CARHEUG 2012

Query Tips & Tricks
• Who I am:
  – Training consultant, CedarCrestone
  – Consultant for 4 years
  – Most often teach PS Query
  – In training/communications 20 years
  – Worked for University of MO
  – Live in Southern IN
Agenda

• General Query Tips
• Expressions
  – Limiting query results
  – Results in 1 column
  – Calculating age
• Connected Query
• Producing an XML Report
What we will Not cover

Mechanics of using PS Query
– PS Query classes available
  • 8 hours Basic Query
  • 8 hours ADV Query
  • 6 hours XML Publisher
  • contact@cedarcrestone.com

• “Extra” stuff from my classes
Query Basics

- Know your tables!
- Plan queries on paper
- Adapt if possible
- Build/Adapt 1 step at a time!
Know your tables!

- Add Record (table) to new query
- Display all fields
- Run query to see data in Record
- Verifies
  - Table in use
  - Fields populated
  - Formatting
  - You have necessary security
Query Basics - 3

Query Planning

• What question(s) are you trying to answer?
• If you can’t get the information directly, is there a way to get it by elimination?
• What fields will you use as criteria?
• Which tables have the information you need?
• What fields do those tables have in common that will allow them to be joined?
Query Basics- 4

Query Planning

• Already a query in the database that answers your question?
• Is there one that could be easily adapted?
• Reporting table that holds most of the information you need?
• All the fields you need populated in your DB?
• Have necessary security to access those tables/fields?
Effective Use of Expressions

Useful Expressions -


– New library of SQL Expressions
– Assembled by Query experts
– Some include hints on use
Limiting Query Results

• Why?
  – Test query
  – Runs faster

• Use the ROWNUM Expression
  – Format: Number
  – Length: 4
  – Use as Field

  – Use new Field as Criterion
  – Less than 20 (mine)
Limiting Query Results -2

Edit Expression Properties

*Expression Type: Character

Length: 4

Aggregate Function

Decimals:

Expression Text: ROWNUM

Add Prompt Add Field

OK Cancel
Limiting Query Results - 3

Edit Criteria Properties

Choose Expression 1
Type
- Field
- Expression

Expression 1
Define Expression
Expression: ROWNUM
New Expression Edit the Expression

*Condition Type:
less than

Choose Expression 2
Type
- Field
- Expression
- Constant
- Prompt
- Subquery

Expression 2
Define Constant
Constant: 20

OK Cancel
### Limiting Query Results - 4

#### Results w/o Limit

<table>
<thead>
<tr>
<th>ID</th>
<th>Eff Date</th>
<th>Department</th>
<th>Job Code</th>
<th>Action</th>
<th>Descr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KAREN02</td>
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<td>1000</td>
<td>PAY</td>
<td>Human Resources</td>
</tr>
<tr>
<td>2</td>
<td>KAREN01</td>
<td>01/01/1990</td>
<td>1000</td>
<td>HIR</td>
<td>Human Resources</td>
</tr>
<tr>
<td>3</td>
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<td>01/01/1990</td>
<td>1000</td>
<td>HIR</td>
<td>Human Resources</td>
</tr>
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<td>4</td>
<td>KT0021</td>
<td>06/01/2007</td>
<td>1000</td>
<td>HIR</td>
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<td>06/01/2007</td>
<td>1000</td>
<td>HIR</td>
<td>Human Resources</td>
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<tr>
<td>8</td>
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<td>1000</td>
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<td>Human Resources</td>
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<td>10</td>
<td>K2ARG000149</td>
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<td>01/01/2002</td>
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<td>HIR</td>
<td>Marketing</td>
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</table>
Limiting Query Results - Limiting Query Results - 6

Results with Limit

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<th>Department</th>
<th>Job Code</th>
<th>Action</th>
<th>Descr</th>
<th>ROWNUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>290000</td>
<td>HIR</td>
<td>Production</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>01/01/2001</td>
<td>13000</td>
<td>280000</td>
<td>KUY Finance &amp; Administration</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>01/01/2001</td>
<td>13000</td>
<td>280000</td>
<td>HIR</td>
<td>Office of Management Services</td>
<td>14</td>
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<tr>
<td>4</td>
<td>01/01/2001</td>
<td>13000</td>
<td>200000</td>
<td>HIR</td>
<td>Finance - Netherlands</td>
<td>4</td>
</tr>
<tr>
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<td>13000</td>
<td>200000</td>
<td>HIR</td>
<td>Finance</td>
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<tr>
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<td>13000</td>
<td>200000</td>
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<td>01/01/2001</td>
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<td>Operations - Paris</td>
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<td>13000</td>
<td>200000</td>
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<td>Finance</td>
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</tr>
<tr>
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<td>290000</td>
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<tr>
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<td>13000</td>
<td>290000</td>
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</tr>
<tr>
<td>14</td>
<td>01/01/2002</td>
<td>31000</td>
<td>770045</td>
<td>PAY</td>
<td>Cafeteria/Restaurant Dept</td>
<td>18</td>
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<tr>
<td>15</td>
<td>01/01/2002</td>
<td>31000</td>
<td>770045</td>
<td>PAY</td>
<td>Cafeteria/Restaurant Dept</td>
<td>19</td>
</tr>
<tr>
<td>16</td>
<td>01/01/2002</td>
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<td>770045</td>
<td>PAY</td>
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<td>55000</td>
<td>950010</td>
<td>HIR</td>
<td>Assembly</td>
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</tr>
</tbody>
</table>
Query Results on 1 Line

Why?

• Easier to read
• Useful for mutually-exclusive fields
• Simpler to use as Criteria
• Less to export to other applications (Excel)
Query Results on 1 Line - 2

How?

• Union
• CONCAT (concatenate) expression
• SUM (2 fields)
Query Results on 1 Line - 3

How?

CONCAT(A.ACCOUNT_BAL,B.ITEM_AMOUNT)
Calculated Field - Age

Why?

• Age not listed anywhere in PeopleSoft
• Can also use to count days, weeks
• Applications:
  – Length of service
  – Probationary period
  – Eligibility for retirement
Calculated Field – Age - 2

(MONTHS_BETWEEN (SYSDATE,A.BIRTHDATE))/12
Calculated field – Age - 3

<table>
<thead>
<tr>
<th>ID</th>
<th>Birthdate</th>
<th>Last</th>
<th>First Name</th>
<th>Middle</th>
<th>MONTHS_BETWEEN (A.BIRTHDATE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/14/1955</td>
<td>Rogers</td>
<td>Roy</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>10/14/1960</td>
<td>Evans</td>
<td>Dale</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>10/14/1965</td>
<td>Allison</td>
<td>Clay</td>
<td></td>
<td>45</td>
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<tr>
<td>4</td>
<td>10/14/1967</td>
<td>Vega</td>
<td>Pancho</td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>5</td>
<td>10/14/1950</td>
<td>James</td>
<td>Jesse</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>10/14/1950</td>
<td>James</td>
<td>Jesse</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>7</td>
<td>10/14/1954</td>
<td>Jane</td>
<td>Calamity</td>
<td></td>
<td>56</td>
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<tr>
<td>8</td>
<td>03/08/1960</td>
<td>Whetan</td>
<td>Michelle</td>
<td>Karen</td>
<td>42</td>
</tr>
<tr>
<td>9</td>
<td>09/23/1968</td>
<td>Breshears</td>
<td>Andrew</td>
<td>Ray</td>
<td>42</td>
</tr>
<tr>
<td>10</td>
<td>10/15/1972</td>
<td>Savage</td>
<td>Michelle</td>
<td>Suzette</td>
<td>38</td>
</tr>
<tr>
<td>11</td>
<td>11/07/1968</td>
<td>Ware</td>
<td>Martha</td>
<td>F</td>
<td>42</td>
</tr>
<tr>
<td>12</td>
<td>01/01/1950</td>
<td>Popik</td>
<td>Harvey</td>
<td></td>
<td>61</td>
</tr>
<tr>
<td>13</td>
<td>01/01/1950</td>
<td>Popik</td>
<td>Harvey</td>
<td></td>
<td>61</td>
</tr>
<tr>
<td>14</td>
<td>05/09/1960</td>
<td>Muir</td>
<td>Laura</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>15</td>
<td>04/11/1969</td>
<td>Phillips</td>
<td>Andrew</td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>
Connected Query

- Crams 2 queries together
  - Parent/Child
  - Child/Sibling
- Easier to use than Union
- Produces XML file
  - Not using XML Publisher?
  - Using other tools to build reports from XML?
Connected Query - 2

Steps:

1. Select Parent/Child queries
2. Map common fields
   - Wizard available
   - More control – build manually
Connected Query Quick Start

Create a simple parent-child Query relationship between two Queries

1. 2. 3. 4. 5. 

Next >

Enter Connected Query Name and Descriptive Information

*Connected Query: KWS_CQ_DEMO_OHUG_WEBINAR

Description: Demo CQ for OHUG webinar

Comments: This is a sample Connected Query created by Kent Sipes for an OHUG webinar.

1st screen – CQ wizard
**Connected Query Quick Start**

Create a simple parent-child Query relationship between two Queries

- **Connected Query:** KWS_CQ_DEMO_OHUG_WEBINAR
- **Description:** Demo CQ for OHUG webinar
- **Comments:** This is a sample Connected Query created by Kent Sipes for an OHUG webinar.

**Parent Query:** KWS_ANY_JOIN1_LIM_19

---

CQ wizard – step 2
Connected Query - 5

CQ wizard – step 3
Connected Query - 6

CQ wizard – step 4
Connected Query Quick Start

Step 4 of 5

Map Child Query fields to Parent Query fields for Filtering

Connected Query Definition

Connected Query: KWS_CQ_DEMO_OHUG_WEBINAR
Description: Demo CO for OHUG webinar
Comments: This is a sample Connected Query created by Kent Sipes for an OHUG webinar.

Connected Query Structure

- [KWS_ANY_JOIN1]
  - [KWS_JOBLIST1_WITH_EXPRESSION]

Select fields from each Query then click 'Map Fields' button to map.

Parent Query - KWS_ANY_JOIN1

Child Query - KWS_JOBLIST1_WITH_EXPRESSION

<table>
<thead>
<tr>
<th>Select</th>
<th>Key</th>
<th>Format</th>
<th>Select a Parent Query Field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AEMPLID - Empl ID</td>
<td>CHAR 11</td>
<td>AEMPLID</td>
</tr>
<tr>
<td></td>
<td>ADEPTID - Department</td>
<td>CHAR 10</td>
<td>ADEPTID</td>
</tr>
<tr>
<td></td>
<td>AJOBCODE - Job Code</td>
<td>CHAR 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AACTION - Action</td>
<td>CHAR 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ALOCATION - Location Code</td>
<td>CHAR 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AFULL_PART_TIME - Full/Part Time</td>
<td>CHAR 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>APAYGROUP - Pay Group</td>
<td>CHAR 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUSINESS_UNIT - Business Unit</td>
<td>CHAR 5</td>
<td></td>
</tr>
</tbody>
</table>
Connected Query Quick Start

Create a simple parent-child Query relationship between two Queries

Connected Query Definition

Connected Query: KWS_CQ_DEMO_OHUG_WEBINAR
Description: Demo CQ for OHUG webinar
Comments: This is a sample Connected Query created by Kent Sipes for an OHUG webinar.

Connected Query Structure

<table>
<thead>
<tr>
<th>Connected Query Structure</th>
<th>Fields</th>
<th>Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>KWS_ANY_JOIN1</td>
<td>A.EMPLID</td>
<td>A.DEPTID</td>
</tr>
<tr>
<td>KWS_JOBLIST1_WITH_EXPRESSION</td>
<td>A.EMPLID</td>
<td>A.DEPTID</td>
</tr>
</tbody>
</table>

Preview XML
Max Rows Fetched for Query: 6
Run an XML Publisher Report

Steps
1. Run Query to XML
2. Build MS Word template
3. Add Data Source (query) to Report
4. Add template to Report
5. Select Report output
6. Run Report
Run an XML Publisher Report -2

KWS Employee Report

Employee ID: EMPLID
Job Title:
Department
Last Activity
Last Activity Date.
Run an XML Publisher Report -3
Run an XML Publisher Report - 4
Run an XML Publisher Report - 5
Run an XML Publisher Report - 6

<table>
<thead>
<tr>
<th>Emplid</th>
<th>Jobcode</th>
<th>Action</th>
<th>Descr</th>
<th>Effdt</th>
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</thead>
<tbody>
<tr>
<td>KWG108</td>
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<td>TER</td>
<td></td>
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<td>KWG101</td>
<td>20-001</td>
<td>TER</td>
<td></td>
<td>2007-01-01</td>
</tr>
</tbody>
</table>

Interested in this report of our employee

Wednesday, May 04, 2011 3:35 AM
Questions?
Contact Information

kent.sipes@cedarcrestone.com
train777k@excite.com

I love to help folks with PS Query!
Please complete a session evaluation!