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# PeopleTools 8.53: PeopleSoft Query

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February 2013

PeopleTools 8.53: PeopleSoft Query  
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# Preface

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## 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 Documentation

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Documentation website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted documentation 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 Documentation website is available in English only.

### Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Documentation 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 Oracle Secure Enterprise Search for full-text searching.

See *PeopleTools 8.53 Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Secure Enterprise Search, see the documentation for your chosen search engine.

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**Note:** Before users can access the search engine on a locally installed help website, you must enable the Search portlet and link. Click the Help link on any page in the PeopleSoft Online Help for instructions.

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### 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 lines 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 line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, 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: PeopleSoft 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.

## Typographical Conventions

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

<b><i>Typographical Convention</i></b>	<b><i>Description</i></b>
<b>Bold</b>	Highlights PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
<i>Italics</i>	Highlights field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply.  Italics also highlight references to words or letters, as in the following example: Enter the letter <i>O</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.
Monospace font	Highlights a PeopleCode program or other code example.
. . . (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.



<b><i>Typographical Convention</i></b>	<b><i>Description</i></b>
& (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)

## Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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## 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.

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## 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 be comfortable using Microsoft Windows and 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.

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## PeopleTools Related Links

[Oracle's PeopleSoft PeopleTools 8.53 Documentation Home Page \[ID 1494462.1\]](#)

[PeopleSoft Information Portal on Oracle.com](#)

[My Oracle Support](#)

[PeopleSoft Training from Oracle University](#)

[PeopleSoft Video Feature Overviews on YouTube](#)

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## Contact Us

[Send us your suggestions](#) Please include release numbers for the PeopleTools and applications that you are using.

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## Chapter 1

# Getting Started with PeopleSoft Query

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## Getting Started with PeopleSoft Query

These topics provide an overview of PeopleSoft Query and discuss:

- PeopleSoft Query business processes.
- PeopleSoft Query implementation.
- Other sources of information.

---

## PeopleSoft Query Overview

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.

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.

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

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- 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 serve as a data source for Crystal Reports.

With Crystal Reports, you can apply advanced formatting to the output of your queries. If you have access to the Windows version of Query Designer, you can run improvised or predefined queries directly to Crystal Reports 2008. If you do not have the Windows client installed, you can schedule a predefined Crystal Report to run on a Process Scheduler server, and have the results routed to PeopleSoft Report Manager.

- 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 can use queries as a data source.

- 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 (formerly 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.

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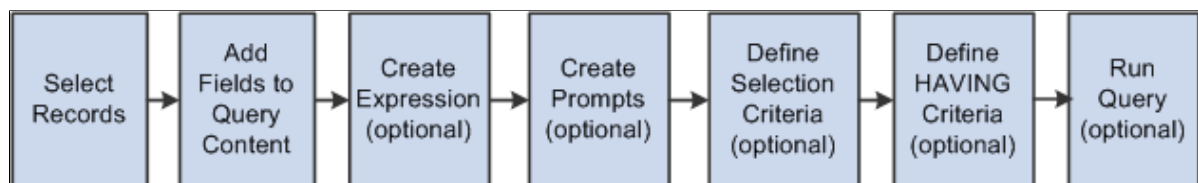
**Note:** Because PSQUERY is confined by the query limitations that are imposed by the platform on which PSQUERY runs, invalid queries that result in database errors will also result in errors when constructed and run through PSQUERY.

---

## PeopleSoft Query Business Processes

### Image: PeopleSoft Query business process flow

This process flow illustrates the PeopleSoft Query business processes.



## Other Sources of Information

This section 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

"Enterprise PeopleTools Overview (*PeopleTools 8.53: Getting Started with PeopleTools*)"

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## PeopleSoft Query Implementation

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

<b>Step</b>	<b>Reference</b>
1. Define query profiles.	See "Defining Query Profiles ( <i>PeopleTools 8.53: Security Administration</i> )".
2. Build query access group trees.	See "Building Query Access Group Trees ( <i>PeopleTools 8.53: Security Administration</i> )".
3. Work with query trees.	See "Working with Query Trees ( <i>PeopleTools 8.53: Security Administration</i> )".
4. Define row-level security and query security records.	See "Defining Row-Level Security and Query Security Records ( <i>PeopleTools 8.53: Security Administration</i> )".





# Creating and Running Simple Queries

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## Creating and Running Simple Queries

These topics provide an overview of query types and Dirty Reads in PeopleSoft Query, lists common elements, and discuss how to:

- Create new queries.
  - Save queries.
  - Run queries.
  - Add queries to the Internet Explorer Favorites list.
  - Download queries.
  - Perform lookups.
  - Print query results.
  - Use Query Viewer.
- 

## 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/Query Viewer applications.

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**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.

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### 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, Crystal Reports, 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 8.53: PeopleSoft 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 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 roles and not include any sensitive data columns in the select list for these types of queries. You can restrict access to creating/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.

---

**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 roles and not include any sensitive data columns in the select list for these types of queries. You can restrict access to creating/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.

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See "Understanding PeopleSoft Workflow (*PeopleTools 8.53: 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 8.53: Data Management*)".

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

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### 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 8.53: 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

"Application Engine (*PeopleTools 8.53: Application Engine*)"

"Use Dirty-Read (*PeopleTools 8.53: System and Server Administration*)"

"Setting Parameters for the Application Engine Server (*PeopleTools 8.53: PeopleSoft 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, ending 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 8.53: 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

Click to access the Query Properties page where you can enter basic information about the query and save it.

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

### New Query

Click to access the PeopleSoft Query Manager where you can start creating a new query.

See [Creating New Queries](#).

### Preference

Click to access the Preference page where you can specify query preferences.

See [Specifying Query Preferences](#).

### Properties

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.

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

### Public As Feed

This link is available only when query was not published as feed.

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.

See "Understanding Query Feeds (*PeopleTools 8.53: Feed Publishing Framework*)".

**Manage Feed**

This link is available only when query was published as feed.

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.

See "Understanding Query Feeds (*PeopleTools 8.53: Feed Publishing Framework*)".

**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 query have an 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](#).

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## Creating New Queries

This section discusses how to:

- Specify query preferences.
- Select records.
- Add fields to query content.
- View fields selected for output.
- Change the column and sort order for multiple fields.
- Edit field properties.
- View and edit query properties.
- View underlying SQL code.
- Preview query results prior to saving.

## 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.

**Query Preferences**

\*Name Style: Name and Description ▼

☒ **Enable Auto Join**  
 (Query will automatically determine the join conditions  
 for you when a new record component is added)

OK Cancel

#### 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](#)

"Understanding Internally Controlled Options (*PeopleTools 8.53: Security Administration*)"

## 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 box.

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.
4. 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, ending with ZX, ZY, ZZ.

### Hierarchy Join

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

### Check All Fields

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 Fields

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.

**Related Record Join**

Click such links 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 select the desired fields, and select the Fields tab; view how fields are selected for output; view the properties of each field; and 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.

Query Name: QE\_EMPLOYEE Description: QE Employee Info

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

Col	Record.FieldName	Format	Ord	XLAT	Aqg	Heading Text	Add Criteria	Edit	Delete
1	AEMPLID - Empl ID	Char11	1			ID		Edit	
2	A.EFFDT - Effective Date	Date	3			Eff Date		Edit	
3	A.QE_EMPLOYEE_NAME - Employee Name	Char60	2			Name		Edit	
4	A.QE_FIRST_NAME - First Name	Char50				First		Edit	
5	A.QE_LAST_NAME - Last Name	Char30				Last		Edit	
6	A.QE_SOC_SEC_NBR - Social Security Number	Char9				SSN		Edit	
7	A.QE_JOB CODE - Job Code	Char6				Job Code		Edit	
8	A.DEPTID - Department	Char10				DeptID		Edit	

Buttons: Save, Save As, New Query, Preferences, Properties, Publish as Feed, New Union, Return To Search

### 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.

#### **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.

**Edit Field Ordering**

Reorder columns by entering column numbers on the left. Columns left blank or assigned a 0 will be automatically assigned a number. Change the order by number by entering numbers on the right. To remove an order by number, leave the field blank or enter a 0.

Edit Field Ordering						Personalize   Find   View All   	First  1-8 of 8  Last
New Column	Column	Record.FieldName	Order By	Descending	New Order By		
<input type="text"/>	1	A.EMPLID - Empl ID	1	<input type="checkbox"/>	<input type="text"/>	1	
<input type="text"/>	2	A.EFFDT - Effective Date	3	<input type="checkbox"/>	<input type="text"/>	3	
<input type="text"/>	3	A.QE_EMPLOYEE_NAME - Employee Name	2	<input type="checkbox"/>	<input type="text"/>	2	
<input type="text"/>	4	A.QE_FIRST_NAME - First Name		<input type="checkbox"/>	<input type="text"/>		
<input type="text"/>	5	A.QE_LAST_NAME - Last Name		<input type="checkbox"/>	<input type="text"/>		
<input type="text"/>	6	A.QE_SOC_SEC_NBR - Social Security Number		<input type="checkbox"/>	<input type="text"/>		
<input type="text"/>	7	A.QE_JOBCODE - JobCode		<input type="checkbox"/>	<input type="text"/>		
<input type="text"/>	8	A.DEPTID - Department		<input type="checkbox"/>	<input type="text"/>		

#### 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.

#### Order By

Current sort order.

#### Descending

Select this check box to sort fields in 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.

#### Column Number

By default, the fields appear in the same order as they are listed in the record on the Query page. To change the order for the selected field, enter the new column number. When you close the Field Properties page, the columns reorder.

#### Heading

Select a column heading from the following options:

- *No Heading*: The column does not have a heading.
- *Text*: The column heading is the text that you have entered in the 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**

Will not use 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. Also use this page to record information about your query so that you can use it again in the future.



## 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.

<b>Query</b>	Use this field to edit the name of the query.
<b>Description</b>	Edit the description of the query.
<b>Folder</b>	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.
<b>Query Type</b>	Select <i>Archive</i> , <i>Process</i> , <i>Role</i> or <i>User</i> .  Workflow queries are either <i>Process</i> or <i>Role</i> .  See <a href="#">Understanding Query Types</a> .

**Owner**

Select from the following options:

- *Private*: If you select this option, only the user ID 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 (+) and Sybase (\*) 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.

**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 cannot modify SQL on this page.

### Navigation

To access the View SQL 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 SQL tab.

### Image: View SQL page

This example illustrates the fields and controls on the View SQL page. Definition for the field appears following the example.

The screenshot shows the 'View SQL' page in Query Manager. The top navigation bar includes tabs for Records, Query, Expressions, Prompts, Fields, Criteria, Having, Transformations, View SQL (selected), and Run. Below the tabs, the query name is 'QE\_EMPLOYEE' and the description is 'QE Employee Info'. The SQL code is displayed in a text area. At the bottom, there are buttons for 'Save', 'Save As', 'New Query', 'Preferences', 'Properties', 'Publish as Feed', 'New Union', and 'Return To Search'.

Query Name	Description
QE_EMPLOYEE	QE Employee Info

Query SQL

```
SELECT A.EMPLID, TO_CHAR(A.EFFDT,'YYYY-MM-DD'), A.QE_EMPLOYEE_NAME, A.QE_FIRST_NAME, A.QE_LAST_NAME,
A.QE_SOC_SEC_NBR, A.QE_JOBCODE, A.DEPTID
FROM PS_QE_EMPLOYEE A
ORDER BY 1, 3, 2
```

Save Save As New Query Preferences Properties Publish as Feed New Union Return To Search

**Note:** To copy the SQL statement, highlight the text of the statement and copy it using your browser's copy command. Paste it into another application, if desired.

## 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 fields and controls appear following the example.

Records Query Expressions Prompts Fields Criteria Having Transformations View SQL Run									
<a href="#">View All</a>   <a href="#">Rerun Query</a>   <a href="#">Download to Excel</a>   <a href="#">Download to XML</a>						First 1-100 of 386 Last			
	ID	Eff Date	Name	First	Last	SSN	JobCode	DeptID	
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), iPad users can 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 box.

See "Setting Style Class Attributes (*PeopleTools 8.53: PeopleSoft Application Designer Developer's Guide*)", "Specifying Spacing and Alignment (*PeopleTools 8.53: PeopleSoft 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 would like 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 list of types will also expand to include role, process, and archive.

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

- *Private:* Only the user ID 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 page you just saw appears enabling you to change the name, description, and owner of the new query.

---

---

## Running Queries

You can run a predefined query from your browser and view it online. When you click the Run button on the Query Manager search page, PeopleSoft Query displays the results in a new browser window. This Run option is useful if you want to run multiple queries or run the same query multiple times with different runtime prompt values and compare the results of the queries.

If you want to run queries 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 box, 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 box, 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 8.53: BI Publisher for PeopleSoft*)"

"Security Basics (*PeopleTools 8.53: 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.

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**Note:** Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), iPad users can 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.

A Microsoft Excel spreadsheet can contain a maximum number of 65,536 rows. If the spreadsheet cannot include all of the rows in your query, the first row displays—in a red font—the total number of rows returned by the query. If this number is greater than 65,536, Microsoft Excel spreadsheet does not include the remaining rows.

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.

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**Note:** If you have Office 2007 installed, then when doing a download-to-Excel, you might encounter a Microsoft Office Excel warning message suggesting that you verify that the file is not corrupted and that it is from a trusted source before opening it. You should click the Yes button in this situation. 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 8.53: 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 will be downloaded to browser as XMLP format 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.

Microsoft Excel 2000 or later is preferred. If you're using Microsoft Excel 97, click the CSV Text File link when you need to download large result sets.

You can configure your environment to open the Microsoft Excel file in a separate window or save it as a file on your local hard drive by modifying the File Type Option settings for Microsoft Excel Worksheets.

---

**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, at which point you can 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 will not be able to open the receiving file by double-clicking. Instead, you must open the receiving file with Excel's File, Open menu and choose the comma delimiter.

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

To modify the File Type Option settings for Microsoft Excel Worksheets when using Microsoft Windows 2000:

1. Open Windows Explorer (right-click Start, Explore).
2. Select Tools, Folder Options, File Types.
3. Select the XLS extension (Microsoft Excel Worksheet).
4. Click the Advanced button, and select or clear the Browse in same window check box.

## Applying a Formula to a Newly Inserted Column

When working in Microsoft Excel on a query that you have downloaded, adhere to the following guidelines in order to insert a new column into the spreadsheet, and then add a formula to that column.

When you insert a new column in Microsoft Excel, the new column's cells assume the default format from one of the adjacent columns—typically the left column. For example, if you insert a column between

columns B and C, the new column takes on the format of column B. If column B is formatted as *Text*, you cannot apply a formula to the newly inserted column.

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**Note:** If the columns adjacent to the newly inserted column have a format of *General*, you should be able to apply a formula without performing the following procedure.

---

In Microsoft Excel, to apply a formula to a newly inserted column of a query that you have downloaded:

1. Highlight the newly inserted column.
2. Change the column's format from text to general by selecting *Format, Cells*, and then selecting *General* from the list of categories on the Number tab.
3. Insert the formula into the column.

---

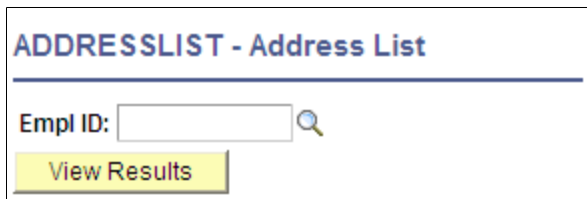
## Performing Lookups

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 form titled "ADDRESSLIST - Address List". Below the title is a search field labeled "Empl ID:" with a magnifying glass icon to its right. Below the search field is a yellow button with the text "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 arrow 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.

---

## 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.
3. 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.

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**Note:** Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), iPad users can 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.

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.

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See "Setting Query Permissions (*PeopleTools 8.53: Security Administration*)".

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## 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. Definitions for the fields and controls appear following the example.

**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](#)

**Search Results**

\*Folder View

Query	Personalize	Find	View	100	First	1-30 of 252	Last	
Query Name	Description	Owner	Folder	Run to HTML	Run to Excel	Run to XML	Schedule	Add to Favorites
CM_ATTRIBUTES	Attribute mappings	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_DIM_CTRL_TBL	Dimension Control Table	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_FACT_CTRL_TBL	Fact Control Table	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_FACT_MAP_TBL	Fact Map Table	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_FIELD_PROPERTIES		Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_HIER_CTRL_TBL	Hierarchy Control table	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CM_HIER_MAP_TBL	Hierarchy Map Table	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
CT_PSLATITEM		Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
DW_AGGREGATION	Aggregation for the instance	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>
DW_AGG_LEVEL	Level Mappings	Public		<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>	<a href="#">Favorite</a>

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.

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**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.

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- 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, to download the results to a CSV text file, click the CSV Text File link on the HTML results of the query.

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 8.53: PeopleSoft Process Scheduler*)", "Viewing the Status of Processes (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Viewing the Status of Servers (*PeopleTools 8.53: PeopleSoft Process Scheduler*)".

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**Note:** Currently, PeopleSoft Query partly supports iOS (Apple's mobile operating system), iPad users can 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.

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## Related Links

[Previewing Query Results Prior to Saving](#)

[Running Queries](#)

[Scheduling Queries](#)

"Running BI Publisher PeopleSoft Query Reports (*PeopleTools 8.53: BI Publisher for PeopleSoft*)"

# Defining Selection Criteria

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## Defining Selection Criteria

These topics discuss how to:

- Choose selection criteria.
- Define criteria.
- Define prompts.
- Define HAVING criteria.
- Define expressions.
- Drill URL in PeopleSoft Query.

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## 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

This section discusses how to:

- View and edit selection criteria.
- Edit criteria properties.
- Select condition types.
- Enter comparison values.
- Specify effective date criteria.
- Relate multiple 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.

Query Name: QE\_EMPDEPT Description: Employee Count By Department

Buttons: Add Criteria, Group Criteria, Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.EMPLID - Empl ID	between	7000 AND 9000	Edit	-
AND	A.QE_EMPLOYEE_NAME - Employee Name	is not null		Edit	-
OR	A.QE_LAST_NAME - Last Name	in tree	,QE_JOBCODES,1999-01-01,VP,DIRECTOR,OFFICER	Edit	-

Buttons: Save, Save As, New Query, Preferences, Properties, Publish as Feed, New Union, Return To Search

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*.

To reorder the criteria for your query, click the Reorder Criteria button, enter the new positions for the criteria on the Edit Criteria Ordering page, and click OK. You can also click the Add Criteria button from this Criteria page to add additional criteria, and you can click the Group Criteria button to group your criteria logically.



## Editing Criteria Properties

Use the Edit Criteria Properties page (QRY\_CRITERIA\_SEC) to edit selection criteria properties for your query statement.

### Navigation

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.

### 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.

**Edit Criteria Properties**

**Choose Expression 1 Type**

☒ Field  
☐ Expression

**Expression 1**

**Choose Record and Field**

Record Alias.Fieldname:  
 A.EMPLID - Empl ID

\*Condition Type: between

**Choose Expression 2 Type**

☒ Const - Const  
☐ Const - Field  
☐ Const - Expr  
☐ Field - Const  
☐ Field - Field  
☐ Field - Expr  
☐ Expr - Const  
☐ Expr - Field  
☐ Expr - Expr

**Expression 2**

**Define Constant**

Constant: 7000

**Define Constant 2**

Constant 2: 9000

OK Cancel

### 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 then select a condition type.

See [Selecting Condition Types](#).

Select the appropriate comparison operator from the Condition Type drop-down list box.

### **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.

## **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 page by clicking the Use As Criteria link on the Fields page, Query Manager displays the Edit Criteria Properties page with the selected field populated 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 have not chosen 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 rather than the NOT operator on the entire criterion. 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> <p><b>Note:</b> 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> <p>See "PeopleSoft Tree Manager Overview (<i>PeopleTools 8.53: PeopleSoft Tree Manager</i>)".</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>

<b>Condition Types</b>	<b>Return Values</b>
less than	The value in the record field is less than the comparison value.
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, <i>C%</i> matches any string starting with <i>C</i>, including <i>C</i> alone.</p> <p>_ matches any single character. For example, <i>_ones</i> matches any five-character string ending with <i>ones</i>, such as <i>Jones</i> or <i>Cones</i>.</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, <i>percent\%</i>).</p>

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**Note:** If you have selected the EFFDT field on an effective-dated table, PeopleSoft Query also offers special effective date operators.

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## Entering Comparison Values

This section 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.

<b>Value Type</b>	<b>Action</b>
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>
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><b>Note:</b> 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 <a href="#">Defining Prompts</a>.</p>

<b>Value Type</b>	<b>Action</b>
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 <a href="#">Working with Subqueries</a>.</p>
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><b>Note:</b> Values will appear here only if you have entered them previously.</p> <hr/>
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* as your comparison value, the Define Constant page appears. In the text box, enter the value to which you want to compare the first expression. To add a value by selecting it from a list, click the Look Up button to display the Select a Constant page.

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

### Image: Select A Constant page

This example illustrates the field and controls on the Select A Constant page.

To select a constant:

1. Click the 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 page.

### Image: Select a Constant page

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

Field Value	Translate Long Name	Translate Short Name	Select Constant
FRND	PeopleFriend	Customer	<a href="#">Select Constant</a>
PART	PeoplePartner	Partner	<a href="#">Select Constant</a>
PERS	PeoplePerson	Employee	<a href="#">Select Constant</a>

In this example, to select a constant, click a Select Constant link and the Edit Criteria Properties page reappears with the selected value in the Define Constant section.

## 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.

The screenshot shows the 'Edit List' page. At the top, there's a title 'Edit List'. Below it is a table titled 'List Members' with a header bar containing 'Personalize', 'Find', and navigation icons. The table has four rows with values 1001, 1002, 1121, and 1310, each preceded by a checkbox. Below the table is a 'Value:' text box, followed by 'Add Value', 'Search', and 'Delete Checked Values' buttons. At the bottom are 'OK' and 'Cancel' buttons, and a link 'Add Prompt'.

Value
<input type="checkbox"/> 1001
<input type="checkbox"/> 1002
<input type="checkbox"/> 1121
<input type="checkbox"/> 1310

Value:  Add Value Search Delete Checked Values

OK Cancel [Add Prompt](#)

#### 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.

**Select a Tree**

Tree Name:

Select a Tree					
Find   View All First 1-3 of 3 Last					
Tree Name	SetID	SetControlValue	Effective Date	Description	Saved As
<a href="#">QE ACE DGC DEPT</a>	QEDM1		01/01/1900	Dept Tree for DGC Model	Valid Tree
<a href="#">QE DEPT DYNAMIC</a>	QEDM1		01/01/1999	Dynamic Detail Dept Tree	Valid Tree
<a href="#">QE DEPT SEC</a>	QEDM2		01/01/2001	DEPART SECURITY	Valid Tree

### Image: Display and Select TreeNodes page

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

**Display and Select TreeNodes**

SetID: QEDM1 Effective Date: 01/01/1900

Tree Name: QE\_ACE\_DGC\_DEPT

**Selected Nodes List**

- SALES -
- FINANCE -

**Manual Selection**

[DGC DEPARTMENTS](#) > OPERATIONS

[Collapse All](#) | [Expand All](#) Find First Page 11 of 23 Last Page

- DGC DEPARTMENTS -
  - SALES -
  - OPERATIONS -
  - IT -
    - 601 -
    - 600 -
  - ADMIN -
  - FINANCE -
    - 402 -
    - 401 -
    - 400 -

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 list box.

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 list box.

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.

**Edit Criteria Properties**

**Choose Expression 1 Type**

☒ Field  
☐ Expression

**Expression 1**

**Choose Record and Field**

Record Alias.Fieldname:  
A.QE\_LAST\_NAME - Last Name

\*Condition Type: in tree

**Choose Expression 2 Type**

☐ Tree Option  
☒ Tree Prompt Option

OK Cancel

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. For example, a crystal process which might need a query that has tree prompt to be executed to fetch data is not allowed (either by scheduling a process in Process Scheduler or using pscrun.exe at the command line). Although, you can execute the query with tree prompts from schedule query.

---

## 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 8.53: PeopleSoft Applications User's Guide*)"

## Relating 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 section discusses how to:

- Use AND and OR logical operators.
- Group criteria with parentheses.

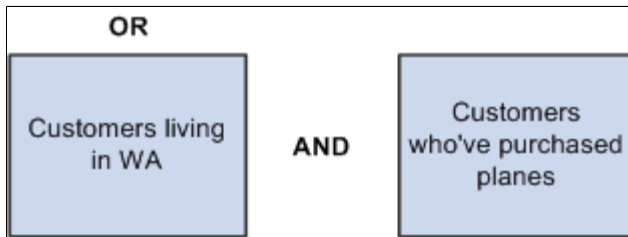
## Using AND and OR Logical Operators

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 box.

### Grouping Criteria with Parentheses

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	Transformations	View SQL	Run
Query Name: CUSTOMER_INFO					Description: Customer Information				
<a href="#">Add Criteria</a> <a href="#">Group Criteria</a> <a href="#">Reorder Criteria</a>									
Criteria									
Logical	Expression1	Condition Type	Expression 2	Edit	Delete				
	A.CUSTOMER_TYPE - Customer Type	not equal to	FRND	<a href="#">Edit</a>	<a href="#">-</a>				
AND	A.STATE - State	equal to	CA	<a href="#">Edit</a>	<a href="#">-</a>				
OR	A.STATE - State	equal to	FL	<a href="#">Edit</a>	<a href="#">-</a>				

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 table shows the Edit Criteria Grouping page with open and close parentheses in the Edit Criteria Grouping section.

**Edit Criteria Grouping**

Use the edit boxes to enter parenthesis for each criteria. Use only the '(' and ')' characters.

Logical	Left Paren	Expression1	Condition Type	Expression 2	Right Paren
		A.CUSTOMER_TYPE - Customer Type	not equal to	FRND	
AND	(	A.STATE - State	equal to	CA	
OR		A.STATE - State	equal to	FL	)

OK Cancel

**Image: Criteria page, parentheses around the last two criteria**

This example shows the Criteria page with open and close parentheses in the Criteria section.

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

Query Name: CUSTOMER\_INFO Description: Customer Information

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	-

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

This section provides an overview of prompts and discusses how to edit prompt properties.

### 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. Enter the value into the field. The query uses the value that you enter as the comparison value for the criterion that included the prompt.

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

The screenshot shows the 'Prompts' page for a query named 'QE\_EMPLOYEE' with the description 'QE Employee Info'. The page has a tabbed interface with tabs for Records, Query, Expressions, Prompts (selected), Fields, Criteria, Having, Transformations, View SQL, and Run. Below the tabs, there is a section for the query name and description, followed by an 'Add Prompt' button. The main area is a 'Prompts List' table with the following structure:

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

At the bottom of the page, there are buttons for 'Save', 'Save As', 'New Query', 'Preferences', 'Properties', 'Publish as Feed', 'New Union', and 'Return To Search'.

### 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.

<b>Type</b>	Indicates the type of the field.
<b>Format</b>	Specifies the field format. Over a dozen formats are available, including Name, Phone, Social Security Number, and Zip Code.
<b>Length</b>	Indicates the field length.
<b>Decimals</b>	Defines the number of decimals that are allowed.
<b>Edit Type</b>	Defines the type of field edit for the specified field. <i>No Table Edit</i> 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.
<b>Heading Type</b>	Select a heading type for the prompt from the following values: <ul style="list-style-type: none"> <li>• <i>Text</i>: The prompt heading is the free text that you have entered in the text box.</li> </ul>

- *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 box, 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 box 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.

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](#)

---

## Defining HAVING Criteria

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 and Editing Having Criteria

Use the Having page (QRY\_HAVING) to add or edit a having criteria.

### Navigation

Reporting Tools, Query, Query Manager, Having

### Image: Having page

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

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

Query Name QE\_EMPLOYEE Description QE Employee Info Feed

Add Having Criteria Group Having Criteria

Having Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
<input type="checkbox"/>	A.EMPLID	not equal to	1001	Edit	<input type="checkbox"/>

Save Save As New Query Preferences Properties Publish as Feed New Union Return To Search

## Defining Expressions

This section provides an overview of expressions and discusses how edit expression properties.

## 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.

Query Name QE\_EMPLOYEE Description QE Employee Info Feed ▾

[Add Expression](#)

Expression Text	Use as Field	Add Criteria	Edit	Delete
A.DEPTID:1	<a href="#">Use as Field</a>		<a href="#">Edit</a>	
A.EMPLID	<a href="#">Use as Field</a>		<a href="#">Edit</a>	

[Save](#) [Save As](#) [New Query](#) [Preferences](#) [Properties](#) [Manage Feeds](#) [New Union](#) [Return To Search](#)

## 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.

The screenshot shows the 'Edit Expression Properties' dialog box. It has a title bar with the text 'Edit Expression Properties'. Inside, there is a section labeled '\*Expression Type' with a dropdown menu currently showing 'Number'. To the right of this are two input fields: 'Length' and 'Decimals'. Below the dropdown is a checkbox labeled 'Aggregate Function' which is checked. Below that is a large text area labeled 'Expression Text'. At the bottom of the dialog, there are two buttons: 'Add Prompt' and 'Add Field', both in blue text. Below these are two yellow buttons: 'OK' and 'Cancel'.

To add or edit expressions for queries:

1. Select Reporting Tools, Query, Query Manager then click the Create New Query link, and then select the Expressions tab to open the Expressions page.
2. The query name appears in the Query Name field.

The default for this field is *New Unsaved Query* until you change it on the Properties 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 box.

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 8.53: PeopleCode Language Reference*)"

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## Drilling URL in PeopleSoft Query

This section provides an overview of drilling URL in PeopleSoft Query, lists common terminology used in this section, and discusses how to:

- View and edit expression properties.



- Define Query URL widgets.
- Define Component URL widgets.
- Define External URL widgets.
- Define Attachment URL Widgets.
- Define Free Form URL widgets.
- View query results with drilling URLs.
- Schedule queries with drilling URLs.

## 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.

---

## Common Terminology Used to Create Drilling URLs in PeopleSoft Query

<b>Source Query</b>	A query that defines a Drilling URL.
<b>Destination Query</b>	A query that was defined as a Drilling URL.
<b>Destination Component</b>	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.

**Edit Expression Properties**

\*Expression Type  
Drilling URL

Expression Text

[Query URL](#)      [Component URL](#)  
[External URL](#)      [Attachment URL](#)  
[Free Form URL](#)

OK      Cancel

#### 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.

<b>Component URL</b>	Click to access the Component URL definition widget, where you can select a component to build URLs in a component URL format.
<b>External URL</b>	Click to access the External URL definition widget, where you can enter external URL to build URLs in an external URL format.
<b>Attachment URL</b>	Click to access the Attachment URL definition widget, where you can enter attachment URL to build URLs in an attachment URL format.
<b>Free Form URL</b>	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.

---

**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 URL Widgets

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.
4. 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

Portal Name:

Node Name:

Query Name:

\*Format

Prompt Keys

Select Field

Map Columns

URL Keys

Selection Flag	Key Field Name	Unique Prompt Name	Key Value	Field Lookup		
<input type="checkbox"/>	DEPTID	BIND1				

Select Query Columns

Selection Flag	Unique Field Name	Order By
<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	

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_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 value *%PORTAL* to form a drilling URL at the report runtime.

---

**Node Name**

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

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

Query Search Page [Help](#)

Query Type:

Query Name:

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

[Return](#)

## 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, 'psp///' 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 URL Widgets

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.
4. 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.

Select a Component

Help

Portal Name

CUSTOMER

Node Name

QE\_LOCAL

Content Reference

\*Menu Name

QE\_SAMPLE\_APPS

\*Market

GBL

\*Component

QE\_DEPT\_TBL

Page

\*Menu Action

Correction

Use psc

Add Content Reference Link

Search Keys

Select Field

Map Columns

URL Keys

Find

First

1-3 of 3

Last

Selection Flag	Field Name	Key Value	Field Lookup		
<input type="checkbox"/>	DEPTID	A.DEPTID		+	-
<input type="checkbox"/>	SETID	QEDMO		+	-
<input checked="" type="checkbox"/>	CITY	PLEASANTON		+	-

Select Query Columns

Find

First

1-6 of 6

Last

Selection Flag	Unique Field Name	Order By
<input checked="" 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	

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

OK

Cancel

**Portal Name**

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

	<hr/> <p><b>Note:</b> 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.</p> <hr/>
<b>Node Name</b>	<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>
<b>Use psc (content servlet)</b>	<p>Used to define the content type that is used to build drilling URLs.</p> <ul style="list-style-type: none"> <li>• Deselect this option to use the portal service (psp) type.</li> </ul> <p>By default, this option is deselected.</p> <ul style="list-style-type: none"> <li>• Select this option to use the content servlet (psc) type.</li> </ul>
<b>Content Reference</b>	<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 (<i>PeopleTools 8.53: Portal Technology</i>)".</p>
<b>Add Content Reference Link</b>	<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><b>Note:</b> 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/>
<b>Menu Name</b>	<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>
<b>Market</b>	<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>
<b>Component</b>	<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>
<b>Menu Action</b>	<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</p>

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:

- 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

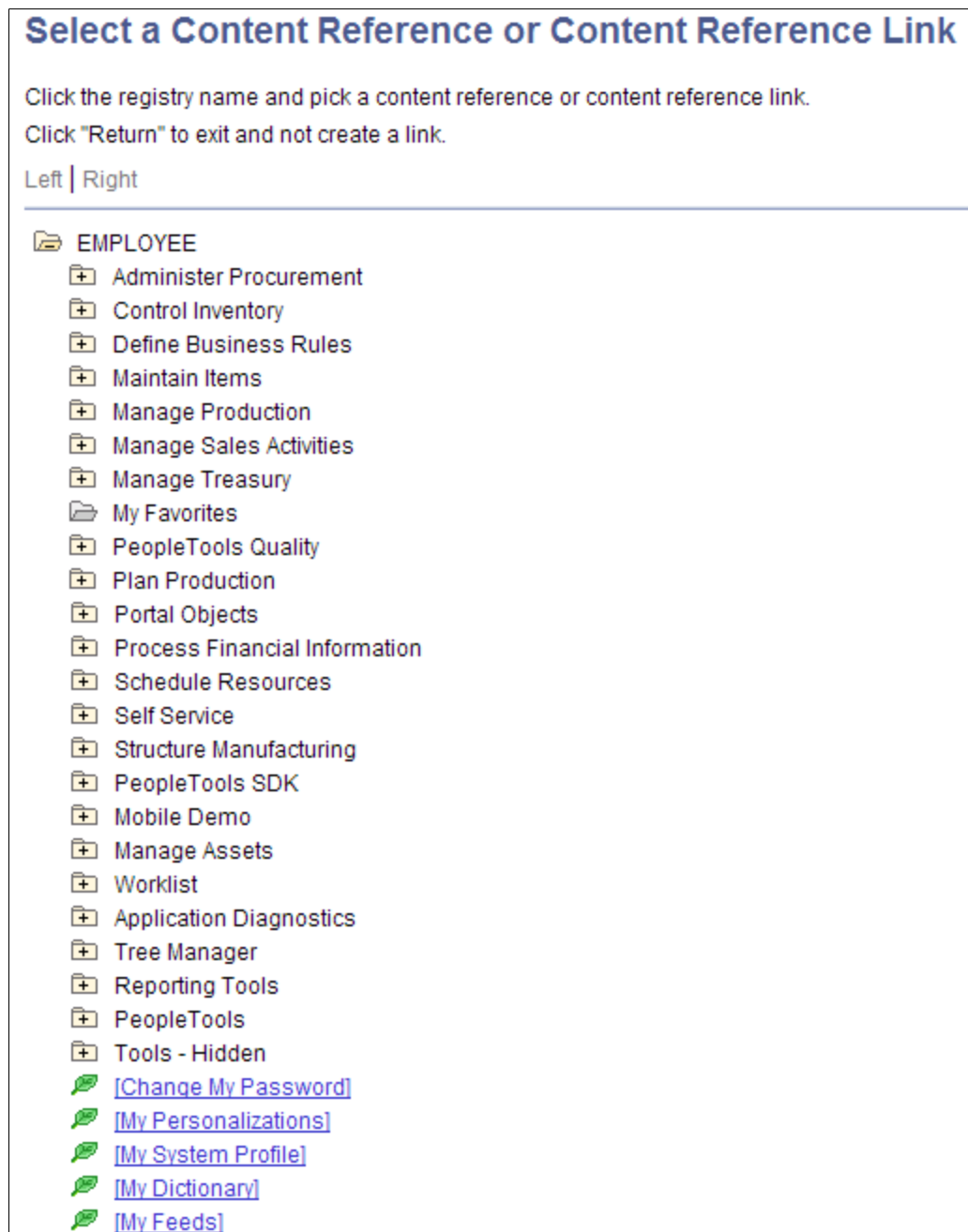
Use the Select a Content Reference or Content Reference Link page (QRY\_CREFURL\_SELECT) to select a content reference or content reference link.

## 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 URL Widgets

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.
4. 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: EMPLOYEE

Node Name: QE\_LOCAL

URL: http://www.yahoo.com

☐ Use psc

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="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	

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

OK

Cancel

**Note:** Query URL and component URL have a certain format for key list values in the URL. However, external URL has no key mapping widget because external URL is free-format URL.

<b>Portal Name</b>	<p>Optionally, enter or select a portal that is used to build drilling URLs at the report runtime.</p> <hr/> <p><b>Note:</b> 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.</p> <hr/>
<b>Node Name</b>	<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>
<b>Use psc (content servlet)</b>	<p>Used to define the content type that is used to build drilling URLs.</p> <ul style="list-style-type: none"> <li>• Deselect this option to use the portal service (psp) type. By default, this option is deselected.</li> <li>• Select this option to use the content servlet (psc) type.</li> </ul>
<b>URL</b>	<p>Enter the value of the external URL.</p> <hr/> <p><b>Note:</b> There is no format restriction.</p> <hr/>
<b>Select Field</b>	<p>Click to display the Select Query Column section.</p>
<b>Map Columns</b>	<p>After you enter URL value, click this button to display the Map URL to Query Columns section.</p> <hr/> <p><b>Note:</b> 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> <hr/>
<b>Select Query Column</b>	<p>Select query result columns to form fieldname and value pairs and to define the order of the appended value pair in the URL.</p>
<b>Map URL to Query Columns</b>	<p>The Map URL to Query Columns section is available only after you define the component values and click the Map Columns button.</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.

---

**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 URL Widgets

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.

---

**Note:** Currently, PeopleTools supports attachment drilling URLs for SES (Security Enterprise Search). If you use SEC and belong to the *HTTP File View* role, you can view the attachment URL file. Otherwise, a message appears that says you are not authorized for viewing attachments from database using HTTP.

---

**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: Internal URL

Portal Name: EMPLOYEE

Node Name: QE\_LOCAL

\*URL Id: FILEDB

\*File Name Field: A.SETID

☒ Use psc

System attachment table

Select Field

Map Columns

Select Query Columns

Find | 1-6 of 6

First

Last

Selection Flag	Unique Field Name	Order By
<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 checked="" type="checkbox"/>	A.DEPTID	

Map URL to Query Columns

Find | 1-4 of 4

First

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.

**Node Name**


---

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

---

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

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

**Use psc (content servlet)**

If the attachment URL is internal, 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.

**URL ID**

Select a query field that will be used for attachment file name.

---

**Note:** The URL IDs are set in this folder: PeopleTools\Utilities\Administration\URLs.

---

**Select Field**

Click to display the Select Query Column section.

**Map Columns**

After you enter URL value, click this button to display the Map URL to Query Columns section.

---

**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.”

---

**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.

**Map URL to Query Columns**

This 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 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 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 URL Widgets

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.

%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
%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.

---

## 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.

Records Query Expressions Prompts Fields Criteria Having 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	DeptID
1	<a href="#">7705</a>	06/15/1996	<a href="#">Holt,Susan</a>	SUSAN	HOLT	342564859	<a href="#">G061</a>	<a href="#">10200</a>
2	<a href="#">8001</a>	09/01/1996	<a href="#">Schumacher,Simon</a>	ASD	ASD	549693847	<a href="#">1001</a>	<a href="#">10100</a>
3	<a href="#">8001</a>	05/05/1997	<a href="#">Schumacher,Simon</a>	ASD	ASD	549693847	<a href="#">6001</a>	<a href="#">10200</a>
4	<a href="#">8052</a>	05/05/1997	<a href="#">Avery,Joan</a>	JOAN	AVERY	111111111	<a href="#">6001</a>	<a href="#">10200</a>
5	<a href="#">8101</a>	06/27/1991	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">1211</a>	<a href="#">10500</a>
6	<a href="#">8101</a>	05/05/1997	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">6001</a>	<a href="#">10200</a>
7	<a href="#">8102</a>	06/01/1989	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIVAN	349096896	<a href="#">1121</a>	<a href="#">10900</a>
8	<a href="#">8102</a>	05/05/1997	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIVAN	349096896	<a href="#">6001</a>	<a href="#">10200</a>
9	<a href="#">8105</a>	05/05/1997	<a href="#">DeHaven,Joanne</a>	JOANNE	DEHAVEN	111111111	<a href="#">6001</a>	<a href="#">10200</a>
10	<a href="#">8113</a>	06/27/1991	<a href="#">Frumman,Wolfgang</a>			425921335	<a href="#">1211</a>	<a href="#">20500</a>
11	<a href="#">8120</a>	05/05/1997	<a href="#">Jones,Theresa</a>	THERESA	JONES	111111111	<a href="#">6001</a>	<a href="#">10200</a>
12	<a href="#">8121</a>	03/01/1996	<a href="#">Gregory,Jan</a>	JAN	GREGORY	547234772	<a href="#">6001</a>	<a href="#">10200</a>

On the Run page, 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.

### Image: Example of 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.

Microsoft Excel - Fc8v1vWq.xls.part.xls [Read-Only]								
File Edit View Insert Format Tools Data Window Help Adobe PDF								
K21 fx Arial Unicode MS 10 B I U \$ %								
	A	B	C	D	E	F	G	H
1	QE_EMPLOYEE	386						
2	ID	Eff Date	Name	First	Last	SSN	JobCod	DeptID
3	<a href="#">7705</a>	6/15/1996	<a href="#">Holt,Susan</a>	SUSAN	HOLT	342564859	<a href="#">G061</a>	<a href="#">10200</a>
4	<a href="#">8001</a>	9/1/1996	<a href="#">Schumacher,Simon</a>	ASD	ASD	549693847	<a href="#">1001</a>	<a href="#">10100</a>
5	<a href="#">8001</a>	5/5/1997	<a href="#">Schumacher,Simon</a>	ASD	ASD	549693847	<a href="#">6001</a>	<a href="#">10200</a>
6	<a href="#">8052</a>	5/5/1997	<a href="#">Avery,Joan</a>	JOAN	AVERY	111111111	<a href="#">6001</a>	<a href="#">10200</a>
7	<a href="#">8101</a>	6/27/1991	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">1211</a>	<a href="#">10500</a>
8	<a href="#">8101</a>	5/5/1997	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">6001</a>	<a href="#">10200</a>
9	<a href="#">8102</a>	6/1/1989	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIV	http://myserver.example.com:8920/QEDMO/EMPLOYEE/QE_LOCAL/q/?ICAction=ICQryNameURL=PUBLIC.QE_EMP_DESTINATION - Click once to follow. Click and hold to select this cell.		0
10	<a href="#">8102</a>	5/5/1997	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIV			0
11	<a href="#">8105</a>	5/5/1997	<a href="#">DeHaven,Joanne</a>	JOANNE	DEHAV			0
12	<a href="#">8113</a>	6/27/1991	<a href="#">Frumman,Wolfgang</a>					0

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 query results 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.

QE_EMPLOYEE- QE Employee Info								
Download results in : <a href="#">Excel Spreadsheet</a> <a href="#">CSV Text File</a> <a href="#">XML File</a> (149 kb)								
<a href="#">View All</a>			First <input type="text" value="1-100 of 386"/> Last					
	ID	Eff Date	Name	First	Last	SSN	JobCode	DeptID
1	<a href="#">7705</a>	06/15/1996	<a href="#">Holt,Susan</a>	SUSAN	HOLT	342564859	<a href="#">G061</a>	<a href="#">10200</a>
2	<a href="#">8001</a>	09/01/1996	<a href="#">Schumacher.Simon</a>	ASD	ASD	549693847	<a href="#">1001</a>	<a href="#">10100</a>
3	<a href="#">8001</a>	05/05/1997	<a href="#">Schumacher.Simon</a>	ASD	ASD	549693847	<a href="#">6001</a>	<a href="#">10200</a>
4	<a href="#">8052</a>	05/05/1997	<a href="#">Avery,Joan</a>	JOAN	AVERY	111111111	<a href="#">6001</a>	<a href="#">10200</a>
5	<a href="#">8101</a>	06/27/1991	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">1211</a>	<a href="#">10500</a>
6	<a href="#">8101</a>	05/05/1997	<a href="#">Penrose,Steven</a>	STEVEN	PENROSE	302467012	<a href="#">6001</a>	<a href="#">10200</a>
7	<a href="#">8102</a>	06/01/1989	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIVAN	349096896	<a href="#">1121</a>	<a href="#">10900</a>
8	<a href="#">8102</a>	05/05/1997	<a href="#">Sullivan,Theresa</a>	THERESA	SULLIVAN	349096896	<a href="#">6001</a>	<a href="#">10200</a>
9	<a href="#">8105</a>	05/05/1997	<a href="#">DeHaven,Joanne</a>	JOANNE	DEHAVEN	111111111	<a href="#">6001</a>	<a href="#">10200</a>
10	<a href="#">8113</a>	06/27/1991	<a href="#">Frumman,Wolfgang</a>			425921335	<a href="#">1211</a>	<a href="#">20500</a>
11	<a href="#">8120</a>	05/05/1997	<a href="#">Jones,Theresa</a>	THERESA	JONES	111111111	<a href="#">6001</a>	<a href="#">10200</a>
12	<a href="#">8121</a>	03/01/1996	<a href="#">Gregory,Jan</a>	JAN	GREGORY	547234772	<a href="#">6001</a>	<a href="#">10200</a>

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	8113	06/27/1991	Frumman, Wolfgang	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	
11	8120	05/05/1997	Gregory, Jan	q/?ICAction=ICQryNameURL=PUBLIC.QE_CQ_EMP	THERESA
12	8120	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.

## Extracting and Transforming Data from PeopleSoft Pure Internet Architecture

PeopleSoft supports integrations with several different reporting tools, such as Crystal, 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), use Crystal 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.

Query Name XFORM_DEMO Description Employee Count By Department				
<a href="#">Add XSLT</a>				
User Defined Output				
Name	Output File Type	Edit XSLT	Preview	Delete
Demo - Fix	TXT	<a href="#">Edit XSLT</a>	<a href="#">Preview</a>	<a href="#">-</a>
htmlTransform	HTML	<a href="#">Edit XSLT</a>	<a href="#">Preview</a>	<a href="#">-</a>
prompt_fixFormatTransform	TXT	<a href="#">Edit XSLT</a>	<a href="#">Preview</a>	<a href="#">-</a>

### 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>
```

OK Cancel

**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
```





# Modifying, Scheduling, and Organizing Queries

---

## Modifying, Scheduling, and Organizing Queries

These topics discuss how to:

- Modify queries.
- Schedule queries.
- Organize queries

---

## Modifying Queries

This section discusses how to:

- Open existing queries.
- Rename queries.
- Delete queries.
- Update existing queries.
- Repair existing queries automatically.

## 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.

**Query Manager**

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Query](#) | [Create New Query](#)

\*Search By  begins with

[Advanced Search](#)

**Search Results**

\*Folder View

\*Action

Query	Personalize	Find	View	100	First	1-30 of 252	Last		
Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule
<input type="checkbox"/>	CM_ATTRIBUTES	Attribute mappings	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_DIM_CTRL_TBL	Dimension Control Table	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_FACT_CTRL_TBL	Fact Control Table	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_FACT_MAP_TBL	Fact Map Table	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_FIELD_PROPERTIES		Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_HIER_CTRL_TBL	Hierarchy Control table	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	CM_HIER_MAP_TBL	Hierarchy Map Table	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">XML</a>	<a href="#">Schedule</a>

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 box 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

"Meta-SQL Elements (*PeopleTools 8.53: 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.

Query Name	Owner	New Name
CM_ATTRIBUTES	Public	ATTR_MAPPINGS
CM_FACT_MAP_TBL	Public	FACT_MAP_TBL
CM_HIER_MAP_TBL	Public	HIER_MAP_TBL

OK Cancel

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 box.

---

## 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.
5. 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 or to Crystal Reports 2008. A message will appear 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 and to Crystal Reports 2008 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.

<b>Problem</b>	<b>Action</b>
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.  <b>Note:</b> The actions specified previously for deleted fields apply.
Record deleted contains hierarchy joins below it.	Record and all records joined below are removed.  <b>Note:</b> 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 8.53: Security Administration*)"

## Scheduling Queries

Query Manager interacts with PeopleSoft Process Scheduler to enable you to schedule queries.

This section discusses how to:

- Submit process requests.
- Select process requests.
- Use Process Monitor.
- View output in Report Manager.
- Specify a user's language.

## 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.

**Schedule Query**

Run Control ID: RunQry [Report Manager](#) [Process Monitor](#) [Run](#)

Query Name: CM\_ATTRIBUTES [Search](#)

\*Description: Attribute mappings

[Update Parameters](#)

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 Language-Sensitive Queries (*PeopleTools 8.53: 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 box. This drop-down list box 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 8.53: PeopleSoft Process Scheduler*)", "Submitting Process Requests (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Scheduling Process Requests (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Using Process Status Notifications (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Scheduling Reports in Query Report Scheduler (*PeopleTools 8.53: BI Publisher for PeopleSoft*)".

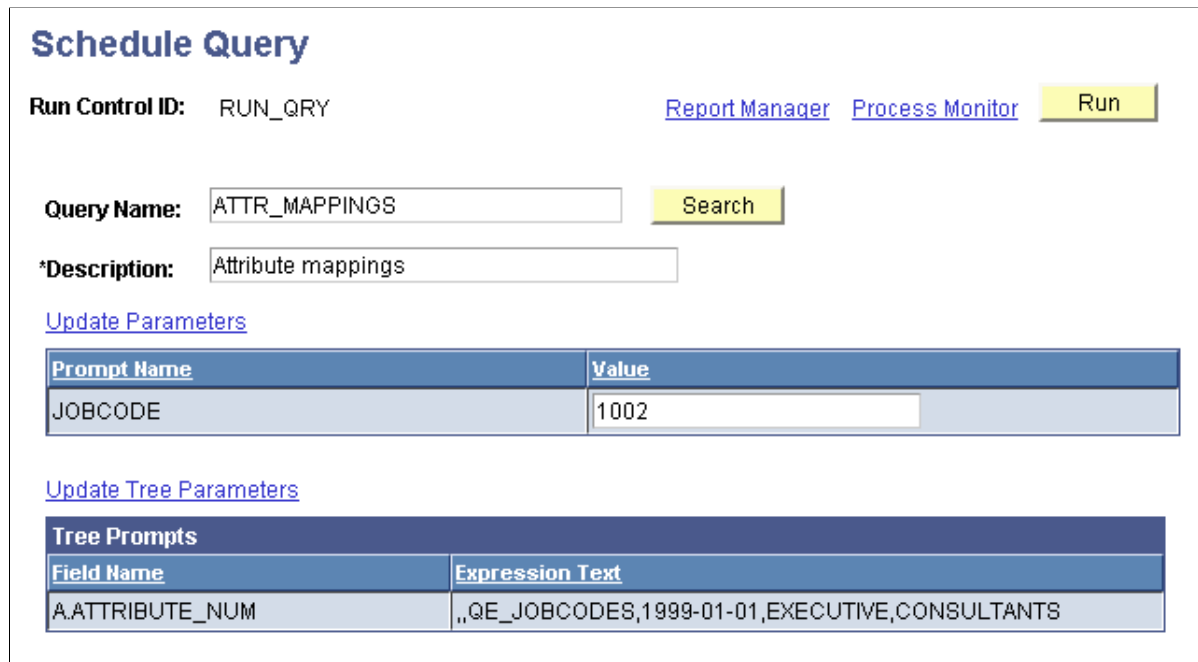
## Schedule Query with Tree Prompt

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: ATTR\_MAPPINGS [Search](#)

\*Description: Attribute mappings

[Update Parameters](#)

Prompt Name	Value
JOBCODE	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 input fields for 'Server Name' (set to 'PSNT'), 'Run Date' (set to '11/19/2012'), 'Recurrence' (empty), and 'Run Time' (set to '5:35:59PM'). A 'Reset to Current Date/Time' button is next to the Run Time field. A 'Time Zone' field with a search icon is also present. Below these fields is a 'Process List' table.

Select	Description	Process Name	Process Type	*Type	*Format	Distribution	*Transformation
<input checked="" type="checkbox"/>	PSQUERY	PSQUERY	Application Engine	Web	XFORM	Distribution	qe_xrftwinCSV

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 features 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 with the same top fields as the previous image. The 'Process List' table is updated to reflect the IB node configuration.

Select	Description	Process Name	Process Type	*Type	*Format	*Node	Approval Required	*Transformation
<input checked="" type="checkbox"/>	PSQUERY	PSQUERY	Application Engine	IB Node	XFORM	QE_ONDEMAND	<input checked="" type="checkbox"/>	qe_xrftwinFixformat

**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

---

**Note:** 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 check box 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: 09/23/2012

**File List**

Name	File Size (bytes)	Datetime Created	Publish
<a href="#">Redirected Terminal Output</a>	304	09/16/2012 3:18:39.149000PM PDT	
<a href="#">QE_XFORM_DRILLING_URLS_MSN-139.TXT</a>	3,097,927	09/16/2012 3:18:39.149000PM PDT	<a href="#">Publish</a>

**Distribute To**

<a href="#">Distribution ID Type</a>	<a href="#">*Distribution ID</a>
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	<a href="#">Distribution</a>

[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 or Crystal) 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 box 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 Crystal reports.

---

**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 a query result includes a file without data, the report headers or other text are sent in email that indicates that the report was empty. 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 8.53: Feed Publishing Framework*)", "Publishing Query Feeds (*PeopleTools 8.53: Feed Publishing Framework*)", "Defining Advanced Options for Query Feeds (*PeopleTools 8.53: Feed Publishing Framework*)", "Using Query Feeds (*PeopleTools 8.53: 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 box 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 webbrowser 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 Classes Alphabetical Reference (*PeopleTools 8.53: 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.

**Process List** | **Server List**

**View Process Request For**

User ID:   Type:  Last:   Days:

Server:  Name:  Instance:  to:

Run Status:  Distribution Status:  ☒ Save On Refresh

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	<a href="#">Details</a>
<input type="checkbox"/>	142		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:11:03PM PDT	Success	Posted	<a href="#">Details</a>
<input type="checkbox"/>	141		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:08:07PM PDT	Success	Posted	<a href="#">Details</a>
<input type="checkbox"/>	140		Application Engine	PSQUERY	PTDOCKN	09/16/2012 9:01:27PM PDT	Success	Posted	<a href="#">Details</a>
<input type="checkbox"/>	139		Application Engine	PSQUERY	PTDOCKN	09/16/2012 2:54:21PM PDT	Success	Pending	<a href="#">Details</a>

[Go back to Schedule Query](#)

#### 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 box, and then select a unit type from the drop-down list box. Values are <i>Days</i> , <i>Hours</i> , and <i>Minutes</i> .
<b>Refresh</b>	Click to check the current status of a process.  This button refreshes the list.
<b>Server</b>	Select to view processes that run on a particular server.
<b>Name</b>	View processes by a process name.
<b>Instance</b>	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.
<b>Run Status</b>	Select if you want to view processes by a specific status, such as <i>Success</i> or <i>Error</i> .
<b>Distribution Status</b>	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> .
<b>Save On Refresh</b>	Select to save filter criteria changes when you click the Refresh button.
<b>Instance</b>	Displays the process instance, that is, the order in which the process appears in the queue. This number is automatically generated.
<b>Seq (sequence)</b>	This field is blank; it is not used for query processes.
<b>User</b>	The ID of the user who submitted the process.
<b>Details</b>	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.

The screenshot shows the 'Report Manager - List' page. At the top, there are tabs: 'List' (selected), 'Explorer', 'Administration', and 'Archives'. Below the tabs is a 'View Reports For' section with filters: 'Folder:' (dropdown), 'Instance:' (text), 'to:' (text), 'Refresh' (button), 'Name:' (text), 'Created On:' (calendar icon), 'Last' (dropdown), '1' (text), and 'Days' (dropdown). Below the filters is a 'Reports' table with columns: 'Report', 'Report Description', 'Folder Name', 'Completion Date/Time', 'Report ID', and 'Process Instance'. The table contains 4 rows of report data.

	Report	Report Description	Folder Name	Completion Date/Time	Report ID	Process Instance
1	<a href="#">QE Employee Info</a>	QE EMPLOYEE INFO	General	09/17/12 12:52PM	43	153
2	<a href="#">QE_EMPLOYEE</a>	QE_EMPLOYEE	General	09/17/12 12:52PM	42	152
3	<a href="#">QE_EMPLOYEE</a>	QE_EMPLOYEE	General	09/17/12 12:44PM	40	150
4	<a href="#">QE Employee Info</a>	QE EMPLOYEE INFO	General	09/17/12 12:44PM	39	149

**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 8.53: PeopleSoft Process Scheduler*)"

"Requesting Reports in PeopleSoft Applications (*PeopleTools 8.53: PeopleSoft Applications User's Guide*)"

"Checking the Status of Reports (*PeopleTools 8.53: PeopleSoft Applications User's Guide*)"

"Viewing Reports in Report Manager (*PeopleTools 8.53: PeopleSoft Applications User's Guide*)"

"Locating and Viewing BI Publisher Reports (*PeopleTools 8.53: 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 8.53: Security Administration*)"

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## Organizing Queries

This section discusses how to:

- Add queries to the My Favorite Queries list.
- Copy a query to another user's list of queries.
- Move a query to a folder.

### Adding Queries to the My Favorite Queries List

The Query Manager and Query Viewer search pages can include a list of queries called *My Favorite Queries*. If you use certain queries often, you can put the queries in this list for easy access.

---

**Note:** Although you can view a list of favorites, you can't create a list of favorites in the Query Viewer.

---

To add a query to the My Favorite Queries list:

1. Select Reporting Tools, Query, Query Manager.
2. On the Query Manager Search Results page, select the query that you want to add to the My Favorite Queries list.
3. Select the *Add to Favorites* option from the Action drop-down list box.
4. Click the Go button.

The query appears in the My Favorite Queries list group box .

---

**Note:** You can add multiple queries to the My Favorite Queries list at once by selecting several queries before selecting *Add to Favorites* and clicking the Go button.

---

### Copying a Query to Another User's List of Queries

The Query Manager enables you to copy a query from your list of queries to another user's list of queries.

---

**Note:** You can copy only nonpublic queries to another user's list of queries.

If the target user does not have permission to access all of the records in a copied query, that query does not appear in the target user's list of queries. When permission has been granted, the query appears in the list.

---

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 box.
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 query.
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 box.
4. Click the Go button.

The Move to Folder page appears.

5. Select one of the following:
  - *Select an existing folder to move to:* From the drop-down list box, 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.

## Chapter 5

# Working with Advanced Query Options

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## Working with Advanced Query Options

These topics discuss how to:

- Work with aggregate functions.
  - Work with subqueries.
  - Work with unions.
  - Join records.
- 

## Working with Aggregate Functions

This section provides an overview of aggregate functions and discusses how to apply an aggregate function to a field.

---

**Note:** Familiarity with SQL is helpful when writing more advanced queries.

---

## 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.

<b>Aggregate Function</b>	<b>Action</b>
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.

## 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. Definitions for the fields and controls appear following the example.

Query Name: QE\_EMPLOYEE Description: QE Employee Info

Working on selection: Top Level of Query

Buttons: Add Criteria, Group Criteria

Logical	Expression1	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	

Buttons: Save, Save As, New Query, Preferences, Properties, Publish as Feed, New Union, Return To Search

### 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: QE\_EMPLOYEE Description: QE Employee Info

Working on selection: Top Level of Query

Buttons: 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	Fields
B	QE_EMPL	EMPNAME - EMPNAME EMPLID - Empl ID DEPTID - Department DEPTNAME - Department

Buttons: Select, Hierarchy Join, View All

To create subqueries:

1. Select Reporting Tools, Query, Query Manager.
2. Click the Use As Criteria link 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.

---

**Note:** Translate values, both the long and short descriptions, cannot be displayed in a union query. Only the code for the field can be selected for output display.

Similarly, 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.

This section discusses how to:

- Create record hierarchy joins.
- Create related record joins.
- Create any record joins.
- Create outer joins.
- Create left outer joins.

## 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.)

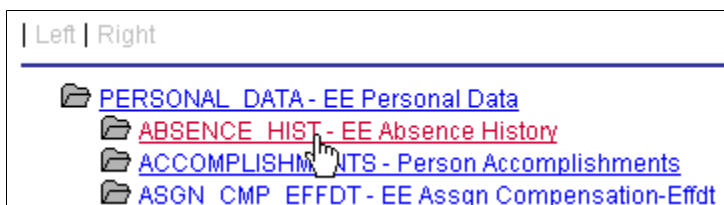
---

**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.

- From the Query page, click the Hierarchy Join link.

All of the records that have a parent/child relationship with your selected record appear.

- 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 how to join the QEDMO Employee record to the JobCode record by using the QE\_JOBCODE field, or how to join the QEDMO Employee record to the Data Department Table by using the DEPTID field.



To create a related record join:

- In Query Manager (Reporting Tools, Query, Query Manager), select the base record for your query.
- Select the appropriate fields and criteria.
- From the Query page, click the Related Record Join link.
- 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.

---

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.

The screenshot shows a window titled "Expression 2" with a sub-section titled "Define Expression". Inside this section, there is a label "Expression:" followed by a large text input field. Below the input field, there are two buttons: "Add Prompt" and "Add Field".

## 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 box, 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.

---

See [Creating Left Outer Joins](#).

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 box 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 box.
3. Click the OK button.



## Chapter 6

# Using Connected Query

---

## Using Connected Query

These topics provide an overview of Connected Query and discuss how to:

- Use Connected Query Quick Start
  - Use Connected Query Manager
  - Use Connected Query Viewer
  - Use Connected Query Scheduler
- 

## Understanding Connected Query

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 8.53: BI Publisher for PeopleSoft*)", "Registering Data Sources (*PeopleTools 8.53: BI Publisher for PeopleSoft*)", "Running BI Publisher PeopleSoft Query Reports (*PeopleTools 8.53: 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 in the process of replacing Crystal reports (that use subreports) with BI Publisher reports.

Crystal reports can include the main reports and a set of subreports that could be combined in the same template. Using Connected Query, you can replace a Crystal reports having main reports and subreports 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.

**Connected Query Manager**

Connected Query **QE\_EMPLOYEE\_REPORTING\_DETAILS** Transformations

Owner ID Properties

☒ Public \*Status **Active**

**Description**

Description **Employee Reporting Rollup**

Comments **Employee Reporting Details based on QE\_PERS\_DATA tree**

**Parent Query Selection**

Parent Query **QE\_DEPARTMENTS\_ROLLUP\_PERS** View Query

Connected Query Structure	Field1	Field2	Field3
<b>QE_DEPARTMENTS_ROLLUP_PERS</b>	A.SETID	A.TREE_NAME	B.TREE_NODE_NUM
<b>QE_EMPLOYEE_FROM_PERSDATA_TREE</b>	A.SETID	A.TREE_NAME	A.TREE_NODE_NUM
<b>QE_EMPLOYEE</b>			
<b>QE_DEPARTMENT_DATA</b>			

Preview XML Max Rows Fetched for Query **6** Save Cancel

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 [Using the OrderBy Processing Option](#).

## Security for Connected Query

The following table lists the delivered Connected Query permission lists and roles.

<b>Permission List</b>	<b>Role</b>	<b>Description</b>
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. User will not be able to modify existing or create new Connected Queries

## Using Connected Query Quick Start

This section provides an overview of Connected Query Quick Start and discusses how to:

- Enter a name and descriptive information.

- Select a parent query.
- Select a child query.
- Map child query fields to parent query for filtering.
- Preview the connected query.

## 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.

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 a Name and Descriptive Information

Use the Connected Query Quick Start - Enter a Name and Descriptive Information page (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 - Enter a Name and Descriptive Information page

This example illustrates the fields and controls on the Connected Query Quick Start - Enter a Name and Descriptive Information page. Definitions for the fields and controls appear following the example.

**Connected Query Quick Start** Step 1 of 5

Create a simple parent-child Query relationship between two Queries

1 2 3 4 5 Next > ?

**Enter Connected Query Name and Descriptive Information**

\*Connected Query:  ☒ Public

Description:

Comments:

#### 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 - Select a Parent Query page (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 - Select a Parent Query page

This example illustrates the fields and controls on the Connected Query Quick Start - Select a Parent Query page. 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		
<b>Connected Query:</b>	ENROLLMENT_CRSE_SSNN	<input checked="" type="checkbox"/> <b>Public</b>
<b>Description:</b>	Enrollment and course session	
<b>Comments:</b>	List of enrollment for each course session.	

**Parent Query:**  🔍 View Query

#### 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

**Note:** 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 - Select a Child Query page (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 - Select a Child Query page

This example illustrates the fields and controls on the Connected Query Quick Start - Select a Child Query page. 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

**Note:** 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 - Map Child Query Fields to Parent Query for Filtering page (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 - Map Child Query Fields to Parent Query for Filtering page**

This example illustrates the fields and controls on the Connected Query Quick Start - Map Child Query Fields to Parent Query for Filtering page. 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	Fields
<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #ccc; border: 1px solid #0056b3; margin-right: 5px;"></div> <div>ENROLLMENTS</div> </div>	
<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #ccc; border: 1px solid #0056b3; margin-right: 5px;"></div> <div>CRSE_SESSIONS</div> </div>	

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

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 <span style="float: right;">▼</span>
<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 box 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**

Click to advance the wizard to the next page.

---

**Note:** This button becomes active after you select the fields for mapping and click the Map Fields button.

---

## Step 5: Preview a Connected Query

Report developers use the Connected Query Quick Start - Preview page (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 - Preview page

This example illustrates the fields and controls on the Connected Query Quick Start - Preview page. Definitions for the fields and controls appear following the example.

**Connected Query Quick Start**
Step 5 of 5

Create a simple parent-child Query relationship between two Queries

1
2
3
4
5

< Previous
Complete

?

Preview

**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	Fields
<div> <div> ENROLLMENTS </div> </div>	A.COURSE
<div> <div> CRSE_SESSIONS </div> </div>	A.COURSE

Preview XML

**Max Rows Fetched for Query:**

```

<?xml version="1.0"?>
<ConnectedQuery name="ENROLLMENT_CRSE_SSNN" numrows="6" preview="True"
query_rows_limit="6" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="">
  <ENROLLMENTS>
    <B.STUDENT_NAME>
      <![CDATA*Fuller,Darlene*]>
    </B.STUDENT_NAME>
    <A.COURSE>
      <![CDATA*1001*]>
    </A.COURSE>
    <A.ENROLL_DT>02/06/2007</A.ENROLL_DT>
    <A.ENROLL_STATUS>
      <![CDATA**]>

```

**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 will be 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

This section provides an overview of Connected Query Manager and discusses how to:

- Create a connected query.
- Edit a connected query.
- Copy a connected query.
- Delete a connected query
- Open a PeopleSoft query 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

---

**Note:** 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.

---

**Note:** 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 8.53: PeopleSoft Application Designer Developer's Guide*)"

"Creating and Saving Projects (*PeopleTools 8.53: PeopleSoft 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 **QE\_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
QE_DEPARTMENTS_ROLLUP_PERS	A.SETID	A.TREE_NAME	B.TREE_NODE_NUM
QE_EMPLOYEE_FROM_PERSDATA_TREE	A.SETID	A.TREE_NAME	A.TREE_NODE_NUM
QE_EMPLOYEE			
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

Click to access the Connected Query Properties page.

---

**Note:** The Properties button is active only after you select a parent query.

---

## 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

---

**Note:** This section appears after you select a parent query.

---

Displays the image icons that you can use to further develop the Connected Query structure.

---

**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 [Using the OrderBy Processing Option](#).

---

### Preview XML

**Note:** This button becomes active after you select a parent query.

---

Click at any time to preview the XML report in a separate window.

---

### Save

**Note:** The Save button becomes active after you select a parent query.

You can save the connected query as soon as you have added one parent query.

---

Click to save your 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.

The screenshot shows the 'Connected Query Transformation' page. At the top, there is a yellow button labeled 'Add XSLT'. Below it is a table titled 'User Defined Transformation'. The table has four columns: 'Name', 'File Type', 'Edit XSLT', and 'Preview'. There are two rows of data:

Name	File Type	Edit XSLT	Preview
fixFormat	TXT	<a href="#">Edit XSLT</a>	<a href="#">Preview</a>
lessLabels	TXT	<a href="#">Edit XSLT</a>	<a href="#">Preview</a>

**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. Definitions for the fields and controls appear following the example.

Property Name	*Property Value	Default Value
ExecutionLog	True	False
IgnoreRelFieldOutput	False	False
IsDebugMode	False	False
ShowFormattedXML	False	False
SupportsOrderBy	True	False

OK Cancel

#### ExecutionLog

Available options are *True* and *False*.

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

Available options are *True* and *False*.

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

Available options are *True* and *False*.

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.

#### ShowFormattedXML

Available options are *True* and *False*.

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

Available options are *True* and *False*.

- If `SupportsOrderBy` is set to *True*, the `Use OrderBy` processing column is available in the Connected Query Manager page.
- 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, all queries 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.



- 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** Transformations

Owner ID  Properties

☒ Public \*Status **Active**

**Description**

Description

Comments

**Parent Query Selection**

Parent Query  View Query

Connected Query Structure	Use 'Order By' processing	Field1
<input checked="" type="checkbox"/> PSMENUDEFN	<input checked="" type="checkbox"/>	A.MENUNAME
<input checked="" type="checkbox"/> <b>PSMENUITEM</b>	<input checked="" type="checkbox"/>	A.MENUNAME
PSMENUITEMLANG	<input checked="" type="checkbox"/>	

Preview XML Max Rows Fetched for Query  Save Cancel

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 CQRuntime 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

Owner ID:

☒ Public

\*Status: Active

**Description**

**Parent Query Selection**

Parent Query: QE\_EMPLOYEE

**Connected Query Structure**

Connected Query Structure	Fields
QE_EMPLOYEE	A.DEPTID
QE_PERS_DATA	
QE_DEPARTMENT_DATA_A	A.DEPTID

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

**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		

Max Rows Fetched for Query:

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.

## 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 box.

---

**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.

## 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:** Connected Query Name 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
CUSTOMERS	Customers	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
ITEMDEFIN	Items	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
PORTALREGISTRY_CQ	Portal Registry	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
QE_CON_QRY_LOCALE	For Locale Testing	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
QE_COPY_OF_CQ_QUICK_START	Copy Create CQ frm Quick Start	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
QE_CQ_3PROPS_EFF_DATE	QE_CQ_3PROPS_EFF_DATE	Public	Active	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>

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. It is divided into two main sections: 'Source Connected Query' and 'Target Connected Query'.

**Source Connected Query:**

- Connected Query:** ENROLLMENT\_CRSE\_SSNN
- Status:** Active
- ☒ **Public**
- Description:**
  - Description:** Enrollment and course session
  - Comments:** List of enrollment for each course session.

**Target Connected Query:**

- \*Connected Query:** ENROLLMENT\_CRSE\_SSNN\_COPY
- \*Status:** Active (dropdown menu)
- ☒ **Public**
- Description:**
  - Description:** Enrollment and course session
  - Comments:** List of enrollment for each course session.

At the bottom of the page, there are two buttons: 'Save' and 'Cancel'.

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.

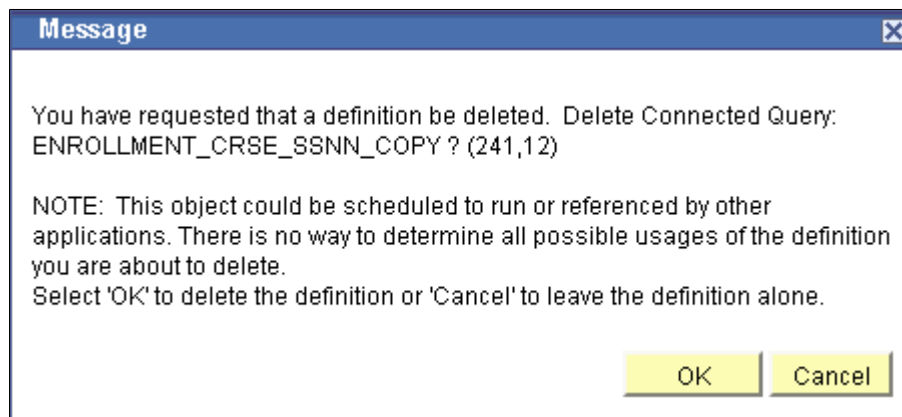
A confirmation message appears asking if you want to delete the existing connected query.

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.



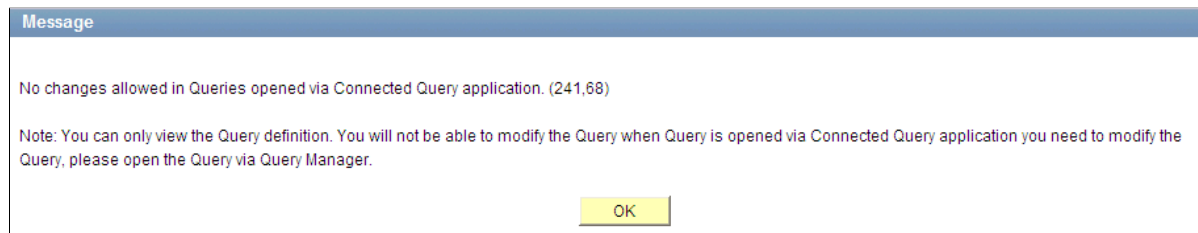
## Opening a PeopleSoft Query Using Connected Query Manager

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
CUSTOMERS	Customers	Public	Active	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
ITEMDEFIN	Items	Public	Active	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
PORTALREGISTRY_CQ	Portal Registry	Public	Active	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>
QE_CON_QRY_LOCALE	For Locale Testing	Public	Active	<a href="#">Preview XML</a>	<a href="#">Run To Window</a>	<a href="#">Schedule</a>

#### 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 8.53: PeopleSoft Process Scheduler*)", "Viewing the Status of Processes (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Administering Report Manager (*PeopleTools 8.53: PeopleSoft Process Scheduler*)".

**Related Links**

"Running BI Publisher PeopleSoft Query Reports (*PeopleTools 8.53: 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

**\*Connected Query:**  **Description:**

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 8.53: PeopleSoft Process Scheduler*)".

**Process Monitor**

Click to access the Process Monitor page and check the progress of your request.

See "Understanding Process Monitor (*PeopleTools 8.53: PeopleSoft Process Scheduler*)", "Viewing the Status of Processes (*PeopleTools 8.53: PeopleSoft Process Scheduler*)".

**Update Parameters**

Click to update the runtime prompt values of connected query.

See "Submitting Process Requests (*PeopleTools 8.53: PeopleSoft 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 Links**Scheduling Queries

"PeopleSoft Process Scheduler Preface (*PeopleTools 8.53: PeopleSoft Process Scheduler*)"

"Running BI Publisher PeopleSoft Query Reports (*PeopleTools 8.53: BI Publisher for PeopleSoft*)"

# Creating Workflow Queries

---

## Creating Workflow Queries

This topic provides an overview of workflow queries and discusses how to define 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.

**Query Properties**

\*Query: XRFWIN

Description: XRFWIN

Folder:

\*Query Type: User ▼

\*Owner: Public ▼

☐ Distinct ☒ Security Join Optimizer

Query Definition:

Last Updated Date/Time: 10/30/2003 2:45:06PM

Last Update User ID: PPLSOFT

OK Cancel

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](#)

# PeopleSoft Query Security

---

## PeopleSoft Query Security

These topics discuss how to:

- Use query access group trees.
  - Use row-level security and query security record definitions.
  - Use query profiles.
- 

## 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.

This section provides an overview of query access group trees and discusses how to:

- Create query trees.
- Grant and restrict access to groups.
- Enable the query access list cache.

## 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

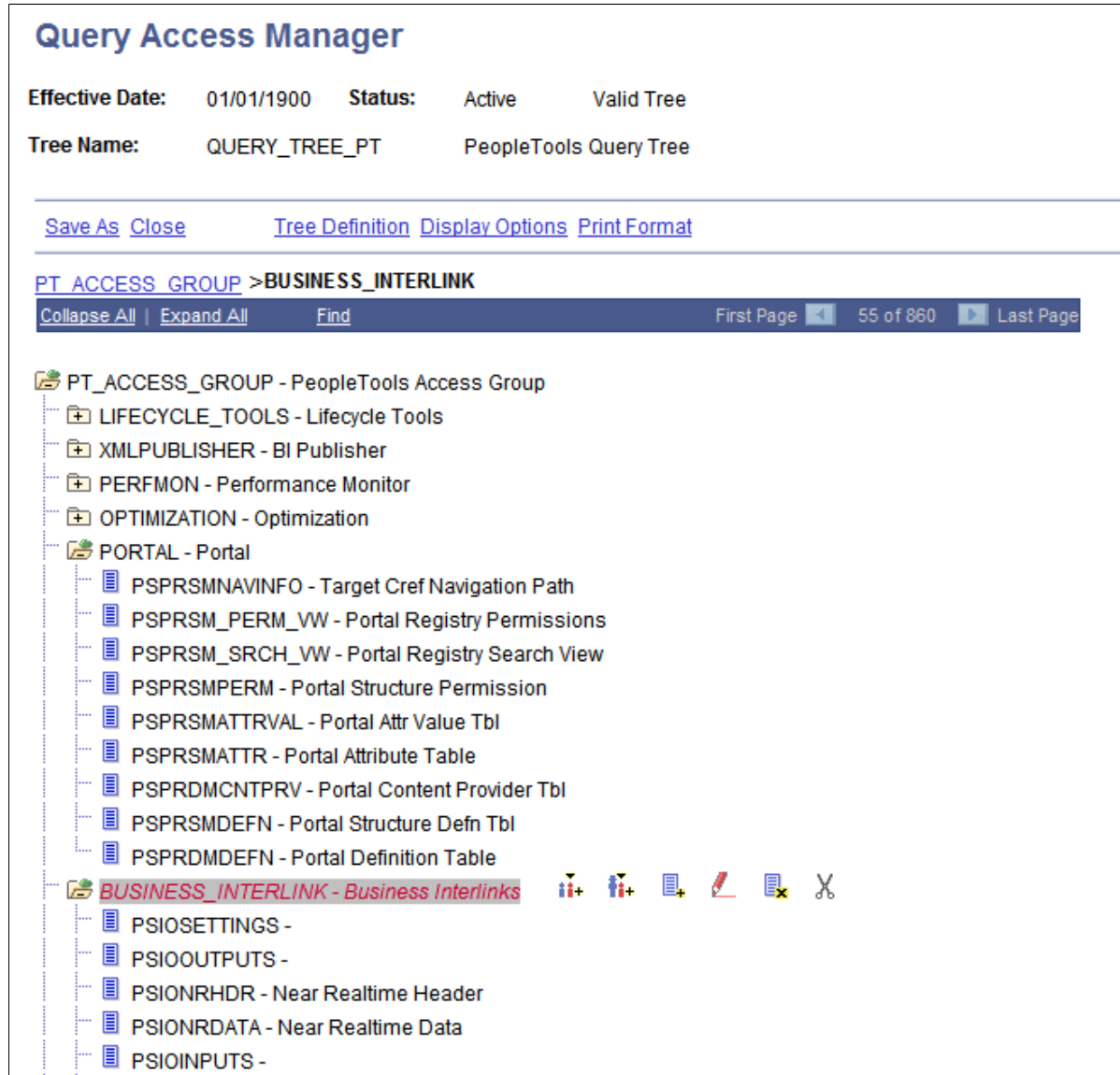
Use the Query Access Manager page (PSTREEMGRACC) to create query trees or search for existing query trees.

## 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 8.53: Security Administration*)"

## Enabling the Query Access List Cache

An optional batch process is available for users who work with Query Manager, Crystal Reports, 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

This section discusses how to:

- Enforce row-level security.

- Use 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 box on the Record Properties dialog box for any record definition.

**Image: Using QE\_PERS\_SRCH view as a Query Security Record view**

This example illustrates the Record Properties dialog box with Query Security Record is set to QE\_PERS\_SRCH.

The image shows the 'Record Properties' dialog box with the 'General' tab selected. The 'Set Control Field' is empty. Under 'Record Relationships', 'Parent Record' is set to 'QE\_PERS\_DATA', 'Related Language Record' is empty, 'Query Security Record' is set to 'QE\_PERS\_SRCH', and 'Analytic Delete Record' is empty. Under 'Record Audit', 'Record Name' is empty, and 'Audit Options' are 'Add', 'Change', 'Selective', and 'Delete', all unchecked. Under 'Record-level Auto-Update', 'System ID Field' and 'Timestamp Field' are both set to 'None'. Under 'Sync type (MSF)', 'Server -> User (Down Sync)' and 'User -> Server (Up Sync)' are both unchecked. Under 'Record Information', 'Tools Table' and 'Managed' are both unchecked. At the bottom, 'Append All (Dynamic Views)' is unchecked. The 'OK' and 'Cancel' buttons are at the bottom right.

**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).

When you add one of the preceding fields as a key field, Oracle's 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 Row-Level Security and Query Security Record Definitions](#), [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.

---

## 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	
<b>PeopleSoft Query Use</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Only Allowed to run Queries</li> <li><input checked="" type="checkbox"/> Allow creation of Public Queries</li> <li><input checked="" type="checkbox"/> Allow creation of Role, Process and Archive Queries</li> </ul> <p>Maximum Rows Fetched: <input type="text"/> (0 = Unlimited)</p> <p>Maximum Run Time in Minutes: <input type="text"/> (0 = Unlimited)</p>	<b>Advanced SQL Options</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Allow use of Distinct</li> <li><input checked="" type="checkbox"/> Allow use of 'Any Join'</li> <li><input checked="" type="checkbox"/> Allow use of Subquery/Exists</li> <li><input checked="" type="checkbox"/> Allow use of Union</li> <li><input checked="" type="checkbox"/> Allow use of Expressions</li> </ul> <p>Maximum Joins Allowed: <input type="text" value="9"/> (9 = Unlimited)</p> <p>Maximum 'In Tree' Criteria: <input type="text" value="9"/> (9 = Unlimited)</p>
<b>PeopleSoft Query Output</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Run</li> <li><input checked="" type="checkbox"/> Run to Excel</li> </ul>	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

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.

---

See [Understanding Query Administration](#), "Defining Permissions (*PeopleTools 8.53: 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, of course, that you gave them access to PeopleSoft Query.

## Related Links

"Defining Query Profiles (*PeopleTools 8.53: Security Administration*)"

"Building Query Access Group Trees (*PeopleTools 8.53: Security Administration*)"

"Working with Query Trees (*PeopleTools 8.53: Security Administration*)"

"Defining Row-Level Security and Query Security Records (*PeopleTools 8.53: Security Administration*)"





# Query Administration

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## Query Administration

This topic provides an overview of Query Administration and discusses how to use 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.

---

**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 take care that workflow queries are as efficient as possible.

---

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:** You cannot cancel currently running scheduled queries.

---

### Related Links

[Using Query Profiles](#)

---

## Using Query Administration

This section discusses how to:

- Administer queries.
- Cancel currently running queries.
- Set additional options.

## 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.

**Admin** | Executing | Settings

**Choose a predefined search:**

Queries that have been run in the last (n) days (n) = 10 **Search**

**OR perform a manual search:**

Search by: Query Name begins with WFT **Search**

Search results for: Manual search - Query Name begins with WFT

**Check All** **Uncheck All**

Select	Owner ID	Query Name	Folder	Avg Time	Avg Rows	# Runs	Last Run Date	Last Run Time	Logging	Disabled	View SQL	View Log
<input type="checkbox"/>		WFT0001_TOTALS_BY_BP_WL		0.000	0.000	0			Off	No	<a href="#">View SQL</a>	<a href="#">View Log</a>
<input type="checkbox"/>		WFT0002_TOTALS_BY_BP_WL_OPR		0.000	0.000	0			Off	No	<a href="#">View SQL</a>	<a href="#">View Log</a>
<input type="checkbox"/>		WFT0003_OPERATOR_TOTALS		0.000	0.000	0			Off	No	<a href="#">View SQL</a>	<a href="#">View Log</a>
<input type="checkbox"/>		WFT0004_TOTALS_BY_BP_WL_ALL_OP		0.000	0.000	0			Off	No	<a href="#">View SQL</a>	<a href="#">View Log</a>
<input type="checkbox"/>		WFT0005_TOTALS_FOR_SINGLE_BP		0.000	0.000	0			Off	No	<a href="#">View SQL</a>	<a href="#">View Log</a>

**Logging On** **Enable** **Assign New Owner** **Delete** **Rename** **Move to Folder** **Clear Stats/Logs**

**Logging Off** **Disable**

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 after 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. No Save button is 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 needs 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. No Save button is available.

The kill (cancel) query/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 kill query/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.



The screenshot shows a web interface with a navigation bar at the top containing three tabs: 'Admin', 'Executing', and 'Settings'. The 'Settings' tab is currently selected. Below the tabs, there are two checkboxes. The first checkbox is labeled 'Enable Query Timeout' and is checked. The second checkbox is labeled 'Run Query Statistics' and is unchecked.

#### 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.

