

Basic Query Training

Overview

The PeopleSoft Query reporting tool enables users to create queries which can be viewed in a grid, Excel, and Crystal Reports.

This training will review the basic functions of Query and how to create a simple query: selecting a record and specific fields. We will review how to modify column headings and how to retrieve the short or long description for a translate value, rather than the code.

Once the basics are reviewed, we will review how to retrieve information based on criteria requirements such as equal to, greater than, in list, between and like. We will also review runtime prompts. Because PeopleSoft applications frequently use effective date on tables to add a historical perspective to the data, we will review how to specify criteria for effective-dated tables. Runtime prompts give the ability to enter specific values for a designated field. These values are then used as criteria for retrieving the information for a report.

In addition, we will review how to create a query based on multiple records, specifically using predefined joins.

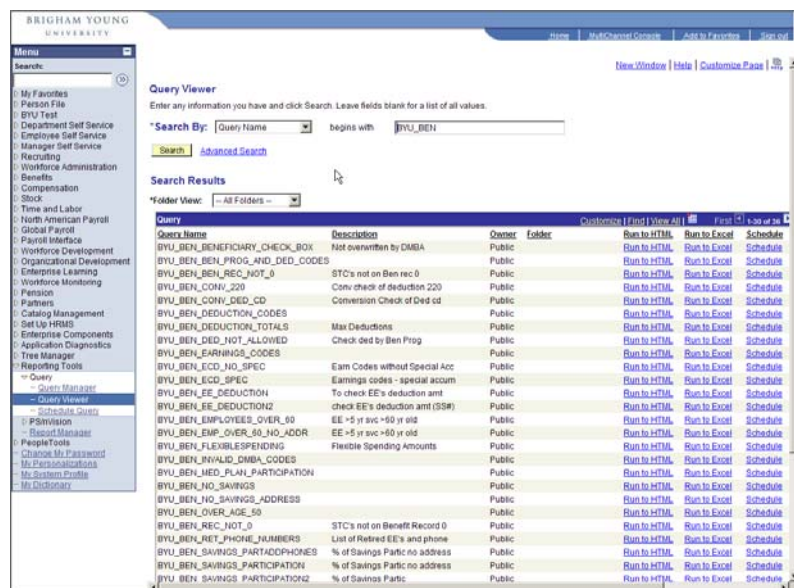
Running a Query: Browser

PS/Query provides powerful querying capabilities from within the PeopleSoft Internet Architecture. Through a browser, you can define and modify queries, run queries, and schedule queries to be run on a regular basis.

The query viewer is the primary place to run and view queries. Upon searching for a query, you can choose to run the query immediately in the browser or to schedule it to be run at a later time (or predefined schedule).

Navigation

- PeopleSoft Stage:
<http://brule.byu.edu:9080/psp/hrstg2/?cmd=login>
- Reporting Tools
- Query
- Query Viewer
- Search By:
BYU_BEN
- Search



The screenshot shows the PeopleSoft Query Viewer interface. On the left is a navigation menu with options like 'My Favorites', 'Person File', 'BYU Test', etc. The main area is titled 'Query Viewer' and contains a search bar with 'Search By: Query Name' and a text input field containing 'BYU_BEN'. Below the search bar is a table of search results. The table has columns for 'Query Name', 'Description', 'Owner', 'Editor', and several action links ('Run to HTML', 'Run to Excel', 'Schedule').

Query Name	Description	Owner	Editor	Run to HTML	Run to Excel	Schedule
BYU_BEN_BENEFICIARY_CHECK_BOX	Not overruled by DBA	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_PROG_AND_DED_CODES		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_REC_NOT_0	STC's not on Ben rec 0	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_CONV_220	Conv check of deduction 220	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_CONV_DED_CD	Conversion Check of Ded cd	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_DEDUCTION_CODES		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_DEDUCTION_TOTALS	Max Deductions	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_DED_NOT_ALLOWED	Check ded by Ben Prog	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_EARNINGS_CODES		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_ECD_NO_SPEC	Earn Codes without Special Acc	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_ECD_SPEC	Earnings codes - special acc	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_EE_DEDUCTION	To check EE's deduction amt	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_EE_DEDUCTION2	check EE's deduction amt (SSN)	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_EMP_OVER_90_NO_ADDR	EE > 90 yr and > 90 yr old	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_FLEXIBLESPENDING	Flexible Spending Amounts	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_INVALID_DBMBA_CODES		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_MED_PLAN_PARTICIPATION		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_NO_SAVINGS		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_NO_SAVINGS_ADDRESS		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_OVER_AGE_90		Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_REC_NOT_0	STC's not on Benefit Record 0	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_RET_PHONE_NUMBERS	List of Retired EE's and phone	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_SAVINGS_PARTICIPATION	% of Savings Partic no address	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_SAVINGS_PARTICIPATION2	% of Savings Partic no address	Public		Run to HTML	Run to Excel	Schedule
BYU_BEN_SAVINGS_PARTICIPATION3	% of Savings Partic	Public		Run to HTML	Run to Excel	Schedule

Query Manager

From the Query Manager you can:

- View, modify, or download an existing query
- Create a new query

Navigation

- Reporting tools
- Query
- Query Manager



From this page, you can either search for an existing query or create a new query. The Query Manager search page has a Create New Query link, which was not available on the Query Viewer search page.

Before we create a new query, we need to understand some of the terminology that goes along with it:

Record Definitions – the design specifications that determine the structure of your PeopleSoft application data tables and online processing for your applications.

Tables – Much like a spreadsheet, each of these tables is made up of *columns* and *rows*. *Columns* define the structure of how data will be stored. *Rows* represent the actual data stored in the database.

For example: A row of data in an EMPLOYEES table would consist of one or more *fields*- Employee ID, Name, Employee Class, etc. Each *field* represents a column from the table. In other words, a record is a row of related information about the employee.

Record Selection

The first step to creating a query is selecting a record. The record you select established the primary focus of the query. To create a query using general information about a current employee, select the EMPLOYEE record.

1. Click the Create New Query hyperlink
2. Enter EMPLOYEE in Search For field. Click Search
3. Select the Add Record hyperlink across from the EMPLOYEE – Non terminated employees record

The screenshot shows the Brigham Young University Query Manager interface. On the left is a 'Menu' sidebar with various navigation options. The main area is titled 'Find an Existing Record'. It shows a search for 'EMPLOYEE' with results for 'EMPLOYEES - Non terminated Employees', 'EMPLOYEE_REVIEW - EE Performance Rws (Obsolete)', and 'EMPLOYEE_TEAMS - Employee Teams Table'. Each result has an 'Add Record' and 'Show Fields' link. The 'EMPLOYEES - Non terminated Employees' record is selected, and its fields are listed in a table below.

Record	Customize	Find	View All	First	1-3 of 3	Last
EMPLOYEES - Non terminated Employees	Add Record	Show Fields				
EMPLOYEE_REVIEW - EE Performance Rws (Obsolete)	Add Record	Show Fields				
EMPLOYEE_TEAMS - Employee Teams Table	Add Record	Show Fields				

Field Selection


To select a field, check the box adjacent to the field name. After selecting the fields you want included in your query, click the *Fields* tab.

Navigation

- From the Query tab
- Select the following 4 fields
- *EMPLID*
- *NAME*
- *ADDRESS1*
- *SEX*

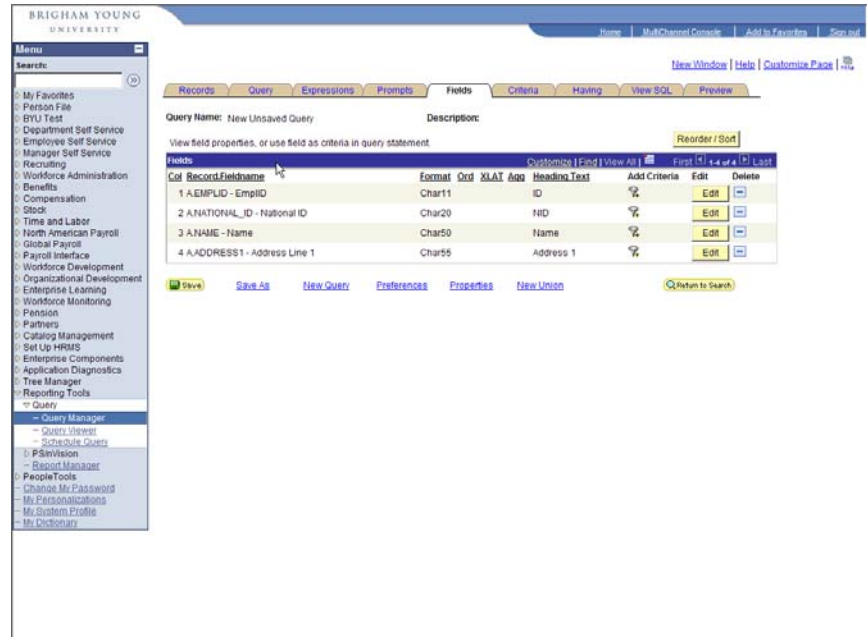
The screenshot shows the Brigham Young University Query Manager interface with the 'Fields' tab selected. It displays a list of fields for the 'EMPLOYEES - Non terminated Employees' record. The following fields are selected with checkboxes:

- ☒ EMPLID - EmplID
- ☒ NAME - Name
- ☒ ADDRESS1 - Address 1
- ☒ SEX - Sex

In the Fields tab you will only see the fields you have selected for your query. To deselect a field, you can either click the  button associated with the field or return to the Query tab and deselect the field.

Navigation

- Fields tab



Now let's preview your query.

Navigation

- Preview tab

ID	Name	Address 1	Sex
1	Johnson, Valeria Nicole	56 Sunset Way S.E.	Female
2	000045543	Other Sharon D	Female
3	000054264	Anshead, Tammie Jane	Female
4	000222960	Brachoff, Lincoln J.	Male
5	000238947	Collett, Richard F.	Male
6	000278741	Lee, Kamaria	Female
7	000292190	Barber, Jana	Female
8	000293008	Hammon, Danielle Jean	Female
9	000312831	Evans, Nadine Budd	Female
10	000342523	Stevenson, Peter C.	Male
11	000348817	Reim, John Leslie	Male
12	000377729	Nelson, Jeffrey Thomas	Male
13	000402248	Nelson, Jennifer	Female
14	000418160	Wight, Kathleen R.	Female
15	000419229	Juett, Amy J.	Female
16	000419360	Trapsion, Jennifer Lee Wassmer	Female
17	000419700	Tark, Lacey Sandman	Female
18	000422322	Evans, Randy L.	Male
19	000449989	Berry, Jennifer L.	Female
20	000519836	Boyer, Roxanna L.	Female
21	000545821	Burley, Douglas W.	Male
22	000554782	Salido, Shewelle	Female
23	000562461	Thomas, R. Craig	Male
24	000631402	Carter, Heidi	Female
25	000645145	Wardle, James Darin	Male
26	000674373	Alfred, Ryan Gordon	Male
27	000714722	Brinkerhoff, Val W.	Male
28	000714722	Brinkerhoff, Val W.	Male
29	000714722	Brinkerhoff, Val W.	Male
30	000715821	Shinkie, Aaron Thomas	Male

View All- Click this link to view all rows and use scroll bar to navigate

Rerun Query- Click this link to rerun your query preview

Download to Excel- Click this link to download the query to Excel

Editing Fields

The first step in editing fields within your query is to access the *Edit Field Properties* page. To navigate there return to the Fields tab to view the fields you selected for your query.

Navigation

- Fields tab
- Click the *Edit* button for the ADDRESS1 field

There are a series of group boxes within the *Edit Field Properties* page, each with different editing capabilities.

To modify the field heading, you will make you edits within the *Heading* group box.

1. In the Heading Text field, replace Address 1 with **Street Address**.
2. Select the Text radio button
3. Click OK
4. Change the heading of EMPLID to read Employee ID
5. You will see the heading you selected under the *Heading Text* column

Translate Values

You can take advantage of translate values in your queries. If a field has an associated translate value, the *XLAT* column will contain one of these three values: N, S, or L.

Records

Query

Expressions

Prompts

Fields

Criteria

Having

View SQL

Preview


Query Name: New Unsaved Query


Description:









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


Reorder / Sort

Fields

Customize | Find | View All | 

First of 4 

Col	Record.FieldName	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.EMPLID - EmplID	Char11				Employee ID		<div>Edit</div>	<div></div>
2	A.NAME - Name	Char50				Name		<div>Edit</div>	<div></div>
3	A.ADDRESS1 - Address Line 1	Char55				Street Address		<div>Edit</div>	<div></div>
4	A.SEX - Gender	Char1		L		Sex		<div>Edit</div>	<div></div>

 Save


Save As

New Query

Preferences

Properties

New Union

 Return to Search

To modify a translate values, you need to access the *Edit Field Properties* page. An additional group box is presented for translate value.

1. From the *Fields* tab, click the edit button for the SEX record
2. Select the *Long* radio button on the Translate Value group box
3. Click OK

Edit Field Properties

Field Name: ASEX - Gender

Column Column: <input type="text" value="4"/>	Order By Order By Number: <input type="text"/> <input type="checkbox"/> Descending	Translate Value <input type="radio"/> None <input type="radio"/> Short <input checked="" type="radio"/> Long Effective Date for Short/Long <input checked="" type="radio"/> Current Date <input type="radio"/> Field <input type="text"/> <input type="radio"/> Expression <input type="text"/> Add Prompt Add Field
Heading <input type="radio"/> No Heading <input checked="" type="radio"/> RFT Short <input type="radio"/> Text <input type="radio"/> RFT Long Heading Text: <input type="text" value="Sex"/> *Unique Field Name: <input type="text" value="ASEX"/>	Aggregate <input checked="" type="radio"/> None <input type="radio"/> Sum <input type="radio"/> Count <input type="radio"/> Min <input type="radio"/> Max <input type="radio"/> Average	

The three options for translate values are:

None- Translate code

Short- 10 char Xlatshortname

Long- 30 char Xlatlongname

Changing Column Order

Often when creating a query, the first attempt does not produce the desired results. There are a couple of methods to change the field order for output.

1. Click the *Edit* button for the NAME field in the *Fields* tab
2. Replace the number 2 with a 1. Click OK

The system will automatically re-number the column numbers associated with each field. Another method is to click the *Reorder/Sort* button on the Fields tab. This will bring up the *Edit Fields Ordering* page. Renumber your columns under the *New Column* heading.

1. In the *Fields* tab, click the *Reorder/Sort* button
2. Renumber the fields as shown. Click OK

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					
Customize Find View All First 1-4 of 4 Last					
New Column	Column	Record.FieldName	Order By	Descending	New Order By
2	1	A.NAME - Name		<input type="checkbox"/>	
1	2	A.EMPLID - EmplID		<input type="checkbox"/>	
4	3	A.ADDRESS1 - Address Line 1		<input type="checkbox"/>	
3	4	A.SEX - Gender		<input type="checkbox"/>	

OK Cancel

Changing Output Order

Query can sort your output for you. The numbers in the *Ord* column indicate which fields your query is sorted on and in what order. The number “1” represents the highest order of sort. Again, you can use either the *Edit Field Properties* button or the *Reorder/Sort* button to change output order.

1. Click the Edit button for EMPLID
2. Enter the number “1” in the Order By Number field
3. Click OK
4. This will sort your query by EMPLID

Edit Field Properties

Field Name: A.EMPLID - EmplID

Column	Order By
Column: 1	Order By Number: 1 <input type="checkbox"/> Descending

Heading	Aggregate
<input type="radio"/> No Heading <input type="radio"/> RFT Short <input checked="" type="radio"/> Text <input type="radio"/> RFT Long	<input checked="" type="radio"/> None <input type="radio"/> Sum <input type="radio"/> Count <input type="radio"/> Min <input type="radio"/> Max <input type="radio"/> Average
Heading Text: Employee ID	
*Unique Field Name: A.EMPLID	

OK Cancel

The ordering defaults to ascending. You can select descending with a checkbox. Now change the order using the *Reorder/Sort* button.

1. From the *Fields* tab, click the *Reorder/Sort* button
2. Turn on the Descending checkbox for EMPLID

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			
Customize Find View All First 1-4 of 4 Last			
New Column	Column	Record.FieldName	Order By Descending New Order By
<input type="text"/>	1	A.EMPLID - EmplID	1 <input checked="" type="checkbox"/>
<input type="text"/>	2	A.NAME - Name	<input type="checkbox"/>
<input type="text"/>	3	A.SEX - Gender	<input type="checkbox"/>
<input type="text"/>	4	A.ADDRESS1 - Address Line 1	<input type="checkbox"/>

OK Cancel

Viewing SQL Statements

If you wish to view the SQL (Structured Query Language) that the system produces, you can do this at any point in the query process by clicking the *View SQL* tab. If you are familiar with SQL this may be helpful to you.

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Home | MultiChannel Console | Add to Favorites | Sign out

New Window | Help | Customize Page |

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

Query Name: New Unsavd Query Description:

Query SQL:

```

SELECT A.EMPLID, A.NAME, A.SEX, A.ADDRESS1, TO_CHAR(SYSDATE, 'YYYY-MM-DD')
FROM PS_EMPLOYEES A, PS_EMPLMT_SRCH_QRY A1
WHERE A.EMPLID = A1.EMPLID
AND A.EMPL_RCD = A1.EMPL_RCD
AND A1.ROWSECCLASS = 'BYUDPUSA'
AND (A.EFFDT =
(SELECT MAX(A.ED.EFFDT) FROM PS_EMPLOYEES A_ED
WHERE A.EMPLID = A_ED.EMPLID
AND A.EMPL_RCD = A_ED.EMPL_RCD
AND A_ED.EFFDT <= SYSDATE)
AND A.EFFSEQ =
(SELECT MAX(A.ES.EFFSEQ) FROM PS_EMPLOYEES A_ES
WHERE A.EMPLID = A_ES.EMPLID
AND A.EMPL_RCD = A_ES.EMPL_RCD
AND A.EFFDT = A_ES.EFFDT) )
ORDER BY 1 DESC

```

Save Save As New Query Preferences Properties New Union Return to Search

Menu

Search:

My Favorites
Person File
BYU Test
Department Self Service
Employee Self Service
Manager Self Service
Recruiting
Workforce Administration
Benefits
Compensation
Stock
Time and Labor
North American Payroll
Global Payroll
Payroll Interface
Workforce Development
Organizational Development
Enterprise Learning
Workforce Monitoring
Pension
Partners
Catalog Management
Set Up HRMS
Enterprise Components
Application Diagnostics
Tree Manager
Reporting Tools
Query Manager
Query Viewer
Schedule Query
PSmVision
Report Manager
PeopleTools
Change My Password
My Personalizations
My System Profile
My Dictionary

Saving Your Query

Once you have generated a query, you may want to save it to use it later. You can save a query at any time after you have selected one record and at least on field for your query. Save queries from any Query Manager page (except for the Records page) by clicking wither the Save or Save As link.

Enter a name to save this query as:

*Query:

Description:

Folder:

*Query Type:

*Owner:

Query Definition:

Query Names- Query names are upper case and can be up to 30 characters. You cannot have spaces or any special characters (other than an underscore). The basic guideline for query names at BYU is `BYU_XXX_YYYYYYY` where `XXX` is the three letter department code (ex. BEN, STD, STF, FIN, INT, PAY) and `YYYYYYY` is the rest of the descriptive query name.

Description- You can add a description for your query up to 30 characters, mixed case with special characters.

Type- User, Reporting, Process, Role

Owner

Private- Only the operator ID that created the query has access to it

Public- Any user who has access to the records in the query may run. Modify or delete it.

Criteria Tab

Often you do not want to retrieve every row of data in a record. By defining criteria, you can limit the data that is returned.

First, create a new query using the EMPLOYEES record. Select the EMPLID, NAME, and COUNTRY. Output the order by NAME.

Possible Criteria

Field- Select if you want to base the selection criteria on a field's value. Usually a field in another record component. When you select this option, you must go on to select a condition type.

Condition Type- This determines how Query Manager compares the values of the first expression to the second expression.

Expression- Select if you want PeopleSoft to compare your first value to an expression you specify. Will be covered in advanced query training.

Equal To

Add criteria for the COUNTRY field so that only employees listing Canada as their country appear in our query.

1. Select the *Criteria* tab
2. Click the *Add Criteria* button

Edit Criteria Properties

Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

*Condition Type: equal to

Choose Expression 2 Type


☐ Field
☐ Expression
☒ Constant
☐ Prompt
☐ Subquery

Expression 2

Define Constant

Constant:

OK Cancel

3. Select COUNTRY for Field
4. Select the Constant radio button in the Expression 2 type
5. Click the prompt  button in the *Define Constant* box
6. Type CAN into the *Enter Search String* box

Select A Constant

Enter Search String: CAN

Search

Cancel

7. Press the Search button and select the *Select Constant* link next to Canada
8. Press OK

Your criteria will now look like this:

Query Name: New Unsaved Query Description:


[Add Criteria](#) [Group Criteria](#) [Reorder Criteria](#)

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.EFFDT - Effective Date	Eff Date <=	Current Date (EffSeq = Last)	Edit	-
AND	A.COUNTRY - Country	equal to	CAN	Edit	-

[Save](#) [Save As](#) [New Query](#) [Preferences](#) [Properties](#) [New Union](#) [Return to Search](#)


In List

The In List operator allows you to match a value against a list of values that you define. With this option you are prompted to create a list with the Edit List group box. Modify your current criteria so that we include employees from CAN, NZL, and KOR. You will need to change the Condition Type to *In List*.

1. Click the *Edit* button for the criteria
2. Select the condition type *In List*. Notice the change in options
3. Click the prompt  button in the *Edit List* box


Edit Criteria Properties

Choose Expression 1 Type
☒ Field
☐ Expression

Expression 1
Choose Record and Field
Record Alias.FieldName:
 A.COUNTRY - Country

*Condition Type: **in list**

Choose Expression 2 Type
☒ In List
☐ Subquery

Expression 2
Edit List
List Members: 

[OK](#) [Cancel](#)

Add the following values: CAN, NZL, KOR

Edit List

List Members
<input type="checkbox"/> CAN
<input type="checkbox"/> NZL
<input type="checkbox"/> KOR

Value: [Add Value](#) [Search](#) [Delete Checked Values](#)


[Add Prompt](#)

[OK](#) [Cancel](#)

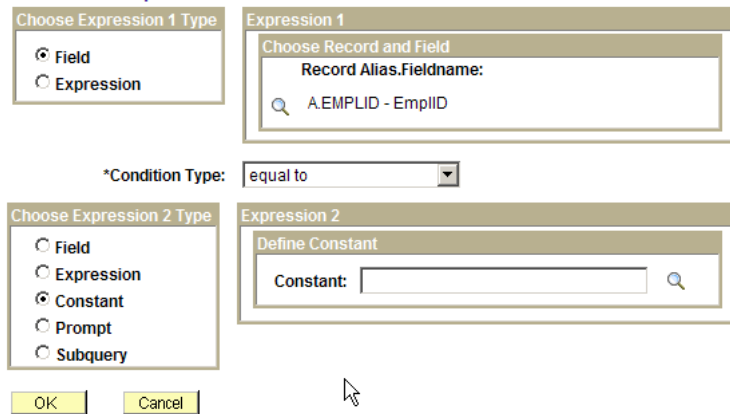
4. Preview the Query

Between

The Between operator selects fields whose values are between two values that are specified. This is an inclusive search where the upper and lower values are included in the search. Modify the query so it returns only employees whose EMPLID is between 000000000 and 000999999.

1. Select *Criteria* tab
2. Click the *Add Criteria* button
3. Select the *Field* radio button
4. Click the prompt  button
5. Select EMPLID

Edit Criteria Properties




Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record Alias and Fieldname

Record Alias.Fieldname:

 A.EMPLID - EmplID

*Condition Type: equal to

Choose Expression 2 Type

☐ Field
☐ Expression
☒ Constant
☐ Prompt
☐ Subquery

Expression 2

Define Constant

Constant:

OK Cancel

6. Change the *Condition Type* to Between
7. In the *Choose Expression 2 Type* box: Select *Const-Const*
8. Enter 000000000 for the first value and 000999999 for the second value
9. Click OK and preview the query

Edit Criteria Properties

Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record and Field

Record Alias.FieldName:

A.EMPLID - EmplID

*Condition Type: between

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 Constant

Constant: 000000000

Define Constant 2

Constant 2: 000999999

OK Cancel

Like


The Like operator retrieves data containing fields that match specified portions of a character string.

The Like operator is case-sensitive and uses wildcard characters to search for data:

% - Any string of 0 or more characters. For example, C% finds any string beginning with the letter C.

_ - The _ character matches any single character. For example, _ones will find any string of five characters ending in “ones” such as Jones or Cones.

Remove the criteria on the EMPLID and COUNTRY and add criteria to find all employees with last names that start with “Ric”.

1. Select the  button next to the EMPLID criteria
2. Remove the criteria on COUNTRY
3. Add Criteria
4. Choose the field Name
5. For expression 2, type Ric%
6. Click OK and preview your query

Edit Criteria Properties

Choose Expression 1 Type

☒ Field

☐ Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.NAME - Name

*Condition Type: like

Choose Expression 2 Type

☒ Constant

☐ Prompt

Expression 2

Define Constant

Constant: Ric%

OK Cancel

Is Null

When you use is null, you are searching for fields having no value. Null fields are not the same as zeroes or blanks. Null fields have no data, whereas zeroes and blanks are considered data. There is also an expression type *is not null*.

The only field types that PeopleTools supports that may contain null values are non-required Long Character, Image, Date, Time, and Datetime fields.

Boolean Expressions

Boolean expressions are used to further define your criteria rows. The Boolean expressions used in Query include AND, OR, NOT, and parentheses

By default, an AND Boolean is added each time you add a new criteria. You can change this type by selecting the desired value out of the drop down box in the *Logical* column for the row you wish to change.

Effective Date

Effective-dated rows are those records that contain the field EFFDT. The effective date field is used throughout PeopleSoft applications to give data a historical perspective and allows for the viewing of data changes over time. EFFDT enables rows of data to be classified in one of three categories:

History- Rows of data where the effective date is less than the effective date of the current row.

Current- The row of data with the highest effective date that is less than or equal to today's date (or the system date on the server). There can only be one row of current data.

Future- Rows of data whose EFFDT is greater than today's date.

Effective dates can be used in your query as criteria. When you start a new query and select an effective-dated record, Query will default to use the current row of data.

1. Create a new query
2. Select the EMPLOYEES record
3. A message appears stating that an effective date criteria has been added
4. Select the criteria tab

Query Name: New Unsaved Query Description:

[Add Criteria](#) [Group Criteria](#)

Criteria					
	Expression1	Condition Type	Expression 2	Edit	Delete
Logical	A.EFFDT - Effective Date	Eff Date <=	Current Date (EffSeq = Last)	Edit	Delete

[Save](#) [Save As](#) [New Query](#) [Preferences](#) [Properties](#) [New Union](#) [Return to Search](#)

5. Click the *Edit* button
6. Click the drop down box to see the additional edit options

Edit Criteria Properties

Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

[A.EFFDT - Effective Date](#)

*Condition Type:

Choose Expression 2 Type

☐ Field
☐ Expression
☐ Constant
☒ Current Date

OK Cancel

Eff Date <=

Eff Date <
Eff Date >
Eff Date >=
First Eff Date
Last Eff Date
between
does not exist
equal to
exists
greater than
in list

If you choose one of the 4 effective-date comparisons, you will return one effective-dated row of information per item, and you must choose with what you want the effective date compared.

Or, you may choose to select an alternative option”

First Effective Date- Returns the row that contains the lowest (oldest) effective date value

Last Effective Date- Returns the row that contains the highest effective date (could be future dated)

No Effective Date Option- Does not use any effective date logic, therefore returns all rows of effective-dated information

Runtime Prompts

A runtime prompt allows you to enter a value for a specified field at the time the query is run. The query will display only those rows of information that match the value entered in at the prompt.

Create a new query that retrieves employee information (EMPLOYEES) and has a prompt for the country.

1. Select the following fields: EMPLID, NAME, ADDRESS1, COUNTRY
2. Order the output by EMPLID

Now set up a prompt on COUNTRY. A prompt is simply a type of criteria.

1. Add a row of criteria for COUNTRY (in addition to the EFFDT criteria that already exists)
2. Expression 2 type should be set at *Prompt*

Edit Criteria Properties

Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.COUNTRY - Country

*Condition Type: equal to

Choose Expression 2 Type

☐ Field
☐ Expression
☐ Constant
☒ Prompt
☐ Subquery

Expression 2



Define Prompt

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

OK Cancel

3. Select the *New Prompt* link
4. Choose RFT Long for Heading Type

Edit Prompt Properties

Field Name:  COUNTRY	*Heading Type: RFT Long
*Type: Character	Heading Text: Country
*Format: Upper	*Unique Prompt Name: BIND1
Length: 3	
Decimals:	
*Edit Type: Prompt Table	Prompt Table:  COUNTRY_TBL
OK	Cancel

The first time you define a prompt in a query, you are presented with the *Edit Prompt Properties* page. Verify that the parameters are what you want.

Heading Types

RFT Long- The long field name from the record definition

RFT Short- The short field name from the record definition

Text- User defined text label

Edit Types

No Table Edit- Value entered in prompt dialog box is not validated

Prompt Table- Will be picked as the default if one is defined on the record definition. Allows validation against the prompt table, which enables lookup capabilities in the prompt dialog box

Translate Table- Will be picked if the field is validated against the translate table. Enables lookup capabilities in the prompt dialog box

Yes/No- Standard validation for fields represented as check boxes on pages

If the edit type is Prompt Table, make sure the Prompt Table field contains the correct record you want the user to prompt against.

Type, format, and length all default from the field definition of the database.

Your prompt is represented on the criteria page as a bind variable.

Records Query Expressions Prompts Fields Criteria Having View SQL Preview

Query Name: New Unsaved Query Description:

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition	Type	Expression 2	Edit	Delete
	A.EFFDT - Effective Date	Eff Date <=		Current Date (EffSeq = Last)	Edit	-
AND	A.COUNTRY - Country	equal to		:1	Edit	-

Save Save As New Query Preferences Properties New Union Return to Search

When you run the query, you will now be prompted to choose a country.

Country:

OK Cancel

Look Up Country

Search by: Country begins with

Look Up Cancel Advanced Lookup

Search Results

View All First 1-100 of 239 Last

Country	Description
ABW	Aruba
AFG	Afghanistan
AGO	Angola
AIA	Anguilla
ALB	Albania
AND	Andorra
ANT	Netherlands Antilles
ARE	United Arab Emirates
ARG	Argentina
ARM	Armenia
ASM	American Samoa
ATA	Antarctica
ATF	French Southern Territories
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BDI	Burundi
BEL	Belgium
BEN	Benin
BFA	Burkina Faso
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BHS	Bahamas
BIH	Bosnia and Herzegovina
BLR	Belarus
BLZ	Belize
BMU	Bermuda
BOL	Bolivia
BRA	Brazil

Multiple Prompts

To add a prompt for an additional field you must add another row of criteria. If you have more than one prompt in a query, you define subsequent prompts through an *Edit Prompts Properties* page that manages all the prompt definitions.

From the Criteria tab:

1. Add criteria for STATE
2. For expression type 2, select Prompt
3. Select the *New Prompt* link

Edit Criteria Properties

Choose Expression 1 Type

☒ Field
☐ Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.STATE - State

*Condition Type: equal to

Choose Expression 2 Type

☐ Field
☐ Expression
☐ Constant
☒ Prompt
☐ Subquery

Expression 2

Define Prompt

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

OK Cancel

4. Click OK and OK again on the *Edit Criteria Properties* page

Edit Prompt Properties

Field Name: STATE

*Heading Type: RFT Short

Heading Text: State

*Type: Character

*Format: Upper

Length: 6

Decimals:

*Edit Type: Prompt Table

*Unique Prompt Name: BIND2

Prompt Table: STATE_TBL

OK Cancel

Your criteria should now show two runtime prompts. Preview the query using USA as the country and IL as the State.

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

Country = USA, State=IL

View All | [Run Query](#) | [Download to Excel](#) | First Last

	ID	Name	Country	Address 1
1	011260866	Fallon, Jessica Louise	USA	Semester at Nauvoo
2	011260866	Fallon, Jessica Louise	USA	Semester at Nauvoo
3	023792816	Eagar, Jennifer	USA	1062 Waveland
4	088735908	Burton, Corey J	USA	2522-B Leeper Drive
5	145332971	Yoshikawa, Vance W	USA	31 Derby Way
6	228507002	Belnap, Daniel Lee	USA	13337 E Madison Park #2
7	228507002	Belnap, Daniel Lee	USA	13337 E Madison Park #2
8	228507002	Belnap, Daniel Lee	USA	13337 E Madison Park #2
9	230313425	Janmohamed, Aaron Q	USA	2212 SABLE OAKS DR
10	233117983	Burns, Brenda Lynn	USA	PO Box 215
11	235813184	Nesbit, Colin T	USA	1046 Woodleaf Drive
12	235813184	Nesbit, Colin T	USA	1046 Woodleaf Drive
13	242261696	Bonner III, Tommie Lee	USA	1409 S. Yale Dr.
14	264904645	Anderson, Tahila	USA	5424 S. University Ave #3S
15	268883366	Glass, Rob Woodrow	USA	P O Box 354 #1 Buckeye Lane
16	279090699	Balaguy, Theresa A	USA	P.O. Box 215
17	279417183	Kerksiek, Amy Lee	USA	868 Genesee Drive
18	357698753	McMurray, Melissa Ann	USA	P.O. Box 215
19	366175872	DiPrima, Katherine K	USA	P O Box 519
20	367651797	Williamson, Loni S	USA	3758 Northline Dr.
21	367651797	Williamson, Loni S	USA	3758 Northline Dr.
22	377148319	Bitton, Emily	USA	4616 Sunningdale Drive
23	381870859	Parker, Tory L	USA	2309 S 1st St #104
24	392089115	Perrins, Erik Samuel	USA	570 Yellowstone Drive
25	477781214	Bardsley, Aubrey	USA	5 Schober Ct
26	489140178	Clements, Nancy G	USA	2 South 134 Hampton Lane
27	494970049	Jackson, Merrill J	USA	192 Bobette Lane
28	495092089	Goode, Alisha Kay	USA	2807 Willow Bend Rd
29	502712709	Szilagyi, Jessica C	USA	302 Harwich Pl
30	511700171	Piet, Derik Carolina	USA	320 Hibbard Rd

Queries with Multiple Records

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

Tables and Views

A record listed in your Directory Tree may be either a table or a view. A table physically stores specific data. A view is a logical representation of data and may consist of data from multiple tables depending on how the record was defined in Application Designer. Additionally, views may already have criteria associated with them. Therefore, it may be easier for application users to create a query from a view rather than a table. If an appropriate view of the required tables is not provided and the user requires data from multiple tables, the application user must know on which tables the data he or she requires is stored, and how to join those tables.

A simple solution is for the application user to submit a request to developers to create a view for them. Then within query, the user will only have to access one record (a view) for the report and not have to worry about accessing multiple tables and specifying additional criteria.

Joins

A join enables you to retrieve information from two or more records or specify criteria from more than one record. Whenever you perform a join, the records involved are linked based on common fields.

In Query, predefined joins can be generated as a Record Hierarchy join or a Related Record join. Since these types of joins are predefined, you do not have to add any criteria to link the records manually.

Record Hierarchy- A hierarchical join uses records that are parents or children of each other. The hierarchical relationship is defined by the *Parent Record* in the Application Designer

Related Record- Related Record joins use records from non-hierarchical records that are related by common fields. For example, description tables for common codes are related records. This relationship is determined by the Prompt Table edit defined for a field in the Application Designer.

Related Record Join

The related records are specific to a field in the current record. If a field has a related record, you will see it listed as a link across from the field name.

1. Create a new query using employee data (EMPLOYEES)
2. Select the EMPLID, NAME, and ADDRESS1
3. Click the Join STATE_TBL link



4. Choose *Join to get additional fields only*, Press OK
5. Select DESCR
6. Add a criteria to show only employees from Illinios (IL)
7. Preview the query

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

Query Name: New Unsavd 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.EMPLID - EmplID	Char11				ID		Edit	-
2	A.NAME - Name	Char50				Name		Edit	-
3	A.ADDRESS1 - Address Line 1	Char55				Address 1		Edit	-
4	B.DESCR - Description	Char30				Descr		Edit	-

[Save](#) [Save As](#) [New Query](#) [Preferences](#) [Properties](#) [New Union](#) [Return to Search](#)