
PeopleTools 8.56: Query

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Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft Applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

PeopleSoft Hosted Online Help

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Online Help website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted online help is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support, because that documentation is now incorporated into the hosted website content. The Hosted Online Help website is available in English only.

Note: Only the most current release of hosted online help is updated regularly. After a new release is posted, previous releases remain available but are no longer updated.

Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Online Help website, you can install the PeopleSoft Online Help locally. If you install the help locally, you have more control over which documents users can access and you can include links to your organization's custom documentation on help pages.

In addition, if you locally install the PeopleSoft Online Help, you can use any search engine for full-text searching. Your installation documentation includes instructions about how to set up Elasticsearch for full-text searching. See *PeopleTools Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Elasticsearch, see the documentation for your chosen search engine.

Note: See [Oracle Support Document 2205540.2 \(PeopleTools Elasticsearch Home Page\)](#) for more information on using Elasticsearch with PeopleSoft.

Note: Before users can access the search engine on a locally installed help website, you must enable the Search field. For instructions, go to your locally installed PeopleSoft Online Help site and select About This Help >Managing Locally Installed PeopleSoft Online Help >Enabling the Search Button and Field in the Contents sidebar.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals
- Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft Applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

<i>Typographical Convention</i>	<i>Description</i>
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
... (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe ().
[] (square brackets)	Indicate optional items in PeopleCode syntax.

Typographical Convention	Description
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
=>	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
- E&G (Education and Government)

Translations and Embedded Help

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

Using and Managing the PeopleSoft Online Help

Click the Help link in the universal navigation header of any page in the PeopleSoft Online Help to see information on the following topics:

- What's new in the PeopleSoft Online Help.
- PeopleSoft Online Help accessibility.
- Accessing, navigating, and searching the PeopleSoft Online Help.
- Managing a locally installed PeopleSoft Online Help website.

Understanding PeopleSoft Query

PeopleSoft Query is an end user reporting tool. This book explains the basic concepts of selecting data, designing simple and complex queries, and sending query results to other reporting tools.

To take full advantage of the information covered in this book, you should have a basic familiarity with relational database concepts and SQL. In addition, this book assumes that you have a basic understanding of how to use PeopleSoft applications and are familiar with PeopleTools.

PeopleTools Related Links

[Hosted Online Help Home](#)

[PeopleSoft Information Portal](#)

[My Oracle Support](#)

[Oracle University](#)

[Oracle's PeopleSoft PeopleTools 8.56 Home Page \(Doc ID 2259140.2\)](#)

[Elasticsearch Home Page \(Doc ID 2205540.2\)](#)

"PeopleTools Product/Feature PeopleBook Index" (PeopleTools 8.56: Getting Started with PeopleTools)

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Send your suggestions to PSOFT-INFODEV_US@ORACLE.COM. Please include release numbers for the PeopleTools and applications that you are using.

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Chapter 1

Getting Started with PeopleSoft Query

PeopleSoft Query Overview

PeopleSoft Query is an end user reporting tool. With PeopleSoft Query, you can extract the precise information that you are looking for by using visual representations of your PeopleSoft database, without writing SQL statements. The queries that you write can be as simple or as complex as necessary; they can be one-time queries or queries that you use repeatedly. This document explains the basic concepts of selecting data, designing simple and complex queries, and sending query results to other reporting tools.

To take full advantage of the information covered in this book, you should have a basic familiarity with relational database concepts and SQL. In addition, this book assumes that you have a basic understanding of how to use PeopleSoft applications and are familiar with PeopleTools.

You can use PeopleSoft Query in the following ways:

- To display data in a grid (on the Run page).

You can preview queries within Query Manager, displaying the result set in a grid for review. This option is useful as you refine your queries.

- To run queries as a separate process.

You can run queries as a separate process and have results sent to a separate browser window by clicking the HTML link from Query Manager or Query Viewer.

Note: Query Viewer is a read-only version of Query Manager. See [Using Query Viewer](#) for additional details.

- To schedule a query.

You can schedule queries to run at predefined times or on recurring schedules. The results of scheduled queries are routed to PeopleSoft Report Manager.

- To download query results to a Microsoft Excel spreadsheet and XML.

You can have the data downloaded and formatted as a Microsoft Excel spreadsheet and XML. These options are available in your query search results, or after you run or schedule a query.

- To determine to whom to forward information.

You can write queries that PeopleSoft Workflow uses to determine to whom to send emails, forms, or worklist entries. This type of query is called a *role query*.

- To create a data source for PeopleSoft nVision reports.

PeopleSoft nVision reports can use queries as a data source.

- To serve as a data source for Pivot Grid models.

Queries are a primary data source for PeopleSoft Pivot Grid, which you can use to build Pivot Grid models.

- To serve as a data source for defining online analytical processing (OLAP) Cube Builder dimensions and facts.

Queries are a primary data source for PeopleSoft Cube Builder, which you can use to build OLAP cubes.

- To serve as a data source of the same name for Oracle BI Publisher (formally PeopleSoft XML Publisher).

With BI Publisher, you can apply advanced formatting to the output of your queries and streamline report and form generation.

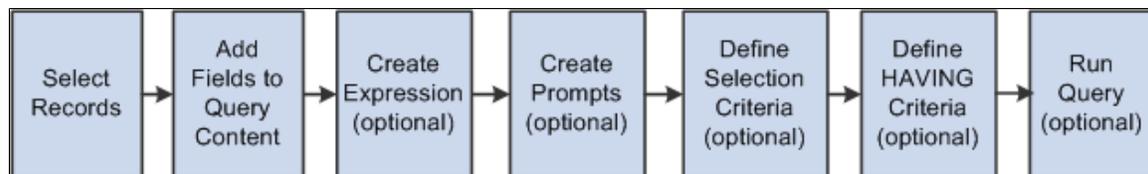
Queries that are used as data sources for BI Publisher need to be run through Reporting Tools >BI Publisher to see BI Publisher-related formatting.

Note: Because PSQUERY is confined by the query limitations that are imposed by the platform on which PSQUERY runs, invalid queries that result in database errors will also result in errors when constructed and run through PSQUERY.

PeopleSoft Query Business Processes

Image: PeopleSoft Query business process flow

This process flow illustrates the PeopleSoft Query business processes.



Other Sources of Information

This topic provides information to consider before you begin to use PeopleSoft Query.

In addition to implementation considerations presented in these topics, take advantage of all PeopleSoft sources of information, including the installation guides, release notes, product documentations, red papers, the Updates + Fixes area of My Oracle Support, and PeopleSoft's curriculum courses.

Related Links

"PeopleTools Overview" (PeopleTools 8.56: Getting Started with PeopleTools)

PeopleSoft Query Implementation

PeopleSoft Query is automatically installed with your Oracle's PeopleTools installation. Before using PeopleSoft Query, you must set up query security.

Step	Reference
1. Define query profiles.	See "Defining Query Profiles" (PeopleTools 8.56: Security Administration).
2. Build query access group trees.	See "Building Query Access Group Trees" (PeopleTools 8.56: Security Administration).
3. Work with query trees.	See "Working with Query Trees" (PeopleTools 8.56: Security Administration).
4. Define row-level security and query security records.	See "Defining Row-Level Security and Query Security Records" (PeopleTools 8.56: Security Administration).

Chapter 2

Creating and Running Simple Queries

Understanding Query Types

PeopleSoft Query provides the following different types of queries:

User query

User queries retrieve data from the database directly from Windows-based Query Designer or the web-based Query Manager and Query Viewer applications.

Note: Because of the range of possible circumstances in which you might run an ad hoc query, there are no special considerations or requirements that apply to all of them. Oracle PeopleSoft currently supports the Windows-based Query Designer, but we no longer enhance this version. Since PeopleTools 8.50, all enhancements such as new features or functionality are added only to Query Manager and Query Viewer applications.

There are two usage types of User query:

- Reporting query
- PS/nVision query

Reporting query

Reporting queries are essentially the same as user queries, except that they are designed to be used by another reporting tool. Reporting queries can be used as data sources for ad hoc queries, scheduled queries, Connected Query, Composite Query, Pivot Grid, PS/nVision, Cube Manager, or BI Publisher.

When you define a custom report, you often include runtime variables that users specify when they run the report. For example, you might want users to be able to say which business unit, location, or time period to report on. Therefore, your reporting query may include one or more runtime prompt variables.

If your query requires input parameters, you must decide how users should enter them. If they run the report from any of the PeopleSoft Query applications, they can enter values into the page that appears in Query Manager, Query Viewer, or Scheduled Query.

When reporting queries are used as a data source to another third party reporting product, you may need to:

- Create or modify a page to collect the necessary input parameters.
- Create or modify a record definition, based on the input parameters.
- Add a process definition to PeopleSoft Process Scheduler.

See [Defining Criteria](#) , "Adding New Process Definitions" (PeopleTools 8.56: Process Scheduler).

Process query

Process queries are queries that you intend to run periodically using a batch process. Create these automated batch processes using PeopleSoft Application Engine and the Query API. For example, you could write a query that returns any overdue receivables and schedule a batch process to run the query once a week.

Note: Process queries override the automatic row-level query security logic that is applied to all other types of queries. For this reason, you should restrict access to creating these types of queries to administrative roles and not include any sensitive data columns in the select list for these types of queries. You can restrict access to creating or modifying these queries based on Query Profile settings assigned to a Permission List. Also note that Workflow queries also override the row-level security logic.

Role query

PeopleSoft Workflow uses role queries to determine to whom to send an email, form, or worklist entry. A role query needs to return one or more role IDs based on the data that has been saved on the page that is triggering the routing.

Because a role query returns a list of role users, the record definition that you want is either PSROLEUSER (which lists role users and the roles to which they are assigned) or ROLEXLATOPR (which lists role users and their IDs).

The only field that you select in your query is ROLEUSER. Of course, you use other fields and join to other record definitions to specify the criteria that role users can select. But no matter how complex the query is—how many joins or selection criteria it has—it must return ROLEUSER and nothing more.

Define a role as a query because you want to route items differently based on the context of the transaction that the users are performing. Thus, every role query contains at least one bind variable whose value gets set at runtime. The bind variable or variables correspond to the data on which you want to base the routing decision. At runtime, the system sets the values of the bind variables based on data from the page that triggers the event.

Save your role queries with names that begin with [ROLE] so that you can identify them as role queries.

See "Understanding PeopleSoft Workflow" (PeopleTools 8.56: Workflow Technology) .

Archive query

You can save a query as an archive query if you have access to workflow queries that include *Archive Query*, *Role Query*, and *Process Query*. These queries are generally only used by the PeopleSoft Data Archive Manager.

See "Understanding PeopleSoft Data Archive Manager" (PeopleTools 8.56: Data Management).

Note: You can only create and save archive queries as *public*.

PS/nVision query

Use PeopleSoft Query to create a query in order to specify the data source for a PS/nVision report layout. However, if you want to use your query in a PS/nVision matrix layout, you must apply aggregate functions to at least one column.

Queries used with PS/nVision tabular layouts do not have the same restrictions as matrix layout queries; they are like other reporting queries and do not require an aggregate column.

See [Working with Aggregate Functions](#), [Working with Subqueries](#), [Working with Unions](#), [Joining Records](#), "Understanding Layouts" (PeopleTools 8.56: PS/nVision).

Understanding Dirty Reads in PeopleSoft Query

Dirty Reads mode—also called Read Only mode—enables you to configure your servers to avoid table locking while running PeopleSoft queries. When Dirty Read mode is enabled for PeopleSoft Query, the performance is increased as queries do not lock on other INSERT and UPDATE operations.

Dirty Read mode is set in configuration files for PeopleSoft Application server and PeopleSoft Process Scheduler server:

- In PeopleSoft Application server, under section [PSQRYSRV], the setting ‘Use dirty-read’ controls behavior for PSAPPSRV, PSQCKSRV, and PSQRYSRV.
- In PeopleSoft Process Scheduler server, under section [PSAESRV], the setting ‘scheduledquery-dirtyread’ controls behavior for scheduled query process executing under PSAESRV process.

Related Links

"Use Dirty-Read" (PeopleTools 8.56: System and Server Administration)

"Setting Parameters for the Application Engine Server" (PeopleTools 8.56: Process Scheduler)

Common Elements Used to Create and Run Simple Queries

Add Record

Click this link to access the Query page, where you can add fields to the query content or add additional records.

Show Fields

Click this link to display the fields included in the record.

Col (column)

Displays the current column number for each field listed.

Query Name

New Unsaved Query appears in this read-only field until you change it on the Properties page. This field appears on all of the Create New Query pages.

Record.FieldName

Displays the record alias and name for each field listed.

Note: You can select and add up to 676 records for each query. The record alias goes from A to Z for record number 1 to record number 26. When you add record number 27 and after, the record alias starts at AA and follows the pattern AB, AC, AD, and so on. The record alias doesn't include AS and TO, and ends with ZX, ZY, ZZ.



The Key icon indicates key fields.



Click the Delete button to delete the row.

A confirmation message appears. Click the Yes button to proceed with the deletion. Click the No button to cancel the deletion.



Click the Use as Criteria or Add Criteria button to open the Edit Criteria Properties page, where you can determine how this field will be used as a criterion for the current query.



From the Query tab, click the Folder button to view the fields for the chosen record, if they are not already displayed. Query Manager expands the record so that you can see the fields and make sure that this record has the content that you want.

Click the Folder button again to hide the fields for a record.

A key is displayed to the left of key fields.



Hover over to view the feeds of this query.

See "Understanding Query Feeds" (PeopleTools 8.56: Feed Publishing Framework) .

Save

Click to save a query at any time after you have selected one record and at least one field for it.

See [Saving Queries](#), [Updating Existing Queries](#).

Save As	<p>Click to access the Query Properties page where you can enter basic information about the query and save it.</p> <p>See Saving Queries, Updating Existing Queries.</p>
New Query	<p>Click to access the PeopleSoft Query Manager where you can start creating a new query.</p> <p>See Creating New Queries.</p>
Preference	<p>Click to access the Preference page where you can specify query preferences.</p> <p>See Specifying Query Preferences.</p>
Properties	<p>Click to access the Query Properties page where you can view and edit data about the current query, such as the query name and description. You can also record information about your query so that you can use it again in the future. In addition, you can define how images are displayed in the query results.</p> <p>See Viewing and Editing Query Properties.</p>
Public As Feed	<p>This link is available only when query was not published as feed.</p> <p>Click to access the PSQuery Data Type - Publish Feed Definition page where you can define feed properties such as the feed title, security, and other options.</p> <p>See "Understanding Query Feeds" (PeopleTools 8.56: Feed Publishing Framework).</p>
Manage Feed	<p>This link is available only when query was published as feed.</p> <p>Click to access the PSQuery Data Type - Publish as Feed page where you can define feed properties such as the feed title, security, and other options.</p> <p>See "Understanding Query Feeds" (PeopleTools 8.56: Feed Publishing Framework).</p>
Publish as Pivot Grid	<p>Click to display all existing Pivot Grid models that use the current query as the data source. You also have the options to either edit the existing Pivot Grid models or add new ones.</p> <p>If you add a new model, a unique title name must be provided. Similar to the Pivot Grid Wizard, this feature enables you to open and edit the Pivot Grid models for which you are granted permission. The security access for using this feature is the same as using Pivot Grid Wizard.</p> <p>See "Creating Pivot Grid Models Using Query Manager" (PeopleTools 8.56: Pivot Grid).</p>

New Union

This link is available only when query does not have union.

Click to create an union of multiple queries.

See [Working with Unions](#).

Delete Union

This link is available only when a query has a union attached.

Click to delete an existing union of multiple queries.

See [Working with Unions](#).

Return to Search

Click to return to the Query Manager search page where you can create new queries, modify existing queries, schedule queries, and organize queries.

See [Modifying Queries](#), [Scheduling Queries](#), [Organizing Queries](#).

Creating New Queries

Specifying Query Preferences

Use the Query Preferences page to (QRY_PREFERENCES) specify query preferences.

Navigation

To access the Query Preferences page:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. Access the Query Preferences page by clicking the Preferences link on any page of the Query Manager component (except the Run page).

Image: Query Preferences page

This example illustrates the fields and controls on the Query Preferences page. Definitions for the fields and controls appear following the example.

Name Style

Specify how record and field names are displayed. Select one of the following:

- *Description only*
- *Name and Description*

This is used mostly for global users where the record and field names are in English but the descriptions are in another language.

Enable Auto Join

Select to indicate that your query should automatically determine the join conditions when a new record component is added.

Related Links

[Selecting Records](#)

[Adding Fields to Query Content](#)

[Previewing Query Results Prior to Saving](#)

Selecting Records

Use the Records page (QRY_RECORDS) to select the records upon which to base the new query.

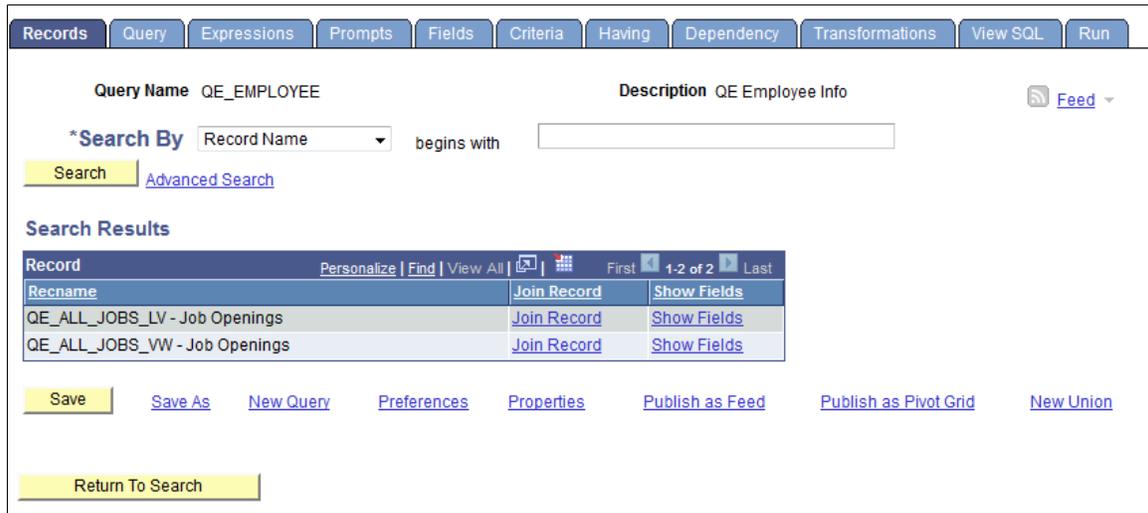
Navigation

To access the Records page:

1. Select Reporting Tools > Query > Query Manager.
2. Click the Create New Query link.
3. Click the Search button.

Image: Records page

This example illustrates the fields and controls on the Records page.



Note: In your PeopleSoft database, tables are represented as record definitions. In PeopleSoft Query, we refer to the record definitions as *records*.

To select a record in the Records page:

1. Find the record upon which to base the query.
 - If you know the entire record name, description, access group name, or field name included in the record, select the appropriate item in the Search By drop-down list.

Enter the name in the field (or click the Look Up button if searching by access group name). Then click the Search button to display a list of records that match your search criteria.

- You can perform a partial search by entering part of the name in the Search By field.

Note: Enter as much of the name as possible to find the correct record.

- You can perform an advanced search by clicking the Advanced Search link.

You can perform a progressively narrower search by selecting conditions for the record name, record description, or field name contained in the record, and then entering an appropriate search string in the fields that correspond to your selections. For access group name, select a condition, click the Lookup Name button, and then select the access group name from the list of access group trees that appears.

- If you want to view a list of available records, leave the field blank and click the Search button to display a list of up to 300 records.

By default, only the first 20 records appear on the page. To see more records from the list, use the navigation buttons and links located on the header bar. To display 100 records, select the View 100 link, and use the scroll-bar to go through the rest of the list.

2. If you want to view a record's fields, click the Show Fields link next to the record in question.

A page displays the record's fields. You can use this information to verify whether you want to base the query upon this record.

3. After viewing the fields, click the Return button to return to the Records page.
4. Click the Add Record link next to the record that you want to add to the query.

The Query page appears enabling you to select the fields from the selected record to add to the query.

Note: In most cases, you select only one base record from this page. If you navigate back and select a second base record, you are creating an *any join* for the two records.

Related Links

[Creating Any Record Joins](#)

Adding Fields to Query Content

Use the Query page (QRY_QUERY) to add fields to the query content and add additional records by performing joins.

Navigation

To access the Query page:

1. Select Reporting Tools >Query >Query Manager.
2. Click the Create New Query link.
3. Click the Search button to find an existing record, and click the Add Record link for the desired record.

Note: When you first access this page, if you have selected the record for an effective-dated table, a page informs you that an effective date criteria has been automatically added for this record. Click the OK button to close the page.

Image: Query page

This example illustrates the fields and controls on the Query page. Definitions for the fields and controls appear following the example.



Click the Sort button once to list fields in alphabetical order. Click the button again to return to the original sort.

Alias

The alias name that the system automatically assigns to the selected records.

Note: You can select and add up to 676 records for each query. The record alias goes from A to Z for record number 1 to record number 26. When you add record number 27 and after, the record alias starts at AA and follows the pattern AB, AC, AD, and so on. The record alias doesn't include AS and TO, and ends with ZX, ZY, and ZZ.

Hierarchy Join

Click this link to join a child table to its parent table.

Check All

Click this button to check all fields in the record. After you select a field, the system automatically adds it to the query and you can view it on the Fields page.

This button does not appear when the field names are hidden.

Uncheck All

Click this button to clear all fields in the record.

Fields	Select the check box to the left of each field that you want to add to your query content.
Join <record name>	Click the related record join link to join two records that are based on a shared field. For example, in the above example, the QE_DEPT_TBL record is related to the QE_EMPLOYEE record by the DEPTID field.
Expand All Records	Click this button to view all fields in the records This button appears only when there is more than one record listed.
Collapse All Records	Click this button to hide all fields in the records. This button appears only when there is more than one record listed.

In the Query page, to add fields to your query:

1. Select the fields to add to the query either by clicking their Fields check boxes or by clicking the Check All Fields button.
2. When you have selected the desired fields, select the Fields tab.

Related Links

[Joining Records](#)

Viewing Fields Selected for Output

Use the Fields page (QRY_FIELDS) to view how fields are selected for output and the properties of each field. You can also change headings, order-by numbers, and aggregate values.

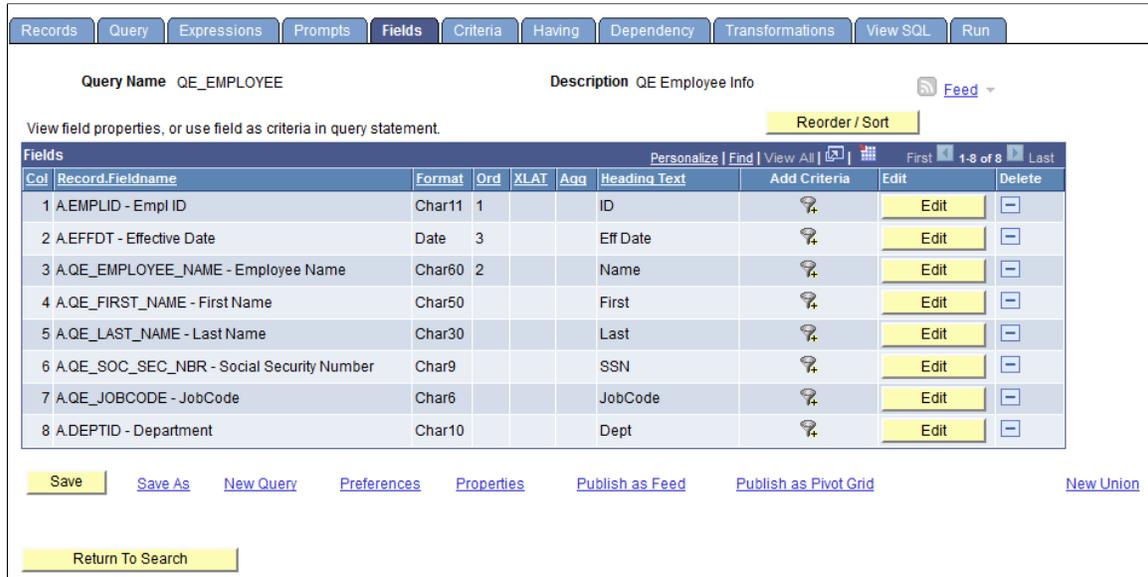
Navigation

To access the Fields page:

1. Select Reporting Tools >Query >Query Manager.
2. Click the Create New Query link.
3. Click the Search button to find an existing record.
4. Click the Add Record link for the desired record.
5. Select the desired fields, and then select the Fields tab.

Image: Fields page

This example illustrates the fields and controls on the Fields page. Definitions for the fields and controls appear following the example.



Format

Field type and length for each field listed.

Ord (order)

Shows one or more fields selected to sort your query output.

If the field is the first sort field, a *1* appears, and the system sorts rows that are based on this field first. The second sort field that is selected is numbered *2*, and so on.

You can also specify a descending sort order. The letter *D* appears if you are sorting fields in descending order.

XLAT (translate)

Specifies the translate value that you want to appear in the query results: *N* (none), *S* (short), or *L* (long).

The table you’re querying may include fields that use the Translate table. If so, the field itself contains a short code of some kind, for which the Translate table provides a set of corresponding values. For example, if the table includes an *EFF_STATUS* field, the value is *A* or *I*, which the Translate table translates into *Active* and *Inactive*. If a field has values on the Translate table, a letter appears in the XLAT column for that field.

In your query results, you might want to display the translated value rather than the code (for example, *Active* instead of *A*). To instruct PeopleSoft Query to make this substitution, specify *L* as the translate value.

Translate tables are effective-dated, so you must select which effective date to use for them. For most tables, PeopleSoft Query defaults to the current date, meaning that it uses the currently active list of Translate table values. However, if the

table you're querying is also effective-dated, PeopleSoft Query uses the value in the EFFDT field for a row. That is, for each row the query returns, PeopleSoft Query uses the Translate table values that were active as of that row's effective date.

If neither of these effective date options are what you want, you have two more options:

- If the table you're querying includes another date field, you can use the value in that field as the effective date for Translate table values.

Click the Edit button, select the Field option, and then select the field name from the drop-down list box.

- Use an expression to set the effective date for the Translate table.

For example, enter a fixed effective date or prompt the user for a fixed effective date.

Agg (aggregate)

Aggregate function for each field listed.

Heading Text

The heading assigned to appear at the top of the column for the query output for each field listed.

Add Criteria

Select the Add Criteria icon to access the Edit Criteria Properties page, where you can edit selection criteria properties for your query statement.

See [Defining Criteria](#)

Edit

Click this button to display the Edit Field Properties page.

See [Viewing and Editing Query Properties](#).

Reorder/Sort

Click this button to display the Edit Field Ordering page, which enables you to change the column order and/or sort order for multiple fields.

Changing the Column and Sort Order for Multiple Fields

Use the Edit Field Ordering page (QRY_FIELDS_ORDER) to change the column and sort order for multiple fields.

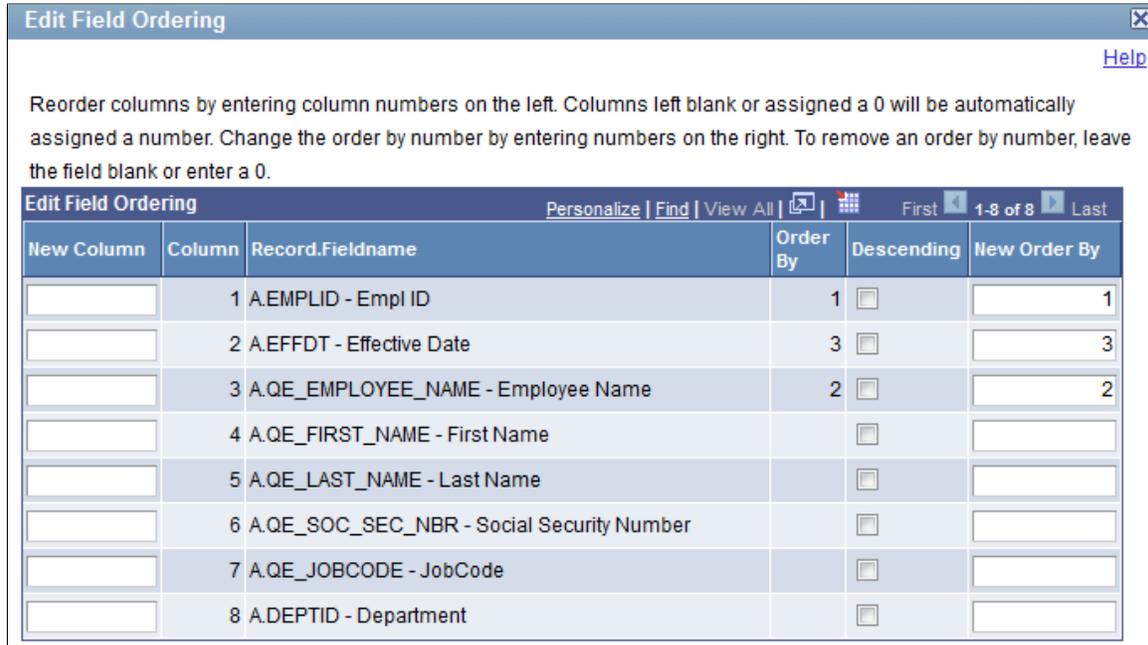
Navigation

To access the Edit Field Ordering page:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. Select the Fields tab, and click the Reorder/Sort button.

Image: Edit Field Ordering page

This example illustrates the fields and controls on the Edit Field Ordering page. Definitions for the fields and controls appear following the example.



- New Column** Enter the new column number to reorder the columns. Columns that are left blank or assigned a zero are automatically assigned a number.
- Column** By default, the fields appear in the same order as they are listed in the record on the Query page.
- Order By** Indicates current sort order.
- Descending** Select this check box to sort fields in the descending order.
- New Order By** Enter the new sort order number to change the sort order. Enter zero to remove a sort order. If the field is the first sort field, enter 1 and the system sorts rows based on this field first. To designate the second sort field, enter 2, and so on.

Editing Field Properties

Use the Edit Field Properties page (QRY_FIELDS_SEC) to format the query output; for example, to change column headings or display translate table values in place of codes.

Navigation

To access the Edit Field Properties page:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. Select the Fields tab, and then click an appropriate Edit button.

Image: Edit Field Properties page

This example illustrates the fields and controls on the Edit Field Properties page. Definitions for the fields and controls appear following the example.

Field Name

The name of the field for which you are editing properties.

Heading

Select a column heading from the following options:

- *No Heading*: The column does not have a heading.
- *Text*: Select this option and enter the column heading text in the Heading Text box.
- *RFT Short*: The column heading is the short name from the record definition.
- *RFT Long*: The column heading is the long name from the record definition.

Unique Field Name

Used for translations. There is no need to change the default value, which is the alias for the record followed by the record field name (for example, A.NAME or B.EMPLID).

Aggregate

If you are using aggregate values, select the aggregate function value for this field.

An aggregate function is a special type of operator that returns a single value based on multiple rows of data. When your query includes one or more aggregate functions, PeopleSoft Query

collects related rows and displays a single row that summarizes their contents.

- None: query is not using aggregate functions.
- Sum: Adds the values from each row and displays the total.
- Count: Counts the number of rows.
- Min (minimum): Checks the value from each row and returns the lowest one.
- Max (maximum): Checks the value from each row and returns the highest one.
- Average: Adds the values from each row and divides the result by the number of rows.

Related Links

[Working with Aggregate Functions](#)

Viewing and Editing Query Properties

Use the Query Properties page (QRY_PROPERTIES) to view and edit data about the current query such as the query name and description, record information about your query, and so on. You also use this page to define how the image fields are displayed in the query results.

Navigation

To access the Query Properties page:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. Click the Properties link on any page of the Query Manager component except the Run page.

Image: Query Properties page

This example illustrates the fields and controls on the Query Properties page. Definitions for the fields and controls appear following the example.

Query Properties

*Query:

Description:

Folder:

*Query Type:

*Owner:

Distinct Security Join Optimizer

Query Definition:

Image Fields

Blank Value

Image Data

Image Hyperlink

Last Updated Date/Time: 06/26/2013 4:31:27PM

Last Update User ID: QE_CQ

Query Use this field to edit the name of the query. The field can take 30 characters. The name can contain US ASCII alphabetic and numeric characters, as well as underscores.

Description Edit the description of the query.

Folder Enter the name of the folder in which you would like the query to reside.

To create a new folder, enter the name of the new folder.

Query Type Select *Archive*, *Process*, *Role* or *User*.

Workflow queries are either *Process* or *Role*.

See [Understanding Query Types](#).

Owner Select from the following options:

- *Private*: If you select this option, only the user that created the query can open, run, modify, or delete the query.
- *Public*: If you select this option, any user with access to the records used by the query can run, modify, or delete the query (if he or she has access to public queries).

Distinct

Select this option to eliminate duplicate rows in a query result.

Some queries return the same row more than once because it satisfies the query in more than one case. For example, if you query the JOB record to return all JOBCODES, you receive multiple rows that look identical because some employees have the same JOBCODE. If you select the Distinct option, you receive each JOBCODE once.

This option is not visible for union selections because unions are automatically distinct.

Note: In Oracle databases, PeopleSoft LongCharacter fields use the CLOB datatype when their length definition exceeds 1333. Since CLOBs and other binary datatypes are not valid columns for all operators, all queries including columns with LongCharacter field length definition that exceeds 1333 should not include the DISTINCT operator.

Security Join Optimizer

If the tables being joined in the current query are associated with the same query security record, use this option to determine whether the joins should be optimized.

- Select this option to enable query to join once to the security record and use those results to filter all subsequent joins to that *same* security record.
- Clear this option to enable query to join multiple times to the same security record.

Note: For left outer joins, PSQuery uses either 'inner join' or 'in line view' (in the case of Oracle (+) proprietary syntax) logic to join the individual tables to their security records first, before performing the left outer join. In these cases, the Security Join Optimizer option is not applied to ensure the query returns correct results.

Query Definition

Free text area that you can use to further describe your query.

Image Fields

Use this section to define how the image fields are displayed in the query results. The available options are:

- **Blank Value:** Select this option to not display the images.
- **Image Data:** Select this option to display embedded images (inline).

Note: When Image Data option is selected, a query run to HTML output will display the images as embedded in the query results (inline). All other output formats will display the image field data as a Base64 encoded data string.

- Image Hyperlink: Select this option to display the image field values as hyperlinks. When you click any of these image hyperlinks, the image is displayed in a new browser window.

Note: The query image URL is distinct for each row in the result set; that is, the query image URL specifically returns the image corresponding with that particular row containing the URL.

Query Image Field Handling

Query supports the use of *image* fields in the query definition. Setting the *Image Fields* property under the Query Properties page determines how these field values are displayed in the Query resultset. If the image field property is set to *Image Data*, the image field value (binary image) will be displayed as an embedded image in the resultset when you run the query to HTML output format. If you run a query to any other type of format (for example, XML or TXT), a Base64 encoded data string representing the image will be displayed instead. When setting the property to *Image Hyperlink*, a URL will be returned in place of the field value. When accessed, this URL will return the image as an image file in a new browser window.

Regardless of how the query is run, whether through PSQuery API methods (RunToRowset, RunToFile, and so on) or through the Query Manager or Query Viewer page, the image fields are handled the same way.

Note: The above-mentioned image handling behavior applies to PeopleSoft *Image* type fields only. Although other field types such as *Long Character*, *Attachment*, and *Image Reference* are capable of storing image data, these field types are not handled by PSQuery in the same way.

Although all available Image Formats for an image field are supported for the query result set, only a subset of these formats can be successfully displayed as embedded images in Query HTML output. These are BMP, DIB, GIF, JPG, PNG and SVG.

Regardless of the size of the original image, the system resizes images to 100 pixels by 100 pixels in query output.

Image: Run page

This example shows the query results after you run the query using the Run page in Query Manager, with the Image Fields property set to *Image Data*.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	Dependency	Transformations	View SQL	Run
View All Rerun Query Download to Excel Download to XML										First 1-100 of 118 Last
ID	Photograph	Last Name	First Name	Base						
1		Richardson	Daniel	TOR						
2		Day	Annette	ATL						
3		DeLange	Hutch	ATL						
4		Nakisher	Harald	GER						
5		Vincelette	Estelle	MEL						

Image: Query results using the HTML link

This example shows the query results after you run a query using the HTML link in Query Manager, with the Image Fields property set to *Image Hyperlink*.

ID	EMP Date	Name	SSN	JobCode	Dept
1 8052	05/05/1997	Avery,Joan	111111111	6001	10200
2 8101	05/05/1997	Penrose,Steven	302467012	6001	10200
3 8102	05/05/1997	Sullivan,Theresa	349096896	6001	10200

Note: When accessing a Query Image URL (Image Hyperlink), users must be signed into the PeopleSoft PIA environment and have the permission to view the images. If you are not signed into PIA, the Sign On page appears asking for your authentication sign-on. If you don't have access to the images based on both Query Access List security and security joins defined by the underlying records in the query (row-level security), the required rows with image data are not returned and an error message appears.

Note: If you set the Image Fields section to *Image Data* for a query, its online performance can be impacted by the size of the images and the number of rows returned.

Related Links

[Defining Workflow Queries](#)

[Using Query Access Group Trees](#)

[Using Row-Level Security and Query Security Record Definitions](#)

[Using Query Profiles](#)

Viewing Underlying SQL Code

Use the View SQL page (QRY_SQL) to view the underlying SQL code that Query Manager generates based on your query definition. You can select the XLAT/Related Language check box to display the full SQL, including the system generated XLAT and Related Language left outer joins; otherwise, deselect this check box to display the SQL without the XLAT and Related Language joins. You cannot modify SQL on this page.

Navigation

1. Select Reporting Tools > Query > Query Manager.
2. Create a new query or search for an existing one.
3. From the Fields page, select the SQL tab.

Image: View SQL page

This example illustrates the fields and controls on the View SQL page.

The screenshot shows the 'View SQL' page for a query named 'QRY_XLAT_EXPR_DOC'. The page has a navigation bar with tabs: Records, Query, Expressions, Prompts, Fields, Criteria, Having, Dependency, Transformations, View SQL (selected), and Run. Below the navigation bar, the query name and description are displayed. A checkbox labeled 'XLAT/Related Language' is checked. The 'Query SQL' section contains the following SQL code:

```
SELECT A.QE_JOB_OPENING_ID, TO_CHAR(A.EFFDT,'YYYY-MM-DD'), A3X.XLATSHORTNAME, A.QE_JO_TYPE,
A.QE_PRM_PST_TITLE, A.QE_PRM_PST_TITLE
FROM PS_QE_QRYTR_ALLJOB A LEFT OUTER JOIN PSXLATITEM A3X ON A3X.FIELDNAME='QE_JO_TYPE' AND
A3X.FIELDVALUE=A.QE_JO_TYPE AND A3X.EFF_STATUS = 'A' AND A3X.EFFDT = (SELECT MAX(EFFDT) FROM PSXLATITEM TB
WHERE TB.FIELDNAME=A3X.FIELDNAME AND TB.FIELDVALUE=A3X.FIELDVALUE AND TB.EFF_STATUS = 'A' AND TB.EFFDT <=
TO_DATE(TO_CHAR(SYSDATE,'YYYY-MM-DD'),'YYYY-MM-DD'))
WHERE ( A.EFFDT =
(SELECT MAX(A_ED.EFFDT) FROM PS_QE_QRYTR_ALLJOB A_ED
WHERE A.QE_JOB_OPENING_ID = A_ED.QE_JOB_OPENING_ID
AND A_ED.EFFDT <= SYSDATE)
AND A.QE_JOB_OPENING_ID < 300151
AND A.QE_JO_TYPE <> ''
AND A.QE_PRM_PST_TITLE <> '' )
ORDER BY 4
```

At the bottom of the page, there are several buttons: Save, Save As, New Query, Preferences, Properties, Publish as Feed, Publish as Pivot Grid, and New Union.

Note: To copy the SQL statement, highlight the text of the statement, copy it using your browser's copy command, and then paste it into another application.

Previewing Query Results Prior to Saving

Use the Run page (QUERY_VIEWER) to view the results of your query prior to saving in order to verify that your query yields the results that you need. Continue to adjust and preview your query as necessary.

Navigation

To access the Run page:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. From the Fields page, select the Run tab.

Image: Run page

This example illustrates the fields and controls on the Run page. Definitions for the controls appear following the example.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run								
View All Rerun Query Download to Excel Download to XML						First <input type="button" value="◀"/> 1-100 of 386 <input type="button" value="▶"/> Last		
ID	Eff Date	Name	First	Last	SSN	JobCode	Dept	
1	7705	06/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	10200
2	8001	09/01/1996	Schumacher,Simon	ASD	ASD	549693847	1001	10100
3	8001	05/05/1997	Schumacher,Simon	ASD	ASD	549693847	6001	10200
4	8052	05/05/1997	Avery,Joan	JOAN	AVERY	111111111	6001	10200
5	8101	06/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	10500
6	8101	05/05/1997	Penrose,Steven	STEVEN	PENROSE	302467012	6001	10200
7	8102	06/01/1989	Sullivan,Theresa	THERESA	SULLIVAN	349096896	1121	10900
8	8102	05/05/1997	Sullivan,Theresa	THERESA	SULLIVAN	349096896	6001	10200
9	8105	05/05/1997	DeHaven,Joanne	JOANNE	DEHAVEN	111111111	6001	10200
10	8113	06/27/1991	Frumman,Wolfgang			425921335	1211	20500
11	8120	05/05/1997	Jones,Theresa	THERESA	JONES	111111111	6001	10200
12	8121	03/01/1996	Gregory,Jan	JAN	GREGORY	547234772	6001	10200

Note: Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), you can use touch-friendly devices to view query results or rerun query from the Run page, but they cannot download query results using the Download to Excel or Download to XML link.

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. If you have made changes to your query since the last preview, you must rerun the query to see the effect of your changes.

Note: If you do not want to rerun the query every time you want to preview it, *deactivate* the Enable Auto Preview feature. When this feature is active, your query automatically runs each time you select the Run tab. To *activate* Enable Auto Preview, click the Preferences link and then select Enable Auto Preview. The Preferences link is available on every page except the Run page.

See [Specifying Query Preferences](#).

Download to Excel

Click this link to download your query to Microsoft Excel.

Note: To grant users access to download your query to Microsoft Excel, you must make sure that their permission lists include the WEBLIB_QUERY web library with full access.

Download to XML

Click this link to download your query result as XML format to another browser window.

Note: To grant users access to download your query to XML, you must make sure that their permission lists include the WEBLIB_QUERY web library with full access.

Query Results in Double-Byte Characters

In the Run page, the width of rows are automatically adjusted to show the query results. If the query results are in double-byte characters (for example, Japanese), rows may wrap vertically.

To view the row horizontal with no line break:

1. In PeopleSoft Application Designer, open the PTQUERYSTYLESUB definition.
2. Open the PSQRYRESULTSHDR style class properties.
3. In the Spacing/Alignment tab, select the *Nowrap* option from the White Space drop-down list.

See "Setting Style Class Attributes" (PeopleTools 8.56: Application Designer Developer's Guide), "Specifying Spacing and Alignment" (PeopleTools 8.56: Application Designer Developer's Guide).

Saving Queries

You can save a query at any time after you have selected one record and at least one field for it. Save queries from any Query Manager page (except for the Run page) by clicking either the Save button or the Save As link. You must enter some basic information about the query before the system allows you to save it for the first time.

Image: Saving a query

This example shows the information that you must define when you save your query for the first time.

Enter a name to save this query as:

*Query:

Description:

Folder:

*Query Type: ▼

*Owner: ▼

Query Definition:

To save a query for the first time:

1. After you make your changes in Query Manager (Reporting Tools > Query > Query Manager), click the Save button.
2. In the Query field, enter a short name for the query.
3. In the Description field, enter an appropriate description for the query.

This information will help you identify the query later.

4. In the Folder field, enter the name of the folder into which you want to save the query.

To create a new folder, enter the name of the new folder.

Note: The folder that you create does not reside on your local drive. You create a folder for the purpose of describing the query and to facilitate grouping and sorting.

5. Select a query type.

Standard queries are designated as *User* queries. If you have access to workflow queries, your the query types also include *role*, *process*, and *archive*.

6. In the Owner field, select whether your query is *Public* or *Private*.

- *Private:* Only the user that created the query can open, run, modify, or delete the query.
- *Public:* Any user with access to the records used by the query can run, modify, or delete the query.

7. Enter the query definition.

8. Click the OK button to save the query.

Note: Using the Save As link creates another instance of the query that you can modify and save under a different name. When you click the Save As link, the Enter a Name to Save This Query page also appears enabling you to change the name, description, and owner of the new query.

Running Queries

Using the HTML, Excel, or XML links on the Query Manager search page, you can run a predefined query from your browser and view it online in a new browser window. These links are useful when you run the same query multiple times with different runtime prompt values and then compare the results of the queries.

If you want to run the query that you haven't saved, you can use the Run page in the Query Manager.

To run a query:

1. Select Reporting Tools >Query >Query Manager.

The Query Manager Search page appears.

2. Search for a query using the basic or advanced search function.

Both search types enable you to use the following *search by* criteria: access group name, description, folder name, owner, query name, type, uses field name, and uses record name. The basic search allows you to search using the *begins with* condition. The advanced search enables you to perform a progressively narrower search by using one or more *search by* criteria and selecting from a broad choice of conditions. These are instructions on using *search by* criteria:

- If you know the entire name of the query that you want to run, select Query Name from the Search By drop-down list, and then enter the query name in the Search By field.

If you do not know the name of the query and want to search through a list of queries, leave the Search By field blank and click the Search button to display a list of up to 300 queries.

Perform a partial search by entering part of the search string in the Search By field.

- To search using any other *search by* criteria, select the appropriate item from the Search By drop-down list, and then enter the search string in the field.

3. To perform an advanced search, click the Advanced Search link on the Query Manager Search page.

On the Advanced Search page, select the appropriate *search by* criteria and conditions, and then enter a search string in each of the corresponding fields.

4. Click the Search button to display a list of queries that match your search criteria.

The Search Results page appears. The results list all the queries that match the search criteria. The following information appears:

- Query name

- Query description
 - Owner (public or private)
 - Folder
5. Scroll to the name of the query that you want to run.
- By default, only the first 30 queries appear on the page. To see more of the list, click the navigation buttons and links located on the header bar.
- To display 100 of the queries, select View 100 and use the scroll-bar to view the remainder of the list.
6. To run a query, use the following links on the row of the query:
- HTML: Click to generate an HTML version of the query.
 - Excel: Click to download the query to a Microsoft Excel spreadsheet.
 - Schedule: Click to schedule a time for the query to run.
 - XML: Click to download query result to browser as webbrowser format. There are options that enable you to open, save, or cancel the downloaded file.

Note: If a Query—that is used as a data source for BI Publisher—is run through *Reporting Tools, Query, Query Manager*, the BI Publisher-related prompts do not appear. The normal basic table-formatted query results are generated.

See [Scheduling Queries](#).

Related Links

"Running BI Publisher PeopleSoft Query Reports" (PeopleTools 8.56: BI Publisher for PeopleSoft)
"Security Basics" (PeopleTools 8.56: Security Administration)

Adding Queries to the Internet Explorer Favorites List

To add a query to the Favorites list on the Internet Explorer menu:

1. Select Reporting Tools >Query >Query Manager.
Alternatively, select Reporting Tools >Query >Query Viewer.
2. Click Search, and then right-click the HTML link on the Query Manager or Query Viewer search page.
3. Click the Add to Favorites option on the Internet Explorer menu.
The Add Favorite page appears.
4. Change the text in the Name box to the name of your query.

5. Click the OK button.

Internet Explorer adds the query to your Internet Explorer Favorites list.

Downloading Queries

You can download your query to a Microsoft Excel spreadsheet or CSV text file.

After you have downloaded the query to Microsoft Excel, the first row in the spreadsheet displays the total number of rows of your query that are included in the spreadsheet.

Note: Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), you can use touch-friendly devices to edit or schedule queries from the Query Manager page or Query Viewer page, but you cannot download query results using the HTML, Excel, or XML link.

If you download your query from the Run page, the query has a different default filename than if you download your query after clicking the HTML or Excel links. These default filenames are different because: (a) using the Run page to run queries, queries are run using the application server, and (b) using the HTML or Excel links, queries are run using a query service.

To download your query results, select one of the following options:

- HTML: Click this link on the Query Manager or Query Viewer search results page.
- Excel: Click this link on the Query Manager or Query Viewer search results page.

After you click the Excel link, there are options that enable you to save, open, or cancel downloading query results to Microsoft Excel.

Note: The CacheBaseDir= setting in the psappsrv.cfg file specifies the location of temp files that are created by the Query to Excel execution. Those temp files are removed automatically after the run. If the CacheBaseDir is not set in the psappsrv.cfg file, all temp files are located under %PS_SERVDIR %.

See [Enabling the Query Access List Cache, "CacheBaseDir"](#) (PeopleTools 8.56: System and Server Administration).

- XML: Click this link on the Query Manager or Query Viewer search results page.

After you click the XML link, query result is downloaded to browser with the XML output formatted for use with BI Publisher and there are options that enable you to open, save, or cancel the downloaded file. If you click the Open button, XML formatted query result is downloaded to browser. You can also select the *XML* option as the format of your query results in the Schedule Query page when schedule to run a query.

- Download to Excel: Click this link on the Query Manager or Query Viewer Run page.
- Excel Spreadsheet: This option is available after you have clicked the HTML link on the Query Manager or Query Viewer search results page. However, you can also click the Download to Excel or Excel links without downloading the query to HTML.

Note: Downloaded data such as numbers and dates are formatted in the Microsoft Excel spreadsheet according to the regional settings on the user's machine.

If you use the Windows or Macintosh operating systems, you can set your downloaded queries to open in browser windows instead of in the Microsoft Excel application. To set this option in Windows, select the XLS file type in your folder options and select the Browse in same window check box. When this check box is cleared, downloaded queries open in the Microsoft Excel application.

- **CSV Text File:** This option is available after you have clicked the HTML link. If you click this option, the File Download page appears enabling you to open the file in your browser or save it to disk.
-

Note: The output has no formatting and does not support UTF-8 encoded data.

Because Microsoft Excel does not support UTF-8 encoding, the CSV file is written in binary mode with UCS-2 encoded data. Moreover, Excel does not automatically recognize Unicode-encoded, comma-delimited files even if they have a .csv extension. Therefore, you are not be able to open the receiving file by double-clicking. Instead, you must open the receiving file using the File\Open menu in Excel and choose the comma delimiter.

- **XML File:** This option is available after you have click the HTML link. If you click this option, the File Download page appears enabling you to open the XML formatted query result in your browser or save it to your local machine.
-

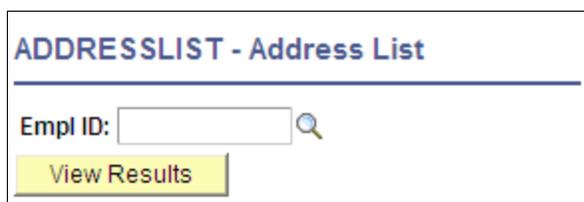
Performing Query Lookups

Some queries are designed to prompt you for information when you run them. This approach narrows the query results to match the information that you entered. To help you enter the correct information, you can perform a search using the Look Up button that appears on the page.

For example, the ADDRESSLIST query prompts you for a specific employee ID. You might know an employee's last name, but not have the employee ID handy. Using the Look Up button, you use the information that you *do* have to find the required information.

Image: ADDRESSLIST page

This example shows a basic lookup using ADDRESSLIST.



The image shows a web interface titled "ADDRESSLIST - Address List". Below the title is a search input field labeled "Empl ID:" with a magnifying glass icon to its right. Below the input field is a yellow button labeled "View Results".

To perform a lookup:

1. Select Reporting Tools >Query >Query Manager.
2. Search for an existing one.
3. Click the HTML link from the Query Manager search page for the ADDRESSLIST query name from the query list.

4. If you know the employee ID for the address that you are looking up, enter it in the *EmplID* (employee ID) field; if you need to search for the employee ID, click the Look Up button.
5. On the Look Up page, click the drop-down list to find more search values.

In this example, you can select *EmplID*, *Name*, or *Last Name*. To find all values for this field, leave the search field blank and click the Look Up button. You can also display all of the search fields at once by clicking the Advanced Lookup link.

6. Select the value to search by, and then click the Look Up button.

In this example, we know the employee's last name, but not his employee ID.

Your lookup information appears on the page.

7. Click the link in the result field.

The Query page appears with the required value already complete.

8. Click the View Results button.

The query results appear on the page.

Performing Definitional Reference Lookups in Queries

Use the Definitional References to Query page (QRY_DEFN_REF) to view all PeopleSoft definitional objects that use this particular query as the data source. The results show the definition ID, definition type, and definition sub-types if they are available.

These object types are included in the Definitional References to Query page:

- BI Publisher (with the Report Definition or Data Source Definition subtypes)
- Connected Query
- Composite Query
- Pivot Grid
- PeopleSoft Search Framework
- Cube Builder, Cube Outline, and Cube Dimension
- Query Feed and Query Feed Template

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Click the Search button and then click a Lookup References link.

Image: Definitional References to Query page

This example illustrates the fields and controls on the Definitional References to Query page.

Definitional References to Query "QE_EMPLOYEE"		
Definitions referencing Query "QE_EMPLOYEE"		
Definition ID	Definition Type	Definition Sub-Type
CPQ_TCREATE_PROMPT	Composite Query	
EMPLOYEE_REPORTING_DETAILS	Connected Query	
EMPL_RPRT_DETAILS_COPY	Connected Query	
QE_CHARTFIELDS_CQ	Connected Query	
QE_COPY_OF_CQ_QUICK_START	Connected Query	
QE_CPQ_AGGREGATE_TYPES	Composite Query	
QE_CPQ_SMOKE	Composite Query	
QE_CPQ_SMOKE_FILTERS	Composite Query	
QE_CPQ_SMOKE_PROMPT	Composite Query	
QE_CPQ_TCREATE_EXPR	Composite Query	
QE_CPQ_TCREATE_FILTER	Composite Query	
QE_CPQ_TCREATE_MULT	Composite Query	
QE_CPQ_TCREATE_NEW	Composite Query	
QE_CPQ_TCREATE_PROMPT	Composite Query	
QE_CQ_XFORM_SMOKE	Connected Query	
QE_EMPLOYEE	BI Publisher	Data Source Definition
QE_EMPLOYEE_REPORTING_DETAILS	Connected Query	
QE_EMPL_DEPT_DETAILS	Connected Query	
QE_QAS_EMPL_DEPT_DETAILS_PRI	Connected Query	
QE_QAS_EMPL_REPT_DETAILS_PRI	Connected Query	
QE_SORT1	BI Publisher	Report Definition
QE_SORT2	BI Publisher	Report Definition

Note: The Lookup References feature specifically lists only *definitional* references, which are defined PeopleSoft objects of specific types. This feature is not used to find references that are not *definitional* references, such as Query API references in PeopleCode or any static text references to that query name, whether in SQL objects, scripts, PeopleCode, and so on.

nVision query-based reports are not listed in the Definitional References to Query page because nVision definitions do not contain the query reference in its definition record in the database, but only in the physical template file that is stored on the server.

The Lookup References links are available in the Query Manager search page, Query Viewer search page, Connected Query Manager search page, and Connected Query Viewer search page.

Printing Query Results

Before you can print query results, you must run the query.

To print query results on your default printer:

1. Select Reporting Tools >Query >Query Manager.
2. Click the Search button, and then click either the HTML or Excel links.

- Click the Print button or select *File, Print*.

If you download the query to Microsoft Excel, you can print the query using Microsoft Excel’s print function.

If you download the query as a CSV text file, you can print it using the print functions of the applications you use to work with it.

Note: Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), you can use touch-friendly devices to edit or schedule queries from the Query Manager page or Query Viewer page, but you cannot download query results using the HTML, Excel, or XML link. To grant users access to download your query to Microsoft Excel, you must make sure that their permission lists include the WEBLIB_QUERY web library with full access.

See "Setting Query Permissions" (PeopleTools 8.56: Security Administration).

Using Query Viewer

Query Viewer is a read-only version of Query Manager. It enables security administrators to limit some users to read-only access for all queries, so they can only view or print queries.

Navigation

Access the Query Viewer page by selecting Reporting Tools >Query >Query Viewer.

Image: Query Viewer page

This example illustrates the fields and controls on the Query Viewer page.

The screenshot shows the Query Viewer interface. At the top, there is a search section with a dropdown menu for "Search By" (set to "Query Name") and a text input field for "begins with". Below this are "Search" and "Advanced Search" buttons. A message states "Too many items met your search criteria. Only the first 300 items displayed." Below the message is a "Folder View" dropdown set to "-- All Folders --". The main part of the interface is a table with columns: Query Name, Description, Owner, Folder, Run to HTML, Run to Excel, Run to XML, Schedule, Definitional References, and Add to Favorites. The table lists several queries such as BI_PVG_BILL_VW, CM_ATTRIBUTES, and CT_PSXLATITEM.

Query Name	Description	Owner	Folder	Run to HTML	Run to Excel	Run to XML	Schedule	Definitional References	Add to Favorites
BI_PVG_BILL_VW	Bill Hdr w INV bill status vw	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
BI_PVG_IVC_VW	Bill Hdr w INV bill status vw	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_ATTRIBUTES	Attribute mappings	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_DIM_CTRL_TBL	Dimension Control Table	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_FACT_CTRL_TBL	Fact Control Table	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_FACT_MAP_TBL	Fact Map Table	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_FIELD_PROPERTIES		Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_HIER_CRTL_TBL	Hierarchy Control table	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CM_HIER_MAP_TBL	Hierarchy Map Table	Public		HTML	Excel	XML	Schedule	Lookup References	Favorite
CT_PSXLATITEM		Public		HTML	Excel	XML	Schedule	Lookup References	Favorite

Query Viewer enables you to:

- Search for a query using the basic or advanced search functions.

Both search types allow you to select the following *search by* criteria: access group name, description, folder name, owner, query name, type, uses field name, and uses record name. The basic search

enables you to search using only the *begins with* condition. The advanced search enables you to perform a progressively narrower search by using one or more *search by* criteria and selecting from a choice of conditions for each *search by* criterion.

- Run a query (which displays results in a new browser window).

To run a query, click the HTML, Excel, or XML link to the right of the query on the Search Results page.

Note: After you click the HTML link, you have an option to view the XMLP formatted result in a new browser by clicking the Download to XML File link on the HTML result page.

- View a query in XMLP formatted result by clicking the XML link.
- Download the results to a Microsoft Excel spreadsheet or a CSV Text file.

To download the results, first click the HTML link associated with the query on the Search Results page. Then click the CSV Text File link on the HTML results of the query to download the results to a CSV text file.

To download the results to a Microsoft Excel file, click the Excel Spreadsheet link on the HTML results page.

- Print a query.

See [Printing Query Results](#).

- Schedule a query.

From the search results page, click the Schedule link associated with the query. Query Viewer interacts with PeopleSoft Process Scheduler to enable you to schedule queries. You can submit requests to schedule a query, check the status of your request using Process Monitor, and view your output using Report Manager.

See "Understanding Process Monitor" (PeopleTools 8.56: Process Scheduler), "Viewing the Status of Processes" (PeopleTools 8.56: Process Scheduler), "Viewing the Status of Servers" (PeopleTools 8.56: Process Scheduler).

- Look up definitional references.

Click the Lookup References link to display the Definitional References to Query window, where you can view all PeopleSoft definitional objects that use this particular query as the data source. The results show the definition ID, definition type, and definition sub-types if they are available.

See [Performing Definitional Reference Lookups in Queries](#).

- Add queries to the favorites list.

Click the Favorite link to add the frequently used queries to the My Favorite Queries section. After you create a favorite, the My Favorite Queries section appears on the Query Viewer search page and Query Manager search page. You can access the favorite queries without performing the query search and you have the option to remove these queries from the My Favorite Queries section as needed.

Note: Queries in the My Favorite Queries section are linked to the user ID.

See [Organizing Queries](#).

Note: Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), you can use touch-friendly devices to edit or schedule queries from the Query Manager page or Query Viewer page, but they cannot download query results using the HTML, Excel, or XML link. Online viewing of Query-based BI Publisher reports is available by selecting Reporting Tools > BI Publisher > Query Report Viewer.

Related Links

[Previewing Query Results Prior to Saving](#)

[Running Queries](#)

[Scheduling Queries](#)

"Running Reports in Query Report Viewer" (PeopleTools 8.56: BI Publisher for PeopleSoft)

Chapter 3

Defining Selection Criteria

Choosing Selection Criteria

You define *selection criteria* to selectively retrieve the data that you want. Selection criteria refine your query by specifying conditions that the retrieved data must meet. For example, you can specify that the system retrieve only those phone numbers with a certain area code instead of all phone numbers.

Because your PeopleSoft database stores data in tables, you can identify every individual piece of data by saying what *column* (field) and *row* (record) it is in. When you create a query, select the data that you want by specifying which columns and rows you want the system to retrieve.

If you run the query after selecting the fields, the system retrieves *all* the data in those columns; that is, it retrieves the data from every row in the table or tables. This might be much more data than you want or need. You select which rows of data you want by adding selection criteria to the query.

The selection criteria serves as a test that the system applies to each row of data in the tables that you are querying. If the row passes the test, the system retrieves it; if the row does not pass, the system does not retrieve it. For example, suppose that you needed the names of all PeopleStore customers who were not PeopleSoft employees. You would start by creating a query that retrieved the Name and Company fields from the Customer table. You could then add a selection criterion that enables PeopleSoft Query to scan for rows where the company name is not *PeopleSoft*.

In most cases, a selection criterion compares the value in one of a row's fields to a reference value. In the preceding example, you would compare the value in the Company field to the constant value *PeopleSoft*. In other situations, you might compare the value to the value in another record field or to a value that the user enters when running the query.

Defining Criteria

Viewing and Editing Selection Criteria

Use the Criteria page (QRY_CRITERIA) to view and edit selection criteria for your query statement.

Navigation

Reporting Tools > Query > Query Manager > Criteria

Image: Criteria page

This example illustrates the fields and controls on the Criteria page. You can find definitions for the fields and controls later on this page.



Add Criteria

Click to access the Edit Criteria Properties page, where you can add additional criteria for the query.

Group Criteria

Click to access the Edit Criteria Grouping page, where you can group your criteria logically.

Reorder Criteria

Click to access the Edit Criteria Ordering page, where you can reorder the criteria for your query.

Logical

Any rows after the first row must include either an *AND* or *OR* logical value in the Logical column to specify whether you want the rows to meet this criterion in addition to other criteria that you have defined or as an alternative criterion. The first criterion that you define does not have a value in this column. The default for subsequent criteria is *AND*.

Edit

Click to access the Edit Criteria Properties page, where you can edit the existing criteria for the query.

Adding Criteria Properties

Use the Edit Criteria Properties page (QRY_CRITERIA_SEC) to add or edit selection criteria properties for your query statement.

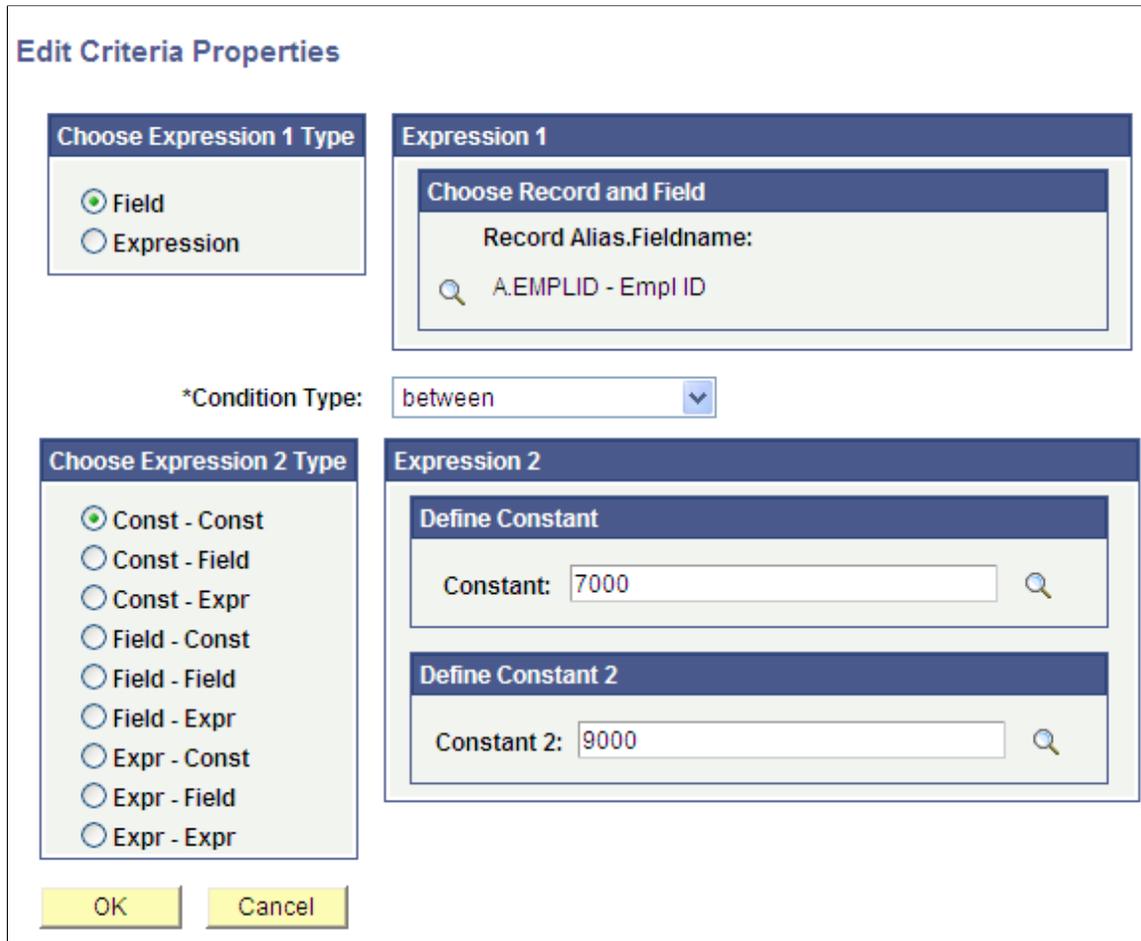
Navigation

1. Select Reporting Tools > Query > Query Manager.
2. Open an existing query.
3. Select the Criteria tab to access the Criteria page, and click the Add Criteria button.

Alternatively, access the Fields page and click the Use As Criteria link.

Image: Edit Criteria Properties page

This example illustrates the fields and controls on the Edit Criteria Properties page. Definitions for the fields and controls appear following the example.



Field

Select this option if you want to base the selection criterion on another field's value, usually a field in another record component. To compare the values from fields in two records, you must join the record components.

When you select this option, you must select an appropriate comparison operator from the Condition Type drop-down list.

See [Selecting Condition Types](#).

Expression

Select this option if you want PeopleSoft Query to evaluate an expression that you enter before comparing the result to the value in the selected field.

When you select this option and click the New Expression link to create a new expression, you must then select an expression type. If you are entering an aggregate value, select the Aggregate Function check box. You can also enter parameters for length and decimal positions.

Also enter the expression in the text box. Query Manager inserts this expression into the SQL.

See [Defining Expressions](#)

Creating Criteria Based on a Field

To create criteria based on a field:

1. Select Reporting Tools >Query >Query Manager.
2. Create a new query or search for an existing one.
3. Access the Criteria page, and click the Add Criteria button.

Alternatively, access the Fields page and click the Use As Criteria link. If you accessed the Edit Criteria Properties page by clicking the Use As Criteria link on the Fields page, Query Manager populates the selected field in the Expression 1 field.

4. In the Edit Criteria Properties page, specify the criteria for the field, and click the OK button to return to the Fields or Criteria page.

You can also use a field from a record as criteria even if you do not select that field for query output.

Creating Criteria Not Based on a Field

To create criteria that is not based on a field:

1. Access the Edit Criteria Properties page by clicking the Add Criteria button on the Criteria page.

The Edit Criteria Properties page appears enabling you to edit Expression 1 and Expression 2 fields.

2. In the Choose Expression 1 Type group box, select the Field or Expression option.
3. Edit the second (right-hand) Expression column to enter comparison values.
4. Save your query.

Selecting Condition Types

The condition type determines how Query Manager compares the values of the first (left-hand) expression to the second (right-hand) expression.

Query Manager also offers a *not* option that reverses the effect of each condition type. For example, *not equal to* returns all rows that *equal to* would not return.

Note: You should use the *not* version of an operator (for example, *not equal* or *not less than*) rather than the *NOT* operator on the entire criterion (for example, *AND NOT* or *OR NOT* logical operator). When you use *NOT*, PeopleSoft Query cannot use SQL indexes to speed up the data search. When you use the *not* version of an operator, PeopleSoft Query can translate it into a SQL expression that enables it to use the indexes.

Condition Types	Return Values
between	The value in the selected record field falls between two comparison values. The range is inclusive.
equal to	The value in the selected record field exactly matches the comparison value.
exists	This operator is different from the others, in that it does not compare a record field to the comparison value. The comparison value is a subquery. If the subquery returns any data, PeopleSoft Query returns the corresponding row.
greater than	The value in the record field is greater than the comparison value.
in list	The value in the selected record field matches one of the comparison values in a list.
in tree	<p>The value in the selected record field appears as a node in a tree created with PeopleSoft Tree Manager. The comparison value for this operator is a tree or branch of a tree that you want PeopleSoft Query to search.</p> <hr/> <p>Note: PeopleSoft Query should not use trees that contain a combination of dynamic details and range details. The results returned from trees with this combination of details may be inaccurate.</p> <hr/> <p>See "PeopleSoft Tree Manager Overview" (PeopleTools 8.56: Tree Manager).</p>
is null	<p>The selected record field does not have a value in it. You do not specify a comparison value for this operator.</p> <p>Key fields, required fields, character fields, and numeric fields do not allow null values.</p>
less than	The value in the record field is less than the comparison value.

Condition Types	Return Values
like	<p>The value in the selected field matches a specified string pattern. The comparison value may be a string that contains wildcard characters. The wildcard characters that PeopleSoft Query recognizes are % and _.</p> <p>% matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone.</p> <p>_ matches any single character. For example, _ones matches any five-character string ending with ones, such as Jones or Cones.</p> <p>PeopleSoft Query also recognizes any wild-card characters that your database software supports. See your the documentation for your database management system for details.</p> <p>To use one of the wild-card characters as a literal character (for example, to include a % in your string), precede the character with a \ (for example, percent%).</p>

Note: If you select the EFFDT field on an effective-dated table, you can use the effective-date operators in PSQuery.

Entering Comparison Values

This topic provides an overview of comparison values and discusses how to:

- Select a constant value.
- Build a list of values.
- Add prompts to an expression list.
- Add comparison values to an expression list.

The procedure for entering comparison values differs depending on what kind of value you are entering. If you are comparing one field to another, select the second record field; if you are comparing the rows to a constant value, enter the constant.

The following table describes all the available value types, the pages that appear based on each comparison type, and the fields that you must complete in those pages.

Value Type	Action
Field	<p>The value in the selected field is compared to the value in another field, usually a field in another record component.</p> <p>When you select <i>Field</i> as the comparison value, the Choose Record and Field page appears. The Record Alias field lists all the records that are part of the current query. Select the record and the field. The selected field name appears in the second Expression column of that field's row.</p>

Value Type	Action
Expression	<p>The value in the selected field is compared to an expression that you enter, which PeopleSoft Query evaluates once for each row before comparing the result to the value in the selected field.</p> <p>When you select <i>Expression</i> as the comparison value, the Define Expression page appears. In the text box, enter a valid SQL expression.</p> <p>To add a field or user prompt to the expression, click the Add Field or Add Prompt link, respectively. These links display the same pages that you see when adding a field or prompt as a comparison value: Add Prompt displays the Run-time Prompt page; Add Field displays the Select a Field page. The only difference is that PeopleSoft Query adds the field or prompt to your expression rather than using it directly as the comparison value.</p>
Constant	<p>The value in the selected field is compared to a single fixed value.</p> <p>When you select <i>Constant</i> as the comparison value, the Define Constant page appears. In the text box, enter the value that you want to compare the first expression to. To add a value by selecting it from a list, click the Look Up button to display the Select a Constant page.</p> <hr/> <p>Note: A list of constants is available only for fields that have translate values or an assigned prompt table.</p> <hr/>
Prompt	<p>The value in the selected field is compared to a value that you enter when running the query.</p> <p>When you select <i>Prompt</i> as the comparison value, the Define Prompt page appears. Click the New Prompt link to move to the Edit Prompt Properties page. To modify an existing prompt, click the Edit Prompt link.</p> <p>See Defining Prompts.</p>
Subquery	<p>The value in the selected field is compared to the data that is returned by a subquery.</p> <p>When you select Subquery as the comparison value, the Define Subquery page appears. Click the Define/Edit Subquery link to move to the Records tab to start a new query.</p> <p>See Working with Subqueries.</p>

Value Type	Action
In List	<p>The value in the selected field is compared to a list of values that you enter. This value type is available only when the selected operator is <i>in list</i> or <i>not in list</i>.</p> <p>When you select <i>in list</i> as your comparison value, the Edit List page appears. Use the Look Up button to display the Edit List page and search for the desired values.</p> <hr/> <p>Note: Values will appear here only if you have entered them previously.</p>
Current Date	The value in the selected field is compared to the current date on the database server.
Tree Option	<p>The value in the selected field is compared to a selected set of tree nodes. This value type is available only when the selected operator is <i>in tree</i> or <i>not in tree</i>.</p> <p>When you select <i>Tree Option</i> as the comparison value, the Select Tree Node List page appears. Use this page to create a list of values for PeopleSoft Query to compare to the value from the first expression.</p>
Tree Prompt Option	<p>The value in the selected field enables you to select a tree value as a tree prompt, when the query is run. This value type is available only when the selected operator is <i>in tree</i> or <i>not in tree</i>.</p> <p>When you select the Tree Prompt Option as the comparison value, all options to select tree values at design time are not available. However, you are able to select tree values as tree prompts when you run the query.</p>
Effective Seq (effective sequence)	Used on some effective-dated records, the effective sequence is a sequencing number that is provided to further refine the effective date.

Note: Not all value types are available for all operators. For example, when you select the *exists* operator, *Subquery* is the only available value type. After you select an operator, PeopleSoft Query displays only the value types that are available for that operator.

Selecting a Constant Value

When you select *Constant* in the Choose Expression 2 Type section as your comparison value, the Define Constant section appears. In the Constant field, enter the value to which you want to compare the first expression. Otherwise, click the Constant Look Up button to access the Select a Constant page where you can select a constant value from the available constants.

Note: A list of constants is available only for fields that have translate values or an assigned prompt table.

To select a constant value from the available constants:

1. Click the Constant Look Up button on the Select A Constant page.

2. Select the value that you want from the result list by clicking its associated link.

The Select A Constant page appears again with the selected value in the field. If you are working with a date field, you can select a date/constant from a calendar.

3. If more than one field exists on the Select A Constant page, you must repeat steps 1 and 2 for each field to further narrow your search for the constant.
4. Click the OK button.

The Edit Criteria Properties page appears with the selected value in the Define Constant section.

Image: Select A Constant page - one field

This example illustrates the field and controls on the Select A Constant page when there is only one constant field.

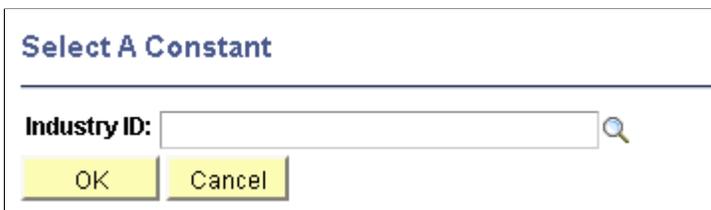
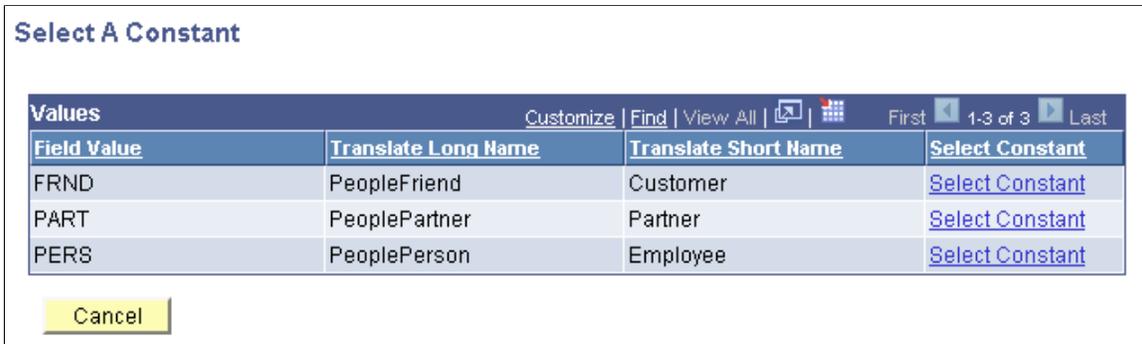


Image: Select a Constant page - multiple fields

This example illustrates the fields and controls on the Select a Constant page when there are multiple constant fields.



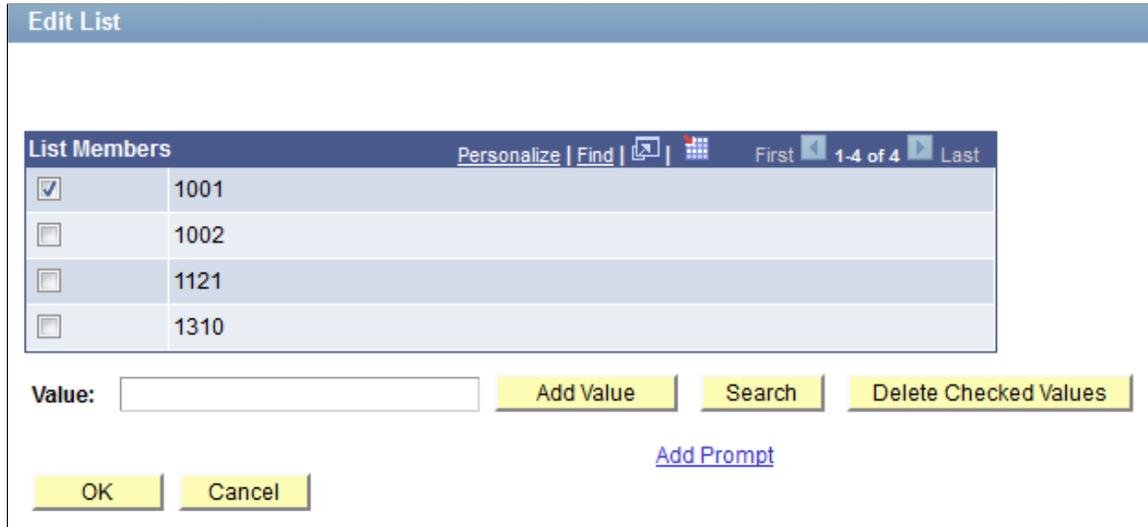
Building a List of Values

When you select *In List* as your comparison value, the Edit List page appears. Use the Edit List page to build a list of values for PeopleSoft Query to compare to the value from the first expression. (After you have created such a list, you can also use this page to select from the list.)

To add a comparison value to the list, click the Look Up button on the Edit List page, which dynamically reflects which record is used.

Image: Edit List page

This example illustrates the fields and controls on the Edit List page. Definitions for the fields and controls appear following the example.



List Members

Lists the values that have been selected using the Add Value button.

Note: The grid, containing the selected value, appears when a value is selected.

To delete a value, select the check box to the left of the appropriate List Members value, and click the Delete Checked Values button.

Value

To add a value, enter it into the Value text box and click the Add Value button. The value appears in the List Members grid.

To select from a list of values, click the Search button to display the Select a Constant page. Click the Look Up button to display the Look Up page. Enter part of a value in the text box. (The system automatically adds a wild card to the end of the entry, which enables you to do a partial search. For example, if you enter a value of 10, the system returns all values, (up to a total of 300), that begin with 10, such as 10, 100, and 10069.) Click the Look Up button to display the list of values that corresponds to the search criteria.

Select the desired value from the list by clicking its associated link. When the Select a Constant page appears again, click the OK button, and the selected value appears in the List Members grid.

Add Prompt

Click to add one or more prompts to the list so that users can enter the comparison values when they run the query.

Note: The prompts must be defined before you can select them. If no prompts have been defined, you will receive an error message.

OK

Click to accept the values that are listed in the List Members grid.

You will return to the Edit Criteria Properties page, where the selected values are displayed in the Edit List page.

Cancel

Click to return to the Edit Criteria Properties page without saving selections.

Adding Prompts to an Expression List

You can add one or more prompts to the expression list so that users can enter comparison values when they run a query.

Note: You must have defined the prompts before you can add them to your expression list.

To add prompts to an expression list:

1. With the expression list open, click the Add Prompt link in the Edit List page to access the Select a Prompt page.

2. Click the required prompt.

The prompt appears on the Edit List page.

If you selected the *in list* operator, you may want to add more than one prompt so that your users can enter more than one value to search for.

3. To add another prompt, click the Add Prompt link again and select a different prompt.

Because you already have a prompt in place, a different page appears showing the prompt that you have already added.

4. To add the next prompt, click the New button and complete the Run-time Prompt page.

The settings for this second prompt are the same as those that are used with the first prompt. If you want a different label for this prompt, enter that label in the Heading Text text box.

When you click the OK button, the second prompt appears in the Available Prompts list.

5. Highlight the second prompt, and click the Select button to add it to the list of comparison values.

The prompt then appears in the Edit List page.

6. Repeat this process for each prompt that you want to add.

When you finish adding prompts, click the OK button to close the Edit List page.

Adding Comparison Values to an Expression List

When you select the Tree option as the comparison value (available if you select the *in tree* or *not in tree* condition type), the Select Tree Node List page appears. Use this page to create a list of values for PeopleSoft Query to compare to the value from the first expression. Click the New Node List link to display the Select Tree page.

If the Selected Nodes List has been previously populated, you can either:

- Change the tree by clicking the New Nodes List link.
- Open the previously selected tree, bypassing the Tree Selection page, by clicking the Edit Node List link.

Click the name of the tree that you want to display the Display and Select TreeNodes page, which you can use to select which element of the tree PeopleSoft Query will check. If no nodes have been previously selected, the Selected Nodes List grid is collapsed. If you do not know the name of the tree, you can perform a search for the tree.

Image: Select a Tree page

This example illustrates the fields and controls on the Select a Tree page.

The screenshot shows the 'Select a Tree' page. At the top, there is a search section with a dropdown menu set to 'contains', a text input field containing 'DEPT', and a yellow 'Search' button. Below this is a table with the following data:

Tree Name	SetID	SetControlValue	Effective Date	Description	Saved As
QE ACE DGC DEPT	QEDM1		01/01/1900	Dept Tree for DGC Model	Valid Tree
QE DEPT DYNAMIC	QEDM1		01/01/1999	Dynamic Detail Dept Tree	Valid Tree
QE DEPT SEC	QEDM2		01/01/2001	DEPART SECURITY	Valid Tree

At the bottom of the page, there is a yellow 'Cancel' button. The table header includes navigation controls: 'Find | View All', 'First', '1-3 of 3', and 'Last'.

Image: Display and Select TreeNodes page

This example shows how to select tree nodes in the Display and Select TreeNodes page.



To select tree nodes:

1. In the Display and Select TreeNodes page, highlight the desired tree node, and click the Add Node icon.
2. If you know the name of the node that you want, enter the name of the node in the Manual Selection drop-down list.

Alternatively, click the Look Up button to select the desired node from a list of available nodes. When you find the node that you're looking for, click the Add to List button to add it to the list. The nodes that you enter or select from the list appear in the Selected Nodes drop-down list.

3. Remove nodes from the list by clicking the Remove from List icon corresponding to the node to be deleted.
4. Display the selected tree branch by clicking the corresponding icon.
5. When you are done selecting nodes, click OK.

The selected tree setID, tree name, effective date, and nodes appear in the Select Tree Node List page.

Defining a Criteria with Tree Prompt in PeopleSoft Query

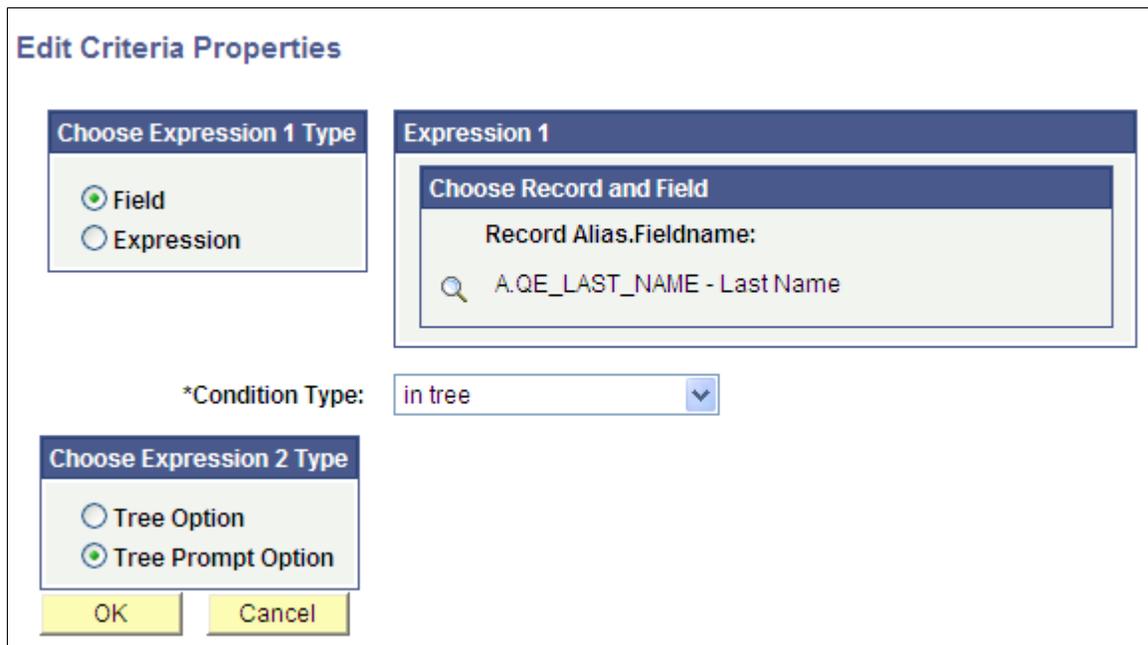
In addition to the option of selecting the tree value at design time for a criteria, Tree Prompts option will allow the user an option to select the tree and node value at run time. This allows the user to reuse the same query to get various organizational reports.

Note: In both web-based Query Manager and Windows client [psqed.exe], while creating a query you have the option of selecting to enter the tree details either at the design time or at the runtime. There is a Tree Prompt Option (an expression type) and a Tree Option when you select the condition type as In Tree or Not In Tree. Based on your selection, the tree option is handled to execute the query accordingly in the specified modules.

When you select the Tree Prompt Option as the comparison value, all options to select tree values at design time are not available. However, you are able to select tree values as criteria prompts when you run query.

Image: Edit Criteria Properties page with the Tree Prompt Option is selected

This is an example of the Edit Criteria Properties with the Tree Prompt Option is selected.



After the Tree Prompt Option is selected:

- The Criteria page has a same criteria prompt entry.
- The View SQL page displays the viewable SQL for the in tree prompt.

Note: Since tree information at query design time is not known yet, the SQL in the View SQL page is different from the SQL that actually runs in the database. When query is finally executed, based on the user's selection of tree and nodes when prompted, the SQL is modified accordingly with tree info in order to fetch rows of data.

- When you access the Run page, you are prompted for selecting the tree for the specified field and its node list.

Based on the tree node list that you selected, and after collecting the other prompt values, if any, the results are displayed on the Run page.

Note: Query that has a criteria with tree prompts cannot be run as part of any process, either via Process Scheduler or from command line. However, you can execute the query with tree prompts from Query Scheduler.

Specifying Effective Date Criteria

Effective-dated tables have record definitions that include the Effective Date (EFFDT) field. This field, used throughout the PeopleSoft applications, provides a historical perspective enabling you to see how the data has changed over time. Whenever users add a row of data to the table, they specify the date on which that data becomes effective; whenever users change a row of data, they specify a new effective date and the system retains the previous version of the row as history.

When you use a PeopleSoft application for day-to-day processing, you usually want the system to give you the *currently effective* rows of data—the rows where the effective date is less than or equal to today's date. You do not want to see the history rows, which are no longer accurate, nor do you want to see future-dated rows, which are not yet in effect.

When you query an effective-dated table, however, you may want to see some rows that are not currently in effect. You might want to see all the rows, regardless of their effective dates. Or you might want to see the rows that were effective as of some date in the past.

To specify effective date criteria:

1. When you choose the record that has EFFDT as a key field, Query Manager automatically creates default criteria and adds that criteria to the Criteria page.

This criteria is used to specify which row of data PeopleSoft Query retrieves for each item in the table. The default is the currently effective row. Defaults are:

- Expression 1: Record Alias.EFFDT
- Condition Type: EffDt <=
- Expression 2: Current Date
- Effective Sequence: Last

2. If you select one of the comparison options, choose to compare each row's effective date against today's date or a date other than today.

- Select *Current Date* to compare each row's effective date against today's date.
- Select *Constant* to display the Define Constant box so that you can enter a date.

Select this option when you want to see the rows that were effective as of a past date or that will be effective on some future date.

- Select *Expression* to display the Define Expression page so that you can enter a SQL expression that evaluates to a date.

Select this option if you want to prompt users for an effective date when they run the query. You can add a prompt to the expression that you define in the Define Expression page.

- Select *Field* to display the Select Field box so that you can select the record field that holds the date to which you want to compare effective dates.

Select this option when you want to see the rows that were effective at the same time as some other record. For example, if you're reviewing the list of products on a customer order, you will want to see the products that were effective on the date of the order.

- Select *First Effective Date* to return the row with the oldest effective date, usually the first row that is entered for an item.
- Select *Last Effective Date* to return the row with the latest effective date, even if that date is still in the future.
- Removing the *Effective Date* criterion is equivalent to selecting *No Effective Date*. The query returns all rows, regardless of their effective dates.

Note: All options (except *No Effective Date*) return a single row for each item on the table. If you want a subset of the rows (for example, all future-dated rows or all history rows), enter a selection criterion in the Effective Date field. Use the standard comparison operators rather than the Effective Date comparison operators.

Remember that the effective date operators work differently than the standard comparison operators: they always return a single effective-dated row. For example, *Eff Date* \leq returns the one row for which the EFFDT value is most recent, whereas not greater than would return the currently active row *and* all history rows.

Related Links

"Using Effective Dates" (PeopleTools 8.56: Applications User's Guide)

Grouping Multiple Criteria

Using PeopleSoft Query, you can relate multiple criteria in specific ways that you define using the AND, AND NOT, OR, and OR NOT operators. You can also group criteria using parentheses.

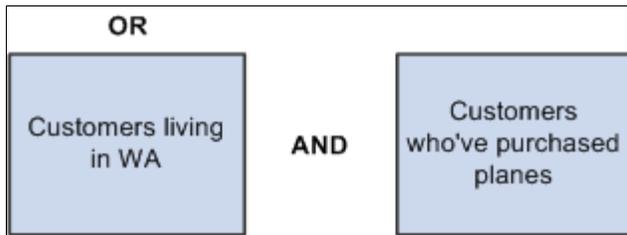
This topic describes the AND and OR logical operations and discusses how to group criteria in query.

Understanding the AND and OR Logical Operators

When you specify two or more selection criteria for a query, you must tell PeopleSoft Query how to coordinate the different criteria. For example, suppose you are querying your list of customers and you have defined two criteria: one selects customers from the state of Washington and another selects customers who have purchased airplanes. You may want PeopleSoft Query to return only those rows that meet *both* conditions (customers in Washington who have purchased airplanes), or you may want the rows that meet *either one* of the conditions (*all* Washington customers plus *all* customers who have purchased airplanes).

Image: Rows returned by AND and OR

This diagram illustrates the rows that are returned by AND and OR.



When your query includes multiple criteria, link them using either AND, AND NOT, OR, or OR NOT. When you link two criteria with AND, a row must meet the first *and* the second criterion for PeopleSoft Query to return it. When you link two criteria with OR, a row must meet the first *or* the second criterion, but not necessarily both.

By default, PeopleSoft Query assumes that you want rows that meet all of the criteria that you specify. When you add a new criterion, PeopleSoft Query displays *AND* in the Logical column on the Criteria tab. To link the criterion using one of the other options instead, select the required option from the drop-down list.

Grouping Criteria in Query

When your query includes multiple criteria, PeopleSoft Query checks the criteria according to the rules of logic: it evaluates criteria that are linked by ANDs before those that are linked by ORs. When all the criteria are linked by ANDs, this order always returns the correct results. When you include one or more ORs, however, this is not always what you want.

Image: Criteria page, example of criteria that returns an incorrect result

This example shows the criteria settings for a list of customers who are not friends and reside in either California (CA) or Florida (FL).

Records	Query	Expressions	Prompts	Fields	Criteria	Having	Dependency	Transformations	View SQL	Run	
Query Name		CUSTOMER_INFO		Description		Customer Information		Feed			
Add Criteria		Group Criteria		Reorder Criteria							
Logical	Expression1	Condition Type	Expression 2	Edit	Delete						
	A.CUSTOMER_TYPE - Customer Type	not equal to	FRND	Edit							
AND	A.STATE - State	equal to	CA	Edit							
OR	A.STATE - State	equal to	FL	Edit							
Save		Save As		New Query		Preferences		Properties		Publish as Feed	
										Publish as Pivot Grid	
										New Union	

The set of criteria that was entered in the previous sample page returns a list of customers in California (except for those who are friends) and *all* customers in Florida (including those who are friends). This list results because PeopleSoft Query evaluates criteria in the order of appearance. It looks for rows where the customer is not friend *and* where the state is California *or* rows where the state is Florida.

What you really want PeopleSoft Query to search for are rows where the state is California *or* Florida, *and* where the customer type is not friend. That is, you want PeopleSoft Query to evaluate the OR before the AND. To accomplish this task, add parentheses to the list of criteria. When a list of criteria includes

parentheses, PeopleSoft Query evaluates the criteria inside the parentheses before the criteria outside the parentheses.

Using the Group Criteria button on the Criteria page to access the Edit Criteria Grouping page (QRY_CRITERIA_GROUP) where you can insert the opening parenthesis just before the field name and the closing parenthesis just after the comparison value.

Image: Edit Criteria Grouping page, adding parentheses around the last two criteria

This example shows the Edit Criteria Grouping page with open and close parentheses around the second the third criteria.

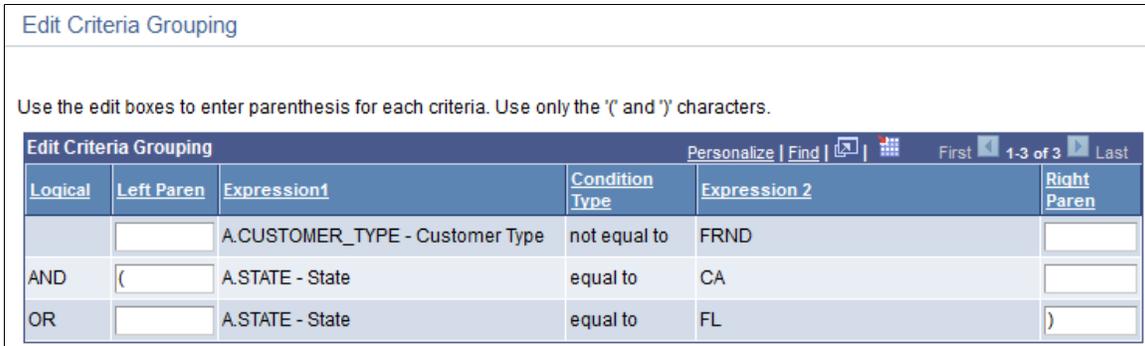
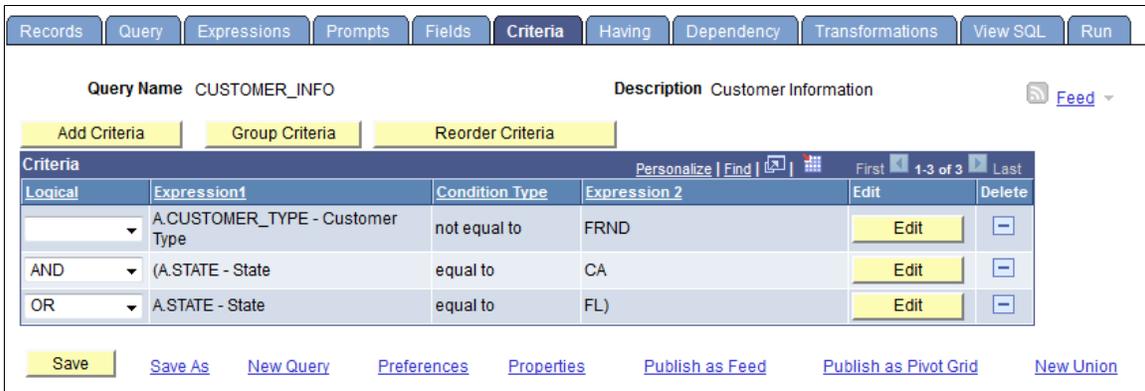


Image: Criteria page, parentheses around the last two criteria

This example shows the Criteria page with open and close parentheses around the second the thirist criteria.



To group criteria:

1. Click the Group Criteria button on the Criteria tab.

The Edit Criteria Grouping page appears.

2. Use the edit boxes to enter parentheses for the criteria as needed.

A parenthesis appears at the beginning of the Expression1 column for the first row that you selected and at the end of the Expression2 column for the last row that you selected. In the previous example, notice that the *AND* operator *precedes* the parentheses, while the *OR* operator is located *within* the parentheses.

You can add as many parentheses as needed.

Defining Prompts

Understanding Prompts

Adding a prompt lets you further refine a query when you run it. For example, suppose that you want to change a query so that you could prompt the user to enter a value for the duration of a vacation. Before you add the prompt, the query always retrieves rows for employees who had taken vacation based on a defined constant value on which to make a comparison. Adding a prompt to the query enables the user to enter any duration, and then the query can return employees based on the value provided when running the query.

When you run a query with a prompt, a prompt page requests the required value. All date, time, and datetime prompt fields are required fields when running Query. The query uses the value that you enter as the comparison value for the criterion that included the prompt.

If the field you are prompting has an associated prompt table (even if it is the Translate table), the Edit Table drop-down list shows its name.

Viewing and Editing Prompts

Use the Prompts page (QRY_PROMPT) to add or edit a prompt.

Navigation

Reporting Tools >Query >Query Manager >Prompts

Image: Prompts page

This example illustrates the fields and controls on the Prompts page.

Prompt	Edit	Delete
:1 = EMPLID - ID	Edit	[-]
:2 = EMPL_STATUS - Status	Edit	[-]

Editing Prompt Properties

Use the Edit Prompt Properties page (QRY_PROMPT_SEC) to edit the prompt properties.

Navigation

1. Select Reporting Tools, Query, Query Manager.
2. Add a new query or search for an existing one.
3. Access the Prompts page.
4. Click the Add Prompt button or the Edit button on the Prompts page.

Image: Edit Prompt Properties page

This example illustrates the fields and controls on the Edit Prompt Properties page. Definitions for the fields and controls appear following the example.

The screenshot shows the 'Edit Prompt Properties' page with the following fields and values:

- Field Name:** PRCSTYPE
- *Heading Type:** RFT Short
- *Type:** Character
- Heading Text:** Type
- *Format:** Mixed Case
- *Unique Prompt Name:** BIND2
- Length:** 30
- Decimals:** (empty)
- *Edit Type:** Translate Table
- Prompt Table:** PRCSTYPE_VW
- Optional**
- Default Value:** Cube Builder

- Type** Indicates the type of the field.
- Format** Specifies the field format. Over a dozen formats are available, including Name, Phone, Social Security Number, and Zip Code.
- Length** Indicates the field length.
- Decimals** Defines the number of decimals that are allowed.
- Edit Type** Defines the type of field edit for the specified field. *No Table Edit* is the default value. In general, you should use the same edit type that is used in the field record definition so that this edit type is consistent throughout Oracle's PeopleTools.
- Heading Type** Select a heading type for the prompt from the following values:

- *Text*: The prompt heading is the free text that you have entered in the text box.
- *RFT Short*: The prompt heading is the short name from the record definition.
- *RFT Long*: The prompt heading is the long name from the record definition.

Heading Text

Displays the label for the text box where you enter the comparison value. To change the text, select *Text* from the Heading Type drop-down list, and then enter the new label in the Heading Text text box.

Unique Prompt Name

A default value that Query Manager generates for globalization. Only base language users can set this value to uniquely identify a query prompt parameter.

Prompt Table

If the edit type is *Prompt Table*, you can select a prompt table to use. If the edit type is *Translate Table*, the value in the drop-down list determines the values used. PeopleSoft Query assumes that the specified field has translate table values associated with it, and that the field is identified as a translate table field in its record definition.

Optional

Use this option to define whether the prompt is optional or required.

- Select this option to indicate that the query prompt is optional. When the prompt is set to optional, a query may return a large result set because results are not limited or restricted by a prompt value.
- Clear this option to indicate that the query prompt is required. By default, the Optional option is cleared and a valid prompt value must be selected or entered when you run the queries that have prompts.

Note: A required prompt value must be validated based on the Edit Type list.

Prompt with the Edit Type set to *Yes/No Table* cannot be set as optional prompt because there are only two valid values, *Y* and *N*.

See the “Defining Optional Prompts” section later in this topic for more information about defining optional prompts.

Default Value

Use this field to set a default value for the prompt. The value in this field is used to populate the prompt when no other prompt value is selected or entered. For character fields, you can add a default prompt value that has up to 254 characters long.

Note: Entering a default value for a prompt set the prompt to *required*. If the Optional option is selected, when you enter a default prompt value for the prompt, the Optional option is cleared and a message appears saying: “Optional prompt cannot have default value. Prompt is now set to be required.”
Default prompt value is not a translatable field.
Tree prompts cannot be used as the default or optional prompt values.

To define prompts:

1. From the Prompts page, click the Add Prompt button to add a new prompt, or click the appropriate Edit button to edit an existing prompt.

The Edit Prompt Properties page appears.

2. Click the Look Up button next to the Field Name field to select a prompt field.

After you select a prompt field, the name of the field appears. PeopleSoft Query looks to the record definition for information about this field and completes the rest of the page based on its properties.

Note: When using a prompt table on a field from a record definition with multiple keys, you must prompt for all higher-level keys before lower-level keys. PeopleSoft Query needs values for the higher-level keys to generate the correct prompt list. Because of this complication, you should not use multikey prompt tables.

Related Links

[Adding Fields to Query Content](#)

Using the Default Prompt Values for Query Prompts

In the Edit Prompt Properties page, if there is a default prompt value, when you run the query, the prompt window displays the default prompt value in the prompt field.

Image: Edit Prompt Properties page

This example shows the Edit Prompt Properties page with the Default Value field set to *Cube Builder*.

Edit Prompt Properties

Field Name: PRCSTYPE

*Heading Type: RFT Short

*Type: Character

*Format: Mixed Case

Length: 30

Decimals:

*Edit Type: Translate Table

Optional

Default Value: Cube Builder

*Unique Prompt Name: BIND2

Heading Text: Type

Prompt Table: PRCSTYPE_VW

Image: Prompt window

This example shows the prompt window with the default prompt value *Cube Builder* displayed for the character prompt.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run

Query Name: QE_QRY_DPROMPT_CHAR Description: Test default char prompt

Query SQL:
 SELECT A.PRCSTYPE, A.PRCNAME, A.OUTDESTTYPE, A.OUTDEST, A.OUTDESTSRC
 FROM PS_QE_QRY_PRCDEFN A
 WHERE (A.PRCSTYPE = :1)
 ORDER BY 2

QE_QRY_DPROMPT_CHAR

Type: Cube Builder

OK Cancel

Save Save As New Query Preferences Properties Publish as Feed Publish as Pivot Grid New Union

In the prompt window, you can either run the query using the default prompt value or enter a different value to overwrite the default prompt value. If you do not use the default prompt value, the prompt value that you enter or select must be validated based on the value selected in the Edit Type list. For example, if the Edit Type list is set to Prompt Table, the prompt value must be a valid value from the prompt table.

Note: After you define the default prompt value, you are not able to run the query with a blank prompt value. In fact, the value in the Default Value field is always used as the prompt value if you do not enter a value for the prompt. For example, after you define the Default Value field and save the query, and then you clear the default value when you run the query, the query still runs using the value in the Default Value field as the prompt value, even after you clear the value.

If you do not enter a default value for the prompt and the required prompt is set to *No Table Edit*, the system runs the query using the blank value for a character prompt and using 0 (zero) for a numeric prompt.

If there is a default prompt value and you enter *NULL* as a prompt value when you run the query, the default prompt value is used as the prompt value.

Note: PSQuery doesn't support the criteria that compare the long character fields to the prompt values. You can only set criteria with long character field to be *Is Null* or *Is Not Null*.

PSQuery does not set a numeric prompt field to *NULL*, so numeric prompt always initialize with 0 (zero), which may be the value that you enter or the default value of a field.

- If 0 is a value of an optional numeric prompt and it also is *NULL*, this *NULL* value is used as an indicator that you have not entered a prompt value; therefore, the criteria defined to be compared with an optional numeric prompt is dropped during runtime.
- If 0 is a valid prompt value, you should not set the prompt to optional. The query is run with the prompt value set to 0 and the prompt value is validated accordingly.

Using System Variables as the Default Prompt Values

In addition to specifying the default prompt value as a constant, you can use system variables as the default prompt values for some prompt types.

This table lists the system variables that can be used as the default prompt values.

System Variable	Valid for Prompt Type
%Date	Date
%DateTime	DateTime
%Time	Time

For example, if the Default Value field in the Edit Prompt Properties page is set to *%Date*, when you run the query using the Run page in Query Manager, the prompt window displays the current date as the default prompt value. You then can either use the default value (current date) or select a new date.

Image: Edit Prompt Properties page

This example shows the Edit Prompt Properties page with the Default Value field set to *%Date*.

Edit Prompt Properties

Field Name: JOURNAL_DATE

*Heading Type: RFT Long

*Type: Date

*Format: None

Length: 10

Decimals:

*Edit Type: No Table Edit

Heading Text: Journal Date

*Unique Prompt Name: BIND2

Prompt Table:

Optional

Default Value: %Date

Image: Prompt window

This example shows the prompt window displaying the current date as the default prompt value.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run

Query Name: QECEDATE_2 Description: Query for CE Prompt

Query Prompts List

Prompt	Edit	Delete
:1 = BUSINESS_UNIT - Business Unit	Edit	[-]
:2 = JOURNAL_DATE - Journal Date	Edit	[-]

Save Save As New Query Preferences Properties Publish as Feed

Return To Search

QECEDATE_2

Journal Date: 05/29/2014

OK Cancel

When you use the Schedule Query page to schedule a query that has a date prompt with the Default Value field in the Edit Prompt Properties page set to *%Date*, the prompt window also appears displaying the current date as the default value.

To ensure the correct date is displayed on the query report every time the query is run:

- If you click the OK button in the prompt window without entering a new prompt date, the default prompt date value (%Date) is saved to the run control record instead of the current date (resolved value of %Date).
- If you click the OK button in the prompt window after you enter a new prompt date value, for example, 01/01/2014, the new prompt date value 01/01/2014, not the %Date value, is saved to the run control record.

Defining Optional Prompts

This section describes optional Prompt expression types and how to set them.

Understanding Defining Optional Prompts

When a user runs a query with an optional prompt defined, a prompt dialog box appears when he or she runs the query. They can enter or select a prompt value to refine the returned result set or not enter a value/by-pass the dialog box and get the entire result set.

When defining criteria, the Between condition type is not supported for Prompt expression types defined as optional. Instead, use an Expression expression type using greater than (>) and less than (<) operators to define the criteria. The following example shows a sample expression using greater than (>) and less than (<) operators to achieve a similar result as a Between condition type:

```
(A.MESSAGE_SET_NBR = :1 OR A.MESSAGE_SET_NBR > :1) AND ( A.MESSAGE_SET_NBR < :2 O⇒  
R A.MESSAGE_SET_NBR = :2)
```

Setting Optional Prompts

Image: Edit Prompt Properties page

This example shows the Edit Prompt Properties page with the Optional option selected and prompt table is set to *PRCSTYPE_VW*, which is used to validate the prompt value.

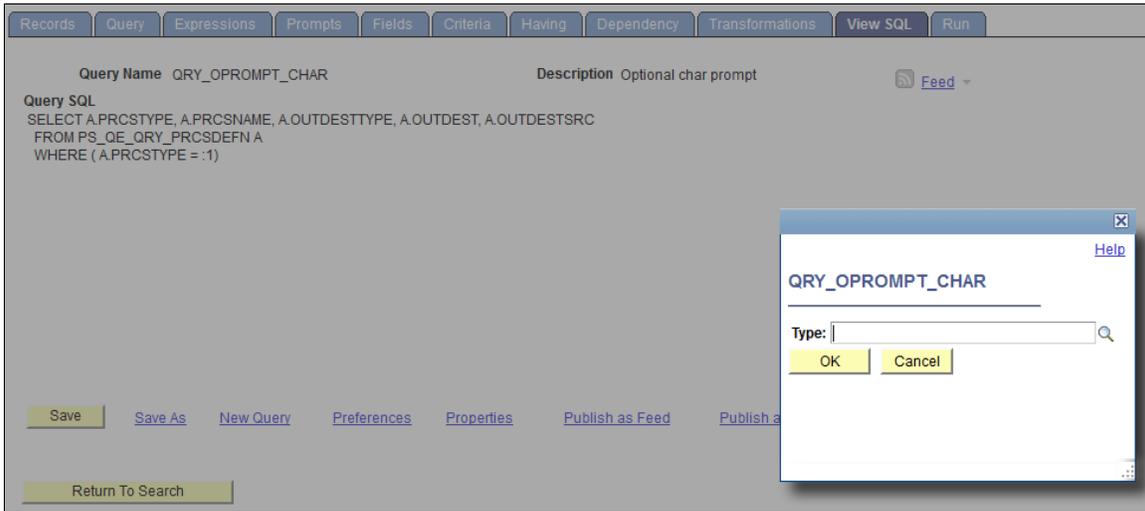
Edit Prompt Properties

<p>Field Name <input type="text" value="PRCSTYPE"/></p> <p>*Type <input type="text" value="Character"/></p> <p>*Format <input type="text" value="Mixed Case"/></p> <p>Length <input type="text" value="30"/> Decimals <input type="text"/></p> <p>*Edit Type <input type="text" value="Prompt Table"/></p> <p><input checked="" type="checkbox"/> Optional</p> <p>Default Value <input type="text"/></p>	<p>*Heading Type <input type="text" value="RFT Short"/></p> <p>Heading Text <input type="text" value="Type"/></p> <p>*Unique Prompt Name <input type="text" value="BIND1"/></p> <p>Prompt Table <input type="text" value="PRCSTYPE_VW"/></p>
--	--

When you use the Run page in Query Manager to run a query with the prompt set to Optional, a prompt window is displayed.

Image: View SQL page with prompt window

This example shows the prompt window when you run a query using the Run page in Query Manager.



Because the prompt is set to optional, you can either enter a valid prompt value or click the OK button on the prompt window without entering a prompt value.

- If you enter a prompt value, that prompt value must be validated because the prompt is defined to have the Edit Type option set to *Prompt Table*. If so, the query is run using the entered prompt value and the report results display the prompt setting.

Image: Run page

This example shows the query results with *Type = XML Publisher* is displayed as the prompt setting:

The screenshot shows the Query Manager interface with the 'Run' tab selected. The prompt setting is 'Type = XML Publisher'. The results are displayed in a table with columns: Type, Name, Type, Destination, and Dest Sourc. There are 10 rows of data.

	Type	Name	Type	Destination	Dest Sourc
1	XML Publisher	TRX5001	0		3
2	XML Publisher	TRX5003	0		3
3	XML Publisher	PO_LGSPND	0		3
4	XML Publisher	CS_OBJ_DEV	0		3
5	XML Publisher	TRX5000	0		3
6	XML Publisher	TRX5002	0		3
7	XML Publisher	CS_DOC_STAT1	0		3
8	XML Publisher	SPL_CAPX_RPT	0		3
9	XML Publisher	FSX0007	0		3
10	XML Publisher	FSX5101	0		3

- If you click the OK button without entering a prompt value, the criteria defined to compare with the optional prompt is dropped during runtime. The query is run without the prompt value and the report results do not display the prompt setting.

Image: Run page

This example shows the query results without the prompt setting.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run					
View All Rerun Query Download to Excel Download to XML					
					First 1-100 of 2907 Last
	Type	Name	Type	Destination	Dest Sourc
1	Application Engine	AR_PP3	0		3
2	Application Engine	AR_PP4	0		3
3	Application Engine	AP_CFOP_JOB	0		3
4	Application Engine	AP_COPYB_RPT	0		3
5	Application Engine	AP_FG_PROC	0		3
6	Application Engine	AP_INIPAC	0		3
7	Application Engine	AP_JFMIP_UPG	0		3
8	Application Engine	AP_MATCH	0		3
9	Application Engine	AP_PCJOB	0		3
10	Application Engine	AP_PCJOBUPD	0		3

When you use the Schedule Query page to run a query with the prompt set to optional, a prompt window is also displayed and you can either:

- Click the OK button on the prompt window without entering a prompt value. Prompt is saved to the run control record without a value. During the running process, the criteria defined to compare with the corresponding optional prompt are dropped from the SQL before the query runs.
- Enter a valid prompt value on the prompt window and click the OK button. The new prompt value is saved to the run control record. Because there is a valid prompt value, the criteria defined to compare with the corresponding optional prompt are used to run the query.

Defining HAVING Criteria

Having Criteria Properties

SQL does not support the use of aggregate functions in WHERE clauses. Therefore, after you have applied an aggregate function to a field, you cannot use that field in your selection criteria, which corresponds to a SQL WHERE clause. When you want to select rows based on the results of an aggregate function, Query Manager enables you to create *HAVING criteria*. You might use such criteria, for example, when you want a list of the departments whose minimum salary is greater than 100,000.00 USD.

In SQL, a HAVING clause is similar to a WHERE clause for rows of data that have been aggregated into a single row of output. The system evaluates WHERE clauses by looking at the individual table rows *before* they are grouped by the aggregate function, and then it evaluates HAVING clauses *after* applying the function. So if you want to check the value that is returned by the function, you must define a HAVING criterion.

When you click the Add Criteria icon from the Fields or Query pages for an aggregate field, new criteria is added to the Having page instead of the Criteria page. Add selection criteria using the Having page in the same way that you add selection criteria using the Criteria page.

Keep in mind that PeopleSoft Query compares the result of applying the aggregate function to the comparison value.

Viewing the Having Criteria Properties

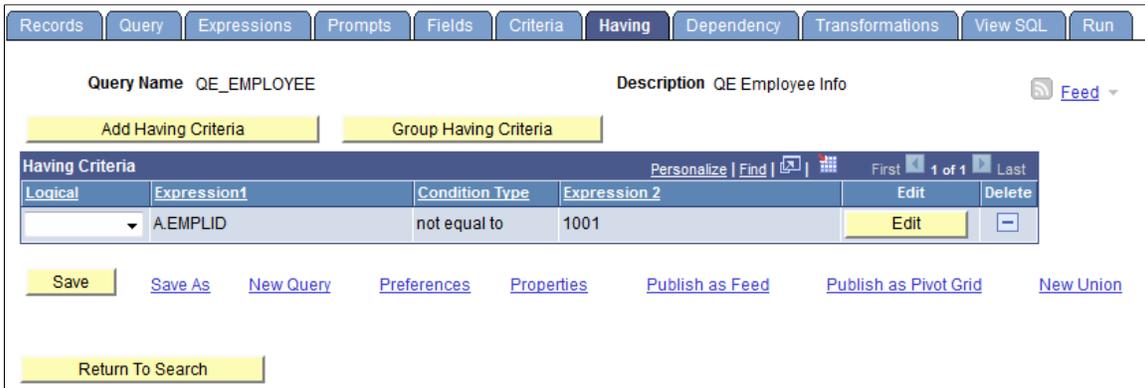
Use the Having page (QRY_HAVING) to view the having criteria.

Navigation

Reporting Tools >Query >Query Manager >Having

Image: Having page

This example illustrates the fields and controls on the Having page.



Editing the Having Criteria Properties

Use the Edit Having Criteria Properties (QRY_CRITERIA_SEC) page to add or edit the having criteria properties.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Add a new query or search for an existing one.
3. Access the Having page.
4. Click the Add Having Criteria button or the Edit button on the Having page.

Image: Edit Having Criteria Properties page

This example illustrates the fields and controls on the Edit Having Criteria Properties page.

Edit Having Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Define Expression

Expression A.EMPLID

*Condition Type not equal to

Choose Expression 2 Type

Field

Expression

Constant

Prompt

Subquery

Expression 2

Define Constant

Constant

Defining Record and Field Dependencies

Use the Dependency page (QRY_PRUNING) to specify whether a record can be pruned during the SQL pruning process in Composite Query. This page also enables you to specify the details of a record or field, depending on other records or fields.

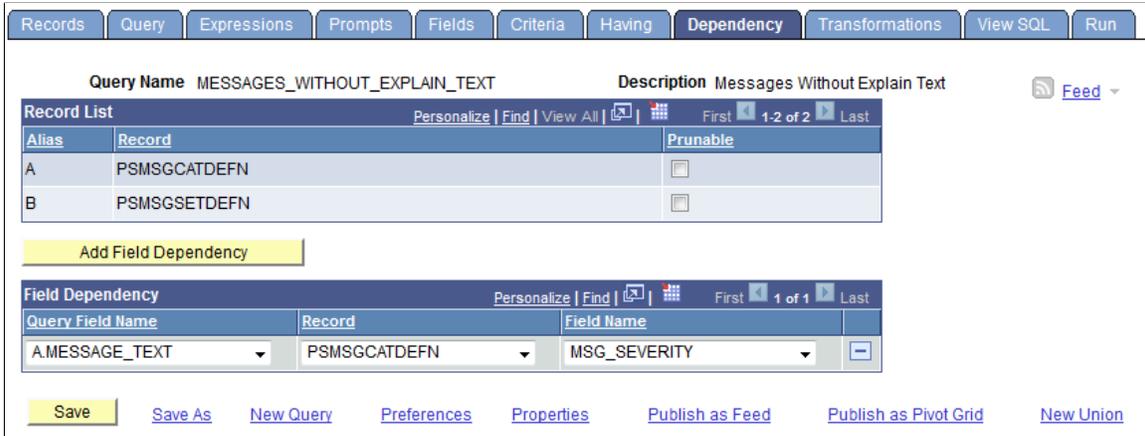
Note: The dependency settings in the Dependency page are used only for the SQL pruning process in Composite Query.

Navigation

Reporting Tools >Query >Query Manager >Dependency

Image: Dependency page

This example illustrates the fields and controls on the Dependency page. In the Field Dependency section, A.MESSAGE_SET_NBR has dependency on PSMMSGCATDEFN.MSG_SEVERITY. You can find definitions for the fields and controls later on this page.



Record List

This section lists the records that are added to the query definitions.

Prunable

Select this option to set the record to be able to be pruned during the SQL pruning process in Composite Query.

Add Field Dependency

Click this button to add a new field dependency.

Field Dependency

This section lists the field dependencies that are defined by query developer or query owner.

- Query Field Name: A list of the output fields defined for the query definition.
- Record: A list of the available records used to define the field dependency.
- Field Name: A list of the available fields used to define the field dependency.

When you set the field dependency, note that:

- If a field is selected in the Query Field Name drop-down list, the field that it depends on is not pruned during the SQL pruning process.

In the previous example image, A.MESSAGE_TEXT is selected on the Query Field Name drop-down list, and the field MSG_SEVERITY on the record PSMMSGCATDEFN is not pruned during the pruning process.

- If a field is selected in the Query Field Name drop-down list, but the dependent Record and Field Name lists have no values selected, the selected query field is not pruned during the SQL pruning process.

- If no field dependency is defined for the query definition, the Field Dependency section does not appear.

Note: Record and field dependency information is managed, and this information can be copied along with the query definition.

Adding a Field Dependency

To add a field dependency:

1. Select Reporting Tools, Query, Query Manager.
2. Create a new query or open an existing one.
3. Access the Dependency page.
4. Click the Add Field Dependency button to add a new field dependency.

The Field Dependency section appears.

5. Select the values from the Query Field Name, Record, and Field Name drop-down lists.
6. Click the Save button.
7. Optionally, repeat Steps 4 through 6 to add additional field dependencies.

Related Links

"Query Access Service Operations" (PeopleTools 8.56: Reporting Web Services)

"Selecting Records" (PeopleTools 8.56: Reporting Web Services)

"Executing the Query" (PeopleTools 8.56: Reporting Web Services)

Defining Expressions

Understanding Expressions

Expressions are calculations that PeopleSoft Query performs as part of a query. Use them when you must calculate a value that PeopleSoft Query does not provide by default—for example, to add the values from two fields together or to multiply a field value by a constant.

You can work with an expression as if it were a field in the query: select it for output, change its column heading, or choose it as an “order by” column.

In Query Manager, you can use expressions in two ways:

- As comparison values in selection criteria.
- As columns in the query output.

Viewing and Editing Expressions

Use the Expressions page (QRY_EXPRESSIONS) to add or edit an expression.

Navigation

Reporting Tools >Query >Query Manager >Expressions

Image: Expressions page

This example illustrates the fields and controls on the Expressions page.



Editing Expression Properties

Use the Edit Expression Properties page (QRY_EXPR_SEC) to edit the expression properties.

Navigation

1. Select Reporting Tools, Query, Query Manager.
2. Add a new query or search for an existing one.
3. Access the Expressions page.
4. Click the Add Expression button or the Edit button.

Image: Edit Expression Properties page

This example illustrates the fields and controls on the Edit Expression Properties page.

To add or edit expressions for queries:

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab to open the Expressions page.
3. Click the Add Expression button to open the Edit Expression Properties page, where you can select expression types.
4. Select an option from the Expression Type drop-down list.

If you select *Character*, enter the maximum length of the expression result in the Length field.

If you select *Number* or *Signed Number*, enter the total number of digits in the Length field and the number of digits after the decimal point in the Decimal field.

Note: For *Number* and *Signed Number*, expression types, the Length field defines the total length of the number (integer portion + decimals portion). For example, if Length = 10 and Decimals = 3, then this means that the integer portion = 7 (Length - Decimals = Integer).

5. If you are entering an aggregate value, such as SUM, AVG, or COUNT, select the Aggregate Expression check box.
6. In the Expression Text field, enter the expression (for example, *A. Total * .1*, where *A* represents the first record.)

Query Manager inserts the expression into the SQL for you. You can include Oracle hints in PeopleSoft Query expressions as long as you adhere to the following rules:

- Expressions containing a hint must begin with /*+ .
- Expressions can contain only one hint.

For example, only one set of /*+ */ is allowed.

- Expressions must contain a complete hint.

For example, an expression can't have only `/*+` or `*/`. Both must be in the same expression.

7. Click the Add Prompt button to add prompt properties for this expression; click the Add Field button to add another field to this expression.

Note: You must define a prompt, as described in the next section, before you can add it to your expression.

Using MetaSQL in Expressions

MetaSQL enables you to enter an expression that can be used across any supported database. For example, to concatenate strings, use the *MetaSQL* `%CONCAT`, and Oracle's PeopleTools will convert it to the appropriate database string concatenation function. To create a substring, use `%SUBSTRING`.

Note: You need to make sure that the expression type and length are set correctly for the data that is going to be returned. Only the MetaSQL functions that are valid for *dynamic views* will work with PeopleSoft Query.

Related Links

"Understanding Meta-SQL" (PeopleTools 8.56: PeopleCode Language Reference)

Extracting and Transforming Data from PeopleSoft Pure Internet Architecture

Extracting and Transforming Data Overview

PeopleSoft supports integrations with several different reporting tools, such as Pivot Grid, SQR, PS/nVision, Application Engine, and BI Publisher. Reports are typically created by application developers using the corresponding window-client based designer. In most cases, PeopleSoft Query is the primary data source for data from a PeopleSoft database. Users can then use reporting tools to apply additional formatting (HTML, PDF, XLS, XML, and so on) to the data to create a report.

If you have PeopleSoft Pure Internet Architecture access from a browser and do not have access to any PeopleSoft client tools, then you have limited options for customizing PeopleSoft reports. For example, you are unable to modify existing file layouts (in PeopleSoft Application Designer), and so on.

To provide the flexibility to accomplish reporting tasks from Pure Internet Architecture, PeopleTools has provided a way of extracting, transforming, and distributing data from there without the need to access any client tools.

In addition to the currently available formats (HTM, PDF, TXT, XLS, XML, and XMLP), PeopleSoft Query now includes a user-defined output format called XFORM, which triggers a transformation (XSLT). You must provide the XSLT to define the desired transformation of the extracted data.

Then, to generate the transformed output and distribute the data results, you schedule the query process to run using the Process Scheduler Request page and select *XFORM* as the output format. If you want to

send the transformed output to an external IB node using the Integration Broker framework, you schedule the query process to run using the Process Scheduler Request page, select the *IB Node* as the output type and *XFORM* as the output format. The page also features a new Approval Required option that enables you to review and approve the transformed output before distributing it.

See “Scheduling and Distributing Query and Connected Query Results with Transformation” in the [Scheduling Queries](#) section.

Note: Query users who have permission to edit the query can add, modify, and delete the XSLT. Query users who have permission to schedule and run the query can select the node output type as well as the XSLT for transformation.

Viewing and Editing Data Transformations for a Query

Use the Transformations page (QRY_TRANSFORM) to view, add, or modify the list of transformation program (XSLT) that are defined for the query.

Navigation

Reporting Tools >Query >Query Manager >Transformations

Image: Transformations page

The following example shows the fields and controls on the Transformations page. Definitions for the fields and controls follow the example.

Add XSLT

Click to access the Transformation Details page, where you can add a new transformation (XSLT) for the selected query.

Note: The number of transformations that you can add to a query definition is not limited. You can define how to use each XSLT to convert query data into a document with different formats.

Output File Type

Displays a file extension to be created after the transformation.

Edit XSLT

Click to view and edit the content of the current XSLT.

Preview

Click to view sample output of a query with transformation.



Click to delete the XSLT from the selected query. After you click the Delete icon, a Delete Confirmation message appears enabling you to either confirm or cancel the deletion.

Defining the Data Transformation for a Query

Use the Transformation Details page (QRYXSLTDETAILS) to add the transformation program (XSLT).

Navigation

1. Select Reporting Tools, Query, Query Manager.
2. Access the Transformations page and click the Add XSLT button.

Image: Transformation Details page

The following example shows the fields and controls on the Transformation Details page for an XSLT that is used to generate a fixed output. Definitions for the fields and controls follow the example.

Transformation Details

*Name *Output File Type

*XSLT

```

<?xml version='1.0'?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">
  <xsl:output method="text"/>
  <xsl:template match="query/row">
    <xsl:for-each select="EMPLID">
      Employee ID: <xsl:value-of select="." />
    </xsl:for-each>
    <xsl:for-each select="QE_EMPLOYEE_NAME">
      Employee Name: <xsl:value-of select="." />
    </xsl:for-each>
    <xsl:for-each select="QE_FIRST_NAME">
      First Name: <xsl:value-of select="." />
    </xsl:for-each>
    <xsl:for-each select="QE_LAST_NAME">
      Last Name: <xsl:value-of select="." />
    </xsl:for-each>
    <xsl:for-each select="QE_JOBCODE">
      Job Code: <xsl:value-of select="." />
    </xsl:for-each>
    <xsl:for-each select="DEPTID">
      Department ID: <xsl:value-of select="." />
    </xsl:for-each>
  </xsl:template>
</xsl:stylesheet>

```

Name	Enter the name of the transformation.
Output File Type	Select the file extension to be created after the transformation. The default value is TXT.
XSLT	Enter the XSLT that will be used to transform the XML.

Note: To generate a user-defined output format, you need to enter the XSLT that defines how to transform the query data. The output varies based on the XSLT. XSLT should be in the valid XML format. Only basic XML validation will be performed on the user-provided XSLT.

Image: Fixed format output

This example illustrates a fixed format output after applying the XSLT to a query data.

```
Employee ID: 7705
Employee Name:Holt,Susan
First Name:SUSAN
Last Name: HOLT
Job Code: G061
Department ID:1

Employee ID: 8001
Employee Name:Schumacher,Simon
First Name:ASD
Last Name: ASD
Job Code: 1001
Department ID:1

Employee ID: 8001
Employee Name:Schumacher,Simon
First Name:ASD
Last Name: ASD
Job Code: 6001
Department ID:1

Employee ID: 8052
Employee Name:Avery,Joan
First Name:JOAN
Last Name: AVERY
Job Code: 6001
Department ID:1

Employee ID: 8101
Employee Name:Penrose,Steven
First Name:STEVEN
Last Name: PENROSE
Job Code: 1211
Department ID:1

Employee ID: 8101
Employee Name:Penrose,Steven
First Name:STEVEN
Last Name: PENROSE
Job Code: 6001
Department ID:1
```

Chapter 4

Drilling URLs in PeopleSoft Query

Understanding Drilling URLs

Drilling URLs are the URLs that you define by selecting the menu, component, page, portal object, or URL of choice.

When you build a query using Query Manager, you can define drilling URLs that are associated with this query. These settings are saved into the database, along with prompt, criteria, and so on, as part of the metadata for this query. When you execute this query through Query Manager or Query Viewer, the query results page shows results as links, which you can click to be redirected to a different page in a new browser. Depending on how drilling URLs are defined, the new browser is either a PeopleSoft Pure Internet Architecture page, another query result page, or an external page.

Note: Drilling URLs that were created in earlier PeopleTools releases will work properly in the current release.

In PeopleTools 8.53 and PeopleTools 8.54, queries with Unions always return the URLs from the top level of the Union.

Common Terminology Used to Create Drilling URLs in PeopleSoft Query

Source Query	A query that defines a Drilling URL.
Destination Query	A query that was defined as a Drilling URL.
Destination Component	A component that was defined as a Drilling URL.

Viewing and Editing Expression Properties

Drilling URLs are a special type of expression that you can define using the Edit Expression Properties page (QRY_QRYURL_SELECT) in Query Manager.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.

Image: Edit Expression Properties page with the Expression type as Drilling URL

This example illustrates the fields and controls on the Edit Expression Properties page with the expression type as Drilling URL. Definitions for the fields and controls appear following the example.

Expression type

To define drilling URLs, you must select the *Drilling URL* option from the Expression type list.

Expression text

Optionally, type the URL in the Expression text text box.

Note: You have two options: type the URL in this Expression Text box or click the Query URL, Component URL, or External URL links to allow the appropriate system building URLs. If you type the URL directly into the Expression text box, the system does not validate against a value for the correct format.

Query URL

Click to access the Query URL definition widget, where you can select a query to build URLs in a query URL format.

Component URL

Click to access the Component URL definition widget, where you can select a component to build URLs in a component URL format.

External URL

Click to access the External URL definition widget, where you can enter external URL to build URLs in an external URL format.

Attachment URL

Click to access the Attachment URL definition widget, where you can enter attachment URL to build URLs in an attachment URL format.

Free Form URL

Click to access the Free Form URL definition widget, where you can manually enter URLs that will be used to build drilling URLs in report results.

Image URL

Click to access the Image URL definition widget, where you can select an image field to build URLs in the image URL format.

REST URL

Click to access the REST definition widget, where you can define the REST drilling URLs for PeopleSoft REST Service that have defined HTTP Get methods.

Note: Drilling URLs are saved into database as an expression, so you can access the Expressions page and add the defined drilling URLs as fields. However, you cannot add drilling URLs as criteria because drilling URLs are special type of expressions. You can add drilling URLs as query fields or columns, and then on the query results page, values in that fields or columns will be expanded to fully qualified URLs, which you can click to either run query, access a PeopleSoft Pure Internet Architecture page, or access an external URL.

See [Defining Expressions](#).

Defining Query Drilling URLs

Page Used to Define Query Drilling URLs

The Query URL widget enables you to use the Select a Query page (QRY_FIELDS) to build drilling URLs in a query URL format.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list and then click the Query URL link.

Image: Select a Query page

This example illustrates the fields and controls on the Select a Query page. Definitions for the fields and controls appear following the example.

Select a Query
Help

Portal Name:

Node Name: Use psc

Query Name:

*Format

URL Keys
Find | | First 1 of 1 Last

Selection Flag	Key Field Name	Unique Prompt Name	Key Value	Field Lookup		
<input type="checkbox"/>	DEPTID	BIND1	<input type="text"/>	<input type="button" value="🔍"/>	<input type="button" value="+"/>	<input type="button" value="-"/>

Select Query Columns
Find | | First 1-6 of 6 Last

Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.EMPLID	<input type="text"/>
<input type="checkbox"/>	A.EFFDT	<input type="text"/>
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	A.QE_SOC_SEC_NBR	<input type="text"/>
<input type="checkbox"/>	A.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	A.DEPTID	<input type="text"/>

Map URL to Query Columns
Find | | First 1-6 of 6 Last

Selection Flag	Unique Field Name
<input type="checkbox"/>	A.EMPLID
<input type="checkbox"/>	A.EFFDT
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	A.QE_SOC_SEC_NBR
<input type="checkbox"/>	A.QE_JOBCODE
<input type="checkbox"/>	A.DEPTID

Portal Name

Optionally, enter or select a portal that is used to build drilling URLs at report runtime.

Note: If the Portal Name field has no value, PeopleSoft Query uses value *%PORTAL* to form a drilling URL at report runtime.

Node Name

Optionally, enter or select a node that is used to build drilling URLs at report runtime.

If the Node Name field has no value, PSQuery uses value *%NODE* to form a drilling URL at report runtime.

Use psc (content servlet)

Used to define the content type that is used to build drilling URLs.

- Deselect this option to use the portal service (psp) type.

By default, this option is deselected.

- Select this option to use the content servlet (psc) type.

Query Name

Type a query name in the text box or click the query lookup icon to search for an existing query.

Format

Used to select the format of report results that will be generated from the drilling URLs. Available options are:

- XML (XMLP format)

If you select the *XML* option, drilling URL in the Expression Text field includes the *ICQryNameXMLURL* value.

- HTM

If you select the *HTM* option, drilling URL in the Expression Text field includes the *ICQryNameURL* value.

- XLS

If you select the *XLS* option, drilling URL in the Expression Text field includes the *ICQryNameExcelURL* value.

Prompt Keys

Click to access the Query Search Page where you can search for the prompt criteria of the query that you entered in the Query Name field. If the entered query has prompt criteria, a list of those fields appears in the URL Keys section. If the entered query has no prompt criteria, a message appears saying “Query does not contain any prompt key(s)”.

Note: This step is optional. If you do not map any prompt keys to the source query column field, then when you click a drilling URL link in query result column page, you will be directed to the Prompt page, where you can enter prompt key values before retrieving query result.

Select Field

Click to access the Select Query Column section.

Map Columns

Click to display the Map URL to Query Columns section.

Note: This step is required for the drilling URLs to be available in a query results page.

You can define multiple drilling URLs in a query, but each query result column can only bind with one URL. Therefore, when you click the Column Mapping button, only those fields that have no bond with any URL appear in the Map URL to Query Columns section. If all query columns have bonds with other tracking URLs, then a message appears saying “All columns have already been mapped to other drilling URLs.”

URL Keys

The URL Keys section is available only after you define the Query field and click the Prompt Keys button.

In this URL Keys section, you define value mapping between Drilling URL destination query prompt fields and Drilling URL source query result column fields.

To map these fields, select the key field by selecting the check box adjacent to a prompt key field, and then click the lookup icon to select the source query column field to map to it.

Note: This step is optional. If you do not map any prompt keys to a source query column field, then when you click a drilling URL link on the query result column page, you will be directed to the Prompt page, where you can enter prompt key values before you retrieve query results.

Select Query Column

Select query result columns to form field name and value pairs and to define the order of the appended value pair in the URL.

Note: The Select Query Column section is available after you click the Select Field button.

Map URL to Query Columns

The Map URL to Query Columns section is available only after you define the component values and click the Map Columns button.

Note: This step is required for the drilling URLs to be available in the query results page.

Use the Map Columns button for binding source query result column fields with Drilling URL. You must map URL to query result columns in order for the drilling URLs to be available as links in column fields of the source query results. You can define column mapping by selecting the appropriate check box in the Map URL to Query Columns section.

OK

Click to finish defining the Query URL widget and return to the Edit Expression Properties page.

Searching for Query

Use the Query Search Page (QUERY_URL_SRCH_SPG) to search for the prompt criteria of the query that you entered in the Query Name field of the Select a Query page. If the entered query has prompt criteria, a list of those fields appears in the URL Keys section. If the entered query has no prompt criteria, a message appears saying “Query does not contain any prompt key(s)”.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list, and click the Query URL link.
4. Click the Prompt Key button next to the Query Name field.

Image: Query Search page

This example illustrates the fields and controls on the Query Search page.

The screenshot shows the 'Query Search Page' interface. At the top, there is a 'Query Type' dropdown menu set to 'Queries' and a 'Query Name' text input field. To the right of the input field is a magnifying glass icon. Below the search form is a table with the following data:

Query Name	Description	User ID
CM_ATTRIBUTES	Attribute mappings	Public
CM_DIM_CTRL_TBL	Dimension Control Table	Public
CM_FACT_CTRL_TBL	Fact Control Table	Public
CM_FACT_MAP_TBL	Fact Map Table	Public
CM_FIELD_PROPERTIES		Public
CM_HIER_CTRL_TBL	Hierarchy Control table	Public
CM_HIER_MAP_TBL	Hierarchy Map Table	Public
CT_PSXLATITEM		Public
DW_AGGREGATION	Aggregation for the instance	Public
DW_AGG_LEVEL	Level Mappings	Public
DW_CUBE	Cube element list	Public
DW_CUBE_DATA	Check of data query existence	Public

At the bottom left of the page, there is a yellow 'Return' button. The table also includes navigation controls at the top: 'Personalize | Find | View 100 | First 1-12 of 232 Last'.

Selecting Query Columns for Existing Drilling URLs

Using the Select Query Column section, you can append field name and value pairs to the end of existing Drilling URL types. The format of the appended field name and value pair is `&FIELDNAME=VALUE`.

For example:

- '/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=%A.DEPTID%&SETID=%A.SETID%EMPLID=00001:A.SETID'

In this example, the appended field name and value is formed using a static field name, EMPLID, and the static value 00001. At runtime, the drilling URL is expanded as:

```
http://myserver.example.com:8920/ps/ps/EMPLOYEE/QE_LOCAL/c/
QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?
Action=U&DEPTID=10300&SETID=QEDMOEMPLID=00001
```

- '/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=%A.DEPTID%&SETID=%A.SETID%&A.SETID=%A.SETID%&A.DEPTID=%A.DEPTID%:A.SETID'

In this example, the appended field name and value pairs are from two query result columns, A.SETID and A.DEPTID. At runtime, the actual values that are returned in the query results for the A.SETID and A.DEPTID columns replace the %A.SETID% and %A.DEPTID%, as in this URL:

```
http://myserver.example.com:8920/ps/ps/EMPLOYEE/QE_LOCAL/c/
QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?
Action=U&DEPTID=10300&SETID=QEDMO&A.SETID=QEDMO&A.DEPTID=10300
```

Note: The Expression Text field in the Edit Expression Properties page is not editable. You can modify existing drilling URLs or define new drilling URLs using available drilling URL widgets.

Processing Existing Drilling URLs at Runtime

At runtime, the query drilling URL feature is able to process all drilling URLs that are created in PeopleTools releases later than 8.50. For example, when you define the same drilling URL:

- PeopleTools 8.50 forms the drilling URL as

```
'/q/?ICAction=ICQryNameURL=PUBLIC.QE_EMP_DESTINATION&BIND1=
A.DEPTID:A.DEPTID'

'/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=A.DEPTID&
SETID=A.SETID:A.SETID'
```

- PeopleTools 8.51 forms the drilling URL as

```
'/q/?ICAction=ICQryNameURL=PUBLIC.QE_EMP_DESTINATION&BIND1=
%A.DEPTID%:A.DEPTID'

'/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=%A.DEPTID%&
SETID=%A.SETID%:A.SETID'
```

- PeopleTools 8.52 and later forms the drilling URL as

```
'ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryNameURL=
PUBLIC.QE_EMP_DESTINATION&BIND1=%A.DEPTID%:A.DEPTID'

'ps/EMPLOYEE/QE_LOCAL/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&
DEPTID=%A.DEPTID%&SETID=%A.SETID%:A.SETID'
```

Note: PeopleSoft introduced query drilling URL in PeopleTools 8.50 and added more features in later releases, so drilling URLs created in different releases will look slightly different. However, runtime processing is backward compatible and drilling URLs that have been defined in previous release will be expanded correctly in newer release without the user's need to redefine them.

In PeopleTools 8.50, drilling URLs must be expanded correctly. When you modify a drilling URL that was created in PeopleTools 8.51 or later and then save it in PeopleTools 8.50, the system uses new format and syntax to form the URL. In PeopleTools 8.51 or later, when you run a query with the drilling URLs that were directly upgraded from PeopleTools 8.50, the runtime converts the format differences between the different releases.

Steps Used to Select a Query to Build Drilling URLs

To select a query to build drilling URLs:

1. Select Reporting Tools > Query > Query Manager.

The Query Manager search page appears.

2. Click the Create New Query link on the Query Manager search page to create a source query, or click the Search button and open an existing one.
3. If you create a new source query, click the Search button and click the Add Record link to select a record for the query.

The Fields page appears.

4. Select the Expressions tab, and click the Add Expression button.

The Edit Expression Properties page appears.

5. Select the *Drilling URL* option from the Expression Type list.
6. Click the Query URL link to define drilling URL for the source query that you just created.

The Select a Query page appears.

7. Optionally, define the portal name, node name, or content type.
8. Type a query name in the Query Name text box, or click the lookup icon to search for one from existing queries.
9. Select the format of report results that will be generated from the drilling URLs.
10. Optionally, define value mapping in the URL Keys section.

- a. Click the Prompt Keys button to bind the prompt keys of the destination query with the columns of the source query.

Note: If the destination query has prompt criteria, the URL Keys section appears with a list of key fields.

- b. Define value mapping in the URL Keys section by selecting the check box adjacent to a prompt key field, and then clicking the lookup icon to select a source query column field to map to it.

11. Optionally, define query result columns for existing drilling URLs:
 - a. Click the Select Field button to display the Select Query Column section.
 - b. Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.
12. Optionally, define the column mapping in the Map URL to Query Columns section:
 - a. Click the Map Columns button to map the drilling URL to a source query selected column.
 - b. Select appropriate values from the Map URL to Query Columns section.
13. Click the OK button.

The Edit Expression Properties reappears with query drilling URLs in the Expression Text field.

This is an example of a drilling URL with the Use psc option is not selected, and the Portal Name and Node Name fields have no values. Notice that, *%PORTAL* and *%NODE* values will be used to build URLs at the report runtime:

```
'psp///q/?ICAction=ICQryNameURL=PUBLIC.DESTINATION&BIND1=A.DEPTID:A.DEPTID'
```

In this example, 'psc// is your selected portal name, node name, and content type; the standard query URL format is /q/?ICAction=ICQryNameURL=PUBLIC.DESTINATION&BIND1=A.DEPTID, and the binding column is A.DEPTID. Thus, this drilling URL is binding with column A.DEPTID.

This is an example of a drilling URL with the Use psc option is selected, portal CUSTOMER, and node QE_LOCAL:

```
'psc/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryNameURL=PUBLIC.QE_EMP_DESTINATION:A.QE_EMPLOYEE_NAME'
```

In this example, 'psc/EMPLOYEE/QE_LOCAL is your selected portal name, node name, and content type.

Note that, a query drilling URL:

- Always includes /q/.
- Is saved as part of expression metadata for the query.
- Contains two parts: query URL format and query result columns binding with the Drilling URL.

14. Save your query.
15. Select Reporting Tools >Query >Query Manager.
Alternatively, select Reporting Tools >Query >Query Viewer.
16. Click the HTML link or the Download to Excel link.

The query results page displays results as links. When you click these links, the destination query is run using prompt key values that are defined using the source query.

Defining Component Drilling URLs

Page Used to Define Component Drilling URLs

The Component URL widget enables you to use the Select a Component page (QRY_COMPURL_SELECT) to build drilling URLs in component URL format. When you click the Component URL link in the Edit Expression Properties page to access the Select a Component page, a PeopleSoft Pure Internet Architecture page is launched.

Note: The Component URL widget is only used for pages that have the Action field set to Update/Display.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list and click the Component URL link.

Image: Select a Component page

This example illustrates the fields and controls on the Select a Component page. Definitions for the fields and controls appear following the example.

[Help](#)
Select a Component

Portal Name

Node Name Use psc

Content Reference [Add Content Reference Link](#)

*Menu Name

*Market

*Component

Page

*Menu Action

Search Keys
Select Field
Map Columns

URL Keys				Find <input type="text" value="🔍"/>	First <input type="button" value="⏪"/> 1-3 of 3 <input type="button" value="⏩"/> Last
Selection Flag	Field Name	Key Value	Field Lookup		
<input type="checkbox"/>	DEPTID	A.DEPTID	<input type="button" value="🔍"/>	<input type="button" value="+"/>	<input type="button" value="-"/>
<input type="checkbox"/>	SETID	QEDMO	<input type="button" value="🔍"/>	<input type="button" value="+"/>	<input type="button" value="-"/>
<input checked="" type="checkbox"/>	CITY	PLEASANTON	<input type="button" value="🔍"/>	<input type="button" value="+"/>	<input type="button" value="-"/>

Select Query Columns			Find <input type="text" value="🔍"/>	First <input type="button" value="⏪"/> 1-6 of 6 <input type="button" value="⏩"/> Last
Selection Flag	Unique Field Name	Order By		
<input checked="" type="checkbox"/>	A.EMPLID	<input type="text"/>		
<input type="checkbox"/>	A.EFFDT	<input type="text"/>		
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME	<input type="text"/>		
<input type="checkbox"/>	A.QE_SOC_SEC_NBR	<input type="text"/>		
<input type="checkbox"/>	A.QE_JOBCODE	<input type="text"/>		
<input type="checkbox"/>	A.DEPTID	<input type="text"/>		

Map URL to Query Columns		Find <input type="text" value="🔍"/>	First <input type="button" value="⏪"/> 1-6 of 6 <input type="button" value="⏩"/> Last
Selection Flag	Unique Field Name		
<input type="checkbox"/>	A.EMPLID		
<input type="checkbox"/>	A.EFFDT		
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME		
<input type="checkbox"/>	A.QE_SOC_SEC_NBR		
<input type="checkbox"/>	A.QE_JOBCODE		
<input type="checkbox"/>	A.DEPTID		

OK
Cancel

Portal Name

Optionally, enter or select a portal that is used to build drilling URLs at the report runtime.

Note: If the Portal Name field has no value, PeopleSoft Query uses the value *%PORTAL* to form a drilling URL at the report runtime.

Node Name	<p>Optionally, enter or select a node that is used to build drilling URLs at the report runtime.</p> <p>If the Node Name field has no value, PeopleSoft Query uses the value <i>%NODE</i> to form a drilling URL at the report runtime.</p>
Use psc (content servlet)	<p>Used to define the content type that is used to build drilling URLs.</p> <ul style="list-style-type: none"> • Deselect this option to use the portal service (psp) type. By default, this option is deselected. • Select this option to use the content servlet (psc) type.
Content Reference	<p>Enter the name of a content reference or use the Add Content Reference Link link to select a content reference from an existing list.</p> <p>See "Administering Content References" (PeopleTools 8.56: Portal Technology).</p>
Add Content Reference Link	<p>Click to access the Select a Content Reference or Content Reference Link page, where you can select a content reference or content reference link.</p> <hr/> <p>Note: The values of the Menu Name, Market, and Component fields are populated if you select a content reference or content reference link using the Add Content Reference Link link.</p> <hr/>
Menu Name	<p>Enter a menu name or click the lookup icon and select one menu name from an existing list. Otherwise, the menu name value is populated if you select a content reference or content reference link using the Add Content Reference Link link.</p>
Market	<p>Enter a market code or click the lookup icon and select one market code from an existing list. The market code is populated automatically if you select a content reference or content reference link using the Add Content Reference Link link.</p>
Component	<p>Enter a component name or click the lookup icon and select one component name from an existing list. Otherwise, the component name value is populated if you select a content reference or content reference link using the Add Content Reference Link link.</p>
Menu Action	<p>Select an action type to associate with the component.</p> <p>When you run the query, a component drilling URL expands with correct action mode within the URL. For different component actions, the drilling URL will be constructed differently. When you click the component drilling URL from the query results page, it opens the target component with the correct action mode. The available menu actions are:</p>

- Add

The URL will include *Action=A*.

Clicking the URL opens the target component at the Add a New Value page.

- Update/Display

The URL will include *Action=U*.

Clicking the URL opens the target component at the Find an Existing Value page.

- Update/Display All

The URL will include *Action=L*.

Clicking the URL opens the target component at the Find an Existing Value page with the Include History option selected by default.

- Correction

The URL will include *Action=C*.

Clicking the URL opens the target component at the Find an Existing Value page with the Correct History option selected by default.

Note: The Menu Action lists the actions that were granted to the selected component when the component was created using Application Designer.

If you have defined mapping between query result columns and all of the component search key fields, then clicking the component drilling URL will bypass the search page and open the main page directly.

Search Keys

Click to select mapping between component search keys and source query result columns.

If the entered component has a search key, a list of those search keys appears in the URL Keys section. If the entered component has no search key, a message appears saying “Component does not contain any search keys”.

Note: This step is optional. If you do not map any search keys to the source component, then when you click a drilling URL link in the query result column page, you will be directed to a component search page, where you can select search key values.

Select Field

Click to display the Select Query Column section.

Map Columns

Click to display the Map URL to Query Columns section.

Note: This step is required for the drilling URLs to be available in query results page.

You can define multiple drilling URLs in a query, but each query result column can only bind with one URL. When you click the Map Columns button, only those fields that have no bond with any URL appear in the Map URL to Query Columns section. If all query columns have bonds with other tracking URLs, then a message appears saying “All columns have already been mapped to other drilling URLs.”

URL Keys

The URL Keys section is available only after you define the component and click the Search Keys button.

In this URL Keys section, you define value mapping between Drilling URL destination component search keys and Drilling URL source query result column fields.

To map these fields, you can either select the key field and then click the lookup icon to select source query column field to map to it, or enter static values as mapping value directly into the Field Value field. Similarly, in the Key Value field, you can either manually enter the key name or search for existing keys from the component. You can also add or delete key values using the Add or Delete button.

Note: This step is optional. If you do not map any search keys to the source component, then when you click a drilling URL link in query result column page, you will be directed to a component search page, where you can enter search key values before you launch the component.

Select Query Column

Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.

Map URL to Query Columns

The Map URL to Query Columns section is available only after you define the component values and click the Map Columns button.

Note: This step is required for the drilling URLs to be available in the query results page.

Use the Map Columns button for binding source query result column fields with a Drilling URL. You must map URLs to query result columns in order for the drilling URLs to be available as links in column fields of the source query results.

You can define column mapping by selecting the appropriate check box in this Map URL to Query Columns section.

OK

Click to finish defining a Component URL widget and return to the Edit Expression Properties page.

Selecting a Content Reference or Content Reference Link

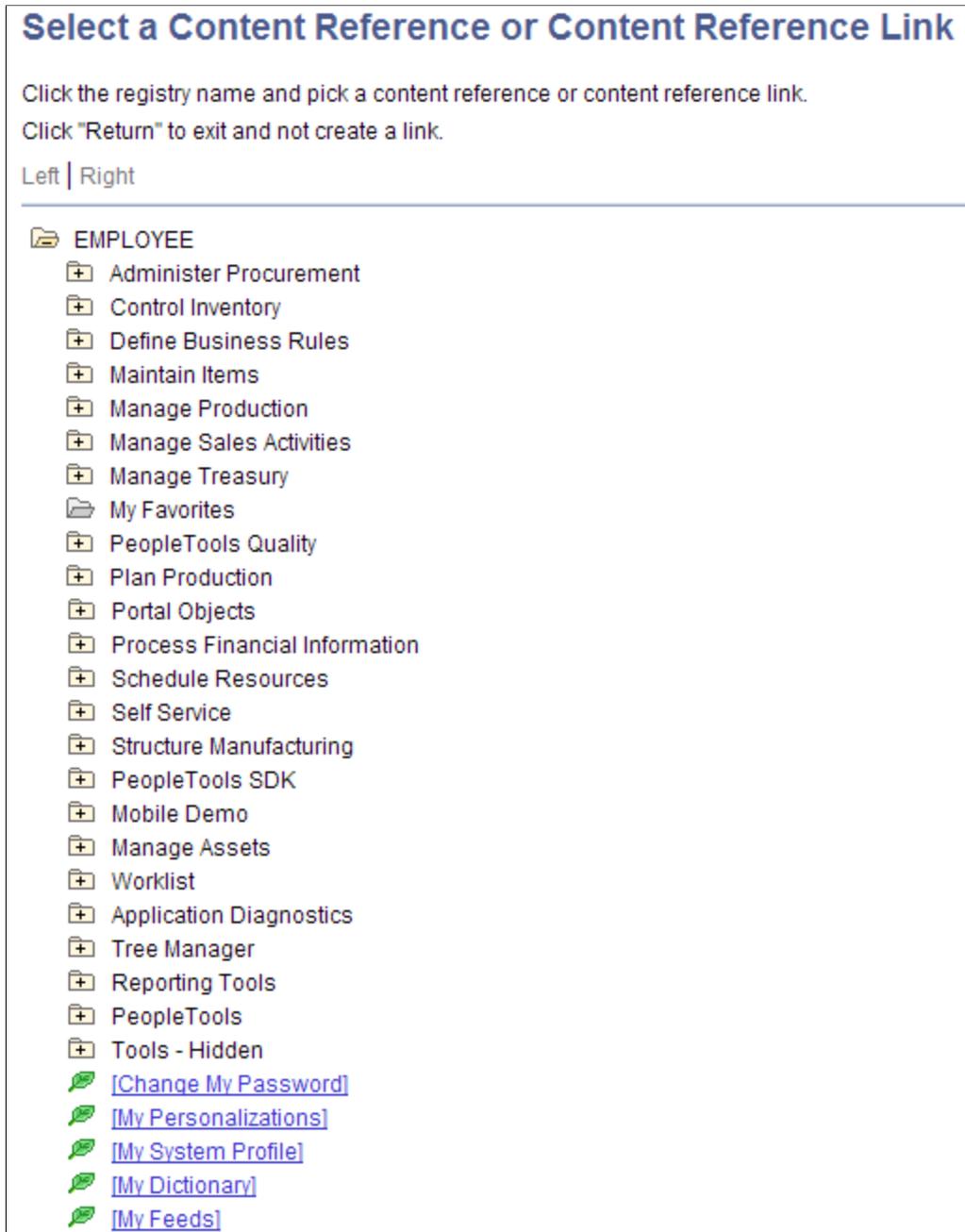
Use the Select a Content Reference or Content Reference Link page (QRY_CREFURL_SELECT) to select a content reference or content reference link.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list, and click the Component URL link.
4. Click the Add Content Reference Link link.

Image: Select a Content Reference or Content Reference Link page

This example illustrates the fields and controls on the Select a Content Reference or Content Reference Link page.



Steps Used to Select a Component to Build Drilling URLs

To select a component to build drilling URLs:

1. Select Reporting Tools >Query >Query Manager.

The Query Manager search page appears.

2. Click the Create New Query link on the Query Manager search page to create a source query, or click the Search button and open an existing one.
3. If you create a new source query, click the Search button and click the Add Record link to select a record for the query.

The Fields page appears.

4. Select the Expressions tab, and click the Add Expression button.

The Edit Expression Properties page appears.

5. Select the *Drilling URL* option from the Expression Type list.
6. Click the Component URL link to define a drilling URL for the source query that you just created.

The Select a Component page appears.

7. Optionally, define the portal name, node name, or content type.
8. Type a content reference in the text box or click the Add Content Reference Link link to select one from existing components.
9. If needed, define the values for the Menu Name, Market, and Component fields.
10. Optionally, define value mapping in the URL Keys section.

In the Field Value and Key Name fields, either use the lookup icon to select a source query column field to map to it, or enter static values as mapping value directly into the fields.

Note: If the selected component has a search key, the URL Keys section appears with a list of search key fields after you click the lookup icon.

11. Optionally, define query result columns for existing drilling URLs:
 - a. Click the Select Field button to display the Select Query Column section.
 - b. Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.

12. Optionally, define the map columns in the Map URL to Query Columns section.
 - a. Click the Map Columns button to map the drilling URL to a source query selected column.
 - b. Select appropriate values from the Map URL to Query Columns section.

13. Click the OK button.

The Edit Expression Properties page appears with a component drilling URL in the Expression Text field.

This is an example of a component drilling URL with the Use psc option is not selected, and the Portal Name and Node Name fields have no values. Notice that, *%PORTAL* and *%NODE* values will be used to build URLs at the report runtime:

```
'psp///c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=%A.DEPTID%&
SETID=PLEASANTON:A.EMPLID'
```

This is an example of a component drilling URL with the Use psc option is selected, portal CUSTOMER, and node QE_LOCAL:

```
'psc/CUSTOMER/QE_LOCAL/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&
DEPTID=%A.DEPTID%&CITY=PLEASANTON:A.EMPLID'
```

In this example, 'psc/CUSTOMER/QE_LOCAL' is your selected portal name, node name, and content type; &DEPTID=%A.DEPTID is your static value as key value; and &CITY=PLEASANTON is your entered key name and key value.

Note that, a component drilling URL:

- Always includes /c/.
- Is saved as part of expression metadata for the query.
- Contains two parts: component URL format and query result columns binding with the drilling URL.

14. Save your query.

15. Select Reporting Tools >Query >Query Manager.

Alternatively, select Reporting Tools >Query >Query Viewer.

16. Click the HTML link or the Download to Excel link.

The query results page displays results as links. When you click these links, destination query is run using the prompt key value that is defined using the source query.

Defining External Drilling URLs

Page Used to Define External Drilling URLs

The External URL widget enables you to use the Enter an External URL page (QRY_URL_SELECT) to build drilling URLs in an external URL format; when you click the External URL link in the Edit Expression Properties page to access the Enter an External URL page, you are directed to an external page.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list and click the External URL link.

Image: Enter an External URL page

This example illustrates the fields and controls on the Enter an External URL page. Definitions for the fields and controls appear following the example.

Enter an External URL
[Help](#)

Portal Name:

Node Name: Use psc

URL:

Select Query Columns
Find |
First 1-6 of 6 Last

Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.EMPLID	<input type="text"/>
<input type="checkbox"/>	A.EFFDT	<input type="text"/>
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	A.QE_SOC_SEC_NBR	<input type="text"/>
<input type="checkbox"/>	A.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	A.DEPTID	<input type="text"/>

Map URL to Query Columns
Find |
First 1-5 of 5 Last

Selection Flag	Unique Field Name
<input type="checkbox"/>	A.EFFDT
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	A.QE_SOC_SEC_NBR
<input type="checkbox"/>	A.QE_JOBCODE
<input type="checkbox"/>	A.DEPTID

Note: This step is required for the drilling URLs to be available in query results page.

Use the Map Columns button for binding source query result column fields with a Drilling URL. You must map URL to query result columns in order for the drilling URLs to be available as links in column fields of source query results. You can define column mapping by selecting an appropriate check box in this Map URL to Query Columns section.

OK

Click to complete defining External URL widget and return to the Edit Expression Properties page.

Steps Used to Enter External URLs to Build Drilling URLs

To enter an external URL to build drilling URLs:

1. Select Reporting Tools >Query >Query Manager.

The Query Manager search page appears.

2. Click the Create New Query link on the Query Manager search page to create a source query, or click the Search button and open an existing one.
3. If you create a new source query, click the Search button and click the Add Record link to select a record for the query.

The Fields page appears.

4. Select the Expressions tab, and click the Add Expression button.

The Edit Expression Properties page appears.

5. Select the *Drilling URL* option from the Expression Type list.
6. Click the External URL link to define drilling URL for the source query that you just created.

The Enter an External URL page appears.

7. Optionally, define the portal name, node name, or content type.
8. Type a valid URL in the External URL edit box.
9. Optionally, define query result columns for existing drilling URLs:
 - a. Click the Select Field button to display the Select Query Column section.
 - b. Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.

10. Optionally, define the column mapping in the Map URL to Query Columns section.

- a. Click the Map Columns button to map the drilling URL to source query selected column.

- b. Select appropriate values from the Map URL to Query Columns section.
11. Click the OK button.

The Edit Expression Properties reappears with query drilling URLs in the Expression Text field.

This is an example of an external drilling URL with the Use psc option is not selected, and the Portal Name and Node Name fields have no values. Notice that, *%PORTAL* and *%NODE* values will be used to build URLs at the report runtime: 'psp///e/?url=[http://www.oracle.com]:A.DEPTID'.

This is an example of an external drilling URL with the Use psc option is selected, portal EMPLOYEE, and node QE_LOCAL: 'psp/EMPLOYEE/QE_LOCAL/e/?url=[http://www.oracle.com]:A.DEPTID'. In this example, 'psp/EMPLOYEE/QE_LOCAL' is your selected portal name, node name, and content type.

Note: An external drilling URL always includes /e/.

12. Save your query.
13. Select Reporting Tools >Query >Query Manager.

Alternatively, select Reporting Tools >Query >Query Viewer.

14. Click the HTML link or the Download to Excel link.

The query results page displays results as links. When you click these links, destination query is run using prompt key value that is defined using the source query.

Defining Attachment Drilling URLs

Page Used to Define Attachment Drilling URLs

The Attachment URL widget enables you to use the Enter an Attachment URL page (QRY_ATTURL_SELECT) to build drilling URLs in an attachment URL format.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list, and click the Attachment URL link.

Image: Enter an Attachment URL page

This example illustrates the fields and controls on the Enter an Attachment URL page. Definitions for the fields and controls appear following the example.

Enter an Attachment URL

[Help](#)

***URL Type:** ▼

Portal Name: 🔍

Node Name: 🔍 Use psc

***URL Id:** 🔍 System attachment table

***File Name Field:** 🔍

Select Field

Map Columns

Select Query Columns Find | First 1-6 of 6 Last

Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.EMPLID	<input type="text"/>
<input type="checkbox"/>	A.EFFDT	<input type="text"/>
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	A.QE_SOC_SEC_NBR	<input type="text"/>
<input type="checkbox"/>	A.QE_JOBCODE	<input type="text"/>
<input checked="" type="checkbox"/>	A.DEPTID	<input type="text"/>

Map URL to Query Columns Find | First 1-4 of 4 Last

Selection Flag	Unique Field Name
<input checked="" type="checkbox"/>	A.EFFDT
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	A.QE_SOC_SEC_NBR
<input type="checkbox"/>	A.QE_JOBCODE

OK

Cancel

URL Type

Available options are *Internal URL* and *External URL*.

Portal Name

If the attachment URL is internal, optionally enter or select a portal that is used to build drilling URLs at the report runtime.

Note:	If the Portal Name field has no value, PeopleSoft Query uses the value <i>%PORTAL</i> to form a drilling URL at the report runtime.
--------------	---

Node Name	<p>If the attachment URL is internal, optionally enter or select a node that is used to build drilling URLs at the report runtime.</p> <p>If the Node Name field has no value, PeopleSoft Query uses the value <i>%NODE</i> to form a drilling URL at the report runtime.</p>
Use psc (content servlet)	<p>If the attachment URL is internal, define the content type that is used to build drilling URLs.</p> <ul style="list-style-type: none"> • Deselect this option to use the portal service (psp) type. By default, this option is deselected. • Select this option to use the content servlet (psc) type.
URL ID	<p>Select a query field that will be used for attachment file name.</p> <hr/> <p>Note: The URL IDs are set in this folder: PeopleTools\Utilities\Administration\URLs.</p>
Select Field	<p>Click to display the Select Query Column section.</p>
Map Columns	<p>After you enter URL value, click this button to display the Map URL to Query Columns section.</p> <hr/> <p>Note: This step is required for the drilling URLs to be available in the query results page. You can define multiple drilling URLs in a query, but each query result column can only bind with one URL. When you click the Map Column button, only those fields that have no bond with any URL appear in the Map URL to Query Columns section. If all query columns have bonds with other tracking URLs, then a message appears saying “All columns have already been mapped to other drilling URLs.”</p>
Select Query Column	<p>Select query result columns to form field name and value pairs and to define the order of the appended value pair in the URL.</p>
Map URL to Query Columns	<p>This section is available only after you define the component values and click the Map Columns button.</p> <hr/> <p>Note: This step is required for the drilling URLs to be available in query results page. Use the Map Columns button for binding source query result column fields with a Drilling URL. You must map URL to query result columns in order for the drilling URLs to be available as links in column fields of source query results. You can define column mapping by selecting an appropriate check box in this Map URL to Query Columns section.</p>

OK

Click to complete defining External URL widget and return to the Edit Expression Properties page.

Steps Used to Enter Attachment URLs to Build Drilling URLs

To enter an attachment URL to build drilling URLs:

1. Select Reporting Tools >Query >Query Manager.

The Query Manager search page appears.

2. Click the Create New Query link on the Query Manager search page to create a source query, or click the Search button and open an existing one.
3. If you create a new source query, click the Search button and click the Add Record link to select a record for the query.

The Fields page appears.

4. Select the Expressions tab, and click the Add Expression button.

The Edit Expression Properties page appears.

5. Select the *Drilling URL* option from the Expression Type list.
6. Click the Attachment URL link to define drilling URL for the source query that you just created.

The Enter an Attachment URL page appears.

7. Select an URL type.

Note: The Portal Name field, Node Name field, and Use psc option are not active if the URL type is set to *External URL*.

8. If the attachment URL is internal, optionally define the portal name, node name, or content type for internal URL.
9. Select an URL ID and a file name field.
10. Optionally, define query result columns for existing drilling URLs:
 - a. Click the Select Field button to display the Select Query Column section.
 - b. Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.
11. Optionally, define the column mapping in the Map URL to Query Columns section.
 - a. Click the Map Columns button to map the drilling URL to source query selected column.
 - b. Select appropriate values from the Map URL to Query Columns section.

12. Click the OK button.

The Edit Expression Properties reappears with query drilling URLs in the Expression Text field.

- If URL type is *external*, its attachment drilling URL always begins with '%URLID:'. For example: '%URLID:FILEDB%%A.SETID%:A.EFFDT'.

At runtime, this external URL is expanded to `record://PSFILE_ATTDET1`.

Notice that drilling URL runtime replaces %A.SETID% with actual query field column value of 1. Drilling URL runtime also replace FILEDB with `record://PSFILE_ATTDET`. FILEDB is defined as `record://PSFILE_ATTDET` in the URL page that can be set using this navigation path: PeopleTools >Utilities >Administration >URLs.

- If URL type is *internal*, its attachment drilling URL always includes '/s/'. For example: 'psc/EMPLOYEE/QE_LOCAL/s/WEBLIB_FILEHTTP.ISCRIPT1.FieldFormula.IScript_GetAttachment?urlid=FILEDB&filename=%A.SETID%:A.QE_JOBCODE'.

At runtime, this internal URL is expanded to:

```
http://myserver.example.com:8920/psc/QEDMO/EMPLOYEE/QE_LOCAL/
s/WEBLIB_FILEHTTP.ISCRIPT1.FieldFormula.IScript_GetAttachment?
urlid=FILEDB&filename=%25A.SETID%25
```

Notice that drilling URL runtime replaces %A.SETID% with actual query field column value 25.

13. Save your query.

Defining Free Form Drilling URLs

The Free Form URL widget enables you to use the Define a Free Form Drilling URL page (QRY_FREEURL_SELECT) to manually enter URLs that will be used to build drilling URLs in report results.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list and click the Free Form URL link.

Image: Define a Free Form Drilling URL page

This example illustrates the fields and controls on the Define a Free Form Drilling URL page.



You can define free-form drilling URLs using the following elements:

- Static text; for example, *http://www.oracle.com*.
- Query result columns; for example, *%A.EMPLID%*, *%B.DEPID%*.
- Portal system variable.

Note: Application engine program may not recognize portal system variable if query API is called from an undetermined context.

Portal system variables is case-sensitive.

The following table lists the portal system variables that PeopleSoft Query supports.

<i>Portal System Variable</i>	<i>Portal System Variable</i>	<i>Portal System Variable</i>
%AuthenticationToken	%ClientDate	%ClientTimeZone
%ContentID	%ContentType	%Copyright
%Currency	%Date	%DateTime
%DbName	%DbServerName	%DbType
%EmailAddress	%EmployeeId	%HPTabName
%IsMultiLanguageEnabled	%Language	%Language_Base
%LocalNode	%Market	%MaxMessageSize
%NavigatorHomePermissionList	%Node	%PasswordExpired

<i>Portal System Variable</i>	<i>Portal System Variable</i>	<i>Portal System Variable</i>
%Portal	%PrimaryPermissionList	%ProcessProfilePermissionList
%RowSecurityPermissionList	%RunningInPortal	%ServerTimeZone
%Time	%UserDescription	%UserId

Note: Unlike other type of drilling URLs, PeopleSoft Query uses portal service (psp) to construct free-form drilling URLs during the report runtime. PeopleSoft recommends you to include the portal name and the node name as part of the URL. At the report runtime, query processing manager (QPM) uses current running context to determine protocol, host, and port, and then concatenates those values with drilling URL itself to form a full URL.

Defining Image Drilling URLs

The Image URL widget enables you to use the Select a Query page to build URLs in the image URL format.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Select the Expressions tab, and click the Add Expression button.
3. Select the *Drilling URL* option from the Expression Type list and click the Image URL link.

Image: Select a Query page - image query and the binds for the image URL

This example illustrates the fields and controls on the Select a Query page showing image query and the binds for the Image URLs.

Select a Query

Portal Name

Node Name

Query Name

*Image Field Name

Prompts
Select Field
Map Columns

Query does not contain any prompt key(s).

Keys Personalize Find First 1 of 1 Last				
Selection Flag	Key Field Name	Key Value	Field Lookup	
1 <input type="checkbox"/>	EMPLID	<input type="text" value="A.EMPLID"/>		

Select Query Columns Find First 1-4 of 4 Last		
Selection Flag	Unique Field Name	Order By
<input type="checkbox"/>	A.EMPLID	<input type="text"/>
<input type="checkbox"/>	B.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	B.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	A.QE_QRY_PHOTO_BMP	<input type="text"/>

Map URL to Query Columns Find First 1-4 of 4 Last	
Selection Flag	Unique Field Name
<input type="checkbox"/>	A.EMPLID
<input type="checkbox"/>	B.QE_EMPLOYEE_NAME
<input type="checkbox"/>	B.QE_JOBCODE
<input type="checkbox"/>	A.QE_QRY_PHOTO_BMP

Image: Edit Expression Properties page

This example illustrates the fields and controls on the Edit Expression Properties page. Image URL is created in the Expression Text box.

Edit Expression Properties

*Expression Type
 Drilling URL

Expression Text

```
psc//q
/?ICAction=ICQryImageUrl=PUBLIC.QE_QRY_BMP_LINK&
IMGFIELD=QE_QRY_PHOTO_BMP&
IMGRECORD=QE_QRY_BMP2&EMPLID=%A.EMPLID%
```

[Query URL](#) [Component URL](#)

[External URL](#) [Attachment URL](#)

[Free Form URL](#) [Image URL](#)

[REST URL](#)

See "Using the Search Test Page" (PeopleTools 8.56: Search Technology).

Defining REST Drilling URLs

REST Drilling URL Overview

Report developers may use a REST (REpresentational State Transfer) drilling URL to allow the user to drill down from the query result set, or a report based on the query, into a PeopleSoft defined Rest Web Service URL. This feature and the newly introduced BI Publisher REST Web Service, would allow the user to drill down from a query, or even a formatted query-based report, directly into another formatted (BIP) report.

In general, you are able to drill down from the query results or a formatted query-based report into another query using the Query Drilling URL feature. However, if the parent query containing the drilling URL is used as a data source for a formatted report (such as an nVision report, BI Publisher report, or Pivot Grid chart), Oracle PeopleSoft recommends that you use the REST Drilling URL feature and the BIP Web Service so that the drilling URLs can drill into a formatted report. When defining a drilling URL to the BIP Rest Service, all supported report output parameters, such as the report definition ID, output format, template ID, and language code, can be defined as a part of the drilling URL. In addition, the required query prompt values for the drilling report can be mapped to field values in the parent query.

You can define REST drilling URLs to drill down into the BIP REST Service or any PeopleSoft REST Service that has a defined HTTP Get method. REST drilling URLs behave similarly to other types of drilling URLs that are available in Query Manager; in that they can be defined as separate fields in the query results or mapped to the output fields in the parent query to be used as links for the output fields.

Note that:

- REST Web Service drilldown is available only for Service Operations using the HTTP GET method.

Only REST services with defined HTTP Get methods are available for users to select when they define REST drilling URLs because query drilling URLs are based on a simple HTTP Get Request URL.

- The BIP REST Service is available only for non-bursted reports.

Only a non-bursted report is supported because a BIP REST service synchronously returns report output to the calling application or browser.

- BIP REST Services are available only for query-based reports.

Reports based on an XML file-based data source (including the deprecated Rowset and XMLDoc data source types) require an XML file to be created and provided at runtime; therefore, reports based on XML file-based data sources are not supported using a simple HTTP Get Request URL.

- Connected Query based reports cannot be used with the REST drilling URL feature.

Potentially, these reports can generate an extremely large result that may introduce performance issues if run synchronously with the intention of viewing the report output immediately.

Terminology

REST Web Services

PeopleSoft Defined Consumer or Provider REST
(Representational State Transfer) Web Services

Note: All references to the term *REST Services* in this documentation indicate a *REST Get Service Operation* specifically because the REST Drilling URL feature only supports REST Web Services that have a defined HTTP Get Method.

BI Publisher Report Web Service

The BI Publisher Report Web Service is a REST Web Service used to run a BI Publisher report using an HTTP Get Method (HTTP URL). You can use the REST Service to synchronously run a BI Publisher report and immediately view the output in the requested format. The combination of required and optional URL components provide the flexibility of running a BI Publisher report using either the report default settings or using specified overrides (for Template ID, Output Format, and Language Code). In addition, prompt values must also be specified if required by the underlying query used by the BI Publisher report.

Image: General page

This example illustrates the General page (PeopleTools, Integration Broker, Integration Setup, Service Operations) displaying the defined Get Method service operation that will service the REST URL requests. The URI section displays the available URI templates.

The screenshot shows the 'General' tab of a service operation configuration page. The service operation is named 'BIP_RUNREPORT_REST_GET' with a REST Method of 'GET'. The operation description is 'BIP Run Report'. The owner ID is 'PeopleTools' and the operation alias is 'BIPRunReport'. The 'User/Password Required' checkbox is checked, and the 'Req Verification' is set to 'Basic Authentication and...'. The 'Used with Think Time Methods' checkbox is unchecked.

The 'REST Resource Definition' section shows the REST Base URL as 'http://slc05aql.us.oracle.com:80/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/'. Below this is a table of 16 URI templates, each with a 'Validate' and 'Build' button. The templates are as follows:

Index	Template	Validate	Build		
1	{ReportID}	Validate	Build	+	-
2	{ReportID}?format={OutputFormat}	Validate	Build	+	-
3	{ReportID}?langcd={LangCode}	Validate	Build	+	-
4	{ReportID}?prompts={Query_PromptColl*}	Validate	Build	+	-
5	{ReportID}?format={OutputFormat}&langcd={LangCode}&prompts={Query_PromptColl*}	Validate	Build	+	-
6	{ReportID}?format={OutputFormat}&langcd={LangCode}	Validate	Build	+	-
7	{ReportID}?format={OutputFormat}&prompts={Query_PromptColl*}	Validate	Build	+	-
8	{ReportID}?langcd={LangCode}&prompts={Query_PromptColl*}	Validate	Build	+	-
9	{ReportID}/{TemplateID}	Validate	Build	+	-
10	{ReportID}/{TemplateID}?format={OutputFormat}	Validate	Build	+	-
11	{ReportID}/{TemplateID}?langcd={LangCode}	Validate	Build	+	-
12	{ReportID}/{TemplateID}?prompts={Query_PromptColl*}	Validate	Build	+	-
13	{ReportID}/{TemplateID}?format={OutputFormat}&langcd={LangCode}&prompts=	Validate	Build	+	-
14	{ReportID}/{TemplateID}?format={OutputFormat}&langcd={LangCode}	Validate	Build	+	-
15	{ReportID}/{TemplateID}?format={OutputFormat}&prompts={Query_PromptColl*}	Validate	Build	+	-
16	{ReportID}/{TemplateID}?langcd={LangCode}&prompts={Query_PromptColl*}	Validate	Build	+	-

The document template is 'BIP_RUNREPORT_TEMPL.V1'.

The simplest URI template is: `http://<server>/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/{ReportID}`.

The most complex URI template is: `http://<server>/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/{ReportID}/{TemplateID}?format={OutputFormat}&langcd={LangCode}&prompts={Query_PromptColl*}`.

Note that:

- The *Report ID* element is always required and denotes the Report Definition ID of the report to be run.

All other elements in the URL are optional. If any element other than *Report ID* is omitted, then the default value for that parameter as defined in the Report Definition is used when the system runs the report.

- The *Query_PromptColl** element is a collection element and represents query prompt values for the underlying query that the report definition is based on.

The query prompt values need to be specified as a comma-separated sequence of name-value pairs. For eg., "...&prompts=<prompt1>,<value1>,<prompt2>,<value2>,...", where *promptn* is the Unique Prompt Name as defined in the Query definition.

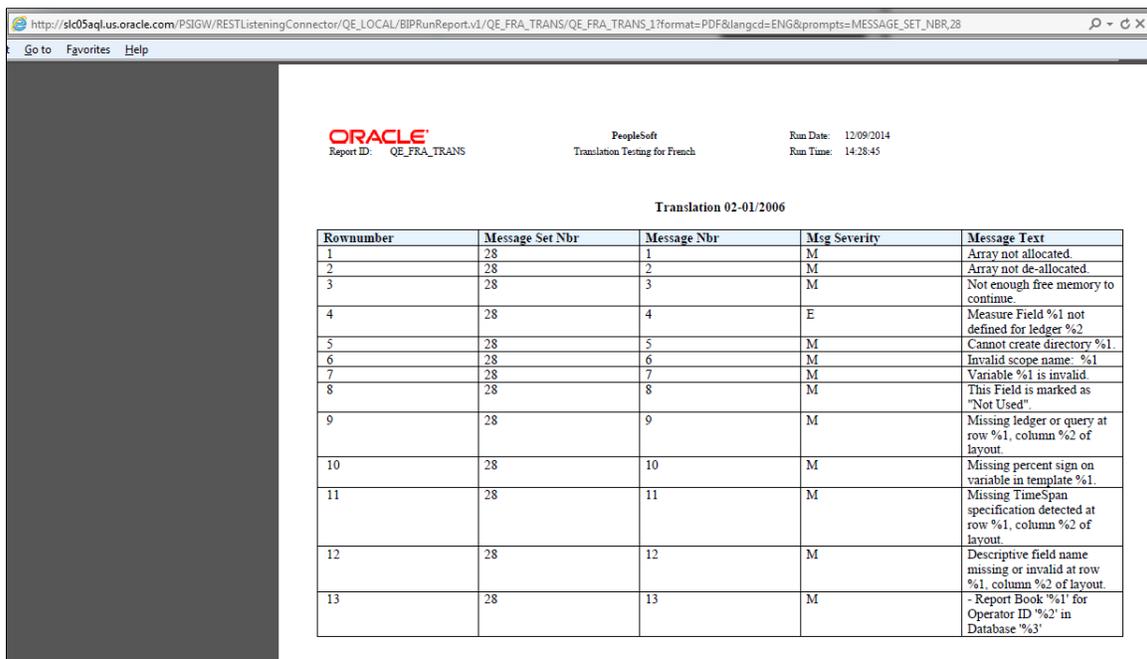
These are two examples of the fully qualified URLs for the simplest and most complex URI templates mentioned previously:

- This is the fully qualified URL when the simplest URI template is used: `http://<server>:80/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/XRFWIN.`
- This is the fully qualified URL when the most complex URI template is used:
`http://<server>:80/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/QE_FRA_TRANS/QE_FRA_TRANS_1?format=PDF&langcd=ENG&prompts=MESSAGE_SET_NBR,28.`

The web service response content is the report output file in one of the four output formats (as per users request or the default).

Image: Report output file

This example illustrates the report output file returned in browser after executing the complex URL request from the previous example.



Security When Using BIP REST Drilling URLs

The BIP REST Web Service is associated with the *PTPT1000 – PeopleSoft User* permission list and can be accessed by any PeopleSoft user to run a BI Publisher report. However, the returned results depend on the Query Access List permissions and row-level security that are specific to the user making the request. That is, PeopleSoft Query security is still enforced for query-based BI Publisher reports run using the BIP REST Web Service.

In addition, BI Publisher REST URLs require PeopleSoft User Authentication if a request is being made outside an existing PIA session; it requires basic authentication with SSL.

Page Used to Define REST Drilling URLs

Report developers use the Define a REST Service Drilling URL page in Query Manager to define the REST drilling URLs. They can locate and select any PeopleSoft REST Service Operation that is defined using the HTTP Get method and enter parameters for the REST drilling URL using either static text or by mapping to query field values. They can also map the REST drilling URLs to existing query columns or use them as standalone fields in the results, which is similar to other drilling URL types.

Navigation

1. Select Reporting Tools >Query >Query Manager.
2. Open an existing query or create a new one.
3. Select the Expressions tab and click the Add Expression button.
4. Select the *Drilling URL* option from the Expression Type list and click the REST URL link.

Image: Define a REST Service Drilling URL page

This example illustrates the fields and controls on the Define a REST Service Drilling URL page. Definitions for the fields and controls appear following the example.

Define a REST Service Drilling URL

Service Operation Use Secure REST Target:

REST URI Templates	
Select	URI Template
<input type="checkbox"/>	{OwnerType}/{QueryName}?isconnectedquery={IsConnectedQuery}
<input checked="" type="checkbox"/>	{QueryName}?isconnectedquery={IsConnectedQuery}

URI Primitives		
Name	Value	Query Field
QueryName	<input type="text" value="%Menu Name%"/>	
IsConnectedQuery	<input type="text"/>	

Map URL to Query Columns	
Selection Flag	Unique Field Name
<input checked="" type="checkbox"/>	Menu Name

REST URL

```
https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1
/{QueryName}?isconnectedquery={IsConnectedQuery}
```

Service Operation

Click the search icon to search and select a PeopleSoft-defined REST service operation.

Note: Only REST service operations using a HTTP Get method are available for selection.

Other sections and fields in this page appear after you select an existing service operation in the Service Operation field using the search icon or after you enter a valid service operation and tab out of the Service Operation field.

Use Secure REST Target

Select this check box to use the secure REST Target location (HTTPS) in the drilling URL.

Note: Your selection of this option reflects in the REST URL field, which appears at the bottom of the page.

If the selected service operation requires SSL as part of its Required Verification type, then this check box is selected by default and unavailable for modification.

REST URI Templates

Use this section to select a URI template from the list of available templates.

URI Primitives and Collections

Use these sections to qualify the selected template with either static text values or mapped query field values, which will be used to qualify the REST URLs at query runtime.

Map URL to Query Columns

Use this section to map the REST URLs to existing columns and create drilldown links for those column values in the query results.

REST URL

This field displays a preview of the REST URL qualified with values you enter into the URI Primitives section or the URI Collections section.

- If all the values specified are static values, then this field displays a fully qualified REST URL that you may copy and paste into a separate browser window to test.
- If there are values that are mapped to Query Field values (for example, *%Menu Name%*), then the REST URL is not fully qualified as it can only be qualified with the corresponding Query Field value generated at runtime.

Steps Used to Define REST Drilling URL

Note: This section discusses the steps used to define a REST Drilling URL to a PeopleSoft-defined *REST Web Service Operation*. However, when defining a drilling URL specifically with the BIP Web Service (BIP_RUNREPORT_REST_GET), certain optimizations are applied to the page in this scenario, and these optimizations are discussed in the [Defining a REST Drilling URLs Using the BIP REST Service](#) section.

To define a REST drilling URL to a PeopleSoft-defined *REST Web Service Operation*:

1. Select Reporting Tools >Query >Query Manager.
2. Open an existing query or create a new one.
3. Select the Expressions tab and click the Add Expression button.
4. Select the *Drilling URL* option from the Expression Type list and click the REST URL link.

The Define a REST Service Drilling URL page appears.

5. In the Service Operation field, select a REST service operation; for example, select *QAS_LISTQUERYFIELDS_REST_GET*.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page displaying the *QAS_LISTQUERYFIELDS_REST_GET* value in the Service Operation field.

Define a REST Service Drilling URL

Service Operation Use Secure REST Target:

REST URI Templates	
Select	URI Template
<input type="checkbox"/>	{OwnerType}/{QueryName}?isconnectedquery={IsConnectedQuery}
<input type="checkbox"/>	{QueryName}?isconnectedquery={IsConnectedQuery}

▶ Map URL to Query Columns

REST URL

6. Select a URI template in the REST URI Templates section.

The URI Primitives section appears.

7. Use the URI Primitives section to qualify elements in the selected template by either entering static values or mapping to runtime query field values.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page displaying the *QAS_LISTQUERYFIELDS_REST_GET* value in the Service Operation field. The URI Primitives section includes the static values. The REST URL field displays the qualified REST URL using the values specified in the URI Primitives section.

Define a REST Service Drilling URL

Service Operation Use Secure REST Target:

REST URI Templates		Find View All <input type="button" value="Q"/> <input type="button" value="Grid"/> First 1-2 of 2 Last
Select	URI Template	
<input type="checkbox"/>	{OwnerType}/{QueryName}?isconnectedquery={IsConnectedQuery}	
<input checked="" type="checkbox"/>	{QueryName}?isconnectedquery={IsConnectedQuery}	

URI Primitives			Find <input type="button" value="Q"/> <input type="button" value="Grid"/> First 1-2 of 2 Last
Name	Value	Query Field	
QueryName	<input type="text" value="XRFWIN"/>	<input type="button" value="Q"/>	
IsConnectedQuery	<input type="text" value="N"/>	<input type="button" value="Q"/>	

Map URL to Query Columns

REST URL

`https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/XRFWIN?isconnectedquery=N`

- In the URI Primitives section, click the Lookup icon in the Query Field column for element QueryName to map to a query field value.

The Select Mapping Query Fields page appears.

Image: Select Mapping Query Fields page

This example illustrates the Select Mapping Query Fields page.

Select Mapping Query Fields

Record.FieldName	Find View All <input type="button" value="Q"/> <input type="button" value="Grid"/> First 1-5 of 8 Last
A.EMPLID	
A.EFFDT	
A.QE_EMPLOYEE_NAME	
A.QE_FIRST_NAME	
A.QE_LAST_NAME	

- Select a query field from the Record.FieldName list.

The Define a REST Service Drilling URL page reappears displaying the mapped query field name in the Value column for the QueryName element.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page. In the URI Primitives section, the Value for the element QueryName displays `%A.EMPLID%` after you select the A.EMPLID field from the Select Mapping Query Fields page.

Define a REST Service Drilling URL

Service Operation Use Secure REST Target:

REST URI Templates	
Find View All First 1-2 of 2 Last	
Select	URI Template
<input type="checkbox"/>	{OwnerType}/{QueryName}?isconnectedquery={IsConnectedQuery}
<input checked="" type="checkbox"/>	{QueryName}?isconnectedquery={IsConnectedQuery}

URI Primitives		
Find First 1-2 of 2 Last		
Name	Value	Query Field
QueryName	<input type="text" value="%A.EMPLID%"/>	
IsConnectedQuery	<input type="text" value="N"/>	

▶ Map URL to Query Columns

REST URL

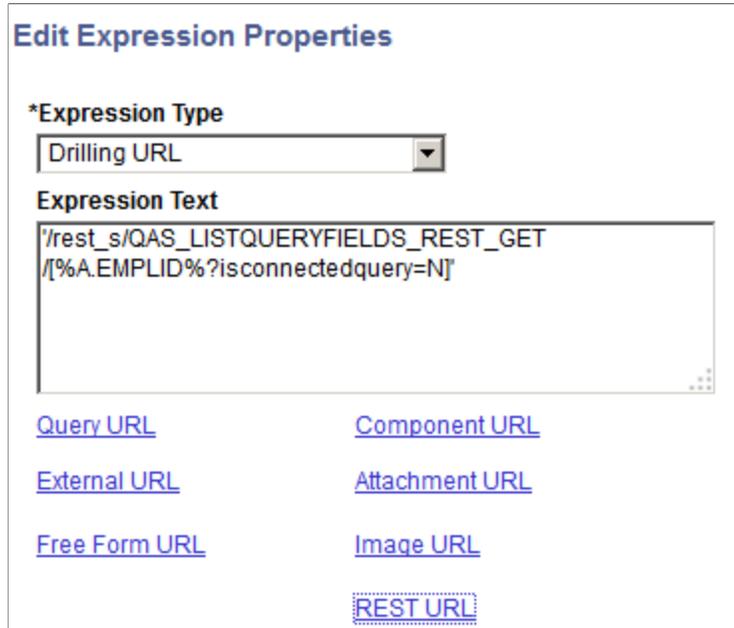
https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/%A.EMPLID%?isconnectedquery=N

10. Click the OK button.

The Edit Expression Properties page reappears with the REST drilling URL expression in the Expression Text field.

Image: Edit Expression Properties page

This example illustrates the Edit Expression Properties page displaying the REST drilling URL expression in the Expression Text field.



11. Click the OK button to return to the Expressions page.
12. Click the Use as Field link to use the REST drilling URL as a separate field in the query results.
13. Save the query and then select the Run tab.

Image: Run page

This example illustrates the Run page displaying the REST drilling URLs in the Drilling URL column.

Records									
Query									
Expressions									
Prompts									
Fields									
Criteria									
Having									
Dependency									
Transformations									
View SQL									
Run									
View All Rerun Query Download to Excel Download to XML First 1-100 of 386 Last									
ID	Eff Date	Name	First	Last	SSN	JobCode	Dept	Drilling URL	
1	7705	06/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	10200	https://slc05aql.us.oracle.com:443/PSIGW/RESTlisteningConnector/QE_LOCAL/QueryFields.v1/7705?isconnectedquery=N
2	8001	09/01/1996	Schumacher,Simon	ASD	ASD	549693847	1001	10100	https://slc05aql.us.oracle.com:443/PSIGW/RESTlisteningConnector/QE_LOCAL/QueryFields.v1/8001?isconnectedquery=N
3	8001	05/05/1997	Schumacher,Simon	ASD	ASD	549693847	6001	10200	https://slc05aql.us.oracle.com:443/PSIGW/RESTlisteningConnector/QE_LOCAL/QueryFields.v1/8001?isconnectedquery=N
4	8052	05/05/1997	Avery,Joan	JOAN	AVERY	111111111	6001	10200	https://slc05aql.us.oracle.com:443/PSIGW/RESTlisteningConnector/QE_LOCAL/QueryFields.v1/8052?isconnectedquery=N
5	8101	06/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	10500	https://slc05aql.us.oracle.com:443/PSIGW/RESTlisteningConnector/QE_LOCAL/QueryFields.v1/8101?isconnectedquery=N

URI Collection Elements

Some URI templates may contain collection elements, which correspond with parameters on the URL that accept multiple comma-separated values. In these cases, you may add item values for the collection element using the Insert Item for Collection link at the top of the URI Collections section.

Image: Define a REST Service Drilling URL page

This is an example of using the URI Collections section to insert multiple values for a URI collections element while defining a REST drilling URL using the *QAS_EXECUTEQRY_REST_GET* service operation.

Define a REST Service Drilling URL ✖

Service Operation: Use Secure REST Target:

REST URI Templates Find | View All | First 1-5 of 12 Last

Select	URI Template
<input type="checkbox"/>	{OwnerType}/{QueryName}/{OutResultType}/{OutResultFormat}?isconnectedquery={isConnectedQuery}&maxrows={MaxRow}&prompt_psqueryname={Prompt_PSQueryName*}&prompt_uniquepromptname={Prompt_UniquePromptName*}&prompt_fieldvalue={Prompt_FieldValue*}&filterfields={FilterFields*}
<input type="checkbox"/>	{OwnerType}/{QueryName}/{OutResultType}/{OutResultFormat}?isconnectedquery={isConnectedQuery}&maxrows={MaxRow}&prompt_psqueryname={Prompt_PSQueryName*}&prompt_uniquepromptname={Prompt_UniquePromptName*}&prompt_fieldvalue={Prompt_FieldValue*}&filterfields={FilterFields*}&json_resp={json_response}
<input checked="" type="checkbox"/>	{OwnerType}/{QueryName}/{OutResultType}/{OutResultFormat}?isconnectedquery={isConnectedQuery}&maxrows={MaxRow}&prompt_uniquepromptname={Prompt_UniquePromptName*}&prompt_fieldvalue={Prompt_FieldValue*}&filterfields={FilterFields*}
<input type="checkbox"/>	{OwnerType}/{QueryName}/{OutResultType}/{OutResultFormat}?isconnectedquery={isConnectedQuery}&maxrows={MaxRow}&prompt_uniquepromptname={Prompt_UniquePromptName*}&prompt_fieldvalue={Prompt_FieldValue*}&filterfields={FilterFields*}&json_resp={json_response}
<input type="checkbox"/>	{OwnerType}/{QueryName}/{OutResultType}/{OutResultFormat}?isconnectedquery={isConnectedQuery}&maxrows={MaxRow}&prompt_psqueryname={Prompt_PSQueryName*}&prompt_uniquepromptname={Prompt_UniquePromptName*}&prompt_fieldvalue={Prompt_FieldValue*}

URI Primitives Find | First 1-6 of 6 Last

Name	Value	Query Field
OwnerType	<input type="text" value="public"/>	🔍
QueryName	<input type="text" value="MESSAGES_FOR_MSGSET"/>	🔍
OutResultType	<input type="text" value="XMLP"/>	🔍
OutResultFormat	<input type="text" value="FILE"/>	🔍
isConnectedQuery	<input type="text" value="N"/>	🔍
MaxRow	<input type="text" value="1000"/>	🔍

Insert Item for Collection:

Name	Value
Prompt_UniquePromptName	<input type="text" value="FilterFields"/>
Prompt_FieldValue	<input type="text" value="FilterFields"/>
FilterFields	<input type="text" value="FilterFields"/>

Map URL to Query Columns

REST URL

Image: Define a REST Service Drilling URL page - URL Collections

This example illustrates the Define a REST Service Drilling URL page - URL Collections section. Use the drop-down list next to the Insert Item for Collection link to select a collection element value to add to the URI collections. For example, you can select the *FilterFields* option from the drop-down list and click the Insert Item for Collection link twice to insert two rows under the FilterFields collection element in the URI Collections section, and then you use the inserted rows to define either static values or map to query fields.

MaxRow	1000	
Insert Item for Collection: FilterFields		
URI Collections Find First 1-5 of 5 Last		
Name	Value	Query Field
Prompt_UniquePromptName		
Prompt_FieldValue		
FilterFields		
	A.MESSAGE_SET_NBR	
	A.MESSAGE_NBR	
Map URL to Query Columns		
REST URL		
<pre>https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/ExecuteQuery.v1/public/XRFWIN /XMLP/FILE?isconnectedquery=N&maxrows=1000&prompt_uniquepromptname=&prompt_fieldvalue=& filterfields=A.MESSAGE_SET_NBR,A.MESSAGE_NBR</pre>		

Defining a REST Drilling URLs Using the BIP REST Service

When you define a REST Drilling URL using the BIP Rest Service Operation *BIP_RUNREPORT_REST_GET*, certain optimizations are applied to the page in order to better facilitate the process. Specifically, the following features are available:

- Lookup functionality for URI template elements.

In the URI Primitives section, a Lookup icon is available for each element in the selected URI template. You can use the lookup icons to search and select the applicable values for these elements (such as the ReportID, TemplateID, OutputFormat, and LangCode) rather than having to enter the values manually.

Similarly, the Lookup icons are also available in the URI Collections section. If the selected report definition is based on a query containing prompts, these prompt name and value pairs are specified using the Query_PromptColl Collection element. The Lookup icons can be used to select from available values for the prompt, provided a prompt table has been defined for the prompt in the query definition.

- Default values.

After selecting a value for the ReportID (BIP Report Definition ID), all other optional element values (such as the TemplateID, etc.) are automatically pre-populated according to the default values defined at the report definition level.

The following steps are the sample process of how to create a REST Drilling URL using the BIP REST Service:

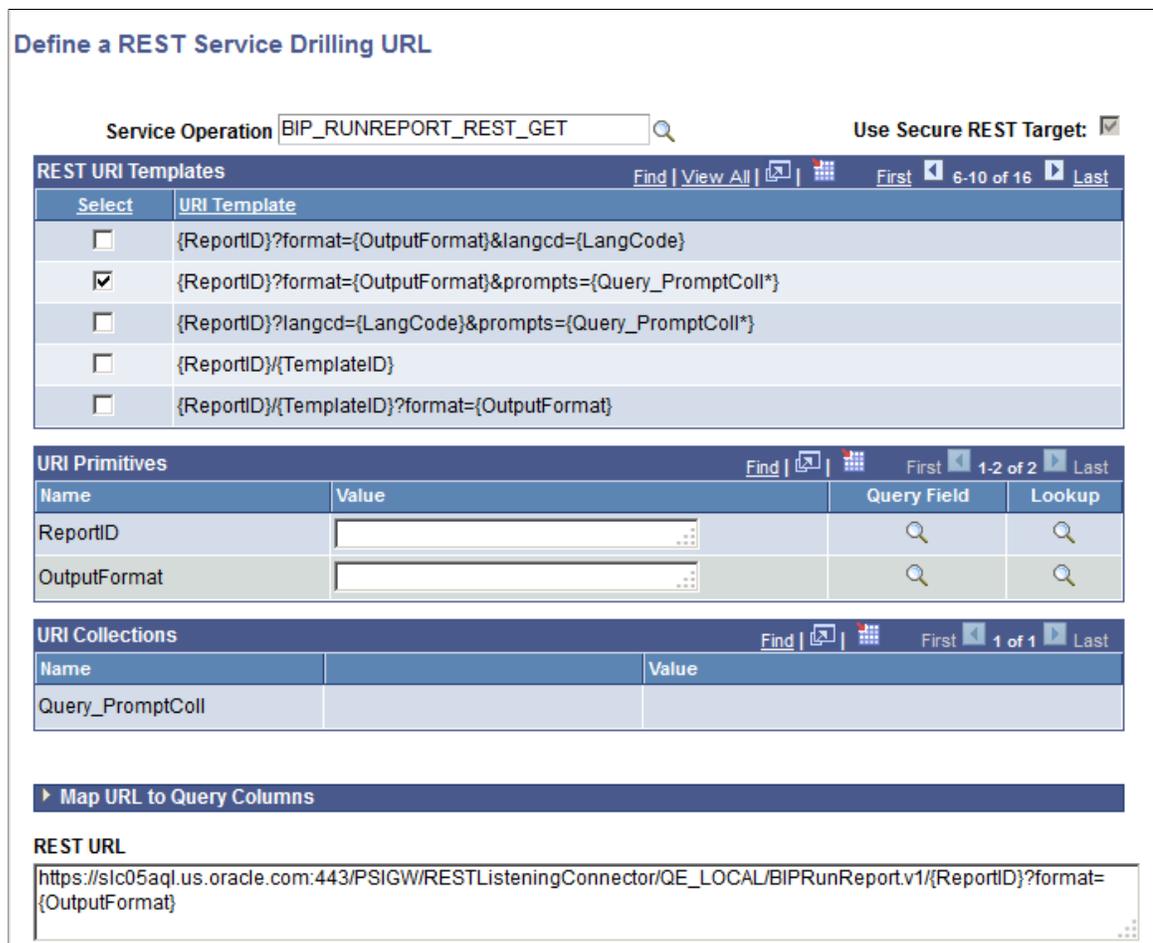
1. Select Reporting Tools >Query >Query Manager.
2. Open an existing query or create a new one.
3. Select the Expressions tab and click the Add Expression button.
4. Select the *Drilling URL* option from the Expression Type list and click the REST URL link.

The Define a REST Service Drilling URL page appears.

5. In the Service Operation field, select service operation *BIP_RUNREPORT_REST_GET* (BIP Rest Web Service).
6. Select a URI template in the REST URI Templates section.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page. The Service Operation field display the service operation *BIP_RUNREPORT_REST_GET* and a URI template is selected in the REST URI Templates section.



7. In the URI Primitives section, click the Lookup icon on the ReportID row.

The Select Value for ReportID page appears.

Image: Select Value for ReportID page

This example illustrates the Select Value for ReportID page. All report definitions that you have permissions to access appear in the list for your selection.

ReportID	Description
COUNT_TEST	MESSAGE Severity MESSET 1-20
QEQ_OMX4200	Product List
QESMOKEXMLP	Smoke XMLP
QE_1KEY_BLNK	Data Generation w blank values
QE_AP_NVS	For Nested Group Sorting
QE_COUNT	Count Agg Func Query and Chart
QE_DATE_TIME	For Testing Date Time stamp
QE_DEPT_DET	QE_DEPT_DET
QE_DRURL_QRY	For DRILL URL with Query Test
QE_EMPT_FONT	For font used for empty spaces
QE_EMP_LIST	QE_EMP_LIST
QE_FRA_TRANS	Translation Testing for French
QE_PDF_7PROF	Run Report w 7 Prof Template

8. Select a report ID from the list of available report IDs and then the Define a REST Service Drilling URL page reappears.

In this example, select the QE_FRA_TRANS report.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page displaying the selected report ID in the ReportID row. In addition, other URI elements are populated with the default values for this report definition.

Service Operation
Use Secure REST Target:

REST URI Templates
Find | View All | First 6-10 of 16 Last

Select	URI Template
<input type="checkbox"/>	{ReportID}?format={OutputFormat}&langcd={LangCode}
<input checked="" type="checkbox"/>	{ReportID}?format={OutputFormat}&prompts={Query_PromptColl*}
<input type="checkbox"/>	{ReportID}?langcd={LangCode}&prompts={Query_PromptColl*}
<input type="checkbox"/>	{ReportID}/{TemplateID}
<input type="checkbox"/>	{ReportID}/{TemplateID}?format={OutputFormat}

URI Primitives
Find | First 1-2 of 2 Last

Name	Value	Query Field	Lookup
ReportID	<input type="text" value="QE_FRA_TRANS"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
OutputFormat	<input type="text" value="HTM"/>	<input type="checkbox"/>	<input type="checkbox"/>

URI Collections
Find | First 1-2 of 2 Last

Name	Value	Query Field	Lookup
Query_PromptColl	<input type="text" value="MESSAGE_SET_NBR"/>	<input type="checkbox"/>	<input type="checkbox"/>

▶ Map URL to Query Columns

REST URL

https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/BIPRunReport.v1/{ReportID}?format={OutputFormat}&prompts={Query_PromptColl*}

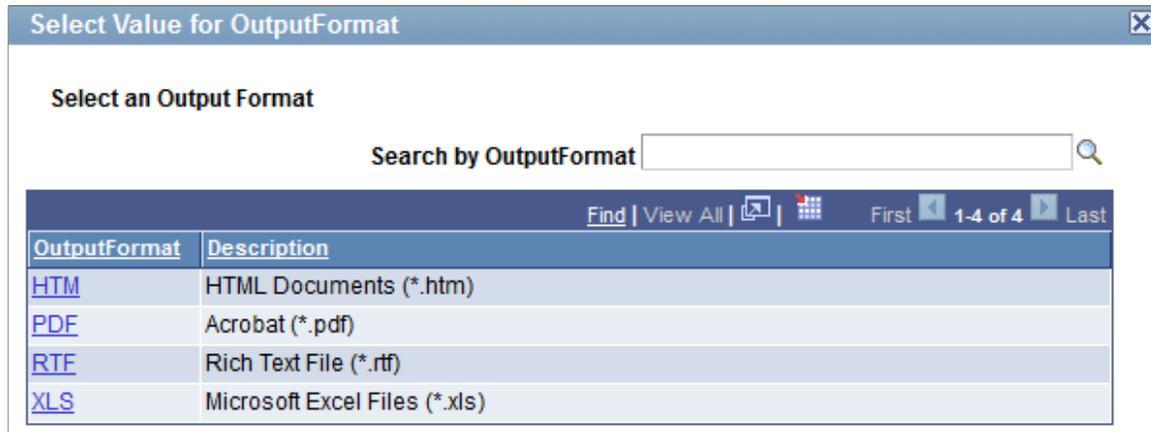
Note: If you manually enter a valid report definition ID into the Value field for ReportID (rather than using the Lookup icons) and then tab out of the field, the other URI elements are automatically populated with the default values as well.

9. Optionally, use the Lookup icons for the other URI elements to select any values other than the default values.

For instance, when you click the Lookup icon for OutputFormat, you are presented with all available output formats as defined in the report definition.

Image: Select Value for OutputFormat page

This example illustrates the Select Value for OutputFormat page when you click the Lookup icon for OutputFormat.



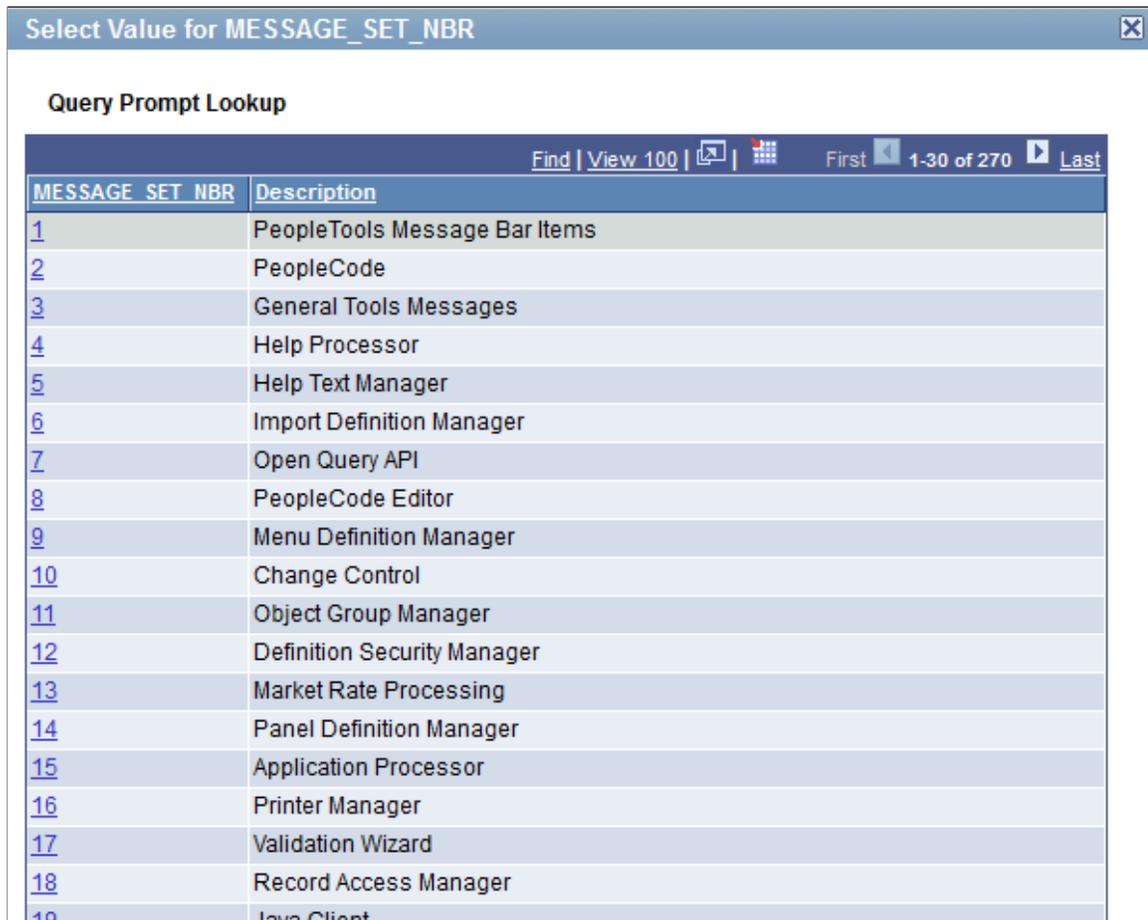
- Use the Define a REST Service Drilling URL page - URI Collections section to populate the values for the Query_PromptColl Collection element in the URI Template, which requires name-value pairs for all query prompts that are defined for the underlying query used by this report definition.

In this example, there is a single prompt *MESSAGE_SET_NBR* defined for the query. The prompt name *MESSAGE_SET_NBR* is displayed in a column preceding the Value column, which is used for specifying the value for this query prompt.

- Click the Lookup icon on the prompt *MESSAGE_SET_NBR* to access the Select Value for *MESSAGE_SET_NBR* page where you can search and select a value for the prompt, provided a prompt table has in fact been defined for this prompt field in the query definition.

Image: Select Value for MESSAGE_SET_NBR page

This example illustrates the Select Value for MESSAGE_SET_NBR page.



The screenshot shows a window titled "Select Value for MESSAGE_SET_NBR". Inside, there is a "Query Prompt Lookup" section. At the top right of the lookup area, there are navigation controls: "Find | View 100 |" followed by icons for a list and a grid, and "First 1-30 of 270 Last". Below this is a table with two columns: "MESSAGE SET NBR" and "Description". The table contains 19 rows of data, each with a blue underlined number link in the first column and a corresponding description in the second column.

MESSAGE SET NBR	Description
1	PeopleTools Message Bar Items
2	PeopleCode
3	General Tools Messages
4	Help Processor
5	Help Text Manager
6	Import Definition Manager
7	Open Query API
8	PeopleCode Editor
9	Menu Definition Manager
10	Change Control
11	Object Group Manager
12	Definition Security Manager
13	Market Rate Processing
14	Panel Definition Manager
15	Application Processor
16	Printer Manager
17	Validation Wizard
18	Record Access Manager
19	Java Client

12. Click the number link for any of the listed values to select that message set number.

The Define a REST Service Drilling URL page reappears.

Image: Define a REST Service Drilling URL page

This example illustrates the Define a REST Service Drilling URL page listing message set number 27.

Service Operation
Use Secure REST Target:

REST URI Templates
Find | View All | First 6-10 of 16 Last

Select	URI Template
<input type="checkbox"/>	{ReportID}?format={OutputFormat}&langcd={LangCode}
<input checked="" type="checkbox"/>	{ReportID}?format={OutputFormat}&prompts={Query_PromptColl*}
<input type="checkbox"/>	{ReportID}?langcd={LangCode}&prompts={Query_PromptColl*}
<input type="checkbox"/>	{ReportID}/{TemplateID}
<input type="checkbox"/>	{ReportID}/{TemplateID}?format={OutputFormat}

URI Primitives
Find | First 1-2 of 2 Last

Name	Value	Query Field	Lookup
ReportID	<input type="text" value="QE_FRA_TRANS"/>	<input type="checkbox"/>	<input type="checkbox"/>
OutputFormat	<input type="text" value="HTM"/>	<input type="checkbox"/>	<input type="checkbox"/>

URI Collections
Find | First 1-2 of 2 Last

Name	Value	Query Field	Lookup
Query_PromptColl			
	<input type="text" value="MESSAGE_SET_NBR 27"/>	<input type="checkbox"/>	<input type="checkbox"/>

▶ Map URL to Query Columns

REST URL

```
https://slc05aql.us.oracle.com:443/PSIGW/RESLISTENINGCONNECTOR/QE_LOCAL/BIPRunReport.v1/QE_FRA_TRANS?format=HTM&prompts=MESSAGE_SET_NBR,27
```

Note: When you define a REST Drilling URL using the BIP Rest Service Operation, you cannot manually add values into a collection element. The URI Collections section in this case is used solely for the population of the Query Prompt values; therefore, the Insert Item for Collection link and the drop-down list are not available as can be seen when you define the drilling URL using other service operations.

- Expand the Map URL to Query Columns section and then select the fields to map the REST URL to query columns.

Image: Define a REST Service Drilling URL page - Map URL to Query Columns section

This example illustrates the Map URL to Query Columns section. The REST drilling URL is mapped to the A.DEPTID column.

Map URL to Query Columns	
Selection Flag	Unique Field Name
<input type="checkbox"/>	A.EMPLID
<input type="checkbox"/>	A.EFFDT
<input type="checkbox"/>	A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	A.QE_FIRST_NAME
<input type="checkbox"/>	A.QE_LAST_NAME
<input type="checkbox"/>	A.QE_SOC_SEC_NBR
<input type="checkbox"/>	A.QE_JOBCODE
<input checked="" type="checkbox"/>	A.DEPTID

14. Click the OK button to return to the Expressions page.
15. Optionally, click the Use as Field link to use the REST drilling URL as a separate field in the query results.
16. Save the query and then access the Run page.

Image: Run page

This example illustrates the Run page displaying the REST drilling URLs. The Dept (DEPTID) column is mapped to the REST drilling URL and the Drilling URL column displays the REST drilling URLs separately.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run									
View All Rerun Query Download to Excel Download to XML								First 1-100 of 386 Last	
ID	Eff Date	Name	First	Last	SSN	JobCode	Dept	Drilling URL	
1	7705	06/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/7705?isconnectedquery=N	
2	8001	09/01/1996	Schumacher,Simon	ASD	ASD	549693847	1001	https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/8001?isconnectedquery=N	
3	8001	05/05/1997	Schumacher,Simon	ASD	ASD	549693847	6001	https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/8001?isconnectedquery=N	
4	8052	05/05/1997	Avery,Joan	JOAN	AVERY	111111111	6001	https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/8052?isconnectedquery=N	
5	8101	06/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	https://slc05aql.us.oracle.com:443/PSIGW/RESTListeningConnector/QE_LOCAL/QueryFields.v1/8101?isconnectedquery=N	

17. Click a REST URL link to display the report output.

Image: Report output

This is an example report output that appears in the browser after you click the 10200 link in the previous example.

Eff Date	Status	Description	SetID	Tree	Node
1980-01-01	A	Human Resources	QEDM1	QE_PERS_DAT A	10200

Viewing Query Results With Drilling URLs

When you access the Run page of a query that has a Drilling URL defined, its query results are shown as links. Clicking these result links either:

- Runs the destination query with prompt key values if the source query has prompt criteria defined and prompt keys are mapped to source query result columns.
- Launches the component with the search key values if the source query has search keys defined and search keys are mapped to source query result columns.
- Redirects the external URL.

Image: Example of the Run page with query results as links

This is an example of the Run page with query results as links. When you click the Download to Excel link to download query results to a Microsoft Excel spreadsheet, an Excel spreadsheet is launched with links to respective cells. When you click the Excel link from Query Manager or the Query Viewer search results page, you get similar query results.

Records Query Expressions Prompts Fields Criteria Having Dependency Transformations View SQL Run								
View All Rerun Query Download to Excel Download to XML						First <input type="text" value="1-100 of 386"/> Last		
ID	Eff Date	Name	First	Last	SSN	JobCode	Dept	
1	7705	06/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	10200
2	8001	09/01/1996	Schumacher,Simon	ASD	ASD	549693847	1001	10100
3	8001	05/05/1997	Schumacher,Simon	ASD	ASD	549693847	6001	10200
4	8052	05/05/1997	Avery,Joan	JOAN	AVERY	111111111	6001	10200
5	8101	06/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	10500
6	8101	05/05/1997	Penrose,Steven	STEVEN	PENROSE	302467012	6001	10200
7	8102	06/01/1989	Sullivan,Theresa	THERESA	SULLIVAN	349096896	1121	10900
8	8102	05/05/1997	Sullivan,Theresa	THERESA	SULLIVAN	349096896	6001	10200
9	8105	05/05/1997	DeHaven,Joanne	JOANNE	DEHAVEN	111111111	6001	10200
10	8113	06/27/1991	Frumman,Wolfgang			425921335	1211	20500

Image: Example of the Run page with query results as image links

This is an example of the Run page with query results as image links.

Image URL
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT4&BIND2=DEF1&BIND3=DEF0
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT4&BIND2=DEF31&BIND3=DEF22
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT3&BIND2=DEF81F&BIND3=DEF22
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT7&BIND2=DEF81E&BIND3=DEF22
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT8&BIND2=DEF22&BIND3=P1
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT3&BIND2=DEF31&BIND3=DEF22
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT4&BIND2=DEF23&BIND3=DEF1
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT7&BIND2=DEF81A&BIND3=DEF22
http://slc00fdm:8620/psc/ps/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryImageURL=PUBLIC.QRY_QE_ORG_ABNPIC_IMG&BIND1=DEFAULT7&BIND2=DEF0&BIND3=DEFTOP

Image: Example of the query results as links in Microsoft Excel

This is an example of query results in Microsoft Excel when you click the Excel link in Query Manager or Query Viewer. Note that the URL appears when you hover the mouse over a cell.

The screenshot shows a Microsoft Excel window titled 'QE_EMPLOYEE_9315.xls [Compatibility Mode]'. The spreadsheet contains a table with columns: ID, Eff Date, Name, First, Last, SSN, JobCode, and Dept. A tooltip is visible over cell A11, displaying the URL: `http://myserver.example.com:8920/psp/QEDMO/EMPLOYEE/QE_LOCAL/q?ICAction=ICQryNameURL=PUBLIC.BI_PVG_BILL_VW&A.EMPLID=8101 - Click once to follow. Click and hold to select this cell.`

ID	Eff Date	Name	First	Last	SSN	JobCode	Dept
7705	6/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	10200
8001	9/1/1996	Schumacher,Simon	ASD	ASD	549693847	1001	10100
8001	5/5/1997	Schumacher,Simon	ASD	ASD	549693847	6001	10200
8052	6/5/1997	Avery,Joan	JOAN	AVERY	111111111	6001	10200
8101	6/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	10500
8101	5/5/1997	Penrose,Steven	STEVEN	PENROSE	302467012	6001	10200
8102			ESA	SULLIVAN	349096896	1121	10900
8102			ESA	SULLIVAN	349096896	6001	10200
8105			NE	DEHAVEN	111111111	6001	10200
8113					425921335	1211	20500
8120	5/5/1997	Jones,Theresa	THERESA	JONES	111111111	6001	10200
8121	3/1/1996	Gregory,Jan	JAN	GREGORY	547234772	6001	10200
8121	5/5/1997	Gregory,Jan	JAN	GREGORY	547234772	6001	10200

You can also view the query results of a query that has drilling URL defined using the HTML links in Query Manager or Query Viewer.

Image: Example of the QE_EMPLOYEE results as links after clicking an HTML link

This is an example of query results as links when you click the HTML links in Query Manager or Query Viewer.

The screenshot shows a query result page titled 'QE_EMPLOYEE- QE Employee Info'. It includes download options: 'Excel Spreadsheet', 'CSV Text File', and 'XML File (149 kb)'. The table below has columns: ID, Eff Date, Name, First, Last, SSN, JobCode, and DeptID. Each cell in the table is a hyperlink.

ID	Eff Date	Name	First	Last	SSN	JobCode	DeptID
7705	06/15/1996	Holt,Susan	SUSAN	HOLT	342564859	G061	10200
8001	09/01/1996	Schumacher,Simon	ASD	ASD	549693847	1001	10100
8001	05/05/1997	Schumacher,Simon	ASD	ASD	549693847	6001	10200
8052	05/05/1997	Avery,Joan	JOAN	AVERY	111111111	6001	10200
8101	06/27/1991	Penrose,Steven	STEVEN	PENROSE	302467012	1211	10500
8101	05/05/1997	Penrose,Steven	STEVEN	PENROSE	302467012	6001	10200
8102	06/01/1989	Sullivan,Theresa	THERESA	SULLIVAN	349096896	1121	10900
8102	05/05/1997	Sullivan,Theresa	THERESA	SULLIVAN	349096896	6001	10200
8105	05/05/1997	DeHaven,Joanne	JOANNE	DEHAVEN	111111111	6001	10200
8113	06/27/1991	Frumman,Wolfgang			425921335	1211	20500
8120	05/05/1997	Jones,Theresa	THERESA	JONES	111111111	6001	10200
8121	03/01/1996	Gregory,Jan	JAN	GREGORY	547234772	6001	10200

In this query result page:

- You can click the Excel Spreadsheet link to download query results to Microsoft Excel.

Note: The Excel Spreadsheet link in this query result page has the same usage as the Excel link in Query Manager or the Query Viewer search result page.

- You can click the CSV Text File link to download query results into a CSV format file.

Note: Because CSV file is opened using a text editor such as Notepad and links do not apply to text editors, unlike HTML and Excel, no links exist in the CSV format file. However, if you select drilling URL as query selected field, then the drilling URL appears in a fully expanded version.

This is an example of CSV file content:

```
"QEDM1", "10900", "10900", "http://myserver.example.com:8920/psp/ps_2/EMPLOYEE
/QE_LOCAL/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=10900&SETID=QEDM1"
```

Scheduling Queries With Drilling URLs

The Schedule Query page has five different output types: *HTM*, *PDF*, *TXT*, *XLS*, and *XML*. Result files from a successful schedule query run contain links for respective columns using *HTM*, *PDF*, and *XLS* formats.

Image: Example of query results in PDF format

This is an example of query results in PDF format. Note that the URL appears when you hover the mouse over a cell.

QE Employee Info					
	ID	Eff Date	Name	Drilling URL	First
1	7705	06/15/1996	Holt, Susan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	SUSAN
2	8001	09/01/1996	Schumacher, Simon	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	ASD
3	8001	05/05/1997	Schumacher, Simon	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	ASD
4	8052	05/05/1997	Avery, Joan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	JOAN
5	8101	06/27/1991	Penrose, Steven	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	STEVEN
6	8101	05/05/1997	Penrose, Steven	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	STEVEN
7	8102	06/01/1989	Sullivan, Theresa	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	THERESA
8	8102	05/05/1997	Sullivan, Theresa	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	THERESA
9	8105	05/05/1997	DeHaven, Joanne	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	JOANNE
10	8118	06/27/1991	Frumman, Wolfgang	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	
11	812	05/05/1997	Gregory, Jan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	THERESA
12	812	05/05/1997	Gregory, Jan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	JAN
13	8121	05/05/1997	Gregory, Jan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	JAN

If drilling URL is defined in the query, then no links exist in the result file for TXT and XML formats. However, if you select drilling URLs as a query selected field, drilling URLs are shown in a fully expanded version.

This is an example of TXT file content:

```
"QEDM1", "10900", "10900", "http://myserver.example.com:8920/psp/ps_2/EMPLOYEE
/QE_LOCAL/c/QE_SAMPLE_APPS.QE_DEPT_TBL.GBL?Action=U&DEPTID=10900&SETID=QEDM1"
```

Note: Theoretically, one query can have multiple drilling URLs defined; however, the number of URLs for each query should be limited to enhance performance. For queries that return a large number of results, having multiple URLs defined would slow query execution time.

Modifying, Scheduling, and Organizing Queries

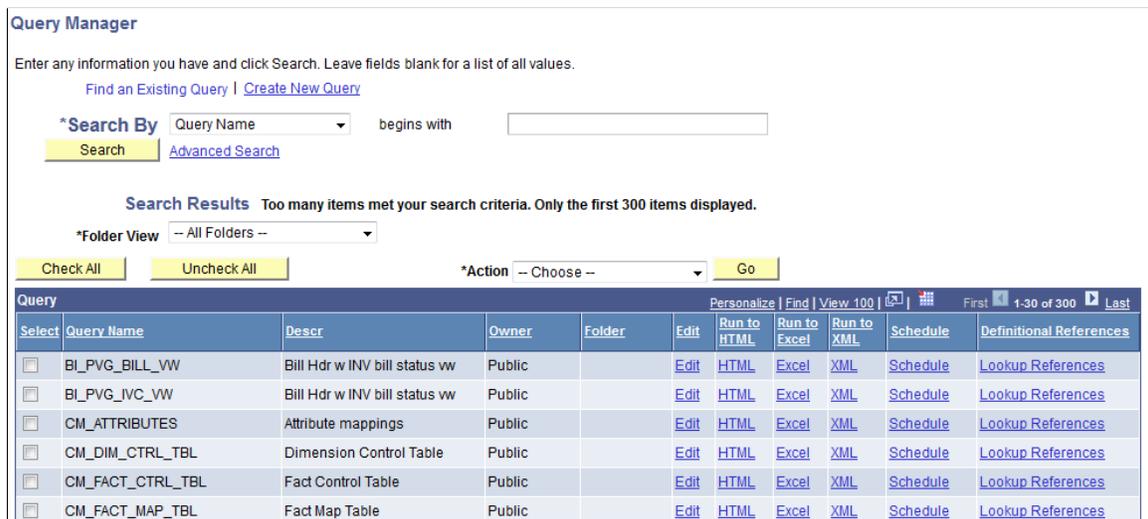
Modifying Queries

Opening Existing Queries

Use Query Manager component to open and view queries.

Image: Query Manager Search Results page

This example illustrates the fields and controls on the Query Manager search results page.



To open an existing query from your browser:

1. Select Reporting Tools >Query >Query Manager.

The Query Manager search results page appears.

2. Search for a query using the basic or advanced search functions.

Both search types enable you to select from the following *search by* criteria: access group name, description, folder name, owner, query name, type, uses field name, and uses record name. The basic search enables you to search using the *begins with* condition. The advanced search enables you to perform a progressively narrower search using one or more *search by* criteria and selecting from a choice of conditions for each *search by* criterion.

The following list provides instructions on using *search by* criteria:

- To perform a basic search by name, enter the name of the query in the Search By field and click the Search button.

If you do not know the name of the query and want to search through a list of queries, leave the Search For field blank and click the Search button to display a list of up to 300 queries.

Perform a partial search by entering part of a query name or description in the Search By field. Use the drop-down list to search queries by either name or description, and then click the Search button to display a list of queries that match your search criteria.

The Search Results page appears and lists all the queries that match the search criteria. The following information appears: query name, query description, and ownership (public or private).

- If you know the name of the query that you want, enter it in the Search By field and click the Search button.
- To perform an advanced search, click the Advanced Search link.

On the advanced search page, select the appropriate *search by* criteria and conditions and enter a search string in each of the corresponding fields. Then click the Search button to display a list of queries that match your search criteria. The Search Results page appears listing the query name, description, owner, and folder for all the queries that match the search criteria.

3. Click the Edit link on the row of the query that you want to modify.

Related Links

"Understanding Meta-SQL" (PeopleTools 8.56: PeopleCode Language Reference)

Renaming Queries

Use the Rename Queries page to rename existing queries.

Image: Rename Queries page

This example illustrates the fields and controls on the Rename Queries page.



To rename a query:

1. Select PeopleTools >Utilities >Administration >Query Administration.
2. On the Admin (Administration) page, select a predefined search or a manual search by clicking the respective Search button.

3. Select the queries from the Query List.
4. Click the Rename button.

The Rename Queries page appears, listing the current query names and query owners.

5. Enter new names for the queries in the New Name field.
6. Click the OK button to save your changes.

Note: Alternatively, you can use the Query Manager search page (Reporting Tools >Query >Query Manager) to rename a query. You must first select a query that you want to rename, and then select *Rename Selected* from the Action drop-down list.

Deleting Queries

You can delete any public query that you have access to as well as any private query that you have created.

To delete a query:

1. Select PeopleTools >Utilities >Administration >Query Administration.
2. On the Admin (Administration) page, select a predefined search or a manual search by clicking the respective Search button.
3. Click the Delete button.

The Query Delete Verification page appears.

4. Click the Yes button to confirm the deletion or click the No button to avoid deletion.

Note: Alternatively, you can use the Query Manager search page (Reporting Tools >Query >Query Manager) to delete a query. You must first select a query that you want to delete, and then select *Delete Selected* from the Action drop-down list.

Updating Existing Queries

At times, you might want to update a query to reflect new conditions or copy an existing query and modify it for other uses. You can open a query, examine it to determine whether it is suitable, and then use the Save As function to save it with a new name.

To update an existing query:

1. Select Reporting Tools >Query >Query Manager.
2. On the Query Manager search results page, find the query that you want to modify and click its Edit link.

The Fields page appears.

3. Access the tab that you want to modify the information—except the Run tab.
4. Enter the new information.

- Click either the Save button to update the existing query, or the Save As link to save a different instance of the query under a new name.

Note: When using Microsoft Windows-based Query Designer, any modification to a previously saved query must be saved before downloading query results to Microsoft Excel. A message appears reminding you to save your work. This is to ensure that accurate data are displayed. New ad hoc queries that have never been saved before in the database can be downloaded to Microsoft Excel without having to save after every modification.

Repairing Existing Queries Automatically

A record definition that is used in a query may change. When this occurs, PeopleSoft Query automatically repairs the query when it is opened. A warning message informs you about the problem and what actions were taken.

The following table lists the problems and their corresponding actions.

Problem	Action
Field deleted from the record definition is a selected field.	The field is removed from the selected list. If the field is the only field selected, the query cannot be saved.
Field deleted from the record definition is used in a prompt.	No action taken. This does not affect the prompt unless the field has been completely removed from the database, and the prompt label is either a short or long translate.
Field deleted from the record definition is used in an expression.	The field is removed from the expression. This may result in an invalid expression, but the query can be saved.
Field deleted from the record definition is used in a criterion.	The criterion is removed. If criterion is a subquery criterion, all lower subqueries are deleted.
Record deleted is the first record in the query.	Error returned. The query cannot be repaired.
Record deleted is not the first record in the query.	The record and all fields are removed. Note: The actions specified previously for deleted fields apply.
Record deleted contains hierarchy joins below it.	Record and all records joined below are removed. Note: The actions specified previously for deleted fields apply.

Note: If a record has been deleted, the query no longer appears in the list of queries because you no longer have access to all of the records in that query. To open such a query, you need to use Query API.

Related Links

"Setting Query Permissions" (PeopleTools 8.56: Security Administration)

Scheduling Queries

Submitting Process Requests

A process request enables you to submit a job or process to run. The Schedule Query page submits a process request and brings up the Process Request page, which enables you to specify such variables as where to run the process and in what format to generate the output based on a run control ID.

Image: Schedule Query page

This example illustrates the fields and controls on the Schedule Query page.

The screenshot shows the 'Schedule Query' page. At the top, there is a 'Run Control ID' field with the value 'RunQry' and a yellow 'Run' button. Below this are links for 'Report Manager' and 'Process Monitor'. The 'Query Name' field contains 'CM_ATTRIBUTES' and a yellow 'Search' button. The '*Description' field contains 'Attribute mappings'. Below the description is a link for 'Update Parameters'. At the bottom, there is a table with two columns: 'Prompt Name' and 'Value'. The table contains one row with 'ATTRIBUTE_NUM' in the first column and '112' in the second column.

Prompt Name	Value
ATTRIBUTE_NUM	112

To submit a process request:

1. Select Reporting Tools >Query >Schedule Query.
2. Search for and select an existing run control ID, or select the Add New Value tab to enter a new ID.
3. Select the query for which you want to schedule and update any prompt parameters.
4. Optionally, select an option in the Asian Font field.

The Asian Font field is available if the output format is set to *PDF* with Asian fonts.

If the output format is set to PDF, you are able to run queries to PDF outputs with all Western European fonts, Korean font, Japanese font, Traditional Chinese font, and Simplified Chinese font. Alternatively, use BI Publisher to run queries to PDF outputs with Eastern European fonts, Thai fonts, Russian fonts, and so on; or change the output to another format.

See "Using Scheduled Queries" (PeopleTools 8.56: Global Technology).

5. Use the Update Parameters link to select or change the value that is required for each available prompt. When values have been selected, they appear in the Prompt Name and Value fields.

Note: If the query does not have any prompt, the Update Parameters link does not appear.

If you have one or more Asian languages installed, select the language that you want from the Asian Font drop-down list. This drop-down list appears *only* if you have one or more Asian languages installed.

You are unable to open or schedule a query that has been disabled.

6. Click the Save button to save changes and remain on the Schedule Query page.
7. Click the Run button to submit the query process request and display the Process Scheduler Request page.

When you are scheduling queries from Query Manager or Query Viewer, the Run button is replaced with an OK button.

8. Click the Process Monitor link to view the status of your request; click the Report Manager link to view the output of your request.

Note: If a query that is used as a data source for BI Publisher is run through Reporting Tools >Query >Schedule Query the BI Publisher-related prompts do not appear. The normal basic table-formatted query results will be generated.

See "Understanding Run Control IDs" (PeopleTools 8.56: Process Scheduler), "Submitting Process Requests" (PeopleTools 8.56: Process Scheduler), "Scheduling Process Requests" (PeopleTools 8.56: Process Scheduler), "Using Process Status Notifications" (PeopleTools 8.56: Process Scheduler), "Scheduling Reports in Query Report Scheduler" (PeopleTools 8.56: BI Publisher for PeopleSoft).

Schedule Query with Tree Prompt

You can schedule queries that have tree prompts using the Schedule Query component or using the Schedule links in the Query Manager and Query Viewer. While scheduling these queries, you are prompted for selecting the tree for the specified field and its node list. After the successful selection of values for the tree prompts, other prompts are available for your input. These queries can either be saved and used in the future or can be scheduled and run immediately by clicking the Run button.

Image: Schedule Query page with query that has In Tree prompts

This example illustrates the fields and controls on the Schedule Query page with query that has In Tree prompts. Definitions for the fields and controls appear following the example.

Schedule Query

Run Control ID: RUN_QRY [Report Manager](#) [Process Monitor](#) Run

Query Name: Search

***Description:**

[Update Parameters](#)

Prompt Name	Value
JOBCODE	<input type="text" value="1002"/>

[Update Tree Parameters](#)

Tree Prompts	
Field Name	Expression Text
A.ATTRIBUTE_NUM	„QE_JOBCODES,1999-01-01,EXECUTIVE,CONSULTANTS

Update Tree Parameters

The Update Tree Parameters link is available if you are running queries that have tree prompts.

Click this link to access the Select a Tree page and the Select Tree Node page, where you can select a tree and its node list.

Tree Prompts

The Tree Prompts section displays the field names and expression texts, which will be used in forming the SQL before running the query.

Note: In Windows query application psqed.exe, you also can create tree prompts and use that prompts to enter input at runtime. Execution of the query is similar to PIA Query Manager, where you select the tree node to run the query.

Scheduling and Distributing Query and Connected Query Results with Transformation

In PSQuery, the available user-defined output formats are HTM, PDF, TXT, XFORM, XLS, XML, and XMLP. You select the XFORM format to trigger a transformation (XSLT). Note that you must provide the XSLT to define the desired transformation of the extracted data.

To generate the query results with transformation and distribute that resulting data, you schedule the query process to run using the Process Scheduler Request page and select *XFORM* as the output format.

Image: Process Scheduler Request page, XFORM format

The following example shows the fields and controls on the Process Scheduler Request page when you generate the query results with transformation.

The screenshot shows the 'Process Scheduler Request' page. At the top, it displays 'User ID: PTDOCKN' and 'Run Control ID: XFORM_DEMO'. Below this, there are several input fields: 'Server Name' (dropdown menu with 'PSNT' selected), 'Run Date' (calendar icon with '11/19/2012' selected), 'Recurrence' (dropdown menu), 'Run Time' (text input with '5:35:59PM' and a 'Reset to Current Date/Time' button), and 'Time Zone' (text input with a search icon). Below these fields is a 'Process List' table with the following columns: Select, Description, Process Name, Process Type, *Type, *Format, Distribution, and *Transformation. The table contains one row for 'PSQUERY' with a checked 'Select' box, 'PSQUERY' in the Description column, 'PSQUERY' in the Process Name column, 'Application Engine' in the Process Type column, 'Web' in the *Type column, 'XFORM' in the *Format column, 'Distribution' in the Distribution column, and 'qe_xrwinCSV' in the *Transformation column.

Select	Description	Process Name	Process Type	*Type	*Format	Distribution	*Transformation
<input checked="" type="checkbox"/>	PSQUERY	PSQUERY	Application Engine	Web	XFORM	Distribution	qe_xrwinCSV

To generate the query results with transformation and distribute that resulting data to an external IB node using the Integration Broker framework, you schedule the query process to run using the Process Scheduler Request page, set the output type to *IB Node*, and set the output format to *XFORM*. The page also includes the Approval Required option that enables you to review and approve the transformed output before distributing it.

Image: Process Scheduler Request page, IB node, XFORM format

The following example shows the fields and controls on the Process Scheduler Request page when you generate the query results with transformation and distribute that resulting data to an external IB node using the Integration Broker framework. Definitions for the fields and controls follow the example.

The screenshot shows the 'Process Scheduler Request' page. At the top, it displays 'User ID: PTDOCKN' and 'Run Control ID: XFORM_DEMO'. Below this are several input fields: 'Server Name' (dropdown menu with 'PSNT' selected), 'Run Date' (calendar icon with '11/19/2012'), 'Recurrence' (dropdown menu), 'Run Time' (input field with '5:35:59PM' and a 'Reset to Current Date/Time' button), and 'Time Zone' (input field with a search icon). A 'Process List' table is shown below, with columns: Select, Description, Process Name, Process Type, *Type, *Format, *Node, Approval Required, and *Transformation. The table contains one row with a checked 'Select' box, 'PSQUERY' in Description and Process Name, 'Application Engine' in Process Type, 'IB Node' in *Type, 'XFORM' in *Format, 'QE_ONDEMAND' in *Node, a checked 'Approval Required' box, and 'qe_xrwinFixformat' in *Transformation.

Type

The available options are:

- *Email*: If the *Email* option is selected, the Format and Distribution drop-down lists appear.
- *Feed*: If the *Feed* option is selected, the Format, Distribution, and Feed Title drop-down lists appear, and the only available format is *ATOM*.
- *File*: If the *File* option is selected, the Format and Distribution drop-down lists appear.
- *IB Node*: The *IB Node* option is used to generate the custom output. The selected Integration Broker node will define the destination of the output. If the *IB Node* option is selected, the Format list, Node list, Approval Required check box, and Transformation list appear, and the only available format is *XFORM*.
- *Web*: If the *Web* option is selected, the Format and Distribution drop-down lists appear.
- *Window*: If the *Window* option is selected, the Format and Distribution drop-down lists appear.

Format

The available options are HTM, PDF, TXT, XFORM, XLS, XML, and XMLP.

Note: If the output type is set to *Feed*, the only available format is *ATOM* and the Transformation drop-down list is not available.

If the output type is set to *IB Node*:

- The only available option in the Format column is *XFORM*, which enables you to generate a customized output format.
- The Node, Approval Required, and Transformation drop-down lists appears.

Node

This option is available when the Type column is set to *IB Node*.

Select an IB node from the list of the external IB nodes, which were enabled to receive the transformation output with the routing added to receive the delivered Query Transform Server Operation.

Note: To enable an IB Node to receive the query and connected query transformed outputs, you must add a routing for Service Operation PRCS_OUTPUT_IB_OPER. This routing enables the node to be an output destination for the transformed outputs.

Approval Required

This option is available when the Type column is set to *IB Node*.

Select to request that the transformed output file be reviewed and approved before you distribute its output data to external destinations.

If the Approval Required option is selected, then at report runtime:

- The transformed output file is posted to the repository for review.

Note: The Distribution Status column displays *Pending* until the transformed output file is reviewed, approved, and published.

- The owner who submits the process can review the result output using Process Monitor.
- After the result output file is reviewed and approved, it is distributed using the Integration Broker framework based on the Integration Broker node set on the Process Scheduler Request page.

If the Approval Required option is not selected, then at report runtime:

- The result output file is not posted to the report repository.
- The result output file is distributed using the Integration Broker framework based on the Integration Broker node set on the Process Scheduler Request page.

Transformation

This option is available when the Format column is set to *XFORM*.

This option is required for generating customized output.

Select a transformation option from the list of valid XSLTs that were previously defined for the selected query. The selected transformation will determine the XSLT to be applied to the query XML data.

Reviewing and Publishing the Transformed Output

If the Approval Required check box in the Process Scheduler Request page is selected, the query owner who submits the process can access the Process Monitor to review the output and then publish the output to the external destinations after it is approved.

Note: In general, the available distribution statuses are N/A (not available), Generated, Posting, and Posted. You can view the output from a web browser when the process displays the distribution status of Posted. If the process runs with the output type set to IB Node and the output format set to XFORM, then the Pending distribution status is also available. The Pending status indicates that the transformed output files were transferred to the report repository and must be reviewed and published.

To review and publish the transformed output files:

1. Access the Process Monitor page.
2. Click the Details link to access the Process Detail page.
3. Click the View Log/Trace link to access the View Log/Trace page.

If the process has the run status of Success and the distribution status of Pending, then the Publish link appears next to the request output.

Image: View Log/Trace page

This example shows the View Log/Trace page with a list of the output files and the Publish link.

View Log/Trace

Report			
Report ID: 29	Process Instance: 139	Message Log	
Name: PSQUERY	Process Type: Application Engine		
Run Status: Success			
drillingURLs using MSN w/xform			
Distribution Details			
Distribution Node: QEDMO	Expiration Date:	<input type="text" value="09/23/2012"/>	
File List			
Name	File Size (bytes)	Datetime Created	Publish
Redirected Terminal Output	304	09/16/2012 3:18:39.149000PM PDT	
QE XFORM DRILLING URLS MSN-139.TXT	3,097,927	09/16/2012 3:18:39.149000PM PDT	Publish
Distribute To			
Distribution ID Type	*Distribution ID		
User	PTDOCKN		

4. Optionally, review the output file by clicking the Name link in the file List section.
5. Click the Publish link to send the output to the request Integration Broker node, which is defined in the Process Scheduler Request page.

Selecting Process Requests

The Process Scheduler Request page enables you to set the server, run date and time, how often the process runs (the recurrence of the process), output type, and format.

Image: Process Scheduler Request page

This example illustrates the fields and controls on the Process Scheduler Request page. Definitions for the fields and controls appear following the example.

Process Scheduler Request

User ID: PTDOCKN Run Control ID: RUN_QRY

Server Name: PSNT Run Date: 09/16/2012

Recurrence: Run Time: 9:44:46PM **Reset to Current Date/Time**

Time Zone:

Select	Description	Process Name	Process Type	*Type	*Format	Distribution
<input checked="" type="checkbox"/>	PSQUERY	PSQUERY	Application Engine	Web	TXT	Distribution

OK **Cancel**

Server Name Select the name of the server on which you want the process to run.

Recurrence Select the recurring time intervals for the process to run.

For example, to run a process every weekday at 5:00 p.m., select the predefined recurrence definition *M-F at 5pm*.

Time Zone Select the time zone in which the process will run.

For example, you might be in Eastern Standard Time (EST) and schedule a process to run in Pacific Standard Time (PST).

Run Date Select the date on which you want the process to run.

Run Time Select the time at which you want the process to run.

Reset to Current Date/Time Click to reset the run date and time to the present date and time.

Select Select a job or process to run.

You can select multiple jobs and processes.

Description Identifies a process or job.

Jobs are listed as links. Click the link to display the Job Detail page, which shows all of the individual processes and jobs that are associated with the selected main job.

Process Name and Process Type

Identifies the name and type (such as COBOL) of the process as it appears in the process or job definition.

Type

Select the output type for this job or process.

An output type that is selected for a process at the process definition level overwrites the output type and the output type drop-down list becomes unavailable. An output type that is selected for a job at the main job level carries through to the job items. An output type that is selected for individual job items overwrites the output type that is entered for the parent job.

Values are:

- *File*: Writes the output to the file that you indicate in the Output Destination field.

Note: If you set Type value to *File* or *Printer*, you must enter the name of the directory in the Output Destination field.

- *Printer*: Sends the output to a printer. You can enter a custom printer location in the Output Destination field if you have the appropriate security access. If the Output Destination field is left blank, the printer that is defined on the Process Profile Permissions page is used. If that printer is undefined, the default printer that is defined for the process scheduler is used.
- *Email*: Sends the output through an email. To distribute a report to an email list, enter the appropriate information on the Distribution Detail page by clicking the Distribution link. By default, the output is sent through email to the person running the process. This option is available for Structured Query Reports (SQR), PS/nVision, and BI Publisher.

Note: Using Scheduled Query, you can schedule queries to run and have the results email directly to recipients as an attachment. If a report fails to run, no email is sent. If no file is found, the email will contain a meaningful message to inform recipients. If sending email is successful, process status is be marked as success; otherwise, it ends in error. If the generated output file is too large, the email is returned to the sender with information to indicate any attachment size limitations.

- *Feed*: Sends query results as feeds.

You have to enter query prompts values, select the Format as *Atom*, and select a feed definition which matches the query prompts values. If there are no existing feeds with matching prompt values, all the scheduled feeds appear. You

can select any scheduled feed to make a copy of that feed and later also change the title of the new cloned feed.

See "Understanding Query Feeds" (PeopleTools 8.56: Feed Publishing Framework), "Publishing Query Feeds" (PeopleTools 8.56: Feed Publishing Framework), "Defining Advanced Options for Query Feeds" (PeopleTools 8.56: Feed Publishing Framework), "Using Query Feeds" (PeopleTools 8.56: Feed Publishing Framework).

- *Web*: Sends all output of the process to the report repository, including log and trace files. The format of the report is specified by the format list.
- *Window*: Sends the output to a new browser window. The status of the process now appears in the new browser window before the results are displayed. The different statuses are *Queued*, *Initiated*, *Processing*, *Success*, *Error*, or *Warning*. All output for the process is also sent to the report repository, including log and trace files. The format of the report is specified by the format list.

When multiple processes are requested, a new browser window is opened for each request.

Note: This output type is not available if the user does not have REN Server *Report Window* permission, or if no active REN Server cluster is available for Reporting.

To grant access to the new browser window, the permission lists of the users must include full access for the Realtime Event Notification for Reporting Window and the WEBLIB_RPT web library with full access.

- *IB Node*: Select the IB Node option to generate custom output using the IB framework. The selected Integration Broker node defines the destination of the output.

Note: The Node, Approval Required, and Transformation columns are available after the Type column is set to *IB Node*.

See "Scheduling and Distributing Query and Connected Query Results with Transformation" in the [Scheduling Queries](#) section.

Format

Select the output format for this job or process.

When an output format is selected for a process at the process definition level, it cannot be changed. Therefore, the output format drop-down list becomes unavailable.

Select the *XFORM* option to display the Transformation column. You must define a transformation to submit the process.

See “Scheduling and Distributing Query and Connected Query Results with Transformation” in the [Scheduling Queries](#) section.

Note: An output format that is selected for a job at the main job level carries through to the job items. The format that is selected for individual processes or jobs that are attached to a job overrides the format that is entered for the parent job.

To get text-wrapping support for very long text fields, use HTML format.

PDF format has a maximum page width size of approximately 353 cm and it does not support text-wrapping. All output columns must fit within this limit. A column’s size will be as wide as the longest text it has to accommodate. If a text field's length needs more than 353 cm of space, the text may go beyond its column border and successive columns will not print.

XML format is for producing webrowset XML format result.

XMLP format is producing XMLP format result.

Node

This column is available when the Type column is set to *IB Node*.

Select one node from the list of the external Integration Broker nodes that are valid to receive query output with transformation; for example, the IB external node with routing defined for the query transformation service operation.

Approval Required

This column is available when the Type column is set to *IB Node*.

Select to request that the transformed output be reviewed and approved before you distribute the output data to the external destinations.

If the Approval Required option is selected, then at the report runtime:

- The result output file is posted to the repository for review.
- The owner who submits the process can review the result output using Process Monitor.
- After the result output file is reviewed and approved, it is distributed using the Integration Broker framework based on the Integration Broker node set on the Process Scheduler Request page.

If the Approval Required option is not selected, then at the report runtime:

- The result output file is not posted to the report repository.

- The result output file is distributed using the Integration Broker framework based on the Integration Broker node set on the Process Scheduler Request page.

See “Reviewing and Publishing the Transformed Output” in [Scheduling Queries](#).

Distribution

Click to access the Distribution Detail page, where you enter additional distribution information when the output type is *Web*, *Window*, or *Email*. Also use this page to select a folder name to which the output should be distributed when the output type is *Web* or *Window*.

Output Destination

Enter the file directory path or printer destination for the output. For example, *C:\Documents and Settings\admin\psft\pt\8.5x\appserv\prcs\QEDMO\log_output*.

Note: This field is available only when the output type that you select is *File* or *Printer*. If you select an output destination (OutDest) for a process at the process definition level, this field is populated with that output destination.

See "PeopleCode Syntax Quick Reference" (PeopleTools 8.56: PeopleCode API Reference).

Transformation

This column is available when the output format is set to *XFORM*.

Select a transformation from the list of valid transformations that were defined for the query or connected query.

See [Extracting and Transforming Data from PeopleSoft Pure Internet Architecture](#).

To select a process request:

1. Select Reporting Tools >Query >Schedule Query.
2. Select a run control ID, and click the Run button.

The Process Scheduler Request page appears.

3. Complete the fields on the Process Scheduler Request page.
4. Click the OK button to run the query.

The system displays the Schedule Query page. The process instance number appears below the Run button.

5. Click the Process Monitor link to view the status of your request.

The Process List page appears. The Run Status field reveals the status of your scheduled or running process.

Using Process Monitor

The Process Monitor can be used to view the status of your process requests.

You can access the Process Monitor by clicking the Process Monitor link on the Schedule Query page or by selecting PeopleTools >Process Scheduler >Process Monitor.

Process Monitor consists of two pages: the Process List page and the Server List page.

- The Process List page enables you to monitor the process requests that you have submitted.

You can select filtering options—for example, process type and run status—to view only selected process requests. And you can click the Details link to view details that are associated with particular process requests.

- The Server List page enables you to monitor the PeopleSoft Process Scheduler server agents within your system.

Image: Process Monitor - Process List page

This example illustrates the fields and controls on the Process Monitor - Process List page. Definitions for the fields and controls appear following the example.

Select	Instance	Seq	Process Type	Process Name	User	Run Date/Time	Run Status	Distribution Status	Details
<input type="checkbox"/>	143		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:44:46PM PDT	Queued	N/A	Details
<input type="checkbox"/>	142		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:11:03PM PDT	Success	Posted	Details
<input type="checkbox"/>	141		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:08:07PM PDT	Success	Posted	Details
<input type="checkbox"/>	140		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:01:27PM PDT	Success	Posted	Details
<input type="checkbox"/>	139		Application Engine	PSQUERY	PTDOCKN	09/16/2012 2:54:21PM PDT	Success	Pending	Details

User ID View the processes that were submitted by a particular user ID.

Usually, you view by your own user ID.

Type View by a particular process type—for example, *Application Engine*.

Last Specify an interval of time by which to limit the process requests that appear in the list.

	Enter a numerical value in the edit box preceding the drop-down list, and then select a unit type from the drop-down list. Values are <i>Days</i> , <i>Hours</i> , and <i>Minutes</i> .
Refresh	Click to check the current status of a process. This button refreshes the list.
Server	Select to view processes that run on a particular server.
Name	View processes by a process name.
Instance	Specify a range of instances by which to limit the process requests that appear in the list. To limit the view to a single request, enter the required instance ID in the first text field.
Run Status	Select if you want to view processes by a specific status, such as <i>Success</i> or <i>Error</i> .
Distribution Status	Displays the distribution status for each individual job and process. Valid statuses are <i>N/A</i> , <i>None</i> , <i>Generated (OS390)</i> , <i>Not Posted</i> , <i>Posting</i> , <i>Pending</i> , and <i>Posted</i> .
Save On Refresh	Select to save filter criteria changes when you click the Refresh button.
Instance	Displays the process instance, that is, the order in which the process appears in the queue. This number is automatically generated.
Seq (sequence)	This field is blank; it is not used for query processes.
User	The ID of the user who submitted the process.
Details	Click to open the Process Detail page.

Viewing Output in Report Manager

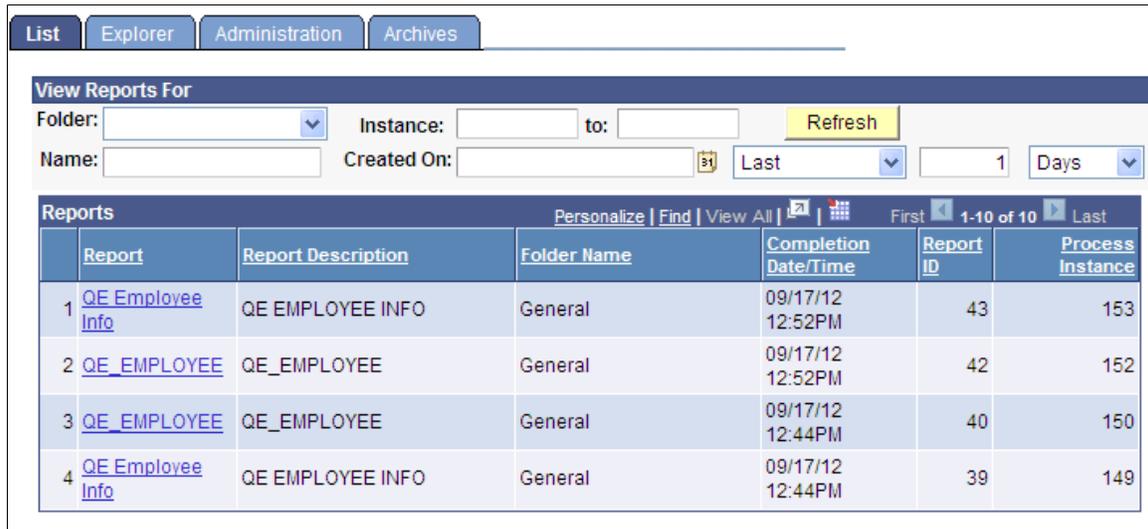
Report Manager is like your own personal in-box of reports and process output. It provides a secure way to view report content, check the posting status of your output, and see content detail messages.

You can view all of your reports by opening your Report List in your browser.

To access the Report Manager, select Reporting Tools >Report Manager or click the Report Manager link on the Schedule Query page.

Image: Report Manager - List page

This example illustrates the fields and controls on the Report Manager - List page.



Note: BI Publisher reports can also be viewed by navigating to Reporting Tools >BI Publisher >BIP Report Search.

Related Links

- "Viewing the Status of Processes" (PeopleTools 8.56: Process Scheduler)
- "Requesting Reports in PeopleSoft Applications" (PeopleTools 8.56: Applications User's Guide)
- "Checking the Status of Reports" (PeopleTools 8.56: Applications User's Guide)
- "Viewing Reports in Report Manager" (PeopleTools 8.56: Applications User's Guide)
- "Searching the BI Publisher Report Repository" (PeopleTools 8.56: BI Publisher for PeopleSoft)

Specifying a User's Language

For scheduled queries, the system uses the language that is specified in the user's profile, not the language that is selected during sign-in. The system also uses the international and regional settings that the user has specified using My Personalizations. If you have not specified personal settings, the system uses the default installation international settings.

Note: Most PeopleSoft components can use the international settings from the browser by default if the user has not set any user specific settings. However, this is *not* available for scheduled queries or any PeopleSoft Process Scheduler processes.

Related Links

- "Understanding User Profiles" (PeopleTools 8.56: Security Administration)

Organizing Queries

Page Used to Organize Queries

Use the Query Viewer search page – Action drop-down list to organize queries.

Image: Query Manager search page – Action drop-down list

This example illustrates the Query Viewer search page with the Action drop-down list expanded.

The screenshot shows the Query Manager search page. At the top, there is a search bar with a dropdown menu for "Search By" (set to "Query Name") and a text input for "begins with" (containing "QE_EM"). Below the search bar are "Search" and "Advanced Search" buttons. The "Search Results" section includes a "Folder View" dropdown (set to "-- All Folders --") and "Check All" and "Uncheck All" buttons. An "Action" dropdown menu is expanded, showing options: "Add to Favorites", "Copy to User", "Delete Selected", "Move to Folder", and "Rename Selected". Below the dropdown is a "Go" button. The main table displays search results with columns for "Query Name", "Descr", and "Public". The table has a "Query" header and a "Select" column. The rows are:

Select	Query Name	Descr	Public	Edit	Run to HTML	Run to Excel	Run to XML	Schedule	Definitional References
<input type="checkbox"/>	QE_EMPDEPT	Employee Count By Depart		Edit	HTML	Excel	XML	Schedule	Lookup References
<input type="checkbox"/>	QE_EMPDEPT_10100	Employee Count By Department	Public	Edit	HTML	Excel	XML	Schedule	Lookup References
<input type="checkbox"/>	QE_EMPLOYEE	QE Employee Info	Public	Edit	HTML	Excel	XML	Schedule	Lookup References
<input type="checkbox"/>	QE_EMPLOYEE_DOUBLE_DEFPROMPT	QE Employee Info	Public	Edit	HTML	Excel	XML	Schedule	Lookup References
<input type="checkbox"/>	QE_EMPLOYEE_DOUBLE_PROMPT	QE Employee Info	Public	Edit	HTML	Excel	XML	Schedule	Lookup References

The available options in the Action drop-down list are:

- Add to Favorites

Use this option to add queries to the My Favorite Queries list.

- Copy to User

Use this option to copy private queries to other users' list of queries.

Note: The user who is being copied to must have access to the records with which the query is associated. If that user does not have access, the query does not appear in that user's search list.

- Delete Selected

Use this option to delete the selected queries from the database.

- Move to Folder

Use this option to move queries to folders.

- Rename Selected

Use this option to change the names of the selected queries.

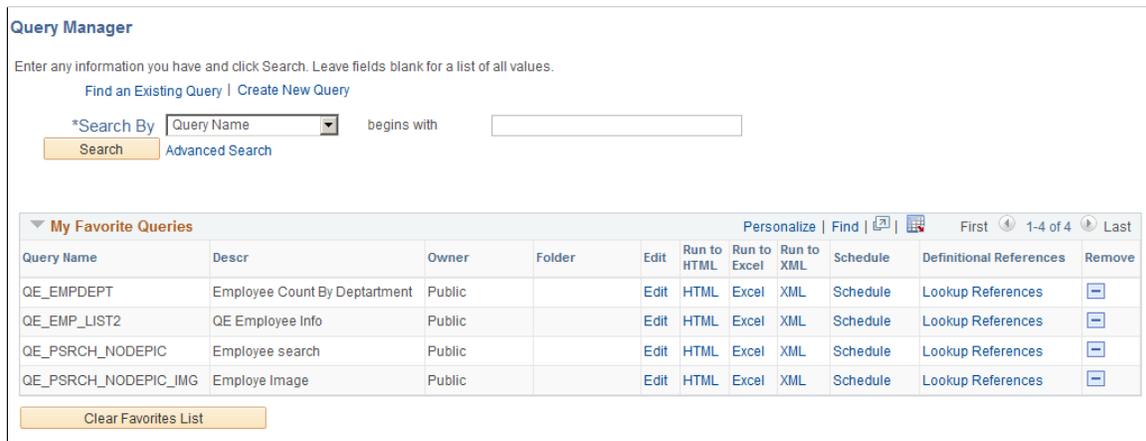
Adding Queries to the My Favorite Queries List

You can access the frequently used queries from the Query Manager search page or the Query Viewer search page by designating those queries as favorites. After you create one or more favorites, the My Favorite Queries section appears on the Query Manager search page and Query Viewer search page. You can access the favorite queries without performing the query search and you have the options to remove the queries from the My Favorite Queries section as needed.

Note: Queries in the My Favorite Queries list are linked to the user ID.

Image: Query Manager search page, My Favorite Queries section

This is an example of the Query Manager search page, My Favorite Queries section. You can click the triangular arrow next to the My Favorite Queries label to expand and collapse the section.



To add a query to the My Favorite Queries list:

1. Select Reporting Tools >Query >Query Manager.
2. Click the Search button.
3. On the Query Manager search results page, select the query that you want to add to the My Favorite Queries section.

Note: If you want to add multiple queries to the My Favorite Queries section at once, you can select multiple queries at this step.

4. Select the *Add to Favorites* option from the Action drop-down list.
5. Click the Go button.

The selected query or queries appear in the My Favorite Queries section.

Note: You can also click the Favorite links in the Query Viewer search page to add the queries to the My Favorite Queries section.

Removing Queries From the My Favorite Queries List

My Favorite Queries list appears on the Query Manager search page or on the Query Viewer search page.

- To remove a query from the My Favorite Queries list, click the Remove button (the minus button) next to the query that you want to remove.
- To remove all queries from the My Favorite Queries list, click the Clear Favorites List button.

Creating and Using Folders

You can use folders and folder structure to organize queries. Note that:

- All folders are visible to all users.
- Only public queries and the user's private queries appear in a folder.
- A query can be stored in only one folder other than the All Folders view.

Copying Queries to Another User's List of Queries

Query Manager enables you to copy queries from your list of queries to another user's list of queries.

Note: Only non-public queries can be copied to another user's list of queries.

If the target user does not have permission to access all records in the copied queries, those queries do not appear in the target user's list of queries. After permission is granted, the copied queries appear in his or her list of queries.

To copy a query to another user's list of queries:

1. Select Reporting Tools >Query >Query Manager.
2. On the Query Manager search results page, select the query or queries that you want to copy.
3. Select the *Copy to User* option from the Action drop-down list.
4. Click the Go button.

The Enter User ID page appears.

5. Enter the user ID of the user to whom you want to copy the queries.
6. Click the OK button.

Moving a Query to a Folder

Organizing queries in folders can help you more easily access the queries. To move a query to a folder:

1. Select Reporting Tools >Query >Query Manager.
2. On the Query Manager search results page, select the query or queries that you want to move to an organization folder.
3. Select the *Move to Folder* option from the Action drop-down list.
4. Click the Go button.

The Move to Folder page appears.

5. Select one of the following options:
 - *Select an existing folder to move to:* From the drop-down list, select the folder to which you want to move the queries.
 - *OR enter a folder name to move to:* Enter the name for a new folder to which you want to move the queries.
6. Click the OK button.

Working with Advanced Query Options

Working with Aggregate Functions

Understanding Aggregate Functions

In a standard query, each row in the result set corresponds to an individual row in the table that you are querying. Sometimes, however, you instead want a summary of the information in multiple rows. For example, you might want to know how many customers you have in each state. You can query for this kind of summary information using *aggregate functions*.

An aggregate function is a special type of operator that returns a single value based on multiple rows of data. When your query includes one or more aggregate functions, PeopleSoft Query collects related rows and displays a single row that summarizes their contents.

For example, suppose that your Order table includes (among other fields) a customer ID and an amount for each item that was ordered. You want to determine how much each customer has ordered, so you create a query that selects the customer ID and amount fields. Without any aggregate functions, this query would return the same number of rows as are in the table. If Stuart Schumacher ordered 10 items, you would see 10 rows with his ID in the customer ID column. On the other hand, if you apply the aggregate function Sum to the amount field, you will get just one row for each customer ID. PeopleSoft Query collapses all the rows with the same value in the non-aggregated column (customer ID) into a single row. The value of the amount field in Stuart Schumacher's row would be the sum of the values from the 10 rows.

The following table lists the aggregate functions that you can apply to a field using PeopleSoft Query.

Aggregate Function	Action
Sum	Adds the values from each row and displays the total.
Count	Counts the number of all rows in the query result including the null-value rows and duplicated rows.
Count Distinct	Counts the number of nonnull-value rows in the query result, and the duplicated rows are counted once.
Min (Minimum)	Checks the value from each row and returns the lowest one.
Max (Maximum)	Checks the value from each row and returns the highest one.
Average	Adds the values from each row and divides the result by the number of rows.

Applying an Aggregate Function to a Field

When you apply an aggregate function to a field, you are redefining how PeopleSoft Query uses the field throughout the query. Essentially, PeopleSoft Query replaces the field, wherever it occurs, with the results of the function. If you select the field as a display column, PeopleSoft Query displays the aggregate values; if you use the field as an order by column, PeopleSoft Query orders the results based on the aggregate values.

Note: If you do not want PeopleSoft Query to redefine the field in this way—for example, if you want to display both the individual row values *and* the results of the aggregate function—create an expression that includes the aggregate function rather than applying the function directly to the field.

To apply an aggregate function to a field:

1. Select Reporting Tools >Query >Query Manager.
2. In Query Manager, select the Fields tab.
3. Click the Edit button that is associated with the appropriate field.

The Edit Field Properties page appears.

4. Select the aggregate function that you want to use for this field, and click the OK button.

The abbreviation for the selected function appears in the Agg (Aggregate) column. If a function is not available for the field that you have selected, the Edit Field Properties page does not close. For example, you cannot use *Sum* with a character field, but you can use *Count*, *Min*, and *Max*.

Note: In addition to the previously listed aggregate functions, you can use any aggregate function that is supported by the underlying database by creating an expression component.

Related Links

[Defining Expressions](#)

Working with Subqueries

A *subquery*, sometimes called a *sub-SELECT*, is a query whose results are used by another query. The main query uses the subquery's result set as a comparison value for a selection criterion.

You create a subquery when you need to compare a field value to the results of a second query. Suppose, for example, that you want a list of employees who are not members of any professional organizations. For each employee in the PERSONAL_DATA table, you must determine whether his or her employee ID is in the MEMBERSHIP table. That is, you must compare the value in the PERSONAL_DATA.EMPLID field to the results of a subquery that selects the EMPLID values from the MEMBERSHIP table.

Image: Criteria page when you are using a subquery

This example illustrates the fields and controls on the Criteria page when you are using a subquery.

Query Name EMPLOYEE Description EMPLOYEE

Working on selection Top Level of Query

Add Criteria Group Criteria Reorder Criteria

Logical	Expression 1	Condition Type	Expression 2	Edit	Delete
	A.EFFDT - Effective Date	Eff Date <=	Current Date	Edit	-
AND	A.EMPLID - Empl ID	in list	SUBQUERY	Edit	-
AND	A.EFFDT - Effective Date	equal to	A.EFFDT - Effective Date	Edit	-

Save Save As New Query Preferences Properties Publish as Feed Publish as Pivot Grid New Union

Image: Query page when you are creating a subquery

This example illustrates the fields and controls on the Query page when you are creating a subquery.

Query Name EMPLOYEE Description EMPLOYEE

Working on selection Subquery for A.EMPLID - Empl ID

Add additional records by clicking the records tab. When finished select a single field for this subquery and you will be transferred to the fields tab.

Chosen Records

Alias	Record
B	QE_EMPL

Fields

Select	EMPNAME - EMPNAME
Select	EMPLID - Empl ID
Select	DEPTID - Department
Select	DEPTNAME - Department

Save Save As New Query Preferences Properties Publish as Feed Publish as Pivot Grid New Union

Return To Search

To create subqueries:

1. Select Reporting Tools >Query >Query Manager.
2. Click the Use As Criteria icon on the Query page, or click the Add Criteria button on the Criteria page.
3. On the Edit Criteria Properties page, select *Subquery* as the comparison value.

PeopleSoft Query displays a special Query Manager view where you can select a record. See the example of the Query page with subquery above.

4. On the Query - Subquery page, select the required field.

Note: A subquery can have only one field. However, you can create multiple subqueries.

When you have defined subqueries and unions, a Subquery/Union Navigation link appears at the top of each page of the main query and the subqueries.

5. Click the Subquery/Union Navigation link to display a hierarchical view of the main query and all subqueries and unions.

Use the hierarchy to navigate between the main query, subqueries, and unions.

Working with Unions

Unions enable you to get the results from two or more separate queries at the same time. You can create an union of multiple queries only when the queries have the following common elements:

- The same number of selected fields.
- The same data types for all fields.
- The same display order for the columns.

In addition, if using drilling URLs, both queries in a union must have a drilling URL mapped to a field. The number of drilling URLs defined in the top level of the query must be the same.

Note: Values from the related language record are not retrieved for union queries.

You must understand SQL to ensure that you create logical union queries.

In Oracle databases, PeopleSoft LongCharacter fields use the CLOB datatype when their length definition exceeds 1333. Since CLOBs (and other binary datatypes) are not valid columns for all operators, all queries including columns with LongCharacter field length definition that exceeds 1333 should not include the UNION operator.

To create a union:

1. Click the New Union link, which is available on the bottom of each Query Manager page except for the Run page.

PeopleSoft Query automatically switches to the Records tab so that you can start defining the second query. Define that query in the same way that you define other queries.

When you're working on a union, each individual selection looks like an independent query, and for the most part they *are* independent. However, the first selection in the union—the one that you started before clicking the New Union link—has a special status. PeopleSoft Query determines the ordering of the rows and columns based on what you specify for the first selection. It also uses the column headings that you defined for the first selection.

2. Navigate between the main query, subqueries, and unions using the Subquery/Union Navigation link.

Joining Records

Query Manager enables you to create queries that include multiple-table *joins*. Joins retrieve data from more than one table, presenting the data as if it came from one table. PeopleSoft Query links the tables,

based on common columns, and links the rows on the two tables by common values in the shared columns.

Joins are what make relational databases relational. Using joins, you define relationships among fields when you query the records, not when you create the records. Because PeopleSoft records are highly normalized (they each describe one kind of entity), you can easily use Query Manager to create joins.

The procedure for joining tables differs depending on how the tables that are being joined are related to each other. Query Manager recognizes three types of joins: record hierarchy, related record, and any record.

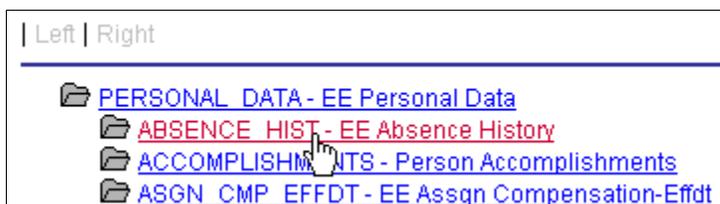
Creating Record Hierarchy Joins

A record hierarchy join joins a parent table to a child table. (A *child table* is a table that uses all the same key fields as its parent, plus one or more additional keys.)

Note: You can specify the parent/child relationship using the Parent Record Name option in PeopleSoft Application Designer.

Image: Selecting the second record

This example shows how to perform hierarchy joins with the ABSENCE_HIST record is selected.



To create a record hierarchy join:

1. In Query Manager (Reporting Tools >Query >Query Manager)select the base record for your query.
2. Select the appropriate fields and criteria.
3. From the Query page, click the Hierarchy Join link.

All of the records that have a parent/child relationship with your selected record appear.

4. Select the second record for the join.

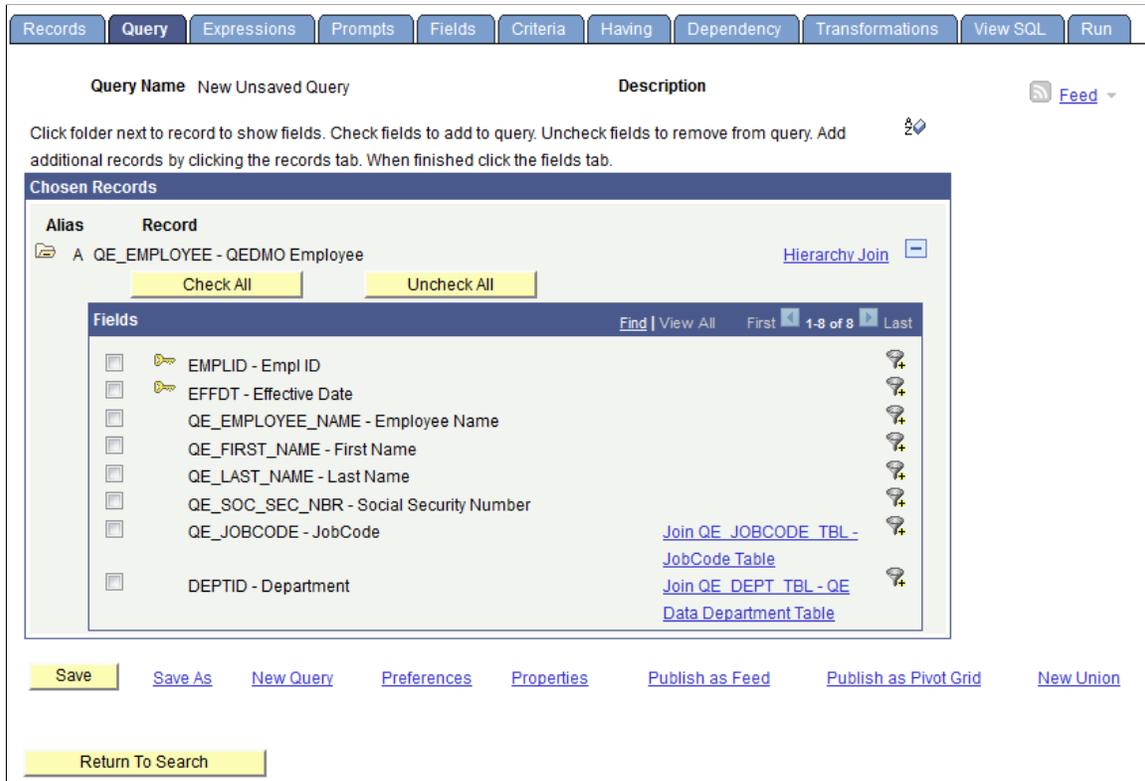
The join is reflected on the Query page.

Creating Related Record Joins

In a related record join, you can automatically join two records based on a relationship that has been predefined in the record designer. For example, if a field has a prompt table defined for it, PeopleSoft Query displays a join link to the right of the shared field.

Image: Query page showing related record join links

This example shows the Query page. Use the Join <record name> link to join record. The QEDMO Employee record can join to the JobCode record by using the by QE_JOBCODE field, or the QEDMO Employee record can join the Data Department record by using the DEPTID field.



To create a related record join:

1. In Query Manager (Reporting Tools >Query >Query Manager), select the base record for your query.
2. Select the appropriate fields and criteria.
3. From the Query page, click the Related Record Join link.
4. From the Select Join Type page, select the standard join option and click the OK button.

The join is reflected on the Query page.

Creating Any Record Joins

Using Query Manager, you can create a join between two records (any record join) by selecting your initial base record, defining its output fields and associated criteria, and then returning to the Records page to select the second record. When you return to the Records page, you see the link Join Record rather than Add Record to the right of all listed record names.

If you have the Enable Auto Join preference selected in the Query Preferences page, PeopleSoft Query automatically attempts to join the new record to the existing record by looking for matching columns on the two records.

To access the Query Preferences page, click the Preferences link on any page of Query Manager.

Creating Outer Joins

An outer join forces a row from one of the participating tables to appear in the result if no matching row exists.

Note: You can create an outer join using this method only if you have an Oracle database. If you use a platform other than Oracle database, you can create an outer join equivalent or create a left outer join using PeopleSoft Query's left outer join feature.

The Outer Join functionality is available only in Query Manager. This functionality is not available in the 2–3 Tier Query Client.

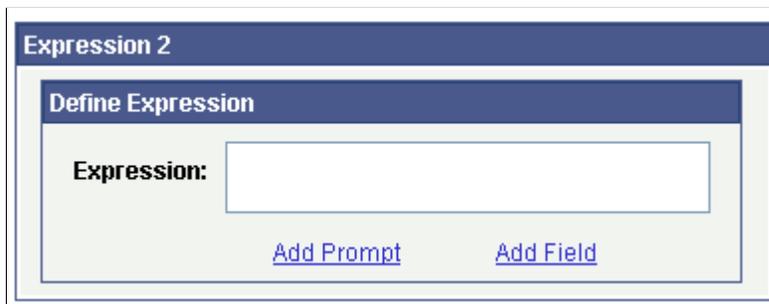
See [Creating Left Outer Joins](#).

To create an outer join, you must include a plus sign in parentheses (+) after the key fields of the subordinate record in the criteria that link the records. To produce this syntax, you cannot use the predefined joins. You must perform an any record join and code an expression that contains the (+) instead of a field.

You can join only one child record to the same parent query when the child record is added using the Records page. If you join more than one child record to the same parent query, an error message appears that says: "Left Outer joins must be joined to the last record in the query". On the contrary, you can have multiple outer joins to the same parent table if those joins are added using the Hierarchy joins link in the Query page.

Image: Define Expression section

This example illustrates the fields and controls on the Define Expression section.



Creating an Outer Join for Oracle Database

To create an outer join for Oracle database:

1. Access the Criteria page (Reporting Tools >Query >Query Manager >Criteria).
2. From the Criteria page, click the Edit button to the right of the required field from the primary record.
3. In the Condition Type drop-down list, accept the default operator value of *Equal To*.
4. In the Expression 2 Type section, select the value of *Expression*.

The Define Expression text box appears.

5. Click the Add Field link.
6. Select the required field from the secondary record.

7. Manually enter (+) after the field name.
8. Click the OK button.

Creating an Outer Join Equivalent for non-Oracle Platforms

If you use a platform other than Oracle, use this method to achieve the same effect as an outer join.

Note: If you use a platform other than Oracle, you can also create a *left* outer join using PeopleSoft Query's left outer join feature.

For example, to retrieve a list of all students and any evaluation information on file, the first select must retrieve those students who have not completed an evaluation; the second select must retrieve those students who have completed an evaluation.

To perform an outer join equivalent for the previous example:

1. In Query Manager (Reporting Tools >Query >Query Manager), create a new query or updating an existing query using the Student_Data record.
2. Select the *Customer_ID* and *Name* fields.

Because you will select two different fields from the Student_Eval record and you want them to have their own columns, you must create two dummy fields for your first record.

3. Create two different expressions and select them for output.
4. Save the query.
5. Create your subquery to find those students who have not completed an evaluation.

This completes your first select. If you run the query at this point, you see only those students who did not complete an evaluation.

6. To join in the students who did complete an evaluation, create a union.
7. Using the Student_Data record, select *Customer_ID* and *Name* for output.
8. Join the Student_Eval record using a record hierarchy join.
9. Select *Course* and *Course_Rt* for output.

Creating Left Outer Joins

PeopleSoft Query enables you to easily create a left outer join. In a left outer join, all rows of the first (left) record are present in the result set, even if no matches are in the joining record.

Note: This feature is not available for the Oracle platform.

To add a left outer join to a record:

1. Access the Query Manager search page by selecting Reporting Tools >Query >Query Manager.
2. Click the Create New Query link, add a record, and select fields.

Alternatively, open an existing query.

3. Access the Records page.
4. Find the joining record and then click the Join Record link on the same row as that record.
5. Select the Join to get additional fields only (Left outer join) option.

Note: You can add a left outer join to any record in a query.

6. Complete the join.
 - If the Enable Auto Join preference is selected on the Query Preference page, click the record name to join with.
 - If the Enable Auto Join preference is not selected on the Query Preference page, click the OK button.

7. Define the join criteria.

- If the Enable Auto Join preference is selected, the Auto Join Criteria page appears.

You can clear the criteria from the query. You can also click the Add Criteria button to add or edit criteria or conditions. If no common keys are between the two join records, a message appears instead of the Add Criteria page.

- If the Enable Auto Join preference is not selected, the Auto Join Criteria page does *not* appear.

If you want, navigate to the Criteria page to add criteria to the ON clause of the outer join. The *This Criteria Belongs To* drop-down list specifies where the criteria will appear. Select the alias that corresponds to this join record.

8. Define the effective date criteria.

- For 2–3 tier client: If the joined record is an effective-dated record, the Effective Date Criteria page appears.

You can accept the defaults or change them as desired.

- For 4–tier PeopleSoft Pure Internet Architecture: If the joined record is an effective dated record, a message appears stating that an effective date criteria has been automatically added.

Optionally, you can navigate to the Criteria page to change the defaults for this criteria.

9. To ensure that the left outer join finished successfully, navigate to the Query page.

Text for the joined records confirms a successful left outer join.

10. (Optional) If the query has multiple joins to the same security record, which can be resource intensive and time consuming when it runs, select the Security Join Optimizer option to improve the performance of this query.

See [Viewing and Editing Query Properties](#).

If you use PeopleSoft Query with the DB2 UDB platform, the DB2 UDB platform does not allow you to have a subquery in the ON clause of a left outer join. For example:

```
SELECT A.ROLENAME, A.DESCR FROM (PSROLEUSER B LEFT OUTER JOIN
PSOPRDEFN C ON B.ROLEUSER IN (SELECT F.OPRID FROM PSOPRDEFN F WHERE
F.OPRID IN ('AMA1', 'AMA2', 'AMA3')))
```

This code yields the following error message: “SQL0338N An ON clause associated with a JOIN operator or in a MERGE statement is not valid.”

Note: Use the `SELECT DISTINCT` operation when you create a left outer join on two records with two separate security records. Using the `SELECT` operation in this case will cause the query to pull in too many records.

PeopleSoft Query automatically includes an `OR IS NULL` condition to make sure all relevant records are included.

Adding Left Outer Joins Criteria into the ON Clause

If you want to create criteria for the left outer joined record, you can add left outer joins criteria into the ON clause.

To create left outer joins criteria into the ON clause:

1. On the Criteria page (Reporting Tools >Query >Query Manager >Criteria)click the Edit button to access the Edit Criteria Properties page.
2. On the Edit Criteria Properties page, select *ON clause of outer join <Alias Name>* from the This Criteria Belongs To drop-down list.
3. Click the OK button.

Using Connected Query

Understanding Connected Query

Connected Query Overview

Connected Query enables you to create a single XML file based on a set of queries with parent-child relationships.

A connected query is a hierarchical object built with existing PeopleSoft queries. A parent query can nest n levels of child queries and any child query can have m sibling queries within a hierarchy. No artificial limits exist for n and m , but typical use involves a single parent-child relationship or a few levels of nesting. Fields in a child query are mapped to related fields in the immediate parent query. A connected query returns a hierarchical data set in which data returned by child queries is filtered by the results of its immediate parent query.

Connected queries are used to analyze data, supply to other systems with PeopleSoft data using Web Services, and create BI Publisher reports that use connected query as a Data Source.

See "Creating Data Sources" (PeopleTools 8.56: BI Publisher for PeopleSoft), "Registering Data Sources" (PeopleTools 8.56: BI Publisher for PeopleSoft), "Running BI Publisher PeopleSoft Query Reports" (PeopleTools 8.56: BI Publisher for PeopleSoft).

Connected queries are significantly useful:

- To simplify task for a business user.

User create a set of linked simple queries to collect data from multiple tables instead of creating a complicated query with multiple equal, outer joins, and grouping conditions.

- As a tool to combine the main report and its subreports in the same template for using with BI Publisher reports.
- When outputs need to be in structured XML.

A simple query (including a query with multiple joins) creates a tabular plain layout. To have a hierarchical output, you need to use multiple grouping conditions that involve complicated logic and is not always straight forward. Connected Query processing creates a hierarchical output where a single row of data from parent query results in a set of rows in a child query. This data is processed row by row and produces structured data. It has similarity with SQR and Application Engine nested loops processing.

Instead of using Application Engine or SQR to collect data for file processing by BI Publisher, use Connected Query as the data collection tool because no conditional logic involves in this process. However, use SQR for processes with high volume of data or when high performance is required.

You can quickly create a single parent-child relationship using the Connected Query Quick Start component (CQ_WIZARD), and create complex connected queries using the Connected Query Manager (PSCONQRS).

Note: Queries with In-Tree prompt cannot be used in Connected Query.

Connected Query Terms

Parent 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.

Child 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.

Sibling Query

A sibling query in a connected query is a child query that shares a parent with another child query.

Public Connected Query

Public connected query is a query that can be used by all users.

Note: Public connected queries cannot include any private query.

Private Connected Query

Private connected query is a query that can be used only by its creator.

Note: Private connected queries include public queries and private queries that have been created by the same user.

Mapping Query Fields

Mapping query fields establishes the filtering relationship between values of selected fields in a child query and the corresponding fields in the parent query.



Use the Help icon to retrieve help for a specific topic.

Note: The Help icon is available in Connected Query Quick Start and on the Connected Query Properties page (PSCONQRSPROPS) in Connected Query Manager.

Connected Query Example

Image: Example of Connected Query's structure

This example shows the structure that Connected Query uses to collect data of each employee, who directly and indirectly reports to specific departments.

The screenshot shows the 'Connected Query Manager' interface. At the top, the query name is 'QE_EMPLOYEE_REPORTING_DETAILS' with a 'Transformations' button. Below it is an 'Owner ID' dropdown and a 'Properties' button. There is a 'Public' checkbox and a '*Status' dropdown set to 'Active'. A 'Description' section contains a 'Description' field with 'Employee Reporting Rollup' and a 'Comments' field with 'Employee Reporting Details based on QE_PERS_DATA tree'. A 'Parent Query Selection' section has a 'Parent Query' field with 'QE_DEPARTMENTS_ROLLUP_PERS' and a 'View Query' button. Below this is a table titled 'Connected Query Structure' with columns 'Field1', 'Field2', and 'Field3'. The table lists three queries: 'QE_DEPARTMENTS_ROLLUP_PERS' (fields: A.SETID, A.TREE_NAME, B.TREE_NODE_NUM), 'QE_EMPLOYEE_FROM_PERSDATA_TREE' (fields: A.SETID, A.TREE_NAME, A.TREE_NODE_NUM), and 'QE_EMPLOYEE' (empty fields). Below the table is a 'QE_DEPARTMENT_DATA' entry. At the bottom, there is a 'Preview XML' button, a 'Max Rows Fetched for Query' field set to '6', and 'Save' and 'Cancel' buttons.

In this example:

- The first query (QE_DEPARTMENTS_ROLLUP_PERS) selects a list of departments that report to a specific department defined by user in the first query prompt.
- The second query (QE_EMPLOYEE_FROM_PERSDATA_TREE) selects lists of employee based on the departments returned from the parent query.

Query QE_EMPLOYEE displays detailed information of every employee that is selected by query QE_EMPLOYEE_FROM_PERSDATA_TREE.

- The last query (QE_DEPARTMENT_DATA) displays detailed information of each department that participated in the report.

Connected Query Processing Options

You can run a connected query using one of the following options:

- PeopleCode-based Preview XML

Connected Query Report Developers use the Preview XML button to run a connected query using the application server when they build a new or edit an existing connected query. This option does not require saving the connected query to the database.

See [Using Connected Query Viewer](#).

- C++ based CQRuntime

End users use the CQRuntime option to run a connected query using the Process Scheduler server. This method requires saving the connected query object to the database before running it.

See [Using Connected Query Scheduler](#).

- C++ based CQRuntime with the OrderBy Runtime option

If you use C++ based CQRuntime with the OrderBy Runtime option, parent and child queries are dynamically altered to include the ORDER BY clause, every SQL statement runs once, and the connected query dramatically cuts the number of SQL statements that are generated at runtime. As a result, processing is faster and consumes fewer server resources.

Note: Report developers can set the OrderBy processing option for all members or some members of the specific connected query.

See the Using the OrderBy Processing Option section in [Using Connected Query Manager](#).

Security for Connected Query

The following table lists the delivered Connected Query permission lists and roles.

<i>Permission List</i>	<i>Role</i>	<i>Description</i>
PTPT2700	Connected Query Developer	Provides full access to Connected Query applications.
PTPT2800	Connected Query User	Provides access to run, preview results, and schedule a connected query. Users are not able to modify existing or create new connected queries.

Using Connected Query Quick Start

Understanding Connected Query Quick Start

The Connected Query Quick Start is a wizard that walks you through creating a simple connected query with a single parent query and a single child query linked using a set of related fields.

Note: The parent and child queries must exist and be visible in Query Manager before you can use them to create a connected query.

You cannot specify a child query in a connected query that is defined in a union.

Connected Query Quick Start is used only for creating new connected queries. You can edit existing connected queries using the Connected Query Manager page.

Connected query uses query security permissions for each of its member queries.

Related Links

[Creating New Queries](#)

[Understanding Connected Query Manager](#)

Step 1: Enter Connected Query Name and Descriptive Information

Use the Connected Query Quick Start - Step 1 (CQ_WZ_INFO) to enter a connected query name and descriptive information, and define ownership of the connected query.

Navigation

Reporting Tools >Connected Query >Connected Query Quick Start

Image: Connected Query Quick Start - Step 1

This example illustrates the fields and controls on the Connected Query Quick Start - Step 1. Definitions for the fields and controls appear following the example.

Connected Query

This is a required field.

Enter a name for the connected query.

Note: The name of the connected query cannot be changed after you enter the name into the Select a Child Query page of a Connected Query Quick Start.

Because Connected Query uses query name as an XML node, query names used in a Connected Query must follow these naming rules:

- Query names can include letters, numbers, and other characters.

However, query names cannot include spaces.

- Query names can start with letters *xml* (or *XML*, *Xml*, and so on).

However, these names cannot consist of only three letters *XML*.

- Query names cannot start with a number nor a punctuation character.

If a query name starts with an alpha or underscore [_] character, the query node name in an XML file will be the same as the query name. Otherwise, the query node name will be the query name with the prefix *PS_*. For example:

- Query `MyQuery123` is written to the output XML file as `MyQuery123`.
- Query `_MyQueryA` is written to the output XML file as `_MyQueryA`.
- Query `123MyQuery` is written to the output XML file as `PS_123MyQuery`.

Public

Indicate the query ownership.

If the Public check box is selected, this connected query will be public. If the Public check box is not selected, this connected query will be private.

Note: The ownership of the connected query cannot be changed after you enter data into the Select a Child Query page of a Connected Query Quick Start.

Description

(Optional) Enter a description for the connected query.

Comments

(Optional) Enter comments for the connected query.

Next

Note: The Next button is available after you enter the name of the connected query in the Connected Query field and move to any other field.

Click to advance the wizard to the next page.

Step 2: Select a Parent Query

Use the Connected Query Quick Start - Step 2 (CQ_WZ_PARENT) to select an existing query to use as the parent query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Quick Start.
2. Enter a connected query and descriptive information, and click the Next button.

Image: Connected Query Quick Start - Step 2

This example illustrates the fields and controls on the Connected Query Quick Start - Step 2. Definitions for the fields and controls appear following the example.

Connected Query Quick Start Step 2 of 5

Create a simple parent-child Query relationship between two Queries

1 2 3 4 5 < Previous Next > ?

Select a Parent Query

Connected Query Definition	
Connected Query	ENROLLMENT_CRSE_SSNN <input checked="" type="checkbox"/> Public
Description	Enrollment and Course Session
Comments	List of enrollment for each course session.

Parent Query: ENROLLMENTS

Parent Query

Click the query Lookup icon to select a parent query from a list of queries for which you have been granted access.

Note: You must use the query Lookup icon to select a parent query and be able to move to the next page.

View Query

Click to open Query Manager component in read-only mode to view the query.

Next

This button becomes active after you select a parent query.

Click to advance the wizard to the next page.

Step 3: Select a Child Query

Use the Connected Query Quick Start - Step 3 (CQ_WZ_CHILDQRY) to select an existing query to use as the child query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Quick Start.
2. Enter a connected query and descriptive information, and click the Next button.
3. Select an existing query to use as the parent query, and click the Next button.

Image: Connected Query Quick Start - Step 3

This example illustrates the fields and controls on the Connected Query Quick Start - Step 3. Definitions for the fields and controls appear following the example.

Connected Query Quick Start Step 3 of 5

Create a simple parent-child Query relationship between two Queries

1 2 **3** 4 5 < Previous Next > ?

Select a Child Query

Connected Query Definition

Connected Query ENROLLMENT_CRSE_SSN **Public**

Description Enrollment and Course Session

Comments List of enrollment for each course session.

Connected Query Structure

- ENROLLMENTS
- CRSE_SESSIONS

Child Query: 🔍 View Query

Child Query

Click the query Lookup icon to select a child query from a list of queries for which you have been granted access.

After you select a child query, its name appears in the Connected Query Structure section.

View Query

This button becomes active after you select a child query.

Click to open Query Manager component in read-only mode to view the query.

Next

This button becomes active after you select a child query using the Lookup icon.

Click to advance the wizard to the next page.

Step 4: Map Child Query Fields to Parent Query for Filtering

Use the Connected Query Quick Start - Step 4 (CQ_WZ_FLDMAP) to map query fields from a child query to corresponding fields from a parent query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Quick Start.
2. Enter a connected query and descriptive information, and click the Next button.
3. Select an existing query to use as the parent query, and click the Next button.
4. Select an existing query to use as the child query, and click the Next button.

Image: Connected Query Quick Start - Step 4

This example illustrates the fields and controls on the Connected Query Quick Start - Step 4. Definitions for the fields and controls appear following the example.

Connected Query Quick Start Step 4 of 5

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

1
2
3
4
5

< Previous
Next >

?

Map Child Query fields to Parent Query fields for Filtering

Connected Query Definition

Connected Query ENROLLMENT_CRSE_SSNN **Public**

Description Enrollment and Course Session

Comments List of enrollment for each course session.

Connected Query Structure

ENROLLMENTS

CRSE_SESSIONS

Map Fields

▼ Parent Query - ENROLLMENTS

Key	Parent Query Field	Format
	B.STUDENT_NAME - Student Name	CHAR 50
	A.COURSE - Course Code	CHAR 6
	A.ENROLL_DT - Enroll Date	DATE 10
	A.ENROLL_STATUS - Enrollment Status	CHAR 3

▼ Child Query - CRSE_SESSIONS

Select	Key	Select a Child Query Field	Format	*Select a Parent Query Field
<input type="checkbox"/>		A.TRAINING_LOC - Training Location	CHAR 6	
<input type="checkbox"/>		A.START_DATE - Start Date	DATE 10	
<input type="checkbox"/>		A.END_DATE - End Date	DATE 10	
<input checked="" type="checkbox"/>		A.COURSE - Course Code	CHAR 6	A.COURSE
<input type="checkbox"/>		A.INSTRUCTOR - Instructor	CHAR 4	

This page displays two sets of fields coming from parent and child queries:

- The parent query section displays parent query fields and is for informational purposes only.

This section is collapsed by default and you have the option to expand it.

- The child query section displays child query fields and enables the report developer to select one or more fields for mapping.

For each child query field selection, a drop-down list with possible parent query field lists appears. Those parent query field lists are filtered by compatible field data types. In some cases, Connected Query Manager uses *smart thinking* to map fields based on partial matching names but ultimate field matching is up to the user.

Map Field

Click to update the Connected Query structure.

Note: The Fields column in the Connected Query Structure section displays the values that you just selected.

Next

This button becomes active after you select the fields for mapping and click the Map Fields button.

Click to advance the wizard to the next page.

Image: Connected Query Quick Start - Step 4

This example illustrates the fields and controls on the Connected Query Quick Start - Step 4. Fields are mapped and Connected Query structure is updated.

Connected Query Quick Start Step 4 of 5

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

1
2
3
4
5
< Previous
Next >
?

Map Child Query fields to Parent Query fields for Filtering

Connected Query Definition

Connected Query ENROLLMENT_CRSE_SSNN **Public**

Description Enrollment and Course Session

Comments List of enrollment for each course session.

Connected Query Structure	Field1
ENROLLMENTS	A.COURSE
CRSE_SESSIONS	A.COURSE

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

Select	Key	Select a Child Query Field	Format	*Select a Parent Query Field
<input type="checkbox"/>		A.TRAINING_LOC - Training Location	CHAR 6	
<input type="checkbox"/>		A.START_DATE - Start Date	DATE 10	
<input type="checkbox"/>		A.END_DATE - End Date	DATE 10	
<input checked="" type="checkbox"/>	🔑	A.COURSE - Course Code	CHAR 6	A.COURSE
<input type="checkbox"/>		A.INSTRUCTOR - Instructor	CHAR 4	

Step 5: Preview a Connected Query

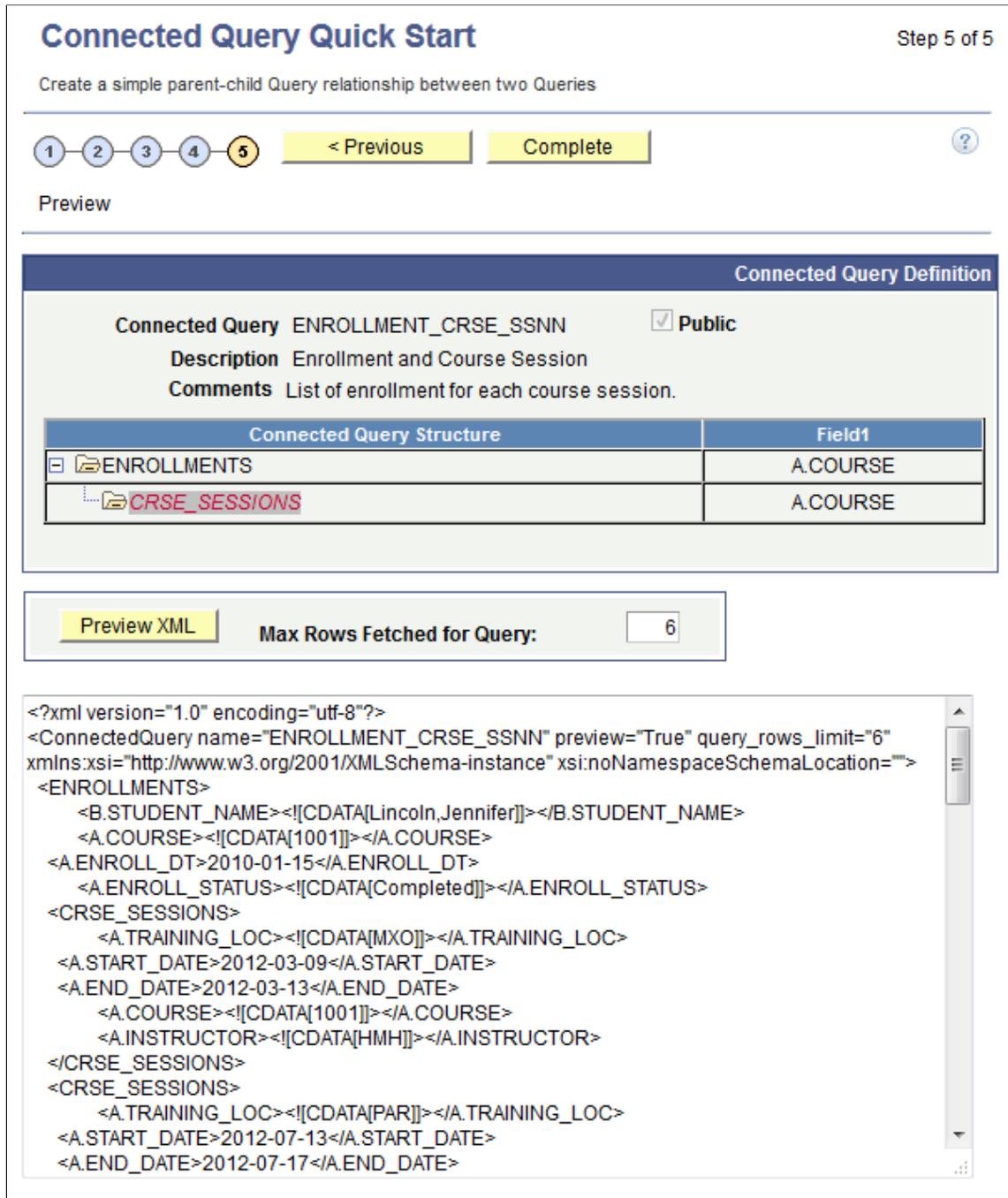
Report developers use the Connected Query Quick Start - Step 5 (CQ_WZ_PREVIEW) to review a new connected query and preview the results by running it in a preview mode with a limited number of rows returned from each query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Quick Start.
2. Enter a connected query and descriptive information, and click the Next button.
3. Select an existing query to use as the parent query, and click the Next button.
4. Select an existing query to use as the child query, and click the Next button.
5. Map query fields from a child query to corresponding fields from a parent query, and click the Next button.

Image: Connected Query Quick Start - Step 5

This example illustrates the fields and controls on the Connected Query Quick Start - Step 5. Definitions for the fields and controls appear following the example.



Preview XML

Click to display the formatted XML output for this connected query.

XML output appears in a Preview mode, in the lower section of the Preview page.

Max Rows Fetched For Query

Enter the maximum number of rows to display in Preview mode by each member query.

Note: You should limit the number of rows that are being fetched. The default value is 6. If you enter 0 or clear this text box, no row limits are imposed for a resulting XML, which can cause significant delay in getting results; and because the application runs in synchronized mode using the application server, you may get browser time-out or tuxedo time-out.

Complete

Click to transfer to Connected Query Manager page, where you can perform enhancements and save the connected query.

Note: While working with a Connected Query Quick Start, you can modify your previous selections at any step by clicking the step number (in yellow or gray) icons. Changes in your selection could change a connection query structure.

Note: In the Connected Query Quick Start - Preview page, when XML that contains CDATA sections is displayed at runtime, application users will see `<![CDATA* and *]>` in places of `<![CDATA[and]]>`.

Using Connected Query Manager

Understanding Connected Query Manager

Connected Query Manager enables a report developer to create a new connected query, edit an existing connected query, copy existing connected queries, and delete a connected query object, as well as run connected queries in three modes:

- Preview XML
- Run to window
- Schedule

The queries you defined in a connected query must exist as PeopleSoft queries in the database. In addition, you cannot specify a child query in a connected query that is defined in a union.

Connected Query Manager supports XML output format and user-defined output format (XFORM, which triggers a transformation XSLT). Connected Query structure consists of a set of PeopleSoft queries that are linked by related fields. No limits exist for the number of fields being linked between two queries. Parent and child pairs of queries can be linked together using sets of correlated fields, though those linkages are not required.

Each query being selected in a connected query structure has a set of image icons, which enables you to perform various actions:



Click the Insert Child Query icon to insert a new query as a child of the selected query.



Click the Insert Sibling Query icon to insert a new query as a sibling of the selected query.



Click the Delete Query icon to delete a selected query.



Click the Select Related Field icon to open a related field selection section.



Click the Open Query icon to open a selected query in Query Manager in read-only mode.

Note: While deciding which tool to use for reporting purposes, report developer should consider using a single query with joins and unions first. Using Connected Query could affect the performance of the reporting application.

The main contributing factor to the Connected Query performance is the number of nested levels. Application developer should try to minimize the depth of nesting in a Connected Query structure. Another contributing factor is the number of rows being returned from each query. To achieve a better performance, queries that are positioned higher in a Connected Query hierarchy should be limited in the number of rows being returned. This limitation could be achieved by means of using filtering in parent queries.

Related Links

"Understanding Projects" (PeopleTools 8.56: Application Designer Developer's Guide)

"Creating and Saving Projects" (PeopleTools 8.56: Application Designer Developer's Guide)

Creating a Connected Query

Use the Connected Query Manager page (PSCONQRSBUILDER) to create and maintain connected queries.

1. Select Reporting Tools >Connected Query >Connected Query Manager.
2. Select the Add a New Value tab.

Alternatively, click the Edit link.

Image: Connected Query Manager page

This example illustrates the fields and controls on the Connected Query Manager page. Definitions for the fields and controls appear following the example.

Connected Query Manager

Connected Query **EMPLOYEE_REPORTING_DETAILS** Transformations

Owner ID Properties

Public *Status **Active**

Description

Description

Comments

Parent Query Selection

Parent Query View Query

Connected Query Structure	Field1	Field2	Field3
<input type="checkbox"/> QE_DEPARTMENTS_ROLLUP_PERS	A.SETID	A.TREE_NAME	B.TREE_NODE_NUM
<input checked="" type="checkbox"/> QE_EMPLOYEE_FROM_PERSDATA_TREE	A.SETID	A.TREE_NAME	A.TREE_NODE_NUM
<input type="checkbox"/> QE_EMPLOYEE			
<input type="checkbox"/> QE_DEPARTMENT_DATA			

Preview XML Max Rows Fetched for Query Save Cancel

Connected Query

Enter a name for the connected query.

Transformations

Click to access the Connected Query Transformation page, where you can view, add, or modify the list of transformation program XSLTs that are defined for the connected query.

Public

Indicate the query ownership. Select to indicate that this is a public query. Clear this check box to indicate that this is a private query.

Note: Public connected queries can be run by any user with adequate permissions. Private connected queries can be run and edited only by the owner.

Status

Select the status of the connected query. Values are:

- *Active*: Enables user to schedule a connected query.

- *In Progress*: Enables user to preview a connected query, but that connected query is not visible by other reporting tools—for example, BI Publisher.

Any connected query with an *In Progress* status can be previewed, but not scheduled.

- *Inactive*: Indicates a connected query that does not pass a validation routine.

Properties

The Properties button is active only after you select a parent query.

Click to access the Connected Query Properties page.

Description

Enter a description for the connected query.

Comments

Enter comments for the connected query.

Parent Query Selection

Click the search icon to select a parent query from an existing list.

Note: You must use the search icon to search for and select a parent query. After you select a parent query, all buttons become active and the Connected Query Structure section appears with active icons, which enables you to continue building a connected query.

View Query

Click to open the selected query in read-only mode in the Query Manager component.

Query Manager opened from Connected Query is fully functional but does not allow you to save any changes.

Connected Query Structure

This section appears after you select a parent query. It displays the image icons that you can use to further develop the Connected Query structure.

See the Understanding Connected Query Manager section earlier in this topic for a description of the icons.

Note: If parent and child queries are not linked with some fields, each row of data for a parent query will have *all* rows from a child query as no filtering from a parent to child will happen. For example, Project is a parent query and Project Description is a child query. The Project and Project Description queries are linked by the Project_ID field that will assume one-to-one relationship (assuming no EFFDT field exists in a second query). Therefore, if the Project query returns 100 rows, the Project Description query will return a single row for the Project query, and resulted data set will have 100 rows of data. If no field is selected as a mapped field (Project_ID field), Connected Query returns $100 \times 100 = 10000$ rows. Sometimes mapped fields are not needed, in which case the system displays a warning message when you save the connected query (Connected Query design time).

Use 'Order By' processing

This option is only available when the SupportsOrderBy option in the Connected Query Properties page is set to True.

Select to apply the OrderBy processing option at runtime.

Note: This option is always selected for the first query and you cannot modify it. For the following queries, this option becomes active when you click the query name in the Connected Query Structure column.

The OrderBy processing option is not used if the connected query is running in the Preview XML mode.

When you reopen the Connected Query Property page and set the SupportsOrderBy property to False, the Use OrderBy Processing column is not available in the Connected Query Manager page. If you later set the SupportsOrderBy property back to True, the system will display the processing property that you previously selected.

See the Using the OrderBy Processing Option section in [Using Connected Query Manager](#).

Preview XML

This button becomes active after you select a parent query.

Click this button at any time to preview the XML report in a separate window.

Save

This button becomes active after you select a parent query.

Click this button to save your connected query. You can save the connected query as soon as you have added one parent query.

Steps Used to Create a Connected Query

To create a connected query using Connected Query Manager:

1. Select Reporting Tools > Connected Query > Connected Query Manager.

2. Select the Add a New Value tab.

The Connected Query Manager page appears.

3. Enter a name in the Connected Query field.

The connected query name must be unique to all private and public queries.

4. Define query ownership using the Public check box.

By default, the Public check box is selected to indicate that this connected query is a public connected query. You can clear the Public check box if you want this connected query to be private .

5. Select the status of the connected query using the Status drop-down list.

Note: The *Inactive* status indicates that a connected query does not pass a validation routine. When a connected query is not valid, this status is set automatically during the Save process.

- Select the *Active* option to enable the user to schedule a connected query.
- Select the *In Progress* option to indicate that this query can be previewed in Connected Query Manager, but can not be scheduled.

The *In Progress* status is useful when a connected query is not ready for end user to view using the Connected Query Viewer page.

6. Optionally, enter description and comments for the connected query using the Description and Comments fields.

If the Description field is blank, Connected Query populates the description using the connected query name.

7. In the Parent Query field, click the search icon to select a parent query from an existing list.

Note: You must use the search icon to search for and select a parent query. After you select a parent query, all buttons become active and the Connected Query Structure section appears with active icons, which enables you to continue building a connected query.

8. Optionally, click the View Query button to view the selected query.

Note: You can preview a connected query at any point without having previously saved it.

9. Optionally, continue building your connected query by adding child queries, linking fields between parent and child queries, and so on.

10. Save your connected query.

Because connected query can be created with one parent query presented, you can save your connected query and use it as a new connected query.

Viewing and Editing Data Transformations for a Connected Query

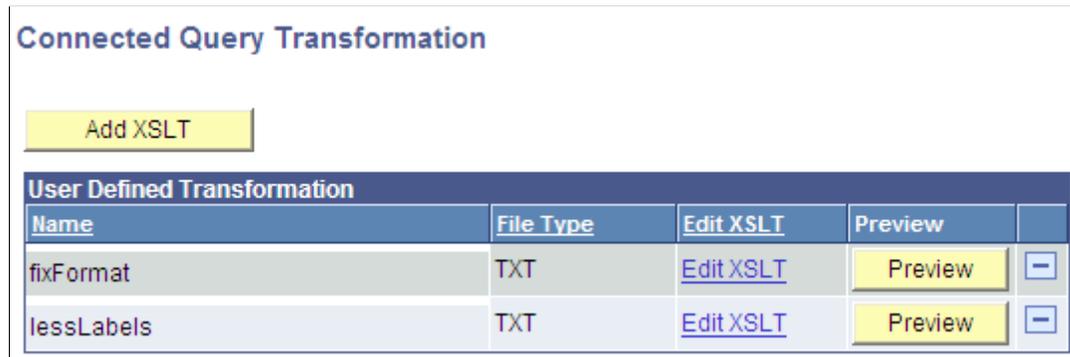
Use the Connected Query Transformation page (PSCONQRSXSLT) to view, add, or modify the list of transformation program XSLTs that are defined for the connected query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Manager.
2. Click the Transformations button.

Image: Connected Query Transformation page

This example illustrates the fields and controls on the Connected Query Transformation page.



Note: When you click the Preview button to view sample output of the connected query with transformation, the maximum number of rows that will appear in the output depends on the value that you set in the Max Rows Fetched for Query field in the Connected Query Manager page.

See [Extracting and Transforming Data from PeopleSoft Pure Internet Architecture](#).

Setting Connected Query Properties

Report developers use the Connected Query Properties page (PSCONQRSPROP) to associate a set of properties with a connected query definition, modify values of execution or output XML file based on user-selected properties, and ensure that user-selected properties (with PeopleTools projects) are compatible with PeopleTools 8.50 and later releases.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Manager.
2. Select the Add a New Value tab, or click the Edit link.
3. On the Connected Query Manager page, click the Properties button.

Image: Connected Query Properties page

This example illustrates the fields and controls on the Connected Query Properties page. You can find definitions for the fields and controls later on this page.

Connected Query Properties		
Connected Query Properties		
Property Name	*Property Value	Default Value
ExecutionLog	False ▼	False
IgnoreRelFieldOutput	False ▼	False
IsDebugMode	False ▼	False
ShowEmptyXML	False ▼	False
ShowFormattedXML	False ▼	False
SupportsOrderBy	False ▼	False

ExecutionLog

The valid values are:

- *True*.
- *False*. (Default.)

If ExecutionLog is set to *True*, an execution log is recorded in an appropriate log file. Recording includes regular logging and output statistics section.

IgnoreRelFieldOutput

The valid values are:

- *True*.
- *False*. (Default.)

If IgnoreRelFieldOutput is set to *True*, the output XML file will not repeat mapped field nodes that are associated with a child query. For example, if a parent query has a field DEPTID linked to the child query field DEPARTMENT, node DEPARTMENT will not appear in the XML output file.

IsDebugMode

The valid values are:

- *True*.
- *False*. (Default.)

If IsDebugMode is set to *True*, an execution log is recorded in an appropriate log file. Recording includes regular logging and output statistics section. In addition, if application server executes the connected query (for example, PreView XML), the *True* mode preserves a directory that contains temporary files after a connected query is executed. Log also contains SQL

statement that is generated by each member query as well as values of related fields used to link parent query to its child.

ShowEmptyXML

The valid values are:

- *True*.
- *False*. (Default.)

Set the property to *True* to generate an empty XML data file when a connected query does not retrieve data while running the parent query. You can override this value for a specific connected query using the Connected Query Manager page. If this property is set to *True* and a connected query is being used as a data source for a BI Publisher report, an empty report is generated.

ShowFormattedXML

The valid values are:

- *True*.
- *False*. (Default.)

Available options are *True* and *False* (default).

If ShowFormattedXML is set to *True*, an output XML file will contain node indentations used to format XML. This output is used for XML output shown in the Connected Query Quick Start.

You should set the SHOWFORMATTEDXML property to *True* if you want to use non-XML editors to work with output XML files. However, if you set the SHOWFORMATTEDXML property to *False* (default option), the output files will be smaller.

SupportsOrderBy

The valid values are:

- *True*.

If SupportsOrderBy is set to *True*, the Use OrderBy processing column is available in the Connected Query Manager page.

- *False*. (Default.)

If SupportsOrderBy is set to *False*, the Use OrderBy processing column is not available in the Connected Query Manager page.

Note: You define all connected query properties as strings using the name-value pairs concept. These properties are stored in database-managed tables as a part of the connected query definition. You can preview a connected query XML without storing its properties in the database. If you move the mouse pointer to the Help icon (question mark), a pop-up window appears showing detailed information about all properties.

Using the OrderBy Processing Option

The PeopleCode-based Preview XML and C++ based traditional CQRuntime run each child query multiple times based on data rows that the parent query returns, so the Connected Query application runs the child SQL statement for every parent row with the different bind values. These two running options make the Connected Query application a universal solution that enables users to map multiple queries together without limiting the resulting object structure. Connected Query enables users to map fields between different queries, provide a number of nesting levels, and so on. If the OrderBy run-time optimization is not used, these two running options run plenty of SQL statements that could affect your system performance. The number of generated SQL statements depends on the number of nested levels and on the number of data rows that are returned by higher level queries. The following example describes the difference in executions with and without using of the OrderBy processing option.

Suppose that the connected query EMP_ADR consists of these two hierarchical queries that are linked by the field EMPL_ID:

```
EMP_DET (Level 0)
  EMP_ADDRESS (Level 1)
```

Applying the PeopleCode-based Preview XML and C++ based CQRuntime options, each of the above queries performs a SELECT from a single table. Connected Query application generates the following SQL statements:

```
Level 0: SELECT EMPLID, NAME FROM EMP_DET
  Level 1: SELECT EMPLID, ADDRESS FROM EMP_ADDRESS WHERE EMPLID=:1
```

In the previous SQL statements, Level 1 query (EMP_ADDRESS) runs for every row returned from the Level 0 query (EMP_DET) using a bind variable that is dynamically substituted with the EMPLID field value being returned from the Level 0 query.

If you apply the OrderBy Processing option, both queries are dynamically altered to include the ORDER BY clause, and the Connected Query application generates the following SQL statements:

```
Level 0: SELECT EMPLID, NAME FROM EMP_DET ORDER BY EMPLID
  Level 1: SELECT EMPLID, ADDRESS FROM EMP_ADDRESS ORDER BY EMPLID
```

In the previous SQL statements, every SQL statement runs once. The data set being generated is created by the associated code that processes child query rows based on a concatenated set of related field values being returned from a parent query.

Note: Not all queries in the Connected Query application can apply the OrderBy processing option.

To use the OrderBy processing option, each query with the OrderBy processing turned on should meet the following requirements:

1. Parent and child queries must have one-to-many relationships.

Every row of the related field values of the parent query can correspond to *none*, *one*, or *many rows* of child query data with the same set of related field values. Every row of the related field values of the child query can have *only one row* of parent data for the same set of related field values.

For example, query DEPARTMENT is linked to query EMPLOYEE by the related field DEPTID. Each department has one or more employees, and each employee works in a single department, which is a one-to-many relationship. You can use the OrderBy processing option for this structure if DEPARTMENT is a Level 0 query and EMPLOYEE is a child query. However, if query EMPLOYEE is set at Level 0 and query DEPARTMENT is set as a child query, then you cannot use the OrderBy processing option because multiple employees work in a department, and that is a many-to-one relationship.

In another example, a connected query has query JOB and query EMPLOYEE, and these queries are joined by the JOB_ID field. You can use the OrderBy processing option if:

- JOB_ID is assigned to multiple employees and
- Each employee has only one JOB_ID.

However, you cannot use the OrderBy processing option if:

- JOB_ID is assigned to multiple employees and
- Each employee has multiple JOB_ID assignments.

2. All child queries (sibling queries) that have the same parent query must share the same set of related fields.

For example, assume that a connected query has the following structure:

```
DEP_EMP (Level 0)
  EMPL (Level 1)
  EMPL_DETAILS (Level 1)
```

You can use the OrderBy processing option if:

- DEP_EMP query is linked with EMPL query by the EMPL_ID field and
- DEP_EMP query is linked with EMPL_DETAILS query by the EMPL_ID field.

You cannot use the OrderBy processing option if:

- DEP_EMP query is linked with the EMPL query by the EMPL_ID field and
- DEP_EMP query is linked with the DEP_DETAILS query by the DEPTID field.

3. Child queries that constitute a single hierarchy should be joined by the same set of related fields as their parent and any other fields.

For example, assume that a connected query has the following structure:

```
DEP_EMP > EMPL > EMPL_ADDR
```

You can use the OrderBy processing option if:

- DEP_EMP query is linked with the EMPL query by the EMPL_ID field and
 - Query EMPL is linked to the EMPL_ADDR query by the related fields EMPL_ID and ADDRESS_ID.
4. Related fields that are identified as parent and child query relationships must follow the same field order in each query.
 5. Parent queries on any level should not be restricted to the amount of data they return if the same restrictions do not exist for their child queries.

Note: This rule is not required, but it is highly recommended.

If the parent query limits the number of rows that are returned by any filter (for example, the WHERE clause) in the query and the child query does not use this filter; then Connected Query performance may be less efficient.

If the parent query uses a prompt to limit the amount of data returned, you should add the same prompt to the child query to eliminate extra string processing and improve processing time.

Note: To improve Connected Query performance when creating a connected query, report developers should compare the Connected Query results by running connected queries using the traditional execution algorithm and the OrderBy processing options. It is recommended that Connected Query developer sets the connected query property ExecutionLog to True to analyze the results, and then use the OrderBy processing option only if both processing options return the same number of nodes and improve processing speed.

Setting the SupportsOrderBy Property

To set the SupportsOrderBy property:

1. Select Reporting Tools, Connected Query, Connected Query Manager.
2. Open an existing query and click the Properties button.
3. Select the True option from the Property Value list for the SupportsOrderBy property.
4. Click the OK button to return to the Connected Query Manager page.

Image: Connected Query Manager page

The Use 'Order By' processing column is available in the Connected Query Structure section.

Connected Query Manager

Connected Query PS_MENU

Owner ID

Public

*Status Active

Description

Description PSOFT Menu Structure

Comments

Parent Query Selection

Parent Query PSMENUDEFN

Connected Query Structure	Use 'Order By' processing	Field1
<input type="checkbox"/> PSMENUDEFN	<input checked="" type="checkbox"/>	A.MENUNAME
<input type="checkbox"/> PSMENUITEM	<input checked="" type="checkbox"/>	A.MENUNAME
<input type="checkbox"/> PSMENUITEMLANG	<input checked="" type="checkbox"/>	

Max Rows Fetched for Query

In this example, the Use 'Order By' processing option for the first query PSMENUDEFN is always selected and you cannot modify it. The Use 'Order By' processing options for the following queries become active when you click the query name in the Connected Query Structure column.

If you reopen the Connected Query Property page and set the SupportsOrderBy property to False, then the Use 'Order By' processing column is not available in the Connected Query Manager page. If you later set the SupportsOrderBy property back to True, the system will display the processing option that you previously selected.

Note: The OrderBy processing option is not applied if the connected query is running in the Preview XML mode.

- Select the appropriate options in the Use 'Order By' processing column.

If the Use 'Order By' processing option is selected for a specific query (for example, PSMENUITEM), then:

- The parent query (in this example, PSMENUDEFN) SQL will be modified by adding the ORDER BY clause. Data returned from the parent query will be ordered using a set of related fields defined to link a child query to its parent. In this example, it is the field A.MENUNAME.

- If the parent query (PSMENUDEFN) has an existing ORDER BY clause defined inside the query definition, it will be removed and replaced with the ORDER BY clause being generated by the processor.
- A single SELECT statement based on a query definition will be issued for a child query (PSMENUITEM) with NO FILTERING based on related field values received for a parent query.
- Output XML data will be written row by row for a child query with a reference to the data that is returned from related fields used for a parent query.

6. Click the Save button.

When the SupportsOrderBy property is set to True and you click the Save button on the Connected Query Manager page, the following validation are performed:

- If all members of the connected query have their related fields defined?

This validation is performed for the CQRruntime with or without the OrderBy processing option.

- If each parent query is already ordered by another child and the OrderBy sequence of the fields is not the same for the different child siblings, this message appears noting the bind variables are being replaced with the run-time values: "User selected field %1 in query %2 conflicts with user selected field %3 used in query %4."
- If all related fields being used in the OrderBy processing option include data type other than NUMBER or CHAR, this message appears: "Cannot use 'OrderBy' processing on query %1 as field %2 has unsupported data type."
- If any related field being used in the connected query structure does not exist in the Select List of the correspondent query, this message appears: "Cannot use 'OrderBy' processing on query %1 as related field %2 is not used in query %3 select list."
- If any related field being used in the connected query structure does not exist in the correspondent query, this message appears: "Cannot use 'OrderBy' processing on query %1 as related field %2 does not exist in the query %3."

Note: If an error message appears, the connected query is not saved. You should evaluate the use of the OrderBy processing option on each query or on the connected query, and then save the connected query again.

Using Effective Date Operator in the Connected Query Manager Page

Effective date operator is available in the Connected Query Manager page as a part of the field mapping process. You can select an effective date operator for any of the member queries if a child query has an EFFDT value selected as a related field.

Image: Connected Query Manager page and the Eff Date Operator list

This example shows the Connected Query Manager page and the Eff Date Operator (effective date operator) list.

Connected Query Manager

Connected Query QE_CQ_3PROPS_EFF_DATE Transformations

Owner ID Properties

Public *Status Active

▶ Description

Parent Query Selection

Parent Query: QE_EMPLOYEE View Query

Connected Query Structure	Fields
<div style="border: 1px solid gray; padding: 2px; margin-bottom: 2px;"> QE_EMPLOYEE </div> <div style="border: 1px solid gray; padding: 2px; margin-bottom: 2px;"> QE_PERS_DATA </div> <div style="border: 1px solid gray; padding: 2px;"> QE_DEPARTMENT_DATA_A </div>	<div style="border: 1px solid gray; padding: 2px; margin-bottom: 2px;">A.DEPTID</div> <div style="border: 1px solid gray; padding: 2px; margin-bottom: 2px;"></div> <div style="border: 1px solid gray; padding: 2px;">A.DEPTID</div>

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

▶ Parent Query - QE_EMPLOYEE

Child Query - QE_DEPARTMENT_DATA_A

Select	Key	Select a Child Query Field	Format	*Select a Parent Query Field	*Eff Date Operator
<input type="checkbox"/>		A.SETID - SetID	CHAR 5		
<input checked="" type="checkbox"/>		A.DEPTID - Department	CHAR 10	A.DEPTID	
<input checked="" type="checkbox"/>		A.EFFDT - Effective Date	DATE 10	A.EFFDT	Eff Date =
<input type="checkbox"/>		A.EFF_STATUS - Status as of Effective Date	CHAR 1		
<input type="checkbox"/>		A.DESCR - Description	CHAR 30		
<input type="checkbox"/>		B.SETID - SetID	CHAR 5		
<input type="checkbox"/>		B.TREE_NAME - Tree Name	CHAR 18		
<input type="checkbox"/>		B.TREE_NODE - Tree Node	CHAR 20		

Preview XML
Max Rows Fetched for Query: 6
Save
Cancel

Note that the effective date operator list:

- Is available only if a selected field has a format of *EFFDT*.
- Is available in the Connected Query Manager but not available in the Connected Query Quick Start.
- Has a default operator—an equal operator—like other fields.
- Need not be saved in the database before you preview the XML of a connected query.

Editing a Connected Query

Use the Connected Query Manager search page (PSCONQRSSRCH) to edit a connected query, copy an existing connected query, delete a connected query, preview results of a connected query, schedule a connected query to run immediately with results displayed in a separate window, and schedule a connected query to run at the preset time.

Navigation

Reporting Tools >Connected Query >Connected Query Manager

Image: Connected Query Manager search page

This example illustrates the fields and controls on the Connected Query Manager search page.

Connected Query Manager

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Value](#) | [Add a New Value](#)

Search by: begins with

[Advanced Search](#)
Preview - Max Rows for Query:

Search Results:

Connected Query										
Name	Description	Owner	Status	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Definitional References
CUSTOMERS	Customers	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References
ITEMDEFIN	Items	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References
PORTALREGISTRY_CQ	Portal Registry	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References
PTESCONQRY	Enterprise Scheduler ConQry	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References
PTRS_CONQRY	Reporting Search ConQry	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References
QE_ALL_CAT_CQ	QE_ALL_CAT_CQ	Public	Active	Edit	Copy	Delete	Preview XML	Run To Window	Schedule	Lookup References

To edit existing connected queries:

1. Access the Connected Query Manager page by selecting Reporting Tools >Connected Query >Connected Query Manager.
2. Enter your search criteria and click the Search button.
3. In the Connected Query Manager search page, click the Edit link on the row with the connected query you want to edit.
4. Optionally, change the connected query structure, edit description fields, and change the connected query status.

Copying a Connected Query

Use the Copy a Connected Query page (PSCONQRSCOPY) to copy a connected query.

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Manager.
2. Click the Copy link for the connected query to copy.

Image: Copy Connected Query page

This example illustrates the fields and controls on the Copy Connected Query page.

The screenshot displays the 'Copy Connected Query' page, which is divided into two main sections: 'Source Connected Query' and 'Target Connected Query'.

Source Connected Query:

- Connected Query:** EMPLOYEE_REPORTING_DETAILS
- Status:** Active
- Public**
- Description:** Employee Reporting Rollup
- Comments:** Employee Reporting Details based on QE_PERS_DATA tree

Target Connected Query:

- *Connected Query:** EMPL_RPRT_DETAILS_COPY
- *Status:** Active
- Public**
- Description:** Employee Reporting Rollup
- Comments:** Employee Reporting Details based on QE_PERS_DATA tree

To copy a connected query:

1. Access the Copy Connected Query page by selecting Reporting Tools >Connected Query >Connected Query Manager.
2. Enter your selection criteria and click the Search button.
3. On the Connected Query Manager page, click the Copy link next to the connected query to copy.

To save a copy of the connected query:

1. Change the connected query name in the Target section with a new unique name.
2. Optionally, change ownership, descriptions, or the status of the query.
3. Click the OK button.

Deleting a Connected Query

To delete a connected query:

1. Access the Connected Query Manager page by selecting Reporting Tools >Connected Query >Connected Query Manager.

2. Click the Delete link next to the connected query to delete.

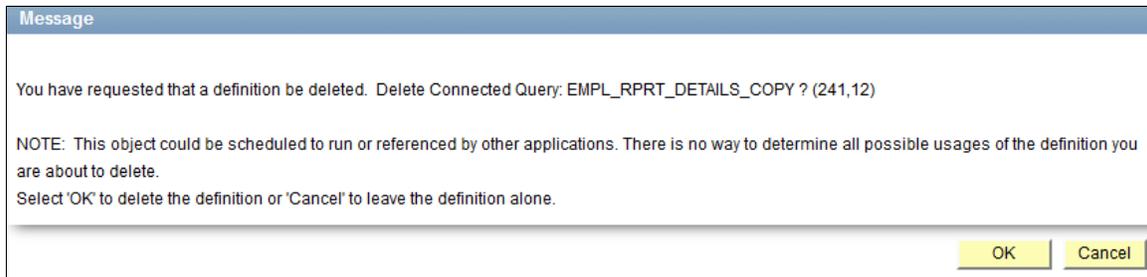
A confirmation message appears asking if you want to delete the existing connected query.

3. Click the OK button to continue and delete the connected query.

Alternatively, click the Cancel button to cancel the deletion and return to the Connected Query Manager page.

Image: Example of the confirmation message

This is an example of the delete confirmation message.



Performing Definitional Reference Lookups in Connected Queries

Use the Definitional References to Connected Query page (PSCONQRS_DEFN_REF) to view all PeopleSoft definitional objects that use this particular connected query as the data source. The results show the definition ID, definition type, and definition sub-types if they are available.

These object types are included in the Definitional References to Connected Query page:

- BI Publisher (with the Report Definition or Data Source Definition subtypes)
- PeopleSoft Search Framework

Navigation

1. Select Reporting Tools >Connected Query >Connected Query Manager.
2. Click the Search button.
3. Click a Lookup References link.

Image: Definitional References to Connected Query page

This example illustrates the fields and controls on the Definitional References to Connected Query page.

Definitional References to Connected Query "QE_SRCH_JOB_OPENING_CQY"	
Definitions referencing "QE_SRCH_JOB_OPENING_CQY"	
Definition ID	Definition Type
QE_ALL_CAT_CQ_SD2	Search Definition
QE_ALL_CAT_SD_CQ2_REM	Search Definition
QE_SES_PPM	Search Definition
QE_SRCH_JOB_FACET_SORT	Search Definition
QE_SRCH_JOB_FACET_SORT_SD	Search Definition
QE_SRCH_JOB_OPENINGS	Search Definition

Note: The Lookup References feature specifically lists only *definitional* references, which are defined PeopleSoft objects of specific types. This feature is not used to find the references that are not *definitional* references, such as Connected Query API references in PeopleCode or any static text references to that Connected Query name, whether in SQL objects, scripts, PeopleCode, and so on.

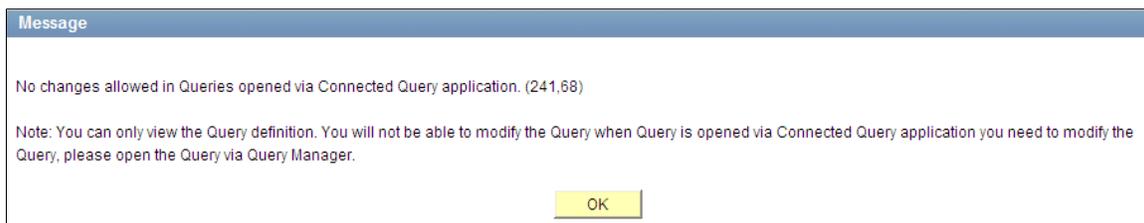
The Lookup References links are available in the Query Manager search page, Query Viewer search page, Connected Query Manager search page, and Connected Query Viewer search page.

Opening a PeopleSoft Query Using Connected Query Manager

When you open a PeopleSoft query using the Connected Query Manager, the Query Manager component appears in a read-only mode along with a message informing you that no changes are allowed to the query that is opened. The Query Manager that is being opened through the Connected Query Manager is fully functional. It enables you to run a query, view SQL that is being generated by query, view the query structure, view query prompts, view query criteria, and so on, but it doesn't allow you to save any changes for the opened query.

Image: Sample message received when you open a PeopleSoft query in the Connected Query Manager

This is an example of the message received when you open a PeopleSoft query in the Connected Query Manager.



Using Connected Query Viewer

Connected Query Viewer is a read-only version of Connected Query Manager. It enables security administrators to limit users with a role of Connected Query User (permission list PTPT2800) to search for and view connected queries that have a status of *Active*.

Use the Connected Query Viewer page (PSCONQRSSRCH) to view the results of a running connected query: preview the XML, schedule a connected query to run immediately with results displayed in a separate window, or schedule the connected query to run at a later time.

Navigation

Reporting Tools >Connected Query >Connected Query Viewer

Image: Connected Query Viewer page

This example illustrates the fields and controls on the Connected Query Viewer page. Definitions for the fields and controls appear following the example.

Connected Query Viewer

Enter any information you have and click Search. Leave fields blank for a list of all values.

Search by: begins with

[Advanced Search](#) Preview - Max Rows for Query:

Search Results:

Connected Query							
Name	Description	Owner	Status	Preview XML	Run To Window	Schedule	Definitional References
CUSTOMERS	Customers	Public	Active	Preview XML	Run To Window	Schedule	Lookup References
ITEMDEFIN	Items	Public	Active	Preview XML	Run To Window	Schedule	Lookup References
PORTALREGISTRY_CQ	Portal Registry	Public	Active	Preview XML	Run To Window	Schedule	Lookup References
PTESCONQRY	Enterprise Scheduler ConQry	Public	Active	Preview XML	Run To Window	Schedule	Lookup References
PTRS_CONQRY	Reporting Search ConQry	Public	Active	Preview XML	Run To Window	Schedule	Lookup References
QE_ALL_CAT_CQ	QE_ALL_CAT_CQ	Public	Active	Preview XML	Run To Window	Schedule	Lookup References

Search

Click to search for a connected query using the basic search function.

Combined with only the *begins with* condition, the basic search enables you to select the following *Search by* criteria: Connected Query Description, Connected Query Name, Connected Query Status, and Owner.

Advanced Search

Click the Advanced Search link to search for a connected query using the advanced search function.

The advanced search enables you to perform a narrower search by using one or more *Search by* criteria and selections of conditions for each *Search by* criterion. You can select the following *Search by* criteria: Connected Query name,

Description, Status, Ownership Type, and Case Sensitive Search.

Preview - Max Rows For Query

Enter a number of rows to be returned from each query in a preview mode.

You should limit the number of rows that are being returned.

The default value is 6. If you enter 0 or clear this text box, no row limits will be imposed for a resulted XML, which can cause a significant delay in getting results; and because the application runs in a synchronized mode using application server, you may get browser time-out or tuxedo time-out errors.

Preview XML

Click a Preview XML link for the selected connected query to view its results in a new browser window.

Note: The Preview XML action uses the Application Server to generate and configure XML data, thus you have to wait for XML data to be available. To keep working while system generates and configures XML data, use the Run to Window link, which does not limit number of rows returned from each query.

If the connected query has prompts, a prompt window appears after you click the Preview XML button.

Run to Windows

Click a Run To Windows link for the selected connected query to schedule that query to be run immediately using PeopleSoft Process Scheduler, and then view its XML results in a new browser window.

Schedule

From the Connected Query Viewer search results page, click the Schedule link that is associated with the connected query.

Connected Query Viewer interacts with PeopleSoft Process Scheduler to enable you to schedule connected queries. You can submit requests to schedule a connected query, check the status of your request using Process Monitor, and view connected query results using Report Manager.

See "Understanding Process Monitor" (PeopleTools 8.56: Process Scheduler), "Viewing the Status of Processes" (PeopleTools 8.56: Process Scheduler), "Administering Report Manager" (PeopleTools 8.56: Process Scheduler).

Lookup References

Click this link to display the Definitional References to Connected Query window where you can view all PeopleSoft definitional objects that use this particular connected query as the data source. The results show the definition ID, definition type, and definition sub-types if they are available.

See Performing Definitional Reference Lookups in Connected Queries in [Using Connected Query Manager](#).

Related Links

"Running BI Publisher PeopleSoft Query Reports" (PeopleTools 8.56: BI Publisher for PeopleSoft)

Using Connected Query Scheduler

Use the Schedule Connected Query page (PSCONQRS_RUN_CNTRL) to schedule a connected query to run in the PeopleSoft Process Scheduler.

Navigation

You can schedule a connected query in three ways:

- Clicking the Run To Window link in the Connected Query Manager search page or the Connected Query Viewer search page.
- Clicking the Schedule link in the Connected Query Manager search page or the Connected Query Viewer search page.
- Selecting Reporting Tools >Connected Query >Connected Query Scheduler.

Connected Query interacts with Application Engine program PSCONQRS to enable you to schedule connected queries. You can search for an existing run control ID or create a new run control ID and schedule a connected query using the Schedule Connected Query page, check the status of your request using the Process Monitor link, and view your output using the Report Manager link.

Image: Schedule Connected Query page

This example illustrates the fields and controls on the Schedule Connected Query page. Definitions for the fields and controls appear following the example.

Schedule Connected Query

Run Control ID: CQ_Schedule [Report Manager](#) [Process Monitor](#) Run

Connected Query Definition

<p>*Connected Query:</p> <input style="width: 90%;" type="text" value="QE_EMPLOYEE_REPORTING_DETAILS"/>	<p>Description:</p> <p>Employee Reporting Rollup</p>
--	---

Report Parameters

[Update Parameters](#)

Query Parameters		
Query Name	Prompt Name	Prompt Value
QE_DEPARTMENTS_ROLLUP_PERS	TREE_NODE	3

Save
Cancel

Report Manager

Click to access the Report Manager page to view the report content after the output file is posted and the output destination is set to *Web* or *Window*.

The final output file is posted to the Report Manager repository for web access by authorized users.

See "Administering Report Manager" (PeopleTools 8.56: Process Scheduler).

Process Monitor

Click to access the Process Monitor page and check the progress of your request.

See "Understanding Process Monitor" (PeopleTools 8.56: Process Scheduler), "Viewing the Status of Processes" (PeopleTools 8.56: Process Scheduler).

Update Parameters

Click to update the runtime prompt values of connected query.

See "Submitting Process Requests" (PeopleTools 8.56: Process Scheduler).

Run

Click to access the Process Scheduler Request page, where you can specify variables, such as where a process runs and in what format the process output is generated. The values for output type and output format appear by default per the report definition and can be changed if the report definition allows it.

Note: The Run button in the Schedule Connected Query page functions as the Schedule link in the Connected Query Manager search page.

Connected Query

Enter or search for a connected query.

Note: On the Schedule Connected Query page, you cannot modify the connected query name after you save the Run Control ID.

Related LinksScheduling Queries

"Understanding the Management of PeopleSoft Process Scheduler" (PeopleTools 8.56: Process Scheduler)

"Running BI Publisher PeopleSoft Query Reports" (PeopleTools 8.56: BI Publisher for PeopleSoft)

Chapter 8

Using Composite Query

Composite Query Overview

Composite Query Overview

Composite Query enables you to combine data from existing queries and then apply filters, aggregates, and so on before presenting the report results, which show the combined data set. Composite Query retrieves multiple levels of related information on existing queries and presents the combined data as a single and flattened query result.

Using Composite Query, you also have the option to:

- Select the SQL pruning option to remove tables and fields that are not needed based on users' attribute selections.
- Set the ORDER BY and GROUP BY clauses.
- Set the WHERE clause as a filter over the result set of a composite query.

Note: Fields in the WHERE clause cannot be pruned.

- Prune the base queries at runtime based on the selected output fields, join criteria, filter criteria, and ORDER BY clause.
- View pruned SQL statements for the composite query.
- Run the composite queries using Application Server.
- Reuse a composite query definition.
- Specify join criteria, field dependencies within a query, and field or table pruning options at query design time.

See [Defining Record and Field Dependencies](#).

- Set the result limit by selecting the attributes in the base queries.

Note: Composite queries created based on web services requests are not persisted in the database. The base queries can be the existing queries that were created using Query Manager, Query API, or QAS.

Composite Query Considerations and Limitations

Using Composite Query, note that:

- Composite Query should not be used for returning a large number of rows. The result set returned from a composite query should be 10,000 rows or less at runtime. The time-out limitation to run a composite query is the time-out limitation of the application servers.

Make sure you construct the Join Criteria, Filter Criteria, and aggregations to reduce the amount of data returned by a composite query.

- Composite query does not change the SQL statements or the result sets of existing queries. If users select the Standard Pruning option or the Prune To Select option, the pruning process removes the selected fields or record from the query's SQL statement if these fields or record are not needed. The Prune To Select pruning option can potentially change the result set.
- Relationships between different base queries are expressed by fields, not by expressions or prompts.
- A composite query can have a sibling at any level. However, no relationship exists between siblings other than that they have the same parent. A Cartesian Join between siblings is possible if the key to join parent and children has the one-to-many or many-to-many relationship. This relationship is different from connected queries, where siblings have the implication of performing the UNION clause to the result of the siblings.
- All base queries collect data from the same database. These base queries are joined through the join criteria, which appears in the FROM clause. Join Criteria are combined using the operator AND to avoid a Cartesian product. Join criteria between base queries does not support Right Outer Join or Outer Join.
- Users must specify the field dependencies to ensure correctness of SQL pruning.

The pruning process may produce incorrect SQL statements if the dependencies are incomplete or incorrect.

See [Defining Record and Field Dependencies](#).

- All fields in base queries must have unique names. By default, the table alias and the field name, with a dot (.) in between, are used as the unique field name.
- If a query has the UNION construct, pruning is based on the main SELECT clause.

If a field is removed from the main SELECT clause, it is removed from the UNION clause based on the pruning rules. If a field is selected in the main SELECT clause, it is automatically selected in the UNION clause.

- The Order By clause in the base queries is removed due to the limitation of Microsoft SQL server. If users need to sort the composite query results, they have to use Composite Query Manager to specify the Order By clause for the composite query.
- A composite query does not parse expressions.

To support different database platforms, users must provide expression syntax as MetaSQL. Otherwise, the composite query will not work for other platforms.

- All related language and XLAT translations are performed at the query level.

Security for Composite Query

Users must have the role of Composite Query Developer or permission list PTPT5100 to access the Composite Query component.

Creating Composite Query Definitions

Specifying Composite Query Properties

Use the Specify Composite Query Manager page (PSCPQINFO) to specify composite query properties.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Select the Add a New Value tab to add a new composite query.

Image: Specify Composite Query Properties page

This example illustrates the fields and controls on the Specify Composite Query Properties page. Definitions for the fields and controls appear following the example.

Composite Query Name

This is a required field.

Enter a unique name for the composite query.

Note: The name of the composite query cannot be changed after you enter the name into the Specify Composite Query Properties page.

Type

Select whether the composite query is *Private* or *Public*.

- *Private*: Only the user ID that created the composite query can open, run, modify, or delete the composite query.

- *Public*: Any user with access to the base queries used by the composite query can run, modify, or delete the composite query.

Status Select the status of the composite query. The available options are *In Progress*, *Active*, or *Inactive*.

Note: Currently, composite queries do not apply the status logic based on the value set in this field; the status logic will be applied to the composite queries in future PeopleTools releases.

Description This is an optional field.
Enter a description for the composite query.

Next Click to advance to the Select Base Query page.

Selecting Base Queries

Use the Select Base Query page (PSCPQSELECTQRY) to select one or two base queries for the composite query.

Note: Currently, only queries that do not have runtime prompts can be selected as base queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Select the Add a New Value tab.
3. Enter the basic information in the Specify Composite Query Properties page and click the Next button.

Image: Select Base Query page

This example illustrates the fields and controls on the Select Base Query page. Definitions for the fields and controls appear following the example.

Select Base Query

Next >

Composite Query Name EMPL AND_JOB

Base Queries

Query Name 1 

Query Alias 1

Query Name 2 

Query Alias 2

Query Name

At least one query must be selected.

The query names cannot be changed after you enter the values into this page and move to the next page.

Query Alias

Enter the query alias name. Note that the query aliases cannot:

- Include any space, special character, or database reserved word.
- Be changed after you enter the values into this page and move to the next page.

Next

This button is available after you select the name of the first base query.

Click this button to advance to the Specify Query Joins page.

Specifying Query Joins

Use the Specify Query Joins page (PSCPQRYJOINS) to define how selected queries (from the Select Base Query page) should be joined.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Select the Add a New Value tab.
3. Enter the basic information in the Specify Composite Properties page and click the Next button.
4. Select two base queries in the Select Base Query page and click the Next button.

Image: Specify Query Joins page

This example illustrates the fields and controls on the Specify Query Joins page. Definitions for the fields and controls appear following the example.

Specify Query Joins

Composite Query Name **EMPL_AND_JOB**

Joins				
Query Alias 1	Query Name 1	*Join to Related Query	Query Alias 2	Query Name 2
EMPLOYEE	QE_EMPLOYEE	Inner Join	JOB	QE_JOBCODE

Query Join Details					
Query Name	*Query Field	*Condition Type	Query Name	*Query Field	
QE_EMPLOYEE	A.QE_JOBCODE	equal to	QE_JOBCODE	A.QE_JOBCODE	+ -

Joins

This section displays the query names and query alias of the selected queries.

You can select a join type from the Join to Related Query drop-down list. The available values are *Inner Join* and *Left Outer Join*.

Query Join Details

Use this section to select the query fields and condition type used to join the selected queries.

- Query Field

The first Query Field drop-down list includes the fields that you have selected as the output fields from the first base query. In the previous example, the first base query is QE_EMPLOYEE.

Select a query field as a mapping field from the first Query Field drop-down list.

- Condition Type

Select a value from the Condition Type drop-down list to define how the field values are compared. Only the subset of the condition types supported by PSQuery is supported by Composite Query. The available options are *equal to*, *greater than*, *less than*, *not greater than*, *not less than*, *equal to*, and *not equal to*.

- Query Field

The second Query Field drop-down list includes the fields that you have selected as output fields from the second base query. In the previous example, the second base query is QE_JOBCODE.

Select a query field as a mapping field from the second Query Field drop-down list.

Next

Click to advance to the Select Output Fields page.

Selecting Output Fields

Use the Select Output Fields (PSCPQOUTPUTFIELDS) page to select the output fields for the composite query. This page displays all fields that are available from the base queries that you selected.

Navigation

1. Select Reporting Tools >Composite Query >Composite Query Manager.
2. Select the Add a New Value tab.
3. Enter the basic information in the Specify Composite Properties page and click the Next button.
4. Select two base queries in the Select Base Query page and click the Next button.
5. Specify query joint and click the Next button.

Image: Specify Output Fields page

This example illustrates the fields and controls on the Specify Output Fields page. Three fields from the first query, QE_EMPLOYEE, are selected and one field from the second query, QE_JOBCODE, is selected.

Select Output Fields

Next >

Composite Query Name EMPL_AND_JOB_2

Fields	Find First 1-12 of 12 Last			
Select	Query Name	Query Alias	Query Field Name	Field Format
	QE_EMPLOYEE	EMPLOYEE		
<input checked="" type="checkbox"/>		EMPLOYEE	A.EMPLID	Char11
<input checked="" type="checkbox"/>		EMPLOYEE	A.EFFDT	Date
<input checked="" type="checkbox"/>		EMPLOYEE	A.QE_EMPLOYEE_NAME	Char60
<input type="checkbox"/>		EMPLOYEE	A.QE_FIRST_NAME	Char50
<input type="checkbox"/>		EMPLOYEE	A.QE_LAST_NAME	Char30
<input type="checkbox"/>		EMPLOYEE	A.QE_SOC_SEC_NBR	Char9
<input type="checkbox"/>		EMPLOYEE	A.QE_JOBCODE	Char6
<input type="checkbox"/>		EMPLOYEE	A.DEPTID	Char10
	QE_JOBCODE	JOB		
<input checked="" type="checkbox"/>		JOB	A.QE_JOBCODE	Char6
<input type="checkbox"/>		JOB	A.DESCR	Char30

[Select All](#) [Clear All](#)

Select Select the check box to the left of each field that you want to add to the composite query output field list.

Select All Click this link to select all fields in the queries.

Clear All Click this link to deselect all fields in the queries.

Note: If the output field of the base query is a drilling URL field or is mapped to the drilling URLs and you add this drilling URL field to the composite query output field list, then you must add all query fields that are used to build the drilling URLs to the composite query output field list.

If the base query includes the drilling URL fields, only the drilling URL fields that have the drilling URL type set to Query, Component, or External are listed in the Select Output Fields page.

Using the Composite Query Manager Page

Use the Composite Query Manager page (PSCPQMAIN) to view and maintain connected queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Search for an existing query and click the corresponding Edit link.

Image: Composite Query Manager page

This example illustrates the fields and controls on the Composite Query Manager page. You can find definitions for the fields and controls later on this page.

The screenshot shows the Composite Query Manager interface for a query named 'EMPL_AND_JOB_2'. The query is public and currently has a status of 'In Progress'. The description is 'Employee and Job Code'. The interface is divided into several sections:

- Query Selected:** A list of fields from the EMPLOYEE and JOB tables. Fields from EMPLOYEE include A.EMPLID, A.EFFDT, A.QE_EMPLOYEE_NAME, A.QE_FIRST_NAME, A.QE_LAST_NAME, A.QE_SOC_SEC_NBR, A.QE_JOBCODE, and A.DEPTID. Fields from JOB include A.QE_JOBCODE and A.DESCR.
- Fields Table:** A table showing the selected fields with their descriptions, formats, headings, and actions.

Description	Field Format	Heading	Order-By	Aggregate	Actions
1 EMPLOYEE."A.EMPLID"	Char11	ID			
2 EMPLOYEE."A.EFFDT"	Date	Eff Date			
3 EMPLOYEE."A.QE_EMPLOYEE_NAME"	Char60	Name			
4 JOB."A.QE_JOBCODE"	Char6	JobCode			

Status

Select the status of the composite query. The available options are *In Progress*, *Active*, or *Inactive*.

Note: Currently, composite queries do not apply the status logic based on the value set in this field, but the status logic will be applied to the composite queries in future PeopleTools releases.

Actions

The available options are:

- **Add Prompt:** Select this option to add additional prompts to the composite query.

See [Defining Composite Query Prompts](#).

- **Add Query:** Select this option to join or add additional base queries to the composite query.

See [Defining Joins in Composite Queries](#).

- **Add Expression:** Select this option to add additional expressions to the composite query.

See [Defining Expressions in Composite Queries](#).

- **Add Drilling URL:** Select this option to add drilling URLs to the composite query.

See [Defining Drilling URLs in Composite Queries](#).

Query Selected

This section lists the queries that you have selected using the Select Base Query page.



Click the Expand icon to expand the list of the fields from the selected query.



Click the Collapse icon to collapse the list of fields from the selected query.



The Query Name icon indicates the name of the base query.



The Query Field icon indicates the name of the fields in the base query.



The Selected as Output Field icon indicates that this field is already selected as an output field for the composite query.

In the previous example, the selected output fields are A.EMPLID, A.EFFDT, A.QE_EMPLOYEE_NAME, and A.QE_JOBCODE.



Click the Add to Output Field List icon to add the corresponding field to the output field list for the composite query.



Click the Menu icon to open the actions menu that is available for the selected query or field.

If you click the Menu icon for a query, the available options are:

- Remove: Select this option to remove the corresponding query and all of its fields from the output field list.
- Select All Fields: Select this option to add all fields of the corresponding query to the output field list.
- Deselect All Fields: Select this option to remove all fields of the corresponding query from the output field list.

If you click the Menu icon for a field, the available options are:

- Add Field: Select this option to add the corresponding field to the output field list.
- Add Filter: Select this option to create a filter for the composite query using the corresponding field.

See [Defining Filters in Composite Queries](#).

Note: If the base query includes drilling URL fields, only the drilling URL fields that have the drilling URL type set to Query, Component, or External are listed in the Query Selected section. If the output field of the base query is a drilling URL field or is mapped to the drilling URLs and you add this drilling URL field to the composite query output field list, then you must add all query fields that are used to build the drilling URLs to the composite query output field list.

Joins

Click this button to display the Joins section and access the Query Join Details page, where you can view, define, and maintain query joins details for the composite query.

See [Defining Joins in Composite Queries](#).

Filters

Click this button to display the Filters section, where you can view and maintain filters criteria for the composite query.

See [Defining Filters in Composite Queries](#).

Having

Click this button to display the Having section, where you can view and maintain the having criteria for the composite query.

See [Defining HAVING Criteria in Composite Queries](#).

SQL

Click this button to display the SQL section, where you can view the SQL statement that is generated for the composite query.

See [Viewing SQL in Composite Queries](#).



Move the mouse over the Options icon to display the action options, which are:

- **Properties:** Select this option to view the properties of the composite query.
- **Run/Preview:** Select this option to preview the composite query results.

See [Previewing Composite Query Results and Viewing Composite Query Properties](#).

Fields

The Fields section displays the output fields of the composite query when you first access the Composite Query Manager page.

Use the Fields section to view, define, and maintain the output fields that are selected for the output column results.

- Initially, the Heading column displays the headings of the fields using the field headings from the base query. If the field is an expression created within the composite query, then this column displays the heading of the expression. You

can use the Edit Field option from the Action icon to edit the headings and field properties.

See [Editing Field Properties](#).

- Use the Order By column to enter the sort order numbers for the output fields.
- Use the Aggregate column to apply aggregate functions to the output fields.

See [Applying Aggregate Functions in Composite Queries](#).

- Use the Action icon to add the output fields as the filters, edit the fields' unique names and headings, edit the fields' group order, move the output fields up or down, or remove the output fields from the output field list.

See [Editing Field Properties](#), [Applying Group By Clause in Composite Queries](#), or [Defining Filters in Composite Queries](#).

Creating a Composite Query Definition

To create a composite query definition:

1. In PeopleSoft PIA, select Reporting Tools, Composite Query, Composite Query Manager.

The Composite Query Manager search page appears.

2. Click the Add a New Value link.

The Specify Composite Query Properties page appears.

3. Enter the composite query name, type, status, and description.

Note: The composite query name must be unique. Values in the Type and Status fields are required.

4. Click the Next button.

The Select Base Query page appears.

5. Select one or two base queries that are used for the composite query.

Note: Queries with runtime prompts cannot be used as base queries for a composite query.

Image: Select Base Query page, QE_EMPLOYEE and QE_JOBCODE

This example illustrates the fields and controls on the Select Base Query page. The first base query is QE_EMPLOYEE, with the alias set to EMPLOYEE. The second base query is QE_JOBCODE, with the alias set to JOB.

6. Click the Next button.

If you select two base queries using the Select Base Query page, the Specify Query Joins page appears, listing the selected queries.

7. Use the Specify Query Joins page to specify query join details.

- a. Select a join type in the Join to Related Query drop-down list.

The available options are *Inner Join* and *Left Outer Join*.

In this example, select the *Inner Join* option.

- b. In the Query Join Details section, note that the first Query Field drop-down list displays the fields that you have selected as output fields from the first base query. The second Query Field drop-down list displays the fields that you have selected as output fields from the second base query.

In this example, the first base query is QE_EMPLOYEE and the second base query is QE_JOBCODE.

- c. Select a query field as a mapping field from the first Query Field drop-down list.

In this example, select A.QE_JOBCODE.

- d. Select a condition type from the Condition Type drop-down list.

Condition type defines how the field values are compared. The available options are *equal to*, *greater than*, *less than*, *not greater than*, *not less than*, *equal to*, and *not equal to*.

- e. Select a query field as a mapping field from the second Query Field drop-down list.

In this example, select A.QE_JOBCODE.

Image: Specify Query Joins page listing the selected queries and the join details

This example illustrates the fields and controls on the Specify Query Joins page listing the selected queries and the join details.

Specify Query Joins

Next >

Composite Query Name **EMPL_AND_JOB**

Joins				
Query Alias 1	Query Name 1	*Join to Related Query	Query Alias 2	Query Name 2
EMPLOYEE	QE_EMPLOYEE	Inner Join ▼	JOB	QE_JOBCODE

Query Join Details					
Query Name	*Query Field	*Condition Type	Query Name	*Query Field	
QE_EMPLOYEE	A.QE_JOBCODE ▼	equal to ▼	QE_JOBCODE	A.QE_JOBCODE ▼	+ -

8. Click the Next button.

The Select Output Fields page appears listing all fields from the selected base queries.

9. Select the output fields for the composite query.

Image: Select Output Fields page, fields are selected

This example illustrates the selections on the Select Output Fields page. The A.EMPLID, A.EFFDT, and A.QE_EMPLOYEE_NAME fields are selected from the QE_EMPLOYEE query. The A.QE_JOBCODE field is selected from the QE_JOBCODE query.

Select Output Fields

Next >

Composite Query Name EMPL_AND_JOB_2

Select	Query Name	Query Alias	Query Field Name	Field Format
	QE_EMPLOYEE	EMPLOYEE		
<input checked="" type="checkbox"/>		EMPLOYEE	A.EMPLID	Char11
<input checked="" type="checkbox"/>		EMPLOYEE	A.EFFDT	Date
<input checked="" type="checkbox"/>		EMPLOYEE	A.QE_EMPLOYEE_NAME	Char60
<input type="checkbox"/>		EMPLOYEE	A.QE_FIRST_NAME	Char50
<input type="checkbox"/>		EMPLOYEE	A.QE_LAST_NAME	Char30
<input type="checkbox"/>		EMPLOYEE	A.QE_SOC_SEC_NBR	Char9
<input type="checkbox"/>		EMPLOYEE	A.QE_JOBCODE	Char6
<input type="checkbox"/>		EMPLOYEE	A.DEPTID	Char10
	QE_JOBCODE	JOB		
<input checked="" type="checkbox"/>		JOB	A.QE_JOBCODE	Char6
<input type="checkbox"/>		JOB	A.DESCR	Char30

[Select All](#) [Clear All](#)

10. Click the Next button.

The Query Composite Manager page appears and displays basic Composite Query definitions that you have defined for the composite query.

11. Click the Save button.

Image: Query Composite Manager page - EMPL_AND_JOB

This example illustrates the EMPL_AND_JOB composite query in the Query Composite Manager page. The Query Selected section displays the EMPLOYEE and JOB as the base queries. The Fields section lists the selected output fields. The A.EMPLID, A.EFFDT, and A.QE_EMPLOYEE_NAME fields are from the EMPLOYEE query. The A.QE_JOBCODE field is from the JOB query.

Composite Query Name: EMPL_AND_JOB_2
 Type: Public
 *Status: In Progress
 Description: Employee and Job Code

Actions: Query Selected
 EMPLOYEE
 JOB

Description	Field Format	Heading	Order-By	Aggregate	Actions
1 EMPLOYEE."A.EMPLID"	Char11	ID			
2 EMPLOYEE."A.EFFDT"	Date	Eff Date			
3 EMPLOYEE."A.QE_EMPLOYEE_NAME"	Char60	Name			
4 JOB."A.QE_JOBCODE"	Char6	JobCode			

Defining Composite Query Prompts

Page Used to Define Composite Query Prompts

Use the Composite Query Manager page - Prompts section and the Edit Prompt Properties page (PSCPQPROMPT_SEC) to add additional prompts to the composite query.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, click the Actions link and select the Add Prompt option.

Image: Composite Query Manager page - Prompts section

This example illustrates the fields and controls on the Composite Query Manager page. The Prompts section lists the defined prompts for the current composite query. In the Prompts section, two options are available from the Action icon: select the Edit option to edit the current prompt properties and select the Remove option to delete the current prompt.

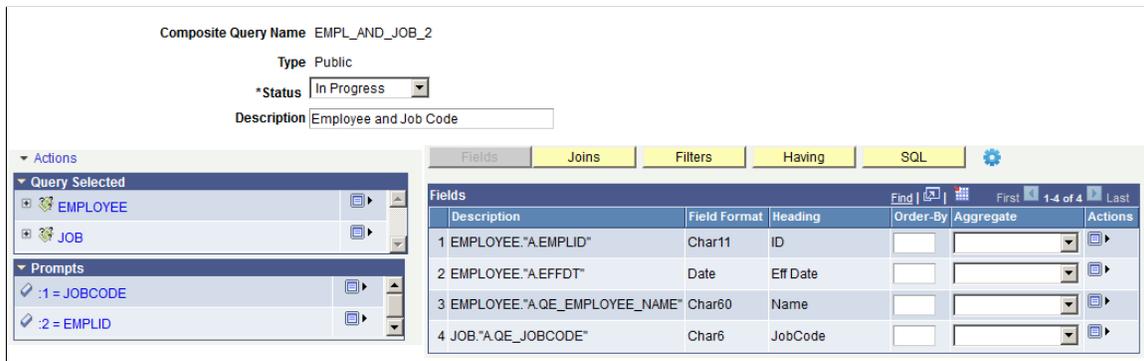
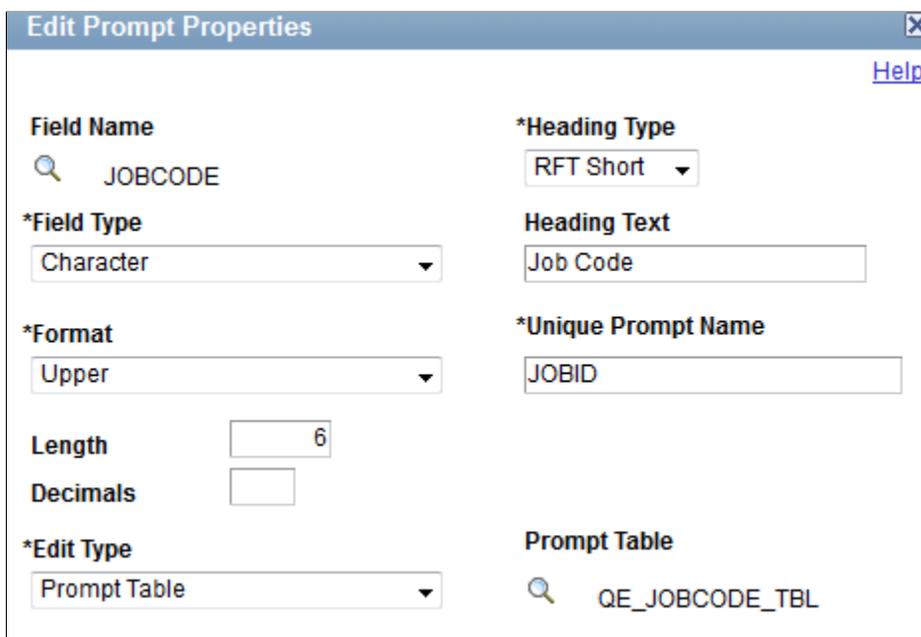


Image: Edit Prompt Properties page for Composite Query

This example illustrates the fields and controls on the Edit Prompt Properties page. Definitions for the fields and controls appear following the example.



Field Type, Format, and Length

The values of these fields appear by default from the field definition in the database.

Decimals

Defines the number of decimal places that are allowed.

Edit Type

Select the appropriate type for the selected field:

- Prompt Table: You search and select only values that exist in a prompt table.

If you select Prompt Table as the edit type, the correct record should appear by default. However, you should verify

that the Prompt Table field displays the record that stores the values that you want users to see.

- Translate Table: You select from a list of values specific to this field that exist in the Translate table.
- Yes/No Table: You select or deselect check boxes.
- No Table Edit: You enter any value. No validation exists on this edit type.

Heading Type

Select a heading type for the prompt from the following values:

- Text: The prompt heading is the free text that you entered in the text box.

Note: For consistency and globalization, manually entering text is discouraged.

- RFT Short: The prompt heading is the short name from the record definition.
- RFT Long: The prompt heading is the long name from the record definition.

Heading Text

Displays the label for the text box where you enter the comparison value.

To change the text, select the Text option from the Heading Type drop-down list and then enter the new label in the Heading Text box.

Unique Prompt Name

A default value that Query Manager generates for globalization. Only base language users can set this value to identify a unique query prompt parameter.

Prompt Table

If the edit type is Prompt Table, you can select a prompt table to use.

If the edit type is Translate Table, the value in the drop-down list determines the values used. Composite Query assumes that the specified field has translate table values associated with it, and that the field is identified as a translate table field in its record definition.

Note: The Edit Prompt Properties page in Composite Query Manager is similar to the Edit Prompt Properties page in Query Manager. See [Defining Prompts](#).

Adding Prompts to Composite Queries

To add prompts to composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.

2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Prompt option.

The Edit Prompt Properties page appears.

4. Specify prompt properties such as field name, heading type, unique prompt name, edit type, and so on.
5. Click the OK button to create the prompt.

The Composite Query Manager page reappears. The newly created prompt is added to the Prompts section.

6. Optionally, use the Action icons in the Prompts section to add the prompts as output fields, edit the prompts, or remove the prompts from the composite query.

Editing Prompts in Composite Queries

To edit prompts in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page - Prompts section, click the Actions icon for the prompt that you want to edit and select the Edit option.

The Edit Prompt Properties page appears.

4. Specify prompt properties such as field name, heading type, unique prompt name, edit type, and so on.
5. Click the OK button to accept the changes.

The Composite Query Manager page reappears listing the modified prompt.

Removing Prompts from Composite Queries

To remove prompts from composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page - Prompts section, click the Actions icon for the prompt that you want to remove from the composite query and select the Remove option.

A warning message appears.

4. Click the OK button.

The Composite Query Manager page reappears. The selected prompt is removed from the Prompts section.

Note: Prompts are not removed from the composite query if they are used as part of the composite query. For example, you cannot remove the prompt from the composite query if that prompt is used as a filter in the composite query.

Defining Joins in Composite Queries

Pages Used to Define Joins in Composite Queries

Use the Composite Query Manager page - Joins section, Look Up Query page (PSXPSRCHQRY_SEC), Query Selected page (PSCPQ_ADD_JOIN_SEC), and Query Join Details page (PSCPQJOINDTL_SEC) to view, define, and maintain query joins details for the composite query.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Field option.
4. In the Look Up Query page, search and select a query from the list of available queries.
5. In the Query Selected page, define the join type and join field, and click the OK button.

The Query Join Details page appears, listing the join details for the composite query.

Image: Composite Query Manager page - Joins section

This example illustrates the fields and controls on the Composite Query Manager page – Joins section.

Composite Query Name: EMPL_AND_JOB
 Type: Public
 *Status: In Progress
 Description: Employee and Job Code

Actions

Query Selected

- EMPLOYEE
- JOB
- DEPT

Prompts

- :1 = JOBCODE
- :2 = EMPLID

Query Alias 1	Query Name 1	Join Type	Query Alias 2	Query Name 2
EMPLOYEE	QE_EMPLOYEE	Inner Join	JOB	QE_JOBCODE
EMPLOYEE	QE_EMPLOYEE	Inner Join	DEPT	QE_EMPDEPT

Image: Look Up Query page

This example illustrates the fields and controls on the Look Up Query page.

Look Up Query

***Search by:** Query Name ▼ begins with QE_EM

Lookup
Cancel
[Advanced Lookup](#)

Search Results

Query		
Query Name	Description	Owner
QE_EMPDEPT	Employee Count By Department	Public
QE_EMPLOYEE	QE Employee Info	Public
QE_EMPLOYEE FROM PERSDATA A	Employee_From_PersData_tree	Public
QE_EMPLOYEE FROM PERSDATA TREE	Employee_From_PersData_tree	Public
QE_EMPLOYEE SORTED	QE Employee Info	Public
QE_EMP_DESTINATION	QE Employee Info	Public

Image: Query Selected page

This example illustrates the fields and controls on the Query Selected page.

Query Selected

Query Name QE_EMPDEPT

Query Alias DEPT

Join Type

Inner Join

Left Outer Join

Select a query to create the join with

Query Alias	Query Name
<input checked="" type="radio"/> EMPLOYEE	QE_EMPLOYEE
<input type="radio"/> JOB	QE_JOBCODE

Image: Query Join Details page

This example illustrates the fields and controls on the Query Join Details page.

The screenshot shows the 'Query Join Details' page. It includes the following fields and controls:

- Query Name 1: QE_EMPLOYEE
- *Join Type: Inner Join (dropdown menu)
- Query Name 2: QE_EMPDEPT

Below these fields is a table with the following data:

Query Alias 1	Query Name 1	*Query Field	*Condition Type	Query Alias 2	Query Name 2	*Child Query Field Name		
1 EMPLOYEE	QE_EMPLOYEE	A.QE_JOBCODE	equal to	DEPT	QE_EMPDEPT	A.QE_JOBCODE	+	-

Joining Additional Base Queries

To join additional base queries for composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Query option.

The Look Up Query page appears.

4. Select a base query to join in the composite query.
5. In the Query Selected page:
 - a. Enter a unique query alias for the query.
 - b. Define the join type using the Join Type section.
 - c. Select a query to create the join.
 - d. Click the OK button.

The Query Join Details page appears, listing the join values that you defined.

6. Confirm the join values and click the OK button.

The Composite Query Manager page reappears, listing the newly added base query in the Query Selected section.

7. Click the Joins button.

The Joins section appears, listing the newly added join.

Editing Joins in Composite Queries

To edit joins in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.

2. Search for and open an existing composite query.
3. In the Composite Query Manager page, click the Joins button.
The Joins section appears.
4. Click a link in the Join Type column for the join that you want to edit.
The Query Join Details page appears, listing the previously defined join values.
5. Modify the join details and click the OK button.
The Composite Query Manager page reappears, listing the modified join details.

Defining Expressions in Composite Queries

Page Used to Define Expressions in Composite Queries

Use the Edit Expression Properties page (PSCPQEXPR_SEC) and the Composite Query Manager page - Expressions section to view, add, and maintain expressions in the composite queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Expression option.

Image: Edit Expression Properties page for Composite Query

This example illustrates the fields and controls on the Edit Expression Properties page. Definitions for the fields and controls appear following the example.

Edit Expression Properties

*Expression Type
 Character Length 5
 Decimals

Expression Text
 %Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",
 7,5))

[Add Field](#)
 OK Cancel

Expression Type

Select an appropriate data type.

- If you select the *Character* option, enter the maximum length of the expression result in the Length field.
- If you select the *Number* or Signed Number option, enter the total number of digits in the Length field and the number of digits after the decimal point in the Decimal field.

Length

Enter the length of the expression type.

Expression Text

Enter the expression text to perform a calculation, for example, *SUM(A.COST)* or *%Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))*.

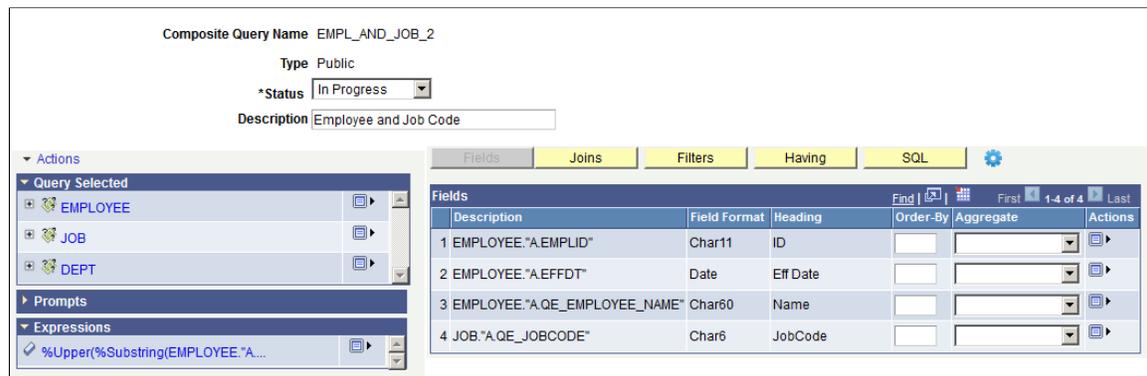
Add Field

Click this link to access the Select a Field page (CPQ_QUERY_FIELD), where you can select and add a composite query output field or a query field to the composite query expression.

Note: The Edit Expression Properties page in Composite Query Manager is similar to the Edit Expression Properties page in Query Manager. See [Defining Expressions](#).

Image: Composite Query Manager page - Expressions section

This example illustrates the fields and controls on the Composite Query Manager page. The Expressions section lists the defined expressions for the current composite query.



In the Composite Query Manager page, Expressions section, four actions are available from the Action icon:

- Add Field: Use this option to add the expressions to the output field list in the Fields section.
- Add Filter: Use this option to add the expression as a left operand in filter criteria.
- Edit: Use this option to edit the current expression properties.
- Remove: Use this option to delete the expression from the composite query.

Derived Formula Using Expressions in Composite Query

Composite Query can expand the aggregate of fields in expressions using the aggregate function that is specified for the selected fields.

If a composite query has field $F1$, field $F2$, and expression field $F1+F2$, then Composite Query expands the expression field as $SUM(F1) + AVG(F2)$ when field $F1$ has aggregate function SUM and field $F2$ has aggregate function AVG . Instead of users specifying the field names as shown in SQL to satisfy this requirement, Composite Query can parse the expression for the fields using the following syntax: `#{<QueryAlias>.<QueryUniqueFieldName>}`.

To display distinct output results that do not list the same field more than once, add the column number to the previous syntax: `#{<QueryAlias>.<QueryUniqueFieldName>:<column number>}`.

Examples of using the previous syntax are:

- `#{Q1.A.SALARY}`
- `#{Q2.SET ID}`
- `#{Q2.SET ID:3}`

Note that:

- The column number is optional.

If you do not specify the column number, then Composite Query uses the first field that matches the field name to check if an aggregate function is defined for that field. If so, Composite Query uses

the aggregate function to expand the field in an expression. You are not able to use the field without aggregation if it is included in the output field list.

- If you create the composite query using Composite Query Manager, you should remove the expression field that has a derived aggregate from the Group By clause.

Otherwise, the SQL will not generate the correct Group By clause.

- If you modify the composite query using API, you must set the GroupByNumber property of all fields to ensure that the correct Group By number is used for all output fields.
- If you do not want the derived aggregate for a field in expression, specify zero for the column; for example, `# {Q2.SET ID:0}`.

Adding Expressions to Composite Queries

To add new expressions to composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Expression option.

The Edit Expression Properties page appears.

4. Specify expression properties such as expression type, length, decimals, and text.
5. Click the OK button to create the new expression.

The Composite Query Manager page reappears. The newly created expression is added to the Expressions section.

6. Optionally, use the Action icon in the Expressions section to add the expressions as the output fields, edit the current expressions, or remove the current expressions from the composite query.

Editing Expressions in Composite Queries

To edit expressions in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page - Expressions section, click the Actions icon for the expression that you want to edit.

4. Select the Edit option.

The Edit Expression Properties page appears.

5. Specify expression properties such as expression type, length, decimals, and text.
6. Click the OK button to accept the changes.

The Composite Query Manager page reappears displaying the modified expression based on your selections.

Removing Expressions from Composite Queries

To remove expressions from composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Search for and open an existing composite query.
3. In the Composite Query Manager page - Expressions section, click the Actions icon for the expression that you want to remove from the composite query.
4. Select the Remove option.

A warning message appears.

5. Click the OK button.

The Composite Query Manager page reappears. The selected expression is removed from the Expression section.

Note: Expressions are not removed from the composite query if they are used in the output field list or filter list.

Adding Expressions to the Output Field List

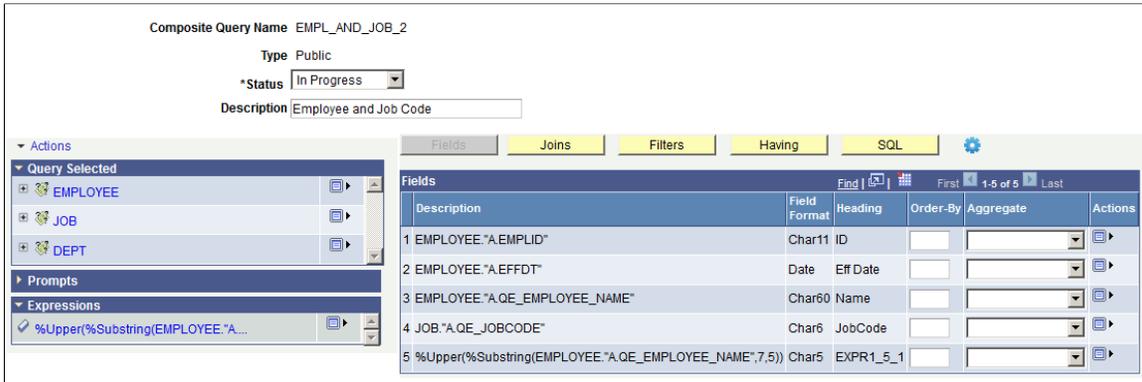
To add expressions to the output field list:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page - Expressions section, click the Actions icon for the expression that you want to add to the output field list.
4. Select the Add Field option.

The expression is added to the Fields section, which displays a list of all output fields.

Image: Composite Query Manager page - expression is added as an output field

In this examples, expression `%Upper(%Substring(EMPLOYEE.'A.QE_EMPLOYEE_NAME",7,5))` is added to the Fields section.



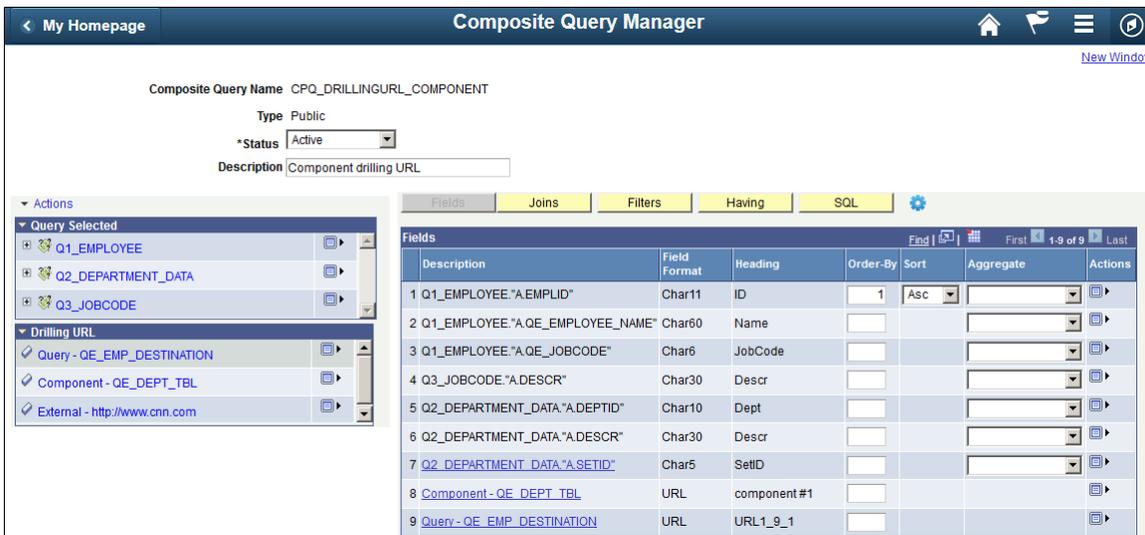
Defining Drilling URLs in Composite Queries

Page Used to Define Drilling URLs in Composite Queries

You can define drilling URLs for composite queries using Composite Query Manager. Depending on the drilling URL type you select, different pages and fields are available for you to build drilling URLs for the composite queries.

Image: Composite Query Manager page – Drilling URL section

This example illustrates the fields and controls on the Composite Query Manager page. The Drilling URL section lists the defined drilling URLs for the current composite query. The Fields section lists the drilling URLs that are used as separate columns in the output results.



Selecting Drilling URL Type for Composite Queries

Use the Select Drilling URL Type page (PSCPQURLOPTIONS) to add and select a drilling URL type. The available options are Query, Component, and External.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Drilling URL option.

Image: Select Drilling URL Type page

This example illustrates the Select Drilling URL Type page. Definitions for the fields and controls appear following the example.



Query

Select this option and click the OK button to access the Drilling URL Details – Select a Query page, where you can select a query to build the drilling URLs in a query URL format.

Component

Select this option and click the OK button to access the Drilling URL Details – Select a Component page, where you can select a component to build the drilling URLs in a component URL format.

External

Select this option and click the OK button to access the Drilling URL Details – External URL page, where you can enter an external URL to build the drilling URLs in an external URL format.

Defining Query Drilling URLs for Composite Queries

Use the Drilling URL Details – Select a Query page (PSCPQURL_SEC) to define the query drilling URLs in the composite queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Drilling URL option.
4. In the Select Drilling URL Type page, select the Query option and click the OK button.

Image: Drilling URL Details – Select a Query page

This example illustrates the fields and controls on the Drilling URL Details – Select a Query page. Definitions for the fields and controls appear following the example.

Drilling URL details

Select a Query

Portal Name

Node Name

Use psc:

Query Name

Format

URL Keys Find | First 1 of 1 Last

Prompt Name	Prompt Value	Field Lookup
BIND1	%Q2_DEPARTMENT_DATA.A.DEPTID%	<input type="button" value="Find"/>

Map Hyperlink to Output Column(s) Find | First 1-6 of 6 Last

Select	Output Field
<input checked="" type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR
<input checked="" type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID

Append Selected Field(s) to URL Find | First 1-6 of 6 Last

Select	Output Field	Order By
<input type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR	<input type="text"/>
<input type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID	<input type="text"/>

Portal Name	<p>Optionally, enter or select a portal that is used to build drilling URLs at report runtime.</p> <hr/> <p>Note: If the Portal Name field has no value, Composite Query uses value %PORTAL to form a drilling URL at report runtime.</p> <hr/>
Node Name	<p>Optionally, enter or select a node that is used to build drilling URLs at report runtime.</p> <hr/> <p>Note: If the Node Name field has no value, Composite Query uses value %NODE to form a drilling URL at report runtime.</p> <hr/>
Use psc (content servlet)	<p>Define the content type that is used to build drilling URLs.</p> <ul style="list-style-type: none"> • Select this check box to use the content servlet (psc) type. • Deselect this check box to use the portal service (psp) type. <p>By default, this check box is deselected.</p>
Query Name	<p>Type a query name in the field or click the query lookup icon to search for an existing query.</p>
Format	<p>Select the format of report results that will be generated from the drilling URLs. Available options are HTM, XLS, and XML (XMLP format).</p>
URL Keys	<p>The URL Keys section is available only after you define the value in the Query Name field. Use this section to define the mapping value between the drilling URL output component search keys and the drilling URL source query result column fields.</p> <p>Enter a valid prompt output value or use the Field Lookup icon to select the prompt output values from the list of available values.</p>
Map Hyperlink to Output Column(s)	<hr/> <p>Note: This step is required for the drilling URLs to be available in a composite query results page.</p> <hr/> <p>Select the output columns to form the mapping between the drilling URLs and the selected output column.</p>
Append Selected Field(s) to URL	<p>Use this section to select the output columns to append to the drilling URLs and to define the order of the appended value pair in the URLs.</p> <p>You can define multiple drilling URLs in a composite query, but each output field can only bind with one URL.</p>
OK	<p>Click to finish defining the query drilling URL for the composite query and to return to the Composite Query Manager page.</p>

Defining Component Drilling URLs for Composite Queries

Use the Drilling URL Details – Select a Component page to build the component drilling URLs for composite queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Drilling URL option.
4. In the Select Drilling URL Type page, select the Component option and click the OK button.

Image: Drilling URL Details – Select a Component page

This example illustrates the fields and controls on the Drilling URL Details – Select a Component page. Definitions for the fields and controls appear following the example.

Drilling URL details

Select a Component

Portal Name

Node Name

Use psc:

Content Reference

Menu Name

Market

Component

Page

Menu Action

URL Keys Find First Last

Component Key	Component Key Value	Field Lookup
DEPTID	%Q2_DEPARTMENT_DATA.A.DEPTID%	
SETID	%Q2_DEPARTMENT_DATA.A.SETID%	

Map Hyperlink to Output Column(s) Find First Last

Select	Output Field
<input type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR
<input type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID

Append Selected Field(s) to URL Find First Last

Select	Output Field	Order By
<input type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR	<input type="text"/>
<input type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID	<input type="text"/>

Note: Most fields in this page are similar to the ones described in the previous section, Defining Query Drilling URLs for Composite Queries. The following table lists and describes only the fields that are related to the component drilling URLs.

Content Reference

Enter the name of a content reference or use the search icon to select a content reference from an existing list.

Note: The values of the Menu Name, Market, and Component fields are populated if you select a content reference using the search icon.

Menu Name

Optionally, enter a menu name or click the lookup icon and select a menu name from an existing list.

Market

Optionally, enter a market code or click the lookup icon and select a market code from an existing list.

Component

Optionally, enter a component name or click the lookup icon and select a component name from an existing list.

Page

Enter a page name or click the lookup icon and select a page name from an existing list.

Menu Action

Select an action type to associate with the component.

When you run the composite query, the component drilling URL expands with correct action mode within the URL. For different component actions, the drilling URL will be constructed differently. When you click the component drilling URL from the composite query results, it opens the target component with the correct action mode.

The available menu actions are:

- Add

The URL will include Action=A.

Clicking the URL opens the target component at the Add a New Value page.

- Correction

The URL will include Action=C.

Clicking the URL opens the target component at the Find an Existing Value page with the Correct History option selected by default.

- Update

The URL will include Action=U.

Clicking the URL opens the target component at the Find an Existing Value page.

- Update All

The URL will include Action=L.

Clicking the URL opens the target component at the Find an Existing Value page with the Include History option selected by default.

Note: The Menu Action lists the actions that were granted to the selected component when the component was created using Application Designer.

If you have defined mapping between query result columns and all of the component search key fields, then clicking the component drilling URL bypasses the search page and open the main page directly.

Defining External Drilling URLs for Composite Queries

Use the Drilling URL Details – Enter an External URL page to build the external drilling URLs for composite queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the Actions menu link and select the Add Drilling URL option.
4. In the Select Drilling URL Type page, select the External option and click the OK button.

Image: Drilling URL Details – External URL page

This example illustrates the fields and controls on the Drilling URL Details – External URL page. Use the URL field to enter the value of the external URL. Note that the URL field has no format restriction.

Drilling URL details

Enter an External URL

Portal Name

Node Name

URL

▼ Map Hyperlink to Output Column(s) Find | First 1-10 of 10 Last

Select	Output Field
<input type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR
<input type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID

▼ Append Selected Field(s) to URL Find | First 1-10 of 10 Last

Select	Output Field	Order By
<input type="checkbox"/>	Q1_EMPLOYEE.A.EMPLID	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_EMPLOYEE_NAME	<input type="text"/>
<input type="checkbox"/>	Q1_EMPLOYEE.A.QE_JOBCODE	<input type="text"/>
<input type="checkbox"/>	Q3_JOBCODE.A.DESCR	<input type="text"/>
<input type="checkbox"/>	Q2_DEPARTMENT_DATA.A.DEPTID	<input type="text"/>

Note: Most fields in this page are similar to the ones described in the previous section, Defining Query Drilling URLs for Composite Queries.

Adding Defined Drilling URLs to the Output Field List

To add the defined drilling URLs to the output fields list in a composite query:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.

The Drilling URLs section on the Composite Query Manager page lists the defined drilling URLs, if any.

3. In the Composite Query Manager page, Drilling URL section, click the Menu icon for the drilling URL that you want to add to the output field list.

4. Select the Add Field option.

The drilling URL is added to the Fields section, which displays a list of all output fields.

5. Save the composite query.

Editing Drilling URLs in Composite Queries

To edit the drilling URLs in a composite query:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, Drilling URL section, click the Menu icon for the drilling URL that you want to edit.
4. Select the Edit option.

The Drilling URL Details page appears, displaying the fields and sections based on the drilling URL type of the selected drilling URL.

5. Specify the drilling URL properties.
6. Click the OK button to accept the changes.

The Composite Query Manager page reappears, displaying the modified drilling URL based on your selections.

7. Save the composite query.

Removing Drilling URLs From the Composite Queries

To remove the drilling URLs from the composite query:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, Drilling URL section, click the Menu icon for the drilling URL that you want to remove from the composite query.
4. Select the Remove option.

The selected drilling URL is removed from the Drilling URL section.

5. Save the composite query.

Applying Aggregate Functions in Composite Queries

To apply aggregate functions to the output field of composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.

- Open an existing composite query or create a new one.
- In the Composite Query Manager page - Fields section, select an aggregate option from the Aggregate drop-down list.

The available options are *Average*, *Count*, *Count Distinct*, *Max*, *Min*, and *Sum*.

Image: Composite Query Manager page - Fields section - Aggregate functions

This example illustrates the fields and controls on the Composite Query Manager page - Fields section. The aggregate value for the EMPLOYEE."A.EMPLID" is set to *Count*.

Fields						
Description	Field Format	Heading	Order-By	Aggregate	Actions	
1 EMPLOYEE."A.EMPLID"	Char11	ID		Count	[Copy] [Delete]	
2 EMPLOYEE."A.EFFDT"	Date	Eff Date			[Copy] [Delete]	
3 EMPLOYEE."A.QE_EMPLOYEE_NAME"	Char60	Name			[Copy] [Delete]	
4 JOB."A.QE_JOBCODE"	Char6	JobCode			[Copy] [Delete]	
5 %Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))	Char5	EXPR1_5_1			[Copy] [Delete]	

- Optionally, click the SQL button to verify the aggregate setting on the generated SQL.

Applying Group By Clause in Composite Queries

Page Used to Edit the Group By Clause in Composite Queries

The Group By column is added automatically when you apply the first aggregate function to the output field. By default, all non-aggregate output fields are included in the initial Group By clause in the same order as in the output field list. You use the Edit Group By page (PSCPQGROUPOBY_SEC) to edit the order of the Group By fields.

Image: Edit Group By page

This example illustrates the fields and controls on the Edit Group By page.

Edit Group By				
Group By Fields				
Selected Field	Include	Move Up	Move Down	
1 EMPLOYEE."A.EFFDT"	<input checked="" type="checkbox"/>	Move Up	Move Down	
2 EMPLOYEE."A.QE_EMPLOYEE_NAME"	<input checked="" type="checkbox"/>	Move Up	Move Down	
3 JOB."A.QE_JOBCODE"	<input checked="" type="checkbox"/>	Move Up	Move Down	
4 %Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))	<input checked="" type="checkbox"/>	Move Up	Move Down	

- | | |
|------------------|---|
| Include | Select this check box to include the selected field in the Group By list. |
| Move Up | Click this link to move the selected field up in the grid. |
| Move Down | Click this link to move the selected field down in the grid. |

Steps Used to Edit the Group By List

To edit the Group By list:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, Fields section, optionally select an aggregate option from the Aggregate column for the field to which you want to add aggregate.

Image: Composite Query Manager page

This example illustrates the Composite Query Manager page. The Fields section displays the aggregate Count for the employee ID field.

The screenshot shows the Composite Query Manager interface. At the top, the query name is 'EMPL_AND_JOB', type is 'Public', and status is 'In Progress'. The description is 'Employee and Job Code'. Below this, there are tabs for 'Fields', 'Joins', 'Filters', 'Having', and 'SQL'. The 'Fields' tab is active, displaying a table with the following data:

Description	Field Format	Heading	Order-By	Aggregate	Actions
1 EMPLOYEE.A.EMPLID	Char11	ID		Count	
2 EMPLOYEE.A.EFFDT	Date	Eff Date			
3 EMPLOYEE.A.QE_EMPLOYEE_NAME	Char60	Name			
4 JOB.A.QE_JOBCODE	Char6	JobCode			

On the left side, there is a 'Query Selected' list containing EMPLOYEE, JOB, A.QE_JOBCODE, and A.DESCR. Each item has an 'Actions' icon.

4. Click the Actions icon of an output field and select the Edit Group By option to display the Edit Group By page.

Note: The Edit Group By option is available in the Actions list for all output fields, including the aggregate fields. However, in the Edit Group By page, the aggregate fields are not included in the Group By Fields list.

Image: Edit Group By page

This example illustrates the Edit Group By page. All fields except the aggregate field from the output field list are included and grouped automatically.

Edit Group By					
Group By Fields		Find	First	1-3 of 3	Last
	Selected Field	Include	Move Up	Move Down	
1	EMPLOYEE."A.EFFDT"	<input checked="" type="checkbox"/>	Move Up	Move Down	
2	EMPLOYEE."A.QE_EMPLOYEE_NAME"	<input checked="" type="checkbox"/>	Move Up	Move Down	
3	JOB."A.QE_JOBCODE"	<input checked="" type="checkbox"/>	Move Up	Move Down	

5. Select the Include check boxes for the fields to include those fields in the Group By clause.

Otherwise, deselect the Include check boxes for the fields to remove those fields from the Group By clause.

Note: You may deselect the Include check box for any field to remove that field from the Group By clause, but your removal may cause an error if the removed field must be included in the Group By clause.

6. Optionally, click the Move Up or Move Down link to reorder the fields in the Group By clause.
7. Click the OK button to apply the changes and return to the Composite Query Manager page.
8. Optionally, click the SQL button to verify the Group By clause in the generated SQL.

Aggregated fields and aggregated expression fields should not be included in the Group By list. By default, aggregated fields are not included in the Group By list. However, if an expression field contains aggregation, it is included in the Group By list by default because the system has read it as a regular non-aggregate expression field. To avoid the error when you run SQL, you must remove the aggregate expression field from the Group By list by deselecting its Include check box or by removing it from the output field list.

After the Group By clause is generated, the order of the Group By columns is persisted, so removing or adding output fields does not reset the order of the Group By columns. If you add an additional output field to the composite query for the existing Group By clause, then the new output field is added to the end of the Group By clause. You should ensure that the fields listed in the Group By clause are in the correct order. To reset all Group By fields, you must remove all aggregate values from the output fields, add those fields back to the output field list, and then regenerate the default Group By clause.

Editing Field Properties

Use the Edit Field Properties page (PSCPQFIELD_SEC) to add or edit the field properties, including the unique field names and field headings.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, Fields section, click the Action icon for the field for which you want to modify the field properties.
4. Select the Edit Field option.

Navigation

Image: Edit Field Properties for Composite Query

This example illustrates the Edit Field Properties page. Definitions for the fields and controls appear following the example.

Edit Field Properties

JOB."A.QE_JOBCODE":
JOB."A.QE_JOBCODE"

***Unique Name**
JOB.A.QE_JOBCODE

Heading
JobCode

Unique Name

Use this field to change the default unique name for a field or an expression.

By default, the format of a unique field name is *<query alias>.<query unique field name>* and the format of a unique expression name is *EXPR<SELNum>_<colnum>_<exprNum>*.

Heading

Enter new heading text for the field heading.

By default, this field is blank for all fields from the base query. If the field is an expression created within the composite query, then this field displays the expression heading.

Defining Filters in Composite Queries

Page Used to Define Filters in Composite Queries

Use the Composite Query Manager page - Filters section and the Add / Edit Filter page (PSCPQFILTERDTL_SEC) to view, define, and maintain query filters for the selected output fields in the composite queries.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page - Fields section, click the Actions icon and select the Add Filter option from the Action list.

Image: Composite Query Manager page - Filters section

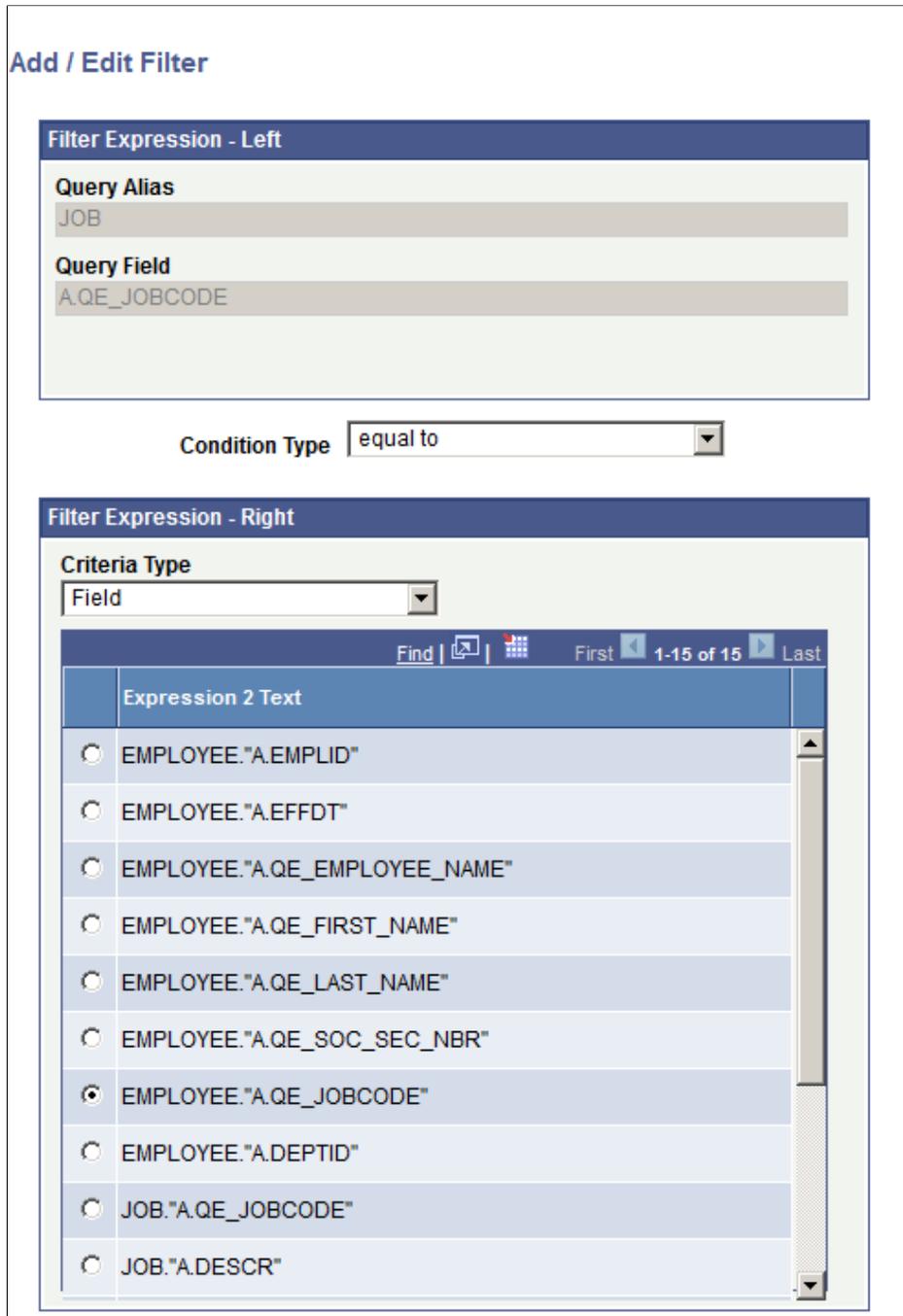
This example illustrates the fields and controls on the Composite Query Manager page - Filters section, including a list of filters that is defined for the composite query. You can use the Action icons in the Filters section to edit filters or remove filters from the composite query.

Fields Joins Filters Having SQL 				
Filters				
Logical	Expression1	Condition Type	Expression 2	Actions
	JOB."A.QE_JOBCODE"	equal to	EMPLOYEE."A.QE_JOBCODE"	 
AND	EMPLOYEE."A.QE_EMPLOYEE_NAME"	not equal to	%Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))	 
AND	EMPLOYEE."A.EMPLID"	equal to	:1	 

Group Filter

Image: Add / Edit Filter page

This example illustrates the fields and controls on the Add / Edit Filter page. Definitions for the fields and controls appear following the example.



Condition Type

Select a value from the Condition Type drop-down list. The available options are *greater than*, *not greater than*, *less than*, *not less than*, *equal to*, *not equal to*, *in list*, and *not in list*.

Criteria Type

Select a value from the Criteria Type drop-down list. The available options are:

- Expression: If you select this option, the Expression 2 Text section displays a list of expressions from the base queries.
- Field: If you select this option, the Expression 2 Text section displays a list of query fields from the base queries.
- Prompt: If you select this option, the Expression 2 Text section displays a list of query prompts from the base queries.
- Constant: If you select this option, the Expression 2 Text section displays a constant text box.

Adding Filters to Composite Queries

To add filters to composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page - Fields section, click the Actions icon for the output field that you want to add as a filter and select the Add Filter option.

Alternatively, in the Query Selected section, click the Actions icon for the field that you want to add as a filter and select the Add Filter option.

The Add / Edit Filter page appears, enabling you to create a filter against the selected field.

4. Select a value from the Condition Type drop-down list.

The available options are *greater than*, *not greater than*, *less than*, *not less than*, *equal to*, *not equal to*, *in list*, and *not in list*.

5. Select the values in the Filter Expression - Right section.
6. Select a value from the Criteria Type drop-down list.

The available options are Expression, Field, Prompt, and Constant.

7. Select a value from the Expression 2 Text section.

This value is used for creating the filter with the selected field in the Filter Expression - Left section.

8. Click the OK button to create the filter.

The Composite Query Manager page - Filter section appears, listing the newly added filter.

Image: Add / Edit Filter page - value in the Criteria Type drop-down list is set to Field

This example illustrates the Add / Edit Filter page and the value in the Criteria Type drop-down list is set to *Field*. The Expression 2 Text section displays 10 query fields from the base queries EMPLOYEE and JOB. The EMPLOYEE."A.QE_JOBCODE" field is selected for creating the filter with the previously selected field A.QE.JOBCODE in the JOB query.

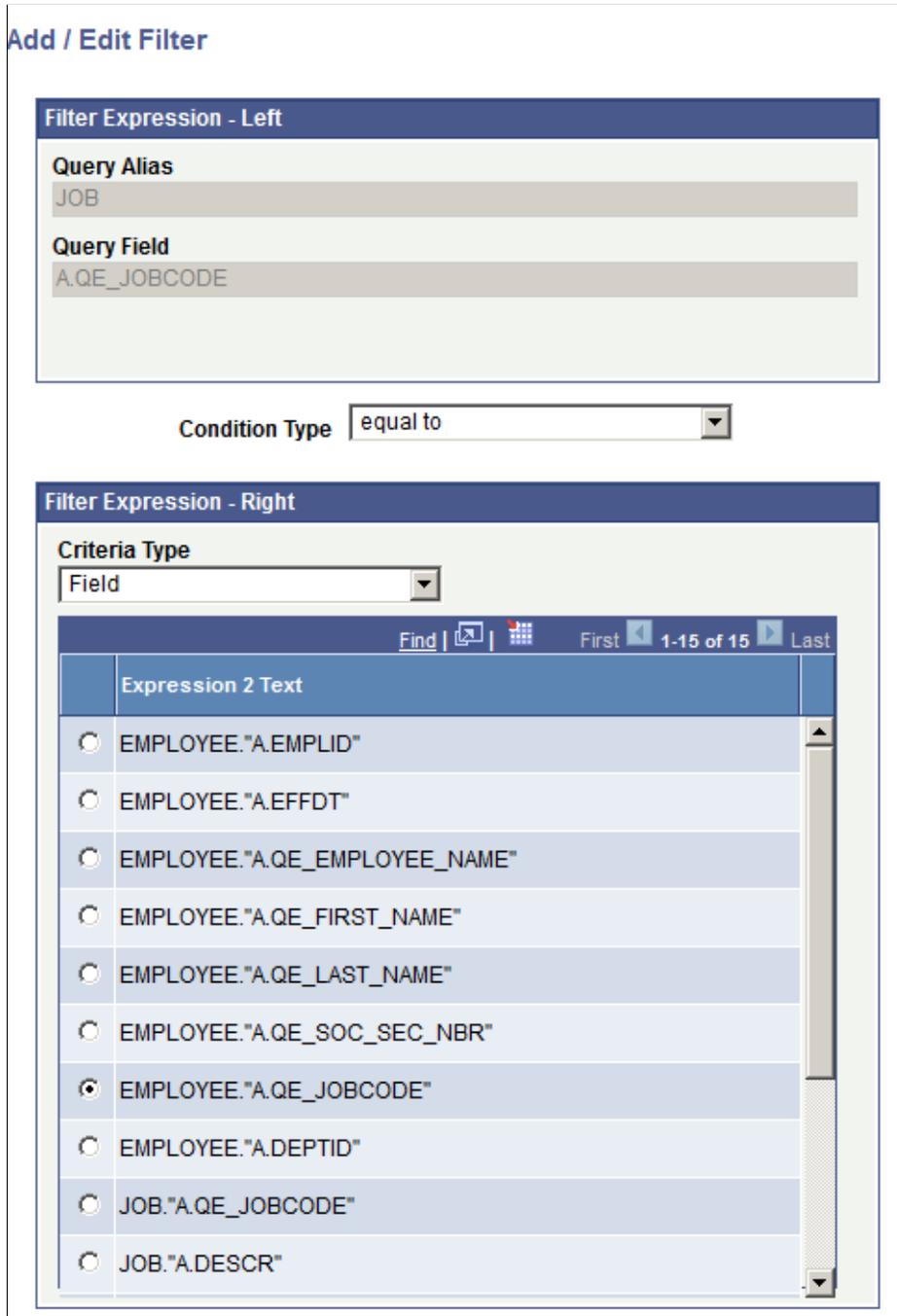


Image: Add / Edit Filter page - value in the Criteria Type drop-down list is set to Expression

This example illustrates the Add / Edit Filter page and the value in the Criteria Type drop-down list is set to *Expression*. The Expression 2 Text section displays all expressions that were defined for the composite query. The *%Upper* expression is selected for creating the filter with the previously selected field A.QE_EMPLOYEE_NAME in the EMPLOYEE query.

Add / Edit Filter

Filter Expression - Left

Query Alias
EMPLOYEE

Query Field
A.QE_EMPLOYEE_NAME

Condition Type not equal to

Filter Expression - Right

Criteria Type
Expression

Find | | | First 1 of 1 Last

	Expression 2 Text
⊙	%Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))

Image: Add / Edit Filter page - value in the Criteria Type drop-down list is set to Prompt

This example illustrates the Add / Edit Filter page and the value in the Criteria Type drop-down list is set to *Prompt*. The Expression 2 Text section displays all prompts that were defined for the composite query. The *:1 = EMPLID - ID* prompt is selected for creating the filter with the previously selected field A.EMPLID in the EMPLOYEE query.

Add / Edit Filter

Filter Expression - Left

Query Alias
EMPLOYEE

Query Field
A.EMPLID

Condition Type equal to

Filter Expression - Right

Criteria Type
Prompt

Find | 🔍 | 📅 | First ◀ | 1-2 of 2 | ▶ Last

	Expression 2 Text
<input checked="" type="radio"/>	:1 = JOBCODE - Job Code
<input type="radio"/>	:2 = - EMPLID

Image: Add / Edit Filter page - value in the Criteria Type drop-down list is set to Constant

This example illustrates the Add / Edit Filter page and the value in the Criteria Type drop-down list is set to *Constant*. The constant *_an%* finds any employee with the last name containing one or more characters followed by the character *an*. For example, Andersen, Bannister, and Branham.

Add / Edit Filter

Filter Expression - Left

Query Alias
EMPLOYEE

Query Field
A.QE_LAST_NAME

Condition Type equal to

Filter Expression - Right

Criteria Type
Constant

Constant
_an%

Image: Composite Query Manager page - filters are added

This example illustrates the Composite Query Manager page - Filter section after adding field-field, field-expression, and field-prompt filters as defined in the previous examples.

Logical	Expression 1	Condition Type	Expression 2	Actions
	JOB."A.QE_JOBCODE"	equal to	EMPLOYEE."A.QE_JOBCODE"	
AND	EMPLOYEE."A.QE_EMPLOYEE_NAME"	not equal to	%Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))	
AND	EMPLOYEE."A.EMPLID"	equal to	:1	
AND	EMPLOYEE."A.QE_LAST_NAME"	equal to	_an%	

Group Filter

Adding Filters for Expressions in Composite Queries

To add a filter for an expression in a composite query:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.

3. In the Composite Query Manager page, Expressions section, click the Menu icon for the expression that you want to add a filter to and select the Add Filters option.

Alternatively:

- a. In the Composite Query Manager page, Expressions section, click the Menu icon for the expression to which you want to add a filter.
 - b. Select the Add Field option to add the expression to the output field list.
 - c. In the Fields section, click the Actions icon for the expression field that you want to add a filter to and select the Add Filter option.
4. Use the Add/Edit Filters page to select the condition type, criteria type, and field (or prompt, expression, constant) to create the filter.

Image: Add/Edit Filter page

This example illustrates the Add/Edit Filter page displaying the Filter Expression – Left section (the left operand) and the Filter Expression – Right section when you add a filter for an expression field.

Add / Edit Filter

Filter Expression - Left

Expression

Condition Type

Filter Expression - Right

Criteria Type

Find | | | First 1-10 of 10 Last

	Expression 2 Text
<input type="radio"/>	Q_EMP."A.EMPLID"
<input type="radio"/>	Q_EMP."A.EFFDT"
<input checked="" type="radio"/>	Q_EMP."A.QE_EMPLOYEE_NAME"
<input type="radio"/>	Q_EMP."A.QE_FIRST_NAME"
<input type="radio"/>	Q_EMP."A.QE_LAST_NAME"
<input type="radio"/>	Q_EMP."A.QE_SOC_SEC_NBR"
<input type="radio"/>	Q_EMP."A.QE_JOBCODE"
<input type="radio"/>	Q_EMP."A.DEPTID"
<input type="radio"/>	Q_JOB."A.QE_JOBCODE"
<input type="radio"/>	Q_JOB."A.DESCR"

5. Click the OK button to accept the changes and return to the Composite Query Manager page.
The newly added filter is listed in the Composite Query Manager page on the Filters tab.
6. Specify the filter logical properties as needed.
7. Save the composite query.

Editing Filters in Composite Queries

To edit filters in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Filters button.

The Filters section appears.

4. Click the Actions icon for the filter that you want to edit and select the Edit option.

The Add / Edit Filter page appears.

5. Specify filter properties such as condition type, criteria type, and expression 2 text.
6. Click the OK button to accept the changes.

The Composite Query Manager page - Filter section reappears, listing the filter with the new settings.

Removing Filters from Composite Queries

To remove filters from composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Filters button.

The Filters section appears.

4. Click the Actions icon for the filter that you want to remove.
5. Select the Remove option.

The selected filter is removed from the Filters section.

Grouping Filters in Composite Queries

When your composite query includes multiple filter criteria, you may group filter criteria with parentheses to define how filter criteria should be evaluated. For example, filter criteria inside the parentheses are evaluated before the filter criteria outside the parentheses.

Use the Edit Filter Grouping page (PSCPQFILTERGRP_SEC) to edit the filter grouping in a composite query.

Image: Edit Filter Grouping page

This example illustrates the fields and controls on the Edit Filter Grouping page. Definitions for the fields and controls appear following the example.

Edit Filter Grouping

Filters				
Select	Logical	Expression1	Condition Type	Expression 2
<input type="checkbox"/>		JOB."A.QE_JOBCODE"	equal to	EMPLOYEE."A.QE_JOBCODE"
<input type="checkbox"/>	AND	EMPLOYEE."A.QE_EMPLOYEE_NAME"	not equal to	%Upper(%Substring(EMPLOYEE."A.QE_EMPLOYEE_NAME",7,5))
<input type="checkbox"/>	AND	EMPLOYEE."A.EMPLID"	equal to	:1
<input type="checkbox"/>	AND	EMPLOYEE."A.QE_LAST_NAME"	equal to	_an%

Group Selected

Click this button to add the parentheses around the selected filters.

UnGroup Selected

Click this button to remove the parentheses around the selected filters.

Reset All

Click this button to remove all parentheses that currently exist in the Filters section.

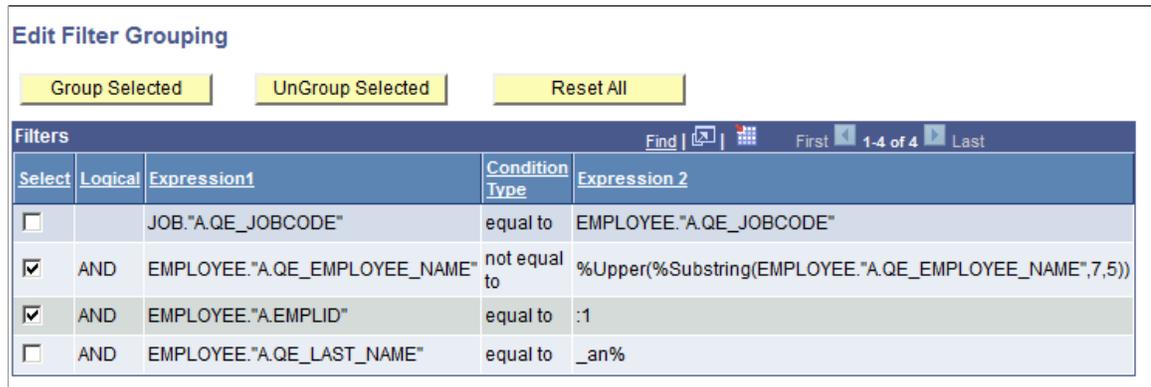
Steps Used to Group Filter Criteria in Composite Queries

To group the filter criteria in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Filters button.
4. Click the Group Filter button to access the Edit Filter Grouping page.
5. Select the filters that you want to group together.

Image: Edit Filter Grouping page - filters are selected

This example shows the Edit Filter Grouping page. The second and the third filters are selected.



6. Click the Group Selected button to add the parentheses around the selected filters.

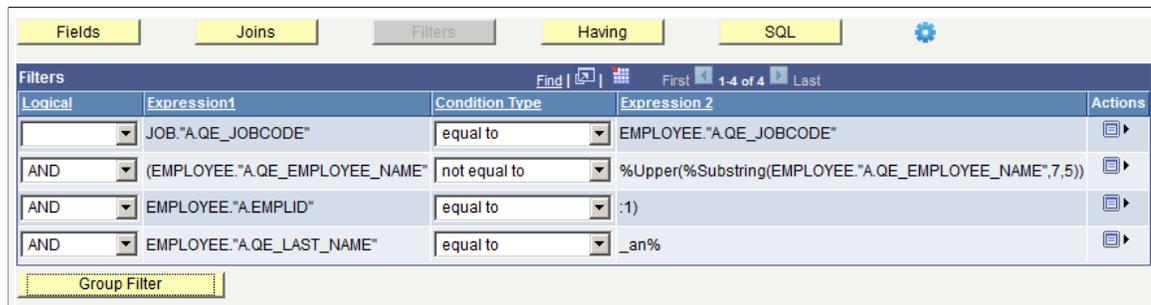
The selected filters are grouped using parentheses.

7. Click the OK button to apply the changes to the filters.

The Composite Query Manager page - Filter section reappears showing the grouped filters.

Image: Composite Query Manager page - Filter section - filter are grouped

This example shows the Composite Query Manager page - Filter section. The second and the third filters are grouped using parentheses.



Defining HAVING Criteria in Composite Queries

Pages Used to Define HAVING Criteria in Composite Queries

Use the Composite Query Manager page - Having section and the Add / Edit Having page (PSCPQFILTERDTL_SEC) to view, define, and maintain the Having criteria that are defined for the composite query.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page - Fields section, click the Actions icon for the aggregate field that you want to add the Having criteria.
4. Select the Add Having option.

The Add / Edit Having page appears, enabling you to create Having criteria against the selected field.

Image: Add/Edit Having page for Composite Query

This example illustrates the fields and controls on the Add / Edit Filter page and the value in the Criteria Type drop-down list is set to *Field*. The *EMPLOYEE."EXPR1_5_1"* field is selected for creating the having criteria with the previously selected field *A.QE_EMPLOYEE_NAME* in the EMPLOYEE query.

Add / Edit Having

Filter Expression - Left

Query Alias
EMPLOYEE

Query Field
A.QE_EMPLOYEE_NAME

Condition Type equal to

Filter Expression - Right

Criteria Type
Field

	Expression 2 Text
<input type="radio"/>	EMPLOYEE."A.EFFDT"
<input type="radio"/>	JOB."A.QE_JOBCODE"
<input checked="" type="radio"/>	EMPLOYEE."EXPR1_5_1"

Condition Type

Select a value from the drop-down list. The available options are *equal to*, *greater than*, *less than*, *not greater than*, *not less than*, and *not equal to*.

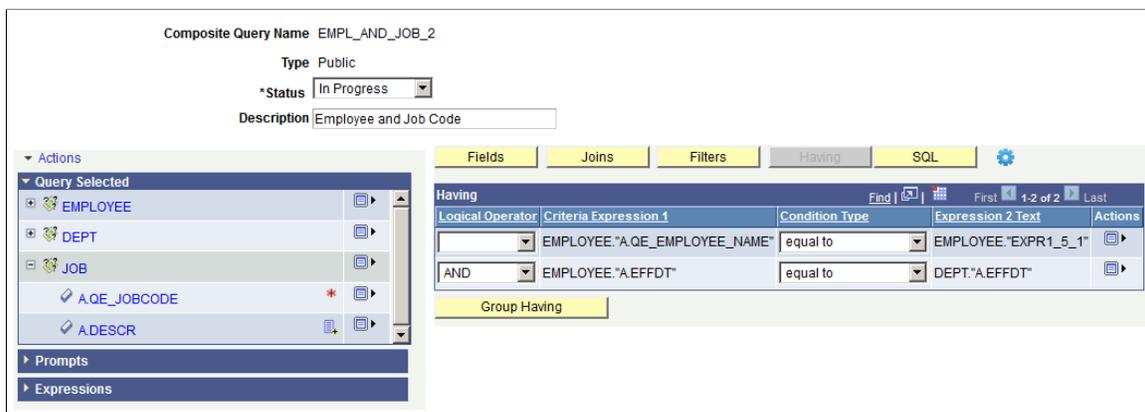
Criteria Type

Select a value from the Criteria Type drop-down list. The available options are:

- *Expression*: If you select this option, the Expression 2 Text section displays a list of the expressions from the base queries.
- *Field*: If you select this option, the Expression 2 Text section displays a list of the query fields from the base queries.
- *Prompt*: If you select this option, the Expression 2 Text section displays a list of the query prompts from the base queries.

Image: Composite Query Manager page - Having section

This example illustrates the fields and controls on the Composite Query Manager page - Having section after adding Having criteria. You can use the Action icon in the Having section to edit or remove the Having criteria from the composite query.



Adding Having Criteria to Composite Queries

To add Having criteria to composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page - Fields section, click the *Actions* icon for the aggregate field that you want to add Having criteria.
4. Select the *Add Having* option.

The Add / Edit Having page appears.

5. Select a value from the Condition Type drop-down list.
6. Select a value in the Filter Expression - Right section.
7. Select a value from the Criteria Type drop-down list.

The available options are *Expression*, *Field*, and *Prompt*.

8. Select a value from the Expression 2 Text section. This value is used for creating the Having criteria with the selected field in the Filter Expression - Left section.
9. Click the *OK* button to create the Having criteria.

The Composite Query Manager page - Having section reappears listing the newly added Having criteria.

Editing Having Criteria in Composite Queries

To edit Having Criteria in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Having button.

The Having section appears.

4. Click the Actions icon for the Having criteria that you want to edit and select the *Edit* option.

The Add / Edit Having page appears.

5. Specify the Having properties such as condition type, criteria type, and expression 2 text.
6. Click the OK button to accept the changes.

The Composite Query Manager page - Having section reappears, listing the Having criteria with the new settings.

Removing Having Criteria from Composite Queries

To remove Having criteria from composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query.
3. In the Composite Query Manager page, click the Having button.

The Having section appears.

4. Click the Actions icon for the Having criteria that you want to remove and select the *Remove* option.

The selected Having criteria is removed from the Having section.

Grouping the Having Criteria in Composite Queries

When the composite query has multiple having criteria, you may group them using the parentheses to define how they should be evaluated. For example, the Having criteria inside the parentheses are evaluated before the ones outside of the parentheses.

Use the Edit Having Criteria Grouping page (PSCPQHAVINGGRP_SEC) to edit the Having criteria grouping in a composite query.

Image: Edit Having Criteria Grouping page

This example illustrates the fields and controls on the Edit Having Criteria Grouping page. Definitions for the fields and controls appear following the example.

Edit Having Criteria Grouping				
Group Selected		UnGroup Selected		Reset All
Having				
Select	Logical	Expression1	Condition Type	Expression 2
<input type="checkbox"/>		EMPLOYEE."A.QE_EMPLOYEE_NAME"	equal to	EMPLOYEE."EXPR1_5_1"
<input type="checkbox"/>	AND	EMPLOYEE."A.EFFDT"	equal to	DEPT."A.EFFDT"

Group Selected

Click this button to add the parentheses around the selected Having criteria.

UnGroup Selected

Click this button to remove the parentheses around the Having criteria.

Reset All

Click this button to remove all parentheses that currently exist in the Having section.

Steps Used to Group Having Criteria in Composite Queries

To group Having criteria in composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Open an existing composite query or create a new one.
3. In the Composite Query Manager page, click the Having button.
4. Click the Group Having button to access the Edit Having Criteria Grouping page.
5. Select the Having criteria that you want to group together.
6. Click the Group Selected button to add parentheses around the selected Having criteria.

The selected Having criteria are grouped together using parentheses.

7. Click the OK button to apply the changes to the Having criteria.

The Composite Query Manager page - Having section reappears, displaying the Having criteria grouped as specified.

Viewing SQL in Composite Queries

Use the Composite Query Manager page - SQL section to view the generated SQL statement for a composite query. You can also use this section to view the SQL statement that is generated with the pruning option.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, click the SQL button.

The Composite Query Manager page - SQL section appears, displaying the generated SQL statement for the composite query. By default, the system displays the SQL statement in the *No Pruning* mode.

Image: Composite Query Manager page - SQL section

This example illustrates the Composite Query Manager page - SQL section with the SQL Pruning drop-down list set to *No Pruning*.



```

SELECT EMPL."A.EMPLID",
       EMPL."A.QE_EMPLOYEE_NAME"
FROM
  (SELECT A.EMPLID AS "A.EMPLID",
         TO_CHAR(A.EFFDT,'YYYY-MM-DD') AS "A.EFFDT",
         A.QE_EMPLOYEE_NAME AS "A.QE_EMPLOYEE_NAME",
         A.QE_FIRST_NAME AS "A.QE_FIRST_NAME",
         A.QE_LAST_NAME AS "A.QE_LAST_NAME",
         A.QE_SOC_SEC_NBR AS "A.QE_SOC_SEC_NBR",
         A.QE_JOBCODE AS "A.QE_JOBCODE",
         A.DEPTID AS "A.DEPTID",
         B.EMPNAME AS "B.EMPNAME",
         B.EMPLID AS "B.EMPLID",
         B.DEPTID AS "B.DEPTID",
         B.DEPTNAME AS "B.DEPTNAME"
  FROM (PS_QE_EMPLOYEE A LEFT OUTER
        JOIN
          PS_QE_EMPL B
        ON
          A.EMPLID = B.EMPLID )
  WHERE ( A.EFFDT =
         (SELECT MAX(A_ED.EFFDT) FROM PS_QE_EMPLOYEE A_ED
          WHERE A.EMPLID = A_ED.EMPLID
           AND A_ED.EFFDT <= SYSDATE)) ) EMPL
 JOIN
  ( SELECT A.QE_JOBCODE AS "A.QE_JOBCODE",
         A.DESCR AS "A.DESCR"
  FROM PS_QE_JOBCODE_TBL A
  ORDER BY 1,
         2 ) JOB
 ON
  EMPL."A.QE_JOBCODE" = JOB."A.QE_JOBCODE"

```

SQL Pruning

Based on the attributes that are selected in the result sets and the attribute dependency, Composite Query might be able to simplify the SQL statements that are generated for the underlying queries. The pruning

process removes the tables in the FROM clause if the pruning rules allow. It also removes the columns in the SELECT clause, which corresponds to the view row attributes that users have not selected.

The available pruning types are:

- No Pruning

Selecting this option enables the system to produce a full SQL statement without any pruning.

By default, the Pruning Type is set to No Pruning.

- Standard Pruning

Selecting this option enables the system to prune only a field or a table when the pruning process does not change the result set. That is, the result sets of the SQL statements that are generated by the Standard Pruning and No Pruning options are identical. The field is not pruned if it is used in the query, such as JOIN criteria in the FROM, WHERE, GROUP BY, or ORDER BY clauses.

Note: In general, standard pruning does not prune much except the Cartesian Join, where a table does not have any relationship with other tables.

- Prune to Select List

Selecting this option enables the system to remove all join criteria and joined tables from the SQL if the fields from that table are not selected. That is, the system can prune a table from the query if no field in the table is selected for the composite query. This pruning option can change the result set because the table that is being pruned can have been used to filter the result set based on the JOIN it has against the other tables.

You should select the Prune to Select List option where the result set is not altered. To accomplish that, you should ensure the join produces only extra columns and nothing more. The implication is that the relationship between the joined tables is many-to-one or one-to-one.

Note: The Standard Pruning and Prune to Select List options enable the system to prune a field from the SELECT clause if it is not used by the composite query.

The dependency settings of the base queries in the Query Manager - Dependency tab are also used to determine whether a field or a table can be pruned.

Related Links

[Defining Record and Field Dependencies](#)

Previewing Composite Query Results and Viewing Composite Query Properties

Previewing Composite Query Results

Use the composite query Preview page (PSCPQPREVIEW) to preview the composite query results. By default, the system display the composite query without pruning and the results are based on the Maximum Rows Fetched setting. You can change the pruning type and the Maximum Rows Fetched setting to display more or fewer result rows.

Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, move your mouse over the Action menu icon (next to the SQL button) and select the Run/Preview option.

The composite query Preview page appears, displaying the composite query result.

Image: Composite Query Preview page

This example illustrates the fields and controls on the composite query Preview page. The Pruning Type is set to *No Pruning*.

ID	Name	JobCode	Descr	Dept	Descr	SetID	query drilling url	component drilling url	external drilling url
1	7705 Holt,Susan	G061	Employment Specialist	10200	Human Resources	QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&BIND1=10200	http://sic05agl.us.oracle.com/pspp/Q855OIT_newwin/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1
2	8001 Schumacher,Simon	1001	President & CEO	10100	Office of the President	QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&BIND1=10100	http://sic05agl.us.oracle.com/pspp/Q855OIT_newwin/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10100&SETID=QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10100&SETID=QEDM1
3	8001 Schumacher,Simon	6001	Sr Secretary	10200	Human Resources	QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&BIND1=10200	http://sic05agl.us.oracle.com/pspp/Q855OIT_newwin/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1
4	8052 Avery,Joan	6001	Sr Secretary	10200	Human Resources	QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&BIND1=10200	http://sic05agl.us.oracle.com/pspp/Q855OIT_newwin/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1
5	8101 Penrose,Steven	6001	Sr Secretary	10200	Human Resources	QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&BIND1=10200	http://sic05agl.us.oracle.com/pspp/Q855OIT_newwin/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1	http://sic05agl.us.oracle.com/pspp/Q855OIT_297/EMPLOYEE/QE_LOCAL/??i?Action=iCOnNameURL=PublicQE_EMP_DESTINATION&DEPT_TBL_GBL?Action=U&DEPTID=10200&SETID=QEDM1

Pruning Type

Based on the attributes that are selected in the result sets and the attribute dependency, Composite Query might be able to simplify the SQL statements that are generated for the underlying queries. The pruning process removes the tables in the FROM clause if the pruning rules allow. It also removes the columns in the SELECT clause, which corresponds to the view row attributes that users have not selected.

The available pruning types are:

- No Pruning

Selecting this option enables the system to produce a full SQL statement without any pruning.

By default, the Pruning Type is set to No Pruning.

- Standard Pruning

Selecting this option enables the system to prune only a field or a table when the pruning process does not change the result set. The result sets of the SQL statements that are generated by the Standard Pruning and No Pruning options are identical. The field is not pruned if it is used in

the query, such as the JOIN criteria in the FROM, WHERE, GROUP BY, or ORDER BY clauses.

Note: In general, standard pruning does not prune much except the Cartesian Join, where a table does not have any relationship with other tables.

- Prune to Select List

Selecting this option enables the system to remove all join criteria and joined table from the SQL if the fields from that table is not selected. The system can prune a table from the query if no field in the table is selected for the composite query. This pruning option can change the result set because the table that is being pruned can have been used to filter the result set based on the JOIN it has against the other tables.

You should select the Prune to Select List option when the result set is not altered. To accomplish that, you should ensure the join produces only extra columns and nothing more. The implication is that the relationship between the joined tables is many-to-one or one-to-one.

Note: The Standard Pruning and Prune to Select List options enable the system to prune a field from the SELECT clause if it is not used by the composite query.

The dependency settings of the base queries in the Query Manager – Dependency tab are also used to determine whether a field or a table can be pruned. See [Defining Record and Field Dependencies](#).

Maximum Rows Fetched

Use to specify the maximum number of rows returned.

By default, the value in the Maximum Rows Fetched field is set to 100.

Preview

Click this button to refresh the results using the new settings in the composite query Preview page.

If the composite query has prompts, a prompt window appears after you click the Preview button.

Download

Click to select an option to download the composite query results to either an HTML file or an XML file.

Steps Used to Preview Composite Query Results

To preview composite query results:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.

3. In the Composite Query Manager page, move your mouse over the Option menu icon (next to the SQL button).
4. Select the Run/Preview option to preview the composite query results.

If runtime prompts exist, the prompt dialog appears.

5. If needed, enter the valid prompt values and click the OK button.

The composite query Preview page appears, listing the composite query results.

6. Optionally, change the values in the Pruning Type section or the Maximum Row Fetched field and then click the Preview button to view the newly refreshed composite query results.
7. Optionally, use the Download menu link to download the full results of the composite query to an HTML or a XML file.

Viewing Composite Query Properties

Use the Properties page (PSCPQPROPERTIES) to view and edit the property settings of the composite query, including owner ID, comments, and distinct option.

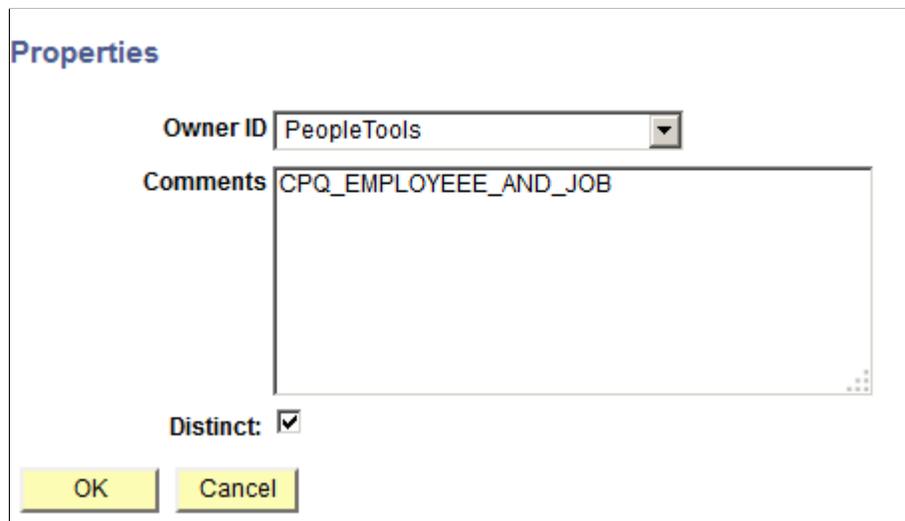
Navigation

1. Select Reporting Tools, Composite Query, Composite Query Manager.
2. Create a new composite query or open an existing one.
3. In the Composite Query Manager page, move your mouse over the Action menu icon (next to the SQL button).
4. Select the Properties option to view the property settings of the composite query.

The Properties page appears, displaying the properties settings of the composite query.

Image: Properties page

This example illustrates the fields and controls on the Properties page. The Distinct option is selected to eliminate duplicate rows in the composite query result.



The screenshot shows a dialog box titled "Properties" with the following fields and controls:

- Owner ID:** A dropdown menu with "PeopleTools" selected.
- Comments:** A text area containing "CPQ_EMPLOYEE_AND_JOB".
- Distinct:** A checkbox that is checked.
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Editing, Copying, and Deleting Composite Queries

Page Used to Edit, Copy, and Delete Composite Queries

Use the Edit, Copy, and Delete links in the Composite Query Manager search page (PSCPQSRCH) to edit, copy, and delete existing composite queries.

Navigation

Reporting Tools >Composite Query >Composite Query Manager

Image: Composite Query Manager search page

This example illustrates the Composite Query Manager search page, including the Edit, Copy, and Delete links.

Composite Query Manager

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Value](#) | [Add a New Value](#)

Search By Composite Query Name ▼ begins with

Search [Advanced Search](#)

Composite Query				Personalize	Find	View All	First	1-11 of 11	Last
Name	Description	Owner	Status	Edit	Copy	Delete			
EMPL_AND_JOB	Employee and Job Code	Public	Active	Edit	Copy	Delete			
EMPL_JOB	EMPL_JOB	Public	Active	Edit	Copy	Delete			
QE_CPQ_SMOKE	smoke composite query	Public	Active	Edit	Copy	Delete			
QE_CPQ_SMOKE_FILTERS	smoke composite query filters	Public	Active	Edit	Copy	Delete			
QE_CPQ_SMOKE_PROMPT	smoke composite query prompt	Public	Active	Edit	Copy	Delete			

Editing Composite Queries

To edit composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.

The Composite Query Manager search page appears.

2. Click the Search button.

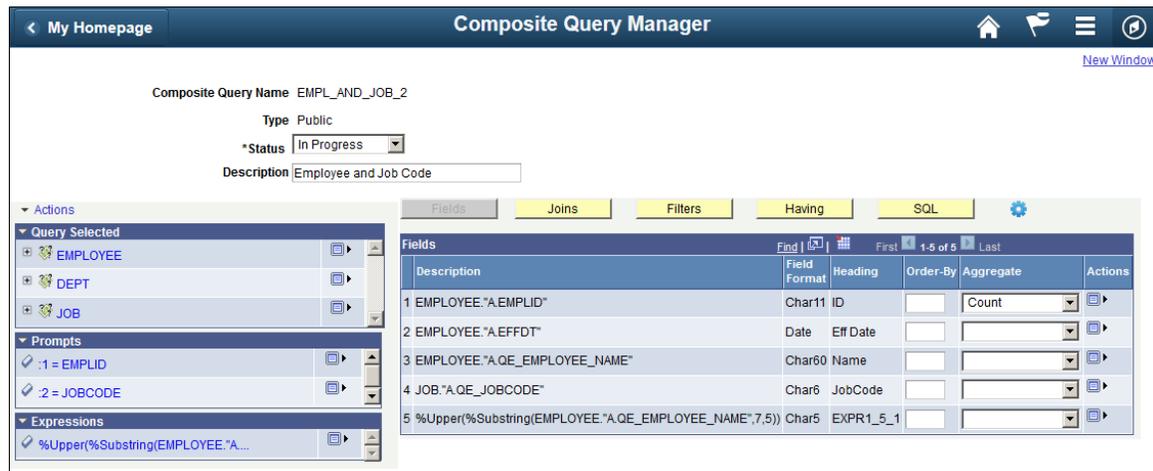
A list of existing composite queries appears.

3. Click the Edit link for the composite query that you want to edit.

The Composite Query Manager page appears. From this page, you can edit the composite query by adding base queries, defining prompts and expressions, applying aggregate functions, and so on.

Image: Composite Query Manager page

This example illustrates the Composite Query Manager page, where you can edit the composite query.



Deleting Composite Queries

To delete composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.

The Composite Query Manager search page appears.

2. Click the Search button.

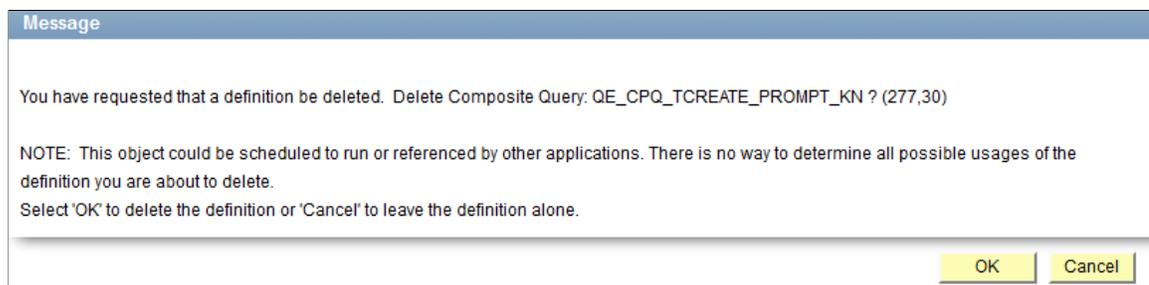
A list of existing composite queries appears.

3. Click the Delete link for the composite query that you want to delete.

A delete warning message appears.

Image: Delete warning message

This example show the delete warning message when you delete a composite query.



4. Click the OK button to confirm that you want to delete the selected composite query.

The Composite Query Manager search page reappears, displaying a delete confirmation message.

Copying Composite Queries

Use the Copy Composite Query page (PSCONQRSCOPY) to copy the composite queries.

Image: Copy Composite Query page

This example illustrates the fields and controls on the Copy Composite Query page.

The screenshot displays the 'Copy Composite Query' page, which is divided into two main sections: 'Source Composite Query' and 'Target Composite Query'.

Source Composite Query:

- Composite Query:** CPQ_TCREATE_PROMPT
- Status:** Active
- Public**
- Description:** CPQ_CREATE_PROMPT
- Comments:** CPQ_CREATE_PROMPT for debugging and verification

Target Composite Query:

- *Composite Query:** CPQ_TCREATE_PROMPT_COPY
- *Status:** Active (dropdown menu)
- Public**
- Description:** CPQ_CREATE_PROMPT_COPY
- Comments:** Copy of CPQ_CREATE_PROMPT for debugging and verification

Steps Used to Copy Composite Queries

To copy composite queries:

1. Select Reporting Tools, Composite Query, Composite Query Manager.
The Composite Query Manager search page appears.
2. Click the Search button.
A list of existing composite queries appears.
3. Click the Copy link for the composite query that you want to copy.
The Copy Composite Query page appears.
4. Enter a unique name, set the status, and select the type for the target composite query.
5. Optionally, modify the query description and comment for the target composite query.

6. Click the Save button.

The Composite Query Manager search page appears, listing the cloned composite query along with other existing composite queries.

Copying Composite Query Definitions Between Databases

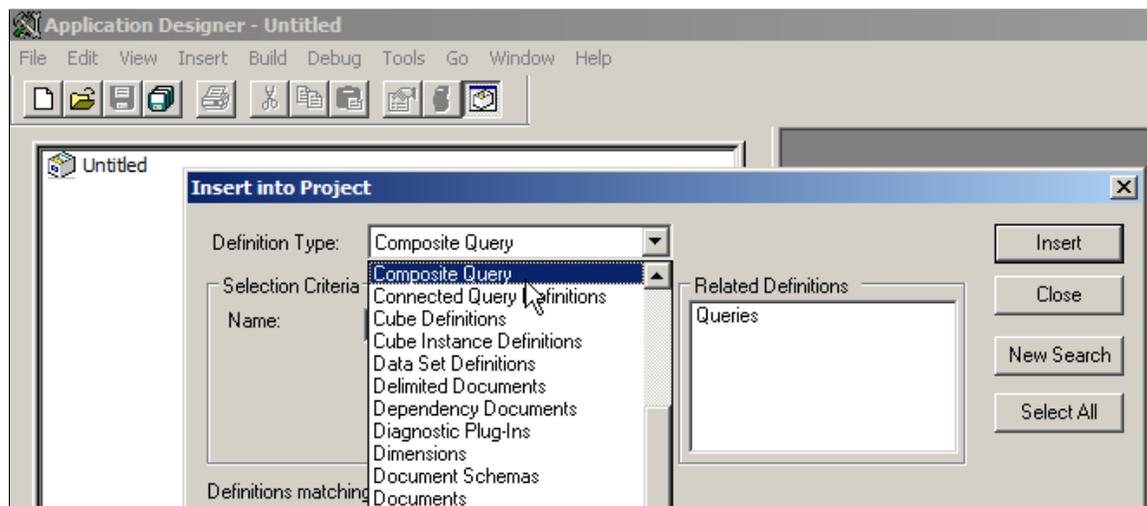
Composite Query is a managed object that can be copied between databases using database project. To copy a composite query between databases:

1. Use Application Designer to create a project.
2. Insert a Composite Query definition into the project.
3. Copy the database project (that has the Composite Query definition) between databases.

Note: Database projects that have the Composite Query definitions can also be exported to or from file and imported to or from file.

Image: Application Designer - Insert into Project dialog box

This example illustrates Application Designer - Insert into Project dialog box. Composite Query is one of the definition types.



Chapter 9

Creating Workflow Queries

Understanding Workflow Queries

Workflow queries—also called *role queries*—are queries that PeopleSoft Workflow uses as part of automated business processes to determine which users should receive work items.

Because these queries are run by the system rather than by users, the PeopleSoft application does not run the same prequery security checks. In particular, the application does not check which access groups the user who is running a workflow query can access—because the user is a workflow agent. (For this reason, you may not want to allow all users to create workflow queries.)

Defining Workflow Queries

Use the Query Properties page to define a workflow query.

Image: Query Properties page with the Security Join Optimizer option selected

This example illustrates the fields and controls on the Query Properties page with the Security Join Optimizer option selected.

The screenshot shows the 'Query Properties' page with the following fields and controls:

- *Query:** XRFWIN
- Description:** XRFWIN
- Folder:** (empty text box)
- *Query Type:** User (dropdown menu)
- *Owner:** Public (dropdown menu)
- Distinct
- Security Join Optimizer
- Query Definition:** (empty text area)
- Image Fields:**
 - Blank Value
 - Image Data
 - Image Hyperlink
- Last Updated Date/Time:** 10/30/2003 2:45:06PM
- Last Update User ID:** PPLSOFT

To define a workflow query:

1. Select Reporting Tools >Query >Query Manager.
2. On a Query Manager page, click the Properties link.
The Query Properties page appears.
3. Select the query type of *Role*, and click the OK button.

Note: You should use a naming convention to distinguish the different types of queries. The Role query option refers to the fact that role queries are named with names that begin with [ROLE].

Related Links

[Understanding Query Types](#)

[Using Query Profiles](#)

Chapter 10

PeopleSoft Query Security

Using Query Access Group Trees

With PeopleSoft Query security, you can control the query operations that users can perform and the data to which they have access.

Understanding Query Access Group Trees

PeopleSoft Query uses *query access group trees* to control security of the tables in your PeopleSoft database. You define a hierarchy of record components, based on logical or functional groupings, and then give users access to one or more branches of the tree. Users can use PeopleSoft Query to retrieve information only from those tables whose record definitions they have access to.

Using PeopleSoft Query Access Manager, you can create, view, and update query access group trees.

Query access group trees contain two types of nodes: groups and records.

- Groups represent of a set of child groups or records.
- Records represent a PeopleSoft record definition.

Creating Query Trees

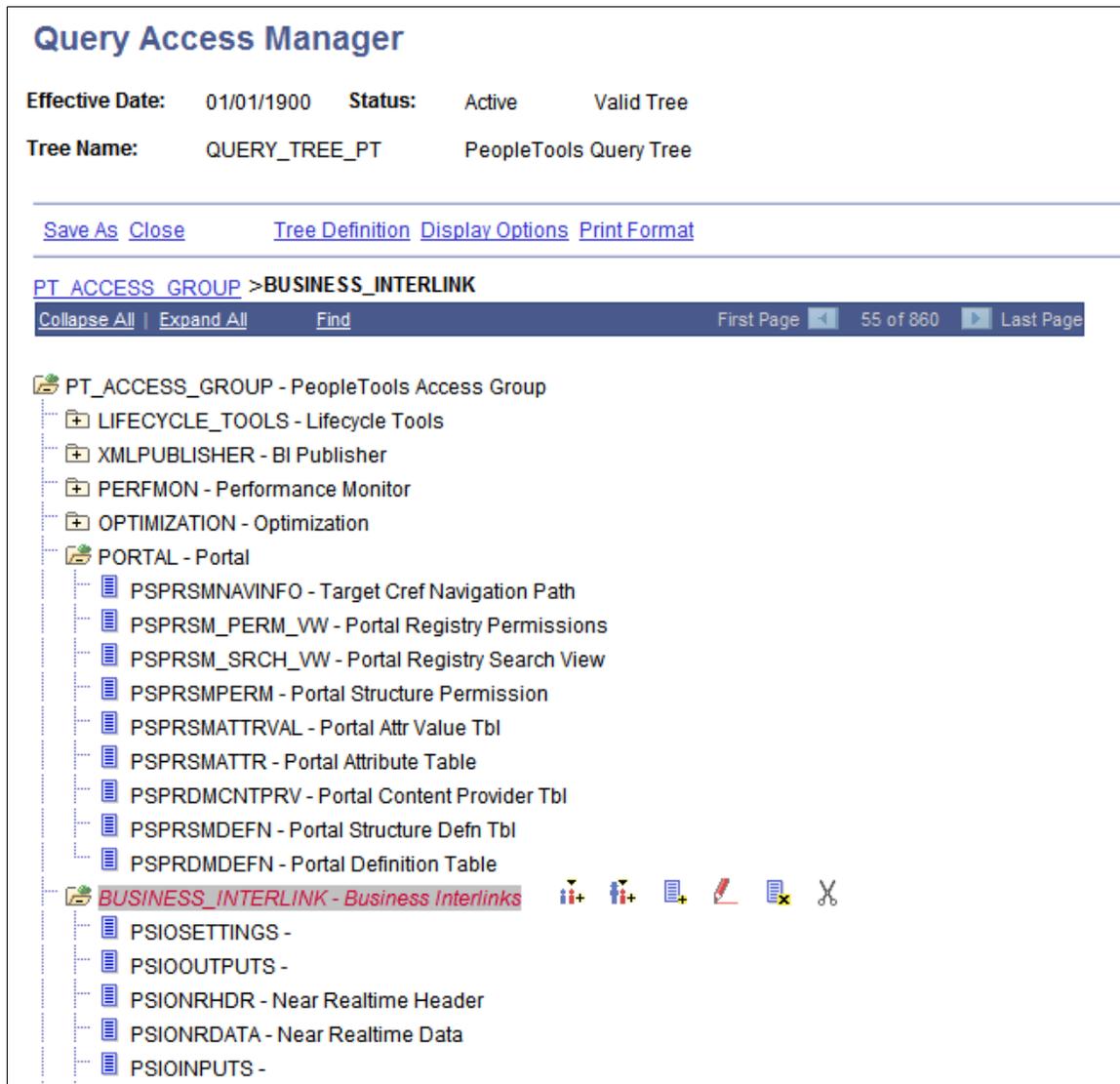
Use the Query Access Manager page (PSTREEMGRACC) to create query trees or search for existing query trees.

Navigation

PeopleTools >Security >Query Security >Query Access Manager

Image: Query Access Manager page - example of a query access group tree

This example illustrates the fields and controls on the Query Access Manager page.



PeopleSoft provides sample trees with all of its applications. You can configure these trees; however, because these trees may get replaced when you upgrade to subsequent application releases, you should create your own query trees based on your organization’s needs.

In your query trees, include all record components that you want users to be able to query. Note that you do not have to put all record components in the same query tree. Instead, you can use the sample query trees to provide access to the standard PeopleSoft record definitions, but create additional query trees for record definitions that you want to add while adapting your system. This strategy enables you to take advantage of the sample trees but avoid overwriting your changes during future application upgrades.

How you organize the contents of your query trees depends on the needs of your organization and users. For example, for nontechnical or casual users, you might want to create small trees that are not intimidating.

To simplify the trees, you can create separate trees that contain subcategories of each function. For example, you could create separate trees for human resources, general ledger, and projects record components so that users in each region can access only those record components that they use.

When creating your tree, you should also have an access group that includes all components of the tree. This enables you to give users access to all tables more easily—you need only to add one row on the Access Groups tab in Query Security.

Note: Consider adding record components to your query trees in a hierarchy that matches the parent/child relationship of records in your database. Although you do not have to organize records in this way—PeopleSoft Application Designer actually controls the parent/child hierarchy in your database—you will probably find it helpful to keep your query trees consistent with your database structure.

Granting and Restricting Access to Groups

After you have built a query tree, you must give users access to one or more of its access groups. They can then generate queries on any tables in the access groups that are accessible to them.

To create new queries, or even to run existing ones, users must have access rights to the record components that are used in the queries. After you have built your query trees, you must grant users access to them. You can grant and restrict access to entire query trees or portions of them through the Permission List Access Groups page (by selecting PeopleTools >Security >Permission & Roles >Permission Lists >Query >Access Group Permissions).

Related Links

"Setting Query Permissions" (PeopleTools 8.56: Security Administration)

Enabling the Query Access List Cache

An optional batch process is available for users who work with Query Manager and PS/nVision. The system can much more quickly retrieve the queries that match the designated search criteria if the query access list cache is enabled.

Image: Query Access List Cache page

This example illustrates the fields and controls on the Query Access List Cache (RUN_QRYACCLIST) page.

Query Access List Cache

Run Control ID: PSQRYACCLIST [Report Manager](#) [Process Monitor](#)

Enable Access List Cache

When this radio button is selected, the query access list cache is enabled. Use the run button above to launch the application engine program to initially populate or to refresh the query access list cache table. This cache table must be refreshed anytime a change is made that affects the list of records a user may use in a query. Examples of changes that may affect the list of records a user may use in a query are: adding/removing records from a query access list tree, adding/removing a query access list tree from a permission list or a role

Disable Access List Cache

When this radio button is selected, the query access list cache table will be cleared if it is not empty and caching is disabled. Note that query performance may suffer if caching is disabled. To turn caching back on, select the enable cache radio button above and then the run button to populate the cache table. Note that caching will not be enabled if the application engine process to populate the cache does not complete properly.

To enable the query access list cache:

1. Select PeopleTools >Security >Query Security >Query Access List Cache.
2. Select the Enable Access List Cache option.
3. Click the Run button to run the process.

If the process does not finish, the cache will be disabled.

Note: When the Enable Access List Cache option is selected and roles of a user profile or permission list of a role has been modified, which affect the Query Access List Cache, you must rerun the QRYACCLIST AE process to properly update the cache. Otherwise, the Query Access List Cache is not up-to-date and will be switched off automatically.

Rerun the process when changes have been made to Query Access Groups or Query Access Group settings on Roles or Permission Lists.

Using Row-Level Security and Query Security Record Definitions

Enforcing Row-Level Security

By default, when you give PeopleSoft Query users access to a record definition, they can access all the rows of data in the table that were built using the associated record definition. In some cases, though, you may want to restrict users from seeing some of those data rows. For example, you may not want your human resources staff to access compensation data for vice presidents or above. That is, you want to enforce the *row-level security* feature that is offered by many PeopleSoft applications.

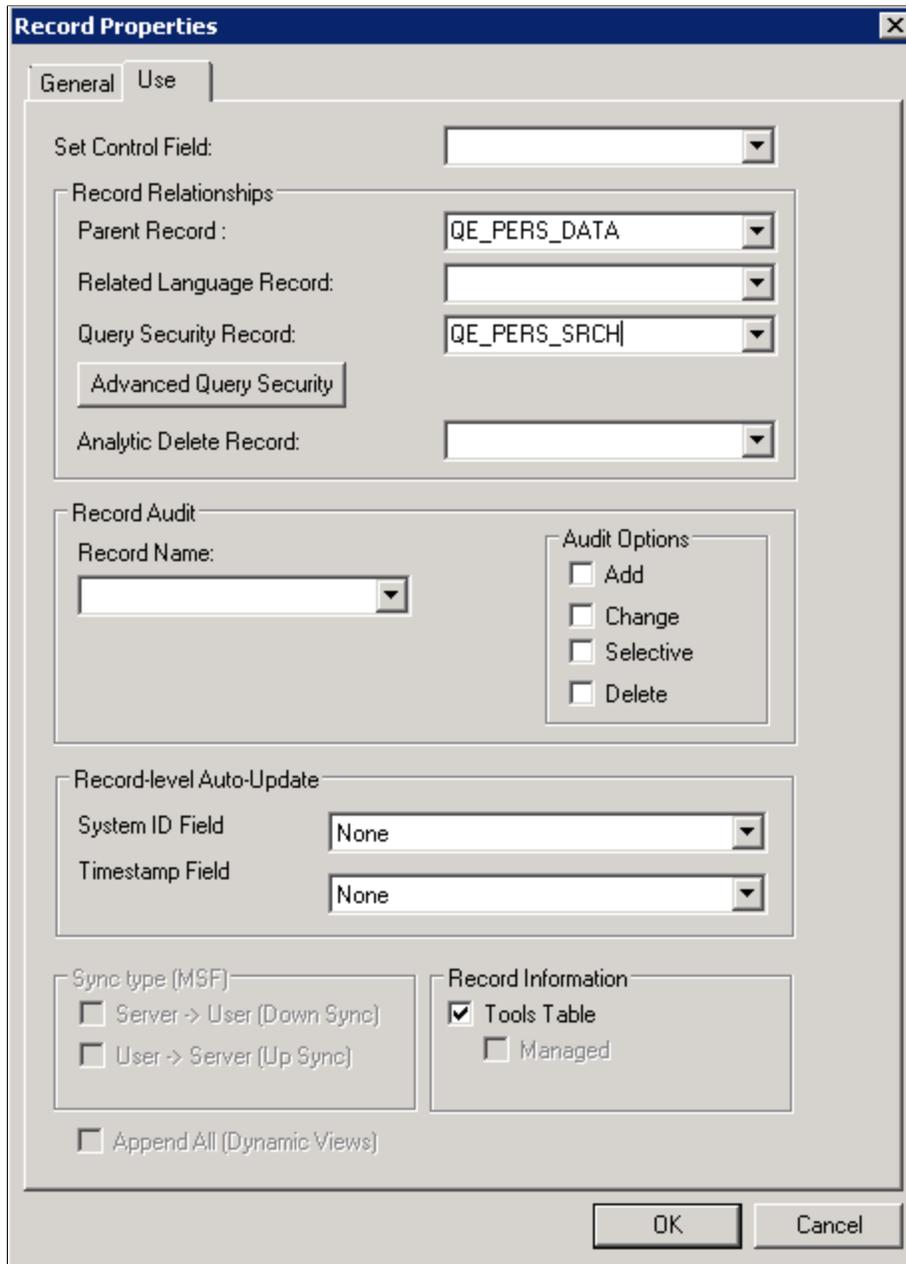
Row-level security enables users to access a table without accessing all rows on that table. This type of security is typically applied to tables that hold sensitive data. For example, you might want users to be able to review personal data for employees in their own departments but not for employees in other departments. To accomplish this, you would give everyone access to the PERSONAL_DATA table, but would enforce row-level security so that users could see only the rows where the DEPTID matches their own.

Note: PeopleSoft Query row-level security is enforced only when you are using PeopleSoft Query or Scheduled Query; it doesn't control runtime page access to table data.

PeopleSoft applications implement row-level security by using a query security record (typically a view) that is specified on the record definition that joins the data table with an authorization table. When a user searches for data in the data table, the system performs a related record join between the security record view and the base table (rather than searching the table directly). The view adds a security check to the search, based on the criteria that you have set up for row-level security. For example, to restrict users to seeing only data from their own departments, the view would select from the underlying table only those rows where the DEPTID matches the user's DEPTID. You can specify the query security record by selecting an appropriate view from the Query Security Record drop-down list on the Record Properties dialog box for any record definition.

Image: Record Properties dialog box - Use tab

This example illustrates the Record Properties dialog box - Use tab with the Query Security Record field is set to QE_PERS_SRCH.



Note: Process and role queries override the automatic row-level query security logic that is applied to all other types of queries. For this reason, you should restrict access to creating these types of queries to administrative types of roles and not include any sensitive data columns in the select list for these types of queries. You can restrict access to creating and modifying these queries based on query profile settings that are assigned to a permission list. Note that Workflow queries also override the row-level security logic.

Securing Data Through the Search Record

To secure data through the query security record view, create a query security record that has both of the following criteria:

- The same key field as the base record that you are securing.
- One of the following three row-level security fields as a key field and not as a list box item:
 - OPRID (User ID).
 - OPRCLASS (Primary Permission List).
 - ROWSECCLASS (Row Security Permission List).

Note: These security criteria are applied for all definitions, including *multiple query security record* definitions and *single query security record* definitions.

When you add one of the preceding fields as a key field, PeopleTools automatically adds a WHERE clause when it does a SELECT through the record. This forces the value to be equal to the current user's value.

See [Using Query Access Group Trees](#), [Using Query Profiles](#).

Using Query Security Record Definitions

Implement row-level security by having PeopleSoft Query search for data using a *query security record definition*. The query security record definition adds a security check to the search.

Query security record definitions serve the same purpose as search record definitions do for pages. Just as a search record definition determines what data the user can display in the page, the query security record definition determines what data the user can display with PeopleSoft Query.

To get PeopleSoft Query to retrieve data by joining a security record definition to the base table, specify the appropriate query security record when you create the base table's record definition.

Note: The PeopleSoft row-level security views restrict users from seeing certain rows of data. If you specify a query security record for a given base record definition, PeopleSoft Query adds a qualifier to the WHERE clause of each query, instructing the system to retrieve only rows in organizational entities to which you have been granted access. If you perform a historical query—for example, a query asking for the employees in your department as of last year—you may not get the results that you expect. Because the system is enforcing row-level security, PeopleSoft Query returns only those employees who were in the department last year and who are currently in a department to which you have access.

Each PeopleSoft product line comes with a set of views for implementing its standard row-level security options.

Adding Multiple Query Security Records for a Record Definition

You are able to add multiple query security records for a record definition, including:

- Associating multiple query security records with a single record.

- Specifying the fields (including non-key fields from the query security record) and the base record that will be used to secure the data.

Adding Multiple Query Security Records for Record Definitions

Query Administrator uses the Advanced Query Security Record Mapping dialog box and the Add Query Security Record dialog box in Application Designer to add multiple query security records for a record definition. Note that each base record can have one query security record defined in the Record Property dialog box and as many as five additional query security records defined in the Advanced Query Security Record Mapping dialog box. When you add more than five query security records using the Advanced Query Security Record Mapping dialog box, an error message appears to alert you that the maximum limit has been reached.

Navigation

1. Open the Record Properties dialog box in Application Designer.
2. Click the Advanced Query Security button.
3. In the Advanced Query Security Record Mapping dialog box, click the Add button.

Image: Advanced Query Security Record Mapping dialog box

This example illustrates the Advanced Query Security Record Mapping dialog box in Application Designer.

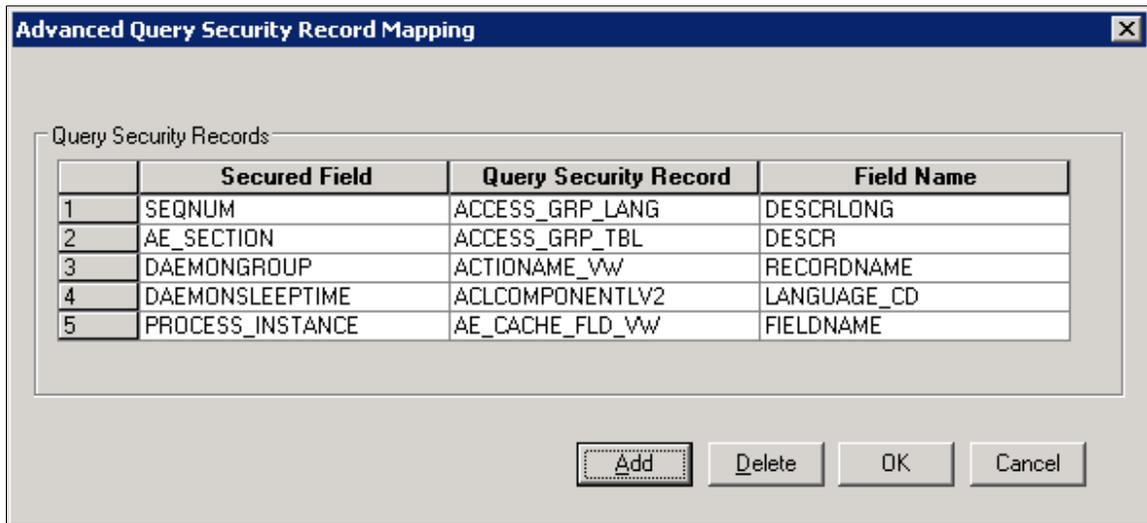
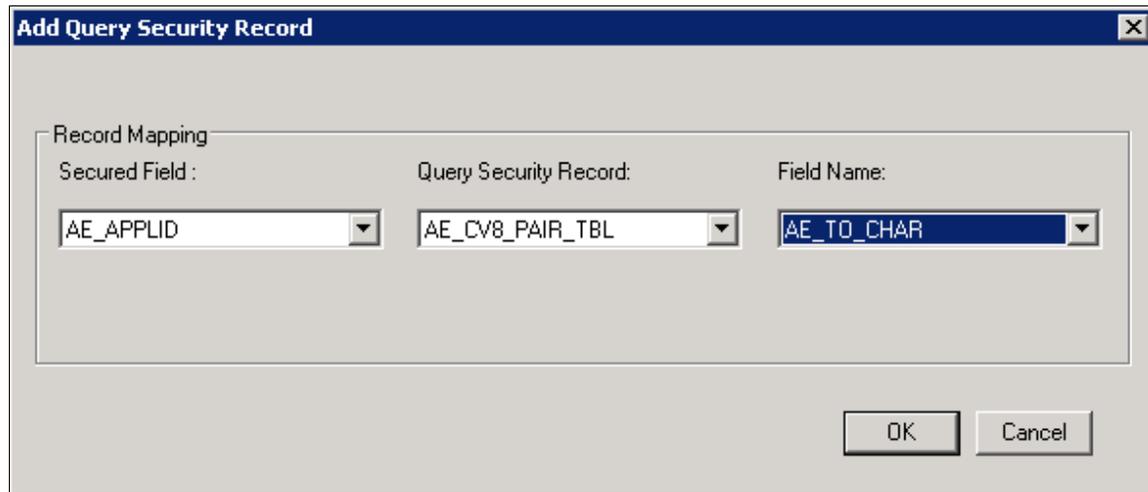


Image: Add Query Security Record dialog box

This example illustrates the Add Query Security Record dialog box in Application Designer.



Secured Field Select a field from the available fields in the base record.

Query Security Record Select a record that you have permission to access.

Note: Dynamic views, derived or work records, subrecords, and temporary records cannot be used as query security records. These records are excluded from the Query Security Record drop-down list.

Field Name Select a field from the selected query security record.

To add multiple query security records for record definitions:

1. In Application Designer, open the Record Properties dialog box.
2. Click the Advanced Query Security button.

The Advanced Query Security Record Mapping dialog box appears with the list of query security records that are already set to the current record.

3. Click the Add button to access the Add Query Security Record dialog box.
4. Use the Add Query Security Record dialog box to enter additional query security records and their corresponding field mappings.

Removing Query Security Records from Record Definitions

To remove query security records from record definitions:

1. In Application Designer, open the Record Properties dialog box.
2. Click the Advanced Query Security button.

The Advanced Query Security Record Mapping dialog box appears with the list of query security records that are already set to the current record.

3. Select a row in the Query Security Record section.
4. Click the Delete button.
A warning message appears.
5. Click the Yes button to confirm the deletion.

Using Query Profiles

Use the Query Profile page (SCRTY_QUERY_PROF) to determine users' level of access when they work with PeopleSoft Query.

Navigation

PeopleTools >Security >Permissions and Roles >Permission Lists >Query tab >Query Profile

Image: Security - Query Profile page

This example illustrates the fields and controls on the Security - Query Profile page.

Permission List: PTPT1000	
Description: PeopleSoft User	
PeopleSoft Query Use	Advanced SQL Options
<input type="checkbox"/> Only Allowed to run Queries <input checked="" type="checkbox"/> Allow creation of Public Queries <input checked="" type="checkbox"/> Allow creation of Role, Process and Archive Queries Maximum Rows Fetched: <input type="text"/> (0 = Unlimited) Maximum Run Time in Minutes: <input type="text"/> (0 = Unlimited)	<input checked="" type="checkbox"/> Allow use of Distinct <input checked="" type="checkbox"/> Allow use of 'Any Join' <input checked="" type="checkbox"/> Allow use of Subquery/Exists <input checked="" type="checkbox"/> Allow use of Union <input checked="" type="checkbox"/> Allow use of Expressions Maximum Joins Allowed: <input type="text" value="9"/> (9 = Unlimited) Maximum 'In Tree' Criteria: <input type="text" value="9"/> (9 = Unlimited)
PeopleSoft Query Output	
<input checked="" type="checkbox"/> Run <input checked="" type="checkbox"/> Run to Excel	

To use query profiles:

1. Select PeopleTools >Security >Permissions & Roles >Permission Lists.
2. Select the Query tab.
3. Click the Query Profile link.

Query profiles specify the type of access that users have when they work with PeopleSoft Query. For example, you may want certain users to run only existing queries, not create new ones. You might also want to restrict the types of queries that users can create, limit the number of rows returned, or set the time that a query can run before it times out.

Note: If a user has more than one permission list, PeopleSoft Query uses the highest time-out value as defined in the Time-out Minutes section of the user's permission lists.

All time-outs are globally enabled and disabled in Query Administration.

When you select the Allow creation of Role, Process and Archive Queries check box, you also allow the user to create role, process, and archive queries.

If the Allow Use of Any Join option is not selected, query users cannot run the queries that use more than one record.

See [Understanding Query Administration](#), "Setting General Permissions" (PeopleTools 8.56: Security Administration).

You can also determine the output options that users have for generating their queries. The first level of security is access to PeopleSoft Query itself. If you don't give users access to PeopleSoft Query when you define their user IDs, they can't create or run queries. Not all users need to create their own queries.

PeopleSoft tests query profile settings across all of the permission lists to which a user has access. For example, each permission list that is granted to a user or role has the possibility to add capabilities. However, the Only Allowed to Run Queries option is unique because when you select this option, capabilities are removed. So if you want to prevent users from updating queries (and allow them only to run them), then you must ensure that *none* of the permission list settings grant the update capabilities by clearing the Only Allowed to Run Queries option.

By default, the query profile gives users access to all PeopleSoft Query features—assuming that you gave them access to PeopleSoft Query.

Related Links

"Defining Query Profiles" (PeopleTools 8.56: Security Administration)

"Building Query Access Group Trees" (PeopleTools 8.56: Security Administration)

"Working with Query Trees" (PeopleTools 8.56: Security Administration)

"Defining Row-Level Security and Query Security Records" (PeopleTools 8.56: Security Administration)

Appendix A

Query Administration

Understanding Query Administration

System administrators can use Query Administration to monitor query performance and usage. Some of the conditions that you can monitor include average runtime, number of times run, and the dates last run. Using a predefined search, you can also select queries to review and report on.

Query Administration also enables you to cancel queries that are currently running in Query Manager and Query Viewer as well as enable and disable queries and logging.

Note: Workflow queries are excluded from the statistics because of the large volume that can be run as part of workflow processing. Therefore, you should ensure that workflow queries are as efficient as possible.

You cannot cancel currently running scheduled queries.

Related Links

[Using Query Profiles](#)

Using Query Administration

Administering Queries

Use the Admin page (QRY_ADMIN) to administer queries.

Navigation

PeopleTools >Utilities >Administration >Query Administration

Image: Admin page

This example illustrates the fields and controls on the Admin page.

The screenshot shows the Admin page interface. At the top, there are tabs for 'Admin', 'Executing', and 'Settings'. Below the tabs, there are two search options: 'Choose a predefined search:' and 'OR perform a manual search:'. The predefined search section has a dropdown menu with 'Queries that have been run in the last (n) days' selected, a text input field with '(n) = 10', and a 'Search' button. The manual search section has a 'Search by:' dropdown with 'Query Name' selected, a 'begins with' dropdown, a text input field with 'WFT', and a 'Search' button. Below the search options, there are 'Check All' and 'Uncheck All' buttons. The main part of the page is a 'Query List' table with columns: Select, Owner ID, Query Name, Folder, Avg Time, Avg Rows, # Runs, Last Run Date, Last Run Time, Logging, Disabled, View SQL, and View L. The table contains five rows of query data. Below the table, there are several action buttons: 'Logging On', 'Enable', 'Assign New Owner', 'Delete', 'Rename', 'Move to Folder', 'Clear Stats/Logs', 'Logging Off', and 'Disable'.

Select	Owner ID	Query Name	Folder	Avg Time	Avg Rows	# Runs	Last Run Date	Last Run Time	Logging	Disabled	View SQL	View L
<input type="checkbox"/>		WFT0001_TOTALS_BY_BP_WL		0.000	0.000	0			Off	No	View SQL	View L
<input type="checkbox"/>		WFT0002_TOTALS_BY_BP_WL_OPR		0.000	0.000	0			Off	No	View SQL	View L
<input type="checkbox"/>		WFT0003_OPERATOR_TOTALS		0.000	0.000	0			Off	No	View SQL	View L
<input type="checkbox"/>		WFT0004_TOTALS_BY_BP_WL_ALL_OP		0.000	0.000	0			Off	No	View SQL	View L
<input type="checkbox"/>		WFT0005_TOTALS_FOR_SINGLE_BP		0.000	0.000	0			Off	No	View SQL	View L

To administer queries:

1. Use either the predefined search or manual search option to restrict the list of queries that are displayed.

For a predefined search, enter the desired value for the selected search option in the (n)= field and select one of the following options:

- *Queries that belong to locked out accounts*
- *Queries that have been disabled*
- *Queries that have been run in the last (n) days*
- *Queries that have logging turned on*
- *Queries that have never been run*
- *Queries that have run but not in the last (n) days*
- *Top (n) queries by largest average number of rows*
- *Top (n) queries by longest run time*
- *Top (n) queries most frequently run*

For a manual search, select to search queries by query name or owner ID.

You can define your search further by selecting either *begins with* or *contains* search type.

2. Click the Search button to display a list of queries that match your search criteria.

The Query List group box lists those queries that match your search criteria.

3. Review the following statistics for each query that is listed:

- Owner ID
- Query name
- Folder
- Average time to run
- Average number of rows
- Number of times run
- Last run date and time
- Logging status
- Disabled status

Note: If a query appears in the list as <UNTITLED>, a user has created and run one or more queries without saving them. Results from all unsaved queries appear as a single untitled row. You can clear statistics only for untitled queries. Attempting to perform any other action on untitled queries will result in an error message.

4. For the appropriate query, click the View Log link to view the log for that query.

A message appears if no logs are available.

5. For the appropriate query, click the View SQL link to view the SQL for that query.
6. Select the check box for each query on which you want to perform an action.

You can also click the Check All button to select all queries, or click the Uncheck All button to clear all queries.

7. Perform an action by clicking one of the following buttons:

- Logging On: Enables logging for the selected query.

When you enable the logging feature, detailed statistics will be logged on the query every time it has run to completion. The statistics are stored in a separate Query Log table.

Note: The statistics log is updated with data only if the query runs to completion.

- Logging Off: Disables logging for the selected query.
- Enable: Enable the selected query to be run, previewed, or scheduled.
- Disable: Disables the selected query from being run, previewed, or scheduled.
- Assigns New Owner: Assign a new owner to the selected query.
- Delete: Deletes the selected query.
- Rename: Renames the selected query.

- Move to Folder: Moves the selected query to a folder.
- Clears Stats/Logs: Delete the statistics and logs for the selected query.

8. For the appropriate query, click the Logging button to enable logging for that query.

Note: Your changes are saved automatically, and the Save button is not available.

Managing Currently Running Queries

Use the Executing page (QRY_KILL) to cancel currently running queries, and enable or disable queries and logging.

Navigation

PeopleTools >Utilities >Administration >Query Administration >Executing

Image: Executing page

This example illustrates the fields and controls on the Executing page.

The Executing page displays all of the currently running queries, allowing you to enable or disable queries, enable or disable logging, and cancel currently running queries. If administrators need to verify that a query has been canceled, they can look in the Appsrv.log and verify that the *PSMONITORSRV* service has canceled the selected query.

To manage currently running queries:

1. Use either the predefined search or manual search option to restrict the list of queries that are displayed.

For a predefined search, select one of the following options:

- *Queries that have been running longer than (n) minutes*
- *Top (n) queries by longest run time*

2. In the (n)= field, enter the value that you want for the search option.

For a manual search, select to search queries by query name or owner ID.

You can define your search further by selecting either the *begins with* or *contains* search type.

3. Click the Search button to display a list of queries that match your search criteria.

The Query List group box lists those queries that match your search criteria.

4. Review the following statistics for each query that is listed:

- User ID
- Owner ID
- Query name
- Domain ID
- Process identifier
- Host
- Machine name
- Status
- Time started
- Time-out end time
- Number of times killed
- Logging status
- Disabled status

5. For the appropriate query, click the View Log link to view the log for that query.

A message appears if no logs are available.

6. For the appropriate query, click the View SQL link to view the SQL for that query.

7. Select the check box for each query on which you want to perform an action.

You can also click the Check All button to select all queries, or click the Uncheck All button to clear all queries.

8. Perform an action by clicking one of the following buttons:

- Kill Selected Processes: Forces the selected query to stop running.
- Logging On: Enables logging for the selected query.

When you enable logging, detailed statistics are logged on the query after every time it has run to completion. The statistics are stored in a separate Query Log table.

- Logging Off: Disables logging for the selected query.
- Enable: Enables the selected query to be run, previewed, or scheduled.

- **Disable:** Disables the selected query from being run, previewed, or scheduled.

9. For the appropriate query, select the Logging check box to enable logging for that query.

Note: Your changes are saved automatically and the Save button is not available.

The kill query (cancel query or time-out) mechanism represents each query that is run from Query Manager or Query Viewer as a row in the table PSQRYTRANS. Query Monitor, which implements the time-out functionality, has a mechanism that looks for orphan rows in PSQRYTRANS. Orphan rows are rows in PSQRYTRANS that do not have a query actively running. Orphan rows can be created because the server crashed while running a query, or other reasons.

Query Monitor looks for orphan rows only for the application server domain that it is running in. For this reason, orphan rows could be in PSQRYTRANS when no active domain exists. These rows are not seen by the online query monitoring facility, but could potentially exist in the database. Such rows are rare and you can use the database query tool to clean them up. You can use the *machine* and *domain* fields to determine whether rows exist that should be cleaned up.

Setting Additional Options

Use the Settings page (QRY_SETTINGS) set additional options such as enabling the query time-out feature and running query statistics.

Navigation

PeopleTools >Utilities >Administration >Query Administration >Settings

Image: Settings page

This example illustrates the fields and controls on the Settings page. Definitions for the fields and controls appear following the example.



Enable Query Timeout

Select or clear this check box to enable or disable the query time-out feature on a system-wide basis. The time-out values are stored in each permission list.

Note: The query time-out feature applies to queries that are run in Query Manager and Query Viewer. This feature does not apply to scheduled queries.

Run Query Statistics

Select or clear this check box to enable or disable the query statistics feature on a system-wide basis.

By default, the query statistics feature is *disabled*.

PeopleSoft recommends that you use the query statistics feature only for analysis and that you do not leave it enabled on an ongoing basis. Enabling this feature may compromise the performance and the system may have an increased possibility of query time-outs or may return query results with zero values. This recommendation also applies to users of queries in reports.

