Creating Record Joins

Concept

When writing queries, it is fairly simple to retrieve information from one table. In many cases, you want to retrieve data from more than one table or specify criteria in your query from a second table. In these cases, you need to link at least two tables in one query. Working with multiple tables is almost as easy as working with one table.

A **join** enables you to retrieve data from two or more records or to specify criteria from more than one record. Whenever you perform a join, you link records based on their common fields.

To assist users in using query joins, PeopleSoft delivers a number of predefined joins. There are two types of predefined joins: hierarchical joins and related record joins. Because these types of joins are predefined, you do not have to add any criteria to manually link the records.

**Record Hierarchy joins** have a one to many relationship. They use records that are parents or children of each other. A child table is a table that uses all the same key fields as its parent, plus one or more additional keys. The parent record in PeopleSoft Application Designer defines the hierarchical relationship.

**Related Record joins** have a one to one relationship. They use records from non-hierarchical records that are related by common fields. The prompt table edit defined for a field in PeopleSoft Application Designer determines the relationship between the records.

In this topic, the Records Office staff has asked you to generate a report with class meeting information for the Fall 2002 term (STRM 0475). You will use three records to build this query utilizing a record hierarchy join and a related record join.
## Procedure

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<td>1.</td>
<td>Begin by navigating to the <strong>Records</strong> page. Click the <strong>Reporting Tools</strong> link.</td>
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<tr>
<td>2.</td>
<td>Click the <strong>Query Manager</strong> link.</td>
</tr>
<tr>
<td>3.</td>
<td>Click the <strong>Create New Query</strong> link.</td>
</tr>
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Step | Action
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4. | The first step in creating a query is to find an existing record for the query. In this example, you will locate and use the Class Table record. Enter the desired information into the **Description** field. Enter "**CLASS_TBL**".
5. | Click the **Search** button.
6. | Click the **Add Record** link.
**Step** | **Action**
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7. | Next, select the fields for the query. Click the **SUBJECT** option.
8. | Click the **CATALOG_NBR** option.
9. | Click the **DESCR** option.
10. | Click the **CLASS_NBR** option.
11. | In this example, you next need to select fields related to meeting information from the Class Meeting Pattern Table record. To join records that share a common high-level key, simply select the **Hierarchy Join** link. Click the **Hierarchy Join** link.
12. A new page appears that allows you to select the record to be joined to your existing query.

Note that the hierarchy on this page is not related to the hierarchy of the Dictionary Tree. Rather, the hierarchy shown is defined in the PeopleSoft Application Designer with the Parent Record Name feature.

Click the **CLASS_MTG_PAT - Class Meeting Pattern Table** link.

13. Your newly joined record and its fields are displayed below the first record. Notice that each record added to your query is assigned an incremental letter that represents a correlation, or alias, of the record. The second record denotes that it was joined with the first record. In this example, CLASS_MTG_PAT (B) was joined with CLASS_TBL (A).
Step | Action
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14. | Now you can select the fields from the joined record. Click the **MEETING_TIME_START** option.

15. | Click the **MEETING_TIME_END** option.
Step 16. Click the **vertical** scrollbar.
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<td>17.</td>
<td>Click the <strong>STND_MTG_PAT</strong> option.</td>
</tr>
<tr>
<td>18.</td>
<td>In this example, you next need to select the Facility Description field from the Facility Table record. Related records are specific to a field in the current record. If a field has a related record, you will see the record displayed as a hyperlink next to the field. Click the <strong>Join FACILITY_TBL</strong> link.</td>
</tr>
<tr>
<td>19.</td>
<td>You can create either a standard join or a left outer join. In a left outer join, all rows of the first (left) record are present in the result set, even if there are no matches in the joining record. In this example, use a standard join. Click the <strong>OK</strong> button.</td>
</tr>
</tbody>
</table>
Step | Action
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20. | Click the **OK** button.

21. | Notice that the newly joined record appears below the other two records and has been given the alias of "C".
Step 22. Select the Description field from this record. Click the DESCR option.
Step 23.

Click the **Fields** tab.
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| 24.  | Use the **Fields** page to view how fields are selected for output, view the properties of each field, change headings, change column and sort orders, and apply aggregate values.  

In this example, want to sort the results by subject and catalog number and modify the heading text for the **Facility Description** field so that there are not two columns with the **Descr** heading.  
Click the **Sort Order** button. |
### Step 25
Enter the desired information into the **Sort Order** field. Enter "1".

### Step 26
Click the **Direction** list.

### Step 27
Click an entry in the list.

### Step 28
Click in the **Sort Order** field.

### Step 29
Enter the desired information into the **Sort Order** field. Enter "2".

### Step 30
Click the **Direction** list.

### Step 31
Click an entry in the list.

### Step 32
Click the **OK** button.
Step 33. You want to modify the heading text for the Facility Description field. Notice that there are two Description fields listed. You determine which field to modify by referring to the alias (in this example, A, B, or C) preceding the field name. You joined to the Facility Table last and it was given the alias of C. That is the field you want to modify.

Click the **Edit** button.
### Step 34
Click the **Text** option.

![Text option](image)

### Step 35
Click in the **Heading Text** field.

![Heading Text field](image)

### Step 36
Enter the desired information into the **Heading Text** field. Enter "**Facility Descr**".

### Step 37
Click the **OK** button.
### Step 38

Next, save the query. Click the **Save As** link.

[Save As]
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<td>39.</td>
<td>Enter the desired information into the *Query field. Enter &quot;MEETINGS_FALL_2002&quot;.</td>
</tr>
<tr>
<td>40.</td>
<td>Click in the Description field.</td>
</tr>
<tr>
<td>41.</td>
<td>Enter the desired information into the Description field. Enter &quot;Class Meetings Fall 2002 Term&quot;.</td>
</tr>
<tr>
<td>42.</td>
<td>Standard queries are designated as User queries. Workflow queries are either Process or Role queries. For this example, use the default.</td>
</tr>
<tr>
<td>43.</td>
<td>Use the Owner field to specify the access to this query. Private indicates that only the user ID that created the query can open, run, modify, or delete the query. Public indicates that any user with access to the records used by the query can run, modify, or delete the query. For this example, you want to make it a private query.</td>
</tr>
<tr>
<td>44.</td>
<td>Click the OK button.</td>
</tr>
</tbody>
</table>
Step 45. Finally, view the results of the query. Click the **Run** tab.
46. The query results are displayed.

47. You have successfully created a query using a record hierarchy join and a related record join.

**End of Procedure.**