

Data Query GUI Quick Start Guide

Table of Contents

1. Purpose
2. Usage
 - 2.1. Access
 - 2.2. Navigation
3. Querying the Database (Basic Mode)
4. Saving a Query
5. Loading a Query
6. Querying the Database (Advanced Mode)
 - 6.1. Selecting the Define Population screen
 - 6.2. Selecting the population limiters
 - 6.3. Defining the selected population limiters
 - 6.4. Grouping the population limiters
 - a) Creating groups
 - b) Removing limiters from a group
 - c) Moving limiters into an existing group
 - d) Adding new limiters into a specific group
 - 6.5. Removing limiters from the “Selected Limiters” window

1. Purpose

The Data Querying GUI (DQG) is an on-line facility to obtain data from the database, typically delivered in the form of a spreadsheet. The columns of this spreadsheet contain the requested variables, whereas the rows capture the requested population (group of subject time points). These spreadsheets can be easily imported into other software packages for analysis.

The DQG allows the user to narrow the group subject time points for which data will be returned using predefined population limiters; similarly, the set of variables to be displayed in the spreadsheet can also be defined. If the predefined population limiters do not adequately describe the population of interest, Advanced Mode allows the creation of custom population definitions by defining limiters on the superset of subjects available.

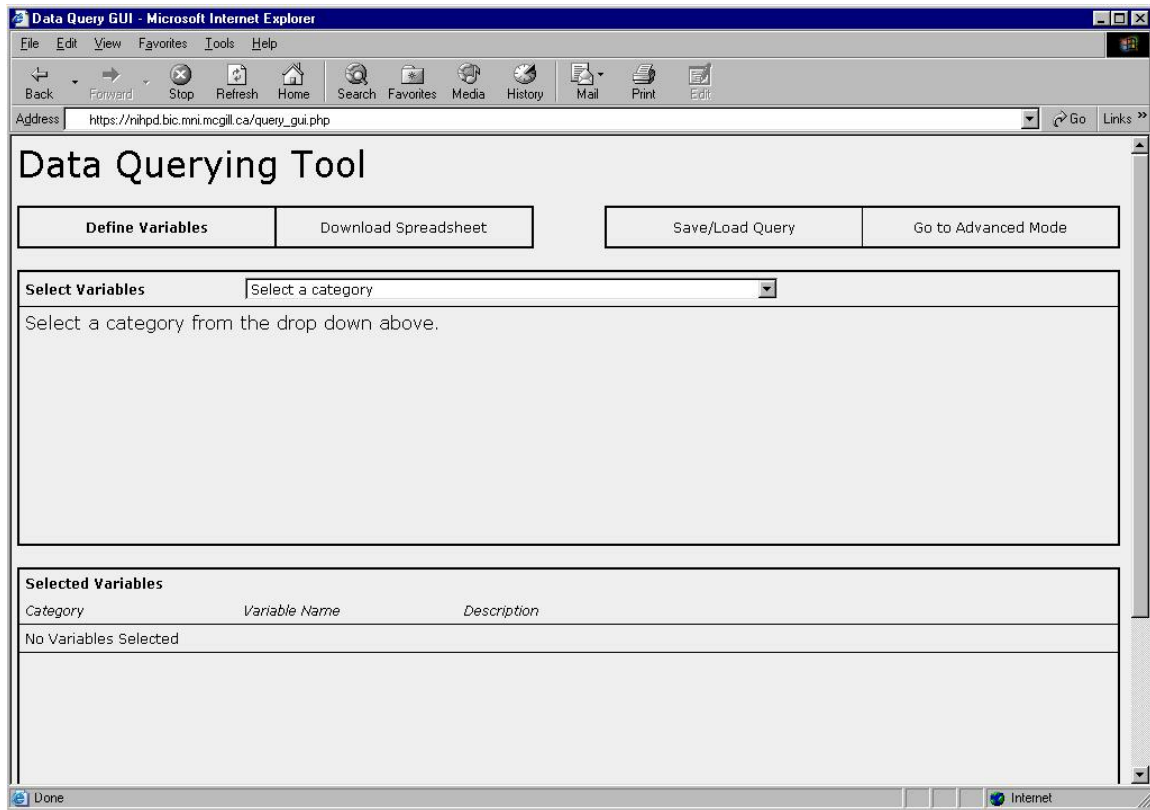
2. Usage

2.1 Access

Once logged into the database, the DQG can be accessed through the link appearing in the left-hand menu at any time.

2.2 Navigation

Navigation to the various functions of the DQG is accomplished by clicking on the boxes at the top of the screen (“Define Variables,” “Download Spreadsheet”, etc). To ensure that the entire interface is seen, it is best to view the DQG in a full screen browser window.



3. Querying the Database (Basic Mode)

- 1) Click the "Define Variables" box.
- 2) From the drop down menu, pick a category of variables.
- 3) Click the checkboxes to select which variables in that category you want to appear in your spreadsheet.

TIP: Click the "check all/uncheck all" check box to quickly select all of the variables in the current category.

TIP: Leave the mouse pointer over a variable's checkbox for a few seconds and a tooltip will pop up with a description.

TIP: You can select variables from multiple categories by changing the category drop down menu. The DQG will remember which variables you have selected between categories.

TIP: To unselect a variable, simply uncheck its checkbox. To quickly remove a whole category of variables uncheck the "check/uncheck all" checkbox.

- 4) The variables you check off will be added to the lower half of the screen, where you may view them and their descriptions.
- 5) When you are satisfied with the variables you have selected, click the "Download Spreadsheet" box at the top of the screen.
- 6) Select a format from the output by using the drop down menu. Your choices are Excel, Comma delimited (CSV), Tab delimited, or Display. Choosing any of the first three options will pop up a window prompting you to download / open a file of that

type. If your browser is set to block pop up windows, this could cause interference. Large spreadsheets can take time for the server to compile and upload to your computer. Do not be alarmed if your browser is slow responding or if it freezes for up to a minute. Patience is the key. Choosing the last option, “Display”, will pop up a window containing an HTML representation of your data rather than a downloadable file.

TIP: If you are unsure as to what format to choose, select Excel.

TIP: Excel files that contain more columns than Excel usually permits will appear as multiple worksheets within the same file.

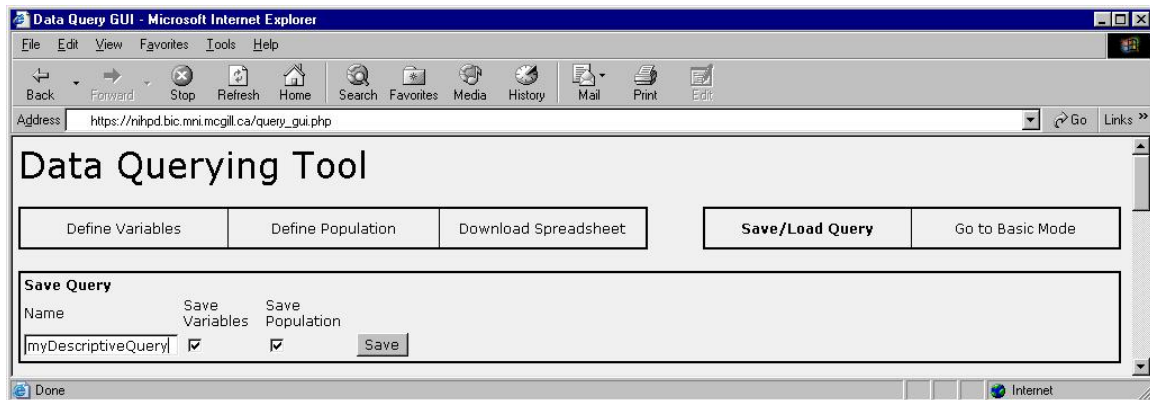
TIP: The “Display” option is best if you want to quickly check the results of your selections without the need to download a file.

TIP: The “Previous Step” / “Next Step” buttons at the bottom of the screen can be used as another method to navigate between the variable selection screen and the file download screen.

4. Saving a Query

It is possible to save a query so that you can re-use it at another time without having to rebuild it. This can be done with queries that were built in either the Basic or Advanced mode. This is performed by:

- 1) Click the “Save/Load Query” box at the top of the screen
- 2) In the “Save Query” area:
 1. Enter a name for your query. Use a descriptive name so you will be able to easily identify your query again.
 2. Check the box for “Save Variables” if you wish to save the set of variables you defined.
 3. Check the box for “Save Population” if you wish to save the set of population limiters you defined.



TIP: You must check at least one of these “Save Variables” / “Save Population” boxes. Unchecked box's settings will be discarded rather than saved. If you are unsure, check both boxes.

TIP: If you plan on reusing the same defined population frequently, it is a good idea to define your limiters for this population and save it without any variables defined in the query. This will allow you to quickly load this population for use in the future, instead of having to define it each time. Variables can then be defined as needed. See “Loading a Query” for more details.

3) A message will pop up informing you that your query has been saved. It will appear in the list of saved queries in the lower portion of the screen.

5. Loading a Query

Loading a query retrieves previously defined parameters. The “Define Variables” area, the “Define Population” area (visible only in Advanced Mode), or both will be filled with the variables and population limiters loaded from the saved query. A saved query’s data can be retrieved quickly by loading it and immediately proceeding to the “Download Spreadsheet” option. To load a query:

- 1) Click the “Save/Load Query” box at the top of the screen.
- 2) Browse through the list of saved queries that appear on the lower half of the screen.
- 3) Decide which portion of the query you wish to load. You can:
 1. Load only the variables. This will load all of the variables that were selected in the query, but not any population limiters that may have been defined.
 2. Load only the Population. This will load all of the population limiters that were defined in the query, but not any variables that may have been selected.
 3. Load both. This will load both the variables AND the population limiters that make up the saved query.
- 4) Click the button that corresponds with your decision. Either “Load Variables”, “Load Population”, or “Load Both”.

TIP: The Load Query operation lets you load a previously defined query, either as a whole or in its parts. Loading only one portion of a query (either Variables or Population) enables you to reuse this portion for many queries.

TIP: To remove a stored query click the “Delete” button next to the query you wish to remove.

TIP: You will be able to see, but not delete, some queries. These are queries that are set to be globally accessible to all accounts. The queries you save are private to your account and will not appear on other peoples Save/Load screens.

6. Querying the Database (Advanced Mode)

Advanced querying enables you to define the population your variables will be selected from. This allows you to restrict the output based on criteria you specify.

Generally, the workflow is:

- 1) Select your variables. Follow steps 1-4 of section 3.
- 2) Select the “Define Population” screen. See part 6.1 of this section.
- 3) Select your population limiters. See parts 6.2, 6.3 and 6.4 of this section.
- 4) Download your spreadsheet. Follow steps 5-6 of section 3. Querying the Database

(Basic Mode).

6.1 Selecting the Define Population screen

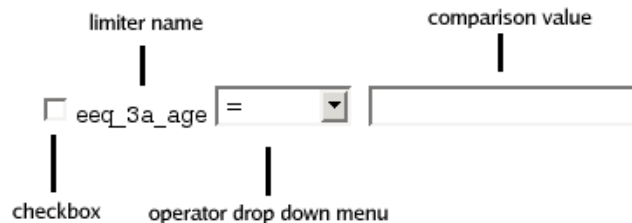
- 1) Click the “Go to Advanced Mode” box at the top of your screen. The “Define Population” option will appear.
- 2) Click this new “Define Population” box at the top of your screen.

6.2 Selecting the population limiters

- 1) Select a category from the “Select Limiters” drop down menu.
- 2) Click the checkbox next to each variable that you wish to use to constrain the population of your query.
- 3) Once you have selected the variables on which to wish to define restrictions, click the “Add Checked Limiters” button.
- 4) The limiters you chose will appear in the bottom half of the screen.
- 5) If you need limiters from a different category, repeat these steps for each subsequent category.

6.3 Defining the selected population limiters

- 1) Note that each limiter you selected occupies one line of the “Selected Limiters” area at the bottom half of the screen. Each limiter contains four parts: the checkbox, the limiter name, the operation drop down menu, and the comparison value.

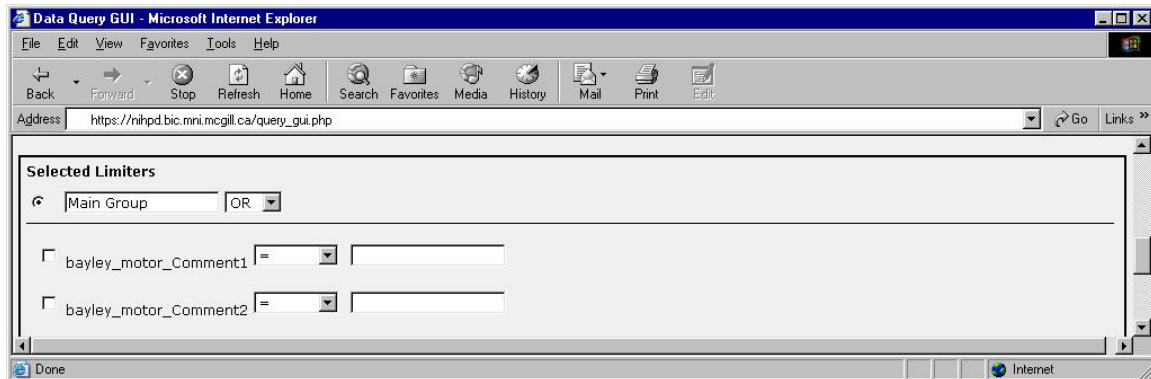


TIP: The comparison value can be a text entry box, a drop down menu, or something else, depending on the type of limiter.

- 2) To define a value for a limiter, select the operator you wish to apply. Enter the comparison value by typing it in the text box or selecting it from the drop down menu. For example, if you wanted to constrain the population to those subjects that are older than 180 days, you would chose a limiter called “days_old”, would select “>” as your operator and type “180” as your comparison value.

TIP: It is possible to use a limiter to compare against more than 1 value (for example, to constrain the population to those subjects that are older than 180 days AND younger than 500 days). This is done, as in part 6.2 above, by selecting and clicking the “Add Checked Limiters” button, but doing so twice. You can use the same limiter as many times as you want through repeating the action of checking its box and clicking “Add Checked Limiters”.

- 3) By default all chosen limiters will be applied in a logical “AND” context, meaning that the subjects will be selected from the overall population where limiter 1 applies AND limiter 2 applies AND limiter 3 applies, etc. It is possible to change this to a logical “OR” context, meaning that the subjects will be selected from the overall population where limiter 1 applies OR limiter 2 applies OR limiter 3 applies, etc. To do this, use the drop down menu to the right of the “Main Group” text box at the top of the “Selected Limiters” area. Change it to set the context you require. See part 6.4 for more details.



Example 1: For subjects that are older than 180 days AND younger than 500 days, add the age limiter twice. Set one instance to > 180 and the other to < 500. Set the context of the Main Group to “AND”.

Example 2: For subjects that are married OR have children, add a marital status limiter set to = “married”, and an has_children limiter set to = “Yes”. Set the context of the Main Group to “OR”.

TIP: If you require more advanced grouping, see part 6.4 below. This will assist you with defining more complicated groupings such as if you want (limiter 1 to apply AND limiter 2 to apply) OR (limiter 3 AND limiter 4 to apply).

TIP: If you have many limiters selected, it may be necessary to scroll up in the “Selected Limiters” box to see all of your chosen limiters, or to see the “Main Group” context box mentioned in part 6.3’s step 3 above.

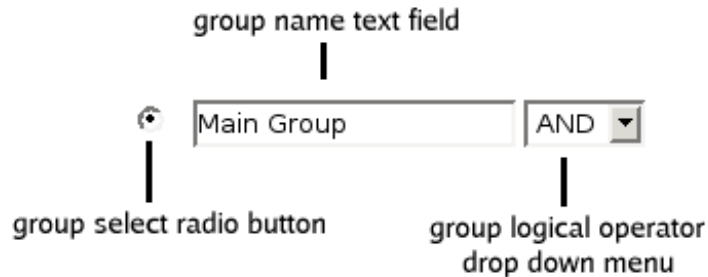
6.4 Grouping the population limiters

Under certain circumstances, you may wish to group the population limiters you have chosen. This is generally only needed when you have a lengthy population definition and it is necessary to group the limiters by logical ordering. Grouping is the logical equivalent of placing parentheses around selected limiters.

Limiters are always in a group. When they are first selected they are placed in the “Main Group” by default. The logical context of this group is changed using the drop

down to the right of the “Main Group” text box as was covered in part 6.3, step 3 above.

The logical context of each group is indicated and controlled graphically. For the Main Group, the control will look like:

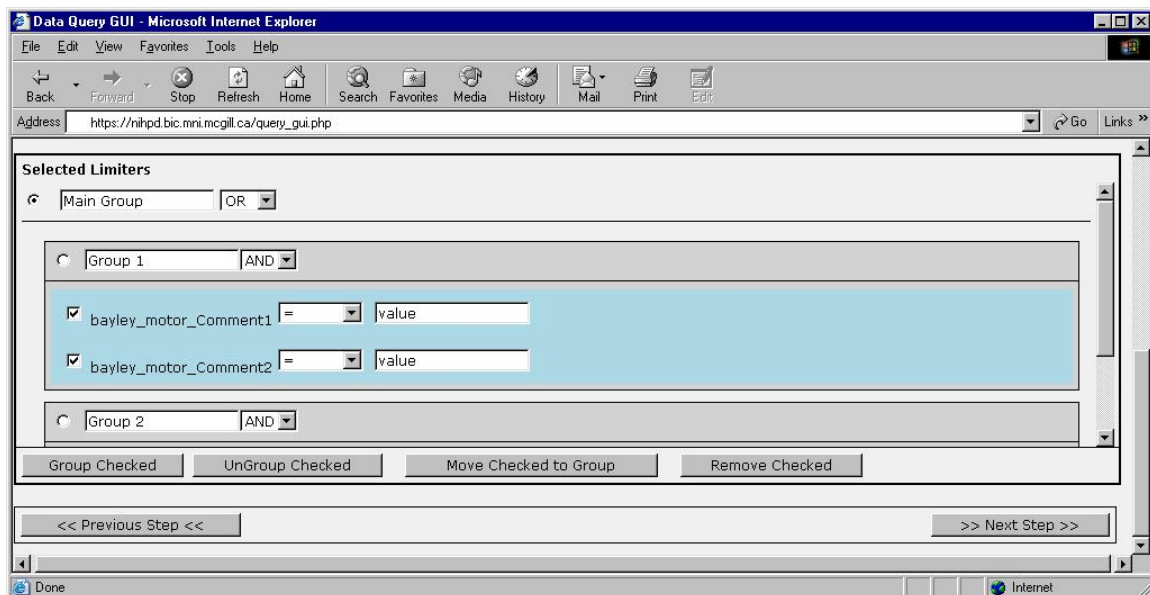


6.4a) Creating groups

To create groups:

- 1) Click the checkboxes of the limiters you wish to group.
- 2) Click the “Group Checked” button at the bottom of the screen. The limiters will be moved into a new group, represented on screen as an enclosing box. This new group will have its own Group Name text field and Logical Context drop down box, just like the Main Group.

TIP: For example, say you want to implement something like; (limiter 1 applies AND limiter 2 applies) OR (limiter 3 applies AND limiter 4 applies). Since subgroups act as parentheses in the GUI, group limiters 1 and 2 together, and then group limiters 3 and 4 in a second group. Leave the logical operator of each group as “AND” and set the Main Group logical operator to “OR”.



6.4b) Removing limiters from a group

Click the checkboxes of the limiters you wish to remove from a subgroup:

- 1) Click the “UnGroup Checked” button at the bottom of the screen.

TIP: You cannot remove limiters from the Main Group using these steps. See part 6.5 for how to remove limiters from the Selected Limiters area entirely.

TIP: If a group no longer contains any limiters the group will be removed automatically. This could occur after you remove them from the group (part 6.4b), move them to another group (part 6.4c), or remove them entirely from the Selected Limiters area (part 6.5).

6.4c) Moving limiters into an existing group

To move limiters from one group into another (or from the Main Group into a subgroup):

- 1) Click the checkboxes of the limiters you would like to move into a group
- 2) Select the group by clicking its radio button (see above diagram).
- 3) Click the “Move Checked to Group” button. Your limiters will now appear in the group you selected.

6.4d) Adding new limiters into a specific group

To add new limiters into an existing group:

- 1) Click the radio button of the group you want the new limiters to be added to.
- 2) Select your limiters to be added from the “Select Limiters” window as you did in part 6.2.
- 3) When you click the “Add Checked Limiters” button, the new limiters will appear in your chosen group.

6.5 Removing limiters from the “Selected Limiters” window

Removed limiters will no longer affect your population. To remove a limiter:

- 1) Click the checkbox of the limiter(s) you would like to remove.
- 2) Click the “Remove Checked” button at the bottom of the screen. The limiter(s) will disappear from your “Selected Limiters” list.