Event logs

Error codes and messages are displayed in the following types of event logs:

- **POST event log:** This log contains the three most recent error codes and messages that were generated during POST. You can view the POST event log from the Setup utility.
- **System-event log:** This log contains messages that were generated during POST and all system status messages from the service processor. You can view the system-event log from the Setup utility.

  The system-event log is limited in size. When it is full, new entries will not overwrite existing entries; therefore, you must periodically clear the system-event log through the Setup utility. When you are troubleshooting an error, be sure to clear the system-event log so that you can find current errors more easily.

  (This applies to BIOS-based servers only.) Each system-event log entry is displayed on its own page. To display all the data for an entry, use the Up Arrow (↑) and Down Arrow (↓) keys or the Page Up and Page Down keys. To move from one entry to the next, select **Get Next Entry** or **Get Previous Entry**.

  (This applies to UEFI-based servers only.) Messages are listed on the left side of the screen, and details about the selected message are displayed on the right side of the screen. To move from one entry to the next, use the Up Arrow (↑) and Down Arrow (↓) keys.

  The system-event log indicates an assertion event when an event has occurred. It indicates a deassertion event when the event is no longer occurring.
- **Integrated management module (IMM) event log (applies to servers with an IMM):** This log contains a subset of information that is in the system-event log and other information and events. You can view the IMM event log through the IMM Web interface.

  Entries that are written to the IMM event log during the early phase of POST show an incorrect date and time as the default time stamp; however, the date and time are corrected as POST continues.
- **Remote Supervisor Adapter II event log (applies to servers without an IMM):** If the server has a Remote Supervisor Adapter II, this log contains a subset of information that is in the system-event log and other information and events. You can view this log through the Remote Supervisor Adapter II Web interface.

  Entries that are written to the Remote Supervisor Adapter II event log during the early phase of POST show an incorrect date and time as the default time stamp; however, the date and time are corrected as POST continues.
- **Diagnostic event log:** This log is generated by the Dynamic System Analysis (DSA) program, and it contains merged contents of the system-event log and the IMM event log or Remote Supervisor Adapter II event log. You can view the diagnostic event log through the DSA program.

Some of the error codes and messages in the logs are abbreviated.

When you are troubleshooting PCI-X slots, note that the event logs report the PCI-X buses numerically. The numerical assignments vary depending on the configuration. You can check the assignments by running the Setup utility.

Viewing event logs from the Setup utility

To view the POST event log or system-event log, complete the following steps:

1. Turn on the server.
2. When the prompt `<F1> Setup` is displayed, press F1. If you have set both a power-on password and an administrator password, you must type the administrator password to view the event logs.
3. Select **System Event Logs** and use one of the following procedures:

- To view the POST event log, select **POST Event Viewer**.
- To view the system-event log, select **System Event Log**.

Viewing event logs without restarting the server

If the server is not hung, methods are available for you to view one or more event logs without having to restart the server.

If you have installed Portable or Installable Dynamic System Analysis (DSA), you can use it to view the diagnostic event log, which merges the contents of the system-event log and the IMM event log or Remote Supervisor Adapter II. You can also use DSA Preboot to view the diagnostic event log, although you must restart the server to use DSA Preboot. To install Portable DSA, Installable DSA, or DSA Preboot or to download a DSA Preboot CD image, go to http://www.ibm.com/systems/support/supportsite.wss/docdisplay?lndocid=SERV-DSA&brandind=5000008 or complete the following steps.

Note: Changes are made periodically to the IBM Web site. The actual procedure might vary slightly from what is described in this document.

1. Go to http://www.ibm.com/systems/support/.
2. Under **Product support**, click **System x**.
3. Under **Popular links**, click **Software and device drivers**.
4. Under **Related downloads**, click **Dynamic System Analysis (DSA)** to display the matrix of downloadable DSA files.

If IPMItool is installed in the server, you can use it to view the system-event log. Most recent versions of the Linux operating system come with a current version of IPMItool. For information about IPMItool, see http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/index.jsp?topic=/com.ibm.xseries.tools.doc/config_tools_ipmitool.html or complete the following steps.

Note: Changes are made periodically to the IBM Web site. The actual procedure might vary slightly from what is described in this document.

1. Go to http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/index.jsp.
2. In the navigation pane, click **IBM System x and BladeCenter Tools Center**.
3. Expand **Tools reference**, expand **Configuration tools**, expand **IPMI tools**, and click **IPMItool**.

For an overview of IPMI, go to http://publib.boulder.ibm.com/infocenter/systems/index.jsp?topic=/liaai/ipmi/liaaiipmi.htm or complete the following steps:

1. Go to http://publib.boulder.ibm.com/infocenter/systems/index.jsp.
2. In the navigation pane, click **IBM Systems Information Center**.
3. Expand **Operating systems**, expand **Linux information**, expand **Blueprints for Linux on IBM systems**, and click **Using Intelligent Platform Management Interface (IPMI) on IBM Linux platforms**.

(This applies to servers with an IMM.) You can view the IMM event log through the **Event Log** link in the integrated management module (IMM) Web interface.

(This applies to servers without an IMM.) You can view the Remote Supervisor Adapter II event log through the **Event Log** link in the Remote Supervisor Adapter II Web interface. For more information, see the Remote Supervisor Adapter II *User's Guide*.

The following table describes the methods that you can use to view the event logs, depending on the condition of the server. The first three conditions generally do not require that you restart the server.

Table 1. Methods for viewing event logs

Condition	Action
The server is not hung and is connected to a network.	Run Portable or Installable DSA to view the diagnostic event log or create an output file that you can send to IBM service and support. Alternatively, you can use IPMItool to view the system-event log.
The server is not hung and is not connected to a network.	Use IPMItool locally to view the system-event log.
The server is not hung and has a Remote Supervisor Adapter II or integrated management module (IMM).	In a Web browser, type the IP address of the Remote Supervisor Adapter II or IMM and go to the Event Log page.
The server is hung.	If DSA Preboot is installed, restart the server and press F2 to start DSA Preboot and view the diagnostic event log. If DSA Preboot is not installed, insert the DSA Preboot CD and restart the server to start DSA Preboot and view the diagnostic event log. Alternatively, you can restart the server and press F1 to start the Setup utility and view the POST event log or system-event log. For more information, see "Viewing event logs from the Setup utility" on page 1.