Create Lists & Statistics

Quick Start Guide

TABLE OF CONTENTS

Introduction

Create Lists is a powerful report generator used to create "review files" of all record types in the Sierra system based on a combination of search criteria within records. You can combine data from different record types, look for specific values in the records, sort the records in any order, print out specified fields, and create precisely the type of list you want. Additionally, you may select fields to export to a file to be used in other software, and to save the search strategy, the sorting choices, the listing choices, and the export field choices criteria for later use in regular reporting tasks.

This tool applies Boolean searching and is a function available to users in the Sierra Desktop Application. The review files contain lists of record numbers, not static copies of actual records. Each review file retains its list of records until the review file is emptied. Review files can also be used in conjunction with other functions such as Global Update, Rapid Update and Statistics. Records in a Review file can also be consulted from within other functions in Sierra, for example, the Catalog, Checkin or Order functions), by selecting the file directly from the **Tools |Search |**(changing Range to Review) **Review**. Records may be edited directly from the **Create Lists** function also by selecting the file, and clicking on the record which is to be edited.

Statistics is a tool for creating statistical reports about the records in the Sierra database. Some examples of the types of reports which can be generated are:

- The number of records which were catalogued in a specified time period
- A comparison of the number of records catalogued in one time period versus the number catalogued in a different time period
- The number of records which exist in a particular call number range
- A projection of costs for future purchases, based on payments made in the past
- A cross tabulation of one fixed-length field against another for a range of records (for example, material types per branch location)

There are a number of other types of statistics available. The above examples are only a very small sample of the information which may be generated using this report generating feature.

If you encounter difficulty following the links, try the links on Chrome, or go directly to http://csdirect.iii.com/sierrahelp , log in and search for the topic.

Record Fields

All Sierra record types (i.e.: Bibliographic, Item, Holdings, Order, Patron, etc.) consist of fixed-length fields and variable-length fields.

Each Fixed-length field contains a specific code, numeric or alphabetic or alphanumeric. Each fixed-length field for a particular record type appears in every record of that type. Fixed-length fields are not repeatable. Valid codes are established in system parameter tables, and modification, addition, or deletion of these code values is performed only by a user with permission to modify codes in the system.

All variable-length fields are repeatable. Some fields have a specific use and are automatically generated by the system, such as PAID in order records. Other fields, for example: NOTE in patron records, are fields in which text data may be entered. Some variable-length fields can be indexed, and may be used to retrieve records using a record search. The library may ask Innovative to index certain fields (not all) if they are not already indexed.

Creating Review Files

Create a new file

1. Select the **Create Lists** function from the Function list. Alternatively, use the dropdown menu **Go |Create Lists**.
2. Select a file from the list of review files by clicking twice on the line which contains the file. Note that if the selected file contains records the system will ask if the user wishes to overwrite the existing file. The result will be that the contents of the existing file will be deleted. Choose **Yes** to overwrite the existing file, or choose **No** to return to the list of review files and to select a different file.
3. To find and display only empty review files from the starting screen, click on the "All" dropdown menu just above the list of files. Select **Empty** from the dropdown menu of choices to view only empty files.
4. To begin a search for records in the database, click on the **Search Records** button. The **Boolean Search** window opens.
5. In the space to the right of **Review File Name,** type in a free text name for the review file. The name may be up to 50 characters in length. It should specify, as concisely as possible, the contents or reason for the file creation.

Specify the search criteria

The following section describes the method of configuration of the search criteria:

Range of record

To specify the method of searching for records, from dropdown list choose:

A **Range** of record numbers -- the system selects the first and last record number of the specified record type, by default. It is also possible to type in specific

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Boolean Search

Review File Name: [   ]

Store Record Type: BIBLIOGRAPHIC b [▼]

Range [▼]	Start	b10000008	Stop	b12160829

Term	Operator	Type	Field	Condition	Value A	Value B
1						

Group
Ungroup
Insert Line
Append Line
Delete
Clear All

Search | Use Existing Search | Retrieve Saved Query | Save | Save As | Close

---
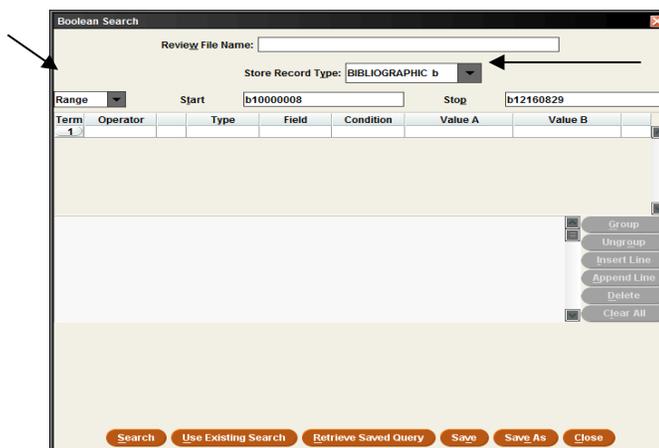
Store Record

From the dropdown list choose the type of record to be stored as the focus of the search.

BIBLIOGRAPHIC b

Operator: In this space, it is possible to select Boolean **AND** or **OR** strategies**.** This

Type: In this space, specify a record **type** *(Bibliographic, Item, Holdings, Authority, Patron, Course, Order, Vendor, Invoice, etc)*. Different

Field: double click in the white box to display available fields for the selected record type. The

QUICK TIP

To more quickly between these fields, the <Tab>key

Condition: Double click to display table of Boolean operators. Select a condition, double click to insert, or click **OK**. The symbol, if known, can be typed directly into the box.
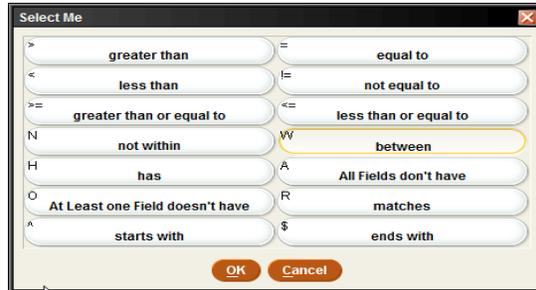

Boolean Conditions

Meaning	Hints
= Equal to	Use this operator for exact matches of values which are included in the search. It is a good choice for fixed-length fields
!= Not equal to	Use this operator for exact matches of values which are excluded from the search. It is a good choice for fixed-length fields.
> Greater than **<** Less than **>=** Greater than or equal to **<=** Less than or equal to	These options compare the data character by character until a non-matching character is found. NOTE: if the Less Than condition is used for dates, blank dates are considered less than any date entered. Use the condition "Between" to avoid blank dates as part of result set. These conditions are also useful for reports on call numbers and funds.
H Has	This is a string search for records containing a character string which exists anywhere in the field specified (a word or group of words). It is both right and left hand truncated. All punctuation must match, but the search is not case sensitive. This is a good choice for variable-length field searches.
A All fields don't have	This is a string search for records for which either one or all related fields do not contain the character string that is typed as the search strategy. All punctuation must match, but the search is not case sensitive This is a good choice for variable-length field searches.
O At least one field doesn't have	This operator retrieves records that contain the specified field, provided that the specified field does **not have** the typed character or string of characters.
W Between	This range is inclusive (for example: between 50 and 100 includes 50 & 100)
N Not within	This range is not inclusive (for example: not within 05-01-2014 & 05-08-2014 does **not** include 05-01 or 05-08)
R Matches (regular expression)	The "**r**" operator provides the option of typing in a UNIX regular expression to search fixed-length or variable-length fields in database records. Regular expressions are a powerful and complex tool that specifies a pattern of characters to identify.
^ Starts with	Use this operator to find fields in which a given word or phrase appears at the beginning of the field. This may be a useful operator for both fixed-length and variable length fields.
$ Ends with	Use this operator to find fields in which a given word or phrase appears at the end of the field. This may be a useful operator for both fixed-length and variable-length fields.

Value A: Enter a fixed field code value, date or variable length field value.
Value B: **Value B is used only when specifying a range.** Use Value B if using the operators **W (between)** or **N (not within).** It is not possible to insert a value into Value B for other Boolean search conditions.

NOTE: Always press **Enter** to complete the search strategy and to indicate to the system that values have been selected for the specific field. Verify that all values are present by reading the complete search strategy, which is repeated in the white box below the search term lines. To submit the search, click on the **Search** button.

Specify Additional Search Terms

Specify additional search terms linked to the existing terms with **AND** or **OR:**
1. Specify the search criteria for the first line.
2. Click on the **Append Line** button to add a search term *below* all other lines. Select the **Insert Line** button to add a search term *before* the highlighted line. Terms are searched in the order that they are listed in the table.
3. In the Operator field of the second and subsequent search strategy lines, select **AND** or **OR**. The Operator for that search field defaults to **AND**. If the **OR** operator is the necessary Boolean operator, click twice on the operator box and select the option **OR**.
4. Specify the criteria for the next line of the search criteria.
5. To continue adding lines of other criteria, append or insert lines as necessary.
6. To submit the search, click on the **Search** button.

Grouping Search Terms and Saving Queries

Search statements can be grouped to specify the order in which the system processes the Boolean operators in a search.

Once **three or more** rows of search criteria have been created:
1. Select the rows which should be grouped by using <Shift> - click to highlight multiple rows with the cursor. At least two rows must be selected to create a group. The **Group** button does not become active until at least two rows of criteria are highlighted.
2. Click on the **Group** button to place parentheses around the rows of criteria selected.
3. To **Ungroup** the rows, highlight the rows to be Ungrouped and click on the **Ungroup** button.

Saving queries

It is possible to save a query for later use as follows:
1. Create a search strategy (or query)
2. Select the **Save** button or the **Save as** button before executing the search with the **Search** button. It is not possible to save a strategy after the search command has been issued.
3. Type a name for the saved query in the popup box. It is important to name strategies carefully so they can be retrieved later without questions about the purpose of that particular strategy.
4. Select the **Include Record Information** check box to include the specified search range or review file as part of the saved search. This is normally only used if the search strategy should be run against an existing review file (instead of a Range).
5. The **Template** checkbox refers to the occasionally used Saved Search Templates function. For additional information about the Saved Search Templates function consult the Sierra Web Help.

A new saved query can also be created directly from the **Saved Searches** *tab* as follows:
1. From the **Saved Searches** *tab*, select the **New** button
2. Create a search strategy (or query)
3. Select the **Save** button or the **Save as** button
4. Type a name for the saved query in the popup box.
5. This will create a new search strategy that can be retrieved.

To use a previously saved query, select an empty review file.
1. Type in free text for the name of the review file.
2. Select the record type to store in the review file.
3. Select the **Retrieve Saved Query** button and then select the query by name from the list of saved queries.

The button **Use Existing Search** copies the search criteria specified for another review file:
1. Select an empty review file
2. Type in free text for the name of the review file.

3. Select the **Use Existing Search** button
4. Select a review file from the displayed list and double click, or click the **Use** button to insert the strategy for this query into the selected new review file.
5. If the selected query used a Range to search from, the record number range will be copied as it was in the existing file. To quickly refresh or change this information, change from Range to Review and then back to Range again.

The **Saved Searches** *tab* displays all saved search strategies. Select a strategy to view or edit. It is also possible to delete existing queries when they are no longer needed. Within the **Saved Searches** *tab*, it is also possible to create new search queries which may be saved (see above).

The Status *column* displays '**in progress**" for any search which is in progress. When searching is complete the status in the Status column changes to 'complete'.

Working with Records Listed in a Review File

When a search is complete the following options are available:

Browsing records in a review file

 Show Records -- used to view search results.

Editing records in a review file list

To view or edit an individual records in the selected review file, double-click on a record line, or highlight a line and click on the **Edit** icon on the toolbar.
To move between records when viewing a review file use

Adding records to a review file list

It is possible to add a new record to an existing file by clicking on the **Add** icon on the toolbar. Search for the

Removing records from a review file list

It is also possible to remove records from a review file. Remove one or more records from the file by

Removing duplicate records in a a review file list

This feature will remove duplicate reporting of the same record from a review file. This might be useful if a search were performed on note or location fields in a bibliographic record, for instance, or when multiple

Sorting records in a review file

Sort Records

To sort records by selected record types and fields, click on the **Sort Records** button.
In the popup box, double-click in the blank white field in the record Type column. Select the record type from the popup box.
Then double-click in the **Field** box, and select the field you wish to sort by.
To add more refined sorting capabilities, click on the **Append** or **Insert** icons within the popup box**.**

The Append function adds a line **after** existing lines.

The **Insert** function inserts a line **before**

Printing records in a review file

List Records

It is possible to select individual fields for printing or exporting by using the **List Records** button**.** This option also specifies fields and field values for printing by record type and by field.

Within this option it is possible to specify a page heading, to select the starting and ending records to print, and to physically number records in the list. When all necessary configuration of the printing has been completed, click the **OK** button, and select a printer from the printer choices available to the login.

Export Records

o   Choose **FTS file save** to save the file on the server for output later.
o   The E-mail printer should be selected in order to send the configured report via email.

Show Info

The **Show Info** button displays the search criteria which

Other Create Lists features

Append -- used to search for and to add records to an existing file OR to merge two review files into one. Select a review file, and then click on the **Append** icon. Choose the value **Range** *(to add records based on a new Range search)* or **Review** *(to select a file to merge with the 1ˢᵗ file selected)*. If the Range option is selected, please type in search criteria. Click on the **Search** button.

Dedupe – allows the removal of duplicate records in the review file list, ensuring that each record number appears only once.

Copy – This feature is used to copy a system generated file, or any other existing file to an empty review file which has been selected.

Empty –used to empty the contents of a file and to make it available as an empty file for other users.

Rename – used to rename a review file when a more precise or different name may be necessary or appropriate.

Own – This is an optional feature providing the option to take ownership of a specific review file. This feature is enabled in the Database Maintenance Options in the Admin Corner. The option that controls the feature is *Create BOOLEAN lists: password review files.*

Ownership of a file is indicated by the author's name appearing in red. Ownership prevents other staff members from deleting or emptying the file. Only the login used to create the file will be able to empty it or delete the contents. However, other staff members may view the file, print from it, print from it, modify the records contained in it, and copy the file to an empty review file. Staff login which include authorization **186 > Review file list administrator** function as review file List Administrators and can empty or delete the contents of any review file in the system.

Release – clears the **Login** column of an owned review file. The author's login name will return to black text.

Tricks and Tips

Search for existence or non-existence

It is possible to search for the existence or non-existence of attached records, Checkin Cards, Routing records, Holds, or variable length fields:

- To search for existence or non-existence of attached records use **^ LINKED REC** in the Field choice box (This Field choice is near the bottom of the list), and choose from the two condition options: **e exists** or **n not exist**. In Value A, select the record type for which to check.
    - **^ LINKED REC** is only available for record types that can have other records attached to them (bibliographic, holdings, resource, program)

- To find bibliographic records that have title-level holds on them, enter the following: Type = b; Field =8; then choose exist.

- To search for records that contain a specified MARC tag, select the Field choice **! Marc Tag**. Then type in the specific MARC tag number. Then select the Boolean condition " **!= not equal to**". Then

press the ENTER key (which will mean that the specific MARC field is **<blank>** (the field is empty, or does not exist). In this configuration, not equal to <blank> is equivalent to "exists" (the fact that the field is not blank or empty).

- To search for records that **do not have** a specific MARC tag, select the Field choice **! MARC tag**. Then type in the specific MARC tag number. Select the Boolean condition "**= equal to**", and press the ENTER key. Leave the value field "empty" by leaving it <blank> for the value. In this configuration, equal to <blank> is equivalent to "no value exists in this field".

- To create a list of item records which do not contain a barcode (a variable length field in the item record) select the field **b BARCODE** and the Boolean condition "**= equal to**" and leave the field value <blank> . Existence or non-existence of a value in any other field can be searched in the same manner.

Search by MARC tag

MARC tags, indicators, and subfields are searchable. Select the search option: **! Marc Tag**. The system prompts the user to type in a MARC tag, indicators and subfield to search.

Search Special Fields for Bibliographic, Item, and Patron Records

Holds fields are available for bibliographic, item, and patron records.
Bookings and Fines fields are available for item and patron records.

Search by 006, 007 or 008 value

Perform searches on codes within the Bibliographic records 006, 007 and 008 fields. Select the tab from the field display.

Retrieve all records within a range

To retrieve all records in an index range (for example: all records in a call number range), or in a range of records numbers, choose the record type to be stored and the index range or record number range. Without specifying any search criteria, click on the **Search** button. The popup box will present the question: "No search criteria have been specified. Retrieve all records in range?" Click on the **Yes** button. This will retrieve all records within the specified index or record number range.

Using System Generated Lists within Review Files

Various Sierra applications automatically create review files as part of their operation that may be useful to consult. This will happen automatically on a regular basis. For example, the list of overdue items is a list that the system compiles every night. Another example of a system-generated list is a history of when a "tickler" is sent.

To access these system generated lists, do the following.

- Select **Create Lists** function
- Choose an **Empty** file
- Click on the **Copy** icon in the toolbar above.
- A list of all files containing records is now visible. In addition to the lists that library staff members may have created, there will also be files with line numbers higher than the number of files purchased by library. These are the "system-generated" files created by Sierra. Scroll to the end of the complete list of library review files to view the system-generated files. These system- generated files are **only** visible using the **Copy** icon. They are not visible as part of the default view of review files.

- In order to consult the contents of a system-generated file, select the system file to be consulted. Then use the **Copy** icon in the toolbar to copy the contents of the system-generated file into an empty review file. The copied file may then be consulted as necessary.

Please consult the *Sierra WebHelp* for additional details on the Create Lists function.

Statistics

The **Statistics** function is a tool for creating a variety of statistical reports about your database. Examples of the kind of reports that can be generated are:

- How many titles are there in foreign languages
- How many records were cataloged is a specified period of time
- A cross tabulation of one fixed-length field against another for a range of records

The Statistics function allows you to create database queries that can be saved, can be calculated again at any time, and may optionally be scheduled to be run at a specific date and time. When a query for statistic creation is submitted, the system starts a process on the application server to gather the requested information. Depending on the number of records examined by the query, this process may take anywhere from a few seconds to up to several hours to complete. When the results of a query are ready, the report can be viewed in a spreadsheet-like presentation, and can be exported to allow reformatting for library reporting purposes.

The effectiveness of the library's statistical reporting is directly linked to the accuracy of the coded data within the fields of all types of records in the system. Accurate and complete field data is required in order to produce accurate and reliable statistical reports.

Statistics offers two access and recording features. The options are available by selecting the tab at the top of the main window. There are two tabs displayed:

The default focus, this option is used to create a new query, run a saved query, to schedule a saved

This option is used to view the statistical results (or report) resultant from a statistical query. Results files are used to create, print, and/or export reports based on these results.

Creating a Query in Statistics Function

To create a new query (or strategy), click on the **New Query** button. This opens the query editor:

- In the query screen, there is a blank line which is used to assign the query a descriptive name and to also give the results file a descriptive name. Click on the golden arrow pointing down at the right of the screen for an optional way to copy the query name to the results file name. It is not necessary to save the query in order to run it. An unsaved query can be extracted and saved at a later time from the resulting report. The system will always remind the user that the query has not been saved and will offer the opportunity to save the query. Depending on the situation, it is not always necessary or prudent to save the query.

- Select the basis of data on which the statistical report should calculate. It is possible to calculate the report based upon a range of record numbers, based upon the use of a review file, by focusing on a specific index range, or by using the technical Advanced Boolean search syntax. The system defaults to **Range**, meaning that the default choice which is offered is to search a particular range of database records as the basis for the statistical calculation. Alternate options as described below may be selected by clicking on the dropdown menu presented after clicking on the word "Range".

- o **Range** - Use this option to specify a particular range of database records, by specific starting and ending record numbers. If this option is chosen, it will be necessary to verify that the correct record number identifier (by letter), is specified.

    - Type the record type prefix (or letter; for example, 'p' for patrons) into the Start box, and the system automatically fills the Start and Stop boxes with the record numbers of the first and last record of that type in the database.

    - It is also possible to insert specific record numbers in the blank fields if those record numbers are known. Using a smaller, specific range of record numbers permits consultation of a smaller (or more limited) range of record numbers, and will usually produce a statistical report much quicker than consulting the entire database. Limiting the record range is a good option if this range has been noted earlier and is known.

    - Record numbers entered in this field manually must be actual record numbers. The system will report an error if an incorrect starting or ending record number is typed in.

- o **Review -** Use this option to consult only the records contained in a previously created review file. Change the focus from "Range" to "Review" by clicking on the word "Review" which will appear in the dropdown box of focus choices.
    - NOTE: Statistics stores the relative number (pertinent to the position in the review file) of the review file which is selected as part of the query. Statistics does not store the record numbers or search criteria which are contained in the review file.

    - Use caution when consulting review files, because if a review file is altered or emptied after the query was last saved and the query is run again, the new contents of the altered review file will be used to generate the statistical data, and may not be the same results which were calculated or reported before.

- o **Index** - Use this option to extract records from the database based on an indexed field.
    - Select an indexed field from the Index dropdown menu, typing in one or a range of indexed values in the range boxes.

    - For example, you might choose to search in the Author index, starting with the name "aaron" and ending with the name "adams". Note that both search terms must exist in the database (use of '*' as a wildcard value is not possible).

- o **Advanced** - Use this option to search the database by keywords, using the Advanced Boolean Search syntax.
    - If this method is to be used, the library staff member must understand the technical rules of composing a Boolean query, including punctuation and wording. Boolean terminology and punctuation is not supplied automatically by the server. *The user must understand the Boolean rules for composing strategies before attempting to use this method.*

    - For example, typing the search target "california" and (college or university)" would retrieve records that contain the two words "california" and "college" as well as records that contain the two words "california" and "university".

- o Select (from the dropdown menu) the type of record on which to report; for example: Bibliographic, Order, Patron, or any type of record which exists in the system at the library.

Type of query

- **Field Statistics** – Resulting reports are based on fixed field values and call numbers.

  For example: This type of reporting would allow viewing of information such as how item records are divided between locations (based upon the location fixed field value); or, number of Patron records which

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- **Periodic Report** – Reports are based on date fields contained in the particular type of record.

  For example: The number of records that contain a value in the fixed-field CATDATE in a bibliographic record which is within a particular date range as specified by the user; or, the number of Patron records which contain a "Created Date" during the first quarter of a particular year.).

  Periodic reporting is applicable only to certain specific fields which may contain dates. The fields are available to view and to select from within a dropdown menu. No other date fields which may exist in records are included in this particular statistical reporting feature.

- **Cross Tabulation** – Reports are based on two specific fixed fields.

  For example: Item Type on the vertical lines and Item location on the horizontal lines; or, Patron Type on the vertical lines and Home Library on the horizontal lines.

- It is recommended to select **"fastest accumulation"** as the method of calculation. When the user selects the option to run (or calculate) the report, the system will always ask whether to accumulate "in the background". The "fastest accumulation: choice is recommended because if this option is not chosen, the system will periodically pause during the compilation of data in order to write the data which has already accumulated to the results file. If "fastest accumulation" is not selected, more elapsed time will be required in order to finish preparation of the report. This option (fastest accumulation) must be chosen for large record sets (for example: those potentially over 10,000 records), in order for the system to function efficiently.

- **Split Multi** option: Some Sierra fixed length fields such as Fund in Order records and Location in Bibliographic records may potentially contain multiple values. If the "Split multi" fields option is selected, Statistics will count each record several times, once for each separate location (in the case of bibliographic records) or fund (in the case of order records). This will make the statistical report totals for location and fund greater than the total number of records included in the report, and can account for a perceived discrepancy in record counts. However, this option may actually be exactly the statistics that the library needs.

  - Note that this result will only occur for the reports by location or by fund (or other fields which might contain the value "multi" in other record types). Other fixed field statistics within the same results file will not display expanded totals.
- After configuring the query, it is possible to save it, to schedule it to run at another time, or to run the query at that very moment. There isn't a default maximum of saved queries. It is important to note that the existence of more saved queries may require a longer time for Statistics to display the Save Queries list as it compiles and displays the list of saved queries. A very lengthy list of saved queries may also result in difficulties for staff to locate a particular query. It is recommended that the library perform regular maintenance on this list of saved

queries to assure that necessary queries are retained and that queries which are outdated or unnecessary will not remain in the list to cause potential confusion.

Viewing the Statistical Report in Statistics

After the query has run and the statistics have been calculated, it is possible to view the results from the **Results Files** Tab. Highlight a specific result file which is displayed on this tab and select the **View Report** button. Depending on the number of reports which exist in the system, it may be necessary to scroll down the list in order to locate a recently-compiled report. Based upon the type of report selected (Field, Periodic, Cross-Tab), the reports will look quite different.

To view the various statistics generated by a query, click on the named field in the left-hand white column of the display. Because the display is using the Java language, columns can also be moved around to display in another order. While viewing the report, it is also possible to hide rows or hide columns with information which is not needed by using the "hide row" or "hide column" icons on the toolbar. However, hiding a row or a column from view will not change the statistical totals. The calculation will continue to include the totals as if the hidden row or column were still visible. To hide a row or column, select one cell in the row or column to be hidden, and click the **Hide Row** or **Hide Column** icon in the toolbar. If a report with hidden rows or columns is exported the hidden rows or columns are not exported and the report will need to be recalculated in the program of your choice (for example: Microsoft Excel). This is because the totals reflect the totals in all rows and columns as presented in the original report, as if the hidden rows or columns actually existed in the exported report. If certain rows or columns have been "hidden", it will be necessary to use the calculation tools in the program to which this report was exported in order to assure accuracy of numerical calculations.

To edit or export the report, click on the **Export** icon. After clicking this icon, the system will present a prompt to select a program to open the report from a list that includes Microsoft Word, Excel and options to save the file as text or other .csv type of file. Choose the format which will be used to manipulate the data after it is exported. If one of the program options is selected, the report will automatically open in that program (provided the program exists on the computer being used) and the report can be edited directly on the computer as necessary. Delimiters are very important when using external programs to manage statistics which are exported.