Custom Query Builder Help

Data Filtering Criteria

Help Contents

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Data Filtering Criteria – Synopsis

Data filtering allows a user to filter the results of a query based on the filtered data field and the criteria placed upon the data in that field. This document discusses which filtering criteria are available in the query tool, and how a user would use the different criteria to produce their desired data.

Section 1: *Filtering Criteria Options*

This section presents the filtering criteria options that are available within the Custom Query Tool. Each filter criteria option is discussed in detail in later sections of this document (*see table of contents*).

Figure 1 shows the criteria options as they appear on the "Filter Data Fields" screen within the query tool.

1. It is important to note that there will be a full list of filter criteria options for each data field selected as a filter field. In Figure 1 "Survey Year" and "Program Comments" are shown as filter fields with their corresponding filter criteria options.

2. Certain filter criteria may be unavailable and therefore grayed out depending on the type of data contained in a data field.

Figure 1

Attention!

Due to incompatible data, notice the grayed out filter criteria options for the "Program Comment" filter field.

- **List of Filter Criteria**

    o Must be filled in (Not Null)
    o Must be empty (Null)
    o Must be selected in the following list
    o Must NOT be selected in the following list
    o Must contain this pattern _____
    o Must be less than _____
    o Must be greater than _____
    o Must be between _____ and _____

Section 2: Must be filled in (Not Null)

This section focuses on the "Must be filled in (Not Null)" filter criteria option. When this option is selected as filter criteria for a data field, only records that contain data in this data field will be included in the query results.

Figure 2 shows the "Must be filled in (Not Null)" filter criteria option.

1. The "Must be filled in (Not Null)" filter criteria option

Figure 2

Field Name		
	● Must be filled in (NOT NULL). ○ Must be empty (NULL). ○ Must be selected in the following list: ○ Must NOT be selected in the following list:	(Select All) (Deselect All) CHECKED
Administers LEAP And Or SLEAP	○ Must contain this pattern: [　　　] ○ Must be less than: [　　　]	

1

Section 3: Must be empty (Null)

This section discusses the "Must be empty (Null)" filter criteria option. When this option is selected as filter criteria for a data field, only records that do not contain data in this data field will be included in the query results.

Figure 3 shows the "Must be empty (Null)" filter criteria option.

1. The "Must be empty (Null)" filter criteria option

Figure 3

Field Name		
	○ Must be filled in (NOT NULL). ● Must be empty (NULL). ○ Must be selected in the following list: ○ Must NOT be selected in the following list:	(Select All) (Deselect All) CHECKED
Administers Christa Mcauliffe Scholarships	○ Must contain this pattern: [　　　] ○ Must be less than: [　　　]	

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Section 4: *Must be selected in the following list*

This section is about the "Must be selected in the following list" filter criteria option. When a user selects this filter criteria option the query will return only data records that contain the user's data selections from the multi-select box associated with this criteria option.

Figure 4 shows the "Must be selected in the following list" filter criteria option, and the multi-select box associated with this option.

1. The "Must be selected in the following list" filter criteria option

2. The multi-select box associated with the "Must be selected in the following list" filter criteria option. This is a distinct list of data that is found within a data field. This list appears grayed out until the "Must be selected in the following list" option is selected.   Click on items in this list to make selections, selected items will appear highlighted.

3. Notice the "Select All" and "Deselect All" links. These allow a user to quickly select or unselect all data elements within the multi-select box.

Figure 4

Tip!

Make multiple selections from this list by holding down the "Ctrl" key while clicking on the desired data elements within the list.

Attention! The list may be larger than the multi-select box, use the scroll bar that appears on the right of the multi-select box to view the entire list.

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Section 5: *Must NOT be selected in the following list*

This section covers the "Must NOT be selected in the following list" filter criteria option. When a user selects this filter criteria option the query will return only data records that do not contain the user's data selections from the multi-select box associated with this criteria option.

Figure 5 shows the "Must NOT be selected in the following list" filter criteria option, and the multi-select box associated with this option.

1. The "Must NOT be selected in the following list" filter criteria option

2. The multi-select box associated with the "Must Not be selected in the following list" filter criteria option. This is a distinct list of data that is found within a data field. This list appears grayed out until the "Must NOT be selected in the following list" option is selected. Click on items in this list to make selections, selected items will appear highlighted.

3. Notice the "Select All" and "Deselect All" links. These allow a user to quickly select or unselect all data elements within the multi-select box.

Figure 5

Make multiple selections from this list by holding down the "Ctrl" key while clicking on the desired data elements within the list.

Attention! The list may be larger than the multi-select box, use the scroll bar that appears on the right of the multi-select box to view the entire list.

Section 6: Must contain this pattern _____

This section discusses the "Must contain this pattern _____" filter criteria option. This option allows a user to specify a pattern of characters that the data in a data field will be filtered by. The query results would contain only records that have data matching the specified pattern in the data field.

Figure 6 displays the "Must contain this pattern _____" filter criteria option.

1. The "Must contain this pattern _____" option

2. The "Pattern" textbox with an example of a pattern.

Figure 6

Attention!

In Figure 6, "Ma" is shown as the pattern entered in the "Pattern" textbox (**2**). This means that the filter field, "State Name" in this example, would be filtered by the pattern "Ma". All records containing state names with the pattern "ma" will be return in the query results. See Figure 7 for an example of the query results. Notice that the pattern is not case sensitive.

Figure 7

State Name
Alabama
Alabama
Alabama
Massachusetts
Maine
Maine
Maryland
Maryland
Massachusetts
Massachusetts
Oklahoma
Oklahoma
Oklahoma

Tip!

* <or> % - The asterisk or percent symbol can be used as a multi-character wildcard allowing any number of characters to be represented in its place.

_ - The underscore character is a single-character wildcard allowing any one character to be represented in its place.

Section 7: *Must be less than _____*

This section provides information related to the "Must be less than _____" filter criteria option. This option allows a user to filter a data field so that all records returned by the query would have values less than or equal to the value that the user entered in the "Must be less than:" textbox in the filtered data field.

Figure 8 shows the "Must be less than _____" filter criteria option.

1. The "Must be less than _____" filter criteria option

2. The "Must be less than:" textbox.

✳ CAUTION

Symbols such as "%, #, and $ may cause an error when submitted in the "Must be less than" text box.

Figure 8

Attention!

This filter criteria works with numbers and text.

- When the data field contains numbers this option works as expected, for example 2 <= 3, 500 <= 500, and 2003 <= 2004.

- When the data field contains text values, "a" <= "b" <= "c", "Arkansas" <= "Connecticut", "Conn" <="Connecticut", and Alabama <= Alabama.

- Text is not case sensitive, "A" = "a", and "Arkansas" = "arkansas".

✳ CAUTION

Due to database limitations some data fields that appear to contain number values actually contain the text representations of the numbers. In cases such as this the "Must be less than _____" filter criteria option may not work as expected since the text representations of numbers do not correspond to their numerical values.   For example, in their text representations "10" <= "2"

Section 8: *Must be greater than* _____

This section focuses on the "Must be greater than _____" filter criteria option. This option allows a user to filter a data field so that all records returned by the query would have values greater than or equal to the value that the user entered in the "Must be greater than:" textbox in the filtered data field.

Figure 9 shows the "Must be greater than _____" filter criteria option.

1. The "Must be greater than _____" filter criteria option

✳ CAUTION

2. The "Must be greater than:" textbox.

Symbols such as "%, #, and $ may cause an error when submitted in the "Must be greater than" text box.

Figure 9

Attention!

⚠

This filter criteria works with numbers and text.

- When the data field contains numbers this option works as expected, for example 5 >= 4, 1000 >= 1000, and 2004 >= 2003.

- When the data field contains text values, "c" >= "b" >= "a", "Connecticut" >= "Arkansas", and Alabama >= Alabama.

- Text is not case sensitive, "A" = "a", and "Arkansas" = "arkansas".

✳ CAUTION

Due to database limitations some data fields that appear to contain number values actually contain the text representations of the numbers. In cases such as this the "Must be greater than _____" filter criteria option may not work as expected since the text representations of numbers do not correspond to their numerical values. For example, in their text representations "2" >= "10".

Section 9: *Must be between _____ and _____*

This section discusses the "Must be between _____ and _____" filter criteria option. This option allows a user to filter a data field so that all records returned by the query will have values in the specified data field equal to and between the two values supplied by the user.

Figure 10 shows the "Must be between _____ and _____ "filter criteria option.

1. The "Must be between _____ and _____" filter criteria options.

2. The "Must be between – low value" textbox.

3. The "Must be between – high value" textbox.

CAUTION

Symbols such as "%, #, and $ may cause an error when submitted in the "Must be between ___ and ___" text boxes.

Tip!

Make sure that you place your low value in the low value textbox (**2**) and your high value in the high value textbox (**3**) for the query to work correctly. Otherwise the query may return no results.

Figure 10

Attention!

This filter criteria option works with numbers and text.

- When the data field contains numbers this option works as expected, for example 2 <= 3 <= 4, 500 <= 500 <= 550, and 2003 <= 2004 <= 2005.

- When the data field contains text values, "a" <= "b" <= "c", "Arkansas" <= "Connecticut" <= "Texas", "Arkansas" <= "Conn" <= "Connecticut", and "Alabama" <= "Alabama" <= "Wyoming".

- Text is not case sensitive, "A" = "a", and "Arkansas" = "arkansas".

CAUTION

Due to database limitations some data fields that appear to contain number values actually contain the text representations of the numbers. In cases such as this the "Must be between _____and _____" filter criteria option may not work as expected since the text representations of numbers do not correspond to their numerical values.