MIDAS

Event Log Viewer
User's Guide

Part Number MN/MID-EVLOG.IOM Revision 0

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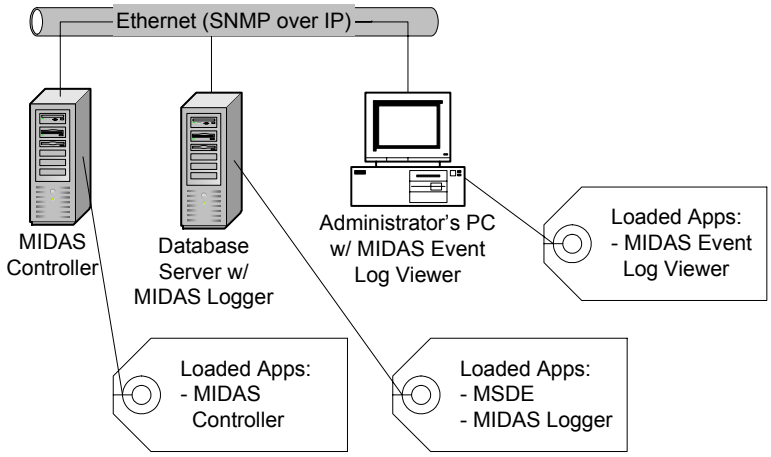
OVERVIEW

Comtech EF Data's MIDAS Event Log Viewer was created to simplify the usage and management of Event Log's by providing the user with a simple graphical interface combined with sophisticated database features.

With the introduction of MIDAS version 4.3, event logging can either remain the simple text based mechanism that existed in earlier versions of MIDAS, or a more sophisticated and manageable approach can be used. The new approach captures all of the SNMP (Simple Network Management Protocol) Event Traps from the MIDAS system via the MIDAS Logger service and writes them to an ODBC / SQL (Open Database Connectivity / Structured Query Language) compliant database included with MIDAS 4.3. This database engine is 100% compatible with Microsoft's SQL Server product (Version 7.0 and Version 2000).

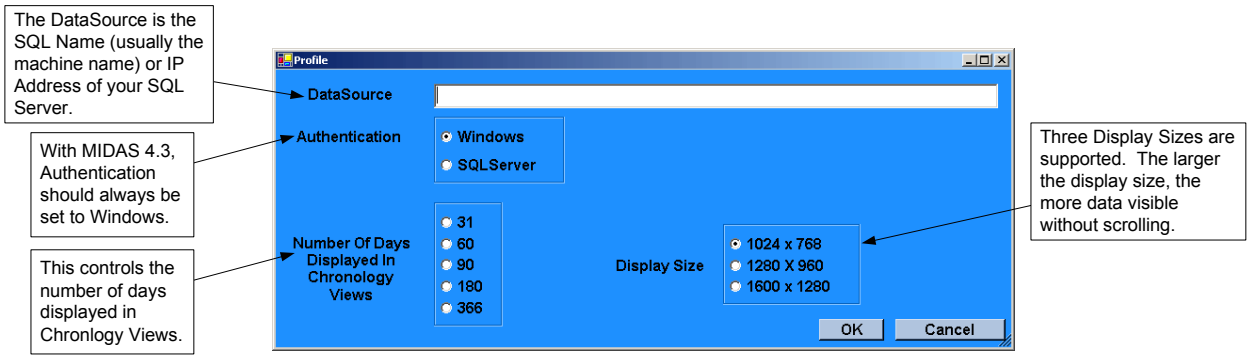


The average MIDAS installation should be able to store in excess of one year's data in the logs before any data purging activities are necessary. The system will begin to purge data after the database has accumulated 1.6 Million event records.

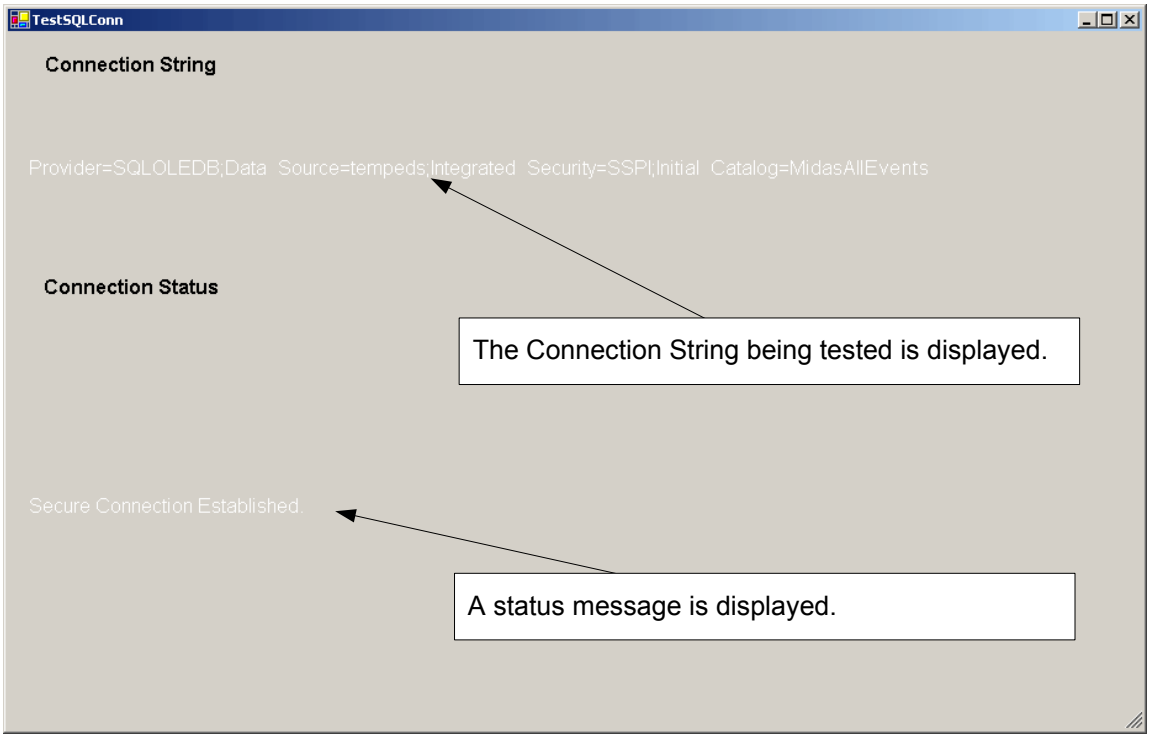
Providing a method to store and analyze data over significant periods of time enables a MIDAS System Administrator to spot trends and troubleshoot problems more efficiently.

STARTING THE EVENT LOG VIEWER

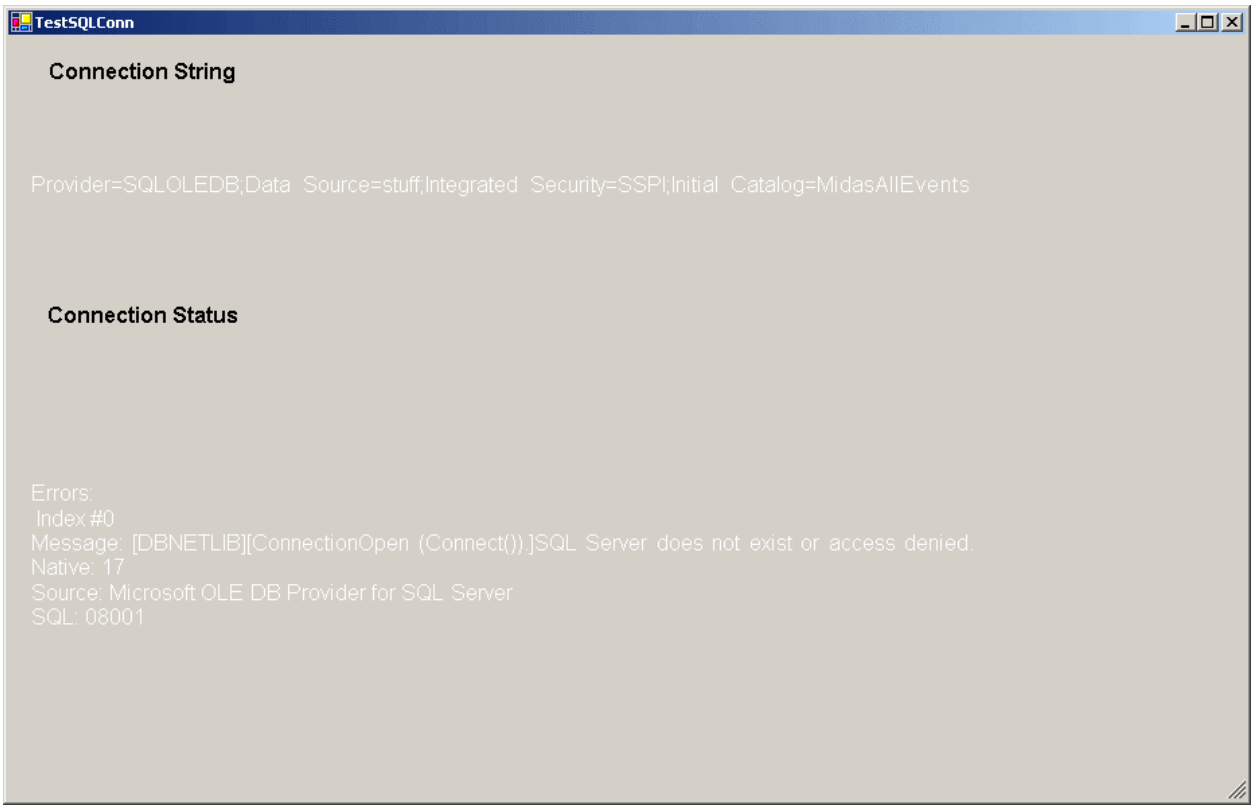
When you launch the MIDAS Event Log Viewer for the first time, a user profile needs to be created. A profile screen will appear automatically:



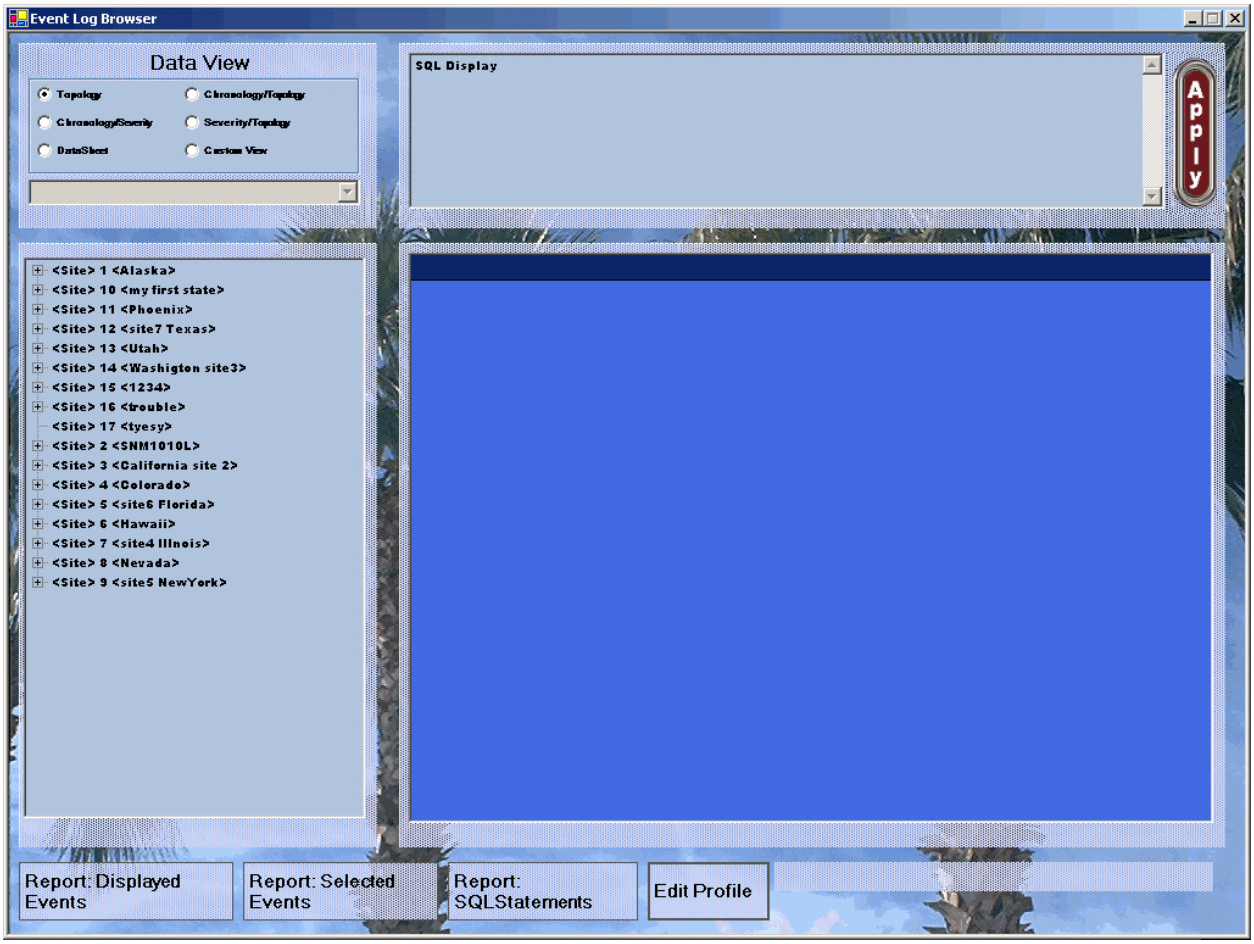
Once you have filled out the profile screen, the MIDAS Event Log Viewer will verify the SQL datasource, and if appropriate save your profile.



In the event of an unsuccessful connection attempt or other invalid settings, the MIDAS Event Log Viewer will display the appropriate error message and prompt the user to correct the data.

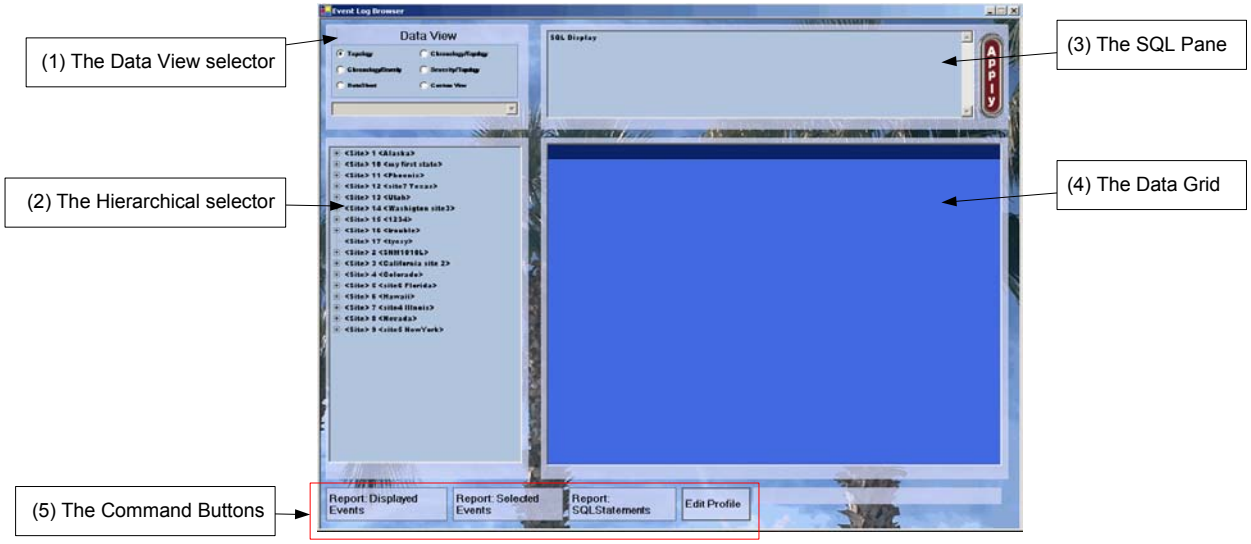


Once a profile has been accepted the Event Log Viewer will open to the Topology View:



HOW THE VIEWER IS ORGANIZED

The Event Log Viewer's main window has five basic sections:



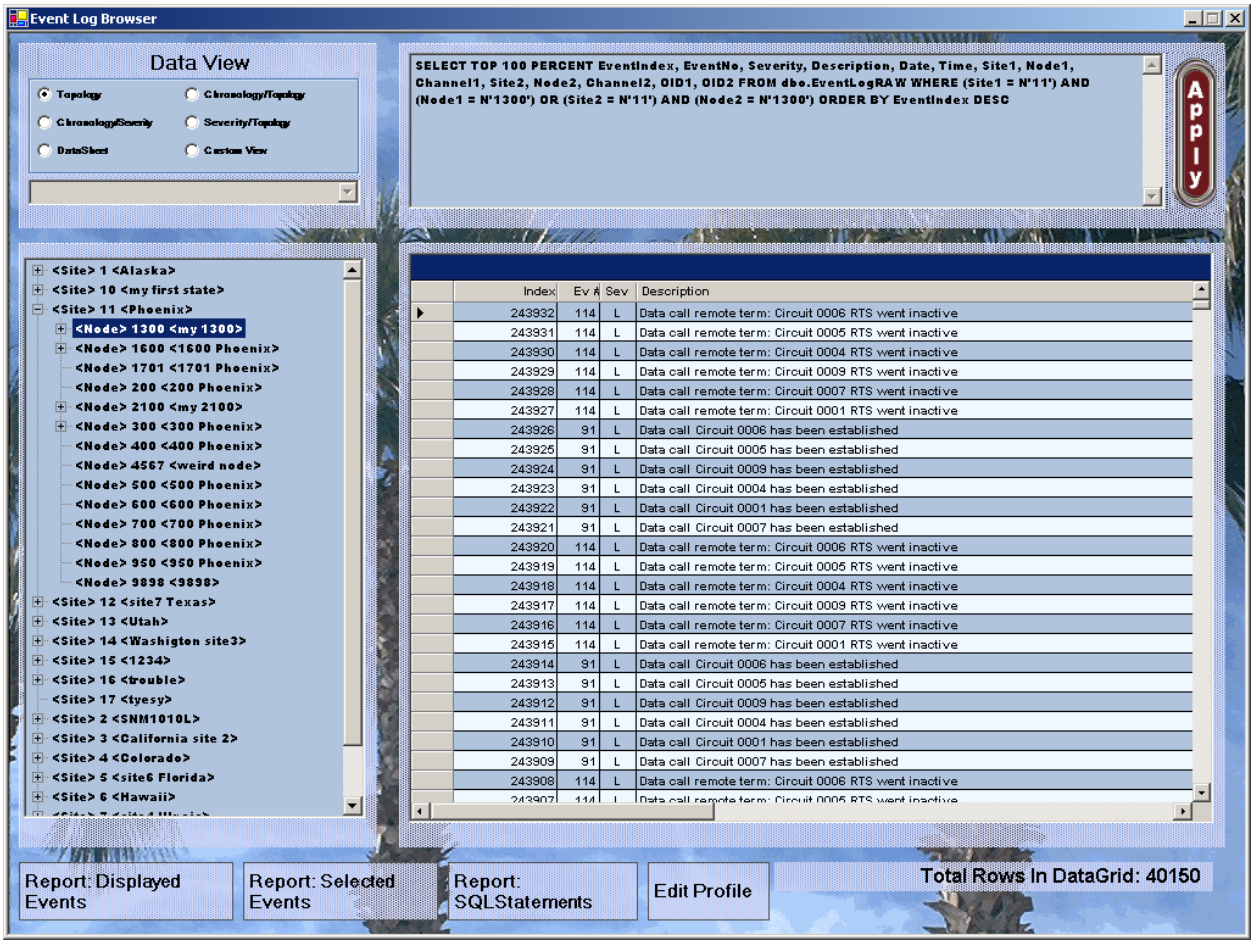
Data View Selector

The data view selector presents five CEFD defined data views and allows the user to save and access custom data views. Each data view offers a pre-set method for displaying and sorting logged events. Data views make it simple to sift through the large number of events that accumulate in the logs over time.

There are four hierarchical data views, an unfiltered data view, and optional custom data views. The four Hierarchical data views are: Topology, Chronology / Topology, Chronology / Severity, and Severity / Topology.

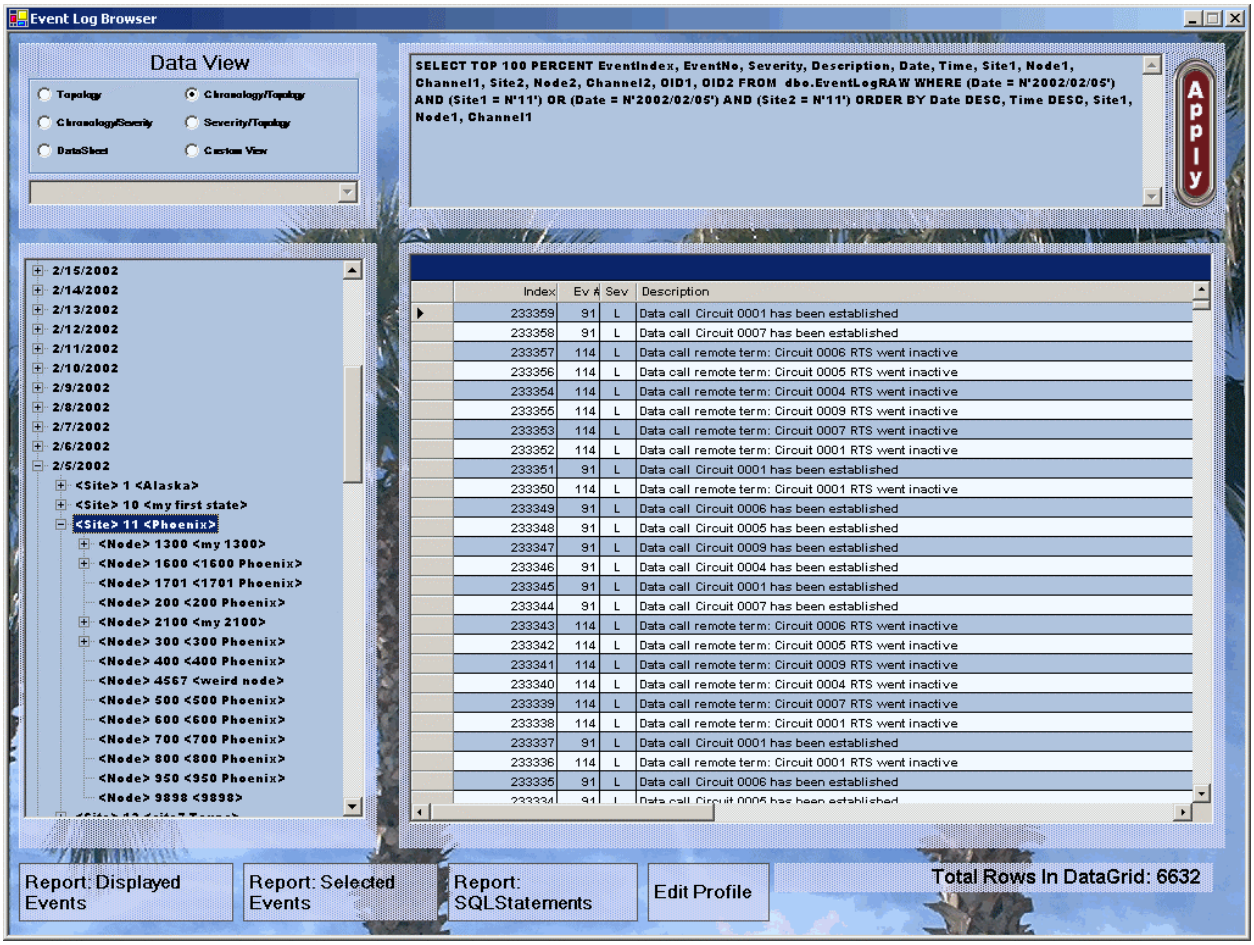
Topology

This view displays a topographically organized selection method within the Hierarchical selector. The data can be selected at the Site, Node, or Channel layer by expanding the “tree” until the appropriate layer is exposed and then double clicking on the correct element.



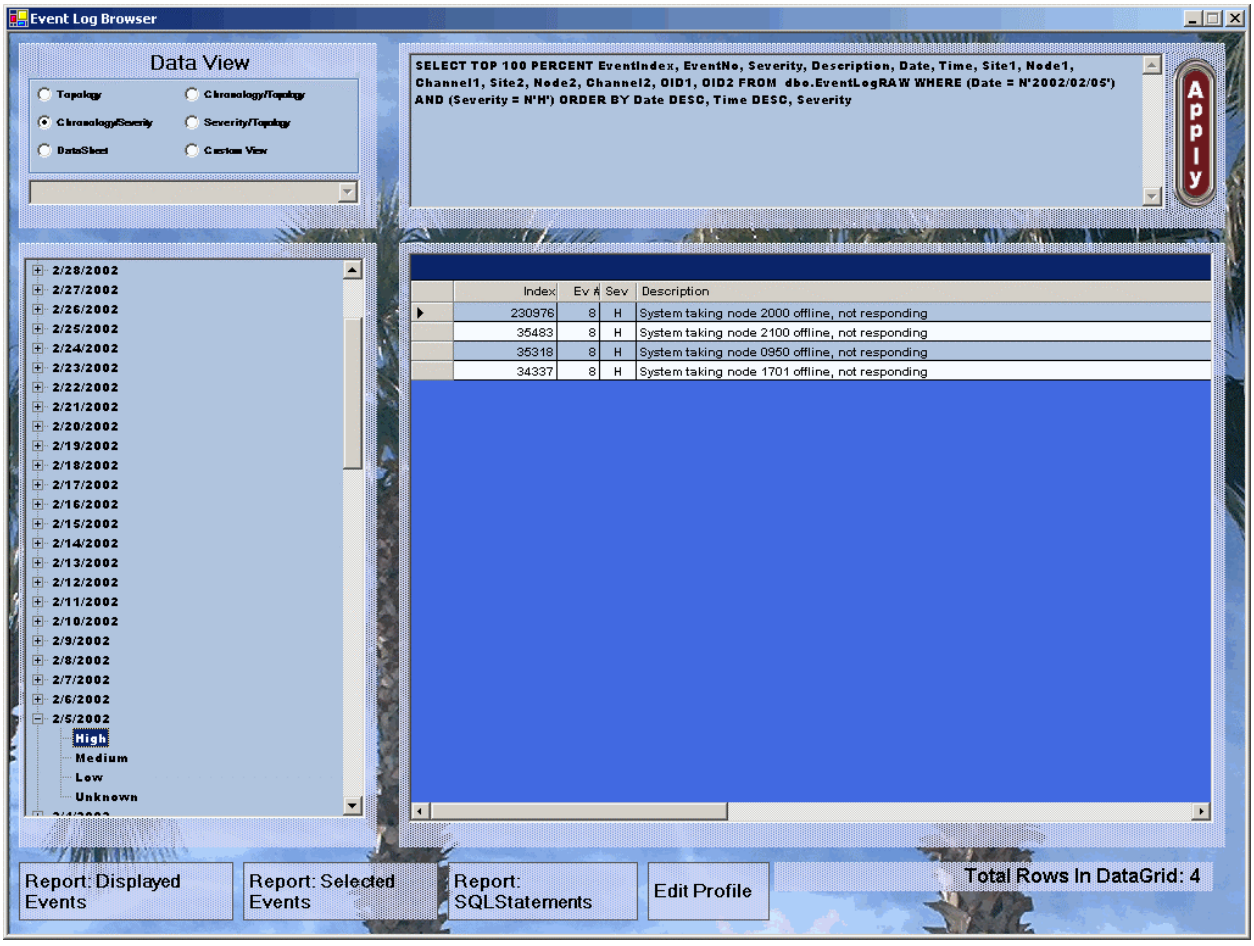
Chronology / Topology

This view overlays a topographically organized selection with a chronology layer in the Hierarchical selector (i.e. pick a given date, and then drill down into the network topology). The data can be selected at the Date, Site, Node, or Channel layer by expanding the "tree" until the appropriate layer is exposed and then double clicking on the correct element.



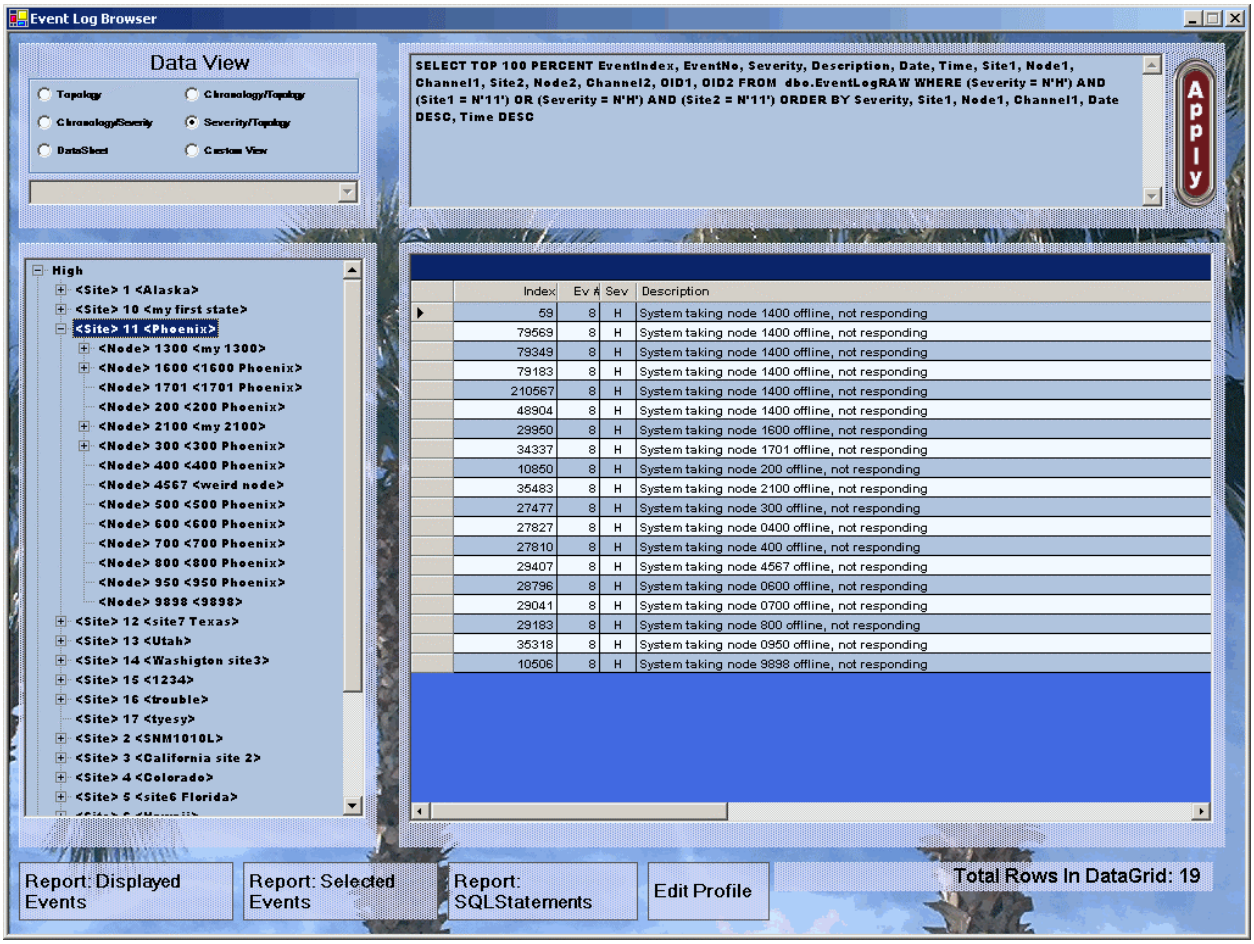
Chronology / Severity

This view overlays a severity layer with a chronology layer in the Hierarchical selector (i.e. pick a given date, and then select the severity of the events you wish to view). The data can be selected at the Date or Severity layer by expanding the “tree” until the appropriate layer is exposed and then double clicking on the correct element.



Severity / Topology

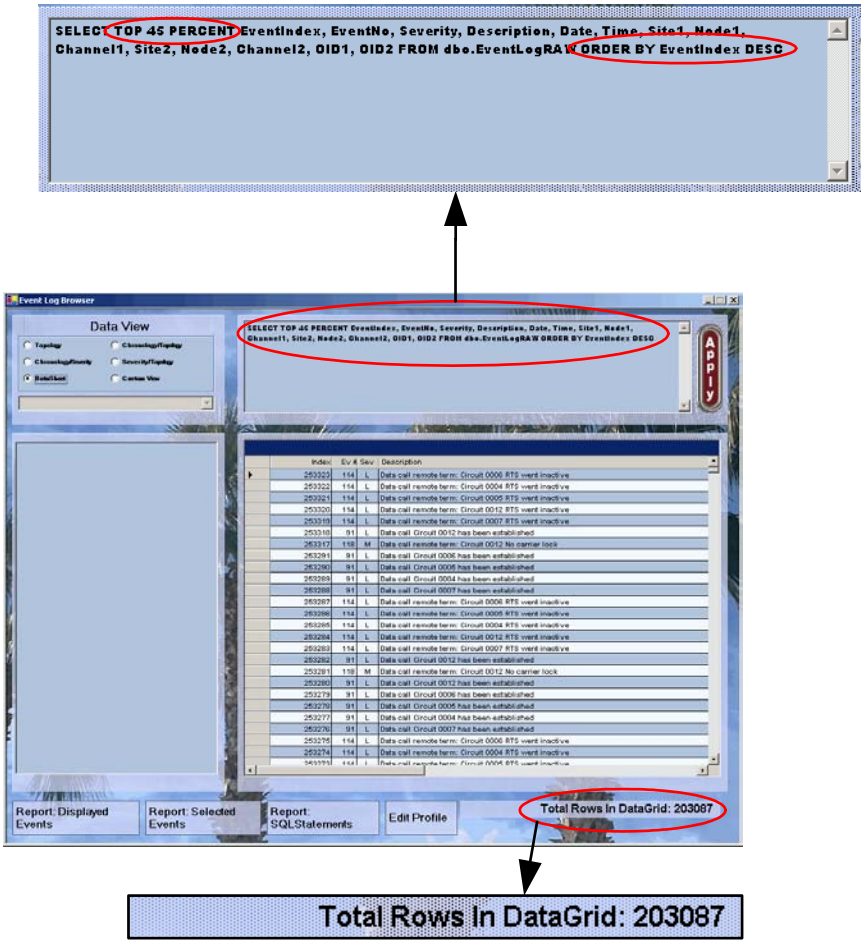
This view overlays a topographically organized selection with a severity layer in the Hierarchical selector (i.e. pick a given severity, and then drill down into the network topology). The data can be selected at the Severity, Site, Node, or Channel layer by expanding the "tree" until the appropriate layer is exposed and then double clicking on the correct element.



Data Sheet

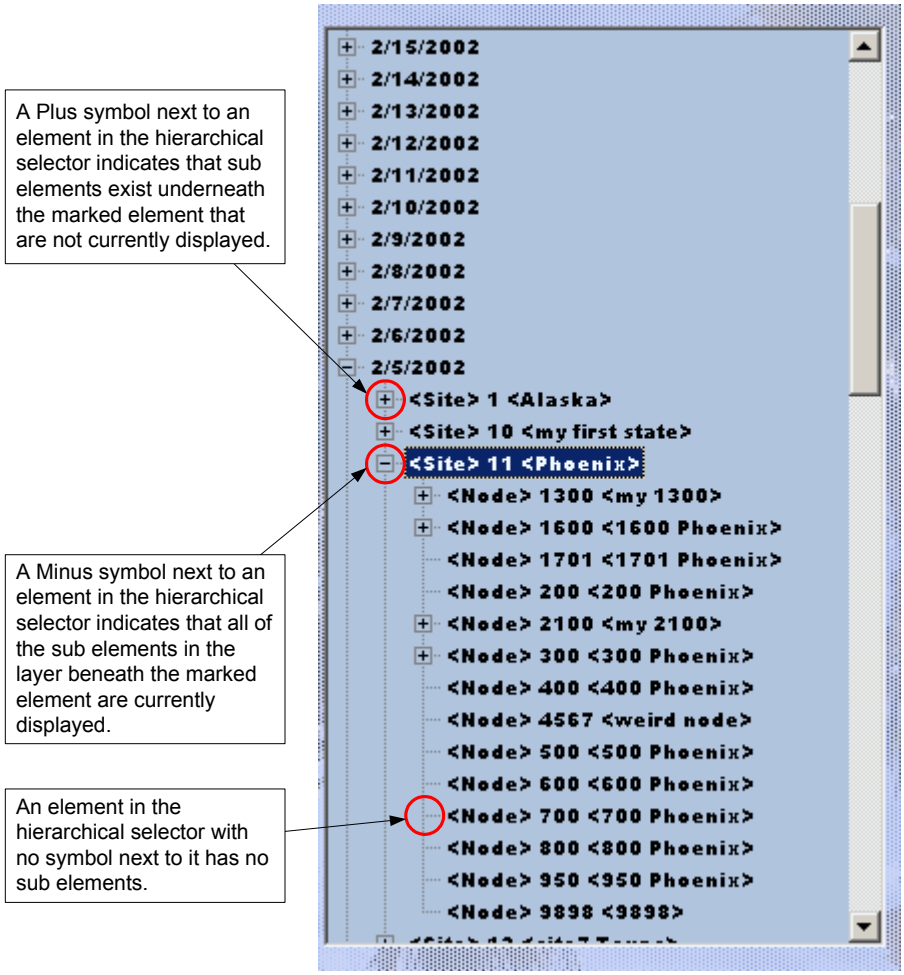
When the Data Sheet data view is selected the MIDAS Event Log Viewer:

1. Performs a memory calculation to determine how many rows can be managed within the RAM available on the PC in which it is installed,
2. Sends a request to the SQL Server to return the determined number of rows using a LIFO (Last In First Out) selection method,
3. Shuts off the Hierarchical Selector,
4. Updates the SQL Pane,
5. And after receiving the requested event log rows from the SQL server, populates the Data Grid and updates the Total Rows In Data Grid information.



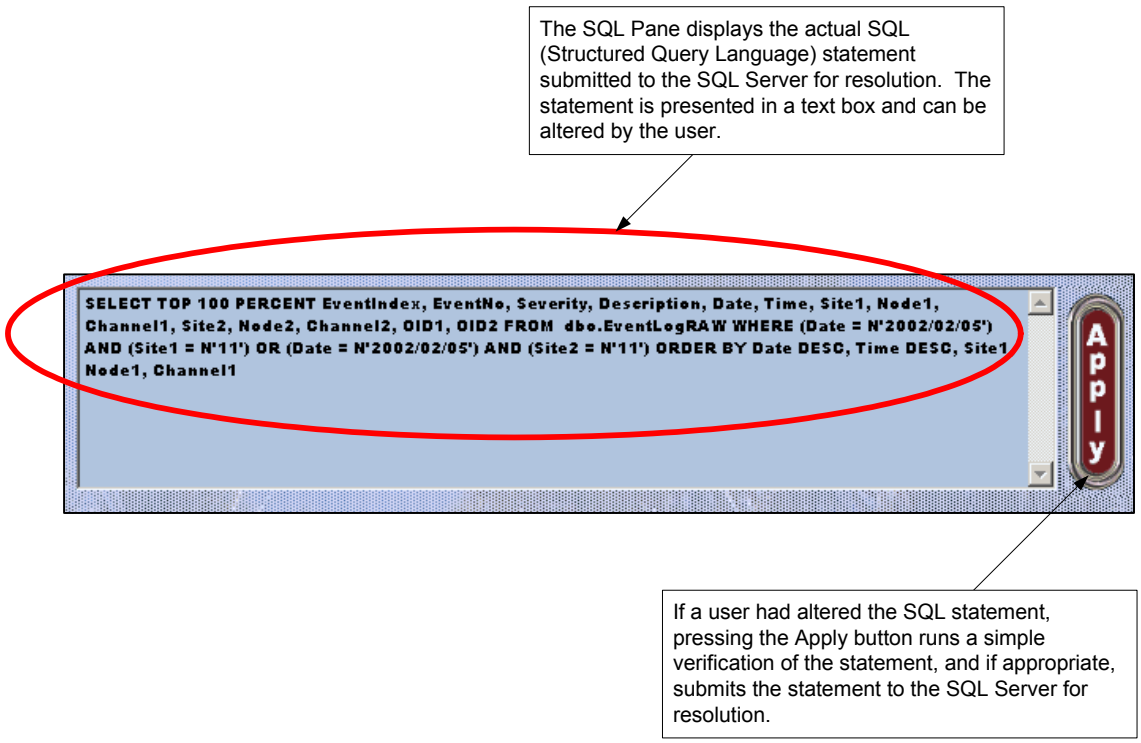
The Hierarchical Selector

The hierarchical selector is used to simplify navigating through the accumulated events in the log. When presented with the layers appropriate to the selected data view, the user is able to quickly and simply identify the relevant subset of data to load into the data sheet.



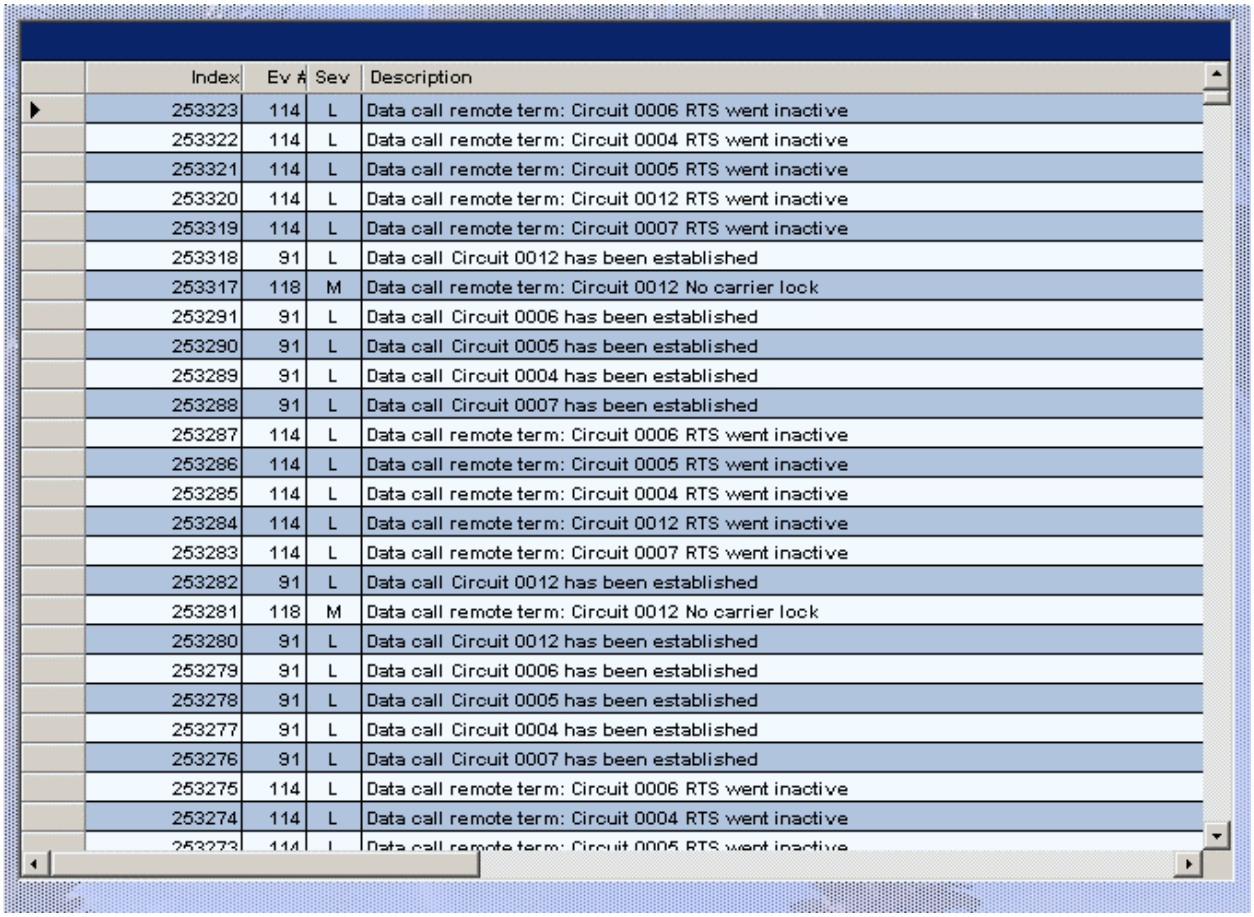
The SQL Pane

The MIDAS Event Log viewer is an ODBC compliant SQL based viewer. The SQL pane allows the user to see a "behind the scenes" view of what data is being requested from the SQL Server, and also provides an optional way to change the data request using a valid SQL command.



The Data Grid

The data grid is a data aware control that can be used to scroll, sort, and select data. To make it easier to visually track across a row, every other row appears with an alternating background color.



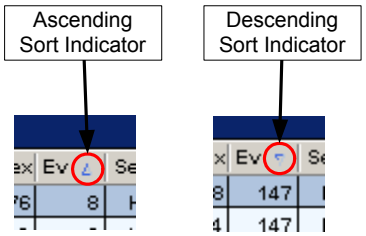
Index	Ev #	Sev	Description
253323	114	L	Data call remote term: Circuit 0006 RTS went inactive
253322	114	L	Data call remote term: Circuit 0004 RTS went inactive
253321	114	L	Data call remote term: Circuit 0005 RTS went inactive
253320	114	L	Data call remote term: Circuit 0012 RTS went inactive
253319	114	L	Data call remote term: Circuit 0007 RTS went inactive
253318	91	L	Data call Circuit 0012 has been established
253317	118	M	Data call remote term: Circuit 0012 No carrier lock
253291	91	L	Data call Circuit 0006 has been established
253290	91	L	Data call Circuit 0005 has been established
253289	91	L	Data call Circuit 0004 has been established
253288	91	L	Data call Circuit 0007 has been established
253287	114	L	Data call remote term: Circuit 0006 RTS went inactive
253286	114	L	Data call remote term: Circuit 0005 RTS went inactive
253285	114	L	Data call remote term: Circuit 0004 RTS went inactive
253284	114	L	Data call remote term: Circuit 0012 RTS went inactive
253283	114	L	Data call remote term: Circuit 0007 RTS went inactive
253282	91	L	Data call Circuit 0012 has been established
253281	118	M	Data call remote term: Circuit 0012 No carrier lock
253280	91	L	Data call Circuit 0012 has been established
253279	91	L	Data call Circuit 0006 has been established
253278	91	L	Data call Circuit 0005 has been established
253277	91	L	Data call Circuit 0004 has been established
253276	91	L	Data call Circuit 0007 has been established
253275	114	L	Data call remote term: Circuit 0006 RTS went inactive
253274	114	L	Data call remote term: Circuit 0004 RTS went inactive
253273	114	L	Data call remote term: Circuit 0005 RTS went inactive

Moving through the data

The data grid has both vertical and horizontal scroll bars to allow the user to control movement through the data. In addition to moving through the data with the scroll bars, the ***Page Up*** and ***Page Down*** keys (along with other movement keys) also move through data.

Sorting

Clicking on a column header will cause the data to be sorted by the column. An indicator mark will appear in the column heading indicating whether the data is in ascending or descending sort order. Clicking on the column header again will switch the sort order between ascending and descending modes.



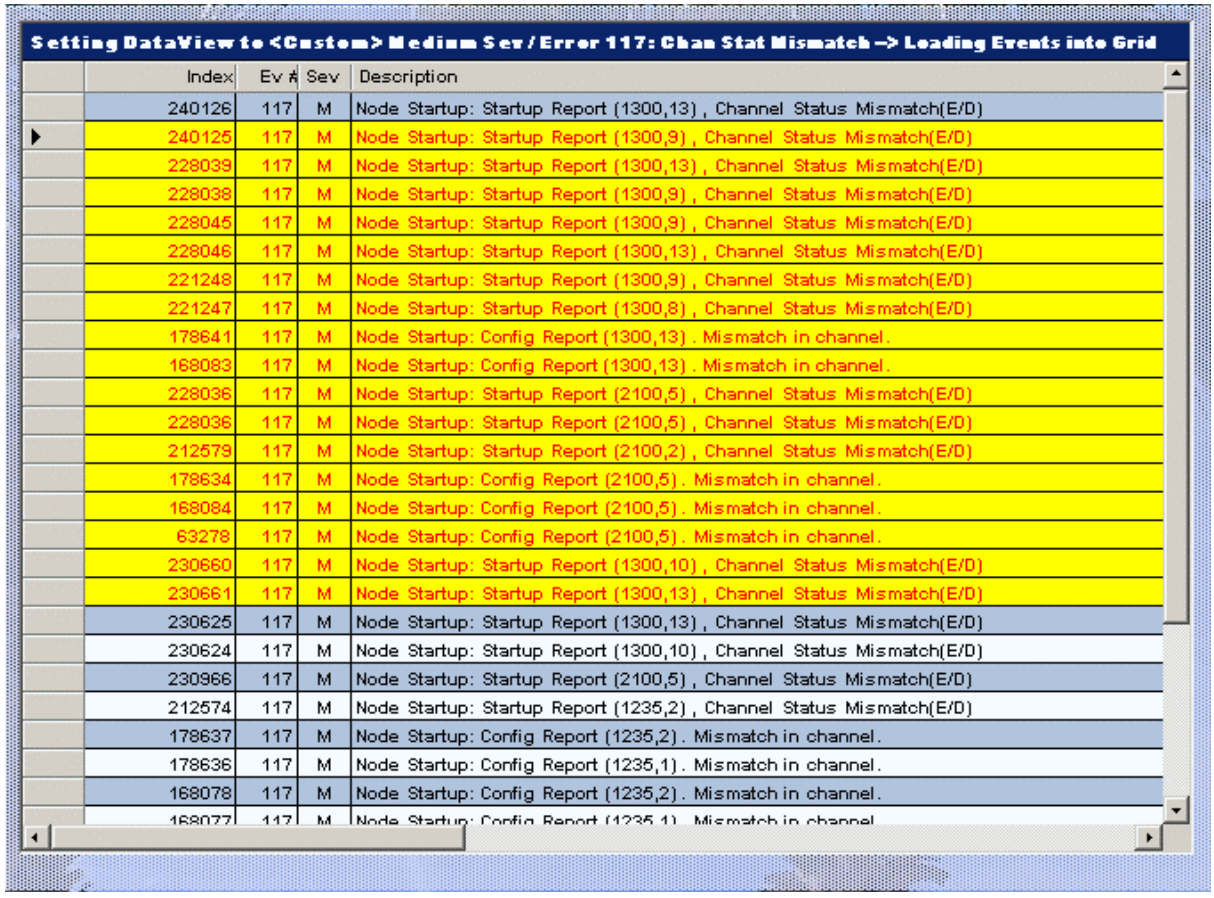
The data grid supports single column sorting.

Selecting Via Cell Content

Clicking on a data grid cell that contains data builds a new SQL statement that searches for other data records with the same content in the selected column. This is a search of the entire database.

Selecting Rows

The data grid can be used to select rows to be included in a report. A single row can be selected by clicking on the appropriate row selector (the row selector column appears at the far left of the data grid). Pressing and holding the mouse button down while dragging the mouse pointer down through the row selector column will mark multiple rows at once. Holding the ***Control*** key down while clicking in the row selector column will add a row to or remove a row from the selection while preserving the status of other rows in the grid. Selected rows are marked with red text on a yellow background.



WORKING WITH CUSTOM DATA VIEWS

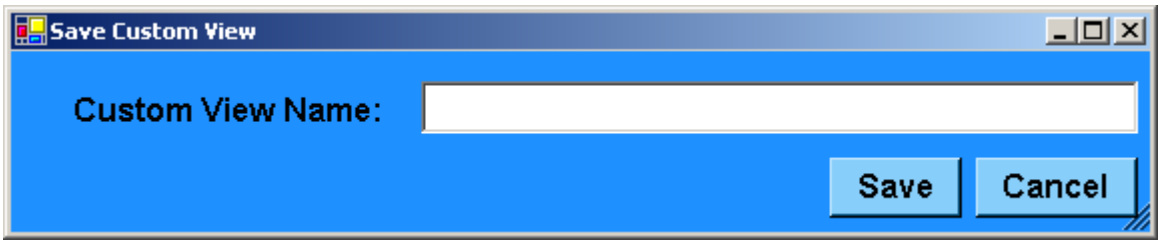
Building A Useful SQL Statement

Since a data view is "driven" by the SQL statement behind it, a custom data view equates to a custom SQL statement. The MIDAS Event Log Viewer is constantly updating the SQL Pane, so even though a user can enter or alter the SQL statement directly, usually just selecting the right elements with the mouse is sufficient.

Occasionally an SQL statement is worth saving for re-use (e.g. perhaps to track a severe error that has been cropping up on the same device). Once the SQL statement is displaying the correct data and is deemed worthy of re-use it can be saved.

Saving The Data View

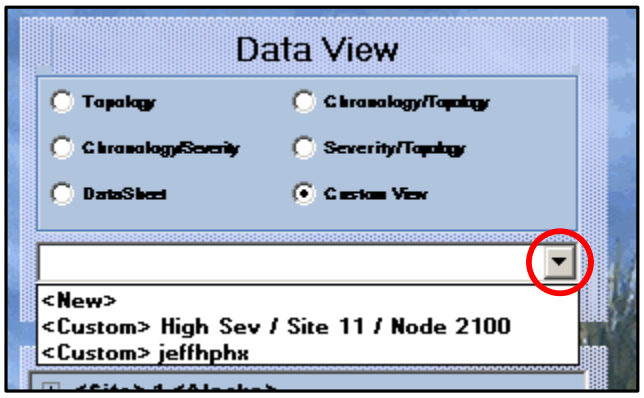
To save a data view, click on Custom View within the Data View selector and then click on **<New>**. The **Save Custom View** window will appear:



Enter a view name consisting of thirty characters or less and using no punctuation other than the space, comma, and forward slash character (/) (e.g. *High Severity / Error 8*).

Accessing A Custom Data View

To access a custom data view, click on Custom View within the Data View selector and then click on the name of the custom view (note the pull down button on the side of the view name box) and the data view will be loaded.



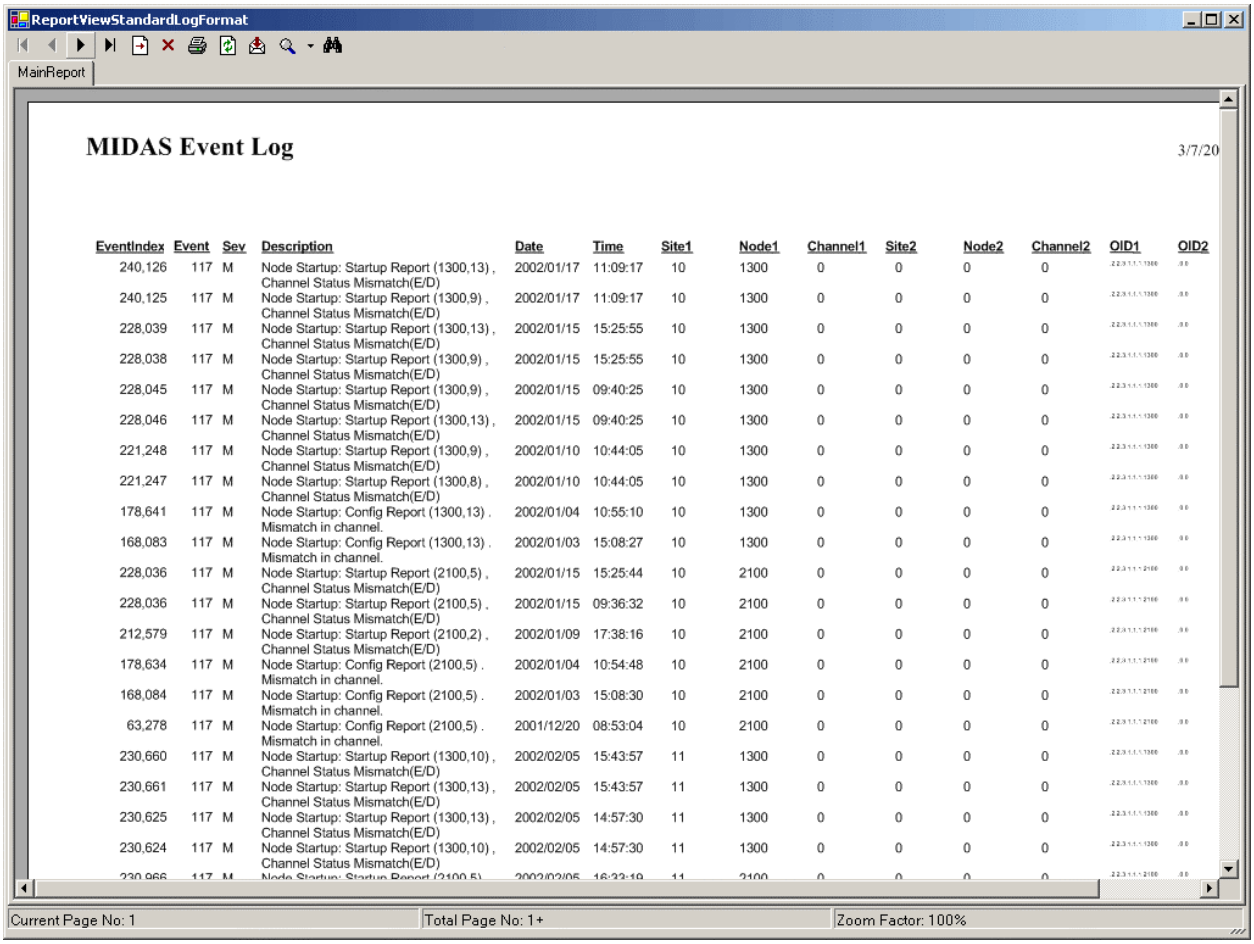
WORKING WITH REPORTS

Running A Report

The MIDAS Event Log Viewer contains two report types: **Events** and **SQL Statements**.

Displayed Events

The Displayed Events report shows all of the records displayed within the Data Grid at the moment the ***Report: Displayed Events*** command button is pressed.



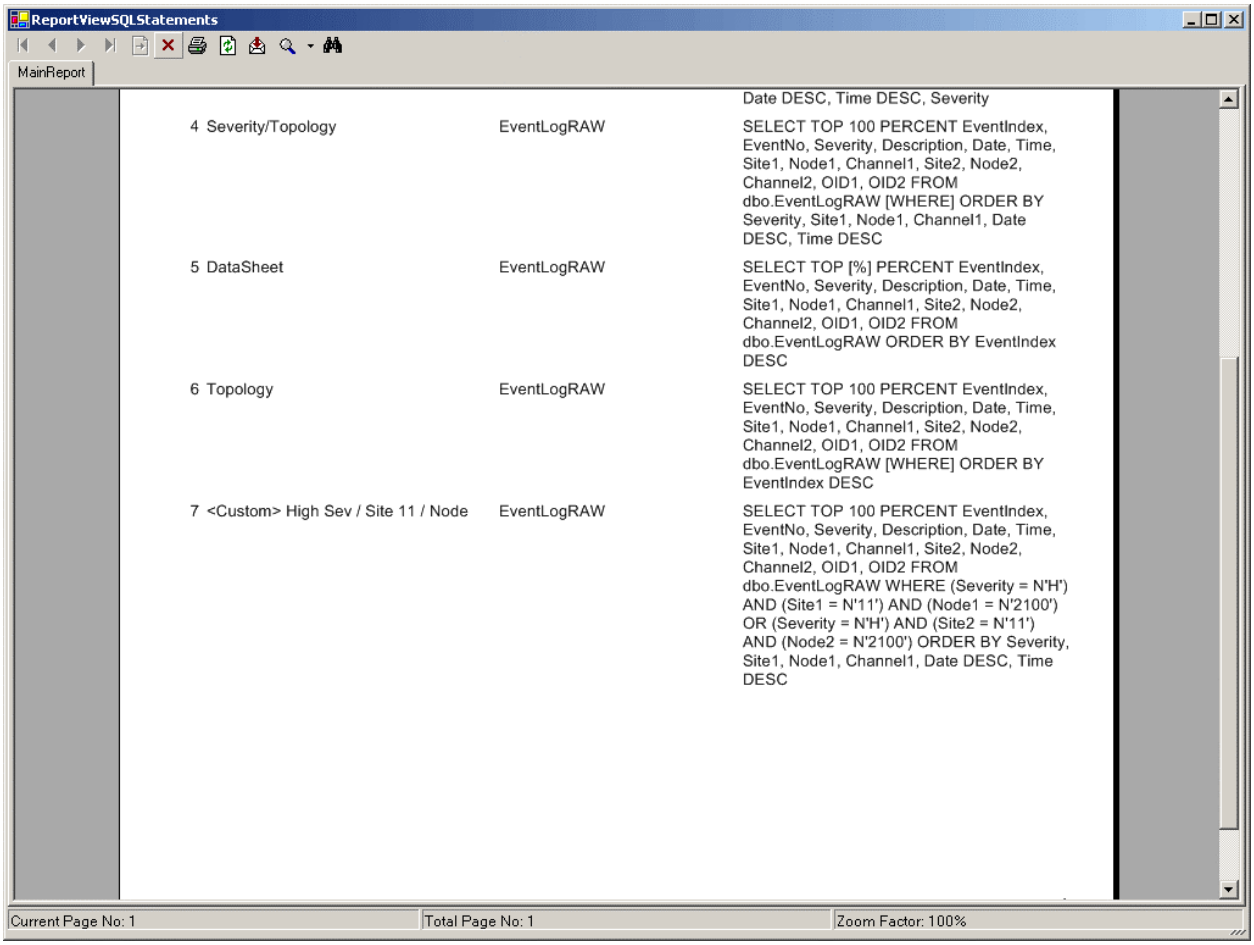
EventIndex	Event	Sev	Description	Date	Time	Site1	Node1	Channel1	Site2	Node2	Channel2	OID1	OID2
240,126	117	M	Node Startup: Startup Report (1300,13) , Channel Status Mismatch(E/D)	2002/01/17	11:09:17	10	1300	0	0	0	0		
240,125	117	M	Node Startup: Startup Report (1300,9) , Channel Status Mismatch(E/D)	2002/01/17	11:09:17	10	1300	0	0	0	0		
228,039	117	M	Node Startup: Startup Report (1300,13) , Channel Status Mismatch(E/D)	2002/01/15	15:25:55	10	1300	0	0	0	0		
228,038	117	M	Node Startup: Startup Report (1300,9) , Channel Status Mismatch(E/D)	2002/01/15	15:25:55	10	1300	0	0	0	0		
228,045	117	M	Node Startup: Startup Report (1300,9) , Channel Status Mismatch(E/D)	2002/01/15	09:40:25	10	1300	0	0	0	0		
228,046	117	M	Node Startup: Startup Report (1300,13) , Channel Status Mismatch(E/D)	2002/01/15	09:40:25	10	1300	0	0	0	0		
221,248	117	M	Node Startup: Startup Report (1300,9) , Channel Status Mismatch(E/D)	2002/01/10	10:44:05	10	1300	0	0	0	0		
221,247	117	M	Node Startup: Startup Report (1300,8) , Channel Status Mismatch(E/D)	2002/01/10	10:44:05	10	1300	0	0	0	0		
178,641	117	M	Node Startup: Config Report (1300,13) . Mismatch in channel.	2002/01/04	10:55:10	10	1300	0	0	0	0		
168,083	117	M	Node Startup: Config Report (1300,13) . Mismatch in channel.	2002/01/03	15:08:27	10	1300	0	0	0	0		
228,036	117	M	Node Startup: Startup Report (2100,5) , Channel Status Mismatch(E/D)	2002/01/15	15:25:44	10	2100	0	0	0	0		
228,036	117	M	Node Startup: Startup Report (2100,5) , Channel Status Mismatch(E/D)	2002/01/15	09:36:32	10	2100	0	0	0	0		
212,579	117	M	Node Startup: Startup Report (2100,2) , Channel Status Mismatch(E/D)	2002/01/09	17:38:16	10	2100	0	0	0	0		
178,634	117	M	Node Startup: Config Report (2100,5) . Mismatch in channel.	2002/01/04	10:54:48	10	2100	0	0	0	0		
168,084	117	M	Node Startup: Config Report (2100,5) . Mismatch in channel.	2002/01/03	15:08:30	10	2100	0	0	0	0		
63,278	117	M	Node Startup: Config Report (2100,5) . Mismatch in channel.	2001/12/20	08:53:04	10	2100	0	0	0	0		
230,660	117	M	Node Startup: Startup Report (1300,10) , Channel Status Mismatch(E/D)	2002/02/05	15:43:57	11	1300	0	0	0	0		
230,661	117	M	Node Startup: Startup Report (1300,13) , Channel Status Mismatch(E/D)	2002/02/05	15:43:57	11	1300	0	0	0	0		
230,625	117	M	Node Startup: Startup Report (1300,13) , Channel Status Mismatch(E/D)	2002/02/05	14:57:30	11	1300	0	0	0	0		
230,624	117	M	Node Startup: Startup Report (1300,10) , Channel Status Mismatch(E/D)	2002/02/05	14:57:30	11	1300	0	0	0	0		
230,966	117	M	Node Startup: Startup Report (2100,5)	2002/02/05	16:33:19	11	2100	0	0	0	0		

Selected Events

The Selected Events report shows all of the records marked for selection within the Data Grid (i.e. those records displaying with red text on a yellow background) in the same format as the Displayed Events report.

SQL Statements

The SQL Statements report shows all of the SQL statements that have been saved within the MIDAS Event Log Viewer (for both standard and custom data views).



Using The Report Viewer

The MIDAS Event Log Viewer contains a report viewier function. This function allows reports to be:

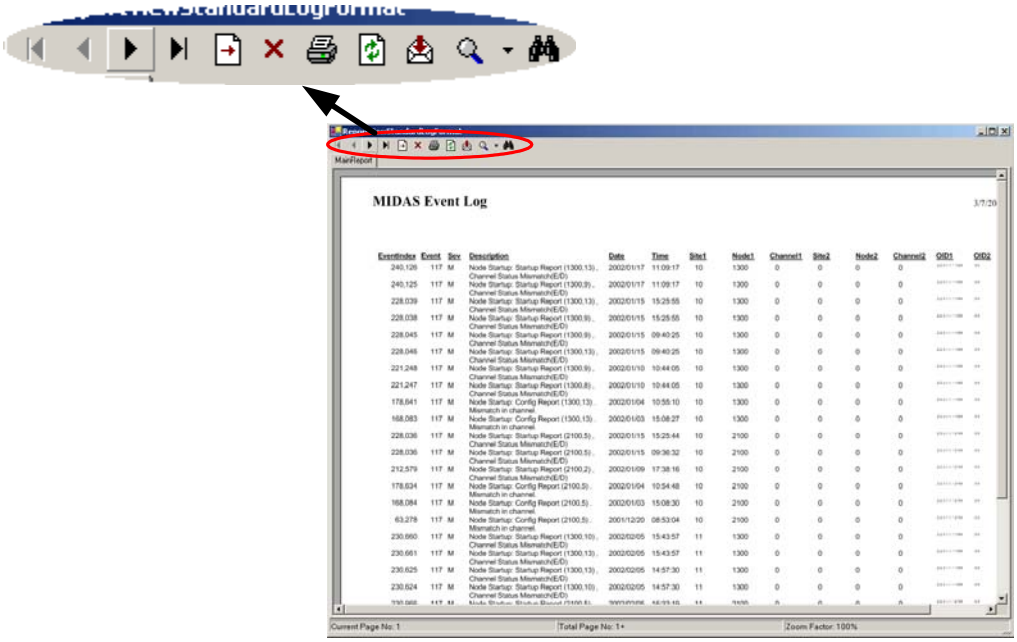
- viewed on screen prior to printing
- exported to a file
- searched for content
- etc.

Note:

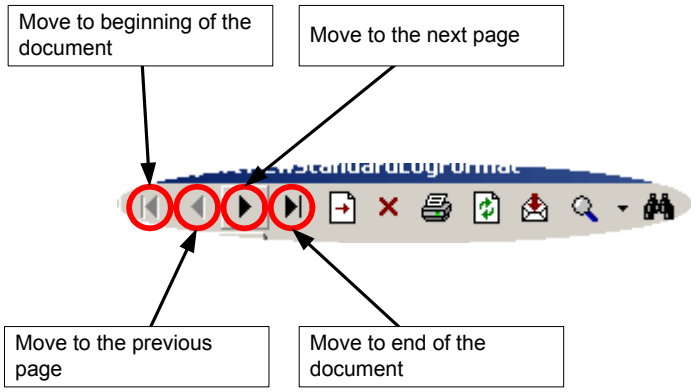
When the report viewer window is active, the main MIDAS Event Log Viewer is inactive (i.e. none of its' functions can be invoked while the report viewer window is open).

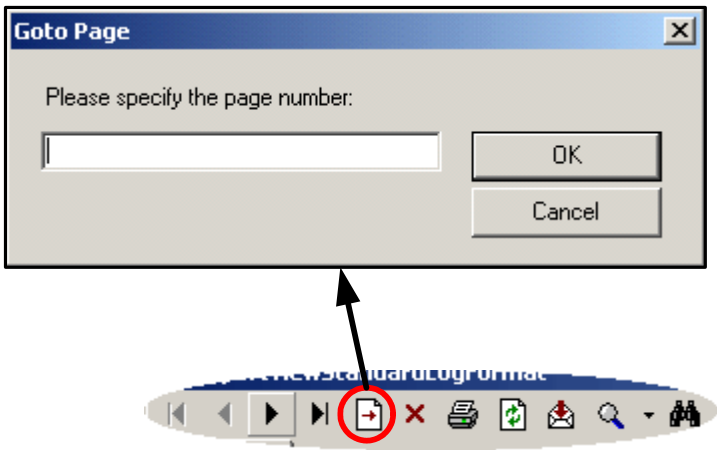
The Report Viewer Controls

The report viewer window uses scroll bars when a page is larger than the physical window. The report viewer sizes its' display window according to the active profile settings. In addition to scroll bars the report viewer has a number of other useful controls that can be reached via the tool bar:

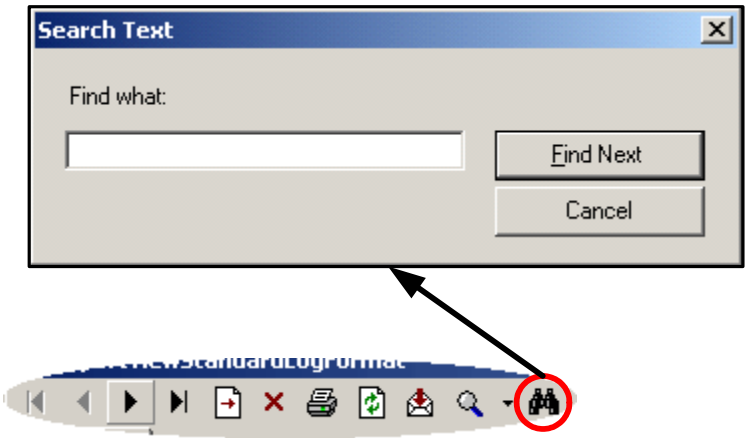


The tool bar contains controls for page based navigation:

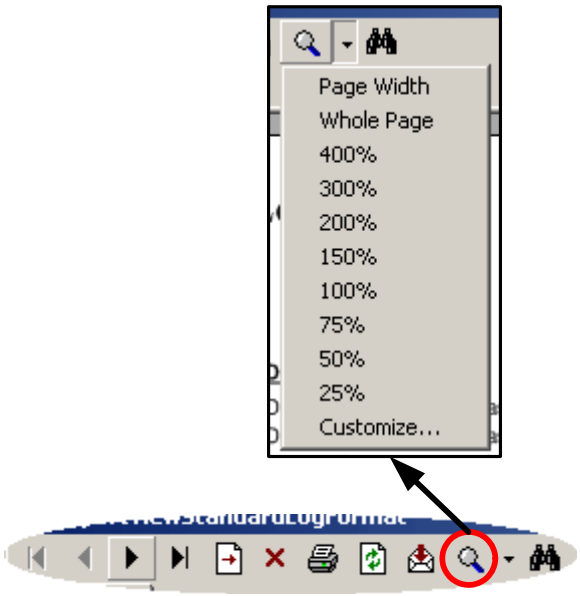




The tool bar also contains controls for text based searching:

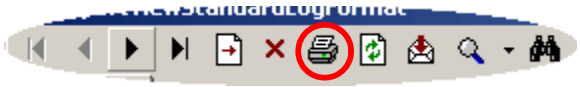


The tool bar also contains a Zoom tool:



Printing A Report

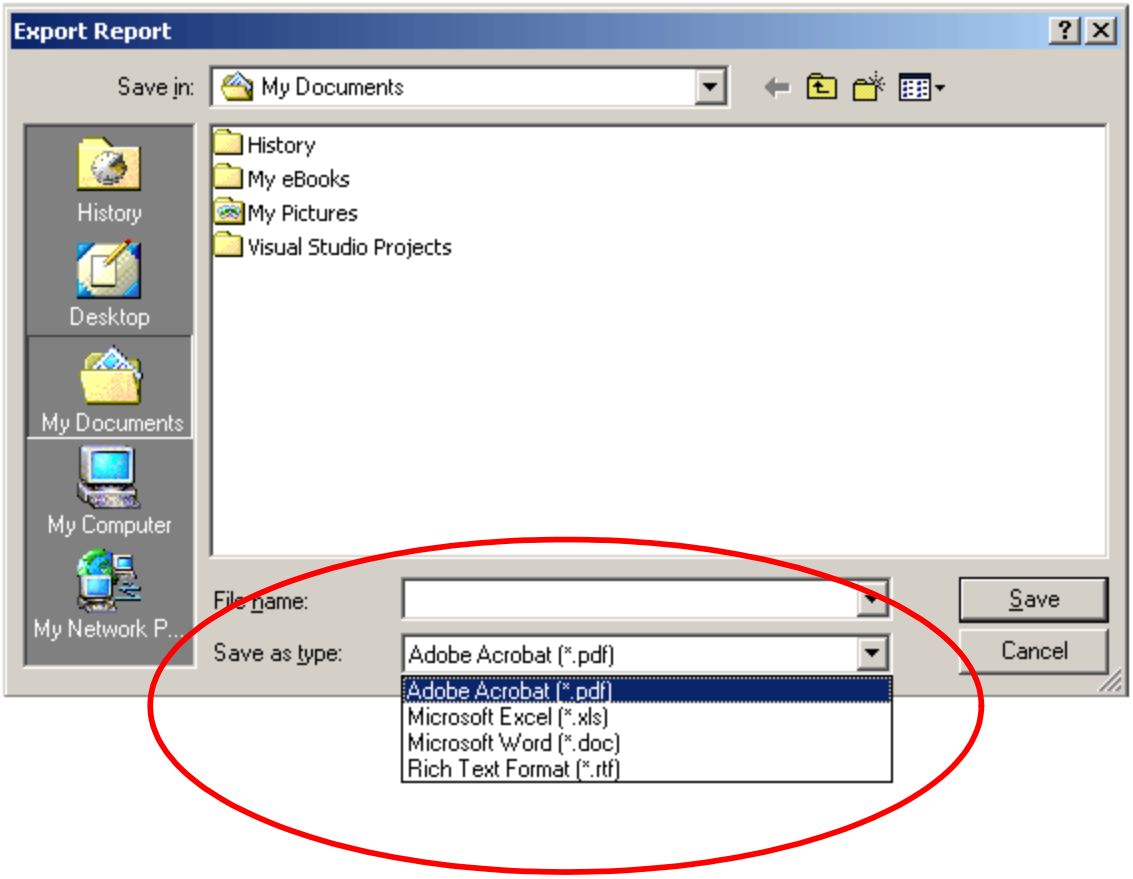
To print a report, select the print icon from the tool bar.



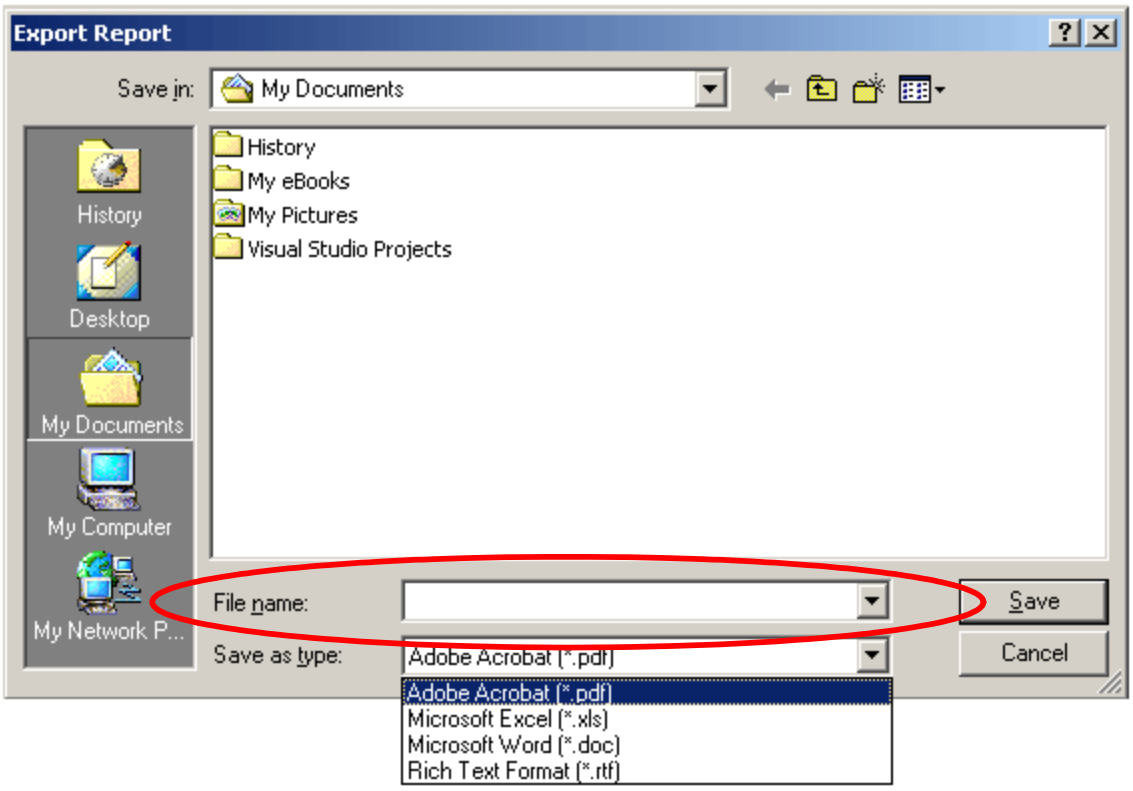
Exporting A Report To A File

To export the current report to a file select the export icon from the tool bar:

Select a format:



Provide a file name:



Then press the ***SAVE*** button.

METRIC CONVERSIONS

Units of Length

Unit	Centimeter	Inch	Foot	Yard	Mile	Meter	Kilometer	Millimeter
1 centimeter	—	0.3937	0.03281	0.01094	6.214×10^{-6}	0.01	—	—
1 inch	2.540	—	0.08333	0.2778	1.578×10^{-5}	0.254	—	25.4
1 foot	30.480	12.0	—	0.3333	1.893×10^{-4}	0.3048	—	—
1 yard	91.44	36.0	3.0	—	5.679×10^{-4}	0.9144	—	—
1 meter	100.0	39.37	3.281	1.094	6.214×10^{-4}	—	—	—
1 mile	1.609×10^{5}	6.336×10^{4}	5.280×10^{3}	1.760×10^{3}	—	1.609×10^{3}	1.609	—
1 mm	—	0.03937	—	—	—	—	—	—
1 kilometer	—	—	—	—	0.621	—	—	—

Temperature Conversions

Unit	° Fahrenheit	° Centigrade
32° Fahrenheit	—	0 (water freezes)
212° Fahrenheit	—	100 (water boils)
-459.6° Fahrenheit	—	273.1 (absolute 0)

Formulas
C = (F - 32) * 0.555
F = (C * 1.8) + 32

Units of Weight

Unit	Gram	Ounce Avoirdupois	Ounce Troy	Pound Avoir.	Pound Troy	Kilogram
1 gram	—	0.03527	0.03215	0.002205	0.002679	0.001
1 oz. avoir.	28.35	—	0.9115	0.0625	0.07595	0.02835
1 oz. troy	31.10	1.097	—	0.06857	0.08333	0.03110
1 lb. avoir.	453.6	16.0	14.58	—	1.215	0.4536
1 lb. Troy	373.2	13.17	12.0	0.8229	—	0.3732
1 kilogram	1.0×10^{3}	35.27	32.15	2.205	2.679	—

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