

## Chapter 4

# Configuring Logging for SRC Components on a Solaris Platform

This chapter describes how to configure logging for SRC components and applications on a Solaris platform using the SRC configuration applications that run only on Solaris platforms.

You can also use the CLI that runs on Solaris platforms and the C-series platform to configure the component logging. See *Chapter 3, Configuring Logging for SRC Components with the CLI*.

Topics in this chapter include:

- Before You Configure Logging on page 17
- Accessing the Logging Configuration for All Components Except the NIC on page 18
- Accessing the Logging Configuration for the NIC on page 19
- Saving Event Messages in Text Files on page 20
- Saving Event Messages on a Logging Server on page 22
- Deleting Logs and Process Files for SRC Components on page 24

## Before You Configure Logging

---

Before you configure logging on a Solaris system for SRC components, you should be familiar with the logging filters that you can configure. If you use a syslog log facility, you should be familiar with the syslog protocol.

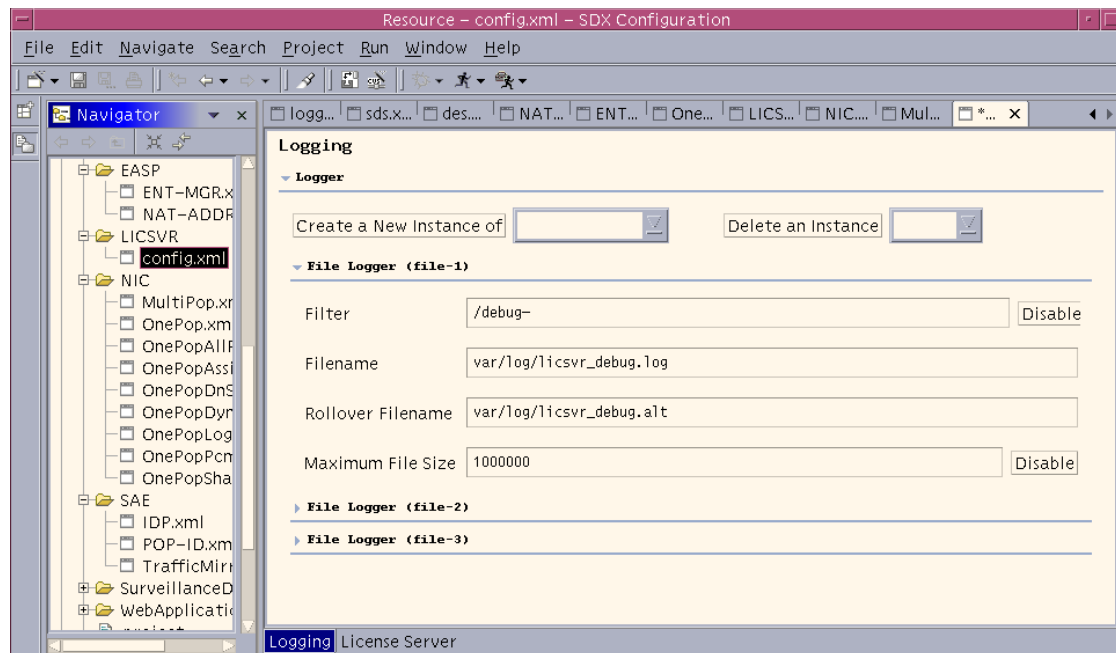
For more information see, *Chapter 2, Configuring Logging for SRC Components*.

## Accessing the Logging Configuration for All Components Except the NIC

To use SDX Configuration Editor to access a component's logging configuration:

1. In the navigation pane, select the configuration file for the component for which you want to configure logging.
2. Select the **Logging** tab, and expand the Logger section.

Each SRC component comes with a default logging configuration. The Logging pane changes depending on the component that you select in the navigation pane. The following pane shows the file logging configuration for a license server.



Most components have default logging configurations that you can use as they are or modify.

## Accessing the Logging Configuration for the NIC

To use SDX Configuration Editor to access logging configuration for a NIC configuration scenario:

1. In the navigation pane, select the NIC configuration scenario for which you want to configure logging.
2. Select the **Hosts** tab, and expand the **Logger** section.

In the Hosts pane, you can configure logging for all NIC hosts for the NIC configuration scenario that you selected, or you can configure logging separately for each NIC host.

The screenshot displays the 'Hosts' configuration pane in the SDX Configuration Editor. It is divided into two main sections: 'Logger' and 'Host'.

**Logger Section:** This section is expanded, showing options to 'Create a New Instance of' (with a dropdown menu) and 'Delete an Instance' (with a dropdown menu). Below this, the 'File Logger (file-1)' is listed.

**Host Section:** This section is also expanded, showing options to 'Create a New Instance of' (with a dropdown menu) and 'Delete an Instance' (with a dropdown menu). Below this, the 'Host (DemoHost)' is listed. Under 'Host (DemoHost)', there are fields for 'Hosted Resolvers' (containing '/realms/ip/A1, /realms/ip/B1, /realms/ip/C1') and 'Hosted Agents' (containing '/agents/PoolVr, /agents/VrSaeId').

**Redundant Hosts Section:** This section is collapsed.

**Logging configuration for all hosts on the NIC:** An arrow points from the text 'Logging configuration for all hosts on the NIC' to the 'Create a New Instance of' dropdown in the 'Logger' section.

**Logging configuration for a specific NIC host:** An arrow points from the text 'Logging configuration for a specific NIC host' to the 'Create a New Instance of' dropdown in the 'Host' section, which is currently set to 'Syslog Logger'.

Below the 'Host (DemoHost)' section, there is a 'Filter' field (containing '/error-') and a 'Syslog Host' field (containing 'loghost').

## Saving Event Messages in Text Files

To use SDX Configuration Editor to configure the software to save event messages in text files:

1. In the navigation pane, select the component for which you want to configure logging for text files.
2. Select the **Logging** tab. (For NIC components, select the **Hosts** tab.)

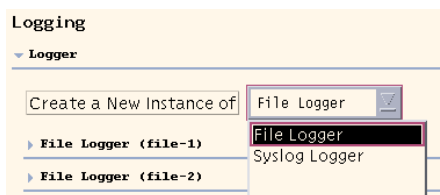
The following example shows the file logging configuration fields.

The screenshot shows the configuration for a 'File Logger (file-2)'. It includes the following fields:

- Filter:** /info- (with a 'Disable' button)
- Filename:** var/log/licsvr\_info.log
- Rollover Filename:** var/log/licsvr\_info.alt
- Maximum File Size:** 1000000 (with a 'Disable' button)

Each logging configuration can have multiple instances, with each instance sending different types of logs to different files.

3. (Optional) To create a new logging instance:
  - a. Select **File Logger** in the Create a New Instance of list, and **select Create a New Instance of**.



The Create a New Instance dialog box appears.

- b. Assign a name to the instance, and click **OK**.

The instance appears in the Logging or Hosts pane.

4. In the section for an individual logger, edit or accept the default values for the fields.

See *File Logging Fields* on page 21.

5. Select **File > Save**.
6. Right-click the configuration file, and select **SDX System Configuration > Export to LDAP Directory**.

## File Logging Fields

In SDX Configuration Editor, you can modify the following fields in a logger section of the Logging pane in a configuration file.

You can also modify the values in this section in a text file that contains logging properties for an SRC component.

### Filter

- Disables or enables and specifies a filter that determines the type of messages that this log file contains.
- Value— < Filter >  
See *Deleting Logs and Process Files for SRC Components* on page 24
- Default—The default value is different for each type of component.

### Filename

- Absolute path of the filename that contains the current logs.
- Value—Text string
- Default—By default, SRC components and applications write log files in the folder where the application is started. However, the user under which the J2EE application server or Web application server runs may not have write access to this folder. For logging to work properly, configure the component or application to write logs in folders to which this user has write access. If you are using the version of JBoss packaged with the SRC software, add the absolute path */opt/UMC/jboss/server/default/log/* to the filenames and rollover filename for each log. For example, for the debug log, use the filename */opt/UMC/jboss/server/default/log/vta\_debug.log*.
- Example—*/opt/UMC/jboss/server/default/log/*

### Rollover Filename

- Absolute path of the filename that contains the log history. When the log file reaches the maximum size, the software closes the log file and renames it with the name you specify for the rollover file. If a previous rollover file exists, the software overwrites it. The software then reopens the log file and continues to save event messages in it.
- Value—Text string
- Default—The default value is different for each type of component.
- Example—*/opt/UMC/jboss/server/default/log/*

**Maximum File Size**

- Disables or enables and sets the maximum size of the log file and the rollover file.
- Value—Number of kilobytes in the range 0–4294967295
- Guidelines—Do not set the maximum file size to a value greater than the available disk space.
- Default—1000000

**Saving Event Messages on a Logging Server**

You can configure the software to save event messages on a host that you have configured as a system logging server. You can also specify the facility for system logging and the format in which the messages will be saved on the host.

To use SDX Configuration Editor to configure the software to save event messages in text files:

1. In the navigation pane, select the component for which you want to configure logging to a system logging server.
2. Select the **Logging** tab. (For NIC components, select the **Hosts** tab.)

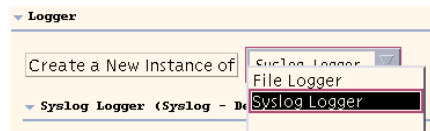
The following example shows the system logging configuration fields.

The screenshot shows a configuration window titled "Syslog Logger (syslog-2)". It contains four rows of configuration fields, each with a text input box and a button to the right:

- Filter:** The text input box contains "/info-warning" and the button is labeled "Disable".
- Syslog Host:** The text input box contains "loghost".
- Syslog facility:** The text input box is empty and the button is labeled "Enable".
- Format:** The text input box is empty and the button is labeled "Disable".

Each logging configuration can have multiple instances, with each instance sending different types of logs to different system logging servers.

3. (Optional) To create a new logging instance:
  - a. Select **Syslog Logger** in the Create a New Instance of list, and click **Create a New Instance of**.



The Create a New Instance dialog box appears.

- b. Assign a name to the instance, and click **OK**.

The instance appears in the Logging or Hosts pane.

4. In the section for an individual logger, edit or accept the default values in the fields.

See *System Logging Fields* on page 23.

In the filter field of each type of log, you can specify an expression that defines the *categories* and *severity levels* of event messages that the software saves.

5. Select **File > Save**.
6. Right-click the configuration file, and select **SDX System Configuration > Export to LDAP Directory**.

## System Logging Fields

In SDX Configuration Editor, you can modify the following fields in a system logger section of the Logging pane in a configuration file to configure logging to a system log file.

### Filter

- Disables or enables and specifies a filter that determines the type of messages that this log file contains.
- Value— < Filter >  
For information about defining filters, see *Chapter 2, Configuring Logging for SRC Components*.
- Default—The default value is different for each type of component.

### Syslog Host

- IP address or name of a host that collects event messages by means of a standard system logging daemon.
- Value—IP address or text string
- Default—loghost

**Syslog facility**

- Type of system log in accordance with the system logging protocol.
- Value—Integer in the range 0–23; each integer corresponds to the standard number for a system logging client
- Default—3

**Format**

- Specifies how the information in an event message is printed.
- Value—MessageFormat string as specified in <http://java.sun.com/j2se/1.4.2/docs/api/java/text/MessageFormat.html>  
The fields available for events are:
  - 0—Time and date of the event
  - 1—Name of the thread generating the event
  - 2—Text message of the event
  - 3—Category of the event
  - 4—Priority of the event.
- Default—None
- Example for text files—{0,time,HH:mm:ss.SSS z} {0,date,dd.MM.yyyy} [{1}] [{3}] [{4}] {2}  
A sample message for the sample setting is:  
14:13:24.366 EST 19.01.2004 [main] [Start-up module] [20] SAE STARTUP DONE
- Example for syslog—SSP[{1}] [{3}] [{4}] {2}  
Because the system log system usually timestamps all log messages, no time information is included in the default format. A sample message for the sample setting is:  
SSP[main] [Start-up module] [20] SAE STARTUP DONE

**Deleting Logs and Process Files for SRC Components**

---

For the following SRC components, you can issue a command to clean (delete) certain files that are generated by the process for that component.

- License server
- NIC hosts and monitors
- SAE
- SNMP agent



This command cleans:

- Text files that contain event messages.
- The files to which the machine on which you installed the component redirects the stderr and stdout outputs for that the component.
- Other types of files that the process generates and that are not used to reestablish the state of the SRC component when you restart it. These files vary according to each SRC component.

This command does not delete:

- Configurations in the directory or in local files.
- Information generated by the system logging facilities.
- Files that are required to reestablish the state of the SRC component when you restart it.

We recommend that you clean these files for a component when you stop it. When you restart the component, the SRC software creates new files with the same names as the ones you deleted. Cleaning the files keeps the file size small so that you can find data in the files more easily.

### **Deleting Log Files for SRC Components**

To delete (clean) the log files for an SRC component:

1. On the host on which you installed the SRC component, log in as **root** or as another authorized user.
2. Access the folder in which you installed the component.

**cd /opt/UMC/<sdxCComponent>/etc**

<sdxCComponent> is the name of the folder in which the SRC component is installed.

For information about component names, see *SRC-PE Getting Started Guide, Chapter 28, Installing the SRC Software on a Solaris Platform*.

3. Stop the component.

**./<sdxCComponent> stop**

4. Clean the logs.

**./<sdxCComponent> clean**

The system responds with a status message.

5. Restart the SRC component.

```
./<sdxComponent> start
```

For example, to clean files for the SAE, enter the following commands:

```
cd /opt/UMC/sae/etc  
./sae stop  
./sae clean  
./sae start
```