

## **SES/CAESAR QUERY TOOL**

---

### Creating Queries

**PS Query**

---

# **Table Of Contents**

<b>I - Introduction to Query:</b> .....	<b>3</b>
PeopleSoft Query Overview:.....	3
Query Terminology:.....	3
Navigation to Query Manager:.....	4
<b>II – Using the Query Tool:</b> .....	<b>5</b>
Searching for an Existing Query:.....	5
Running an Existing Query.....	7
Query Manager Search Results.....	7
Query Manager.....	8
<b>III – Getting Started Writing A Query:</b> .....	<b>10</b>
Create New Query:.....	10
Adding Records:.....	11
Selecting Fields.....	12
Editing/Formatting Fields and Layout.....	13
Fields Tab.....	13
Sorting & Reordering Columns.....	14
Field Headings.....	14
Translate Values.....	15
Establishing Criteria.....	16
Criteria Tab.....	16
Criteria Properties.....	17
Effective Date Criteria.....	20
Relating Multiple Criteria.....	22
Grouping Criteria.....	23
Adding Criteria - Example.....	25
Working with Joins.....	27
Any Record Joins.....	27
Related Record Joins.....	29
Query Properties:.....	30
Saving Queries.....	31
Deleting Queries.....	32
Making Query Results Distinct.....	33
Setting Query Preferences:.....	33
More Advanced Query Techniques.....	34
Working with Prompts.....	34
Using Expressions.....	38
Aggregate Functions.....	40
View SQL Tab.....	42
<b>IV – Exercise: Editing an Existing Query:</b> .....	<b>43</b>
Editing an existing Query.....	43
<b>V – Helpful Hints &amp; Best Practices:</b> .....	<b>45</b>

# I - Introduction to Query:

## PeopleSoft Query Overview:

PeopleSoft Query is an end user reporting tool that allows you to extract the precise information that you are looking for by using visual representations of the SES/CAESAR database, without writing Structured Query Language (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. The query tool allows you to display query results on the page, run the results to excel, or schedule your query for a future run time.

## Query Terminology:

**Relational Database:** A database system in which the database is organized and accessed according to the relationships between data items without the need for any consideration of physical orientation and relationship. Relationships between data items are expressed by means of tables (records).

**Record:** (Also referred to as a “**Table**”) Records/Tables are the foundation of the Query tool. A record stores data that is arranged by rows (entries) and columns (fields). For example, a record/table containing data about “people” would have a row for each individual person and columns (fields) for each piece of data stored for that individual (ex: name, address, phone). Records can be added to a query from the “Records” tab.

**Field:** In a database context, a field is the same as a column. For example, a record of people could contain separate fields such as name, address, phone, etc.

**Query:** A query is a SQL SELECT statement that reads data from tables and views within the database, and returns the result set to the requester. Queries cannot change data within the database.

**SQL:** Structured Query Language (SQL) is a language that provides an interface to relational database systems. It was developed by IBM in the 1970s for use in System R. SQL is a de facto standard, as well as an ISO and ANSI standard. Some people pronounce SQL "sequel".

**Criteria:** Specifying criteria in your query allows you to set conditions which limit the results returned by the query to only those data that you are interested in. Criteria are viewed and maintained on the “Criteria” tab. Example: You may want to set criteria to limit your query to retrieve a relevant subset of data such as active undergraduate students as opposed to returning results for all active students.

**Join:** The process of combining data from two or more tables using matching columns.

**Public Query:** Public queries are viewable and editable by any user with access to Query Manager and the proper table access. Public queries are available for use by many different users, so please **do not save** any changes that you make to a public query.

**Private Query:** Private queries are only viewable by the individual who created the query.

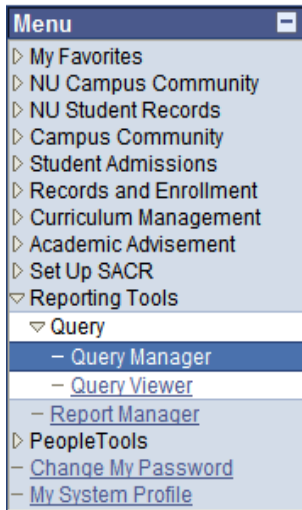
**Primary Key:** A column in a table whose values uniquely identify the rows in the table. A primary key value cannot be NULL.

**Foreign Key:** A column in a table that does NOT uniquely identify rows in that table, but is used as a link to matching columns in other tables to indicate a relationship.

Definitions courtesy of <http://www.orafaq.com/>

Navigation to Query Manager:

From the Menu, Navigate to Reporting Tools → Query → Query Manager



A screenshot of a web application menu. The menu is titled 'Menu' and contains several items with expand/collapse arrows. The 'Reporting Tools' item is expanded, and the 'Query' sub-item is also expanded. Within the 'Query' sub-item, 'Query Manager' is highlighted with a blue background. Other items in the 'Query' sub-item include 'Query Viewer' and 'Report Manager'. Other items in the main menu include 'My Favorites', 'NU Campus Community', 'NU Student Records', 'Campus Community', 'Student Admissions', 'Records and Enrollment', 'Curriculum Management', 'Academic Advisement', 'Set Up SACR', 'PeopleTools', 'Change My Password', and 'My System Profile'.

**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](#)

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

## II – Using the Query Tool:

This section will cover:

- Searching for queries
- Running queries
  - Exporting results to Microsoft Excel or CSV
- Viewing/Editing Existing Queries
  - Using existing queries to create your own queries

### Searching for an Existing Query:

1. To view/find an existing query, type your search criteria in the text box, as shown below. In this **example**, we are trying to find queries in which the name **begins** with “SES”.

#### 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: Query Name    
 [Advanced Search](#)

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

2. To change how you search for an existing query, you can change the “**Search By**” options by selecting a different value in the dropdown list as show below.

#### 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:     
 [Adv](#)  
  
Description  
Folder Name  
Owner  
Query Name  
Type  
Uses Field Name  
Uses Record Name

[Find an Existing](#)

3. For even more search options you may click on the blue **Advanced Search** link shown below.

### 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](#)


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

4. The search options shown below will allow you to specify more exact search parameters.

### 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](#)

Query Name:    
Description:    
Uses Record Name:    
Uses Field Name:    
Access Group Name:     
Folder Name:    
\*Query Type: =   
Owner: =

When using the IN or BETWEEN operators, enter comma separated values without quotes. i.e. JOB,EMPLOYEE,JRNL\_LN.

[Basic Search](#)

## Running an Existing Query:

There are two ways to run a query:

- From the Query Manager Search Results
- From Within Query Manager

### Query Manager Search Results

After you have successfully searched and found the query you are interested in, you can run the query by clicking on the blue **HTML** link under the “**Run to HTML**” heading. (See below) This will open up a new window and allow you view the query results in your web browser. Note: If there are run-time prompts associated with the query, they will be shown in the top-left corner of the new window. Prompts will be covered later on in this document.

#### 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	Customize	Find	View All	First	1 of 1	Last		
Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input type="checkbox"/>	SES_LOCAL_ADDRESSES	Local Addresses	Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>

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

- a) To download the results to a Microsoft **Excel** spreadsheet, left-click on the **Excel Spreadsheet** link shown below. You will be prompted to open or save the file. You can also create a **comma-separated** file (or CSV) by clicking on the **CSV Text File** link.

Download results in: [Excel Spreadsheet](#) [CSV Text File](#) (10 kb)

[View All](#)

First  Last

ID	Term	Wdraw Code	Career	Prim Prog	Strt Level	Acad Load	Name	Address 1	Address 2	City	State	Postal	Acad Plan	Exp Grad
1 XXXXXX	4290	NWD	UGRD	06SPC	30	F	Wilson,Courtney Amanda	1234 Anywhere St	Residence Hall #1	Evanston	IL	602012980	04L12-MAJ2	
2 XXXXXX	4290	NWD	UGRD	06SPC	30	F	Wilson,Courtney Amanda	1111 Wildcat Ave	Residence Hall #2	Evanston	IL	602012980	06C40-BSSP	
3 XXXXXX	4290	NWD	UGRD	06SPC	20	F	Wilson,Daniel Alexander	2222 Purple Lane	Residence Hall #2	Evanston	IL	602015093	06P05-BSSP	

- b) A query can also be run to Microsoft **Excel** spreadsheet directly from the search results screen as shown below. Left-click on the blue **Excel** link under the “**Run to Excel**” heading. (See below) You will be prompted to open or save the file.

### 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									
Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule	
<input type="checkbox"/>	SES_LOCAL_ADDRESSES	Local Addresses	Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>	

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

## Query Manager

The query can also be run from inside Query Manager. Select the blue **Edit** link as shown below

### 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									
Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule	
<input type="checkbox"/>	SES_LOCAL_ADDRESSES	Local Addresses	Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>	

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



Select the **Run** tab as shown below. If there are prompts, they will display on the top left-hand corner. The results of the query will be displayed in the same window.

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

Query Name: SES\_LOCAL\_ADDRESSES Description: Local Addresses

View field properties, or use field as criteria in query statement. [Reorder / Sort](#)

Col	Record.FieldName	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	E.NAME - Name	Char50				Name		Edit	
2	E.FIRST_NAME - First Name	Char30				First Name		Edit	
3	E.LAST_NAME - Last Name	Char30				Last		Edit	
4	E.MIDDLE_NAME - Middle Name	Char30				Middle		Edit	
5	E.NAME_SUFFIX - Name Suffix	Char15				Suffix		Edit	
6	D.ADDRESS1 - Address Line 1	Char55				Address 1		Edit	
7	D.ADDRESS2 - Address Line 2	Char55				Address 2		Edit	
8	D.CITY - City	Char30				City		Edit	
9	D.STATE - State	Char6				State		Edit	
10	D.POSTAL - Postal Code	Char12				Postal		Edit	
11	D.COUNTRY - Country	Char3				Country		Edit	
12	A.ACAD_LEVEL_BOT - Academic Level - Term Start	Char3				Strt Level		Edit	
13	A.EMPLID - EmplID	Char11				ID		Edit	

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

To Export the query results to Excel while in Query Manager, you will need to **left-click on the blue “Download to Excel” link below, while holding down the CTRL button on your keyboard. Continue to hold the CTRL button as you choose to either open or save your file.**

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

Term = 4290

View All | [Rerun Query](#) | [Download to Excel](#) | First 1-19 of 19 Last

**Note:** To return to the Query Manager Search page, click on the [Return to Search](#) button or use your left-hand menu to navigate to Reporting Tools → Query → Query Manager.

## III – Getting Started Writing A Query:

Create New Query:

To create a new query, click on the blue **Create New Query** hyperlink shown below.

### 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: Query Name  begins with   
 [Advanced Search](#)

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

This will open up a new query starting with the Records tab shown below.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
---------	-------	-------------	---------	--------	----------	--------	----------	-----

Query Name: New Unsaved Query      Description:

### Find an Existing Record

\*Search By: Record Name  begins with   
 [Advanced Search](#)

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

## Adding Records:

The **Records Tab** allows you to add new records (tables) to your query. You can search for records using the search criteria below. Additional search criteria can be utilized by both clicking on the dropdown list to the right of **Search By** or by clicking on the blue **Advanced Search** hyperlink.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: New Unsaved Query Description:

### Find an Existing Record

\*Search By: Record Name begins with NW\_PERSDATA\_VW

Search Advanced Search

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

Once you have searched for and found the record you are looking for, you can select it from the search results by clicking on the blue **Add Record** hyperlink. If you are unsure if this is the record you are seeking, you can preview the Fields by clicking on the blue **Show Fields** hyperlink.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: New Unsaved Query Description:

### Find an Existing Record

\*Search By: Record Name begins with NW\_PERSDATA\_VW

Search Advanced Search

### Search Results

Record	Customize	Find	View All	First	1 of 1	Last
Recname						
NW_PERSDATA_VW - SA Personal data view						

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

Once you have found and added the appropriate record by clicking on the **Add Record** hyperlink you will be taken to the **Query Tab** to select fields. (You can also go back to the Records Tab at any time to add more Records (tables))


## Selecting Fields:


To add fields to the query, place a checkmark in the box to the left of the field name. You can check all of the fields by clicking on the **Check All Fields** button or uncheck all of the fields by clicking on the **Uncheck All Fields** button.

By clicking on a folder icon (below) to the left of the record name, you can expand the record to show the fields or you can collapse it to hide the fields.

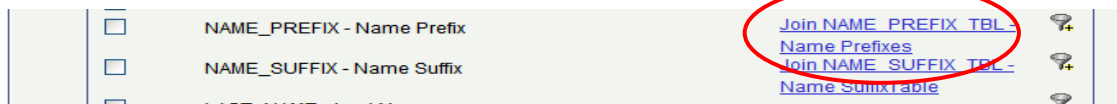
To remove a record (table) from the query, select the minus symbol to the right of the record name.



The  icon to the left of the field indicates that this field is a primary key for this table. (See page 3 for definitions)

The  icon allows you to sort the fields alphabetically. Clicking on it again will toggle it back to normal.

The blue hyperlinks to the right of some of the fields (shown below) are indicating potential links to other records (tables). To join the additional table, you can click on the hyperlink and you will be asked to choose which type of join you would like. (Joins will be covered later in this document)



Once you have selected all of the appropriate fields you can move on by clicking on the **Fields Tab**.

## Editing/Formatting Fields and Layout:

### Fields Tab

The **Fields Tab** allows the user to view, edit, and format the fields (columns) that are used in the query.

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.EMPLID - EmplID	Char11				ID		Edit	-
2	A.LAST_NAME - Last Name	Char30				Last		Edit	-
3	A.FIRST_NAME - First Name	Char30				First Name		Edit	-
4	A.MIDDLE_NAME - Middle Name	Char30				Middle		Edit	-
5	A.ADDRESS1 - Address Line 1	Char55				Address 1		Edit	-
6	A.ADDRESS2 - Address Line 2	Char55				Address 2		Edit	-
7	A.CITY - City	Char30				City		Edit	-
8	A.STATE - State	Char6				State		Edit	-
9	A.POSTAL - Postal Code	Char12				Postal		Edit	-

- **Col** – The order in which the fields are displayed (left to right) when the query is run.
- **Record.Fieldname** – Record Alias (A, B, C, etc.) & Field Name separated by a period. The Record Alias refers to the records as they appear on the Records tab.
- **Format** – Field type and length
- **Ord** – Shows if the query results will be sorted and in what order (1, 2, etc.)
- **XLAT** – Specifies the translate value that you want to appear in the query results: N (none), S (short), or L (long). The table you are 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.
- **Agg** – Will display if field is an aggregate (Sum, Count, Min, Max, Avg)
- **Heading Text** - The column name displayed in the query output.

To remove a field from the output of the query, simply select the **Minus** button under the **Delete** heading as shown below.

Col	Record.Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.EMPLID - EmplID	Char11				SESID		Edit	-
2	B.CRSE_ID - Course ID	Char6				Course ID		Edit	-

## Sorting & Reordering Columns

To **Sort** and/or **Order** the fields in a particular format, click on the **Reorder / Sort** button on the main Fields Tab page and the following page will open.

- To change the column (field) order (left to right); simply enter the new numbers on the left under the **New Column** heading. (In the example below the columns will change in order accordingly – First Name, Middle Name, Last Name)
- To change or create a new pattern for how the data is sorted; simply enter the numbers on the right under the **New Order By** column. Ascending (A-Z) order is the default. (In the screen shot below, the results will be sorted by Last Name, then by First Name)
- When you are finished, click on the **OK** button.

### Edit Field Ordering

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

Edit Field Ordering					
Customize   Find   View All   [Grid Icon]					
First [Left Arrow] 1-9 of 9 [Right Arrow] Last					
New Column	Column	Record.Fieldname	Order By	Descending	New Order By
	1	A.EMPLID - EmplID		<input type="checkbox"/>	
	3	A.LAST_NAME - Last Name		<input type="checkbox"/>	1
	1	A.FIRST_NAME - First Name		<input type="checkbox"/>	2
	2	A.MIDDLE_NAME - Middle Name		<input type="checkbox"/>	
		A.ADDRESS1 - Address Line 1		<input type="checkbox"/>	
		A.ADDRESS2 - Address Line 2		<input type="checkbox"/>	
		A.CITY - City		<input type="checkbox"/>	
		A.STATE - State		<input type="checkbox"/>	
		A.POSTAL - Postal Code		<input type="checkbox"/>	

**OK** **Cancel**

## Field Headings

To change the **field heading text** in the output, click on the **Edit** button to the right of the field on the main Fields Tab page and the following page will open. Enter your new field name in the **Heading Text** box and choose the **Text** radio button as shown below. It is recommended that you do not change the **Unique Field Name**.

### Edit Field Properties

Field Name: A.EMPLID - EmplID

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

## Translate Values

Some fields in PeopleSoft have what are called **translate values** associated with them. For example, in the query results displayed below, you will see that the **Career** and **Status** fields display codes (UGRD & AC) that respectively correspond to **undergraduate** and **active**. The latter are considered translate values for the displayed codes. As the query writer, you have the option to display either the code or the translate value.

	Career	Status	Address 1	Address 2	City	State	Postal	Address 1	Address 2	City	State	Postal
1	UGRD	AC	626 University PI	Shepard Res Coll 0132	Evanston	IL	602013871	6010 Belinda Drive		Rockford	MI	49341
2	UGRD	AC	1420 Chicago Ave apt 4D		Evanston	IL	60201-5001	7813 NE Loowit Loop	#86	Vancouver	WA	986626440

To tell if a field has translate values associated with it, you will see values in the **XLAT** column (shown below)

Col	Record_Fieldname	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Sort	Delete
1	E.ACAD_CAREER - Academic Career	Char4		N		Career		Edit	
2	E.PROG_STATUS - Academic Program Status	Char4		N		Status		Edit	

To display the translate values, click on the **Edit** button above on the main fields tab. The following page will open. Click on either of the radio buttons entitled **Short** or **Long** to display the short or long translate values for this particular field. It is not recommended that you change the Effective date setting unless you are trying to view historical or future rows.

### Edit Field Properties

Field Name: E.ACAD\_CAREER - Academic Career

**Heading**

No Heading  RFT Short

Text  RFT Long

Heading Text:  
Career

\*Unique Field Name:  
E.ACAD\_CAREER

**Aggregate**

None

Sum

Count

Min

Max

Average

**Translate Value**

None  Short  Long

Effective Date for Short/Long

Current Date

Field

Expression

[Add Prompt](#) [Add Field](#)

OK Cancel

## Establishing Criteria:

### Criteria Tab

The **Criteria Tab** allows you to establish logic that will limit (or filter) the results returned when the query is run. (See Page 2 for Criteria Definition)

The column headings on the Criteria Page can be described as follows:

- **Logical** – Represents how the criteria rows will be compared with each other, **AND** or **OR**, **Blank** for the first Criterion; defaults to **AND** for subsequent rows. The **AND** operator indicates that the resulting data must meet two criteria simultaneously, the **OR** operator indicates that the resulting data must match one or the other criteria.
- **Expression 1** – Used to specify the field you are comparing
- **Condition Type** – States how **Expression 1** is to be compared with **Expression 2**. Click on Edit and then drop down arrow by **Condition Type** to see a listing of Condition Types (Operators)
- **Expression 2** – Expression 1 can be compared to a Constant, a field from another Record, or values entered in a Prompt.

The screenshot shows the 'Criteria' tab in a software interface. At the top, there are navigation buttons: Records, Query, Expressions, Prompts, Fields, Criteria (selected), Having, View SQL, and Run. Below these, the 'Query Name' is 'SES\_LOCAL\_ADDRESSES' and the 'Description' is blank. There are three buttons: 'Add Criteria', 'Group Criteria', and 'Reorder Criteria'. The main area is a table with the following columns: Logical, Expression1, Condition Type, Expression 2, Edit, and Delete. The table contains four rows of criteria:

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.STRM - Term	equal to	4280	Edit	[-]
AND	A.ACAD_CAREER - Academic Career	equal to	UGRD	Edit	[-]
AND	A.ACADEMIC_LOAD - Academic Load	not equal to	N	Edit	[-]
AND	A.WITHDRAW_CODE - Withdrawal \ Cancel	equal to	NWD	Edit	[-]

To **Edit Criteria**, select the **Edit** button to the right of the Criteria window (above)

To **Remove Criteria**, simply click on the **[-]** symbol to the right of the edit button (above)

To **Reorder Criteria**, select the **Reorder Criteria** button (above). This can be used to reorder how the criteria is displayed on the page, however you will need to be mindful of how this affects your query if you have different logical operators or if the criteria is grouped in any way

To **Group Criteria**, select the **Group Criteria** button (above). Grouping will be covered later in this document

To **Add Criteria**, select the **Add Criteria** button (above)



## Criteria Properties

After you have selected the **Add Criteria** button, the following page will open

### *Expression 1*

**Edit Criteria Properties**

Choose Expression 1 Type

Field  
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

\*Condition Type: equal to

Choose Expression 2 Type

Field  
 Expression  
 Constant  
 Prompt  
 Subquery

Expression 2

Define Constant

Constant:

OK Cancel

**Field** - Select this option if you want to base the selection criterion (filter) on a field within one of your tables. To compare the values from fields in two different tables, you must join the records. When you select this option, you must then select a condition type.

**Expression** - Select this option if you want the PS Query to evaluate an expression that you enter before comparing the result to the value in the selected field. If you are entering an aggregate value, select the Aggregate Function check box. You can also enter parameters for length and decimal positions. Also enter the expression in the text box. Query Manager inserts this expression into the SQL. (See below)

### **Example:**

Below is an example of an expression being compared to a constant value. We are comparing a portion of the catalog # field to the constant value provided, which in this case is "101-6".

Criteria	Expression1	Condition Type	Expression 2	Edit	Delete
	substr(A.CATALOG_NBR,2,6)	equal to	101-6	Edit	-

### *Condition Type*

**Edit Criteria Properties**

Choose Expression 1 Type

Field  
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

\*Condition Type: equal to

Choose Expression 2 Type

Field  
 Expression  
 Constant  
 Prompt  
 Subquery

Expression 2

Define Constant

Constant:

OK Cancel

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

Below are the different condition types and how they are used.

Condition Type	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.
is null	The selected record field does not have a value in it. You do not specify a comparison value for this operator. Key fields, required fields, character fields, and numeric fields do not allow null values.
less than	The value in the record field is less than the comparison value.
like	The value in the selected field matches a specified string pattern. The comparison value may be a string that contains wildcard characters. The wild-card characters that PeopleSoft Query recognizes are % and _. % matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone. _ matches any single character. For example, _ones matches any five-character string ending with ones, such as Jones or Cones. PeopleSoft Query also recognizes any wild-card characters that your database software supports. See the documentation for your database management system for details. To use one of the wild-card characters as a literal character (for example, to include a % in your string), precede the character with a \ (for example, percent\%).

*\*From PeopleBooks\**

## Expression 2 - Comparison Values

The screenshot shows the 'Edit Criteria Properties' dialog box. It has two main sections: 'Expression 1' and 'Expression 2'. In the 'Expression 1' section, 'Choose Expression 1 Type' has 'Field' selected. The 'Expression 1' panel shows 'Choose Record and Field' with a search box for 'Record Alias.Fieldname:'. In the 'Expression 2' section, '\*Condition Type' is set to 'equal to'. The 'Expression 2' panel shows 'Define Constant' with a search box for 'Constant:'. A red oval highlights the 'Choose Expression 2 Type' section where 'Constant' is selected. At the bottom are 'OK' and 'Cancel' buttons.

The process for entering comparison values (Expression 2) changes depending on the value that 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, then enter the constant value.

Below are the different value types used as comparison values in Expression 2. Some of these are only available depending on the condition type you have chosen.

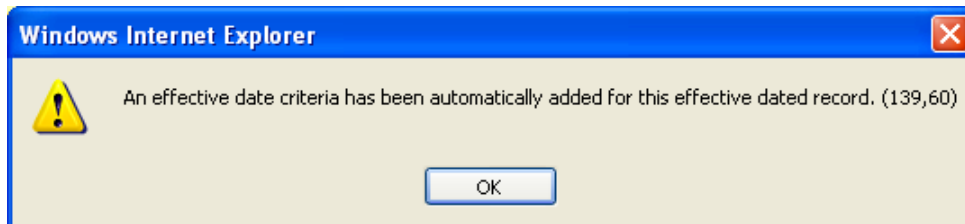
Value Type	Action
Field	<p>The value in the selected field is compared to the value in another field, usually a field in another record component.</p> <p>When you select <i>Field</i> as the comparison value, the Choose Record and Field page appears. The Record Alias field lists all the records that are part of the current query. Select the record and the field. The selected field name appears in the second Expression column of that field's row.</p>
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 Expression 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 Constant 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> <p><b>Note.</b> A list of constants is available only for fields that have translate values or an assigned prompt table.</p>
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, you can click the Edit Prompt link.</p>

Value Type	Action
Subquery	The value in the selected field is compared to the data that is returned by a subquery. 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.
In List	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> . 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. Note that values will appear here only if you have entered them previously.
Current Date	The value in the selected field is compared to the current date on the database server.
Tree Option	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> . 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.
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.

\*From PeopleBooks\*

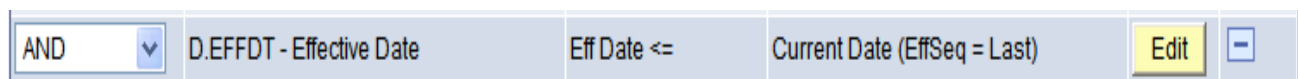
## Effective Date Criteria

When adding/joining records (tables) to a query, you may encounter the following message.



The reason for this is that effective-dated records are used throughout the system in order to provide a historical perspective, which enables 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.

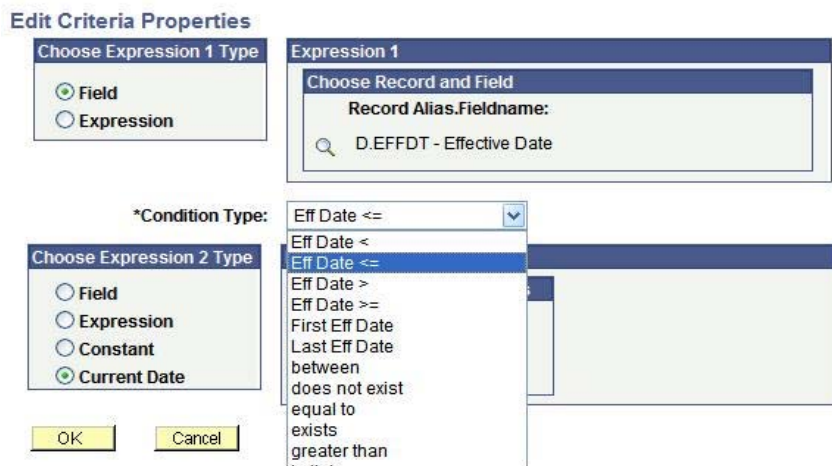
The system, as indicated by the screen shot above, will automatically give you the currently effective rows of data—the rows where the effective date is less than or equal to today's date. The screen shot below is an example of what the system created effective date criterion looks like.



In most cases, 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.

However, there may be cases where you may need 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. These cases can be best described below.

<b>Current</b>	The data row with the date closest to—but not greater than—the system date. Only one row can be the current row.
<b>History</b>	Data rows that have effective dates earlier than the current data row.
<b>Future</b>	Data rows that have effective dates later than the system date.



The Options for Effective Date Criteria are below:

Expression 1	Condition	Expression 2
Eff Date	<	Field, Constant, or Current Date
Eff Date	<=	Field, Constant, or Current Date
Eff Date	>	Field, Constant, or Current Date
Eff Date	>=	Field, Constant, or Current Date
First Eff Date	Returns the row with the oldest effective date, usually the first row that is entered for an item	
Last Eff Date	Returns the row with the latest effective date, even if that date is still in the future	

You will also notice that some effective-dated records use what is called an effective sequence. This is a sequencing number provided to further refine the effective date. For example, if a student has two rows created on the same date (same effective date) the sequence is how you determine which row is the most recent.

## Relating Multiple Criteria

In PS Query, multiple criteria are related using the **AND**, **AND NOT**, **OR**, and **OR NOT** operators as shown below.

When you link two criteria with **AND**, each row must meet the first and second criterion for it to be returned in the query results. When you link two criteria with the **OR** operator, a row must meet the first or the second criterion, but not necessarily both.

For example, you are querying for a list of students and you have defined two criteria: one selects students that are in the Music program and another selects students who have a GPA greater than 3.0. You may want to return only those rows that meet both of those conditions (Music students who have a GPA greater than 3.0).

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	E.ACAD_PROG - Academic Program	equal to	05MUS	Edit	-
AND	A.CUM_GPA - Cumulative GPA	greater than	3.0	Edit	-

Or you may only want the rows that meet either one of the conditions (All Music students plus students who have a GPA of 3.0).

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	E.ACAD_PROG - Academic Program	equal to	05MUS	Edit	-
OR	A.CUM_GPA - Cumulative GPA	greater than	3.0	Edit	-

PS Query will assume that you want the rows returned in your query to meet all of the criteria that you specify, so it will use the **AND** operator by default. To change the operator, simply click on the dropdown list to the left of each criterion.

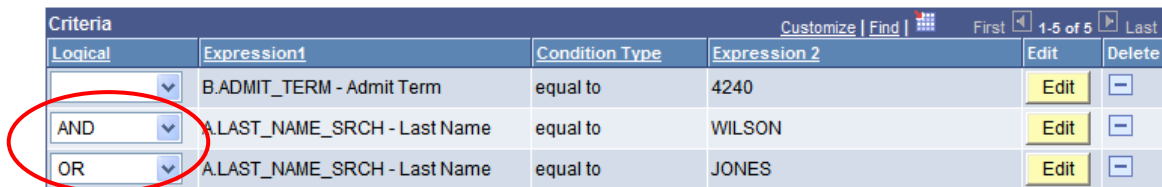
Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.EMPLID - EmplID	equal to	B.EMPLID - EmplID	Edit	-
AND	A.STRM - Term	equal to	3970	Edit	-
AND	A.WITHDRAW_CODE - Withdrawal \ Cancel	equal to	NWD	Edit	-
AND	A.ACADEMIC_LOAD - Academic Load	not equal to	N	Edit	-
AND	A.EMPLID - EmplID	equal to	C.EMPLID - EmplID	Edit	-

## Grouping Criteria

When a query includes multiple criteria, PS Query checks them according to the rules of logic, which tell it to evaluate criteria linked by ANDs before those linked by ORs. When all the criteria are linked by ANDs, this order will always give you the correct result. When you mix in one or more ORs, however, it may not give you the result you want.

For example, let us say that we are trying to find students that were admitted in the Fall of 2006 with the last name of Wilson or Jones.

The following screenshot shows a common mistake made when using the “OR” logical operator. What the criteria below give us is a listing of students admitted in the Fall of 2006 with the last name of Wilson and ALL students with the last name of Jones.

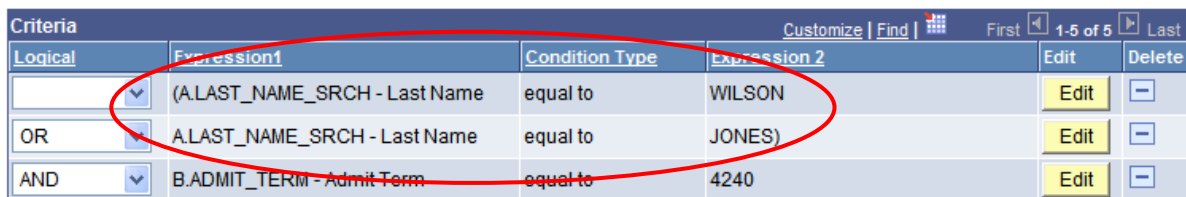


Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	B.ADMIT_TERM - Admit Term	equal to	4240	Edit	-
AND	A.LAST_NAME_SRCH - Last Name	equal to	WILSON	Edit	-
OR	A.LAST_NAME_SRCH - Last Name	equal to	JONES	Edit	-

Because PS Query evaluates criteria in the order they appear, the criteria above do not return the results we are looking for. As written, the criteria above is looking for people admitted in the Fall of 2006 AND the last name of Wilson OR people with the last name of Jones.

What we want in this case is for PS Query to look for rows where the last name is Wilson **OR** Jones **AND** the admit term is 4240 (Fall 2006). That is, we want it to evaluate the OR before the AND. We can accomplish this by adding parentheses to the list of criteria. When a list of criteria includes parentheses, PS Query evaluates the criteria inside the parentheses before the criteria outside the parentheses.

On the Criteria tab, the opening parenthesis appears just before the field name and the close parenthesis appears just after the comparison value. Below is the set of criteria that will give us the result we want.



Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	(A.LAST_NAME_SRCH - Last Name	equal to	WILSON	Edit	-
OR	A.LAST_NAME_SRCH - Last Name	equal to	JONES)	Edit	-
AND	B.ADMIT_TERM - Admit Term	equal to	4240	Edit	-

If you need to reorder the criteria in order to line them up for grouping, you can click on the **Reorder Criteria** button and the following page will open.

### Edit Criteria Ordering

Reorder criteria by entering position numbers on the left. Rows left blank or assigned a 0 will be automatically assigned a position.

Edit Criteria Ordering				
Customize   Find   View All   First 1-5 of 5 Last				
New Position	Position	Expression1	Condition Type	Expression 2
<input type="text"/>	1	(ALAST_NAME_SRCH - Last Name	equal to	WILSON
<input type="text"/>	2	A.LAST_NAME_SRCH - Last Name	equal to	JONES)
<input type="text"/>	3	B.ADMIT_TERM - Admit Term	equal to	4240
<input type="text"/>	4	A.EMPLID - EmplID	equal to	B.EMPLID - EmplID
<input type="text"/>	5	B.EFFDT - Effective Date	Eff Date <=	Current Date (EffSeq = Last)

Click on the **Group Criteria** button to group the criteria on the Criteria tab. The following page will open and allow you to place parentheses around the criteria you would like to group.

### Edit Criteria Grouping

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

Edit Criteria Grouping					
Customize   Find   First 1-5 of 5 Last					
Logical		Expression1	Condition Type	Expression 2	
	(	ALAST_NAME_SRCH - Last Name	equal to	WILSON	<input type="text"/>
OR		A.LAST_NAME_SRCH - Last Name	equal to	JONES	)
AND		B.ADMIT_TERM - Admit Term	equal to	4240	<input type="text"/>
AND		A.EMPLID - EmplID	equal to	B.EMPLID - EmplID	<input type="text"/>
AND		B.EFFDT - Effective Date	Eff Date <=	Current Date (EffSeq = Last)	<input type="text"/>




## Adding Criteria - Example

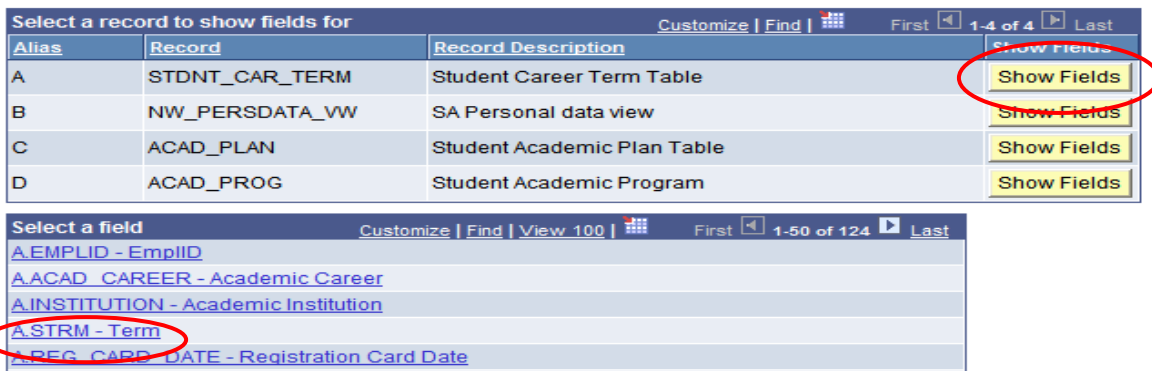
We want to show how to create a criterion to limit our query results to only those data that relate to the Fall 2007 Term (4280). So, we are saying that **Term** should **equal 4280**. (4280 is the term code for Fall 2007) In this case, we are comparing the term field (STRM) to a constant (4280).

- **Expression 1 Type** - We want to choose the **Field** radio button, which is the default, because STRM is a field that we are going to compare to a constant. (**Expressions** will be covered later in this document.)



- **Expression 1** - Click on the magnifying glass  and select the field that you want to use, which in this case is **STRM** (Term). Once you click on the magnifying glass, the following page will open. To view fields from the available tables, select the **Show Fields** button and the fields will display below. Select the appropriate field by clicking on the field name, which is shown as a blue hyperlink. (Below)

### Select a field



Alias	Record	Record Description	Show Fields
A	STDNT_CAR_TERM	Student Career Term Table	Show Fields
B	NW_PERSDATA_VW	SA Personal data view	Show Fields
C	ACAD_PLAN	Student Academic Plan Table	Show Fields
D	ACAD_PROG	Student Academic Program	Show Fields

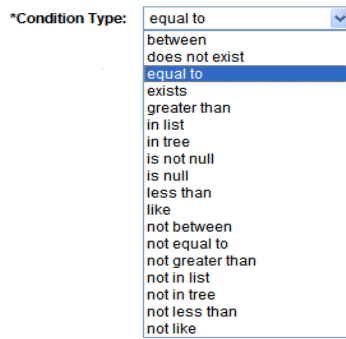
  

Select a field
<a href="#">A.EMPLID - EmplID</a>
<a href="#">A.ACAD_CAREER - Academic Career</a>
<a href="#">A.INSTITUTION - Academic Institution</a>
<a href="#">A.STRM - Term</a>
<a href="#">A.REG_CARD_DATE - Registration Card Date</a>

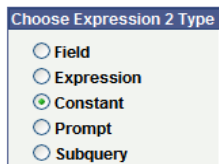
- Once you have selected the field, the **Expression 1** box you should look like this (below).



- **Condition Type** - In this case, we will want to choose **Equal To**. This is because we are saying that **Term (STRM)** should **equal 4280**.



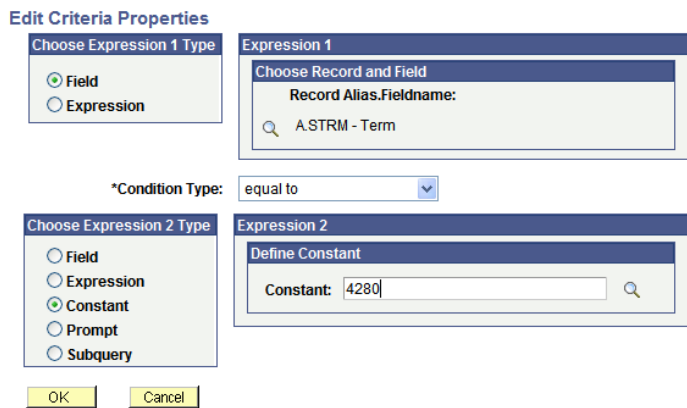
- **Expression Type 2** – For our example, we want to select the **Constant** radio button because 4280 is a static code used to define **Term (STRM)**.



- **Expression 2** – In this field, you can manually enter the value, in this case **4280**, or you can use the magnifying glass lookup tool to search for the appropriate value. *A list of constants, found by using the lookup, is available only for fields that have translate values or an assigned prompt table.*



- Once you have finished creating your criterion, and it looks the screenshot below, select the **OK** button to return to the main criteria page.



## Working with Joins:

PS Query 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 (see key definitions on page 2), and links the rows between 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 (tables) 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. In this document we will cover any record joins and related record joins.

### Any Record Joins

The following query currently has one record (table) associated with it.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

**Query Name:** SES\_LCL\_ADDRESSES      **Description:** For Documentation Purposes

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

**Chosen Records**

Alias	Record	
A	NW_PERSDATA_VW - SA Personal data view	<a href="#">Hierarchy Join</a>

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

To join another record (table) to this query you can navigate to the **Records Tab** and search for the appropriate table using basic or advanced search criteria. Click on the [Join Record](#) hyperlink to join the record to the existing table.

Records Query Expressions Prompts Fields Criteria Having View SQL Run

**Query Name:** SES\_LCL\_ADDRESSES      **Description:** For Documentation Purposes

**Find an Existing Record**

\*Search By: Record Name begins with ACAD\_PROG

Search Advanced Search

**Search Results**

Record	Join Record	Show Fields
ACAD_PROG - Student Academic Program	<a href="#">Join Record</a>	<a href="#">Show Fields</a>
ACAD_PROG_IN_VW - Student Institution View	<a href="#">Join Record</a>	<a href="#">Show Fields</a>
ACAD_PROG_LANG - Related Lang-Academic Prog Thl	<a href="#">Join Record</a>	<a href="#">Show Fields</a>

After you have clicked on the [Join Record](#) link, the following page will open and allow you to select the type of join you would like to use. The **default Join Type** is the **Standard Join** which is the first option below. **You always want to join with the record containing your main information.**

Once you have picked your join type, choose the **Join Record** by clicking on the blue hyperlink as shown below.

Select join type and then record to join with ACAD\_PROG - Student Academic Program.

Join Type

Join to filter and get additional fields (Standard Join)

Join to get additional fields only (Left outer join)

Join Record

A = NW\_PERSONDATA\_VW - SA Personal data view

Cancel

Once you click on the Join Record the following page will open describing the available join criteria between the two records (tables). In this example, the two tables are being joined by **Emplid**, which are common columns in each table. **For example, only rows in each table that contain the same value for Emplid will be shown in the query results.**

**It is suggested that you always select the criteria provided.** These automatic criteria elements are based upon key fields in each table that is needed to appropriately join the tables. If you click one of these criteria joins OFF, your query may not run properly.

#### Auto Join Criteria

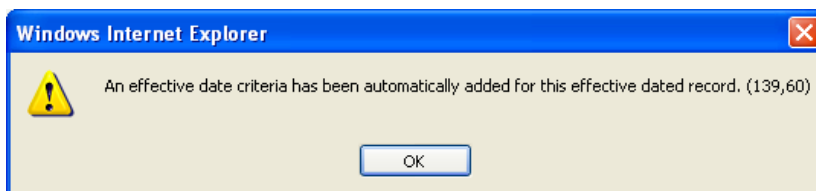
Query has detected the join conditions shown below.  
Use the checkboxes to unselect the criteria that you do not want to add to the query and click add criteria when done. The criteria added can always be modified later using the criteria tab.

A.EMPLID - EmplID = B.EMPLID - EmplID

Add Criteria Cancel

Select the **Add Criteria** button to finish adding the record to your query and move to the **Query Tab**.

The following message will display when you add/join a record (table) that contains effective dated rows. **This is not an error. Select "OK". (See Effective Dates under the Establishing Criteria heading)**



## Related Record Joins

PS Query automatically displays a join link to the right of the shared field, as shown below on the Query Tab. To the right of the fields, the blue hyperlinks indicate potential joins to other tables in the database.

The screen shot below indicates that **ACAD\_PROG** has several records that can be joined to it.

The screenshot shows the PS Query interface with the following details:

- Query Name: SES\_LCL\_ADDRESSES
- Description: For Documentation Purposes
- Chosen Records:
  - A NW\_PERSDATA\_VW - SA Personal data view
  - B ACAD\_PROG - Student Academic Program
- Fields list:
  - EMPLID - EmplID (Join PEOPLE\_SRCH - People Search View)
  - ACAD\_CAREER - Academic Career
  - STDNT\_CAR\_NBR - Student Career Nbr
  - EFFDT - Effective Date
  - EFFSEQ - Effective Sequence
  - INSTITUTION - Academic Institution
  - ACAD\_PROG - Academic Program (Join ACAD\_PROG\_SCTY - Academic Program Security Vw)
  - PROG\_STATUS - Academic Program Status
  - PROG\_ACTION - Program Action
  - ACTION\_DT - Action Date
  - PROG\_REASON - Action Reason (Join PROG\_RSN\_TBL - Acad Program Action Reason Tbl)
  - ADMIT\_TERM - Admit Term (Join TERM\_TBL - Term Definition Table - circled in red)
  - EXP\_GRAD\_TERM - Expected Graduation Term (Join TERM\_TBL - Term)

For this example, we will join the **TERM\_TBL** record (table) using the **ADMIT\_TERM** field in the **ACAD\_PROG** record (table). Since the **TERM\_TBL** contains the description (ex: Fall 2006 = 4240) for the Term codes, we will join it to the **ACAD\_PROG** table in order to display the description for **ADMIT\_TERM**.

By clicking on the link circled above, the following page will open.

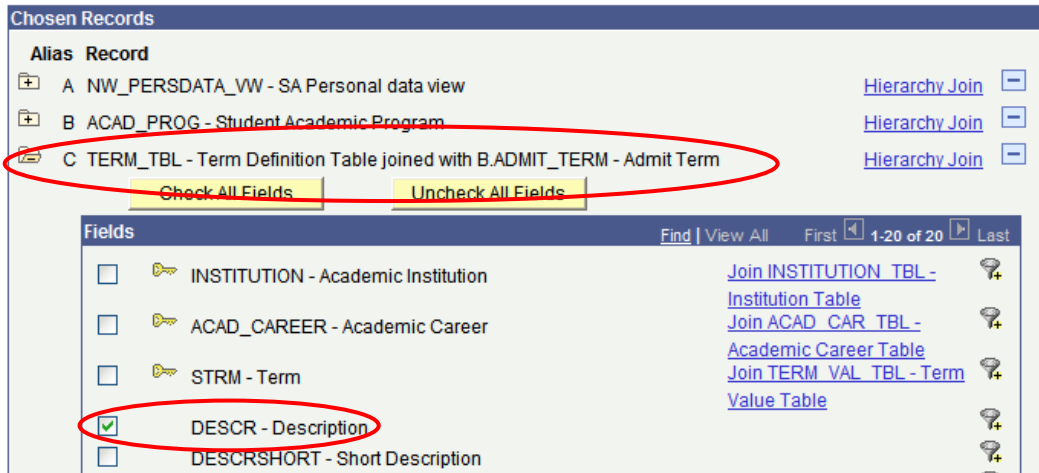
### Select join type

The dialog box titled "Join Type" contains the following options:

- Join to filter and get additional fields (Standard Join)
- Join to get additional fields only (Left outer join)

Buttons: OK, Cancel

Select the **OK** button and the following page will open, showing you that the **TERM\_TBL** record has been joined to the query.



At this point, you may select the fields (in this case Description) you would like to add to the query output by checking the box to the left of the field name (above). To edit the field properties, navigate to the **Fields Tab**.

### Query Properties:

To access and view the properties for any query, simply click on the Properties link on the bottom of the query.



The following page will open, allowing you to view each property.

### Query Properties

\*Query:

Description:

Folder:

\*Query Type:

\*Owner:   Distinct

Query Definition:

Last Updated Date/Time: 01/21/2008 2:51:17PM  
 Last Update User ID: SESJW0

## Saving Queries

A query can be saved at any time after you have selected one record and at least one field for it. Queries can be saved 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.

### Query Properties

*Query:	<input type="text" value="SES_LOCAL_ADDRESSES"/>
Description:	<input type="text" value="UGRD Local Addresses by Term"/>
Folder:	<input type="text"/>
*Query Type:	<input type="button" value="User"/> ▼
*Owner:	<input type="button" value="Public"/> ▼ <input type="checkbox"/> Distinct
Query Definition:	<input type="text" value="UGRD Local Addresses by Term"/>
Last Updated Date/Time:	01/21/2008 2:51:17PM
Last Update User ID:	SESJW0
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

**Query:** This field is for the query name. If public, please append your SES ID or your department abbreviation as a prefix. No spaces or special characters are allowed except an underscore (30 Character Limit)

**Description:** Provide a short meaningful description (30 Character Limit)

**Folder:** N/A

**Query Type:** Please select "User" in this field

**Owner:** Choose Public or Private Ownership depending on whether you want others to access your query. (See definitions on page 2)

**Query Definition:** Provide a detailed description of the query and its purpose.

If you would like to modify a public query, create a copy of the query by clicking on the **Save As** link in Query Manager. Reasons for editing a public query may include, but are not limited to, adding/removing a field, changing criteria, etc.

## Deleting Queries

To delete a query or queries, search for the appropriate query using the page shown below.

### 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:

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Schedule
<input checked="" type="checkbox"/>	SES_CLASS_ROSTER	cr	Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	SES_ENRL_REQUESTS		Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	SES_LCL_ADDRESSES	For Documentation Purposes	Private		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>
<input type="checkbox"/>	SES_LOCAL_ADDRESSES	UGRD Local Addresses by Term	Public		<a href="#">Edit</a>	<a href="#">HTML</a>	<a href="#">Excel</a>	<a href="#">Schedule</a>

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

Once you have found the query you wish to delete, place a check in the box to the left of the query name and choose **Delete Selected** from the **Action** drop down list. (Shown below)

\*Action:   
  
Add to Favorites  
Copy to User  
Delete Selected  
Move to Folder  
Rename Selected

Once you have done this, select the  button. The following page will appear.

Confirm the permanent deletion of all selected queries? (139,191)

Select **“Yes”**



## Making Query Results Distinct

By clicking on the **Distinct** checkbox, duplicate rows of output will be prevented from being created. Each row will have at least one unique feature.

Try to use this feature to eliminate duplicate rows only when you absolutely need to, as it may have a negative impact on the performance of your query and/or hide the fact that the query contains incorrect logic. Try not to use **Distinct** until you have looked at the results *without* using **Distinct** and (if necessary) pulled in enough key fields from all essential tables to try and identify exactly which key fields are different among the "duplicate" rows.

**Query Properties**

\*Query:   
Description:   
Folder:   
\*Query Type:   
\*Owner:   **Distinct**  
Query Definition:  
  
Last Updated Date/Time: 01/14/2008 10:51:53AM  
Last Update User ID: SESJW0

## Setting Query Preferences:

You are able to modify your Query Manager preferences by clicking on the **Preferences** link while in Query Manager.



The **Query Preferences** page allows you to control the display of records by either Description or Name and Description.

The "Enable Auto Join" checkbox is used to automatically determine the join conditions when a new record component is added. If you uncheck this option, you will need to determine the joins manually. It is recommended that you keep these settings as they are shown below.

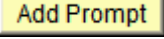


**Query Preferences**

\*Name Style:   
 **Enable Auto Join**  
(Query will automatically determine the join conditions for you when a new record component is added)  
 **Enable Auto Preview**

## More Advanced Query Techniques:

### Working with Prompts

From the **Prompts Tab**, you can create or edit prompts that are executed when the query is run. The Prompt or Run-Time Prompt, as it is sometimes called, allows you to filter query results based on a specific value each time you run your query. For instance, in the following example, we can create a prompt that will allow us to change the term we want to use each time the query is run.

- To create a new prompt, select the  button below
- To edit a Prompt, select the  button below
- To delete a prompt click on the  symbol below, to the right of the Edit button



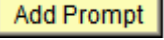
Records Query Expressions **Prompts** Fields Criteria Having View SQL Run

Query Name: SES\_LOCAL\_ADDRESSES Description: UGRD Local Addresses by Term







Add Prompt


Prompt	Edit	Delete
:1 = STRM - Term	Edit	

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

After you have selected the  button, the following page will open.

### Edit Prompt Properties

<b>Field Name:</b>  STRM	<b>*Heading Type:</b> Text 
<b>*Type:</b> Character 	<b>Heading Text:</b> Term
<b>*Format:</b> Number Only 	<b>*Unique Prompt Name:</b> BIND1
<b>Length:</b> <input type="text" value="4"/>	
<b>Decimals:</b> <input type="text"/>	
<b>*Edit Type:</b> No Table Edit 	<b>Prompt Table:</b> 
<input type="button" value="OK"/>	<input type="button" value="Cancel"/>

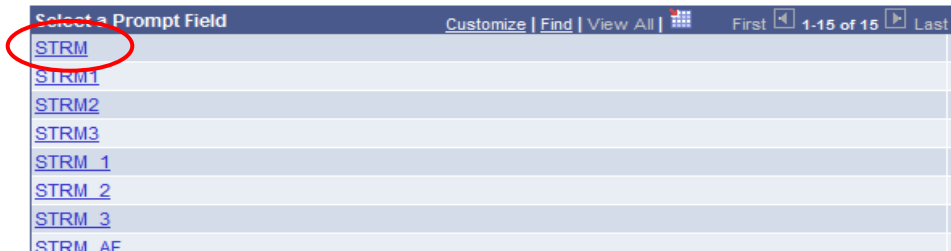
You will need to click on the  magnifying glass under the **Field Name** heading to search for the field you want to use in the prompt. Once you have found the field, select it by clicking on the field name, which is shown as a blue hyperlink. (Below)

#### Select a Prompt Field

Search by: Fieldname begins with STRM

Search Cancel No Value

#### Search Results



Select a Prompt Field
<a href="#">STRM</a>
<a href="#">STRM1</a>
<a href="#">STRM2</a>
<a href="#">STRM3</a>
<a href="#">STRM 1</a>
<a href="#">STRM 2</a>
<a href="#">STRM 3</a>
<a href="#">STRM AF</a>

Once you have selected the field you want to use, PS Query will look to the **Record (table) definition for information about this field and will automatically fill out the rest of the dialog box based on its (the field) properties.**

**Type** - Indicates the type of the field.

**Format** - Specifies the field format. Several formats are available, including Name, Phone, Social Security Number, and Zip Code

**Length** - Indicates the field length

**Decimals** - Defines the number of decimals that are allowed.

**Edit Type** - Defines the type of field edit for the specified field. **No Table Edit** is the default. In general, you should use the same edit type that is used in the field record definition.

**Heading Type** - Select a heading type for the prompt from the following values:

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

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

**Unique Prompt Name** – This is a default value generated by Query Manager.

**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

**Note.** When using a prompt table on a field from a record (table) with multiple keys, you must prompt for all higher-level keys before lower-level keys. PS 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.


### Edit Prompt Properties

Field Name: STRM	*Heading Type: Text
*Type: Character	Heading Text: Term
*Format: Number Only	*Unique Prompt Name: BIND1
Length: 4 Decimals:	Prompt Table:
*Edit Type: No Table Edit	
OK	Cancel

To make the Prompt usable in the query, you will need to link it to a criterion.

Click on the **Add Criteria** button on the **Criteria Tab** and the following page will open. In our example we are prompting for the **STRM (Term)** value.

### Edit Criteria Properties

Choose Expression 1 Type <input checked="" type="radio"/> Field <input type="radio"/> Expression	Expression 1 Choose Record and Field Record Alias.Fieldname: D.STRM - Term
*Condition Type: equal to	
Choose Expression 2 Type <input type="radio"/> Field <input type="radio"/> Expression <input type="radio"/> Constant <input checked="" type="radio"/> Prompt <input type="radio"/> Subquery	Expression 2 Define Prompt Prompt:  <a href="#">New Prompt</a> <a href="#">Edit Prompt</a>
OK	Cancel

Choose the **STRM (Term)** field for Expression 1 by using the lookup. Next you will want to choose the appropriate **Condition Type**. Finally, you will want to add the prompt that you created by using the lookup shown above. (For more detail on Editing Criteria Properties, see the Criteria section of this document)

Once you have edited the Criteria to incorporate your prompt, it should look like the screenshot below. The number displayed in the Expression 2 text box (below) is the unique number given to your prompt in the case that your query utilizes multiple prompts.

Once satisfied, click OK to return to the Criteria page.

### Edit Criteria Properties

**Choose Expression 1 Type**

Field  
 Expression

**Expression 1**

**Choose Record and Field**

Record Alias.Fieldname:

D.STRM - Term

\*Condition Type: equal to

**Choose Expression 2 Type**

Field  
 Expression  
 Constant  
 Prompt  
 Subquery

**Expression 2**

**Define Prompt**

Prompt: :2 [New Prompt](#) [Edit Prompt](#)

OK Cancel

## Using Expressions

Expressions are calculations that PS Query performs as part of the query. You can use them when you need to calculate a value that PS 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.

To create an expression, select the **Add Expression** button below

To edit the Expression is written, select the **Edit** button below

To delete a prompt click on the  symbol below, to the right of the Edit button



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

Query Name: SES\_LOCAL\_ADDRESSES Description: UGRD Local Addresses by Term

**Add Expression**

Expression Text	Use as Field	Add Criteria	Edit	Delete
CASE WHEN A.STRM = D.ADMIT_TERM THEN 'Yes' ELSE NULL END	Use as Field		<b>Edit</b>	

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

Once you have selected **Add Expression** the following page will open.

### Edit Expression Properties

\*Expression Type:  
Character  Length:

Aggregate Function Decimals:

Expression Text:

[Add Prompt](#) [Add Field](#)

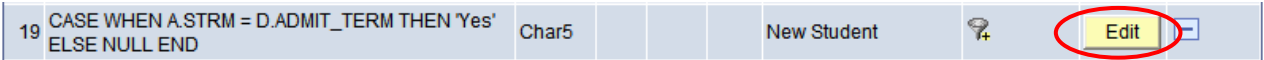
Select an **Expression Type** from the drop-down list box. If you select **Character**, enter the maximum length of the expression result in the Length field. If you select **Number** or **Signed Number**, enter the total number of digits in the Length field and the number of digits after the decimal point in the Decimal field.

When you are finished editing this page, click on the **OK** button.

Above is a simple example of how an expression can be calculated as an additional column in the query output. In this example, we are adding an output column to the query that will denote whether the term the query is run for is the student's first term. In the **Expression Text field**, we are saying that when the current term (supplied by prompt) is equal to the admit term for that student, then the student is a "New" student.

Once you have edited your expression, you can add it to the query output (Fields) by selecting the [Use as Field](#) hyperlink on the expressions tab page.

Once added to the fields output, you can navigate to the **Fields Tab** and edit the heading text of the field by clicking on the Edit button below. For this example we changed the heading text to New Student.



Below you will see a sample of what the query output should look like once you have created and configured the above expression.

Address 1	Address 2	City	State	Postal	Admit Term	Exp Grad	New Student
1865 Sherman Ave	Willard Res Coll 0334	Evanston	IL	602015611	4280		Yes
1820 Sheridan Rd	Jones Res Coll 0403	Evanston	IL	602015093	4240		

## 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, PS Query collects related rows and displays a single row that summarizes their contents.

In a standard query, each row in the result set corresponds to an individual row in the table that you are querying. Sometimes you may want a summary of the information in multiple rows. For example, you might want to know how many class sections you have for each course. You can query for this kind of summary information using aggregate functions.

Below you will see how the Aggregate Function, **Count**, is used to display the number of Sections (Classes) by Course.

In the screen shot below, you will see a simple listing of Chemical Engineering classes.

View All | [Rerun Query](#) | [Download to Excel](#) First 1-13 of 13 Last

	Institution	Term	Career	Subject	Catalog	Component	Class Nbr
1	NWUNV	4300	UGRD	CHEM_ENG	211-0	LEC	31132
2	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31546
3	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31548
4	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31550
5	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31552
6	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31566
7	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31556
8	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31558
9	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31560
10	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31562
11	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31564
12	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	30578
13	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	31554

In the screenshot below, you will see what the aggregate version of this data looks like. We applied the aggregate, **Count**, on the Class\_Nbr field in order to get a total number of classes offered for Chemical Engineering courses.

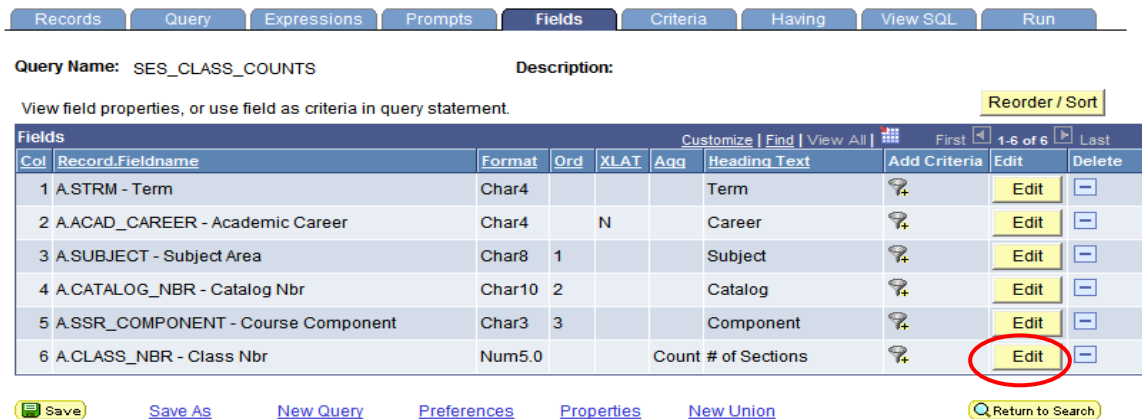
We chose to aggregate (count) on the Class\_Nbr field because it makes each row unique.

View All | [Rerun Query](#) | [Download to Excel](#) First 1-2 of 2 Last

	Institution	Term	Career	Subject	Catalog	Component	# of Sections
1	NWUNV	4300	UGRD	CHEM_ENG	211-0	LEC	1
2	NWUNV	4300	UGRD	CHEM_ENG	399-0	LEC	12



To apply an aggregate function to a field, navigate to the Fields Tab and click on the **Edit** button.



Once you have selected the Edit button, the following page will open, allowing you to edit the properties for this particular field.

Select the aggregate function that you want to use for this field by choosing the appropriate radio button. You may also want to edit the column heading text.

#### Edit Field Properties

Field Name: A.CLASS\_NBR - Class Nbr

The 'Edit Field Properties' dialog box is shown. It has two main sections: 'Heading' and 'Aggregate'. In the 'Heading' section, there are radio buttons for 'No Heading', 'Text' (selected), 'RFT Short', and 'RFT Long'. Below these are text boxes for 'Heading Text' (containing '# of Sections') and '\*Unique Field Name' (containing 'A.CLASS\_NBR'). In the 'Aggregate' section, there are radio buttons for 'None', 'Sum', 'Count' (selected and circled in red), 'Min', 'Max', and 'Average'. At the bottom are 'OK' and 'Cancel' buttons.

The following table lists the aggregate functions that you can apply to a field using PS Query.

Aggregate Function	Action
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

## View SQL Tab

The View SQL tab displays the SQL statement created as you assemble your query. PS Query uses the SQL (Structured Query Language) syntax to generate the query. This tab is **view-only** and typically is not used by end-users. You may be asked to provide the SQL for your query if you need help troubleshooting a query. This tab is where you would find the SQL in order to copy and paste it into an email.

Records	Query	Expressions	Prompts	Fields	Criteria	Having	<b>View SQL</b>	Run
---------	-------	-------------	---------	--------	----------	--------	-----------------	-----

**Query Name:** SES\_LOCAL\_ADDRESSES      **Description:**

**Query SQL:**

```
SELECT A.EMPLID, A.STRM, A.WITHDRAW_CODE, A.ACAD_CAREER, AACAD_PROG_PRIMARY, A.ACAD_LEVEL_BOT, A.CUM_GPA,
A.ACADEMIC_LOAD, B.NAME, B.ADDRESS1, B.ADDRESS2, B.CITY, B.STATE, B.POSTAL, B.PHONE, B.SEX, TO_CHAR
(B.BIRTHDATE,'YYYY-MM-DD'), C.ACAD_PLAN, D.EXP_GRAD_TERM
FROM PS_STDNT_CAR_TERM A, PS_NW_PERSDATA_VW B, PS_ACAD_PLAN C, PS_ACAD_PROG D
WHERE D.ACAD_PROG = '03JOU'
AND A.STRM = :1
AND A.ACAD_CAREER = 'UGRD'
AND A.ACADEMIC_LOAD <> 'N'
AND A.WITHDRAW_CODE = 'NWD'
AND A.EMPLID = B.EMPLID
AND A.EMPLID = C.EMPLID
AND A.ACAD_CAREER = C.ACAD_CAREER
AND C.EFFDT =
(SELECT MAX(C_ED.EFFDT) FROM PS_ACAD_PLAN C_ED
WHERE C.EMPLID = C_ED.EMPLID
AND C.ACAD_CAREER = C_ED.ACAD_CAREER
AND C.STDNT_CAR_NBR = C_ED.STDNT_CAR_NBR
AND C_ED.EFFDT <= SYSDATE)
```

## IV – Exercise: Editing an Existing Query:

### Editing an existing Query

Open the following Query:

TRAIN\_YOUR\_NAME (Where YOUR\_NAME is actually your name)

The screenshot shows the Microsoft Access Query Design view for the query 'SES\_LOCAL\_ADDRESSES'. The 'Query' tab is selected. The 'Query Name' is 'SES\_LOCAL\_ADDRESSES' and the 'Description' is 'UGRD Local Addresses by Term'. Below the tabs, there is a text box with instructions: 'Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.' Below this is a 'Chosen Records' table with three records: 'A STDNT\_CAR\_TERM - Student Career Term Table', 'B NW\_PERSDATA\_VW - SA Personal data view', and 'D ACAD\_PROG - Student Academic Program'. Each record has a 'Hierarchy Join' link and a minus sign icon. Below the table are two buttons: 'Expand All Records' and 'Collapse All Records'. At the bottom, there are several icons and links: 'Save', 'Save As', 'New Query', 'Preferences', 'Properties', 'New Union', and 'Return to Search'.

Remove the following fields from the Query:

- Expected Grad Term (EXP\_GRAD\_TERM)
- Withdraw Code (WITHDRAW\_CODE)

Add the following fields to the Query:

- Middle Name (MIDDLE\_NAME)
- Admit Term (ADMIT\_TERM)
- Campus (CAMPUS)

Change the heading text for the following fields:

- Emplid – Change from **ID** to **Emplid**
- Last Name – Change from **Last** to **Last Name**
- Middle Name – Change from **Middle** to **Middle Name**
- Postal – Change from **Postal** to **Zip Code**.

Reorder the following Fields/Columns:

- **Academic Plan** should be after Primary Academic Program
- **Middle name** should be between First and Last Name
- **Campus** should be after Academic Load

Sort the output fields in the following order:

- Last Name, First Name

**Edit/Remove the following Criterion:**

- **Last Name** – Change to “Jones”
- **Career** – Change to “TGS”
- **Academic Load** – Remove this criteria

**Edit/Save Query Properties**

- Make sure your query is Private
- Be sure to provide meaningful text in the Description and Query Definition fields

**Run Your Query and see if it works!**

## V – Helpful Hints & Best Practices:

- **Build your queries piecemeal** - If you are building a query with multiple criteria, pull them in one at a time, and rerun the query after each criterion is added. Establish temporary criteria in order to limit your result set (Ex: Set Criteria for Emplid Range or a single Last Name). This allows you to control the output and identify whether the query is working correctly before you run it against your entire target population.
- **Don't re-invent the wheel** – Take advantage of what others have already done. There are several experienced query writers who have written queries that can be used by simply performing a “**Save As**” and renaming it for your own use.
- **Columns/Fields** - Only pull the columns into the query that you need. Having your query return and display unnecessary columns is wasting system resources. Also, not all tables and fields are populated.
- **Sorting** – If the query has a large result set, avoid sorts when running the query within the browser. If possible, do your sorting in Microsoft Excel. Sorting at run-time in PS Query can have a negative impact upon performance.
- **Functions** - Use functions in moderation, and try to only use the aggregate functions that are built into PS Query.
- **Security** - PS Query utilizes row-level security, which restricts which data you can see. If you don't normally have access to view data through the pages, you will be subject to the same restrictions in PS Query. Also, if you are searching for a record (table) you know is in the database and you do not see it; you probably do not have security access to it.
- **Calculated fields** - Avoid performing calculations on **key** fields.
- **Translate Values** - If you are trying to display a translate field in your query, you can manage this from within the field tab (XLAT Column) in Query Manager. When possible, try and avoid joining a translate table just to display the translate value.
- **Expressions** - Use expressions only when necessary as they are not indexed and will take longer to process