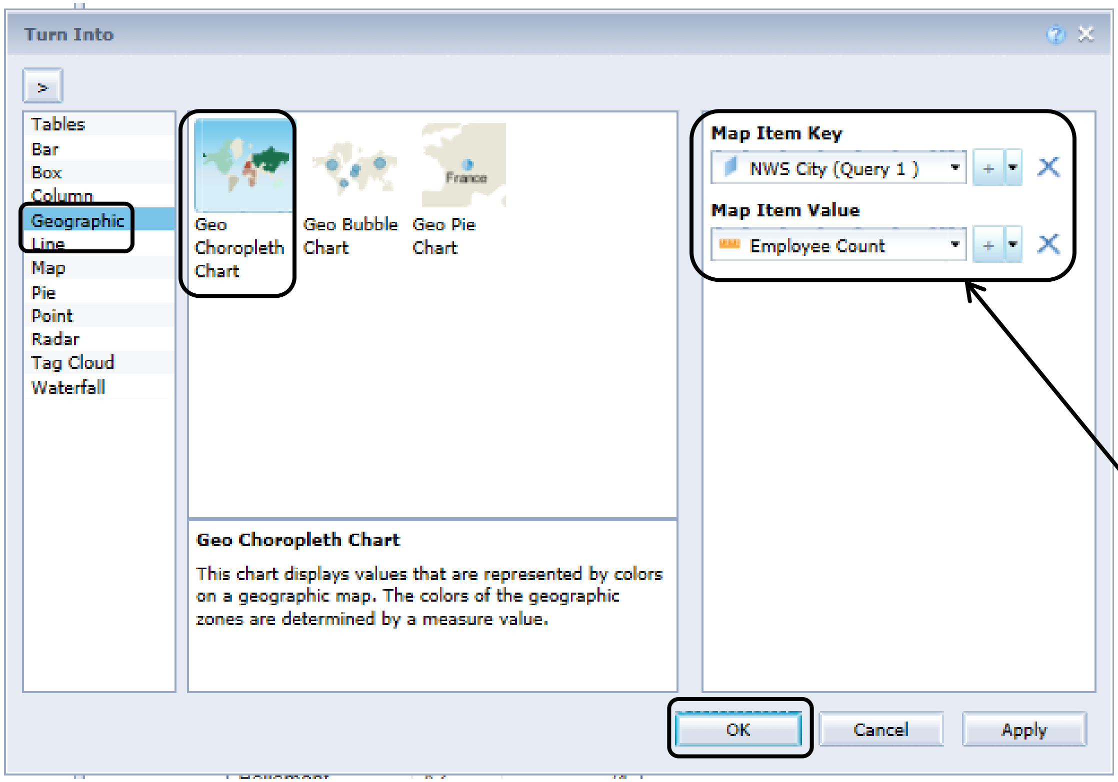
- When you have finalized your mapping, *close the Edit as a Geography* dialog box.
- In the **Available Objects** side panel, the dimension appears as a geographical dimension.

Geomaps: Geomaps Charts



- To create a geomaps, *right-click* the report element containing the returned data set and select the options *Turn Into*, then *More Transformations* in the contextual menu

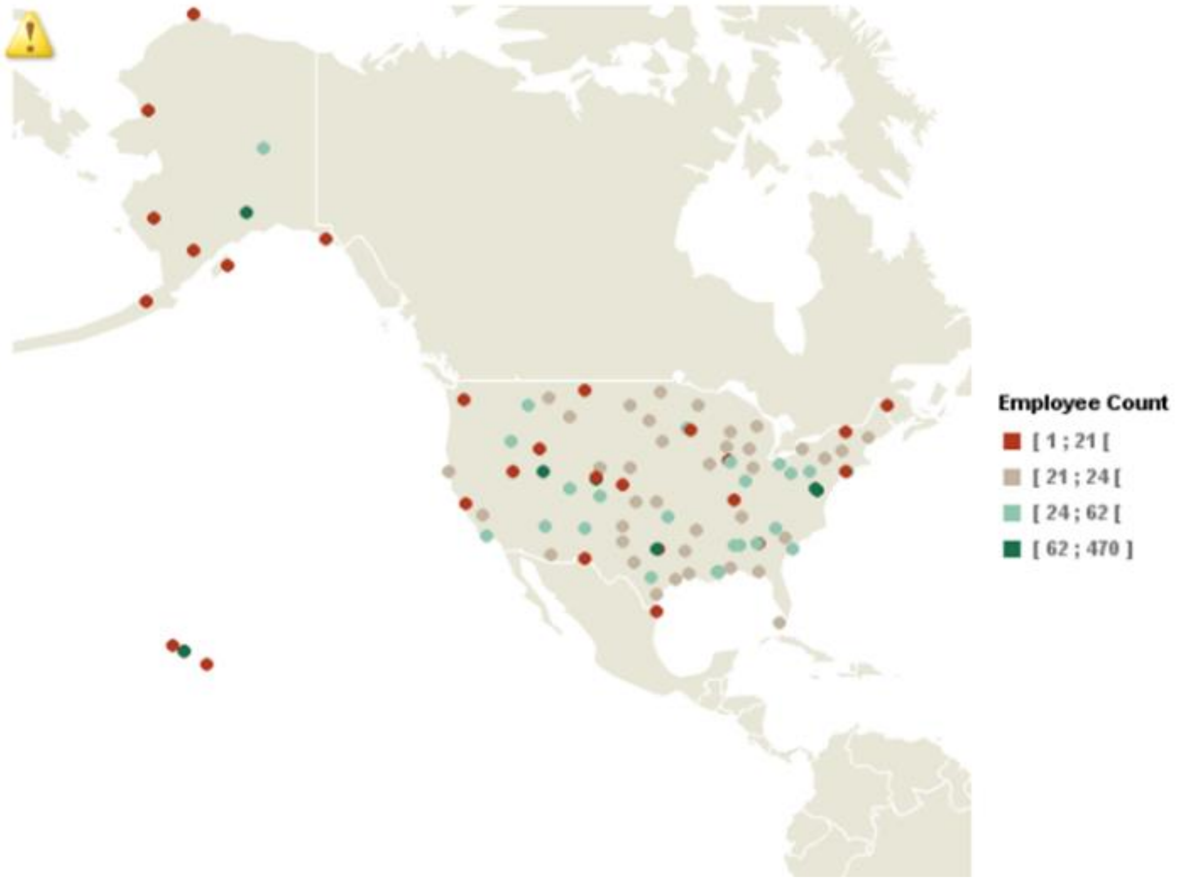
Geomaps: Geomaps Charts



- In the ***Turn Into*** dialog box, you can select the Geographic section that proposes three geographic chart types:
  - Choropleth chart
  - Bubble chart
  - Pie chart
- *Select the chart* (In this example: Choropleth) to use as well as the objects to feed it with data.
- In the ***Map Item Key***, *enter the geographic dimension*
- *Click OK* to validate your chart selection

Geomaps: Geomaps Charts

NWS City	NWS State	Employee Count
Aberdeen	SD	23
Alabaster	AL	24
Albany	NY	22
Albuquerque	NM	28
Amarillo	TX	22
Anchorage	AK	115
Annette Island	AK	3
Ashwaubenon	WI	22
Auburn	WA	4
Aurora	IL	4
Barrigada	GU	23
Barrow	AK	3
Bay St. Louis	MS	30
Bellemont	AZ	24
Bethel	AK	4
Billings	MT	22



- In the report, the chart is displayed as the selected geo map. You can then edit the chart properties to fine tune its parameters (like the color of the seas) and finalize how your data is displayed in it.

Training Material available (See on the MARS Portal!)

- **Webinar**–Recorded step-by-step demonstration video, tailored to MARS users.

- The **"Business User" Guide** – This guide conveys basic concepts and step-by step directions for:
  - system log-on
  - system navigation
  - viewing and refreshing reports
  - saving reports
  - sending reports to other users

- The **"Power User" Guide** – This guide conveys more advanced concepts and step-by step directions for: .
  - Creating Webi Documents
  - Filtering Document Queries
  - Report Formatting
  - Advanced Report formatting
  - Analytic Features
  - Cross-tab Reports

- **Web-Based Reporting Module Training via Knowledge Accelerator** – Knowledge Accelerator is a web-based training tool that simulates use of the reporting and querying module. Knowledge Accelerator provides the user with an understanding of how the screens flow and provides the opportunity to practice processes/operations in the tool (e.g., opening a report, refreshing a report, etc.).

MARS Support Information

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  - Phone
    - (301) 427-8888
  - Fax
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