D S D  Q U E R Y  M E N U
(a d h o c c o m p o n e n t)

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Support Center – Training & Development
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Introduction

To access and use QAdhoc you need current internet browser software that supports HTML frames and JavaScript, Internet Explorer and Firefox are the supported browsers.

QAdhoc uses the Internet browser’s network connection when submitting query requests; therefore the computer must be Internet-connected. In addition, users must have a University of Alaska RPTP database account and QMENU web access code.

Secure Access

Login to QAdhoc requires a Userid and Webcode. Userid is an Oracle RPTP database account id. Webcode is a special code used only during QMENU login; it is not an RPTP password. You must request access through your University of Alaska Administrative Account Maintenance Coordinator. A list of administrators is at the back of this book.

Offering Suggestions

A SUGGESTIONS BOX button is available on the request page that follows a successful logon. You are encouraged to click on this button whenever you wish to send suggestions for changes or improvements to QMenu or QAdhoc.
What is QAdhoc?

QAdhoc is the ad hoc query component of the DSD QUERY MENU (QMenu) which is an Oracle Web Application Server interface to the University of Alaska Decision Support Database (i.e. 'RPTP', 'data warehouse'). University of Alaska staff and faculty members use QAdhoc when no preexisting QMenu query matches their information needs.

QAdhoc facilitates the retrieval of batches of records meeting user-supplied criteria from predefined "views" of administrative information. QAdhoc defaults to batch retrievals of 150 records at a time. However you may change the batch value or elect to retrieve all records in a single pass.

WARNING: QAdhoc does not know how much memory is available to your browser or how large a document it can successfully load. It is your responsibility to ensure you do not attempt to retrieve more information than your browser can handle. Counting rows is a good idea. The number of qualifying rows multiplied by the number of characters expected in the selected columns is a rough calculation for the size of the resulting html document, which will be returned to your browser.

Individuals needing to retrieve large quantities of records may find QAdhoc inconvenient to use and should investigate other ad hoc query tools such as TOAD. Individuals retrieving only a few hundred records will not be hampered by your Web browser’s record retrieval limitation.

What QAdhoc is NOT!

QAdhoc is not a full-featured ad hoc query tool. QAdhoc queries are limited to predefined "views" of administrative data that are registered with the QMenu application. Within those views, you have limited ability to query, sort and display output.
Logging “ON”

To load the QMENU login screen, start your Internet browser and enter the following URL:

http://qmenu.alaska.edu

1. Click in the **Userid** field located in the login frame.
2. Enter your RPTP database user ID.
3. Press TAB to move to the **Webcode** field.
4. Enter your QMENU **Webcode** (*not* your RPTP database password).
5. Click the **LOGIN** button.

**Important Note**

Initial QMENU webcodes are the letter ‘S’ followed by the 9 digits of your SSN (e.g. S123456789).
QMENU responds with a display featuring pick boxes for “Categories” of QMENU reports, a “Queries” pick box to display the Queries associated with each of the QMENU categories, and a line specifying when the current QMENU session will time out.

**QMENU/QADHOC “Tickets”**

The QMENU/QADHOC web interface to the Decision Support Database (DSD, RPTP) incorporates the use of session “tickets”. When you login to QMENU, you will be granted a session “ticket,” which is valid for two hours. When your “ticket” expires, you will be required to reconnect before you can continue with your query activity. This feature of QMENU security is intended to help insure that only authorized users are accessing University of Alaska data via the web.

**How To Handle Expired Tickets During Active Query Session**

If your ticket “expires” after you’ve clicked the FETCH MORE RECORDS button from the output window of active query, locate the main window for QMENU/QAHDOC and click the RECONNECT button. After logging in, return the output window of your active query and click the BACK button on the tool bar. Once the output from your last successful query is displayed, click the FETCH MORE RECORDS button. Although the main QMENU window no longer displays your query form and input parameters, the output window from your active query will still be able to FETCH MORE RECORDS.
Logging “OFF”

To log out of QAdhoc yet keep your Internet browser session open, click the RECONNECT button. Then close QMenu by closing your tab or browser window.

Important Note

Closing all QMENU windows does not serve the same purpose as the RECONNECT button. Both userid and webcode are stored in your browser’s memory and remain there until either QMENU or the browser software is terminated. Prior to one of those two events, anyone sitting at your machine is able to submit QMENU queries using your login. To prevent this breach in security, select the RECONNECT button or quit your browser session.
Starting QAdhoc

The QMenu selection frame includes a QAdhoc button that activates QMenu’s ad hoc component.

Click the QAdhoc button to load QAdhoc.

When QAdhoc is loaded, the QMenu icon is replaced with a QAdhoc icon and the Queries selection list becomes a Views selection list. These changes are visual indications that you are now in the ad hoc component of QMenu. Notice that the QAdhoc button has been replaced with a QMenu button, allowing you to toggle between QAdhoc and QMenu.
Selecting a View Category

The QADHOC interface consists of a two-section (frame) window. The top frame of QADHOC is used for query selection. Changing the query “category” causes QADHOC to repaint the window with refreshed category and query lists.

Click in the Categories picklist and highlight an entry to select a query category.
Selecting a View

A view is a logical representation of one or more columns from one or more data tables. By querying a view, you are not required to know which of many data tables contain your desired data elements. Also you do not need to understand the complex relationships between multiple data sources.

Click in the Views picklist and highlight an entry to select a view.
Description

Displays a brief description and statement of purpose for the view. As the descriptive text is improved over time, this section of the metadata may contain information about the types of data found in various fields of the view.

A vertical scroll bar is displayed in the lower frame of the QAdhoc interface, if metadata can not be fully displayed. Click within the scroll bar to reposition the metadata display.
Retrieving Query Parameter Form

Before a query may be submitted, the associated query parameter form must be retrieved and completed. Parameter forms allow limited query customization so that only records meeting query criteria are displayed in the query output.

If you are authorized to query the view, click the GET ADHOC FORM button in the metadata display to retrieve the query parameter form.
Building a Simple Query

QAdhoc parameter forms allow you to customize a report from the information available in the view. The parameter form controls which fields will be displayed, what criteria are used to select records, and what fields are used to sort the output.

This parameter form contains two useful links. One is QAdhoc Help, which brings up details on using QAdhoc. The other, datasource, allows you to see the table and column (field) descriptions associated with the view. This is a powerful new addition, although all views do not yet have table and column comments attached.

A PREVIEW BATCHES OF radio button allows you to change the maximum number of rows (or records) that each resulting web page contains. The default is 150 rows, if you choose not to use this option. WARNING: If you enter a large number, such as 2000, and your web browser does not have enough memory to contain the resulting Web page, your application may terminate.

An EXTRACT ALL RECORDS radio button allows you to export the query results to a file. This will export to a file all records that match the conditions you enter.
Additional Detail Selection Criteria

With this new feature, you will be able to run a report once, versus running it four times and then combining the results of those four runs into one report.

**ADDITIONAL DETAIL SELECTION CRITERIA:** At the bottom of the parameter form is a freeform text box, where you may enter additional selection criteria. This is where you can enter OR logic, which you cannot enter in the normal selection criteria area. This is a very powerful addition. Without this box, your query is based only on the AND conjunction. "Show me this AND this AND this…. Now you can ask questions using OR logic. "Show me this AND this OR this OR this.”

**Important Note**

QAdhoc queries look for a case-sensitive match to the values supplied in your selection criteria. If, for example, you supply uppercase values in your selection criteria, where data storage is in mixed (upper and lower) case, you will find no match and will retrieve no records.
Creating Aggregate Fields

QAdhoc generates aggregate query output if it sees that you have defined your own field utilizing one of seven aggregate functions: count(), sum(), max(), min(), avg(), stddev() and variance(). When aggregation occurs, one row of output is generated for every unique combination of values found in fields selected for display.

Note:
If any of the courses are team taught you will receive an incorrect count. In order to not get a duplicate student count for classes that are team taught you need to use Count(distinct student_id).

Aggregation occurs only if the user-defined field containing the aggregate function is either selected for display or used in selection criteria. If the user-defined field is neither selected for display nor used in selection criteria, it is ignored by QAdhoc and the resulting output contains detail, not aggregate records.
One useful example of an aggregate query is a count of records. This example uses the STUDENT ‘Enrolled Students by Term’ view and counts records by term and primary degree for term 199901 at the Fairbanks campus.

1. **Select Fields for Display**
   Click the **Display** checkbox associated with the PRIMARY_DEGREE_CODE field.

2. **Provide Selection Criteria**
   Enter '199903' in the input field for the TERM_CODE selection criteria. Enter 'F' in the input field for the PRIMARY_DEGREE_CAMPUS and 'Y' in the ENROLLED_IND selection criteria. (The example below shows the upper portion of the Web page.)

3. **Create and Select for Display Field Which Counts Records**
   Enter COUNT(*) in an empty user defined field input box. When entering the text defining the field, do **not** enclose the text in quotes. (The example below shows the lower portion of the Web page – you may need to scroll up and down to see the whole page.) Asterisk means count each record returned by query. Click the **DISPLAY** checkbox associated with the COUNT(*) field.

4. **Execute the Query**
   Click the **GET RECORDS** button.
Each row in the output from an aggregate query will be unique (no two rows the same). In this example students are grouped and counted by PRIMARY_DEGREE_CODE.

```
SELECT DISTINCT PRIMARY_DEGREE_CODE, COUNT(*)
FROM ENROLLED_STUDENTS_BY_TERM
WHERE TERM_CODE = '199909' AND PRIMARY_DEGREE_CAMPUS = 'F' AND ENROLLED_IND = 'Y'
GROUP BY PRIMARY_DEGREE_CODE
```

<table>
<thead>
<tr>
<th>PRIMARY_DEGREE_CODE</th>
<th>COUNT(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS</td>
<td>2</td>
</tr>
<tr>
<td>BA</td>
<td>567</td>
</tr>
<tr>
<td>BBA</td>
<td>155</td>
</tr>
<tr>
<td>BED</td>
<td>137</td>
</tr>
<tr>
<td>BFA</td>
<td>12</td>
</tr>
<tr>
<td>BM</td>
<td>8</td>
</tr>
<tr>
<td>BS</td>
<td>558</td>
</tr>
<tr>
<td>BT</td>
<td>15</td>
</tr>
<tr>
<td>CT2</td>
<td>1</td>
</tr>
<tr>
<td>CLI</td>
<td>1</td>
</tr>
<tr>
<td>LIC</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>28</td>
</tr>
</tbody>
</table>
Executing QAdhoc reports is a matter of providing selection criteria (may be required), as discussed above; selecting columns for display; and of (optionally) selecting columns used for the sort, and clicking the Get Records button. The whole process right through query execution is detailed below.

1. Select Fields for Display (required)
   Click a checkbox under the DISPLAY column. The sequence in which checkboxes are checked is the order in which the columns are displayed, from left to right, in the query output. As you check boxes, a status message is displayed at the bottom of the window listing the display sequence of the column.

   Alternatively, click the "all/none" checkbox to select or deselect all attributes. Any fields not already selected will be added to your select list in the order they appear from top to bottom of the window (or all checkboxes will be unchecked).
2. **Select Fields for Sorting (optional)**
   Click checkboxes under **SORT BY** column. The sequence in which the checkboxes are checked determines the sort order of your query output. As you check boxes, a status message is displayed at the bottom of the window listing the sort sequence of the column.

   Alternatively, click the "all/none" checkbox to select or deselect all attributes. While this is a convenient way to get rid of selected sort columns, selecting all columns does not generally result in a meaningful sort.

3. **Provide Selection Criteria (may be required)**
   Select an operator from the pick list adjacent to a field you will use to limit the rows returned by your query. Enter the limiting value in the input field to the right of the operator pick list.

   Most QAdhoc views require the user to limit the output of the query. Columns requiring limiting conditions are **bolded** and **italicized**.

4. Click the **GET RECORDS** button.

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**Note:**
The data stored in Oracle views may be case sensitive. When providing a value for a limiting condition, be sure to use proper case (upper vs. lower vs. mixed).

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**Viewing Query Output**

QAdhoc will verify that you have selected at least one field and that you have provided required selection criteria. Once this minimal validation is performed, the query is executed. Output from the query is written to a separate window - one window per view. Rerunning the same query with new criteria overwrites the data displayed in that view's window.
Important Note:
Under some operating systems, it may be necessary to select the view’s output window from the browser’s Communicator menu. It may not be the active window, when the query execution is complete.

The SQL (structured query language) used to query the view is displayed at the top of the first page of the query output. Subsequent pages do not contain the SQL text.

At the bottom of each page of the query output is a CLOSE WINDOW button and (possibly) FETCH NEXT 150 RECORDS button. The CLOSE WINDOW button serves the same purpose as the window “close box” in the Windows and Macintosh operating systems. The FETCH NEXT 150 RECORDS button is used to retrieve additional records matching the query criteria and appears only when there are additional records to be retrieved.

Saving and Printing Your Query Report

Printing Query Output

QAdhoc output exists within the world of your Internet browser. If your browser is connected to a printer – either directly or via a network - then QAdhoc output may be printed from the output window.

Before printing, you may want to check your browser’s print properties. Depending on the width of the query output, it may be desirable to print in “landscape” mode and to change the scale of the report, sizing it down so that all output columns will fit on one printed page.

Refer to your Internet browser documentation for help with printing.

Important Note
Print properties and the type and size of font used to display query output are a function of the selected printer and of the browser software. How QAdhoc output looks on screen or when printed is largely a function of selected browser options.
HOW Tos

Extract Results to a File

An EXTRACT ALL RECORDS radio button allows you to export the query results to a file. This will export to a file all records that match the conditions you enter. This is used in conjunction with Excel. You may need to change your preferences to take advantage of the ability to retrieve all records. Your browser needs to associate the MIME type text/csv correctly with a helper application in Excel.

Use Radio Buttons for HEADERS

The FIELD NAME HEADERS Radio Button allows you to select what the column headings are in your resulting report. This is the default it will return the column heading as listed under the FIELD section of the Parameter Form.

The SELECT SEQUENCE HEADERS Radio Button allows you to show the column headings in your resulting report as a numbered field; the number corresponds to the order in which you selected the fields for display.

The NO HEADERS Radio Button allows you to choose not to have column headings on your resulting report.

Use RETRIEVE ONLY DISTINCT ROWS Checkbox

The RETRIEVE ONLY DISTINCT ROWS checkbox allows you to remove all duplicates from your report.

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Note:
If after changing MIME type as in Step 5, you still are unable to export your file successfully into Excel please contact us via e-mail at sxtrain@alaska.edu.
Use Other Features

The RESET FORM button clears the form, returning it to its original state.

The GET RECORDS button submits the query for execution after the user's input has been validated.

The next section of the Parameter Form is where you build your question. You create your own report by entering information into the SELECTION CRITERIA for the specific FIELDS you wish to query on, and choosing the information to DISPLAY on your report and the way you want it SORTED.

The FIELD column lists the available fields to use in your report.

SELECTION CRITERIA: Made up of "operator" picklists and "value" input fields. The combination of field name, operator and value are used to build selection criteria that limit records returned by your query.

Operators like =, >, <, and <> are familiar to many people. These operators, and most others, require a comparison value to the right of the operator. By default, the equals (=) operator followed by a blank input field value is ignored by QAdhoc when building your query. Other operators require multiple or no comparison values. In addition, your comparison value must be properly delimited. Character strings must be delimited with single quotes. Numeric values require no delimiters. Date values are treated as character strings and must be delimited with single quotes and formatted as ‘DD-MON-YY’ (e.g. ‘01-JAN-98’).

The DISPLAY checkboxes allow you to choose whether to show this information on your report. The "all/none" checkbox is a toggle which you can use to turn all the boxes on or off.

The SORT checkboxes allow you to order the results. The first checkbox you select is the main sort; additional choices result in sorting within the main sort. For example if you choose to sort by STUDENT_NAME_LAST and then select the checkbox to sort by STUDENT_NAME_FIRST the resulting rows will be alphabetized by last name and then if there are duplicate last names those rows will be ordered alphabetically by first name.
Troubleshooting

QAdhoc parameter forms are simple HTML documents with limited ability to validate your input prior to executing a query. It is possible for you to submit a query that returns an error message rather than data. The most common cause of error messages in the query output window is bad syntax in your selection criteria. (Note: The ITS “SQL Reference Handout” gives fuller details, relating to this section.)

Bad syntax: Field = 'value'  
Good syntax: Field = 'value1'

Bad syntax: Field between 'value1'  
Good syntax: Field between 'value1' and 'value2'

Bad syntax: Field = 01-JAN-98  
Good syntax: Field = '01-JAN-98'

The value you enter in the input field of the QAdhoc selection criteria should look like text to the right of the operator in the following examples.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
</table>
| =        | Equal   | TERM_CODE = '199703'  
          |         | AGE = 40  
          |         | BIRTH_DATE = '01-JAN-98' |
| >        | Greater than | TERM_CODE > '199703'  
          |         | AGE > 40  
          |         | BIRTH_DATE > '01-JAN-98' |
| <        | Less than | TERM_CODE < '199703'  
          |         | AGE < 40  
          |         | BIRTH_DATE < '01-JAN-98' |
| >=       | Greater than or equal to | TERM_CODE >= '199703'  
          |         | AGE >= 40  
          |         | BIRTH_DATE >= '01-JAN-98' |
| <=       | Less than or equal to | TERM_CODE <= '199703'  
          |         | AGE <= 40  
          |         | BIRTH_DATE <= '01-JAN-98' |
| <>       | Not equal | TERM_CODE <> '199703'  
          |         | AGE <> 40  
          |         | BIRTH_DATE <> '01-JAN-98' |
| like     | Matches a portion of a value | TERM_CODE like '19978'  
          |         | TERM_CODE like '199_03' |
| not like | Does not match a portion of a value | TERM_CODE not like '19988'  
          |         | TERM_CODE not like '199_03' |
| in       | Equal to any member in list | TERM_CODE in ('199703', '199801', '199803')  
          |         | AGE in (30,40)  
          |         | BIRTH_DATE in ('01-JAN-98', '02-JAN-98') |
| not in   | Not equal to any member in list | TERM_CODE not in ('199703', '199801')  
          |         | AGE not in (30,40)  
          |         | BIRTH_DATE not in ('01-JAN-98', '02-JAN-98') |
| between  | Greater than or equal to x and less than or equal to y | TERM_CODE between '199703' and '199801'  
          |         | AGE between 30 and 40  
          |         | BIRTH_DATE between '01-JAN-98' and '02-JAN-98' |
| not between | Not greater than or equal to x and not less than or equal to y | TERM_CODE not between '199703' and '199801'  
          |         | AGE not between 30 and 40  
          |         | BIRTH_DATE not between '01-JAN-98' and '02-JAN-98' |
| is null  | Contains no value | TERM_CODE is null |
| is not null | Contains a value | TERM_CODE is not null |
Appendix

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Revised 29 June, 2011
Problem Reports:
Statewide Help Desk: Fairbanks (907) 450-8300
Outside Fairbanks (800) 478-8226

Keeping Current with RPTS

Because QMENU accesses the Decision Support Database rather than the live production system, it is important to keep appraised of the status of RPTS. Data in RPTS is refreshed on a periodic basis and may not be current at the time a query is submitted. QMENU displays important online documentation (metadata) which describes the selected query and indicates the age of query data sources.

The DSD-L list is the primary medium of communication between QMENU developers and its user community. DSD-L list members receive proactive notification when new queries are developed and old queries are modified and enhanced. Subscribe to DSD-L so that you too receive notification of changes in RPTS and QMENU.

Requests for New DSD QMENU Reports

If you would like to see a new query in the DSD QMENU, please send your request to either the DSD-L list, or use the suggestion button in QAdhoc. When making your request, please include details: desirable query parameters, columns to include in output and preferred sort order of records. Each request is prioritized by the project lead for that subject area. SDHAT is processing these requests.

QMENU-Related Bookmarks

Training & Development Homepage
http://www.alaska.edu/oit/training/