

# Core-CT EPM Query Advanced

## FN 201 AP/PO

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## Creating a Query, Joining Tables

**Scenario:** Find all vouchers and related vendor payments by business unit for a specified time frame.

**Skills:** Creating a New Query, join tables, prompt

*Reference: EPM Data Dictionary, FIN Reporting Table Summary*

*EPM Job Aid: Reporting Table Indexes and Join Criteria*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Create New Query

1. Voucher information is on the table, **CTW\_VCHR\_TRANS** and payment information on **CTW\_PAYMNT\_TRN**. However, these tables cannot be directly joined. The only table that can be joined to both of these is **CTW\_PAYVC\_XREF**.
2. Locate in the Left-Hand Navigation Menu the Query Manager page
3. Select the **Create New Query** link, which will automatically take you to the records tab

### Query Manager

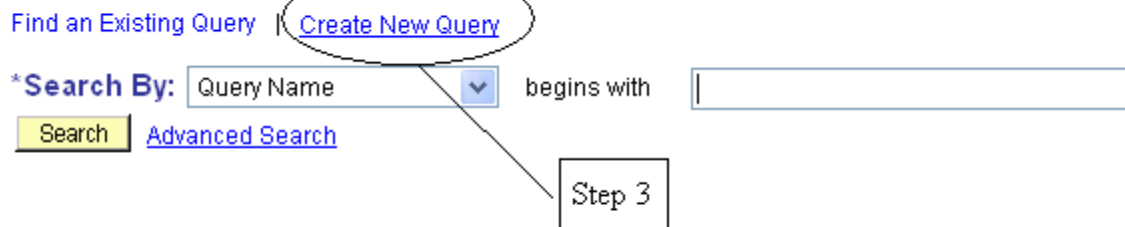
Enter any information you have and click Search. Leave fields blank for a list of all values.

Find an Existing Query | [Create New Query](#)

\*Search By:   begins with

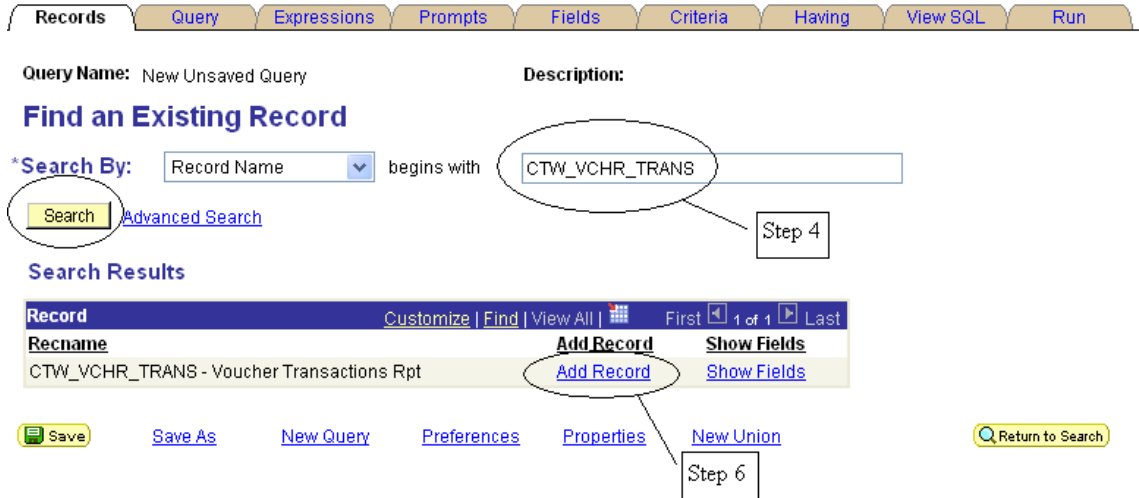
[Advanced Search](#)

Step 3

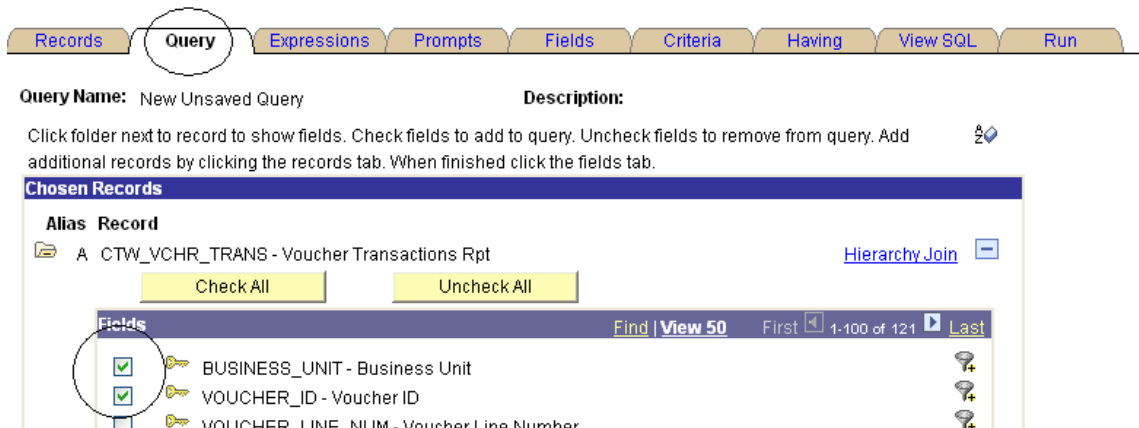


Find an Existing Query | [Create New Query](#)

4. Enter the first record for the new query, **CTW\_VCHR\_TRANS** in the Search By>Record Name search field
5. Select **Search**
6. On the search results page, select **Add Record** which is located right of the record name, **CTW\_VCHR\_TRANS**
7. Select **Ok**. You are now on the Query tab.



- From the listing of fields, select the following fields: **BUSINESS\_UNIT, VOUCHER\_ID, DISTRIB\_LINE\_NUM, VENDOR\_ID, CT\_RECEIPT\_DT, PO\_ID, ACCOUNT, DEPTID, FUND\_CODE, CT\_SID, BUDGET\_REF**

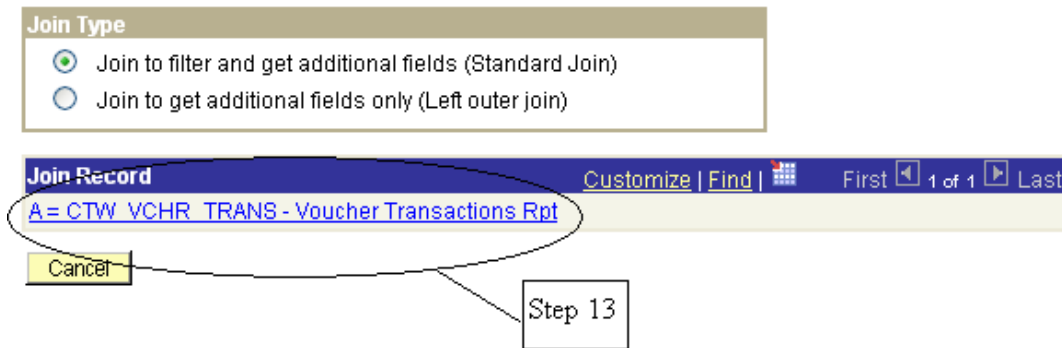


- Return to the Records Tab to select the second record for the new query
- Enter the second record for the new query, **CTW\_PAYVC\_XREF** in the Search By>Record Name search field
- Select **Search**
- On the search results page, select **Join Record** which is located right of the record name, **CTW\_PAYVC\_XREF**



13. Select record to be joined, **CTW\_VCHR\_TRANS**.

Select join type and then record to join with **CTW\_PAYVC\_XREF - Pay Voucher XRef Rpt**.



14. Auto Join Criteria page will appear. Accept the join type: **Standard Join**.

15. The correct field joins for these two tables is identified in the excel spreadsheet for Financials embedded in the job aid, **Reporting Table Indexes and Join Criteria**. While on the Auto Join Criteria page, select the **Add Criteria** button to accept default field joins.

The Reporting Table Indexes and Join Criteria job aid identifies the correct field joins between these tables as:  
**BUSINESS\_UNIT** and **VOUCHER\_ID**.

## Auto Join Criteria

Query has detected the join conditions shown below.

Use the checkboxes to unselect the criteria that you do not want to add to the query and click add criteria when done. The criteria added can always be modified later using the criteria tab.

<input checked="" type="checkbox"/>	A.BUSINESS_UNIT - Business Unit = B.BUSINESS_UNIT - Business Unit
<input checked="" type="checkbox"/>	A.VOUCHER_ID - Voucher ID = B.VOUCHER_ID - Voucher ID



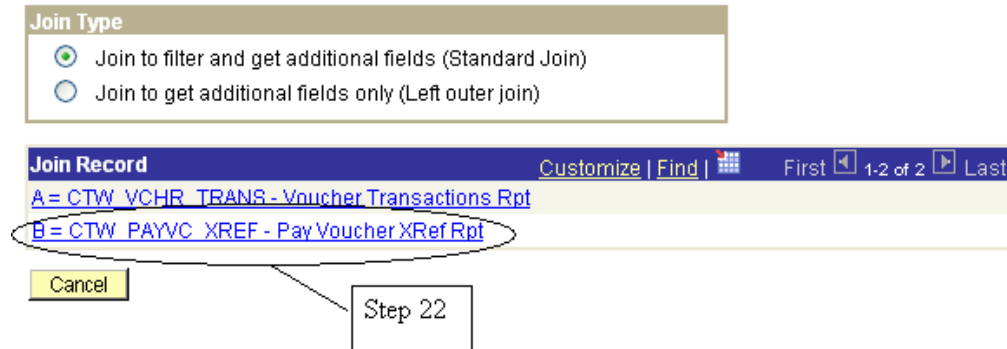
16. Open the **CTW\_PAYVC\_XREF** folder by selecting the plus (+) sign located to the left of the table name.
17. From the listing of fields, select **PYMNT\_METHOD**, **PYMNT\_SELCT\_STATUS**.
18. Return to the Records tab to select the third record for the new query
19. Enter the secondary record for the new query, **CTW\_PAYMNT\_TRN** in the Search By>Record Name search field
20. Select **Search**
21. On the search results page, select **Join Record** which is located right of the record name, **CTW\_PAYMNT\_TRN**

The screenshot shows the 'Find an Existing Record' dialog with 'Record Name' selected and 'CTW\_PAYMNT\_TRN' entered. The 'Search' button is circled. Below, the search results show a table with one record: 'CTW\_PAYMNT\_TRN - Payment Transactions Rpt'. The 'Join Record' link is circled. Callouts 'Step 19' and 'Step 21' point to the search field and the 'Join Record' link respectively.

Record	Join Record	Show Fields
CTW_PAYMNT_TRN - Payment Transactions Rpt	<a href="#">Join Record</a>	<a href="#">Show Fields</a>

22. Select record to be joined, **CTW\_PAYVC\_XREF**. Note: you have a choice of two records to be joined.

Select join type and then record to join with CTW\_PAYMNT\_TRN - Payment Transactions Rpt.



23. Auto Join Criteria page will appear. Accept the join type: **Standard Join**.

***Results:** The criteria page shows the fields which are joined from each table. By convention, the tables are assigned an A. for the first table selected, B. for the second and C. for the third table selected. You have now joined two tables which could not be joined to each other by joining each of them to a third “intermediary” table.*

24. The correct field joins for these two tables is identified in the excel spreadsheet for Financials embedded in the job aid, **Reporting Table Indexes and Join Criteria**. While on the Auto Join Criteria page, select the **Add Criteria** button to accept default field joins.

The Reporting Table Indexes and Join Criteria job aid identifies the correct field joins between these tables as:  
BANK\_SETID, BANK\_CD, BANK\_ACCT\_KEY, and PYMNT\_ID

25. Open the **CTW\_PAYMNT\_TRN** folder by selecting the plus (+) sign located to the left of the table name.
26. From the listing of fields, select **PYMNT\_ID, PYMNT\_DT, PYMNT\_AMT**.

To add criteria to a Field from the Fields tab

27. Select the Fields tab and locate the field labeled, **B.PYMNT\_SELCT\_STATUS**
28. Select the Add Criteria icon, funnel, located to the right of the Field name, **B.PYMNT\_SELCT\_STATUS**

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

Query Name: New Unsaved Query Description:

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.BUSINESS_UNIT - Business Unit	Char5				Unit		Edit	
2	A.VOUCHER_ID - Voucher ID	Char8				Voucher		Edit	
3	A.DISTRIB_LINE_NUM - Distribution Line Number	Num5.0				Line		Edit	
4	A.VENDOR_ID - Vendor ID	Char10				Vendor		Edit	
5	A.CT_RECEIPT_DT - Receipt Date	Date				Receipt Date		Edit	
6	A.PO_ID - Purchase Order	Char10				PO		Edit	
7	A.ACCOUNT - Account	Char10				Acct		Edit	
8	A.DEPTID - Department	Char10				DeptID		Edit	
9	A.FUND_CODE - Fund Code	Char5				Fund		Edit	
10	A.CT_SID - SID	Char5				SID		Edit	
11	A.BUDGET_REF - Budget Reference	Char8				Bud Ref		Edit	
12	B.PYMNT_METHOD - Payment Method	Char3		N		Method		Edit	
13	B.PYMNT_SELCT_STATUS - Payment Selection Status	Char1		N		Status		Edit	
14	C.PYMNT_ID - Payment Number	Char10				Payment		Edit	

Step 28

29. Select **equal to** as a condition type from the drop down menu
30. Within the Choose Expression 2 Type, either enter the **constant, P**, for paid, or select the looking glass icon to generate a list of predetermined values, if available, which the **constant, P**, for paid, can be added..

### Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

B.PYMNT\_SELCT\_STATUS - Payment

'Condition Type: equal to

Choose Expression 2 Type

Field

Expression

Constant

Prompt

Subquery

Expression 2

Define Constant

Constant:

Step 29

Step 30

OK

Cancel

## Select A Constant

Field Value	Translate Long Name	Translate Short Name	Select Constant
C	Closed	Closed	<a href="#">Select Constant</a>
D	Negative Voucher Sum	Negative	<a href="#">Select Constant</a>
E	Externally Paid	External	<a href="#">Select Constant</a>
I	In Process - EFT	In Process	<a href="#">Select Constant</a>
N	Not Selected for Payment	Unselected	<a href="#">Select Constant</a>
P	Paid	Paid	<a href="#">Select Constant</a>
R	Requested for Payment	Selected	<a href="#">Select Constant</a>
S	Settlement Payment	Settlement	<a href="#">Select Constant</a>
V	Convert Error	Convrt Err	<a href="#">Select Constant</a>
X	Canceled	Canceled	<a href="#">Select Constant</a>
Y	Prepaid	Prepaid	<a href="#">Select Constant</a>

Cancel

31. Locate the Field titled, **A.BUSINESS\_UNIT**, on the Fields tab
32. Select the Add Criteria icon, funnel, located to the right of the Field name, **A.BUSINESS\_UNIT**

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

Query Name: New Unsaved Query Description:

View field properties, or use field as criteria in query statement. Reorder / Sort Step 32

Col	Record	Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1		A.BUSINESS_UNIT - Business Unit	Char5				Unit		Edit	
2		A.VOUCHER_ID - Voucher ID	Char8				Voucher		Edit	

33. Select **equal to** as a condition type from the drop down menu
34. Within the Choose Expression 2 Type, select the **prompt** button
35. Within the Expression 2 box, select the **New Prompt** link



### Edit Criteria Properties

Choose Expression 1 Type

Field  
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.BUSINESS\_UNIT - Business Uni

'Condition Type: equal to

Choose Expression 2 Type

Field  
 Expression  
 Constant  
 Prompt  
 Subquery

Expression 2

Define Prompt

Prompt: [New Prompt](#) [Edit Prompt](#)

OK Cancel

Step 33 Step 34 Step 35

36. Locate the Heading Text field and enter **Business Unit =**

37. Select **Ok** twice

### Edit Prompt Properties

Field Name: BUSINESS\_UNIT

'Type: Character

'Format: Upper

Length: 5

Decimals:

'Edit Type: No Table Edit

OK Cancel

'Heading Type: RFT Short

Heading Text: Business Unit =

'Unique Prompt Name: BIND1

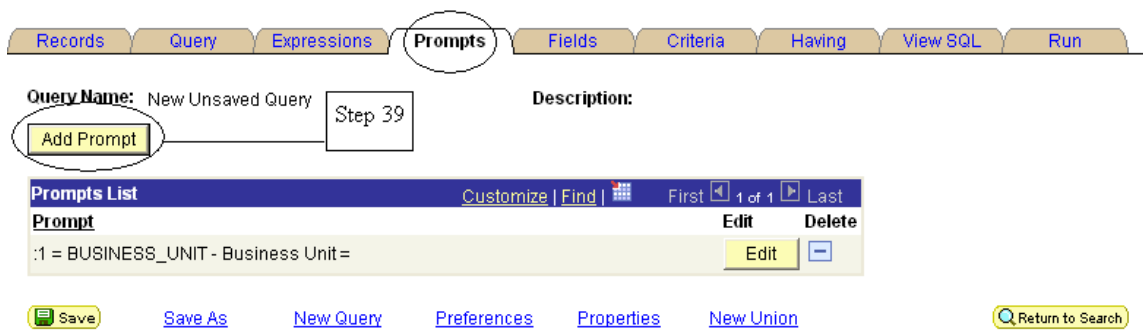
Prompt Table:

Step 36

Create a prompt from the Prompts tab


38. Locate and select the Prompts tab at the top of the page

39. Select the Add a Prompt link



- To set up the first date prompt, select on the looking glass icon under Field Name, located in the upper left hand corner of the page.

### Edit Prompt Properties

Field Name:   Step 40

'Heading Type: Text

'Type: Character

'Format: Upper


Length:

Decimals:

'Edit Type: No Table Edit

'Heading Text:

'Unique Prompt Name: BIND2

Prompt Table: 

OK Cancel

- Select the field you wish to use as a runtime prompt by entering in the search field the specific field name or by selecting search to generate a list of field names. In this case, enter **PYMNT** and select search.
- Select the link titled, **PYMNT\_DT** under the subheading of Select a Prompt Field

### Select a Prompt Field

Search by: Fieldname begins with     Step 41

### Search Results

Select a Prompt Field	Customize   Find   View All   First 1-30 of 93 Last
<a href="#">PYMNT_ACTION</a>	
<a href="#">PYMNT_ADVICE_COMBO</a>	
<a href="#">PYMNT_AMT</a>	
<a href="#">PYMNT_AMT_BSE</a>	
<a href="#">PYMNT_AMT_R1</a>	
<a href="#">PYMNT_AMT_R2</a>	
<a href="#">PYMNT_APPR_STATUS</a>	
<a href="#">PYMNT_BASE_AMT</a>	
<a href="#">PYMNT_BSE_AMT</a>	
<a href="#">PYMNT_CNT</a>	
<a href="#">PYMNT_CNT_MAX</a>	
<a href="#">PYMNT_CNT_RELATED</a>	
<a href="#">PYMNT_CNT_TOTAL</a>	
<a href="#">PYMNT_DAY_SID</a>	
<a href="#">PYMNT_DELAY_DAYS</a>	
<a href="#">PYMNT_DIS_AMT</a>	
<a href="#">PYMNT_DIS_BSE</a>	
<a href="#">PYMNT_DIS_R1</a>	
<a href="#">PYMNT_DIS_R2</a>	
<a href="#">PYMNT_DT</a>	
<a href="#">PYMNT_DT_BASE</a>	

Step 42

43. Locate the Heading Text field and enter, **Payment Date From**
44. Select OK

### Edit Prompt Properties

**Field Name:** PYMNT\_DT

**Type:** Date

**Format:** None

**Length:** 11

**Decimals:**

**Edit Type:** No Table Edit

**Heading Type:** RFT Short

**Heading Text:** Payment Date From

**Unique Prompt Name:** BIND2

**Prompt Table:** Step 43

OK Cancel

### Add the second date prompt

45. Return to the Prompts tab at the top of the page
46. Select the Add a Prompt link
47. To set up the second date prompt, select on the looking glass icon under Field Name, located in the upper left hand corner of the page.
48. Select the field you wish to use as a runtime prompt by entering in the search field the specific field name or by selecting search to generate a list of field names. In this case, enter **PYMNT\_DT** and select search.
49. Select the link titled, **PYMNT\_DT** under the subheading of Select a Prompt Field
50. Locate the Heading Text field and enter, **Payment Date To**
51. Select OK

**Results:** Prompts 2 and 3 have now been defined.

### To add prompts to the criteria

52. Select the Field tab at the top of the page
53. Select the Add Criteria icon, funnel, located to the right of the Field name, **PYMNT\_DT**

Query Name: New Unsaved Query

Description:

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.BUSINESS_UNIT - Business Unit	Char5				Unit		Edit	
2	A.VOUCHER_ID - Voucher ID	Char8				Voucher		Edit	
3	A.DISTRIB_LINE_NUM - Distribution Line Number	Num5.0				Line		Edit	
4	A.VENDOR_ID - Vendor ID	Char10				Vendor		Edit	
5	A.ACT_RECEIPT_DT - Receipt Date	Date				Receipt Date		Edit	
6	A.PO_ID - Purchase Order	Char10				PO		Edit	
7	A.ACCOUNT - Account	Char10				Acct		Edit	
8	A.DEPTID - Department	Char10				DeptID		Edit	
9	A.FUND_CODE - Fund Code	Char5				Fund		Edit	
10	A.ACT_SID - SID	Char5				SID		Edit	
11	A.BUDGET_REF - Budget Reference	Char8				Bud Ref		Edit	
12	B.PYMNT_METHOD - Payment Method	Char3		N		Method		Edit	
13	B.PYMNT_SELCT_STATUS - Payment Selection Status	Char1		N		Status		Edit	
14	C.PYMNT_ID - Payment Number	Char10				Payment		Edit	
15	C.PYMNT_DT - Payment Date	Date				Date		Edit	
16	C.PYMNT_AMT - Payment Amount	Num25.2				Amount		Edit	

Step 53

54. Select condition type: between
55. In the Choose Expression 2 Type, select **Expr-Expr** (Expression-Expression), which will open a new Expression 2 box
56. In Expression 2, Define Expression, Expression, select the Add Prompt link
57. On the Select a Prompt page, select **Payment Date From** for the first Expression
58. In Expression 2, Define Expression, Expression 2, select the Add Prompt link
59. On the Select a Prompt page, select **Payment Date To** for Expression 2
60. Select OK

**Results:** You have now added prompts for a Payment Date range.

## Edit Criteria Properties

Choose Expression 1 Type

Field  
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

C.PYMNT\_DT - Payment Date

Condition Type: between

Step 54

Choose Expression 2 Type

Const - Const  
 Const - Field  
 Const - Expr  
 Field - Const  
 Field - Field  
 Field - Expr  
 Expr - Const  
 Expr - Field  
 Expr - Expr

Expression 2

Define Expression

Expression: :2

Add Prompt Add Field

Steps 56 & 58

Define Expression 2

Expression 2: :3

Add Prompt Add Field

OK Cancel

Step 55

## Review and Save

61. Select **Save As** located in the row of links at the bottom of the query page to save your query.
62. Name your query using standard naming conventions, description as well as identify a folder to save in, if appropriate. Note: All queries should be saved as PRIVATE.

## Test Query

63. Select **Run to Excel** located to the right of your saved query name on the Query Manager page. Enter values for run time prompts. For Business Unit = (your business unit); Payment Date from 09-15-2010 to 10-15-2010

**Results:** An Excel spreadsheet will generate and display the results of your query. If appropriate, save to a location of your choice and evaluate the data.

## Distinct Feature

64. Return to Fields tab in the query and select the properties link located at the bottom

### Query Properties

\*Query:

Description:

Folder:

\*Query Type:

\*Owner:   Distinct

Query Definition:

Last Updated Date/Time: 08/15/2006 4:12:46PM  
Last Update User ID: BJACIUS

65. The properties page will display. Check the box labeled distinct

### Query Properties

\*Query:

Description:

Folder:

\*Query Type:

\*Owner:   Distinct

Query Definition:

Last Updated Date/Time:  
Last Update User ID:

## Review and Save

66. Select **Save** or **Save As** to rename the query, if desired, located in the row of links at the bottom of the query page to save your query.
67. If desired, rename your query using standard naming conventions, description as well as identify a folder to save in, if appropriate. Note: All queries should be saved as PRIVATE.

## Test Query

68. Select **Run to Excel** located to the right of your saved query name on the Query Manager page. Enter same values for run time prompts as in step 63.

***Results:** An Excel spreadsheet will generate and display the results of your query. If appropriate, save to a location of your choice and evaluate the data. Note the number of returned and compare it to the results from step 63.*



## Union Query

**Scenario:** Build a query which provides a list of Purchase orders sourced from requisitions and those not by business unit for a specified entry date range.

**Skills:** Union query, prompt, expressions as place holders. Union queries are used when the tables cannot be successfully joined and data is required from both tables.

*References: EPM Data Dictionary, Financials Reporting Table Summary*

*EPM Job Aid: Reporting Table Indexes and Join Criteria*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Create New Query

### Union Queries Details

- a. A union query is two select statements brought together in the same query, basically two queries running simultaneously.
- b. Use a union query to combine records that have no fields in common to retrieve similar values.
- c. Unions are especially valuable to avoid situations where a record join will produce inaccurate results. For example, when joining the employee and position tables, only those positions which are filled will be returned.
- d. If one simple rule is followed, union queries will always execute properly. The two portions of the query must have the same number of fields, in the same order like to like (field type and length). The field type must be exact and length similar. To achieve this, use literal expressions as placeholders.
- e. The “balancing” literals can be generic, character is ‘’(two single apostrophe marks), number is 0 (zero); or you can designate a word, between the two apostrophe marks (‘vacant’) or integer (2) to clarify the report content.
- f. The table with the largest field sizes must be chosen as the top level of the query.
- g. Unions retrieve unique rows only. If both select statements retrieve the same row, the row will only appear once in the final output.
- h. You cannot use the long or short translate values in union queries.

Purchase order information is on the reporting table, **CTW\_PO\_TRANS**  
Requisition information is on the reporting table, **CTW\_REQ\_TRN**.

1. Select the **Create New Query** link, which will automatically take you to the records tab
2. Enter the first record for the new query, **CTW\_PO\_TRANS**; select **Add Record**
3. Select the second record for the Top Level, **CTW\_REQ\_TRN**.

4. Join the tables, making sure to check the EPM job aid:

[http://www.core-ct.state.ct.us/epm/docs/rptng\\_tbl\\_ndxs\\_in\\_crtr.doc](http://www.core-ct.state.ct.us/epm/docs/rptng_tbl_ndxs_in_crtr.doc)

5. Select the following fields to be displayed in the Top Level of the query:

Col	Record. Fieldname	Format	Ord	XLA T	Agg	Heading Text
1	A.PO_ID - Purchase Order	Char10	1			PO #
2	A.LINE_NBR - Line Number	Num5.0	2			PO Line #
3	A.PO_DT - Purchase Order Date	Date				PO Creation Date
4	A.APPROVAL_DT - Date of Approval	Date				PO Approval Date
5	A.MERCHANDISE_AMT - Merchandise Amt	SNm25.3				Amount
6	A.CT_PO_LINE_DM254 - PO Line Description	Char254				PO Line Description
7	A.VENDOR_ID - Vendor ID	Char10				Vendor ID
8	A.CT_VNDR_NAME1 - Vendor Name 1	Char40				Vendor Name
9	B.REQ_ID - Requisition ID	Char10				Requisition ID
10	B.MONETARY_AMOUNT - Monetary Amount	SNm25.3				Req Amount
11	B.OPRID_ENTERED_BY - Entered By	Char30				Requisition Entered By Name
12	B.OPRID_APPROVED_BY - Approved By	Char30				Requisition Approved By Name

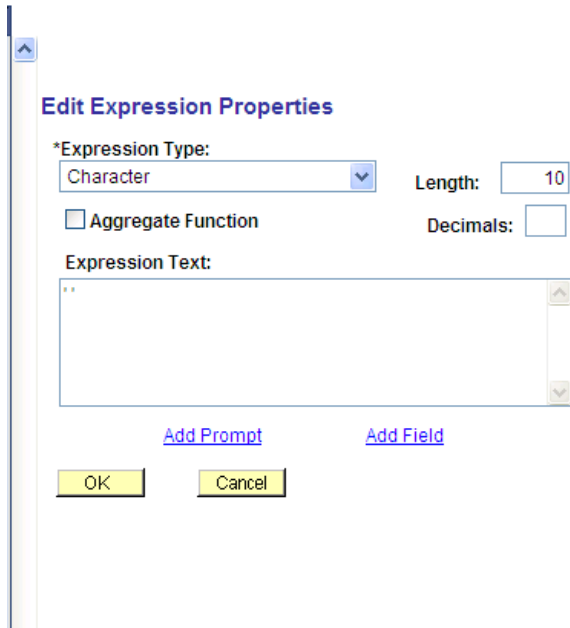
6. Change the column heading text to correspond with the data in the table, step 5.
7. Click on the New Union hyperlink at the bottom of the page.
8. You will automatically be taken to the Records Tab. Enter the second record for the new query, **CTW\_PO\_TRANS** in the Search By>Record Name search field, search and add the record.
9. Select the following fields to be displayed in the Union 1 Level of the query

<b>C ol</b>	<b>Record. Fieldname</b>	<b>Format</b>	<b>O rd</b>	<b>XLA T</b>	<b>Agg</b>	<b>Heading Text</b>
1	A.PO_ID - Purchase Order	Char10	1			PO #
	A.LINE_NBR - Line Number	Num5.0	2			PO Line #
2	A.PO_DT - Purchase Order Date	Date				PO Creation Date
3	A.APPROVAL_DT - Date of Approval	Date				PO Approval Date
4	%Substring(A.CT_BUYER_NAME, 5,30)	Char30				Contact Person
5	A.MERCHANDISE_AMT - Merchandise Amt	SNm25.3				Amount
6	A.CT_PO_LINE_DM254 - PO Line Description	Char254				PO Line Description
7	A.VENDOR_ID - Vendor ID	Char10				Vendor ID
8	A.CT_VNDR_NAME1 - Vendor Name 1	Char40				Vendor Name

Please note: The remaining four fields need to be populated by “Balancing Literals”, or place holders. Since union queries require the same number and data type of field at each level, we need to put in place holders to balance the fields.

10. To create the Balancing Literals, go to the Expression Tab. Click Add Expression.

11. Choose the expression type and field length. The field attributes must match the corresponding field in the Top Level portion of the query. Character fields are designated by ‘’(two single apostrophe) in the expression text box; numerical fields by 0 (zero). Create the literals required for fields 9, 10, 11, and 12.



12. Click Okay and use as field.

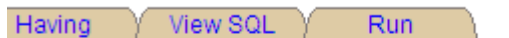
13. Go to the Fields Tab, select the Reorder/Sort Button. Re-number the fields to match the field output in step 5, Top Level.

14. Set up the required criteria.

Remember, union queries are separate queries running at the same time, so criteria must be set up independently on each level.

Union/Subquery Navigation link

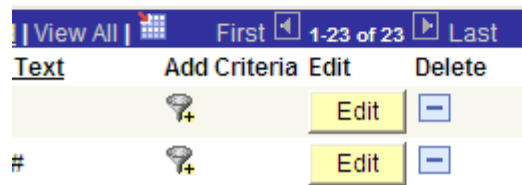
[New Window](#)



7A

[Subquery/Union Navigation](#)

Reorder / Sort



15. Top Level Criteria:

- A.BUSINESS\_UNIT=:1
- A.PO\_DT between :2 and :3
- A.PO\_STATUS not equal to X
- A.\_DISTRIB\_LN\_STATUS not equal to X

16. Union 1 Level:

- A.BUSINESS\_UNIT=:1
- A.PO\_DT between :2 and :3
- A.PO\_STATUS not equal to X
- A.\_DISTRIB\_LN\_STATUS not equal to X

18. Save the query and execute to Excel.

## Summary vs. Detail Aggregates

**Scenario:** Build a query to provide a count of vouchers entered by operator. Present data in a summary form rather than detail.

**Skills:** Aggregate functionality, having functions

*References: EPM Data Dictionary, Financials Reporting Table Summary*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Create New Query

### Aggregate Functions and Having Criteria

- a. The Query Manager Tool provides the basic arithmetic operators of sum, count, minimum, maximum, and average. These are called the aggregate functions in Peoplesoft.
  - b. Aggregate functions allow the presentation of data in summary form rather than detail.
  - c. Criteria can be established on aggregate fields. Criteria placed on an aggregate field is called having criteria. There is no difference in the selection process for the having criteria.
1. Employee information is on the reporting table, **CTW\_VCHR\_TRANS**
  2. Select the **Create New Query** link, which will automatically take you to the records tab
  3. Enter the record for the new query, **CTW\_VCHR\_TRANS**; select **Add Record**  
0000
  4. Select **Ok**. You are now on the Query tab.
  5. Select the following fields to be displayed in the query:

Co I	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text
1	A.BUSINESS_UNIT - Business Unit	Char5				Business Unit
2	A.VOUCHER_ID - Voucher ID	Char8				# of Vouchers
3	A.ENTERED_DT - Entered on	Date				Entered
4	A.OPRID - User ID	Char30	1			User
5	A.CT_OPERID_NAME - OPERATOR ID NAME	Char30				OPER ID NAME

6	A.MONETARY_AMOUNT - Monetary Amount	SNm2 5.3				Amount
---	--	-------------	--	--	--	--------

6. Set up the criteria.  
BUSINESS\_UNIT =prompt 1  
ENTERED\_DT between prompt 2 and prompt 3  
POST\_STATUS\_AP= P  
VOUCHER\_LINE\_NUM =1  
DISTRIB\_LINE\_NUM=1
7. Save the query and execute to Excel. Validate the detailed data.
8. Set up the aggregate of Count on the field VOUCHER\_ID. Go to the Fields Tab, click the Edit Button, and then radio button COUNT.
9. Click the Text Radio button and re-name the column, Number of Vouchers.
10. Add Having criteria to the aggregate field Number of Vouchers.

Note: Having is the Peoplesoft term for criteria placed on a field which has an aggregate function applied to it.

11. Click the Add Criteria Icon, funnel for the field VOUCHER\_ID, select condition type Less than, and a constant value of 10. The query is now limited to return only a count of vouchers by operator for the specified date range where the number of vouchers is less than 10.

#### Alternative Method of placing criteria on an aggregate field

12. Go to the Having Tab. Click the Add Having Criteria button.
13. Click the looking glass to choose the aggregate field. In this case, the only available field is VOUCHER\_ID.
14. Choose condition type less than and a constant of 10.
15. Save the query and execute to Excel. Validate the data.

## Expressions

**Scenario:** Modify an existing query to demonstrate the use of a variety of expressions.

**Skills:** Expressions: Substring, Concatenate, Decode, Using an expression in criteria, Date manipulation

*References: EPM Data Dictionary, Financials Reporting Table Summary*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Advanced Search

## Expressions

- a. Expressions are calculations the Query Manager tool performs to provide values not available by default.
- b. Numerical calculations using one or more fields.
- c. Concatenate: Combine more than one field to display as one.
- d. Substring: Display only part of a field.
- e. Literal Expressions: Used as placeholders.
- f. Decode: If, then logic. If the result of the first search is false, then the second value will be returned.

For example: `DECODE(UNION_CD,16,HOURLY_RT,0)` reads, if the union code =16, then report the hourly rate, if the union code does not equal 16, report 0

1. Advanced search, Folder option, CLASS
2. Locate the query: CLASS\_VOUCHER
3. All expressions are set up in the same manner.
4. Go to the Expressions Tab. Click the Add Expression button.
5. Define the expression by selecting expression type, length and number of decimal places if applicable. For the first example, we will subtract the value in the field DSCNT\_AMT from MONETARY\_AMOUNT to get an estimate of the vendor payment amount. If the vendor payment terms are met, the discount will automatically be deducted from the payment.
6. Choose expression type, Signed Number, length 20, decimals 3.
7. Click in the Expression Text Box. Click the Add Field link and choose the fields
8. A.MONETARY\_AMT-A.DSCNT\_AMT



**Edit Expression Properties**

\*Expression Type: Signed Number Length: 20

Aggregate Function Decimals: 3

Expression Text:  
A.MONETARY\_AMOUNT-A.DSCNT\_AMT

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

OK Cancel

- Click Okay and the Use as Field link to display the results of the expression in the final report.

## Substring

The Substring functionality allows the return of a portion of a field, for example the first three letters of the field DEPTID, department.

**Edit Expression Properties**

\*Expression Type: Character Length: 3

Aggregate Function Decimals:

Expression Text:  
SUBSTR(B.DEPTID,1,3)

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

OK Cancel

- Click Okay and the Use as Field link to display the results.

## Concatenate

The Concatenate functionality combines more than one field into one. Remember to adjust the field length to accommodate the combination. The “pipes” must be surrounded by spaces.

**Edit Expression Properties**

\*Expression Type:  Length:

Aggregate Function Decimals:

Expression Text:

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

11. Click Okay and the Use as Field link to display the results.

## Decode

The decode expression follows the if, then functionality of other software programs. The format for the Query tool is: DECODE(field name A, result 1,field name B, result 2). This reads If field name A =result1, if not, then field name B=result 2. Or to rephrase, If the result from the first statement is false, then the value indicated in the second statement will be returned. Remember to set the field type and length from the expected result.

The logic for the sample expression is: If the fund code is 12060, the report display will read Federal; all other funds will display the fund code.

**Edit Expression Properties**

\*Expression Type: Character Length:

Aggregate Function Decimals:

Expression Text:

```
DECODE  
(A.FUND_CODE,'12060','Federal',A.FUND_CODE)
```

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

Note: The value for fund code is a character, text field so must be enclosed by single apostrophe marks.

12. Click Okay and the Use as Field link to display the results.

#### Use Expression to establish criteria

13. Go to the Fields Tab.
14. Click the Add Criteria icon, funnel for the expression `SUBSTR(B.DEPTID,1,3)`, condition type equal to, prompt radio button, new prompt link.

**Edit Prompt Properties**

Field Name:

\*Heading Type: Text

\*Type: Character

\*Format: Upper

Length: 11

Decimals: 0

\*Edit Type: No Table Edit

\*Heading Text:

\*Unique Prompt Name: BIND1

Prompt Table:

OK Cancel

Note: There is no defined Field Name because the expression is a user defined query specific field. The heading text field is also blank.

15. Fill in the Heading text. Agency =.

16. Add a date stamp to your query.

**Edit Expression Properties**

\*Expression Type: Character

Length: 10

Aggregate Function

Decimals: 0

Expression Text: SYSDATE

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

OK Cancel

15. Click Okay and the Use as Field link to display the results.

## Date Manipulation

16. Show the date as the day of the week

The screenshot shows the 'Edit Expression Properties' dialog box. The '\*Expression Type:' dropdown is set to 'Character'. The 'Length:' field is set to '10'. The 'Aggregate Function' checkbox is unchecked. The 'Decimals:' field is empty. The 'Expression Text:' text area contains the SQL expression: `TO_CHAR(TO_DATE(A.DSCNT_DUE_DT, 'YYYY-MM-DD'), 'DAY')`. Below the text area are two buttons: 'Add Prompt' and 'Add Field'. At the bottom are 'OK' and 'Cancel' buttons.

17. Calculate the difference between two dates:

The screenshot shows the 'Edit Expression Properties' dialog box. The '\*Expression Type:' dropdown is set to 'Number'. The 'Length:' field is set to '6'. The 'Aggregate Function' checkbox is unchecked. The 'Decimals:' field is empty. The 'Expression Text:' text area contains the SQL expression: `TRUNC(SYSDATE - TO_DATE(A.ACCOUNTING_DT, 'YYYY-MM-DD'))`. Below the text area are two buttons: 'Add Prompt' and 'Add Field'. At the bottom are 'OK' and 'Cancel' buttons.

18. Save the query, execute

## Subquery

**Scenario:** Build a query to provide the number of purchase orders with total values within a specified range.

**Logic:** The subquery will use CTW\_PO\_TRANS for both the outer query and the subquery. The subquery selects purchase orders within the value range and the outer query will count them.

**Skills:** Develop a subquery, set up custom field joins, establish criteria, expressions, use of aggregates and having criteria.

*References: EPM Data Dictionary, Financials Reporting Table Summary*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Create New Query

### Subquery Details

- a. A subquery is a query within a query.
  - b. Subqueries enable you to compare the value for a field in the outer query to the results of the inner query.
  - c. A subquery can retrieve only one data field from a single table. The subquery can contain table joins and criteria can be set up on many fields without using the results as a field.
  - d. The results of the subquery are not displayed. The query results are limited by the results of the subquery.
  - e. Single value subqueries use the condition types of exists or does not exist, in other words, the results are true or false.
  - f. Using exists or does not exist require a link between a field in the subquery and the outer query. You must set up table join criteria.
  - g. Subqueries can also be set up using “in list” or “not in list”. These are multiple value subqueries. If you set up a “exists” or “not exists” and get the error message, not a single value subquery, change the condition type to one of the list formats.
- 
1. Select the record CTW\_PO\_TRANS
  2. Choose the field(s) to be displayed in the final report:  
  
BUSINESS\_UNIT
  3. Set up the expression for the second field:

**Edit Expression Properties**

\*Expression Type:  Length:

Aggregate Function Decimals:

Expression Text:

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

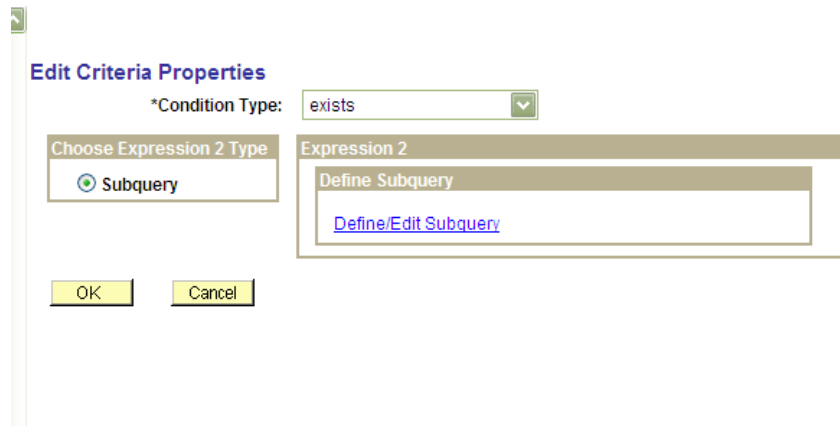
4. Click the Use as Field link
5. From the Fields Tab, click the Edit button for the field 1 and apply the aggregate function of Count and change the heading text to read Number of PO's.
6. Establish the criteria:

PO\_STATUS not equal to X  
 DISTRIB\_LN\_STATUS not equal to X  
 LINE\_NBR=1  
 DISTRIB\_LINE\_NUM=1

Prompts:  
 ACCOUNTING\_DT between :1 and :2  
 BUSINESS\_UNIT=:3

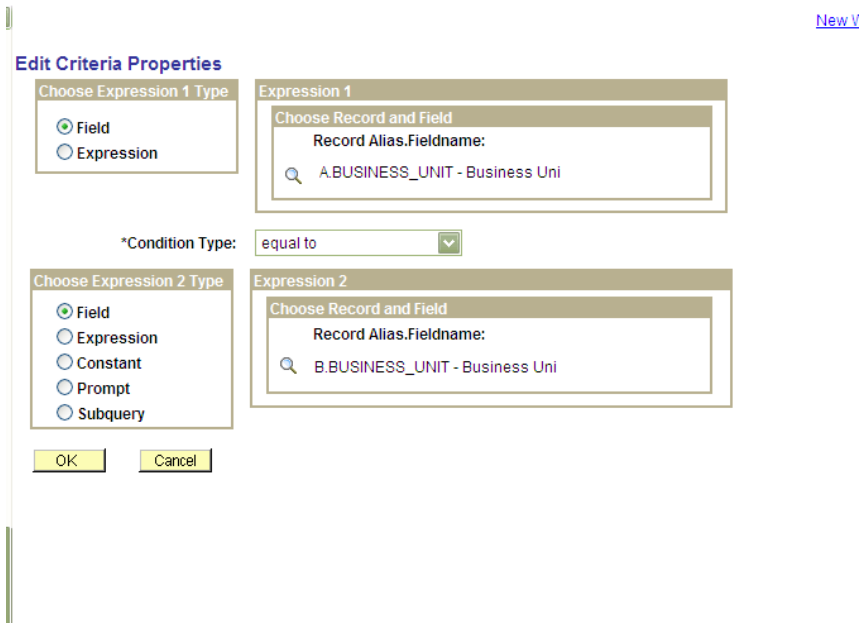
#### Set up the subquery

5. Click the Add Criteria Icon, funnel, for the field PO\_ID
6. Select condition type exists



7. Click the hyperlink, Define/Edit Subquery
8. In the Record search box, type in CTW\_PO\_TRANS, search
9. Click Add Record for CTW\_PO\_TRANS
10. Select the field PO\_ID. Remember, only one field can be selected in a subquery.
11. From the Subquery, set up the custom joins between A.CTW\_PO\_TRANS and B.CTW\_PO\_TRANS. Go to the Criteria Tab.
12. Click the Add Criteria Button. Select the field from the subquery table, B.BUSINESS\_UNIT, condition type equal to, radio button Field. Access the looking glass and choose the field A.BUSINESS\_UNIT.





13. Repeat the table join for the field, PO\_ID

14. Set up the subquery criteria, including prompts:

- B.PO\_STATUS not equal to X
- B.DISTRIB\_LN\_STATUS not equal to X
- B.ACCOUNTING\_DT between :1 and :2
- B.BUSINESS\_UNIT=:3

15. Set up the expressions. Make sure the Aggregate Function box is checked.

**Edit Expression Properties**

\*Expression Type: Signed Number Length: 20

Aggregate Function Decimals: 2

Expression Text:  
SUM(B.MONETARY\_AMOUNT)

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

OK Cancel

## DO NOT USE AS FIELD

16. Click the add criteria icon, funnel for the expression SUM(B.MONETARY\_AMT), condition type not less than, radio button prompt, new prompt link.
17. Enter the heading text, Total Amount not less than:
18. Set up a second prompt on the expression, SUM(B.MONETARY\_AMT), condition type not greater than, heading text Total Amount not greater than.
19. Save the query, execute to excel.

## Drill-Down Query

**Scenario:** Build a query to provide a count of vouchers entered by operator. Enable the new Query Manager functionality of Drill-down Query to display the voucher detail information.

**Skills:** Create a summary query, a detailed version of the same data and an expression using the drill-down query (drilling URL) functionality.

*References: EPM Data Dictionary, Financials Reporting Table Summary*

**Navigation:** EPM Reporting Tools > Query > Query Manager>Create New Query

### Aggregate Functions and Having Criteria

- a. The Query Manager Tool provides the basic arithmetic operators of sum, count, minimum, maximum, and average. These are called the aggregate functions in Peoplesoft.
  - b. Aggregate functions allow the presentation of data in summary form rather than detail.
  - c. Criteria can be established on aggregate fields. Criteria placed on an aggregate field is called having criteria. There is no difference in the selection process for the having criteria.
- 
1. Accounts payable, voucher detail information is on the reporting table, **CTW\_VCHR\_TRANS**
  2. Select the **Create New Query** link, which will automatically take you to the records tab
  3. Enter the record for the new query, **CTW\_VCHR\_TRANS**; select **Add Record**
  4. Select **Ok**. You are now on the Query tab.
  5. Select the following fields to be displayed in the query:

Co l	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text
1	A.BUSINESS_UNIT - Business Unit	Char5				Business Unit
2	A.VOUCHER_ID - Voucher ID	Char8				Voucher
3	A.VENDOR_ID-Vendor ID	Char10				Vendor
4	A.CT_VNDR_NAME1 - Vendor Name 1	Char40				Vendor Name 1
5	A.ACCOUNTING_DT - Accounting Date	Date				Acctg Date
6	A.OPRID - User ID	Char30	1			User

7	A.CT_OPERID_NAME - OPERATOR ID NAME	Char30				OPER ID NAME
8	A.MONETARY_AMOUNT - Monetary Amount	SNm25 .3				Amount

6. Set up the criteria.  
     BUSINESS\_UNIT =prompt 1  
     ACCOUNTING\_DT between prompt 2 and prompt 3  
     POST\_STATUS\_AP= P  
     VOUCHER\_LINE\_NUM =1  
     DISTRIB\_LINE\_NUM=1
7. Save the query, name it QUERY\_1, and execute to Excel. Validate the detailed data.
8. Set up the aggregate of Count on the field VOUCHER\_ID.  
     Go to the Fields Tab, click the Edit Button, and then radio button COUNT. Click ok.
9. Click the Edit button for the aggregate field, VOUCHER\_ID, the Text Radio button and re-name the column, Number of Vouchers.
10. Go to the Fields Tab and delete all extraneous fields. Below are the only fields to be displayed in the summary query.

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text
1	A.BUSINESS_UNIT - Business Unit	Char5				Business Unit
2	A.VOUCHER_ID - Voucher ID	Char8			Count	# of Vouchers
3	A.OPRID - User ID	Char30				User
4	A.CT_OPERID_NAME - OPERATOR ID NAME	Char30				OPER ID NAME

11. Save the query, name it QUERY\_2, and execute to Excel. Validate the summary data.

You now should have two queries; QUERY\_1 is the detailed version, and QUERY\_2, the summary. The selection criteria is the same for both.

### Create a Drilling URL Query

You can associate a drilling URL with any query built using the Query Manager Tool.

When you execute the query, the results page displays the designated field as a link to the second detailed, drill-down query.

To effectively access drill down query functionality, users must have security access to both queries, the drill down query itself and the second detail version. They must either both be public or each must be copied to the user's CORE ID.

The detail, drill-down query must contain a prompt on the reference field. Drill-down queries without prompts simply redirect the user to the main CORE page.

This exercise will use the summary and detail queries created in steps 1-11.

1. Select the Edit link for Query 2, the summary query saved in step 11.
2. Go to the Expressions Tab and click Add Expression.
3. Access the drop down for expression type and choose Drilling URL.

Choosing Drilling URL opens the links displayed below. Due to State of Connecticut security settings, the only link that consistently produces results is the Query URL link.

#### Edit Expression Properties

\*Expression Type:


Expression Text:

[Query URL](#)      [Component URL](#)  
[External URL](#)      [Attachment URL](#)

4. Click the Query URL link.

#### Select a Query

Query Name:  

5. Locate the desired detail version using the looking glass.

### Query Search Page

Query Type:

Query Name:

Query		
Customize   Find   View All		
First	1 of 1	Last
Query Name	Description	User ID
<a href="#">QUERY_2</a>	# of vouchers by operID	Private

[Return](#)

6. Click on the link for QUERY\_2
7. Connect the drill-down query with the summary query by matching up the prompt key, selected reference field and mapping the columns.

### Select a Query

Query Name:





[Prompt Keys](#)   [Select Field](#)   [Map Columns](#)

URL Keys				
Find				
		First	1-4 of 4	Last
Selection Flag	Key Field Name	Unique Prompt Name	Query Field Name	Field Lookup
<input type="checkbox"/>	ACCOUNTING_DT	BIND2	<input type="text"/>	
<input type="checkbox"/>	ACCOUNTING_DT	BIND1	<input type="text"/>	
<input checked="" type="checkbox"/>	OPRID	BIND3	<input type="text"/>	
<input type="checkbox"/>	BUSINESS_UNIT	BIND4	<input type="text"/>	

- Click on the prompt key button, check selection flag for the field OPRID. Click the looking glass to map the prompt to A.OPRID.

**Select a Query**

Query Name:  

URL Keys				
Selection Flag	Key Field Name	Unique Prompt Name	Query Field Name	Field Lookup
<input type="checkbox"/>	ACCOUNTING_DT	BIND2	<input type="text"/>	
<input type="checkbox"/>	ACCOUNTING_DT	BIND1	<input type="text"/>	
<input checked="" type="checkbox"/>	OPRID	BIND3	A.OPRID	
<input type="checkbox"/>	BUSINESS_UNIT	BIND4	<input type="text"/>	

- Click on the Select Field Button. Choose the field OPRID as the reference field.

Select Query Columns		
Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.BUSINESS_UNIT	<input type="text"/>
<input type="checkbox"/>	A.VOUCHER_ID	<input type="text"/>
<input checked="" type="checkbox"/>	A.OPRID	<input type="text"/>
<input type="checkbox"/>	A.CT_OPERID_NAME	<input type="text"/>

10. Click the Map Columns button and map the columns between the summary and detail queries.

URL Keys				
Selection Flag	Key Field Name	Unique Prompt Name	Query Field Name	Field Lookup
<input type="checkbox"/>	ACCOUNTING_DT	BIND2		
<input type="checkbox"/>	ACCOUNTING_DT	BIND1		
<input checked="" type="checkbox"/>	OPRID	BIND3	A.OPRID	
<input type="checkbox"/>	BUSINESS_UNIT	BIND4		

Select Query Columns		
Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.BUSINESS_UNIT	
<input type="checkbox"/>	A.VOUCHER_ID	
<input checked="" type="checkbox"/>	A.OPRID	
<input type="checkbox"/>	A.ACT_OPERID_NAME	

Map URL to Query Columns	
Selection Flag	Unique Field Name
<input checked="" type="checkbox"/>	A.BUSINESS_UNIT
<input checked="" type="checkbox"/>	A.VOUCHER_ID
<input checked="" type="checkbox"/>	A.OPRID
<input checked="" type="checkbox"/>	A.ACT_OPERID_NAME

OK | Cancel

11. Click OK

The expression text generated reads:



## Edit Expression Properties

\*Expression Type:

Drilling URL

Expression Text:

```
'/q/?  
ICAction=ICQryNameURL=PRIVATE.QUERY_2&BIND3=%  
A.OPRID%:A.BUSINESS_UNIT:A.VOUCHER_ID:A.OPRID:A.  
CT_OPERID_NAME'
```

[Query URL](#)

[Component URL](#)

[External URL](#)

[Attachment URL](#)

OK

Cancel

12. Click OK

13. Save the query with a new name. VOUCHER\_DRILL\_DOWN\_QUERY

14. Excute the query to HTML

Enter prompt values:

FRP201\_EX6\_DRILLING\_URL - # of vouchers by operID

Business Unit=:

Acctg Date From:

Acctg Date To:

Business Unit	# of Vouchers	User	OPER ID NAME
---------------	---------------	------	--------------

Sample Results:

FRP201\_EX6\_DRILLING\_URL - # of vouchers by operID

Business Unit=:

Acctg Date From:

Acctg Date To:


Download results in : [Excel Spreadsheet](#) [CSV Text File](#) [XML File](#) (2 kb)


View All First  Last

	Business Unit	# of Vouchers	User	NAME
1	DASM1	12	<a href="#">AbadomC</a>	
2	DASM1	250	<a href="#">CollinsDen</a>	
3	DASM1	10	<a href="#">CrossleyDon</a>	
4	DASM1	2	<a href="#">FelixJ</a>	
5	DASM1	29	<a href="#">Geljou</a>	
6	DASM1	118	<a href="#">KallszA</a>	
7	DASM1	110	<a href="#">KlattW</a>	
8	DASM1	72	<a href="#">KlettTam</a>	

Click on any one of the user ID hyperlinks. This action takes you directly to the detailed, drill down version of this query, which will produce a list of all vouchers entered by the chosen userID.

FRP201\_EX6\_AP\_VCHR\_CNT\_USERID - # of vouchers by operID

Acctg Date From:  

Acctg Date To:  

OPRID:

Business Unit:

[View Results](#)

Business Unit	# of Vouchers	User	OPER ID NAME	Vendor	Vendor Name 1
---------------	---------------	------	--------------	--------	---------------

Enter the required prompt values and view the results.

[Home](#) | [Add to Favorites](#)

FRP201\_EX6\_AP\_VCHR\_CNT\_USERID - # of vouchers by operID

Acctg Date From:  

Acctg Date To:  

OPRID:

Business Unit:

[View Results](#)

Download results in: [Excel Spreadsheet](#) [CSV Text File](#) [XML File](#) (1 kb)

[View All](#)

First [1-2 of 2](#) Last

	Business Unit	# of Vouchers	User	Vendor	Vendor Name 1	Acctg Date	Amount
1	DASM1	00024117	FelixM	0000011514	CARPENTER REALTY CO	08/30/2012	15000.000
2	DASM1	00024124	FelixM	0000011514	CARPENTER REALTY CO	08/30/2012	-15000.000