

Discoverer Simple Query Training

O:\ssa\datawhse\documentation\discoverer training.doc

Date: 11/21/11

References:

- This document: www.hawaii.edu/ohr/download/Discoverer Training.pdf
- Discoverer Pre-Defined Query Training
www.hawaii.edu/ohr/download/Discoverer.pdf
- Data Dictionary: OHR website/HR Info Systems/HR Info Systems
 - <http://www.hawaii.edu/ohr/download/datadip1.pdf>
- DataMart Listserv: contact syamada@hawaii.edu to join
 - uh-hr-datawarehouse-l@lists.hawaii.edu
- Hawai'i Revised Statutes:
 - HRS 92F(12) – Confidential Data
<http://www.hawaii.edu/ohr/download/92F.pdf>
 - HRS 487J - SSN Protection
http://www.capitol.hawaii.gov/hrscurrent/Vol11_Ch0476-0490/HRS0487J/
 - HRS 487N - Breach Disclosure
http://www.capitol.hawaii.gov/hrscurrent/Vol11_Ch0476-0490/HRS0487N/
 - HRS 487R - Destruction of PI Records
<http://www.capitol.hawaii.gov/hrscurrent/>
- UH Administrative Procedure – Records Management
<http://www.hawaii.edu/svpa/apm/a8450.php>
- University of Hawai'i Executive Policy
E2.214 - Security and Protection of Sensitive Information
<http://www.svpa.hawaii.edu/svpa/ep/e2/e2214.pdf>
- General Confidentiality Agreement: OHR website/HR Documents/HR Forms/Checklists/Related Forms Memos/UH Form 92
Hardcopy: <http://www.hawaii.edu/ohr/docs/forms/uh92.pdf>
Online Certification: <https://laulima.hawaii.edu/>
- Email is NOT secured; DO NOT send confidential information via email.
Utilize ITS application called FileDrop.
Documentation: <http://www.hawaii.edu/ohr/download/filedrop.pdf>
Web site: <https://www.hawaii.edu/filedrop/>
- Discoverer Documentation
 - Sign into Discoverer Navigate the Discoverer menu bar to **Help | Help Topics**.
 - Selected Chapters at OHR web site/HR Info Systems/HR DataWarehouse/Selected Discoverer Documentation

Purpose: Develop simple queries to allow downloading of necessary data for later refinement in Excel or Access.

1. Go to website: www.hawaii.edu/dw. Discoverer executes using Internet Explorer or Firefox. Does not work with Chrome. Check Discoverer Setup Guide on website for more details (eg., exception to pop-up blocker, java and web browsers at correct version levels).

2. Sign into Data Mart Central using your HR Data Mart username and password. This may be different from the username and/or password that you use to access email.

University of Hawaii
Data Mart Central

Financial Data Mart
Data Last Refreshed on November 13, 2011

LOGIN

UH Username:

UH Password:

LOGIN

Need help logging in?

- [Instructions for Data Mart Access](#)
- [Financial DM](#) - Contact [Help Desk](#)

Related Links:

- [FMIS Data Dictionary](#)
- [Discoverer Setup Guide](#)
- [Java 1.6.0_21](#)
- [Financial Data Mart FAQs](#)

Human Resources Data Mart
Data Last Refreshed on November 13, 2011

LOGIN

HR Username:

HR Password:

LOGIN

Need help logging in?

- [Instructions for Data Mart Access](#)
- [HR DM](#) - Contact [Lance Yonemoto](#)

Related Links:

- [HR Data Dictionary](#)
- [Discoverer Setup Guide](#)
- [Java 1.6.0_21](#)
- [HR Data Mart FAQs](#)
- [Non-confidential Information](#)
- [Listing of Pre-defined queries](#)

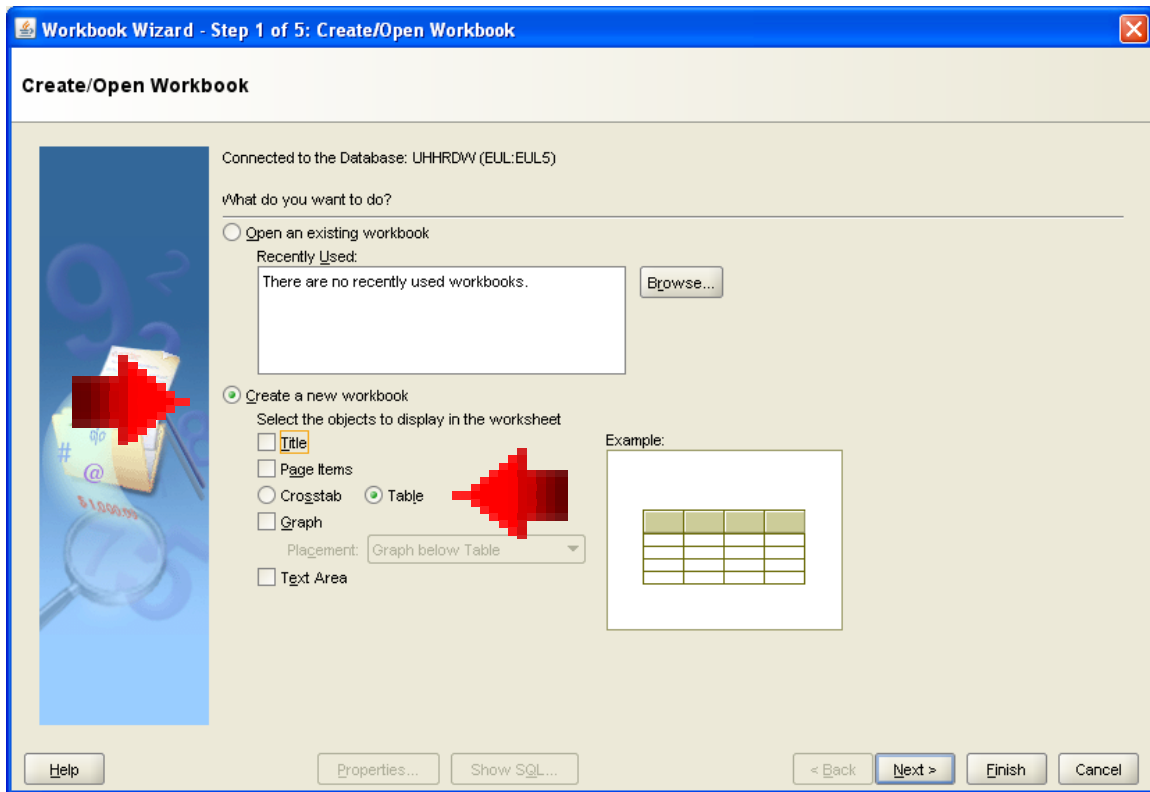
TYPES OF QUESTIONS TO ASK PRIOR TO CREATING A QUERY

1. What is the effective date of the data?
2. For faculty queries – Instructional faculty only or ALL faculty?
3. For staff queries – What kind of staff? All? Execs, APT, Civil Service, etc.
4. Locus of data – Systemwide, Campus, Department only?
5. If data is confidential, ask what will the data be used for.

CREATING A QUERY

4. After clicking the Login button, patiently wait until the screen below appears. Two windows will open; ensure that you are on the correct window.

You have finally reached Discoverer when the following screen appears. The Workbook Wizard will lead you through the process of creating an ad hoc query.



3. Click on “Create a new workbook” button. To download data, unclick the rest of the items.

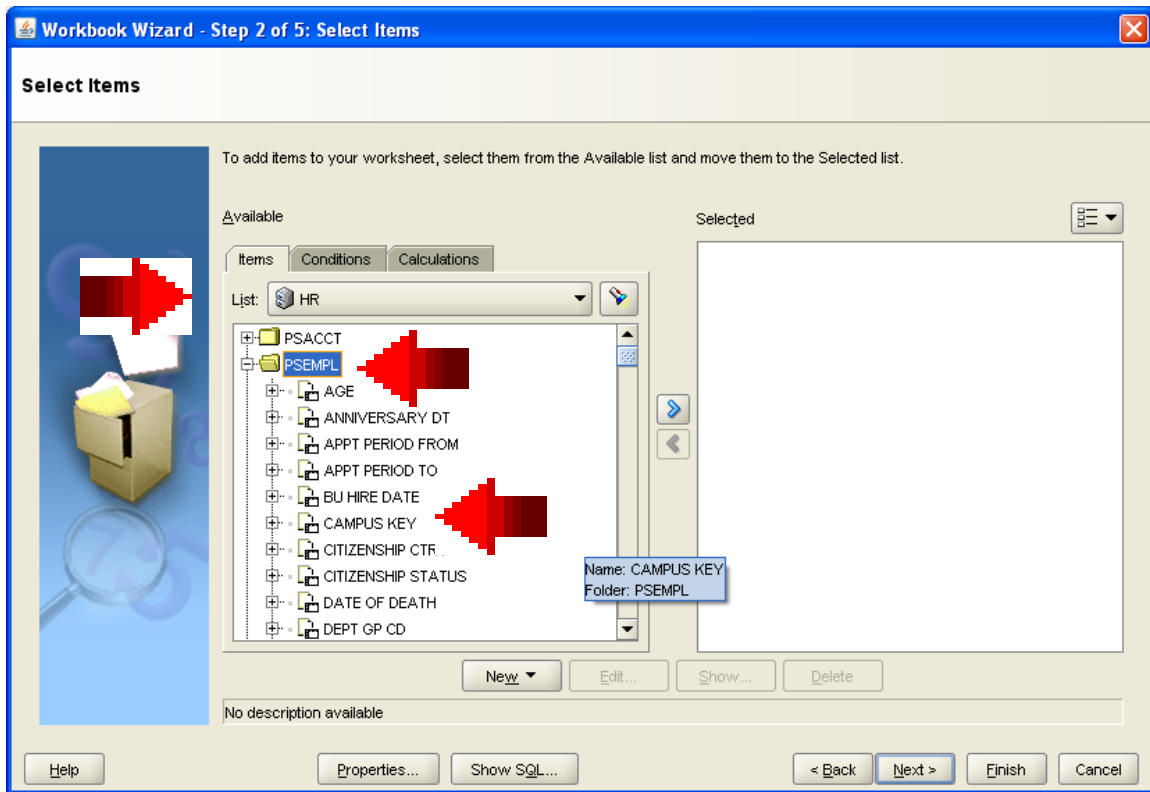
Select either:

- Table: Detailed line items (as in a report)
- Crosstab: Summarized counts (no details; like Brio’s Pivot and Excel’s PivotTable)

Click “Next”.

CREATE A TABLE (listing of data):

4. Choose the appropriate Data table by clicking on the pull-down list (eg., HR, Budget or RCUH HR) and clicking on the appropriate table (eg., PSEMP, PSACCT, etc.). Double clicking on the table name will display the data fields in that table. Double click on the table name to collapse the listing.



View data dictionary to decide which table to use. Remember that only the last approved PeopleSoft action as of last night is saved in the HR datamart and therefore multiple actions on the same effective date will be lost.

Notes on RCUH HR data:

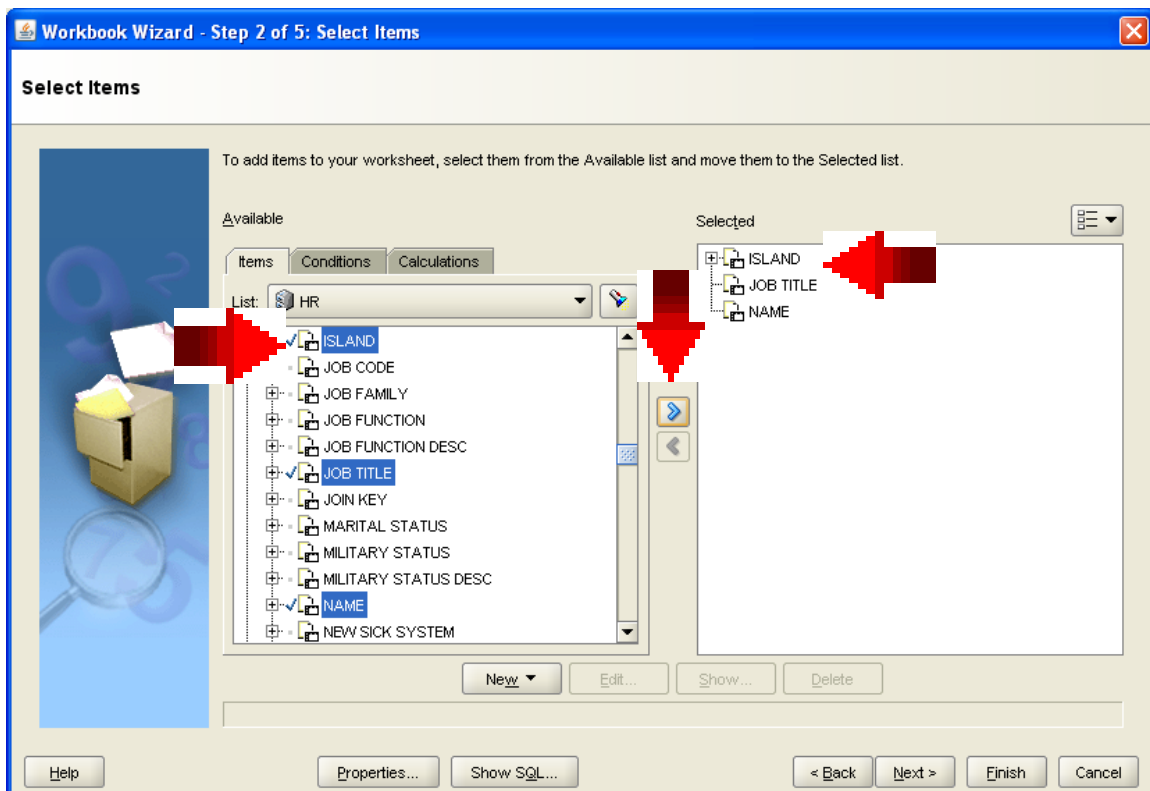
1. Data only as of last night; no frozen files.
2. All RCUH employees assigned to UH projects are downloaded regardless of employee status or appointment period.
3. UH data will not be matched with RCUH data if Principal Investigator does not assign the appropriate EAC to the employee's record.
4. For employees who are both UH and RCUH, 2 records will display for each employee. RCUH employees are distinguished by the data field called "UH RCUH flag". UH numbers (aka Employee Alt ID) are also different - RCUH records have 6 digits; UH records have 8 digits.

5. Step 2 or 5 – Select Items:

Add fields to your table by clicking on a data item on the left side and hitting the right arrow button located between the tables OR drag the data item from left to right. The CTRL and SHIFT keys can respectively be used for multiple selections and specifying a range of values.

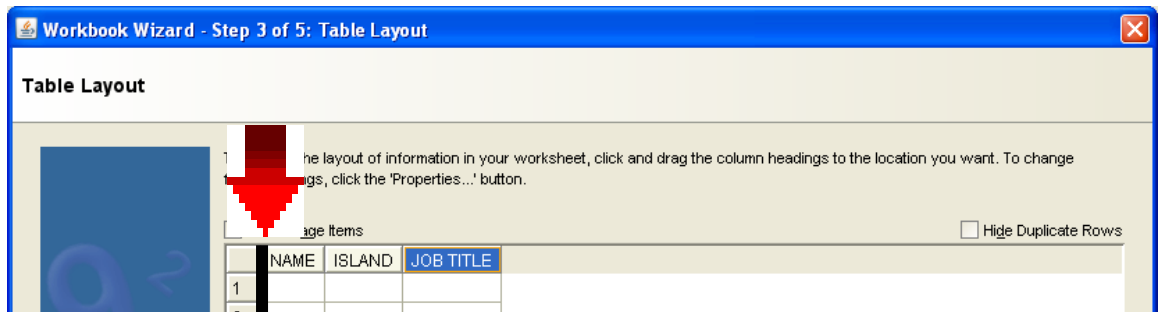
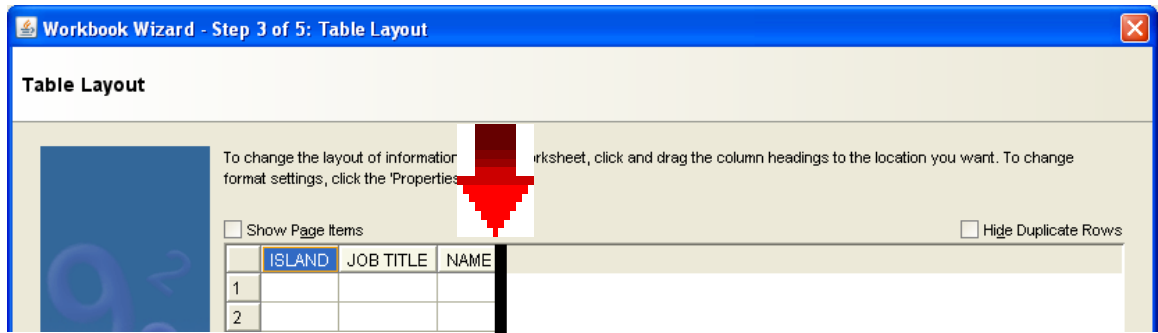
Delete fields from your table by clicking on the data item on the right side and hitting the left arrow button located between the tables OR drag the data item from right to left.

Click NEXT after selecting all requested fields from the left table and moving them to the right table.



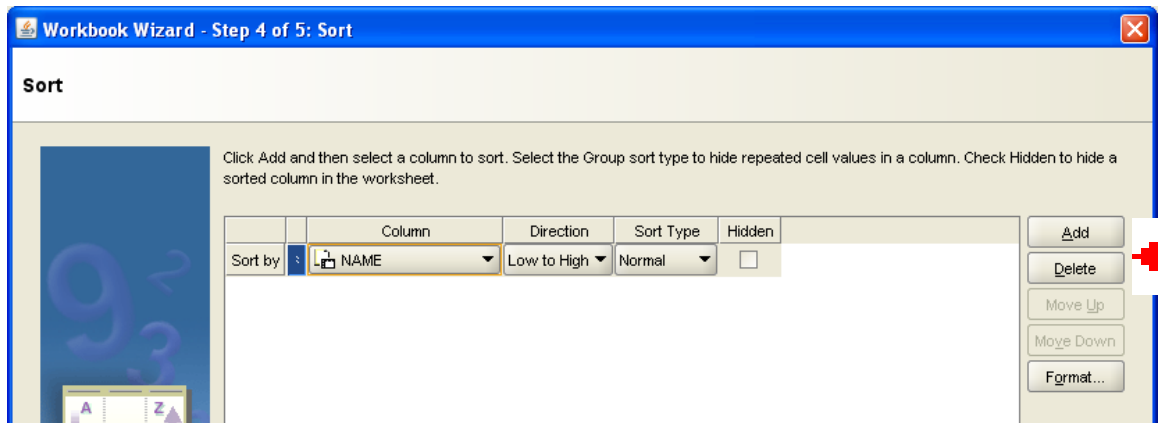
6. Step 3 of 5 – Table Layout

You may change the order of the columns by click on the brown column header (eg., NAME) and dragging the header to the new location. A black line will appear when the column is ready to move. Move the black line to the position where you want the column to move. Click NEXT to move to next panel.



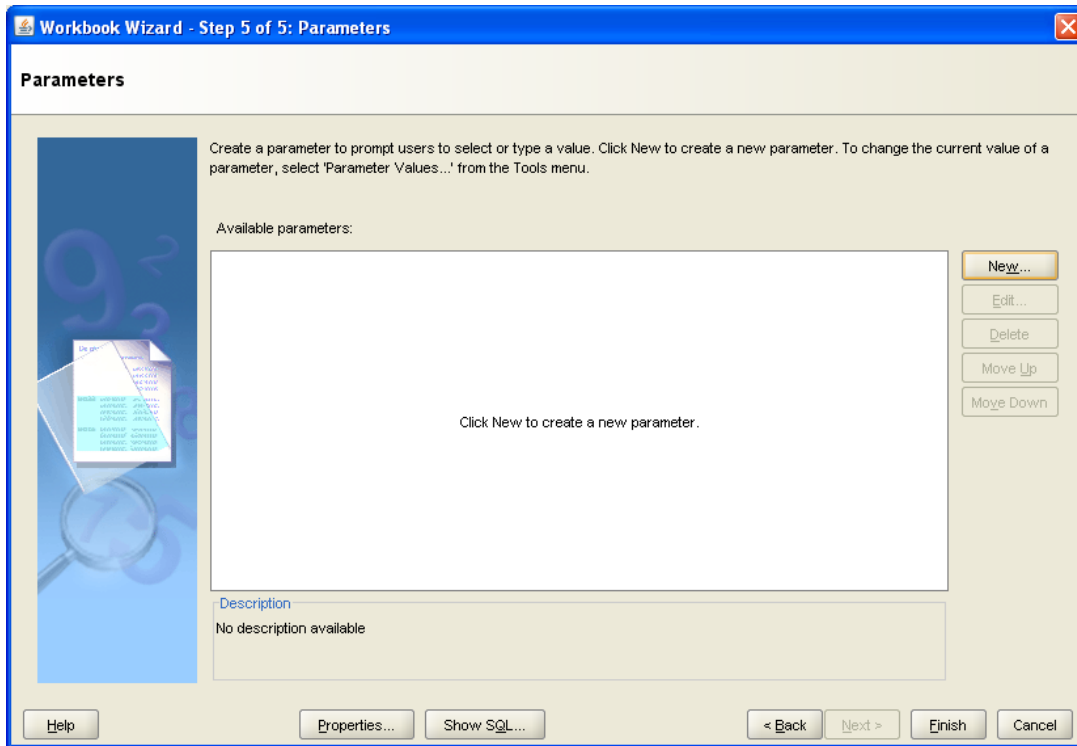
7. Step 4 of 5: Sort

Click “Add” button to add fields to sort; “Delete” to remove from the list. Choose “Direction” of sort (ascending or descending). Click “Next”.

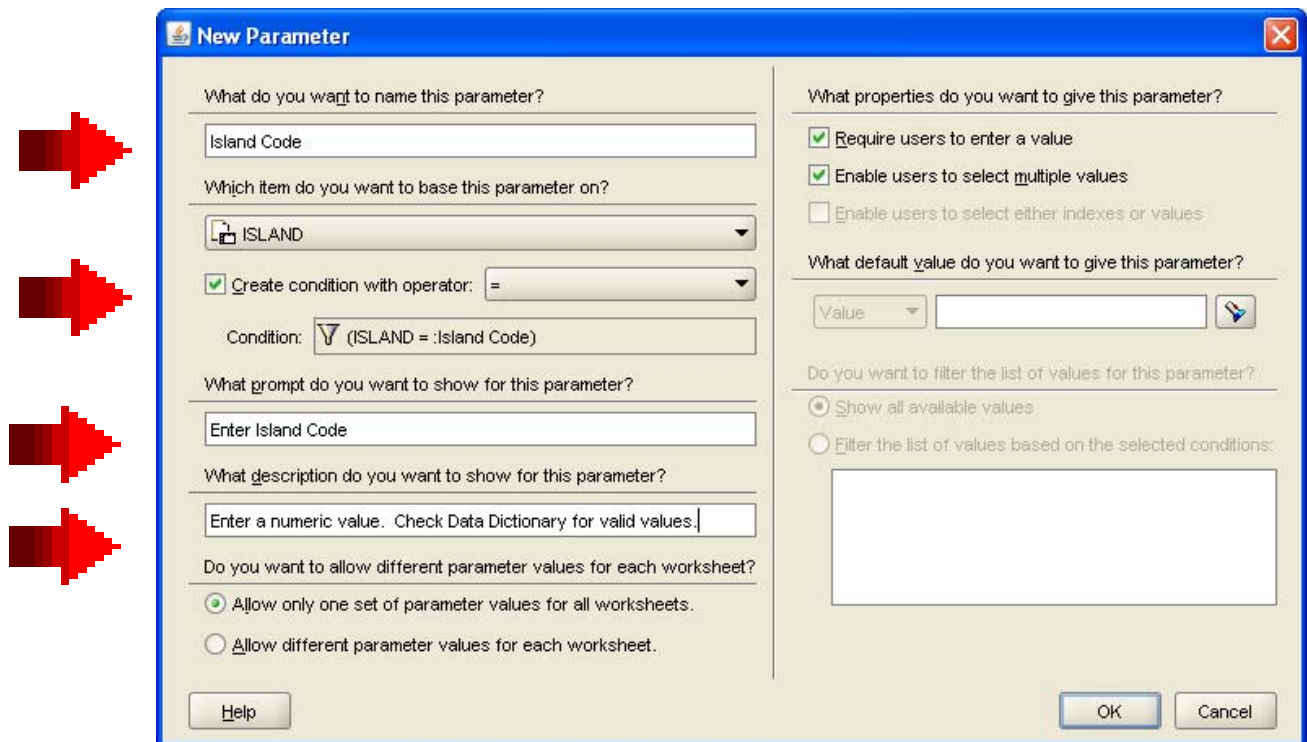


You may also ADD other sort fields and change the order of the sort with my highlighting the data item and using the MOVEUP or MOVE DOWN buttons.

8. Step 5 of 5: Parameters. Feature is used to input variable data by the user running the query to limit the number of records retrieved.



Click “New”. Four sections need to be filled to create a parameter.

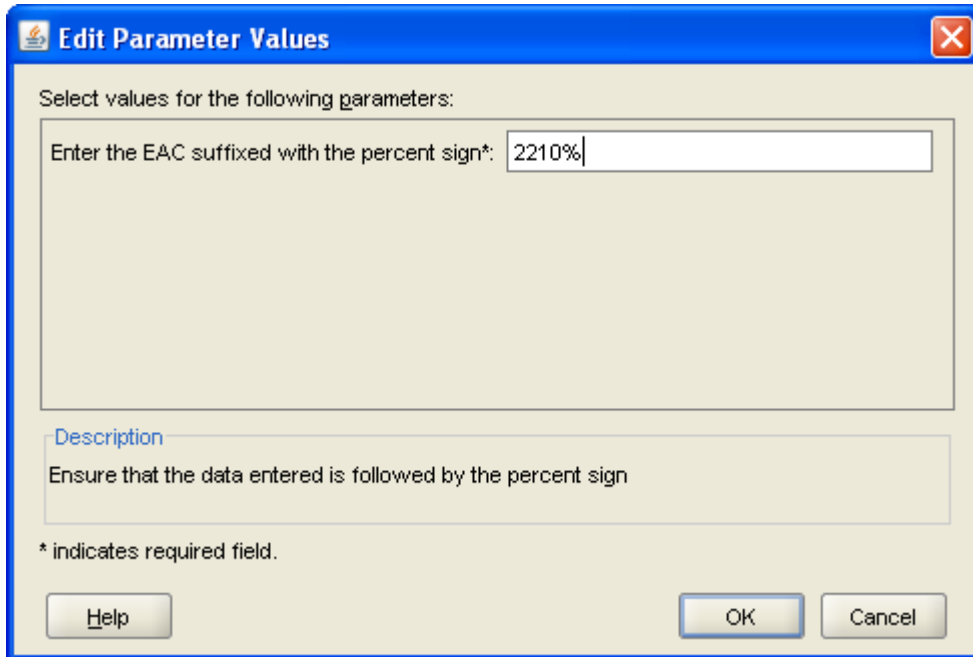


- a. What do you want to name this parameter? Enter the name that will appear on the report heading.
- b. What item do you want to base this parameter on? Select the appropriate data name from pull-down box and select the condition that the query will run.
- c. What prompt do you want to show for this parameter? A prompt is a question that is asked the user when the query is run. When query executes, the prompt will ask for a value to be entered.
- d. What description do you want to show for this parameter? Input a description that can optionally be displayed on the pop-window.

Set Parameters here:

To create pop-window for user when the query is executed:

9. Click “OK” then “Finish”.
10. Discoverer will now run the query. Because of the “Parameter”, the following pop-up window will be displayed for user data entry.



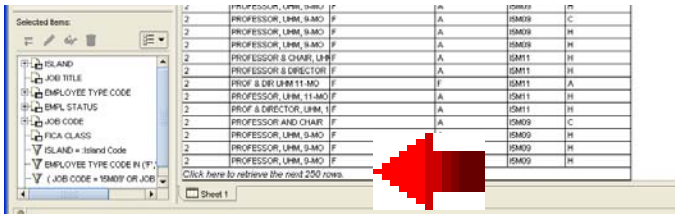
NOTE: Percent sign “%” is a wildcard character

11. The status of your Discoverer query as it is executing is located in the lower left corner of the screen.

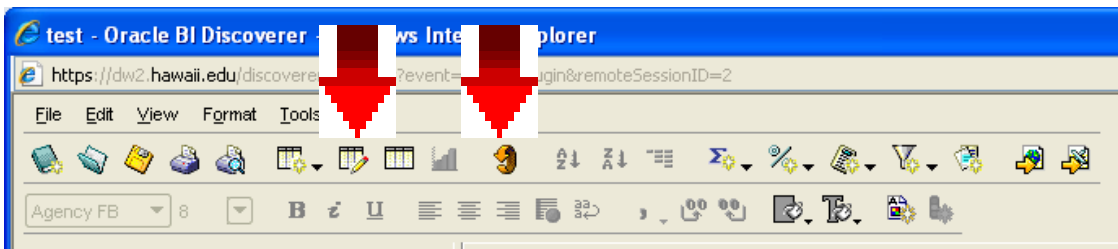
To limit the values returned in your query, select the “Conditions” tab.
 To perform calculations or string manipulations, select the “Calculations” tab.



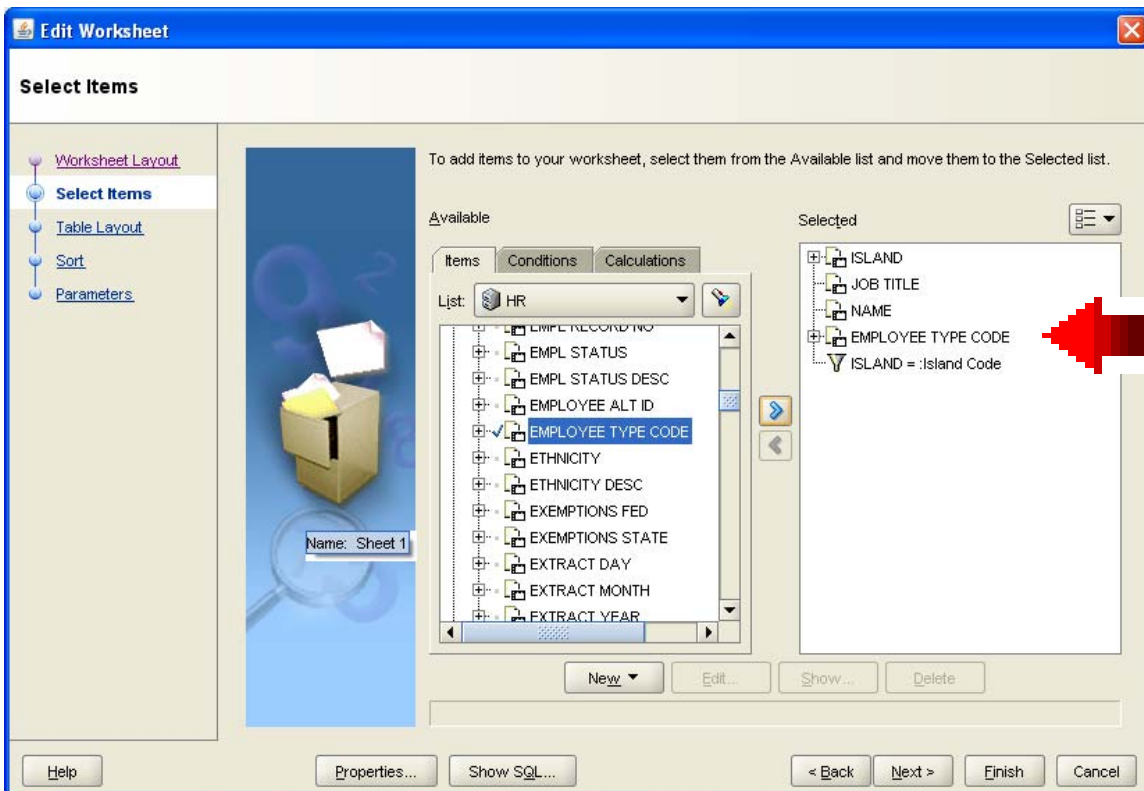
If there are more than 250 rows in the results, the text “Click here to retrieve next 250 rows” will appear at the bottom of the results.



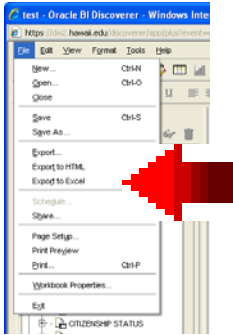
12. To edit the query, click on the icon below (pencil on spreadsheet). To rerun a query, click on the orange circular arrow.



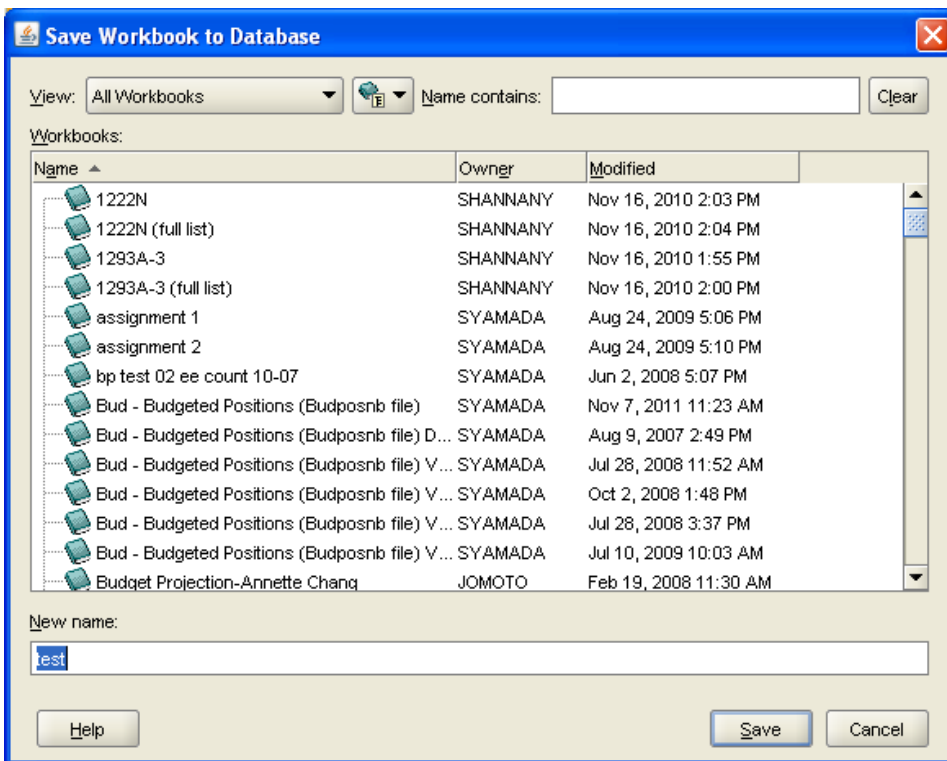
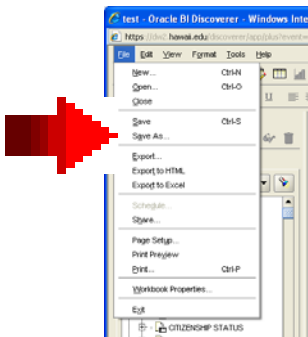
13. Click on appropriate tab (eg., Select Items, Table Layout, etc.) to make changes to the query (eg., add new field called “Employee Type Code”, create more conditions, etc.)



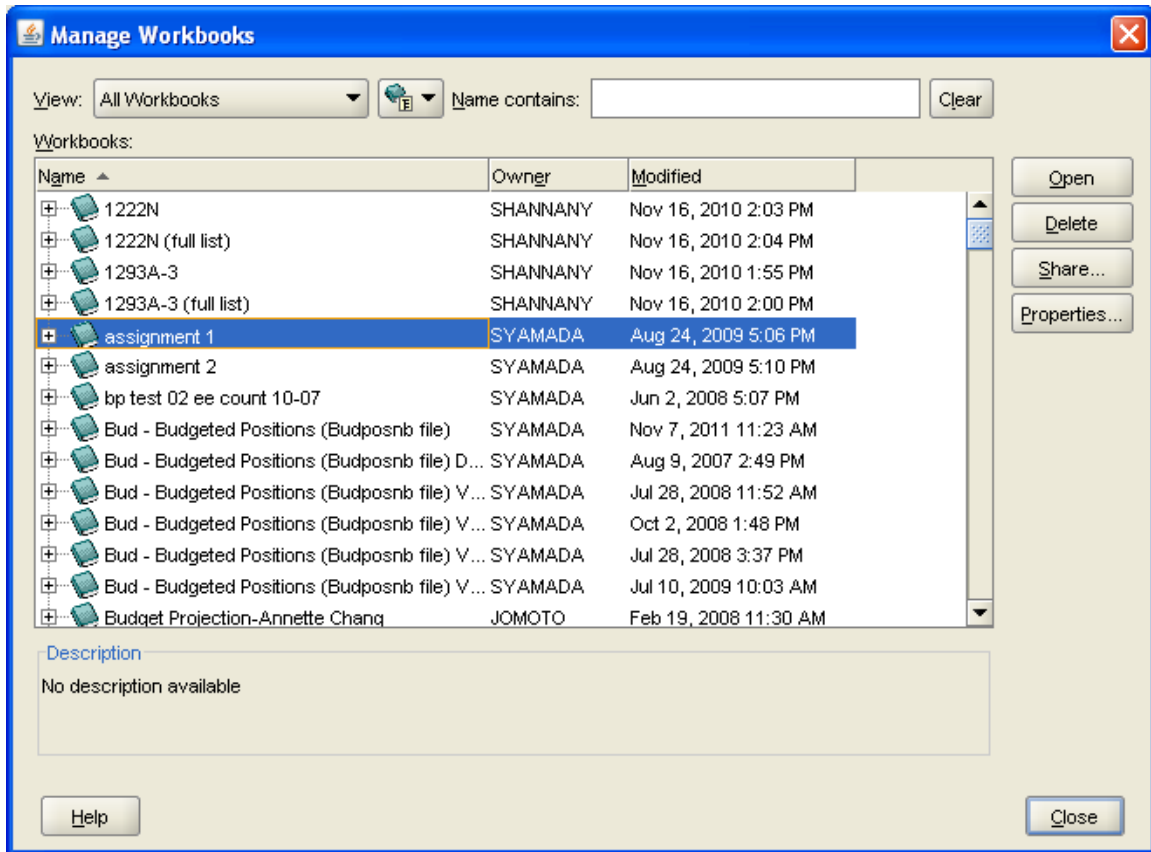
14. Export Results to Excel. Click “File” then “Export to Excel” and select location of where to save file. Choosing “Export” will allow for other formats to be exported.



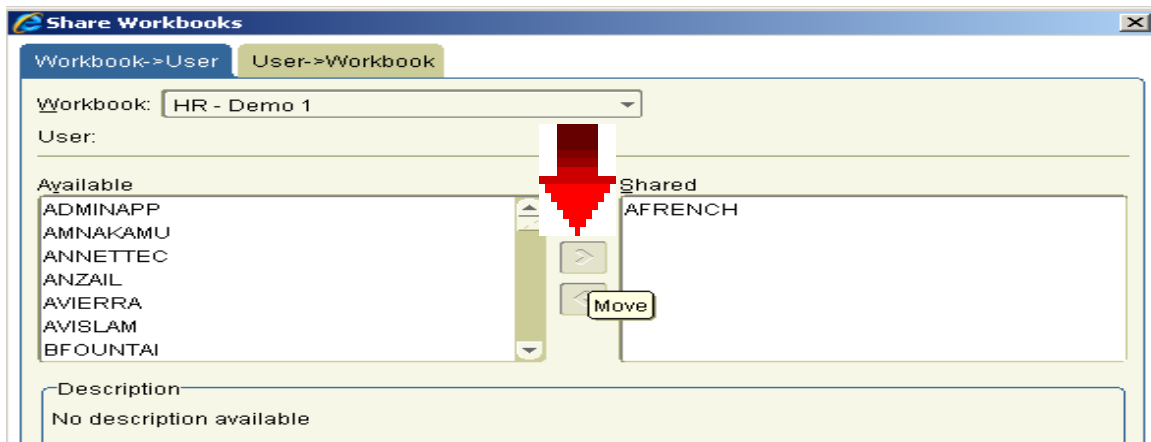
15. To save your query , choose “File” then “Save as” and enter a “New name”



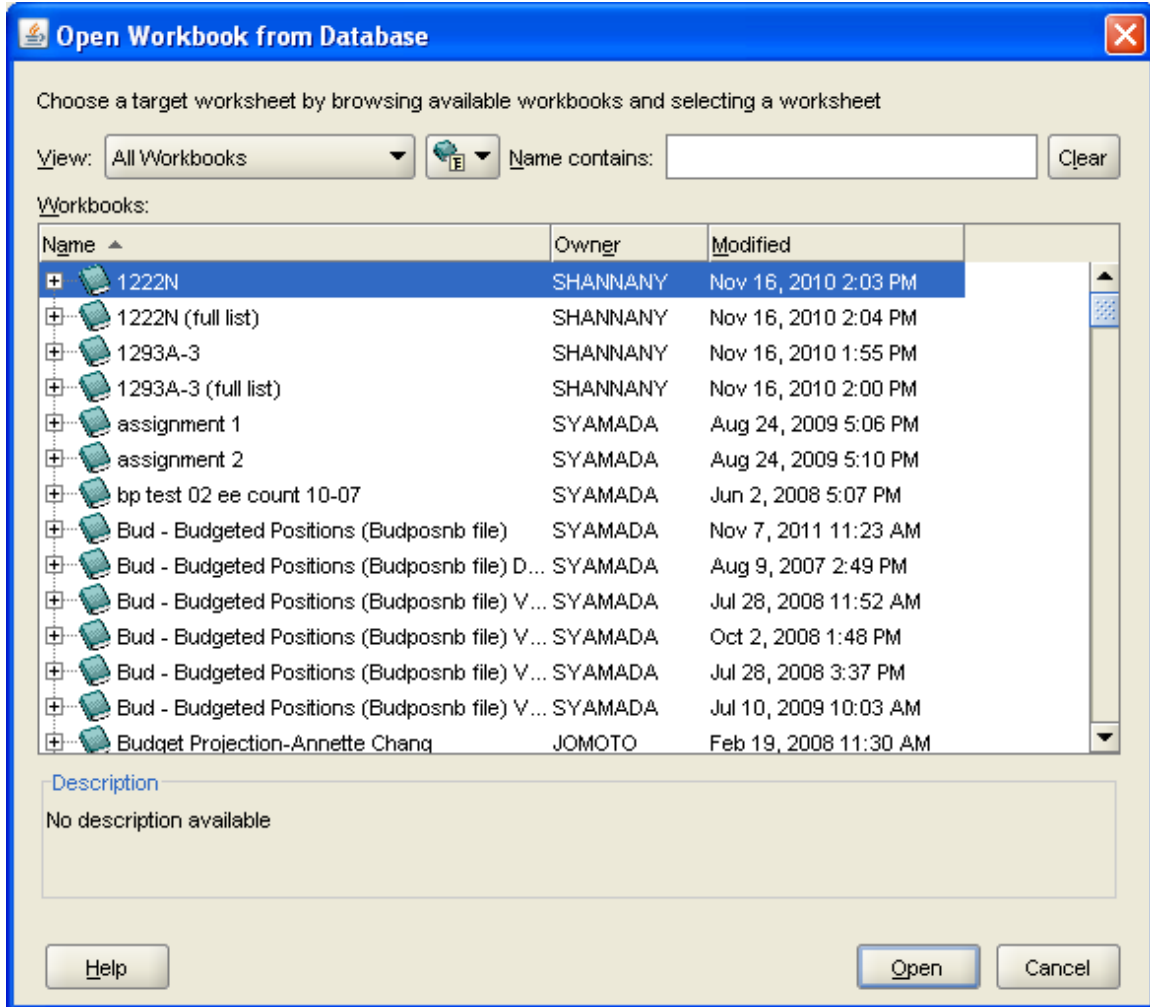
16. To share your query with other users, choose “Tools” / “Manage Workbooks” / “Share”



Select the UH usernames from the left table then click the right arrow between the tables to allow the query to be shared (right table).



17. Edit existing query. On the command line, Choose “File” then “Open”



Select appropriate query from pop-up box.

Exercise 1: Create a table using the following fields:

Name (Descending order), EAC, Employee Type Code. Have the user input a parameter value for a single Employee Type Code. Valid codes are (A, C, E, F, N, G)

Run Query. Save Query as “TEST”

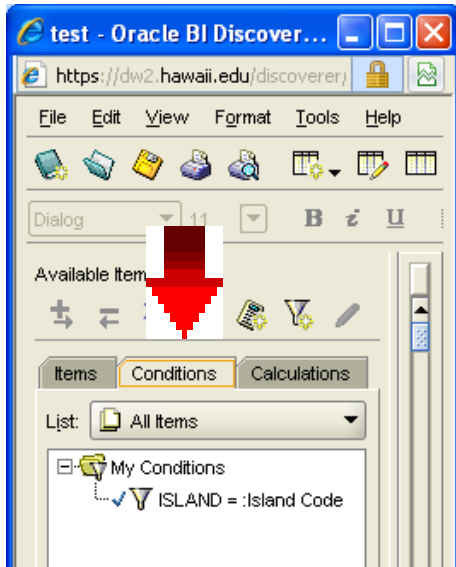
Exercise 2: Edit query named “TEST” and export results to excel

Include new field called “Job Title”

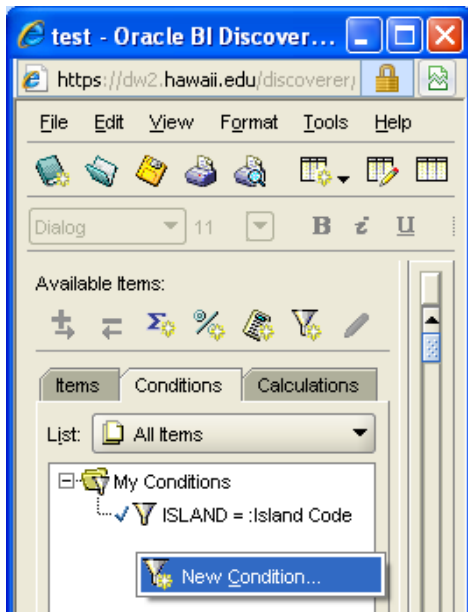
Run Query. Save Query as “TEST”. Export table to excel in location c:\temp and name Excel file as “TEST”.

CONDITIONS

Define conditions to limit the number of records that you return from the Datamart. Click the “Conditions” tab to set your criteria.



To add a condition, right mouse click and select “New Condition”



NOTE: Remember to always include Extract Month and Extract Year when using Quarterly files. If not, you will retrieve data as of 1994.

Select your ITEM from the drop down box. Choose "Select Item" to select a data item that is not going to be listed on the report.

What would you like to name your condition?

What description would you like to give your condition?

UH Employee Type

Formula

Type the formula for an item or select a name from the drop-down list.

Item	Condition	Values
:	=	

Advanced >>

EMPLOYEE TYPE CODE

ISLAND

JOB TITLE

NAME

More Items...

This condition is located in the workbook 'test'.

OK Cancel

Note: <> means not equal; NULL means spaces

What would you like to name your condition?

What description would you like to give your condition?

UH Employee Type

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
: PSEMPL.EMPLOYEE TYPE CODE	=	F,G

Advanced >>

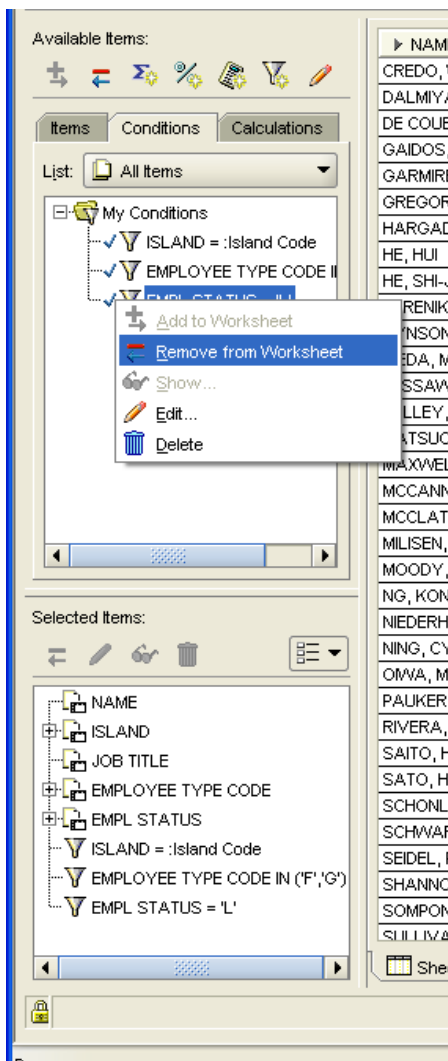
Case-sensitive

This condition is located in the workbook 'test'.

Help OK Cancel

Note:

- Multiple values separated by commas listed in the VALUE field creates an OR condition among the data entered for that Item (eg., Emp Type Code = 'F,G') selects “Faculty” OR “Graduate assistants”.
- Multiple items listed in the table create an AND condition between the listed items (eg., Emp Type Code = 'F' or 'G' and Emp Status Code not = 'T')
- If you don't want a case sensitive search, unclick the Case-sensitive checkbox.
- Use the Single quote (') when specifying text values.
- To temporarily remove a condition from execution, right click on the field name and select “Remove from Worksheet”. To temporarily re-instate the condition, right click on the field name and select “Add to Worksheet”. “Delete” will permanently delete the condition from the query.



Types of Conditions:

Pull Down Table	Definition
=	Exact match
<>	Not equal
>	Greater than
<	Less than
<=	Less than or equal to
>=	Greater than or equal to
LIKE	<p>Used for pattern matching of data.</p> <p>2 examples using the percent sign and the underscore. The LIKE condition allows for only 1 value. If more than 1 value is required, the ADVANCED option will allow for the LIKE condition with an OR statement (see example below)</p> <p>1. Equivalent to “Begins with”. Uses a single “%” percent sign as a place holder.</p> <p>For example: NAME LIKE “YA%” will yield results such as Yamada, Yamamoto, Yashiro, Yakitori.</p> <p>2. Uses the underscore character as a placeholder as long as the data field is of a defined length and the search text is in a specific location.</p> <p>For example: JOB CODE is 5 characters long and the type of faculty appointment (“09” or “11”) is in columns 4 and 5.</p> <p>JOB CODE LIKE “_ _ _09”</p>
IN	<p>Search for data in a provided list</p> <p>For example, CAMPUS KEY IN ‘HO, KA’ will results in records with campus key equal to HO or KA.</p>
IS NULL	Search for blanks
IS NOT NULL	Search for filled data
NOT IN	Search for data not in a provided list
BETWEEN	Search for data between 2 data points inclusive
NOT BETWEEN	Search for data outside of 2 data points exclusive
NOT LIKE	Search for data that does not fit the like criteria
!=	Same as Not equal

Example: Multiple conditions – Click “Advanced” key

Key : Values set within an Item (eg., Employee Type code = “F,A”) represent the OR condition (eg., Employee Type code = “F” or “A”). As a default, values set between Items represent the AND condition (see below).

The above yields no results because the query is asking for 2 different values for job code at the same time when there can only be 1 value. In other words, the Job Code will NEVER be both “15M09” and “15M11” at the same time.

Change the condition to OR

What would you like to name your condition?

(JOB CODE = I5M09,I5M11) Generate name automatically

What description would you like to give your condition?

UH Employee Status

Formula

Click one of the Insert buttons to create new items or conditions. Shift-click to select multiple items, or drag items to reorder.

Item	Condition	Values
PSEMPL.JOB CODE	=	I5M09,I5M11

Insert

New Item

And

Or

Delete

Case-sensitive (JOB CODE = I5M09,I5M11)

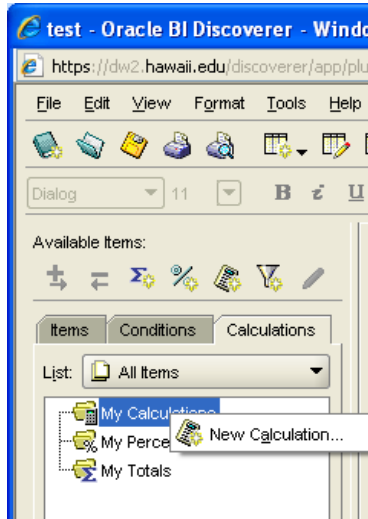
The above is the same query as “PSEMPL.JOB.CODE = “I5M09 OR I5M11”

Exercise 3: Create Condition

- Edit previously saved query called TEST
- Delete “Parameter” condition
- Add field “Fica Class”
- Include condition to select “Fica Class” = “H” only
- Run query
- Change query and select “Fica Class” NOT EQUAL to “H”
- Temporarily remove the “Fica Class” condition
- Add a new condition on “Job Title” starting with “PROF” (case sensitive)
- Run query

CALCULATIONS

Perform numeric calculations or text manipulations. Click the “Calculations” tab and right click “New Calculation”



String Manipulation Functions:

- a. $\text{SUBSTR}(\text{String}, \text{Start} [, \text{count}])$ = clips out a portion of a string
 $\text{SUBSTR}('I5M09', 4, 2) = 09$
- b. $\text{LENGTH}(\text{String})$ = length of string including spaces
- c. $\text{INSTR}(\text{String}, \text{set} [, \text{start} [, \text{occurrence}]])$ = finds position of string within a string
 $\text{INSTR}('Discoverer', 'r', 1, 2) = 10$
- d. $\text{Lower}(\text{String})$ / $\text{Upper}(\text{String})$ = all lower or upper case a string
- e. Concatenate 2 fields: "Discoverer" || "is great" = "Discoverer is great"

Numeric Calculation

Edit Calculation

What do you want to name this calculation?

Calculation1

Select items and functions from the list on the left and paste them into the calculation.

Show: Selected Items

- EMPLOYEE TYPE CODE
- EMPL STATUS
- FICA CLASS
- ISLAND
- JOB CODE
- JOB TITLE
- SALARY MONTHLY

Paste

Calculation:

PSEMPL.SALARY MONTHLY*1.1

Description

No description available

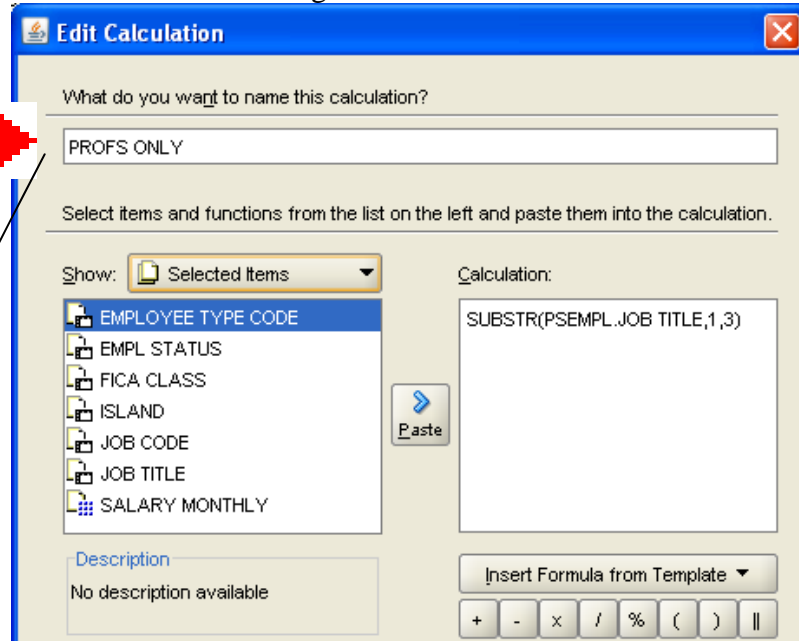
Insert Formula from Template

+ - x / % () ||

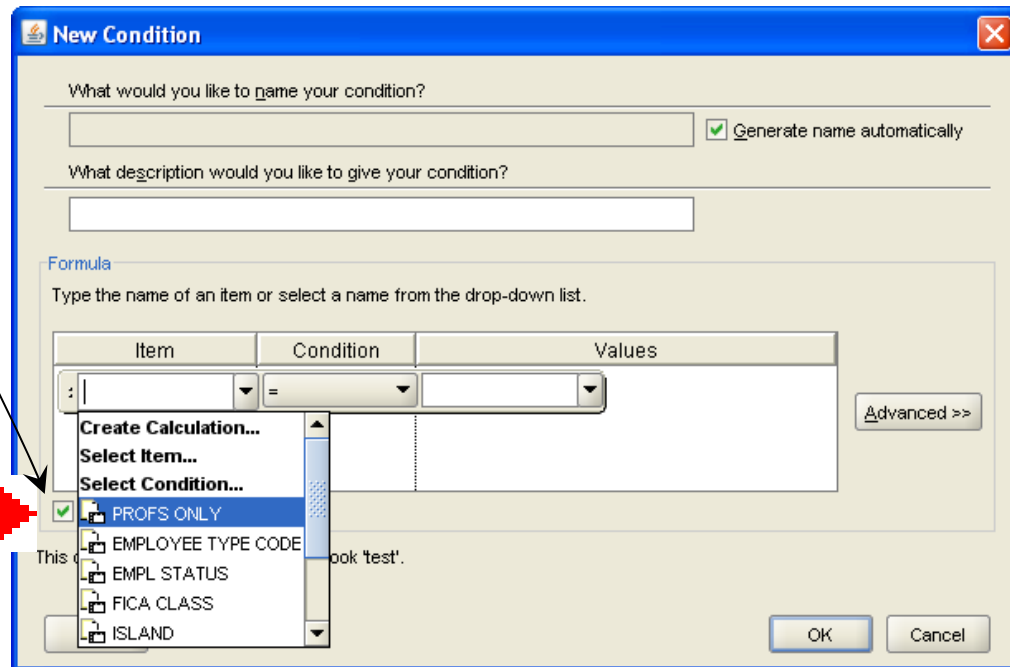
Help OK Cancel

String Manipulations

1. Create text string



2. Select calculation as an Item in Conditions

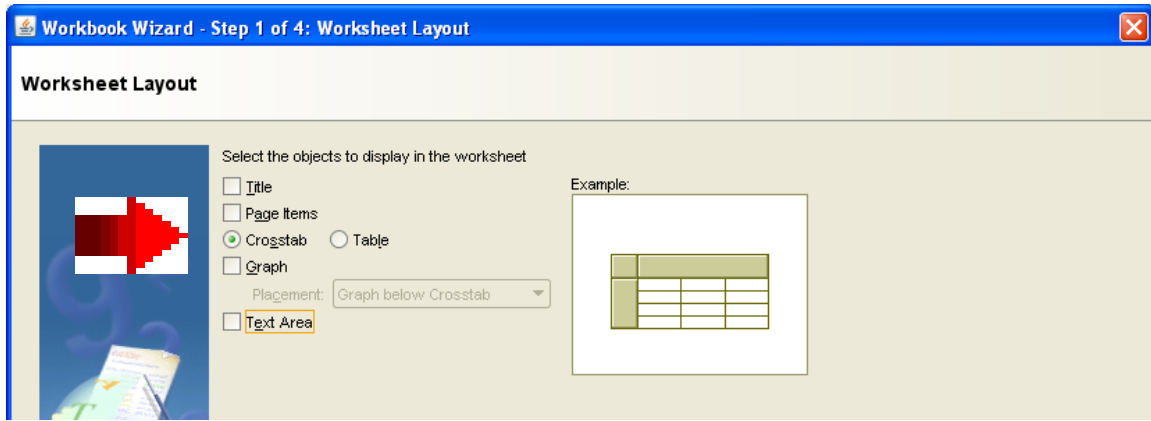


Exercise 4: Calculations

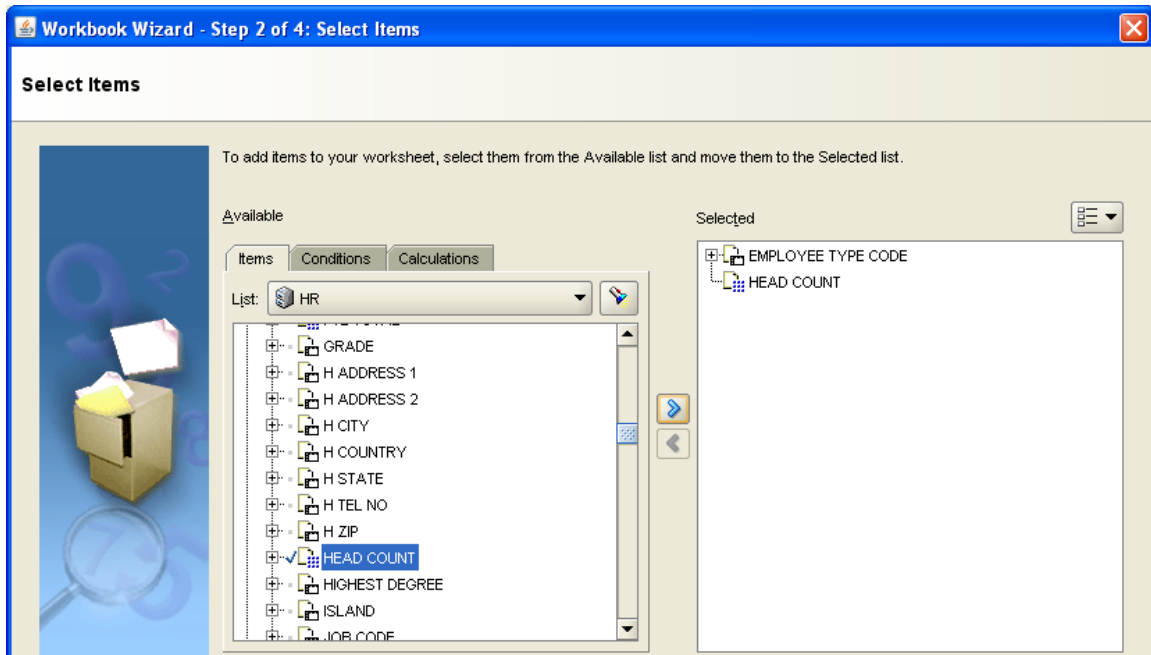
- a. Edit query called "TEST"
- b. Add field called "Job Code".
- c. Create condition to select only 9-month faculty (eg., Job Code = I5M09). Hint – use SUBSTRING function with the LIKE condition.
- e. Add fields "Job Code", "Employee record number" and "Grade".
- f. Create calculation field to multiple the annual salary (Salary Annual) by 1.20

TO CREATE CrosTabs / Pivot Tables (for counting):

1. Select Crosstab and click on “Next”

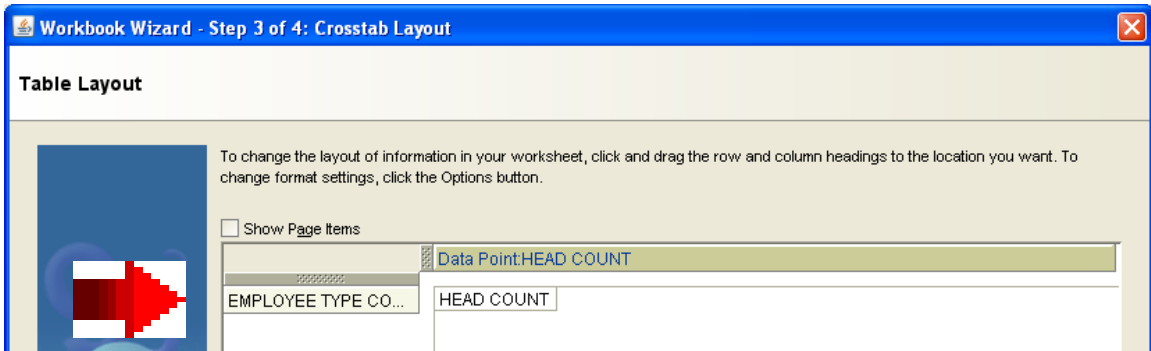
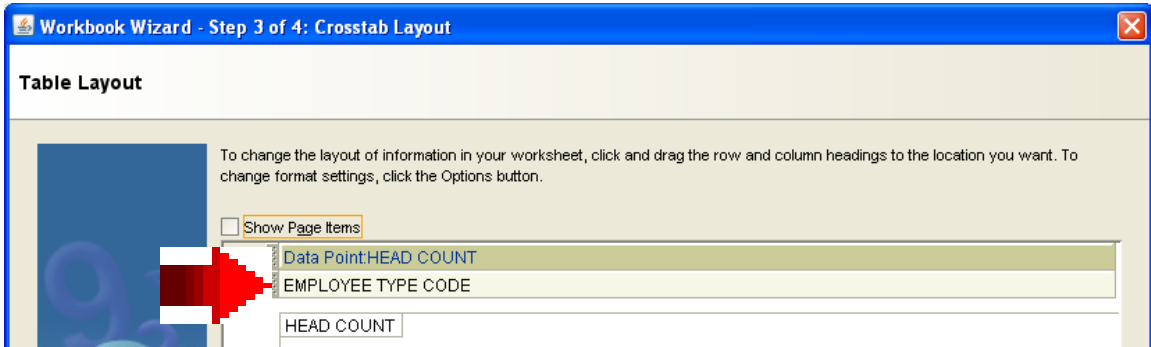


2. Select fields. Crosstabs are usually used with the Data item “Headcount”

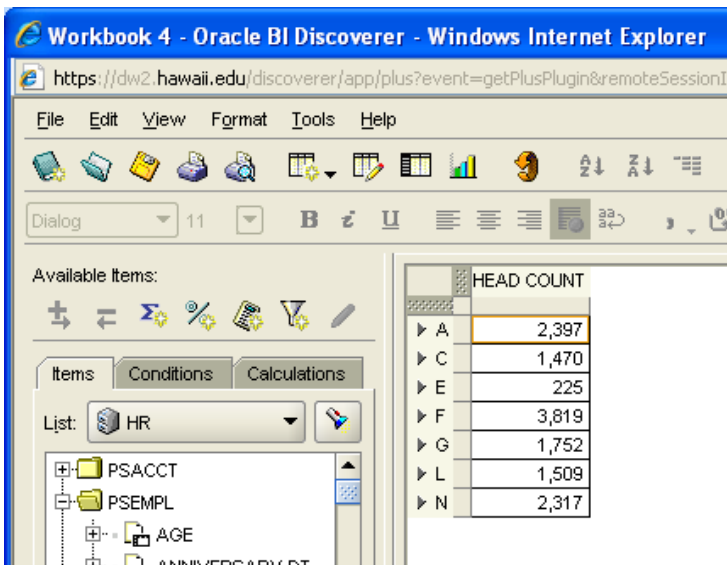


3. Crosstabs should have rows and columns for counting categories.

Left click on the data item bar (brown line), a black line will appear and drag the black line to the appropriate location.



Results:



COMMON HINTS:

1. For only active employees, use condition EMP_STATUS_CODE <> "T"
2. To skip non-compensated employees, use condition EMP_TYPE_CODE <> "N"
3. Records that are stored in the HR datamart are the last approved transaction of the previous day. Therefore, if an employee had multiple transactions on the same day, only the last one will be stored in the datamart. Datamart is NOT updated on the weekends.
4. When using quarterly files (eg., PSQEMPL), ensure that you use the EXTRACT_MONTH (eg., 03, 06, 10, 12) and the EXTRACT_YEAR (eg., 2004). If not, all records will be retrieved from 1994. Effective May 30, 2010, historical data is frozen on the last day of the month and will be frozen on a monthly basis rather than a quarterly basis.
5. If downloading confidential data pursuant to HRS 92F to your workstations, ensure that there is sufficient physical security in place to avoid your workstation being stolen. Notification must be made to the employee and the legislature within 90 days of theft when confidential information is stolen.

WARNING:

If you get an error message like "Item xxxx.xxxx.xxxx is missing. Do you want to continue?" where xxxx.xxxx.xxxx is a data name that you have selected in your query, you do not have security access to that table.

Submit a PeopleSoft Security Worksheet with proper authorized signatures and check off the appropriate DataMart access.