# CREATING A DISCOVERER REPORT

A brief instructional guide on creating a Discoverer Plus report.

By: Deborah Radomski
        SDSMT – Programmer/Analyst
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Discoverer Plus (also called PROD or create) is where you go to make a new Discoverer report or edit an old one. You can only save changes if your are the original creator of a report, otherwise you must make a copy of the report with Save As for your changes to remain.
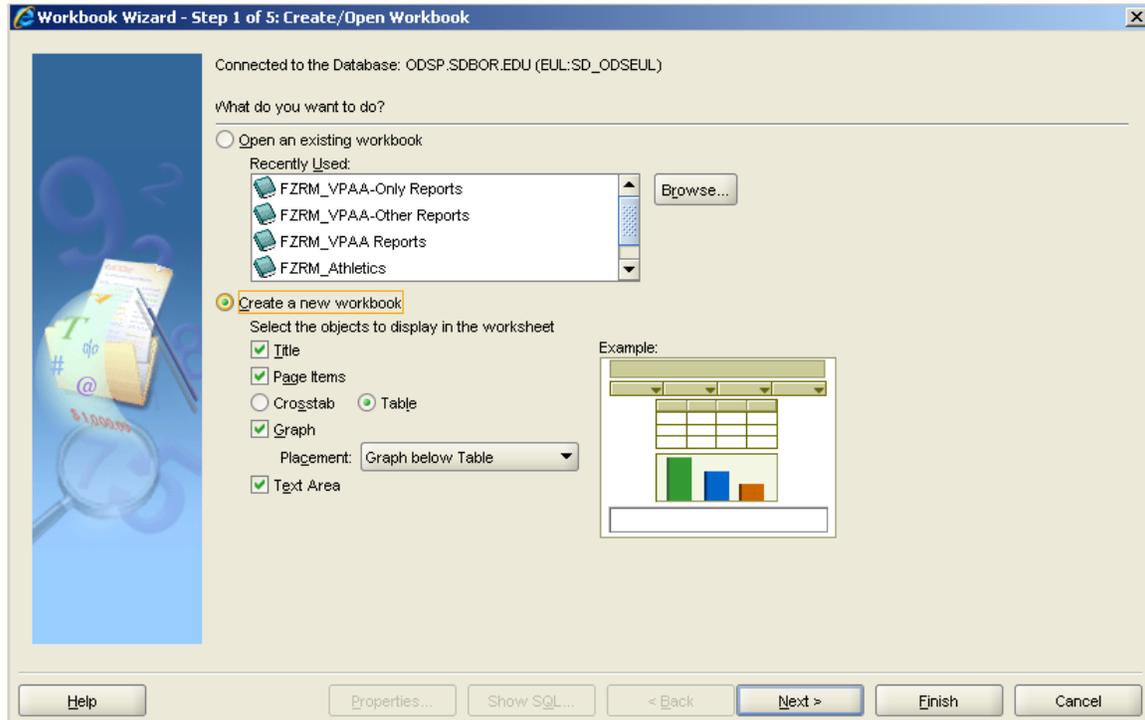

After you log-in you will have the option to open an existing report or create a new one, depending on the option you select.

If you elect to open an existing report you can select it from the short Recently Used' list, or hit the Browse button to see all the reports you have access to.

If you elect to create a new report, you can select the design of your report by checking the objects you want to display. (You can also go back and add/remove display objects later. I like to start with just the basics of a Title and Table view, unless I know ahead of time I want to see certain other features).

Click the Next Button.
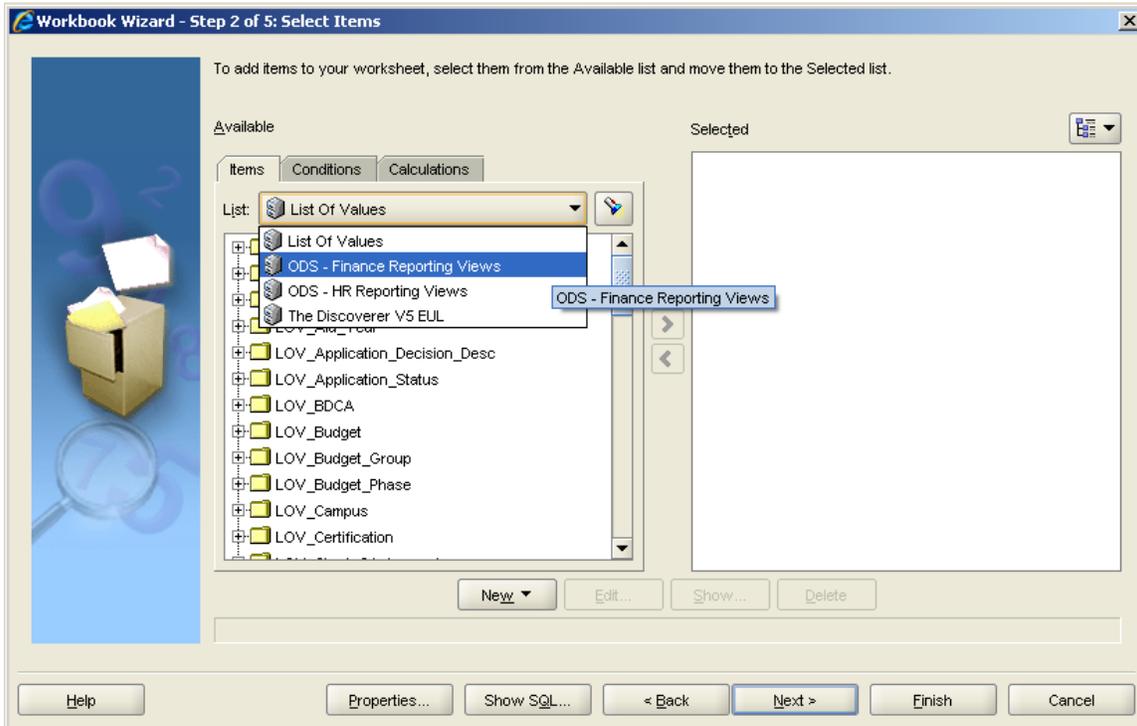
There are currently 4 Views, or areas of data tables:
- List of Values (not very useful, as it is mostly incomplete).
- ODS-Finance Reporting Views (Banner Finance data).
- ODS-HR Reporting Views (Banner Human Resource data).
- The Discoverer UV EUL (Oracle provide reports of how the data works).

Select the ODS-Finance Reporting Views and a list of tables (which look like small folders) will appear that contain the individual data elements, or fields you can select from. Expand the Table you want by double-clicking on it, or clicking once on the '+' next to the table name.

Expand the table called 'Proposal'.
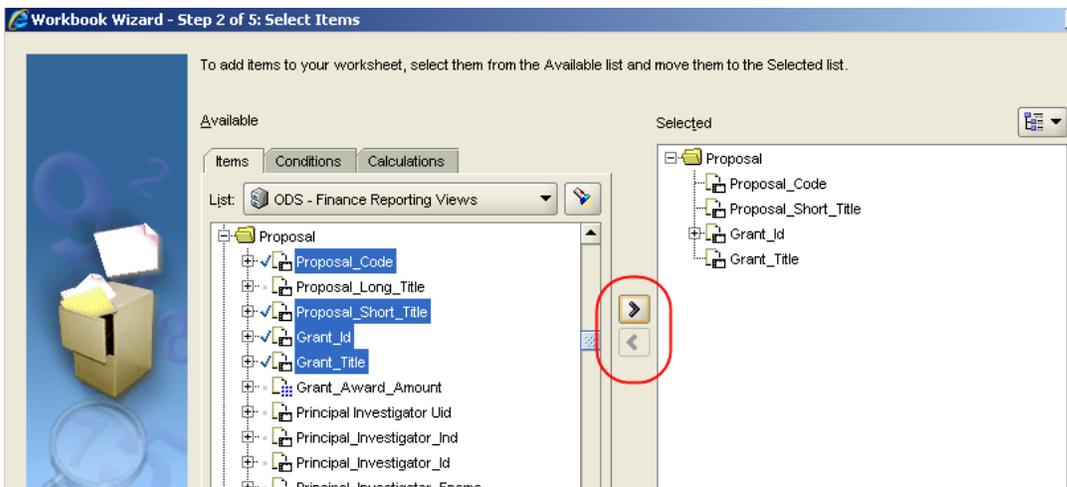
Each table holds several pieces of information, or fields. Select the ones you want to see and click the > arrow to move them to your 'Selected' side. You can always add more fields, or remove some you decide you don't want by using the arrows in both directions.
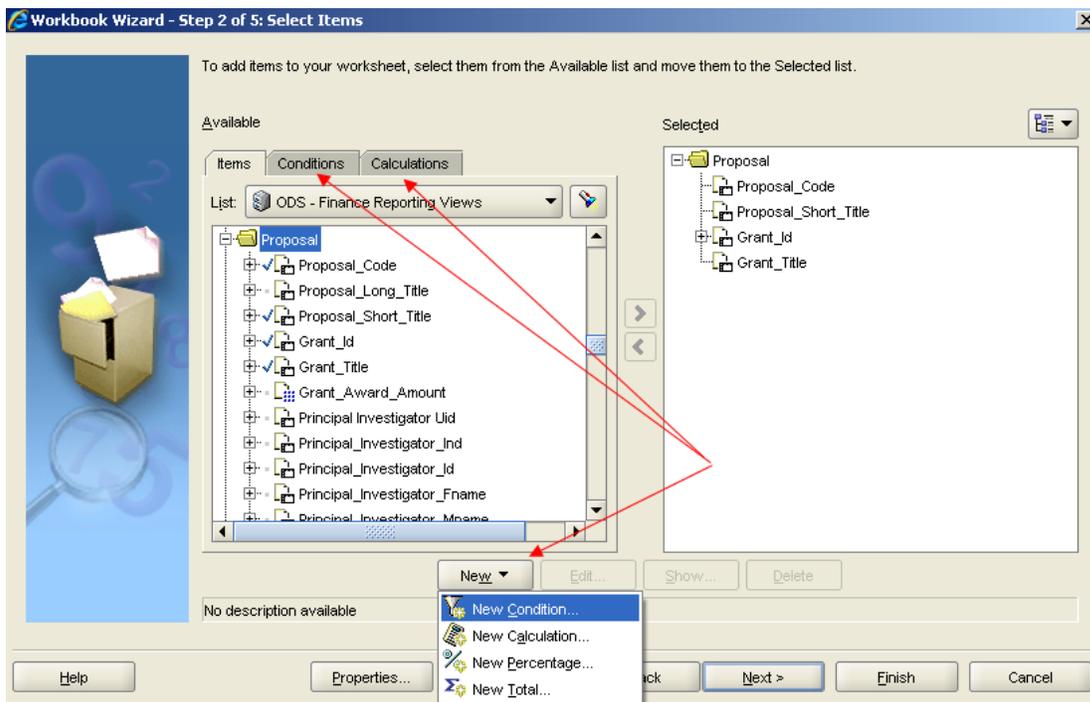
Add any Conditions or Calculations to help filter for just the data you want on your report. A condition is a requirement the data must (or must not) meet in order to be included on the report. A Calculation is either a formula you want created or a column of data that does not currently exist that you want to be added on to the report.

Use the New button at the bottom and select your option. To make the screen show only the type of option you are working on, hit the tab at the top and then the New button.

Select New Condition.
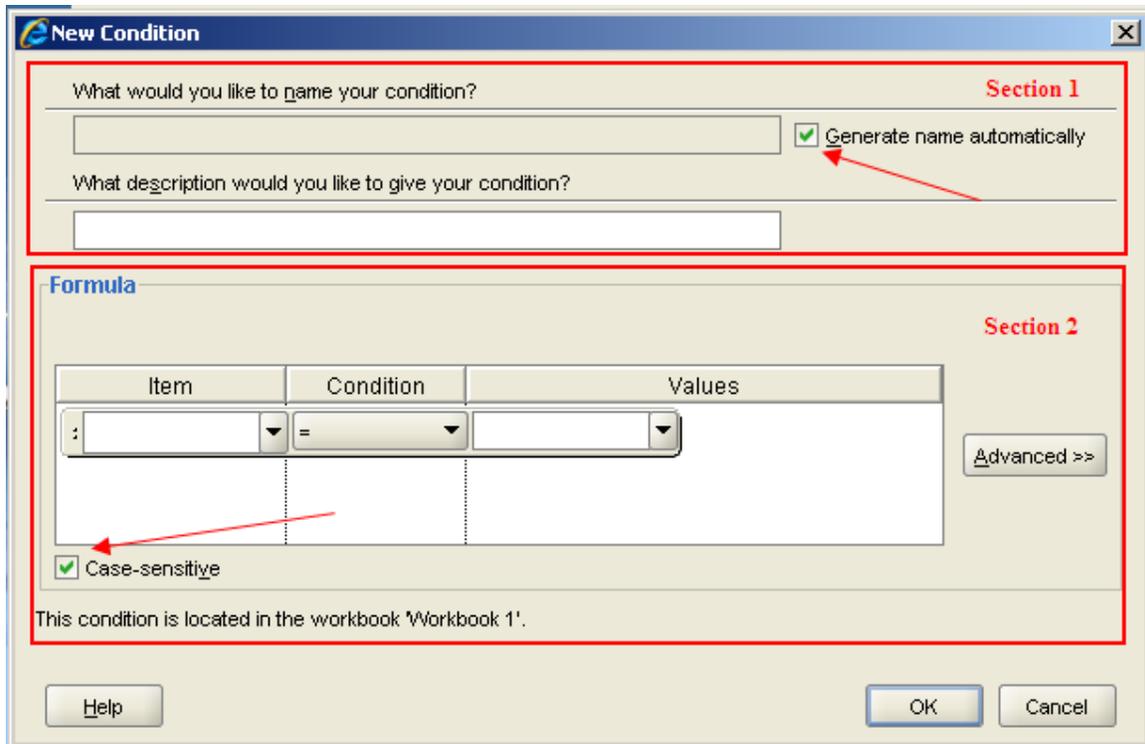
The New Condition box that appears has two main sections.

The first (or top) section allows you to give your condition a name and a brief description. I don't recommend using the system 'Generate name automatically' feature, as it will make the name whatever condition operation you select – often too long and confusing as a title. Uncheck the box and make your own, brief name.

The second (or bottom) section is where you choose the field(s) you want to place a condition, or filter, on and how it needs to work with the condition. You also have the option to keep the default of Case-sensitive or to remove it. Keeping Case-sensitive marked means the value entered must always match the request in order to be considered the same.

- Type in a Name and a Description.
- Select the field you want from the drop-down (in this case select Proposal.Proposal_Code). (Note: if you want to condition on a field, but don't need to see it listed on your report, select MORE ITEMS. This will access the tables again so you can find the field you want.)
- Select the Condition indicator you want – let's use the LIKE option and then enter the Value. LIKE is a wildcard-type condition, requiring you to only enter part of a value. In this example I entered 'MP%', asking for any proposal that began with MP – no matter what came after that.

Play with the Item, Conditions and Values until you understand how each one operates and what they do. The Advanced>> button on the side allows to you have more than one condition formula tied together. An example would be all proposals that begin with MP and that have the same Primary Investigator name.

Hit the OK button.
Hit the Next button to get to the Table Layout.
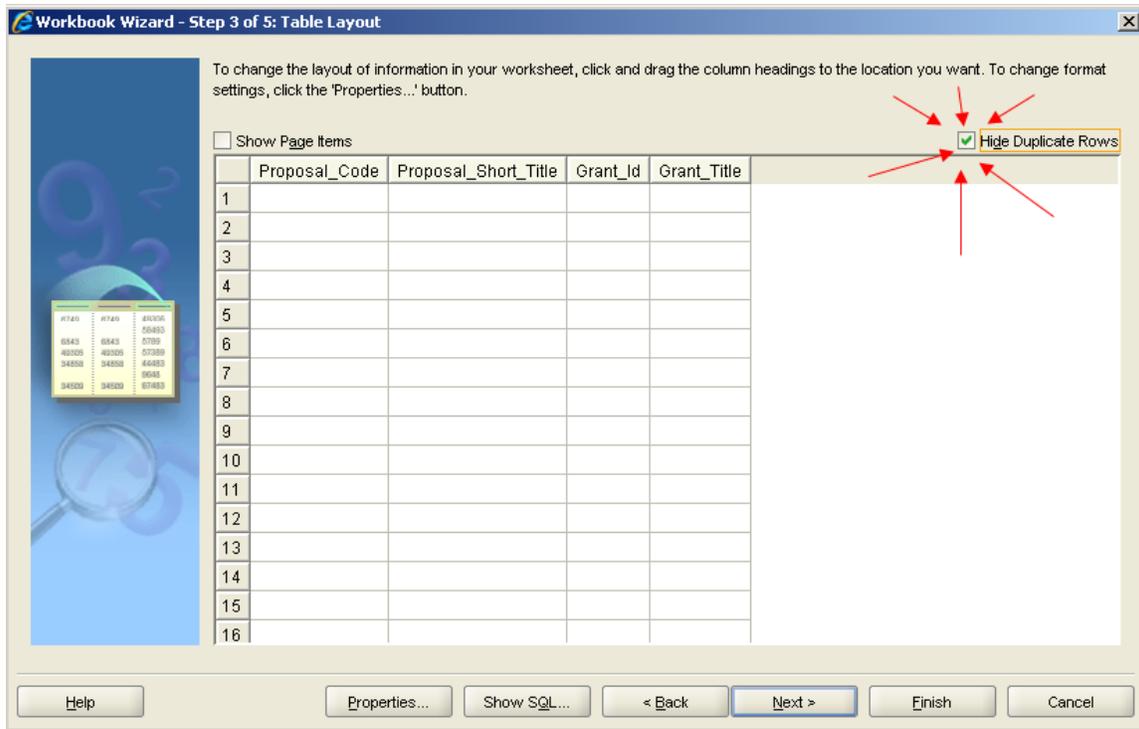
The Table Layout allows you to move your columns around into a new order or to select the Show Page Items option. This option is used when you want to group your data into categories.

VERY IMPORTANT!!! Always check the Hide Duplicate Rows box. If you leave this unchecked your rows of data may show more than one time and your values will replicate – NOT a good thing if you're trying to add or get a count on a chunk of data.

Hit the Next button.
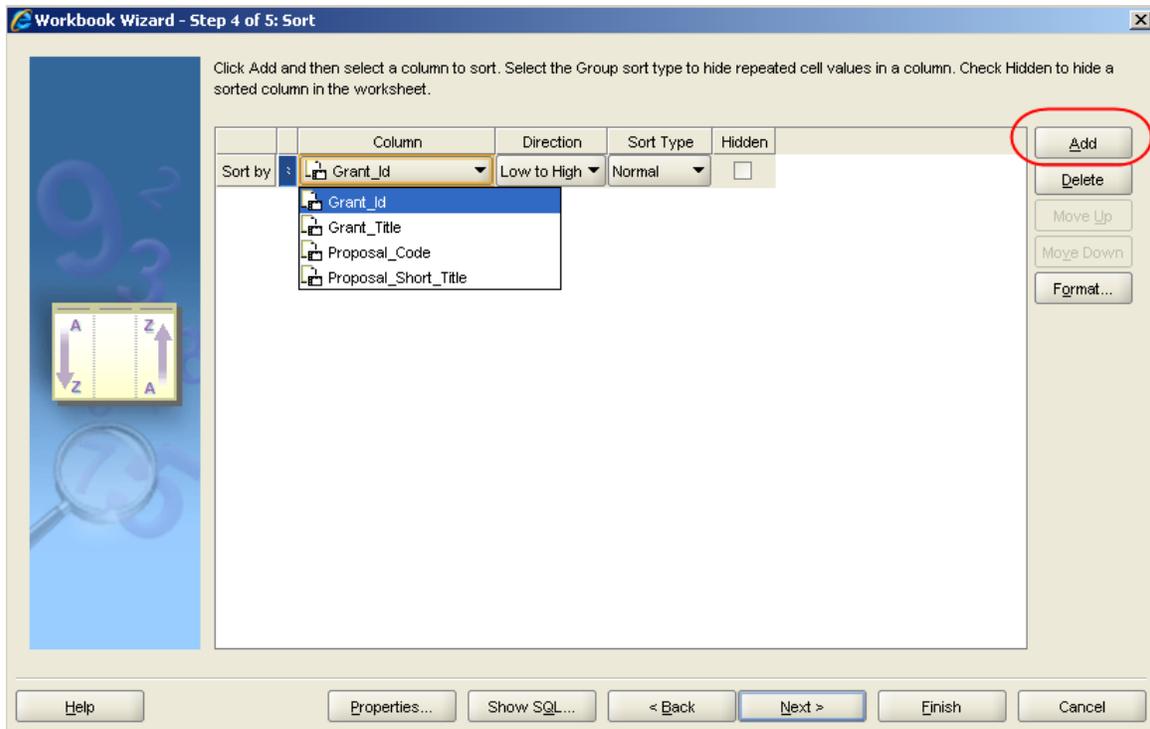
You are now on the Sort screen. The program defaults to sorting by the first field you selected (even if it's no longer the first field on your layout). You may not want it sorted this way, or perhaps you want to add a second sort.

Hit the ADD button.

The program will show the first field selected to sort on. Use the drop-down to select a different field if that's not the one you want. The Direction is from A-Z, 1-whatever by default, but use the drop-down to change to High-to-Low if you want Z-A, etc. The Sort Type is Normal – showing all rows in order, or Group – showing the data in a grouped display which allows you to run totals on that particular field. Use the Group type if you want to sum or count the items in the particular column. The Hidden check box allows you to sort on the data, but not to show it on the report.

Let's select Porposal_Code, Low to High, Normal type.

Hit the Next button.
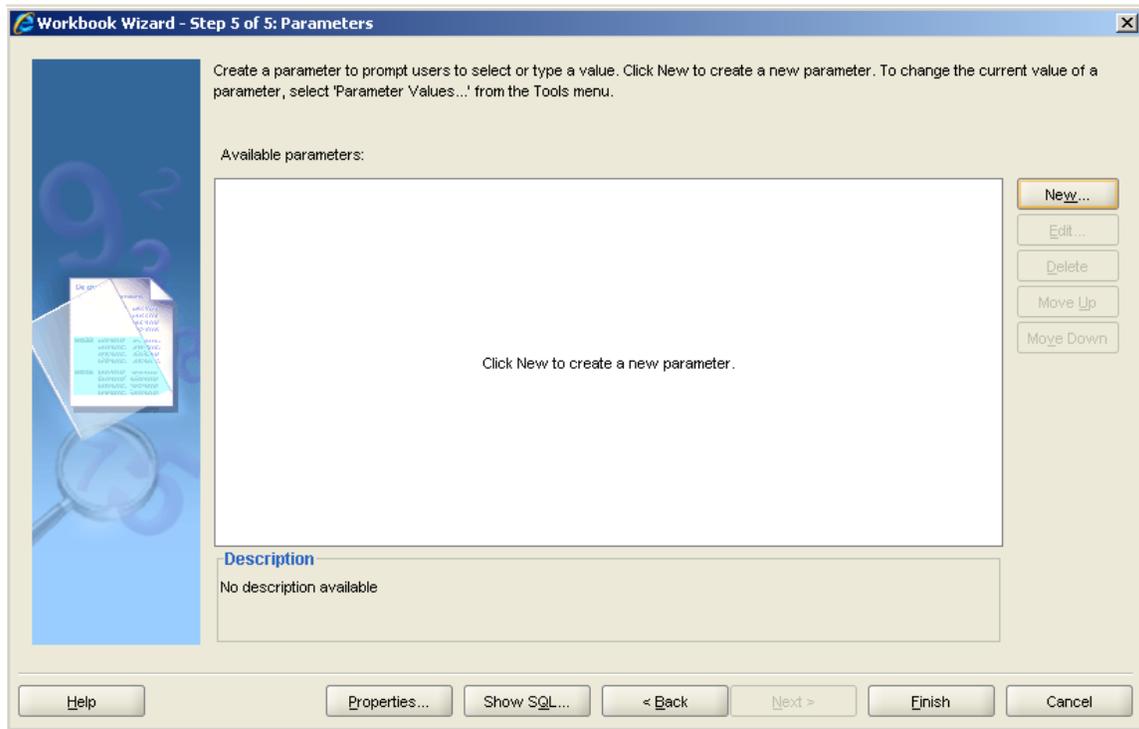
The last step in creating a new report is to set-up any Parameters. A Parameter is a prompt that asks the user to supply the condition value. These are often things like specific dates, or date ranges, a fund number or PI name. It is a great feature, as it allows you to create only one report with many output options. It's great for many end-users who want to see the same data fields, but with different filters.

Because we have created a very basic report, and have already hard-coded our conditions in, I will not show this feature in the example.

Hit the Finish button.

▶ Proposal_Code	▶ Proposal_Short_Title		nt_Title
MP0500159	McCoy DHHS SAMHSA Year 2	Copy	SAMHSA
MP0500179	McCoy DHHS SAMHSA Year 2	Remove from Worksheet	SAMHSA
MP0600015	Decker SDSU NSF Brich		
MP0600029	Martin USDOI-BOR Angostura Ta	Move To ▶	USDOI-BOR Angostura Task 2
MP0600083	Smith NSF MRI Nano-fs	Format Data...	SF MRI Nano-fs
MP0600101	Stetler Penn Cty Landuse Study	Format Heading...	Penn Cty Landuse Study
MP0600103	Pillay AFRL FY06	Edit Heading...	FRL FY06
MP0600104	Boyles AFRL Novel Resins Task		DOT FHWA Asphalt Recycling
MP0600105	Fong AFRL Nanocomposites Tas	Format Table...	st Ford RFSW AI Sheets Proj 2
MP0600106	Hong AFRL Reinforced Mem Tas	Conditional Formats...	SU NSF Biocomplex Environment
MP0600107	Korde AFRL Passive Dumping Ta	Column Width...	lman RealTronics Askildsen
MP0600108	Korde ARFL Self Repair Task 2	Column Auto Size	WRAF DOC NOAA Health
MP0600109	Kellar AFRL Prepegger Task 1		st Lockheed MRLS
MP0600113	Arbegast Lockheed MRLS	Group Sort	
MP0600123	Bang,S DOT FHWA Asphalt Rec	Sort Low To High	
MP0600135	Zimmerman WRAF DOC NOAA H	Sort High To Low	
MP0600138	Pillay Alion DOD Aging Aircraft		st Alion DOD EAFB Aging Arcrf
MP0600140	Farley WRACF NOAA 08	Drill...	
MP0600141	Winter NSF IPA	Manage Links...	NSF IPA
MP0600142	Kerk SDSU NIOSH Sleepiness		DSU NIOSH Sleepiness
MP0600143	Dixon SDBOR CBRD	MA0700026	Christopher SDBOR CBRD
MP0600145	Sani MSU NSF Biocomplex Environment		

Your report will show and now comes the fun part – making it look pretty!

Right-click on any column and you will see options that will let you format the header, data, etc.

Pick a column, right-click on it and select Format Heading.
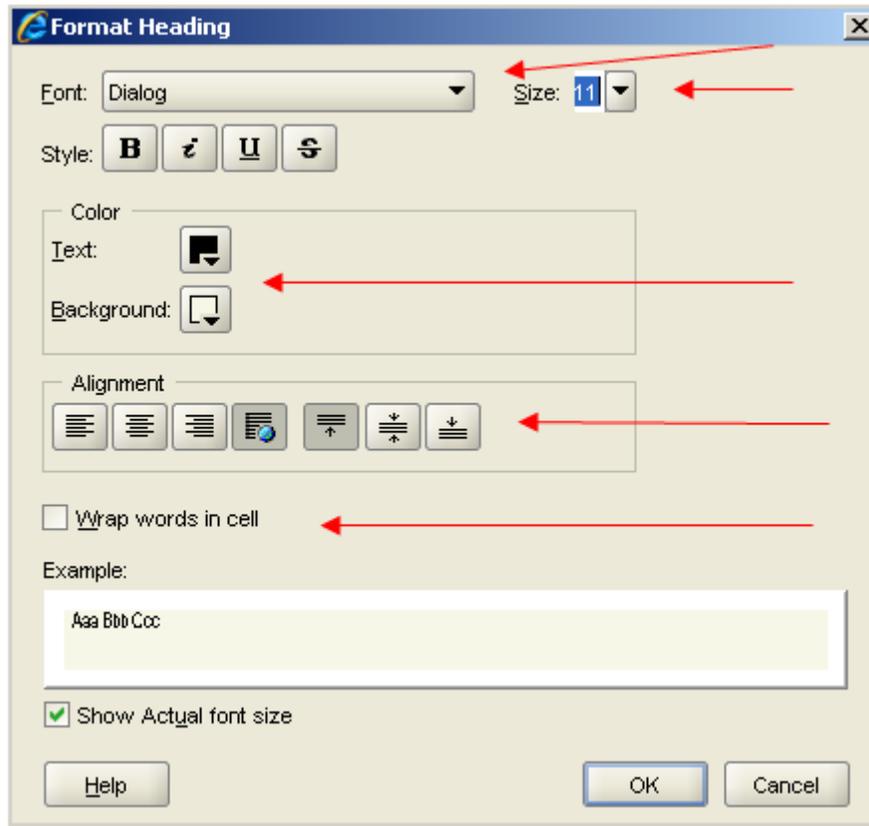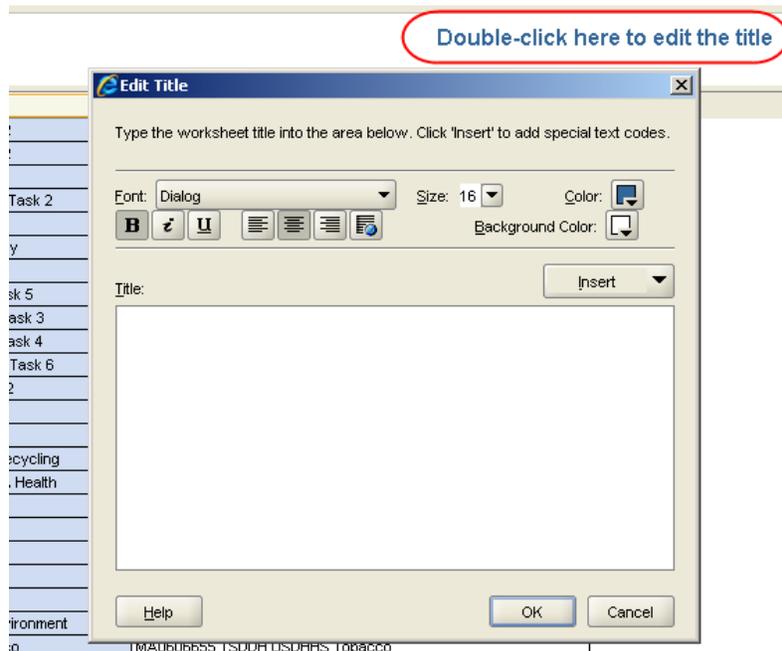
You can now change the font size, color, style, script, alignment or background color of the Heading you are editing.

If you had chosen to edit the Data, instead of the Header, you would see options to format for number, currency, date, etc.

The formatting options work much the same as they would in Excel. Widening columns or moving them as well. (Click and drag).

Double-click (just like it says) on the Title area and an Edit Title box will appear.

Select your font and background colors, alignment, script and font size.

Type in your Title. I like to use a consistent format on my Titles and Headers. They way they look uniform and are easy to spot as something I created. I use the Insert drop down for the current date and page number . . . .see my example below.
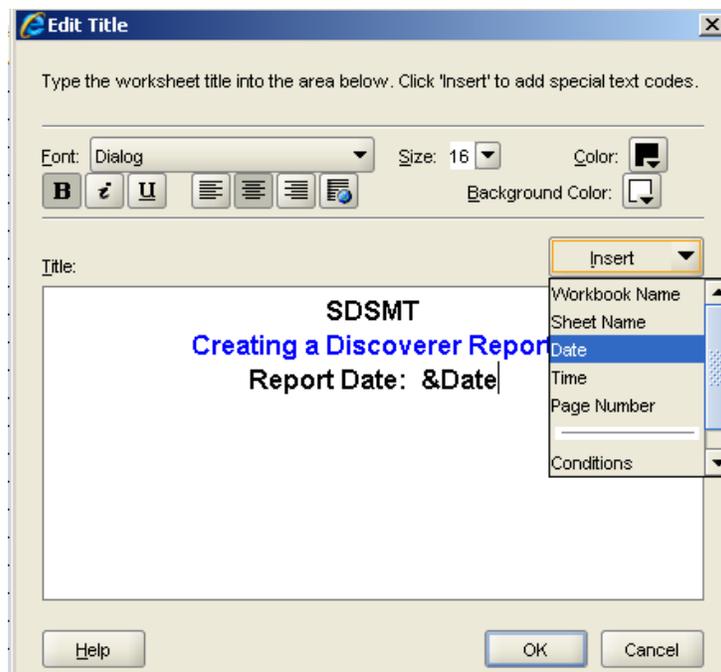
Don't forget to Save your report and be sure to use the naming convention for your location.

I also add a Workbook description to make the report easy to identify in what it is used for.

Share your report with those you want to see/use it.

Below is a list of things you should always consider, do, or know when you create a Discoverer report.

- **ALWAYS** do at least a spot check of the report data to Banner to make sure your conditions are right and the data is pulling correctly.
- Does someone else already have this report made? Why re-create the wheel – get them to share their report with you. It may be easier to modify one then start from scratch (though not always ☺).
- If the report is exported to Excel, you must have your macros Enabled.
- Discoverer is a data extra reporting tool. This means you can pull data, but not add any to a table.
- You can pull data fields from more than one table, but ONLY if those tables are joined. Also make sure they join is working in your favor, not all joins are alike.
- You should never use the Share All option, as everyone everywhere will get access to your report, even if they don't want it.
- The order in which you select your fields reflects in the table layout and sorting order the system uses for defaults.
- If you have created a column (built a CASE statement) and want to sum the values of the created column, you most likely will need to use the Cell Sum instead of Cell when you built the Total.
- Workbooks and worksheets can all have descriptions. Get in the habit of giving at least the workbook (over-all report) a description.
- Use the report naming conventions for your school/location.
- If you want to export your work into Excel, always use the EXPORT option, not Export to Excel. (Export to Excel tends to corrupt).
- You should keep the number of reports (tabs, views, worksheets) to under 6 on any workbook. The more the number of tabs the more the file tends to corrupt.
- Pulling data from the Transaction_History table is very useful, but can be rife with problems. You must be careful to select the Operating_Ledger you want and watch your Detail_Posting_Processs codes. Some will replicate 2 or 3 times, requiring you to create a CASE statement to get true amount values. (For example, I usually only pull a ledger indicator of 'O', with a detail posting process LIKE 'O03%'). Sometimes you must at Rule_Class codes, or use the other detail posting processes in order to find what you need, or you need to pull transactions that posted against the General Ledger. **CHECK AGAINST BANNER BY EACH TYPE OF TRANSACTION UNTIL YOU FEEL COMFORTABLE IN WHAT YOU ARE PULLING.** Or you can contact me and I will try to help.

If you have updated any Index codes or descriptions your data may replicate on a report, depending on the fields you have selected. I personally never use the supplied Indexes, or the join to the Account Index table, as I have found my data is not always reliable. I hard-code (create a CASE statement) for the Indexes I want to see on a report. It is labor-intensive and requires careful creation. It also means you must update your report with any Index changes or additions. I use the Crosswalk (a cross-reference of FOAPs) to determine accurate Indexes and put a note in my workbook description that the Indexes are hard-coded and may require future maintenance.
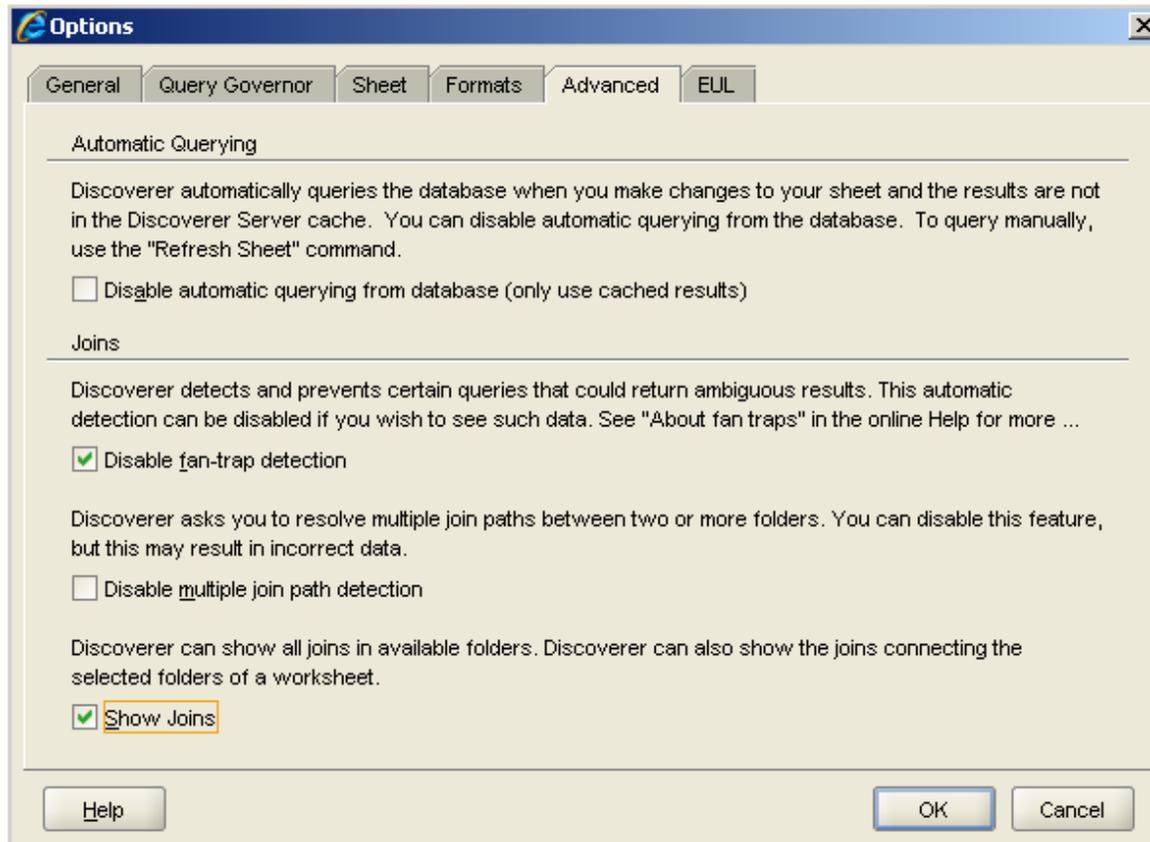
While in Discoverer Plus, even if you do not currently have a workbook (report) open, go to menu: Tools, Options. Each tab will allow you to select feature particular to you.

- General tab lets you select when you want to see data.
- Query Governor lets you choose how long a report will run before its' told to quit.
- Sheet is where you format the over-all report view (sheet) – like blank fields will show as blanks or do you want the work NULL to show instead.
- Formats tab is where the default settings are established for titles, headers, data, conditional stops, etc.
- Advanced tells the system to use what is built in or to do what you say. **You should always have the Disable fan-trap detection and Show Joins checked.**
- EUL selects the default for the End User Layer. (Currently only SD_ODSEUL is used and I don't expect it to change).