

# LX 1.0 - Working with Settings and Filters

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## Overview

You can filter the Syslog entries that are shown in the Analyzer by SIP Message type and/or IP Address of the SBC 1000/2000 Peer device. You can also include Module errors and control the format of the Syslog file.

The screenshot shows the 'LX - Settings' dialog box. It is divided into several sections:

- Excluded SIP Methods:** A text input field.
- Match Call-ID for exclusion:** A checkbox that is currently unchecked.
- Excluded IP Addresses:** A text input field.
- Number of Log Lines Rendered in Message Log Reader:** A text input field containing the value '200'.
- Error Logging:**
  - Modules:** A box containing three checked checkboxes: SIP, CCC, and MSC.
  - Error Levels:** A box containing four checkboxes: ERROR (checked), WARNING, FATAL, and INFO.
- External Syslog Formatting:**
  - Line Prefix Split Count:** A text input field containing the value '4', with the text '(Words by spacing)' to its right.
  - RegexPattern - Line Breaks:** A text input field containing the value '<01[0|3]><010>'.
- Syslog Server Settings:**
  - Log Rotate Interval:** A text input field followed by the text 'Minutes'.
  - Enabled (Disk Save):** A checkbox that is currently unchecked.
  - Log Destination:** A text input field followed by a 'Browse' button.

At the bottom of the dialog, there are three buttons: 'Restore Defaults', 'OK', and 'CANCEL'.

## Excluding SIP Messages from the Log

You can exclude messages of specified SIP types (i.e., OPTIONS, INVITE, etc..) from the messages shown in the Message Pane when a log is parsed. You can also exclude the responses to those messages on a Call ID basis.

**To exclude messages of a specified type:**

- Enter a comma separated list of those message types in the **Excluded SIP Messages** text box.
- If you wish to exclude the responses to the excluded SIP Messages, select the **Match Call-ID** for exclusion check box.

## Excluding Messages from Peer Devices

You can exclude messages from specific SIP Peer devices. .

**To exclude messages from peer devices:**

- Enter a comma separated list of the IP addresses of the devices in the **Excluded IP Addresses** text box.

## Viewing Module Errors

You can view module errors (SIP, CCC, and MSC) in individual tabs in the Lower Display Pane if you have selected one or more items in the **Module Errors** group of the Configuration dialog.

**To view module errors:**

1. Select the appropriate options (SIP, CCC, MSC) are selected in the **Module Errors** group.
2. Select the appropriate logging levels in the **Error levels** group.
3. Save your selections by clicking **OK**.
4. Open the log file.
5. Click the appropriate tab at the top of the Lower Display Pane.

## External Syslog Formatting

**External Syslog Formatting** is used to format syslog files so that they can be parsed by LX correctly. External syslog servers usually append 4 words to each line of the syslog file. Those could be the host name and a timestamp. The **Line Prefix Split Count** setting must be set prior to opening the external syslog file with LX. This feature is explained in more details in section [LX 1.0 - Working with Syslogs from External Servers](#).

Some syslog servers, such as syslogd, use hexadecimal line breaks. Since the SIP messages are received in a single line, the syslog server adds either <010><010> or <013><010> as line breaks for each line of the SIP message. This prevents proper parsing of the SIP messages. The **RegexPattern - Line Breaks** setting allows you to specify a Regex pattern to be replaced as a line break.

## Syslog Server Settings

LX can write logs to a disk instead of the screen and is more efficient when capturing logs for an extended period of time.

### Log Rotate Interval

Specifies the interval between log rotations. If no interval is specified, log rotation defaults to 10 minutes.

### Log Destination

The destination for logs written to disk. This field is active only when **Enabled (Disk Save)** is selected.

### Enabled (Disk Save)

Enables saving the logs to disk.

## Settings - Field and Control Definitions

### Excluded SIP Messages

Specifies which SIP messages to exclude from the analysis. Entries in the syslog having the specified SIP Message(s) in the Method field are excluded from the analysis and do not appear in either the Message or Calls pane.

Entries in this field are comma separated and case sensitive.

### Excluded IP Addresses

Specifies which messages, based on the PEER IP, to exclude from the analysis. Entries in the syslog having the specified IP Address(es) in the Peer IP field are excluded from the analysis and do not appear in either the Message or Calls pane.

### Match Call-ID for Exclusion

When selected, responses to excluded SIP Messages will also be excluded.

### Number of Log Lines Renered in Message Log Reader

Specifies the number of lines from the target syslog file to render in the Message pane.

### Retain Old Entries On Load

When selected, retains the current rendered lines when a new syslog file is parsed.

### Module Errors

When checked, the syslog is parsed for the specified (SIP, CCC, MSC) errors and those errors are shown in a corresponding tab in the lower display pane.

### Error Levels

Specifies the error level(s) to display when including module errors. Check boxes are only active when one or more Module Error check boxes is selected.