

Work with system logs

Why is this lesson important to you?

- As the system administrator, you must be familiar with:
 - The logs available to monitor IBM FileNet Content Manager environments.
 - How to monitor the content and size of the logs.
 - How to archive log files.
 - How to enable/disable trace logging for troubleshooting.

Unit objectives

- Monitor system logs
- Enable/disable trace logging for troubleshooting

Content Platform Engine System Logs

- Content Platform Engine produces several log files during normal operation.
 - Primary troubleshooting tool for the administrator:
 - p8_server_error.log
 - pesvr_system.log
 - p8_server_trace.log
- You must monitor these log files to do the following tasks:
 - Become familiar with normal log entries.
 - Observe changes in behavior that might indicate a problem.
 - Ensure that log files have enough space for growth.

Location of logs

- Default location:
 - WebSphere Application Server:
 - install_root/profiles/profile_name/FileNet/server_instance_name
 - Example:
C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01\FileNet\server1
 - WebLogic Server:
 - bea/user_projects/domains/domain_name/FileNet/AdminServer
 - JBoss Application Server:
 - jboss_install/jboss-as/bin/FileNet/server_instance_name
- File location can be configured.
- System log location is shown in the CE Ping page.
- In a clustered environment, the Content Platform Engine log files exist on each server.
 - Located in the *server_instance_name* under the current working directory of the deployed application.

Web application server logs

- Each web application server generates its own logs.
- WebSphere
 - Location: *install_root/profiles/profile_name/logs/server_name*
 - Logs:
 - SystemOut.log
 - SystemErr.log
 - startServer.log
 - stopServer.log
- WebLogic
 - Location:
 - *oracle_home/admin/domain_name/aserver/servers/AdminServer/logs*
 - Logs:
 - AdminServer.log
 - access.log
 - Base_domain.log
- JBoss
 - Location: *install_root/server/server_name/log*
 - Server.log

Trace logs

- Trace logs are used for troubleshooting particular problems.
- Often requested by a support representative.
- Content Platform Engine trace logging:
 - Use Administration Console for Content Platform Engine to configure trace logging
 - Configure at Domain level or site level
- Web application server trace logging
 - Configure level of detail
- Disable trace logging when you no longer need it.
 - Trace logs can grow quickly and impact system performance and disk space.

Trace subsystem – domain level configuration

The screenshot shows the 'Trace Subsystem' configuration window. It includes tabs for 'Int Cache Subsystem', 'Text Search Subsystem', 'Trace Subsystem' (selected), 'Sweep Subsystem', and 'Replication Subsystem'. An 'Import Settings...' button is at the top left. A text block explains that trace logging generates diagnostic information and that logging must be enabled and subsystems selected. A checkbox 'Enable trace logging ?' is checked. Below, 'Log file location' has radio buttons for 'Use default ?' (selected) and 'Other location: ?'. A text box shows the default path: 'C:\Program Files\IBM\WebSphere\AppSer'. The 'Subsystems ?' section contains a table with columns for Name, Detail, Moderate, Summary, and Timer. Three subsystems are listed: 'API Trace Flags', 'Asynchronous Processing Trace Flags', and 'Audit Disposition Trace Flags'. Annotations with orange boxes and arrows point to specific elements: 'Enable trace logging' points to the checked checkbox; 'Set location for trace log file.' points to the 'Use default ?' radio button; 'Trace log flags.' points to the 'API Trace Flags' row; and 'Trace log flag detail levels' points to the 'Detail' column checkboxes for the first three rows.

Enable trace logging

Import Settings...

Trace logging generates detailed diagnostic information about server and client activity. To configure trace logging, you must enable logging and select the subsystems to be logged.

☒ Enable trace logging ?

Log file location:

☒ Use default ? ☐ Other location: ?

C:\Program Files\IBM\WebSphere\AppSer

Subsystems ?

Name	<input type="checkbox"/> Detail ?	<input type="checkbox"/> Moderate ?	<input type="checkbox"/> Summary ?	<input type="checkbox"/> Timer ?
API Trace Flags	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Asynchronous Processing Trace Flags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audit Disposition Trace Flags	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Trace log flags.

Trace log flag detail levels

Trace Subsystem – site level configuration

The screenshot shows the 'Trace Subsystem' configuration window. At the top, there are tabs for 'P8Domain' and 'Initial Sit...'. Below the tabs are buttons for 'Save', 'Refresh', 'Actions', and 'Close'. The 'Site: Initial Site' is selected. A row of tabs includes 'Subsystem', 'Text Search Subsystem', 'Trace Subsystem' (which is active), 'Sweep Subsystem', 'Replication Subsystem', and 'Publishing Subsystem'. An 'Import Settings...' button is located below the tabs. A text block explains that trace logging generates detailed diagnostic information and that logging must be enabled and logged. The 'Configuration source' section has two radio buttons: 'P8Domain (server hierarchy object)' (selected) and 'Initial Site (this object)'. An annotation points to this section with the text 'Select which configuration to use'. Below this is a checkbox for 'Enable trace logging' with a question mark, and an annotation points to it with the text 'Enable trace logging'. The 'Log file location' section has two radio buttons: 'Use default' (selected) and 'Other location:'. An annotation points to the 'Use default' option with the text 'Set location for trace log file.' Below the radio buttons is a text input field. At the bottom, there is a 'Subsystems' section with a question mark. Below this is a table with columns for 'Name', 'Detail', 'Moderate', 'Summary', and 'Timer'. The table contains one row for 'API Trace Flags' with checkboxes for each column.

Save Refresh Actions Close

Site: Initial Site

Subsystem Text Search Subsystem **Trace Subsystem** Sweep Subsystem Replication Subsystem Publishing Subsystem

Import Settings...

Trace logging generates detailed diagnostic information about server and client activity. To configure trace logging, you must enable logging and logged.

Configuration source: ? ☒ P8Domain (server hierarchy object) ☐ Initial Site (this object)

☐ Enable trace logging ?

Log file location: ☒ Use default ☐ Other location:

Subsystems ?

Name	<input type="checkbox"/> Detail	<input type="checkbox"/> Moderate	<input type="checkbox"/> Summary	<input type="checkbox"/> Timer
API Trace Flags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Guidelines: Monitor log files

- Establish a baseline: Know what to expect.
 - Observe normal log activity so that you can identify changes.
- Monitor logs regularly (daily).
 - Watch for new error messages.
 - Watch for any change in error log size.
 - Example: 1 log file is normally 64 KB, and on one day it is 100 KB.
- Increase monitoring after any system changes.
 - Example: Patches applied
- Keep records of normal comparison logs.
 - Keep representative usage time intervals for each month.
 - After a year, keep representative time intervals for each year.

Unit summary

- Monitor system logs
- Enable/disable trace logging for troubleshooting

Exercise: Work with system logs

Exercise introduction

- Archive and view system logs
- Configure trace logging

