A TimeWarner Company

How to Use Occurrence Monitor on an Application

Student Manual

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INTRODUCTION

Occurrence Monitoring Training Overview

Talk About It!

Welcome to the Occurrence Monitoring (OM) training class. This session has been designed to provide you with an overview of what OM is, its components, and how to add it to an application.

In this class, you learn:

- What is Occurrence Monitoring
- How does OM work
- How to install, configure and deploy OM
- How to apply OM to an application
- How to troubleshoot OM

This manual is divided into three sections: “Talk About It,” “Think About It,” and “Do It!” The format allows you to discuss the chapter’s contents with your instructor and follow that with interactive tasks to reinforce what you have learned.

Think About It!

This section of each chapter allows you to test the information you have just received. Typically, it consists of "True/False" statements or short answer responses.

Do It!

This section of each chapter allows you to perform a type of hands-on task to reinforce what you have studied. The instructor provides the students with an opportunity to openly discuss what they have learned.

CHAPTER 1

Occurrence Monitoring Overview

Talk About It!

This chapter discusses what OccurrenceMonitor (OM) is and its components.

OccurrenceMonitor is an application that periodically checks predefined episodes. An occurrence (or *episode*) can be any incident or event that is generated by an application, hardware or any other tool/utility.

This tool monitors an application's availability by ensuring that the process is running correctly. This is accomplished through testing its functionality, checking for log errors, and investigating and resolving *events* and failures. The *events* are sent to a process called the Event Dispatcher (ED) that manages the messages relating to an application's "health" and sends them to a syslog or emails the on-call resource as necessary.

Architecture

OM is a Java (originally written in Perl) standalone process that runs as a daemon with multiple functional objects, and is designed for each type of occurrence category. Each of the occurrences is an instance of the object and registered with the OccurrenceMonitor. Each object contains two components—one that contains a method for testing or detecting the occurrence and another that includes the action that evaluates the test result and invokes actions should failures or exceptions occur.

OM consists of three components: the central repository, the agent on the machine and the Event Dispatcher (ED), which manages issue notification.

Central Repository

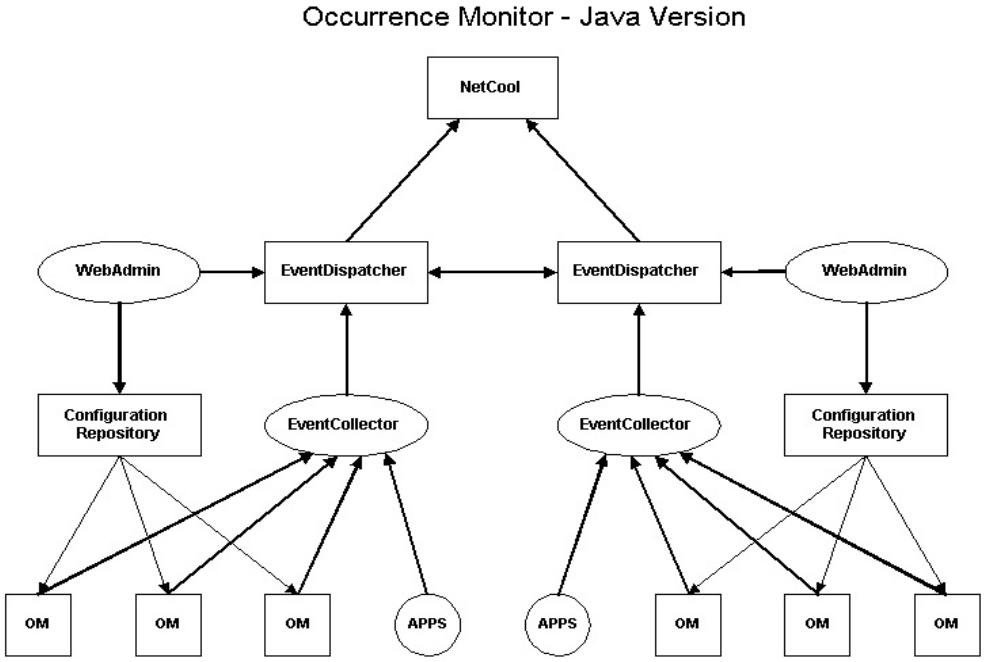
The central repository stores the configurations for the monitors, the list of servers to be monitored and the event notifications.

OM Agent

The OM agent consists of two components. One component tests/detects and the other is evaluates the test results and invokes appropriate responses if a failure or exception occurs.

Event Dispatcher

The Event Dispatcher (ED) has two components: a collector and an action. The collector receives alerts, correlates and determines if an alert is warranted. The Action component sends an email, updates the syslog or both. (**Note**: The Action component can be extended to update databases and/or secondary applications outside OM.)

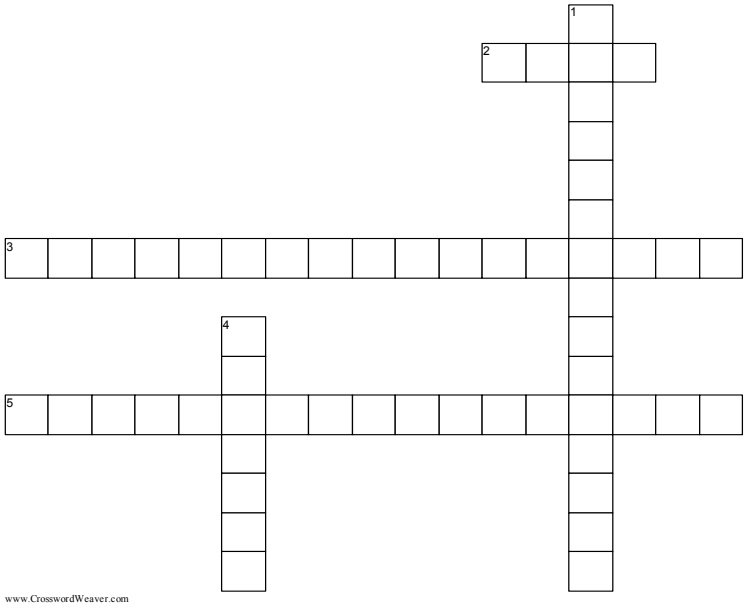


At scheduled intervals, OccurrenceMonitor launches the test component and passes the result to the action component. The action component checks the result to determine the priority of the event. It sends an event to the central event system (EventDispatcher). In case of the failure, OccurrenceMonitor invokes the pre-configured actions, such as sending an email alert, launching an action script to restart the service, or logging the errors to syslog, according to the pre-configured policies. Actually, it is the customized components that are performing core activities. OccurrenceMonitor acts as a container for all components to run. It also provides services such as scheduler services, thread pooling, data sharing, centralized repository and dynamic deployment.

It is highly extendable so that it can be tailored to monitor any application.

Think About It!

Test your knowledge by completing the crossword puzzle below.



ACROSS

2 The language that the tool has been ported to from Perl.
3 A tool that can be applied to an application to observe that system's functionality. (2 words)
5 Stores the configurations for the monitors. (2 words)

DOWN

1 Manages the correlation between events and their escalation paths sent to it from the agent. (2 worlds)
4 Includes two components: one handles the testing or detection and the other is for action evaluation of the test results and invokes various actions in the event of a failure or exception. (2 words)

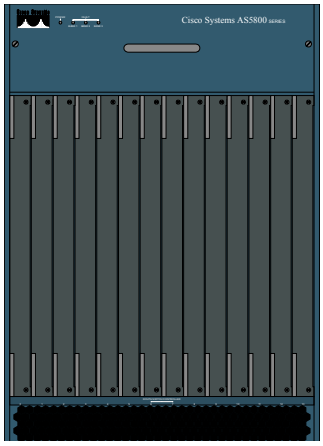
Do It!

1. Open OM and discuss the data.

NOTES:

CHAPTER 2

Occurrence Monitoring Installation and Configuration



Talk About It!

This section discusses how to install and configure the Occurrence Monitoring (OM) tool so that it can begin observing an application.

There are steps you must take to enable OM to monitor an application. They are:

1. Install OM on a server
2. Select the site or application to be monitored
3. Create or edit a monitor
4. Add the monitor to a master configuration file
5. Add a host to a monitor group
6. Deploy the monitor's configurations
7. Configure the Event Dispatcher (ED)
8. Deploy an event

Installing Occurrence Monitor on a Server

To install OM on a server, you must have:

- Java version 1.3 or greater
- the `/opt/wf/lib/java/pses.jar` file

Use the following step procedures to install OM on a server.

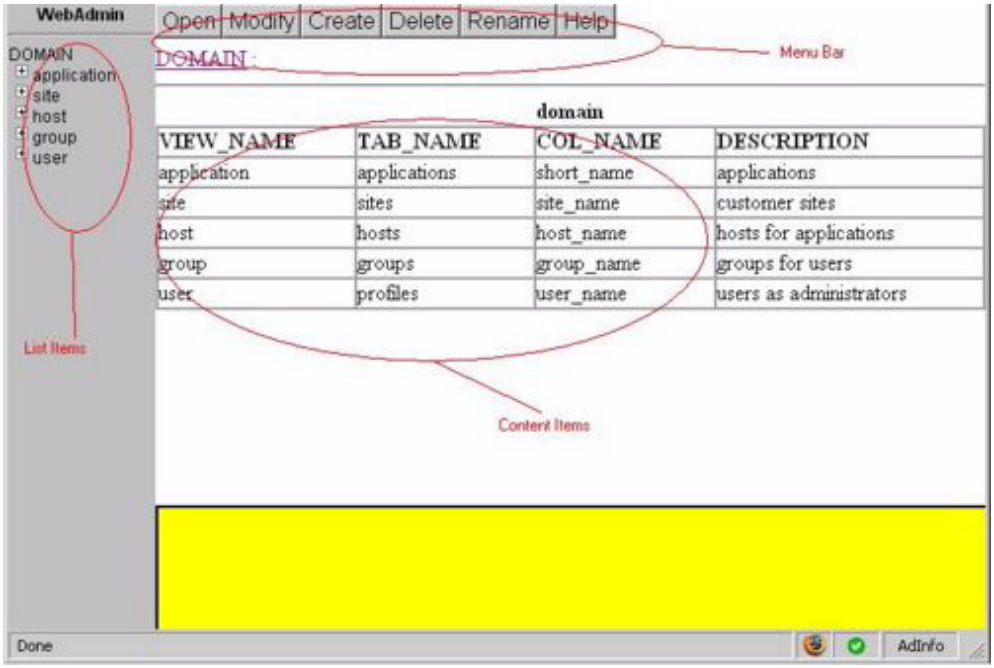
TABLE 1. How to Install OM on a Server

Step	Action
1.	Download two files: `wget http://extevent.turner.com:7001/extom.tar` (or `extom.zip` for Windows) and `wget http://extevent.turner.com:7001/OM.tar` files from `http://extevent.turner.com:7001` to the server on which you wish to install OM.
2.	CD to `/opt` and untar `extom.tar`
3.	CD to `/logs` and untar `OM.tar`.
4.	Check that the `/logs/OM` is owned by `omadm` by entering `ls -1`.
5.	CD to `/opt/om/cfg`, edit the `OM.xml` and `repository_om.xml` files and change the Site to one of the sites that is configured in the WebAdmin console.
6.	Check that the URL is pointing to `extevent`.
7.	Add the new machines. (See "Adding a Host to a Monitor Group" on page 2-16.)
8.	Deploy the configuration files. (See "Deploying Monitor Configurations" on page 2-18.)
9.	Restart OM. (See "Restarting OM/ED" on page 2-24.)

Once OM has been installed on a server, it must be configured to run. This is accomplished using the WebAdmin console. OM has two configuration repositories or WebAdmin consoles: one is for internal monitors (located at `http://intevent/ajax/home.html`; the other is for external monitors (located at `http://extevent/ajax/home.html`.)

Using the WebAdmin Console to Log into OM/ED

FIGURE 1. WebAdmin Console



NOTE: The Help button has not been fully implemented.

Use the following step procedures to log into the OM/Event Dispatcher (ED) via the WebAdmin console.

TABLE 2. How to Log into the OM/ED via the WebAdmin Console

<table>
<tr><th>Step</th><th>Action</th></tr>
<tr><td>1.</td><td>Use your Unix ID and password to log into one of the repositories to edit (or add) monitors and events.

Note: In the screen shot above, the left panel lists application, site, host, group and user. The right side contains the menu bar, current path and content items. Application and site are the most commonly used items.</td></tr>
<tr><td>2.</td><td>When the application link is expanded, OM (Occurrence Monitor), ED (Event Dispatcher), and QB (Queue Broker) appear. OM and ED are used most often.

Note: You can use the application or site directory to access the monitor/event groups.</td></tr>
<tr><td>3.</td><td>
<table>
<tr><th>If you want to...</th><th>Click...</th></tr>
<tr><td>Access an OM group</td><td>application (or site) and select OM

Note: To return to the top, click the Home button on the menu bar.</td></tr>
<tr><td>Access an ED group</td><td>application (or site) and select ED (INTPROD or EXTPROD)

Note: To return to the top, click the Home button on the menu bar.</td></tr>
</table>
</td></tr>
</table>

Selecting the Site or Application

Once you have installed OM, you may use the **application** or **site** directory from the WebAdmin console to access the monitor/event groups you want to observe.

Creating/Editing Monitors

You can create a new monitor easily by navigating to one of the existing configuration groups that is based on the type of server (or groups of servers) to be monitored.

Creating a Monitor Group

Use the following step procedures to create a monitor group.

TABLE 3. **How to Create a Monitor Group**

Step	Action
1.	Navigate to one of the configuration groups.
2.	Click the **Create** button.
3.	Type in the new group name and press the **Tab** key.
4.	Enter the values in the corresponding fields: • CATEGORY = **OM** • TYPE = **OccurrenceMonitor** • OWNER = **omadm** • DESCRIPTION = **master config file** • URI = t**cp://localhost:6627** • STATUS = **NEW**
5.	Wait for the pop-up and click the **OK** button. **Result**: The group is added.
6.	Select the group you just added and click the **Open** button. **Result**: The basic monitors appear. Add your own monitor using the instructions "Creating a New Monitor" on page 2-8. **NOTE**: This action also creates a host group. (See "Adding a Host to a Monitor Group" on page 2-16.)

Editing an Existing Monitor

If a monitor has been configured incorrectly, you may need to make changes. This can be accomplished using the WebAdmin console to perform the edits.

FIGURE 2. Editing an Existing Monitor

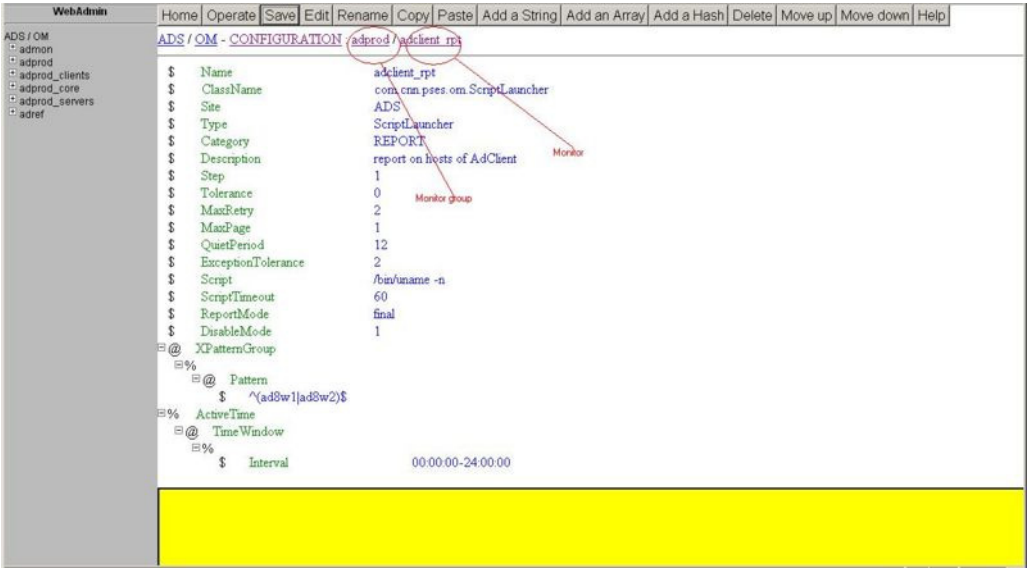


FIGURE 3. Monitor Configuration

```
ADS / OM - CONFIGURATION : adprod / admanager_proc
_____________________________________________________
$ Name              admanager_proc
$ ClassName          com.cnn.pses.om.ProcessMonitor
$ Site              ADS
$ Type              ProcessMonitor
$ Category           AD
$ Description        AdManagerServer for ads
$ Step              1
$ Tolerance          1
$ MaxRetry           2
$ MaxPage            1
$ QuietPeriod        12
$ ExceptionTolerance   2
$ PSCommand           /bin/ps -o comm,pid,args -u 3278
$ PSTimeout          50
@ PatternGroup
  %
   @ Pattern
     $ ngServerAgent
     $ -child
@ StaticDependencyGroup
  %
   @ Dependency
     $  admanager_rpt
  % ActiveTime
    @ TimeWindow
      %
       $ Interval      00:00:00-24:00:00
```

Use the following step procedures to edit an existing monitor.

TABLE 4. How to Edit an Existing Monitor

Step	Action
1.	Click on the configuration you wish to edit and click the **Open** button in the menu bar. **Result**: The Monitor Configuration window screen appears.
2.	Click the symbol (% = Hash, $ = String, @ = Array) next to the item you wish to change and click the **Edit** button in the menu bar.
3.	Change the setting and click the symbol again.
4.	Click the **Save** button in the menu bar. **Result**: The data is saved to the database.
5.	Wait for the pop-up and click the **OK** button. **Result**: The configuration has been entered in the database.
6.	Click the monitor group's name link below the menu bar.

TABLE 4. How to Edit an Existing Monitor

Step	Action
7.	Select the monitor you just edited and click the **Deploy** button. **Result**: The configuration file is created on the WebAdmin server. **Note**: To put the file to the servers quickly, click the **Operate** button, select the server you want the file pushed to and click the **Deploy** button.

Creating a New Monitor

The easiest and most reliable way to create a new monitor is to duplicate or import an existing configuration and edit it to match the environment.

Use the following sets of step procedures to duplicate and import an existing configuration.

TABLE 5. How to Duplicate an Existing Configuration

Step	Action
1.	Select the monitor you wish to duplicate and click the **Duplicate** button on the menu bar.
2.	Enter the new monitor name in the corresponding field and press the **Tab** key.
3.	Update the "Description" field. (**Note**: The other fields should be correct.)
4.	Select the monitor name again.
5.	Wait for the pop-up and click the **OK** button. **Result**: The new configuration is saved.
6.	Select the monitor you just added and click the **Edit** button.
7.	Makes changes to the monitor using the steps in Table 4 on page 2-7.

Monitoring Types

The following monitor types have been developed from the Java OM page.

Type	ClassName	Description
ProcessMonitor	com.cnn.pses.om.ProcessMonitor	Monitors a Unix process with specific patterns.
FileMonitor	com.cnn.pses.om.FileMonitor	Monitors the latest modified time of a file.
MultiFileMonitor	com.cnn.pses.om.MultiFileMonitor	Monitors the latest modified time of a group of files.
UnixlogMonitor	com.cnn.pses.om.UnixlogMonitor	Monitors a log file and detects the new occurrences of log entries matching at least one of the given patterns.
ExpectedLog	com.cnn.pses.om.ExpectedLog	Launches a script and expects a specific new log entry in the log file.
ScriptLauncher	com.cnn.pses.om.ScriptLauncher	Launches a script and check its output for errors.
QueueMonitor	com.cnn.pses.mq.QueueMonitor	Monitors the queue depth or its changes on an MQ queue.
ChannelMonitor	com.cnn.pses.mq.ChannelMonitor	Monitors an MQ channel and checks its flow rate.
JMSMonitor	com.cnn.pses.jms.JMSMonitor	Monitors a JMS application via its queue and the log file.
JMSLogMonitor	com.cnn.pses.jms.JMSLogMonitor	Monitors a JMS Destination implemented via a log file.
JMSHealthChecker	com.cnn.pses.jms.JMSHealthChecker	Performs a health-check on a JMS Destination by sending it a message.

Type	ClassName	Description
JVMMonitor	com.cnn.pses.om.JVMMonitor	Monitors its own Java Virtual Machine on CPU and memory usage.
BEAMonitor	com.cnn.pses.bea.BEAMonitor	Monitors a WebLogic Server.
WebOperator	com.cnn.pses.om.WebOperator	Accesses a given URL and checks its content for errors.
URLMonitor	com.cnn.pses.om.URLMonitor	Monitors the update time of a web page and correlates with other updates.
LatestRecord	com.cnn.pses.om.LatestRecord	Monitors the update time of a database record and correlates with other updates.
DBStringEval	com.cnn.pses.om.DBStringEval	Monitors the existence of a database record.
DBRecord	com.cnn.pses.om.DBRecord	Queries a DB table and scans all records for certain patterns.
PropertyMonitor	com.cnn.pses.om.PropertyMonitor	Monitors an XML property file to check for modifications.
AgeMonitor	com.cnn.pses.om.AgeMonitor	Monitors the age of an object and correlates with other objects.
NumberMonitor	com.cnn.pses.om.NumberMonitor	Monitors a number to determine if it is out of range.
XMLValidator	com.cnn.pses.xml.XMLValidator	Validates an XML file locally or remotely.
MServerMonitor	com.cnn.pses.ardendo.MServerMonitor	Monitors a Pinnacle Encoder's MServer via ArdVxProxy.

Type	ClassName	Description
RTSPMonitor	`com.cnn.pses.video.RTSPMonitor`	Monitors an RSTP Stream and Server.
WinlogMonitor	`com.cnn.pses.om.WinlogMonitor`	Monitors the Windows Event log.

Naming conventions are used to label the monitoring types included in the configuration.

Label	Description	Function
rpt	Report file	Groups "like" machines.
num	Number monitor	Tests that a number returned is within a set threshold.
log	Log monitor	Searches for error strings in a log file.
proc	Process monitor	Uses the `ps` command to test if a process is up and running.
tcp	TCP tester	Sends a string to a TCP port and waits for a response.
web	Web Operator	Monitors a web listener locally or remotely.
url	URL Monitor	Obtains the update time and/or size of a page.

NOTE: For more monitoring types and required fields, refer to the Java OM documentation on http://intprod.turner.com.

TABLE 6. Configuration Items (Monitor).

Property Name	Rqmt*	Description	Examples
Name	M	Name of the occurrence	`admanager_proc`
ClassName	M	Full name of the class	`com.cnn.pses.om.FileMonitor`
Site	O	Site that the occurrence belongs to	ADS
Type	M	Type of the occurrence	ProcessMonitor
Category	O	Category of the occurrence for event correlation	AD or SYSLOG
Description	O	Brief description for the occurrence	AdManagerServer for ads
Step	O	Runs the test every number of heartbeats	1 (default is 1)
Tolerance	O	Ignores the first number of failures	1 (default is 0)
MaxRetry	O	Invokes the action up to maximum times if failure persists	2 (default is 2)
MaxPage	O	Pages someone up to maximum number of times if failure persists	1 (default is 2)
QuietPeriod	O	Sleeps for the number of times if failure persists	12 (default is 0)
ExceptionTolerance	O	Ignores the first number of OM's exceptions	2 (default is 2)
StaticDependencyGroup	O	List of static dependency group	
PSCommand	O	`ps` command	`/bin/ps -o comm,pid,args -u 3278`
PSTimeout	O	Seconds to timeout `ps` command	30

Property Name	Rqmt*	Description	Examples
PatternGroup	M	An array instance of patterns in order to single out the process	ngServerAgent
ActiveTime	M	The hashmap with the active time slot for OM to watch the occurrence	

*Rqmt: M = mandatory; O = optional

Importing a Monitor

As was mentioned earlier, the second method of creating a new monitor is to import an existing configuration. You can do this if you know of an appropriate type that exists in another group. (**Tip**: You should be familiar with the monitor directory layout on `evtevent.turner.com` before you begin.) The configuration files are located under `/www/wdap/om/<monitor group>/cfg/<monitor name>.xml`.

Example

```
/www/wdap/om/audref/cfg/member_services_nascar_log.xml
```

Use the following step procedures to import an existing configuration.

TABLE 7. How to Import an Existing Configuration (to create a new monitor)

Step	Action
1.	Click the **Import** button in the menu bar.
2.	In the pop-up box, enter the path to the file you want to upload.
3.	Wait for the pop-up and click the **OK** button.
4.	Select the monitor you just added and click the **Edit** button.
5.	Update the monitor using the steps in Table 4.

Adding a Monitor to the Master Configuration File

Once the monitor has been created, it must be added to the master configuration file to run. The file name is /item is named *OM* and is typically located at the top of the list. This configuration contains a list of the active monitors for the group.

The *OccurrenceGroups* near the bottom of the list are/can be set up to partition the monitors to run on different threads, or set at different time intervals. Use the default group for reports and base OM processes. Another group has been (or can be) created to house specific monitors that are being set up.

Other settings are covered in the Java OM documentation.

Use the following sets of step procedures to add, delete and edit a monitor to the master configuration file.

TABLE 8. How to Add a Monitor

Step	Action
1.	Access the appropriate monitor group, select the OM item and click the **Open** button on the menu bar. **Result**: The Master Configuration file appears.
2.	Scroll to the bottom of the page and click on the $ symbol of the last entry.
3.	Click the **Add String** button on the menu bar. **Result**: A text box appears.
4.	Type the name of the monitor you wish to add and click the **$** symbol again to close.
5.	Click the **Save** button. **Result**: The configuration is saved to the database.
6.	Wait for the pop-up and click the **OK** button. **Result**: The configuration is saved.
7.	Select the monitor group link under the menu bar to go up one level.
8.	Select the OM item and click the **Deploy** button. **Result**: The configuration will be saved to the `extevent.turner.com`'s file system.
9.	Wait for the pop-up and click the **OK** button. **Result**: The monitor is deployed to the file system.

If an application no longer needs to be monitored, you may delete it from the Master Configuration file.

TABLE 9. How to Delete a Monitor

Step	Action
1.	Access the appropriate monitor group, select the OM item and click the **Open** button on the menu bar. **Result**: The Master Configuration file appears.
2.	Scroll to the monitor you wish to delete and click the **$** symbol. **Result**: The **$** symbol font becomes bold.
3.	Click the **Delete** button.
4.	Click the **Save** button. **Result**: The configuration is saved to the database.
5.	Wait for the pop-up and click the **OK** button. **Result**: The configuration is saved to the database.
6.	Click the monitor group link under the menu bar to go up one level.
7.	Select the OM item and click the **Deploy** button. **Result**: The configuration is saved to the `extevent.turner.com`'s file system.
8.	Wait for the pop-up and click the **OK** button.

If an existing monitor needs to be edited (for example, the name of the monitor is misspelled), you may use the following step procedures to make changes in the Master Configuration file.

TABLE 10. How to Edit a Monitor

Step	Action
1.	Access the appropriate monitor group, select the OM item and click the **Open** button on the menu bar. **Result**: The Master Configuration file appears.
2.	Scroll to the monitor you wish to edit and click the **$** symbol. **Result**: The **$** symbol font becomes bold.
3.	Type the name of the new monitor name and click on the **$** symbol again.
4.	Click the **Save** button. **Result**: This configuration is saved to the database.

TABLE 10. How to Edit a Monitor

Step	Action
5.	Wait for the pop-up and click the **OK** button. **Result**: The configuration is saved to the database.
6.	Click the monitor group link under the menu bar to go up one level.
7.	Select the OM item and click the **Deploy** button. **Result**: The configuration is saved to the extevent.turner.com's file system.
8.	Wait for the pop-up and click the **OK** button. **Result**: The changes to the monitor are saved.

Adding a Host to a Monitor Group

The final step to getting a monitor configured/deployed to a machine is to add it to a monitor group.

Use the following step procedures to add a host to a monitor group.

TABLE 11. How to Add a Host to a Monitor Group

Step	Action
1.	Access the WebAdmin console and click the **application** link on the left panel. **Result**: The link expands.
2.	Click OM.
3.	From the right panel, click the **<site>** link and click the **Operate** button.
4.	Select the host group you want to add the server to and click the **Open** button. **Note**: These groupings use the same names as the monitor groups above.
5.	Click the **Create** button.
6.	Enter the new machine name and press the **Tab** key.

TABLE 11. How to Add a Host to a Monitor Group

Step	Action
7.	Populate the remaining fields with the following and click the hostname again. * OWNER = **omadm** * HOME_DIR = **/opt/om** * LOG_DIR = **/logs/OM** * ROLE = **none** * TYPE = **java** * PID = **0** * STATUS = **RUNNING**
8.	Wait for the pop-up and click the **OK** button. **Result**: The machine is saved to the database.

Duplicating a Host

Duplicating a host is a time-saving way to create a new instance. The following step procedures show you how to duplicate a host in the list.

TABLE 12. How to Duplicate a Host

Step	Action
1.	Access the WebAdmin console and click the **application** link on the left panel. **Result**: The link expands.
2.	Click OM.
3.	From the right panel, click the **<site>** link and click the **Operate** button. **Result**: The machine groups appear.
4.	Click the group of machines to which you wish to add the new host and click the **Open** button. **Result**: he list of servers in this group appears.
5.	Click on a host in the table and click the **Duplicate** button.
6.	Enter the new machine name and press the **Tab** key. **Result**: The "Asset Name" field closes.

TABLE 12. How to Duplicate a Host

Step	Action
7.	Populate the remaining fields with the following and click the hostname again. * OWNER = **omadm** * HOME_DIR = **/opt/om** * LOG_DIR = **/logs/OM** * ROLE = **none** * TYPE = **java** * PID = **0** * STATUS = **RUNNING**
8.	Select the new machine name and wait for the pop-up.
9.	Click the **OK** button. **Result**: The host is added to the database.

Deploying Monitor Configurations

After you have created or edited a monitor and added the machine to a host group, you must put the files to the server(s) so the monitor can begin to function.

Use the following step procedures to deploy the monitor configurations to a single host.

TABLE 13. How to Deploy a Monitor's Configuration to a Single Host

Step	Action
1.	Access the WebAdmin console and click the **application** link on the left panel. **Result**: The link expands.
2.	Click OM.
3.	From the right panel, click the **<site>** link and click the **Operate** button. **Result**: The host group appears.

TABLE 13. How to Deploy a Monitor's Configuration to a Single Host

Step	Action
3.	Select the host group to which you want to deploy the monitor configurations and click the **Open** button. **Result**: The hosts in the group appear.
4.	Select the host you want the monitor to observe and click the **Deploy** button. **Result**: The monitor configurations are placed on the machines.
5.	Wait for the pop-up and click the **OK** button. **Result**: The configurations are deployed.

Use the following step procedures to deploy the monitor configurations to all hosts in a group

TABLE 14. How to Deploy a Monitor's Configuration to all Hosts in a Group

Step	Action
1.	Access the WebAdmin console and click the **application** link on the left panel. **Result**: The link expands.
2.	Click OM.
3.	From the right panel, click the **<site>** link and click the **Operate** button. **Result**: The host group appears.
4.	Select the host group to which you want to deploy the monitor configurations and click the **Deploy** button.
5.	Wait for the pop-up and click the **OK** button. **Result**: The configurations are deployed.

Configuring the Event Dispatcher

The Event Dispatcher (ED) is the process used to correlate events/alerts and send them to the proper groups. A configuration can be set up to send different level events to email addresses or to the syslog. You must have a minimum of one event configuration established and be "subscribed" to a monitor site to receive alerts.

Event and Correlation Types

Event/correlation types use the naming convention outlined below.

Event/Correlation Type	Description
all_	Used for a correlation of events
mail_	Used as the basic mail alert configuration
page_	Used to page (only) on events
syslog_	Used to send events to the syslog

FIGURE 4. Event Correlation

```
ADS / OM - CONFIGURATION : adprod / admanager_proc
_____________________________________________________
$ Name              all_ads
$ ClassName           com.cnn.pses.event.EventSummary
$ Site             ADS
$ Type              MessageSummary
$ Category           SUMMARY
$ Description        event correlations for all ADSalerts
$ MinimumEventCount    2
@ EventPattern
  %
     $ priority       ^(ERR|CRIT)$
     $ category        ^AD$
     $ hostname         ^ad[48]
@ XEventPattern
  %
     $ status         ^[eE]xception$
@ Summary
     $ date
     $ priority
     $ name
     $ hostname
     $ text
```

TABLE 15. Configuration Items (Event)

Property Name	Rqmt*	Description	Examples
Name	M	Name of the event	all_ads
ClassName	M	Full name of the class	com.cnn.pses.event.EventSummary
Site	O	Site that the event belongs to	ADS
Type	M	Type of the event	MessageSummary
Category	O	Event correlation	SUMMARY
Description	O	Brief description for the event	event correlations for all ADSalerts
MinimumEventCount	O	Minimum number of events need to correlate	2
EventPattern	M	Pattern of events to look for	
XEventPattern	O	Pattern of events to exclude	
Summary	M	Summary of the event to be sent	

*Rqmt: M = mandatory; O = optional

Creating a New Event or Correlation

The most efficient way to create a new event or correlation is to duplicate or import an existing event/correlation and edit it to match the environment.

Duplicating an Event or Correlation

Use the following sets of step procedures to duplicate and import an existing configuration.

TABLE 16. How to Duplicate an Event or Correlation

Step	Action
1.	Select the event you wish to duplicate and click the **Duplicate** button on the menu bar.
2.	Enter the new event name and press the **Tab** key.

TABLE 16. How to Duplicate an Event or Correlation

Step	Action
3.	Update the "Description" field (the others should be correct) and click the event name again.
4.	Wait for the pop-up and click the **OK** button.
5.	Select the event you just added and click the **Edit** button.
6.	Update the monitor using the steps in Table 10 on page 2-15.

Editing an Existing Event or Correlation

You may need to edit an existing event or correlation if there are errors in the configuration.

Use the following step procedures to edit an existing event or correlation.

TABLE 17. How to Edit an Existing Event or Correlation

Step	Action
1.	Access the WebAdmin console and select the event configuration you wish to edit.
2.	Click the **Open** button in the menu bar. **Result**: The current configuration appears.
3.	Click the symbol (% = Hash, $ = String, @ = Array) next to the item you want to change.
4.	Click the **Edit** button in the menu bar.
5.	Change the setting; click the symbol again and click the **Save** button in the menu bar. **Result**: The data is saved to the database.
6.	Once you receive a response, click the event group's name link below the menu bar.
7.	Select the monitor you just edited and click the **Deploy** button. **Result**: The configuration file is created on the WebAdmin server.

TABLE 17. How to Edit an Existing Event or Correlation

Step	Action
8.	

If you want to...	Click...
push a file to a single server quickly	the **Operate** button followed by the server you want the file pushed to and click the **Deploy** button.
push a file to all the servers in a group	the **OPERATION** link below the menu bar, followed by the monitor group and click the **Deploy** button.

Deploying an Event or Correlation

TABLE 18. How to Deploy an Event or Correlation

Step	Action
1.	Access the WebAdmin console and expand the **application** link on the right panel. **Result**: The link expands.
2.	Click the **ED** link. **Result**: The configuration groups appear.
3.	Select the EXTPROD option in the right pane and click the **Operate** button in the menu bar. **Result**: The operation groups appear.
4.	Select the **extevent** option in the table and click the **Deploy** button.
5.	Wait for the pop-up and click the **OK** button. **Result**: The event is deployed.

Restarting OM/ED

When configuration changes are made to OM or ED, the tool must be started/restarted to secure the change.

Use the following step procedures to restart OM via the WebAdmin.

TABLE 19. How to Start/Restart OM via the WebAdmin (on a Single Host)

Step	Action
1.	In the left pane expand application and click on OM.
2.	Click on ADS in the table in the right pane then click Operate in the menu bar.
3.	Select the host group you want to deploy the monitor configurations to then click Open.
4.	Select the host you want the monitor to go to then click Restart.
5.	Click OK on the pop-up if you want to continue.
6.	Wait for the pop-up and click the OK button.

Use the following step procedures to restart OM on all hosts in a group.

TABLE 20. How to Restart OM on all Hosts in a Group

Step	Action
1.	In the left pane expand application and click on OM.
2.	Select ADS in the table in the right pane then click Operate in the menu bar.
3.	Select the host group you want to deploy the monitor configurations and click the **Restart** button.
5.	Click the **OK** button on the pop-up to continue.
6.	Wait for the pop-up and click the **OK** button.

Starting/Restarting the OM via a Command Line

Use the following step procedures to restart the OM via the command line.

TABLE 21. How to Start/Restart the OM via the Command Line

Step	Action
1.	Login to the host that you want to restart OM on and su to `omadm`.
2.	Run `/opt/om/bin/jomonctl restart`.
3.	Watch the `/logs/OM/OccurrenceMonitor.log` or `/logs/OM/OccurrenceMonitor.out` logs for errors.

Starting/Restarting the Event Dispatcher via WebAdmin

Use the following step procedures to restart the event dispatcher via WebAdmin.

TABLE 22. How to Start/Restart the Event Dispatcher via WebAdmin

Step	Action
1.	Expand application and click on ED.
2.	Select **EXTPROD** and click the **Operate** button.
3.	Select **EXTEVENT** and click the **Open** button.
4.	Select mon8om1 and click the **Restart** button.
5.	Wait for the pop-up and click the **OK** button.
6.	Repeat steps 3 through 5 for mon8om2.

Think About It!

1. Match the term with the definition.

ProcessMonitor	Runs the test every number of heartbeats
QuietPeriod	Ignores the first number of OM's exceptions
PatternGroup	The hashmap with the active time slot for OM to watch the occurrence
Step	An array instance of patterns in order to single out the process
ExceptionTolerance	Sleeps for the number of times if failure persists
ActiveTime	Monitors a Unix process with specific patterns.

2. Name three maintenance tasks you perform for OM and ED.

Do It!

1. Create a monitor group.
2. Add a host to a monitor group.
3. List the steps to perform one of the three tasks you listed in the "Think About It!" section.

NOTES:

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