Elipse Event Log User's Manual

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CHAPTER 1 Elipse Event Log

The **Elipse Event Log** is a log system developed by Elipse Software, which integrates some new features for users, and it is available for Windows XP or later. For previous operating systems, logs still work the same way, that is, recorded on text files. The main changes incorporated to the system are relative to:

- The format and the way logs are recorded
- The way data is visualized
- The way files are managed by the system

As for the record format, files are no longer stored as text, but in binary format, which allows more information to be stored by events. This allows a series of new functionalities applied to recorded data, such as filters, recording binary messages, sorting and searching.

As for the recording mode, it is now safer and robust. In case of any failure on a process, logs are always stored on disk, which guarantees that messages will not be lost. In addition, new file recording modes were added, allowing sequential and circular files, as well as serialization for backup.

As for ways of viewing data, the new system now is an ActiveX control, which can be also integrated into an E3 application. In addition, it is possible to export events to a text file. With the new viewer, it is possible to filter, search and select specific messages.

Finally, there is file management, which guarantees maintenance of maximum file size on disk without running out of available space. The log service, from the moment it is configured and started, constantly monitors the repository folder, controlling files which must be kept on disk, rotating the recent ones and deleting the older ones.

CHAPTER 2 Elipse Event Log Viewer

The **Elipse Event Log Viewer** (from now on, referred only as **Log Viewer**) views messages of a supervisory system stored on files in the Event Trace Logfile (.etl) format. These logs keep information about Elipse systems on the user's computer.

Basically, processes store these messages on disk using pre-configured folders, which are created by the log system when it is started. A service running on system is responsible for managing the size of the files on the log folder, as well as their lifetime. If the service is disabled or is not running, it will not be possible to perform file management.

The main function of Log Viewer is to display system-generated messages to users, by using filter and search functions, turning the task of searching for errors easier.

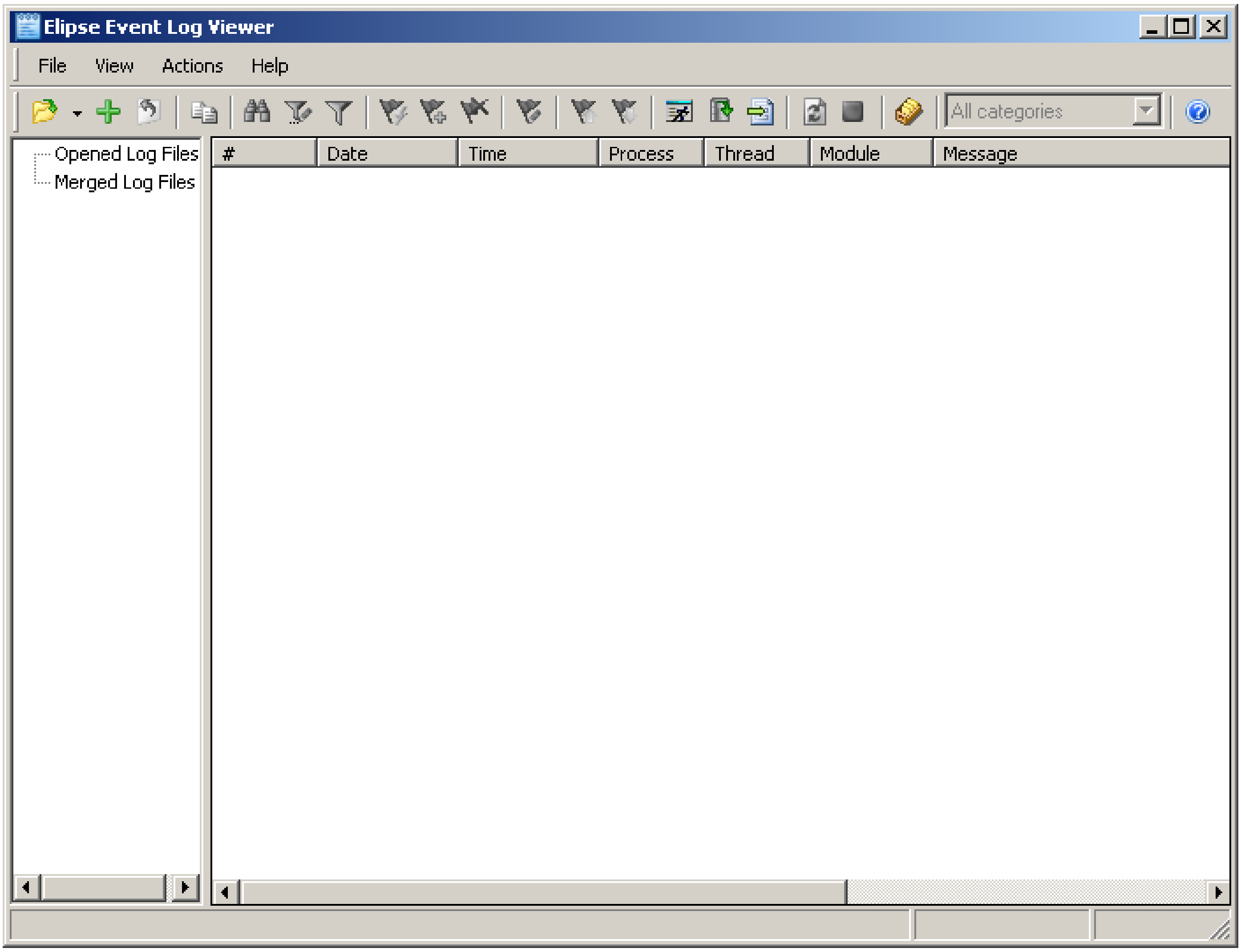
IMPORTANT: These logs will only be enabled by users belonging to Windows Administrator or Performance Log Users groups. For more information, see the chapter **Security Restrictions**.

Log Viewer presents the following features:

- Opens files in .etl format
- Opens more than one file at a time, merging the content of these files
- Searches for messages
- Filters messages by type and by time
- Views log sessions in use
- Exports events to files with columns separated by tabs
- Configures viewing options
- Configures message's storage options on disk
- Allows selecting and copying events to the Clipboard

To use Log Viewer, follow these procedures:

1. On **Start** menu, select **Programs - Elipse Software - Elipse Event Log - Log Viewer**. The window below is then opened:



Elipse Event Log Viewer's main window

The program is divided into two areas: on the left side is the file's viewing area, and on the right side is the event's viewing area. Above them there is a toolbar, and below there is a status bar. The available options on the toolbar are:

Available options on toolbar

ICON	COMMAND	ACTION
📂	**Open Event File**	Opens a log file.
+	**Merge Event Files**	Opens several files and merges the events cronologically on the same view.
📂	**Close File**	Closes the selected file.
📋	**Copy**	Copies the selected events to the Clipboard.
🔍	**Find**	Opens the Find Messages window.
▽	**Filter Editor**	Shows the Filter Editor window.
▼	**Toggle Filter On/Off**	Turns on or off the filters on the events of the selected file.
🚩	**Fast Bookmark**	Creates a bookmark with a default name Bookmark*n*, where *n* is an automatically-incremented number.
🚩	**Add Bookmark**	Creates a bookmark, opening a window for choosing the name.
🚩	**Remove Bookmark**	Removes the selected bookmark.
🚩	**Edit Bookmarks**	Opens an editing window, which allows removing a bookmark, removing all bookmarks, or locating a bookmark.
🚩	**Previous Bookmark**	Selects the previous bookmark.
🚩	**Next Bookmark**	Selects the next bookmark.

ICON	COMMAND	ACTION
	Running Loggers	Shows the active log sessions on the system.
	Collect files	Opens the **Elipse Event Log Collector**'s window.
	Export Events	Opens the **Elipse Event Log Export**'s window.
	Refresh View	Refreshes the view with the last events recorded on disk. If there are events in memory, they are recorded on disk before refreshing.
🟥	**Cancel Refresh**	Cancels the view refresh with the files on disk.
	Storage Settings	Displays the **file storage configuration window**.
All categories ▾	**Categories**	Selects a category to sort the message.
?	**About**	Opens a window with Log Viewer version and its components.

The available categories for message sorting are:

Available categories for message sorting

NUMBER	CATEGORY	COLOR
0	Log header	Green
10	Error	Red
11	Warning	Yellow
12	Information	Blue
14	Message for general usage	--
15	Statistical data and performance	--
16	Trace	--
17	Additional information about the module	Purple

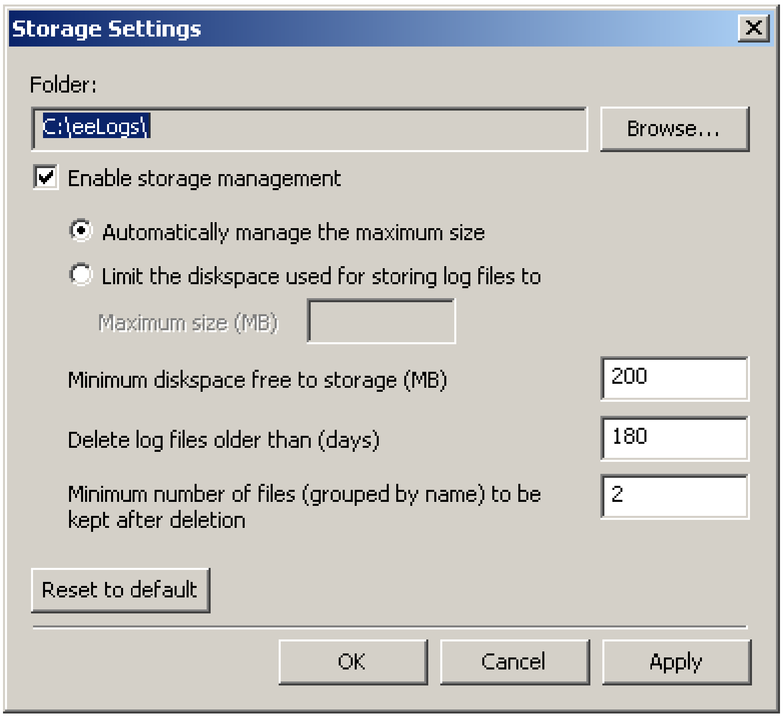
The status bar of Log Viewer's main window is divided into four areas, shown on the next table.

Areas of Log Viewer's status bar

AREA	DESCRIPTION
Number of events	Number of events of the selected file in the viewing area. If there is no file selected, it displays the message "Ready". In case there is any active filter, the displayed value refers to events visible after applying that filter.
Selection	Displays information about time interval between two events: • **Timespan between events**: Time interval between two events, with a precision of milliseconds • **Interval**: Amount of existing events between selected events • **Average**: Time average between two selected events, with a precision of milliseconds In case there are more than two events selected, this area only displays the amount of selected events.
Processing	Displays the percentage of successfully processed events in the selected file.
Filters	Displays whether there is any active filter in the selected file.

2.1 Configuring File Storage

Using the **Storage Settings** option, it is possible to configure automatic management of .etl or .log files recorded by Elipse systems. With it, users can manage where log files are stored, the maximum size of the repository, and the time each file is kept on the repository (based on file's creation date). To use this option, select the **View - Storage Settings** menu, or click .



Folder: C:\eeLogs\

☑ Enable storage management

● Automatically manage the maximum size

○ Limit the diskspace used for storing log files to

Maximum size (MB)

Minimum diskspace free to storage (MB) 200

Delete log files older than (days) 180

Minimum number of files (grouped by name) to be kept after deletion 2

Storage Settings window

NOTE: Be careful when disabling the repository with 0 (zero) in the option **Limit the diskspace used for storing log files to**, because if the **Enable storage management** option is checked, management leaves the repository with a minimum number of files (by name pattern, predefined as 2) as soon as this option is confirmed by clicking **OK** or **Apply**.

The available options are:

Available options on Storage Settings window

OPTION	DESCRIPTION
Folder	Shows where logs are stored.
Browse	Allows choosing the folder where logs are stored.
Enable storage management	Enables repository management. When this option is checked, repository management routines are activated.
Automatically manage the maximum size	The log system calculates the available limit based on the free space of the partition to manage the logs. The rule for allocating space in the automatic mode is using 25% (twenty five percent) of partition's free space.
Limit the diskspace used for storing log files to	Specifies the maximum available size for storing logs on disk. If it is specified a size equal to 0 (zero), the log files are deleted as soon as they are released by the session.
Minimum diskspace free to storage (MB)	Determines the minimum disk space on a partition to reallocate logs, or to start recording on the repository. This is the lower band limit to be monitored.
Delete log files older than (days)	Specifies the number of days during which the files will be stored. If this value is equal to 0 (zero), management occurs by size or by minimum number of files.
Minimum number of files (grouped by name) to be kept after deletion	Specifies the minimum number of files which must be kept on the repository when excluding files derived from the same name. If this value is equal to 0 (zero), management occurs by size or by minimum size of files. A value greater than zero leaves at least this amount of files for each group of names, as for example E3*.*, E3Server*.*, etc.
Reset to default	Restores default values for fields: • Twenty five percent of partition's free space • Automatic management of the space • One hundred eighty days • Two files

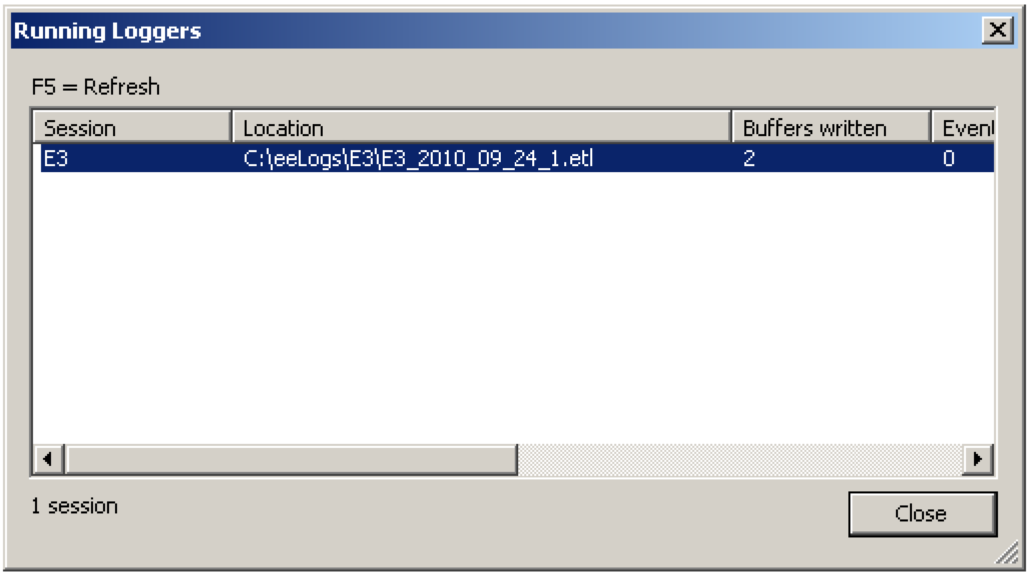
NOTE: The following routines and the management only occur when there is a need to release files, because their size is near the configuration limit (the **Limit the diskspace used for storing log files to** option).

The execution order of repository's file exclusion filters is the following:

1. **Creation date**: When executing the management, all files with a creation date prior to the maximum allowed (the **Delete log files older than (days)** option) are erased, starting from the oldest to the newest ones, as long as the size of the files overrides the repository's maximum quota.
2. **Name pattern**: If even after erasing the oldest files of the repository (the **Delete log files older than (days)** option), still the remaining size is greater than the limit, files are processed by a name filter (the **Minimum number of files** option). In this filter, files are erased up until the control limit is reached, but preserving at least the parameterized amount of files. This is very useful for establishing a sequence in the regressive analysis of events.
3. **Total size of the repository**: The last filter executed is by total size of the repository. In this case, if still after performing the previous filters the repository is above the limits, files are erased from the oldest to the newest ones, until reaching the security limit.

2.2 Log Sessions

Another option available on Log Viewer is the visualization of active log sessions being recorded by the system. To open this option, select the **View - Running Loggers** menu, or click . The following window is then opened.



Session	Location	Buffers written	Event
E3	C:\eeLogs\E3\E3_2010_09_24_1.etl	2	0

Running Loggers window

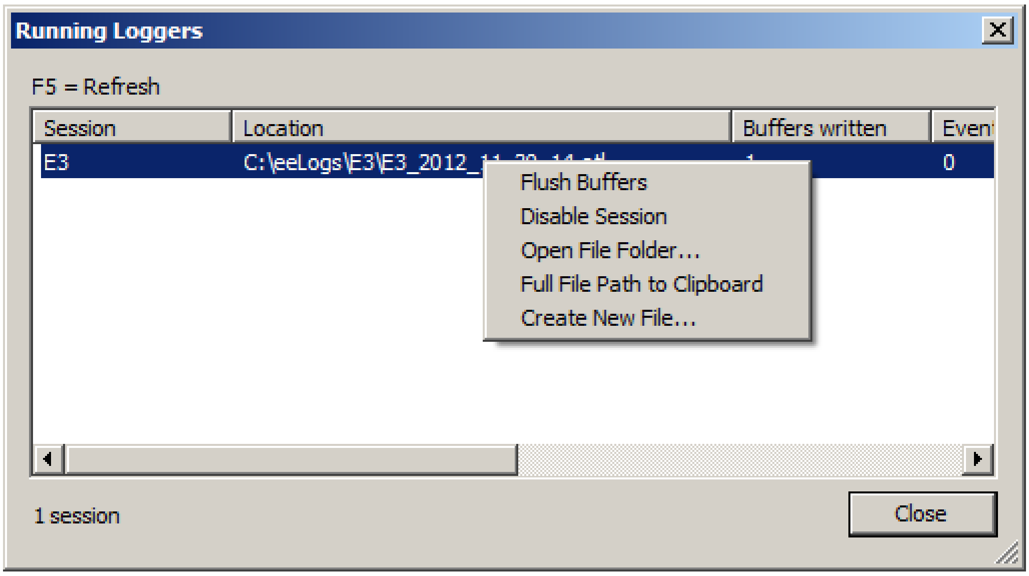
The available columns for viewing are:

Available columns on the Running Loggers window

COLUMN	DESCRIPTION
Session	Name of the log session.
Location	Path of log recording.
Buffers written	Buffers written to disk.
Events lost	Indicates events lost (rejected by the system). This counter must always be equal to zero. If this value is greater than zero, it indicates that events were lost, and therefore files do not have all information for debugging.
Log file size (MB)	Size of the files, in megabytes.
Flush timer (s)	If it is equal to 0, the buffer is only stored on disk when full. If different from 0, at every X seconds the buffers are automatically written to disk.
Log mode	Recording mode.
Buffer size (KB)	Size of buffers in memory.

It is possible to remove or add columns by right-clicking the column names. Only the **Session** column cannot be removed.

It is also possible to select a few actions to be applied to log sections, by right-clicking the respective row.



Session	Location	Buffers written	Even
E3	C:\eeLogs\E3\E3_2012_	1	0

Options for editing a specific event of the active session

The available options are:

Available options on Running Loggers menu

OPTION	DESCRIPTION
Flush buffers	Stores on disk the events currently in memory.
Enable or Disable logger	Disables event recording, although it does not stop the session. When disabling recording, the session row becomes red, indicating that the log is no longer recording events. When enabling this option again, the session restarts event recording.
Open File Folder	Opens a Windows Explorer window, at the directory where log files are stored, configured in the **Folder** field of the **Storage Settings** window.
Full File Path to Clipboard	Copies the full path of the selected log session file to the Windows Clipboard.
Create New File	Creates a new log file on the selected session. This contextual menu item is disabled in case the recording mode (column **Log Mode**) or the session are incompatible with the creation of new files.

The Running Sessions window allows dragging and dropping files to Log Viewer main window, as well as to an external window (such as Windows Explorer, for example).

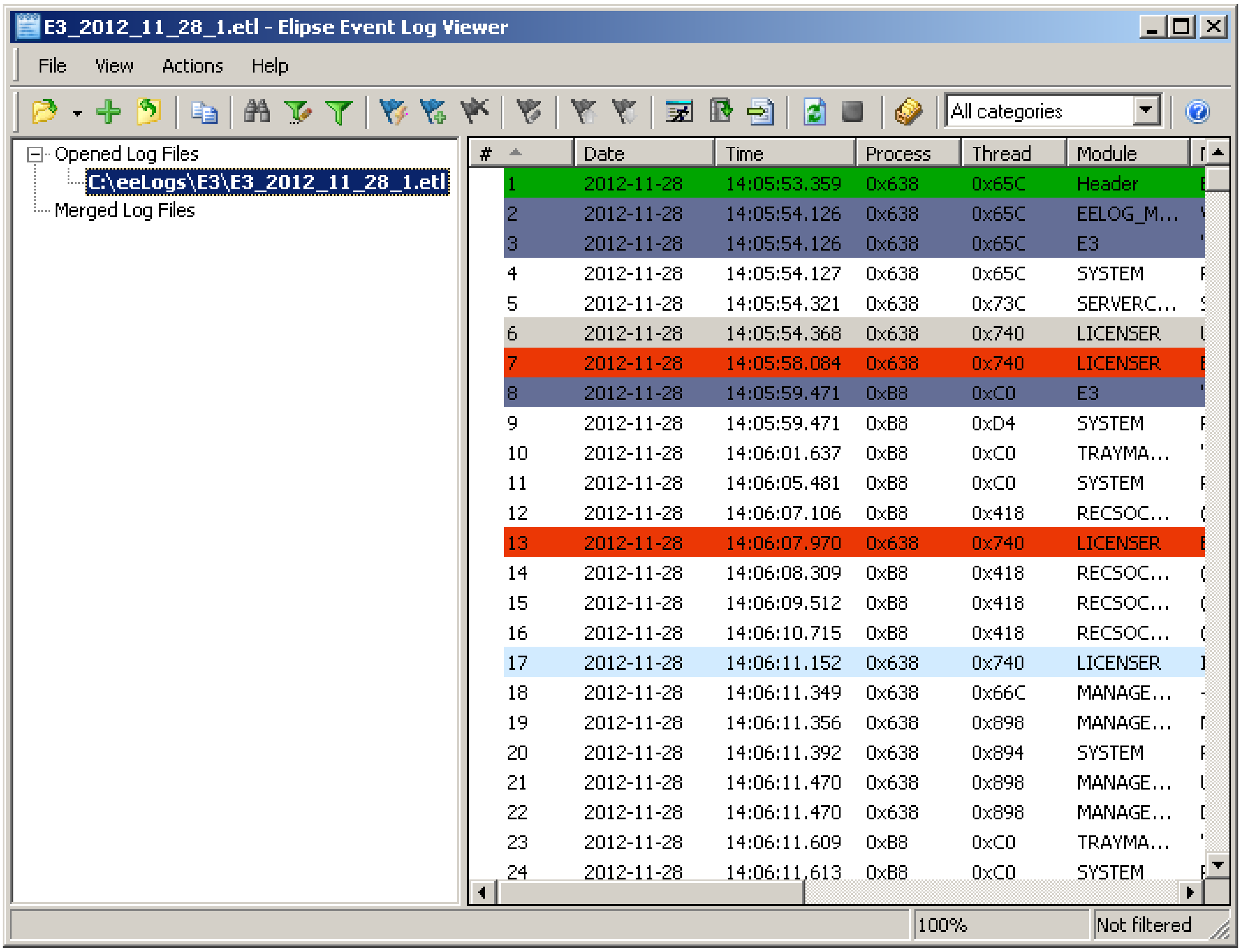
In case of Log Viewer's main window, the behavior of this feature is the following: if the file is dragged and dropped onto the **Merged Log Files** item, it is added to this item. If the file is dropped onto any other area of the main window (the default behavior), the file is added to the **Opened Log Files** item. In case of a file being dragged outside Log Viewer's main window, a copy of the file is then created on the destination where it is dropped.

2.3 Viewing Log Files

The Log Viewer allows opening one or more files at the same time, merging information of these files and monitoring log sessions. Log files with .etl extension can be opened on Log Viewer in three ways:

- Using the **File - Open Event File** menu
- Using the 📂 icon on toolbar
- Dragging a file to the window

The result is a window such as the following figure.



#	Date	Time	Process	Thread	Module
1	2012-11-28	14:05:53.359	0x638	0x65C	Header
2	2012-11-28	14:05:54.126	0x638	0x65C	EELOG_M...
3	2012-11-28	14:05:54.126	0x638	0x65C	E3
4	2012-11-28	14:05:54.127	0x638	0x65C	SYSTEM
5	2012-11-28	14:05:54.321	0x638	0x73C	SERVERC...
6	2012-11-28	14:05:54.368	0x638	0x740	LICENSER
7	2012-11-28	14:05:58.084	0x638	0x740	LICENSER
8	2012-11-28	14:05:59.471	0xB8	0xC0	E3
9	2012-11-28	14:05:59.471	0xB8	0xD4	SYSTEM
10	2012-11-28	14:06:01.637	0xB8	0xC0	TRAYMA...
11	2012-11-28	14:06:05.481	0xB8	0xC0	SYSTEM
12	2012-11-28	14:06:07.106	0xB8	0x418	RECSOC...
13	2012-11-28	14:06:07.970	0x638	0x740	LICENSER
14	2012-11-28	14:06:08.309	0xB8	0x418	RECSOC...
15	2012-11-28	14:06:09.512	0xB8	0x418	RECSOC...
16	2012-11-28	14:06:10.715	0xB8	0x418	RECSOC...
17	2012-11-28	14:06:11.152	0x638	0x740	LICENSER
18	2012-11-28	14:06:11.349	0x638	0x66C	MANAGE...
19	2012-11-28	14:06:11.356	0x638	0x898	MANAGE...
20	2012-11-28	14:06:11.392	0x638	0x894	SYSTEM
21	2012-11-28	14:06:11.470	0x638	0x898	MANAGE...
22	2012-11-28	14:06:11.470	0x638	0x898	MANAGE...
23	2012-11-28	14:06:11.609	0xB8	0xC0	TRAYMA...
24	2012-11-28	14:06:11.613	0xB8	0xC0	SYSTEM

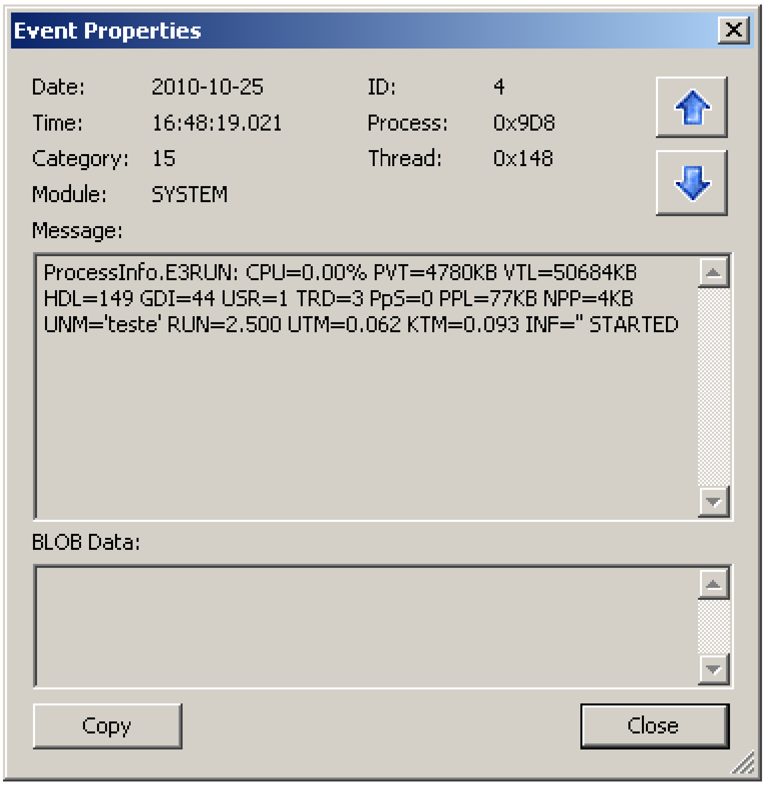
Opening a log file

On the viewing events area, files are sorted chronologically, one event for each row. Messages in green are information about the structure of log files, and are not part of messages of the process that recorded events on the session.

The status bar, on the lower part of the window always indicates the number of selected events (in the example, 88), the percentage of processed ones (in the example, 100%), and the status of search filtering (in the example, the search has no filters).

When right-clicking the header of the event list, it is possible to select, in its contextual menu, which columns are visible or invisible to users.

To view message details, select the corresponding row, type ENTER or double-click the message. The following window is then displayed:



Date: 2010-10-25

Time: 16:48:19.021

Category: 15

Module: SYSTEM

ID: 4

Process: 0x9D8

Thread: 0x148

Message:

```
ProcessInfo.E3RUN: CPU=0.00% PVT=4780KB VTL=50684KB
HDL=149 GDI=44 USR=1 TRD=3 PpS=0 PPL=77KB NPP=4KB
UNM='teste' RUN=2.500 UTM=0.062 KTM=0.093 INF='' STARTED
```

BLOB Data:

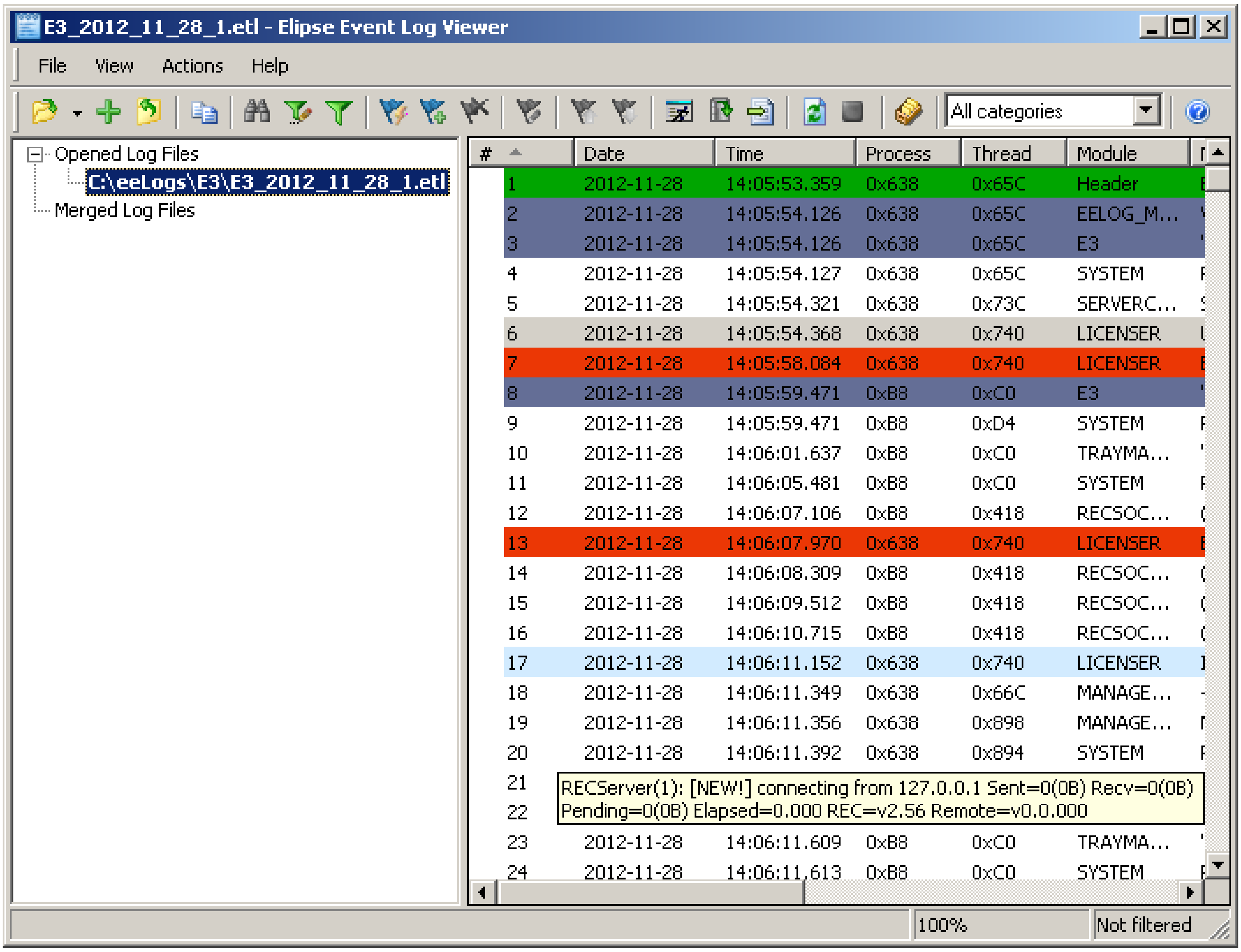
Log message details

The available options in this window are described on the following table.

Available options in the Event Properties window

OPTION	DESCRIPTION
Date	The event date, in the format `yyyy-mm-dd`.
ID	A unique identifier for every event.
Time	The event time, in the format `hh:mm:ss.000`.
Process	The identifier of the process generating the event. This value can be displayed in hexadecimal or decimal format, depending on the selection made in the option **Process and Thread as Hexadecimal** of the event's contextual menu.
Category	The event category, according to the table at the **beginning** of this chapter.
Thread	The identifier of the thread generating the event. This value can be displayed in hexadecimal or decimal format, depending on the selection made in the option **Process and Thread as Hexadecimal** of the event's contextual menu.
Module	Identifies the module, function, or area name inside the process or thread responsible for generating information of the event.
⇧ **and** ⇩	Allows navigating by the previous and next events relative to the selected event.
Message	Text of the event message.
BLOB Data	Shows if together with the event there is binary data (*Binary Large Objects*) attached, which completes information given by the event's **Message** field. This field is optional and therefore it may not have data associated.
Copy	Allows copying the selected event to Clipboard.
Close	Closes this window.

When mouse moves over an event for some time, an information window appears displaying the message, as in the next figure.



#	Date	Time	Process	Thread	Module
1	2012-11-28	14:05:53.359	0x638	0x65C	Header
2	2012-11-28	14:05:54.126	0x638	0x65C	EELOG_M...
3	2012-11-28	14:05:54.126	0x638	0x65C	E3
4	2012-11-28	14:05:54.127	0x638	0x65C	SYSTEM
5	2012-11-28	14:05:54.321	0x638	0x73C	SERVERC...
6	2012-11-28	14:05:54.368	0x638	0x740	LICENSER
7	2012-11-28	14:05:58.084	0x638	0x740	LICENSER
8	2012-11-28	14:05:59.471	0xB8	0xC0	E3
9	2012-11-28	14:05:59.471	0xB8	0xD4	SYSTEM
10	2012-11-28	14:06:01.637	0xB8	0xC0	TRAYMA...
11	2012-11-28	14:06:05.481	0xB8	0xC0	SYSTEM
12	2012-11-28	14:06:07.106	0xB8	0x418	RECSOC...
13	2012-11-28	14:06:07.970	0x638	0x740	LICENSER
14	2012-11-28	14:06:08.309	0xB8	0x418	RECSOC...
15	2012-11-28	14:06:09.512	0xB8	0x418	RECSOC...
16	2012-11-28	14:06:10.715	0xB8	0x418	RECSOC...
17	2012-11-28	14:06:11.152	0x638	0x740	LICENSER
18	2012-11-28	14:06:11.349	0x638	0x66C	MANAGE...
19	2012-11-28	14:06:11.356	0x638	0x898	MANAGE...
20	2012-11-28	14:06:11.392	0x638	0x894	SYSTEM
21					
22					
23	2012-11-28	14:06:11.609	0xB8	0xC0	TRAYMA...
24	2012-11-28	14:06:11.613	0xB8	0xC0	SYSTEM

```
RECServer(1): [NEW!] connecting from 127.0.0.1 Sent=0(0B) Recv=0(0B)
Pending=0(0B) Elapsed=0.000 REC=v2.56 Remote=v0.0.000
```

Information about a log message

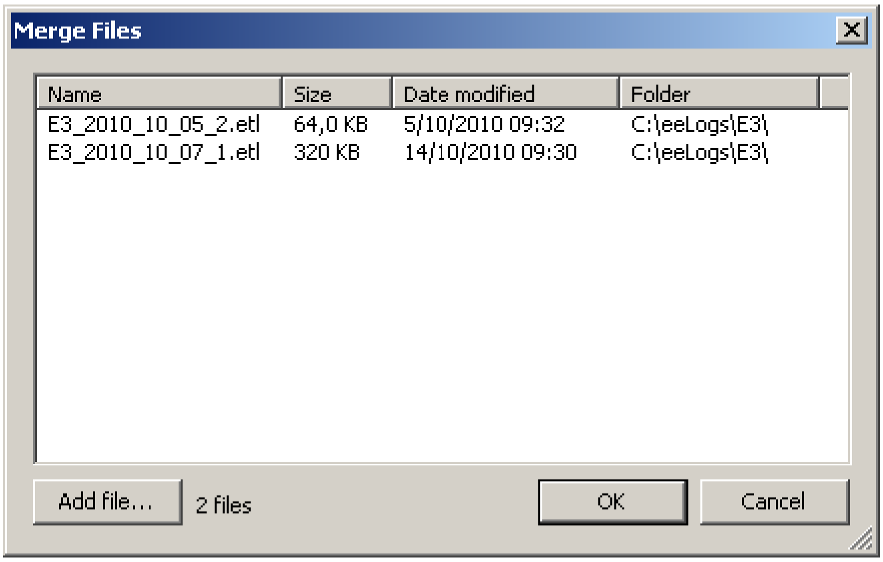
When right-clicking a file, the following options are displayed in its contextual menu:

- **Close All Files**: closes all files
- **Close File**: closes only the selected file
- **Merge File**: adds the selected file to the **Merged Log Files** node
- **Open File Folder**: opens the directory where log files are stored

2.4 Merging Log Files

With Log Viewer, it is also possible to open more than one file at the same time, and merge their information as if they were a single file. Events are sorted chronologically, in order to allow event analysis of cause and consequence among different machines or different files. In this example, the events of two files are merged.

1. Click ✚, or use the **File - Merge Event Files** menu. The following window is then opened.



Name	Size	Date modified	Folder
E3_2010_10_05_2.etl	64,0 KB	5/10/2010 09:32	C:\eeLogs\E3\
E3_2010_10_07_1.etl	320 KB	14/10/2010 09:30	C:\eeLogs\E3\

Merge Files window

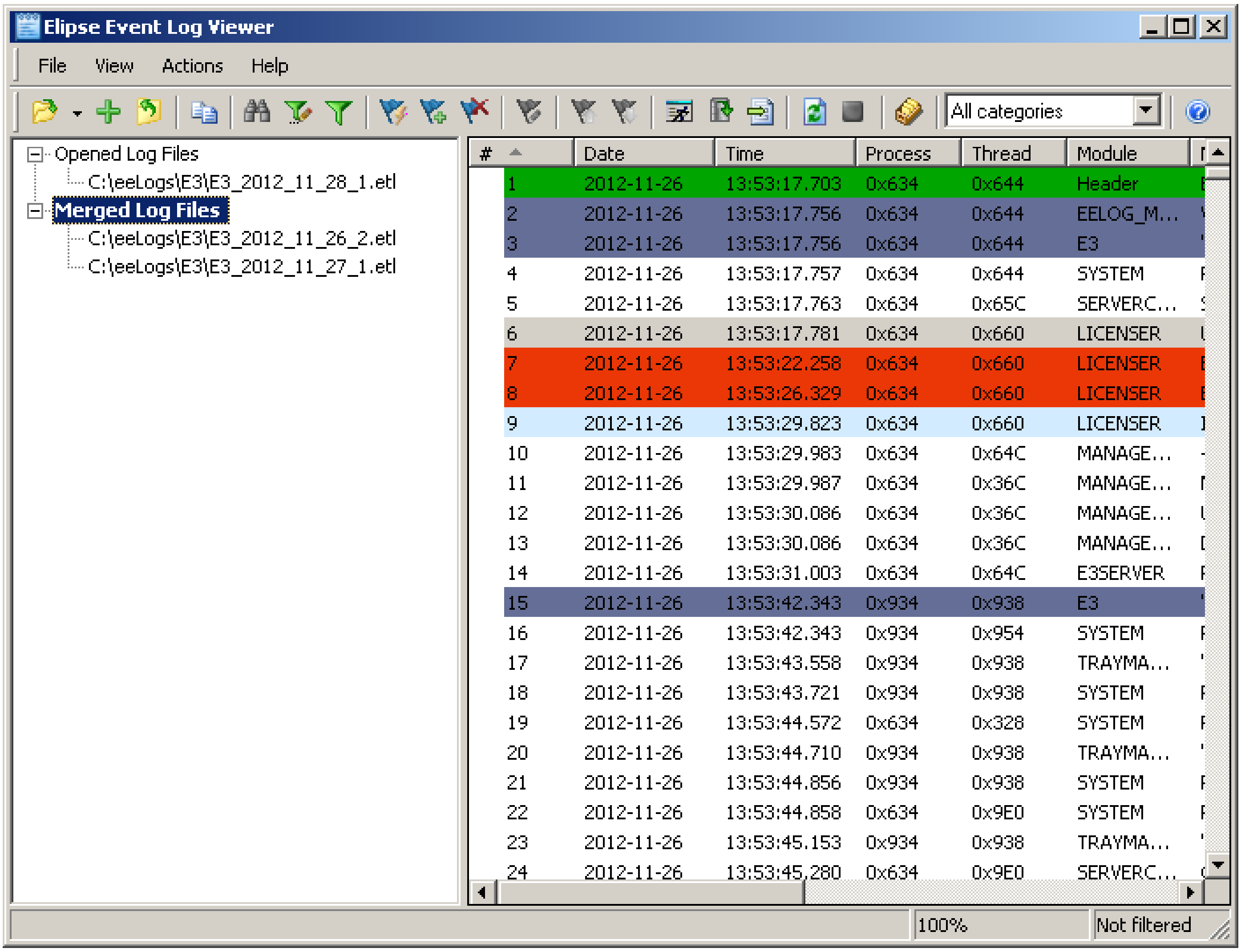
The available columns to view files for merging are the following:

Available options on Merge Files window

OPTION	DESCRIPTION
Name	The name of the file.
Size	The size of the file.
Date modified	The date when the file was last modified.
Folder	The path of the file.

2. Select the files to merge, by clicking **Add File**.

3. The events are opened already sorted by time, such as in the next figure.



Opened Log Files
- C:\eeLogs\E3\E3_2012_11_28_1.etl

Merged Log Files
- C:\eeLogs\E3\E3_2012_11_26_2.etl
- C:\eeLogs\E3\E3_2012_11_27_1.etl

#	Date	Time	Process	Thread	Module
1	2012-11-26	13:53:17.703	0x634	0x644	Header
2	2012-11-26	13:53:17.756	0x634	0x644	EELOG_M...
3	2012-11-26	13:53:17.756	0x634	0x644	E3
4	2012-11-26	13:53:17.757	0x634	0x644	SYSTEM
5	2012-11-26	13:53:17.763	0x634	0x65C	SERVERC...
6	2012-11-26	13:53:17.781	0x634	0x660	LICENSER
7	2012-11-26	13:53:22.258	0x634	0x660	LICENSER
8	2012-11-26	13:53:26.329	0x634	0x660	LICENSER
9	2012-11-26	13:53:29.823	0x634	0x660	LICENSER
10	2012-11-26	13:53:29.983	0x634	0x64C	MANAGE...
11	2012-11-26	13:53:29.987	0x634	0x36C	MANAGE...
12	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
13	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
14	2012-11-26	13:53:31.003	0x634	0x64C	E3SERVER
15	2012-11-26	13:53:42.343	0x934	0x938	E3
16	2012-11-26	13:53:42.343	0x934	0x954	SYSTEM
17	2012-11-26	13:53:43.558	0x934	0x938	TRAYMA...
18	2012-11-26	13:53:43.721	0x934	0x938	SYSTEM
19	2012-11-26	13:53:44.572	0x634	0x328	SYSTEM
20	2012-11-26	13:53:44.710	0x934	0x938	TRAYMA...
21	2012-11-26	13:53:44.856	0x934	0x938	SYSTEM
22	2012-11-26	13:53:44.858	0x634	0x9E0	SYSTEM
23	2012-11-26	13:53:45.153	0x934	0x938	TRAYMA...
24	2012-11-26	13:53:45.280	0x634	0x9E0	SERVERC...

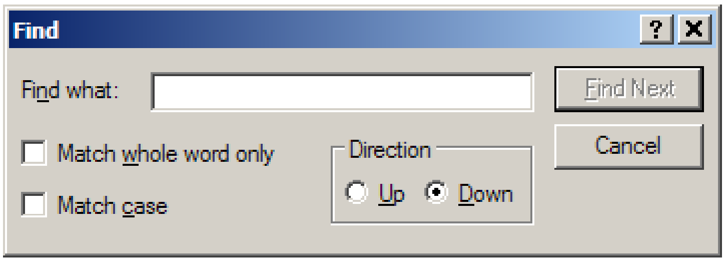
Window with files for merging

Another option is to select a file from the **Opened Log Files** node, right-click it and then select the **Merge File** option. The file will be automatically added on **Merged Log Files** node.

The status bar informs the total amount of events of all files opened as a set. These files are on the left area, below **Merged Log Files**. If the whole node is selected, events from all files of this node are viewed. However, when selecting each file individually, only its own events are displayed.

2.5 Searching for Events

Log Viewer offers search and filter functions, which makes it easy to look for specific events inside a file. To use this option, click the **Actions - Find** menu, or click 🔍. The following window is then opened.



Find what:

□ Match whole word only

□ Match case

Direction
○ Up ● Down

Find window

The available options are:

Available options on Find window

OPTION	DESCRIPTION
Find what	Message to be searched for.
Match whole word only	Looks for the value as a word or a whole phrase, and not as a part of other messages.
Match case	Differentiates between upper and lower case.
Direction	Looks for the next occurrence up or down the current selected example.
Find Next	Looks for the next occurrence of the current selected value.

OPTION	DESCRIPTION
Cancel	Cancels the search.

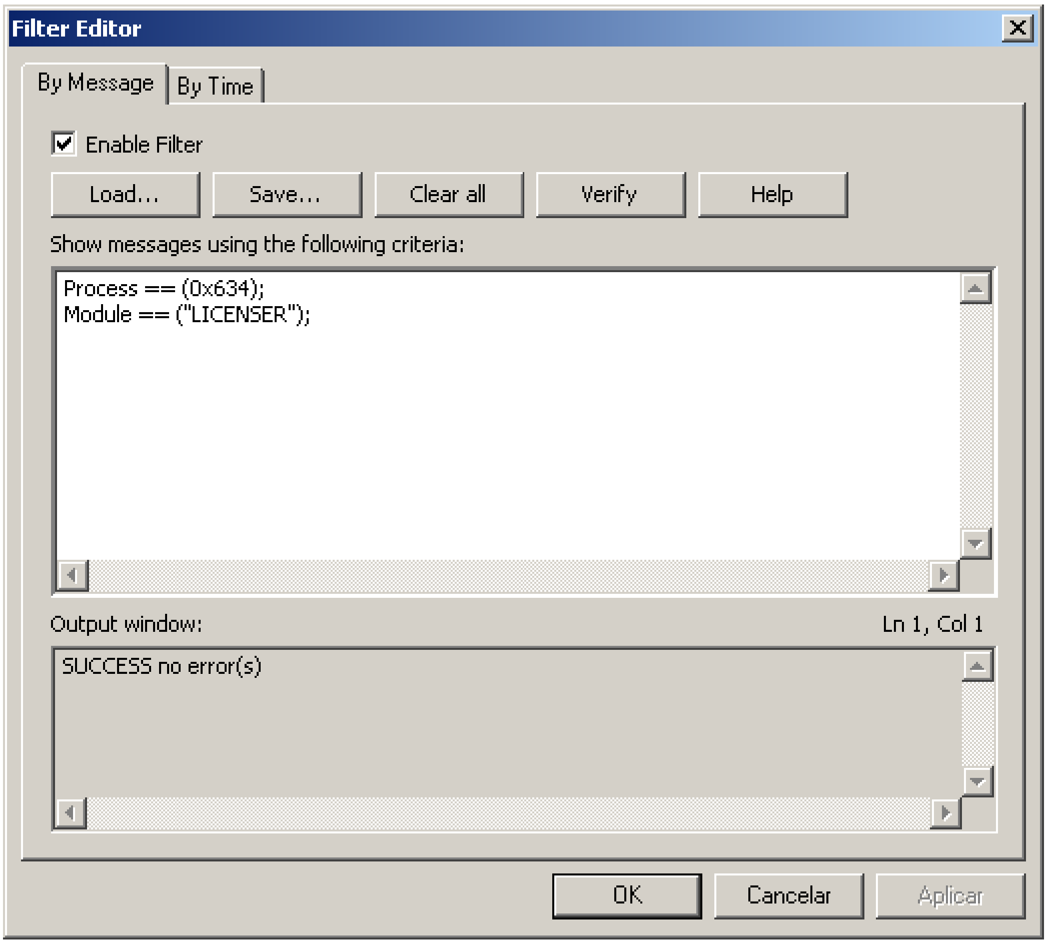
After searching the whole file (according to the selected direction), the search is then finished.

2.6 Filters

Filters are an option to refine event viewing. On Log Viewer, there are two independent types of filters, by **Message** or by **Time**.

2.6.1 Message Filter

The **Message Filter** allows restricting event interval, using a selection by type of message to be displayed. To use this option, select the **Actions - Filter Editor** menu or click , and then select the **By Message** tab. The following window is displayed.



```
Process == (0x634);
Module == ("LICENSER");
```

```
SUCCESS no error(s)
```

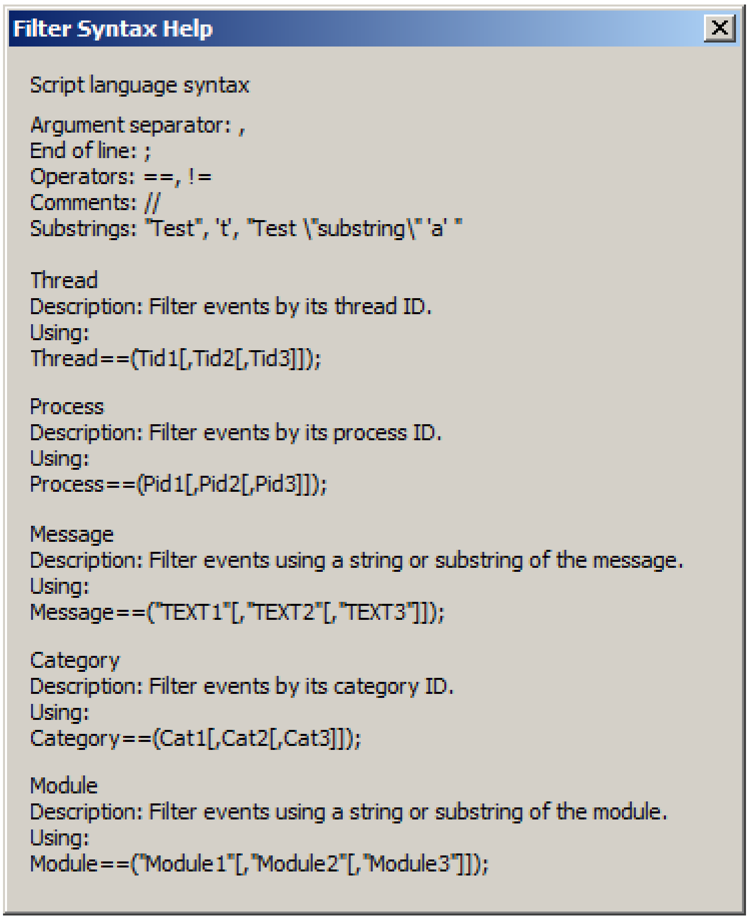
By Message tab of the Filter Editor window

The available options are the following:

Available options on the By Message tab

OPTION	DESCRIPTION
Enable Filter	Enables the usage of a By Message filter.
Load	Loads a saved filter.
Save	Saves a filter on a file with a .sfi extension.
Clear all	Clears the selected filter.
Verify	Checks if there are errors on filter syntax.
Help	Shows the correct syntax to build a filter.
Show messages using the following criteria	Edits scripts of the selected filters.
Output Window	Displays the help for the selected option on **Functions**, or else the error messages after checked using the **Verify** button.

When clicking **Help**, a window is displayed with the correct syntax for each valid keyword, such as the next figure.



Script language syntax

Argument separator: ,
End of line: ;
Operators: ==, !=
Comments: //
Substrings: "Test", 't', "Test \"substring\" 'a' "

Thread
Description: Filter events by its thread ID.
Using:
Thread==(Tid1[,Tid2[,Tid3]]);

Process
Description: Filter events by its process ID.
Using:
Process==(Pid1[,Pid2[,Pid3]]);

Message
Description: Filter events using a string or substring of the message.
Using:
Message==("TEXT1"[,"TEXT2"[,"TEXT3"]]);

Category
Description: Filter events by its category ID.
Using:
Category==(Cat1[,Cat2[,Cat3]]);

Module
Description: Filter events using a string or substring of the module.
Using:
Module==("Module1"[,"Module2"[,"Module3"]]);

Window with help on correct keyword sintax

When more than one value is used on a keyword, it is necessary to separate them with commas.

The filter script restricts event viewing, therefore if no event matches the specified criteria, the result list is empty.

Th filter elements or keywords are: **Thread**, **Process**, **Message**, **Category**, and **Module**. Users can choose between the operators equal to (==) and different from (!=).

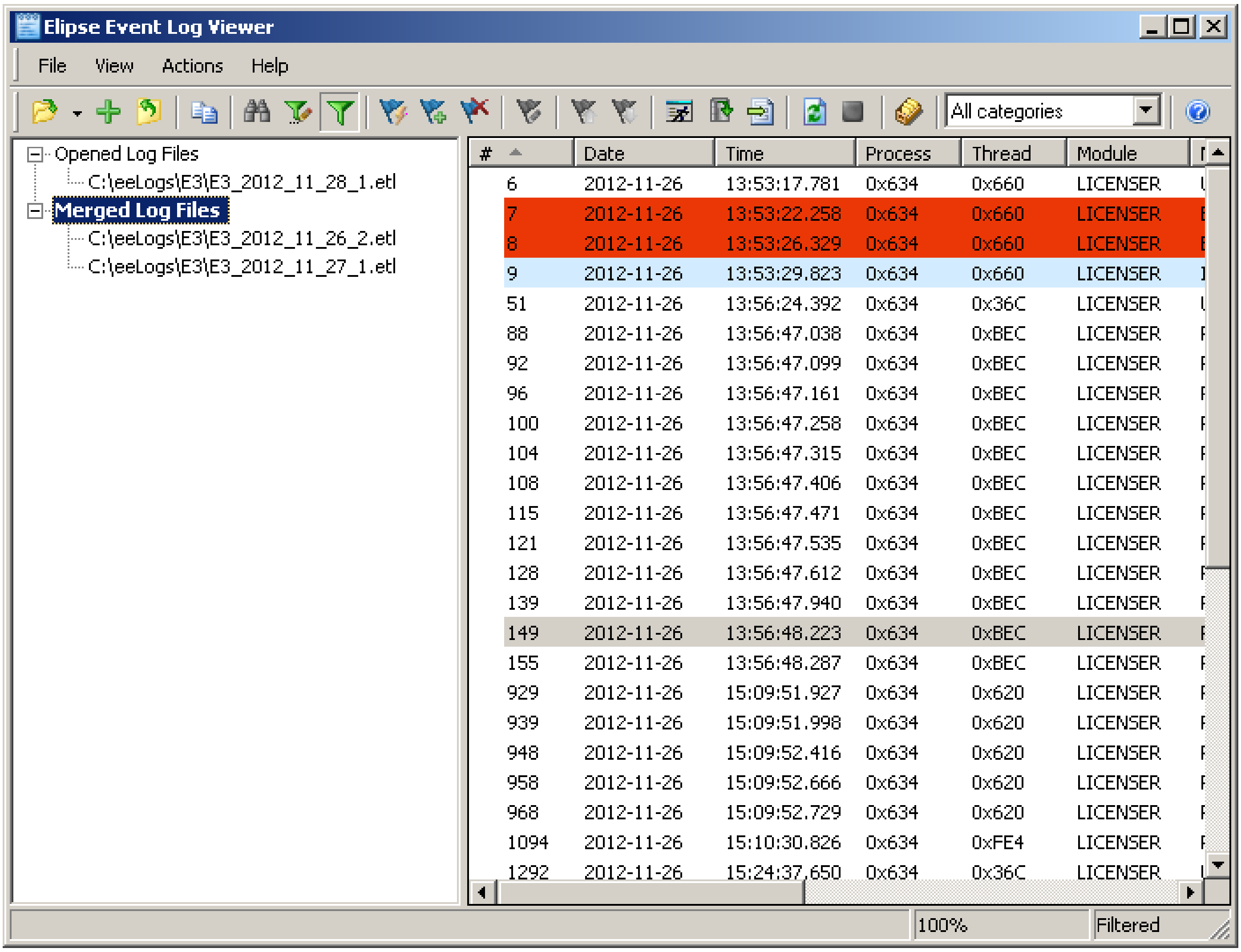
All filter parameters inside parenthesis are evaluated as an **OR** for that filter keyword or element. Example:

```
Process == (0x634);
Module == ("LICENSER");
```

This means that only events that match the following logical equation are displayed:

```
(Process == 0x634) AND Module == LICENSER
```

To turn on the filter, click ▼ on the toolbar. For the filter on the previous example, the result is similar to the one displayed in the next figure.



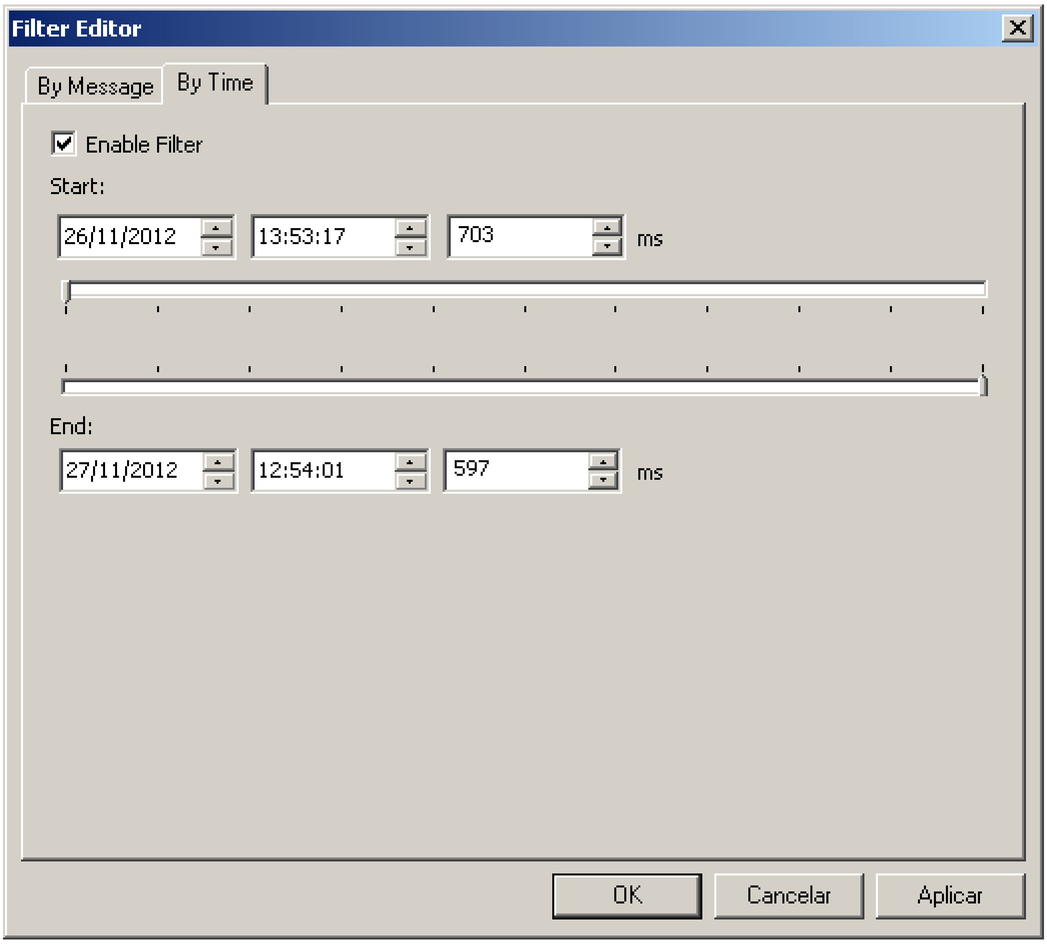
#	Date	Time	Process	Thread	Module	I
6	2012-11-26	13:53:17.781	0x634	0x660	LICENSER	U
7	2012-11-26	13:53:22.258	0x634	0x660	LICENSER	E
8	2012-11-26	13:53:26.329	0x634	0x660	LICENSER	E
9	2012-11-26	13:53:29.823	0x634	0x660	LICENSER	I
51	2012-11-26	13:56:24.392	0x634	0x36C	LICENSER	U
88	2012-11-26	13:56:47.038	0x634	0xBEC	LICENSER	F
92	2012-11-26	13:56:47.099	0x634	0xBEC	LICENSER	F
96	2012-11-26	13:56:47.161	0x634	0xBEC	LICENSER	F
100	2012-11-26	13:56:47.258	0x634	0xBEC	LICENSER	F
104	2012-11-26	13:56:47.315	0x634	0xBEC	LICENSER	F
108	2012-11-26	13:56:47.406	0x634	0xBEC	LICENSER	F
115	2012-11-26	13:56:47.471	0x634	0xBEC	LICENSER	F
121	2012-11-26	13:56:47.535	0x634	0xBEC	LICENSER	F
128	2012-11-26	13:56:47.612	0x634	0xBEC	LICENSER	F
139	2012-11-26	13:56:47.940	0x634	0xBEC	LICENSER	F
149	2012-11-26	13:56:48.223	0x634	0xBEC	LICENSER	F
155	2012-11-26	13:56:48.287	0x634	0xBEC	LICENSER	F
929	2012-11-26	15:09:51.927	0x634	0x620	LICENSER	F
939	2012-11-26	15:09:51.998	0x634	0x620	LICENSER	F
948	2012-11-26	15:09:52.416	0x634	0x620	LICENSER	F
958	2012-11-26	15:09:52.666	0x634	0x620	LICENSER	F
968	2012-11-26	15:09:52.729	0x634	0x620	LICENSER	F
1094	2012-11-26	15:10:30.826	0x634	0xFE4	LICENSER	F
1292	2012-11-26	15:24:37.650	0x634	0x36C	LICENSER	U

Example of a result after applying filters

It is possible to watch filter results through the columns **Process** and **Module**. Also notice that the status bar indicates that these events were modified by a filter.

2.6.2 Time Filter

The **Time Filter** allows restricting message interval by selecting start and end date and time to be displayed. To use this option, select the **Actions - Filter Editor** menu or click , and then select the **By Time** tab. The next window is displayed.



By Time tab of the Filter Editor window

The available options are the following:

Available options on the By Time tab

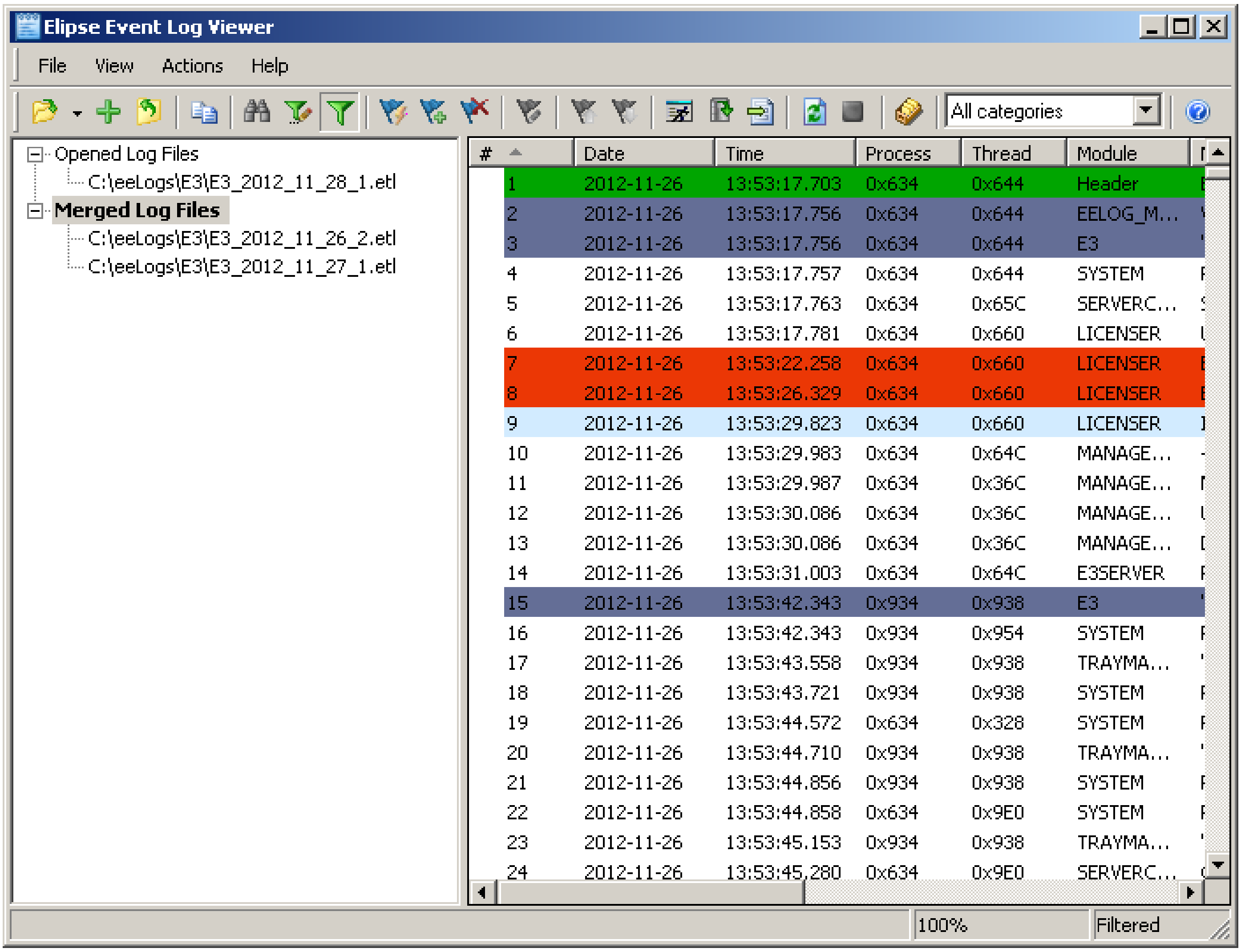
OPTION	DESCRIPTION
Enable Filter	Enables the usage of a By Time filter.
Start	Selects the starting date and time for the filter.
End	Selects the ending date and time for the filter.

When final date and time are previous to the start date and time, or the final time interval is previous to start time interval, the filter will be automatically disabled.

On a by time filter, the start time is included, but the final one is excluded. That is, a filter between `09:30:47` and `09:35:47` will display only events up to the second 46. Therefore, it is not allowed a by time filter using equal dates and times.

Notice that, although it is possible to choose the starting and ending times by the message number, the interval milliseconds are zeroed. Then, when choosing a specific starting second, all its events will be listed, since the first millisecond.

To turn on the filter, click ▽ on the toolbar. The result is similar to the one showed next (for messages in the interval between `2012-11-26 13:53:17` and `2012-11-27 12:54:01`).



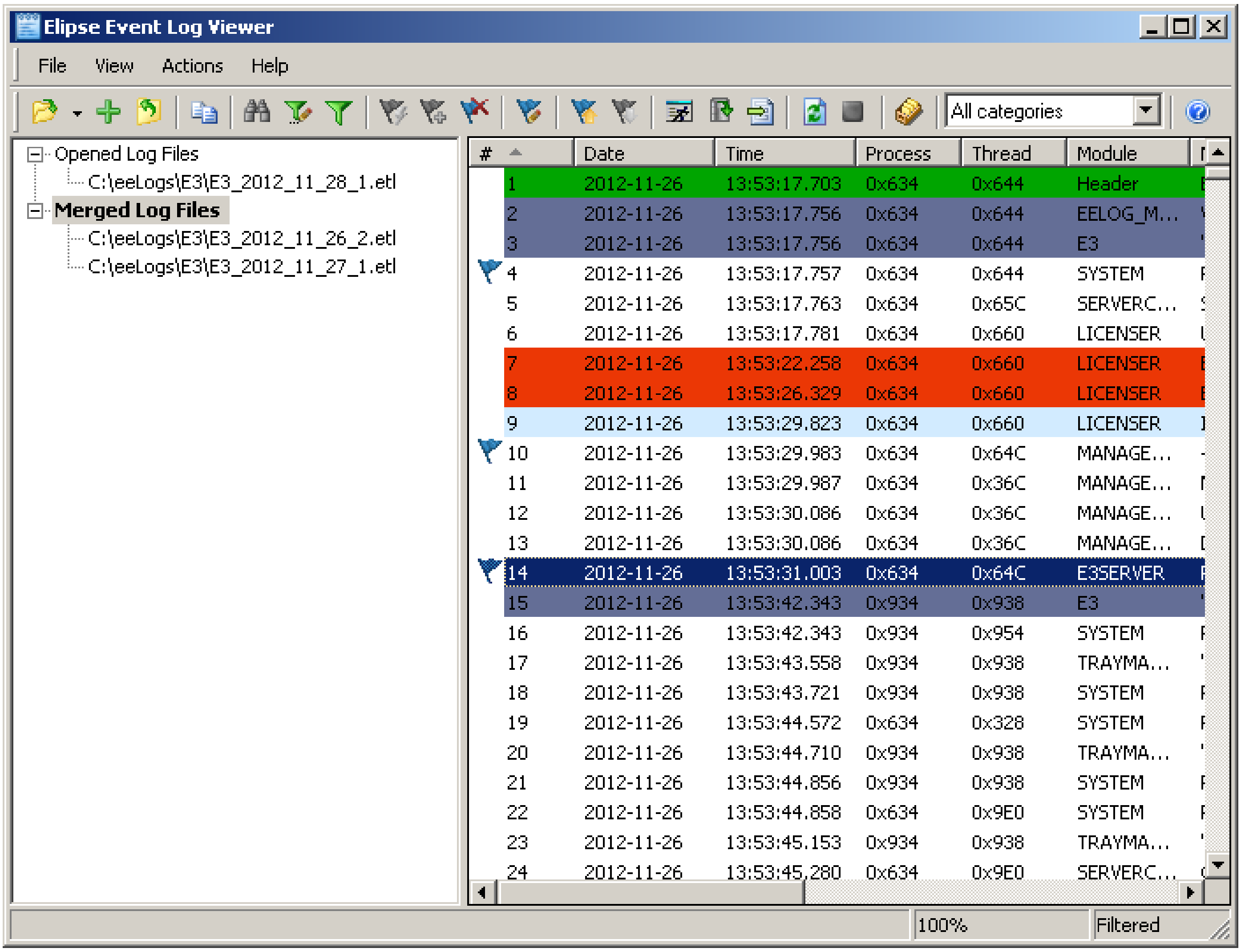
#	Date	Time	Process	Thread	Module
1	2012-11-26	13:53:17.703	0x634	0x644	Header
2	2012-11-26	13:53:17.756	0x634	0x644	EELOG_M...
3	2012-11-26	13:53:17.756	0x634	0x644	E3
4	2012-11-26	13:53:17.757	0x634	0x644	SYSTEM
5	2012-11-26	13:53:17.763	0x634	0x65C	SERVERC...
6	2012-11-26	13:53:17.781	0x634	0x660	LICENSER
7	2012-11-26	13:53:22.258	0x634	0x660	LICENSER
8	2012-11-26	13:53:26.329	0x634	0x660	LICENSER
9	2012-11-26	13:53:29.823	0x634	0x660	LICENSER
10	2012-11-26	13:53:29.983	0x634	0x64C	MANAGE...
11	2012-11-26	13:53:29.987	0x634	0x36C	MANAGE...
12	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
13	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
14	2012-11-26	13:53:31.003	0x634	0x64C	E3SERVER
15	2012-11-26	13:53:42.343	0x934	0x938	E3
16	2012-11-26	13:53:42.343	0x934	0x954	SYSTEM
17	2012-11-26	13:53:43.558	0x934	0x938	TRAYMA...
18	2012-11-26	13:53:43.721	0x934	0x938	SYSTEM
19	2012-11-26	13:53:44.572	0x634	0x328	SYSTEM
20	2012-11-26	13:53:44.710	0x934	0x938	TRAYMA...
21	2012-11-26	13:53:44.856	0x934	0x938	SYSTEM
22	2012-11-26	13:53:44.858	0x634	0x9E0	SYSTEM
23	2012-11-26	13:53:45.153	0x934	0x938	TRAYMA...
24	2012-11-26	13:53:45.280	0x634	0x9E0	SERVERC...

Example of a filter by time

Also notice that the status bar indicates that these events were modified by a filter, such as in **Message Filters**.

2.7 Bookmarks

Bookmarks are tags that can be associated to one or more events in a file. On event viewing area there is a column named **Bookmarks**, which displays events that have an associated bookmark. In these cases, an icon ⚑ is placed near the event ID.



- Opened Log Files
  - C:\eeLogs\E3\E3_2012_11_28_1.etl
- Merged Log Files
  - C:\eeLogs\E3\E3_2012_11_26_2.etl
  - C:\eeLogs\E3\E3_2012_11_27_1.etl

#	Date	Time	Process	Thread	Module
1	2012-11-26	13:53:17.703	0x634	0x644	Header
2	2012-11-26	13:53:17.756	0x634	0x644	EELOG_M...
3	2012-11-26	13:53:17.756	0x634	0x644	E3
4	2012-11-26	13:53:17.757	0x634	0x644	SYSTEM
5	2012-11-26	13:53:17.763	0x634	0x65C	SERVERC...
6	2012-11-26	13:53:17.781	0x634	0x660	LICENSER
7	2012-11-26	13:53:22.258	0x634	0x660	LICENSER
8	2012-11-26	13:53:26.329	0x634	0x660	LICENSER
9	2012-11-26	13:53:29.823	0x634	0x660	LICENSER
10	2012-11-26	13:53:29.983	0x634	0x64C	MANAGE...
11	2012-11-26	13:53:29.987	0x634	0x36C	MANAGE...
12	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
13	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
14	2012-11-26	13:53:31.003	0x634	0x64C	E3SERVER
15	2012-11-26	13:53:42.343	0x934	0x938	E3
16	2012-11-26	13:53:42.343	0x934	0x954	SYSTEM
17	2012-11-26	13:53:43.558	0x934	0x938	TRAYMA...
18	2012-11-26	13:53:43.721	0x934	0x938	SYSTEM
19	2012-11-26	13:53:44.572	0x634	0x328	SYSTEM
20	2012-11-26	13:53:44.710	0x934	0x938	TRAYMA...
21	2012-11-26	13:53:44.856	0x934	0x938	SYSTEM
22	2012-11-26	13:53:44.858	0x634	0x9E0	SYSTEM
23	2012-11-26	13:53:45.153	0x934	0x938	TRAYMA...
24	2012-11-26	13:53:45.280	0x634	0x9E0	SERVERC...

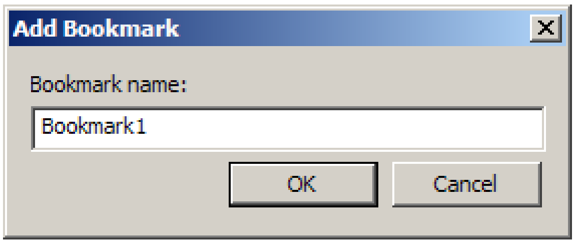
Elipse Event Log Viewer window with bookmarks associated to events

On the toolbar, these are the options for bookmarks:

Available options for the bookmark toolbar

ICON	OPTION	DESCRIPTION
	Fast Bookmark	Adds a bookmark with an automatically generated name for all selected events.
	Add Bookmark	Opens a window to ask for a name for the bookmark, and adds it to all selected events.
	Remove Bookmark	Removes the bookmarks from the selected events.
	Edit Bookmarks	Opens a window for editing bookmarks.
	Previous Bookmark	Selects the previous bookmark.
	Next Bookmark	Selects the next bookmark.

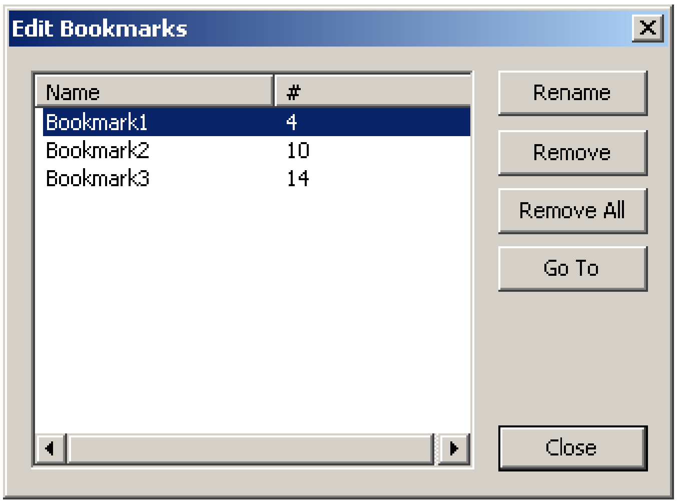
When clicking , the following window is then displayed.



Bookmark name: Bookmark1

Add Bookmark window

In the **Bookmark name** field, users must inform the name of the bookmark. If there is already a bookmark with this name, then the selected event is added to a list of associated events to this bookmark. If it does not exist, then a new bookmark is created and the selected event is associated to it. When clicking , the following window is then displayed.



Name	#
Bookmark1	4
Bookmark2	10
Bookmark3	14

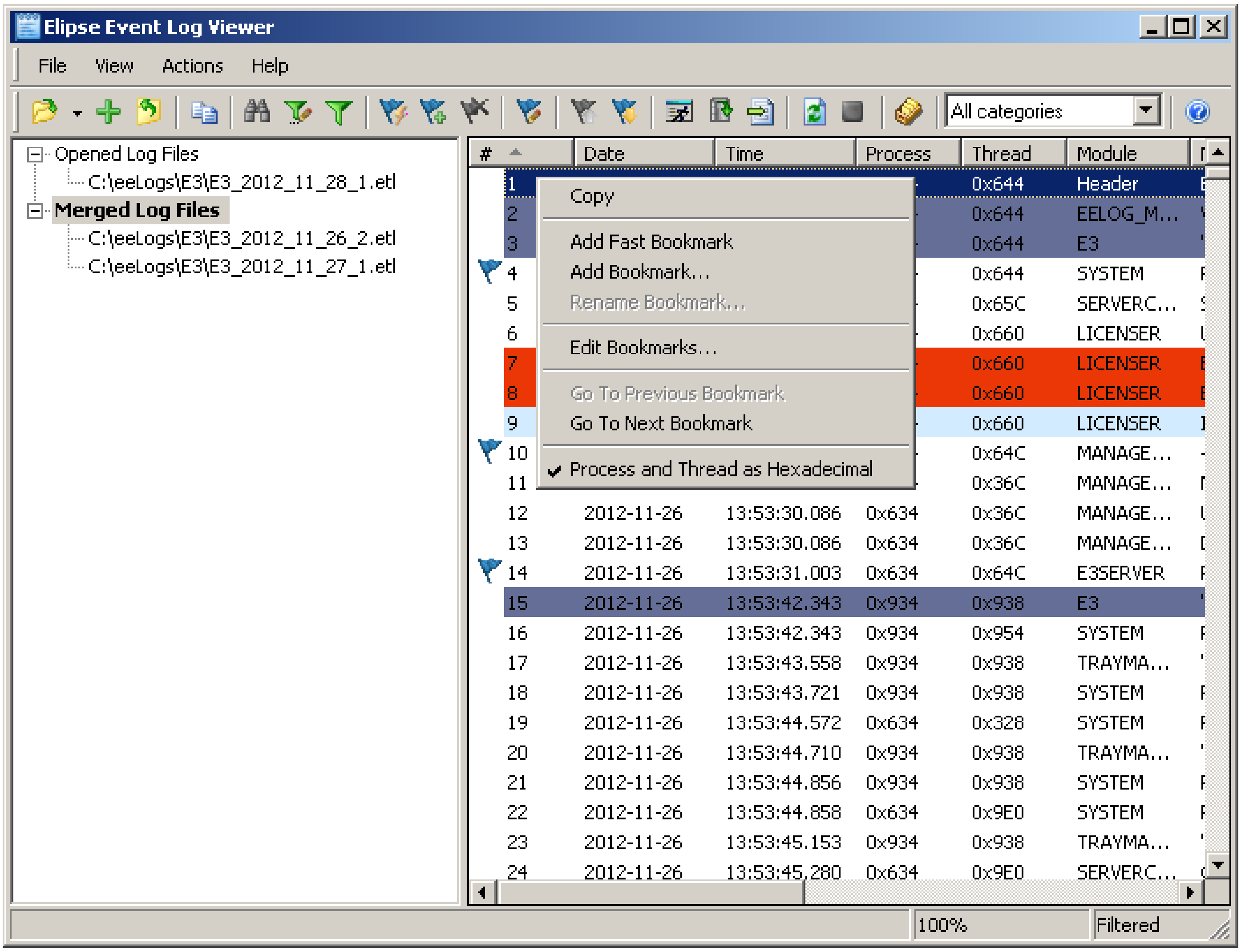
Edit Bookmarks window

This window displays a list with all existing bookmarks, and the events associated to them. The available options on this window are the following:

Available options on the Edit Bookmarks window

OPTION	DESCRIPTION
Rename	Renames the selected bookmark on the list displayed on the window. A window asking for a new name is displayed.
Remove	Removes the selected bookmark on the list displayed on the window.
Remove All	Removes all bookmarks.
Go To	Selects the event associated to the selected bookmark, in the event viewing area, without closing the editing window.
Close	Closes the bookmark editing window.

All operations performed in this window are automatically applied. When right-clicking an event, a contextual menu is displayed with the following options:



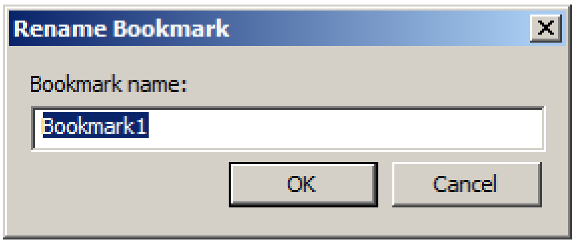
#	Date	Time	Process	Thread	Module
1				0x644	Header
2				0x644	EELOG_M...
3				0x644	E3
4				0x644	SYSTEM
5				0x65C	SERVERC...
6				0x660	LICENSER
7				0x660	LICENSER
8				0x660	LICENSER
9				0x660	LICENSER
10				0x64C	MANAGE...
11				0x36C	MANAGE...
12	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
13	2012-11-26	13:53:30.086	0x634	0x36C	MANAGE...
14	2012-11-26	13:53:31.003	0x634	0x64C	E3SERVER
15	2012-11-26	13:53:42.343	0x934	0x938	E3
16	2012-11-26	13:53:42.343	0x934	0x954	SYSTEM
17	2012-11-26	13:53:43.558	0x934	0x938	TRAYMA...
18	2012-11-26	13:53:43.721	0x934	0x938	SYSTEM
19	2012-11-26	13:53:44.572	0x634	0x328	SYSTEM
20	2012-11-26	13:53:44.710	0x934	0x938	TRAYMA...
21	2012-11-26	13:53:44.856	0x934	0x938	SYSTEM
22	2012-11-26	13:53:44.858	0x634	0x9E0	SYSTEM
23	2012-11-26	13:53:45.153	0x934	0x938	TRAYMA...
24	2012-11-26	13:53:45.280	0x634	0x9E0	SERVERC...

Contextual menu of an event

Contextual menu options of an event

OPTION	DESCRIPTION
Copy	Copies the selected events to the Clipboard. The selection made in the option **Process and Thread as Hexadecimal** is kept during the copy.
Add Fast Bookmark	Adds a bookmark with an automatically generated name to all selected events.
Add Bookmark	Opens a window to ask for a bookmark name, and adds it to all selected events.
Rename Bookmark	Renames the selected bookmarks.
Edit Bookmarks	Opens a window for editing bookmarks.
Go To Previous Bookmark	Selects the previous bookmark.
Go To Next Bookmark	Selects the next bookmark.
Process and Thread as Hexadecimal	Allows selecting whether the visualization of columns Process and Thread is displayed in hexadecimal (default) or decimal format. This option is preserved per user, and it is also used when **exporting events**.

When clicking the **Rename Bookmark** option, the following window is displayed.



Bookmark name: Bookmark1

Rename Bookmark window

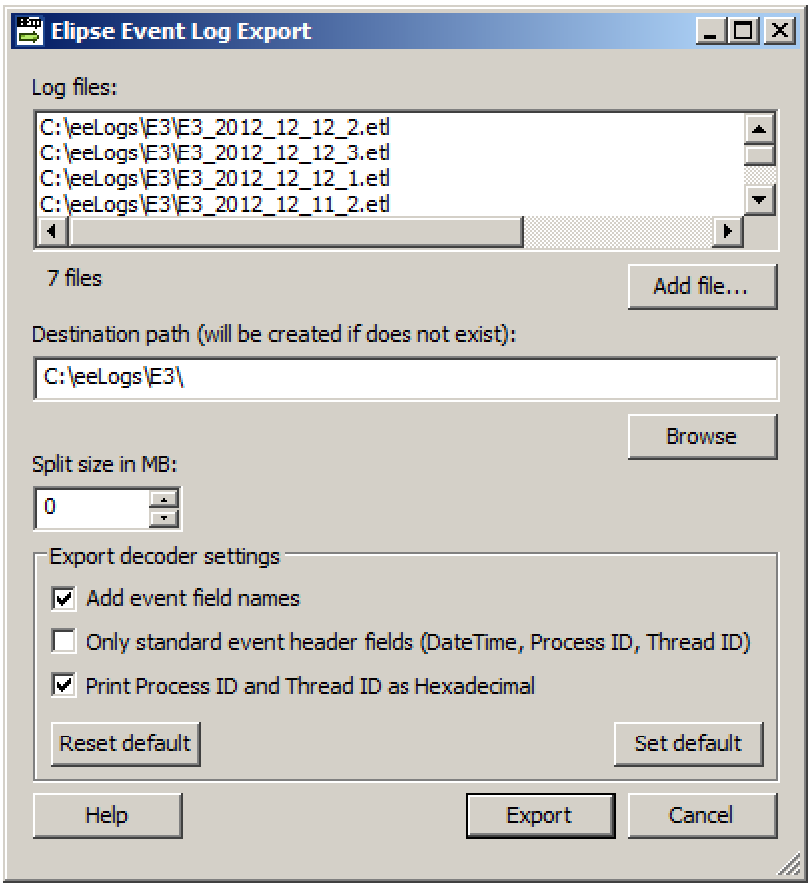
In the **Bookmark name** field, users must type the new bookmark name. This option is valid for single as well as for multiple selection, allowing several events to be grouped under the same bookmark name.

CHAPTER 3

Elipse Event Log Export

It is possible to export files in ETL format to a text file for printing, as well as for manipulating with another program. This is done using a tool called **Elipse Event Log Export**. To use this option, follow these procedures:

1. From Log Viewer, select **Actions - Export Events** menu or click , or else directly select the **Start - Programs - Elipse Software - Elipse Event Log - Log Export** menu. If the Merged Log Files node is selected, all data from open events is exported on this option.
2. The following window is then displayed:



Log files:

C:\eeLogs\E3\E3_2012_12_12_2.etl
C:\eeLogs\E3\E3_2012_12_12_3.etl
C:\eeLogs\E3\E3_2012_12_12_1.etl
C:\eeLogs\E3\E3_2012_12_11_2.etl

7 files

Destination path (will be created if does not exist):

C:\eeLogs\E3\

Split size in MB:

0

Export decoder settings

☑ Add event field names

☐ Only standard event header fields (DateTime, Process ID, Thread ID)

☑ Print Process ID and Thread ID as Hexadecimal

Window for exporting events

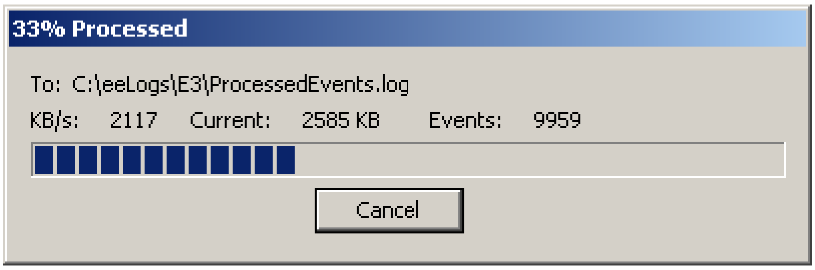
The available options are the following:

Available options for exporting events

OPTION	DESCRIPTION
Log files	Lists the selected files for export. If there is a need to delete some of them, select it and press the DELETE key.
Add file	Allows adding other files for export into the list.
Destination path (will be created if does not exist)	Determines the destination folder for export. This folder is created if it does not exist. If no directory is specified, the current path of the log files is used.
Browse	Allows choosing another destination folder.
Split size in MB	Divides the final file into several files, according to the chosen size.
Add event field names	The events are exported in full mode, containing name and event value. The default value of this option is checked.
Only standard event header fields (DateTime, Process ID, Thread ID)	Only the most important fields are exported. The default value of this option is unchecked (all fields are exported).
Print Process ID and Thread ID as Hexadecimal	Allows choosing whether columns **Process** and **Thread** are exported in hexadecimal or decimal format. The default value of this option is checked.
Reset default	Sets the export configurations back to default (**Add event field names** field checked, **Only standard event header fields** field unchecked, and **Print Process ID and Thread ID as Hexadecimal** field checked).
Set default	Saves the current export configurations.

When more than one file is selected for export, the name of the file is ProcessedEvents.log. When only one file is selected for export, the name of the file is the same, only its extension changes to .log.

After configuring this option, click **Export**. The following window is opened when event export starts.



To: C:\eeLogs\E3\ProcessedEvents.log
KB/s: 2117 Current: 2585 KB Events: 9959

Export events progress window

Depending on the size of the files being exported, this may be a time-consuming task, because files are read from the beginning to the end, and sorted before starting the process of event export.

3.1 Command Line Options

The Elipse Event Log Export can be used from a command line. The format for using the program is the following:

```
> eeLogExport.exe [- | /] [function | command] <arguments>
```

The options for the *function* parameter are described on the next table.

Available options for the function parameter

FUNCTION	DESCRIPTION
s <file1.etl; file2.etl>	File or files to be exported. Files separated by semicolons are merged.
d <folder>	Specifies an output folder for the exported log files. If this folder does not exist, it is created. If this parameter is omitted, the current path of the log files is used.
x <schema.xml>	Uses an XML Schema file with the specification of the export format.
split <n>	Splits the results of log export into several decoded files, with *n* megabytes.
splitb <n>	Splits an .etl file into several files with *n* megabytes each, without decoding them.
p <n>	Stops splitting a file when reaches the *n* value, which is the amount of files to create. This option can only be used with the *splitb* parameter.
fts <dd/MM/yyyy HH:mm:ss>	Starting date of the events to be exported.
fte <dd/MM/yyyy HH:mm:ss>	Ending date of the events to be exported.
stop <LoggerName>	Closes a log section, specified by the *LoggerName* argument.
stoplogdir <directory>	Recursively stops all open log sessions, starting at the path indicated by *directory*. **NOTE**: This action cannot be rolled back.

The options for the *command* parameter are the following:

NOTE: Some of the following commands, to be executed, need a user belonging to the Windows group **Administrator** for Windows XP and Windows Server 2003 operating systems. For Windows Vista or newer operating systems, the process must be executed with higher privileges, using the option **Run as Administrator**.

Available options for the command parameter

COMMAND	DESCRIPTION
? or help	Displays a message box with a help text about command line options.
show	Forces the Elipse Event Log Export settings window to be displayed.
install	Associates files with .etl extension to Elipse Event Log Export, so that these files can be opened in Windows Explorer by double-clicking them. **It must be executed as Administrator**.
uninstall	Removes the Elipse Event Log Export association to files with an .etl extension. **It must be executed as Administrator**.
q	Quiet mode. It does not display a dialog box with error messages.

COMMAND	DESCRIPTION
queryall	Displays a window with all active log sessions. Selecting the check box near the name of the session and clicking **Stop** allows closing that session. **It must be executed as Administrator**. When right-clicking a session, the options **Session Name to Clipboard** (copies the session name to the Windows Clipboard) and **Full File Path to Clipboard** (copies the full path of the session file to the Clipboard) are presented.
singleton	Avoids that several instances of the same process in which Elipse Event Log Export is running be opened.

CHAPTER 4

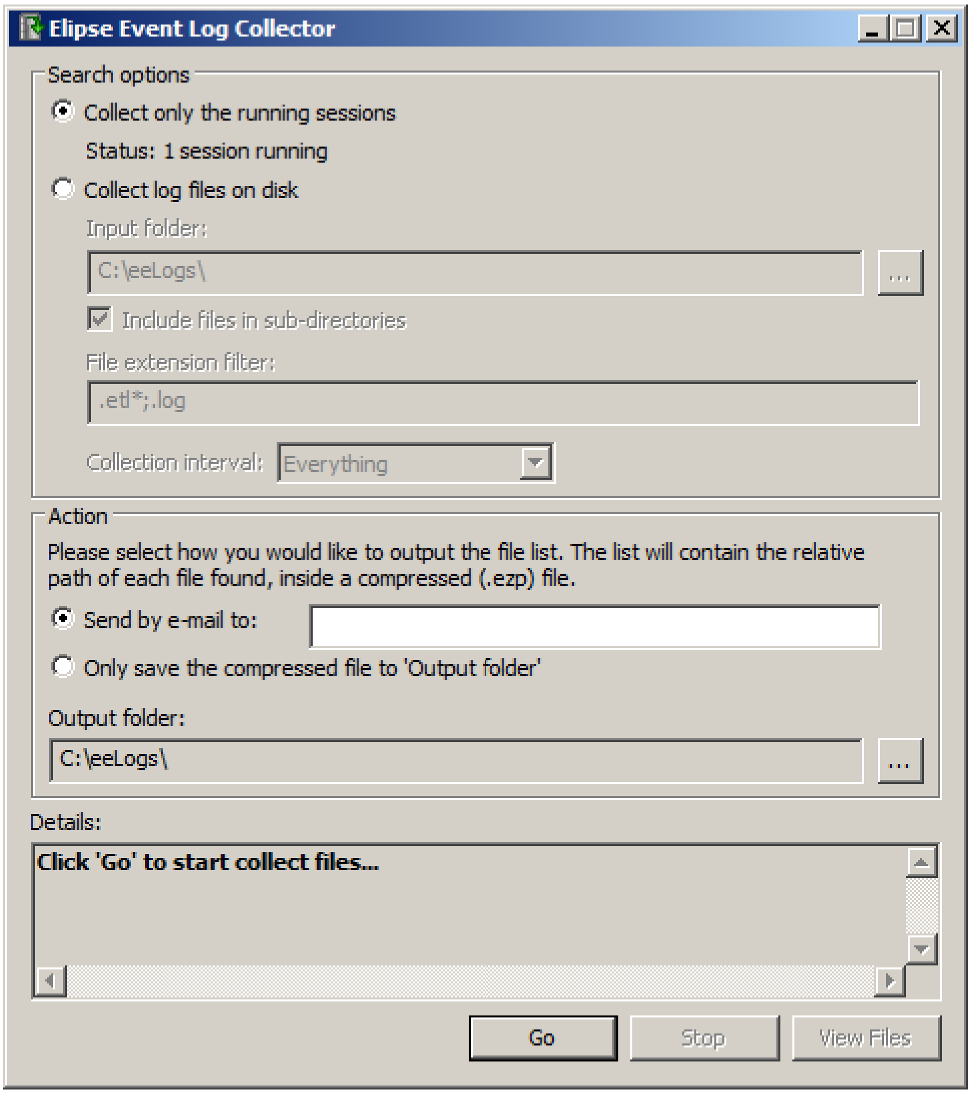
Elipse Event Log Collector

Elipse Event Log Collector was created to automate the process of sending logs to Elipse. With the collector, users need almost no configuration, since the program already executes all the necessary steps, according to the type of file to be collected (.etl, .log, or any other file extension) and generating at the end of the collecting process a compressed file, supported by any program that decompress files in ZIP format.

NOTE: Starting with version 4.5 build 60 of Elipse Event Log Collector, it is necessary to install the **Elipse Event Log Tools**.

4.1 Collecting Logs

When executing Elipse Event Log Collector, the following dialog box is opened:



Search options

● Collect only the running sessions

Status: 1 session running

○ Collect log files on disk

Input folder: C:\eeLogs\

☑ Include files in sub-directories

File extension filter: .etl*;.log

Collection interval: Everything

Action

Please select how you would like to output the file list. The list will contain the relative path of each file found, inside a compressed (.ezp) file.

● Send by e-mail to:

○ Only save the compressed file to 'Output folder'

Output folder: C:\eeLogs\

Details:

Click 'Go' to start collect files...

Elipse Event Log Collector's main window

The available options are the following:

Available options for Elipse Event Log Collector

OPTION	DESCRIPTION
Search options	Allows selecting how files are collected: • **Collect only the running sessions**: Log collection is performed only on open log sessions • **Collect log files on disk**: Allows selecting log files to collect, by using the option **Input folder** Regardless the selected mode, the collected files will be serialized (if supported by the API and by the log session) to the next value on the daily sequence.

OPTION	DESCRIPTION
Input folder	Informs the directory from where the log files must be retrieved. It is initially filled in with parameters configured on log storage, so that it is possible to determine where logs are being currently generated. To select a directory, click ... or use the key combination ALT + I.
Include files in sub-directories	Indicates if collect must be performed by searching files on sub-directories.
File extension filter	Informs what file extensions must be collected.
Collection interval	Allows selecting a time interval to collect logs. The available options on this combo box are the following: • **Everything** • **Last 24 hours** • **Last 7 days** • **Last 30 days** • **Last 365 days** • **Custom range** When selecting the option **Custom range**, users can choose a specific date to collect the logs.
Action	Informs the output type of the log collector. If the selected option is **Send by e-mail to**, the result of the log collect, after saved to the output folder, is sent by e-mail to the address informed on that field. If the option is **Only save the compressed file to 'Output Folder'**, the generated file is only saved to the output folder.
Output Folder	Indicates the output directory where the compressed log file is saved. Regardless of the option selected on **Action**, a copy of the compressed file is always saved to this directory. To select a directory, click ... or use the key combination ALT + O.
Details	Shows information about the progress of the process of collecting log files.
Go	Starts collecting log files.
Stop	Stops collecting log files.
View Files	Allows viewing what log files were found, according to options **Input file options** and **File extension filter**. If compression is successful, this list matches the list of compressed files.

NOTE: Changes on the parameters of the option **Input file options** must be performed carefully, because this action determines from where the collector gets those files. It is only advised to change these values under technical recommendation from Elipse Software.

When collecting files with an .etl (Elipse Trace Logs) extension that are in use, the program automatically flushes the events in memory (event buffer flushing), preventing loss of information.

Flushing events in memory to disk only happens when files to collect are on the same computer where Elipse Event Log Collector is running. A collecting executed on remote computers has no way to perform flushing events on the other computer, although they are collecting files written to disk. The generated output file is always named CollectedLogs.ezp. When starting a new collect, if there were a previous file on the same output directory named CollectedLogs.ezp, this file is erased and a new one is created.

If the disk unit where the CollectedLogs.ezp file is generated has less than or equal to 5 MB free space, the collector does not start collecting. If collecting has already begun, it is stopped when this limit is reached.

If the **Send by e-mail to** option is selected, at the end of collecting a window is opened to send the e-mail. The collected file is then attached to it.

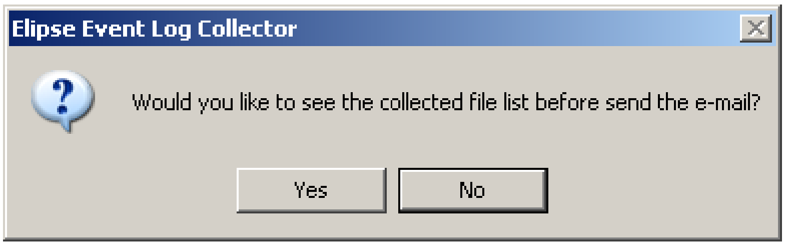
If there is no e-mail client configured or compatible, or any other error has occurred while preparing the message, the file is not sent. In this case, users must send the file manually using an e-mail client (or a web mail). Depending on the size of the generated file, it may be necessary to send it via physical media, such as a CD or DVD, to Elipse Software.

NOTE: For Elipse Event Log Collector to open an e-mail message, users must have an e-mail client compatible with Microsoft Simple MAPI (*Microsoft Simple Message API*), protocol used by the collector to create a call to the e-mail client that generates the message.

Any error due to search option parameters, access rights to output folders, insufficient disk space (less than 5 MB), users aborting the collecting process, or any other error, prevents the CollectedLog.ezp final file to be generated.

While collecting is running and the output file is being generated, its name has a __tmp suffix, therefore it is named CollectedLogs.ezp__tmp. This file is renamed at the end of the collecting process to CollectedLogs.ezp.

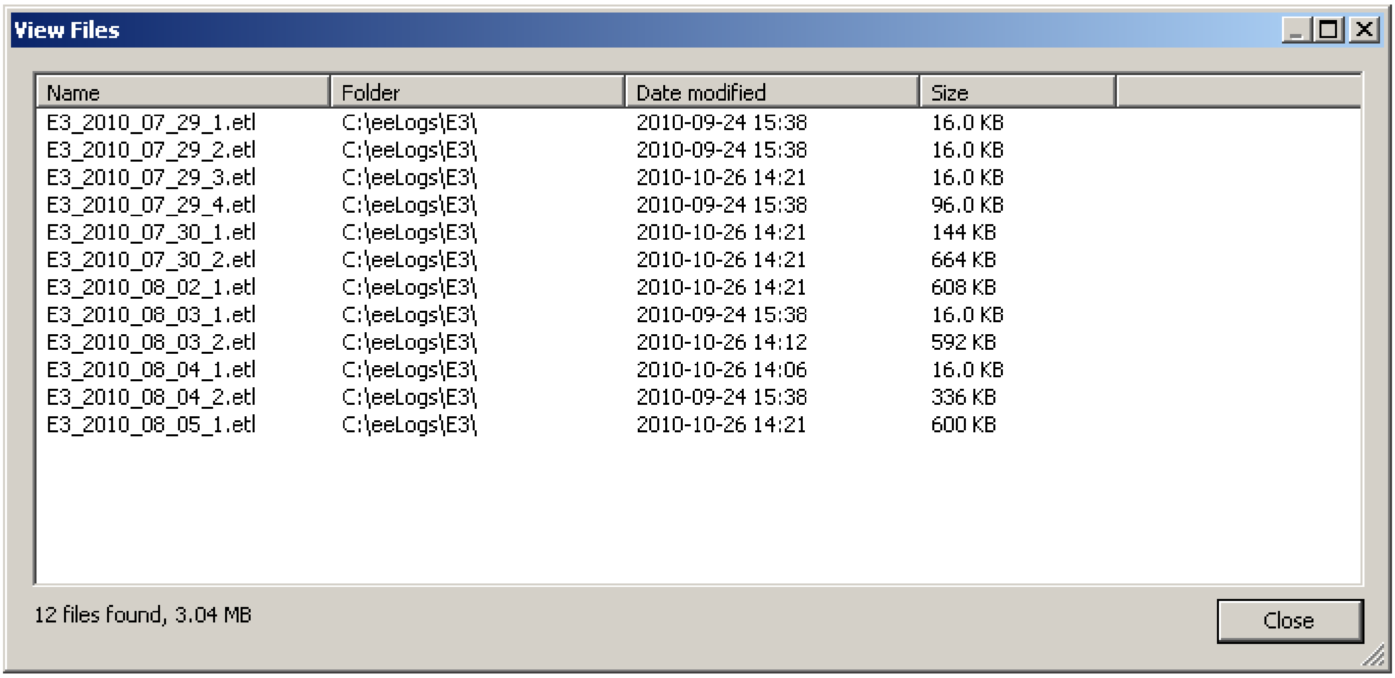
If the option to send by e-mail was selected, a message is displayed asking whether the list of collected files should be displayed before sending it.



Would you like to see the collected file list before send the e-mail?

Message asking to display a list of collected files

By clicking **Yes**, a list is displayed with all files added to CollectedLogs.ezp.



Name	Folder	Date modified	Size
E3_2010_07_29_1.etl	C:\eeLogs\E3\	2010-09-24 15:38	16.0 KB
E3_2010_07_29_2.etl	C:\eeLogs\E3\	2010-09-24 15:38	16.0 KB
E3_2010_07_29_3.etl	C:\eeLogs\E3\	2010-10-26 14:21	16.0 KB
E3_2010_07_29_4.etl	C:\eeLogs\E3\	2010-09-24 15:38	96.0 KB
E3_2010_07_30_1.etl	C:\eeLogs\E3\	2010-10-26 14:21	144 KB
E3_2010_07_30_2.etl	C:\eeLogs\E3\	2010-10-26 14:21	664 KB
E3_2010_08_02_1.etl	C:\eeLogs\E3\	2010-10-26 14:21	608 KB
E3_2010_08_03_1.etl	C:\eeLogs\E3\	2010-09-24 15:38	16.0 KB
E3_2010_08_03_2.etl	C:\eeLogs\E3\	2010-10-26 14:12	592 KB
E3_2010_08_04_1.etl	C:\eeLogs\E3\	2010-10-26 14:06	16.0 KB
E3_2010_08_04_2.etl	C:\eeLogs\E3\	2010-09-24 15:38	336 KB
E3_2010_08_05_1.etl	C:\eeLogs\E3\	2010-10-26 14:21	600 KB

12 files found, 3.04 MB

List of added files

Next, the e-mail is parameterized to be sent, using the default e-mail client of the machine where Elipse Event Log Collector is installed.

4.2 Contents of CollectedLogs.ezp File

The CollectedLogs.ezp file is generated using the PKZIP format, and can be opened by any program that also decompress the ZIP format.

At least there is one eeLogCollector_Readme.txt file inside CollectedLogs.ezp. This file contains all records of the executed collecting, even if the collecting did not find or add files. This is important in order to inform what was collected.

CHAPTER 5

Security Restrictions

For operating systems beginning with Windows XP, Elipse Event Log, since version 4.0, creates a user on the local machine during the installation process, named **eeLogs**, and adds it to the **Performance Log Users** group. This user is needed by Elipse Event Log to control log sessions created by processes without administrator privileges on the machine. These new policies conform to Microsoft recommendations to allow granting special rights to processes or users without privileges, aiming to improve system security against malicious users.

But if the user is modified (that includes deleting or editing its parameters), possibly the logs may not have access to session control, because of the differences between edited and required configurations, thus leading to event losses. Therefore, it is not advisable to change these settings.

To restore default user settings, users can force the creation of a user by running the log service installation, eeLogSvc.exe, on a command prompt using the command **eeLogSvc.exe /i**.

For security reasons regarding the computer in which the Elipse Event Log user was created, this user is as limited as possible, granting only the minimum privileges needed for logs. The following grant restrictions are applied to the **eeLogs** user:

- Deny access to this computer from the network
- Deny log on locally
- Deny log on through Remote Desktop Services

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