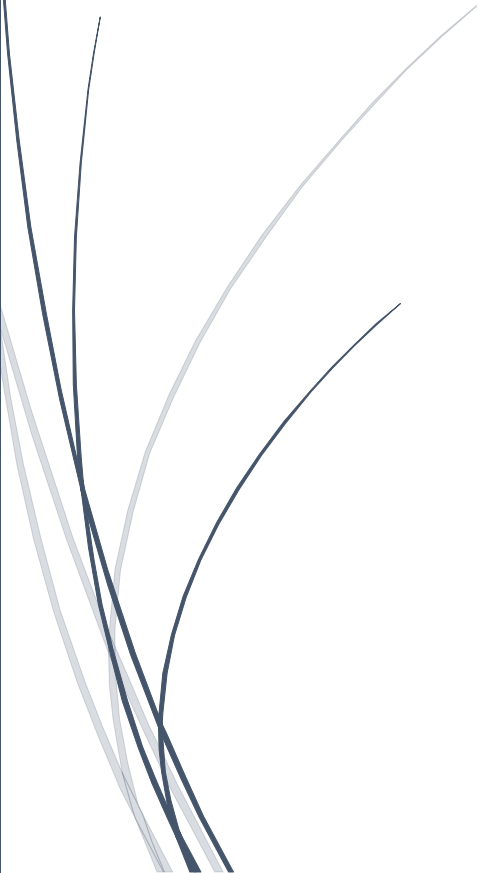


Revised: 4/18/17

# Welcome to Oracle Discoverer



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# The Discoverer Reporting Tool

## From ADVANTAGE to DAWN

Every weeknight, with the exception of holidays, data entered into the ADVANTAGE Financial System processes in the nightly cycle. Once processed, the data loads into the Data Warehouse of Nevada (DAWN). Therefore, the data in DAWN is current through the previous day. The System Status column on the main DAWN web page <http://dawn12.state.nv.us:7777/swmenu.htm> relays the “current as-of date” for all data on DAWN.

There are several reports and summary tables in DAWN designed to aid agencies in getting the information they need from ADVANTAGE. Summary tables include Vendor Voucher Check, Budget Status Report, Internal Budget Report, Job Report and the Trial Balance.

If a report in DAWN does not fulfill your needs, you may be able to use **Discoverer** to return financial information you need.

## What is Discoverer?

**Discoverer** is an ad hoc query tool available to a limited number of users. It allows users to customize reports using specific data extracted from DAWN. When working with **Discoverer**, users must know how ADVANTAGE data is posted to the Data Warehouse. This will insure each **Discoverer** report returns the desired information.

## Terminology

**Business Area:** In Discoverer related folders are grouped into business areas. (Think of the Business Area as a filing cabinet.)

**Note: Do not use the Business Area called General\_Ledger\_Inquiry\_Codes. Use the Statewide General Ledger Inquiry instead.**

**Folders:** Stores details about groups of related information. (Think of the folders as the folders inside the file cabinet.)

**Items:** Folders are composed of items. (Think of Items as the documents inside of the folders.)

**Data:** *Alpha Character* – Uppercase, mixed, and lowercase letters, numbers and symbols such as %.

**NOTE:** Discoverer queries are not case-sensitive, but queries are easier when the “Match Case” box is unchecked.

*Number* – Numbers, decimals point, and signs such as + and –.

*Date* – Any valid date between January 1, 4712 BC and December 31, 4712 AD. Dates in **Discoverer** are stored as **DD-MON-CCYY**.

<b>Rows:</b>	A folder or item consists of any number of rows, each of which represents all the information about one member of that folder.
<b>Queries:</b>	A question <b>Discoverer</b> asks the database in order to return the data you wish. Running a query will produce a report.
<b>Worksheets (Reports):</b>	A worksheet is generated when a query is run. It contains data retrieved from the database based on the items in the query.
<b>Workbook:</b>	A collection of worksheets with related information, organized to show different perspectives of that information.

## Discoverer Workbooks

- ❖ **Discoverer** will allow only one workbook to be open at a time. A user must open another web browser session to access multiple workbooks.
- ❖ **Discoverer** workbooks are stored in the database only, **not on your local PC**.
- ❖ Users share workbooks if they want other users to be able to access them.
- ❖ You must print the entire workbook; you cannot print a page range. (Workaround: Change your criteria to show only the report pages you want to print OR download your workbook into EXCEL and print the range needed.)

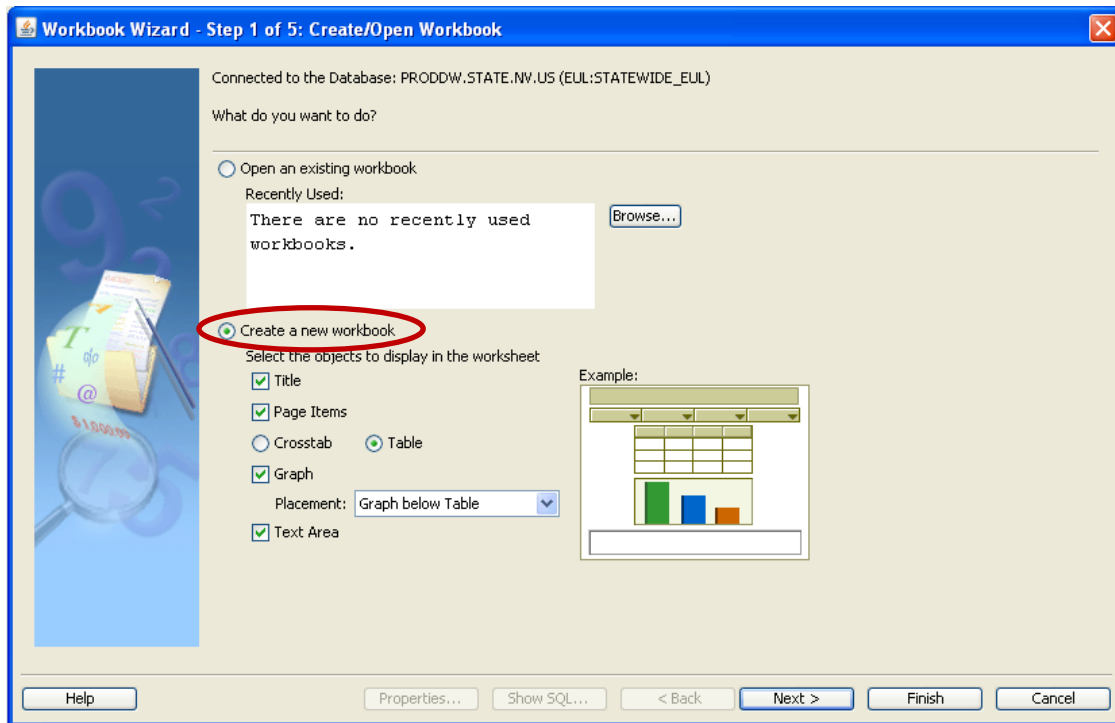
### Before you start:

- When designing a report, keep in mind the desired outcome. Customize report conditions to fine-tune the results you need. Evaluate the information that is returned before you make any decisions based on the **Discoverer** report.

# Wizard, Step 1: Create/Open Workbook

## To Create a Report with the Workbook Wizard:

- Select **Create a new workbook** and select the format you want to use to display information.

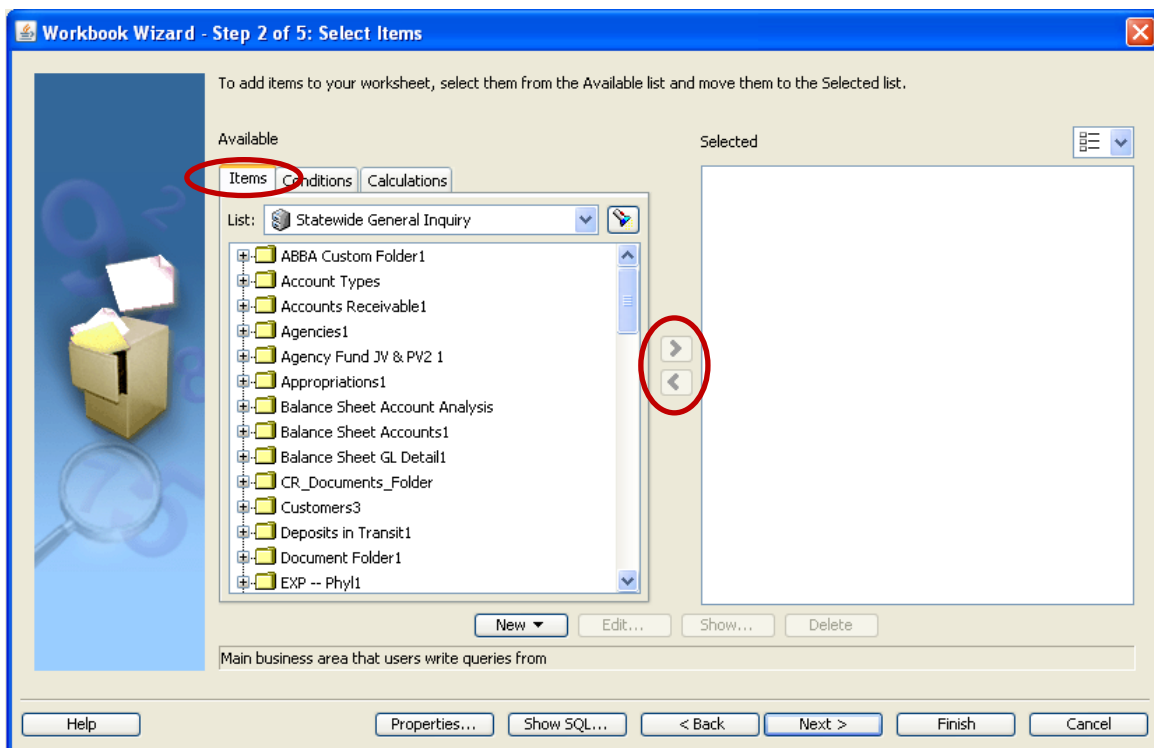


- Title:** Including this option will include a title at the top of your query. (See example displayed.)
- Table:** A table report has columns of information with headings. Each column is also called a column item.
- Crosstab:** A crosstab report looks like a bus timetable, with values running across the top, down the left edge, and in the intersection. These values are usually summarized to show a total or average. A crosstab report is sometimes referred to as a matrix report or a pivot table.
- Graph:** Including this option will include a graph of your output information with your query. (See example displayed.)
- Text Area:** Including this option will include a text area listed at the bottom of your query page. (See example displayed.)

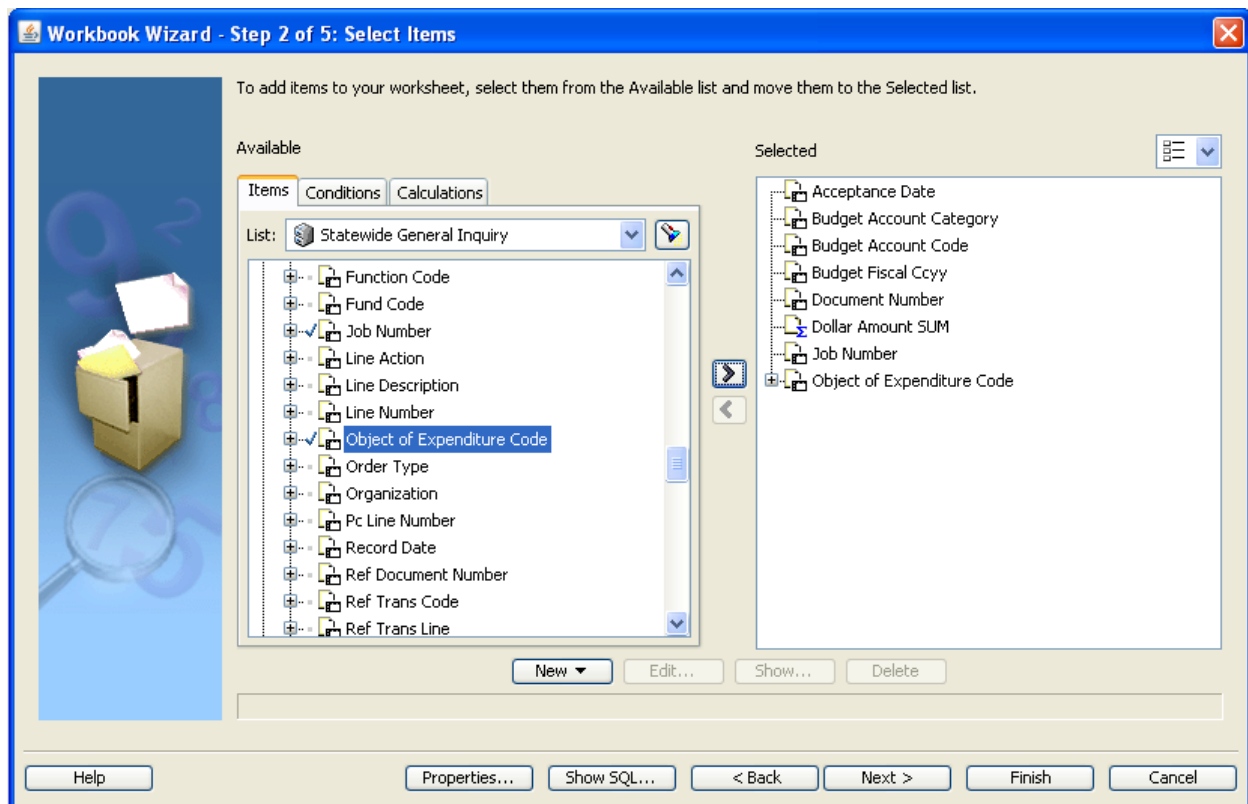
## Wizard, Step 2: Select Items

### Items Tab:

- Select the **Business Area** you want to use from the **List** box.
- Select the folder you want to use.
- To move an item from the **Available** window into the **Selected** window:
  - Drag the item from the **Available** window into the **Selected** window, OR
  - Select the item and then click the right arrow.



- Continue selecting the items you wish to include in your report.



**NOTE:** If you choose items from more than one folder, you may be prompted to select how you would like that item to join the other folders.

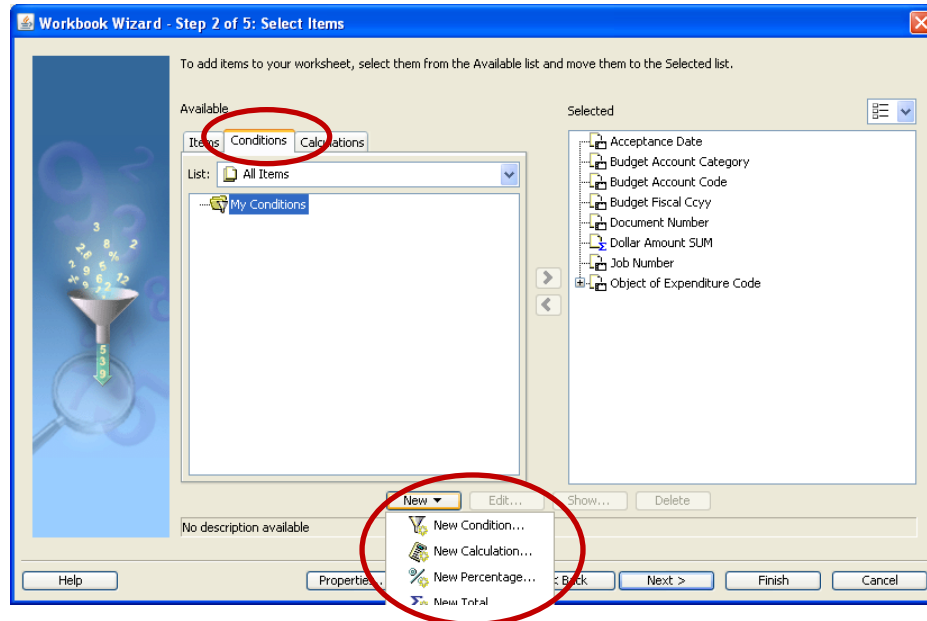
## Conditions Tab

A **condition** is a filter placed on an item to restrict the information returned from the query.

A **prompt** is a condition that will appear before a report is run to ask the user if they wish to change conditions.

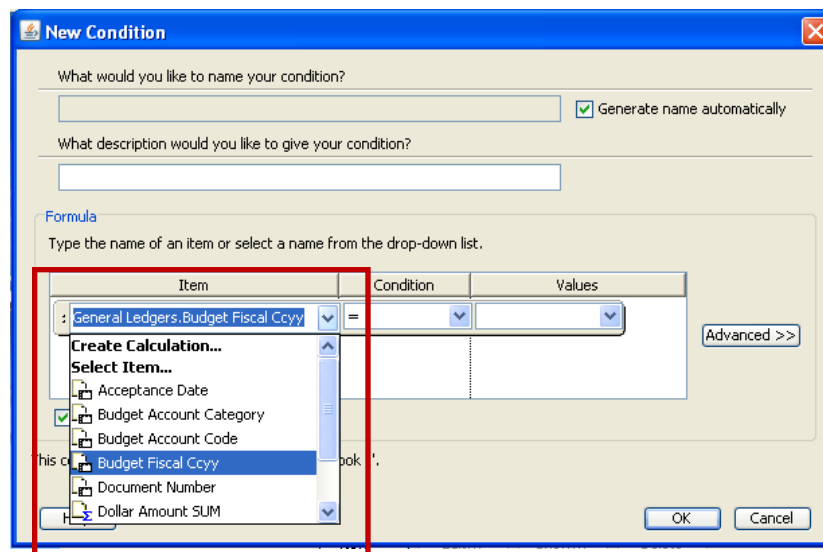
To create a **Condition**:

- Select the **New** button in the **Conditions** tab.



- Select **New Condition** from the drop down list.

The **New Condition** window will open.



- Select the item to be filtered from the **Item** drop-down list.



- Select a conditional operator from the **Condition** drop-down list. A conditional operator allows users to choose how an item is filtered. For example:

Item	Operator	Value	Retrieves
Fund Code	=	101	Funds equal to 101
Fund Code	>	101	Funds greater than 101
Fund Code	LIKE	2%	All funds that start with 2
Fund Code	IN	101,201	All funds equal to 101 or 201
Fund Code	NOT IN	101,201	All funds not equal to 101 or 201
Fund Code	BETWEEN	101 and 300	All funds between 101 and 300
Fund Code	!=	101	All funds not equal to 101
	or		
	<>		

The condition will be listed in the **Selected** window.

**New Condition**

What would you like to name your condition?

What description would you like to give your condition?

**Formula**

Type text in single quotes or select a value from the drop-down list. Multiple values must be separated by commas.

Item	Condition	Values
General Ledgers.Budget Fiscal Ccyy	=	2008

Advanced >>

☒ Case-sensitive

This condition is located in the workbook 'Workbook 1'.

Help OK Cancel

**Workbook Wizard - Step 2 of 5: Select Items**

To add items to your worksheet, select them from the Available list and move them to the Selected list.

**Available**

Items Conditions Calculations

List: All Items

My Conditions

- ✓ Budget Fiscal Ccyy = '2008'
- ✓ Account Type Code = '22'
- ✓ Dollar Amount SUM != 0
- ✓ Budget Account Code IN ('3228','3230','3233','4

**Selected**

- Acceptance Date
- Budget Account Category
- Budget Account Code
- Budget Fiscal Ccyy
- Document Number
- Dollar Amount SUM
- Job Number
- Object of Expenditure Code
- ✓ Budget Fiscal Ccyy = '2008'
- ✓ Account Type Code = '22'
- ✓ Dollar Amount SUM != 0
- ✓ Budget Account Code IN ('3228','3230','3233','4862')

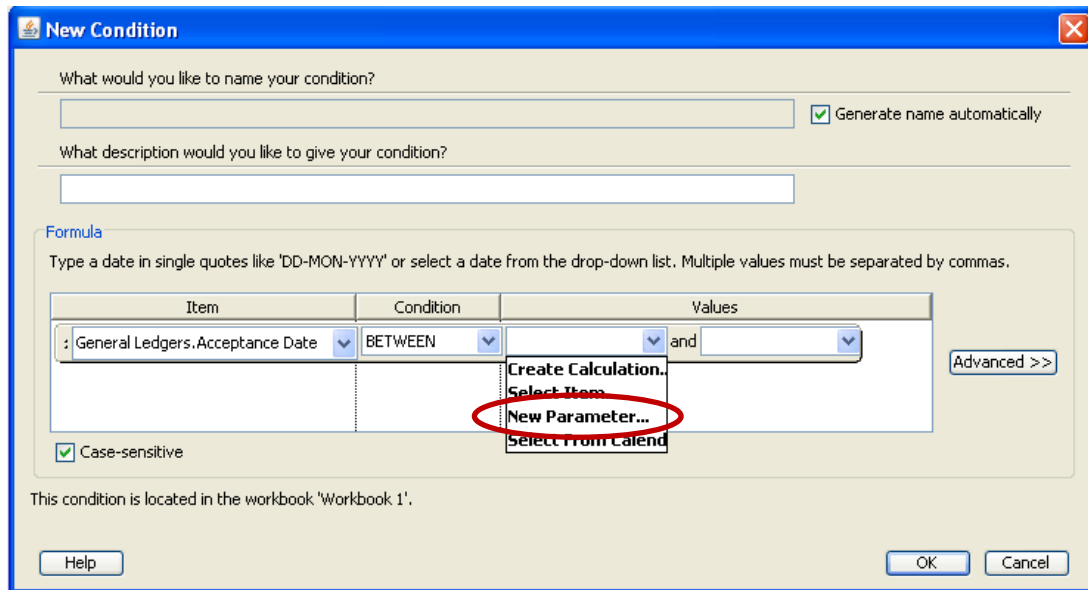
New Edit Show Delete

Help Properties Show SQL Back Next Finish Cancel

- Select a value from the **Values** drop-down list or enter the value manually.

## To create a Prompt:

- Select the item to be filtered from the **Item** drop-down list.
- Select a conditional operator from the **Condition** drop-down list.
- Select **New Parameter** from the **Values** drop-down list.



**New Condition**

What would you like to name your condition?

What description would you like to give your condition?

**Formula**

Type a date in single quotes like 'DD-MON-YYYY' or select a date from the drop-down list. Multiple values must be separated by commas.

Item	Condition	Values
General Ledgers.Acceptance Date	BETWEEN	and

**Values dropdown menu:**

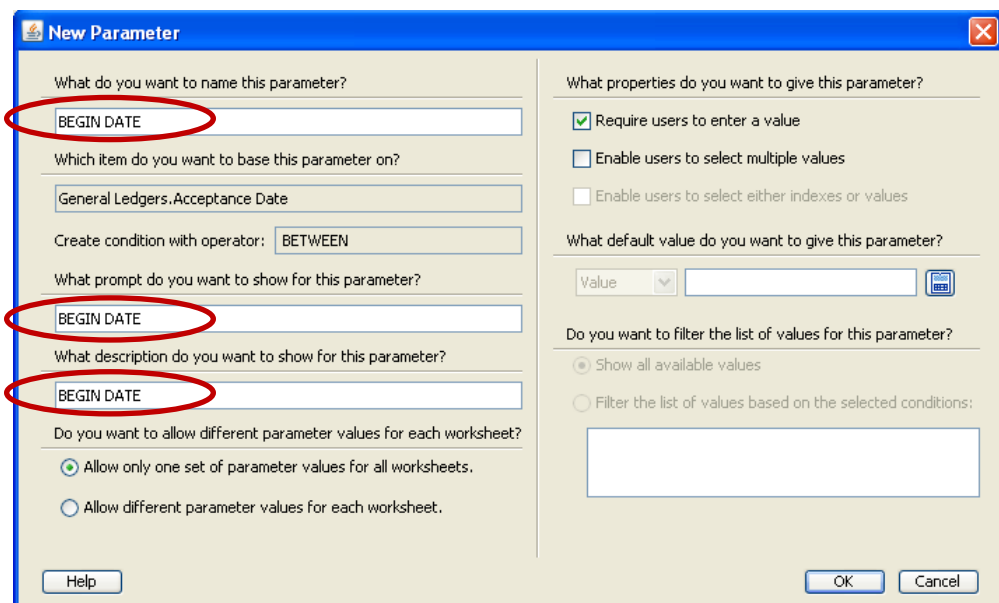
- Create Calculation...
- Select Item...
- New Parameter...** (highlighted with a red circle)
- Select from Calendar...

☒ Case-sensitive

This condition is located in the workbook 'Workbook 1'.

Help OK Cancel

- In the **New Parameter** window, enter the parameter name, a prompt for the parameter and a prompt description. This prompt will be displayed before you run each query.



**New Parameter**

What do you want to name this parameter?

BEGIN DATE

Which item do you want to base this parameter on?

General Ledgers.Acceptance Date

Create condition with operator: BETWEEN

What prompt do you want to show for this parameter?

BEGIN DATE

What description do you want to show for this parameter?

BEGIN DATE

Do you want to allow different parameter values for each worksheet?

☒ Allow only one set of parameter values for all worksheets.

☐ Allow different parameter values for each worksheet.

What properties do you want to give this parameter?

☒ Require users to enter a value

☐ Enable users to select multiple values

☐ Enable users to select either indexes or values

What default value do you want to give this parameter?

Value

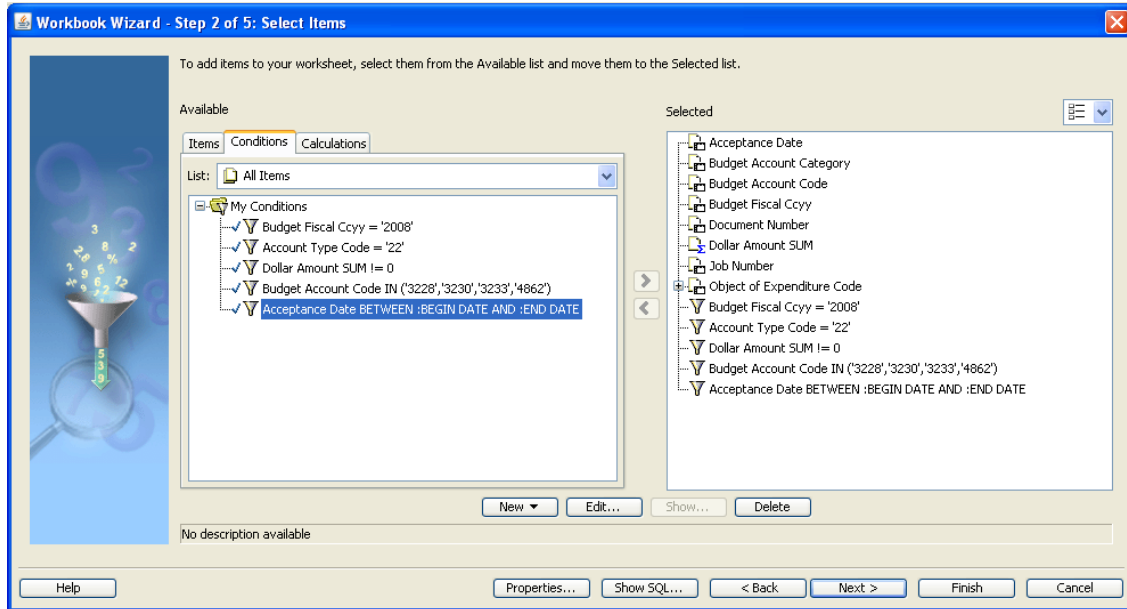
Do you want to filter the list of values for this parameter?

☒ Show all available values

☐ Filter the list of values based on the selected conditions:

Help OK Cancel

In the **Selected** window, the prompt will have a colon (:) in front of the item name.

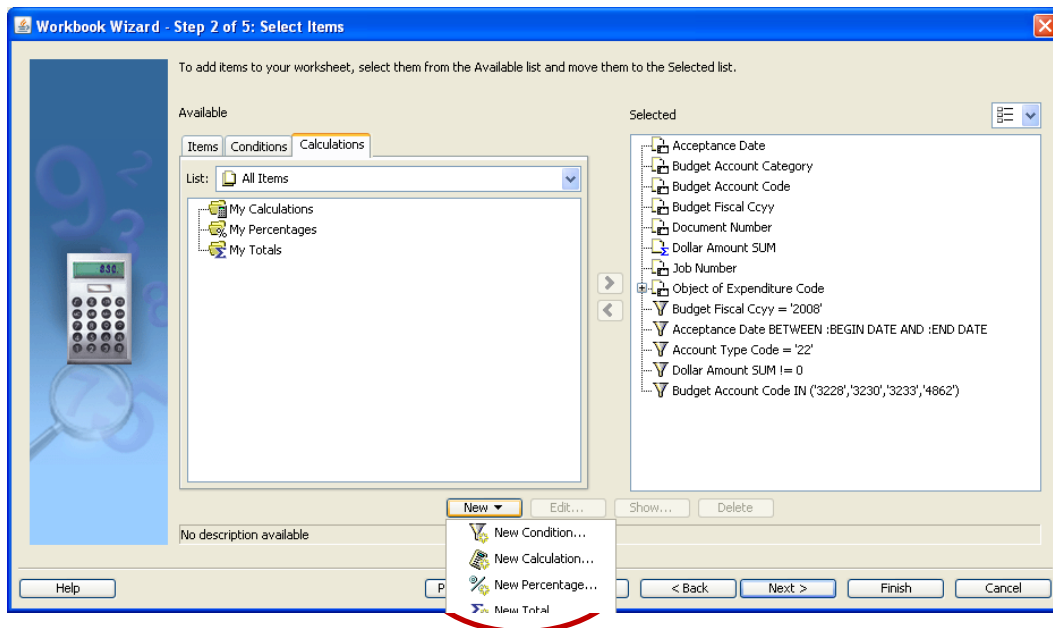


## Calculations Tab

**Discoverer** has a full range of common functions and operators to calculate results on your Worksheets. Discoverer can display the results of calculations as new columns on a Worksheet, or the calculations can be part of other calculations. (Calculations are not covered in the beginning class.)

To create a **Calculation**:

- Select the **New** button in the **Calculations** tab.



- Select **New Total** from the drop down list. The **New Total** window will open.

## Creating a Subtotal:

- Select the **Subtotal at each change in** radio button and the item you wish to subtotal from the drop-down list.

**New Total**

Which Item would you like to create a total on?  
Dollar Amount SUM

What kind of total do you want?  
f(x) Sum  
Adds all the values, then applies the calculation to the result.

Where would you like your total to be shown?  
☐ Grand total at bottom  
☒ Subtotal at each change in:

Do you want to generate a label automatically?  
☒ Yes  
☐ No

What label do you want to be shown?  
Sum  
Generate label automatically ☒ Format Heading...  
Format Data...

Example

	M1	M2	n1	n2
1	AA	aa1	10	10
2		aa2	10	10
3				20
4	BB	bb1	10	10
5		bb2	10	10
6				20

The example above shows a Sum total calculated from sample data.

OK Cancel

Discoverer can automatically generate a label, or you can create a custom label for the total:

For an **automatic** label, leave the defaults in the area marked “Generate label automatically”.

## Creating a Grand Total:

- Select the **Grand Total** radio button.

**New Total**

Which Item would you like to create a total on?

Dollar Amount SUM

What kind of total do you want?

f(x) Sum

Adds all the values, then applies the calculation to the result.

Where would you like your total to be shown?

☒ Grand total at bottom

☐ Subtotal at each change in:

All Group Sorted Items

☐ Don't display total for a single row

Do you want to calculate totals within each page?

☒ Calculate totals within each page.

☐ Calculate totals across all pages.

Example

	M1	M2	n1	n2
1	AA	aa1	10	10
2		aa2	10	10
3	BB	bb1	10	10
4		bb2	10	10
5				40

The example above shows a Sum total calculated from sample data.

What label do you want to be shown?

Sum

☒ Generate label automatically

Format Heading...

Format Data...

Help OK Cancel

## Creating a custom label:

- Un-check the Generate label automatically box.
  - Enter your label text in the blank field, OR
  - Use the parameter values from the drop-down list, OR

What label do you want to be shown?

Sum

Insert Item Name

Insert Data Point Name

Insert Value

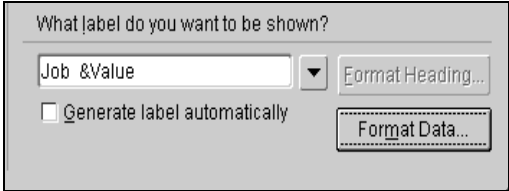
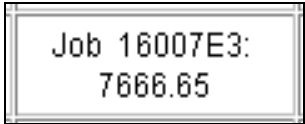
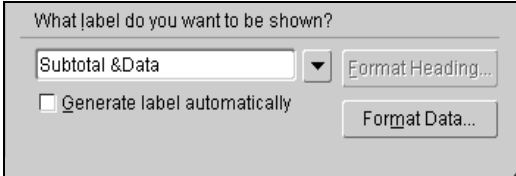
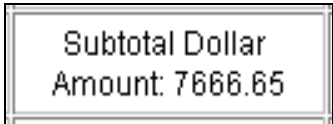
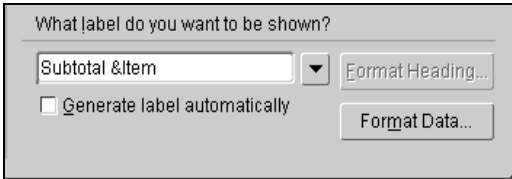
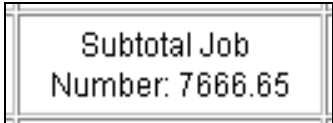
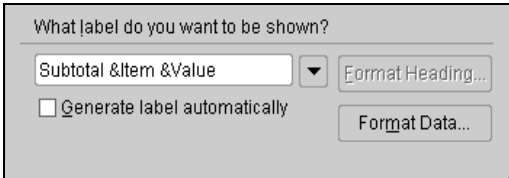
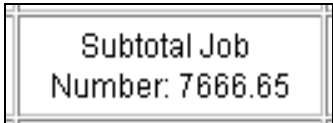
Format Heading...

Format Data...

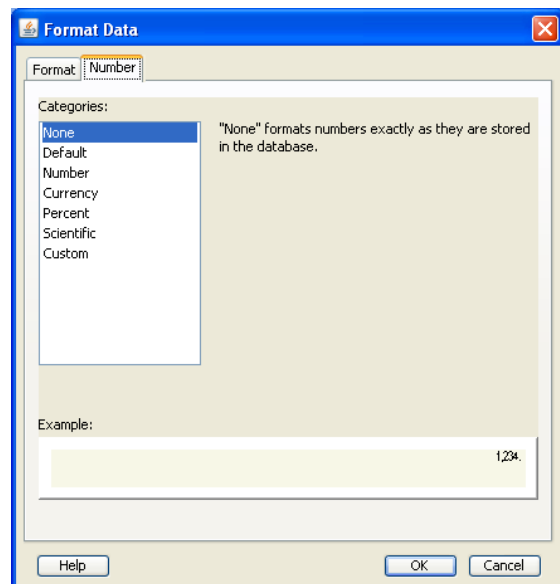
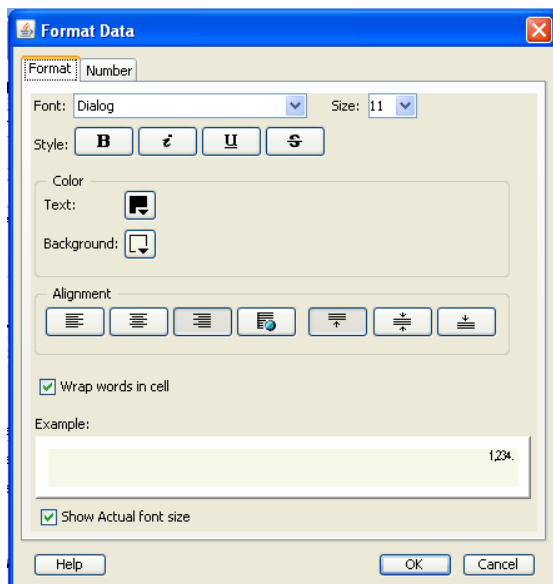
OK Cancel

- Use a combination of both label types.

## Examples:

Custom Label Text		Report Label
	=	
	=	
	=	
	=	

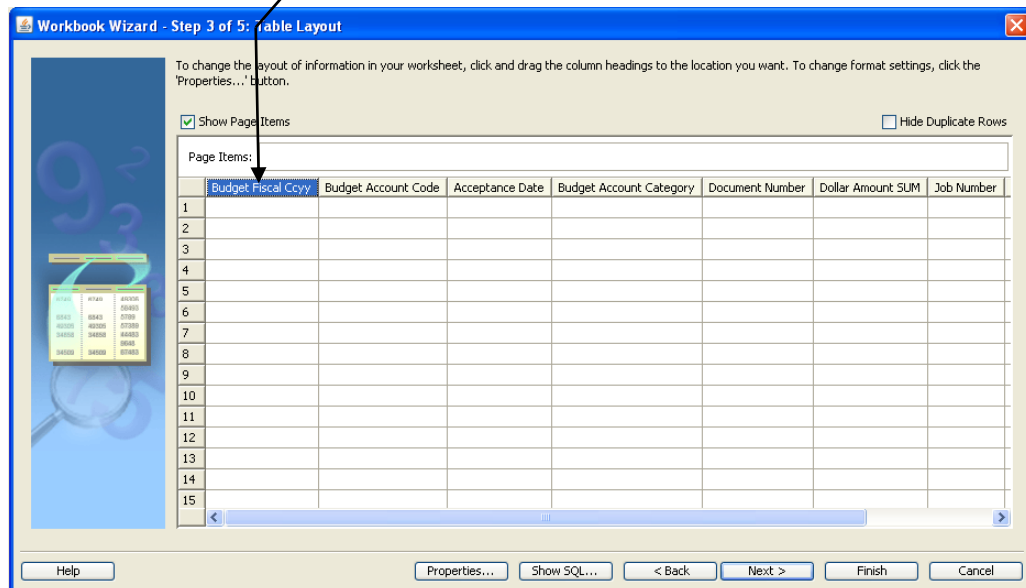
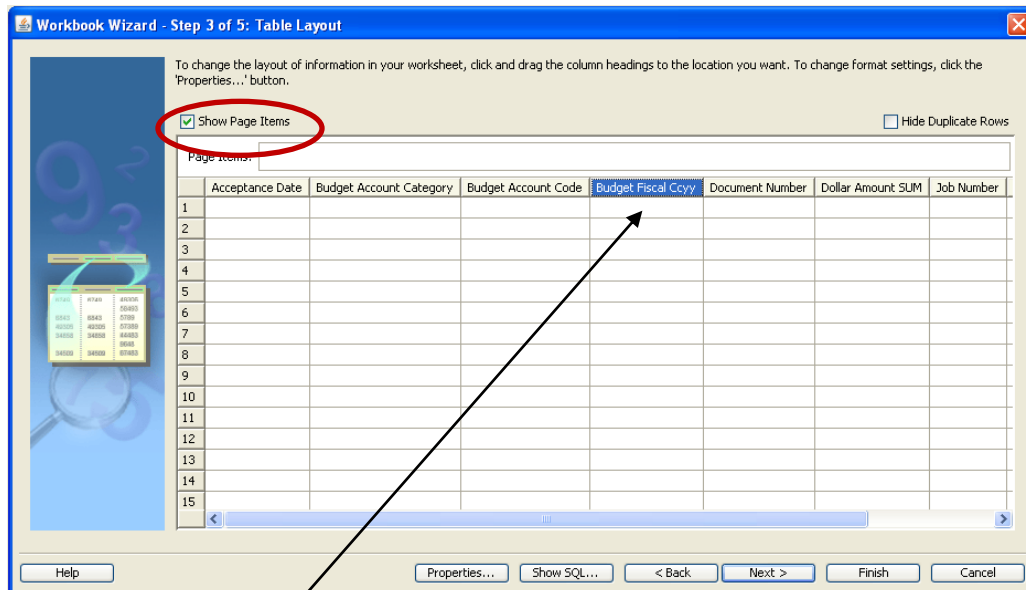
The **Format Data** button allows you to select the font color, size and alignment as well the style in which the total is displayed.



## Wizard, Step 3: Table Layout

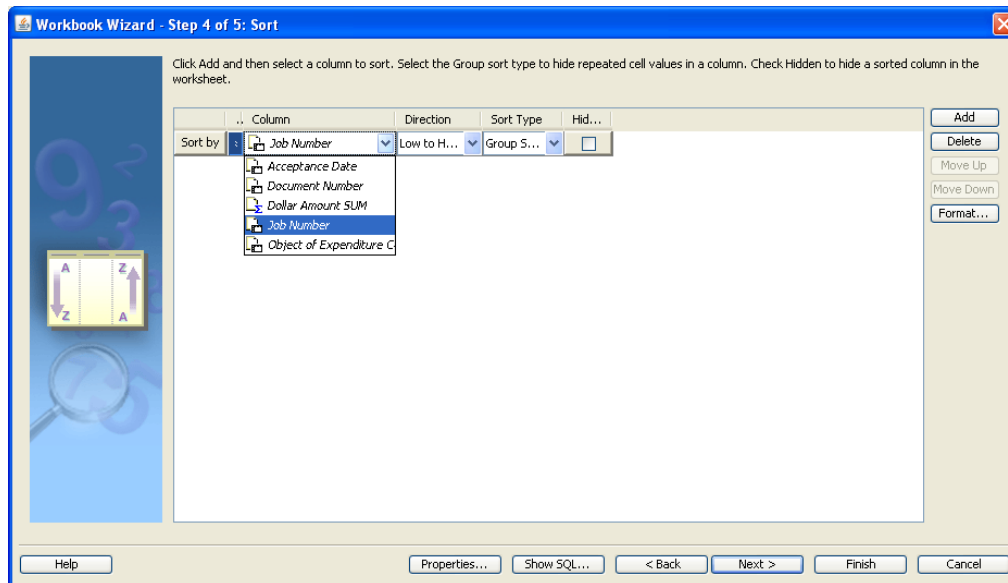
**Table Layout** allows you to arrange the order of items on the report.

- Select **“Show Page Items”** to choose items for the Page-Detail layout.
- To change the column order of your report layout, drag items to the desired location.



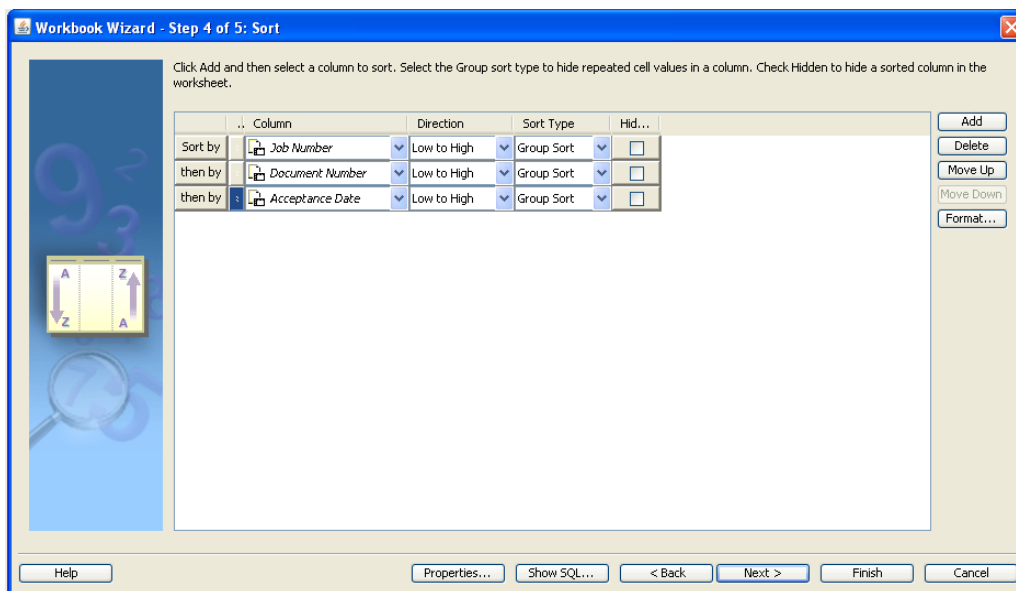
## Wizard, Step 4: Sort

- Select the **Add** button.
- From the pop-up select the item by which you wish to sort. You may select more than one. The query will be sorted in the order items appear in the **Sort** window.



**Direction:** Specifies whether the data is sorted from high to low or low to high.

**Group:** Specifies the type of break: None, Group Sort or Page Break.

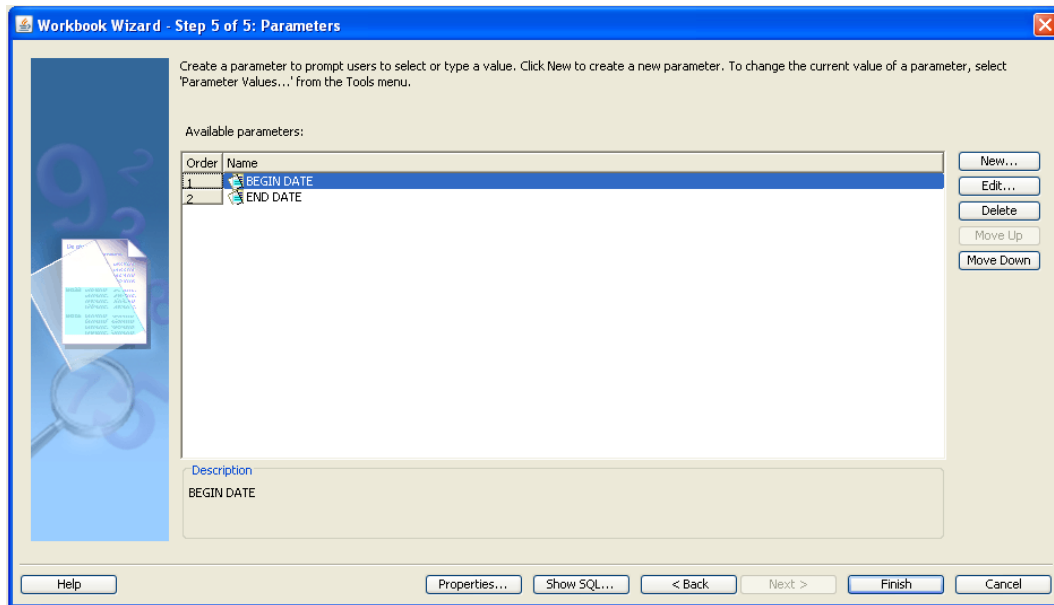




## Wizard, Step 5: Parameters


If you created prompts under the Conditions step, they will appear in the Parameters window for editing.

You may create parameters from this page as well.



- Select the **Finish** button.

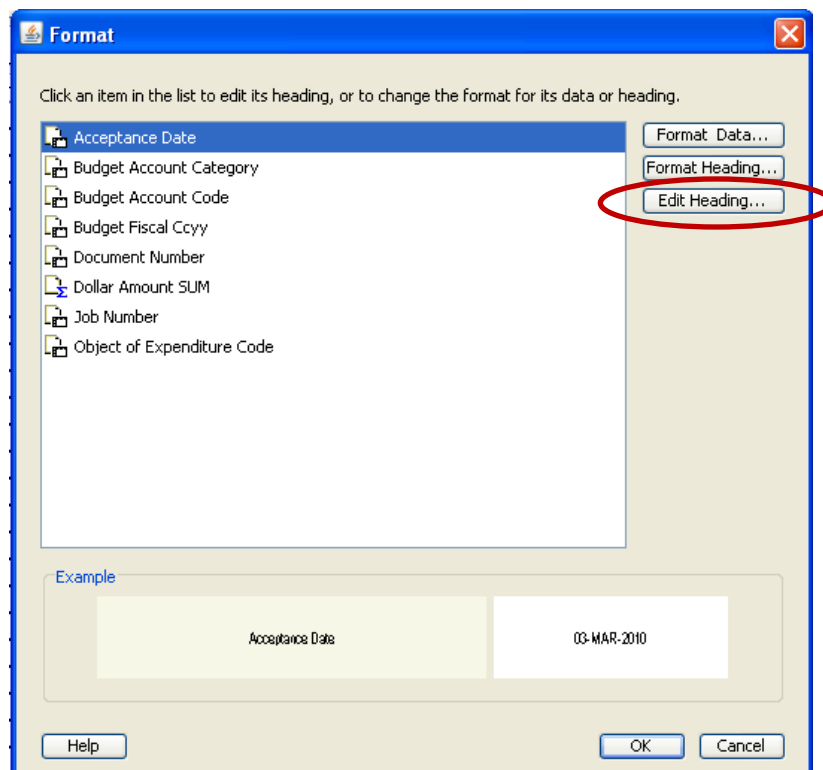
After the report has run, edit its appearance and conditions by using **Format: Item Formats**.

To refresh your report or change your parameters and run again, select the refresh button  on the toolbar.

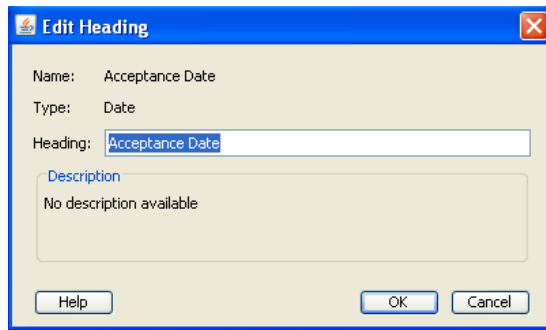
## Formatting your Worksheet

**Format** allows you to customize the appearance of text, numbers, and dates of column headings. After the report has run, edit its appearance and conditions by using **Format: Item Formats**.

- Select an item and then select:
  - **Format Data** to change the font size, color, alignment and background of the data area.
  - **Format Heading** to change the font size, color, alignment and background of the heading area.
  - **Edit Heading** to change the display name of an item.
- Select **Edit Heading**.



The Edit Heading window will appear.



The 'Edit Heading' dialog box has a blue title bar with a close button. It contains the following fields: 'Name' with the value 'Acceptance Date', 'Type' with the value 'Date', and 'Heading' with the value 'Acceptance Date'. Below these is a 'Description' section with the text 'No description available'. At the bottom are three buttons: 'Help', 'OK', and 'Cancel'.

- Enter any changes you wish to make to the heading.
- Select OK.


Your edits will appear in the Example field at the bottom of the Format window.





The 'Example' field is a horizontal box with a light beige background. It is divided into two sections: a left section with a light yellow background containing the text 'DATE', and a right section with a white background containing the text '03-MAR-2010'.


## Editing Reports


- Go To **Edit: Worksheet**, OR
- **Tools: Conditions**, Sorts, Totals, Percentages, Calculations, and Parameters.


- The  icon edits the Worksheet; the Selected Items tab is shown.

- The  icon edits the table layout; the Table layout tab is shown.

- The  icon edits the total option; the Total tab is shown.

- The  icon edits the percentage option; the Percentage tab is shown.

- The  icon edits the calculations option; the Calculations tab is shown.

- The  icon edits the conditions option; the Conditions tab is shown.

**Discoverer** Setup Options allow users to edit the appearance of the report.

➤ Go To **Tools: Options** on the Menu Bar.

- **General Options:**

- Workbooks

- Run query automatically
    - Don't run query (leave sheet empty)
    - Ask for confirmation

- Scheduled Workbooks

- Don't show the new results window after initial connection
    - Don't show expired results on exit, delete results automatically

- Wizards

- Show wizard graphics (make sure this is marked)

- **Query Governor Options:**

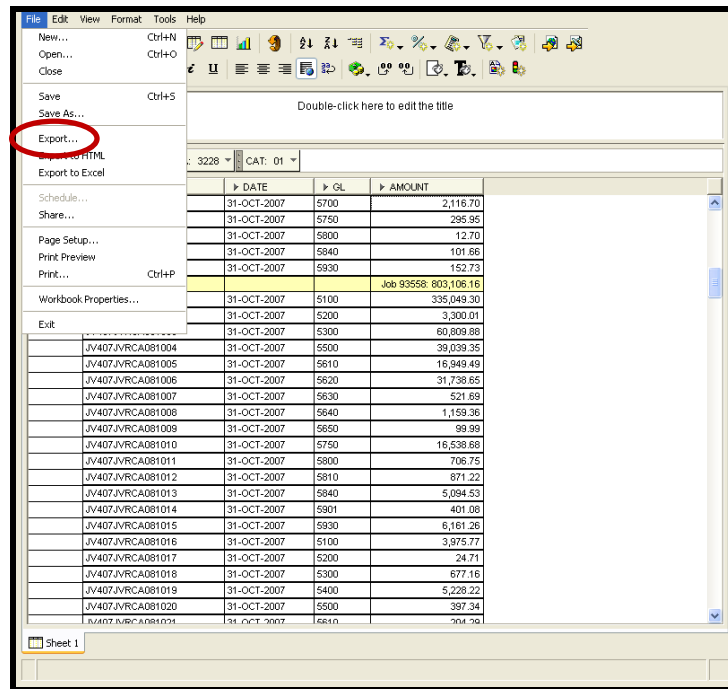
- Summary Data

- Always, when available (make sure this is marked)
    - Only when summary data is not out of date (stale)
    - Never
    - Warn me if predicted query time exceeds: (leave this at 1:00 min)
    - Prevent queries from running longer than: (leave this at 30:00 min). You may need to bump this time limit up if you have a large query, but do this with CAUTION, your query may crash the system.
    - Limit retrieved query data to: (bump this up to 999999 and uncheck the box)
    - Retrieve data incrementally in groups of: (bump this up to 999999)
    - Cancel list-of-values retrieval after: (leave this at 0:15)

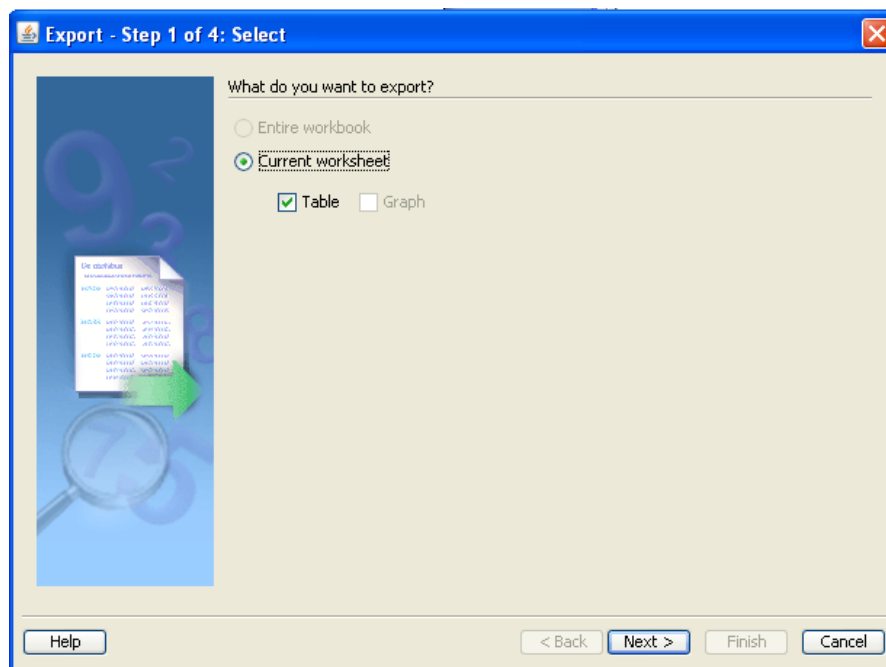
- **Sheet Options:**
  - Table Headers
    - Show column headings
    - Show row numbers
  - Crosstab headers
    - Show item labels
    - Show heading gridlines
  - Table and crosstab data area
    - Show vertical gridlines
    - Show horizontal gridlines
  - Table and crosstab data area
    - Show title
    - Show text area
  
- **Formats Options:**
  - Default Formats (Users can change the formats for **NEW** workbooks)
    - Data Format
    - Heading Format
    - Total Format
    - Conditional Format
    - Title
    - Text Area
  - **Advanced Options:** (Leave all of these boxes unchecked)
    - Automatic Querying
    - Joins
  - **EUL Options:**
    - End User Layer Access
      - ❖ Select a Default **EUL: STATEWIDE\_EUL**

## To Export a Worksheet to Excel:

- Select **File: Export** (Do not select “Export to Excel.” It will open Excel in a default location, rather than on your desktop or in a file you have chosen.)

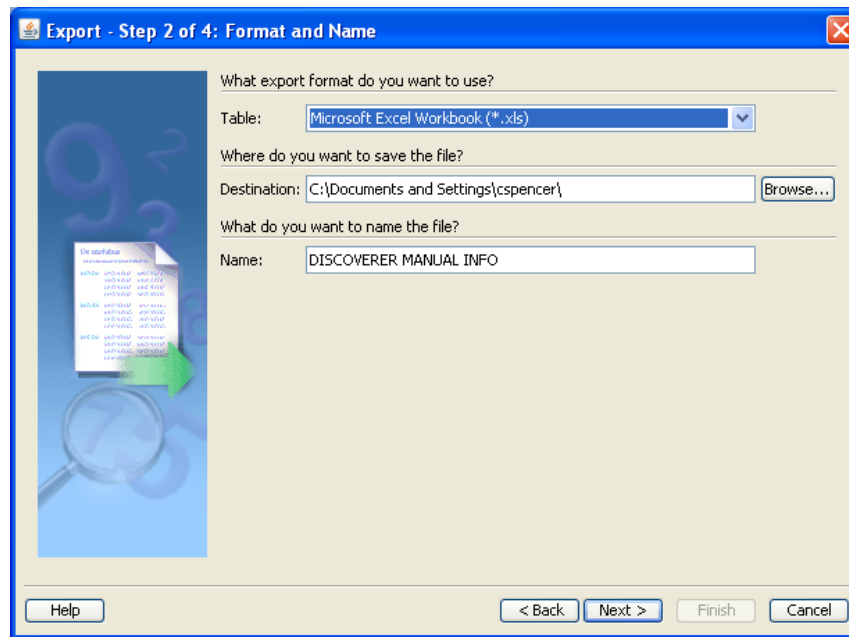


- Select **Current worksheet** and **Table/Crosstab** only.

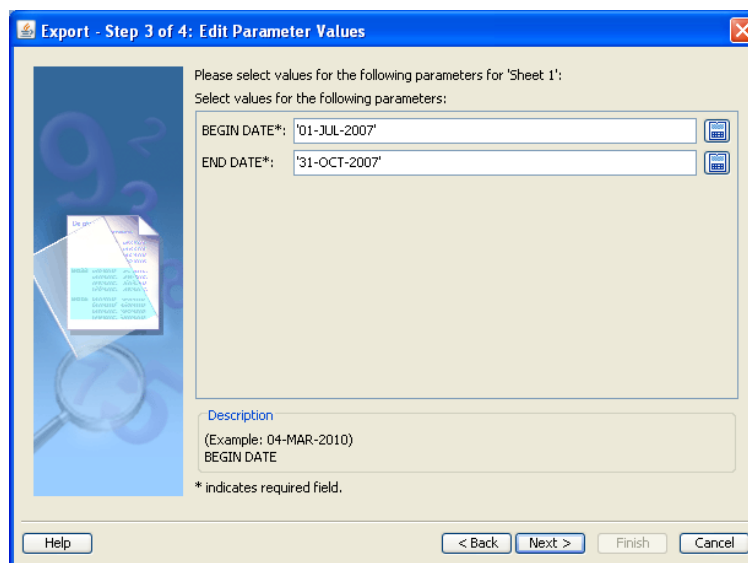


- Select **Next**.

- Select the export format, Microsoft Excel Workbook (\*.xls).
- Use the browse button to select the destination of the exported file.

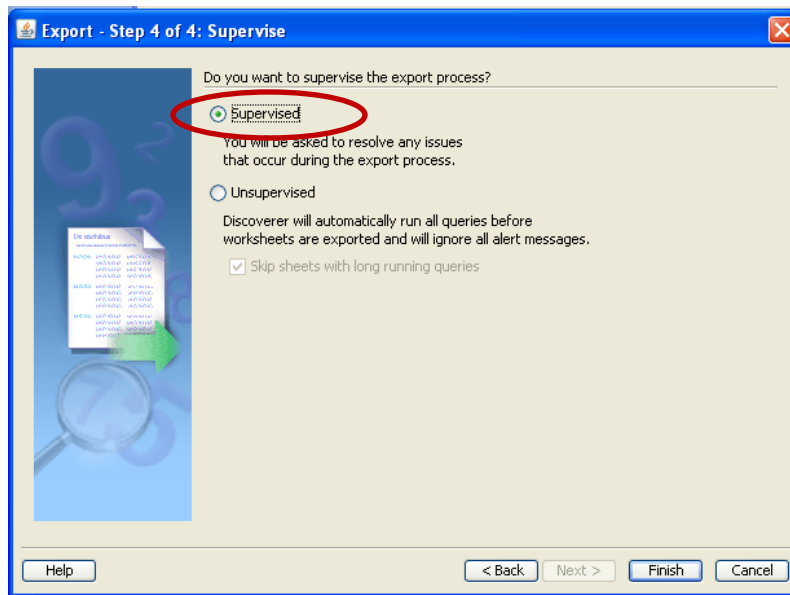


- Select appropriate parameters.
- Select **Next**.

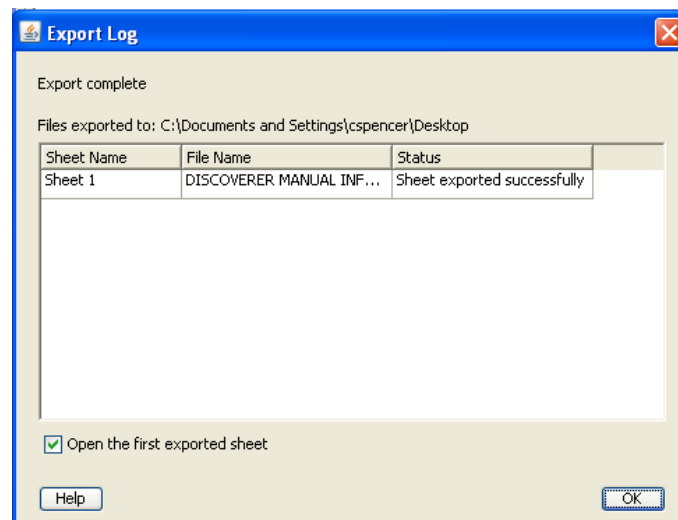


- Select **Supervised** to resolve any issues during the export.
- Select the **Finish** button.



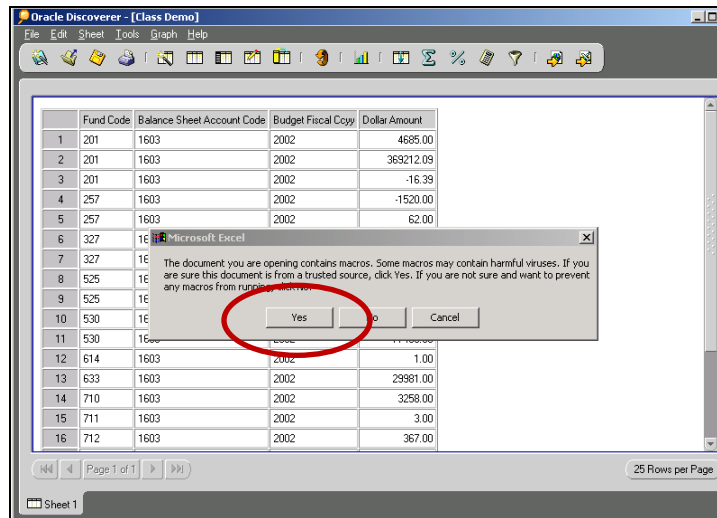


If you want Excel to open the first worksheet when you exit Discoverer, leave the “Open the first exported sheet” box checked on the Export Log screen



The Excel spreadsheet may contain macros. Choose “**Yes the document is from a trusted source**” or “**Enable Macros**” so you do not lose functionality.

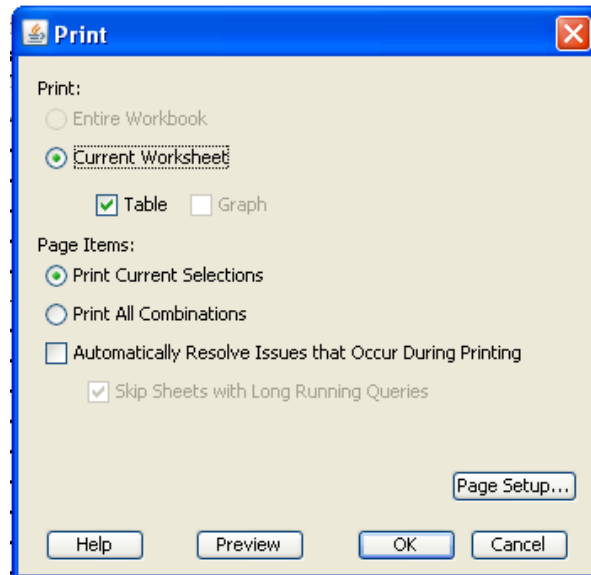
The macro security in Excel needs to be set at medium or low. To do this, choose **Tools: Macro/Security** and set the level to medium.



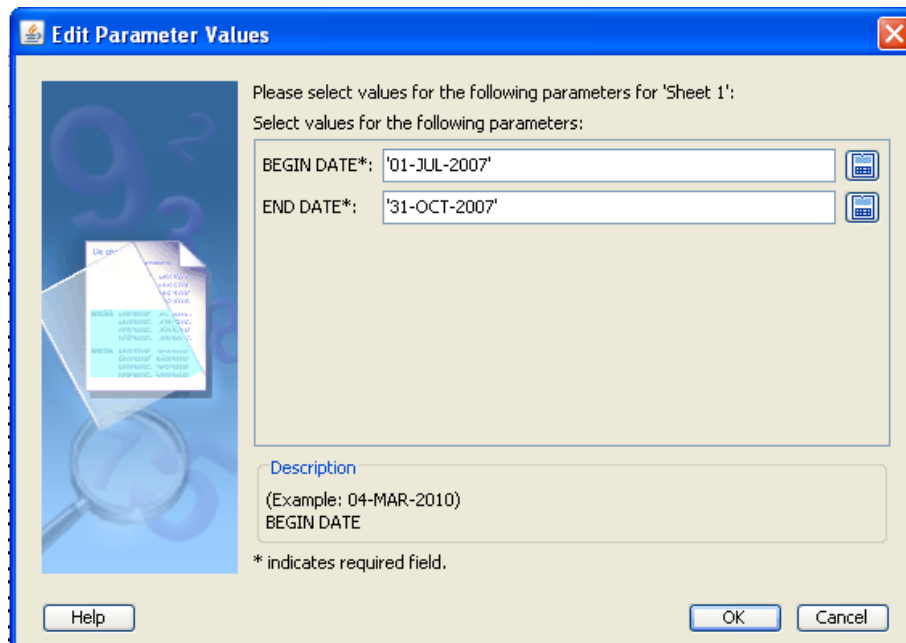
**Note:** If you have created any totals in your report, these will be exported as text and not calculated fields in Excel.

# Printing Worksheets

- Select **File: Print**



Choose whether you want to print the current worksheet or all worksheets.



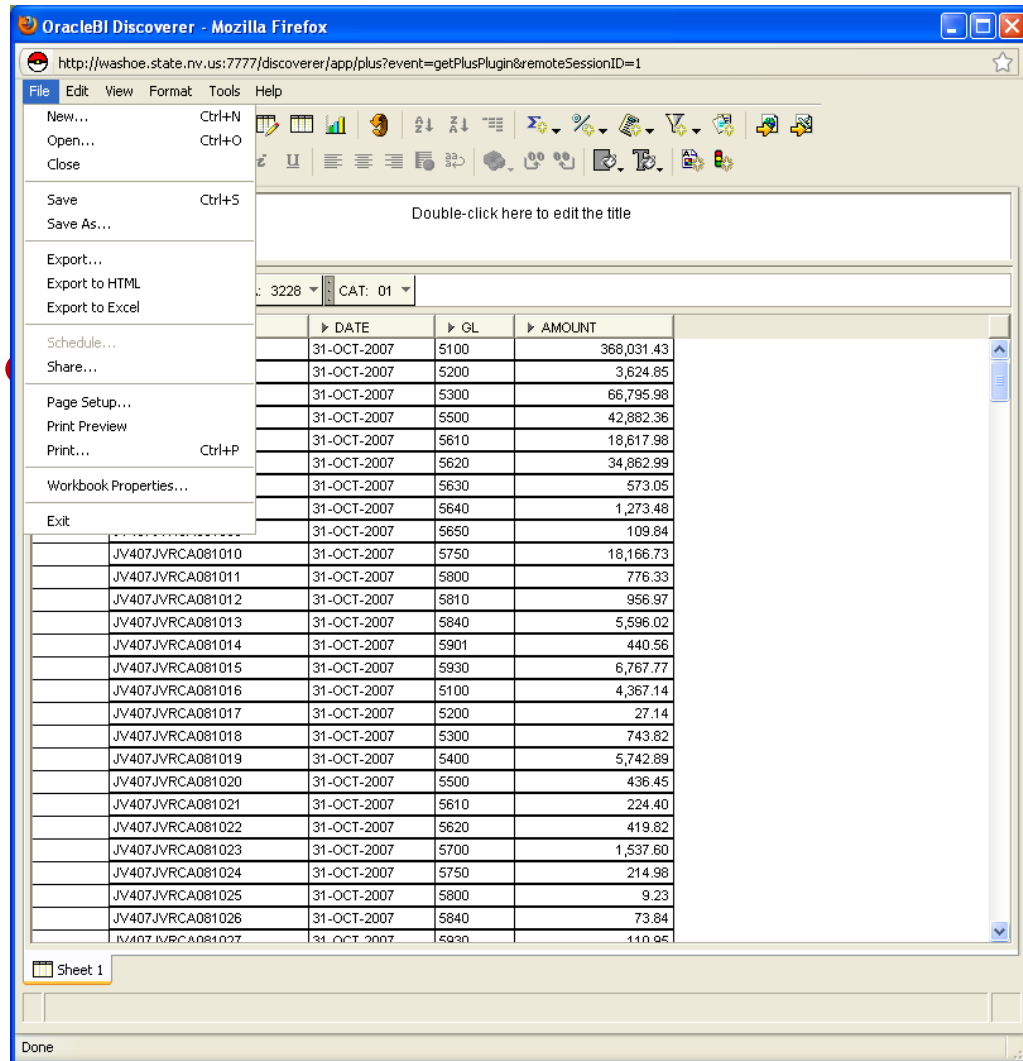
If your query contains parameters, it will prompt you to enter them again. This will cause the query to run again.

- Select **OK**.

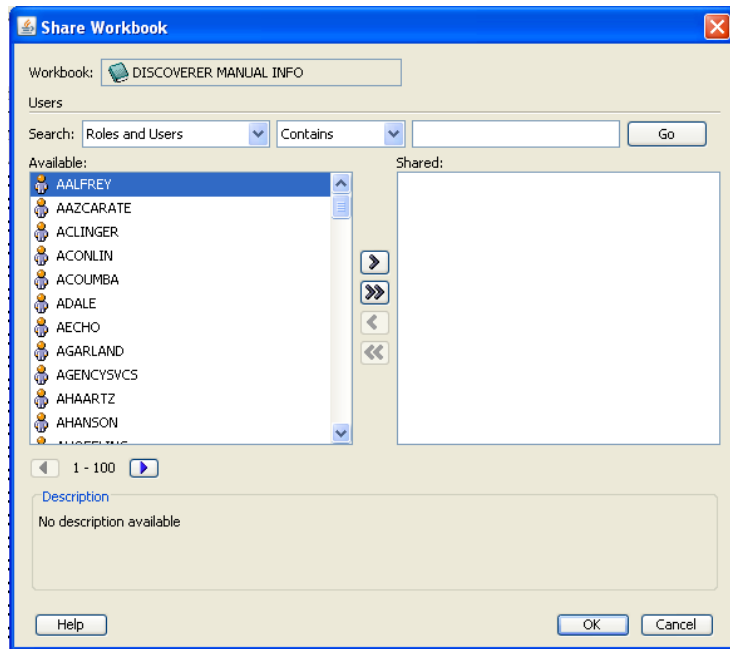
# Saving and Sharing Workbooks

To share workbooks:

- Select **File: Share**.



- Select the person with whom you wish to share the workbook. If you choose PUBLIC, all Discoverer users will be able to see the Workbook and use it. If another user saves your Workbook, Discoverer will make another copy of the Workbook with that user's name in front of the Workbook name.



Be sure you have selected the workbook you wish to share in the “Workbook” field.

- Scroll to the User ID of the person with whom to share. Highlight that name and then select the arrow to place their name in the **Shared** column.
- Select **OK**.

## Need Help with Discoverer?

Contact the State Controller’s Office Help Desk at (775) 684-5654 or [finhelpdesk@controller.state.nv.us](mailto:finhelpdesk@controller.state.nv.us)