Powerful PeopleSoft 9.2
Composite & Connected Query

PSNWRUG Fall Meeting – December 2, 2015
Agenda

- About SpearMC and Your Presenter
- What is Connected and Composite Query?
- Demo of CQ and Composite Query
Your Presenter

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- PeopleSoft ERP, PeopleSoft Manufacturing and Supply Chain Management
- Industries: Energy & Manufacturing
- Expertise: Continuous Process Improvement, Product Development, Quality Management, Strategic Planning, Project Plan Development & Execution, Team Management, Supply Chain Operations & Training
- Project Management, Six Sigma Black Belt, APICs
I’m not Technical.....

...Developers please refrain from stumping the presenter!...

...Or you will be escorted out!
About SpearMC
About SpearMC

Founded in 2004, SpearMC is a technology and professional services firm specializing in

- PeopleSoft Financials and Supply Chain Management
- PeopleSoft Human Capital Management and Payroll
- ERP Architecture and Application Development
- Project and Program Management (PMO)
- Change Management
- ERP Training
- Mobile Technology
About SpearMC

Regional offices in Chicago, Oklahoma City, Seattle and San Francisco

- We focus on local market delivery and capability development in line with industry focus areas unique to the regions we serve.

- Our local and well-connected network of top-tier business analysts, technical leads, developers and project managers keep travel cost to a minimum.
About SpearMC

Oracle Gold Partner since 2008:

- Gold Level Partner
- PeopleSoft Specialization
- Applications Reseller
- Hardware Reseller
What is Connected & Composite Query?
What is Connected & Composite Query?

- Connected Query & Composite Query are add-on PeopleSoft Query Reporting Tools
- Provide additional functionality as an addition to existing PS Query Tool
  - **Connected Query** (added v9.1)
    - Connected Query Manager
    - Connected Query Wizard
    - Connected Query Viewer
    - Connected Query Scheduler
  - **Composite Query** (added v9.2 tools 8.54)
    - Composite Query Manager
What is Connected & Composite Query?

● Both are Reporting Tools that use other Queries as its data sets (records)
  ▪ Aka......A Query made from multiple Queries

● Connected Query output is an XML File
  ▪ XML file used by XML Report Writing tools such as BI Publisher or Crystal
    • No native query viewer...
    • Can open XML in Excel

● Composite Query is next generation of Connected Query
  ▪ Same as connected query......you create a query from multiple Queries
  ▪ Has a native query results viewer...
    • Can download results to XML or HTML....Then into Excel
What is Connected & Composite Query?

- A parent query can nest multiple levels of child queries and any child query can have multiple sibling queries within a hierarchy.
  - No limits exist for levels, but typical use involves a single parent-child relationship or a few levels of nesting.
• Composite Query returns a XML data set as well, but can be viewed in HTML within PeopleSoft.
• Can Create right Inner Joins and left Outer Joins with Parent and Child Queries
• Can create filters and Expressions when creating the composite Query
• Can aggregate (Sum, Count, Avg) results
• Can create prompts within the Composite Query.
  ▪ Can’t have prompts in the Child Queries
• No separate Composite Query Viewer...can only view using the Composite Query Manager
• Can’t schedule Composite Queries
• Can download / copy SQL code
Connected Query returns a hierarchical XML data set in which data returned by child queries is filtered by the results of its immediate parent query.

- All Data from the Parent Query is returned.
- Left outer join only between a Parent Query and Child Query

Results only include data from the child query if there is a related row in its parent query.

- Cannot create filters and Expressions when creating a connected Query. All filters and expressions must be in Child Query
- Can’t Aggregate (Sum, Avg, Count Results)
- Prompts can be used, but must reside in the Child Queries
- Has a separate Connected query viewer and Scheduler
- Cannot download/copy SQL
What is Connected & Composite Query?

- Why are they helpful to end users?
- Simplifies process of creating complex Queries by enabling the user to create a few simple Queries and combining the results.
  - Avoid complicated queries with multiple equal, outer joins, and grouping conditions.
  - Ability to accurately Aggregate fields (Sum, Count, Avg etc.)
  - Avoid the need to involve programmers to create an SQR program or create PeopleSoft record Views.
Demo of Composite Query
Demo of Composite Query

- **Supplier Analysis Report**
  - Shows a summary of Spend, Avg PO $ and Percent of Total
  - Includes the following Fields
    - List of Active Suppliers and Count of POs (Parent Query)
      - Total $ Spend (Child Query 1)
      - Avg. $ Per POs
      - Percent of Total $ (Child Query 2)
Demo of Composite Query

- Create Parent Query 1 – Use PS Query
  - Includes List of All Suppliers and Count of their POs
• Create Child Query 1 – Use PS Query
  - Includes Supplier ID and Total $ Spend
  - Important Note: When you create child Query 1, it is required that the fields that will be used to join the child query to the parent query have a different field name. In this example, the VENDOR_ID field in the parent is being joined to the VENDOR_ID field in child query. Change the field name in the child query to another name such as VENDOR_ID_COUNT.
Demo of Composite Query

- Create a new Composite Query
Demo of Composite Query

- Add the two Queries created prior into the new composite Query
- Select the fields from each query which will join them together
Demo of Composite Query

- Select fields to include in the query Results
- Change the sort order
- Save the Query and run the query to see the results
Demo of Composite Query

- Query Results are displayed
- Note that the maximum rows fetched field can be set.
- Query can also be downloaded to XML by clicking the Download link
Demo of Composite Query

- Click the Return button at the bottom of the page.
- Now an expression will be created and added to the query as a new column.
- Copy the two field names to notepad or a Word document.
- Click the ‘Add Expression’ Menu item under the Actions tab.
Demo of Composite Query

- Set the Expression Type to ‘Signed Number’
- Length = 15 and Decimals = 2
- Copy and paste the field names from the NotePad and put a ‘\’ between them...
  - The field will divide the total Merchandise $ by the PO Count. New field will be Avg. $ Per PO
- Click OK
Demo of Composite Query

- Click the Field Icon and select ‘Add Field’
- Click the process icon and select ‘Run / Preview’
**Demo of Composite Query**

- The new results are displayed with the new column for ‘Average PO $’

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Supplier</th>
<th>Count PO No.</th>
<th>Sales Merchandise Amt</th>
<th>EXPR1_S_1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SCM0000010</td>
<td>8</td>
<td>400291453.400</td>
<td>50035431.67</td>
</tr>
<tr>
<td>2</td>
<td>USA0000037</td>
<td>16</td>
<td>341181096.000</td>
<td>21323818.50</td>
</tr>
<tr>
<td>3</td>
<td>IN0000001</td>
<td>5</td>
<td>153051750.000</td>
<td>30610350.00</td>
</tr>
<tr>
<td>4</td>
<td>SCM0000003</td>
<td>10</td>
<td>111868393.500</td>
<td>11186893.05</td>
</tr>
<tr>
<td>5</td>
<td>SCM0000004</td>
<td>71</td>
<td>52772469.200</td>
<td>743274.21</td>
</tr>
<tr>
<td>6</td>
<td>SPN000001</td>
<td>1</td>
<td>20579061.000</td>
<td>20579061.00</td>
</tr>
<tr>
<td>7</td>
<td>SCM0000001</td>
<td>44</td>
<td>3102212.270</td>
<td>70504.82</td>
</tr>
<tr>
<td>8</td>
<td>JPN0000002</td>
<td>1</td>
<td>1783198.000</td>
<td>1783198.00</td>
</tr>
<tr>
<td>9</td>
<td>JPN0000001</td>
<td>2</td>
<td>1599515.000</td>
<td>799757.50</td>
</tr>
<tr>
<td>10</td>
<td>USA0000021</td>
<td>30</td>
<td>1583275.000</td>
<td>52775.83</td>
</tr>
<tr>
<td>11</td>
<td>SCM0000002</td>
<td>38</td>
<td>1071599.000</td>
<td>28210.50</td>
</tr>
<tr>
<td>12</td>
<td>USA0000044</td>
<td>8</td>
<td>766080.000</td>
<td>95760.00</td>
</tr>
<tr>
<td>13</td>
<td>USA0000010</td>
<td>14</td>
<td>526756.820</td>
<td>37625.48</td>
</tr>
<tr>
<td>14</td>
<td>USA0000063</td>
<td>4</td>
<td>457711.960</td>
<td>124427.99</td>
</tr>
<tr>
<td>15</td>
<td>USA0000064</td>
<td>8</td>
<td>456594.880</td>
<td>57213.35</td>
</tr>
<tr>
<td>16</td>
<td>BL0000001</td>
<td>3</td>
<td>456675.000</td>
<td>152228.00</td>
</tr>
<tr>
<td>17</td>
<td>BL0000002</td>
<td>1</td>
<td>430484.000</td>
<td>430484.00</td>
</tr>
</tbody>
</table>
• Now we will create a new Column in the composite query results which calculates a percent of total.
• Navigate back to the Query Manager and Modify the Vendors query created in the first step.
• Select the ‘SETID’ Field and Save the Query
Demo of Composite Query

- Navigate to the Vendor Spend Query Created earlier and click the ‘Edit’ Link
- Click ‘Save As’ link
Demo of Composite Query

• Give the query a new name... as shown below and Click OK.

• Remove the Vendor ID field and then click on the Expressions Tab
Demo of Composite Query

- Click the ‘Add Expression Button’

- Create the expression as shown below. ‘SHARE’
Demo of Composite Query

- Click ‘Save’ Button and then Click on the ‘use as field’ link

- Click on the Fields Tab and then run the Query
Demo of Composite Query

- The new field is in the Query Results.

- Navigate back to the composite Query.
Demo of Composite Query

- Select the ‘Add Query’ link

- Add the ‘Vendor Spend Total Query’
Demo of Composite Query

- Enter the Query Alias and the join properties as shown below. Click OK

- Set the Join Conditions as shown below
Demo of Composite Query

- Add the Merchandise Amount field from the Vendor Spend Total Query

- Save and run the Query
Demo of Composite Query

- The new Grand total Column is shown as below

- Copy and Paste the Merchandise Total and Grand Total Field names into Note pad or Word doc.
Demo of Composite Query

- Click the ‘Add Expression’ link in the actions menu

- Enter the expression details as show below. Copy and paste the field names from note pad.

- Click OK
Demo of Composite Query

- Click to the ‘Add Field’ link to add the expression as a field in the query.

- The new Expression is now added to the Query as a new field. Click the Save button and then run the query.
The new column for ‘percent of total’ is now shown.
Demo of Composite Query

**Query 1**
- **Supplier Purchase Orders**
  - Supplier ID
  - Supplier Name
  - Sum of PO $
  - Count of POs

**Query 2**
- **Supplier UnPaid Invoices**
  - Supplier ID
  - Sum Unpaid Inv $
  - Unpaid Inv Count

**Query 3**
- **Supplier Paid Invoices**
  - Supplier ID
  - Sum Paid Inv $
  - Count of Paid Inv.

**Query 4**
- **Supplier Payments**
  - Supplier ID
  - Count of Checks

<table>
<thead>
<tr>
<th>Supplier ID</th>
<th>Supplier Name</th>
<th>PO $</th>
<th>PO Count</th>
<th>Unpaid Inv $</th>
<th>Unpaid Inv Count</th>
<th>Paid Inv $</th>
<th>Paid Inv Count</th>
<th>Check Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>12345</td>
<td>SpearMC</td>
<td>$125,000</td>
<td>4</td>
<td>$50,000</td>
<td>10</td>
<td>$25,000</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>45623</td>
<td>Staples</td>
<td>$23,250</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>$5,460</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>
Connected Query Demo
Supplier Activity Report
• Vendor Activity Report

  ▪ Shows a summary of Purchase and Payment activity for a company’s suppliers.

  ▪ Includes the following Fields

  • List of Active Suppliers (Parent Query)
    o Total PO $ (sum)
    o Number of PO’s issued (Count)
    o $ Amount of Invoice
    o Number of Invoices Paid
    o Check Numbers and Payments
Steps to Build a Connected Query

- Create Your Parent and Child Queries in PeopleSoft Query Manager.
  - In this examples 1 parent and 2 child queries were created.
  - Make sure to save each of them as either all public or all private.
  - Each Query must have one or more fields in common with it’s parent query. This field is used to join the parent and child queries.
Steps to Build a Connected Query

- From the Connected Query Manager page, select ‘Add New Value’
- Enter a Query Name and Description
- Enter if the Connected Query is Public or Private
Steps to Build a Connected Query

- Click on the lookup icon to choose a parent Query.
  - Note this is the query you created in Query Manager as your ‘Parent Query’

- After you select the parent Query, click on the open Query Icon as shown below
Steps to Build a Connected Query

• The Parent Query is displayed. Click the run tab to see the values that will be included in your results from the parent query.
  - Note the parent Query cannot be updated from this view.

• Choose the ‘Insert Child Query’ icon
Steps to Build a Connected Query

- Choose a Query to be inserted as a child to the parent.
  - This query was previously created using Query manager

- The Child Query is now shown below the parent Query
Steps to Build a Connected Query

- Select the ‘Open Query’ icon next to the child query.
  - The fields displayed will be included in the connected query results.

- Note: Only rows in the child query that match the Vendor ID field in the parent Query will be shown.
Steps to Build a Connected Query

- Select the ‘Related Fields’ Icon
- Choose the field(s) from the Parent and Child Query which link the two Queries together.
- Click the Map Fields Button

Queries are Mapped by Vendor ID
Steps to Build a Connected Query

- Click the ‘Insert Sibling’ Icon

- Choose a query to be inserted as the 2nd Child Query.
Steps to Build a Connected Query

• As with the prior child, select the ‘Related fields’ icon by the newly added query.

• Choose the fields to map from the parent and child queries.

• Click the ‘Map Fields’ button
Steps to Build a Connected Query

• The Parent and Child Fields are shown as matched by ‘Vendor ID’

• Click on the Preview XML Button. The Data results will be shown in XML Hierarchical format.
Steps to Build a Connected Query

• Change the Query Status to ‘Active’ so that the Query is available in the Connected Query Viewer
• Save the Query
Steps to Build a Connected Query

- From the Connected Query viewer menu option, choose the ‘Run to Window’ URL.
- Click on the Details URL to retrieve the XML Results from the Connected Query.
Steps to Build a Connected Query

• The XML File can be saved and opened by any XML viewer such as Word or Excel to validate the results
• XML – Connected Query Results Opened in Excel
Steps to Build a Connected Query

- Parent Query
- Child Query
- Sibling Query
- Public Connected Query

- A parent query in a connected query is a query that has one or many child queries. The top level query in a connected query is the parent query.
- A child query in a connected query is a query that has a single parent query. A child query can also serve as a parent query if it has one or more child queries in the Connected Query definition. A child query can have one or more sibling queries.
- A sibling query in a connected query is a child query that shares a parent with another child query.
- Public connected query is a query that can be used by all users.
- Note: Public connected queries cannot include any private query.
SpearMC.com/insights/

Attending workshops is one way we stay at the forefront of our industry, but speaking at these workshops is really what helps us stay on top. We know not everyone can make it to see us in person, so we also share our knowledge with you here.

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