

Introduction to Query For Query Developers

Query is an ad-hoc reporting tool that allows you to retrieve data that is stored in the NUFinancials application. You use a series of query pages to specify what data to retrieve and the format in which results will be displayed. Query translates the information that you enter into SQL code to produce results which can be displayed in a browser window or downloaded to your workstation in an Excel spreadsheet.

There are two query access methods. **Query Viewer** allows execution of existing queries. Casual query users will only have access to queries via Query Viewer. **Query Manager** is used to create new queries or edit existing ones. It is also possible to execute queries from Query Manager. Query developers will have access to both query viewer and query manager pages.

Introduction to Query

For Query Developers

1. QUERY VIEWER	2
A. EXECUTING QUERIES	2
2. QUERY MANAGER	5
A. WORKING WITH QUERIES	6
<i>Viewing Record Elements</i>	6
<i>Joining Records</i>	8
<i>Create a new Query</i>	10
<i>Removing Records</i>	10
<i>Quick Join Options</i>	11
B. WORKING WITH DATA FIELDS	15
<i>Reordering Fields</i>	15
<i>Specifying Column Order</i>	16
<i>Specifying Sort Order</i>	16
<i>Changing Field Headers</i>	17
<i>Translate Value Fields</i>	20
<i>Aggregating Data</i>	22
C. WORKING WITH QUERY CRITERIA.....	32
<i>Adding an expression</i>	32
<i>Adding a prompt</i>	44
D. ORGANIZING QUERIES.....	51
<i>Query Properties</i>	51
<i>Query Actions</i>	54
E. CREATING A QUERY	55
CRITERIA CONDITION TYPES	58
ADVANCED TOPICS	60
QUERY NAMING CONVENTION.....	61
QUERY TERMINOLOGY.....	62

1. Query Viewer

Navigation: Reporting Tools > Query > Query Viewer

Query Viewer is used for executing public queries in HTML or Excel.

A. Executing queries

Steps

1. Enter search criteria using **Basic** or **Advanced** Search (ex. **QY_TRN**).
2. Click **Search**.

All queries with names that begin with the search characters that you entered in step a will be displayed in a results grid. You can use the **% wildcard character** to return queries that contain but don't begin with the characters that you entered as search criteria. Private queries will be listed first alphabetically followed by Public queries.

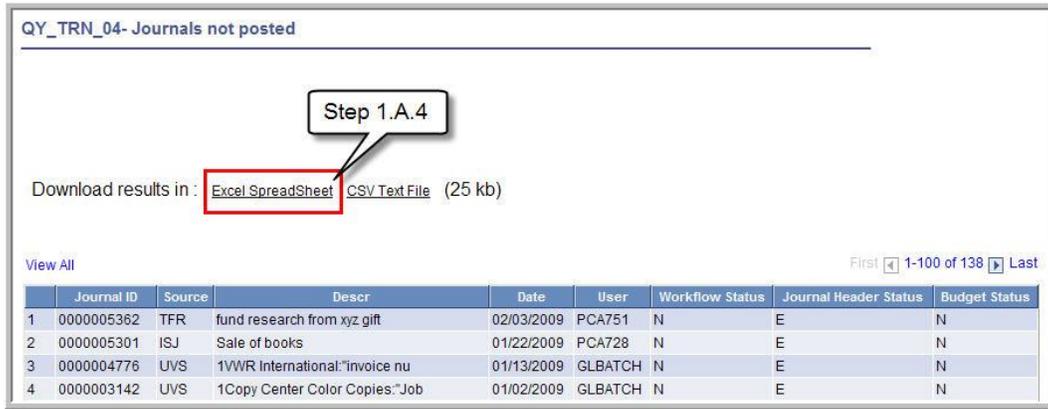
3. Click on the **HTML** hyperlink to the right (ex. **QY_TRN_04**).

A new browser window will be opened that will display the results.

The screenshot shows the 'Query Viewer' web application. On the left is a 'Menu' tree with 'Reporting Tools' expanded to show 'Query' and 'Query Viewer' selected. The main area has a search form with 'Query Name' selected and 'begins with' set to 'QY_TRN'. A 'Search' button is highlighted. Below the search form is a 'Search Results' section with a table of results. Callouts point to the search criteria input (Step 1.A.1), the Search button (Step 1.A.2), and the 'HTML' link in the results table (Step 1.A.3).

Query Name	Description	Owner	Folder	Run to HTML	Run to Excel	Schedule	Add to Favorites
QY_TRN_04	Journals not posted	Private		HTML	Excel	Schedule	Favorite
QY_TRN_01	Journal Header Data	Public		HTML	Excel	Schedule	Favorite
QY_TRN_02	Journal Header and Line Data	Public		HTML	Excel	Schedule	Favorite
QY_TRN_03	Journal with prompts	Public		HTML	Excel	Schedule	Favorite

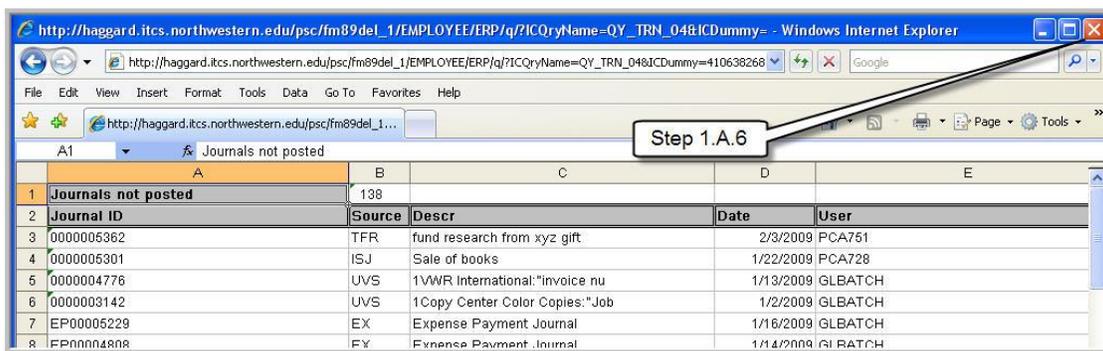
- Click on the **Excel Spreadsheet** hyperlink to download the query results to an Excel spreadsheet.



- A download window will open providing options to open the Excel file, save it to your workstation or cancel the request. Click **Open**.



- An Excel workbook will be opened in a new page, displaying your query results. Close the page by clicking on the red X icon in the upper right hand corner of the Excel page.



- You can also download results to Excel directly from the search page without first displaying them in a browser window. Click on the **Excel** hyperlink to the right.

Query Viewer
Enter any information you have and click Search. Leave fields blank for a list of all values.

*Search By: begins with

[Advanced Search](#)

Search Results
*Folder View:

Query							
Query Name	Description	Owner	Folder	Run to HTML	Run to Excel	Schedule	Add to Favorites
QY_TRN_04	Journals not posted	Private		HTML	Excel	Schedule	Favorite
QY_TRN_01	Journal Header Data	Public		HTML	Excel	Schedule	Favorite
QY_TRN_02	Journal Header and Line Data	Public		HTML	Excel	Schedule	Favorite
QY_TRN_03	Journal with prompts	Public		HTML	Excel	Schedule	Favorite

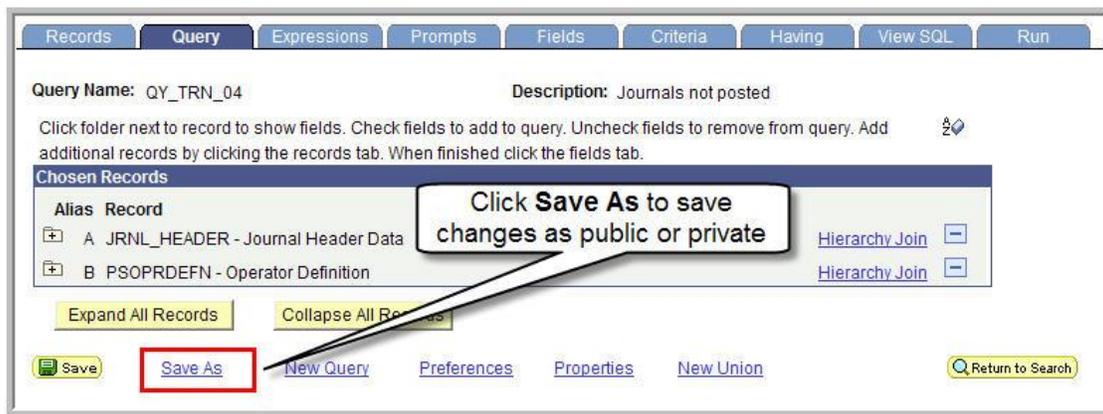
Note: A callout box labeled "Step 1.A.7" points to the "Run to Excel" link in the first row of the table.

2. Query Manager

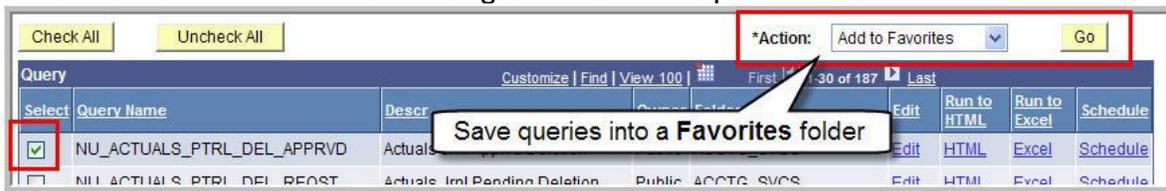
Navigation: Reporting Tools > Query > Query Manager



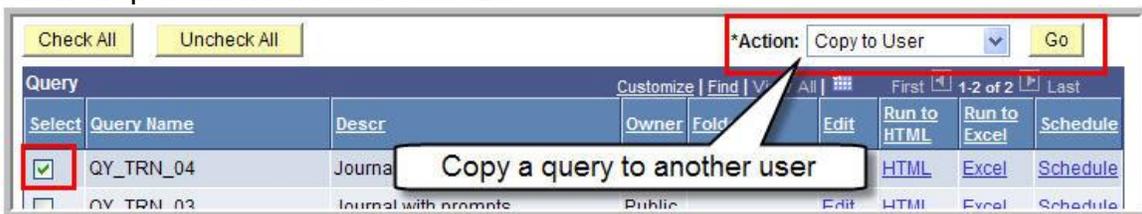
IMPORTANT NOTE: Query Manager is used for tailoring queries to specific result sets of data. In NUFinancials, there are many existing public queries. These queries are for use by all Query users. When using public queries, do not save any modifications you make as they will become part of the public query. If you want to capture specific modifications to a query, select **Edit** to open the query and then click **Save As** to save the modified query with a new name. You can choose to make the new query public or private.



HOT Tip! Save your queries into a Favorites folder by selecting them in the check box at the front of the row and using the **Action** drop down menu.



HOT Tip! Only Private queries can be saved to another user. You should save a Public query as a Private one and then can save/share it with another user using the **Action** drop down menu and User ID.



Navigation: Reporting Tools > Query > Query Manager

A. Working with Queries

Viewing Record Elements

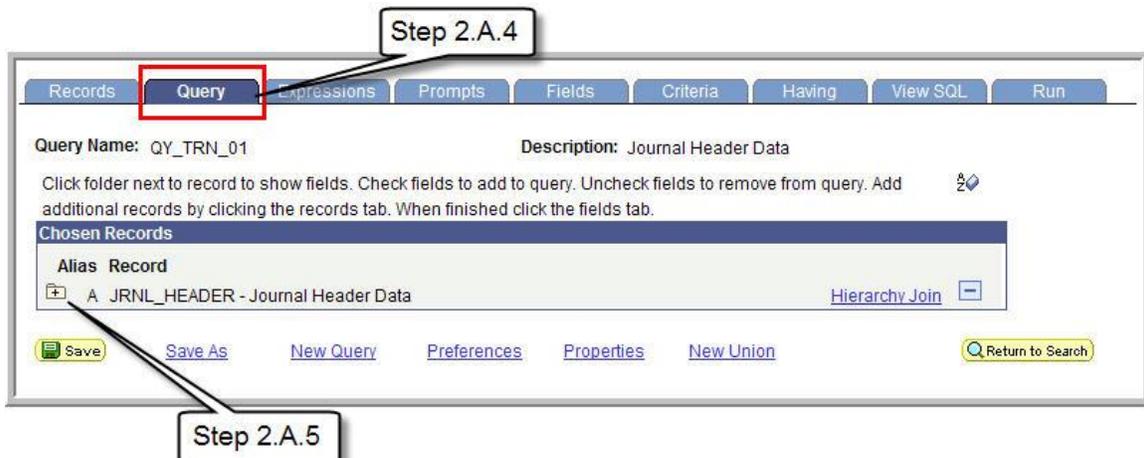
Steps

1. Enter search criteria using **Basic** or **Advanced Search** (ex. **QY_TRN**).
2. Click **Search**.
All queries with names that begin with the search characters that you entered in step a will be displayed in a results grid. You can use the **% wildcard character** to return queries that contain but don't begin with the characters that you entered as search criteria.
3. Click **Edit** to the right (ex. **QY_TRN_01**). (It is **not** recommended to make changes to a public query. It is recommended to select **Save As** and make a public or private copy.)

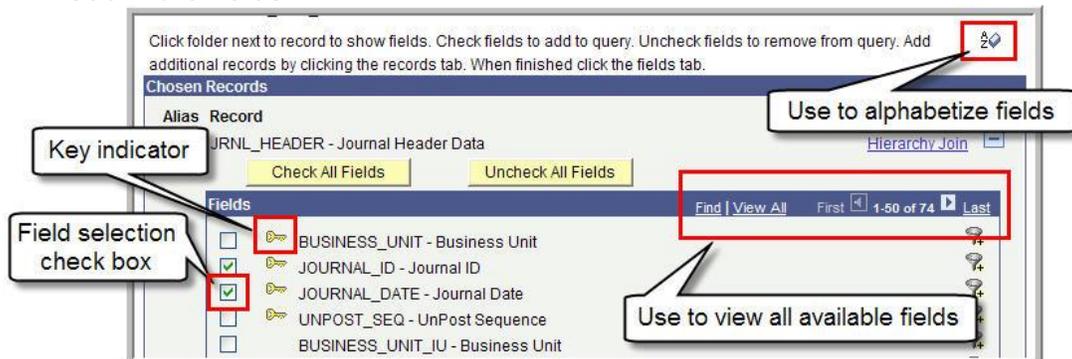
The screenshot shows the Query Manager interface. On the left is a navigation menu with 'Reporting Tools > Query' selected. The main area is titled 'Query Manager' and contains a search form. The search criteria is 'QY_TRN' with the label 'Step 2.A.1'. The 'Search' button is labeled 'Step 2.A.2'. Below the search form is a table of search results. The 'Edit' button for the first result, 'QY_TRN_01', is labeled 'Step 2.A.3'.

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input type="checkbox"/>	QY_TRN_04	Journals not posted	Private		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_01	Journal Header Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_02	Journal Header and Line Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_03	Journal with prompts	Public		Edit	HTML	Excel	Schedule

4. Click the **Query** tab to view the records that have been added to this query.
5. Click the folder(s) to the left of Alias Record (ex. **JRNL_HEADER**) to see the fields that compose this record.



- The **fields that have a check mark to the left of them** will appear in your query results. Clicking on the **checkbox will toggle the selection** on and off.
- To **select all fields** to appear on the report click the **Check All Fields**.
- To **deselect all fields** from the report click the **Uncheck All Fields**.
- **Key fields** are indicated by a key symbol to the left of the field name. The combination of data in all key fields **defines a unique row within a record**. Key fields will be important when linking records together in more advanced queries.
- **Field Search tips:** Use to alphabetize field names, click a second time to return to original list order. Also note number of fields list and navigation to see more fields.



Joining Records

Often, not all of the information that you need in your query will be stored on a single record. If this is the case you will **join additional records** to your initial record. Once joined, the **data fields on additional records can be selected** in the same way that fields were selected on the initial record.

Joining records is **the most sensitive aspect of query design** as the join conditions **affect the results that you will obtain and query performance**. Up to **five records can be joined** within any query.

Records are **joined by identifying common fields** on each record and **taking into account key fields and parent/child hierarchies between records**. To help you identify valid join criteria, the **query tool will recommend join conditions when you add a record to a query** that already has at least one other associated record.

Records can be joined by Any Record Joins, Hierarchy Joins or Related Record Joins.

Any Record Joins:

6. Click on the **Records** tab.
7. Enter criteria (ex. **JRNL_LN**) in the record search criteria field.
8. Click **Search**.
9. Click on the **Join Record** hyperlink to the right of record (ex. **JRNL_LN**).

The screenshot shows the 'Records' tab selected in the query tool. The search criteria field contains 'JRNL_LN'. The search results table shows three records: 'JRNL_LN - Journal Line Data', 'JRNL_LN_FS - Journal Line Data', and 'JRNL_LN_IMP_VW - Journal Line Data'. Each record has a 'Join Record' link. Callouts indicate Step 2.A.6 (Records tab), Step 2.A.7 (Search criteria field), Step 2.A.8 (Search button), and Step 2.A.9 (Join Record link).

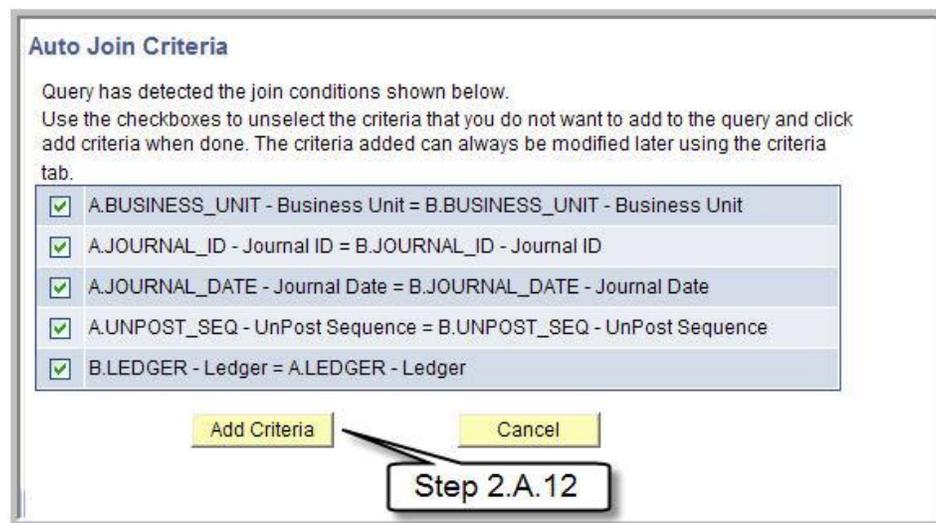
Record	Join Record	Show Fields
JRNL_LN - Journal Line Data	Join Record	Show Fields
JRNL_LN_FS - Journal Line Data	Join Record	Show Fields
JRNL_LN_IMP_VW - Journal Line Data	Join Record	Show Fields

10. Keep the **default (Standard Join) Join Type**.
11. Select join record (ex. **JRNL_HEADER**).



12. **Query will detect common fields and suggest join conditions.** Use check boxes to unselect criteria or criteria can be modified later using the criteria tab. Click on the **Add Criteria** to accept the proposed join conditions.

If no join condition is found, query did not identify common fields between the records that you are attempting to link. You may need an intermediary record to join the records. If this is the case, contact support for guidance on how to develop a query that will provide you with the information that you require. **Attaching records to a query without join criteria can affect application performance and should not be done.**



13. Click on the **Query** tab to confirm that the joined record is now available for field selection.

Create a new Query

If you want to create a new query, select the **Create New Query** link and then search and add records, select fields, add prompts and criteria as desired. You can search for records by record name, records containing a Field name, or description using the Search By drop down menu. Make sure when you save the query, you set the properties of for Query name, Description, and Owner as Private. Select the Distinct check box to eliminate duplicate rows in the result set.

Removing Records

- Click  to the right of the record name on the **Query** tab to remove a record from the query. (ex. remove the **JRNL_LN** record from your query.) The application will prompt you for confirmation that you wish to delete the record. Click **Yes** to confirm deletion.



Quick Join Options

Hierarchy Joins:

There is a **pre-established hierarchy** between some records within the NUFinancials application. A **Record Hierarchy Join** joins a parent table to a child table. (A child table is a table that uses all the same key fields as its parent, plus one or more additional keys.) As an example, there is a hierarchy between the Journal Header and Journal Line tables. For each row of data in the Journal Header table there must be one or more rows of corresponding data in the Journal Line table.

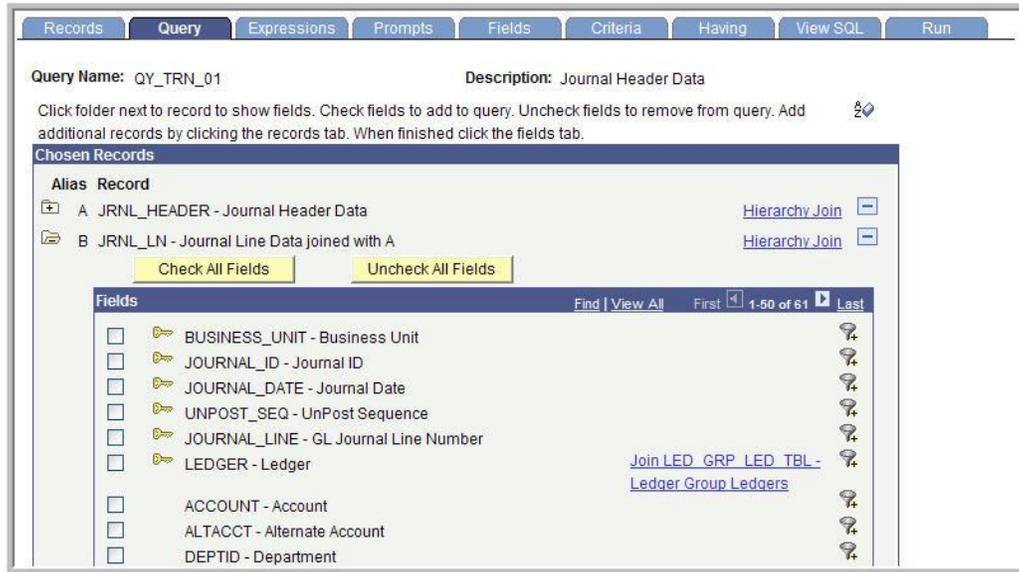
- To facilitate joining records that have a hierarchy, Query provides a **Hierarchy Join** hyperlink on the **Query** tab. (ex. create a hierarchy join from the **JRNL_HEADER** table by clicking the **Hierarchy Join** hyperlink to the right of the record name.)



- A listing of all **tables that have a pre-established hierarchy** with your initial table will be displayed. (ex. the **JRNL_LN** hyperlink to join this table to your query.)



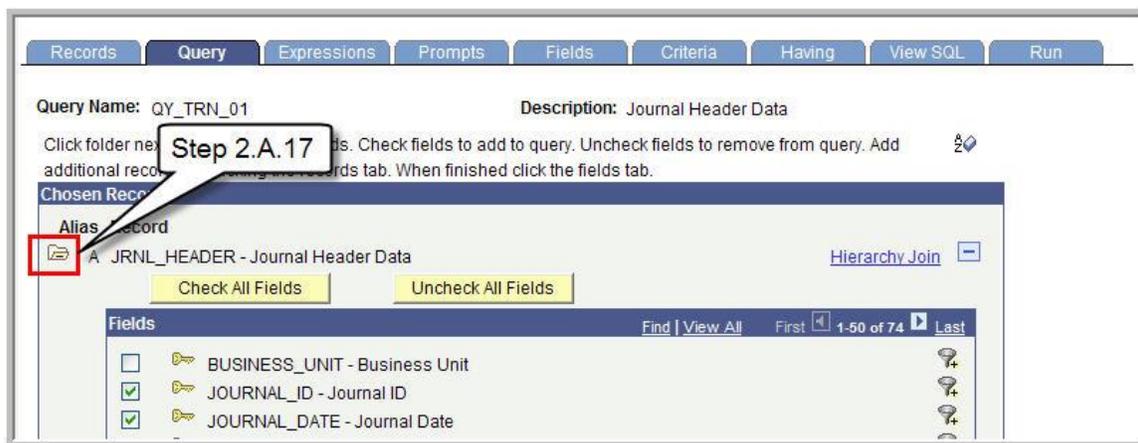
Join criteria for hierarchy joins are pre-established and **do not allow for modification**. The join criteria between the records will be applied to the query and you will be brought back to the Query Manager Query tab.



Related Record Joins:

In addition to hierarchy relationships between tables, the NUFinancials application contains **pre-defined relationships between fields that hold control codes on transaction tables and the records that contain identifying data about the control codes**.

17. Click the file folder to the left of the record on a query to display the fields in the record (ex. **JRNL_HEADER**).



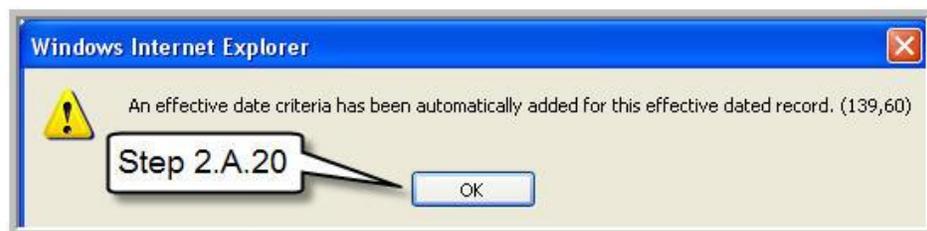
18. Scroll down and select a Lookup table hyperlink. (ex. the **SOURCE** field to link to the **Join SOURCE_TBL –Journal Sources**)



19. Accept the **Standard Join** default option by clicking **OK**.



20. You will get a popup message that **effective date criteria** have been added to your query. Effective dates are associated with records that allow users to modify values over time. The effective date on the row identifies the date that the row becomes active. The row is active through the date that another row of data with the same key values but a later effective date is added. **Query automatically creates join criteria to pull the active effective dated record for the date that the query is executed.** Click **OK** to acknowledge that the effective dated criteria has been added to the query.



You will be brought back to the Query Manager Query tab where you can confirm that the Lookup table has now been added to your query. (ex. **SOURCE_TBL**)



B. Working with Data Fields

Once you have joined records and selected the fields that will be included in your query there are several **options for formatting** results.

Reordering Fields

Steps

1. Click on the **Fields** tab to modify field formats.
2. By default, fields are ordered according to order that you join records and their respective order within those records. To modify the order of fields click **Reorder/Sort**.

Query Name: QY_TRN_02 Description: Journal Header and Line Data

View field properties, or use field as criteria in query statement.

Col	Record	Fieldname	Format	Ord	XLAT	Agg	Heading	Criteria	Edit	Delete
1	A.	JOURNAL_ID - Journal ID	Char10				Journal		Edit	[-]
2	A.	JOURNAL_DATE - Journal Date	Date				Date		Edit	[-]
3	A.	JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	[-]
4	A.	DESCR - Description	Char30				Descr		Edit	[-]
5	B.	JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	[-]
6	B.	ACCOUNT - Account	Char10				Account		Edit	[-]
7	B.	DEPTID - Department	Char10				Dept		Edit	[-]
8	B.	FUND_CODE - Fund Code	Char5				Fund		Edit	[-]
9	B.	PROJECT_ID - Project	Char15				Project		Edit	[-]
10	B.	MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount		Edit	[-]
11	B.	LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	[-]

Specifying Column Order

- To change the order of fields, designate the modified field sequence number under the **New Column header** on the left side of the page. **Specify a New Column value for all fields**, not just those that you wish to modify.

Specifying Sort Order

- If the query already has a sort order specified, the existing field sort priority will be specified under the **New Order By** column. A query may not have a sort order specified, so the column is blank. To specify a new sort order or to modify an existing one, indicate the priority of the sort for one or more fields in the **New Order By** column. (1 is the first priority sort followed by 2, etc., namely sort this column first, this column second.) By default, the sort will display results from lowest to highest value for each sort field.

To order results from highest to lowest value for a field, click the checkbox to the right of the field in the **Descending** column. (ex. sort the query on **JOURNAL_ID**, **JOURNAL_DATE** and **JRNL_HDR_STATUS** in that order of priority. Click the **Descending** checkbox for **JRNL_HDR_STATUS**.)

Edit Field Ordering

Reorder columns by entering column numbers on the left. Columns left blank or assigned a 0 will be automatically assigned a number. Change the order by number by entering numbers on the right. To remove an order by number, leave the field blank or enter a 0.

New Column	Column	Record.Fieldname	Order By	Descending	New Order By
1	1	A.JOURNAL_ID - Journal ID		<input type="checkbox"/>	1
2	2	A.JOURNAL_DATE - Journal Date		<input type="checkbox"/>	2
3	3	A.JRNL_HDR_STATUS - Journal Header Status		<input checked="" type="checkbox"/>	3
4	4	A.DESCR - Description		<input type="checkbox"/>	
5	5	B.JOURNAL_LINE - GL Journal Line Number		<input type="checkbox"/>	
9	6	B.ACCOUNT - Account		<input type="checkbox"/>	
7	7	B.DEPTID - Department		<input type="checkbox"/>	
6	8	B.FUND_CODE - Fund Code		<input type="checkbox"/>	
8	9	B.PROJECT_ID - Project		<input type="checkbox"/>	
10	10	B.MONETARY_AMOUNT - Monetary Amount		<input type="checkbox"/>	
11	11	B.LINE_DESCR - Journal Line Description		<input type="checkbox"/>	

OK Cancel

- Click **OK**.

Changing Field Headers

- Several records contain fields with default **headers that are not sufficiently descriptive** when combined with data from other records. To modify the column header for a field, click **Edit** to the right of the field. (ex. edit the **DESCR** field.)

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	1			Journal ID		Edit	
2	A.JOURNAL_DATE - Journal Date	Date	2			Date		Edit	
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1	3D	N		Status		Edit	
4	A.DESCR - Description	Char30				Descr		Edit	
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.FUND_CODE - Fund Code	Char5				Fund		Edit	
7	B.DEPTID - Department	Char10				Dept		Edit	
8	B.PROJECT_ID - Project	Char15				Project		Edit	
9	B.ACCOUNT - Account	Char10				Account		Edit	
10	B.MONETARY_AMOUNT - Monetary Amount	SNM25.3				Amount		Edit	
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

Column headers default to a short description stored in the application. This description is displayed on the **Edit Field Properties** page.

Edit Field Properties

Field Name: A.DESCR - Description

<div style="border: 1px solid gray; padding: 5px;"> <p>Heading</p> <p><input type="radio"/> No Heading <input checked="" type="radio"/> RFT Short</p> <p><input type="radio"/> Text <input type="radio"/> RFT Long</p> <p>Heading Text: <input type="text" value="Descr"/></p> <p>*Unique Field Name: <input type="text" value="A.DESCR"/></p> </div>	<div style="border: 1px solid gray; padding: 5px;"> <p>Aggregate</p> <p><input checked="" type="radio"/> None</p> <p><input type="radio"/> Sum</p> <p><input type="radio"/> Count</p> <p><input type="radio"/> Min</p> <p><input type="radio"/> Max</p> <p><input type="radio"/> Average</p> </div>
--	--

- The application also stores a long description for each field. To use the long description for your query column heading, select the **RFT Long** radio button and click **OK**.

Edit Field Properties

Field Name: A.DESCR - Description

Heading

No Heading RFT Short
 Text RFT Long

Heading Text:

*Unique Field Name:

Step 2.B.7

Aggregate

None
 Sum
 Count
 Min
 Max
 Average

- Confirm that the Heading Text has been modified. (ex. the **DESCR** field which was originally Descr has been modified to Description. In this case, the column heading is longer but not more descriptive.)
- To customize field text, click on **Edit** to the right of the field (ex. use **DESCR** field).

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	1			Journal ID		Edit	-
2	A.JOURNAL_DATE - Journal Date	Date	2			Date		Edit	-
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1	3D	N		Status		Edit	-
4	A.DESCR - Description	Char30				Description		Edit	-
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	-
6	B.FUND_CODE - Fund Code	Char5				Fund		Edit	-
7	B.DEPTID - Department	Char10				Dept		Edit	-
8	B.PROJECT_ID - Project	Char15				Project		Edit	-
9	B.ACCOUNT - Account	Char10				Account		Edit	-
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount		Edit	-
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	-

Step 2.B.8

Step 2.B.9

10. Select the **Text** radio button to specify a custom header description (ex. enter **Header Descr** in the **Heading Text** field).
11. Click **OK** to save your changes.

Edit Field Properties

Field Name: A.DESCR - Description

Heading

No Heading RFT Short

Text RFT Long

Heading Text:
Header Description

*Unique Field Name:
A.DESCR

Aggregate

None

Sum

Count

Min

Max

Average

OK Cancel

Step 2.B.10

Step 2.B.11

12. Confirm that the Heading Text for the field has been modified (ex. DESCR field which was set to Description has now been modified to Header Descr).

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	1			Journal ID		Edit	
2	A.JOURNAL_DATE - Journal Date	Date	2			Date		Edit	
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1	3D	N		Status		Edit	
4	A.DESCR - Description	Char30				Header Description		Edit	
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.FUND_CODE - Fund Code	Char5				Fund		Edit	
7	B.DEPTID - Department	Char10				Dept		Edit	
8	B.PROJECT_ID - Project	Char15				Project		Edit	
9	B.ACCOUNT - Account	Char10				Account		Edit	
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount		Edit	
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

Step 2.B.12

Translate Value Fields

An **N** in the **XLAT** column indicates that the no translation table description has been selected. The code value held in the record field will appear in the result set. This is the **default format setting** for XLAT fields. The edit options on XLAT fields allow you to select an application maintained short or long description instead of the default code.

13. Click the **Edit** to the right in the row (ex. use **JRNL_HDR_STATUS** row).

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	1			Journal ID		Edit	
2	A.JOURNAL_DATE - Journal Date	Date	2			Date		Edit	
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1	3D	N		Status		Edit	
4	A.DESCR - Description	Char30				Header Description		Edit	
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.FUND_CODE - Fund Code	Char5				Fund		Edit	
7	B.DEPTID - Department	Char10				Dept		Edit	
8	B.PROJECT_ID - Project	Char15				Project		Edit	
9	B.ACCOUNT - Account	Char10				Account		Edit	
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount		Edit	
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

14. Click the radio button in the **Translate Value** box to replace the code for this field with a long or short description.

15. Click **OK** to accept the changes.

Edit Field Properties

Field Name: A.JRNL_HDR_STATUS - Journal Header Status

Heading

No Heading RFT Short

Text RFT Long

Heading Text:
Status

*Unique Field Name:
A.JRNL_HDR_STATUS

Aggregate

None

Sum

Count

Min

Max

Average

Translate Value

None Short Long

Effective Date for Short/Long

Current Date

Field

Expression

[Add Prompt](#) [Add Field](#)

Step 2.B.14

Step 2.B.15

Note that the **XLAT** value for this field indicates what query results will include for this field.

- **L** to indicate the XLAT table long description.
- **S** to indicate the XLAT table short description.
- **N** to indicate no XLAT table description.

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	1			Journal ID		Edit	
2	A.JOURNAL_DATE - Journal Date	Date	2			Date		Edit	
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1	3D	L		Status		Edit	
4	A.DESCR - Description	Char30				Header Description		Edit	
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.FUND_CODE - Fund Code	Char5				Fund		Edit	
7	B.DEPTID - Department	Char10				Dept		Edit	
8	B.PROJECT_ID - Project	Char15				Project		Edit	
9	B.ACCOUNT - Account	Char10				Account		Edit	
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Amount		Edit	
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

16. Click on the **Run** tab to execute the query.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run		
View All Rerun Query Download to Excel										
First 1-81 of 81 Last										
Journal ID	Date	Status	Header Description	Line #	Fund	Dept	Project	Account	Amount	Line Descr
1	0000000415	12/11/2008	Posted to Ledger	FY09 Close L Dumas discretiona	1	110	4001210	88802	19518.220	TFR; ;
2	0000000476	12/11/2008	Posted to Ledger	1Pitney Bowes Evanston Mail:"J	545	172	4001230	10008318	75510	21.500 US Mail 11/24
3	0000000476	12/11/2008	Posted to Ledger	1Pitney Bowes Evanston Mail:"J	544	172	4001230	10008318	75510	7.850 US Mail 11/24
4	0000000476	12/11/2008	Posted to Ledger	1Pitney Bowes Evanston Mail:"J	543	172	4001230	10008318	75510	23.000 US Mail 11/24
5	0000000476	12/11/2008	Posted to Ledger	1Pitney Bowes Evanston Mail:"J	542	172	4001230	10008318	75510	43.600 US Mail 11/21

17. The status field that previously contained a single letter code now contains the selected description associated with that code.

Aggregating Data

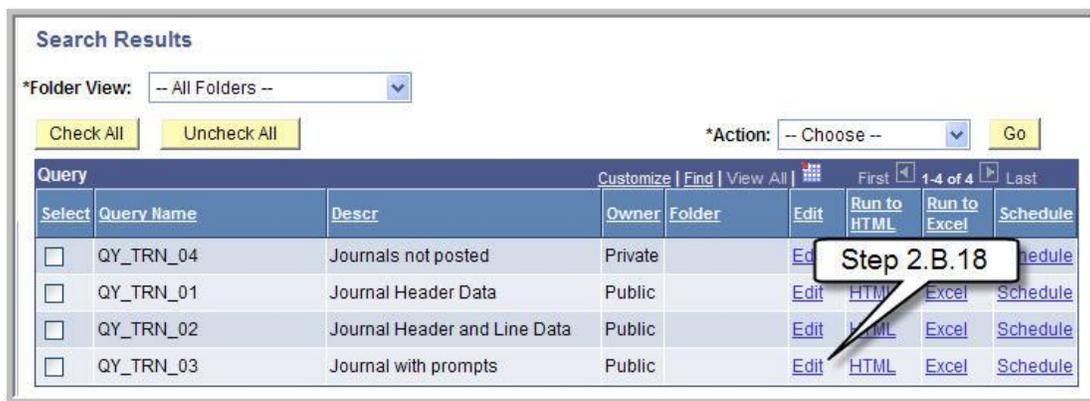
Aggregation functions allow you to consolidate multiple rows of data to get summary information. Query allows several options for aggregating field values across multiple rows of data. When aggregation options are indicated for one or more fields in a query **a single result row will appear for each unique combination of non-aggregated field values**. Aggregation is only performed on rows where all non-aggregated fields share **identical values**.

A recommendation would be to find and Save As or build a query that captures the desired data fields in raw form. Then save that raw data query as a new query to add aggregation summary criteria.

The strategy for adding aggregation is to review the raw data fields and remove extraneous fields (unselect in **Query** tab or delete in **Fields** tab) to just the ones needed to define the aggregation. Add the aggregation to the appropriate germane field(s). Then add back any fields as desired to enhance the aggregation. Remember: a single result row will appear for each unique combination of non-aggregated field values.

Below are the steps for reviewing and adding aggregation to a query, followed by a specific example:

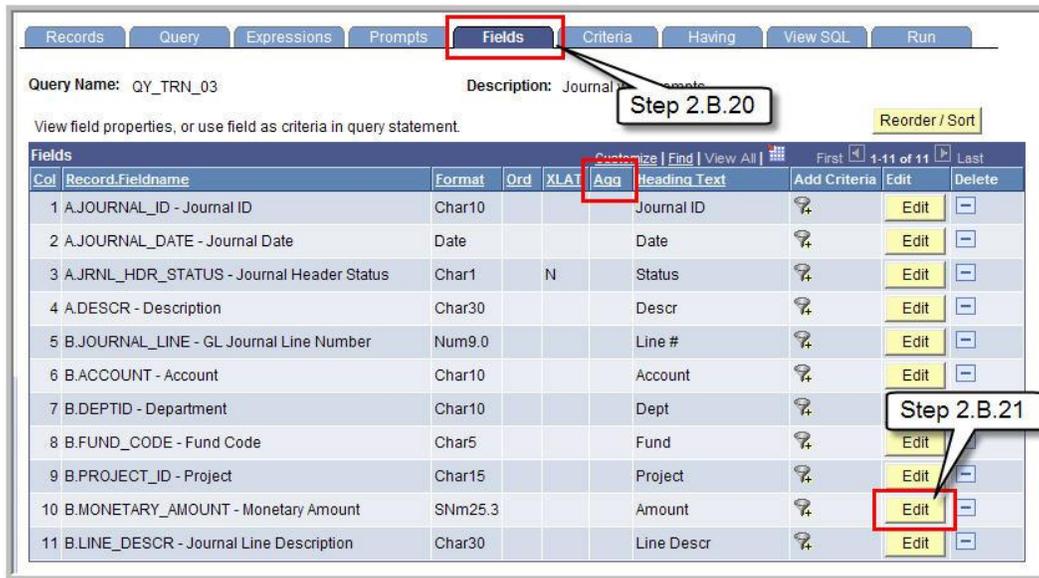
18. Search and locate a query to which to apply aggregation. Click **Edit**. (It is **not** recommended to make changes to a public query. It is recommended to select **Save As** and make a public or private copy.)



19. Click the **Run** tab on the query definition page to see current query results.

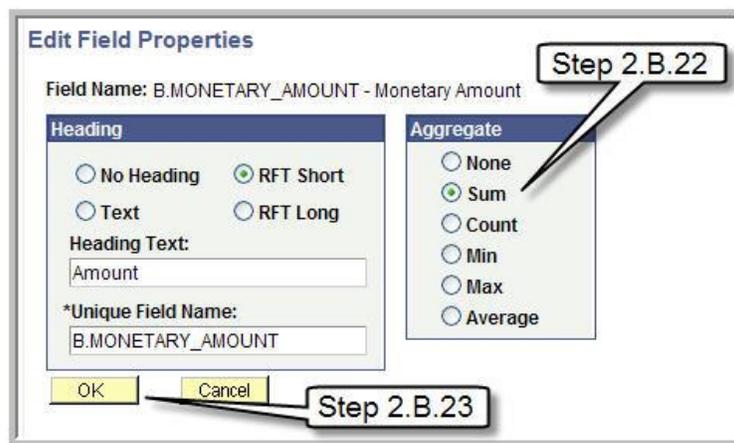
Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run		
From Date = 2009-01-01, To Date=2009-03-30										
View All Rerun Query Download to Excel							First <input type="text" value="1"/> 1-100 of 15148 <input type="text" value="Last"/>			
Line #	Journal ID	Date	Status	Descr	Account	Dept	Fund	Project	Amount	Line Descr
1	HRB0004055	01/08/2009	P	Transfer to HMO	5 10101		120		-140855.320	Cash-Due To-From Offset
2	HRB0004055	01/08/2009	P	Transfer to HMO	6 10101		131		140855.320	Cash-Due To-From Offset
3	BUR0004065	01/08/2009	P	9-PAY Lockbox 01/07/09	1 11258		132		-71185.000	9-PAY Lockbox 01/07/09
4	BUR0004065	01/08/2009	P	9-PAY Lockbox 01/07/09	2 10105		132		71185.000	9-PAY Lockbox 01/07/09
5	0000003081	01/02/2009	P	The transactions on the ProCar	1 75695	5326000	171	10006434	-2580.960	Corr Exp; 11/26/2008; CNV
6	0000003542	01/07/2009	P	I was out of the office and mi	1 75695	5310000	110		-150.000	Corr Exp; 11/28/2008; CNV
7	0000005129	01/16/2009	V	Initial use of NUFinancials -	1 76767	4034900	110		24.070	Corr Exp; 12/16/2008; EX
8	0000004532	01/13/2009	P	Adjust converted PS revenue-TM	1 11148		640	60000075	4097.180	AR-Automated Rev Recognition
9	0000003351	01/06/2009	P	ITI Yr 2 Funding for the Resea	3 10101		610	60020777	1940.000	Cash-Due To-From Offset
10	0000003351	01/06/2009	P	ITI Yr 2 Funding for the Resea	4 10101		610	60022752	-1940.000	Cash-Due To-From Offset

20. Click on the **Fields** tab. Field aggregation will be indicated in the **Agg** column on this tab.
21. Click **Edit** to the right of the field to apply aggregation.



If the aggregate box option is set to **None**, Individual row detail is displayed in the query result set since aggregation is not indicated.

22. Click a radio button in the **Aggregate** box for the appropriate type.



The following provides a description of all aggregation options.

- None** Will not use aggregate functions.
- Sum** Adds the values from each row and displays the total. (individual field value if no agg.)
- Count** Counts the number of rows. (individual field value if no agg.)
- Min** Checks the value from each row and returns the lowest value. (individual (minimum) field value if no agg.)
- Max** Checks the value from each row and returns the highest value. (individual (maximum) field value if no agg.)
- Average** Adds the values from each row and divides the result by the number of rows. (individual field value if no agg.)

23. Click **OK** to select the aggregate setting.
24. Review the **Agg column** to see that it now indicates a setting for the field.
25. Click the **Run** tab to generate query results.

The screenshot shows a query editor window with the following elements:

- Navigation tabs: Records, Query, Expressions, Prompts, **Fields**, Criteria, Having, View SQL, **Run** (highlighted in red).
- Query Name: QY_TRN_03
- Description: Journal with prompts
- Text: View field properties, or use field as criteria in query statement.
- Buttons: Reorder / Sort
- Table with columns: Col, Record, Fieldname, Format, Ord, XLA, **Agg** (highlighted in red), Leading Text, Add Criteria, Edit, Delete.

Col	Record	Fieldname	Format	Ord	XLA	Agg	Leading Text	Add Criteria	Edit	Delete
1	A.	JOURNAL_ID - Journal ID	Char10				Journal ID		Edit	
2	A.	JOURNAL_DATE - Journal Date	Date				Date		Edit	
3	A.	JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	
4	A.	DESCR - Description	Char30				Descr		Edit	
5	B.	JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.	ACCOUNT - Account	Char10				Account		Edit	
7	B.	DEPTID - Department	Char10				Dept		Edit	
8	B.	FUND_CODE - Fund Code	Char5				Fund		Edit	
9	B.	PROJECT_ID - Project	Char15				Project		Edit	
10	B.	MONETARY_AMOUNT - Monetary Amount	SNm25.3			Sum	Sum Amount		Edit	
11	B.	LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

Here is a specific example to demonstrate the aggregation strategy and implementation:

- Search and locate a query to which to apply aggregation. Click **Edit**. (Remember to save a query before making modifications!)

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input type="checkbox"/>	QY_TRN_04	Journals not posted			Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_01	Journal Header Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_02	Journal Header and Line Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_03	Journal with prompts	Public		Edit	HTML	Excel	Schedule

- Click the **Run** tab on the query definition page. (ex. this query has a date prompt).

Records | Query | Expressions | Prompts | **Fields** | Criteria | Having | View SQL | **Run**

Query Name: QY_TRN_03 Description: Journal with prompts

- Click **OK** to execute the query.

From Date: 01/01/2009

To Date: 03/30/2009

OK Cancel

- The result set for this sample query is limited to journals **with journal dates within the selected date range**. In addition, this query limits results to **Valid and Posted journals**. **Thirteen rows of data** meet these criteria.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

From Date = 2009-01-01, To Date=2009-03-30

View All | Rerun Query | Download to Excel

First 1-13 of 13 Last

Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Amount	Line Descr
1	0000003184	01/05/2009	P	FY09 discretionary funds from	2	88801	4001210	110	20000.000	TFR; ;
2	EV00004090	01/05/2009	P	Expense Accrual Journal	18	76735	4001220	110	3013.230	Expense Accruals
3	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:Jo	401	75510	4001220	110	0.420	12/02 Chicago US Mail
4	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:Jo	402	75510	4001220	110	6.060	12/02 Chicago US Mail
5	0000005416	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 11/17/2009;
6	0000005418	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 02/17/2009;
7	0000005331	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
8	0000005294	01/22/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 01/22/2009;
9	0000005328	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
10	0000005325	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
11	0000005334	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
12	0000005349	01/27/2009	V	Name Badges and parking passes	1	50881	4001210	110	-100.000	New Sale; 01/27/2009;
13	0000005381	02/05/2009	V	reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 09/03/2008;

- Click on the **Fields** tab. Field aggregation will be indicated in the **Agg** column on this tab. Currently there is no aggregation within this query so the column is blank for all fields.
- Click **Edit** to the right of the **MONETARY_AMOUNT** Field.

Records Query Expressions Prompts **Fields** Criteria Having View SQL Run

Query Name: QY_TRN_03 Description: Journal with prompts

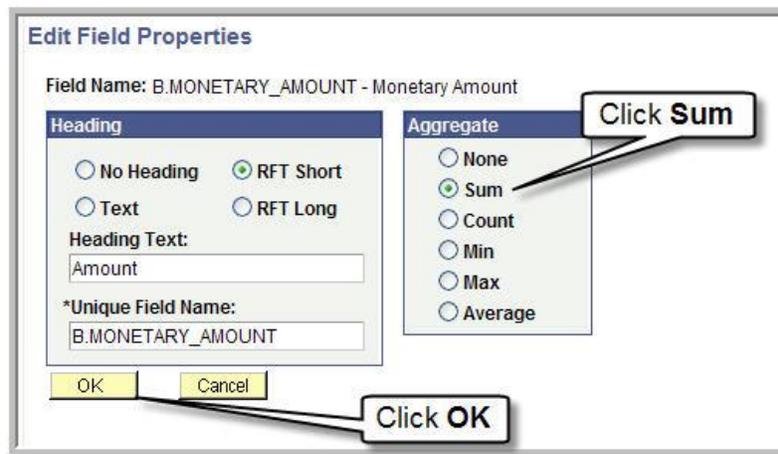
View field properties, or use field as criteria in query statement. Reorder / Sort

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Leading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10				Journal ID		Edit	-
2	A.JOURNAL_DATE - Journal Date	Date				Date		Edit	-
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	-
4	A.DESCR - Description	Char30				Descr		Edit	-
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	-
6	B.ACCOUNT - Account	Char10				Account		Edit	-
7	B.DEPTID - Department	Char10				Dept		Edit	-
8	B.FUND_CODE - Fund Code	Char5				Fund		Edit	-
9	B.PROJECT_ID - Project	Char15				Project		Edit	-
10	B.MONETARY_AMOUNT - Monetary Amount	SNM25.3				Amount		Edit	-
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	-

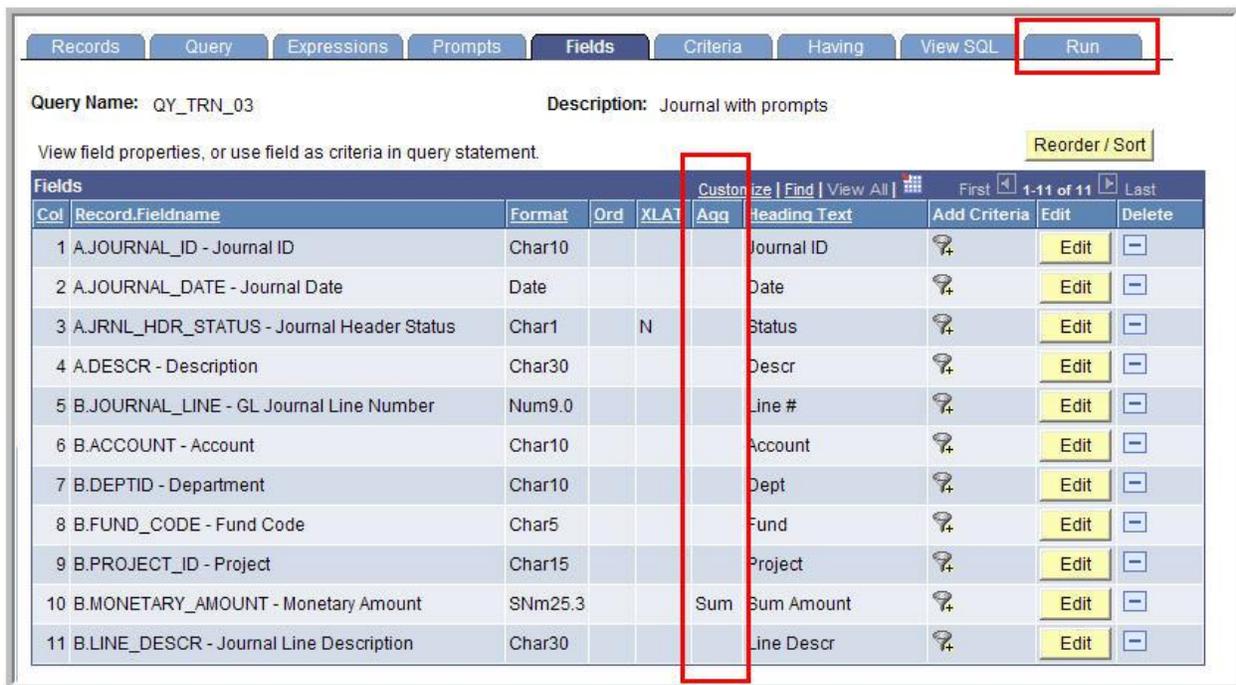
Click Edit

The aggregate box option is currently set to **None**. Individual row detail is displayed in the query result set since aggregation is not indicated.

- Click the **Sum** radio button in the Aggregate box.
- Click **OK** to save the aggregate setting.



- **Note:** the **Agg** column now indicates **Sum** for the **MONETARY_AMOUNT** field. Click on the **Run** tab to generate query results.



- **Note:** there is **no change in the result set** that was returned. Aggregation had no impact on query results **because each of the rows contains a unique combination of values in non-aggregated fields.**

Records Query Expressions Prompts Fields Criteria Having View SQL Run

From Date = 2009-01-01, To Date=2009-03-30

View All | Rerun Query | Download to Excel

First 1-13 of 13 Last

Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Sum Amount	Line Descr
1	000005325	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
2	000005294	01/22/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 01/22/2009;
3	000003184	01/05/2009	P	FY09 discretionary funds from	2	88801	4001210	110	20000.000	TFR; ;
4	EV00004090	01/05/2009	P	Expense Accrual Journal	18	76735	4001220	110	3013.230	Expense Accruals
5	000004777	01/13/2009	P	1Pitney Bowes Chicago Mail."Jo	402	75510	4001220	110	6.060	12/02 Chicago US Mail
6	000005418	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 02/17/2009;
7	000005328	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
8	000004777	01/13/2009	P	1Pitney Bowes Chicago Mail."Jo	401	75510	4001220	110	0.420	12/02 Chicago US Mail
9	000005334	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
10	000005349	01/27/2009	V	Name Badges and parking passes	1	50881	4001210	110	-100.000	New Sale; 01/27/2009;
11	000005331	01/23/2009	V	test	1	50881	4001210	110	-100.000	New Sale; 01/23/2009;
12	000005381	02/05/2009	V	reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 09/03/2008;
13	000005416	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110	-100.000	New Sale; 11/17/2009;

- Click the **Fields** tab.
- Click  to the right of the **JOURNAL_LINE** to delete the field from the result set.
- Delete **ACCOUNT, DEPTID, DESCR, LINE_DESCR, JOURNAL_ID** and **JOURNAL_DATE** fields.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: QY_TRN_03 Description: Journal with prompts

View field properties, or use field as criteria in query statement.

Reorder / Sort

Customize | Find | View All | First 1-11 of 11 Last

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10				Journal ID		Edit	
2	A.JOURNAL_DATE - Journal Date	Date				Date		Edit	
3	A.JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	
4	A.DESCR - Description	Char30				Descr		Edit	
5	B.JOURNAL_LINE - GL Journal Line Number	Num9.0				Line #		Edit	
6	B.ACCOUNT - Account	Char10				Account		Edit	
7	B.DEPTID - Department	Char10				Dept		Edit	
8	B.FUND_CODE - Fund Code	Char5				Fund		Edit	
9	B.PROJECT_ID - Project	Char15				Project		Edit	
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3			Sum	Sum Amount		Edit	
11	B.LINE_DESCR - Journal Line Description	Char30				Line Descr		Edit	

- You will have four fields after completing deletions.

Records Query Expressions Prompts **Fields** Criteria Having View SQL Run

Query Name: QY_TRN_03 Description: Journal with prompts

View field properties, or use field as criteria in query statement. Reorder / Sort

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	-
2	B.FUND_CODE - Fund Code	Char5				Fund		Edit	-
3	B.PROJECT_ID - Project	Char15				Project		Edit	-
4	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3			Sum	Sum Amount		Edit	-

- Click the **Run** tab to execute the query again. **Note** that only **two lines** are now returned in the result set. They represent the **unique combinations of non-aggregated field values**. The **MONETARY_AMOUNT** field shows the sum of the underlying lines for each combination.

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

From Date = 2009-01-01, To Date=2009-03-30

View All | Rerun Query | Download to Excel First 1-2 of 2 Last

	Status	Fund	Project	Sum Amount
1	V	110		-900.000
2	P	110		23019.710

- Click the **Fields** tab.
- Click **Edit** to the right of the **MONETARY_AMOUNT** field.

Records Query Expressions Prompts **Fields** Criteria Having View SQL Run

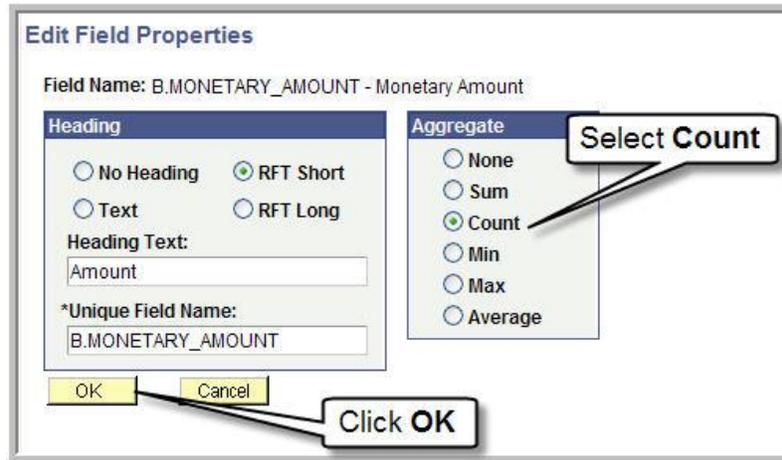
Query Name: QY_TRN_03 Description: Journal with prompts

View field properties, or use field as criteria in query statement. Reorder / Sort

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JRNL_HDR_STATUS - Journal Header Status	Char1		N		Status		Edit	-
2	B.FUND_CODE - Fund Code	Char5				Fund		Edit	-
3	B.PROJECT_ID - Project	Char15				Project		Edit	-
4	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3			Sum	Sum Amount		Edit	-

Click Edit

- Change the **Aggregate** radio button to **Count**.
- Click **OK**.



- Click the **Run** tab to execute the query. **Note:** your result set still aggregated data based on unique combinations of non-aggregated fields. However, the **MONETARY_AMOUNT** field now contains a count of the rows that are included in each aggregated line.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
From Date = 2009-01-01, To Date=2009-03-30								
View All Rerun Query Download to Excel								
								First 1-2 of 2 Last
	Status	Fund	Project	Count Amount				
1	V	110		9				
2	P	110		4				

C. Working with Query Criteria

When you execute a query, the result set will include data for all rows in the record that you have selected. If multiple tables have been joined, the tool will return data for all rows that have an associated record in each joined table.

In most cases, you will want to filter your results to a subset of data. To accomplish this task, the query tool allows you to **define criteria** that define what data will be returned upon execution. **To establish criteria, you will select a data field and indicate a range of values.** Only rows of data where field values fall within this range will be returned when the query is executed. You can establish multiple criteria to limit results based on values in multiple fields.

Adding an expression

Steps

1. Search and locate a query (ex. **QY_TRN_02**) Click **Edit** to the right of query name to open. (It is **not** recommended to make changes to a public query. It is recommended to select **Save As** and make a public or private copy.)

The screenshot shows the 'Query Manager' interface. At the top, there is a search bar with the text 'Enter any information you have and click Search. Leave fields blank for a list of all values.' Below this, there are links for 'Find an Existing Query' and 'Create New Query'. The search criteria are set to '*Search By: Query Name' and 'begins with QY'. There are 'Search' and 'Advanced Search' buttons. Below the search bar, there is a 'Search Results' section with a '*Folder View: -- All Folders --' dropdown. There are 'Check All' and 'Uncheck All' buttons, and an '*Action: -- Choose --' dropdown with a 'Go' button. The main part of the screenshot is a table of search results. The table has columns for 'Select', 'Query Name', 'Descr', 'Owner', 'Folder', 'Edit', 'Run to HTML', 'Run to Excel', and 'Schedule'. The results are as follows:

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input type="checkbox"/>	QY_TRN_04	Journals not posted			Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_01	Journal Header Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_02	Journal Header and Line Data	Public		Edit	HTML	Excel	Schedule
<input type="checkbox"/>	QY_TRN_03	Journal with prompts	Public		Edit	HTML	Excel	Schedule

A callout box labeled 'Step 2.C.1' points to the 'Edit' link in the row for 'QY_TRN_02'.

- Click on the **Run** tab to execute the query and review any criteria. (ex. this result set contains 81 rows of data as indicated above the query results.)

	Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Amount	Line Descr
1	0000000415	12/11/2008	P	FY09 Close L Dumas discretiona	1	88802	4001210	110		-19518.220	TFR ; ;
2	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	546	75510	4001230	172	10008318	55.350	US Mail 11/20
3	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	545	75510	4001230	172	10008318	21.500	US Mail 11/24
4	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	544	75510	4001230	172	10008318	7.850	US Mail 11/24
5	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	543	75510	4001230	172	10008318	23.000	US Mail 11/24
6	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	542	75510	4001230	172	10008318	43.600	US Mail 11/21
7	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	541	75510	4001230	172	10008318	29.950	US Mail 11/24
8	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	540	75510	4001230	172	10008318	8.750	US Mail 11/24
9	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	539	75510	4001230	172	10008318	13.800	US Mail 11/25
10	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	538	75510	4001230	172	10008318	27.200	US Mail 11/25
11	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	537	75510	4001230	172	10008318	50.750	US Mail 11/26
12	0000000476	12/11/2008	P	1Pitney Bowes Evanston Mail:"J	536	75510	4001230	172	10008318	18.400	US Mail 11/26

Specific Date Range as Criteria

- Click the **Criteria** tab. (ex. The journal header and journal line tables have been selected and joined. Query results include all data from these tables.) To limit the results to a **specific date range**, a specific range can be selected.
- Click **Add Criteria**.



- In this course we will work with field based criteria. Confirm that the expression type is **Field**.
- In the **Expression 1** box, click the  icon in the **Choose Record and Field** box to select the field against which the criteria will be applied (ex. this is an example of adding a range of dates as criteria).

- A listing of the records that you have added to your query and associated fields will be displayed. By default the fields for the first record added to the query will be displayed. Click on the field name to select (ex. **JOURNAL_DATE** field).

Alias	Record	Record Description	Show Fields
A	JRNL_HEADER	Journal Header Data	Show Fields
B	JRNL_LN	Journal Line Data	Show Fields

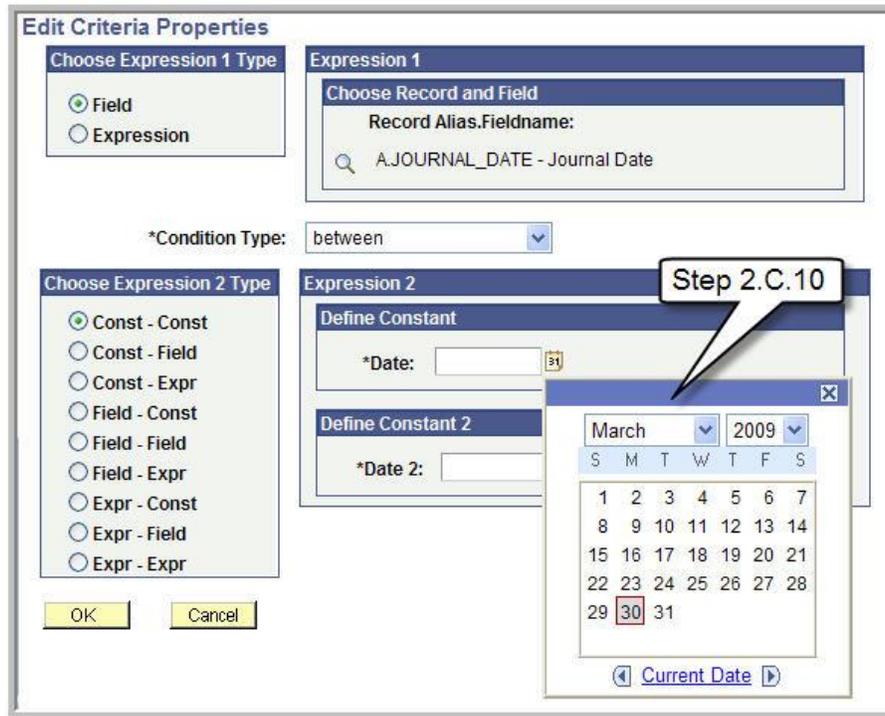
- You will be returned to the criteria definition page. (ex. **Note** that **JOURNAL_DATE** has now been identified as the active field for this criteria.)

HOT Tip! Here's another way of navigating to the **Edit Criteria Properties** page and selecting the field name. From the **Fields** tab, click on  to go directly to the **Edit Criteria Properties** page with the field name already entered.

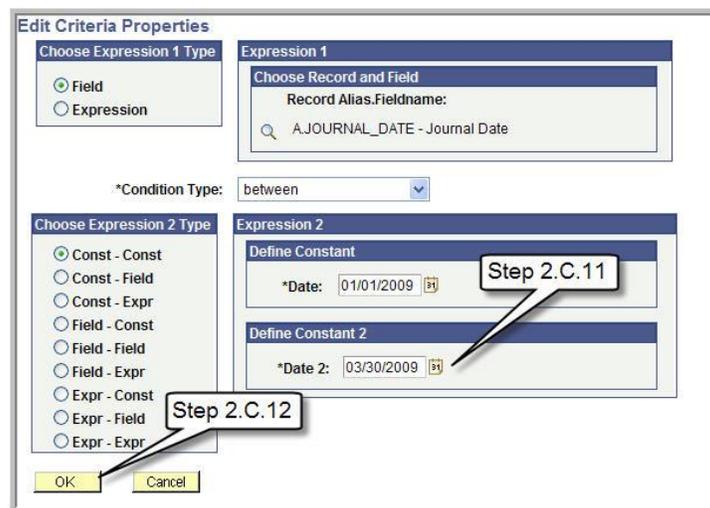
- The **Condition Type** defines how valid values will be indicated. Click on the drop down box to select the condition type (ex. **between**). See **Appendix A** for definitions of condition types.

Note: Parameter fields for **Expression 2** have been modified to reflect that the between condition type requires an upper and lower limit to define a valid data range for the field specified in **Expression 1**.

10. In the **Expressions 2** box, click on  in **Define Constant** and use the calendar to navigate to a specific date as the lower range of valid date values for these criteria.



11. In the **Expressions 2** box, click on  in **Define Constant 2** and use the calendar to navigate to a specific date as the upper range of valid date values for these criteria.
12. Click **OK** to select the criteria.



Note: a criteria line has now been added to your query.

Reference:

- You can **add** a criteria line by clicking **Add Criteria**.
- You can **edit** a criteria line by clicking **Edit** to the right of the criteria line.
- You can **delete** a criteria line by clicking the  delete symbol to the right of the line.

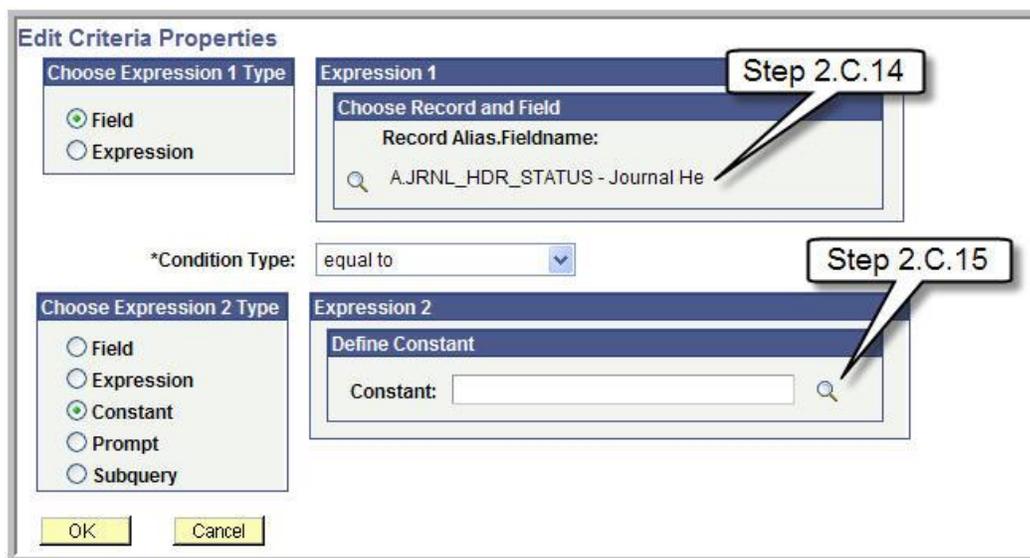
Define Constant Values as Criteria

13. Click **Add Criteria** to add another criteria line.

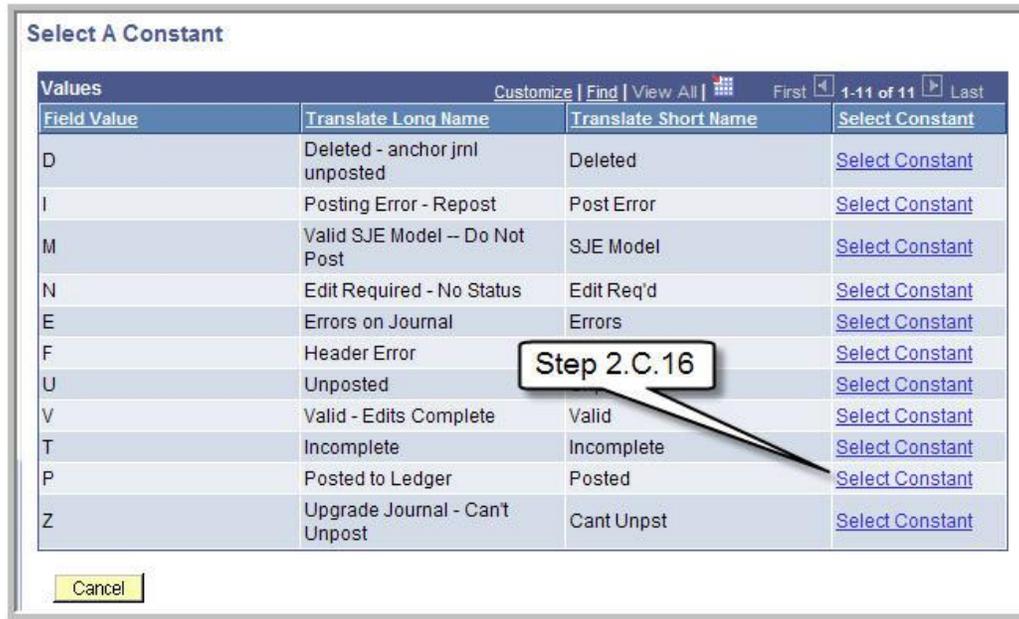


14. In the **Expression 1** box, in the **Choose Record and Field** box, select the field against which the criteria will be applied (ex. this is an example of adding a constant value as criteria for **JRNL_HDR_STATUS** field).

15. In the **Expression 2** box, in the **Define Constant** box, click the  icon to get a list of the valid values for the Constant.

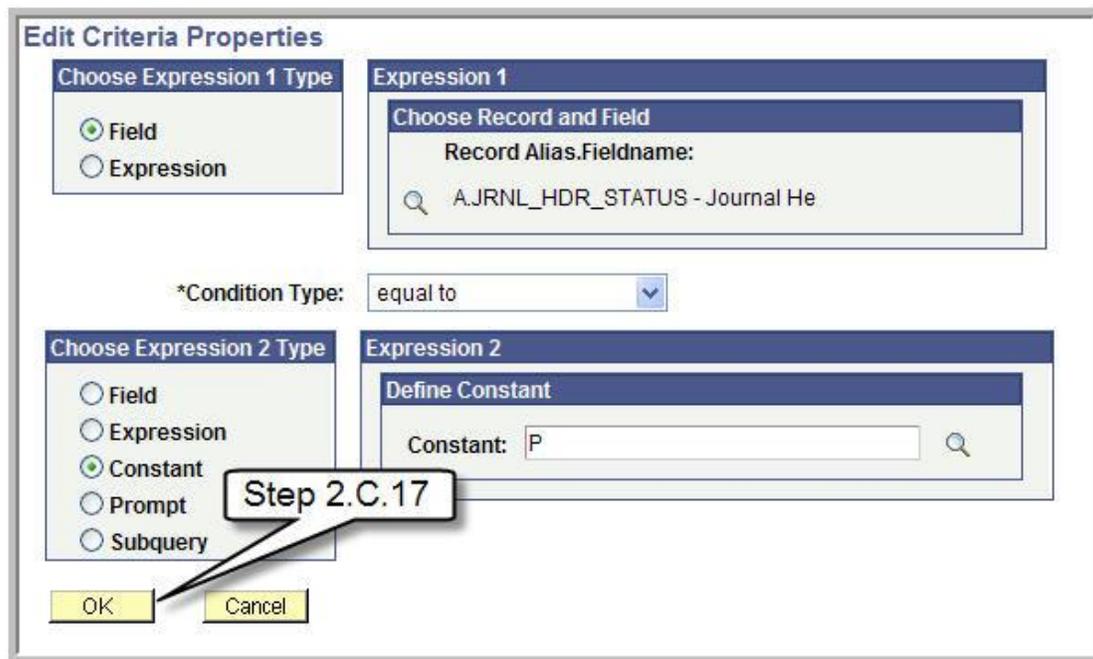


16. Click **Select Constant** to the right of the value to filter query results (ex. P, Posted to Ledger, Posted).



Note: that the single constant value is now indicated as the valid range in **Define Constant** (ex. P is for the **JRNL_HDR_STATUS**).

17. Click **OK**. The additional criteria line has now been added to your query.



Records Query Expressions Prompts Fields **Criteria** Having View SQL Run

Query Name: QY_TRN_02 Description: Journal Header and Line Data

Add Criteria Group Criteria Reorder Criteria

Logical	Expression 1	Condition Type	Expression 2	Edit	Delete
	A.BUSINESS_UNIT - Business Unit	equal to	B.BUSINESS_UNIT - Business Unit	Edit	-
AND	A.JOURNAL_ID - Journal ID	equal to	B.JOURNAL_ID - Journal ID	Edit	-
AND	A.UNPOST_SEQ - UnPost Sequence	equal to	B.UNPOST_SEQ - UnPost Sequence	Edit	-
AND	A.DESCR - Description	not equal to	Conversion Journals	Edit	-
AND	B.DEPTID - Department	between	4001210 AND 4001230	Edit	-
AND	A.JOURNAL_DATE - Journal Date	between	2009-01-01 AND 2009-03-31	Edit	-
AND	A.JRNL_HDR_STATUS - Journal Header Status	equal to	P	Edit	-

18. Click the **Run** tab to execute the query with criteria (ex. with journal date and header status criteria).

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

View All | Rerun Query | Download to Excel

Step 2.C.18

First 1-28 of 28 Last

	Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Amount	Line descr
1	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	301	75510	4001230	172	10008318	23.900	US Mail 12/04
2	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	295	75510	4001230	172	10008318	5.200	US Mail 12/03
3	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	296	75510	4001230	172	10008318	54.000	US Mail 12/03
4	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	297	75510	4001230	172	10008318	11.600	US Mail 12/04
5	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	298	75510	4001230	172	10008318	23.900	US Mail 12/04
6	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	299	75510	4001230	172	10008318	20.200	US Mail 12/04
7	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	300	75510	4001230	172	10008318	11.950	US Mail 12/04
8	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	291	75510	4001230	172	10008318	14.400	US Mail 12/02
9	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	292	75510	4001230	172	10008318	29.300	US Mail 12/02
10	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	293	75510	4001230	172	10008318	28.600	US Mail 12/02
11	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	294	75510	4001230	172	10008318	23.900	US Mail 12/02
12	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	1	75120	4001230	172	10008318	153.200	11/20 E Berry
13	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	24	75120	4001230	172	10008318	92.500	12/01 Emily Berry

Note: the query that produced a result set that contained many rows of raw data, now has the aggregated summary rows (ex. for this example, 81 rows before applying criteria now contains only 28 rows of data).

Define a Constant List of Values as Criteria

19. Click the **Criteria** tab (ex. this is an example of adding a list of constant values as criteria for **JRNL_HDR_STATUS** field).
20. Click **Edit** to add criteria (ex. **JRNL_HDR_STATUS**).

Query Name: QY_TRN_02 Description: Journal Header an

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.BUSINESS_UNIT - Business Unit	equal to	B.BUSINESS_UNIT - Business Unit	Edit	[-]
AND	A.JOURNAL_ID - Journal ID	equal to	B.JOURNAL_ID - Journal ID	Edit	[-]
AND	A.UNPOST_SEQ - UnPost Sequence	equal to	B.UNPOST_SEQ - UnPost Sequence	Edit	[-]
AND	A.DESCR - Description	not equal to	Conversion Journals	Edit	[-]
AND	B.DEPTID - Department	between	4001210	Edit	[-]
AND	A.JOURNAL_DATE - Journal Date	between	2009-01-01 AND 2009-05-31	Edit	[-]
AND	A.JRNL_HDR_STATUS - Journal Header Status	equal to	P	Edit	[-]

21. In the **Condition Type** drop down menu, select the **in list** option.
22. In the **Expression 2** box, click the  icon to select the values that will compose the list of valid values for inclusion on the query result set.

Edit Criteria Properties

Choose Expression 1 Type

Field
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

 A.JRNL_HDR_STATUS - **Step 2.C.21**

*Condition Type: in list

Choose Expression 2 Type

In List
 Subquery

Expression 2

Edit List

List Members:

 **Step 2.C.22**

23. Click **Add Value** next to each value to be added to the **Contant list** (ex. V, Valid-Edits Complete, Valid or P, Posted to Ledger, Posted). You can also add values by typing them into the **Value** field at the top of the page and clicking **Add Value** to the right of that field.

Edit List

No values have been added yet.

Value: **Add Value**

[Add Prompt](#)

Field Value	Translate Long Name	Translate Short Name	Add Value
D	Deleted - anchor jml unposted	Deleted	Add Value
I	Posting Error - Repost	Post Error	Add Value
M	Valid SJE Model -- Do Not Post	SJE Model	Add Value
N	Edit Required - No Status	Edit Req'd	Add Value
E	Errors on Journal	Errors	Add Value
F	Header Error	Hdr Error	Add Value
U	Unposted		Add Value
V	Valid - Edits Complete	Valid	Add Value
T	Incomplete	Incomplete	Add Value
P	Posted to Ledger	Posted	Add Value
Z	Upgrade Journal - Can't Unpost	Cant Unpst	Add Value

Step 2.C.23 (points to 'Add Value' button for 'Valid')

Step 2.C.24 (points to 'Add Value' button for 'Posted')

OK **Cancel**

Note: the constant values have been added as to the list of valid list members. Also, you can select and delete list members with **Delete Checked Values**.

Edit List

List Members [Customize](#) [Find](#) [View All](#) First 1-2 of 2 Last

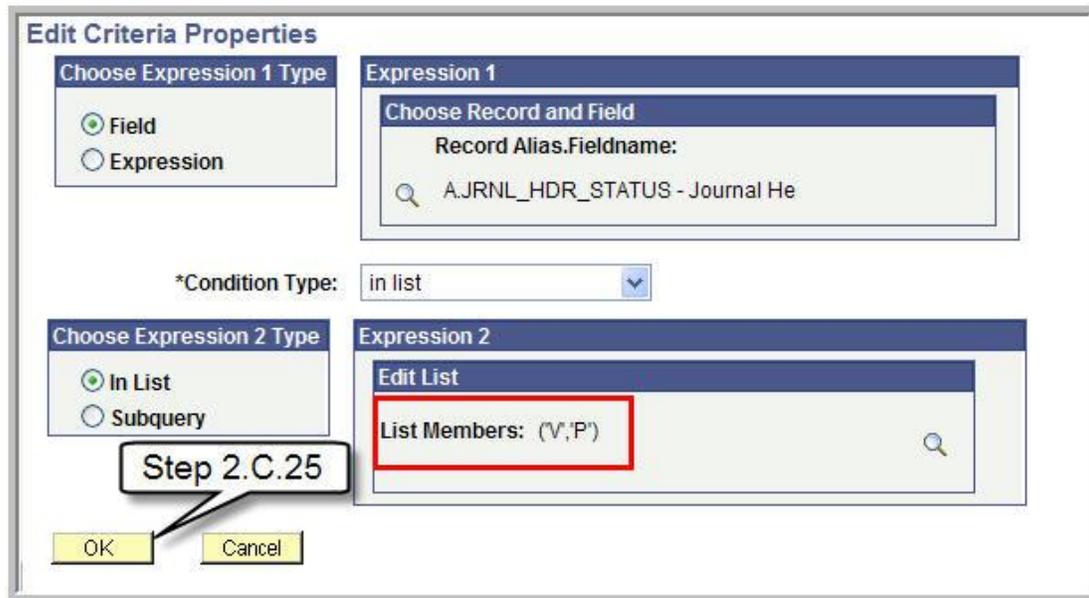
P

V

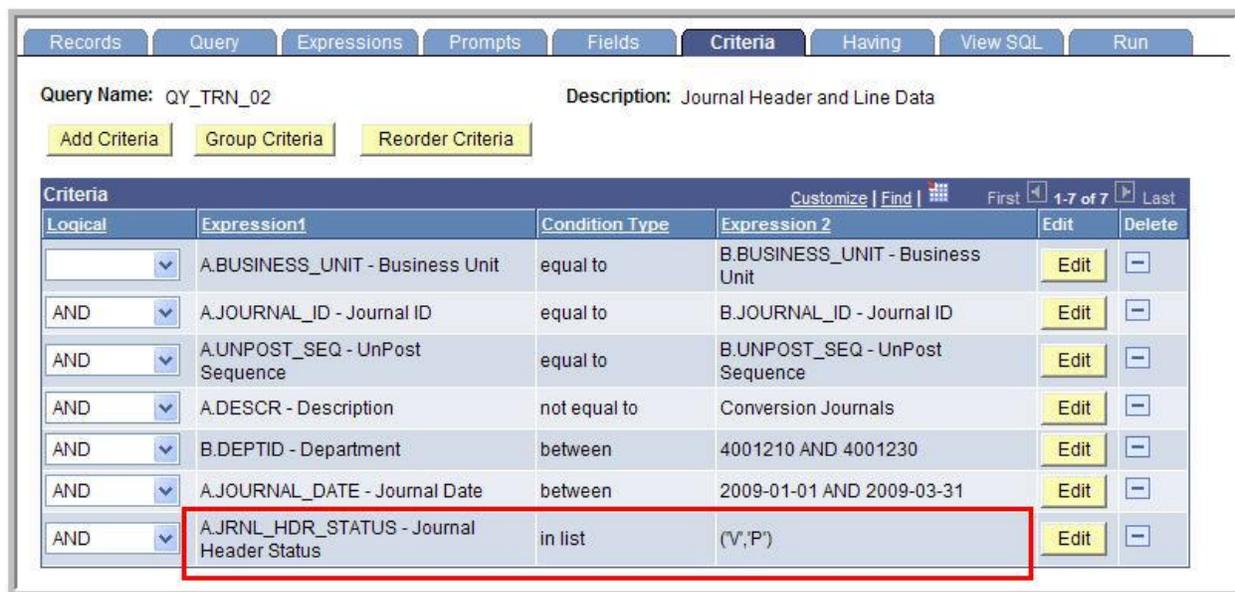
Value: **Add Value** **Delete Checked Values**

24. Click **OK** to select the list.

25. Click **OK** to select Criteria Properties.



Criteria tab now contains a list of values for the field.



26. Click on the **Run** tab to execute the query with the modified criteria.

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

View All | Rerun Query | Download to Excel

Step 2.C.26

Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Amount	Line Descr	
1	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	301	75510	4001230	172	10008318	23.900	US Mail 12/04
2	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	295	75510	4001230	172	10008318	5.200	US Mail 12/03
3	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	296	75510	4001230	172	10008318	54.000	US Mail 12/03
4	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	297	75510	4001230	172	10008318	11.600	US Mail 12/04
5	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	298	75510	4001230	172	10008318	23.900	US Mail 12/04
6	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	299	75510	4001230	172	10008318	20.200	US Mail 12/04
7	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	300	75510	4001230	172	10008318	11.950	US Mail 12/04
8	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	291	75510	4001230	172	10008318	14.400	US Mail 12/02
9	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	292	75510	4001230	172	10008318	29.300	US Mail 12/02
10	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	293	75510	4001230	172	10008318	28.800	US Mail 12/02
11	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	294	75510	4001230	172	10008318	23.900	US Mail 12/02
12	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	1	75120	4001230	172	10008318	153.200	11/20 E Berry
13	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	24	75120	4001230	172	10008318	92.500	12/01 Emily Berry
14	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	33	75120	4001230	172	10008318	36.390	12/05 Emily Berry
15	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	43	75120	4001230	172	10008318	103.320	12/11 Emily Berry
16	0000003184	01/05/2009	P	FY09 discretionary funds from	2	88801	4001210	110		20000.000	TFR; ;
17	EV00004090	01/05/2009	P	Expense Accrual Journal	18	76735	4001220	110		3013.230	Expense Accruals
18	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	398	75510	4001230	172	10008318	6.450	12/02 Chicago US Mail
19	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	399	75510	4001230	172	10008318	12.200	12/03 Chicago US Mail
20	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	400	75510	4001230	172	10008318	24.000	12/03 Chicago US Mail
21	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	401	75510	4001220	110		0.420	12/02 Chicago US Mail
22	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	402	75510	4001220	110		6.050	12/02 Chicago US Mail
23	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	530	75510	4001230	172	10008318	22.350	12/09 Chicago US Mail
24	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	531	75510	4001230	172	10008318	11.950	12/09 Chicago US Mail
25	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	532	75510	4001230	172	10008318	32.900	12/09 Chicago US Mail
26	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	533	75510	4001230	172	10008318	4.800	12/12 Chicago US Mail
27	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	534	75510	4001230	172	10008318	4.800	12/10 Chicago US Mail
28	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	535	75510	4001230	172	10008318	32.700	12/10 Chicago US Mail
29	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	536	75510	4001230	172	10008318	44.000	12/18 Chicago US Mail
30	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	537	75510	4001230	172	10008318	35.950	12/18 Chicago US Mail
31	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	538	75510	4001230	172	10008318	6.800	12/18 Chicago US Mail
32	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	539	75510	4001230	172	10008318	17.000	12/18 Chicago US Mail
33	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	540	75510	4001230	172	10008318	24.000	12/17 Chicago US Mail
34	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	541	75510	4001230	172	10008318	23.900	12/17 Chicago US Mail
35	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	543	75510	4001230	172	10008318	12.400	12/17 Chicago US Mail
36	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	544	75510	4001230	172	10008318	11.500	12/18 Chicago US Mail
37	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	545	75510	4001230	172	10008318	17.850	12/18 Chicago US Mail
38	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	546	75510	4001230	172	10008318	19.500	12/17 Chicago US Mail
39	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	547	75510	4001230	172	10008318	21.200	12/08 Chicago US Mail
40	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	548	75510	4001230	172	10008318	39.500	12/08 Chicago US Mail
41	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	569	75510	4001230	172	10008318	0.840	12/09 Chicago US Mail
42	0000004778	01/13/2009	V	1Pitney Bowes Chicago Mail:"Jo	570	75510	4001230	172	10008318	6.230	12/09 Chicago US Mail
43	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	61	75510	4001230	172	10008318	28.800	12/04 Chicago US Mail
44	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	62	75510	4001230	172	10008318	4.800	12/04 Chicago US Mail
45	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	63	75510	4001230	172	10008318	33.750	12/04 Chicago US Mail
46	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	64	75510	4001230	172	10008318	16.400	12/05 Chicago US Mail
47	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	65	75510	4001230	172	10008318	64.850	12/05 Chicago US Mail
48	0000004777	01/13/2009	P	1Pitney Bowes Chicago Mail:"Jo	66	75510	4001230	172	10008318	33.850	12/05 Chicago US Mail
49	0000005416	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110		-100.000	New Sale; 11/17/2009;
50	0000005416	02/17/2009	V	Reimbursement for copies	1	50881	4001210	110		-100.000	New Sale; 02/17/2009;
51	0000005331	01/23/2009	V	test	1	50881	4001210	110		-100.000	New Sale; 01/23/2009;
52	0000005294	01/22/2009	V	Reimbursement for copies	1	50881	4001210	110		-100.000	New Sale; 01/22/2009;
53	0000005295	01/22/2009	V	Move funds from xyz endowment	1	88801	4001210	450	40000197	1000.000	TFR; ;
54	0000005328	01/23/2009	V	test	1	50881	4001210	110		-100.000	New Sale; 01/23/2009;
55	0000005325	01/23/2009	V	test	1	50881	4001210	110		-100.000	New Sale; 01/23/2009;
56	0000005334	01/23/2009	V	test	1	50881	4001210	110		-100.000	New Sale; 01/23/2009;
57	0000005349	01/27/2009	V	Name Badges and parking passes	1	50881	4001210	110		-100.000	New Sale; 01/27/2009;
58	0000005381	02/05/2009	V	reimbursement for copies	1	50881	4001210	110		-100.000	New Sale; 09/03/2008;

Note: the query result set now includes the Constant List of values.

Other filters on Criteria tab:

Logical Operator: You can use the **Logical** column to further define the rows of criteria. The **Logical Operator** always defaults to AND. The first row of criteria will have a blank operator.

Group Criteria: You can use **Group Criteria** to control the order in which Query executes the criteria rows. To group criteria, select **Group Criteria** and type and open and close parenthesis into the columns surrounding the criteria. Click **OK**.

Adding a prompt

Query criteria that are defined with constants allow you to filter a query result set, but the criteria must be updated each time that the parameters change. To eliminate the need for frequent design changes and multiple variations of a single query, the query tool allows the creation of prompts. **Prompts are variables that accept values from the user at the time of execution.**

27. Click on the **Prompts** tab.
28. Click **Add Prompt** to create a new prompt



29. The easiest way to **define a prompt** is by selecting the field that the criteria will be based upon and **update heading text**. Click  icon under **Field Name** to select a prompt field from **Edit Prompt Properties**.

30. In **Search by: Field Name**, search for prompt field (ex **JOURNAL_DATE**)
 31. Click **Search** to retrieve field options.
 32. Click on **Prompt Field** selection link (ex. **JOURNAL_DATE**).

You will be returned to **Edit Prompt Properties**. The field type, format, length and heading will default from the field that you selected. **A Unique Prompt Name will be automatically assigned.**

33. Modify the heading by selecting the **Heading Type** as **Text** from the drop down menu.
34. Enter heading text in the **Heading Text:** field (ex. **From Date**) and modify the **Unique Prompt Name** to make it more descriptive (ex. **FROM_DT**).
35. Click **OK** to select the prompt settings.

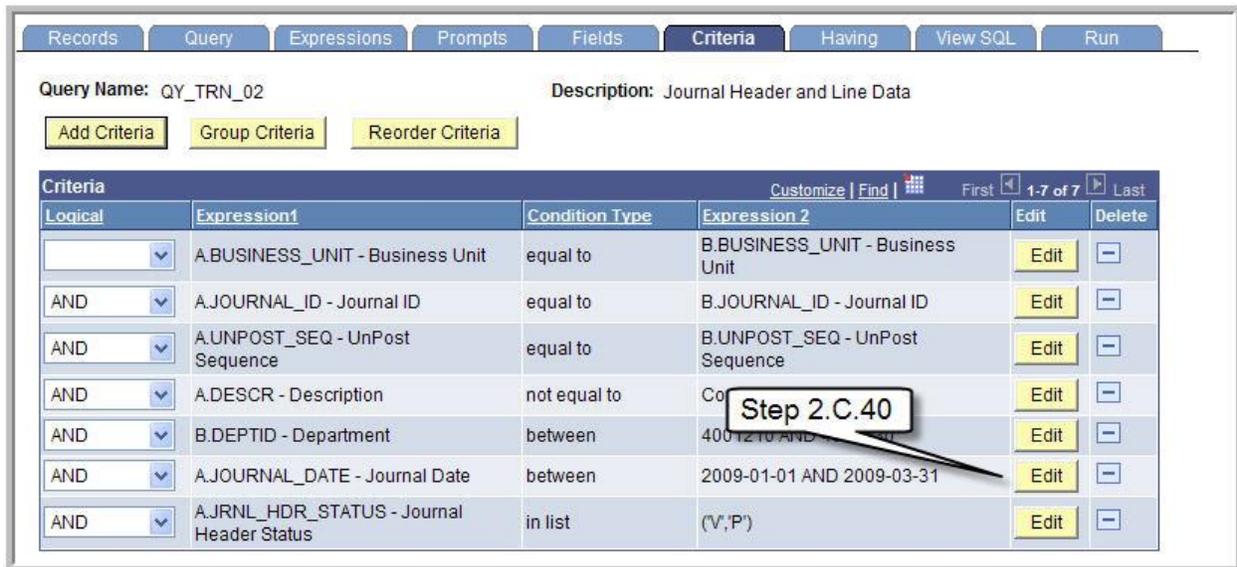
In this example, you would repeat steps 2.C.29 through 2.C.35 to add a second **JOURNAL_DATE** prompt for To Date.

36. Modify the heading by selecting the **Heading Type** as **Text** from the drop down menu.
37. Enter heading text in the **Heading Text:** field (ex. **To Date**) and modify the **Unique Prompt Name** to make it more descriptive (ex. **TO_DT**).
38. Click **OK** to select the prompt settings.

39. To apply the new prompts, click the **Criteria** tab.

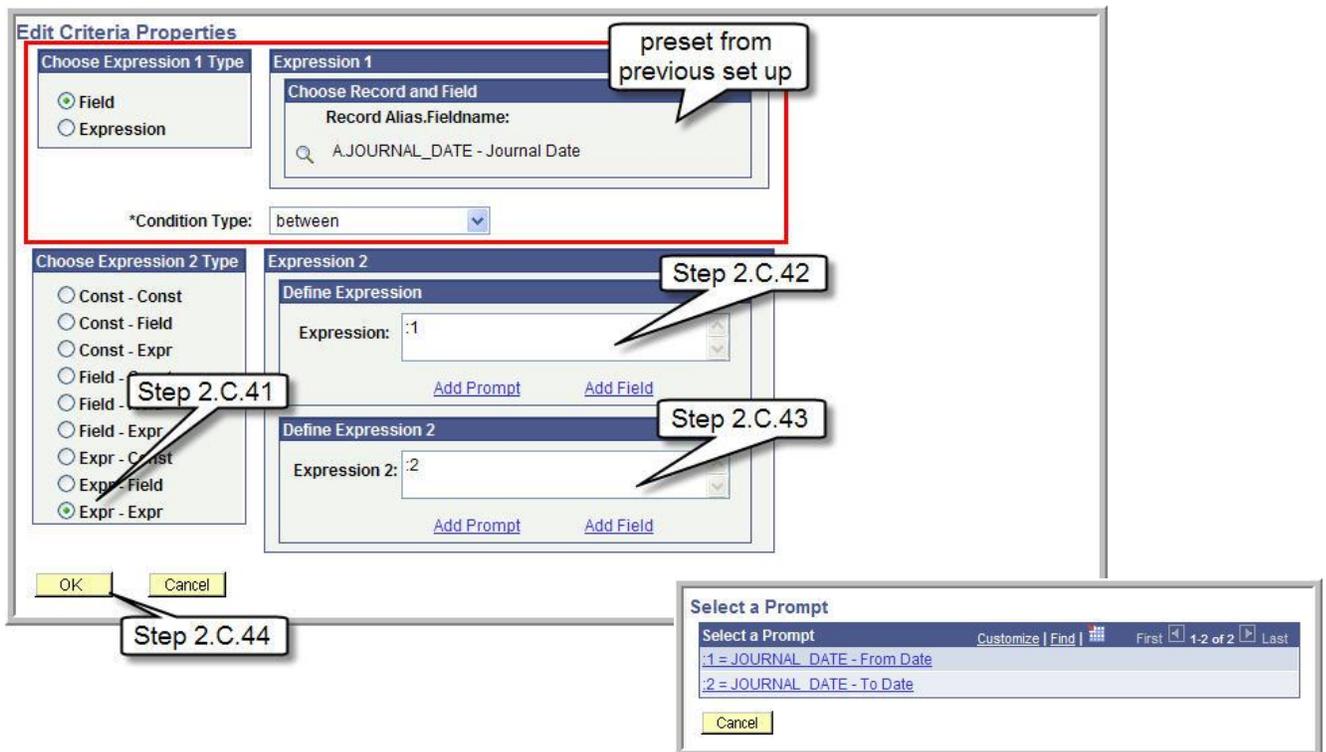


40. To apply the new prompts, click **Edit** to the right of the criteria (ex. **JOURNAL_DATE**).

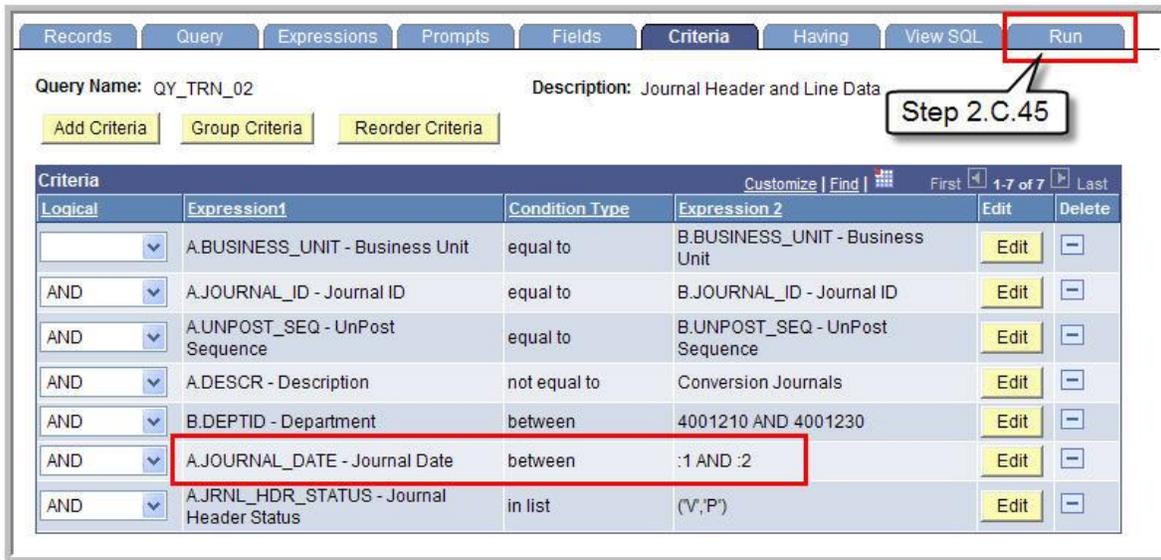


Note: For the example, the **JOURNAL_DATE** criterion was previously set as set specific dates. In the **Edit Criteria Properties** page, **Field** is already selected as **Expression 1 Type** and **JOURNAL_DATE** is already selected as **Record Alias.Fieldname**. Also, the **Condition Type** was previously set as **between**. If you are creating a prompt for the first time, you would need to make selections for **Expression 1 Type**, **Record and Field**, and **Condition Type**.

41. In the **Choose Expression 2 Types** box, select **Expr – Expr**.
42. In the **Expression 2** box, in the **Define Expression** box, click **Add Prompt** and select the prompt (ex. **From Date**). You will be returned to the **Edit Criteria Properties** page and the prompt sequence number (:1) will be added to the Expression definition.
43. In the **Expression 2** box, in the **Define Expression 2** box, click **Add Prompt** and select the prompt (ex. **To Date**). You will be returned to the **Edit Criteria Properties** page and the prompt sequence number (:2) will be added to the Expression 2 definition.
44. Click **OK** select criteria changes.

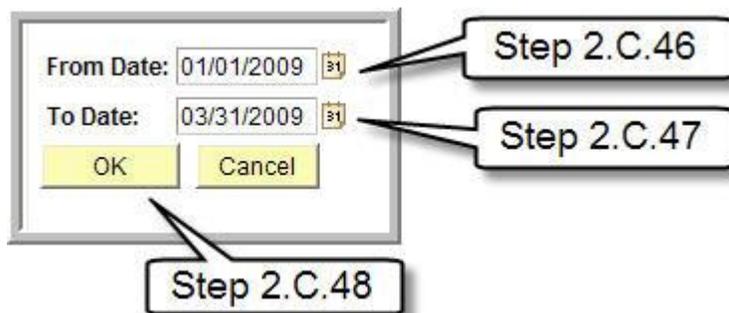


45. Click the **Run** tab to execute the query.



You will be prompted to enter a value for each prompt that is used within query criteria.

- 46. Enter a date as the **From Date** using the calendar drop down or by typing directly into the field.
- 47. Enter a date as the **To Date** using the calendar drop down or by typing directly into the field.
- 48. Click **OK** to execute the query.



Query results match the results from the previous execution where constants were used instead of prompts. However, the **query can now support reporting for any time period without modification.**

Journal ID	Date	Status	Descr	Line #	Account	Dept	Fund	Project	Amount	Line Descr	
1	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	301	75510	4001230	172	10008318	23.900	US Mail 12/04
2	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	295	75510	4001230	172	10008318	5.200	US Mail 12/03
3	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	296	75510	4001230	172	10008318	54.000	US Mail 12/03
4	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	297	75510	4001230	172	10008318	11.600	US Mail 12/04
5	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	298	75510	4001230	172	10008318	23.900	US Mail 12/04
6	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	299	75510	4001230	172	10008318	20.200	US Mail 12/04
7	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	300	75510	4001230	172	10008318	11.950	US Mail 12/04
8	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	291	75510	4001230	172	10008318	14.400	US Mail 12/02
9	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	292	75510	4001230	172	10008318	29.300	US Mail 12/02
10	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	293	75510	4001230	172	10008318	28.600	US Mail 12/02
11	0000003133	01/02/2009	P	1Pitney Bowes Evanston Mail:"J	294	75510	4001230	172	10008318	23.900	US Mail 12/02
12	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	1	75120	4001230	172	10008318	153.200	11/20 E Berry
13	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	24	75120	4001230	172	10008318	92.500	12/01 Emily Berry
14	0000003140	01/02/2009	P	1Copy Center Evanston:"Job num	33	75120	4001230	172	10008318	36.300	12/05 Emily Berry

D. Organizing Queries

Query Properties

Query properties define **how a query is identified, where it is stored and who has access to view, modify and execute the query**. Properties are initially set when a query is saved. However, it is possible to modify all properties other than the query name at a later date.

Steps

1. To access query properties for an existing query, search and click **Edit** to open query.
2. On any tab except the **Run** tab, note and click **Properties** at the bottom of the page.

Records Query Expressions Prompts **Fields** Criteria Having View SQL Run

Query Name: QY_TRN_04 **Step 2.D.1** Description: Journals not posted

View field properties, or use field as criteria in query statement. Reorder / Sort

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.JOURNAL_ID - Journal ID	Char10	4D			Journal ID		Edit	-
2	A.SOURCE - Source	Char3				Source		Edit	-
3	A.DESCR - Description	Char30				Descr		Edit	-
4	A.JOURNAL_DATE - Journal Date	Date				Date		Edit	-
5	A.OPRID - User ID	Char30				User		Edit	-
6	A.JRNL_PROCESS_REQST - Workflow Status	Char1	3	N		Workflow Status		Edit	-
7	A.JRNL_HDR_STATUS - Journal Header Status	Char1	1			Header		Edit	-
8	A.BUDGET_HDR_STATUS - Budget Checking Header Status	Char1	2	N		Budget Status		Edit	-

Save Save As New Query Preferences **Properties** New Union Return to Search

Step 2.D.2

In order to save a query you must **specify three mandatory field values: Query (Name), Query Type, and Owner.**

- The **Query** field stores the query name which may be up to 30 characters. Please adhere to the custom query naming conventions in Appendix A.
- **Query Type** will always be 'User'
- **Owner** will be either Private or Public. If you specify Private you are the only person who will be able to access the query. If you specify Public all users with access to the query tool will be able to access the query.

In addition to the mandatory fields, it is recommended that you enter the following optional descriptive fields.

- **Description** is a 30 character short description
- **Query Definition** provides a place to store an extended description. It is recommended that you include the developer's name and the date that the query was last modified as well a brief description of the query including its intended use.

The following fields are also available on the **Query Properties** page:

Distinct is a formatting setting which will **eliminate duplicate rows of data in your query result set** when checked. Distinct queries provide a listing of unique field combinations that meet your query criteria. This option is **similar to aggregation in that multiple rows returned by the query are presented as a single row in the query result set.**

Folder is an organizational field that allows you to group related queries and to identify your queries from those created by other users. To place a query in a folder, enter the folder name in the Folder field. If the folder exists, the query will be added to it. If the folder does not exist, it will be created. Folders stay in existence as long as they contain at least one query.

Query Manager and Query Viewer search pages allow you to limit search results to a single folder or to search all folders.

The screenshot shows the Query Manager search interface. At the top, there is a search bar with a dropdown menu for "Search By" set to "Query Name" and a text input field containing "begins with NU". A callout box labeled "Search criterion" points to this input field. Below the search bar, there are buttons for "Search" and "Advanced Search".

Under the "Search Results" section, there is a dropdown menu for "*Folder View:" set to "ACCTG_SVCS". A callout box labeled "limited to contents of a selected folder" points to this dropdown. Below the folder view, there are buttons for "Check All" and "Uncheck All", and an "*Action:" dropdown set to "-- Choose --" with a "Go" button.

The main part of the screenshot is a table of query results. The table has columns for "Select", "Query Name", "Descr", "Owner", "Folder", "Edit", "Run to HTML", "Run to Excel", and "Schedule". The "Folder" column for all rows is "ACCTG_SVCS".

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input type="checkbox"/>	NU_ACTUALS_PTRL_DEL_APPRVD	Actuals Jrnl Apprvd Deletion	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_ACTUALS_PTRL_DEL_REQST	Actuals Jrnl Pending Deletion	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_AS_CASH_JRNLS	Cash Journals	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_AS_CASH_RECON	Query for Cash Reconciliation	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_AS_ENDOW_CASH	Endowment Cash Balances	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_AS_FINAL_GM_ENTRIES	Grant Entries on Closing Day	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_AS_VCHRS_ENTERED_DAILY	ACS AP Vouchers by Date	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_BUDGET_PTRL_DEL_REQST	Budget Jrnl Pending Deletion	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule
<input type="checkbox"/>	NU_CF_GL_FUND_DRIVER_QUERY	Fund Driver Query	Public	ACCTG_SVCS	Edit	HTML	Excel	Schedule

Query Actions

There are several query maintenance actions that you can perform from the Query Manager search page.

- **Add to Favorites**
Adds query to Favorite queries list, shown at the bottom of the query search page.
- **Copy to User (limited to private queries)**
Copies private queries to another user allowing them to manipulate and execute the copy without affecting the original query.
- **Delete Selected**
Removes obsolete queries. You should only delete your private queries or public queries over which you have maintenance authority.
- **Move to Folder**
Moves queries to the folder specified.
- **Rename Selected**
Allows renaming of selected queries.

Actions can be performed on one or many queries by executing the following steps and supplying the appropriate parameters for the selected action

3. **Select the checkbox to the left of the query name** for each query affected.
4. **Select the appropriate action** from the **Action** drop down menu.
5. Click **Go**.

The screenshot shows the Query Manager search page. At the top, there is a search bar with the text "Enter any information you have and click Search. Leave fields blank for a list of all values." Below this, there are options to "Find an Existing Query" or "Create New Query". The search criteria are set to "Query Name" and "begins with". A "Search" button is visible.

The "Search Results" section shows a table of queries. The table has columns for "Select", "Query Name", "Descr", "Owner", and "Folder". The "Select" column contains checkboxes. The "Action" dropdown menu is open, showing options: "-- Choose --", "Add to Favorites", "Copy to User", "Delete Selected", "Move to Folder", and "Rename Selected".

Three callout boxes highlight specific steps:

- Step 2.D.3** points to the checkbox for the query "NU_AP_VCHR_MTCH_NT_BDGTCKD".
- Step 2.D.4** points to the "Action" dropdown menu.
- Step 2.D.5** points to the "Go" button.

Select	Query Name	Descr	Owner	Folder	Actions
<input type="checkbox"/>	NU_ACTUALS_PTRL_DEL_APPRVD	Actuals Jml Apprvd Deletion	Public	ACCTG_SVCS	Run to Excel Schedule
<input type="checkbox"/>	NU_ACTUALS_PTRL_DEL_REQST	Actuals Jml Pending Deletion	Public	ACCTG_SVCS	Run to Excel Schedule
<input type="checkbox"/>	NU_AP_FINGATE_TRANS_LOOKUP	Lookup Financial Gateway Trans	Public	SC	Edit HTML Excel Schedule
<input checked="" type="checkbox"/>	NU_AP_VCHR_MTCH_NT_BDGTCKD	Vchrs mtched not budget chkd	Public	SC	Edit HTML Excel Schedule
<input type="checkbox"/>	ASRSP_AUDIT_EXPENSE_ALL		Public		Edit HTML Excel Schedule
<input type="checkbox"/>	SUBPROJ_GCFA		Public		Edit HTML Excel Schedule
<input type="checkbox"/>	NU ASRSP JOURNAL ERRORS CA	Other Jml Lines w/Edit Errors	Public	ASRSP	Edit HTML Excel Schedule

E. Creating a Query

What is your question?

Given that question, what fields on what tables will show you the results?

How do they need to be joined together?

Do you need expressions, prompts, sorts, criteria to include/exclude data?

Example: Show me a list of requisitions and their statuses for a range of DeptIDs (4001200 to 4001400) for a specific month (July 2009)

Click **Create New Query** from Search page:

What tables/records and fields do you need for this?

A.REQ_HDR record with the fields:

REQ_ID,
REQ_STATUS

B.REQ_LN_DISTRIB record with the fields:

DEPTID

How should these tables be joined?

Standard join on business unit, requisition ID

What expressions, prompts, sorts, criteria do you need?

Create criteria for the department ID range.

Create criteria for the requisition date range.

Change XLAT table to short name.

Run Query!

See screenshots of this query on next pages.

Screenshots for example:

Query tab

Query Name: New Unsaved Query **Description:**

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

Chosen Records

Alias	Record	
<input type="checkbox"/>	A REQ_HDR - Requisition Header	Hierarchy Join <input type="checkbox"/>
<input type="checkbox"/>	B REQ_LN_DISTRIB - Requisition Distribution	Hierarchy Join <input type="checkbox"/>

Fields tab

Query Name: New Unsaved Query **Description:**

View field properties, or use field as criteria in query statement. [Reorder / Sort](#)

Fields

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.REQ_ID - Requisition ID	Char10				Req ID		Edit	<input type="checkbox"/>
2	A.REQ_STATUS - Requisition Status	Char4		S		Requisition Status		Edit	<input type="checkbox"/>
3	B.DEPTID - Department	Char10				Dept		Edit	<input type="checkbox"/>

Criteria tab

Query Name: New Unsaved Query **Description:**

[Add Criteria](#) [Group Criteria](#) [Reorder Criteria](#)

Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
<input type="checkbox"/>	A.BUSINESS_UNIT - Business Unit	equal to	B.BUSINESS_UNIT - Business Unit	Edit	<input type="checkbox"/>
AND	A.REQ_ID - Requisition ID	equal to	B.REQ_ID - Requisition ID	Edit	<input type="checkbox"/>
AND	B.DEPTID - Department	between	4001200 AND 4001400	Edit	<input type="checkbox"/>
AND	A.REQ_DT - Requisition Date	between	2009-07-01 AND 2009-07-31	Edit	<input type="checkbox"/>

View SQL tab

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: New Unsaved Query		Description:						
Query SQL: SELECT A.REQ_ID, A.REQ_STATUS, B.DEPTID, TO_CHAR(SYSDATE, 'YYYY-MM-DD') FROM PS_REQ_HDR A, PS_REQ_LN_DISTRIB B WHERE A.BUSINESS_UNIT = B.BUSINESS_UNIT AND A.REQ_ID = B.REQ_ID AND B.DEPTID BETWEEN '4001200' AND '4001400' AND A.REQ_DT BETWEEN TO_DATE('2009-07-01', 'YYYY-MM-DD') AND TO_DATE('2009-07-31', 'YYYY-MM-DD')								

Run tab (result set)

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
View All Rerun Query Download to Excel								First <input type="text" value="1-23 of 23"/> Last
	Req ID	Requisition Status	Dept					
1	REQ0010694	Approved	4001200					
2	REQ0010694	Approved	4001200					
3	REQ0010694	Approved	4001200					
4	REQ0010694	Approved	4001200					
5	REQ0010694	Approved	4001200					
6	REQ0010694	Approved	4001200					
7	REQ0010694	Approved	4001200					
8	REQ0010692	Approved	4001200					
9	REQ0010644	Approved	4001200					
10	REQ0010644	Approved	4001200					

APPENDIX A Criteria Condition Types

between	The value in the selected record field falls between two comparison values. The range is inclusive.
not between	The value in the selected record field does not fall between two comparison values. The range is inclusive.
equal to	The value in the selected record field exactly matches the comparison value.
not equal to	The value in the selected record field does not exactly match the comparison value.
greater than	The value in the record field is greater than the comparison value.
not greater than	The value in the record field is not greater than the comparison value.
less than	The value in the record field is less than the comparison value.
not less than	The value in the record field is not less than the comparison value.
in list	The value in the selected record field matches one of the comparison values in a user specified list.
not in list	The value in the selected record field does not match one of the comparison values in a user specified list.
like	<p>The value in the selected field matches a specified string pattern. The comparison value may be a string that contains wildcard characters. The wild-card characters that PeopleSoft Query recognizes are % and _.</p> <p>% matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone.</p> <p>_ matches any single character. For example, _ones matches any five-character string ending with ones, such as Jones or Cones.</p>
not like	<p>The value in the selected field does not match a specified string pattern. The comparison value may be a string that contains wildcard characters. The wild-card characters that PeopleSoft Query recognizes are % and _.</p> <p>% matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone.</p> <p>_ matches any single character. For example, _ones matches any five-character string ending with ones, such as Jones or Cones.</p>

exists	<p>Using subquery criteria is an advanced topic that will be addressed in supplemental query training. Please do not use the Exists or Does Not Exist condition types at this time.</p> <p>This operator is different from the others, in that it does not compare a record field to the comparison value. The comparison value is a subquery. If the subquery returns any data, PeopleSoft Query returns the corresponding row.</p>
does not exist	<p>Using subquery criteria is an advanced topic that will be addressed in supplemental query training. Please do not use the Does Not Exist condition types at this time.</p> <p>This operator is different from the others, in that it does not compare a record field to the comparison value. The comparison value is a subquery. If the subquery does not return any data, PeopleSoft Query returns the corresponding row.</p>
in tree	<p>Using tree criteria is an advanced topic that will be addressed in supplemental query training. Please do not use the in tree or not in tree condition types at this time.</p> <p>The value in the selected record field appears as a node in a tree created with PeopleSoft Tree Manager. The comparison value for this operator is a tree or branch of a tree that you want PeopleSoft Query to search.</p>
not in tree	<p>Using tree criteria is an advanced topic that will be addressed in supplemental query training. Please do not use the in tree or not in tree condition types at this time.</p> <p>The value in the selected record field does not appear as a node in a tree created with PeopleSoft Tree Manager. The comparison value for this operator is a tree or branch of a tree that you want PeopleSoft Query to search.</p>
is null	<p>Please note, many fields in the Financials application are assigned a default value (0 for numerical fields and a single space for character fields) when an actual value is not specified.</p> <p>Is Null searches for fields that have no value. Null fields are not the same as zeros or blanks. Null fields have no data, whereas zeros and blanks are considered data.</p> <p>The selected record field does not have a value in it. You do not specify a comparison value for this operator.</p> <p>Key fields, required fields, character fields, and numeric fields do not allow null values.</p>
Is not null	<p>Please note, many fields in the Financials application are assigned a default value (0 for numerical fields and a single space for character fields) when an actual value is not specified.</p> <p>The selected record field does not have a value in it. You do not specify a comparison value for this operator.</p> <p>Key fields, required fields, character fields, and numeric fields do not allow null values.</p>

APPENDIX B

Advanced Topics

(Will be addressed in an advanced Query course)

Left outer joins

Query limits results to data that has corresponding rows of data in all joined records. If a row of data in record A does not have at least one corresponding row of data in record B (based on record join conditions), results will not contain the data from record A.

Establishing a left outer join between the records allows you to include all rows of data from record A even when there are no corresponding rows in record B. Result fields from record B will be blank. Left outer joins introduce some limitations when establishing field criteria.

Unions

Unions allow the results of two queries to be combined into a single result set. They are useful when you wish to view data that meet either of two distinct criteria conditions.

Subqueries

Subqueries are used within criteria to dynamically identify a valid range of values. Using a subquery you could limit results to rows of data that

Expressions

Expressions allow you to manipulate field data. Expressions require the use of mathematical operators or Oracle commands.

Tree Criteria

Financials uses a structure called a tree to identify hierarchy relationships between data. For example, accounts may be grouped into an account category or departments grouped into divisions. Specifying criteria based on tree values allow you select a range of data that falls within an aggregate tree grouping. Using tree criteria eliminates the need to specify specific data values and to modify the criteria if the data changes

Having Criteria

Query applies criteria on a row by row basis to determine the data that will be included in the query result set. Having criteria allow you to apply criteria based on aggregated data across several rows of data that share a common field value.

Using having criteria you could return a listing of all purchase orders by departments and limiting results to departments that have ordered more than \$50,000 in total purchases within a specified time period.

AND/OR criteria

Logical operators expand criteria development capabilities and introduce a level of complexity based on the grouping and placement of individual criteria.

APPENDIX C Query Naming Convention

Queries names can be up to 30 characters in length and cannot contain spaces. They should adhere to the following nomenclature. Please note that the organizational dispositions listed below are intended to support initial query developer access. Additional designations will be identified as needed. Please contact the help desk at consultant@northwestern.edu if you do not see an appropriately designation.

NU_XX_Y(24)

- Where **NU** is a constant that identifies the query as a custom object
- **XX** identifies the organizational disposition of the developer according to the following chart

Organizational Disposition	Code
-----------------------------------	-------------

Central Office

Grants (OSR & ASRSP)	GM
Budget Office	BD
Facilities Management	FM
University Services	US
Purchasing Resource Services	PR
Financial Operations	
Accounting Services	AS
Accounts Payable	AP
Financial Systems	FS
Treasury Operations	TR

Schools/Units

Feinberg	FB
Kellogg	KG
McCormick	MC
Medill	ME
Weinberg	WB

- Y(24) allows up to 24 characters to enter a meaningful query identifier.

APPENDIX D Query Terminology

Term	Definition
Query	Query gives users the ability to produce a report of information from a database.
Database	A database is a collection of related data.
Record/Table	<p>Within any database, data is organized into groupings called Records/Tables. The records/tables are the building blocks of the database. Each record contains related information.</p> <p>Examples of records include:</p> <ul style="list-style-type: none"> - Journal information - PO information - Grant information <p>Please Note: The terms records and tables are used interchangeably.</p>
Fields	<p>Fields are the separate pieces of information contained <i>within</i> a record. Fields are also the column headings of an Excel Spreadsheet.</p> <p>Key Fields uniquely identify a row of data and are identified with a key icon. A key field is also used to join one record to another when both records share the same key field.</p> <p>Some examples include: Journal ID, Budget Status, or Accounting Period</p>
Joins	Joins retrieve data from more than one table, presenting the data as if it came from one.
Criteria	<p>Criteria are used to filter data from the database. Criteria helps to extract the specific information you would like to pull from the database. A criterion can include and/or exclude data.</p> <p>For an example you can specify a criterion to bring back data for a specific department number. This includes data for the desired department number and excludes all the rest.</p>
Public vs. Private Queries	<p>When a user saves a query they choose to save their query as either public or private.</p> <ul style="list-style-type: none"> - Public can be seen by others - Private will only be seen by the person who created the query <p>We have Public Queries created that users are more than welcome to use. If you do use public query you are REQUIRED to rename and save under your name.</p>