

## Discoverer / Reporting Instance

1. Discoverer is an Oracle Commercial Off the Shelf (COTS) software tool that is used to run ad hoc queries on a database. This tool can run on any database. We have created a relational database called the Reporting Instance (RI). The RI is a separate database from the Oracle Human Resources (HR) database. It is refreshed every 24 hours from the HR database. The RI is only used for reporting; you cannot update this database.

Updates are done in the HR system and refreshed to the RI.

2. Terminology. As with any new software tool we have a change in terminology. This paragraph will define new terms.

2.1. COTS – Commercial Off the Shelf. Software tools created by a commercial company. Generally there is limited customization capability.

2.2. RI – Reporting instance, the database that the Discoverer tool will access.

2.3. HR – Human Resources. The Personnel Data Systems (PDS) database where updates are accomplished.

2.4. GUI – Graphical User Interface.

2.5. EUL – End User Layer. The GUI based tool that the user will access the data through.

2.6. Workbook – Discoverer name for a query.

2.7. Business Area – Logical grouping of tables or views contained in separate folders. For example all the data relating to education and training has been grouped into a business area called Educ and Training Data.

2.8. Folders – Database tables or views relating to a specific area. For example CJR Quota SRB Funds folder contains all data items relevant to that area. This folder in turn is part of the Reenlistment Data business area.

2.9. Items – Data items contained within a folder.

2.10. Data Mart – A business area that contains common data elements that are used to cut records by. You can relate this to the PERS FILE sentence that is used in DESIRE where you designated what record types, MPF IDs, MAJCOMs, and record status you wanted to limit your query to. The Data Mart, called FUSB in the RI, provides you 15 different areas to choose from to limit your initial record selection.

2.11 Filter – A query set up with specific criteria that may be used in the Data Mart to further limit initial record selection. For example in the FUSB business area, within the

Record Status folder is an Active Records Only filter, designated by this symbol , which restricts records retrieved to those in a record status less than 30.

3. You will be using the User edition of the Discoverer software which will allow you access to the End User Layer (EUL). The EUL allows users easy access to the data while shielding them from the complexities of a relational database.

4. Access. To obtain the Discoverer software tool and access to data you must submit a request letter.

4.1. Initial Access. If you are at HQ AFPC contact your Directorate Distributed Systems Administrator (DSA) to request access, if you are at a MAJCOM use Attachment 1 for access, Attachment 2 is used for base level active duty, AFR, or ANG who are not the Single Point Manager (SPM) for their State Headquarters, and Attachment 3 is used if you are a base level ANG user who supports your state headquarters. Once the letter is

signed by your Director or MPF commander it can be faxed to HQ AFPC/DPSIMD, DSN 665-2912. The original must be mailed to HQ AFPC/DPSIMD, 550 C Street West, Suite 39, Randolph AFB, TX 78150.

4.2. Change of Access. Use Attachment 4 to notify us of a change in user. Once the letter is signed by your Director or MPF commander it can be faxed to HQ AFPC/DPSIMD, DSN 665-2912. The original must be mailed to HQ AFPC/DPSIMD, 550 C Street West, Suite 39, Randolph AFB, TX 78150. Make sure that all your workbooks are saved to disk or a shared server drive so that your replacement can access it.

4.3. Software. Once your letter is received your address will be provided to the Technical Assistance Center (TAC) who will mail the latest version of the Discoverer Software CD to you. Once you receive and load the software you must make a change to the IP address. Follow these instructions:

#### **Part I - Non-AFPC Users**

Because of the change in server you will have to alter a file on your PC hard drive to access the new database.

##### TNSNAMES File

Under your C: drive is a folder called ORANT (for NT systems. For Windows 95 and 98, the folder would be the ORA95 or ORA98 folder). Please follow this navigation to find the TNSNAMES.ORA file:

```
ORANT (or ORA95 or ORA98 as appropriate)
- NET80
  - ADMIN
```

```
It is possible that you may also have the file under
ORANT
-NETWORK
  - ADMIN
```

Make the changes to both files (if you have them) as follows:

Open the tnsnames.ora file in Notepad or Wordpad. Scroll down until you see this entry:

```
RIPROD.world =
(DESCRIPTION =
  (ADDRESS_LIST =
    (ADDRESS =
      (PROTOCOL = TCP)
      (Host = 136.149.142.11)
      (Port = 1601)
    )
  )
  (CONNECT_DATA = (SID = RIPROD))
)
```

You must change the HOST IP address to 136.149.142.54.

Once you have made the change, click on the X to close the window. The system will prompt

you to save the changes.

#### Connect String

There is no change to the connect string. Continue to use RIPROD.

### **Part II - AFPC Users**

There are no file changes required on your part.

#### Connect String

Change your connect string to falcon\_riprod

4.4. Userid/Password. A userid/password will be requested for your users. Each Discoverer license is for one user. It is **not** a group account that can be shared with your co-workers. This is a four step process.

4.4.1. Step One. A userid is created and provided to the database shop. The database shop will enter your userid and assign a password.

4.4.2. Step Two. Once the userid has been entered into the database it is provided to the Discoverer system administrators who will assign the user business areas based on what level the user is assigned to. Business areas are explained in paragraph 2.7. For a list of business areas go to paragraph 7.2.2.6.1. If a user is at the AFPC or MAJCOM level they will have access to more business areas than what an MPF level user will have.

4.4.3. Step Three. Security is now assigned to the user based on a users level of assignment. If a user is at AFPC then they will receive world wide access; MAJCOM access will be based on the MAJCOM ID and will allow them to see all O6 (Colonel) records and below; base level access will be based on the MPF ID and appropriate record type; and state headquarter users access will be based on all ANG MPF IDs they should have access to and appropriate record types.

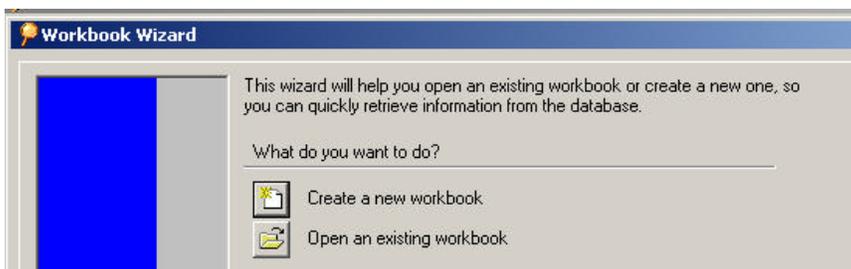
4.4.4. Step Four. After the previous three steps have been accomplished, the final step is to provide the user the userid, password, and the connect string. Two separate emails will be sent to the user. The first email will contain the userid, connect string, and a link that the user must go to sign up for the RIDIS list server. This list server will be the primary means of distributing general information, problems, solutions, and scheduled maintenance.

4.5. Access Changes. Whenever you have someone PCS, separate, or retire you must submit a new access letter designating whose access should be deleted and who the replacement for that person is. If a person PCSs their access will not automatically change to their new base of assignment so a new letter is a must.

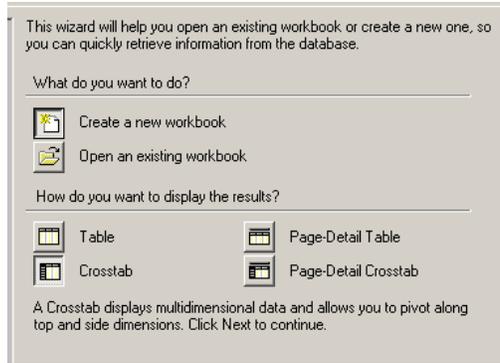
5. Login. To use the Discoverer tool click on your Windows Start button, go to Programs, Oracle Discoverer, then User Edition. The Connect to Oracle Discoverer login window will open.



- 5.1. Enter your userid in the Username field and tab to the next field.
- 5.2. Enter your Password in the Password field and tab to the next field. Remember that your password is case sensitive.
- 5.3. Enter riprod in the Connect field.
- 5.4. Click on the Connect button.
6. Settings. The first time you login in to Discoverer you must change the settings for specific options or you will be unable to successfully build and execute workbooks. Once the Workbook Wizard opens click on the Cancel button. Click on Tools on the menu bar, then Options. The Options window will now be displayed.
  - 6.1. Query Governor. Go to the Query Governor tab and change the Limit retrieved data to 25,000 rows. This will allow the system to retrieve large list of values for data items like Unit or the different AFSCs. If the setting is not high enough the system will not retrieve all of the available values.
  - 6.2 Advanced. Go to the Advanced tab and check the Disable fan-trap detections box and the Disable multiple join path detection box. This will prevent any join problems between tables.
7. Run Queries. Once the login is complete the Workbook Wizard will open. Discoverer is a user-friendly, wizard driven tool.



- 7.1. The first step is to determine if you want to create a new workbook or open an existing workbook.
  - 7.1.1. What do you want to do? You will have a choice of creating a new workbook or opening a new workbook.
  - 7.1.2 Click on the Create a new workbook icon and you will be given four options on how you want to display your workbook results.



7.1.2.1. Table. A table displays data in rows and columns and can be compared to a legacy alpha roster.

7.1.2.2. Crosstab. A crosstab displays multidimensional data and allows you to pivot along top and side dimensions. This can be compared to a legacy matrix product.

7.1.2.3. Page-Detail Table. This lets you display information grouped by the criteria specific on the page axis.

7.1.2.4. Page-Detail Crosstab. This lets you display information grouped by the criteria specified on the page axis.

7.2. Wizard Driven Tool. Because this is a wizard driven tool at the bottom of each window you will have a navigation area that allows you two different options.

- < Back - allows you to go back to the previous screen
- Next > - allows you to go to the next screen
- Options – allows you to change settings for the Query Governor or Table.
- Finish – allows you to execute your query
- Cancel – cancels the query
- Help – Opens up the help functionality. (XXXXXXXXXXXX)



NOTE: If you are starting a new workbook and going step by step through the wizard each piece of functionality will be labeled as a Workbook Wizard step. If you are in edit sheet mode each piece of functionality will have a tab at the top with the type of action that can be performed.

For each piece of functionality in the following paragraphs they will be labeled as their Workbook Wizard step/Tab name.

7.2.1. Edit Sheet Window. This window allows you tab to different wizards that will allow you to select data items, change your table or crosstab layout, add, delete, or edit conditions, sorts, and calculations. Depending on whether you are creating a table or crosstab workbook will determine which tabs you see in this window. Each of the tabs are discussed in the following paragraphs.

7.2.2. Workbook Wizard: Step 2/Select Items Tab. Use this window for selecting or searching for data items for any type of workbook.

7.2.2.1. Select Data. To select data items either double click on a folder or click on the plus sign to the left of the folder. Once the folder opens if you only want to display a data item then just highlight it and move it to the Selected window.

7.2.2.2. This screen is broken down into two major areas: Available and Selected. The Available window will contain all standard data items and filters for use in your workbook. The first thing you need to be concerned with is a Business Area called Fast User Business Selection (FUSB) (see area labeled **1**). FUSB is the default business area when you first start a query and is also the data mart. Please refer to paragraph 2.10 for an explanation of what a data mart is used for. For optimal use of this software tool you **MUST** use FUSB to do your initial record selection. There are currently 3.07 million records in the database. Using FUSB will greatly reduce the number of records that you will retrieve additional data on and can reduce the run time of a query from 30 minutes to 30 seconds.

7.2.2.3. If you are unsure of what a business area, folder, data item, or acronym means a cleartext explanation is displayed below the Available window (see area labeled **2**).

7.2.2.3.1. Contained in each business area is a collection of folders relevant to that business area, with the exception of FUSB (see area labeled **3**).

7.2.2.3.2. Within each folder are all the data items or filters applicable to that area (see area labeled **4**).

7.2.2.3.3. Each data item contains applicable codes, COUNT, MAX, and MIN. (see area labeled **5**).

7.2.2.3.3.1. COUNT returns the number of values in the query where the expression is not null. Generally this COUNT is not used. Instead Counter from the Assignment folder in FUSB Business area is used.

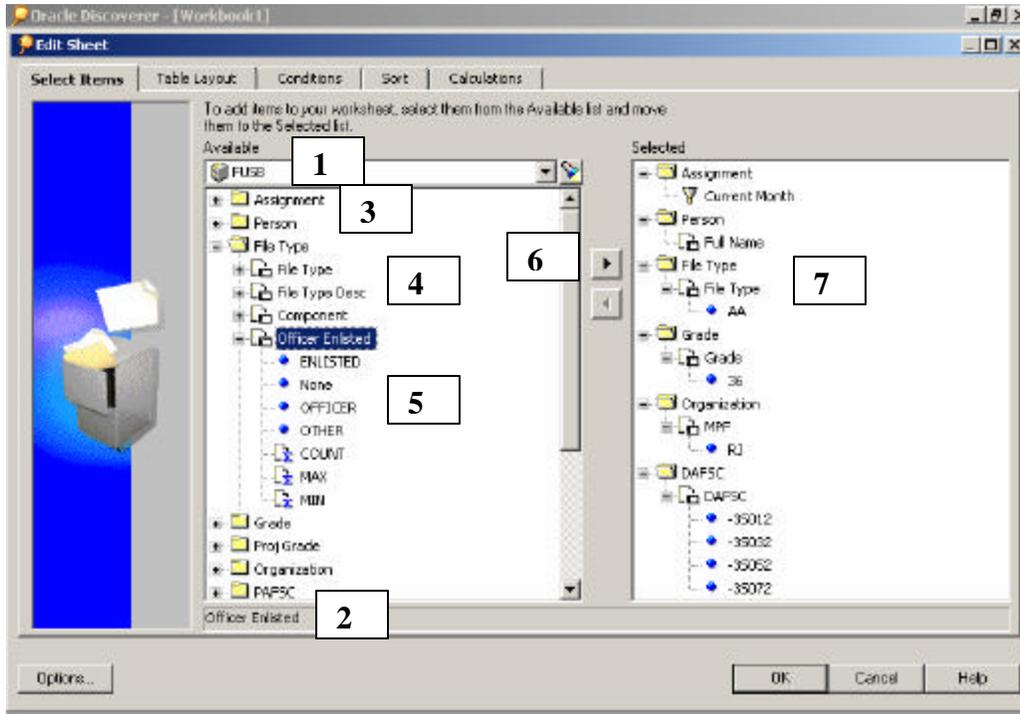
7.2.2.3.3.2. MAX finds the maximum value of the expression. You would use MAX if you wanted the highest ADSCD that a person has. If a person has two ADSCDs, 10-JUN-2002 and 09-APR-2001, MAX will return the one with the highest or furthest date, in this case 10-JUN-2002. If you were using MAX with Assignment Availability code, and a person had two codes, 39 and 44, MAX will return the highest number, or in this case code 44. Double click on the data item you want, highlight MAX and move it to the Selected window.

7.2.2.3.3.3. MIN finds the minimum value of the expression. You would use MIN if you wanted to find the lowest ADSCD that a person has. So if the person has two ADSCDs, 10-JUN-2002 and 09-APR-2001, MIN will return the lowest or soonest date, 09-APR-2001. If you were using MIN with Assignment Availability code, and a person had two codes, 39 and 44, MIN will return the lowest number, or in this case code 39. Double click on the data item you want, highlight MIN and move it to the Selected window.

7.2.2.4. Data that is to be used in the query must be moved to the Selected window. Highlight the data item or items and click on the right facing arrow (see area labeled **6**) to move them to the Selected window (see area labeled **7**). You may also click on a data item and drag it to the Selected window. To select more than one data item in the Available window you have two options.

7.2.2.4.1. Selecting Consecutive Codes. Click on the first code, hold the Shift key down, click on the last code, and all codes in between including the last code will be highlighted. Release the Shift key and click on the right facing arrow or drag the codes to the Selected window.

7.2.2.4.2. Selecting Non-Consecutive Codes. Click on the first code, hold down the Ctrl key, click on each code needed. Release the Ctrl key and click on the right facing arrow or drag the codes to the Selected window.



7.2.2.5. Use of Mandatory Data. When creating a workbook you must always select a data item from the Assignment folder in the FUSB Business Area. All of the tables in the RI are joined through the Assignment folder. If you do not select a data item from this folder then you will not have access to other folders or Business Areas.

7.2.2.5.1. Counter. This data item must be used when creating a Crosstab. Counter counts the number of records that meet the criteria that you have entered and displays the results based on how you cut the data.

7.2.2.5.2. Time Period. Under this data item you will find previous months, quarters, or years of history that have been accumulated from the time that MilMod goes live. Press the plus sign (+) to the left of the data item to see what time period are available. These time periods are used when you need to run a query against a different time period to retrieve data from that time.

7.2.2.5.3. Current Month Filter. If you are not selecting a historical time period then you must use the Current Month Filter in all of your workbooks. This will retrieve the most up-to-date information for a person's record. If you do not use a previous time period or the Current Month Filter then you will retrieve a separate row from each time period that has been accumulated on the system for each person that is retrieved as part of your workbook.

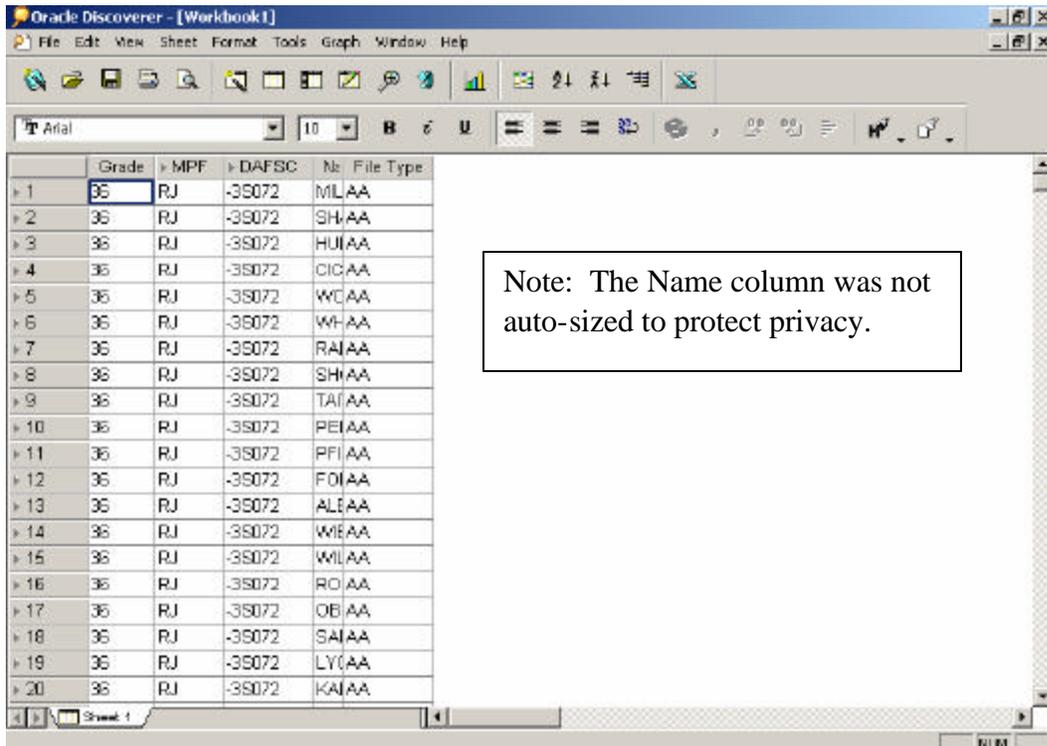
7.2.2.5.4. Asg Type. In FUSB, in the Assignment Folder, there is a data item called Asg Type. You must select whether you want CURRENT, FOLLOW ON, or PROJECTED (gains). If you do not select an Asg Type then you will receive multiple rows for personnel who have a projected or follow-on assignment.

7.2.2.5.4.1. **CURRENT.** This is a person's current assignment. Where they are currently stationed.

7.2.2.5.4.2. **PROJECTED.** This is a person's first projected assignment.

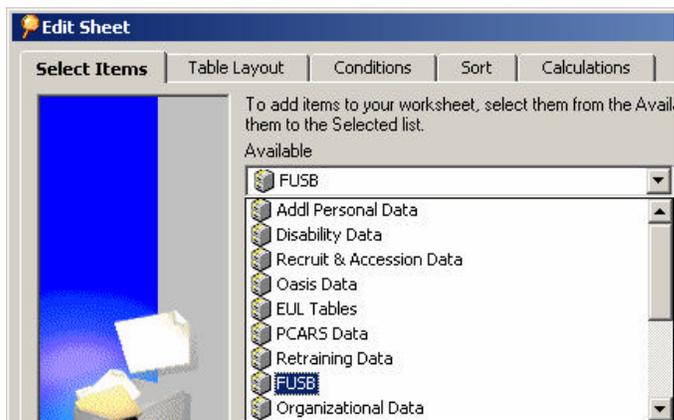
7.2.2.5.4.3. **FOLLOW ON.** This is a person's second projected assignment or follow-on.

7.2.2.6. **Retrieve Initial Records.** Once you have selected everything that you need out of the FUSB business area to select your initial records run the query by clicking on the Finish button. Your initial results will look like this:



	Grade	MPF	DAFSC	No	File Type
> 1	35	RJ	-35072		MILAA
> 2	35	RJ	-35072		SHAA
> 3	35	RJ	-35072		HUIAA
> 4	35	RJ	-35072		CICAA
> 5	35	RJ	-35072		WCAA
> 6	35	RJ	-35072		WHAA
> 7	35	RJ	-35072		RAIAA
> 8	35	RJ	-35072		SHAA
> 9	35	RJ	-35072		TAIAA
> 10	35	RJ	-35072		PEIAA
> 11	35	RJ	-35072		PFIAA
> 12	35	RJ	-35072		FOIAA
> 13	35	RJ	-35072		ALIAA
> 14	35	RJ	-35072		WIAA
> 15	35	RJ	-35072		WILAA
> 16	35	RJ	-35072		ROIAA
> 17	35	RJ	-35072		OBAA
> 18	35	RJ	-35072		SAIAA
> 19	35	RJ	-35072		LYIAA
> 20	35	RJ	-35072		KALAA

7.2.2.6. **Search for Data.** By clicking on the down arrow to the right of the Business Area field a drop down menu will open up and show you additional business areas.



7.2.2.6.1. **Other Business Areas.** Once you have used the FUSB business area to reduce the number of records you want to work with you will have to delve into other Business

Areas to retrieve more data. Currently the following Business Areas are available to the users in the field depending on what level you work at. We will be adding additional Data Marts and Business Areas in the future.

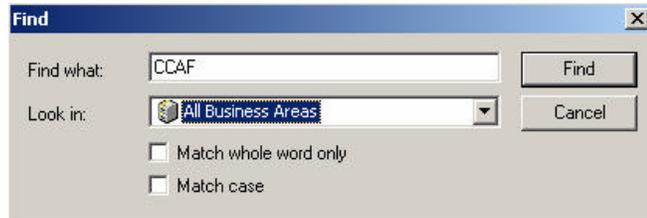
Business Area	MAJCOM or Above Level	MPF Level
Addl Personal Data	X	X
Recruit & Accession Data	X	X
PCARS Data	X	X
Retraining Data	X	X
FUSB Data Mart (this name will most likely change to Doorway or Gateway in future builds)	X	X
Organizational Data	X	X
Position Data	X	X
Educ and Training Data	X	X
Retirement and Separation Data	X	X
Acquisition Data	X	
Reenlistment Data	X	X
Assignment Data	X	X
Oasis Data	X	

Pulling data from other Business areas will take longer than what it did to pull back your initial records using FUSB. If you do not use FUSB initially and pull data from other Business Areas during your initial query your response time will be seriously degraded. To access the Business Areas again click on the Edit Sheet icon or click on Sheet on the menu bar and then Edit Sheet. You will be back in the Edit Sheet window. Currently there are 4,550 data items available to you in this EUL.

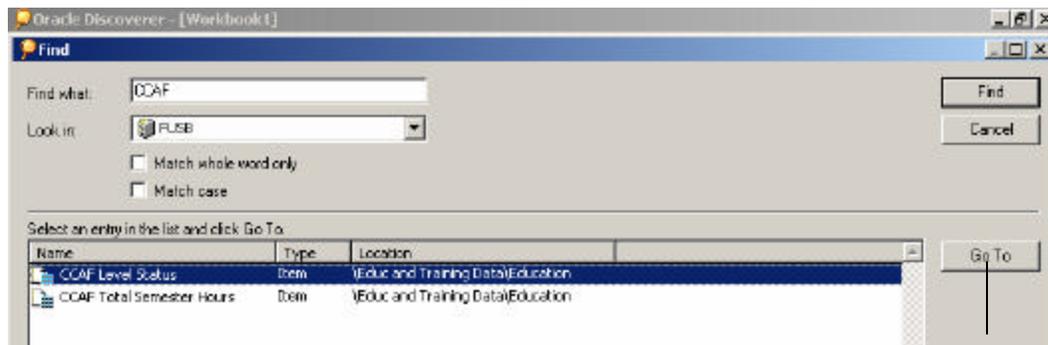
7.2.2.6.2. Using Flashlight. If you do not know what Business Area a data item is in then click on the Flashlight button to use the search function.



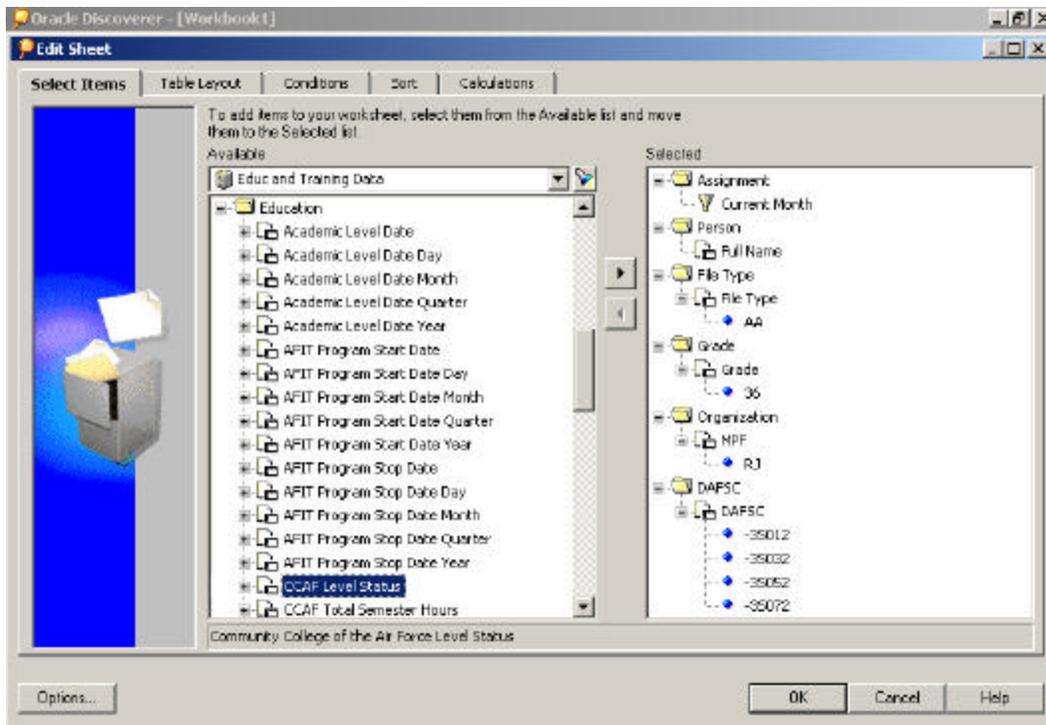
Once you click on the button the Find window will open. Type in the data name you are looking for or part of a name. Click on the down arrow for the Look in field and select All Business Areas. When the Find window first opens it will default to the last Business Area you were using.



For instance if you were looking for CCAF Level Status you can type in the entire data name and click on Find or you could type in just CCAF and find every data item that has CCAF in it which you see in the screen shot below.



This window will show you the Name, Type, and Location (\Business Area\Folder) of the data item. CCAF Level Status is in the Educ and Training Data Business Area, in the Education folder. Highlight the data item you want and click on the Go To button. This will take you to the appropriate Business Area and folder and show you where the data item is.

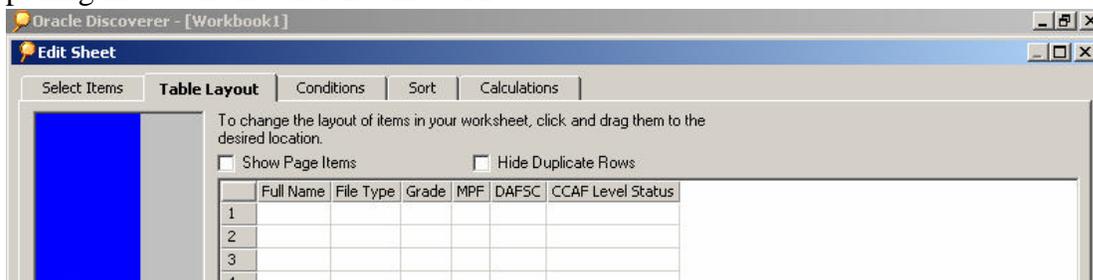


Bring the appropriate data item over to the Selected area and any other data items you want.

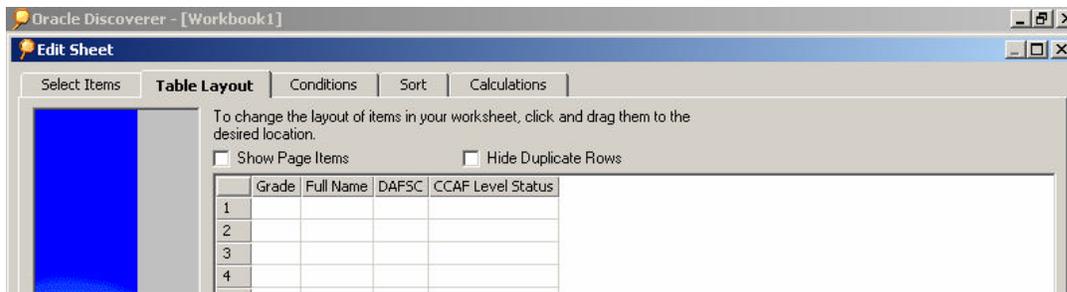
7.2.3. Workbook Wizard: Step 3/Table Layout Tab. Use this window to change the layout of items in your worksheet by clicking and dragging a data item to the desired location, show page items, or hide duplicate rows.

7.2.3.1. Delete or Move Columns. All data items that were chosen in the Select Items tab are displayed. You may not need to see all of the data items on your roster, such as File Type or MPF. To remove the column for display purposes, click on the column name and press the Delete key. This will not affect the data item in the Select Items tab. To move a column, click on the column name and drag it to the desired location.

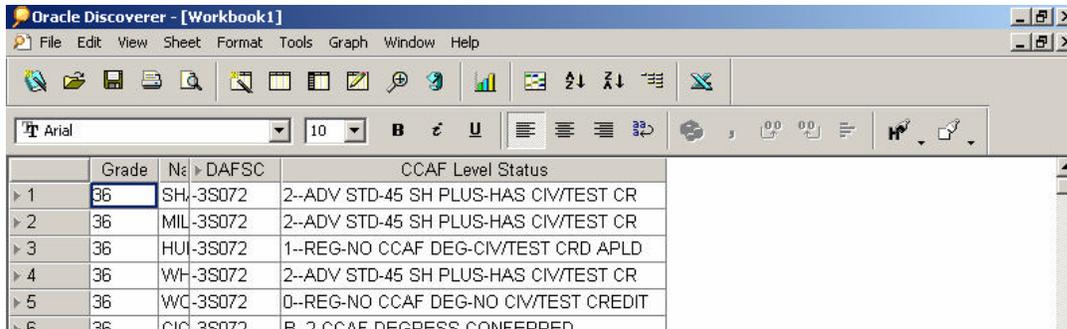
This is what my layout looks like after retrieving my initial records using FUSB and pulling in data from other Business Areas.



Once File Type and MPF have been deleted and the Grade has been moved to the first column this is what your layout will look like.



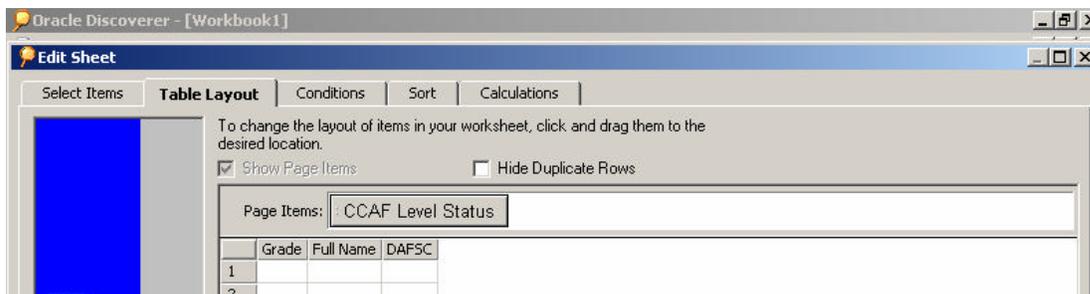
Now the results look like this:



7.2.3.2. Show Page Items. Setting this option will allow you to create drop down lists using a data item that you have selected.

7.2.3.2.1. Using One Page Item. Using our example above let's say we want a drop down menu for CCAF Level Status. Check the Show Page Items box. A Page Items field will open.

Click on CCAF Level Status column heading and drag it up to the Page Items field. It will look like this:



Click on the OK button at the bottom on the window. Your results will now look like this:



	Grade	Name
1	36	ALI
2	36	RA
3	36	MIL
4	36	LY
5	36	SH
6	36	HO
7	36	WH
8	36	SH

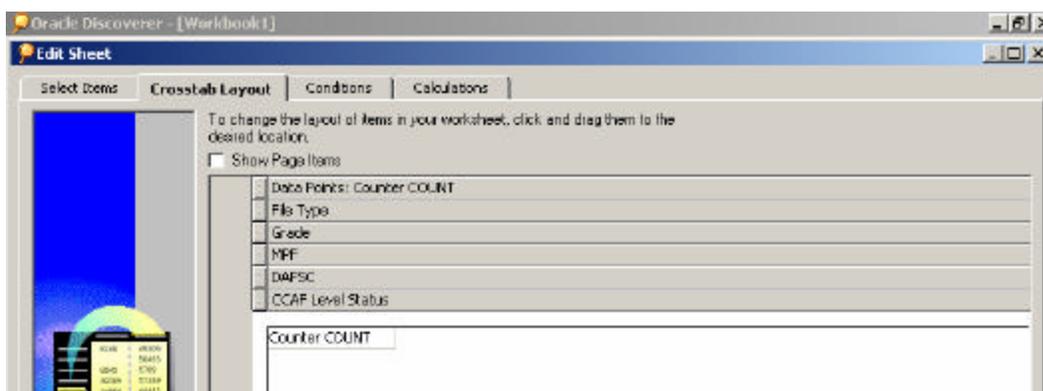
Now you can display the data using a combination of the two Page Detail items by clicking on the down arrow and selecting different values.

7.2.3.3. Hide Duplicate Rows. Check this box to hide duplicate rows.

7.2.4. Workbook Wizard: Step 3/Crosstab Layout Tab. This tab allows you to change the layout of your crosstab workbook or show page items. Once you have selected your data items for your crosstab click the next button to go to the Crosstab Layout. The layout is based upon columns across the top of your display or the x-axis and rows along the side or the y-axis.

NOTE: When creating a Crosstab workbook remember you must use Counter from the Assignment folder in the FUSB business area. Do not use Name or SSAN. If you do this will create a separate column for each name and SSAN and will run an extraordinarily long time.

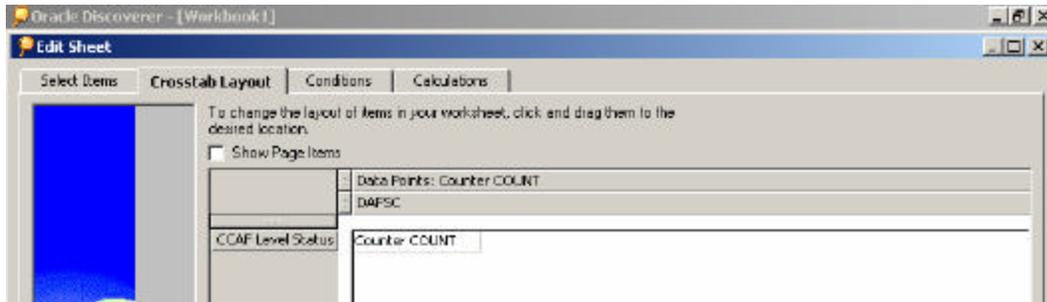
7.2.4.1. Change Layout. When the Crosstab Layout wizard is first displayed you will receive a message box stating “No data can be displayed in the crosstab because there are no rows. To add a row, drag an item from the column area.” Click on the OK button. Now you will see all the data items you picked in the Select Items tab.



7.2.4.1.1. Delete Data Items. Determine which data items you do not want displayed, highlight the data item and press the Delete key to remove it. If you have only selected one file type or one MPF then you generally don't care about seeing that data as part of your display. Using the example above I have deleted File Type, Grade, and MPF.

NOTE: Do not delete Counter. You must have that data item to count the number of rows that meet your criteria.

7.2.4.1.2. Row Layout. Now determine which data item(s) you want to display as your rows. Using the example above I am going to move CCAF Level Status to the y-axis. Now my layout looks like this:

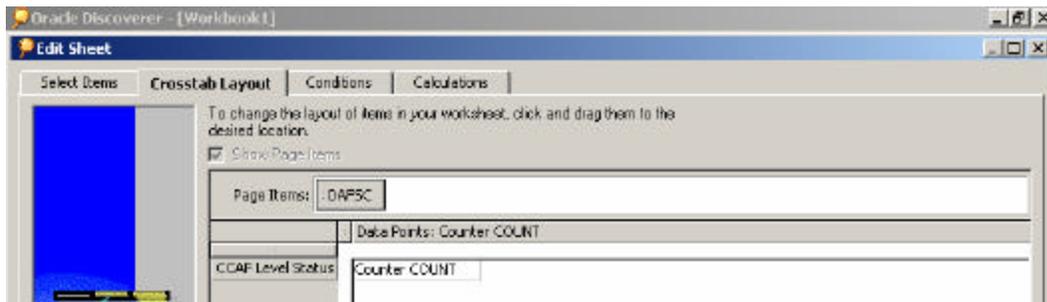


To see the results click OK. The results will look like this:

	Counter COUNT	DAFSC
	>-3S052	>-3S072
D-REG-NO CCAF DEG-NO CIV/TEST CREDIT	1	5
1--REG-NO CCAF DEG-CIV/TEST CRD APLD		4
2--ADV STD-45 SH PLUS-HAS CIV/TEST CR	4	8
5--ADV STD-HAS CIV/TEST-HAS CCAF DEG		2
A--ONE CCAF DEGREE CONFERRED	1	1
B--2 CCAF DEGRESS CONFERRED		2
C--3 CCAF DEGREES CONFERRED		1

7.2.4.2. Show Page Items. Setting this option will allow you to create drop down lists using a data item that you have selected.

7.2.4.2.1. Using One Page Item. Using our example above let's say we want a drop down menu for DAFSC. Check the Show Page Items box. A Page Items field will open. Click on DAFSC column heading and drag it up to the Page Items field. It will look like this:



Click Ok to display the results:

	Counter COUNT
D--REG-NO CCAF DEG-NO CIV/TEST CREDIT	1
2--ADV STD-45 SH PLUS-HAS CIV/TEST CR	4
A--ONE CCAF DEGREE CONFERRED	1

Click on the down arrow to the right of the CCAF Level Status to choose a different status. All available codes will be displayed with a check mark next to the code that is currently being used.

	Counter COUNT
D--REG-NO CCAF DEG-NO CIV/TEST CREDIT	1
2--ADV STD-45 SH PLUS-HAS CIV/TEST CR	4
A--ONE CCAF DEGREE CONFERRED	1

7.2.4.2.2. Using More than One Page Detail. More than one data item may be used in the Page Detail field. Using the same example I edited the sheet and added grades 36 and 37 to my selected data. Before I only had grade 36 and I deleted grade from my crosstab layout above. I have to put the data item back in my selected area with more than one grade. Next I click on the Crosstab layout and put DAFSC up in the Page Detail field with Grade. The Grade may be put on either side of DAFSC. Here it is in front.

To change the layout of items in your worksheet, click and drag them to the desired location.

Show Page Items

Page Items: Grade DAFSC

Data Points: Counter COUNT

CCAF Level Status Counter COUNT

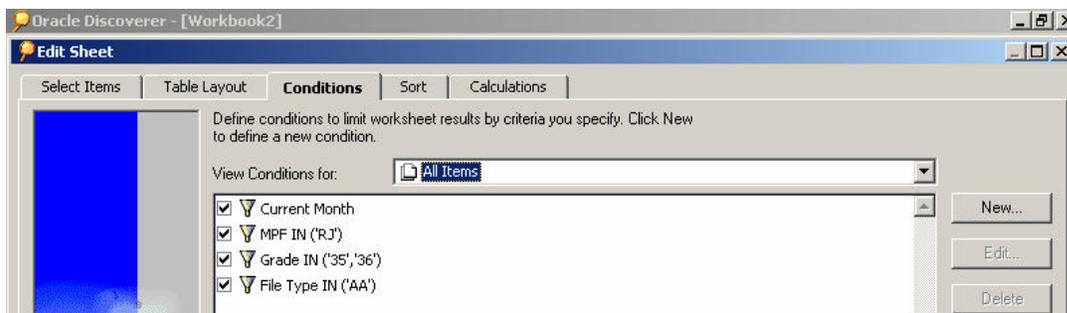
Click on Ok to display the results:

	Counter COUNT
0--REG-NO CCAF DEG-NO CIV/TEST CREDIT	5
1--REG-NO CCAF DEG-CIV/TEST CRD APLD	4
2--ADV STD-45 SH PLUS-HAS CIV/TEST CR	8
5--ADV STD-HAS CIV/TEST-HAS CCAF DEG	2
A--ONE CCAF DEGREE CONFERRED	1
B--2 CCAF DEGREES CONFERRED	2
C--3 CCAF DEGREES CONFERRED	1

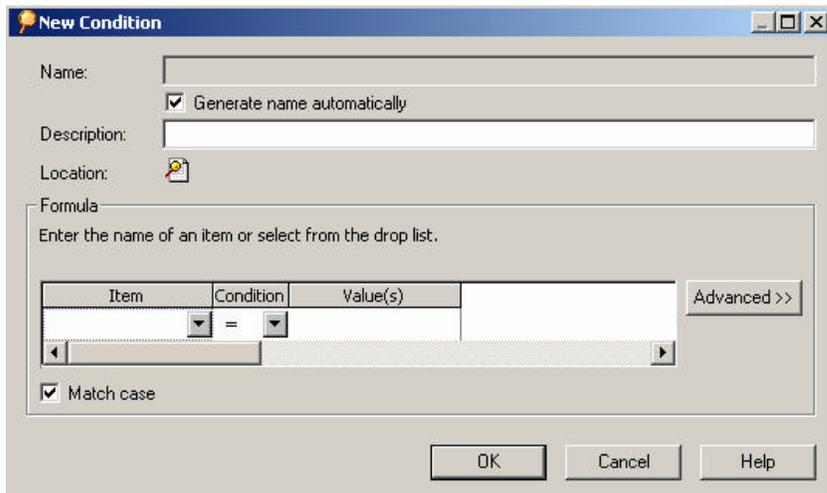
Now you can display the data using a combination of the two Page Detail items by clicking on the down arrow and selecting different values.

7.2.5. Workbook Wizard: Step 4/Conditions Tab. This tab allows you to define conditions to limit your worksheet results by criteria that you specify. To illustrate how to build new conditions, edit, delete, or turn off existing conditions I will use the following data from the following folders in the FUSB business area. Assignment Folder: DAS and Current Month; Person Folder: Full Name and DOS; File Type Folder: File Type AA; Grade Folder: Grades 35 and 36; Organization Folder: MPF RJ. In the Table layout tab I deleted MPF and File Type.

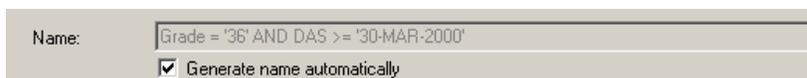
When you first get to the Condition Tab it will show all conditions that the system created based on what was selected in the Select Items tab:



7.2.5.1. New Conditions. To create a new condition click on the New button. The New Condition window opens.



7.2.5.1.1. Name Field. The Name field is grayed out because the Generate name automatically box is checked. If the default is used, the system will create a name based on the condition(s) that you create. For example if I select Grade = 36 and DAS >= '30-MAR-2000' this is the name the system will generate:



To enter your own name, uncheck the box, click in the Name field and enter your own unique name.



7.2.5.1.2. Description Field. This is an optional field. Enter a brief description of what the condition is for. This can be helpful to a new person that has to edit an existing query.

7.2.5.1.3. Item Field. This field allows you to select or manually input a data item, create a calculation, select a condition, or copy a condition.

7.2.5.1.3.1. Data Item. Select or manually enter the data item that you wish to set a condition on. If you choose to enter the data name manually and do not enter it exactly right you will NOT get a syntax error. The system will place single quotes around the invalid data item and accept it as a cleartext entry. Unless you are 100% sure of the data name then do not use the manual entry method. To select a data item click on the down arrow. This will provide you a list of all data items based on what folders you selected data from in the Select Items tab. If you need to select on a data item that you do not see then go back to Select Items tab and drag that data item into the Selected area. Now you will have access to all data items from that particular folder.

7.2.5.1.3.2. Create Calculation. Refer to paragraph XXXXXX.

7.2.5.1.3.3. Select Condition.

7.2.5.1.3.4. Copy Condition.

Also discuss create calculation, select condition, copy condition \*\*\*\*\*

7.2.5.1.4. Condition Field. This field contains all possible comparators. The default value is equal (=). Click on the down arrow to select the appropriate comparator. The table below explains what each comparator will do:

Condition Symbol	Meaning	Special Note
=	Equal	Used to select <b>one</b> specific value. <u>Example</u> : CAFSC Number = '3S072'. If you put more then one value separated by a comma the wizard will automatically change your condition to IN.
<>	Not Equal	Used to not select <b>one</b> specific value. <u>Example</u> : CAFSC Number <> '3S072'. If you put more then one value separated by a comma the wizard will automatically change your condition to NOT IN.
>	Greater Than	Used to select all values greater than the value specified. <u>Example</u> : Grade > '36'. This will return all records that have a grade value of 37,38, or 39 – all greater then 36.
<	Less Than	Used to select all values less then the value specified. <u>Example</u> : DAS < '01-JAN-1995'. This will return all records that have a DAS value less then the date specified.
<=	Less Than or Equal To	Used to select all values less than or equal to the value specified. <u>Example</u> : Grade <= '36'. This will return all records that have a grade value of 31,32,33,34,35, and 36.
>=	Greater Than or Equal To	Used to select all values greater then or equal to the value specified. <u>Example</u> : DAS >= '01-JAN-1995'. This will return all records that have a DAS value greater then or equal to the date specified.
LIKE	Like Values	Used in conjunction with wildcards to find like values. The percent (%) sign indicates that everything after this symbol is ignored. The underscore (_) symbol ignores a single character. <u>Example using percent</u> : CAFSC Number LIKE '3S0%'. This will select all values that contain 3S0 as the first three characters

		<p>regardless of what follows.</p> <p><u>Example using underscore:</u> CAFSC Number LIKE '3S0_2'. This will select all values that contain 3S0 at the first three characters, ignore the fourth character (skill level), and has a 2 as the fifth character.</p> <p>NOTE: When using LIKE you can only enter one value. You must use the Advanced button to create a condition that has more than one LIKE value. See paragraph XXXXX.</p>
IN	A set of values	<p>Used to select from a specific set of values.</p> <p><u>Example:</u> Grade IN '37','38','39'. Selects all records that have one of the three values listed.</p>
IS NULL	Contains No Value	<p>Selects all records that do not have a value for that data item</p> <p><u>Example:</u> DEROS IS NULL. This will select all records that do not have a value for this data item.</p> <p>NOTE: Each data item in the FUSB business area has a NULL value, but not all data items outside the FUSB business area were modeled this way.</p>
IS NOT NULL	Returns all values	<p>Selects all records that have a value for that data item.</p> <p><u>Example:</u> DEROS IS NOT NULL. This selects all records that do have a value regardless of what the value is.</p>
NOT IN	Not in a set of values	<p>Used to select records that do not have the value(s) specified in a set.</p> <p><u>Example:</u> Grade NOT IN '37','38','39'. Selects all records that do not have one of the three values listed.</p>
BETWEEN	Two values, including the start and end value	<p>Selects all records that fall in a range including the start and end values.</p> <p><u>Example:</u> GRADE BETWEEN '35' AND '36'.</p> <p>NOTE: When entering the start and end values always start with the lowest value first or oldest date. If you do not the condition will syntax but, you will not retrieve any records.</p>
NOT BETWEEN	Two values, including the start and end value	<p>Selects all records that do not fall in a range including the start and end values.</p> <p><u>Example:</u> DEROS NOT BETWEEN '01-JAN-2002' AND '31-DEC-2002'. always start with the lowest value first or oldest date. If you do not the condition will</p>

		syntax but, you will not retrieve any records.
NOT LIKE	Not Like Values	Used in conjunction with wildcards to find values that are not like the entered values. The percent (%) sign indicates that everything after this symbol is ignored. The underscore (_) symbol ignores a single character. <u>Example using percent:</u> RECORD STATUS NOT LIKE '2%'. This will select all records that do not have a record status that starts with a 2. <u>Example using underscore:</u> CAFSC NUMBER NOT LIKE '3S0_2'. This will select all records that do not have the PSM AFSC regardless of the skill level. NOTE: When using NOT LIKE you can only enter one value. You must use the Advanced button to create a condition that has more than one LIKE value. See paragraph XXXXX.
!=	Not Equal	Used to not select <b>one</b> specific value. Example: CAFSC Number <> '3S072'. If you put more than one value separated by a comma the wizard will automatically change your condition to NOT IN.
^=	Not Equal	Used to not select <b>one</b> specific value. Example: CAFSC Number <> '3S072'. If you put more than one value separated by a comma the wizard will automatically change your condition to NOT IN.

7.2.5.1.5. Value(s) Field. This field allows you to select or manually enter one or multiple values, create calculations, select item, create new parameters, and create subqueries.

7.2.5.1.5.1. Enter a Specific Value. If a data item has a LOV available it will be displayed along with the options mentioned above when you click on the down arrow for this field.

<p>Select Multiple Values...</p> <p>Create Calculation...</p> <p>Select Item...</p> <p>New Parameter...</p> <p>Create Subquery...</p>
<p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> <p><input type="checkbox"/> 4</p> <p><input type="checkbox"/> 5</p> <p><input type="checkbox"/> 6</p>

Check the specific value you are looking for and it will be populated in single quotes in the field. Once you click in the Value field the system displays information about how you must enter the data. If you already know the code it may be manually entered within single quotes.

NOTE: Multiple values must be separated with commas. If you have selected the equal condition and enter more than one value the tool will automatically change your condition to the correct condition, IN, for multiple values.

Formula

Enter a single-quoted text value or select from the drop list. Multiple values must be separated with commas.

Item	Condition	Value(s)
WMP Code	=	'1'

Match case

Advanced >>

7.2.5.1.5.2. Enter Multiple Values. Select “Select Multiple Values...”. The associated LOV will be displayed and you will be able to check as many codes as required or Select All. If you have checked the wrong codes, click on Select None, this will clear your check marks and you may again check the codes you want.

Values

Select values:

- 0
- 1
- 2
- 3
- 4
- 5
- 6

OK

Cancel

Help

Select All

Select None

Click OK. All of the values that have been checked will now be in the Value(s) field. If you know all of the codes required, they may be entered manually, each code within single quotes, separated by commas. NOTE: If you choose to manually enter the codes, select the IN condition.

Formula

Enter a single-quoted text value or select from the drop list. Multiple values must be separated with commas.

Item	Condition	Value(s)
WMP Code	IN	'1', '3'

Match case

Advanced >>

7.2.5.1.5.3. Wildcards. When creating a condition that you want to use a wildcard with you must manually enter the value. Remember you may only enter one value when using the LIKE condition.

The screenshot shows a 'Formula' dialog box with the instruction 'Enter the name of an item or select from the drop list.' Below this is a table with three columns: 'Item', 'Condition', and 'Value(s)'. The 'Item' column contains 'CAFSC Number', the 'Condition' column contains 'LIKE', and the 'Value(s)' column contains '350%'. To the right of the table is an 'Advanced >>' button. Below the table is a scrollable area and a checked checkbox labeled 'Match case'.

Item	Condition	Value(s)
CAFSC Number	LIKE	'350%'

7.2.5.1.5.4. Match Case Option. This option is checked as a default and will increase the efficiency of the find and perform the search for the value faster. When entering values manually ensure that you use the proper case. For example if you are entering an AFSC you must enter any letters as uppercase – '3S0%2'. If I have this option checked and enter '3s0%2' I will get the response “Query caused no records to be returned.” Either use uppercase or uncheck the box.

7.2.5.1.5.5. Advanced Condition. To enter a condition that has multiple parameters or if you need to enter more than one value for a LIKE condition you must use the Advanced condition functionality. You can put in as many conditions as required.

7.2.5.1.5.5.1. For our first example let's create a condition to select all TSgts and MSgts. But, we only want MSgts who have a date of rank of one year or less. Start out with a basic condition – select all records with grade of 36.

The screenshot shows a 'Formula' dialog box with the instruction 'Enter the name of an item or select from the drop list.' Below this is a table with three columns: 'Item', 'Condition', and 'Value(s)'. The 'Item' column contains 'Grade', the 'Condition' column contains '=', and the 'Value(s)' column contains '36'. To the right of the table is an 'Advanced >>' button. Below the table is a scrollable area and a checked checkbox labeled 'Match case'.

Item	Condition	Value(s)
Grade	=	'36'

Now click on the Advanced button. The New Condition window has changed. Now you have buttons to Add or Delete conditions and create And, Or, and Not conditions.

Formula

Enter a single-quoted text value or select from the drop list. Multiple values must be separated with commas.

Item	Condition	Value(s)
Grade	=	'36'

Match case

Grade = '36'

Also the SQL code is displayed as you create the query in the lower portion of the window.

Click on the Add button. Another row is added below you original row and the Group field is added. The default for the Group field is AND. You cannot change the Group field until you enter the second condition.

Since I want to select TSgts or MSgts who have a date of rank of one year or less I need to create a separate condition for MSgt.

Formula

Enter a single-quoted text value or select from the drop list. Multiple values must be separated with commas.

Group	Item	Condition	Value(s)
AND	Grade	=	'36'
	Grade	=	'37'

Match case

Grade = '36' AND Grade = '37'

Now I need to change my Group from AND to OR. There are two ways to do this. One way is to click in the Group Field. Notice that the AND and OR buttons are now available in the screen shot below.

Formula

Group	Item	Condition	Value(s)
AND	Grade	=	'36'
	Grade	=	'37'

Match case

Grade = '36' AND Grade = '37'

Now click on the OR button and the Group field is changed to OR. The second way to change the Group is to double click in the Group field

Formula

Group	Item	Condition	Value(s)
OR	Grade	=	'36'
	Grade	=	'37'

Match case

( Grade = '36' OR Grade = '37' )

I still need to include a condition for MSgts who have a date of rank of one year or less. Click on the Add button and create another condition for the date of rank.

Formula

Group	Item	Condition	Value(s)
OR	Grade	=	'36'
	Grade	=	'37'
	Gr Curr DOR	>	'05-APR-2000'

Match case

( Grade = '36' OR Grade = '37' OR Gr Curr DOR > '05-APR-2000' )

Now I need to relate the condition for Grade = '37' with the Gr Curr DOR > '05-APR-2000'. With the Gr Curr DOR condition already highlighted, I will hold the shift key down and click on the Grade = '37' condition, highlighting them both. Now click on the And button. Now your conditions will look like this:

Formula

Group	Group	Item	Condition	Value(s)
OR	AND	Grade	=	'37'
		Gr Curr DOR	>	'05-APR-2000'
	Grade	=	'36'	

Match case

( Grade = '37' AND Gr Curr DOR > '05-APR-2000' OR Grade = '36' )

This condition is looking for MSGts whose date or rank is greater than 05-APR-2000 **or** TSgts.

7.2..5.1.5.5.1. In this example, we are looking for all personnel who have a CAFSC career field subdivision of 3P0, 3S0, 3U0, or 3V0. Make sure that you have selected CAFSC Number (does not include prefix) in the Select Items tab. Create a new condition and enter CAFSC Number in the Item field, select the LIKE condition, and enter '3P0%' in the Values(s) field.

Now click on the Advanced button, next click on the Add button. You will now have your original condition that you put in and a blank row below that condition.

Formula

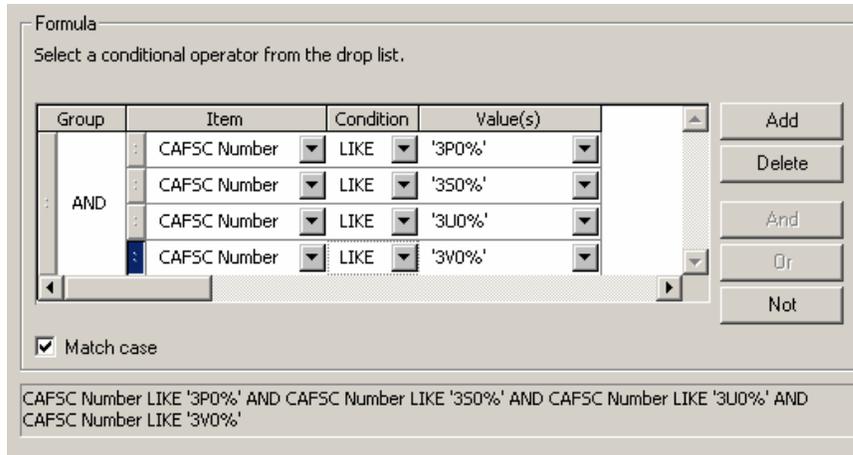
Enter the name of an item or select from the drop list.

Group	Item	Condition	Value(s)
AND	CAFSC Number	LIKE	'3P0%'
		=	

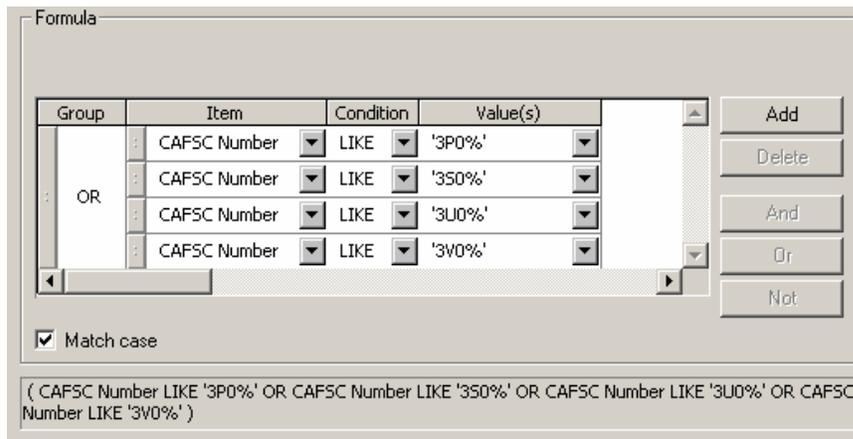
Match case

CAFSC Number LIKE '3P0%' AND

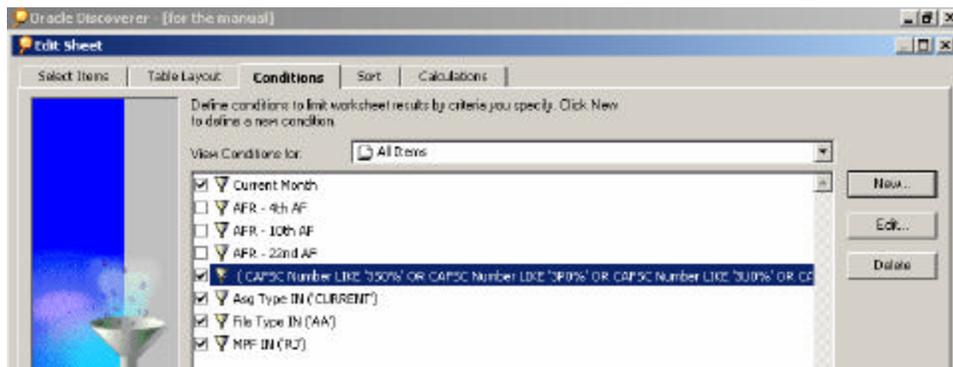
Input a separate line for each AFSC and hit the Add button to enter the next. After entering each condition your Formula will look like this:



Now change the Group from AND to OR and your condition is done. If you put more than one value in the Value(s) field the tool will accept the syntax but it will not work.



7.2.5.1.6. Edit Conditions. Once a condition has been created it can be edited to change the data item, condition, or value; add additional parameters; or delete parameters. Using the condition that was created in paragraph 7.2.1.5.5.1. as our example start at the Condition Tab. NOTE: the AFR conditions you see are not checked therefore they are not used as conditions in this query.



Highlight the condition you wish to edit and click on the Edit button. You will be back in the formula window that you used to create this condition.

The screenshot shows a 'Formula' dialog box with a table of conditions. The table has four columns: Group, Item, Condition, and Value(s). The 'Group' column contains 'OR'. The 'Item' column contains 'CAFSC Number'. The 'Condition' column contains 'LIKE'. The 'Value(s)' column contains '3P0%', '350%', '3U0%', and '3V0%'. There are buttons for 'Add', 'Delete', 'And', 'Or', and 'Not' on the right. A 'Match case' checkbox is checked. At the bottom, the formula text is: '( CAFSC Number LIKE '3P0%' OR CAFSC Number LIKE '350%' OR CAFSC Number LIKE '3U0%' OR CAFSC Number LIKE '3V0%' )'.

Group	Item	Condition	Value(s)
OR	CAFSC Number	LIKE	'3P0%'
	CAFSC Number	LIKE	'350%'
	CAFSC Number	LIKE	'3U0%'
	CAFSC Number	LIKE	'3V0%'

Match case

( CAFSC Number LIKE '3P0%' OR CAFSC Number LIKE '350%' OR CAFSC Number LIKE '3U0%' OR CAFSC Number LIKE '3V0%' )

Let's change this to select any 3P0 or 3S0 that are TSgts and any 3U0 or 3V0 that are MSgts.

NOTE: You may have to go back to Select Items tab and bring over Grade if it is not already there.

Click on the Add button to add another row. Create a condition for Grade = '36'. Using the scroll bar on the right hand side scroll up to the two CAFSC conditions that we need to link the Grade condition with. Hold the shift key down and click on each CAFSC condition. Release the shift key and click on the And button. Now click on the first CAFSC condition, hold the shift key down, and click the second CAFSC condition. Release the shift key and click on the Or button. Your Formula should look like this:

The screenshot shows the 'Formula' dialog box with a more complex formula structure. The 'Group' column contains 'OR'. The 'Item' column contains 'CAFSC Number' and 'Grade'. The 'Condition' column contains 'LIKE' and '='. The 'Value(s)' column contains '3P0%', '350%', '36', '3U0%', and '3V0%'. There are buttons for 'Add', 'Delete', 'And', 'Or', and 'Not' on the right. The formula text is: '( ( ( CAFSC Number LIKE '3P0%' AND CAFSC Number LIKE '350%' ) AND Grade = '36' ) OR ( CAFSC Number LIKE '3U0%' AND CAFSC Number LIKE '3V0%' ) )'.

Group	Group	Group	Item	Condition	Value(s)
OR	AND	OR	CAFSC Number	LIKE	'3P0%'
			CAFSC Number	LIKE	'350%'
	Grade	=	'36'		
	CAFSC Number	LIKE	'3U0%'		
	CAFSC Number	LIKE	'3V0%'		

Repeat the above steps entering Grade = '37' and do the same grouping with the last two CAFSC. Your condition should look like this:

Formula

Enter a single-quoted text value or select from the drop list. Multiple values must be separated with commas.

Group	Group	Group	Item	Condition	Value(s)
OR	AND	OR	CAFSC Number	LIKE	'3P0%'
			CAFSC Number	LIKE	'350%'
		Grade	=	'36'	
	AND	OR	CAFSC Number	LIKE	'3U0%'
			CAFSC Number	LIKE	'3V0%'
		Grade	=	'37'	

Add  
Delete  
And  
Or  
Not

Your roster will look like this (displaying Name, Grade Desc, and CAFSC Number) with the name column minimized to protect privacy:

Grade Discoverer - [for the manual]

File Edit View Sheet Format Tools Graph Window Help

Arial 10

	I Na	Grade Desc	CAFSC Number
1	BEA	TSG	3P071
2	SPA	TSG	3P071
3	RAN	TSG	3P071
4	GOM	MSG	3U031
5	RAY	TSG	3P071
6	BLA	TSG	3P071
7	DEL	TSG	3P071
8	MOS	TSG	3P071
9	CDR	TSG	3P071
10	CLA	TSG	3P071
11	REB	TSG	3P071
12	PRK	TSG	3P071
13	MCF	TSG	3P071
14	GAR	TSG	3P071
15	FRA	TSG	3P071
16	GOM	MSG	3U071
17	PLO	MSG	3V071
18	MIL	MSG	3U071
19	POL	MSG	3U071
20	CON	MSG	3U071

Sheet 1

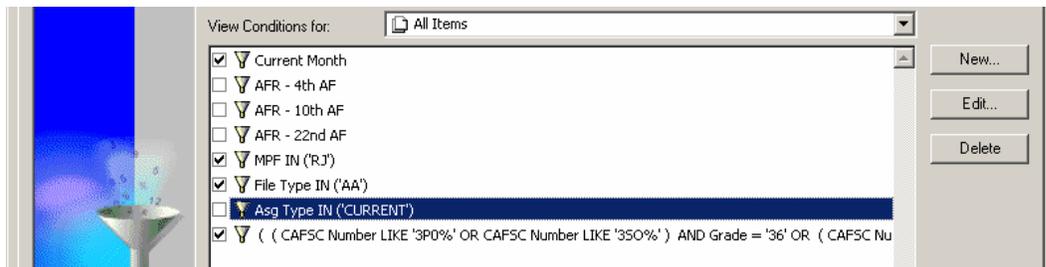
7.2.5.1.7. Turn Off Conditions. If you do not need a condition applied to a workbook but do not want to delete it then turn off the condition. Each condition that is applied to a workbook has a checkmark to the left of it. Below we have 5 conditions that are turned on or being applied to this workbook.

View Conditions for: All Items

- Current Month
- AFR - 4th AF
- AFR - 10th AF
- AFR - 22nd AF
- MPP IN ('RJ')
- File Type IN ('AA')
- Asg Type IN ('CURRENT')
- ( ( CAFSC Number LIKE '3P0%' OR CAFSC Number LIKE '350%' ) AND Grade = '36' OR ( CAFSC Nu

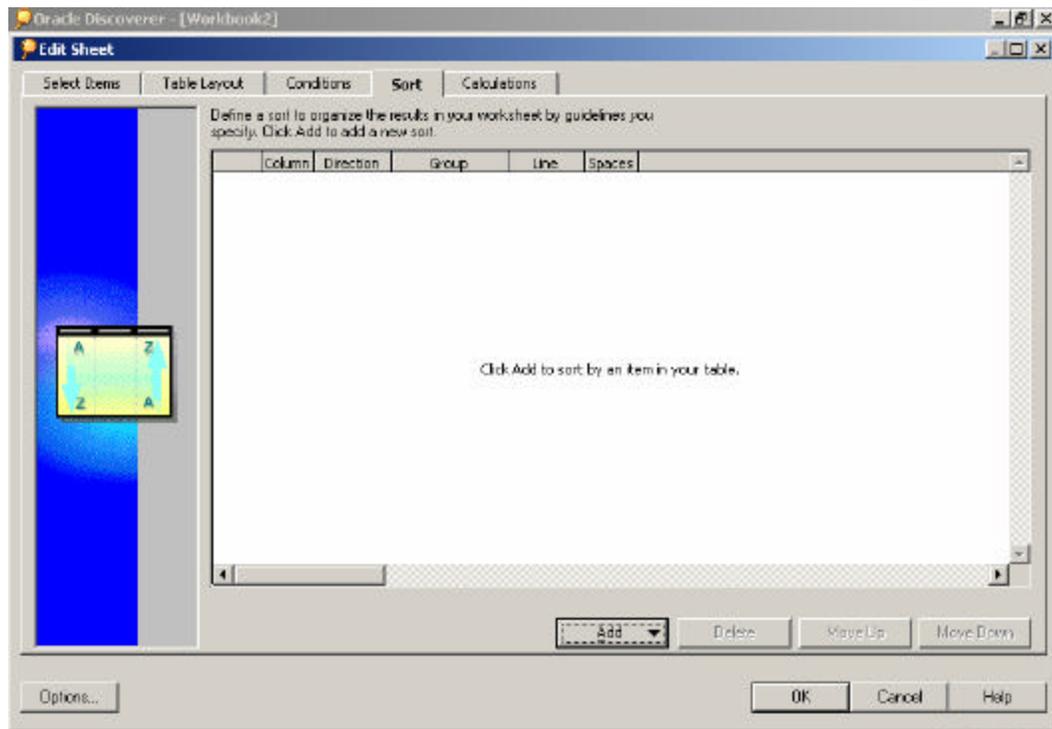
New...  
Edit...  
Delete

If we need to turn off the Asg Type IN('CURRENT') to pick up all assignment types (CURRENT, PROJECTED, or FOLLOW ON) then click in the checkbox to turn off the condition. The condition will remain in case you want to reapply it at a later date.



7.2.5.1.8. Deleting Conditions. To permanently get rid of a condition highlight the condition you wish to delete and click on the Delete button. Once you have deleted the condition save the workbook. If you have deleted the condition but have not saved, you can close the workbook, do NOT save the changes, and then reopen the workbook – your condition will still be there. Once you save the condition it is gone – there is no Undo button.

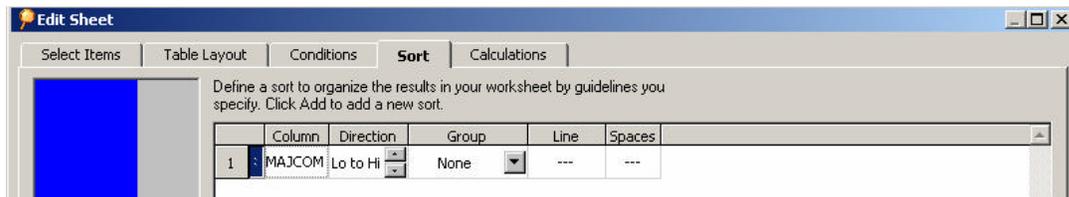
7.2.6. Workbook Wizard: Step 5/Sort Tab. This tab allows the user to define a sort to organize the results of the workbook based on the specifics that you designate. NOTE: It is highly recommended that you do not do any sorting when first constructing a workbook – this will slow down the retrieval time. Recommend you run the query, retrieve all rows, then set up sort options.



7.2.6.1. Add a Sort. Click on the Add button to specify a sort criteria. When you click on this button a list of all data items that will be displayed in your table layout are available.



Select a data item to sort on. For this example select MAJCOM. A row is inserted for each data item selected to sort on. The default setting is Lo to Hi and no Group, Line, or Spaces set.



7.2.6.1.1. Column. Contains the data name selected for each sort option.

7.2.6.1.2. Direction. This specifies the direction of the sort.

7.2.6.1.2.1. Lo to Hi (default) will sort A – Z or 0 – 9.

MAJCOM is sorted Lo to Hi

	I Na	Grade Desc	MAJCOM	PAS	MPF	File Type	Grade
1	COL	CMS	03	RJ03FSFX	RJ	AA	39
2	HAR	SMS	03	RJ03FSFX	RJ	AA	38
3	CAN	SMS	03	RJ03FSFX	RJ	AA	38
4	HEL	CMS	09	RJ09F7JB	RJ	AA	39
5	PET	SSG	09	RJ09F7JH	RJ	AA	35
6	WIF	MSG	09	RJ09F7JR	RJ	AA	37

7.2.6.1.2.2. Hi to Lo will sort Z – A or 9 – 0.

MAJCOM is sorted Hi to Lo

	I Na	Grade Desc	MAJCOM	PAS	MPF	File Type	Grade
201	GIA	MSG	2U	RJ2UF7JJ	RJ	AA	37
202	BRA	SSG	2U	RJ2UF7JJ	RJ	AA	35
203	CRIT	SSG	2U	RJ2UF7JJ	RJ	AA	35
204	BIE	SSG	2U	RJ2UF7JJ	RJ	AA	35
205	ENC	TSG	2M	RJ2MFDZ	RJ	AA	36
206	HOL	SMS	2I	RJ2IF4GY	RJ	AA	38
207	VIGI	SMS	2I	RJ2IF4GY	RJ	AA	38
208	BIVE	CMS	2G	RJ2GFP6W	RJ	AA	39
209	DEV	CMS	2G	RJ2GFP6W	RJ	AA	39
210	LOP	SSG	2E	RJ2EFX4L	RJ	AA	35
211	SAU	MSG	2E	RJ2EFX4L	RJ	AA	37
212	AND	SSG	2E	RJ2EFWTW	RJ	AA	35

7.2.6.1.3. Group. Allows the user to specify specific actions for a data item.

7.2.6.1.3.1. None. This is the default and does not add any specific action.

7.2.6.1.3.2. Group Sort. Data is sorted within each group. The group name appears only once at the beginning of the grouped data.

▶ 48	EN	TSG	2M	RJ2MFDMZ
▶ 49	LO	TSG	1M	RJ1MFLR6
▶ 50	HU	TSG	1L	RJ1LFYYPY
▶ 51	RE	TSG		RJ1LFYYPY
▶ 52	CO	TSG		RJ1LFYYPY
▶ 53	SA	TSG	1C	RJ1CFQLL
▶ 54	SN	TSG		RJ1CFQLL
▶ 55	VO	TSG		RJ1CFQLL

7.2.6.1.3.3. Page Break. This option groups data and starts a new page at the start of each new group. A bold line will separate each grouping to designate where the page break will occur.

▶ 205	36	TSG	ENC2M	RJ2MFDMZ	RJ	AA
▶ 206	38	SMS	HOL2I	RJ2IF4GY	RJ	AA
▶ 207	38	SMS	VIGI	RJ2IF4GY	RJ	AA
▶ 208	39	CMS	DEV2G	RJ2GFP6W	RJ	AA
▶ 209	39	CMS	BIVE	RJ2GFP6W	RJ	AA
▶ 210	35	SSG	LOP2E	RJ2EFX4L	RJ	AA
▶ 211	37	MSG	SAU	RJ2EFX4L	RJ	AA
▶ 212	35	SSG	LEV	RJ2EFWTW	RJ	AA

7.2.6.1.3.4. Hidden. Use hidden when you want to sort on a data item that you do not want displayed. Using the example above the first column contains the numeric code for Grade. The second column contains the cleartext description of Grade. If we were to sort on Grade Desc it would be sorted based on A – Z or Z – A and not on the actual rank structure. So MSgt would come before SMSgt like you see in the example below:

▶ 210	37	MSG	SAU2E	RJ2EFX4L	RJ	AA
▶ 211	37	MSG	WHI	RJ2EFWTW	RJ	AA
▶ 212	38	SMS	RUT	RJ2EFWSQ	RJ	AA
▶ 213	35	SSG	AND	RJ2EFWTW	RJ	AA
▶ 214	35	SSG	LEV	RJ2EFWTW	RJ	AA
▶ 215	35	SSG	LOP	RJ2EFX4L	RJ	AA

To sort on the numeric code which will give the rank structure you are looking for but only show the Grade Desc you can use hidden. Do a sort on the Grade (code) and under Group choose Hidden. Now the data is sorted the way we want and you don't have to display the code, just the description.

▶ 210	SSG	AND2E	RJ2EFWTW	RJ	AA
▶ 211	SSG	LEV	RJ2EFWTW	RJ	AA
▶ 212	SSG	LOP	RJ2EFX4L	RJ	AA
▶ 213	MSG	SAU	RJ2EFX4L	RJ	AA
▶ 214	MSG	WHI	RJ2EFWTW	RJ	AA
▶ 215	SMS	RUT	RJ2EFWSQ	RJ	AA

7.2.6.1.4. Line. Use this option to specify the thickness of the line separating the data groups. Click on the down arrow and select the appropriate thickness.

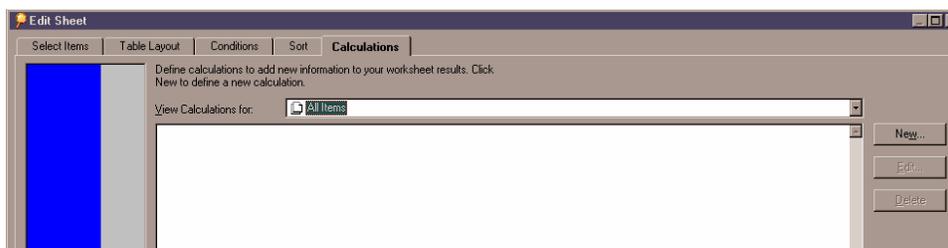
7.2.6.1.5. Spaces. The option allows you to specify the number of cell spaces between groups. Click on the up or down arrow to choose the spacing.

7.2.7. Workbook Wizard: Step 6/Calculation Tab. A calculation allows you to create new data items when the underlying database does not contain the data you want. When using a calculation, you can use

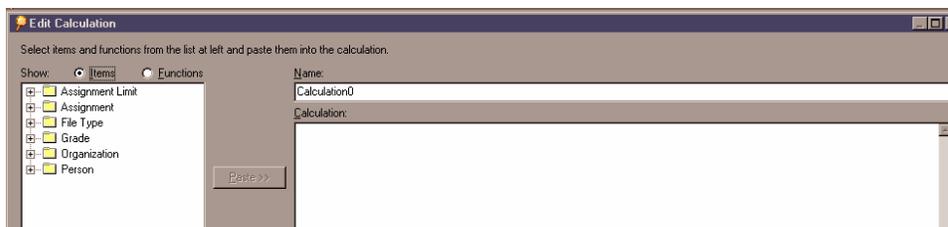
- existing data items in the RI database,
- functions provided with the tool,
- functions that have been created for you by the EUL administrator,
- operators such as multiply (\*), divide (/), add (+), and subtract (-), or
- literals.

NOTE: Once you have created a calculation copy and paste it to a Word document and save it to a share drive so that you and others can copy and paste calculations instead of writing them from scratch each time.

7.2.7.1 Creating a Calculation. To create a calculation click on the New button.



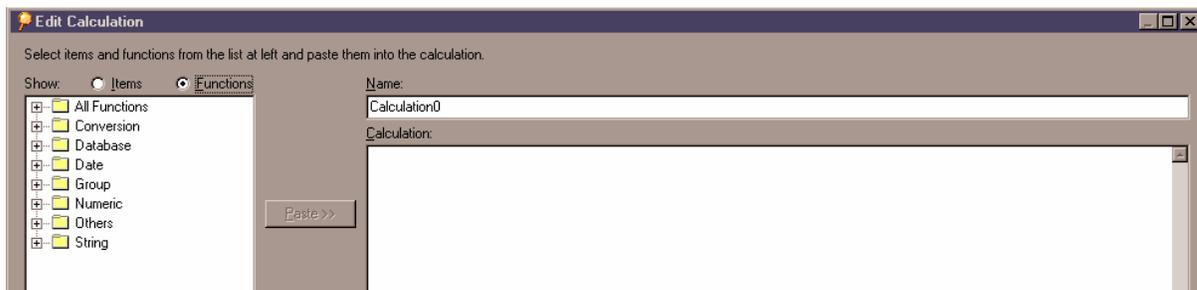
The Edit Calculation window will be displayed. This window consists of three fields: Name, Show Items or Functions, and Calculation.



7.2.7.1.1. Name Field. Enter a unique, meaningful name for your calculation. For example if you want to display the years, months, and days a member has been on station you could name the function TOS (for Time on Station).

7.2.7.1.2. Show Field. The Show field contains all data items and functions available for your use in building a calculation.

7.2.7.1.2.1. Items. The Items radio button is selected by default. The item folders available in each query are based on data that you selected in paragraph 7.2.2., Workbook Wizard: Step 2/Select Items Tab. Looking at the example above I have selected data items from the Assignment Limit Folder, Assignment Folder, File Type Folder, Grade Folder, Organization Folder, and Person Folder. All data items in these folders are available for use in a calculation regardless of whether you displayed it in your table or crosstab.



7.2.7.1.2.2. Functions. By clicking on the Functions radio button you will see a series of folders that contain different functions available for your use.

Function Folder	Remarks
All Functions	This folder contains all functions in the folders listed below it with the exception of the Database folder.
Conversion	This folder contains functions that are used to change data from one type to another.
Database	This folder contains custom functions created by the EUL administrator.
Date	This folder contains functions that are used to manipulate dates.
Group	This folder contains functions that work on groups of data.
Numeric	This folder contains functions that are used in mathematical computations.
Others	This folder contains functions that do not fit into any of the other folder categories.
String	This folder contains functions that manipulate strings of data.

7.2.7.1.2. Calculation Field. This field contains the syntax of the function that you are building.

7.2.7.2. Sample Calculation. To determine how long a group of individuals have been on station select from the FUSB business area, Current Month from the Assignment folder, AA File Type from the File Type folder, DAS and Full Name from the Person

Folder, Grades 35, 36, 37, 38, and 39 from the Grade folder, and your MPF ID or MAJCOM ID from the Organization folder.

Once you have retrieved you initial records, edit the sheet and go to the Calculations tab. Click on the New button to create a calculation.

7.2.7.2.1. Name Field. Enter TOS (for Time on Station) in the Name field.

7.2.7.2.2. Click on the Functions radio button to view the function folders. Open the Database folder and highlight DATE\_DIFF. DATE\_DIFF will determine the years, months, and days between two dates. Click on the Paste button. The Function, including required syntax, is pasted into the Calculation field.

DATE\_DIFF(P\_DATE1, P\_DATE2)

The information in parentheses is required to perform the calculation and return a result. The two dates that are required for this function are DAS (Date Arrived Station) and SYSDATE. SYSDATE is not a data item that is contained in the folders. It is input manually. The syntax part of the function will be highlighted - do not click in the calculation field - you want the highlight to stay.

7.2.7.2.3. Click on the Items radio button. Open the Person folder, highlight DAS, and press the Paste button. Your function will now look like this:

DATE\_DIFF(Person.DAS)

The item is pasted as the folder name.data item name. Looking at the original function we require two data items separated by a comma. Place your cursor at the end of Person.DAS, but before the end parentheses. Enter a comma and then SYSDATE (current system date). Your function will now look like this:

DATE\_DIFF(Person.DAS,SYSDATE)

Now that you have the two required data items entered you have a complete function. Click on the OK button at the bottom of the window.

You are now back at the Calculations window and a new row has been added that contains the calculation TOS that you just created. To the right of the name is a checked box. This means the calculation is active and will be performed in the workbook. If you uncheck the box the calculation will remain as part of the workbook but will not be executed. Click OK at the bottom of the window to exit the Calculation window and run the query.

The results of the calculation TOS will be displayed in the format YYMMDD. This is the number of years, months, and days difference between a person's DAS and SYSDATE.

The results of the calculation TOS are displayed as the last column in your workbook results. Remember DATE\_DIFF returns the difference in years, months, and days

between two dates. Looking at the first row the TOS is 020926, this means this person has been on station two years, 9 months, and 26 days.

	File Type	N	DAS	Grade	MAJCOM	TOS
1	AA	AA	03-SEP-1998	36	09	020926
2	AA	AA	02-JUL-1996	36	09	041127
3	AA	AE	07-JUN-1998	35	09	030022
4	AA	AE	02-AUG-1994	37	09	061027
5	AA	AC	23-AUG-1996	36	09	041006
6	AA	AC	11-MAR-1995	35	09	060318
7	AA	AC	01-NOV-1996	37	09	040728
8	AA	AL	22-JUN-1989	36	09	120007
9	AA	AL	11-OCT-1995	36	09	050818
10	AA	AL	31-AUG-1999	37	09	010929

7.2.7.3 DECODE Calculation. The DECODE function allows you to define or recode a value to something else. For example if you wanted to run a query of all officers at your location and designate those that are Company Grade Officers (CGO) you can use a DECODE to accomplish this.

Run a query selecting the following data from FUSB: Current Month from the Assignment folder, File Type BA from the File Type folder, Full Name from the Person folder, Grade Desc from the Grade folder, your MPF or MAJCOM ID from the Organization folder. Retrieve your records.

Now edit your sheet and go to the Calculations tab. Click on the New button and create your calculation. Give the calculation a name - in this case STATUS. Click on the Functions radio button and select DECODE from the All Functions folder or the Others folder and paste it to the calculation window. The function and the required syntax will be pasted to the window and will look like this. Enter an expression (data item), the value to be searched for, the result to be displayed, the default value for all other values if required.

DECODE(expr, search1, result1[, searchN[, resultN[, default]]])

In this example for each person who is a 2LT, 1LT, or CPT return the value CGO. There will be no default value in this example.

With the syntax still highlighted in the calculation window, click on the Items radio button and select Grade or Grade Desc from the Grade folder and paste it to the calculation window. Examples of both will be shown below. Your DECODE will look like this:

DECODE(Grade.Grade) or DECODE(Grade.Grade Desc)

Now click between the last letter of the data item chosen and the end parentheses and enter a comma. Enter the first value to be searched on in single quotes followed by a comma. Now enter the value to be returned in single quotes followed by a comma.

Continue to enter the values to be searched for and the value to be returned until you have all entered. Once the final value to be returned is entered do not insert a final comma. Your DECODE calculation should look like one of these:

DECODE(Grade.Grade Desc, '2LT','CGO','1LT','CGO','CPT','CGO')

Or

DECODE(Grade,'01','CGO','02','CGO','03','CGO')

If you use the Desc version of a data item then you must use the cleartext as the search value as shown in the first example. If you use the code version then you must use the code as the search value as shown in the second example. They will both result in a workbook that looks like this. Notice in the STATUS column only the 2LT, 1LT, and CPTs have CGO status. Because we did not include a default value the STATUS will be blank for MAJs and above.

	File Type	Na	Grade Desc	MAJCOM	STATUS
▶ 1	BA	CAF	2LT	09	CGO
▶ 2	BA	QUI	2LT	09	CGO
▶ 3	BA	EAS	1LT	09	CGO
▶ 4	BA	FO	MAJ	09	
▶ 5	BA	BAF	2LT	09	CGO
▶ 6	BA	LOF	2LT	09	CGO
▶ 7	BA	PEF	CPT	09	CGO
▶ 8	BA	CRIM	MAJ	09	
▶ 9	BA	WE	1LT	09	CGO
▶ 10	BA	YO	CPT	09	CGO
▶ 11	BA	PHI	CPT	09	CGO

7.2.7.4 DECODE Calculation with Default Value. In this example we select all enlisted at a location. For MSgt through CMSgt we will return a value of SNCO. For SSgt through TSgt we will return NCO. As our default for AB through SrA we will return AIRMAN.

In this DECODE the grade value for each senior NCO was entered as a search value and SNCO was entered as the return value, for each NCO the grade value was entered as a search value and NCO was entered as the return value. But the values for AB through SrA were not entered, instead the default value 'AIRMAN' was entered. Since SSgt through CMSgt has been covered everyone left will be an AIRMAN so you do not need to specify each grade and the return value.

DECODE(Grade.Grade,'39','SNCO','38','SNCO','37','SNCO','36','NCO','35','NCO','AIRMAN')

Here are the results of the DECODE calculation:

	File Type	Na	Grade Desc	MAJCOM	STATUS
1	AA	DA	A1C	09	AIRMAN
2	AA	ECH	AMN	09	AIRMAN
3	AA	SCH	A1C	09	AIRMAN
4	AA	WO	SMS	09	SNCO
5	AA	KNUMSG		09	SNCO
6	AA	GIB	MSG	09	SNCO
7	AA	LEV	TSG	09	NCO
8	AA	MAI	MSG	09	SNCO
9	AA	CAN	SSG	09	NCO

7.2.7.5. SUBSTR Function. This function takes a string and returns a portion of that string, beginning at the specified start position, and return the specified number of characters. In this example we only want to return the first 10 characters of the Duty Status Desc. Create a query and include Duty Status Desc as a displayed data item. Once all records are retrieved, edit the sheet, and go to the Calculations tab. Give your calculation a name - in this case Duty-Status. Click on the Functions radio button and select SUBSTR from the String folder and paste it to the calculations window. The function and required syntax will be displayed.

SUBSTR(char, m[, n])

With the syntax highlighted, click on the Items radio button and select the Duty Status Desc from the Duty Status folder and paste it to the calculations window. Insert a comma after the DESC, but before the end parentheses. Enter the starting position number, followed by a comma, followed by the number of characters to be returned. Your SUBSTR will look like this:

SUBSTR(Duty Status.Duty Status Desc,1,10)

Starting in position 1 return 10 characters. Your workbook results will look like this.

	File Type	Na	Proj Grade Desc	MAJCOM	Duty Status Desc	Duty-Status
653	AA	JAC	A1C	09	00-PRESENT FOR DUTY	00-PRESENT
654	AA	FLA	A1C	09	00-PRESENT FOR DUTY	00-PRESENT
655	AA	ECH	A1C	09	00-PRESENT FOR DUTY	00-PRESENT
656	AA	CH	AMN	09	00-PRESENT FOR DUTY	00-PRESENT
657	AA	BO	NONE	09	06-DESERTER	06-DESERTE
658	AA	HAF	NONE	09	09-LEAVE-EXCLUDING DE	09-LEAVE-E
659	AA	DET	NONE	09	09-LEAVE-EXCLUDING DE	09-LEAVE-E
660	AA	WA	NONE	09	09-LEAVE-EXCLUDING DE	09-LEAVE-E
661	AA	GR	NONE	09	09-LEAVE-EXCLUDING DE	09-LEAVE-E

7.2.7.6. SUBSTR a Calculation. What if you need to figure out how many years and months a person has been on station. We can use the DATE\_DIFF function to return the years, months, and days, then use the SUBSTR to only return the years and months.

SUBSTR(DATE\_DIFF(DAS,SYSDATE),1,4)

In this example you paste SUBSTR to the calculations window, with the syntax highlighted paste the DATE\_DIFF function to the calculations window. With the DATE\_DIFF syntax highlighted paste the DAS data item to the calculations window. Now enter a comma and SYSDATE after the DAS. There are two end parentheses, in between these two, insert a comma, the starting position, another comma, and then the number of characters to be returned. The results look like this:

	File Type	Na	Proj Grade Desc	MAJCOM	DAS	YY-MM TOS
1	AA	DAV	NONE	09	10-MAY-2001	0001
2	AA	ECH	A1C	09	01-JUN-2000	0100
3	AA	SCH	NONE	09	25-APR-2000	0102
4	AA	WO	NONE	09	27-APR-1997	0402
5	AA	KNL	NONE	09	04-JUL-1998	0211
6	AA	GIB	NONE	09	25-AUG-1989	1110
7	AA	LEV	NONE	09	18-JUN-1996	0500

This may also be done as two separate calculations.

The first calculation is called TOS and performs the DATE\_DIFF function:

DATE\_DIFF(DAS,SYSDATE)

The second calculation is called YY-MM-TOS and performs the SUBSTR function:

SUBSTR(TOS,1,4)

Notice that instead of a data item the DATE\_DIFF Calculation TOS has been pasted into the SUBSTR function. When you create a calculation it is stored in the Item folder based on the data used in the calculation. In this case we used DAS as the data item in the calculation which is stored in the Person folder. It will be the very last data item in the folder.

#### 7.2.7.7. Other Calculation examples.

7.2.7.7.1. ADD\_MONTHS. Use this function to add a specified number of months to a date or SYSDATE. There is no add years function, but you can convert years to months and use this calculation. This is no subtract months or years, but by placing the negative sign in front of the number the function will subtract that number of months from the date or SYSDATE.

ADD\_MONTHS(Person.DAS,6)  
 ADD\_MONTHS(Person.DAS,-6)  
 ADD\_MONTHS(SYSDATE, 6)  
 ADD\_MONTHS(SYSDATE, -6)

NOTE: The calculations using SYSDATE may be used in a condition to determine if a date (i.e. DOS or DAS) falls between a specified time period. For example create two calculations: one that subtracts 3 months from the SYSDATE and one that subtracts 1 month from the SYSDATE. Now the DAS can be compared to determine if a person arrived during that time period.

**New Condition**

Name:

Generate name automatically

Description:

Location:

Formula

Enter a single-quoted date of the form 'DD-MON-YYYY' or select from the drop list. Multiple values must be separated with commas.

Item	Condition	Value(s)
DAS	BETWEEN	3-MO and 1-MO

Match case

OK Cancel Help

7.2.7.7.2 Add or Subtract Days. There is no function for this calculation. Paste the data name into the calculation window and add or subtract the desired number of days.

Person.DOS - 60  
Person.DOS + 120

Attachment 1

Sample of Discoverer Access Letter for MAJCOMs.

MEMORANDUM FOR HQ AFPC/DPSIMD  
550 C Street West, Ste 39  
Randolph AFB, Texas 78150-4741

20 Jul 2000

FROM: Your MAJCOM/Office Symbol  
Street Mailing Address  
Base, State, ZIP Code

SUBJECT: Request Access for Discoverer Reporting Instance (RI)User  
Account(s)

1. The following individuals are appointed as Single Point Managers (SPM) for (Your MAJCOM ID):

	NAME	GRD	SSAN	DSN	EMAIL
Primary	Sharon Van Slyke	MSgt	123-45-6789	487-4877	<a href="mailto:sharon.vanslyke@domain.af.mil">sharon.vanslyke@domain.af.mil</a>
Alternate	Kerry Brown	MSgt	234-56-7890	487-4877	<a href="mailto:kerry.brown@domain.af.mil">kerry.brown@domain.af.mil</a>

2. The following individuals are appointed as Users of Discoverer Reporting Instance:

NAME	GRD	SSAN	DSN	OFFICE SYMBOL	EMAIL
John Doe	TSgt	123-45-6789	487-1111	DPXA	<a href="mailto:John.doe@domain.af.mil">John.doe@domain.af.mil</a>
Sue Smith	SSgt	678-90-1234	487-1221	DPX	<a href="mailto:sue.smith@domain.af.mil">sue.smith@domain.af.mil</a>





NAME            GRD   SSAN            DSN/Comm            EMAIL

Jane Doe        MSgt  123-45-6789  877-1111/(303)112-1111  
[Jane.doe@randolph.af.mil](mailto:Jane.doe@randolph.af.mil)

3. Request Discoverer account creation for the following individual for the (*State HQ*):

NAME            GRD   SSAN            DSN/Comm            EMAIL

Jim Doe        Capt  123-45-6889  877-1738/(303)112-1738  
[Jane.doe@randolph.af.mil](mailto:Jane.doe@randolph.af.mil)

First M. Last, Grade, USAF (or DAF)  
(MPF Commander or Equivalent)

Attachment 4

Sample Discoverer Request Letter to Change Access.

MEMORANDUM FOR            HQ AFPC/DPSIMD  
550 C Street West, Ste 39  
Randolph AFB, Texas 78150-4741

2 Feb 2001

FROM: Your Unit/Office Symbol  
Street Mailing Address  
Base, State, ZIP Code

SUBJECT: Change of Discoverer SPM or User Access

1. The following PSM(s) are appointed as SPMs for (*Your MPF ID and State Headquarters*) and replace the previously designated to SPM(s).

NAME            GRD   SSAN            DSN/Comm  
EMAIL

Primary Jane Doe MSgt 123-45-6789 877-1111/(303)112-1111  
[Jane.doe@randolph.af.mil](mailto:Jane.doe@randolph.af.mil)

Replaces: Bob Jones TSgt 987-65-4321

Alternate John Doe TSgt 987-65-4321 877-3080/(303)112-3080  
[John.doe@randolph.af.mil](mailto:John.doe@randolph.af.mil)

Replaces: Bill Jones SSgt 432-10-9876

2. Request Discoverer account be granted or deleted for the following personnel:

Grant Access to:

NAME	GRD	SSAN	DSN/Comm	EMAIL
Bob Jones	TSgt	987-65-4231	877-1111/(303)112-1111	<a href="mailto:bob.jones@randolph.af.mil">bob.jones@randolph.af.mil</a>
Bill Jones	SSgt	432-10-9876	877-3080/(303)112-3080	<a href="mailto:bill.jones@randolph.af.mil">bill.jones@randolph.af.mil</a>

Delete Access for:

NAME	GRD	SSAN	DSN/Comm	EMAIL
Jane Doe	MSgt	123-45-6789	877-1111/(303)112-1111	<a href="mailto:Jane.doe@randolph.af.mil">Jane.doe@randolph.af.mil</a>
John Doe	TSgt	987-65-4321	877-3080/(303)112-3080	<a href="mailto:John.doe@randolph.af.mil">John.doe@randolph.af.mil</a>

First M. Last, Grade, USAF (or DAF)  
(MPF Commander or Equivalent)