C H A P T E R 7

Using the PMC Application Logs

This chapter provides information about how to use the PMC application logs. It includes information about turning on and turning off logging for each of the individual log files and setting up levels for the debug log.

This chapter includes the following topics:

Identifying the PMC Logs

This section identifies the PMC log files and describes how to access the Logs submenu items. It contains the following topics:

Maintaining the PMC Log Files

The PMC maintains the following log files, plus the debug log, to help aid your troubleshooting efforts:

- Authentication.log
- ChannelActivity.log

- ChannelStatistics.log
- UserInterface.log
- DebugLog.txt

⚠️

Caution   Logging for these log files should only be turned on when you need help in isolating and resolving problems with the PMC and as directed by your system administrator or Cisco support personnel. To ensure system integrity, be sure to contact your system administrator before you use any of these logs.

The Cisco IPICS system allows you to turn on or turn off logging for these individual PMC log files, as well as set the debug log levels, by using the PMC optional settings menu. Logging is turned off by default.

Accessing the Logs Submenu Items

You can access the PMC Logs submenu items by using the PMC optional settings menu.

To access the PMC optional settings menu, follow this procedure:

Procedure

Step 1   Position your cursor over the PMC window that appears on your desktop.

Step 2   Hold down the left **Shift** key and right-click the mouse anywhere inside the PMC window.

Step 3   Click **Logs**.

The list of Logs submenu items displays.

Step 4   Navigate to the log that you want to turn on or turn off the logging functionality.

For information about turning on and turning off logging, and accessing the individual log files, see the "Procedure" section on page 7-3.

See the "Using the PMC Logs" section on page 7-5 for a description of each of the PMC logs.

Accessing the PMC Logs

From the PMC Logs submenu, you can choose to turn on or turn off logging to the PMC log files that are shown, as well as set or clear the debug log.

⚠

Caution   Because of the large amount of information that the system collects and generates when you set all of the debug options, Cisco recommends that you use debug logging only to isolate specific problems. When your debugging tasks have been completed, be sure to turn off debug logging by clearing the debug log.

To turn on and turn off logging for the individual logs, and to set or clear the debug log, follow this procedure:

Procedure

Step 1   Access the PMC optional settings menu, as described in the "Using the Optional Settings Menu" section on page 5-16.

Step 2   Click **Logs** to access the logs submenu items.

Step 3   To turn on logging for a log file, click the specific log name.

A check mark appears next to the log name to indicate that the logging functionality has been turned on.

✎

Note   You can choose to turn on logging for all of the log files or only individual log files.

Step 4   To set the debug log, choose **Debug > Set All** from the Logs menu.

A check mark appears next to all of the options that are listed in the debug submenu to indicate that they have been set.

✎

Note Cisco recommends that you only set the specific debug options that you need to use for your troubleshooting efforts; this approach helps to minimize the amount of hard disk space that the debug logs may consume. You can choose which debug options to set by clicking each individual option that you want to turn on; alternatively, these debug options may be set in the Cisco IPICS server. Be aware that some debug options may not be available until at least one PMC channel has been activated.

Step 5 To turn off logging for a log file, click the specific log name.

The check mark no longer appears next to the log name to indicate that logging has been turned off.

Step 6 To turn off the debug settings, choose **Debug > Clear All** from the Logs menu.

The check marks no longer appear next to the debug log options to indicate that the options have been cleared.

You can also choose to clear only certain debug options by clicking each individual option that you want to clear.

Step 7 To override the server log settings, click **Override Server Log Settings**.

A check mark appears next to this setting to indicate that the override option has been enabled. When you enable this option, the PMC ignores all server requests to modify your log and debug log settings.

To disable the override option, click **Override Server Log Settings** again to toggle it off; the check mark no longer appears next to the option to indicate that it has been turned off.

✎

Note Cisco recommends that you only enable this override setting as directed by your system administrator or Cisco support personnel.

Tip Be aware that the system may reset your debug log settings after you perform installation activities (such as install, upgrade, or repair) on the PMC. Check your debug log settings to make sure that the options that you need are enabled. For more information about installing and upgrading the PMC, see Chapter 2, "Installing and Upgrading the PMC Application."

Note When the PMC writes to any of the log files (*.log or DebugLog.txt) and the recording files (*.raw in the User recording directory), the application checks to make sure that available disk space exists to capture this data. If the amount of free disk space falls below a predefined level, logging and recording activities stop and data that can no longer be written to the disk is lost. When the free disk space increases to sufficient levels, the PMC automatically resumes logging and recording activities.

Using the PMC Logs

The PMC application stores all of the log files, with the exception of the Authentication log, in the following directory on the PMC client machine:

C:\Program Files\Cisco Systems\Cisco IPICS\PMC\Users\<*username*>\Logs

where <*username*> is the user name of the PMC user who is currently logged in to the application.

The PMC application stores the Authentication.Log file in the following directory on the PMC client machine:

C:\Program Files\Cisco Systems\Cisco IPICS\PMC\Components\Logs

Note The ChannelActivity.log, ChannelStatistics.log, UserInterface.log, and DebugLog.txt files are all user-specific. The Authentication.log is not user-specific, but rather, contains information for all users based on the PMC installation. See the "PMC Log Descriptions" section on page 7-7 for additional information.

The PMC stores all of the log and debug files in the Logs folders to enable PMC serviceability when the PMC does not have a connection to the Cisco IPICS server.

This section includes the following topics:

- PMC Log File Caveats, page 7-6
- PMC Log Descriptions, page 7-7

PMC Log File Caveats

The following caveats pertain to the PMC log files:

- All of the logs, except for the debug log, are based on size; that is, the system creates a new log when the predefined limit has been reached.

- To use the logging functionality, Cisco IPICS requires sufficient free disk space on the PMC client machine; that is, when the PMC detects only 100 MB of free disk space, it displays a warning message to alert you and when the PMC detects 50 MB of free disk space, it stops logging data to the log files.

- The debug log (DebugLog.txt) file starts a fresh log each time you start the PMC; when this activity occurs, the system moves the information that was contained in DebugLog.txt to DebugLog_archive.txt.

- By default, the Cisco IPICS system retains one current active copy (DebugLog.txt) and one archive copy (DebugLog_archive.txt) of the debug log.

- By default, the Cisco IPICS system writes all error messages to the debug log

- The PMC specifies the number of logs and debug files to maintain per log file type.

- At predefined intervals, the Cisco IPICS server may retrieve the log files from the PMC. (The server may also request the PMC to upload any of the log files on demand.)

- The server may request that a log file be uploaded from the PMC whenever a new log file is created based on file size rollover.

- When you check the **Optimize for low bandwidth** check box in the PMC Channels menu, the PMC does not upload logs to the server in an effort to conserve bandwidth.

- When that activity occurs, the system renames the uploaded log file to reflect an archive copy. For example, when the server requests a log file upload of the UserInterface.log file, the system renames the file to reflect UserInterface.1, which signifies the first archive copy.

- Multiple log archives may be maintained to allow for multiple upload requests by the server.

- All archive files are automatically deleted after they have been uploaded to the server.

- If the server does not request log file upload on rollover, the system does not create these archive log files.

- All of the logs appear in Greenwich Mean Time (GMT).

- The DebugLog.txt appears in text format.

- The Authentication.log, ChannelActivity.log, ChannelStatistics.log, and UserInterface.log appear in XML format. The Cisco IPICS server parses them and turns them into syslog format; the server then sends the syslog messages to the router for collection.

PMC Log Descriptions

This section provides a description and a sample format for each of the PMC log files.

Note   The PMC timestamps all log entries in GMT format, however, it does not synchronize its clock to any central source. Therefore, Cisco recommends that the PMC client machine and the Cisco IPICS server synchronize their clocks to a central source using Network Time Protocol (NTP) or another similar solution.

Table 7-1 describes each of the PMC log files.

Table 7-1   **PMC Log File Descriptions**

PMC Log File Name	PMC Log File Description
Authentication.log	This log file contains a history of all user login and logout attempts per PMC installation. This log appears in XML format.
ChannelActivity.log	This log contains a history of channel activation and deactivation and the PTT status of each channel within the PMC. This log appears in XML format.
ChannelStatistics.log	At regular and predefined intervals, this log records the statistics for each channel, including data for both sent and received transmissions over the network. This log appears in XML format.
UserInterface.log	This log contains a history of the user interactions with the PMC application. This log appears in XML format.
DebugLog.txt	This log contains detailed debugging information that is relevant to how the PMC operates. Several different debug levels can be enabled. This log appears in text format; it is rotated each time that you execute the PMC application.

An example of the formatting and the type of information that is contained in each log file is shown below.

Authentication.log

```
<log-msg><time>Thu Jun 09 16:16:44
2005</time><facility>AUTH</facility><msg-id>SUCCESS</msg-id><args><arg
id="0">user1</arg></args></log-msg>
<log-msg><time>Thu Jun 09 18:52:34
2005</time><facility>AUTH</facility><msg-id>FAILURE</msg-id><args><arg
id="0">user2</arg></args></log-msg>
<log-msg><time>Thu Jun 09 18:52:37
2005</time><facility>AUTH</facility><msg-id>FAILURE</msg-id><args><arg
id="0">user1</arg></args></log-msg>
<log-msg><time>Thu Jun 09 18:52:38
2005</time><facility>AUTH</facility><msg-id>FAILURE</msg-id><args><arg
id="0">user1</arg></args></log-msg>
```

```
<log-msg><time>Thu Jun 09 18:52:40
2005</time><facility>AUTH</facility><msg-id>SUCCESS</msg-id><args><arg
id="0">user1</arg></args></log-msg>
```

ChannelActivity.log

```
<log-msg><time>Wed, 06 Apr 2005 17:33:41
GMT</time><facility>CHANNEL</facility><msg-id>Activate</msg-id><args><
arg id="0">LINE1</arg></args></log-msg>
<log-msg><time>Wed, 06 Apr 2005 17:34:28
GMT</time><facility>CHANNEL</facility><msg-id>Deactivate</msg-id><args
><arg id="0">LINE1</arg></args></log-msg>
```

ChannelStatistics.log

```
<log-msg><time>Wed, 06 Apr 2005 22:02:12
GMT</time><facility>STATS</facility><msg-id></msg-id><args><arg
id="0">Sent Packets</arg><arg id="1">0</arg><arg id="2">Sent
Bytes</arg><arg id="3">0</arg><arg id="4">Rcvd Packets</arg><arg
id="5">0</arg><arg id="6">Rcvd Bytes</arg><arg
id="7">0</arg></args></log-msg>

<log-msg><time>Wed, 06 Apr 2005 22:03:13
GMT</time><facility>STATS</facility><msg-id></msg-id><args><arg
id="0">Sent Packets</arg><arg id="1">0</arg><arg id="2">Sent
Bytes</arg><arg id="3">0</arg><arg id="4">Rcvd Packets</arg><arg
id="5">0</arg><arg id="6">Rcvd Bytes</arg><arg
id="7">0</arg></args></log-msg>
```

UserInterface.log

```
<log-msg><time>Thu, 07 Apr 2005 19:05:03
GMT</time><facility></facility><msg-id>LButtonDown</msg-id><args><arg
id="0">exit</arg><arg id="1">0000</arg></args></log-msg>

<log-msg><time>Thu, 07 Apr 2005 19:05:03
GMT</time><facility></facility><msg-id>LButtonUp</msg-id><args><arg
id="0">exit</arg><arg id="1">006c</arg></args></log-msg>
```

Note   For detailed information about using PMC CLI command options, refer to the *Cisco IPICS PMC Command Line Interface, Release 2.1(1).*

Related Topics

- Maintaining and Upgrading the PMC Application, page 2-16
- Using the Optional Settings Menu, page 5-16

Where to Find More Information

- *Cisco IPICS Server Administration Guide, Release 2.1(1)*
- *Cisco IPICS PMC Command Line Interface, Release 2.1(1)*