

## **dcstools Event Log Viewer**

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# dcstools Event Log Viewer

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## **Publisher**

*Rich Habedank*

## **Special thanks to:**

*All those who have offered insights and suggestions for enhancement of this product.*

## **Printed**

*April 2023 in Eden Prairie, MN  
USA*

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**Welcome**

**Part**



The **dcstools Event Log Viewer** is designed to make it easier to review and analyze text files generated by various software programs. These text files, often called "event logs" or "dump files", generally contain information that is useful in determining the cause of problems with an application or in following the sequence of events that led to unexpected behavior in the application.

## Supported Software Event Logs

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- All dcsTools software event logs (\*.txt, \*.dmp)
- Maestro™ dump files (\*.dmp)
- Genesy™ dump files (\*.dmp)
- Selected Wide Orbit Radio Automation event files (\*.log)

Other event files can be loaded, but information may not be broken into the correct columns, owing to different file record structures.

dcstools Event Log Viewer displays the content of event logs (or dump files) with a number of defined columns of information, including the date-time stamp of a log item, the module or other ID of the producer of the item, and the item's message or data content. In addition, columns can be displayed for the hour in which the action occurred, the date, and the file name. The additional column information is often used to group or sort information. You can add notes and bookmarks to a viewed event log, all of which can be saved to a special binary format file.

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## Document Conventions

The following table describes important conventions used in the dcsTools Event Log Viewer documentation

<b><u>Convention</u></b>	<b><u>Description</u></b>
<b>menu   menu command</b>	Describes a menu item followed by a menu command.
<b>[button or mouse]</b>	Text between square brackets refers to a keystroke, i.e. <b>[F10]</b> , button, i.e. <b>[Save]</b> , or mouse click, i.e. <b>[Left-Click]</b> .
	Signifies important information that may have an impact on operation of the software.
	Signifies an informational note on using the software more efficiently or things that may affect operation of the software.
	Signifies a hint that may be useful when using or setting up the software.

## 1.1 Key Features

dcTools Event Log Viewer offers a number of features that make working with event logs, or "dump files" easier and more productive.

- **Multiple file format support.** All dcsTools software event logs, most Maestro™ and Genesys™ dump files, and selected Wide Orbit Automation event files are supported.
- **Multiple file viewing support.** View several event logs, each in its own view window, or load multiple event logs into a single view window.
- **Grouping of data.** Group viewed information by date, hour, module or ID, and file name (if multiple files loaded). Grouping can be nested - i.e. group by date and, within each date, group by hour.
- **Sorting.** Sort columns ascending or descending with multiple column sorting supported.
- **Filtering.** Only looking for information that contains certain key text? User-defined filters can be used, including wildcard support. Filters can be saved for later use.
- **Searching.** Search for user-defined text in a selectable column of information. Up to 15 search strings are remembered and can be selected the next time you search for text. The entire search text list can be saved to disk and later re-loaded.
- **Bookmarks.** Up to 10 bookmarks can be assigned for each viewer and are persistent across sessions if the event viewer contents are saved and later re-opened.
- **User Notes.** A free-form note can be attached to each event item in the viewer. Notes are restored if the event viewer contents are saved and later re-opened.
- **Saved Viewer Sessions.** Content displayed in a viewer can be saved to file. When a session is saved, all event items, associated user notes and bookmarks are stored to file and restored the next time the saved session is opened.
- **User-customizable appearance.** Column widths, position, and grouping are automatically saved and restored each time the application is used. You can also save and load custom column settings on-demand.

## 1.2 What's New in dcsTools Event Log Viewer

This section documents changes and enhancements to dcsTools Event Log Viewer by version number and date. For information on less-recent changes and enhancements, see the [Revision History](#) topic.

### Version 2.7.0.130 -04/05/2023

1. **IMPORTANT COMING CHANGE.** This the last version of dcsTools Event Log Viewer that will support Windows 2000. Future revisions will no longer support Windows 2000.
2. **Enhancement.** Support for Windows 11 has been added.

### Version 2.6.0.125 - 05/05/2020

1. **Enhancement (Windows XP & above only).** When viewing multiple event logs, dcsTools Event Log Viewer now uses a tabbed interface as a default for each loaded event log. This simplifies switching among event logs. If you prefer the original legacy method, you can turn off this feature using the **View | Tabbed Windows** main menu item.
2. **Change.** Previously, the event log window caption and main window caption contained the fully-qualified path and file name of the current event log. This behavior has been changed to display a shortened display using an ellipsis (...) to indicate the full file name display has been shortened. This makes it easier to display multiple event log window tabs without having to use the tabbed interface scroll buttons.
3. **Change.** Support for operating systems released prior to Windows 2000 has been dropped. In order to use dcsTools Event Log Viewer, the host operating system must be Windows 2000 or later.
4. **Fix.** When closing dcsTools Event Log Viewer with multiple event logs open and at least one had been modified with either bookmarks or notes, dcsTools Event Log Viewer would prompt you to save the edited event log twice for each modified event log. dcsTools Event Log Viewer now correctly only prompts the user one time for each modified event log.
5. **Fix.** Occasionally, dcsTools Event Log Viewer would incorrectly save the state of the event log child window when closing. dcsTools Event Log Viewer now saves the state of only the active child window when closing.
6. **Fix.** A manually-created event log item (created using the **[Insert]** key) was not properly saved when user saved the modified event log containing books marks and notes. Now, when an event log record is manually created, fields are populated so as to keep this "marker record" adjacent to the records immediately following it, based on date & time. The event message is "**User-Inserted**" and the notes field is initialized.
7. **Fix.** If a user attempted to create or edit a note for an event log item that had been created manually by using the **[Insert]** key, an AV would occur.

## 1.3 License Agreement

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# System Requirements & Installation

**Part**



dcstools Event Log Viewer requires certain hardware and Windows operating system minimums. You must also install the dcsTools Event Log Viewer software on the PC using an installation program.

This section documents the system requirements for dcsTools Event Log Viewer and covers the process of installing, updating and removing the dcsTools Event Log Viewer software.

## 2.1 Hardware Requirements

The base hardware and operating system requirements to run dcsTools Event Log Viewer include:

<b>Operating System</b>	Windows 2000 or later.
<b>CPU Speed</b>	1 GHz or greater.
<b>RAM Memory</b>	64MB RAM (Windows 200), 128 MB RAM (Windows XP), 2 GB RAM (Windows Vista and later).
<b>Display</b>	A minimum of 800 x 600 resolution, 1024 x 768 or greater is highly recommended.
<b>Hard Disk Space</b>	~15 MB free disk space (for this application only).
<b>Network Connection</b>	If files are to be viewed or edited either on another PC, a working network connection to that PC is required.

## 2.2 Installation & Updating

The installation program provides step-by-step instructions on every screen displayed during the installation. Follow the instructions on each screen to install this software.

### Before you install

1. Close all other programs, including any anti-virus programs.
2. Log on to your computer with administrator privileges.



You must have administrator privileges to perform an installation or a software update on any of the supported Windows operating systems.

### To install dcsTools Event Log Viewer

dcstools Event Log Viewer is distributed as a download-able installation program. The latest version of the software is always available on our [web site](#).

1. After you have downloaded the installation program to your computer, locate the setup program in the folder to which you downloaded the file. If you downloaded the dcsTools Utilities package, the file name will be **dcsToolsUtilsSetup.exe**. Double-click on the setup program to begin installation.
2. Follow the instructions on each screen to install the software.

## Updating dcsTools Event Log Viewer

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1. If you have downloaded or otherwise received a revision, the process for updating the software is virtually identical to the initial installation. Make sure that the update is installed in the original installation folder, which is the default.
2. On occasion, updating dcsTools Event Log Viewer may require some additional tasks be performed during the update. Such tasks might include validating and/or updating your registration and making adjustments to your preferences settings. If these tasks are needed, you will be prompted for any input required and notified if the update task could not be completed successfully.



You must have administrator privileges to perform an installation or a software update on any of the supported Windows operating systems.

## To Uninstall dcsTools Event Log Viewer

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To remove this software from your PC, select the Control Panel applet Add/Remove Programs. Select **dcsTools Utilities** and click on the **[Remove]** button. Follow the prompts to uninstall the software.

# Using dcsTools Event Log Viewer

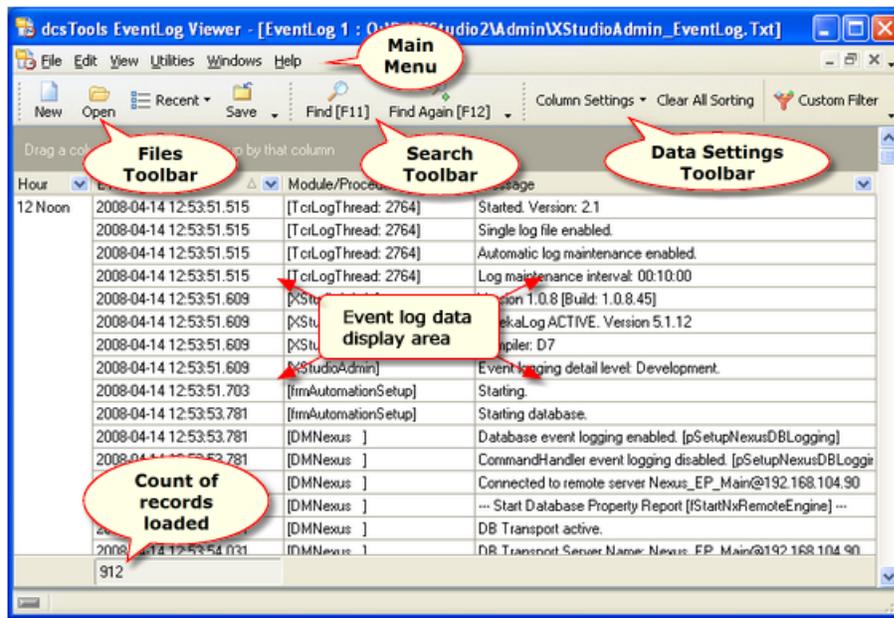
## Part



This section covers day-to-day usage of dcsTools Event Log Viewer. Topics covered show you how to open one or more event logs, how to [search](#) for specific content in an event log, [filtering](#) the information to display just that which interests you, [grouping](#) like information, using [bookmarks](#), [adding notes](#), and [saving marked-up event logs](#) to a custom event log file.

## The dcsTools Event Log Viewer User Interface

The main display consists of the main menu, tool bars for common tasks and the data display table. The tool bars can be moved around on the display and even floated off the display, if desired.

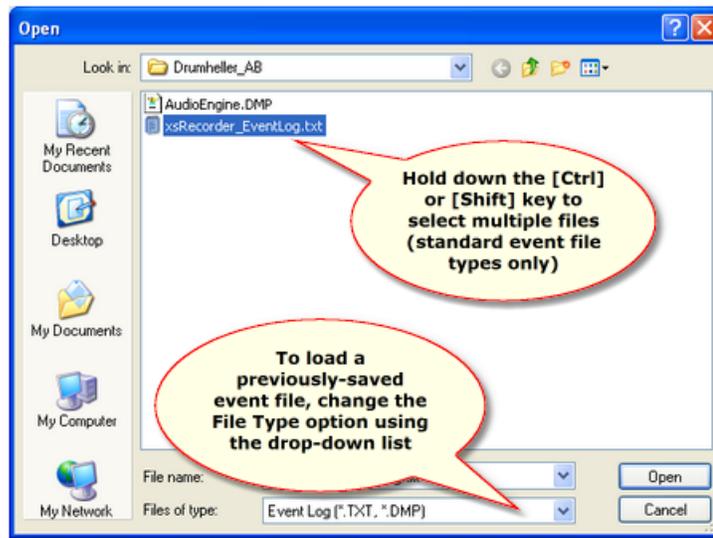


*dcsTools Event Log Viewer Main Display*

## Opening an Event Log for Viewing

To open and review an event log, launch dcsTools Event Log Viewer, either from a desktop shortcut or from the Programs menu. There is nothing to configure to get started.

Select the main menu item **File | New** or the [**New**] toolbar button and select a file in the Open File dialog. As a default, standard event file types are displayed. To open a previously-saved [binary event file](#), change the **Files of Type** option to select the **Saved Event Log** type.



*Open File Dialog*

When file selection is complete, click on the **[Open]** button to load the file in a viewer. When loading is complete an entry is added to the file toolbar's **[Recent]** files button for quick access to the file if you wish to load it again at a later time.

### **Hint**

You can open multiple standard event log files in a single viewer window, in effect merging one or more event files together for display. To open more than one event file in a single viewer, hold down the **[Shift]** or **[Ctrl]** key when selecting files in the Open File dialog. When more than one file is selected, they are loaded in the order of selection.

Opening multiple source event logs is applicable for original text event files only. Binary event files saved within dcsTools Event Log Viewer cannot be mixed or merged.

## Navigating the Data

You can use standard navigation methods to look through the information, including standard scrolling with a mouse (horizontal and vertical), mouse wheel scrolling (if your PC is so-equipped) and with the keyboard. For additional information on keyboard shortcuts, see the topic [Keyboard Shortcuts](#) in the reference section.

### Keyboard Navigation Keys

Keystrokes that can be used to navigate the displayed data:

#### **Key Combination**

#### **Effect**

**[PgUp]**, **[PgDn]**

Move up or down 1 page of displayed information.

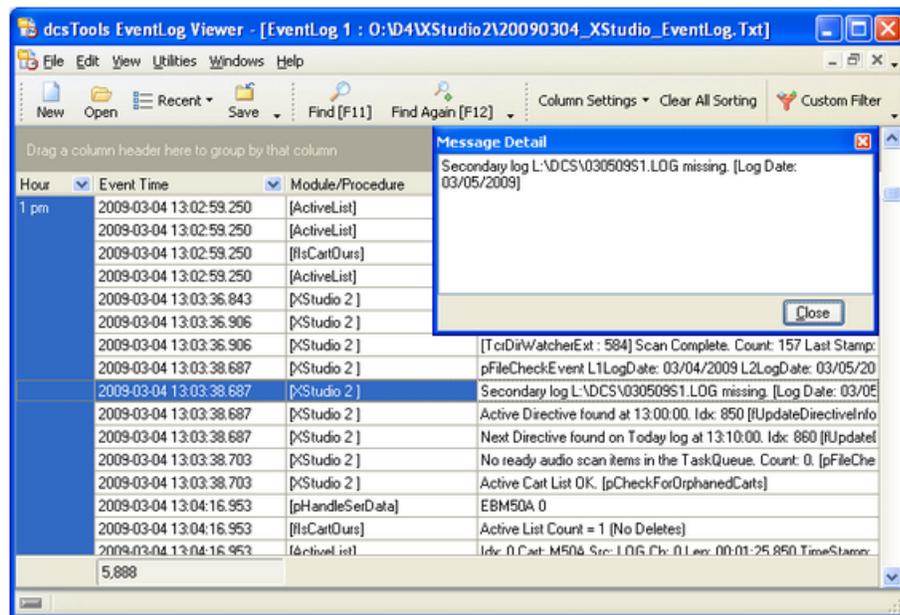
[**UpArrow**], [**DnArrow**] Move up or down 1 line.

[**Ctrl-Home**] Move to the beginning of the data (first record).

[**Ctrl-End**] Move to the end of the data (last record).

## Expanding Message Detail

Sometimes, the information contained in the Message column is too wide to be completely displayed. To see the entire contents, you can float your mouse over the item and a "hint" will display all the text. More conveniently, use the keyboard shortcut [**F2**] or the mouse to [**Double-Click**] anywhere on the item except the **Notes** column (if displayed) and the Message Detail window pops up.



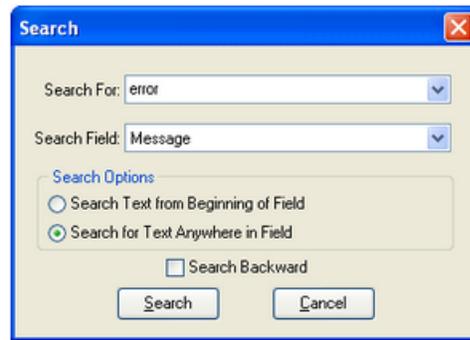
*View Message Detail*

This window can be resized and re-positioned as desired - the size and position is remembered and restored the next time you use it.

Many times you are looking for a specific bit of information or perhaps a certain type of information. In order to make the task a bit easier, functionality to search for specific information, filter data, sort data, group data, and bookmark items is included in dcsTools Event Log Viewer. If you are working with an event log for troubleshooting purposes, you can add your own notes to log items and save them along with any bookmarks so that you can pick up where you left off in a later review session.

### 3.1 Searching the Data

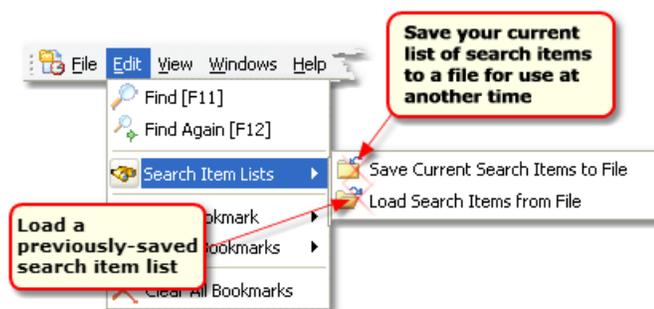
To find a particular fragment of text in the data, click on the **[Find]** button or press the **[F11]** key. A dialog is displayed, providing the means to enter the text you wish to locate, the column in which you wish to search, and the option to search just from the beginning of the column data or to find the text fragment you've entered anywhere in the column data. You can search forward or backward through the displayed data.



*Search Dialog*

Once you have entered the information, click on the **[Search]** button. If an item is found, it is selected and positioned in the view. If the item is not found, a message pops up informing you of this. To look for the next instance of the text you entered, press the **[F12]** key or click on the **[Find Again]** button.

The last 15 search items you have entered are remembered and available for selection in a drop-down box in the search text field. Additionally, you can save the list to a separate file for later use. This is particularly helpful if you analyze several different kinds of files and commonly look for certain text in each.



To save the search list, select the menu item **Edit | Search Items | Save Current Search Items to File**. To restore a previously-saved list of search items, select the menu item **Edit | Search Items | Load Search Items from File**.



### Additional Information on Search Item Files

Search lists are saved in files with a default extension of **".STO"**. The file is a text file with each search item on a separate line, similar to this example:

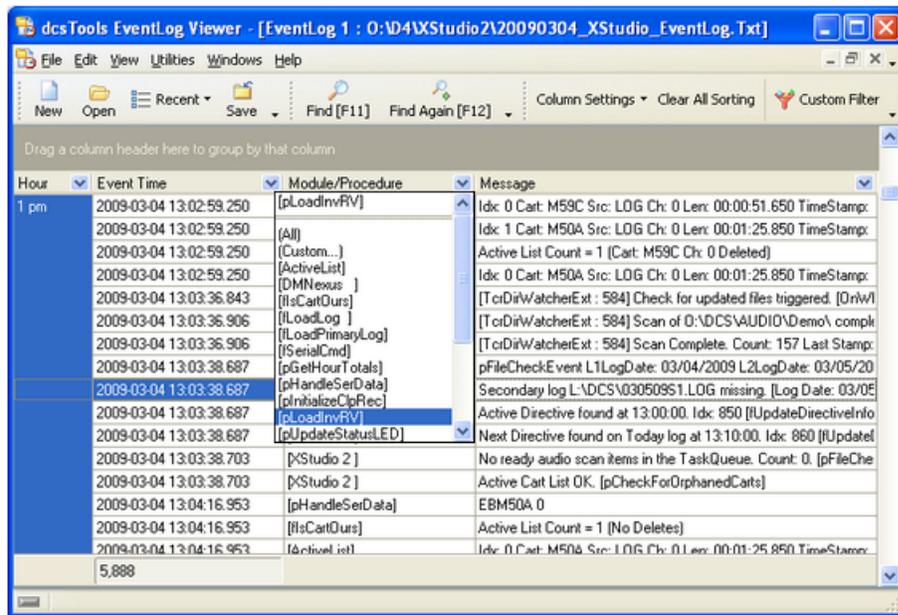
```
relaystop
connection
error
```

Each file can contain up to 15 lines of search criteria. You can manually create lists, if desired, using Notepad or other similar text editor.

## 3.2 Filtering Data

Filtering of data is a sophisticated way of reducing the number of records you see without affecting the original data file. For instance, it might be useful to look at data that only occurs in a certain hour, or certain module. Using filters, you can eliminate having to look through event records you are not interested in.

The simplest filter usage is to click on the down-arrow icon located in the column heading. A drop-down list is presented and you can just select a pre-defined item to filter for. Depending on the host operating system, a checkbox adjacent to the list items may be available, which allows you to select multiple items. The result is only items that match the "filter expression" are displayed.



Column Filter Drop-Down List

More complex filters can include multiple values, multiple columns and wildcards. To create a filter of more complexity, click on the [**Custom Filter**] button on the toolbar. A dialog is displayed that allows you to create the filter criteria.



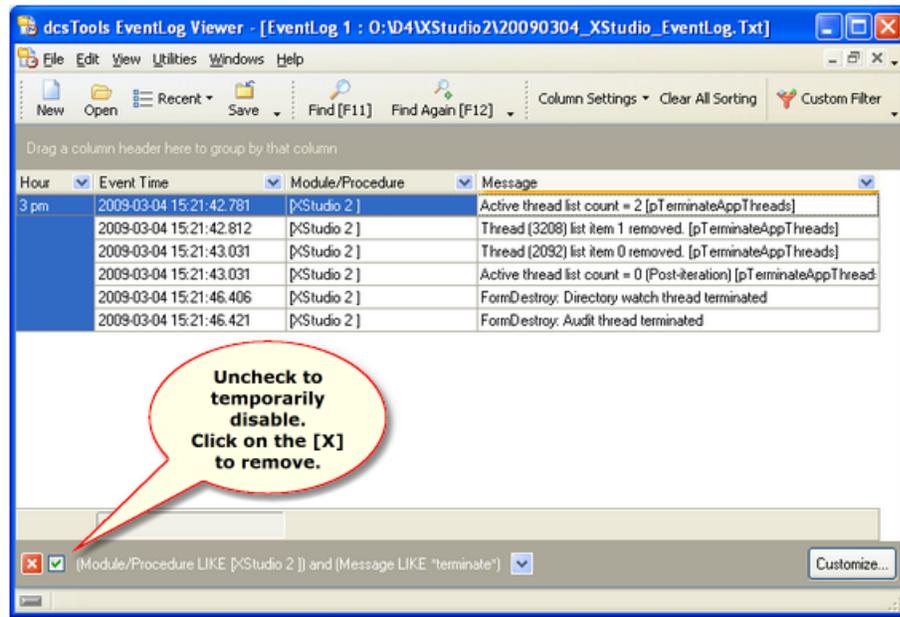
*Custom Filter Builder*

In this example, we want to display records that meet only the following criteria:

1. The Module/Procedure column contents must be similar to "[XStudio 2]".
2. The contents of the Message column must have the word "**terminate**" somewhere in the text.

Note the use of a wildcard on either end of the word "terminate". The asterisk (\*) means "any combination of characters". A second wildcard available is the question mark (?), which means "any single character". Using wildcards, you can construct some fairly complex filters.

The dialog also has buttons for saving a particular filter and opening (loading) a previously-saved filter. This is handy if you create a rather large set of filter criteria and wish to use it again in the future. Once a filter has been applied, you see the results in the view window, as shown.

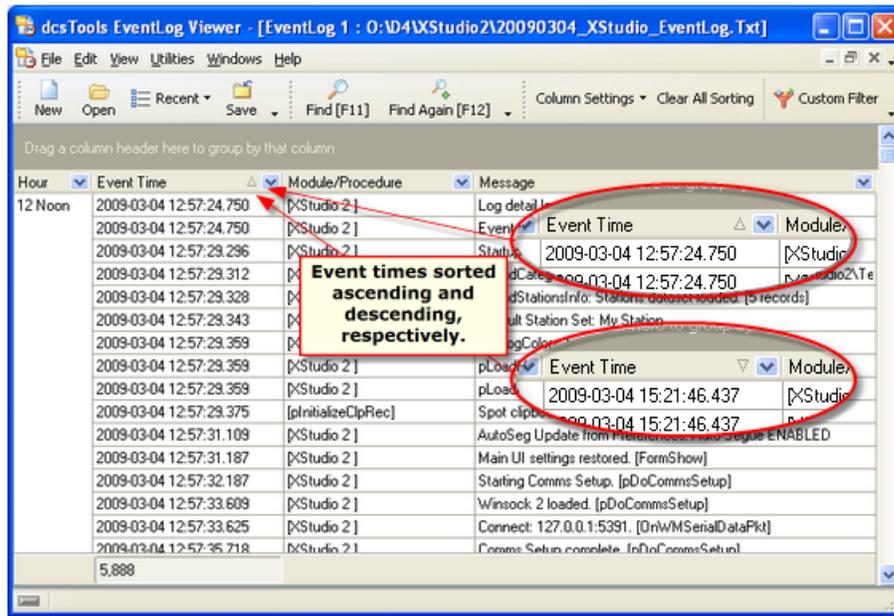


*Active Filter Panel*

You can temporarily disable the filter by clicking on the check box at the bottom of view (uncheck the item). To remove a filter, completely, click on the [X] adjacent to the filter description (at the bottom of the view).

### 3.3 Sorting Data

Data can be sorting in ascending or descending order for each column. Click on the column's text header to sort. On the first click, sorting is in ascending order; clicking a second time sorts the column in descending order.



Sorting Data

You can sort multiple columns, too. Click on a column to sort it, then hold down the **[Shift]** key and click on another column's text heading - the data will now be sorted on both columns. To remove column sorting on a single column, hold down the **[Ctrl]** key and click on the column's text header. To remove all sorting from all columns, returning the data to its native order, click on the toolbar button **[Clear All Sorting]**.



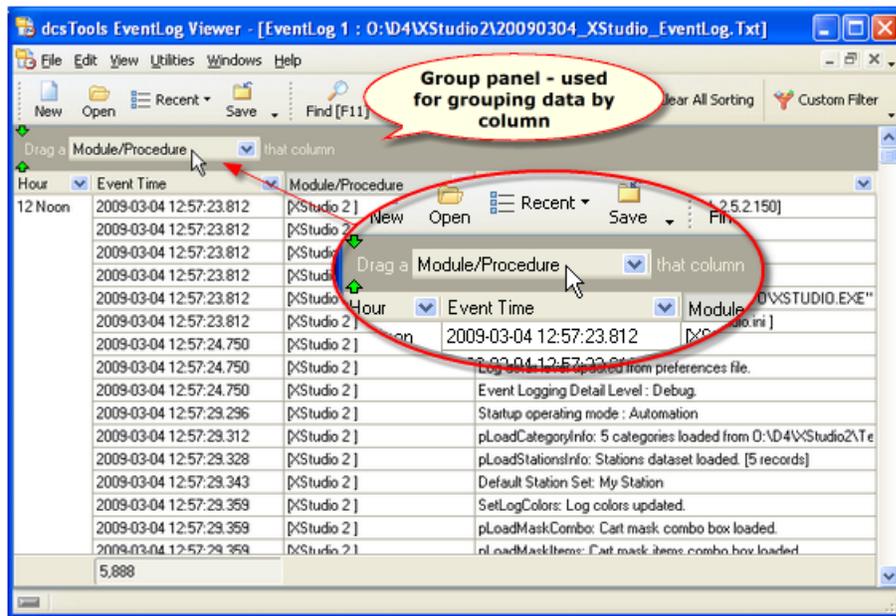
Clear Data Sorting

### 3.4 Grouping Data

You can group data based on the contents of a column using the mouse to **[Left-Click]** and holding the mouse button down on a column heading, dragging it to the group panel above the data display and releasing the mouse button.

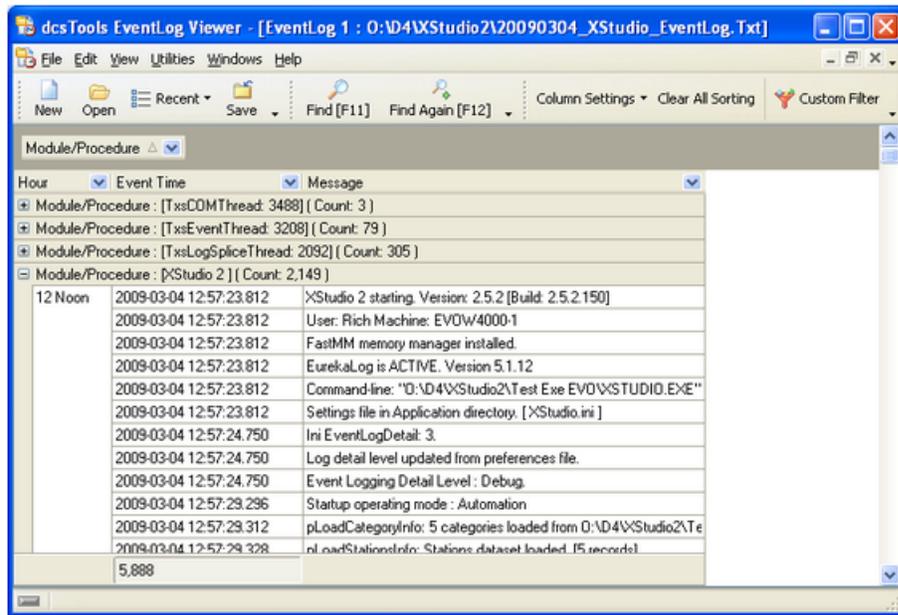


Grouping with the **Message, Notes, Bookmarks, and Record ID** columns is not allowed. These columns will generally have unique information for each record (event item) and grouping using one of these columns would produce the same number of groups as there are records. For additional information on data associated with each displayed column, see the [Data Column Reference](#) topic.



*Grouping Event Data*

In the example shown here, the grouping was done on the "Module/Procedure" column. The group for "XStudio 2" was expanded to review just those items.



*Event Data Grouped by Module/Procedure*

You can group multiple columns, too. For instance, if a file you are viewing contains entries for multiple dates, you could group initially by Date (a normally-hidden column), then by the Module/Procedure column used in this example. For more information on displaying or hiding columns, see the topic on [Adding, Removing Display Columns](#).

## Removing Data Grouping

To remove a grouping column, select the column you wish to remove in the group panel, hold the left mouse button down, drag the column out of the group panel and drop the column. You can also use the mouse to **[Right-Click]** on the heading of the column you wish to remove and select **"Remove from Grouping"** on the pop-up menu.

## 3.5 Bookmarking Data

Bookmarks are a useful tool for saving a position in an event log and quickly returning to it after moving elsewhere in the file. dcsTools Event Log Viewer provides up to 10 markers for each view window that you have open. Bookmarks can be saved and restored across event log review sessions by saving the event log to a file. Bookmarks can be set or accessed using keyboard shortcuts, main menu items and viewer pop-up menu items.

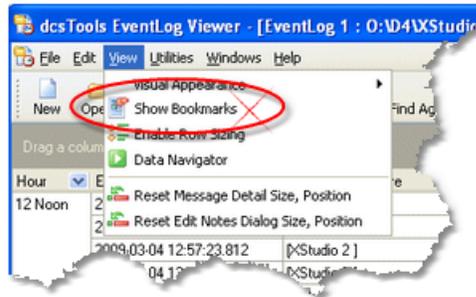
### *Productivity Tip*

To Set a Bookmark: **[Ctrl-Shift] + 0 to 9**

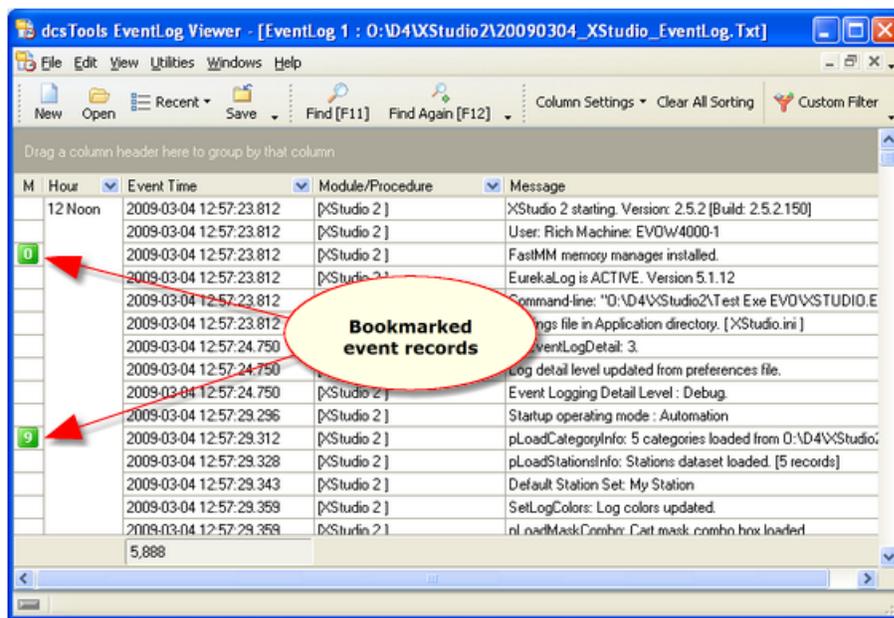
To Jump to a Bookmark: **[Ctrl] + 0 to 9**

## Displaying Bookmarks in the Viewer

As a default, **bookmarks are always enabled and active** but not visible in the viewer display. To display bookmarks, select the main menu item **View | Show Bookmarks**. You can also use the pop-up viewer menu or [Field Chooser](#) to display or hide the bookmarks column.



When enabled, a new display column appears in the viewer window. It contains a graphical representation of a bookmark for each data record that is marked.



*Bookmarks displayed in the Event Viewer*

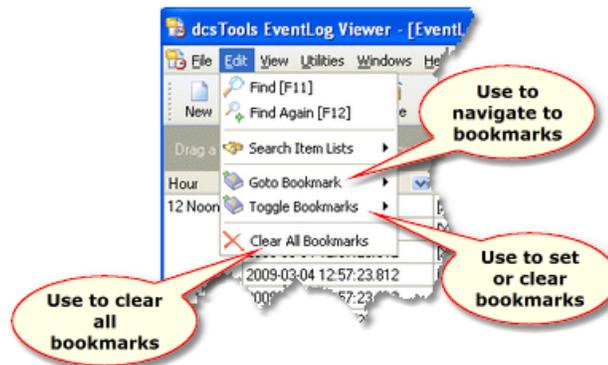
## Setting Bookmarks

The quickest way to set a bookmark is to use the keyboard. Select an event item (record) in the viewer and use the key combination [**Ctrl-Shift-X**], where **X** is a number 0 (zero) through 9. This key combination immediately assigns the selected bookmark number to the record. If the bookmarks column is displayed in the viewer, you'll see a bookmark graphic appear immediately.

If the bookmark number you selected was originally assigned to another event item, it is cleared from that item and assigned to the new item, in effect "moving" the bookmark from the original record to the selected record.

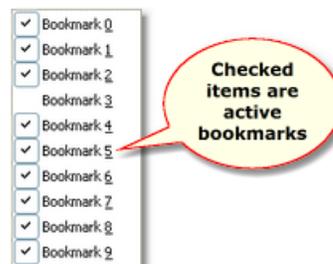
If the bookmark number you selected was assigned to the current record, then the bookmark is cleared (toggled off) and becomes available to use for another record.

You can use menus to toggle bookmarks on and off, too. The main menu and the viewer pop-up menu have items for toggling bookmarks. Using the main menu, select the **Edit** item, which displays options that include bookmark management.



*Bookmark menu options*

When using the **Toggle Bookmarks** menu option, another menu folds out and displays the current state of each bookmark. If you select one of the bookmarks, its state is "toggled". If the bookmark was active, it is cleared; if not active, the currently-selected event item is bookmarked.



*Bookmarks fold-out menu*



The behavior of menu items when setting and clearing bookmarks is slightly different from the keyboard method. Menu items toggle a selected bookmark on or off regardless of the selected event record. Using the keyboard, whether a bookmark is "moved" or toggled off depends on the selected event record, as described earlier.

## Navigating Using Bookmarks

When an event item (record) has been bookmarked, it's easy to quickly return to that item using the keyboard, the main menu or the viewer's pop-up menu.

To go to a bookmarked item using the keyboard, use the key combination [**Ctrl-X**], where **X** is a number 0 (zero) through 9. If the selected bookmark is assigned, the item is immediately brought into focus. If the bookmark is not assigned, nothing happens.

To use the main menu, select the menu item **Edit | Goto Bookmark**, which displays a fold-out menu showing available bookmarks and whether or not they are assigned.



*Bookmarks fold-out menu*

Selected a checked (active bookmark) item immediately brings the item into focus in the viewer. If an inactive bookmark is selected, nothing happens.



If filtering of the event data is active and a bookmark is assigned to an item that is no longer visible because it has been filtered out of the display, the item cannot be focused in the viewer. To focus the bookmarked item, temporarily remove the filter by toggling the check mark off in the filter status panel. See the topic on [Filtering Data](#) for more information on temporarily disabling filters.

### 3.6 Adding Notes

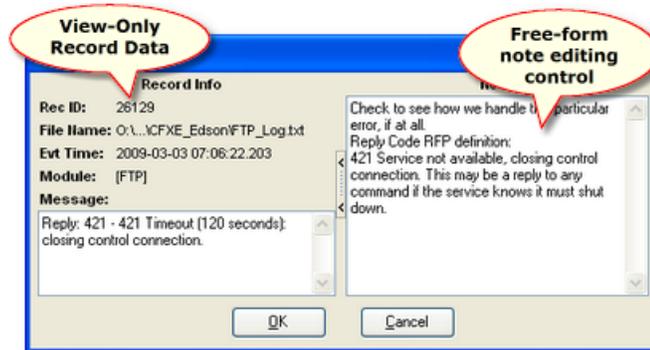
When analyzing event log data, it's sometimes useful to make notes that are associated with an event item. Beginning with version 2 of dcsTools Event Log Viewer, you can add a free-form text note to each of the event items (records) displayed in the viewer.



As a default, the data column that displays user-entered notes is hidden in the viewer. To make it visible, use the [Field Chooser](#) and drag the field name **Notes** onto the table display.

#### Adding or Editing Notes

To add or edit a note associated with an event log item, select the item and use either the [F3] keyboard shortcut or use the mouse to [Double-Click] on the **Notes** cell (if displayed). A note editing dialog is displayed, similar to the example shown here.



*User Notes Edit Dialog*

The left side of the note editing dialog contains the event item information, the right side is for adding your notes. There is no imposed limit of how much text you can enter in the notes area.

You can re-size the note editing area with the size control located adjacent to the edit area. If desired, the entire left side - the event item information - can be hidden using the size control. The display window overall size can be changed, too, if you'd like more editing area to work in.

When you have entered some text in the notes area, click on the [OK] button to keep the notes associated with the event record or use the [Cancel] button to discard any text edits or additions that were made.

When the note editing dialog is closed, its size and location are remembered and restored the next time it is opened.

When you've added or edited a note, an LED indicator on the main window's status bar changes color to advise you that the event log you're reviewing has some new or edited

content. When closing a viewer and notes have been added or edited, you will be prompted and offered the opportunity to save the event file, which stores all of your notes and bookmarks along with the original event log data.

## Displaying Notes in the Viewer

---

As a default, the Notes column is not displayed in the viewer window. To make it visible, follow the instructions in the topic on customizing the display that covers using the [Field Chooser](#) control. Once displayed, the **Notes** column is like any other - it can be moved around and re-sized to suit your needs and its size and position are remembered the next time you use dcsTools Event Log Viewer.

As with other information in the viewer, if all of the notes you entered cannot be displayed within the column's width, floating your mouse over the note will display a hint showing the text. A more convenient way to review your notes, especially if it's a large note, is to use the **[F3]** key to pop up the note editing dialog.

## I know I made some notes, but I can't find them...

---

When analyzing a large event file, it can get a bit tricky to locate event items you've entered notes for and not bookmarked or simply run out of bookmarks to use.

A handy trick for locating your notes is to use a [data filter](#) that shows only event items that have notes associated with them. Unlike most filters you might create where you're looking for certain kinds of information in a column or group of columns, creating a filter to display only records with notes associated is most easily achieved by excluding items that have no note information, leaving just those that do. A pre-made filter is included as a part of the installation of dcsTools Event Log Viewer that can be used for this purpose. Display the custom filter dialog and use the **[Open]** button to load the filter, which is named ***Filter\_Notes\_Only.flt***.

## 3.7 Saving Edited Event Files

Beginning with version 2 of dcsTools Event Log Viewer, the ability to save viewed event logs to a special binary format has been added. This feature might be used for a number of reasons:

- You loaded multiple event logs into a single viewer, in effect merging them, and don't want to have to go back and remember which ones you merged together the next time you want to review the data.
- You have bookmarked event records and want to keep them for the a future analysis of the event data.
- You have added notes to a number of event records and want to be able to go back at a later date and review the event data and associated notes.

You can save the event viewer contents to file at any time by using the **[Save]** button located on the files toolbar or the main menu item **File | Save**. You are prompted for a filename and as a default, dcsTools Event Log Viewer will assign a special file extension to differentiate between standard event log files and the special binary file format dcsTools Event Log Viewer uses when saving an event file.



When you save event data, ***all event data*** is saved, including items that are are not visible as a result of filtering or hiding a data display column.

Event files that are saved using dcsTools Event Log Viewer contain the following information:

1. All of the originally-loaded event data. If you loaded multiple event logs into a single viewer, the data from all source event logs is saved to a single file.
2. All user-entered notes are saved.
3. The state of all bookmarks is saved.



Event data files saved in the dcsTools Event Log Viewer binary format are compressed and may be smaller than the original event log text files.

When you open this file at a later time, the data and notes are reloaded and the bookmarks set to just the way they were when you saved the file.

# Reference

**Part**



This section contains more detailed background information on a number of key subjects that will help you to gain a better understanding of how dcsTools Event Log Viewer works.

Studying these sections is not absolutely essential but it will make it much easier for you to use dcsTools Event Log Viewer more efficiently and effectively.

## 4.1 Customizing the Display

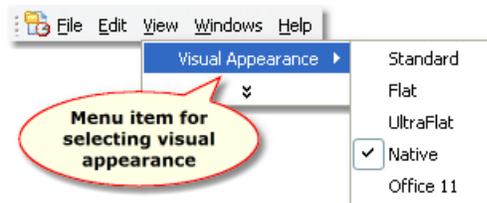
There are several things you can do to customize the size and appearance of the program. In most cases, your customizations will automatically be saved and used again the next time you use the program. Some customization elements can be saved separately on-demand and then re-used on-demand.

### Application Size & Position

When you exit the program, its current size, position on your screen, and monitor number (for multi-monitor systems) is automatically saved. The next time you use the program, these settings are restored.

### Visual Appearance

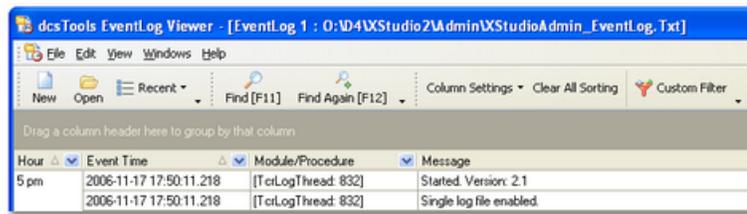
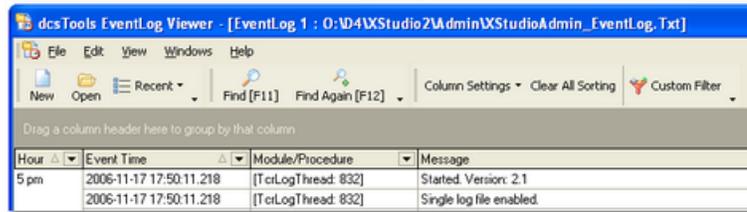
You can change the overall "look and feel" of the program by selecting one of the available styles from the main menu's **View | Visual Appearance** menu item.



The style you select will be saved and applied the next time you use the program. Here are examples of some available styles:

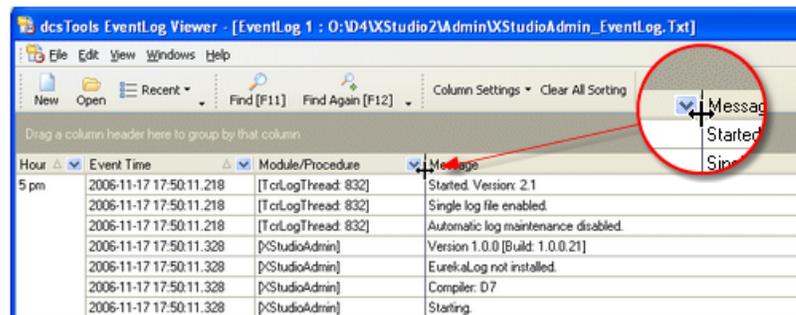


*Office 11 Style*

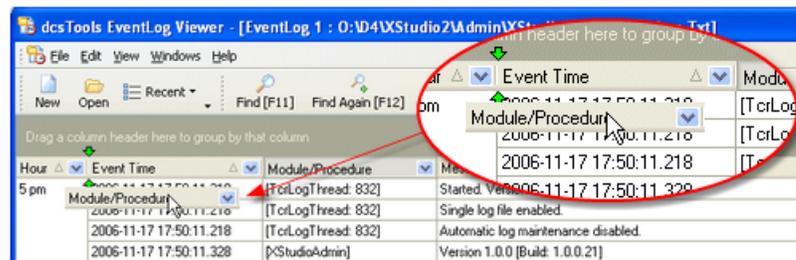
*Native Style**Ultra Flat Style*

## Column Size and Position

You can resize each column to suit your preference by floating the mouse over the end of the column header text until the mouse cursor changes to a sizer - this occurs when the mouse pointer is positioned over the column heading separator. [**Left-Click**] and hold the mouse button down while moving the mouse left or right to narrow or widen the column.

*Changing column width*

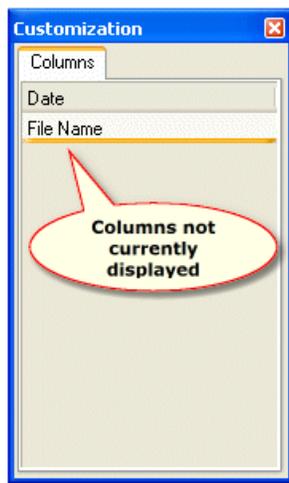
You can move a column from one place to another - click and hold the left mouse button down on a column header, then drag it to its new position. Markers appear as you drag the column, indicating where it will be placed.

*Moving a column*

Column size and position is automatically saved and restored from one session to the next. You can also save and restore column settings on-demand - click on the toolbar button [**Column Settings**] for a menu of available options.

## Adding, Removing Display Columns

As a default, there are several columns of information presented, along with some other columns that are hidden. Hidden columns can be made visible, if desired, with a [**Right-Click**] on the data display and selecting the menu item "**Field Chooser**".



*Column customization dialog*

The customization window displays a list of columns that are not currently used. You can drag a column from the list onto the view header area to add it to the displayed information. Conversely, drag a column header from the view into the customization window to remove it from view. Column positions, along with their size, are automatically saved when you exit dcsTools Event Log Viewer and restored when you start the program again.

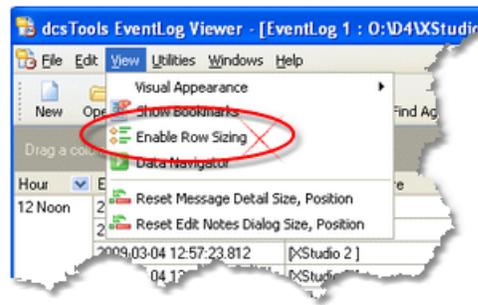


You can save and restore sets of column settings, which includes visible columns, their position and size, on-demand, using the data display settings toolbar. See the topic [Save/Restore Column Settings](#) for more information on this feature.

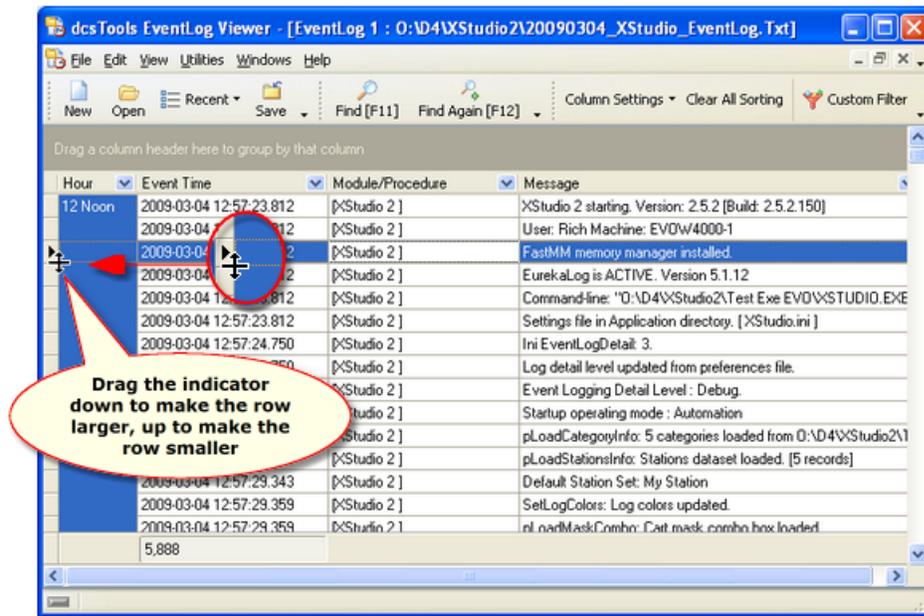
## Row Sizing

The vertical size of each event log item (record) can optionally be increased. This is useful if the Message or Notes fields contain more text than can be completely displayed within their current width and you don't want to use the display and edit dialogs for this purpose.

To enable row sizing, select the main menu item **View | Enable Row Sizing** as shown.



When row sizing is enabled, an indicator column appears at the left side of the viewer window. To make rows larger, drag the bottom edge of an indicator item, as shown.



### Changing Row Size

To restore rows to their normal vertical size, use the main menu item **View | Enable Row Sizing** again to toggle the feature off. The indicator column will disappear and the rows will be restored to their normal size.



The vertical size of rows is not persistent across sessions. If you close a viewer and open another event file, the vertical size of the rows returns to the default. If you open another file within the current viewer, though, the row size is maintained.

The row sizing state - enabled or disabled - is remembered by dcsTools Event Log Viewer and restored the next time you use the program.

## 4.2 Data Column Reference

dcTools Event Log Viewer organizes event logs that you open in rows and columns. Rows represent each event log item (record) and columns represent a portion of the log item, also referred to as a data field. Some of the columns are taken directly from the source event log file, others are calculated based on the item (record) content.

When dcsTools Event Log Viewer is initially launched, only a subset of the available data columns is displayed. Displayed columns are just those taken directly from the source event log file plus an "**Hour**" column that shows the hour in which a given event item occurred.

Columns not initially displayed can be added to the display at any time. Instructions for adding and removing columns from the display are contained in the [Customizing the Display](#) topic.



Whether or not a column of information is displayed, the data is available and can be used for searching, filtering and other tasks.

The table below documents all available data columns, their default visibility and purpose.

ID	Name	Def	Purpose
0	File Name		The name of the source file from which the event record was loaded. This is useful when loading multiple event logs into a single view.
1	Date		The date of the event record. The value is derived from the event time column. The value is useful for grouping or filtering if an event log contains information from more than one day.
2	Hour	✓	The hour value of the event record's time stamp. The value is derived from the event time column.
3	Event Time	✓	The date and time stamp for the event record. The value is generally representative of when the event occurred.
4	Module/Procedure	✓	The name of the module or procedure that generated the event record, if applicable.
5	Message	✓	The "meat" of the event record. Contains the information about the error, action taken, or status of the application or subsystem that generated the event item.

<b>ID</b>	<b>Name</b>	<b>Def</b>	<b>Purpose</b>
6	Record ID		A number value automatically generated when an event log file is loaded from disk. The value is unique to the record in a given events view. The first event record loaded from the file has an ID value of 1 (one) and each subsequently loaded record increments by 1 (one). The ID value is used by the bookmark system. When an event log is saved by dcsTools Event Log Viewer, the ID is stored to the file and is not regenerated when the saved event log is re-opened.
7	Notes		User-entered notes about a particular event record. Free-form text can be entered by the user with no predetermined maximum amount of text. When an event log is saved to file, contents of this field are stored with the original event record and restored when the saved event log is re-opened.
8	Type		The event record type. This field is not used in most event log files.
9	M (Bookmark)		A display-only column that shows an event record bookmark number, if assigned by the user. Bookmark information is retained when an event log is saved to file and later re-opened.

Data columns are not restricted to any particular order in the display and can be moved around to suit specific needs or preferences. Instructions for moving and re-sizing displayed columns are contained in the [Customizing the Display](#) topic.

## 4.3 Keyboard Shortcuts

A number of keyboard shortcuts are available when viewing an event log in dcsTools Event Log Viewer. The table below documents available shortcuts and their usage.

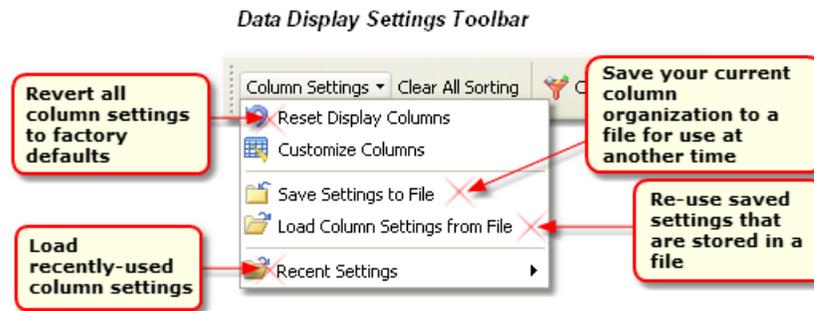
<b><u>Shortcut</u></b>	<b><u>Action</u></b>
[F1]	Displays application help for dcsTools Event Log Viewer.
[F2]	If an event record is selected, displays a pop-up window containing the Message column contents.
[F3]	If an event record is selected, displays a pop-up edit window for entering notes associated with the event record. Key information about the record is also displayed for reference.
[F5]	If the event view contains a single event file not previously saved, the entire event file is re-loaded (refreshed) from disk. Existing bookmarks are retained.
[F11]	Search key. Displays the search dialog.
[F12]	Search Again key. Repeats the last search, locating the next record with matching data.
[Ctrl-0] ...through... [Ctrl-9]	Jumps to the event record with the associated bookmark number, if assigned. If the selected bookmark is not assigned, the action has no effect.
[Ctrl-Shift-0] ...through... [Ctrl-Shift-9]	Sets a bookmark on a selected event record. If the selected event record is already assigned the same bookmark number, the bookmark is toggled off; otherwise, the numbered bookmark is assigned to the record, which may have the effect of "moving" the numbered bookmark from one record to another. See the topic on <a href="#">Setting Bookmark 0</a> for additional information if the host operating system is Windows Vista or Windows 7.
[PgUp], [PgDn]	Move up or down 1 page of displayed information.
[UpArrow], [DnArrow]	Move up or down 1 line.
[Ctrl-Home]	Move to the beginning of the data (first record).
[Ctrl-End]	Move to the end of the data (last record).
<b><u>Mouse Actions</u></b>	

**Shortcut****Action****[Right-Click]**

Displays the viewer pop-up menu or display table utility menu, depending on the mouse position.

## 4.4 Save/Restore Column Settings

You can save and restore sets of column settings on-demand using the data display settings toolbar. Click on the toolbar button [**Column Settings**] to display a menu of choices for saving settings, restoring settings and re-using recently saved settings. Saved settings include visible columns, their position and size.



Use the menu item **Save Settings to File** to save your current column organization for use at another time. When you want to use the saved settings, use the menu item **Load Column Settings from File**. Recently-used column settings are listed under the **Recent Settings** menu item.

When loading or saving column settings, a dialog is shown, allowing you to choose the name of the file you wish to save or restore. The default file extension for these settings files is: **GSF** (**Grid Settings File**).

Some sample grid settings files are included in the dcsTools Event Log Viewer and are located in the application folder. To try the samples, use the **Load Column Settings from File** menu item shown above.



As dcsTools Event Log Viewer evolves, columns are sometimes added to the layout. You may find that loading old settings files display data in unexpected columns. To correct this, remove the offending column and add the new correct column.

## 4.5 Using Data Navigators

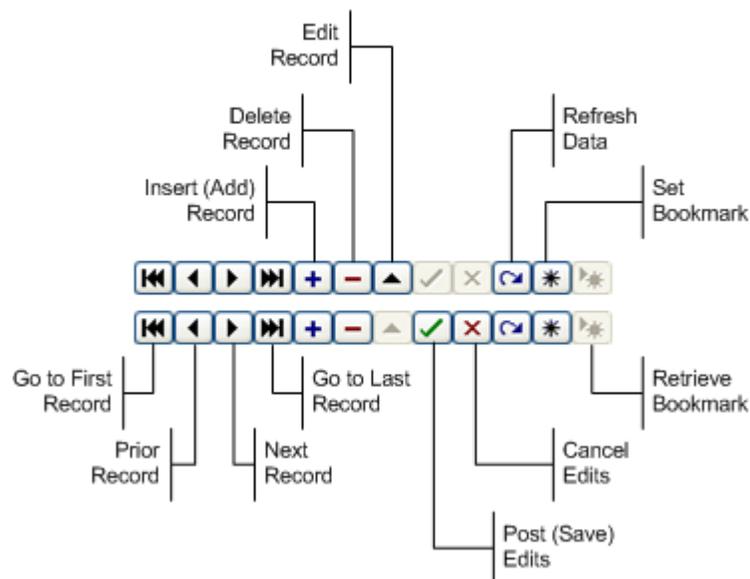
The viewer window in dcsTools Event Log Viewer can display and make use of a "data navigator". Essentially, a data navigator is an organized set of buttons that provides an easy-to-use interface for navigating around in displayed data. In addition to navigation, some of the navigators include buttons to add (insert), edit, or delete items.



You can show or hide the viewer data navigator using the main menu item **View | Data Navigator**. This option is also available on the viewer's pop-up menu.

Two example navigators are shown here - there are two because the "state" (availability) of buttons will vary depending on the current task. For instance, if you are at the beginning of a list of Task records, the navigator buttons for moving backwards through the list are disabled - at least, until you move away from the beginning of the list.

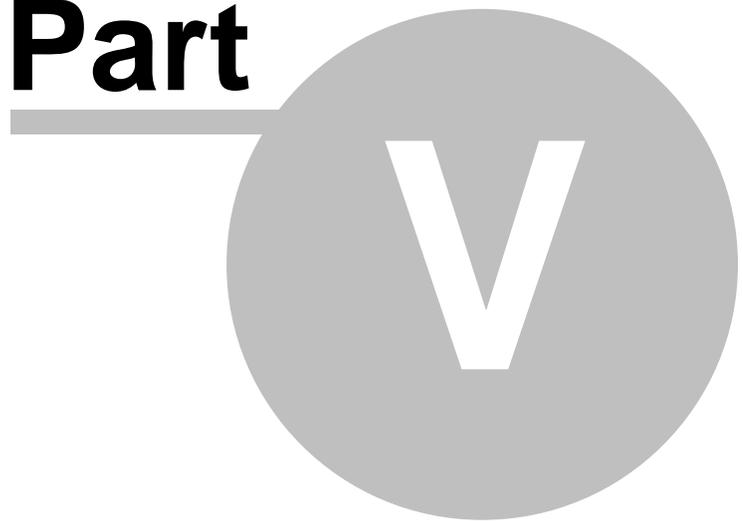
Data Navigator Button Map



Some of the navigator buttons depicted in the example above are not available in dcsTools Event Log Viewer. Specifically, the buttons used to insert and delete records are excluded because dcsTools Event Log Viewer does not allow adding or deleting event log items.

# Known Issues and Limitations

**Part**



This section documents any known issues or limitations of dcsTools Event Log Viewer. dcsTools Event Log Viewer has been designed to be as trouble-free as possible and has been thoroughly tested. However, not every usage scenario can be anticipated. This section is intended as a starting point diagnosing and solving problems, but should not be viewed as an all-encompassing source of problem resolution.

If the difficulty you're experiencing is not covered here, contact the dealer who provided you with dcsTools Event Log Viewer first. Alternatively, you can contact [dcsTools.com](http://dcsTools.com) - see the topic on [technical support](#).

## Application Bugs or Errors

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Bugs and errors generally fall into one of two categories - a bug, which is the application not doing something as you might have predicted it would, or; an error, which is the failure of the application to run or perform a specific task altogether.

If you find a bug, report it. Every effort is made to ensure dcsTools Event Log Viewer performs as expected, but there may be circumstances that were not predicted in the development of the software. See the section on [Technical Support](#) for information on reporting a bug.

If you encounter an error, you will get an error message indicating a severe failure and dcsTools Event Log Viewer may terminate. Provisions are made to "catch" such errors and log the error information to a file in the dcsTools Event Log Viewer application directory. Depending on the host operating system, the file name is **EventLogViewer.exe.El** or **EventLogViewer.exe.El**. Again, report any application errors you encounter. You may be asked to send the appropriate log file for analysis.

### 5.1 Bookmark 0 Cannot Be Set With Keyboard

On Windows Vista and later operating systems, you may not be able to use the keyboard shortcut [**Ctrl-Shift-0**] to set bookmark 0 (zero). This is because both operating systems pre-assign this keystroke shortcut to the Input Method Editor (IME). Microsoft documents this issue in a Knowledge Base article (<http://support.microsoft.com/kb/967893>).

#### Microsoft's Suggested Resolution

Remove the shortcut assignment. To do this, follow these steps:

1. Click [**Start**], and then click [**Control Panel**].
2. Double-click [**Regional and Language Options**].
3. Click [**Keyboards and Languages**], and then click [**Change keyboards**].
4. Click [**Advanced Key Settings**], and select **Between input languages**.
5. Click [**Change Key Sequence**].

6. For **Switch Keyboard Layout**, select **Not Assigned**.

7. Click [**OK**] to close each dialog box.

This change does not require a system reboot to take effect. Once the change is made, the bookmark shortcut should work as expected in dcsTools Event Log Viewer.

# Contacting dcsTools

**Part**



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If you need to contact dcsTools.com, you can do so using one of the following methods. We are here to help, so do not hesitate to communicate with us when needed.

## Mailing Address

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C-R Media  
8494 Saratoga Lane  
Eden Prairie, MN 55347  
USA

## Telephone Information

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Sales and Technical Support can be reached from 9:00 AM to 5:00 PM, U.S Central Time

Voice: 952-949-9450

FAX: 952-949-9448

## Email Information

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To contact us via email, use our [on-line contact form](#). If you wish to use a standard email client, send correspondence to: [rich@c-rmedia.com](mailto:rich@c-rmedia.com).

## Technical Support

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To contact technical support for our products, use the telephone numbers or email information provided above. You can also send an [on-line product-specific email](#).

## Web Site

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Visit our [web site](#) for information on product updates and other products we offer.

# Appendices

**Part**



**VII**

## 7.1 Revision History

This topic contains historical information on changes, enhancements and corrections to dcsTools Event Log Viewer by version number and date. For the most recent changes and enhancements, see the [What's New](#) topic.

### Version 2.5.0.115 - 01/27/2016

1. **Enhancement.** dcsTools Event Log Viewer has been updated to support Windows 10.
2. **Fix.** Event log save prompts have been updated to remove extraneous text.

### Version 2.4.0.100 - 04/04/2014

1. **Enhancement.** dcsTools Event Log Viewer now detects Windows 8, Windows 8.1, Windows Server 2012 and Windows Server 2012R2 operating systems and adjusts its display accordingly.
2. **Fix.** The proposed file name when saving an event log to disk (\*.evf) did not have the correct file extension.

### Version 2.3.0.90 - 06/26/2013

1. **Enhancement.** Event log files that are saved to disk (\*.evf) in dcsTools Event Log Viewer are now stored in a compressed format, reducing the required disk space significantly. Event log files previously saved in dcsTools Event Log Viewer can still be opened, viewed and edited. All new saved event logs are stored in the compressed format.
2. **Enhancement.** The event viewer's navigator bar has been enhanced to add a "Refresh" button. Clicking on the "Refresh" button has the same effect as the [\[F5\] keyboard shortcut](#) and the pop-up menu item **Reload Current Log File**.
3. **Fix.** dcsTools Event Log Viewer would occasionally fail to correctly determine a file about to be opened is a saved event log file. The file extension was being evaluated in a case-sensitive way and has been changed to be case-insensitive.

### Version 2.2.0.85 - 08/14/2012

1. **Change.** The **View | Visual Appearance** menu item "XP" has been changed to "Native" to reflect newer operating systems that support this appearance type.
2. **Fix.** On certain operating systems with multiple monitors, the dialog that appears when opening a file is placed on the wrong monitor. This problem has been corrected.
3. **Fix.** Occasionally, an AV would occur when closing an event log dialog. This has been corrected.

### Version 2.1.3.75 - 05/19/2011

1. **Enhancement.** Support for selected Wide Orbit Automation event files has been added. Specifically, the files **DACIntJni.log**, **ddserver.log**, and **radioautomation.log**, along with others that match the format of one of these file types, can be loaded and displayed correctly.

2. **Enhancement.** When opening an event file, a filter for all files with an extension of **".log"** has been added.
3. **Change.** An additional column for the message type (**Type**) has been added. Some Wide Orbit Automation files contain this information. As a default, the column is not displayed. See the [Data Column Reference](#) topic for more information.
4. **Fix.** Custom filtering on the date field was not working properly due to extraneous spaces in the date string. These extraneous spaces are now trimmed when opening an event log file and filtering on the date field now works as expected.

#### Version 2.1.1.60 - 05/07/2010

1. **Enhancement.** Application icons for dcsTools Event Log Viewer have been updated.
2. **Enhancement.** dcsTools Event Log Viewer now includes a custom icon used in displaying associated files in Windows Explorer when event log files are registered during installation.
3. **Fix.** The event log search dialog was incorrectly positioned in version 2.1.0.55.

#### Version 2.1.0.55 - 04/28/2010

1. **Enhancement.** dcsTools Event Log Viewer is now aware of multiple monitor host systems and properly saves and restores its position on the correct monitor.
2. **Enhancement.** dcsTools Event Log Viewer now reports the host operating system in more detail and has been updated to reflect the release of Windows 7.
3. **Enhancement.** If changes have been made to bookmarks, users are now prompted to save the event log to file when closing the event log view.
4. **Enhancement.** A second status indicator has been added to the main display to reflect changes in book mark activity.
5. **Fix.** If dcsTools Event Log Viewer was closed without first closing any open event logs, settings for the display table columns were not saved.
6. **Fix.** If a user opened an event log in the current event window, no prompting occurred if the current event log had been modified. Users are now presented the option to save the original event log prior to opening another one in the same window.

#### Version 2.0.1.50 - 05/27/2009

1. **Fix.** When saving an event log in binary format, a suggested file name was not always present in the save dialog window.
2. **Fix.** Following the save of an event log in binary format, the main window's caption was not updated to reflect the saved file name.

#### Version 2.0.0.45 - 03/07/2009

1. **Enhancement.** A bookmark system has been implemented. Users can now set up to 10 bookmarks (markers) for each event viewer window displayed. As a default, bookmarks

are not displayed in the viewer but their visibility can be toggled on and off. See the topic on [Bookmarking Data](#) for additional details.

2. **Enhancement.** You can now add a free-form note to each displayed event record. See the topic on [Adding Notes](#) for additional information.
3. **Enhancement.** Displayed event log files can now be saved in binary format, including bookmarks and user notes. If multiple event log files are loaded together in the viewer, all records are saved to a single binary file with bookmarks and user notes. The result in this case is a single file containing the merged event records. See the topic on [Saving Event Files](#) for further information.
4. **Enhancement.** You can now optionally change the vertical size of the display rows in the the event viewer, which displays more text in data columns that are not wide enough to display all information. When the display rows are made larger, text wraps at the column border if it cannot fit on one display row. See the topic on [Customizing the Display](#) for more information.
5. **Enhancement.** You can now optionally display a data navigator in the event viewer. To show or hide the data navigator, use either the main menu **View | Data Navigator** item or the pop-up menu's **Show Data Navigator** item. For additional information, see the topic on [using data navigators](#).
6. **Enhancement.** The method of reading event log files has been changed to better handle non-ASCII characters that might be embedded in the file. In particular, if a ^Z (hex 1A) character appeared in a file previously, the file load would stop at that point as it was interpreted as an end-of-file marker. Now, the data is loaded initially in binary format, ensuring the entire file is loaded. A side effect of this change is slightly improved load performance, most noticeable when opening large event log files.
7. **Change.** The order in which multiple event files are loaded has been changed to make the process of loading multiple event files into a single event viewer window more intuitive. Previously, when a user selected more than one event file to be opened, the files were loaded into the viewer in the order of last selected to first selected. This process is now reversed - the first file selected by the user is loaded first, then the second file and so on.
8. **Change.** The dcsTools Event Log Viewer main menu location is now fixed. Previously, the menu could be floated, docked and hidden altogether. Now, the main menu always appears across the top of the main display as expected.

### Version 1.2.0.39 - 02/19/2007

1. **Enhancement.** The help documentation has been modified to work with Windows Vista. Vista does not support the traditional help file (\*.HLP). The help documentation is now supplied as a compiled HTML file (\*.CHM).



[Microsoft Security Update 896358](#) not only fixes a vulnerability in HTML Help, it prevents HTML Help files from execution if the CHM file is installed on a network drive. CHM files installed locally continue to work.

**Symptoms:** When you open a CHM file from a UNC path or from a network drive even if the network drive is mapped to a drive letter, the HTML Help viewer opens and instead of displaying the topic, it displays an error message "Action canceled" in the topic pane.

**Solutions:** Install the application on a local drive to avoid this problem. Alternatively, there are some registry changes that can be made manually to re-enable using CHM help files from a network drive. A free [HTML Help Registration Utility](#) is available at the EC Software web site.

2. **Enhancement.** A printable PDF manual is now included in the files distributed with dcsTools Event Log Viewer. The manual is formatted for duplex printing.

#### Version 1.1.5.38 - 09/22/2006

1. **Enhancement.** Changes have been made to improve performance when loading and closing large event log files - files that may have in excess of 1 million records.
2. **Enhancement.** A menu item has been added to allow users to clear event log data in a view window.

#### Version 1.1.4.37 - 02/14/2006

1. **Fix.** A memory leak that occurred when an event log file was closed has been fixed.

#### Version 1.1.3.34 - 01/28/2006

1. **Enhancement.** Backward search functionality has been added.

#### Version 1.1.2.33 - 01/22/2006

1. **Fix.** A problem with tabbing among the search dialog controls has been corrected. Tabbing from the Search Field list to the Search Options radio buttons now works as expected.

#### Version 1.1.1.32 - 01/19/2006

1. The initial public release of dcsTools Event Log Viewer.

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