MARS Reporting & Querying User Guide

https://mars.rdc.noaa.gov

MARS Reporting & Querying User Guide

Part I: Navigation/ Working with Corporate Documents

For the MARS R&Q Business and Power User

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Part II: Working with Adhoc Documents

For the MARS R&Q Power User

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Part I: Navigation/ Working with Corporate Documents
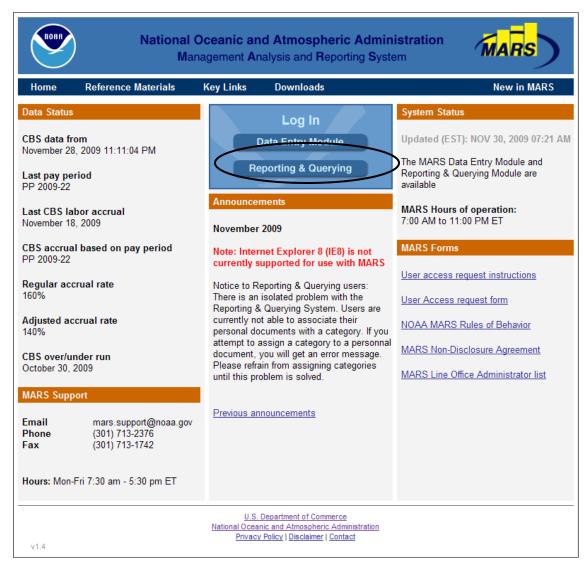## For the MARS R&Q Business and Power User

○ Table of Contents

Part I - Terminology

Terminology

- **Business Objects XI 3.1™** – This is the release of Business Objects being used by NOAA for MARS Reporting & Querying Module as of January 2010.

- **InfoView** – This is the web desktop component of Business Objects XI 3.1 that provides access to Web Intelligence and Desktop Intelligence documents. It also allows access to other documents such as MS Excel, MS PowerPoint and PDF. InfoView also allows the creation of HTML links for easy navigation to other web applications. InfoView allows you to organize these documents to suit your personal preferences.

- **Web Intelligence (WebI)** – This is the Business Objects XI 3.1 web application for building both corporate and personal documents.

- **Desktop Intelligence (DeskI)** – This is the Business Objects XI 3.1 PC client based application for building documents. DeskI will only be used by the MARS team for building more complex documents. DeskI documents can be viewed in InfoView even if you don't have the DeskI client. Users will use WebI to build their own documents.

- **Data Warehouse** – A data warehouse is a central database for consolidating data from different systems throughout the organization. The data warehouse is specifically architected for easy querying and reporting. The MARS Data Warehouse (MARS DW) resides on an Oracle platform at the NOAA ITC in Largo, MD.

- **Document** – A document contains one or more reports & queries. If there is more than one query, the queries must be related and linked together by common elements. The results of the query or queries is then presented in one or more report tabs. A document that is published by the MARS team for public use is called a <u>Corporate</u> or <u>Public</u> document. Documents that are created by an Adhoc user are called <u>Personal Documents</u>.

- **Object** – In Business Objects, the objects are the building blocks for the report. Objects are organized in folders within a Universe (see below). An object can be a data column such as 'Project Code', or it can be a query filter such as 'Include Labor Only".

- **Report Tab** – A document can have more than one report tabs. Report Tabs are used to show the results of the query in different ways, such as a summary and detail tab.

- **Report Section** – Within a report tab, the report can be set up to navigate by section. For example, sections can be generated by FMC and program.

- **Refresh** – Refresh refers to the action of running the query or queries for the document in order to get the latest data from the database to be presented in the report tabs.

- **Drill** – If drilling is enabled in a document, the user has the ability to click on the higher levels to drill down to lower levels within a hierarchy, such as the Fund, Program and Project hierarchy.

- **Toggle** – Toggle refers to the action of turning on and off panels within InfoView. Actively toggling unnecessary panels off will give the user the maximum workspace for view documents.

- **Universe** – The universe is a collection of objects relating to a particular table or set of tables in the data warehouse.

Part I - Logging In
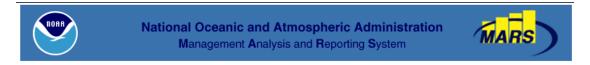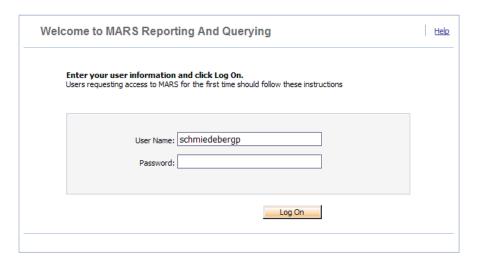
Logging In – MARS Home Page

- Go to this web address for the MARS Home Page:

  https://mars.rdc.noaa.gov

- This page features:
  - Log In for
    - *MARS Data Entry Module*
    - *MARS Reporting & Querying*
  - Data Status
  - Support Information
  - Announcements
  - System Status
  - Forms
  - Reference Materials
  - Key Links
  - Downloads
  - New in MARS

- To log in to MARS Reporting & Querying, click the *Reporting & Querying* button

Logging In – User Name & Password Screen

National Oceanic and Atmospheric Administration
Management Analysis and Reporting System

Welcome to MARS Reporting And Querying   Help

Enter your user information and click Log On.
Users requesting access to MARS for the first time should follow these instructions

User Name: schmiedebergp

Password:

Log On

User passwords should adhere to the Department of Commerce Password Policy

*** You are accessing a United States Government computer system. The use of this system will be monitored for security, system administration, and law enforcement purposes. Accessing this system constitutes consent to monitoring. Any unauthorized access of this system or unauthorized use of the information on this system by unauthorized users or others is prohibited and is subject to criminal and civil penalties under federal and other laws.***
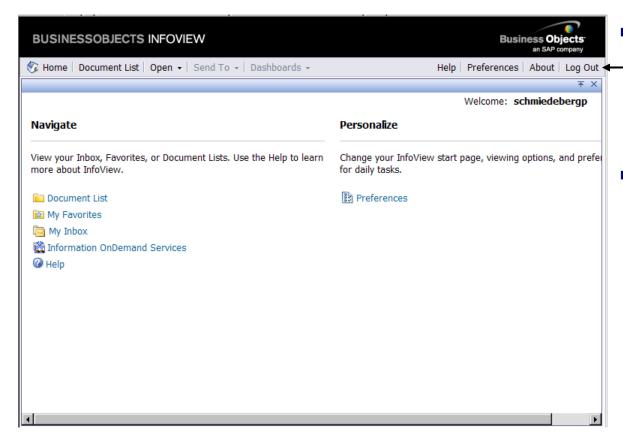
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Privacy Policy | Disclaimer | Contact

- Enter your *User name* & *Password* then click *Log On*.

- User names & passwords are case sensitive.

- If a password is entered incorrectly 3 times, the user account will be disabled.

- Valid passwords in Business Objects are required to:
  - Be at least 8 characters
  - Contain 2 of the following
    - Upper case letters
    - Lower case letters
    - Numbers
    - Punctuation (! @ # $ %, & etc.)
  - Be different from your last 10 passwords
  - NOT contain any of your account name as part of your password

- If your account becomes disabled, contact MARS Support. Contact information can be found on page 56 and on the MARS Home Page.
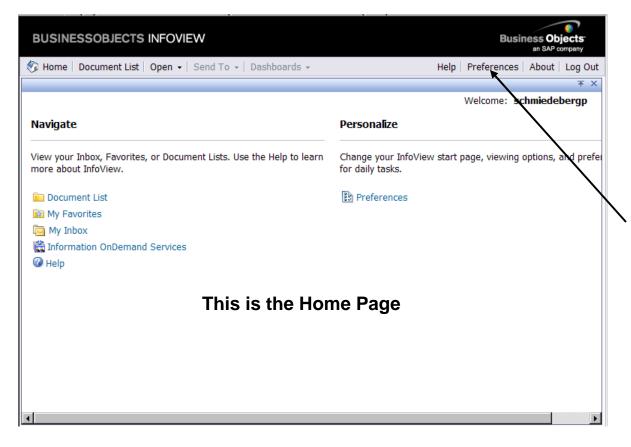
Logging Out

- When you are finished using Business objects, <u>always</u> log out by selecting the *Log Out* option from the menu bar.

- You will be brought back to the login screen after you have successfully logged out.
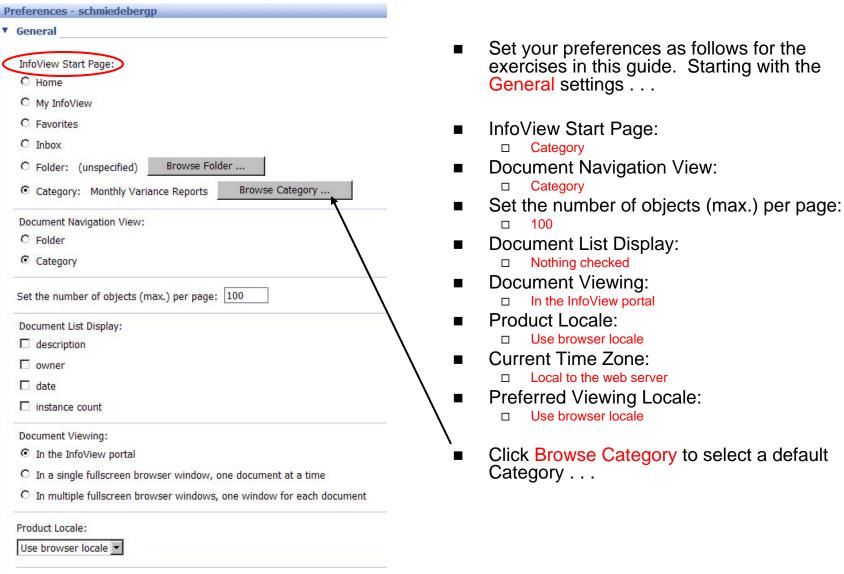
Part I - Setting Preferences

Setting Preferences

This is the Home Page
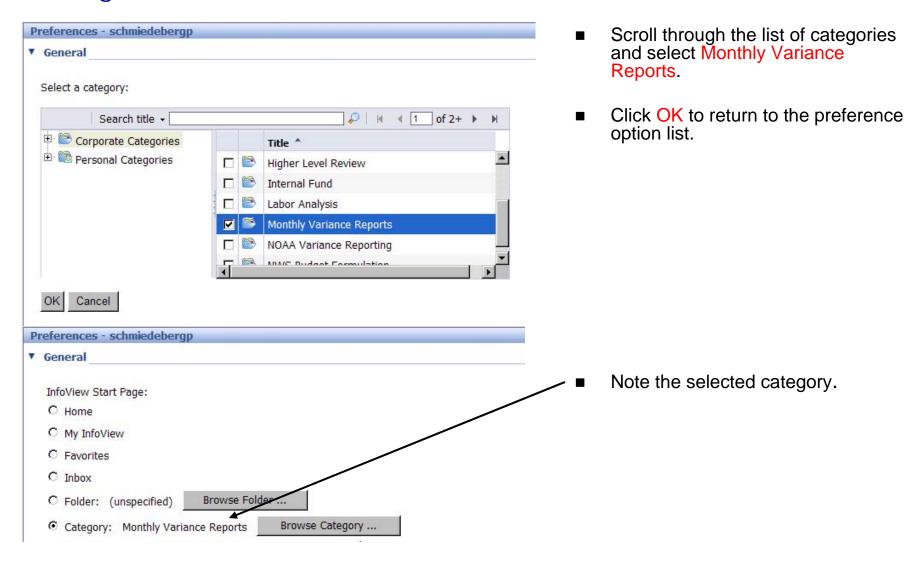
- The first time you login, the *Home Page* will be displayed.

- Preference settings allow users to your preferred *InfoView Start Page* as well as other settings to control the default functionality.

- To set preferences, select the *Preferences* option from the menu bar.

- IMPORTANT NOTE: The following pages show how preferences should be set to match the exercises in this guide.

- After completing the *MARS Reporting & Querying User Guide*, feel free to set them based on your own individual preferences.

Setting Preferences: General Section

Preferences - schmiedebergp

▼ **General**

InfoView Start Page:
- ○ Home
- ○ My InfoView
- ○ Favorites
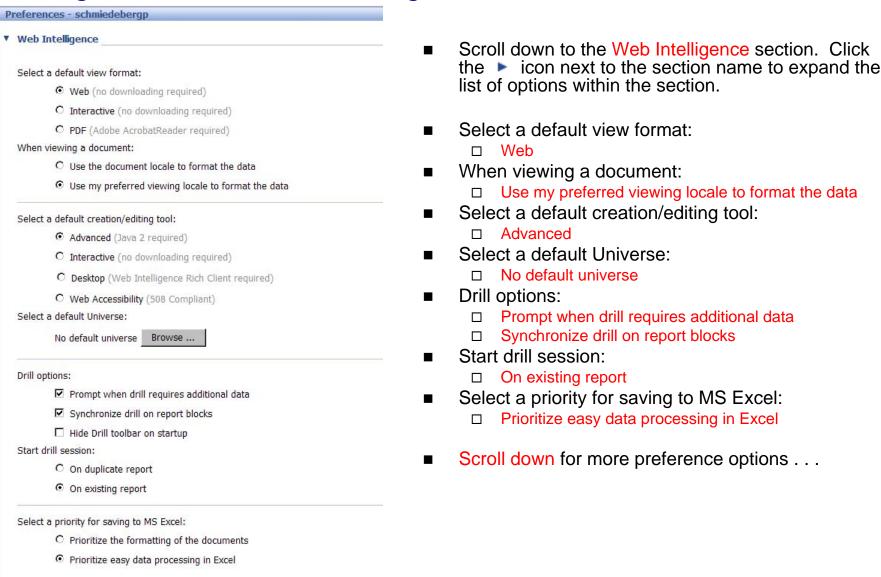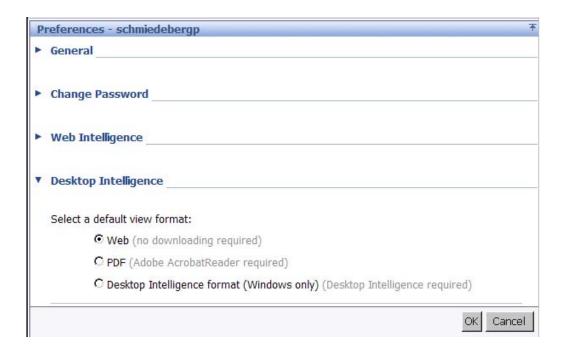- ○ Inbox
- ○ Folder: (unspecified)   [Browse Folder ...]
- ⊙ Category: Monthly Variance Reports   [Browse Category ...]

Document Navigation View:
- ○ Folder
- ⊙ Category

Set the number of objects (max.) per page: [100]

Document List Display:
- ☐ description
- ☐ owner
- ☐ date
- ☐ instance count

Document Viewing:
- ⊙ In the InfoView portal
- ○ In a single fullscreen browser window, one document at a time
- ○ In multiple fullscreen browser windows, one window for each document

Product Locale:
[Use browser locale ▼]

- Set your preferences as follows for the exercises in this guide. Starting with the General settings . . .

- InfoView Start Page:
  - □ Category
- Document Navigation View:
  - □ Category
- Set the number of objects (max.) per page:
  - □ 100
- Document List Display:
  - □ Nothing checked
- Document Viewing:
  - □ In the InfoView portal
- Product Locale:
  - □ Use browser locale
- Current Time Zone:
  - □ Local to the web server
- Preferred Viewing Locale:
  - □ Use browser locale

- Click Browse Category to select a default Category . . .

Setting Preferences: General Section

- Scroll through the list of categories and select Monthly Variance Reports.

- Click OK to return to the preference option list.

- Note the selected category.

Setting Preferences: Web Intelligence Section

Preferences - schmiedebergp

▼ **Web Intelligence**

Select a default view format:
- ⦿ Web (no downloading required)
- ○ Interactive (no downloading required)
- ○ PDF (Adobe AcrobatReader required)

When viewing a document:
- ○ Use the document locale to format the data
- ⦿ Use my preferred viewing locale to format the data

Select a default creation/editing tool:
- ⦿ Advanced (Java 2 required)
- ○ Interactive (no downloading required)
- ○ Desktop (Web Intelligence Rich Client required)
- ○ Web Accessibility (508 Compliant)

Select a default Universe:

No default universe [Browse ...]

Drill options:
- ☑ Prompt when drill requires additional data
- ☑ Synchronize drill on report blocks
- ☐ Hide Drill toolbar on startup

Start drill session:
- ○ On duplicate report
- ⦿ On existing report

Select a priority for saving to MS Excel:
- ○ Prioritize the formatting of the documents
- ⦿ Prioritize easy data processing in Excel

- ■ Scroll down to the Web Intelligence section. Click the ► icon next to the section name to expand the list of options within the section.

- ■ Select a default view format:
  - ☐ Web
- ■ When viewing a document:
  - ☐ Use my preferred viewing locale to format the data
- ■ Select a default creation/editing tool:
  - ☐ Advanced
- ■ Select a default Universe:
  - ☐ No default universe
- ■ Drill options:
  - ☐ Prompt when drill requires additional data
  - ☐ Synchronize drill on report blocks
- ■ Start drill session:
  - ☐ On existing report
- ■ Select a priority for saving to MS Excel:
  - ☐ Prioritize easy data processing in Excel

- ■ Scroll down for more preference options . . .

Setting Preferences: Desktop Intelligence Section

- Scroll down to the Desktop Intelligence section. Click the ▶ icon next to the section name to expand the list of options within the section.

- Select a default view format:
  - Web

- Click OK at the bottom right side of the screen to save your preferences.

Setting Preferences: Change Password Section

- Scroll to the Password section. Click the ► icon next to the section name to expand the list of options within the section.

- As a new user, you will be asked to change your password the first time you log in.

- Subsequently, you will be asked to change your password every 60 days.

- You may change your password at any time using this screen. (There is no need to change it at this time.)
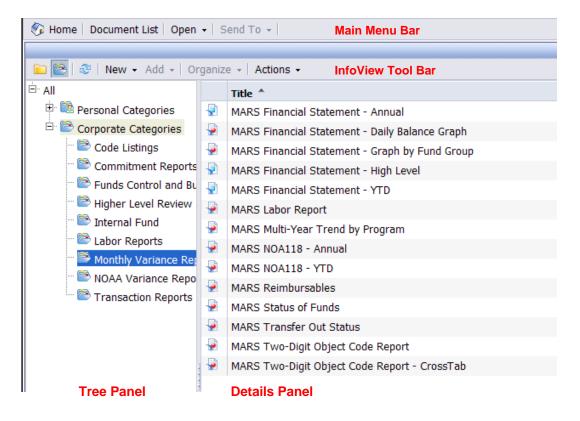
Setting Preferences: Ignore Other Settings Sections

Preferences - schmiedebergp

▶ General _____

▶ Change Password _____

▶ Web Intelligence _____

▶ Desktop Intelligence _____

▶ Crystal Reports _____

▶ Dashboard and Analytics _____

▶ Voyager Client _____

- Please ignore the *Crystal Reports, Dashboard and Analytics and Voyager Client* settings.

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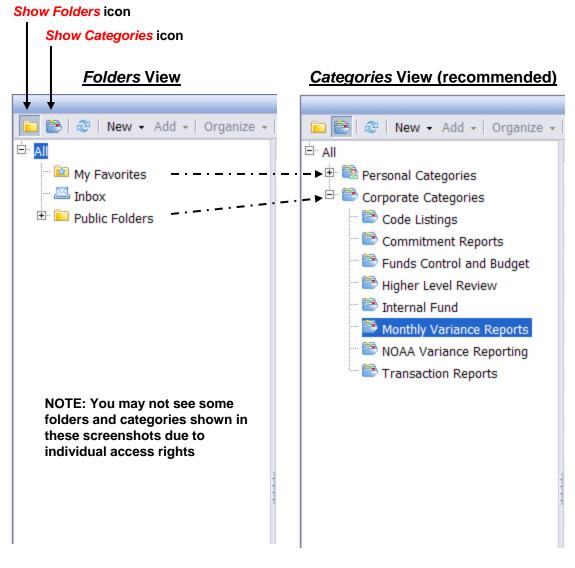
Part I - InfoView Navigation

InfoView Navigation: Panels

Home	Document List	Open ▾	Send To ▾	**Main Menu Bar**

📁 📂 ⟳ | New ▾ Add ▾ | Organize ▾ | Actions ▾   **InfoView Tool Bar**

▣ All
- ⊞ 📇 Personal Categories
- ⊟ 📂 Corporate Categories
  - 📁 Code Listings
  - 📁 Commitment Reports
  - 📁 Funds Control and Bu
  - 📁 Higher Level Review
  - 📁 Internal Fund
  - 📁 Labor Reports
  - 📁 Monthly Variance Rep
  - 📁 NOAA Variance Repo
  - 📁 Transaction Reports

Title ▲
MARS Financial Statement - Annual
MARS Financial Statement - Daily Balance Graph
MARS Financial Statement - Graph by Fund Group
MARS Financial Statement - High Level
MARS Financial Statement - YTD
MARS Labor Report
MARS Multi-Year Trend by Program
MARS NOA118 - Annual
MARS NOA118 - YTD
MARS Reimbursables
MARS Status of Funds
MARS Transfer Out Status
MARS Two-Digit Object Code Report
MARS Two-Digit Object Code Report - CrossTab

Tree Panel   **Details Panel**

- Click the *Home* to return to the *InfoView Start Page* specified in your preferences.

- Note that the screen is divided into two panels:
  - Tree Panel
  - Details Panel

- The *Tree Panel* is used to browse personal folders & categories, Inbox documents and corporate categories.

- The *Details Panel* is where the objects within the selected folder or category are displayed.

- The *InfoView Tool Bar* is only available when the Tree and Details panel are displayed.

- The *Main Menu Bar* on top is always displayed.

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InfoView Navigation: Tree Panel

Show Folders icon

Show Categories icon

Folders View

Categories View (recommended)

NOTE: You may not see some folders and categories shown in these screenshots due to individual access rights

- The *Tree Panel* shows you Folders or Categories. Documents can be displayed in *Folder* or *Category* view.

- The first two icons on top left of the *Tree Panel* allow toggling between the *Folder* view or *Category* view.

- Click on the *Expand/Collapse* button (**+/-**) to show/hide the Subfolders or Subcategories.

- Each document must be placed in a folder.

- Each document can be associated with zero, one or more categories.

- MARS has been configured to show **Corporate Documents** only in the Category View. Therefore if you expand the Public Folders in the Tree Panel, you will not see any documents. Switch to Category View to see Corporate Documents.

- *Personal Categories* will be empty if you have not created your own categories. Switch to Folder View to see Personal Documents if you haven't set up Personal Categories.

- The *Folders* view is the only way to navigate to the Inbox.

- Practice toggling between the *Folders* and *Categories* views.

InfoView Navigation: Finding Documents by Name

First, highlight the location you want to search in the Tree Panel

Second, enter search criteria and press enter

Results of search
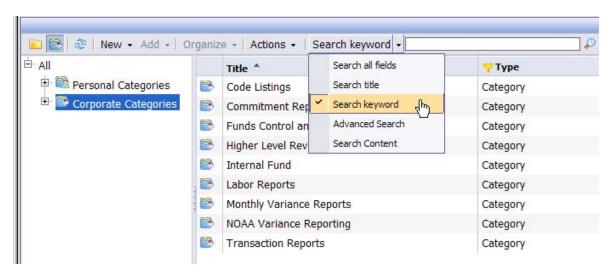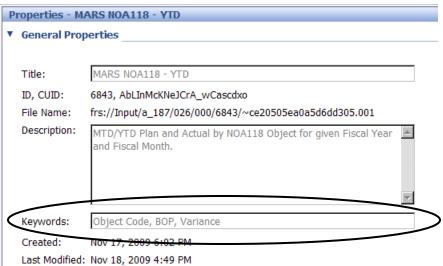
- If you are looking for a particular document and are having trouble finding it in either the folder or category structure, use the *Document Search* facility in the *InfoView Tool Bar*.

- For example, if you are looking for a document you know has 'Travel' in the name, simply type 'Travel' in the search field and press enter.

- NOTE: The search facility will only search the selected folder or category. Be sure to first highlight the folder or category you would like to search in the Tree Panel.
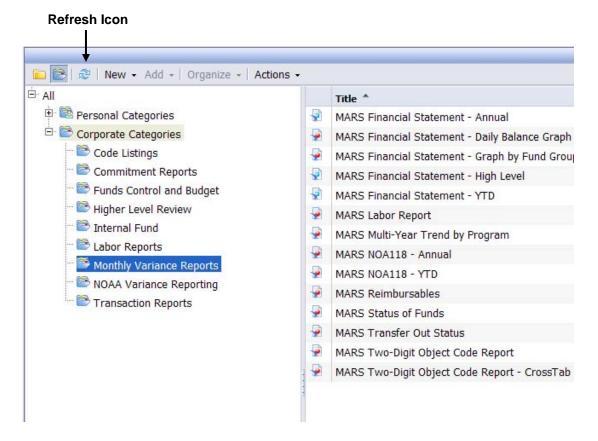
InfoView Navigation: Finding Documents by Keyword

- Another way to search is by keyword.

- When the MARS team creates a document, they enter keyword phrases in the properties of the document.
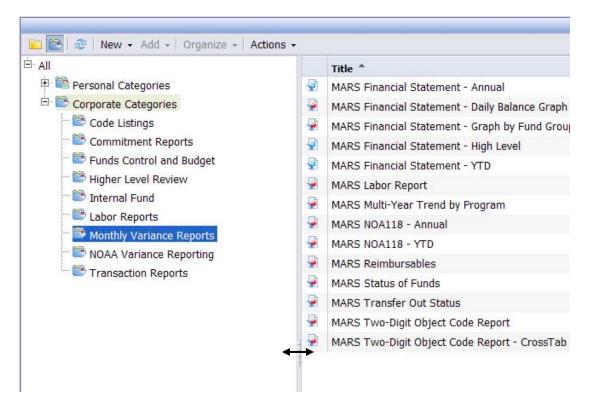
InfoView Navigation: Refreshing Panels

Refresh Icon

- Occasionally categories, or the contents of a category may change during a user session.

- If you are not able to find a category or document, click the *Refresh* button to be sure you are seeing the latest list.

InfoView Navigation: Managing Workspace

- You may resize the *Tree and Details Panels* by clicking and dragging the cursor along the bar separating the two sections.

- You must be positioned on the drag point and the cursor must show as a double arrow for the resizing to work.

InfoView Navigation: Menu Bars – Quick Reference

Main Menu Bar

1. **Home:** Go to InfoView Start Page as defined in your preferences
2. **Document List:** Display the document list you were last viewing
3. **Open:** Used to open My InfoView
4. **Send To:** Select 'Business Objects Inbox' to send documents to other users
5. **Help:** Access on-line help (this help does not cover in-depth report creation)
6. **Preferences:** Set user preferences (covered in previous section)
7. **About:** Business Objects product information
8. **Log Out**

InfoView Menu Bar
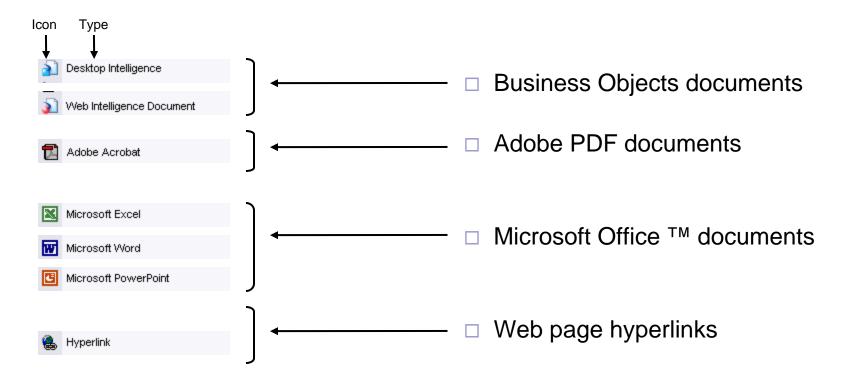
1. **Display documents by Folder**
2. **Display documents by Category**
3. **Refresh Tree Panel and Details Panel**
4. **New:** Create new WebI document, Category or Folder
5. **Add:** Add local document to your personal folder, such as PowerPoint, Excel, PDF, etc. Must be positioned on My Favorites folder to use this option.
6. **Organize:** Cut, copy, copy shortcut, paste or delete Personal Folder, Category or Document
7. **Actions:** Select Modify under actions to edit a personal document. Access properties and categories.
8. **Search title:** Search for a document by title or keyword. Advanced search capabilities.
9. **Page Navigation**

InfoView Navigation: Document Icons

■ Documents other than Business Objects documents can be viewed in InfoView and discerned by their icon or type description.

Icon   Type

Desktop Intelligence
Web Intelligence Document ⬅— ☐ Business Objects documents

Adobe Acrobat ⬅— ☐ Adobe PDF documents

Microsoft Excel
Microsoft Word
Microsoft PowerPoint ⬅— ☐ Microsoft Office ™ documents

Hyperlink ⬅— ☐ Web page hyperlinks

InfoView Navigation: WebI vs. DeskI

■   Web Intelligence Document
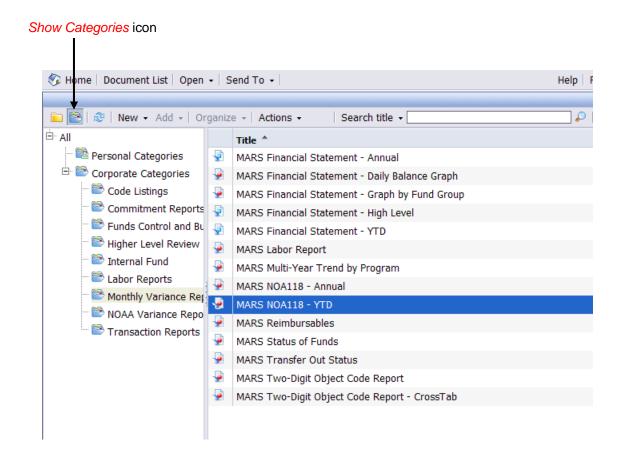
        Web Intelligence (WebI) documents can be edited by users after they have been copied to their personal folders.

■   Desktop Intelligence

        Desktop Intelligence (Deski) documents can only be edited by the MARS development team.
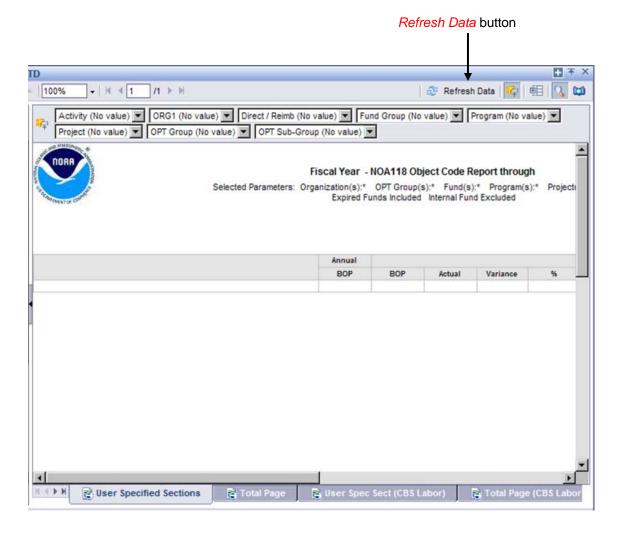
Part I - Working with Documents

Working with Documents: Using a Corporate Document

Show Categories icon
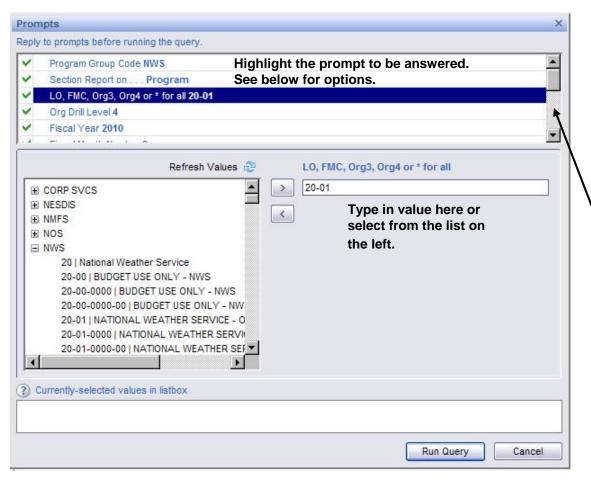
- In this exercise we will show you how to use the MARS NOA118 – YTD corporate document.

- Click Home or Document List. Be sure you are in *Category* view for this exercise.

- Click on the *Monthly Variance Reports* Category.

- To view a document, simply double click on the document name in the *Details Panel*.

- Double click on the *MARS NOA118 - YTD* document.

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Working with Documents: Refreshing Data

Refresh Data button
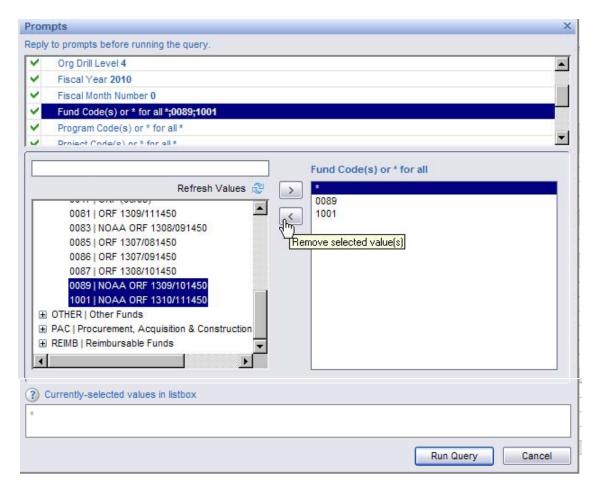
- The MARS team purges the query data before publishing reports.

- Therefore, when a corporate document opens, the report tabs will have no data in them by default.

- The user must click the *Refresh Data* button to retrieve the desired data.

- Upon refresh, the user may be prompted for parameters for retrieving the data.

- Click *Refresh Data*

Working with Documents: Filling in Prompts
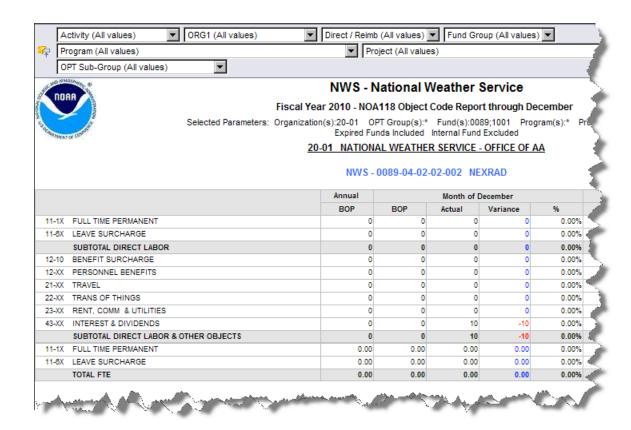
- Default values have been filled in to the prompts.

- The user will need to change any prompt that has a question mark (?).

- The user should review all other prompts to be sure only the necessary data is retrieved.

- You may need to scroll down to see all the prompts that are available.

- To change a prompt value, click on the prompt 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.
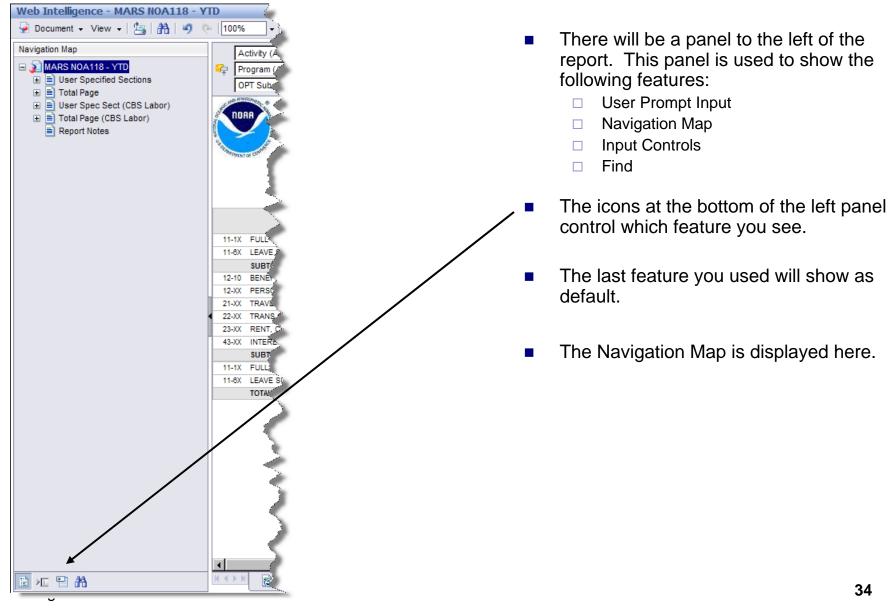
Working with Documents: Filling in Prompts
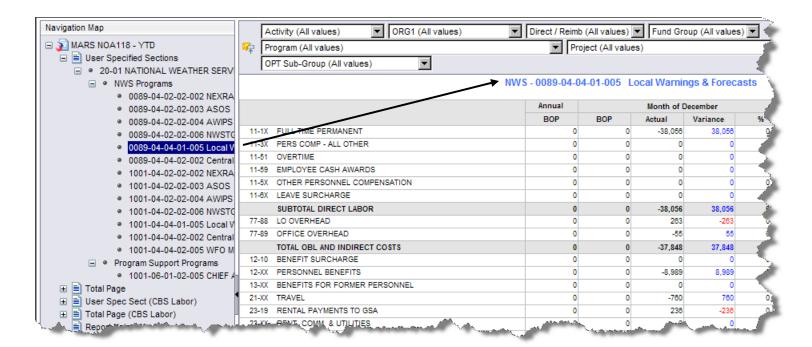
- Some prompts allow the user to select multiple values or '*' for all.

- If the user does not want all values, highlight the desired values in the list at the left, click the > button to move them to the selected values on the right.

- Be sure to remove the '*****' from the selected values if you do not want all values. Use the **<** button to remove the '*' or any other undesired items.

- Click *Run Query* when you have finish selecting the desired values.

- Most documents will finish refreshing in less than 60 seconds.

Working with Documents: Navigating Within a Document

- The document should now have the desired data.

- If the report is still empty, click on Refresh Data again and carefully review the values entered in the prompts for potential mistakes.

Activity (All values) | ORG1 (All values) | Direct / Reimb (All values) | Fund Group (All values)
Program (All values) | Project (All values)
OPT Sub-Group (All values)

NWS - National Weather Service

Fiscal Year 2010 - NOA118 Object Code Report through December

Selected Parameters: Organization(s):20-01   OPT Group(s):*   Fund(s):0089;1001   Program(s):*   Pr
Expired Funds Included   Internal Fund Excluded

20-01 NATIONAL WEATHER SERVICE - OFFICE OF AA

NWS - 0089-04-02-02-002 NEXRAD

		Annual	Month of December			
		BOP	BOP	Actual	Variance	%
11-1X	FULL TIME PERMANENT	0	0	0	0	0.00%
11-6X	LEAVE SURCHARGE	0	0	0	0	0.00%
	SUBTOTAL DIRECT LABOR	0	0	0	0	0.00%
12-10	BENEFIT SURCHARGE	0	0	0	0	0.00%
12-XX	PERSONNEL BENEFITS	0	0	0	0	0.00%
21-XX	TRAVEL	0	0	0	0	0.00%
22-XX	TRANS OF THINGS	0	0	0	0	0.00%
23-XX	RENT, COMM & UTILITIES	0	0	0	0	0.00%
43-XX	INTEREST & DIVIDENDS	0	0	10	-10	0.00%
	SUBTOTAL DIRECT LABOR & OTHER OBJECTS	0	0	10	-10	0.00%
11-1X	FULL TIME PERMANENT	0.00	0.00	0.00	0.00	0.00%
11-6X	LEAVE SURCHARGE	0.00	0.00	0.00	0.00	0.00%
	TOTAL FTE	0.00	0.00	0.00	0.00	0.00%

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Working with Documents: Navigating Within a Document

- There will be a panel to the left of the report. This panel is used to show the following features:
  - User Prompt Input
  - Navigation Map
  - Input Controls
  - Find

- The icons at the bottom of the left panel control which feature you see.

- The last feature you used will show as default.

- The Navigation Map is displayed here.

Working with Documents: Navigating Within a Document

- Switch to the Navigation Map.

- Click on the plus (+) signs to open up the section tree.

- Click on desired section to jump to that page.

Working with Documents: Navigating Within a Document
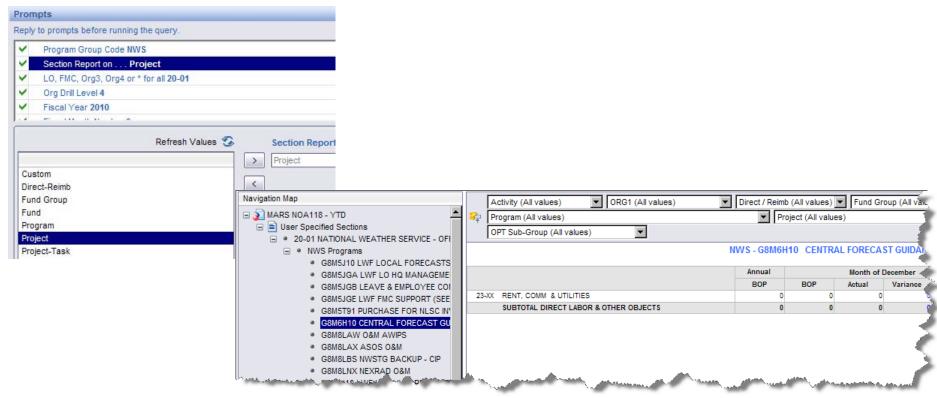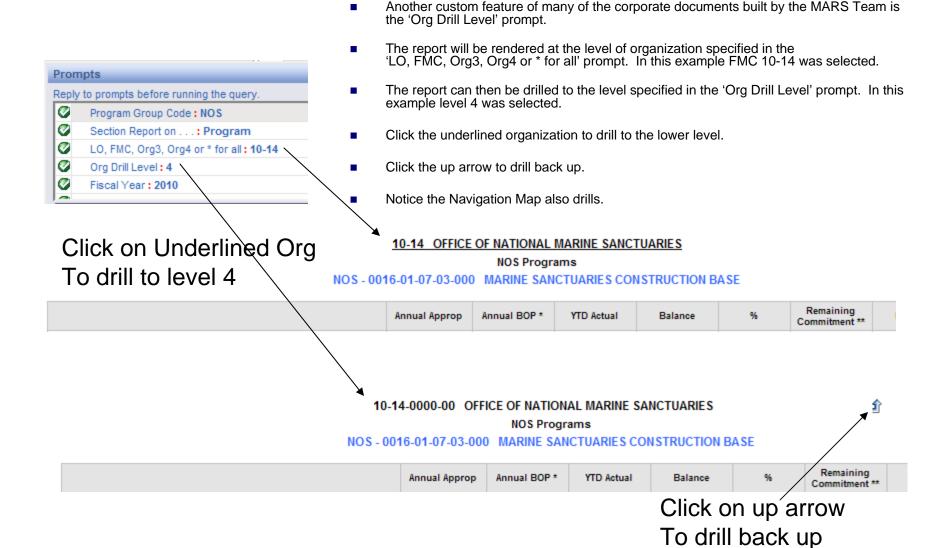
- Switch to the *User Prompt Input*.

- This screen shows you the prompt values that have been selected.

- You may use this panel to Refresh Data by clicking *Run*.

- Prompt values can be manually entered using this panel.

- To see the advanced prompt screen with the lists of values, either click *Advanced* from this panel, or click *Refresh Data* on the menu bar.

Working with Documents: Navigating Within a Document

- A custom feature of many of the corporate documents built by the MARS Team is the 'Section Report on . . .' prompt.

- The sections in the Navigation Map will change based on the user's response to this prompt.

- The default value in the MARS NOA118 – YTD document was 'Program'.

- Refresh the report again and select "Project" to see how this feature works.

Prompts

Reply to prompts before running the query.

✔	Program Group Code NWS
✔	Section Report on . . . Project
✔	LO, FMC, Org3, Org4 or * for all 20-01
✔	Org Drill Level 4
✔	Fiscal Year 2010

Refresh Values 🔄   Section Report

> Project
<

Custom
Direct-Reimb
Fund Group
Fund
Program
Project
Project-Task

Navigation Map

- MARS NOA118 - YTD
  - User Specified Sections
    - 20-01 NATIONAL WEATHER SERVICE - OFI
      - NWS Programs
        - G8M5J10 LWF LOCAL FORECASTS
        - G8M5JGA LWF LO HQ MANAGEME
        - G8M5JGB LEAVE & EMPLOYEE COI
        - G8M5JGE LWF FMC SUPPORT (SEE
        - G8M5T91 PURCHASE FOR NLSC IN
        - G8M6H10 CENTRAL FORECAST GU
        - G8M8LAW O&M AWIPS
        - G8M8LAX ASOS O&M
        - G8M8LBS NWSTG BACKUP - CIP
        - G8M8LNX NEXRAD O&M

Activity (All values) | ORG1 (All values) | Direct / Reimb (All values) | Fund Group (All va
Program (All values) | | Project (All values)
OPT Sub-Group (All values)

NWS - G8M6H10 CENTRAL FORECAST GUIDA

	Annual	Month of December		
	BOP	BOP	Actual	Variance
23-XX RENT, COMM & UTILITIES	0	0	0	
SUBTOTAL DIRECT LABOR & OTHER OBJECTS	0	0	0	

Working with Documents: Navigating within a Document

- Another custom feature of many of the corporate documents built by the MARS Team is the 'Org Drill Level' prompt.

- The report will be rendered at the level of organization specified in the 'LO, FMC, Org3, Org4 or * for all' prompt. In this example FMC 10-14 was selected.

- The report can then be drilled to the level specified in the 'Org Drill Level' prompt. In this example level 4 was selected.

- Click the underlined organization to drill to the lower level.

- Click the up arrow to drill back up.

- Notice the Navigation Map also drills.

Prompts

Reply to prompts before running the query.

✓	Program Group Code : NOS
✓	Section Report on . . . : Program
✓	LO, FMC, Org3, Org4 or * for all : 10-14
✓	Org Drill Level : 4
✓	Fiscal Year : 2010

Click on Underlined Org To drill to level 4

10-14   OFFICE OF NATIONAL MARINE SANCTUARIES

NOS Programs

NOS - 0016-01-07-03-000   MARINE SANCTUARIES CONSTRUCTION BASE

	Annual Approp	Annual BOP *	YTD Actual	Balance	%	Remaining Commitment **	

10-14-0000-00   OFFICE OF NATIONAL MARINE SANCTUARIES

NOS Programs

NOS - 0016-01-07-03-000   MARINE SANCTUARIES CONSTRUCTION BASE

	Annual Approp	Annual BOP *	YTD Actual	Balance	%	Remaining Commitment **	

Click on up arrow To drill back up

Working with Documents: Navigating within a Document

- Many of the Corporate Documents will have 'Report Filters' turned on.

- The Report Filter toolbar provides a quick method for adding simple report filters to reports.

- Simply drop down the list of values in the filter and pick from the list.

- Only one value can be picked at a time.

- To remove the filters, pick the (All Values) item at the top of each list.
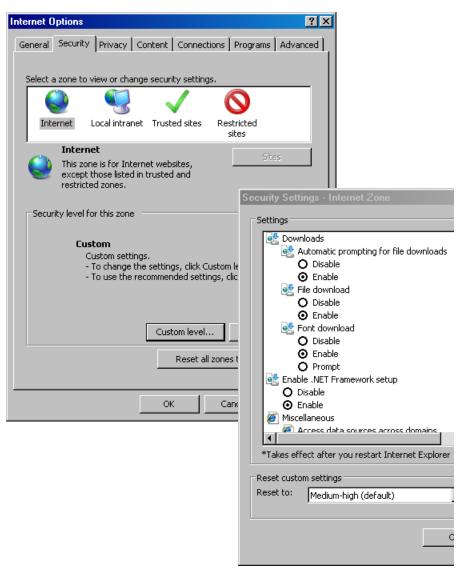
Working with Documents: Downloading to Excel – Pre-Requisite
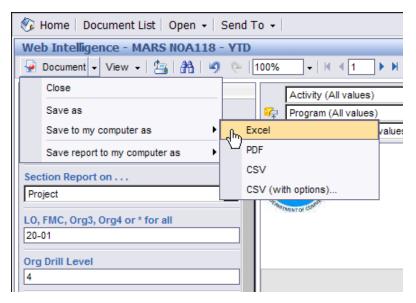
- Downloading to Excel and printing from PDF WILL NOT WORK unless you allow pop-ups for MARS:

- Either turn off pop-up blocking or allow marsbo.rdc.noaa.gov

- In Internet Explorer select:
  - ☐ Tools
  - ☐ Pop-Up Blockers
  - ☐ Turn-Off or change settings

- See your system administrator if this option is grayed out.
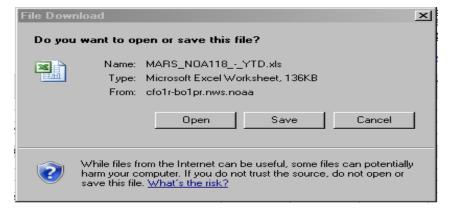
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Working with Documents: Downloading to Excel – Pre-Requisite

- Downloading to Excel and printing from PDF WILL NOT WORK unless you have set the following Internet Explorer browser settings:

  - In Internet Explorer, click *Tools-->Internet Options*
  - Click *Security* tab
  - Click *Custom Level*
  - Scroll to *Downloads* section
  - Enable '*Automatic prompting for file downloads*'

- See your system administrator if this option is grayed out.
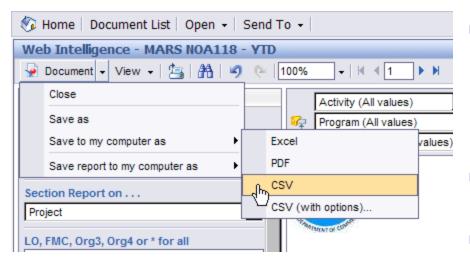
Working with Documents: Downloading to Excel – Formatted

- To download a document to MS Excel ™ with the report formatting, choose the following from the menu bar:
  - ☐ *Document*
  - ☐ *Save to my computer as*
  - ☐ *Excel*

- The *File Download* prompt will then be displayed

- Choose *Open* to open the document in Excel

- Note that 'Save to my computer as' will save all the report tabs, whereas 'Save report to my computer as' will only save the current active report tab.

Working with Documents: Downloading to Excel – Un-Formatted

- To download the document query results (the data only—with no report formatting) to MS Excel ™, choose the following from the menu bar:
  - ☐ *Document*
  - ☐ *Save to my computer as*
  - ☐ *CSV*

- The *File Download* prompt will then be displayed

- Choose *Open* to open the document in Excel

Working with Documents: Downloading to Excel
Formatted vs. Un-Formatted

- The formatted Excel (.xls) is on the left
- The un-formatted (.csv) is on the right.
- If you plan to do your own formatting in Excel, it is better to use the download to CSV option. After the .csv file is opened, you may save it as .xls.

Working with Documents: Printing
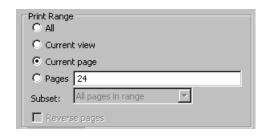
- Return to the *MARS NOA118 - YTD* document.

- *Click the Print* button in the toolbar.

- The document will be converted to Adobe Acrobat PDF format for printing.

- Click *Open* when prompted by the file download.

Working with Documents: Printing

- The document will be displayed in Adobe Reader.

- If you wish to print a single report tab, *right mouse click* on the tab's bookmark and click Print Page(s)

- If you wish to print the current page you are looking at, click the *Print* button and choose *Current Page.*
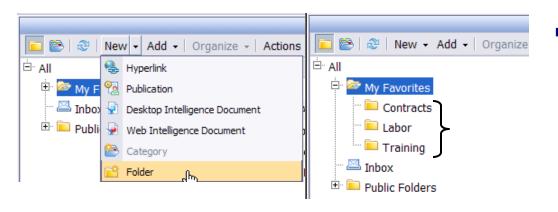
Working with Documents: Personal Folders / Categories
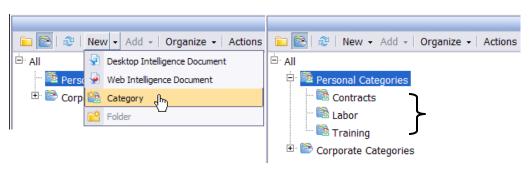
- Each user has a Personal Folder area for storing Personal Documents called *My Favorites*.

- Each user also has an *Inbox* folder.

- Personal Documents are either:
  - Created by the user
  - Sent by another user
  - Copies from Corporate Documents

- To see Personal Folders switch click *Home* or *Document List* and switch to *Folders* view.

Working with Documents: Personal Folders / Categories

- Each user can create subfolders and/or sub-categories to keep their personal documents organized.
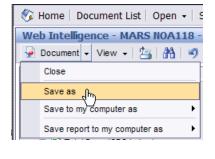
- To Create a Folder:
  - ☐ Highlight *My Favorites*
  - ☐ From *New Menu* select *Folder*
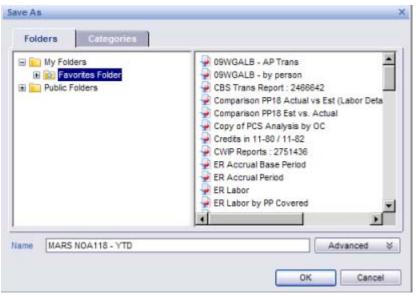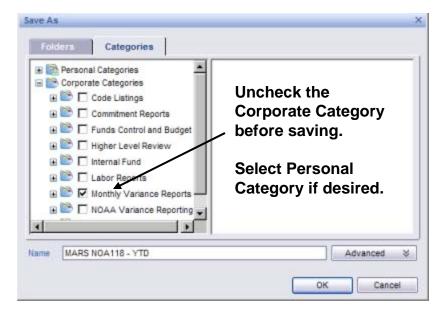
- To Create a Category:
  - ☐ Highlight *Personal Categories*
  - ☐ From *New Menu* select *Category*

Working with Documents: Adding a Corporate Document to Personal Folder
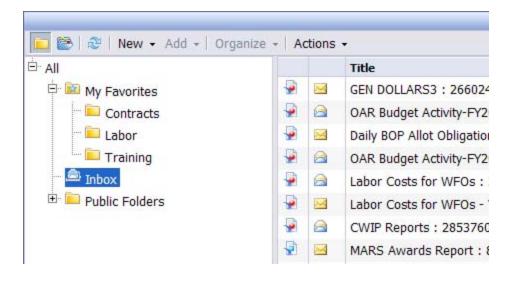
- View the Document you wish to save to your personal documents folder.

- Refresh the report with the prompts filled in as you would typically use the report.

- From the *Document Menu*, select *Save As*

- From the Save As pop-up window, select the *Personal Folder* and optionally the *Personal Category* you would like to save this report under.

- Note that the Corporate Category will still be selected under the Categories tab. You must *uncheck the Corporate Category* before saving, or you will get an error message and have to cancel out of the window and try to save again.

Uncheck the Corporate Category before saving.

Select Personal Category if desired.
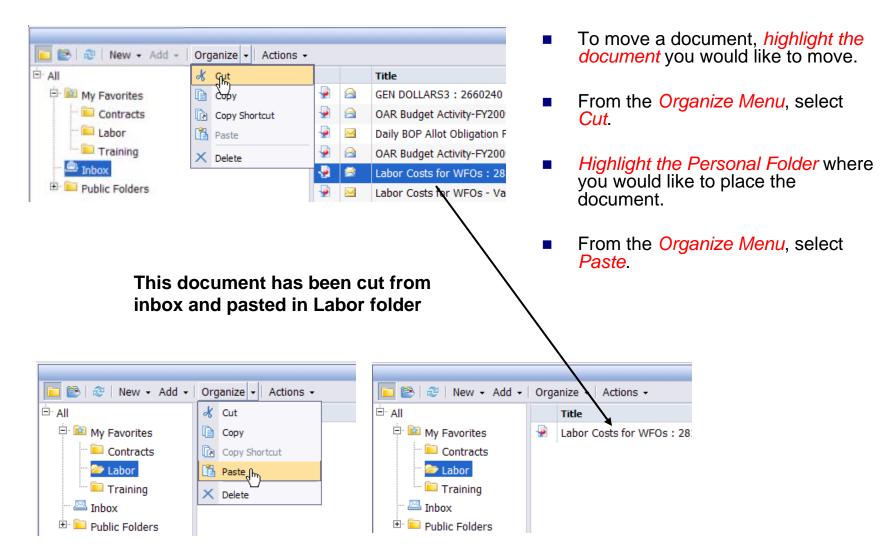
Working with Documents: Inbox Documents
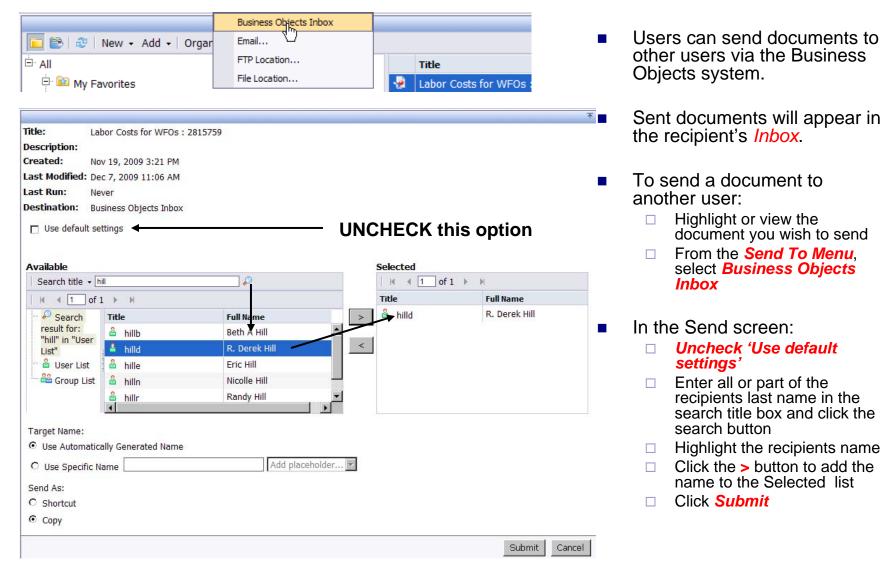
- Users that have the ability to create their own documents can share those documents by sending them via Business Objects to another user's Inbox.

- To view your Inbox, you must switch to the *Folders* view.

- Double click on the document you would like to view.

- Note the icon changes to an open envelope after the document has been read.

- Keeping Organized:

  Instead of letting your Inbox become over-loaded with documents, make a practice of moving your Inbox documents to your Personal Folders. The next slide covers moving documents.

Working with Documents: Moving Documents

- To move a document, *highlight the document* you would like to move.

- From the *Organize Menu*, select *Cut*.

- *Highlight the Personal Folder* where you would like to place the document.

- From the *Organize Menu*, select *Paste*.

This document has been cut from inbox and pasted in Labor folder
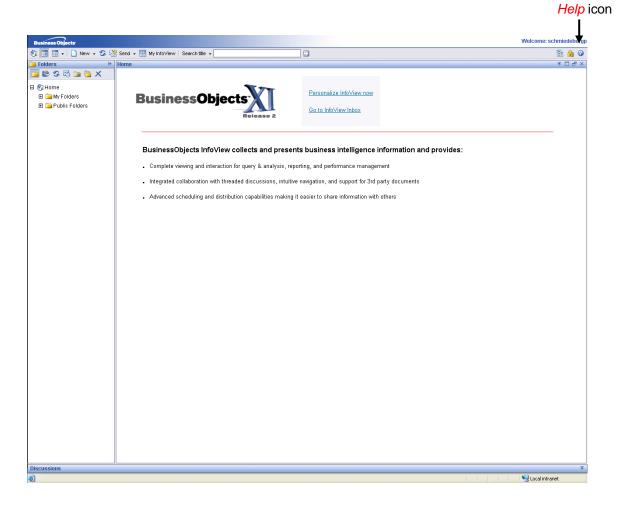
Working with Documents: Sending Documents to Other Users

- Users can send documents to other users via the Business Objects system.

- Sent documents will appear in the recipient's *Inbox*.

- To send a document to another user:
  - Highlight or view the document you wish to send
  - From the *Send To Menu*, select *Business Objects Inbox*

- In the Send screen:
  - *Uncheck 'Use default settings'*
  - Enter all or part of the recipients last name in the search title box and click the search button
  - Highlight the recipients name
  - Click the **>** button to add the name to the Selected list
  - Click **Submit**

Part I - Getting Help

Getting Help

Help icon

- This *Querying & Reporting User Guide* only brings you through the basics of using Business Objects.

- We encourage users to explore the broader functionality of the product by reading the online help.

- To get access to these resources, click *Help* from the *Main Menu*.

Getting Help

- You will be brought to the help page

- You can navigate through help by
    - Content
    - Index
    - Search

MARS Support Information

- **Hours: Mon-Fri 7:30 am - 5:30 pm EST**

- **Contact Information**

  - ☐ **Email**
    - **mars.support@noaa.gov**
  - ☐ **Phone**
    - **(301) 427-8888**
  - ☐ **Fax**
    - **(301) 713-1742**

MARS Reporting & Querying User Guide
Part II: Working with Ad Hoc Documents
For the Power User

- Table of Contents
  - Creating Webi Documents

  - Filtering Document Queries

  - Report Formatting

  - Table of Contents Continued . . .

MARS Reporting & Querying User Guide

Part II: Working with Ad Hoc Documents
For the Power User

- Table of Contents (Continued)
  - ● Advanced Report Formatting
  - ● Analytic Features

Part II - Creating WebI Documents
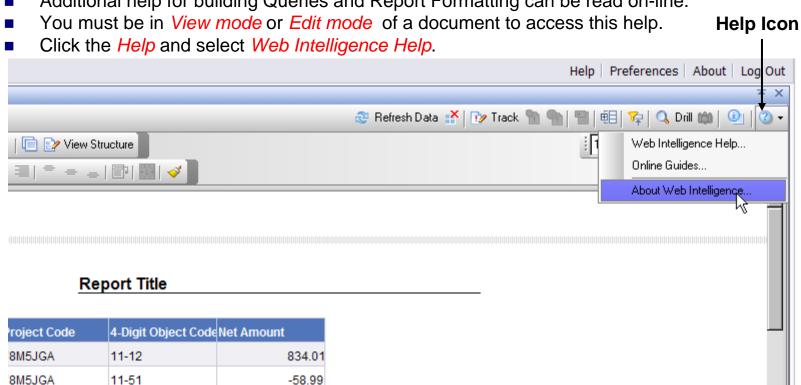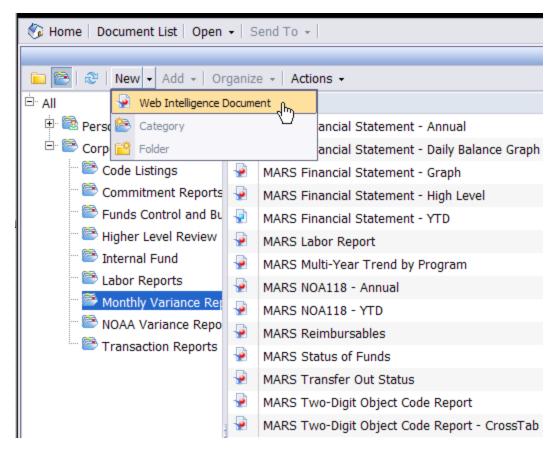
Creating WebI Documents

○ 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.
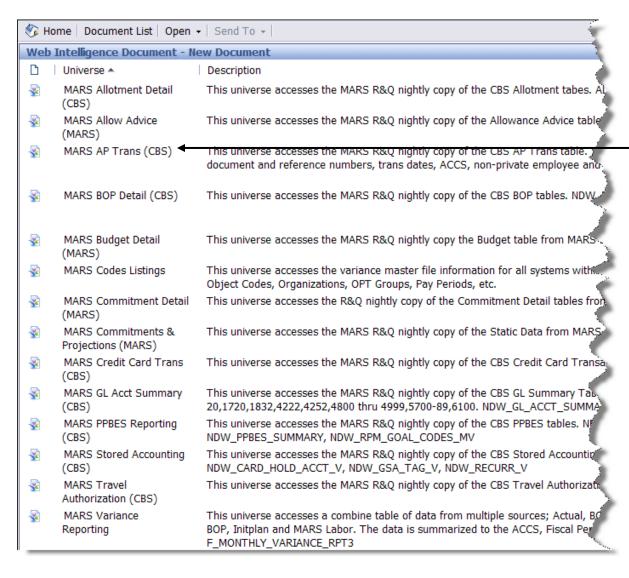
Creating Webi Documents: Getting WebIntelligence Help

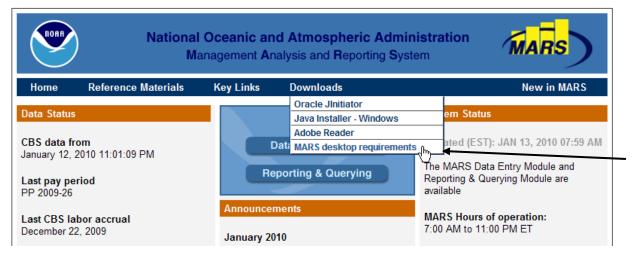- Additional help for building Queries and Report Formatting can be read on-line.
- You must be in *View mode* or *Edit mode* of a document to access this help.
- Click the *Help* and select *Web Intelligence Help*.

Help Icon

Help | Preferences | About | Log Out

Refresh Data | Track | Drill

View Structure

Web Intelligence Help...
Online Guides...
About Web Intelligence...

Report Title

Project Code	4-Digit Object Code	Net Amount
8M5JGA	11-12	834.01
8M5JGA	11-51	-58.99

Creating WebI Documents

- *Click Home or Document List* so that the InfoView Menu Bar is displayed.

- From the *New Menu* select *Web Intelligence Document*.

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Creating WebI Documents
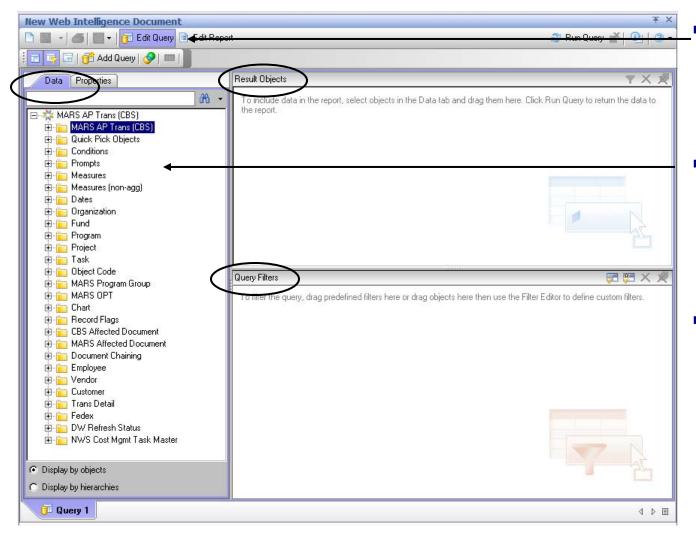
- You are presented with a list of universes.

- For this exercise choose *MARS AP Trans (CBS)*.

- NOTE: The universes in the list is controlled by the user access rights.

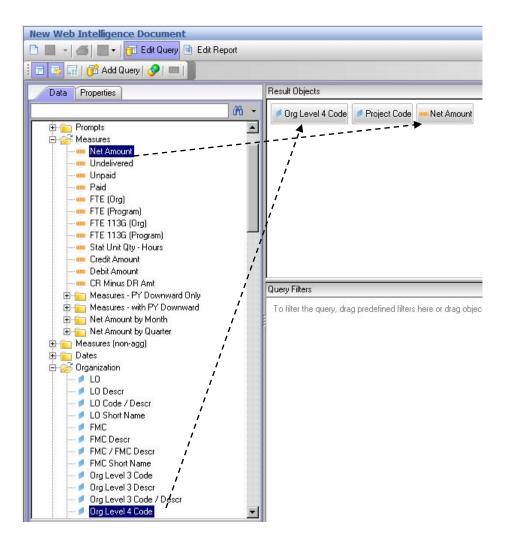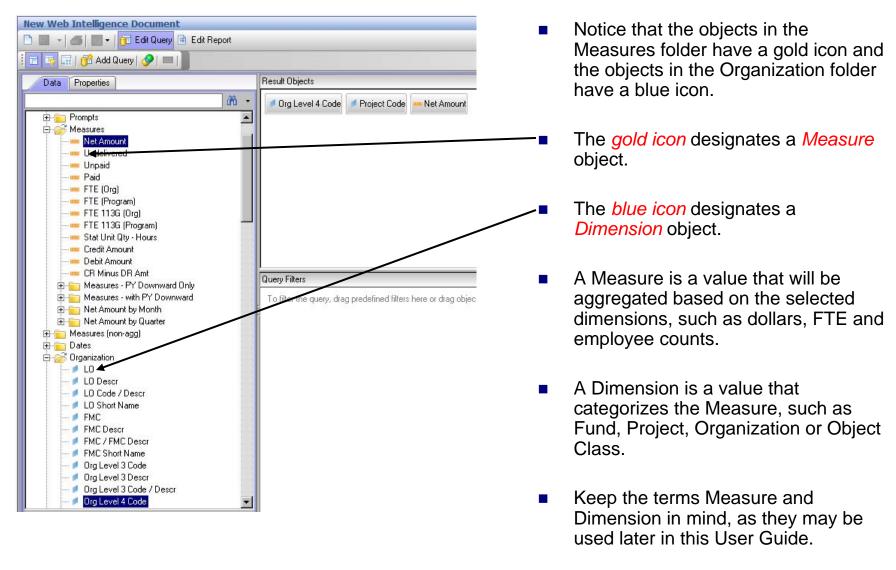- This screen is showing the universes available for use by a standard MARS user.

Creating WebI Documents

- The WebI uses Java technology.

- If you've never used a website that requires Java then you will be prompted to install Java the first time you create a new document.

- The Java splash screen may be displayed while Java is being loaded. You may see a different depending upon the version loaded on your PC.

- NOTE: Not all versions of the Java are supported, especially newer versions right after they are release.

- If you receive a Java error message, work with your system administrator to ensure that a supported version has been installed on your PC.
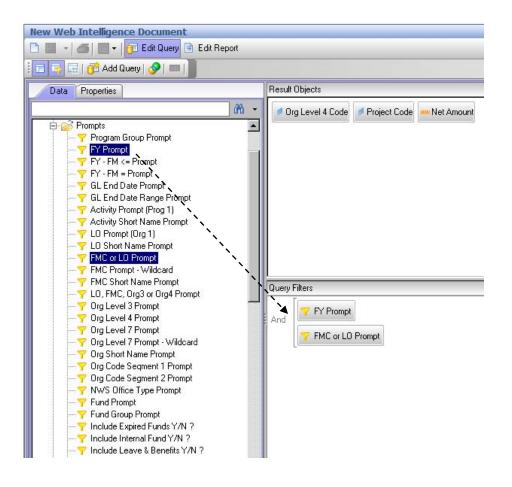
Creating WebI Documents: Query Building

- The process of creating a document begins in *Edit Query* mode.

- The objects available in the Universe selected are in the folders to the left under the *Data tab*.

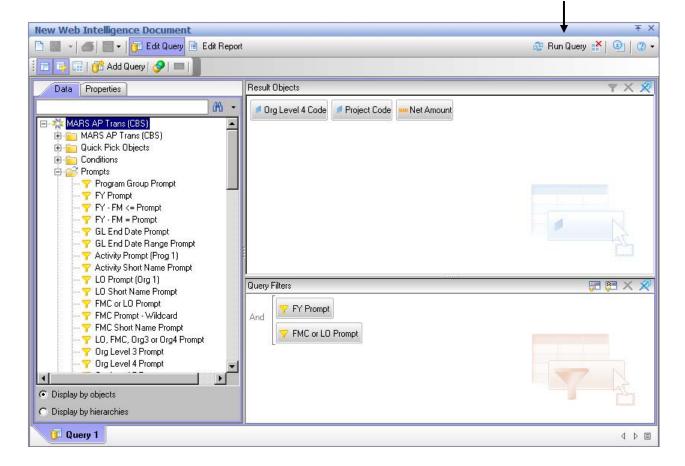- Note that there is a *Result Objects* pane and a *Query Filters* pane.

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
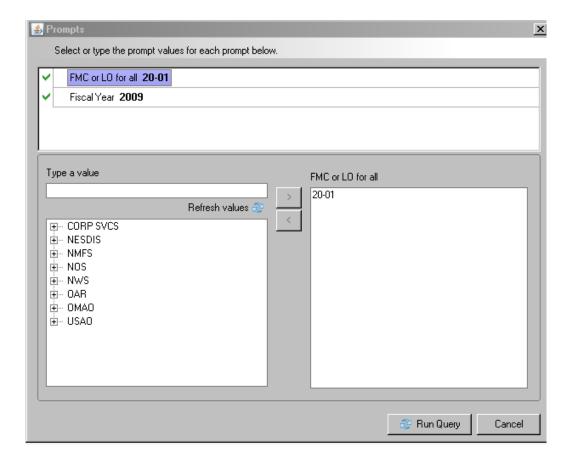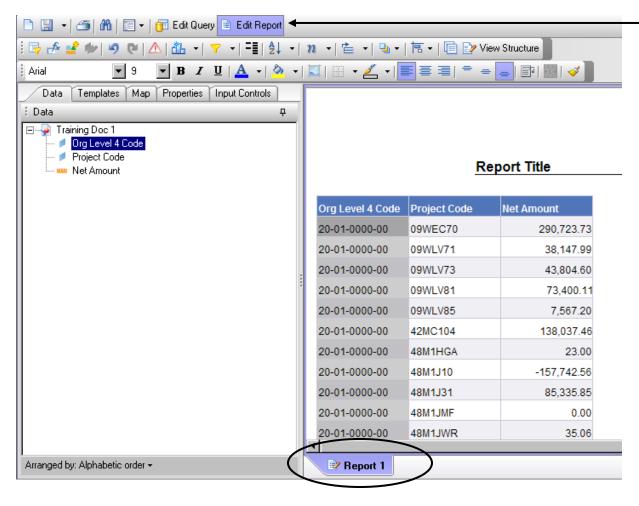 - ☐ Project Code
  - ☐ Net Amount

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

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Creating WebI Documents: Query Building

- Click *Run Query* to execute the query.

Creating WebI Documents: Query Building
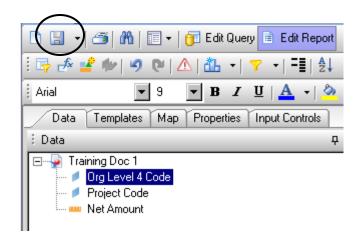
- When the *Prompts* screen appears, click on the prompt text in the upper part of the screen and either type in the desired value or select it from the list of values in the lower part of the screen.

- If the list of values is empty, click the *Refresh Values* button.

- *Click Run Query* to execute the query with the select parameter.

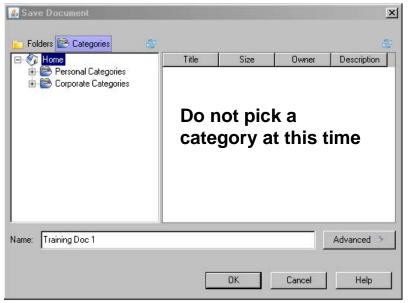- If the Run Query button is not available, it is because you have not answered all the prompts.

Creating WebI Documents: Query Building
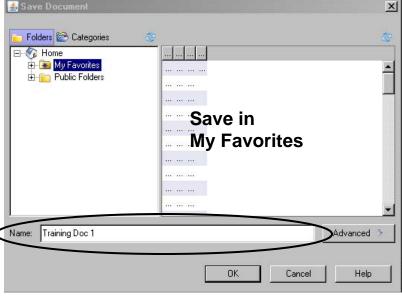
- The query is processed and your are switched to the *Edit Report* mode.

- 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.
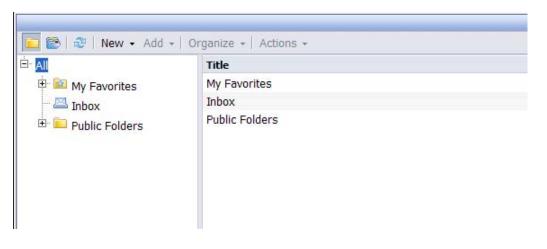
Creating WebI Documents: Document Storage and Organization

- *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 *My Favorites* and do not select a Personal Category at this time.

- In the *Name* field, enter *'Training Doc 1'.*

Save in My Favorites

Do not pick a category at this time

Creating WebI Documents: Document Storage and Organization
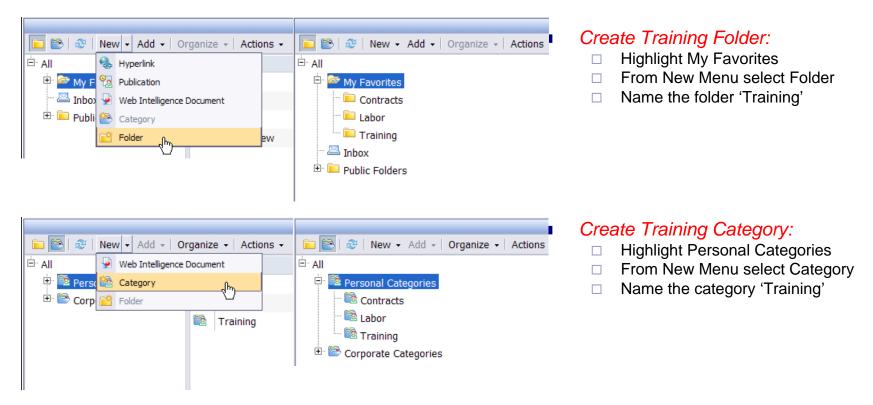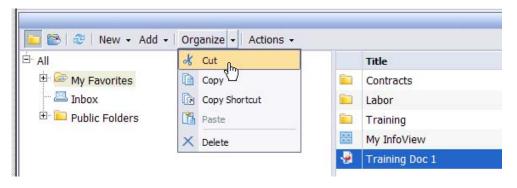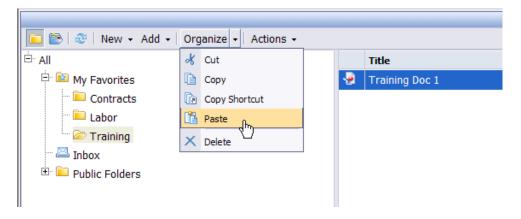

- Each user has a Personal Folder area for storing Personal Documents called *My Favorites*.

- Personal Documents are either:
  - ☐ Created by the user
  - ☐ Sent by another user
  - ☐ Copies from Corporate Documents

- To see Personal Folders click *Home* or *Document List* and switch to *Folders* view.

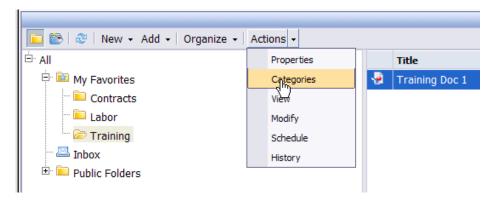# Creating WebI Documents: Document Storage and Organization

- Each user can create subfolders and/or sub-categories to keep their personal documents organized.

- Personal documents and folders are stored on the Business Objects 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.
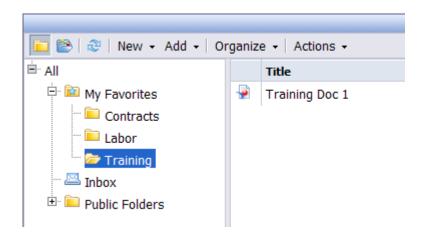

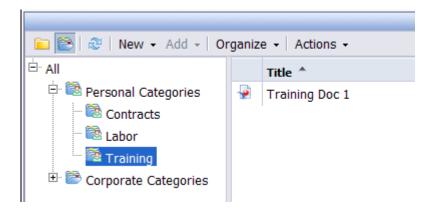*Create Training Folder:*
- ☐ Highlight My Favorites
- ☐ From New Menu select Folder
- ☐ Name the folder 'Training'

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 *Home* or *Document List* and switch to *Folders* view. 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

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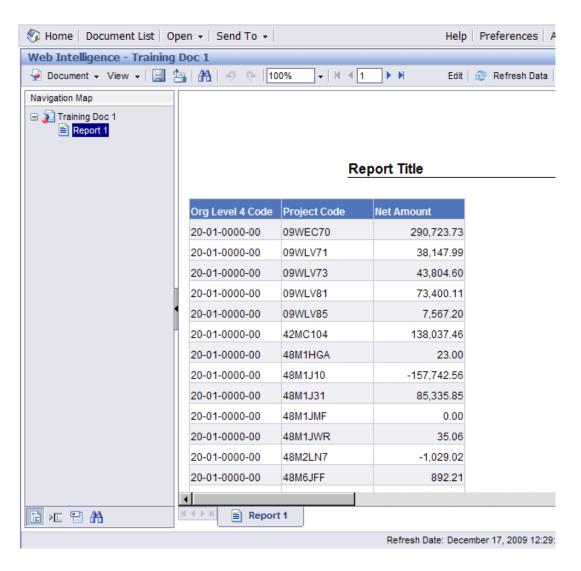# Creating WebI Documents: Document Storage and Organization

- 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 Actions Menu, select Categories
    - Open Personal Categories and click on Training
    - Click OK

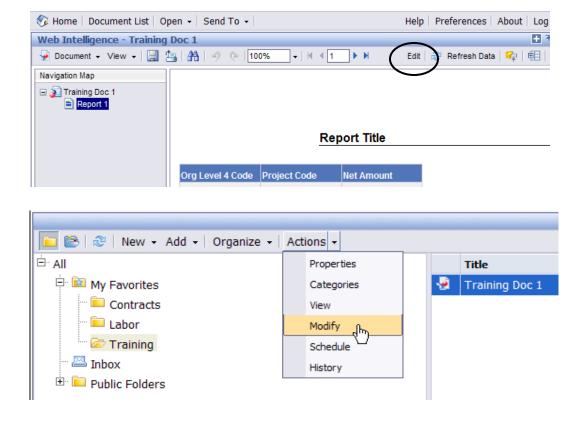# Creating WebI Documents: Document Storage and Organization

- 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.

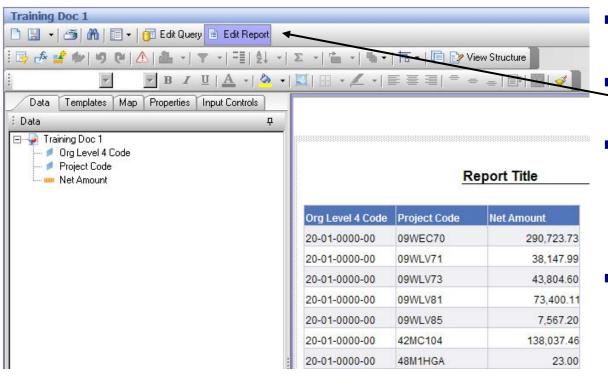# Creating WebI Documents: Recalling a Document

- 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 view mode. You cannot change the query or report layout in view 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 *view mode*
    - Click on the *Edit* option

Or . . .

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

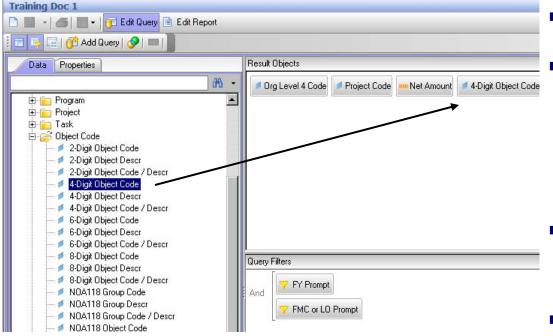# Creating WebI Documents: Editing a Document

- *Open Training Doc 1 for editing.*
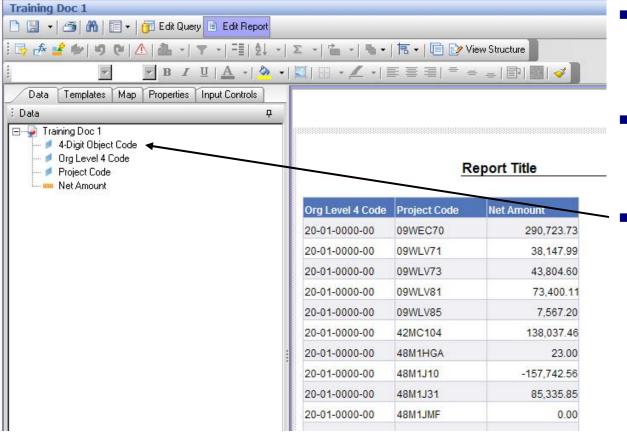
- You will be in *Edit Report* mode.

- It is from the Edit Report 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

- *Switch to the Edit Query mode.*
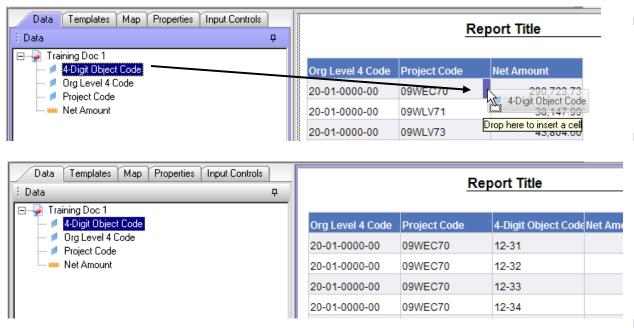
- *Add 4-Digit Object Code* to your query as follows:
  - □ Open the Object Code folder
  - □ Click and drag (or double click) the *4-Digit Object Code* so that it appears in the Result Objects
  - □ Click *Run Query*

- 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 your are switched to the *Edit 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 *Data* tab.

Creating WebI Documents: Editing a Document
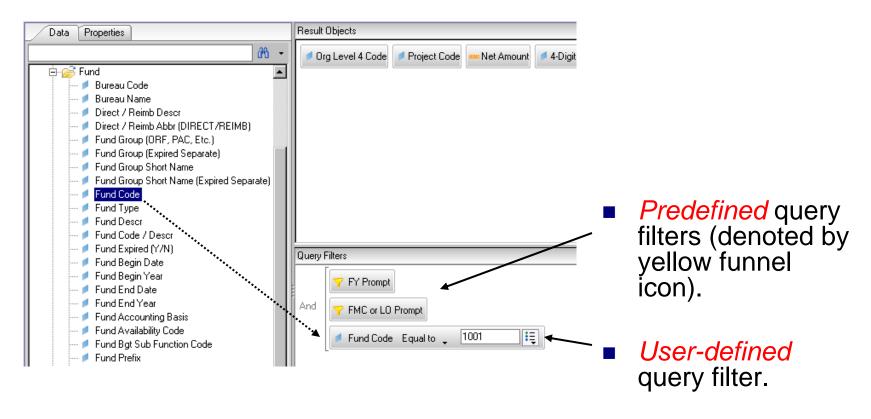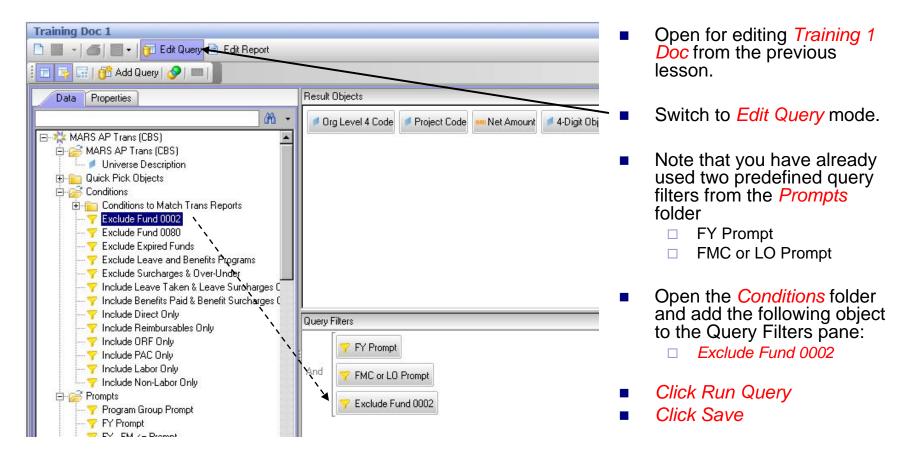
- To add objects from *Data* tab to report, drag and drop onto appropriate place in the report.

- 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.

August 2011

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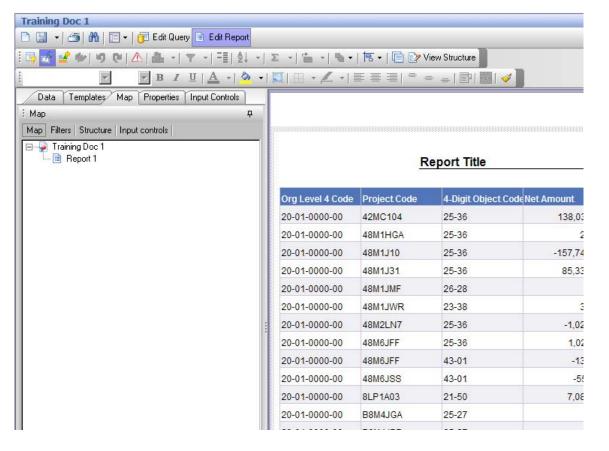
Part II - Filtering Document Queries

Filtering Document Queries

○ What Are They?

  ● 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 *Edit Query* mode.

- 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) <u>Object:</u> Object from the Universe
2) <u>Operator:</u> Identifies relationship to operand
   ○ (e.g. Equal to, Less Than, Matches Pattern, etc.)
3) <u>Operand:</u> 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
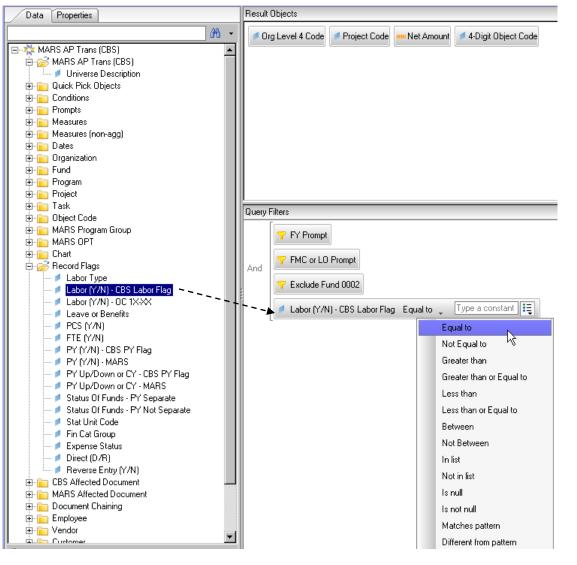
○ Operators (page 2 of 2)

| 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
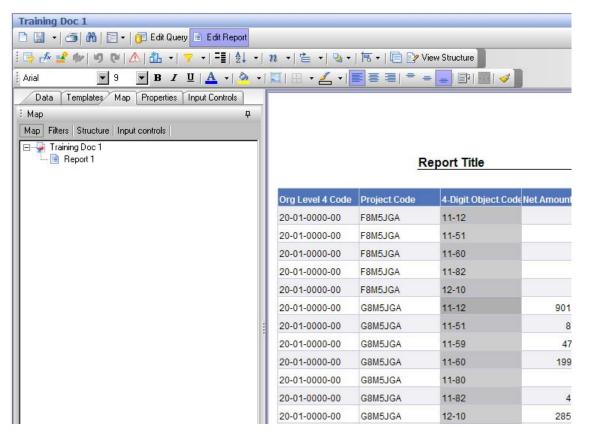
- Operators —A Few Notes

  - 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%
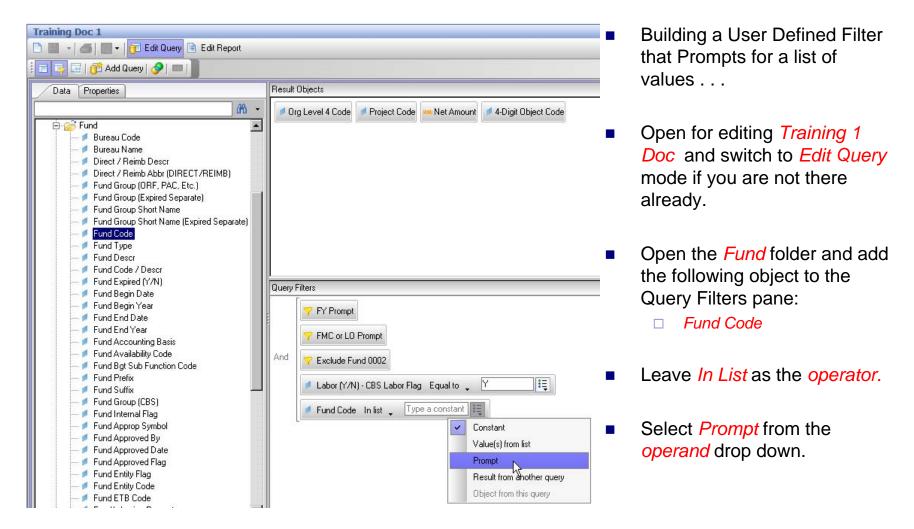
Filtering Document Queries

○ 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 <u>Document user</u> 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
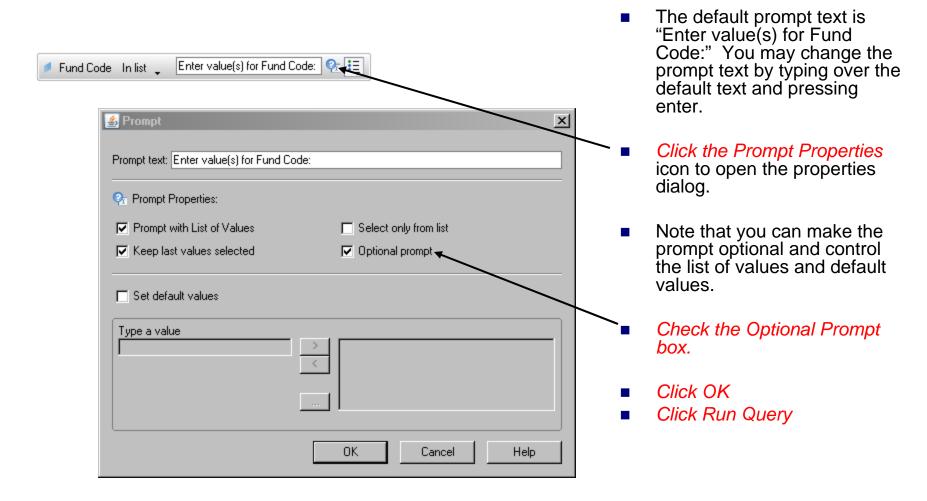   (e.g. Fiscal Year Equal To Fund Code Fiscal Year)

Filtering Document Queries: User-defined Filters
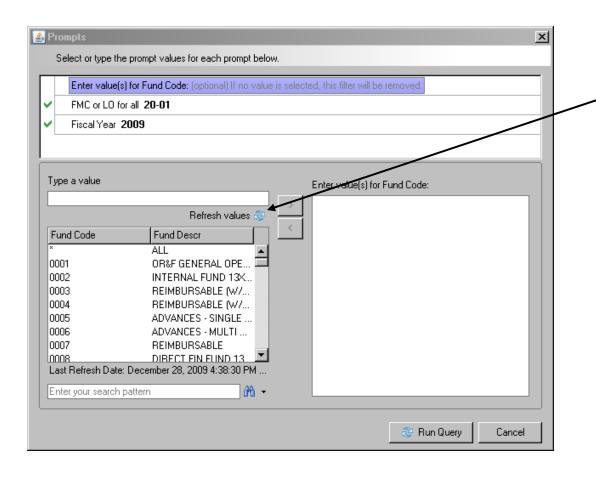

- Open for editing *Training 1 Doc* and switch to *Edit Query* mode, if you are not there already.

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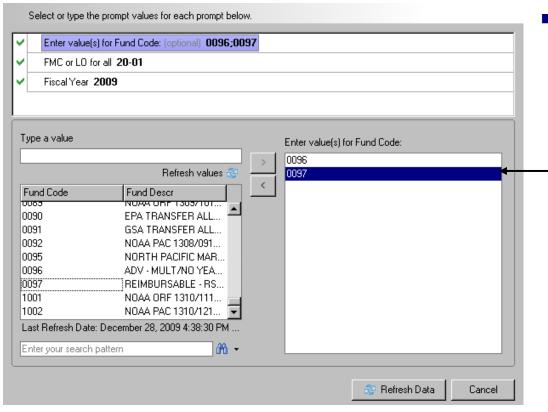
- Note that the report no longer contains object codes that are not labor.

- *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 *Edit Query* mode 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*

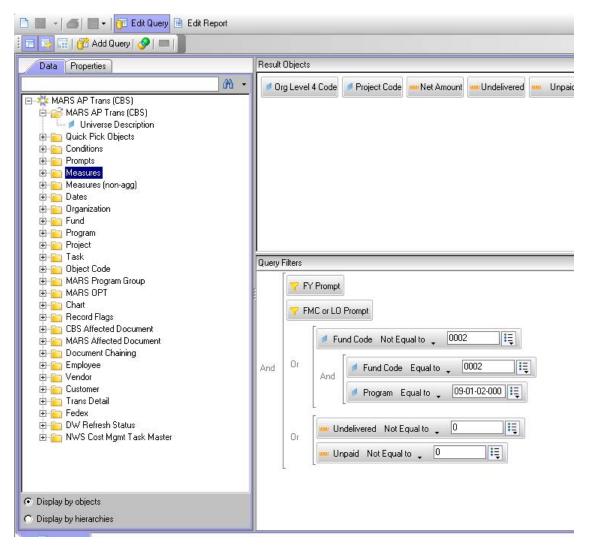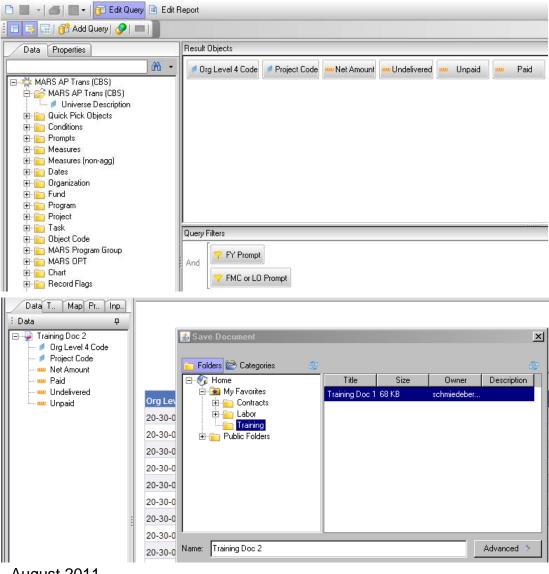# Filtering Document Queries: User-defined Filters

- 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*

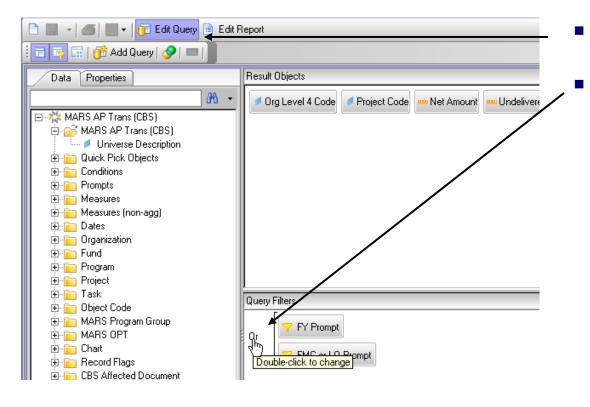# Filtering Document Queries: User-defined Filters

- 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.
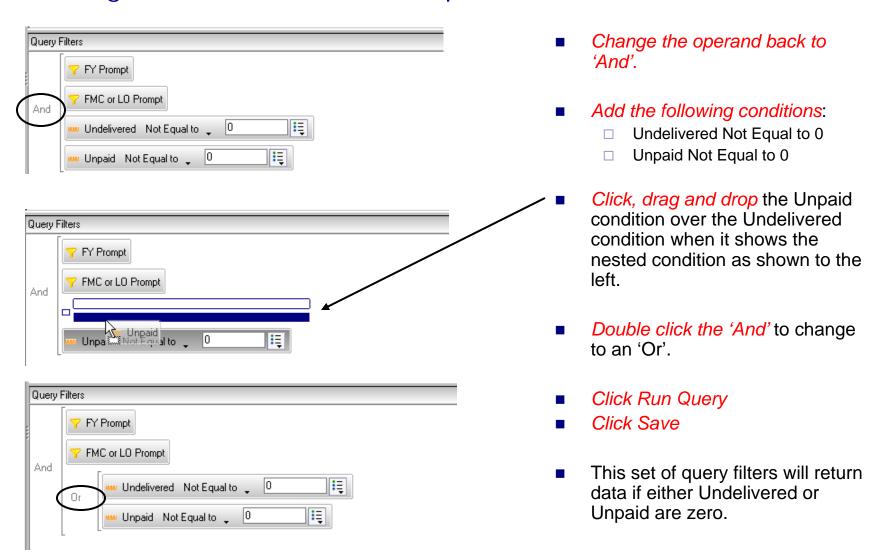
Filtering Document Queries: Complex Filters

- 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*
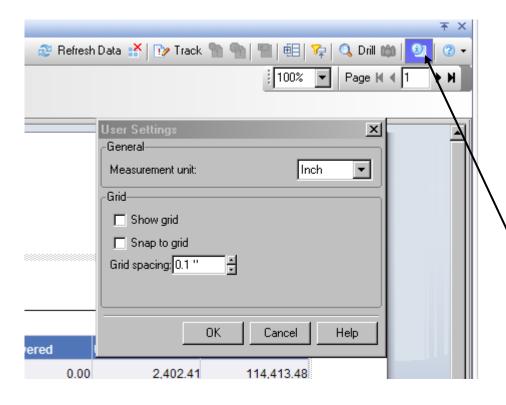- *Click Save*
- *Name the document Training Doc 2*

Filtering Document Queries: Complex Filters

- Go to the *Edit Query* panel.

- *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, drag and drop* the Unpaid condition over the Undelivered condition when it shows the nested condition as shown to the left.

- *Double click the 'And'* to change to an 'Or'.

- *Click Run Query*
- *Click Save*

- This set of query filters will return data if either Undelivered or Unpaid are zero.

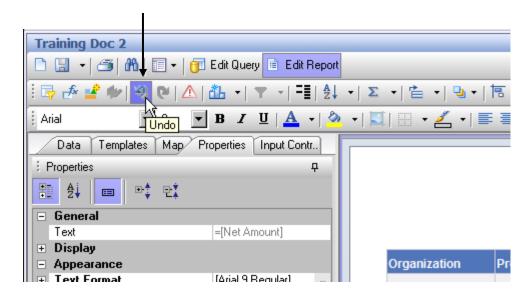# Part II – Report Formatting

Report Formatting: WebIntelligence User Settings

- The following exercises will use 'Inch' as the measurement unit.

- The choices are:
  - □ Pixel
  - □ Inch
  - □ Centimeter

- You may change this setting again later to meet your individual needs.

- *Open for editing Training 2 Doc.*

- Click the *Show User Settings* button.

- 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.
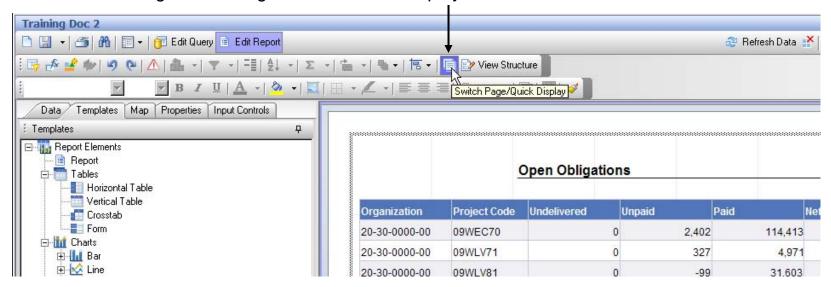
Report Formatting: Undo Formatting

- 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.

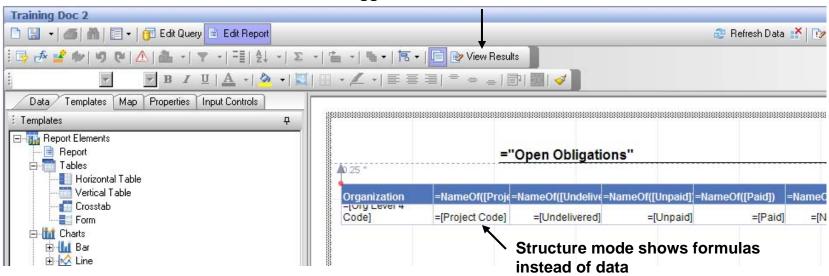# Report Formatting: Page Mode / Structure Mode

- 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
  - View Results mode vs. View Structure 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.
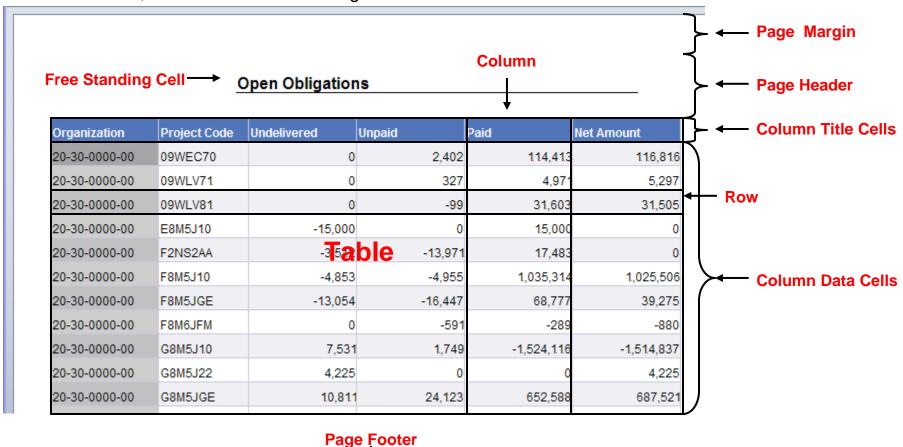
Report Formatting: Page Mode / Structure Mode

- **View Results mode vs. View Structure mode:**
  - View Results mode will show you the data from the query
  - Structure mode will show you formulas instead of data.
  - Use Structure mode to see clearly report headers, footers, sections and formulas.
  - Change to View Structure mode by clicking the *View Structure* button.
  - The button text will change to View Results when Structure mode is on.

Toggle View Results / View Structure

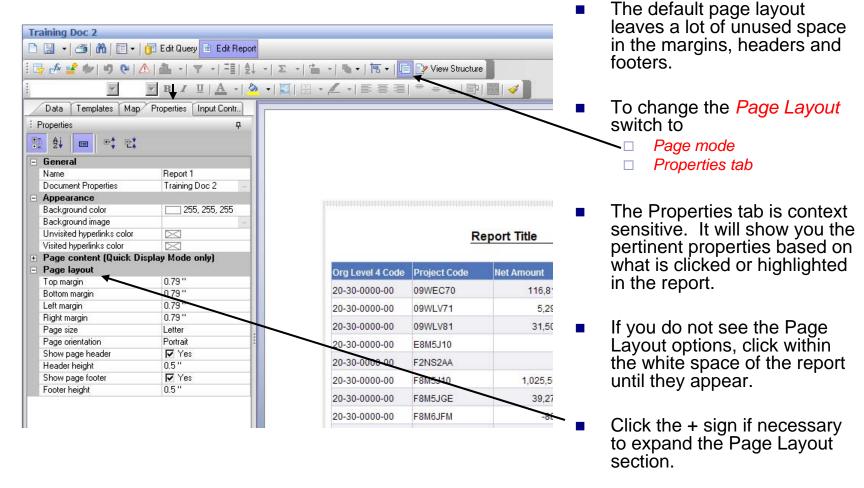**Structure mode shows formulas instead of data**

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.
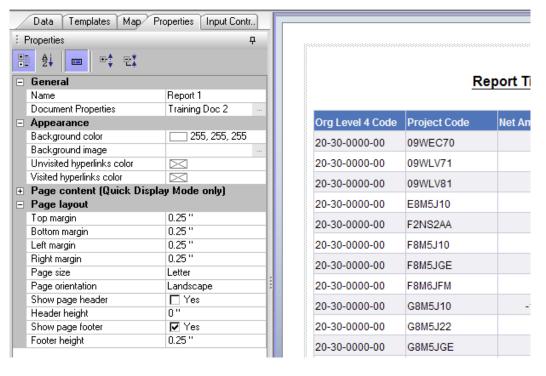

Organization	Project Code	Undelivered	Unpaid	Paid	Net Amount
20-30-0000-00	09WEC70	0	2,402	114,413	116,816
20-30-0000-00	09WLV71	0	327	4,971	5,297
20-30-0000-00	09WLV81	0	-99	31,603	31,505
20-30-0000-00	E8M5J10	-15,000	0	15,000	0
20-30-0000-00	F2NS2AA	-35	-13,971	17,483	0
20-30-0000-00	F8M5J10	-4,853	-4,955	1,035,314	1,025,506
20-30-0000-00	F8M5JGE	-13,054	-16,447	68,777	39,275
20-30-0000-00	F8M6JFM	0	-591	-289	-880
20-30-0000-00	G8M5J10	7,531	1,749	-1,524,116	-1,514,837
20-30-0000-00	G8M5J22	4,225	0	0	4,225
20-30-0000-00	G8M5JGE	10,811	24,123	652,588	687,521

Open Obligations

Free Standing Cell →

Column

Page Margin

Page Header

Column Title Cells

Row

Table

Column Data Cells

Page Footer

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* switch to
  - □ *Page mode*
  - □ *Properties tab*

- The Properties tab is context sensitive. It will show you the pertinent properties based on what is clicked or highlighted in the report.

- If you do not see the Page Layout options, click within the white space of the report until they appear.

- Click the + sign if necessary to expand the Page Layout section.

Report Formatting: Page Layout

- 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
  - □ Show page header Uncheck
  - □ Header height   0"
  - □ Show page footer Check 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])		Net Amount	Undelivered	Unpaid	Paid
Press Ctrl+Enter to show Formula Editor		116,815.89	0.00	2,402.41	114,413.48
20-30-0000-00	09WLV71	5,297.45	0.00	326.50	4,970.95

Open Obligations

Organization	Project Code	Net Amount	Undelivered	Unpaid	Paid
20-30-0000-00	09WEC70	116,815.89	0.00	2,402.41	114,413.48
20-30-0000-00	09WLV71	5,297.45	0.00	326.50	4,970.95

Report Formatting: Moving Columns

- Move columns by clicking, dragging and dropping. WATCH THE TOOPTIPS!

- Move Net Amount after the Paid column. *Click, drag and drop the column* when the tooltip says *'Drop here to <u>insert</u> a cell'*.

- *Click Save.*

- Note this technique can also be used to swap columns. The tooltip will read "Drop here to <u>replace</u> cell".

Open Obligations

Organization	Project Code	Net Amount	Undelivered	Unpaid	Paid
20-30-0000-00	09WEC70	116,815.89	0.00	2,402.41	114,413.48
20-30-0000-00	09WLV71	5,297.45	0.00	326.50	4,970.95
20-30-0000-00	09WLV81	31,504.76	0.00	-98.50	31,603.26

=[Net Amount]
Drop here to insert a cell   ← **Tooltip**

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Paid	Net Amount
20-30-0000-00	09WEC70	0.00	2,402.41	114,413.48	116,815.89
20-30-0000-00	09WLV71	0.00	326.50	4,970.95	5,297.45
20-30-0000-00	09WLV81	0.00	-98.50	31,603.26	31,504.76

Report Formatting: Deleting Columns

- To delete a column, *right click* on the column you wish to delete.

- *Right click* on the *Project Code* column.
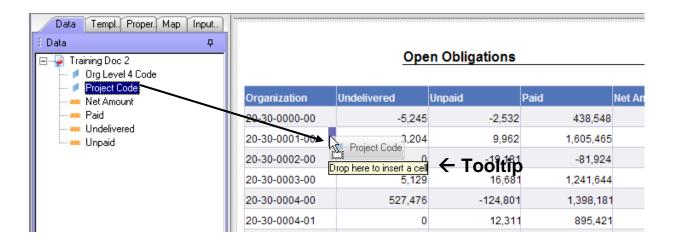
- Right clicking opens a *Shortcut Menu*.

- Select *Remove / Remove Column*.

- *Click Save.*

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Paid	Net Amount
20-30-0000-00	09WEC70	0	2,402	114,413	1'
20-30-0000-00	09WLV71		327	4,971	
20-30-0000-00	09WLV81	-99	31,603	3	
20-30-0000-00	E8M5J10	0	15,000		
20-30-0000-00	F2NS2AA	-13,971	17,483		
20-30-0000-00	F8M5J10	314	1,02		
20-30-0000-00	F8M5JGE	777	3		
20-30-0000-00	F8M6JFM	289			
20-30-0000-00	G8M5J10	1,749	-1,524,116	-1,51	
20-30-0000-00	G8M5J22	0	0		
20-30-0000-00	G8M5JGE	24,123	652,588	68	
20-30-0000-00	G8M6JFM	538	14,534		

Shortcut menu:
- Set as Section
- Insert ▶
- Copy as text
- Clear ▶
- Remove ▶
  - Remove Row
  - Remove Column
  - Remove Table
- Turn To
- Format Text...
- Formula Toolbar
- Format ▶
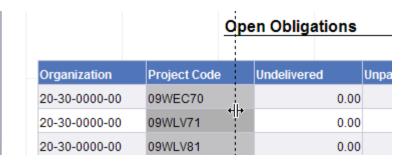- Hyperlinks ▶
- Sort ▶

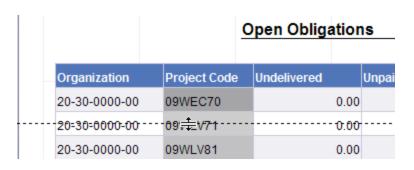# Report Formatting: Adding Columns

- If you add new objects to your query, they will not be automatically added to your report.

- Add columns from the *Data 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 when the tooltip says *'Drop here to insert a cell'*.

- *Click Save.*

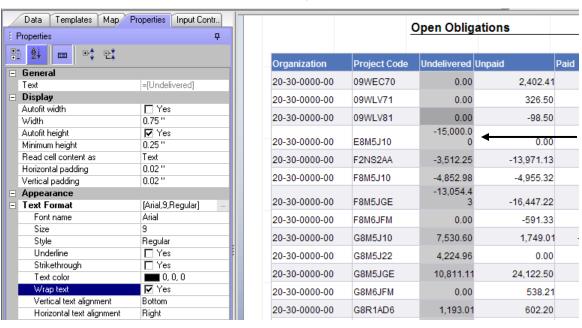# Report Formatting: Change Column Width / Row Height

- 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	Unpa
20-30-0000-00	09WEC70	0.00	
20-30-0000-00	09WLV71	0.00	
20-30-0000-00	09WLV81	0.00	

	Open Obligations		
Organization	Project Code	Undelivered	Unpai
20-30-0000-00	09WEC70	0.00	
20-30-0000-00	09WLV71	0.00	
20-30-0000-00	09WLV81	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.

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

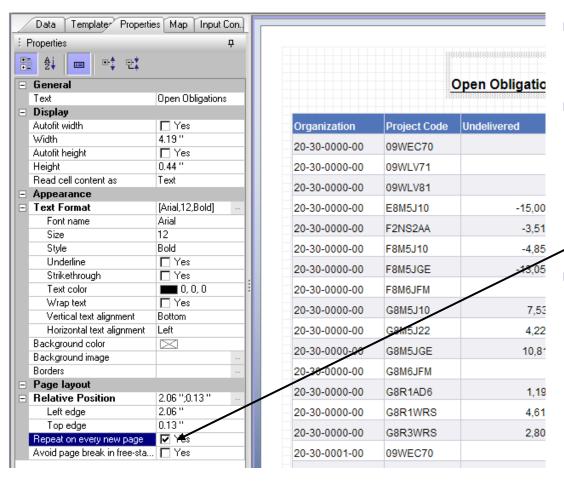# Report Formatting: Changing the Report Title

- 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.*

=''Report Title''	
Press Ctrl+Enter to show Formula Editor	

Org Level 4 Code	Project Code	Net Amount	Undelivered	Unpaid	Paid
20-30-0000-00	09WEC70	116,815.89	0.00	2,402.41	114,413.48
20-30-0000-00	09WLV71	5.297.45	0.00	326.50	4.970.95

Open Obligations

Org Level 4 Code	Project Code	Net Amount	Undelivered	Unpaid	Paid
20-30-0000-00	09WEC70	116,815.89	0.00	2,402.41	114,413.48
20-30-0000-00	09WLV71	5,297.45	0.00	326.50	4,970.95
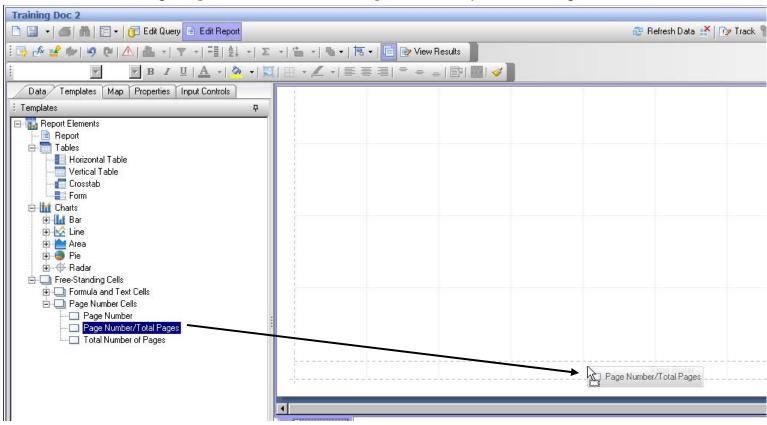
Report Formatting: Repeat on Every Page New Page

- *Free Standing Cells* like the *Report Title* will not repeat on every page by default.

- If you would like the title on every page

  - *Highlight the title cell* by clicking on it

  - Check the *Repeat on every new page* option in the properties tab

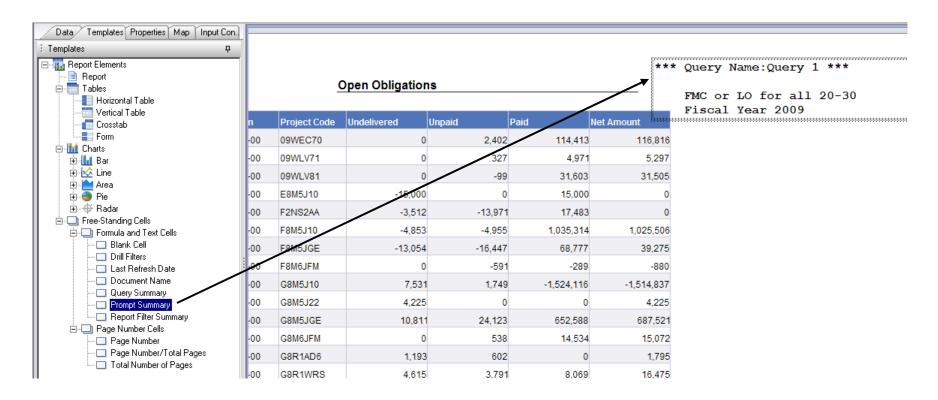- This setting should be considered each time you place a cill in the header of the report.
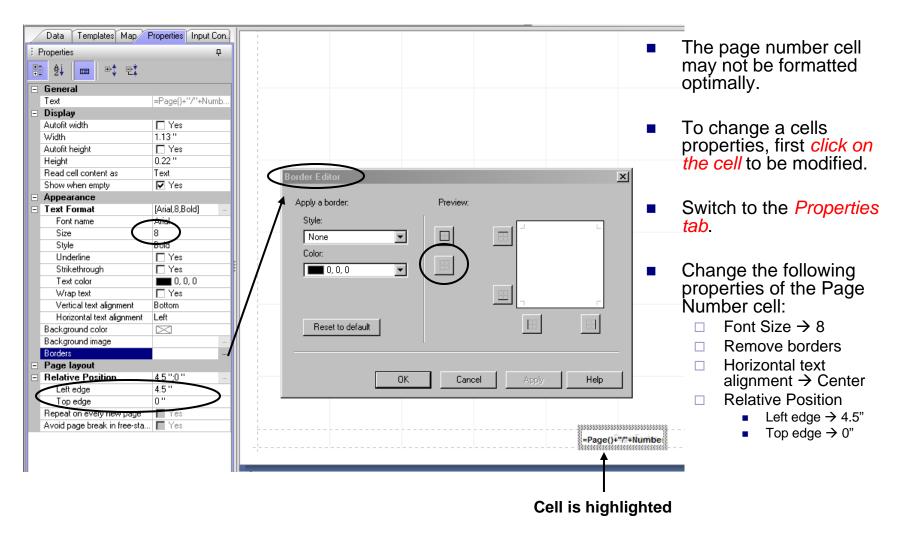
Report Formatting: Free-Standing Cell Templates

- 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 mode.*
- Scroll down to the bottom of the page to see the report footer.
- In the *Templates Tab*, open up the *Free-Standing Cells / Page Number Cells* folders.
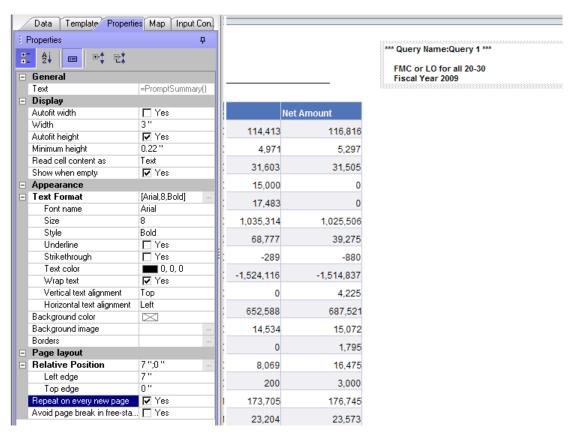- Click and drag *Page Number / Total Pages* and drop on the Page Footer.

Report Formatting: Free Standing Cell Templates

- The answers to the query prompts can be added to the heading of the report.

- In the *Templates Tab*, open up the *Free-Standing Cells / Formula and Text Cells* folders.

- Click and drag *Prompt Summary* and drop next to the report title.
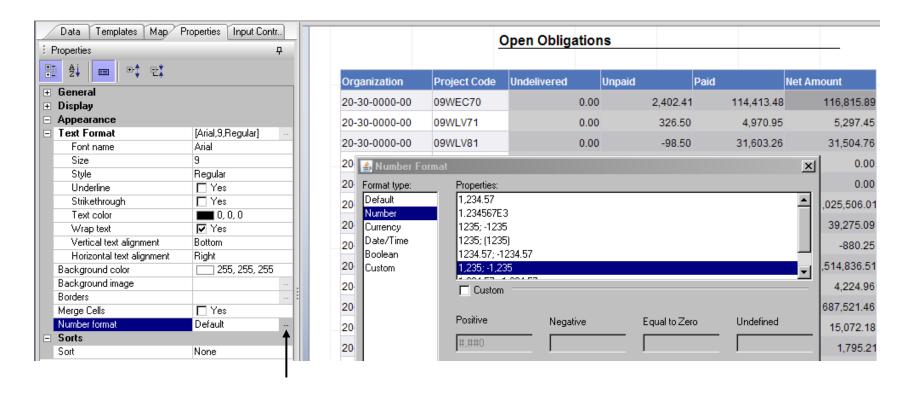
Report Formatting: Properties Tab / Formatting Toolbar

- The page number cell may not be formatted optimally.

- To change a cells properties, first *click on the cell* to be modified.

- Switch to the *Properties tab*.

- 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"

Cell is highlighted

Report Formatting: Properties Tab / Formatting Toolbar

Arial 8 **B** *I* U A ▾ ◆ ▾ ▦ ▾ ✎ ▾ ▤ ☰ ☰ ☰ = = ☰ ▤ ▦ ✦

1   2   3 4 5 6 7   8 9 10   11   12   13 14 15

- Much of the formatting you have been changing via the Properties tab, can also be changed via the *Formatting Toolbar*.

1. Font
2. Font size
3. Bold
4. Italicize
5. Underline
6. Font color
7. Background color
8. Background image
9. Borders
10. Border color
11. Horizontal alignment
12. Vertical alignment
13. Wrap text
14. Merge/Split Cells
15. Format painter

Report Formatting: Properties Tab / 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

- Use the *Properties tab* to change the following cell properties:
  - Width → 3"
  - Relative Position
    - Left edge → 7"
    - Top edge → 0"
  - Check Repeat on every new page

- This cell would extend past the right margin if these settings were not adjusted.

- *Click Save*

Report Formatting: Properties Tab / 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.

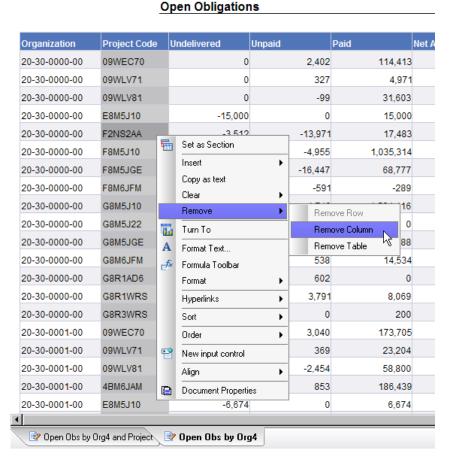- *Hold CTRL key and click on the data cells in the Unpaid, Paid and Net Amount columns.*

Open Obligations

Organization	Project Code	Undelivered	Unpaid	Paid	Net Amount
20-30-0000-00	09WEC70	0.00	2,402.41	114,413.48	116,815.89
20-30-0000-00	09WLV71	0.00	326.50	4,970.95	5,297.45
20-30-0000-00	09WLV81	0.00	-98.50	31,603.26	31,504.76
20-30-0000-00	E8M5J10	-15,000.00	0.00	15,000.00	0.00
20-30-0000-00	F2NS2AA	-3,512.25	-13,971.13	17,483.38	0.00
20-30-0000-00	F8M5J10	-4,852.98	-4,955.32	1,035,314.31	1,025,506.01

Column Title Cells

Column Data Cells

Report Formatting: Properties Tab / Formatting Toolbar

- Once all cells have been highlighted, any properties changed will impact all selected cells.
- To change the *Number Format click "…"* next to the *Default* setting.
- From the Number Format dialog *select the 1,234;-1,234* format which will show the number without the decimals.
- *Click OK.*
- *Click Save.*

Report Formatting: Report Tabs
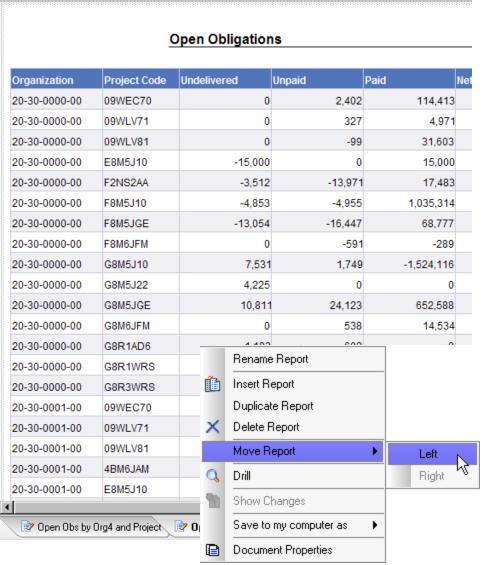
○ Report Tabs allow you to present the data from the report query or queries in a variety of formats.

○ 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 Report 1, *right click on the Report 1 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:
  - ☐ Report 1 → Open Obs by Org4 and Project
  - ☐ Report 1(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:
  - ☐ Insert
  - ☐ Duplicate
  - ☐ Delete
  - ☐ Move (Left / Right)

- Try moving a Report. *Right click on the Report Tab and select Move Report / Left.*

- *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.
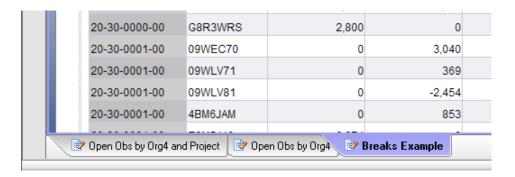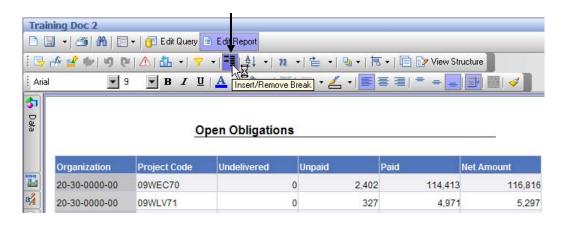
Advanced Report Formatting: Breaks

20-30-0000-00	G8R3WRS	2,800	0
20-30-0001-00	09WEC70	0	3,040
20-30-0001-00	09WLV71	0	369
20-30-0001-00	09WLV81	0	-2,454
20-30-0001-00	4BM6JAM	0	853

Open Obs by Org4 and Project | Open Obs by Org4 | 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

- Switch to the *Breaks Example* tab.

- To apply a *Break* to the Organization column, click on the *column data* in the *Organization* column.

- Click the *Insert / Remove Break* button.

- Notice the following changes:
  - Header is repeated for each change in the break value
  - Break values are suppressed
  - Break Footer is added

- *Click Save.*

Break footer

Advanced Report Formatting: Breaks w/Calculations

- Switch to the *Breaks Example* tab.

- To apply a *Sum* in the *Break Footer*, click on the *data cells* in the *Undelivered* column.

- Click the *Insert Sum* button.

- Notice the *Sum* has been placed in the *Break Footer*.

- Continue to insert Sums on the Unpaid, Paid 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
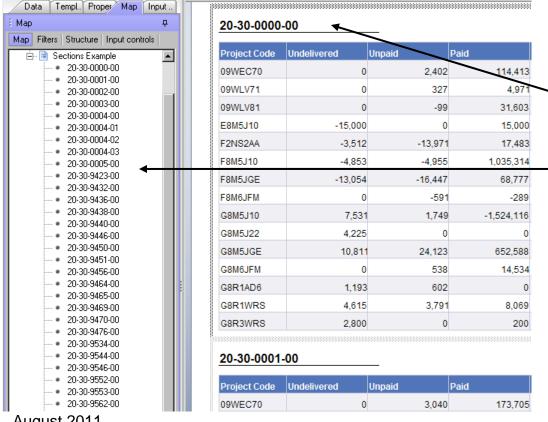
- Duplicate the first tab again to create a tab where you can practice applying Sections.

- 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.*
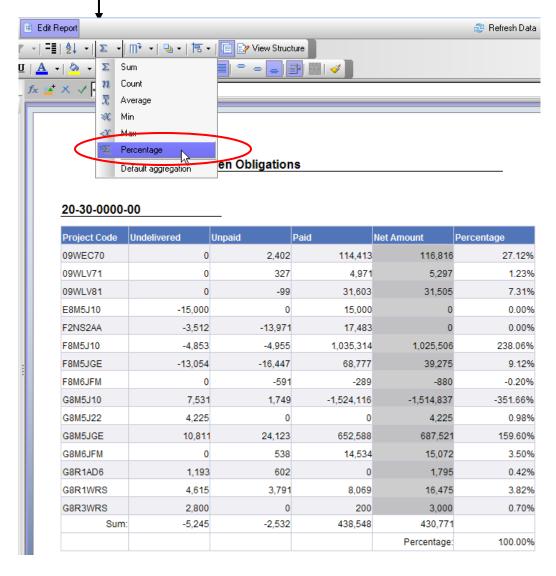
Advanced Report Formatting: Sections w/Calculations

20-30-0000-00

| Project Code	Undelivered	Unpaid	Paid	Net Amount
09WEC70	0	2,402	114,413	116,816
09WLV71	0	327	4,971	5,297
09WLV81	0	-99	31,603	31,505
E8M5J10	-15,000	0	15,000	0
F2NS2AA	-3,512	-13,971	17,483	0
F8M5J10	-4,853	-4,955	1,035,314	1,025,506
F8M5JGE	-13,054	-16,447	68,777	39,275
F8M6JFM	0	-591	-289	-880
G8M5J10	7,531	1,749	-1,524,116	-1,514,837
G8M5J22	4,225	0	0	4,225
G8M5JGE	10,811	24,123	652,588	687,521
G8M6JFM	0	538	14,534	15,072
G8R1AD6	1,193	602	0	1,795
G8R1WRS	4,615	3,791	8,069	16,475
G8R3WRS	2,800	0	200	3,000
Sum:	-5,245	-2,532	438,548	430,771
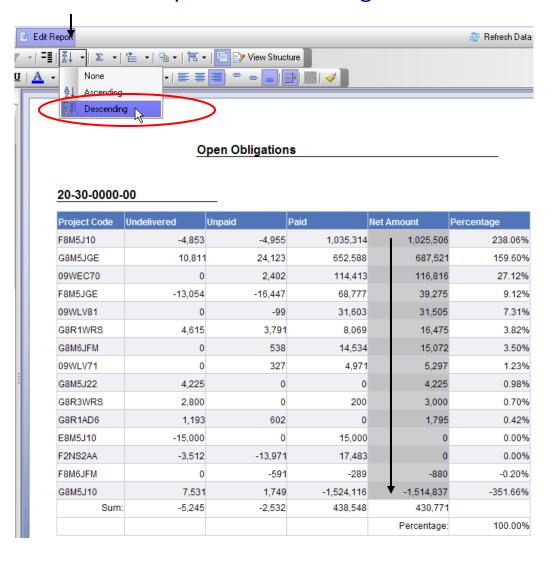
- Switch to the *Sections Example* tab.

- To apply a *Sum* at the bottom of each section, click on the *data cells* in the *Undelivered* column.

- Click the *Insert 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.*

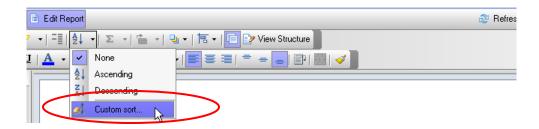# Advanced Report Formatting: Sections w/Calculations

Edit Report — Refresh Data

| Sum |
| Count |
| Average |
| Min |
| Max |
| **Percentage** |
| Default aggregation |

...en Obligations

20-30-0000-00

Project Code	Undelivered	Unpaid	Paid	Net Amount	Percentage
09WEC70	0	2,402	114,413	116,816	27.12%
09WLV71	0	327	4,971	5,297	1.23%
09WLV81	0	-99	31,603	31,505	7.31%
E8M5J10	-15,000	0	15,000	0	0.00%
F2NS2AA	-3,512	-13,971	17,483	0	0.00%
F8M5J10	-4,853	-4,955	1,035,314	1,025,506	238.06%
F8M5JGE	-13,054	-16,447	68,777	39,275	9.12%
F8M6JFM	0	-591	-289	-880	-0.20%
G8M5J10	7,531	1,749	-1,524,116	-1,514,837	-351.66%
G8M5J22	4,225	0	0	4,225	0.98%
G8M5JGE	10,811	24,123	652,588	687,521	159.60%
G8M6JFM	0	538	14,534	15,072	3.50%
G8R1AD6	1,193	602	0	1,795	0.42%
G8R1WRS	4,615	3,791	8,069	16,475	3.82%
G8R3WRS	2,800	0	200	3,000	0.70%
Sum:	-5,245	-2,532	438,548	430,771	
				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.

- Click the down arrow next to the *Insert Sum* button 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.
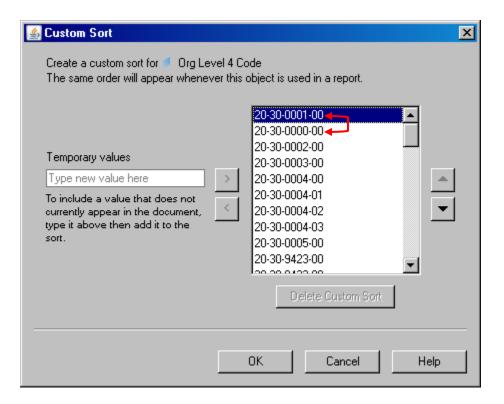
- *Click Save.*

Advanced Report Formatting: Sorts

Open Obligations

20-30-0000-00

Project Code	Undelivered	Unpaid	Paid	Net Amount	Percentage
F8M5J10	-4,853	-4,955	1,035,314	1,025,506	238.06%
G8M5JGE	10,811	24,123	652,588	687,521	159.60%
09WEC70	0	2,402	114,413	116,816	27.12%
F8M5JGE	-13,054	-16,447	68,777	39,275	9.12%
09WLV81	0	-99	31,603	31,505	7.31%
G8R1WRS	4,615	3,791	8,069	16,475	3.82%
G8M6JFM	0	538	14,534	15,072	3.50%
09WLV71	0	327	4,971	5,297	1.23%
G8M5J22	4,225	0	0	4,225	0.98%
G8R3WRS	2,800	0	200	3,000	0.70%
G8R1AD6	1,193	602	0	1,795	0.42%
E8M5J10	-15,000	0	15,000	0	0.00%
F2NS2AA	-3,512	-13,971	17,483	0	0.00%
F8M6JFM	0	-591	-289	-880	-0.20%
G8M5J10	7,531	1,749	-1,524,116	-1,514,837	-351.66%
Sum:	-5,245	-2,532	438,548	430,771	
				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.

- Click the down arrow next to the *Sort* button. Select *Descending*.

- Notice the data is now sorted in Descending order by Net Amount.

- *Click Save.*
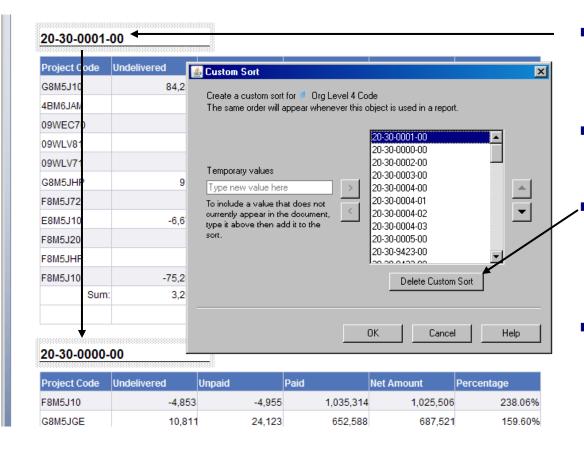
Advanced Report Formatting: Sorts
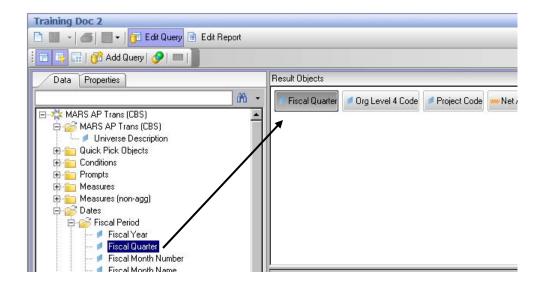
- In addition to Ascending and Descending, you can create a *Custom Sort*. For example, you may want to see all Organizations, but always have your Organization show at the top of the list.

- Click in the *data cells* of the *Organization* section cell.

- Click the down arrow next to the *Sort* button. Select *Custom*.

- 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
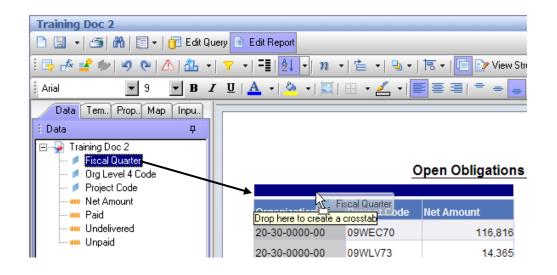
- Note that the first two Organizations are now switched on the report.

- Custom Sorts are applied to <u>all</u> report tabs.

- To *remove* a Custom Sort you must go back to the Custom Sort panel and click the *Delete Custom Sort* button.

- Simple Ascending and Descending sorts are only applied to the report tab they are applied on.
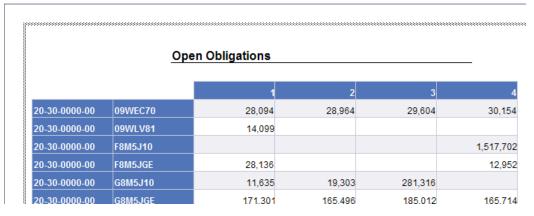
Advanced Report Formatting: Cross-Tabs

- 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.*

- *Edit Query.*

- 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
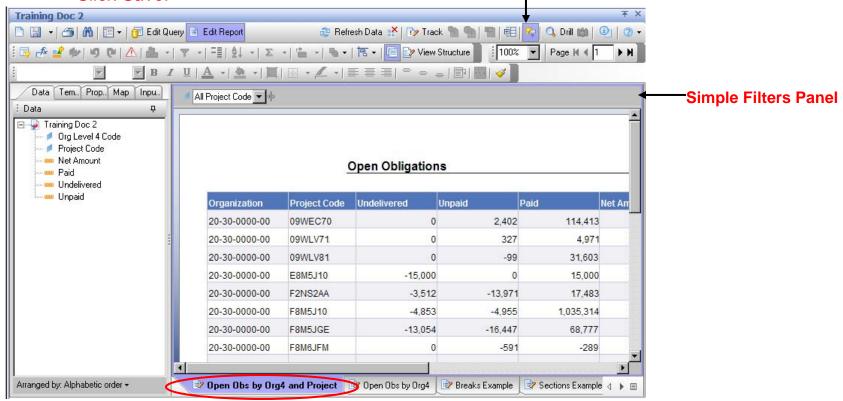
- Duplicate the first tab and call the new tab *Cross-Tab Example*.

- *Remove* the following columns from the table leave only Organization, Project Code and Net Amount:
  - *Undelivered*
  - *Unpaid*
  - *Paid*

- Click and drag the *Fiscal Quarter* object and drop it above the *table title*.

- Wait until you see the Tooltip that says *"Drop here to create a crosstab"*.

- *Click Save.*

Analytical Features

- Simple Filters
- Complex Filters
- Fold / Unfold
- Input Controls
- Data Tracking
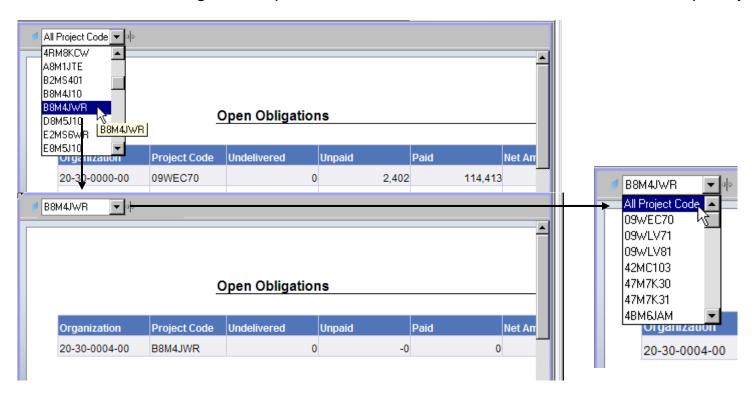
Analytical Features: Simple Filters

- Switch to the *Open Obs by Org4 and Project* tab.

- Click the *Show/Hide Report Filter Toolbar.*

- Drag and drop the *Project Code* object into the *Simple Filters* panel.
- *Click Save.*

Simple Filters Panel
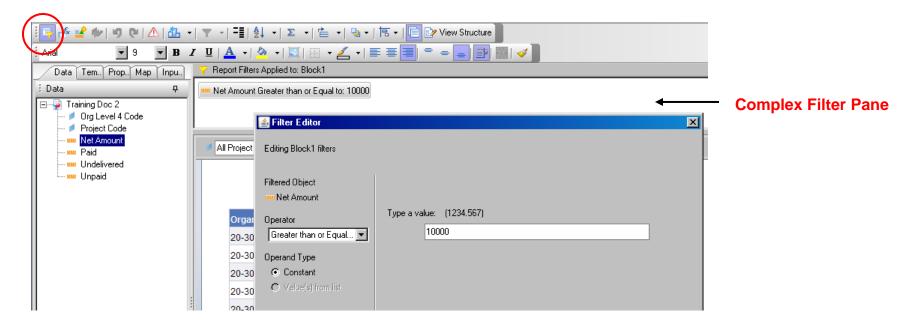
Analytical Features: Simple Filters

- Select a Project from the drop down list.

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

- Click and drag and drop the filter into the Data Tab to delete the filter completely.
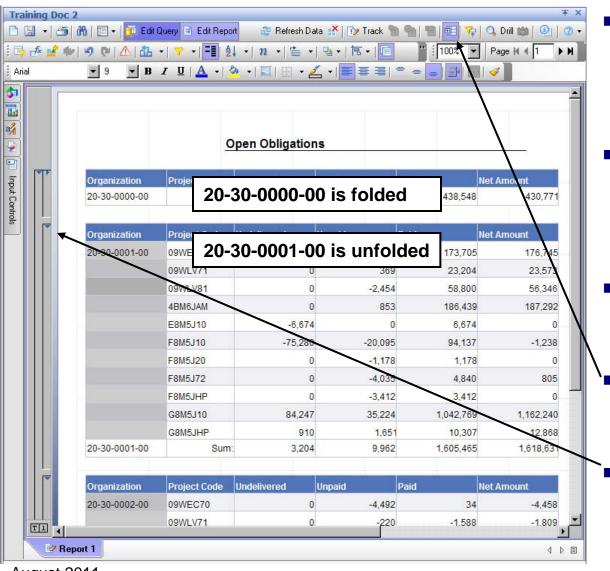
Analytical Features: Complex Filters

- For more complex filter conditions, click the *Show/Hide Filter Pane* 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
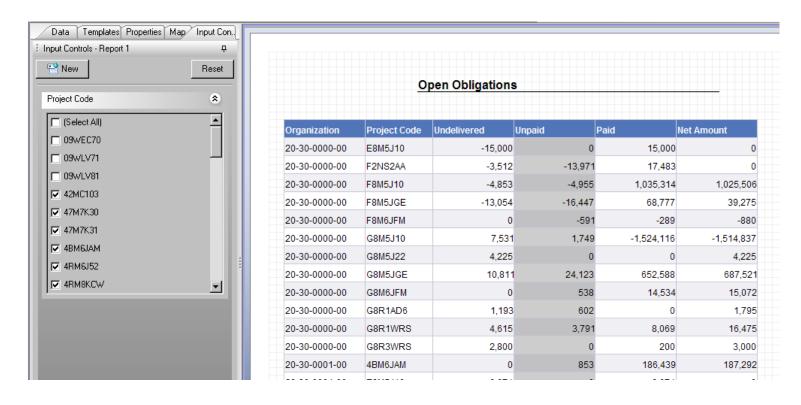
Analytical Features: Fold / Unfold
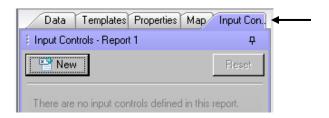
- If you don't need to see the detail rows within certain sections of your report you can use the *Fold / Unfold* toolbar.

- When a table or break is folded, the rows are concealed and headers and footers only are displayed.

- Tables must have headers and footers to be folded and unfolded.

- To turn on the *Fold / Unfold* toolbar click this button.

- To fold a break, first click within the table, then *click the arrows* in the toolbar to the left.

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.
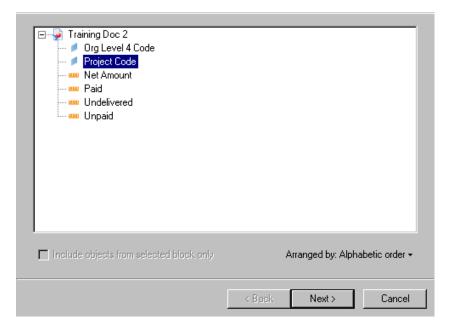

August 2011

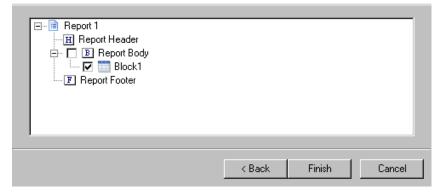# Analytical Features: Input Controls

- To create an input control, switch to the *Input Control tab*.

- Click *New*

- Select an object 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.

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

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