EPM Asset Management Lab 2013

Union Query

Scenario: Modify Core-CT public EPM query to meet agency reporting requirements.

Skills: Delete fields from union query.

* 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*
> http://www.core-ct.state.ct.us/epm/docs/fin_reporting_table_summary.doc
>
> *EPM Job Aid: Reporting Table Indexes and Join Criteria* http://www.core-ct.state.ct.us/epm/jobaids/

Union Queries

    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.

Navigation: EPM Reporting Tools > Query > Query Manager>Advanced
Search>Folder begins with: CLASS

Locate the query: **CLASS_FIN_AM_LIST_W_COST**

1. Click the Edit Link for this query.

***The exercise is to delete fields from the query display

2. Go to the Fields Tab

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

Query Name CLASS_FIN_AM_LIST_W_COST   Description In service assets w/cost   Feed ▾

Working on selection   Top Level of Query   Subquery/Union Navigation

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

Fields   Personalize | Find | View All | ⬚ | ⬚   First ◀ 1-9 of 9 ▶ Last

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.BUSINESS_UNIT - Business Unit	Char5				Unit	🔍	Edit	▬
2	A.ASSET_ID - Asset Identification	Char12				Asset ID	🔍	Edit	▬
3	A.TAG_NUMBER - Tag Number	Char12				Tag Number	🔍	Edit	▬
4	A.CT_ASSET_DESCR - Asset Description	Char30				Asset Descr	🔍	Edit	▬
5	A.COST - Total Cost	SNm25.3			Sum	Sum TotalCost	🔍	Edit	▬
6	C.LOCATION - Location Code	Char10				Location	🔍	Edit	▬
7	D.DESCR - Description	Char30				Location Descr	🔍	Edit	▬
8	A.PROFILE_ID - Asset Profile ID	Char10				Profile ID	🔍	Edit	
9	A.CATEGORY - Asset Category	Char5				Category	🔍	Edit	▬

Save   Save As   New Query   Preferences   Properties   Publish as Feed   New Union   Return To Search

3. Click the delete button for field #9, CATEGORY

4. Click the Run Tab

5. Enter your Business Unit

Error Message:

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

Business Unit= = OSCM1

Rerun Query

A UNION requires the same number of fields for each SELECT. Correct and retry. (30,7)
Error in running query because of error in retrieving select header (50,379)

To correct the query design:

1. Click the fields tab.

| My HR | Finance | Core-CT Help |

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

Query Name CLASS_FIN_AM_LIST_W_COST   Description In service assets w/cost   Feed ▾
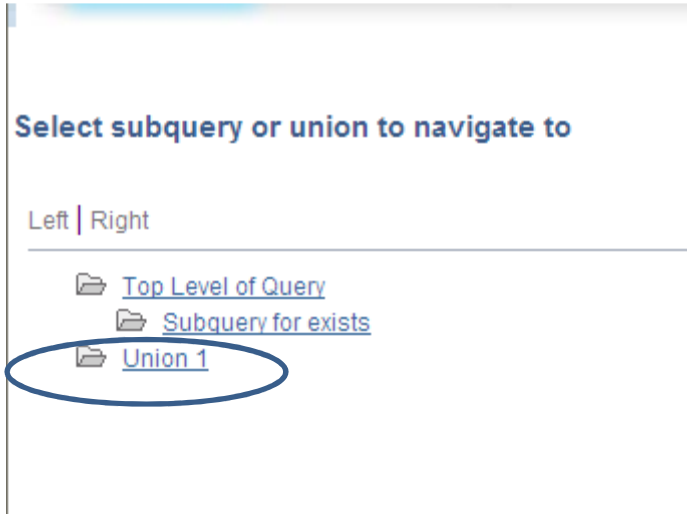**Working on selection** Top Level of Query   Subquery/Union Navigation
                                                                                       Reorder / Sort
View field properties, or use field as criteria in query statement.

Fields   Personalize | Find | View All | ☒ | ⊞ First ◄ 1-8 of 8 ► Last

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.BUSINESS_UNIT - Business Unit	Char5				Unit	🔍	Edit	−
2	A.ASSET_ID - Asset Identification	Char12				Asset ID	🔍	Edit	−
3	A.TAG_NUMBER - Tag Number	Char12				Tag Number	🔍	Edit	−
4	A.CT_ASSET_DESCR - Asset Description	Char30				Asset Descr	🔍	Edit	−
5	A.COST - Total Cost	SNm25.3			Sum	Sum TotalCost	🔍	Edit	−
6	C.LOCATION - Location Code	Char10				Location	🔍	Edit	−
7	D.DESCR - Description	Char30				Location Descr	🔍	Edit	−
8	A.PROFILE_ID - Asset Profile ID	Char10				Profile ID	🔍	Edit	−

Save   Save As   New Query   Preferences   Properties   Publish as Feed   New Union   Return To Search

2. Click the Subquery/Union Navigation link

3. Click the Union 1 link

4. Go to the Fields Tab

5. Delete field #9, CATEGORY

6. Save the query and successfully execute

Field layout for each level of the query

Top level

Col	Fieldname	Format
1	A.BUSINESS_UNIT	Char5
2	A.ASSET_ID	Char12
3	A.TAG_NUMBER	Char12
4	A.CT_ASSET_DESCR	Char30
5	A.COST	SNm25.3
6	C.LOCATION	Char10
7	D.DESCR	Char30
8	A.PROFILE_ID	Char10

Union 1

Col	Fieldname	Format
1	E.BUSINESS_UNIT	Char5t
2	E.ASSET_ID	Char12
3	E.TAG_NUMBER	Char12
4	E.CT_ASSET_DESCR	Char30
5	E.COST	SNm25.3
9	F.LOCATION	Char10
7	G.DESCR	Char30
8	E.PROFILE_ID	Char10

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EPM Asset Management Lab 2013
Exercise 2

Union Query

Scenario: Modify Core-CT public EPM query to meet agency reporting requirements.

Skills: Add/delete fields from union query. Reorder fields.

* 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*
> http://www.core-ct.state.ct.us/epm/docs/fin_reporting_table_summary.doc
>
> *EPM Job Aid: Reporting Table Indexes and Join Criteria* http://www.core-ct.state.ct.us/epm/jobaids/

Navigation: EPM Reporting Tools > Query > Query Manager>Advanced Search|>Folder begins with: CLASS

Locate the query: **CLASS_FIN_AM_ASSET_DESCR_LOC**

1. Click the Edit Link for this query.

***The exercise is to add fields to the query display

2. Go to the Query Tab

3. Using the table alias to determine which table the fields are located, add the fields;

    C. SERIAL_ID
    E. BUILDING
    E. FLOOR

4. Click the Run Tab

5. Enter your Business Unit and the wildcard % for Location.

Results:

Error Message:

Business Unit= = OSCM1,Location like (%)=%

Rerun Query
A UNION requires the same number of fields for each SELECT. Correct and retry. (30,7)
Error in running query because of error in retrieving select header (50,379)

To correct the query design:

1. Click on the Query Tab.

2. Click the Subquery/Union Navigation link

3. Click the Union 1 link

4. Go to the Query Tab

5. Add the fields:

    J. SERIAL_ID
    M. BUILDING
    M. FLOOR

7. Go to the Fields Tab

8. Click the Reorder/Sort Button

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run

Query Name CLASS_FIN_AM_ASSET_DESCR_LOC   **Description** Assets w/ descr by location   Feed ▾

Working on selection Union 1

Subquery/Union Navigation

Reorder / Sort

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

Fields   Personalize | Find | View All | | First 1-20 of 20 ▶

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	I.ASSET_ID - Asset Identification	Char12				Asset ID	🔍	Edit	−
2	I.TAG_NUMBER - Tag Number	Char12				Tag Number	🔍	Edit	−
3	I.CT_ASSET_DESCR - Asset Description	Char30				Asset Descr	🔍	Edit	−
4	I.DEPTID - Department	Char10				DeptID	🔍	Edit	−
5	L.LOCATION - Location Code	Char10				Location	🔍	Edit	−
6	M.DESCR - Description	Char30				Descr	🔍	Edit	−
7	J.ASSET_CLASS - Asset Class	Char10				Class	🔍	Edit	−
8	I.IN_SERVICE_DT - In Service Date	Date			Max	Max In Service	🔍	Edit	−
9	J.CT_MANUFACTURER - Manufacturer Name	Char60				Manufacturer	🔍	Edit	−
10	J.CT_MANUFCT_YEAR - Year of Manufacture	Char4				Year	🔍	Edit	−
11	J.MANUFACTUR_CONTACT - Manufacturing Contact	Char30				Contact	🔍	Edit	−
12	J.MODEL - Model	Char30				Model	🔍	Edit	−
13	K.REGISTRATION_NO - Registration #	Char25				Reg #	🔍	Edit	−
14	J.CT_VIN - VIN	Char18				VIN	🔍	Edit	−
15	J.CT_FED_FUND_SW - Federally Funded Asset?	Char1				Federal Funded?	🔍	Edit	−
16	M.SECTOR - Sector	Char10				Sector	🔍	Edit	−

9. Renumber fields to match the fields in the top level of the query. To match the field order in the top level of the query. Use the handout as a guide.

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.

Edit Field Ordering			Personalize	Find	View All	🗗	🛄 First ◄ 1-20 of 20 ► Last		
New Column	Column	Record.Fieldname	Order By	Descending	New Order By
	1	I.ASSET_ID - Asset Identification		☐	
	2	I.TAG_NUMBER - Tag Number		☐	
	3	I.CT_ASSET_DESCR - Asset Description		☐	
	4	I.DEPTID - Department		☐	
	5	L.LOCATION - Location Code		☐	
	6	M.DESCR - Description		☐	
	7	J.ASSET_CLASS - Asset Class		☐	
	8	I.IN_SERVICE_DT - In Service Date		☐	
	9	J.CT_MANUFACTURER - Manufacturer Name		☐	
	10	J.CT_MANUFCT_YEAR - Year of Manufacture		☐	
	11	J.MANUFACTUR_CONTACT - Manufacturing Contact		☐	
	12	J.MODEL - Model		☐	
	13	K.REGISTRATION_NO - Registration #		☐	
	14	J.CT_VIN - VIN		☐	
	15	J.CT_FED_FUND_SW - Federally Funded Asset?		☐	
	16	M.SECTOR - Sector		☐	
	17	M.JURISDICTION - Jurisdiction		☐	
	18	M.BUILDING - Building #		☐	
	19	M.FLOOR - Floor #		☐	
	20	J.SERIAL_ID - Serial ID		☐	

OK   Cancel

10. Save and execute the query.