Note

Before using this information and the product it supports, be sure to read the general information under "Notices" in the back matter of this book.

First Edition (March 2004)

This edition applies to version 5 release 1 modification level 2 of IBM Tivoli Monitoring and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this guide

IBM® Tivoli® Monitoring allows you to monitor availability and performance status of resources on your systems to identify bottlenecks and potential resource problem. This guide describes how to install, customize, and use IBM Tivoli Monitoring.

IBM Tivoli Monitoring was formerly known as Tivoli Distributed Monitoring (Advanced Edition). You should note that a separate product exists, called Tivoli Distributed Monitoring (Classic Edition), formerly known as Tivoli Distributed Monitoring.

Who should read this guide

This guide is for system administrators.

To make effective use of the product you require knowledge as well as practical experience of the following:

- Importing, installing, and managing the Tivoli Management Framework and the Tivoli Management Environment®
- System administration on the systems where you plan to install IBM Tivoli Monitoring components and which you plan to monitor using the product

You should also be familiar with the Tivoli Enterprise Console® product.

What this guide contains

This guide contains the following sections and chapters:

- **Chapter 1, “Introduction to troubleshooting”**
  Provides an overview of the IBM Tivoli Monitoring architecture and an introduction to the product maintenance and performance.

- **Chapter 2, “Built-in serviceability”**
  Provides information about the logs, traces, and other diagnostic tools available with IBM Tivoli Monitoring.

- **Chapter 3, “Problem resolution”**
  Describes the solutions and workarounds for the most common problems that can show up using IBM Tivoli Monitoring.

- **Chapter 4, “Messages”**
  Describes the error, warning, and information messages that can appear in IBM Tivoli Monitoring. It provides a description of the message, what caused the error, and how to resolve the cause of the error.

- **Chapter 5, “Contacting IBM Software Support”**
  Describes how to contact IBM Software Support, if needed.

Publications

This section lists publications in the IBM Tivoli Monitoring library and related documents. It also describes how to access Tivoli publications online and how to order Tivoli publications.
IBM Tivoli Monitoring library

The following documents are available in the IBM Tivoli Monitoring library:

  Describes how to use IBM Tivoli Monitoring to manage system and application resources.
- **IBM Tivoli Monitoring: Problem Determination Guide**, SH19-8520
  Describes the problem determination tools and techniques available with IBM Tivoli Monitoring.
  Describes how to use IBM Tivoli Monitoring Resource Model Builder (formerly known as Workbench) to create new resource models or to modify existing ones.
  Describes the problem determination tools and techniques available with IBM Tivoli Monitoring Resource Model Builder.
  Provides information about using and customizing the resource models that can be used with IBM Tivoli Monitoring.
- **IBM Tivoli Monitoring: Release Notes**, GI10-5797
  Provides the most current information about IBM Tivoli Monitoring.

Versions of these documents in PDF and HTML formats can be found on the IBM Tivoli Monitoring and IBM Tivoli Monitoring Resource Model Builder product CDs. They are stored in the Books directory, and can be accessed by selecting the file Books/infocenter.html with your Web browser. This displays an HTML page from which all of the documents can be accessed in either format.

Any updated versions of these documents are placed on the Tivoli Software Information Center web site (see “Accessing publications online” on page xi for more details).

**Related publications**

Before beginning the installation, read the following related documentation for more information about the management options that the IBM Tivoli Monitoring products provide:

  Provides updated information about the Tivoli Distributed Monitoring (Classic Edition) product (formerly known as Tivoli Distributed Monitoring).
- **Tivoli Management Framework: User’s Guide**
  Provides prerequisite information about setting up and using the Tivoli Management Framework and Tivoli environment.
- **Tivoli Management Framework: Installation Guide**
  Provides prerequisite information about setting up and using the Tivoli Management Framework and Tivoli environment.
- **Tivoli Management Framework: Planning for Deployment Guide**
Provide prerequisite information about setting up and using the Tivoli Management Framework and Tivoli environment.

- **Tivoli Management Framework: Reference Manual**
  Provide prerequisite information about setting up and using the Tivoli Management Framework and Tivoli environment.

- **Tivoli Software Installation Service: User’s Guide**
  Provides task-oriented information on how to import, manage, and install Tivoli Management Environment software on selected machines and managed nodes within your Tivoli management region.

- **Tivoli Software Installation Service: Release Notes**
  Provides important information about using and installing the Tivoli Software Installation Service (SIS).

- **Tivoli Enterprise Console: Rule Builder’s Guide**
  Provides information about using the Tivoli Enterprise Console rule editor and graphical rule builder to modify existing rules and create new rules to match your specific event management needs.

- **Tivoli Enterprise Console: Release Notes, Version 3.7 or later**
  Provides the most current information about Tivoli Enterprise Console.

- **Tivoli Business Systems Manager: User’s Guide (if you intend to use Tivoli Business Systems Manager to monitor Tivoli Monitoring events)**
  Describes how to use the Tivoli Business Systems Manager product.

- **Tivoli Business Systems Manager: Console User’s Guide (if you intend to use Tivoli Business Systems Manager to monitor Tivoli Monitoring events)**
  Describes how to use the Tivoli Business Systems Manager console.

The **Tivoli Software Glossary** includes definitions for many of the technical terms related to Tivoli software. The **Tivoli Software Glossary** is available, in English only, at the following Tivoli software library Web site:


Access the glossary by clicking the **Glossary** link on the left pane of the Tivoli software library window.

**Accessing publications online**

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli Software Information Center web site at this link:


Click the Tivoli Monitoring link to access the product library.

**Note:** If you print PDF documents on other than letter-sized paper, set the option in the **File → Print** window that allows Adobe Reader to print letter-sized pages on your local paper.

**Ordering publications**

You can order many Tivoli publications online at the following Web site:


You can also order by telephone by calling one of these numbers:
In the United States: 800-879-2755
In Canada: 800-426-4968
In other countries, for a list of telephone numbers, see the following Web site:

Note: This version of the IBM Tivoli Monitoring: Problem Determination Guide is not available in hardcopy format.

Accessibility
Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface.

For additional information, see the Accessibility Appendix in the IBM Tivoli Monitoring: User’s Guide.

Contacting IBM Software Support
If you have a problem with any Tivoli product, refer to the following IBM Software Support Web site:


If you want to contact software support, see the IBM Software Support Guide at the following Web site:

http://techsupport.services.ibm.com/guides/handbook.html

The guide provides information about how to contact IBM Software Support, depending on the severity of your problem, and the following information:
- Registration and eligibility
- Telephone numbers and e-mail addresses, depending on the country in which you are located
- Information you must have before contacting IBM Software Support

Conventions used in this guide

This book uses several conventions for special terms and actions, operating system-dependent commands and paths, and margin graphics.

Typeface conventions

This guide uses the following typeface conventions:

**Bold**

Lowercase and mixed-case commands, command options, and flags that appear within text appear like this, in **bold** type.

Graphical user interface elements (except for titles of windows and dialogs) and names of keys also appear like this, in **bold** type.

*Italic*

Variables, values you must provide, new terms, and words and phrases that are emphasized appear like this, in *italic* type.

**Monospace**

Commands, command options, and flags that appear on a separate line, code examples, output, and message text appear like this, in monospace type.
Names of files and directories, text strings you must type, when they appear within text, names of Java™ methods and classes, and HTML and XML tags also appear like this, in monospace type.

**Operating system-dependent variables and paths**

This book uses the UNIX® convention for specifying environment variables and for directory notation.

When using the Windows® command line, replace $variable with %variable% for environment variables and replace each forward slash (/) with a backslash (\) in directory paths.

**Note:** If you are using the bash shell on a Windows system, you can use the UNIX conventions.
Chapter 1. Introduction to troubleshooting

This Problem Determination Guide tells you how to troubleshoot IBM Tivoli Monitoring. It contains the following chapters and topics:

- **Chapter 1, “Introduction to troubleshooting”**
  Provides an overview of the IBM Tivoli Monitoring architecture and a set of guidelines for configuring and tuning the product.

- **Chapter 2, “Built-in serviceability”**
  Provides information about the logs, traces, and other diagnostic tools available with IBM Tivoli Monitoring.

- **Chapter 3, “Problem resolution”**
  Describes the solutions and workarounds for the most common problems that can show up using IBM Tivoli Monitoring.

- **Chapter 4, “Messages”**
  Describes the error, warning, and information messages that can appear using IBM Tivoli Monitoring. It provides a description of the message, what caused the error, and how to resolve the cause of the error.

- **Chapter 5, “Contacting IBM Software Support”**
  Describes how to contact IBM Software Support if needed.

System overview

IBM® Tivoli® Monitoring 5.1.2 (hereafter also referred to as Tivoli Monitoring) is a Tivoli application that applies preconfigured, automated best practices to the automated monitoring of essential system resources. The application detects bottlenecks and other potential problems and provides for the automatic recovery from critical situations, which eliminates the need for system administrators to manually scan through extensive performance data. The application also integrates seamlessly with other Tivoli Availability solutions, including Tivoli Business Systems Manager® and Tivoli Enterprise Console®. This application was previously called Tivoli Distributed Monitoring (Advanced Edition).

For more information on the Tivoli Monitoring product features refer to the *IBM Tivoli Monitoring: User’s Guide*.

**Tivoli Monitoring architecture**

Tivoli Monitoring implements a three tier management topography based on the Tivoli Management Environment® infrastructure. The following picture describes its architecture.
Tivoli Monitoring can be installed and configured from any Tivoli Management Region server (Tivoli server). Tivoli Monitoring has components that can be installed on the Tivoli server and gateways. On the endpoint, the product component is automatically installed at the first profile distribution.

**Tivoli Monitoring Manager**

The Tivoli Monitoring Manager runs on the Tivoli server. It defines the container used for distributing the resource models to target resources. It provides the user with a graphical user interface integrated with the Tivoli Desktop and a command line interface, available also at the Tivoli management gateway, to manage the resource models and the Tivoli Monitoring profiles. The server component interacts with the Tivoli MDist 2 functionality to manage asynchronously the distribution of the Tivoli Monitoring profiles to the subscribers.

The database of available default resource models is maintained at the server; commands issued to manage resource models from gateways are routed to and performed on the server.

**Tivoli Monitoring Middle Layer**

The Tivoli Monitoring Middle Layer comprises a set of services running at the Tivoli gateways (managed nodes) that mediates and optimizes, when possible, the interaction between the monitored endpoints, the monitored resources, and the other components internal and external to Tivoli Monitoring.

The Request Manager collects, stores, and manages all endpoint requests created and used by Tivoli Monitoring components (such as the Web Health Console and the heartbeat) and applications. The request manager acts like a down-call concentrator: it receives requests from its user components and concentrates them...
into one request to the endpoint. When the endpoint sends data back, the request manager stores it in a centralized cache on the gateway. The user components can retrieve the data from the gateway cache.

The **Heartbeat Manager** function monitors the basic signs of life at endpoints attached to the gateway at which it is enabled. The heartbeat manager regularly monitors the endpoints, checking that they are running correctly. Events related to endpoints status may be sent to the Tivoli Business Systems Manager (provided that the Tivoli Business Systems Manager Adapter component is installed at the gateway), the Tivoli Enterprise Console (Tivoli events only), or the Tivoli Monitoring Notice Group. It maintains information about the endpoint in a local persistent cache and uses the request manager for handling the status requests that are periodically sent to the endpoints.

The **Data Collector** is responsible for collecting the data logged periodically by Tivoli Monitoring agents to the endpoint database, and for moving the data into a centralized database accessed through a RDBMS Interface Module (RIM) object. It uses the MDist 2 framework service to move data from the endpoints to the managed node where it is installed, and leverages the request manager for handling the data collection requests that are periodically sent to the endpoints. The collected data is aggregated every 24 hours and is used by Tivoli Monitoring to interact with Tivoli Data Warehouse®.

The **Tivoli Business Systems Manager Adapter** component is responsible for forwarding discovery and status events to the Tivoli Business Systems Manager.

The **Task Manager** is responsible for invoking Tivoli tasks that are to be performed when a consolidated event is generated by the resource model engine.

The **Tivoli Monitoring Gateway (Upcall Collector)** is responsible for dispatching to the appropriate processor the up-calls coming from the endpoints attached to the Tivoli gateway on which it is installed. The processors are:

- The heartbeat manager
- The task manager
- The Tivoli Business Systems Manager Adapter

**Tivoli Monitoring Agent**

The **Tivoli Monitoring Agent** requires a Tivoli management agent to be installed on the endpoint. It performs the resource management through one or more resource models that are distributed to the endpoint with a Tivoli Monitoring profile. The agent is installed automatically when a Tivoli Monitoring profile is distributed to the endpoint for the first time. The agent is comprised of two main parts: a Resource Model Engine (RME), responsible for interpreting resource models, and a set of Tivoli down-call methods that the other components of Tivoli Monitoring invoke to interact with the RME and the resource models.

The **Resource Model Engine (RME)** is the heart of the solution. The RME, driven by the resource models, implements the monitoring of the resources (operating system and applications) to detect indications of specific situations. When the indication for a specific situation persists for a sufficient duration or intensity to warrant action, the RME can be configured to activate actions or to send notifications to higher-level management applications. The RME allows resource models to interact with Windows Management Infrastructure (WMI) on Windows® platforms, Instrumentation Library Type (ILT) providers, and shell scripts to collect...
data to be analyzed. The collected data can optionally be logged to a local database in either raw or aggregated format. The following picture shows the architecture of the RME:

![Architecture of the resource model engine](image)

The TME® down-call methods are invoked by the other components of Tivoli Monitoring when they need to interact with the RME for:

- Managing the life-cycle of Tivoli Monitoring profiles and resource models
- Retrieving information about the status of resources and resource models
- Retrieving the data that was logged locally.

**Web Health Console**

The Web Health Console is the web-based graphical interface of Tivoli Monitoring that runs on any system that can be connected via TCP/IP to the Tivoli region. The Web Health Console allows you to drill down through a specific endpoint, a profile, and resource model to view real-time information about a specific problem. In this way you can display and check the status or health of a set of endpoints. You can use the Web Health Console to work with real-time data or with historical data that has previously been logged to a local database.
For more information on the Web Health Console refer to the *IBM Tivoli Monitoring: User’s Guide*

**Integration with Tivoli Data Warehouse**

The integration with Tivoli Data Warehouse is provided through:

- An ETL1 script responsible for extracting data from the centralized Tivoli Monitoring database and loading it to the Central Data Warehouse
- An ETL2 script responsible for creating a data-mart supporting a set of sample reports.

For more information about the integration of Tivoli Monitoring with the Tivoli Data Warehouse refer to the *IBM Tivoli Monitoring: User’s Guide*.

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**Problem classification**

Refer to the section “Problem areas and data gathering techniques” on page 31 to recognize symptoms of various problems that may occur using Tivoli Monitoring under the following circumstances:

- Installing the product
- Upgrading the product
- Using profiles
- Using the CLI
- Using the data collector
- Using the heartbeat
- Using the request manager
- Using the TBSM Adapter
- Using the Tivoli Enterprise Console
- Problems with the endpoint engine

---

**Tuning considerations**

The performance and availability of Tivoli Monitoring depends on how the product is tuned. Tuning is the process of adjusting an application or a system to operate in a more efficient manner in the work environment of a particular installation.

This section explains how to tune Tivoli Monitoring.

**Tuning at the endpoint**

The following considerations apply when configuring and tuning Tivoli Monitoring endpoints:

- Due to the Java implementation, Tivoli Monitoring endpoints require significantly more memory on UNIX systems than on Windows systems. Plan for adequate storage to fit the process size requirements of Tivoli Monitoring, although the resident set size can be significantly smaller if there is contention for memory on the system from other workloads.

- On UNIX systems, the default maximum Java heap size parameter in the Tivoli Monitoring engine_launcher script is 256 megabytes (~-Xmx256m). Set the maximum Java heap size so that there is sufficient physical memory for the entire Java heap to reside in memory, because the garbage collector uses much of the Java heap memory space. Set the maximum Java heap size higher than the expected Java heap memory requirements (to allow for dynamic workload...
changes), and less than the amount of physical memory available on the system. The available physical memory would be the amount of memory not needed by the operating system or other programs running on the system (or memory that could be used without causing steady state paging activity for the system). Most operating systems make use of the available physical memory for disk caching, therefore the available physical memory reported by vmstat (for UNIX) or Task Manager (for Windows) may be smaller than the amount of memory that could be used without causing steady state paging activity.

- On UNIX systems, the default minimum Java heap size parameter in the Tivoli Monitoring engine_launcher script is 32 megabytes (-Xms32m). This value is set to accommodate the storage requirements of the base OS resource models when historical data logging (raw, aggregate, or TEDW) is enabled. If historical data logging is not used on an endpoint, you can set the minimum Java heap size parameter to 8 megabytes (-Xms8m) to reduce the Tivoli Monitoring engine memory usage.

- The size of the Cloudscape database on the UNIX endpoint is proportional to the highwater mark of the number of rows of endpoint data (numeric or string properties) stored in the database prior to database pruning (to maintain the historical period). Based on observations of database size and number of data rows, the average database storage per data row is approximately 230 bytes. For a given endpoint, the number of rows stored in the database depends on which type of logging is used.

- Use the minimum amount of historical data logging that meets your requirements. Raw logging requires more resources than aggregate logging (using the default aggregation settings) and more resources than logging for Tivoli Data Warehouse.

- Use the shortest historical period that meets your requirements. Longer historical periods generally require more disk space, experience larger CPU spikes, and have higher steady state CPU utilization than shorter historical periods.

**Tuning at the server and gateway**

The following considerations apply when configuring and tuning Tivoli Monitoring servers and gateways:

- Collecting data for Tivoli Data Warehouse involves uploading endpoint data through the gateway to the Tivoli Monitoring data collector process, which issues calls to the Tivoli Monitoring RIM handler process to store the data in the RIM database. The processing time required to upload and store the data from a group of endpoints is directly proportional to the number of endpoints and the amount of data collected per endpoint. For numerical data metrics, four properties (or values) are written per metric: average, minimum, maximum, and total. For string data metrics, a single property (the string value) is written.

- Placing the Tivoli Monitoring RIM on the database server should improve the performance of data logging to the RIM if the database server is a multiprocessor and has spare capacity.

- Because the data collector (tmnt_datacollector) and RIM handler (tmnt_rimh_eng) processes are quite busy during the collection and logging of data, moving the data collector function off gateways that are busy with other workloads (for example, software distribution) minimizes disruptions.

- Because the data collection processing flow uses MDist 2, you should evaluate the gateway and repeater tuning parameters to ensure that data moves as quickly as possible from the endpoint to the gateway.

- Perform normal database tuning on the Tivoli Monitoring RIM database to improve performance. For DB2, increase the bufferpool size from the default size...
to improve the buffer hit ratio and reduce the amount of physical I/O. To improve performance of the DB2 table indexes, run RUNSTATS or REORGCHK against the Tivoli Monitoring database tables after inserting or deleting a significant number of rows. For more information on DB2 tuning, refer to IBM DB2 Universal Database V7 Administration Guide: Performance (SC09-2945).

- The heartbeat function can cause a significant amount of CPU and disk activity on the gateway. Lengthening the heartbeat interval (the frequency with which the heartbeat engine issues downcalls to endpoints) lowers the CPU and disk usage. The number of endpoints that can be polled per minute by the heartbeat function partially depends on the speed of the gateway machine. Multiple downcalls can be run concurrently. Determining whether the heartbeat function is keeping up can be difficult. The processes involved in heartbeat processing are the heartbeat engine (tmnt_hb_eng), the request manager (tmnt_rm_eng), and the gateway and oserv processes. If the gateway server shows sustained high CPU utilization, especially for the heartbeat and request manager processes, you should consider increasing the heartbeat interval.

- Expanding the number of monitored endpoints increases the processing requirement at the Web Health Console server and at the gateway servers (which run the Tivoli Monitoring request manager). Dynamic updates to panels that report status from a large number of endpoints can cause a significant amount of CPU processing on these servers. The refresh interval set in the user preferences affects the frequency of these updates, and in turn, the amount of CPU processing on the Web Health Console server and gateway servers.

- Logging off the Web Health Console when it is not in use reduces the CPU processing on the Web Health Console server and the gateways managing the monitored resources.
Chapter 2. Built-in serviceability

This chapter describes the logs and traces generated by the product, identifies the tools that are available to help you resolve problems on endpoints, and includes a section that describes the most common problems and their workarounds, see Table 4 on page 48.

Logs and traces

Logs refer to message logs while traces refer to trace logs. Logs are translated into the national language, traces are only provided in English.

When trying to resolve problems you should start by looking at the log file, if there is one. Log files are written in a readable format and stored in the $DBDIR/AMW/logs directory for managed node logs (or in the $DBDIR/tmp/AMW/logs directory (for Windows) or /tmp/AMW/logs (for UNIX) if the processes do not have sufficient permission to write in the previous location) or in the $LCF_DATDIR/LCFNEW/AMW/logs directory for endpoint logs. A utility is provided to convert them into XML. Currently, log files are available only for non-Windows endpoints.

If the problem cannot be resolved from the log file, then a trace file needs to be provided to IBM Software Support.

Log files are called msg_xxxx.log. Trace files are called trace_xxxx.log.

You can configure log and trace files using the wdmconfig and wdmtrceng commands, as indicated in the following sections. Note that the size option specifies the maximum size that each individual trace or log file can reach. This means that when a trace or log file reaches the maximum size, a new file is created, and that the total size of the overall trace or log can be \( n \) times the original size option.

Log record format

The Log Record format is as follows:

\[
<F>\text{Date1}<F>\text{Date2}<F>\text{ProductID}<F>\text{Component}<F>\text{Server}<F>\text{ProcessID}<F>\text{MessageID}<F>\text{LogText}
\]

where:

Date1 Indicates the time the log was produced specified in milliseconds, since January 1st 1970, for example, 1015343592000

Date2 Indicates the time the log was produced specified in GMT. It includes the date (in yyyy-mm-dd format) and time (in GMT format) plus the offset from GMT, for example, 2003-07-29 11:50:00 -4:00

ProductID The three letter code assigned to the product to identify its messages uniquely; AMW, for Tivoli Monitoring.

Component Represents a run-time grouping of a product’s parts. If a product has multiple applications, the Component name will reflect the name of the application.
Server  Host name (managed node label or endpoint label).

ProcessID
    The Process ID of the process that produced the log message.

MessageId
    The unique numeric message identifier.

LogText
    The message text.

Trace record format

The trace record format is as follows:

<Date1<Date2<ProductID<Component<Server<ProcessID<TraceLev<FileName
<Date1<Method<Thread<LogText<Exception

where:

Date1  Indicates the time the log was produced specified in milliseconds, since January 1st 1970, for example, 1015343592000.

Date2  Indicates the time the log was produced specified in GMT. It includes the date (in yyyy-mm-dd format) and time (in GMT format) plus the offset from GMT, for example, 2003-07-29 11:50:00 -4:00

ProductID
    The three letter code assigned to the product to identify its messages uniquely, AMW, for Tivoli Monitoring.

Component
    Represents a run-time grouping of a product’s parts. If a product has multiple applications, the Component name will reflect the name of the application.

Server  Host name.

ProcessID
    The Process ID of the process that produced the log message. It is only present for Java” processes.

TraceLev
    The level of detail the trace represents:

MIN  Minimum level of tracing (0)
MID  A level between MIN and MAX (1)
MAX  Maximum level of tracing (2)
OTHER A level other than MIN, MID, MAX (3)

Note that increasing the level of detail of a trace will negatively impact the product performance.

FileName
    Name of the file or class to which the trace refers

Method
    The method in the class to which the trace refers

Thread
    Thread to which the trace refers. Thread elements refer to the platform-specific notion of a thread.
LogText
A description of the error.

Exception
Exception elements will depend upon the specific language/platform. For Java, it will be a stack trace.

Tool to create XML file

The formatter program creates a XML-based file from the log or trace generated by Tivoli Monitoring. It is located in tivoli_monitoring_dir/AMW/tools/ directory. It accepts four parameters:
• The first parameter defines whether the product is dealing with a Log file or a Message file.
• The second parameter is the name of the source file (either a LOG or a MESSAGE file).
• The third parameter is the name of the file to be created in XML.
• The fourth parameter (optional) specifies whether the XML file must be displayable in a web browser.

Here are some examples:
• on Windows:
  prepareLog TRACE ./trace_x.log ./trace_x.xml -xml
• on UNIX:
  prepareLog.sh TRACE \trace_x.log \trace_x.xml -xml
• from a bash shell on Windows:
  bash$ cmd /C prepareLog.cmd LOG msg_dmxengine.log msg_dmxengine.xml

Note: Before running the prepareLog program, edit the prepareLog file to set the Java Virtual Machine directory and the installation directory. The lines of the prepareLog file where you have to specify the Java Virtual Machine directory are called JVM_DIR and INST_DIR. After the equal sign type the directory on which Java Virtual Machine is installed.

The logs and traces provided by Tivoli Monitoring are as follows:
• “Server traces” on page 11
• “Gateway traces” on page 13
• Endpoint logs
  – “Windows endpoint logs” on page 19
  – “Profile distribution endpoint logs” on page 20
  – “Non-Windows endpoint logs” on page 20

Server traces

At the server, the product maintains a Distribution log, in addition to the Tivoli Management Framework logs.

Distribution logs

Logs are maintained at the server, containing the distribution results when a profile is pushed (distributed) to subscribers for installation or deletion. The details are as follows:

Process Name
  tmw2k_profile_core
Log Names

msg_profile-name#region_install.log
msg_tmw2kProfile#region_remove.log

Location
$DBDIR/AMW/logs

Configuration
To configure the log when distributing by means of the command `wdmdistrib`, use the options `-e`, `-i`, and `-w`. There are no configuration options when the GUI is used to perform a distribution. The default is that all options are specified.

The following Tivoli Management Framework logs may also be useful to check the distribution results:

- TMR Distribution Manager - $DBDIR/distmgr.log
- Gateway Repeater - $DBDIR/gate1og
- Managed Node Repeater - $DBDIR/rpt2log

**Tivoli Management Framework logs**

**Profile core trace**
A log is maintained at the gateway of the activities carried out when the profile core engine is running. It records all traces output by the `tmw2k_profile_core` process. The details are as follows:

**Process Name**
tmw2k_profile_core

**Trace Name**
trace_tmnt_profile_core.n.log (where n is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full)

**Location**
$DBDIR/AMW/logs

**Configuration**
To configure the log, use the command `wdmconfig` to change the following variables:

- core.trace_level: min=0; max=2; default=1
- core.trace_size: default=500000 (0.5 MB)

**Server built-in serviceability summary**
The following table summarizes the configuration of the available trace/log components:

<table>
<thead>
<tr>
<th>Component name</th>
<th>Process name</th>
<th>Location</th>
<th>Trace/log name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution log</td>
<td>tmw2k_profile_core</td>
<td>$DBDIR/AMW/logs</td>
<td>msg_profile-name#region_install.log</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>msg_tmw2kProfile#region_remove.log</td>
</tr>
<tr>
<td>Profile core trace</td>
<td>tmw2k_profile_core</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_profile_core.n.log</td>
</tr>
</tbody>
</table>
Gateway traces

At the gateway, the product maintains eleven traces and two logs:

- Heartbeat engine trace
- Task engine traces
- Task engine log
- Tivoli Business Systems Manager engine traces
- Endpoint upcall traces
- Tivoli Business Systems Manager adapter trace
- Tivoli Business Systems Manager transport trace
- Request manager trace
- Data collector traces
- Data collector log
- RIM handler log
- Command handler trace

All managed node components produce traces. Traces can be configured using the command:

```
wdmconfig --D component_name.trace_level=value
wdmconfig --D component_name.trace_size=value
```

where `component_name` is the name of the component that produces the trace:

- `heartbeat`, for the heartbeat engine
- `task`, for the task engine
- `tbsma`, for the Tivoli Business Systems Manager engine
- `core`, for the profile core engine
- `request-manager`, for the request manager engine
- `gw`, for the endpoint upcall
- `datacollector`, for the data collector and RIM Handler

You can configure traces for all components by using the component name `dmml`, for example: `wdmconfig --D dmml.trace_level = 4`

However, if you activate traces for a specific component, the trace level value that you have specified is the only value that is used for that component (regardless of the trace level specified using the component name `dmml`).

Heartbeat engine trace

A trace is maintained at the gateway of the activities carried out when the heartbeat engine is running. It records all messages output by the process `tmnt_hb_eng`. The details are as follows:

Process Name
- `tmnt_hb_eng`

Trace Name
- `trace_tmnt_hb_engr.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

Location
- `$DBDIR/AMW/logs`
Configuration
To configure the log, use the command:

```
wdmconfig -D heartbeat.trace_level = <value1>
wdmconfig -D heartbeat.trace_size = <value2>
```

where:

- `<value1>`: min=0; max=2; default=1
- `<value2>`: default=500000 (0.5 MB)

The heartbeat engine must be stopped using the `wdmmn` command, and started using the `wdmheartbeat` command for any changes in the configuration variables to take effect.

Task engine traces
Two traces are maintained at the gateway of the activities carried out when the task engine is running to perform tasks on attached endpoints as determined by resource model definitions. They record all messages output by the processes `tmnt_task_eng` and `tmnt_task_exec`. The details are as follows:

**Process Names**
`tmnt_task_eng`, `tmnt_task_exec`

**Trace Names**
- `trace_tmnt_task_eng.n.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)
- `trace_tmnt_task_exec.n.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

**Location**
`$DBDIR/AMW/logs`

Configuration
To configure the log, use the command:

```
wdmconfig -D task.trace_level = <value1>
wdmconfig -D task.trace_size = <value2>
```

where:

- `<value1>`: min=0; max=2; default=1
- `<value2>`: default=500000 (0.5 MB)

The task engine must be started and stopped using the `wdmmn` command, for any changes in the configuration variables to take effect.

Task engine log
A log is maintained at the gateway of the activities carried out when the task engine is running to perform tasks on attached endpoints as determined by resource model definitions. It records all messages output by the processes `tmnt_task_eng` and `tmnt_task_exec`. The details are as follows:

**Log Name**
`msg_response_taskn.log` (where `n` is a number in the range 1-9)

**Location**
`$DBDIR/AMW/logs`

Configuration
The log is always active and it cannot be disabled.
Tivoli Business Systems Manager engine traces

Two traces are maintained at the gateway of the activities carried out when the Tivoli Business Systems Manager engine is running. They record all messages output by the process `tmnt_tbsm_eng`, which implements the CORBA methods. The details are as follows:

**Process Names**
- `tmnt_tbsm_eng`, `tmnt_tbsm_wrapper`

**Trace Names**
- `trace_tmnt_tbsm_engn.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)
- `trace_tmnt_tbsm_wrappern.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

**Location**
- $DBDIR/AMW/logs

**Configuration**
To configure the log, use the command:

```
wdmconfig –D tbsma.trace_level = <value1>
wdmconfig –D tbsma.trace_size = <value2> where:
  • <value1> : min=0; max=2; default=1
  • <value2> : default=500000 (0.5 MB)
```

The Tivoli Business Systems Manager engine must be stopped using the `wdmmn` command, for any changes in the configuration variables to take effect (it will be restarted automatically by the next discovery request).

Endpoint upcall traces

A trace is maintained at the gateway of the upcall messages sent to the gateway from the endpoints. It contains details of the following:
- endpoint registration upcalls
- events and indications sent from the endpoint component
- task upcalls

It records all messages output by the process `tmnt_gtw_eng`, which receives the upcalls. The details are as follows:

**Process Name**
- `tmnt_gtw_eng`

**Trace Name**
- `trace_tmnt_gtw_engn.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

**Location**
- UNIX® or Linux
  `/tmp/AMW/logs`
- Windows
  `$DBDIR/tmp/AMW/logs`

**Configuration**
To configure the log, use the command:

```
wdmconfig –D gw.trace_level = <value1>
```
wdmconfig –D gw.trace_size = <value2> where:
  • <value1> : min=0; max=2; default=0
  • <value2> : default=500000 (0.5 MB)

**Tivoli Business Systems Manager adapter trace**

A log is maintained at the gateway of the activities carried out by the Tivoli Business Systems Manager adapter, as follows:

**Process Name**
Java

**Log Name**
User-defined (when the log is full it is renamed to filename.old, deleting any existing file with that name, and a new log file is created.)

**Location**
As defined in the wdmconfig configuration variable adapter.working.dir (default is $DBDIR/dmml).

**Configuration**
To configure the log, use the wdmconfig command to modify the variables trace.filename, adapter.trace.enable and adapter.trace.level. You should note that traces generated by the Tivoli Business Systems Manager Transport trace are also stored in this log.

**Tivoli Business Systems Manager transport trace**

A trace is maintained at the gateway of the activities carried out by the Tivoli Business Systems Manager adapter when sending events or messages to the Tivoli Business Systems Manager CommonListener, as follows:

**Process Name**
Java

**Trace Name**
User-defined (when the trace is full it is renamed to filename.old, deleting any existing file with that name, and a new trace file is created.)

**Location**
As defined in the wdmconfig configuration variable adapter.working.dir (default is $DBDIR/dmml).

**Configuration**
To configure the trace, use the wdmconfig command to modify the variables trace.filename, transport.trace.enable and transport.trace.level. You should note that traces generated by the Tivoli Business Systems Manager Adapter trace are also stored in this trace.

**Request manager trace**

A trace is maintained at the gateway of the activities carried out when the request manager processor is running. It records all messages output by the process tmnt_rm_eng. The details are as follows:

**Process Name**
tmnt_rm_eng

**Trace Name**
trace_tmnt_rm_eng.*n.*log (where n is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

**Location**
$DBDIR/AMW/logs
Configuration
To configure the log, use the command:

```
wdmconfig -D request_manager.trace_level=<value1>
wdmconfig -D request_manager.trace_size=<value2>
```

where:

- `<value1>`: min=0; max=2; default=1
- `<value2>`: default=500000 (0.5 MB)

The request manager processor must be started and stopped using the `wdmmn` command, for any changes in the configuration variables to take effect.

Data collector traces
A trace is maintained at the gateway of the activities carried out when the data collector processor `tmnt_datacollector_eng` is running. The details are as follows:

Process Name
`tmnt_datacollector_eng`

Trace Name
`trace_tmnt_datacollector_eng.n.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

Location
`$DBDIR/AMW/logs`

Configuration
To configure the log, use the command:

```
wdmconfig -D datacollector.trace_level = <value1>
wdmconfig -D datacollector.trace_size = <value2>
```

where:

- `<value1>`: min=0; max=2; default=1
- `<value2>`: default=500000 (0.5 MB)

The data collector processor must be started and stopped (using the `wdmmn` command) for any changes in the configuration variables to take effect.

Another trace is maintained at the gateway of the activities carried out when the data collector processor `tmnt_rimh_eng` is inserting data into the database via RIM. The details are as follows:

Process Name
`tmnt_rimh_eng`

Trace Name
`trace_tmnt_rimh_eng.n.log` (where `n` is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

Location
`$DBDIR/AMW/logs`

Configuration
To configure the log, use the command:

```
wdmconfig -D datacollector.trace_level = <value1>
wdmconfig -D datacollector.trace_size = <value2>
```

where:

- `<value1>`: min=0; max=2; default=1
- `<value2>`: default=500000 (0.5 MB)
The data collector processor must be started and stopped (using the wdmnn command) for any changes in the configuration variables to take effect.

Data collector log
A log is maintained at the gateway containing the message output from the data collector processor. The log is initialized when the tmnt_datacollector_eng process starts. The details are as follows:

Log name
msg_DataCollector\textsubscript{n}.log (where \( n \) is a number in the range 1-9)

Location
\$DBDIR/AMW/logs

Configuration
The log is always active and it cannot be disabled.

RIM handler log
A log is maintained at the gateway for the data collector, containing the message output of the RIM handler process. The log is initialized when the tmnt_rimh\textsubscript{eng} process starts. The details are as follows:

Log name
msg_rimh\textsubscript{n}.log (where \( n \) is a number in the range 1-9)

Location
\$DBDIR/AMW/logs

Configuration
The log is always active and it cannot be disabled.

Command handler trace
A trace is maintained at the gateway of the activities carried out by the command handler. It records all messages output by the process tmnt_cmd\textsubscript{eng}. The details are as follows:

Process Name
tmnt_cmd\textsubscript{eng}

Trace Name
trace\_tmnt\_cmd\_eng\textsubscript{n}.log (where \( n \) is a number in the range 1 - 9; as each file becomes full the number is incremented, cycling back to 1 when file 9 is full.)

Location
\$DBDIR/AMW/logs

Gateway built-in serviceability summary
The following table summarizes the configuration of the available trace/log components:

<table>
<thead>
<tr>
<th>Component name</th>
<th>Process name</th>
<th>Location</th>
<th>Trace/log name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heartbeat engine trace</td>
<td>tmnt_hb_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_hb_en\textsubscript{gr}.log</td>
</tr>
<tr>
<td>Task engine traces</td>
<td>tmnt_task_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_task_en\textsubscript{gr}.log</td>
</tr>
<tr>
<td></td>
<td>tmnt_task_exec</td>
<td></td>
<td>trace_tmnt_task_exec\textsubscript{gr}.log</td>
</tr>
<tr>
<td>Task engine log</td>
<td>tmnt_task_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>msg_response_tasku\textsubscript{gr}.log</td>
</tr>
<tr>
<td></td>
<td>tmnt_task_exec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tivoli Business Systems</td>
<td>tmnt_tbsm_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_tbsm_en\textsubscript{gr}.log</td>
</tr>
<tr>
<td>Manager engine traces</td>
<td>tmnt_tbsm_wrapper</td>
<td></td>
<td>trace_tmnt_tbsm_wrapp\textsubscript{r}.log</td>
</tr>
</tbody>
</table>

Table 2. Gateway trace/log components summary
Table 2. Gateway trace/log components summary  (continued)

<table>
<thead>
<tr>
<th>Component name</th>
<th>Process name</th>
<th>Location</th>
<th>Trace/log name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endpoint upcall trace</td>
<td>tmnt_gtw_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_gtw_eng.reg.log</td>
</tr>
<tr>
<td>Tivoli Business Systems</td>
<td>java</td>
<td>$DBDIR/dmml</td>
<td>dm.trc</td>
</tr>
<tr>
<td>Manager adapter trace</td>
<td>java</td>
<td>$DBDIR/dmml</td>
<td>dm.trc</td>
</tr>
<tr>
<td>Request manager trace</td>
<td>tmnt_rm_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_rm_eng.reg.log</td>
</tr>
<tr>
<td>Data collector trace</td>
<td>tmnt_datacollector_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_datacollector_eng.reg.log</td>
</tr>
<tr>
<td>Data collector trace</td>
<td>tmnt_rimh_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_rimh_eng.reg.log</td>
</tr>
<tr>
<td>Data collector log</td>
<td>tmnt_datacollector_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>msg_DataCollector.log</td>
</tr>
<tr>
<td>RIM handler log</td>
<td>tmnt_rimh_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>msg_rimhr.log</td>
</tr>
<tr>
<td>Command handler trace</td>
<td>tmnt_cmd_eng</td>
<td>$DBDIR/AMW/logs</td>
<td>trace_tmnt_cmd_eng.reg.log</td>
</tr>
</tbody>
</table>

**Endpoint logs and traces**

Logs and traces maintained at Windows endpoints are different from those at non-Windows endpoints.

**Windows endpoint logs**

The product maintains an Endpoint Engine Log at Windows endpoints, and there are also logs maintained by WMI.

**Endpoint engine log:** The main trace log generated by the Tivoli Monitoring engine at Windows endpoints records the activities of the endpoint engine, as follows:

**Process Name**
- Tmw2k and Tmw2k_ep

**Trace Name**
- Tmw2k.log (when the log is full it is renamed to Tmw2k.old and a new log file is created)

**Location**
- $LCF_DATDIR/LCFNEW/Tmw2k

**Configuration**

To configure the trace issue the command `wdmtrcenger` from the Server or managed node, identifying the endpoint at which you want to configure the log. You can set any of the following parameters:
- Trace filename
- Trace level, from 0 to 2
- Maximum file size (the upper limit is 10MB, the default size is 500000)

Each line in the log contains the following columns:
- Date
- Trace Level
- Component
- Thread Id
- Message
**WMI log:** The WMI log files records the activities of WMI to collect the data required by the resource models. The WMI log files are located in the directory: `%SystemRoot%/system32/wbem/logs`

For details see the WMI documentation.

**WMI Providers trace:** The trace is generated by the Tivoli Monitoring WMI Providers (shared by all the Tivoli Monitoring engines running in the same Windows cluster) and registers their activity.

**Trace Name**
- `trace_tmnt_providers.log` (when the trace is full it is renamed to `trace_tmnt_providers.old` and a new trace file is created)

**Location**
- `%SystemRoot%/system32`

**Profile distribution endpoint logs**
The product maintains a Profile Distribution Endpoint log.

**Endpoint engine log:** The trace log generated by the Tivoli Monitoring distribution process records the MDist 2 activities of the engine update. The details are as follows:

**Process Name**
- Tmw2k_ep

**Log Name**
- lcfd.log

**Location**
- `$LCF_DATDIR`

**Configuration**
- To configure the log issue the command `lcfd` to set the –d level of trace (3 is suggested for tracing information).

**Non-Windows endpoint logs**
The product maintains four logs at the endpoint:
- Endpoint engine update log and trace
- Endpoint engine log and trace
- Endpoint native trace
- Endpoint JMX log

**Endpoint engine update log and trace:** These log and trace maintain details of the activities of the engine update process, which is the process that launches and controls the endpoint engine. The details are as follows:

**Process Name**
- Tmw2k_ep

**Log Name**
- `msg_dmxeu.log` (when the log is full it is renamed to `msg_dmxeu.log.old`, deleting any existing file with that name, and a new log file is created.)

**Trace Name**
- `trace_dmxeu.log` (when the trace is full it is renamed to `trace_dmxeu.log.old`, deleting any existing file with that name, and a new trace file is created.)
Location
$LCF_DATDIR/LCFNEW/AMW/logs

Configuration
To configure the log issue the command `wdmtrceng` from the Server or managed node, identifying the endpoint at which you want to configure the log. You should note that this command maintains a common configuration for all logs at a non-Windows endpoint. You can set any of the following parameters:

- Trace level, from 0 to 2
- Maximum file size: default for either file (.log or .old) is 2500000 (2.5MB)

Endpoint engine log and trace: The main trace log generated by the Tivoli Monitoring engine at non-Windows endpoints records the activities of the endpoint engine, as follows:

Process Name
java

Log Name
msg_dmxengine.log (when the log is full it is renamed to msg_dmxengine.log.old, deleting any existing file with that name, and a new log file is created.)

Trace Name
trace_dmxengine.log (when the trace is full it is renamed to trace_dmxengine.log.old, deleting any existing file with that name, and a new trace file is created.)

Location
$LCF_DATDIR/LCFNEW/AMW/logs

Configuration
To configure the log issue the command `wdmtrceng` from the Server or managed node, identifying the endpoint at which you want to configure the log. You should note that this command maintains a common configuration for all logs at a non-Windows endpoint. You can set any of the following parameters:

- Trace level, from 0 to 2
- Maximum file size: default for either file (.log or .old) is 2500000 (2.5MB)

Endpoint native trace: This trace maintains details of the activities of the native processes which obtain the resource information required by the resource models, as follows:

Process Name
java

Trace Name
trace_dmxntv.log (when the trace is full it is renamed to trace_dmxntv.log.old, deleting any existing file with that name, and a new trace file is created.)

Location
$LCF_DATDIR/LCFNEW/AMW/logs

Configuration
To configure the log issue the command `wdmtrceng` from the Server or managed node, identifying the endpoint at which you want to configure the log. You should note that this command maintains a common configuration for all logs at a non-Windows endpoint. You can set any of the following parameters:

- Trace level, from 0 to 2
- Maximum file size: default for either file (.log or .old) is 2500000 (2.5MB)
You should note that this command maintains a common configuration for all logs at a non-Windows endpoint. You can set any of the following parameters:

- Trace level, from 0 to 2
- Maximum file size: default for either file (.log or .old) is 2500000 (2.5MB)

**Endpoint JMX log:** This log maintains details of the activities of the JMX process, which is a Tivoli implementation of Java Management Extension. It is only written when the trace level is set to 3. The details are as follows:

**Process Name**
Tmx4j

**Log Name**
Tmx4j_1.log (when the log is full it is renamed to Tmx4j_2.log, deleting any existing file with that name, and a new log file is created.)

**Location**
$LCF_DATDIR/LCFNEW/Tmw2k/Unix

**Configuration**
To configure the log issue the command wdmtrceng from the Server or managed node, identifying the endpoint at which you want to configure the log. You should note that this command maintains a common configuration for all logs at a non-Windows endpoint. You can set any of the following parameters:

- Trace level, 3 (verbose)
- Maximum file size: default=1000000 (1.0MB)

**Web Health Console logs and traces**
The Web Health Console has a facility for both standard message logging, as well as advanced debug tracing. Message logging and minimum level debug tracing are always on and writing to their own files. These files can be found under the standard Tivoli Monitoring log location, /Tivoli/AMW/logs.

**Modifying Web Health Console tracing parameters:** Tracing can be adjusted by modifying the tracing parameters for the Web Health Console application.

- Edit the file:
  WHC_INSTALL_DIR\installedApps\dm.ear\dm.war\WEB-INF\classes\PDLog.properties
- Change the line:
  tmeLogger.trc.level=DEBUG_MIN

  to:
  tmeLogger.trc.level=DEBUG_MID

  or:
  tmeLogger.trc.level=DEBUG_MAX

  depending on how much tracing you want, MIN, MID or MAX. MID provides a good amount of Web Health Console operation, MAX provides a great deal of detailed internal operation.

You can also adjust the lines:

- file.maxFiles=3
- file.maxFileSize=1024
to change the number of trace files written and the max size of the files before it
roles over to a new file.

Once these changes are made, stop and start the WebSphere® Application Server to
enable the changes.

Note: The Web Health Console will run slower while in MID or MAX tracing. This
should be turned back to MIN as soon as possible.

**Endpoint built-in serviceability summary**
The following table summarizes the configuration of the available trace/log
components:

<table>
<thead>
<tr>
<th>Component name</th>
<th>Process name</th>
<th>Location</th>
<th>Trace/log name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endpoint engine log</td>
<td>Tmw2k</td>
<td>$LCF_DATDIR/LCFNEW/Tmw2k</td>
<td>Tmw2k.log</td>
</tr>
<tr>
<td>WMI Providers trace</td>
<td></td>
<td>%SystemRoot%/system32</td>
<td>trace_tmnt_providers.log</td>
</tr>
<tr>
<td>Profile distribution endpoint log</td>
<td>Tmw2k_ep</td>
<td>$LCF_DATDIR</td>
<td>lcf logs</td>
</tr>
<tr>
<td>Endpoint engine update log and trace</td>
<td>Tmw2k_ep</td>
<td>$LCF_DATDIR/LCFNEW/AMW/logs</td>
<td>msg_dmxeu.log, trace_dmxeu.log</td>
</tr>
<tr>
<td>Endpoint engine log and trace</td>
<td>java</td>
<td>$LCF_DATDIR/LCFNEW/AMW/logs</td>
<td>msg_dmxengine.log, trace_dmxengine.log</td>
</tr>
<tr>
<td>Endpoint native trace</td>
<td>java</td>
<td>$LCF_DATDIR/LCFNEW/AMW/logs</td>
<td>trace_dmxntv.log</td>
</tr>
<tr>
<td>Endpoint JMX log</td>
<td>Tmx4j</td>
<td>$LCF_DATDIR/LCFNEW/Tmw2k/UNIX</td>
<td>Tmx4j_1.log</td>
</tr>
</tbody>
</table>

**First Failure Data Capture (FFDC)**

First Failure Data Capture (FFDC) is supplied by AutoTrace™. It is used to collect
information at an endpoint which is stored in a configurable memory buffer. You
choose when to write a snapshot of the buffer to a file, and you then send the file
to IBM Software Support for analysis. The information written to the trace file
consists of the input and output parameters for each process call.

AutoTrace consists of two elements:

**At the endpoint and Tivoli management region server or gateway**
A trace collector, enabled and controlled by you.

**At IBM Software Support**
A trace analyzer operated by the IBM Software Support staff.

AutoTrace supports the following operating systems:

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX® 4.1 or later</td>
<td>Power or PowerPC®</td>
</tr>
<tr>
<td>HP-UX 10.20 or later</td>
<td>PA-RISC</td>
</tr>
<tr>
<td>Solaris 2.6</td>
<td>SPARC</td>
</tr>
<tr>
<td>Windows NT® 4.0/2000</td>
<td>Intel</td>
</tr>
<tr>
<td>Linux (RedHat 7.1 or later, TurboLinux 6.5 or later, SuSE 7.0 or later)</td>
<td>Intel</td>
</tr>
</tbody>
</table>
Installing the AutoTrace trace collector

AutoTrace, Version 3.1.5 is supplied also on the Tivoli Monitoring Tools product CD. If you are already using AutoTrace on the endpoint for another product, there is no need to install AutoTrace again.

AutoTrace can be installed on an endpoint, server, or managed node, using the following procedure:
1. Copy the file Tools/TKG/tkg315.tar to the directory where you want it to be installed.
2. Run the following command to unpack AutoTrace:
   ```
tar -xvf tkg315.tar
   ```
3. Set the library path environment variable to reflect this new location, or your application will no longer run. The library path environment variables for each platform are:
   - **AIX**: LIBPATH
   - **Solaris**: LD_LIBRARY_PATH
   - **HP-UX**: SHLIB_PATH
   - **Linux**: LD_LIBRARY_PATH
   - **Windows 2000, Windows NT**: PATH

Configuring and using AutoTrace

AutoTrace is designed to be part of an application as an always-there, always-on diagnostic and debugging facility. The instrumentation produced during the compile cycle of the application requires symbols from the AutoTrace shared library. This shared library is an addition required for the application’s packaging. Since AutoTrace is turned off by default, without some control and configuration capability, you will receive none of its benefits.

Tivoli Monitoring deploys some AutoTrace binaries and a few text configuration files on the server and endpoint sites. These files are listed in the following table:

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Filenames</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 2000, Windows NT</td>
<td>atctl.exe, libatrc.dll, atrcj.dll, atserv.exe, atinstall.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>libatrc.a, libatrcj.a, atctl</td>
</tr>
<tr>
<td>Solaris, Linux</td>
<td>libatrc.so, libatrcj.so, atctl</td>
</tr>
<tr>
<td>HP-UX</td>
<td>libatrc.sl, libatrcj.sl, atctl</td>
</tr>
</tbody>
</table>

The AutoTrace instrumentation is disabled, by default.

On Windows 2000 and Windows NT, you can optionally use the `atinstall` command to automate the installation of the AutoTrace. Tivoli Monitoring uses this command during the installation on the Tivoli Management Region server:

```bash
atinstall --quietcopy $BINDIR/bin $BINDIR/autotrace
```

The above command initiates the following actions:
1. Determines whether it should copy the binary to the destination location based on version information if one currently exists
2. Registers the `atserv` service, if it is not already registered
3. Starts the atserv service
4. Configures atserv to start at each reboot

Since the installation is silent, no error messages are displayed to indicate success or failure.

**Common configuration files**
AutoTrace must be configured: this is accomplished with the AutoTrace Runtime Control program, atctl.

atctl can process information from the command line, or from the AutoTrace runtime configuration files. There are no restrictions on the name or location of these configuration files, but using their canonical names can simplify the initialization. The runtime configuration files are:

- **product** --- specifies the configuration of AutoTrace to support the specific product
- **config** --- specifies the trace logging customization settings

The product and config files are read by the atctl command to establish the configuration of the control channel and the trace channels. Tivoli Monitoring puts these files into the $BINDIR/autotrace directory on the server side.

**Managing the AutoTrace environment**
The simplest method of initializing AutoTrace is to place the product file and, optionally, the config file into a directory of your choice (for example, Tivoli Monitoring uses the $BINDIR/autotrace location). This allows you to use a single command to initialize AutoTrace, configure the channel parameters (size, fields, affinity), and enable your desired set of trace points.

First of all, you need to reset the AutoTrace to remove configuration or trace data that may already exist. You do so by issuing:

```
atctl remove all
```

To initialize AutoTrace and establish configuration settings with a single command, enter:

```
atctl init $BINDIR/autotrace
```

This step initializes the AutoTrace runtime environment, configures the channel parameters, and enables trace points as specified by the configuration files that reside in $BINDIR/autotrace directory.

The configuration of AutoTrace channels is controlled through the **atctl config** command. The following command processes the AutoTrace config file, and installs it into the control channel:

```
atctl config $BINDIR/autotrace/config
```

This command controls which channel each product and process use, and the size of those channels. If the config file is empty or missing AutoTrace uses built-in default values. To display the currently installed configuration, you can execute the command:

```
atctl config
```
The following is an example:

```bash
# last modified: Fri Aug 09 11:46:07 2002
default:
  chan 1
  size 1M
  nlen 31
  product 49420003: #DM
  chan 21
  channel 21:
  size 5M
```

The `atctl on` command controls which functions are traced. It accepts the following parameters:

- the product to which the functions belong
- the function trace ID

To set the status of trace IDs, these parameters can be in the form of individual numbers, ranges, or filenames.

To activate all trace points for the Tivoli Monitoring product enter:

```
atctl on DM all
```

Now, you can execute the program, using the normal path. When, you want to deactivate tracing, enter:

```
atctl off DM all
```

To capture a snapshot of trace data enter:

```
atctl snap 21 snap.output
```

This command writes the contents of the trace data channel (21 is the channel dedicated for Tivoli Monitoring) to a file named `snap.output` for future analysis with the AutoTrace reporting tools. Snapshots such as these can be taken on customer systems and then transmitted to IBM Software Support for analysis.

**Endpoint tools (Windows)**

The diagnostic tools available in a Windows environment are provided with the WMI software. To use any of these tools please refer to the proprietary documentation. The following tools are useful for troubleshooting at the endpoint:

- **wbemcntl**
  This is a configuration tool that allows you to change the WMI trace settings and some backup options. It is installed automatically with WMI.

- **wbemtest**
  Allows you to make synchronous and asynchronous queries on WMI objects. It can be used to simulate the queries carried out by the Tivoli Monitoring engine. It can be used on remote Windows endpoints. It is installed automatically with WMI.
This allows you to navigate the CIM repository and query the CIM instances. It also provides WMI SDK help. It is installed automatically with WMI.

Endpoint tools (UNIX)

Tivoli Monitoring uses Cloudscape on UNIX endpoints. Cloudscape is an embeddable database that runs in any certified Java Virtual Machine (JVM).

You can use Cloudscape Network Server to control and manage the database in an environment that allows local or remote multi-user connectivity: see the corresponding tasks in section "Using Tivoli Monitoring Tasks" of the IBM Tivoli Monitoring: User’s Guide. By default, Cloudscape Network Server is not enabled: you must use the task DMSetCloudscapeNetworkServerProperties to enable it.

To view data placed within the Cloudscape database, you need to use the Cloudscape Cview or Ij tools. Cview is a graphical user interface for creating and managing Cloudscape databases; it can be used in an embedded or a client/server environment. Ij is a simple utility for running scripts against a Cloudscape database.

The logging of data onto the Cloudscape database is automatically enabled when the engine runs. However, to change the level of tracing for the Cloudscape db2j.log, you must first stop the engine, then modify the trace level, then restart the engine.

The trace level of the Cloudscape db2j.log, maps with the trace level of the engine in the following way:

<table>
<thead>
<tr>
<th>Cloudscape trace level</th>
<th>Endpoint trace level</th>
</tr>
</thead>
<tbody>
<tr>
<td>20000</td>
<td>3</td>
</tr>
<tr>
<td>30000</td>
<td>2</td>
</tr>
<tr>
<td>40000</td>
<td>1</td>
</tr>
<tr>
<td>50000</td>
<td>0</td>
</tr>
</tbody>
</table>

The JDBC driver to access the Cloudscape database is the IBM Universal Driver (com.ibm.db2.jdbc.DB2Driver).

The JDBC URL to get a read-only connection to the database of a running Tivoli Monitoring engine (assuming the Cloudscape Network Server has been enabled prior to starting the engine) is the following:

`jdbc:db2j:net://hostname:port/database_path:user=guest;password=password;`

Where:

- `hostname` Specifies the fully qualified hostname of the system where the engine runs
- `port` Specifies the port onto which the Network Server is listening
- `database_path` Specifies the full path to the database directory
**password**

Specifies the password for the user “guest”

For example:

```
jdbc:db2j:net://host1.rome.tivoli.com:1588/opt/Tivoli/lcf/dat/l/LCFNEW/Tmw2k
/Unix/data/ITMLogger/dblogger_cloud:user=guest;password=guest_passwd;
```

It is possible to have concurrent accesses to the database.

Note that the database schema (included in file EmbeddedDBSchema.sql) may change in future releases of Tivoli Monitoring (or even through Fix Packs), therefore, the backward compatibility of custom queries or scripts is not guaranteed.

### Considerations about using Cloudscape Network Server

When you choose to use the Cloudscape Network Server feature, you should note the following performance considerations:

- Because the JVM for the Network Server is also the Tivoli Monitoring engine JVM, inefficient and poorly written queries/scripts or queries/scripts using complex SQL commands have a performance impact on the Tivoli Monitoring JVM.

- Because of the additional overhead generated by the Network Server, the memory footprint of the Tivoli Monitoring engine is larger also when customer applications are not connected.

In addition, from a security point of view, consider that, when the Network Server is enabled, a port is opened on the endpoint to enable network access.

### Serviceability tasks

Tivoli Monitoring provides three serviceability tasks:

- DMCollectEpLog
- DMCollectMnLog
- DMCollectEpEnv

To run the serviceability tasks:

1. From the Tivoli Desktop select Desktop ➤ TMR Connections ➤ Top Level Policy Regions. The Top Level Policy Regions dialog opens.
2. Double-click the TivoliDefaultMw2kRegion icon. The Policy Region dialog for that policy region opens.
3. Double-click the IBM Tivoli Monitoring Tasks icon. The Task Library dialog for that library opens.
4. Run one of the following three serviceability tasks.

**DMCollectEpLog**

This task collects in a tar file created at the endpoint, all the endpoint logs and information about the size and dates of the binaries as well as the current and universal time the logs were created.

For UNIX/Linux platforms, the following files are collected:

- `$LCF_DATDIR/lcfd.log`
- `$LCF_DATDIR/lcfd.bk`
- `$LCF_DATDIR/last.cfg`
- `$LCF_DATDIR/ep_time_info.log`
$LCF_DATDIR/binaries.log
$LCF_DATDIR/LCFNEW/AMW/logs/*.log
$LCF_DATDIR/LCFNEW/AMW/logs/*.log.old
$LCF_DATDIR/LCFNEW/Tmw2k/Unix/data/dmxout.log (this is a file that traces errors at Java engine startup)

$LCF_DATDIR/LCFNEW/Tmw2k/Unix/javacore*.txt
$LCF_DATDIR/LCFNEW/Tmw2k/Unix/hs_err_pid*.log

On UNIX platforms, the tar file is created on the endpoint in the directory specified by the user (this is an optional parameter). If no directory is specified, the task will consider the $LCF_DATDIR directory as the repository of the tar file. The tar name is specified by the user at task launch time.

For Windows platforms, the following files are collected:

$LCF_DATDIR/lcfd.log
$LCF_DATDIR/lcfd.bk
$LCF_DATDIR/last.cfg

$LCF_DATDIR/binaries.log
$LCF_DATDIR/LCFNEW/Tmw2k/Tmw2k.log
$LCF_DATDIR/ep_time_info.log

The task accepts the name of the tar file as argument. On Windows platforms, the tar file is created on the endpoint in the directory specified by the user (this is an optional parameter). If no directory is specified, the task will consider the $LCF_DATDIR directory as the repository of the tar file. The tar name is specified by the user at task launch time.

On UNIX/Linux platforms, any core dumps from the engine are not included in the tar file to avoid impacting the task performance. Core dumps can be found in the directory: $LCF_DATDIR\LCFNEW\Tmw2k\Unix

**DMCollectMnLog**

This task collects in a tar file created at the managed node in the $DBDIR directory, all the managed node logs and traces, including event logs for Windows platforms.

For UNIX/Linux platforms, the following files are collected:

$DBDIR/oservlog
$DBDIR/gatelog
/tmp/AMW/logs/*.log
$DBDIR/AMW/logs/*.log
$DBDIR/TMP/<odstat output>
$DBDIR/TMP/<wtrace -jHk $DBDIR output>
$DBDIR/dmml/.config

On UNIX platforms, the tar file is created on the endpoint in the directory specified by the user (this is an optional parameter). If no directory is specified, the task will consider the $DBDIR directory as the repository of the tar file. The tar name is specified by the user at task launch time.
For Windows platforms, the following files are collected:

- \$DBDIR/oservlog
- \$DBDIR/gatelog
- \$DBDIR/tmp/AMW/logs/*.log
- \$DBDIR/AMW/logs/*.log
- \$DBDIR/TMP/<odstat output>
- \$DBDIR/TMP/<wtrace -jHk $DBDIR output>
- \$DBDIR/dmml/.config

The task accepts the name of the tar file as argument. On Windows platforms, the tar file is created on the endpoint in the directory specified by the user (this is an optional parameter). If no directory is specified, the task will consider the \$DBDIR directory as the repository of the tar file. The tar name is specified by the user at task launch time.

**DMCollectEpEnv**

This task collects information about the environment at the endpoint. The data collected is written to a file using the Execute Task dialog (Save to File option).

For UNIX/Linux platforms, the following information is collected:
- platform (AIX, HP-UX, ...)
- operating system version
- disk space statistics and file system installation at the endpoint
- memory statistics (available and used)
- environment variable settings
- list of system patches installed

For Windows platforms, the following information is collected:
- platform (Windows 2000, Windows NT, ...)
- operating system version
- disk space statistics and file system installation at the endpoint
- memory statistics (available and used)
- environment variable settings
- list of system patches installed

This task does not accept arguments.
Chapter 3. Problem resolution

This chapter deals with the resolution of problems found using Tivoli Monitoring.

A specific section is devoted to troubleshooting the Web Health Console (see “Web Health Console troubleshooting” on page 55 for details).

Problem areas and data gathering techniques

This section describes potential problem areas for Tivoli Monitoring and, for each area, the initial actions that you should take when you get a problem.

Each of the following sub-sections generally includes the following topics:
• A number of things to check, which may help you to resolve the problem
• Information to be gathered to help IBM Software Support resolve the problem.

Installing the product

This section tells you the things you need to check and the information you need to gather when you get a problem while installing Tivoli Monitoring. If you get a problem using the installation wizard, see also “Installation wizard troubleshooting” on page 59.

Things to check:
• All prerequisites and recommended patches and products have been installed (refer to the IBM Tivoli Monitoring: User’s Guide).

Files that need to be collected for IBM Software Support:
• tivoli.cinstall
• *.error
• *.output
• lastfplog

Note: On Windows platforms in %DBDIR%\tmp, on UNIX platforms in /tmp.

Upgrading the product

This section tells you the things you need to check and the information you need to gather when you get a problem while upgrading Tivoli Monitoring.

Things to check:
• All prerequisites and recommended patches and products have been installed (refer to the IBM Tivoli Monitoring: User’s Guide).

Files that need to be collected for IBM Software Support:
• tivoli.cinstall
• *.error
• *.output
• lastfplog

Note: On Windows platforms in %DBDIR%\tmp, on UNIX platforms in /tmp.
Using profiles

This section describes problems that may occur using the Tivoli Monitoring profiles.

Creating a profile

Things to check:

• The administrator has the correct roles required to create a Tmw2kProfile.
• The policy region has Tmw2kProfile as a managed resource.
• The default profile exists (tmw2kDefProfile in profile manager), TivoliDefaultMw2kProfileMgr-region, which resides in the top level policy region TivoliDefaultMw2kRegion-region.

Information that needs to be collected for IBM Software Support:

• Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server managed node.

Note: If using the GUI (desktop), then repeat each step until just before the last action that creates the problem/error before following the instructions of section “Before recreating the problem” outlined in “TPAMWMN01” on page 46.

Distributing a profile

There are two key types of targets for a Tmw2kProfile distribution: a profile manager or an actual target, which can be an endpoint, component services object (for example a database instance object).

Distribution to another profile manager

This is handled within Tivoli Monitoring and does not use MDist 2.

Information that needs to be collected for IBM Software Support:

• Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server managed node and if the distribution is between interconnected Tivoli regions, then use it also on each Tivoli server managed node.

Distribution to actual target

This is done through MDist 2 and it is split into three parts:

1. Submission: the profile is submitted to MDist 2 for distribution to the specified targets.
2. Exchange: MDist 2 transfers the appropriate data for the profile to the endpoint, using the endpoint method mdist2_operation_receiver.
3. Result: feedback on the success of the distribution to the Tivoli Monitoring engine. Note that 100% successful does not mean that the resource models will run. The distribution success is a measure of the transfer of the Tmw2kProfile information and data together with the associated dependencies to the endpoint and the settings of the Tivoli Monitoring engine. In addition, the distribution has an expiration time of 24 hours, therefore using the wdmilseng command immediately after a distribution, and not seeing the profile, does not mean that the distribution has failed. You must check the MDist 2 status of the distribution.

When troubleshooting a distribution to actual target endpoints, restrict the recreation to a single endpoint that shows the distribution problem.
Note: EPLabel is the endpoint which shows the problem. MNLabel is the managed node where an endpoint EPLabel’s gateway resides.

Things to check:

- The MDist 2 status of the distribution: wmdist -l or wmdist -l -i distID
  The distID can be found in either the 
  $DBDIR/AMW/Logs/msg_ProfileName#region_install.log or in the
  $DBDIR/AMW/Logs/msg_tmw2kProfile#region_remove.log file, or is returned by
  using the wmdistrib command.
- For failing situations for newly created profile managers, see section "Rerunning the Failed Distributions" of the IBM Tivoli Monitoring: User’s Guide.

Information that needs to be collected for IBM Software Support:

- Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and on the managed node MNLabel.
- Use the [TPAMWMN02] template, as described on page 46 for the managed node MNLabel.
- Do the following:
  - Set MDist 2 trace level to 9:
    wmdist -D 9
  - Use the [TPAMWEP01] template, as described on page 45 for the endpoint EPLabel
  - Collect $DBDIR/distmgr.log from the Tivoli server
  - Collect the mdist2.log from the managed node MNLabel, located in
    /tmp/states (for UNIX platforms) or in %TMP%/states/ (for Windows platforms).

Using the CLI

This section describes problems that may occur while using the Tivoli Monitoring commands.

wmdcmd

When you run this command for troubleshooting, restrict the command to a single endpoint which shows the problem.

Note: EPLabel is the endpoint which shows the problem. MNLabel is the managed node where an endpoint EPLabel’s gateway resides.

Things to check:

- If a specific error message is returned, check the actions that are outlined in the
  Chapter 4, “Messages,” on page 65, or if it is a Framework error check if there is
  any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this
  command (super, senior, or admin).

Information that needs to be collected for IBM Software Support:

- Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.
- Use the [TPAMWMN02] template, as described on page 46 for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45 for the endpoint EPLLabel.

**wdmcollect**

When you run this command for troubleshooting, if you are using the option:

- **-m** : do not use the **-m all** option, but restrict the **-m** option to a managed node which shows the problem.
- **-e** : restrict the **-e** option to a single endpoint which shows the problem.

Things to check:

- If a specific error message is returned, check the actions that are outlined in the [Chapter 4, “Messages,” on page 65](#) or if it is a Framework error check if there is any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior, admin or user).

Information that needs to be collected for IBM Software Support:

- Use the TPAMWMN01 template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run.
- Using **-e** option:

  **Note:** GWMNLabel is the endpoint’s gateway managed node for the endpoint specified by the **-e** option.

  1. Use the TPAMWMN01 template, as described on page 46, the TPAMWMN02 template, as described on page 46 and the TPAMWMN03 template, as described on page 47 on the managed node of the gateway for the endpoint specified by the **-e** option.

  2. Output of wdmngncache command:

     wdmngncache -m GWMNLabel -l -v > cache.out

- Using **-m** option:

  **Note:** MNLabel is the target managed node of the **-m** option.

  1. Use the TPAMWMN01 template, as described on page 46, the TPAMWMN02 template, as described on page 46 and the TPAMWMN03 template, as described on page 47 on the target managed node MNLabel, specified by the **-m** option.

  2. Output of wdmngncache command:

     wdmngncache -m MNLabel -l -v > cache.out

**wdmconfig**

When you run this command for troubleshooting, do not use the **-m all** option, but restrict the **-m** option to a managed node which shows the problem.

**Note:** MNLabel is the managed node which shows the problem, specified by the **-m** option.

Things to check:

- If a specific error message is returned, check the actions that are outlined in the [Chapter 4, “Messages,” on page 65](#) or if it is a Framework error check if there is any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this command (super or senior).
Information that needs to be collected for IBM Software Support:

- Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run if it is not the Tivoli server.
- Use the TPAMWMN01 template, as described on page 46 and the TPAMWMN03 template, as described on page 47 on the target managed node MNLabel.
- The .config file from the $DBDIR/dmml directory on the managed node MNLabel.

**wdmdiscovery**

When you run this command for troubleshooting, if you are using the option:

- **-m**: do not use the -m all option, but restrict the -m option to a managed node which shows the problem.
- **-e**: restrict the -e option to a single endpoint which shows the problem.

Things to check:

- If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65, or if it is a Framework error check if there is any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).
- The Tivoli Business Systems Manager Adapter has been installed.

Information that needs to be collected for IBM Software Support:

- Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.
- Using -e option:

  **Note:** GWMNLabel is the endpoint’s gateway managed node for the endpoint specified by the -e option.

  1. Use the TPAMWMN03 template, as described on page 47 on the managed node GWMNLabel.
  2. Output of wdmmngcache command:

     `wdmmngcache -m GWMNLabel -l -v > cache.out`

  3. Make a TAR file of the epcache.db sub-directory in $DBDIR/dmml on the managed node (gateway) GWMNLabel.
- Using -m option:

  **Note:** MNLabel is the target managed node of the -m option.

  1. Use the TPAMWMN03 template, as described on page 47 on the target managed node MNLabel.
  2. Output of wdmmngcache command:

     `wdmmngcache -m MNLabel -l -v > cache.out`

  3. Make a TAR file of the epcache.db sub-directory in $DBDIR/dmml on the managed node MNLabel.

**wdmdistrib**

See section “Using profiles” on page 32 for more details.

Things to check:
• If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.

wdmdumpprf
Things to check:
• If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.

wdmeditprf
Things to check:
• If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.

• Dump of the profile being edited or modified:
  
  wdmdumpprf -P profile region > prfdump.out
  
  • List of the installed resource models: wdmrm -list > wdmrm_list.out
  
  • Make a TAR file of the Rm sub-directory in $BINDIR/..lcf_bundle.40/Tmw2k on the Tivoli server, for example:
    
    cd $BINDIR/..lcf_bundle.40/Tmw2k
    tar cvf itmm.tar Rm
  
  wdmeng
When you run this command for troubleshooting, restrict the command to a single endpoint which shows the problem.

Note: EPLabel is the endpoint which shows the problem. MNLabel is the managed node where an endpoint EPLabel ’s gateway resides. The method to look for is “changeprmstatus”.

Things to check:
• If a specific error message is returned, check the actions that are outlined in the [Chapter 4, “Messages,” on page 65] or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
• Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.
• Use the [TPAMWN02] template, as described on page 46 for the managed node MNLabel.
• Use the [TPAMWEP01] template, as described on page 45 for the endpoint EPLLabel.
• The verbose status of the endpoint EPLLabel Tivoli engine:

    wdmlseng -e EPLLabel -verbose > ep1seng.out

**wdmheartbeat**

When you run this command for troubleshooting, do not use the `-m all` option, but restrict the `-m` option to a managed node which shows the problem.

**Note:** MNLabel is the managed node which shows the problem.

Things to check:
• If a specific error message is returned, check the actions that are outlined in the [Chapter 4, “Messages,” on page 65] or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
• Use the [TPAMWMN01] template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.
• Output of wddmmngcache command:

    wddmmngcache -m MNLabel -l v > cache.out

• Make a TAR file of the epcache.db sub-directory in $DBDIR/dmm1 on the managed node MNLabel.

**wdmloadprf**

Things to check:
• Make sure that the profile dump being loaded is not in XML format and trying to load on a non-Windows managed node.

• If a specific error message is returned, check the actions that are outlined in the [Chapter 4, “Messages,” on page 65] or if it is a Framework error check if there is any solution associated with the Framework error message.

• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

• If the dump file is corba version, check that it was dumped at the same version as currently installed.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.
• Copy of the profile dump being loaded.
• List of the installed resource models: wdmrn -list > wdmrn_list.out

wdmlseng
When you run this command for troubleshooting, restrict the command to a single endpoint which shows the problem.

Note: EPLabel is the endpoint which shows the problem. MNLabel is the managed node where the endpoint EPLabel’s gateway resides. The method to look for is "dmnt_getprofilestatus".

Things to check:
• If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.
• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior, admin or user).

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.
• Use the TPAMWMN02 template, as described on page 46 for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45 for the endpoint EPLabel.

wddmmn
When you run this command for troubleshooting, do not use the -m all option, but restrict the -m option to a managed node which shows the problem.

Note: MNLabel is the managed node which shows the problem.

Things to check:
• If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.
• The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).
• If the -start option is being used, check that -b or -h are not also being used.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN01 template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.

wddmmngcache
When you run this command for troubleshooting, do not use the -m all option, but restrict the -m option to a managed node which shows the problem.
Note: MNLabel is the managed node which shows the problem. GWLabel is the name of the gateway residing on the managed node MNLabel.

Things to check:
- If a specific error message is returned, check the actions that are outlined in the Chapter 4, "Messages," on page 65, or if it is a Framework error check if there is any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
- Use the TPAMWMN01 template, as described on page 46, on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node MNLabel.
- Make a TAR file of the rqcache.db sub-directory in $DBDIR/dmml on the managed node MNLabel.
- Make a TAR file of the epcache.db sub-directory in $DBDIR/dmml on the managed node MNLabel.
- Output of wep ls for the managed node's gateway: wep ls -g GWLabel > wepls.out.

wdmrm

Things to check:
- If a specific error message is returned, check the actions that are outlined in the Chapter 4, "Messages," on page 65, or if it is a Framework error check if there is any solution associated with the Framework error message.
- The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:
- Use the TPAMWMN01 template, as described on page 46, on the Tivoli server and the managed node where the Command Line Interface is being run, if it is not the Tivoli server.
- Make a TAR file of the Rm sub-directory in $BINDIR/../.lcf_bundle.40/Tmw2k on the Tivoli server, for example:
  cd $BINDIR/../.lcf_bundle.40/Tmw2k
  tar cvf itmrm.tar Rm
- The tar file of the resource model package being imported.

wdmtrceng

When you run this command for troubleshooting, restrict the command to a single endpoint which shows the problem.

Note: EPLabel is the endpoint which shows the problem. MNLabel is the managed node where the endpoint EPLabel’s gateway resides. The method to look for is: "settraceparams".

Things to check:
- Basic connectivity to the endpoint EPLabel, try: wadmin ep EPLabel view_version
  If this fails, then there is a basic framework problem that needs to be resolved.
  Check that the endpoint is logging in correctly.
Check that a Tmw2kProfile has been successfully distributed to the endpoint \textit{EPLabel} before. Look on the endpoint for the $\text{LCF\_DATDIR/LCFNEW/Tmw2k}$ directory structure.

If a specific error message is returned, check the actions that are outlined in the Chapter 4, “Messages,” on page 65 or if it is a Framework error check if there is any solution associated with the Framework error message.

The Tivoli administrator being used has the correct Tivoli roles required for this command (super, senior or admin).

Information that needs to be collected for IBM Software Support:

- Use the \texttt{TPAMWMN01} template, as described on page 46 on the Tivoli server or managed node where the Command Line Interface is being run, and the managed node \textit{MNLabel}.
- Use the \texttt{TPAMWMN02} template, as described on page 46 for the managed node \textit{MNLabel}.
- Use the \texttt{TPAMWEP01} template, as described on page 45 for the endpoint \textit{EPLabel}.
- UNIX:
  - Provide all the files starting with log\_ from the $\text{LCF\_DATDIR/LCFNEW/Tmw2k/Unix/data}$ directory on the endpoint \textit{EPLabel}.
- Windows:
  - Provide the following file: $\text{LCF\_DATDIR/LCFNEW/Tmw2K/bin/tmw2k.config}$

\textbf{Using the data collector}

This section describes problems that may occur while using the Tivoli Monitoring data collector process.

\textbf{Note:} \textit{EPLabel} is the endpoint label of the endpoint which has, or appears to have, the problem. \textit{MNLabel} is the managed node, or is the managed node where the endpoint \textit{EPLabel}’s gateway resides.

Things to check:

- The profiles distributed to the endpoint have data logging activated for Tivoli Data Warehouse.
- The .\texttt{XML} files are being created on the endpoint \textit{EPLabel} in the following directories:
  - Windows: $\text{LCF\_DATDIR/LCFNEW/Tmw2K/tedw/archive}$
  - UNIX: $\text{LCF\_DATDIR/LCFNEW/Tmw2K/Unix/data/tedw/archive}$.
- The data collector process has been activated on the endpoint’s gateway managed node \textit{MNLabel}.
- The subdirectory for the endpoint has been created under $\text{DBDIR/dmml/tedw}$ directory on the managed node \textit{MNLabel}, and the ZIP files are being generated.

Information that needs to be collected for IBM Software Support:

- Use the \texttt{TPAMWMN03} template, as described on page 47 for the managed node \textit{MNLabel}.
- Use the \texttt{TPAMWEP01} template, as described on page 45 for the endpoint \textit{EPLabel} that appears to be failing.
- The datacollector.status file from $\text{DBDIR/dmml/tedw}$ directory on \textit{MNLabel}.  

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• Make a TAR file of the endpoint subdirectory, if it exists, in $DBDIR/dmml/tedw on managed node MNLabel.
• The .config file from $DBDIR/dmml directory on managed node MNLabel.
• Make a TAR file of the subdirectory from the endpoint EPLabel, containing the XML files:
  – Windows: $LCF_DATDIR/LCFNEW/Tmw2K/tedw/archive
  – UNIX: $LCF_DATDIR/LCFNEW/Tmw2K/Unix/data/tedw/archive
• Output of wdmcollect query for managed node MNLabel:
  wdmcollect -m MNLabel -q > wdmcollect_query.out

Using the heartbeat

This section describes problems that may occur while using the Tivoli Monitoring heartbeat process.

Note: EPLabel is the endpoint label of the endpoint which has, or appears to have, the problem. MNLabel is the managed node where the endpoint EPLabel's gateway resides.

Things to check:
• The heartbeat process has been activated on MNLabel:
  wdmheartbeat -m MNLabel -q
• The endpoint and its status are registered: wdmnmgcache -m MNLabel -l
• The engine is running on the endpoint EPLabel: wdmIseng -e EPLabel
• The endpoint is available: wadminep EPLabel view_version

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN03 template, as described on page 47 for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45 for the endpoint EPLabel that appears to be failing, not producing or responding with the heartbeat.
• Make a TAR file of the epcache.db subdirectory in $DBDIR/dmml on managed node MNLabel.
• The .config file from $DBDIR/dmml directory on managed node MNLabel.

Using the request manager

This section describes problems that may occur while using the Tivoli Monitoring request manager process.

Note: MNLabel is the managed node or is the managed node where the endpoint EPLabel's gateway resides.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWMN03 template, as described on page 47 for the managed node MNLabel.
• Make a TAR file of the rqcache.db subdirectory in $DBDIR/dmml on managed node MNLabel.
• The .config file from $DBDIR/dmml directory on managed node MNLabel.
Using the TBSM Adapter

This section describes problems that may occur while using the Tivoli Monitoring TBSM Adapter.

Note: MNLabel is the managed node or is the managed node where the endpoint EPLabel’s gateway resides.

Information that needs to be collected for IBM Software Support:

- Use the [IPAMWMN03] template, as described on page 47, for the managed node MNLabel.
- The .config file from $DBDIR/dmml directory on managed node MNLabel.

Using the Tivoli Enterprise Console

This section describes problems that may occur while sending events to the Tivoli Enterprise Console.

Engine not generating Tivoli Enterprise Console events

Things to check:

- The profile is configured to send Tivoli Enterprise Console events, and the Tivoli Enterprise Console server is correctly defined: open the Tivoli Monitoring Profile dialog and select Edit -> Properties. Make sure that the indication is configured to send a Tivoli Enterprise Console event.
- There is no parsing failure at the Tivoli Enterprise Console server.
- The TEC ACP component has been installed on the endpoint’s gateway managed node.

Information that needs to be collected for IBM Software Support:

- Dump of the profile containing the indication for which the Tivoli Enterprise Console is not being sent to a file:
  
  wtdumpprl -P profile_region -x > prf.out
  
- Use the [TPAMWEPO1] template, as described on page 45.

Parsing failure on Tivoli Enterprise Console server

Things to check:

- Use the wtdumpprl command to output the received Tivoli Enterprise Console events to a file, then check for the class of the event that is failing to parse. Ensure that the BAROC file for this class is loaded into the current active rule base. If not, import it into the active rule base and reload. Note that this will require a restart of the Tivoli Enterprise Console server.
- If you have recently applied a Tivoli Monitoring patch, check that the new BAROC files have been imported into the active rule base.
- If you have recently imported a new custom resource model, check that the BAROC file associated with it is loaded into the active rule base.

Information that needs to be collected for IBM Software Support:

- Output the Tivoli Enterprise Console server’s reception log to a file:
  
  wtdumpprl > wtdumpr1.out
  
- A TAR file containing the currently active rule base.
- Dump of the profile causing the parsing failure. Dump this profile to a file using:
**wdmdumpprf** -P *profile_region* -x > prf.out If more than one profile is involved, then provide a dump of each profile causing a parsing failure in the reception log.

**Events arriving at Tivoli Enterprise Console server with wrong values**

Information that needs to be collected for IBM Software Support:
- Output the Tivoli Enterprise Console server’s reception log to a file:
  ```
  wtdumprl > wtdumprl.out
  ```
- Dump of the profile containing the indication for which the Tivoli Enterprise Console is not being sent to a file:
  ```
  wdmvalpprf -P *profile_region* -x > prf.out
  ```
- Use the `TPAMWEP01` template, as described on page 45.

**Using the Tivoli Data Warehouse**

The general health of the Tivoli Monitoring Tivoli Data Warehouse component can be checked using the “ITM -TEDW Analysis Tools” available with DCF.

**Problems using the Tivoli Monitoring RIM database**

Things to check:
- The RIM database is at the correct level for the installed level of Framework and RIM.
- A RIM connection can be made:
  ```
  wrimtest -I ITM_RIM_Object
  ```

Information that needs to be collected for IBM Software Support:
- `wrimtest -I ITM_RIM_Object`

**Problems with the endpoint engine**

This section describes problems that may occur while using the Tivoli Monitoring endpoint engine.

**Note:** *EPLabel* is the endpoint label of the endpoint which has the problem. *EPOID* is the OID of the endpoint, including the "+" character at the end. It can be found by running the command: `wlookup -r EPLabel`. *MNLabel* is the name of the managed node, or the managed node where the endpoint’s gateway resides.

**Failing to start after system reboot or endpoint (lcfd) restart**

This type of issue is related to the boot method of the Tivoli Monitoring engine failing to run or not completing successfully.

Things to check:
- The boot method exists: `wep boot_method list "tmnt_boot" EPOID`
- The exit code of the `login_policy` script for the *EPLabel* in the gatelog; if this is nonzero when the endpoint is logging in, then the boot method for this endpoint will not run. Correct the reason for the nonzero exit code from the `login_policy` script.
- The file `stopped-by-user` does not exist on the endpoint in `$LCF_DATDIR/LCFNEW/Tmw2k`. If it exists, use: `wdmcmd -restart -e EPLabel`.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWEMN02 template, as described on page 46, for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.

Failing to start
Things to check:
• On UNIX or Linux endpoints, check the dmout.log in the $LCF_DATDIR/LCFNEW/Tmw2k/Unix/data directory for errors.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWEMN02 template, as described on page 46, for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.

Running a resource model
Things to check:
• Make sure that any prerequisites for the resource model have been met.

Information that needs to be collected for IBM Software Support:
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.
• Dump of the profile, that is not working as expected, to a file using:
  wmdump -P profile_region -x > prf.out.

Response actions
Information that needs to be collected for IBM Software Support:
• Use the TPAMWEMN02 template, as described on page 46, for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.
• Dump of the profile, that is not working as expected, to a file using:
  wmdump -P profile_region -x > prf.out.

Running a task

Information that needs to be collected for IBM Software Support:
• Use the TPAMWEMN03 template, as described on page 47, for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.
• Dump of the profile, that is not working as expected, to a file using:
  wmdump -P profile_region -x > prf.out.

E-mail response

Information that needs to be collected for IBM Software Support:
• Use the TPAMWEMN03 template, as described on page 47, for the managed node MNLabel.
• Use the TPAMWEP01 template, as described on page 45, for the endpoint EPLabel.
Dump of the profile, that is not working as expected, to a file using:

```
wdmdumpprf -P profile_region -x > prf.out.
```

### Data gathering templates

This section describes in a template format the procedures that you should use to gather information about the problem. Each procedure is generally divided into two parts:

- The first part describes the actions that you should perform before recreating the problem.
- The second part describes the actions that you should perform after recreating the problem.

#### TPAMWEP01

- Before recreating the problem, set the following parameters for the endpoint `EPLabel`:
  1. At the Framework level, set the endpoint logging to level 3, and set a recommended size of 8192000 (8MB). If the endpoint is version 93 or higher then use:
     - `wep EPLabel set_config log_threshold=3`
     - `wep EPLabel set_config log_size=8192000`
     - otherwise modify last.cfg or start lcfd with `-D` option.
  2. Set the Tivoli Monitoring engine logging to level 3, with a recommended size of 5120000 (5MB).
     - `wdmtrceng -e EPLabel "" 3 5120000`

  **Note:** If the endpoint is Windows then you will need to stop and restart the Tivoli Monitoring engine.
  - `wdmcmd -restart -e EPLabel`

  **Note:** If you have 5.1.1-ITM-FP02 or later installed then the tracing is dynamic and restarting the engine is not necessary.

- After recreating the problem, collect the following files and information from the endpoint `EPLabel`:
  1. `$LCF_DATDIR/lcfd.log` (at the Framework level)
  2. `$LCF_DATDIR/last.cfg` (at the Framework level)
  3. Output of command `wlctap` (at the Framework level)
  4. `$LCF_DATDIR/LCFNEW/Tmw2k/Tmw2k.log` (if Windows endpoint)
  5. For non-Windows endpoints, the following files are also needed:
     - `$LCF_DATDIR/LCFNEW/Tmw2k/AMW/Logs/msg_dmxengine.log`
     - `$LCF_DATDIR/LCFNEW/Tmw2k/AMW/Logs/trace_dmxengine.log`
     - `$LCF_DATDIR/LCFNEW/Tmw2k/AMW/Logs/trace_dmxeu.log`
     - `$LCF_DATDIR/LCFNEW/Tmw2k/AMW/Logs/trace_dmxntv.log`
     - `$LCF_DATDIR/LCFNEW/Tmw2k/Unix/Tmx4j_*.*.log`
     - `$LCF_DATDIR/LCFNEW/Tmw2k/Unix/data/dmxout.log`

  Or you can use the DMCCollectEpLog task (see the section "Serviceability tasks" on page 28).
TPAMWEP02

- Before recreating the problem, set the following parameters on endpoint EPLLabel:
  1. For Windows NT endpoints, do the following:
     - Run wbemctrl.exe located in %systemRoot%\system32\wbem
     - Click 'Logging' tab, change the logging level to Verbose, Apply
  2. For Windows 2000 endpoints, do the following:
     - Run wmiimgmt.msc located in %systemRoot%\system32
     - Right-click on WMI Control (Local), to bring up the WMI Control (Local) properties dialog window
     - Click 'Logging' Tab and change the logging level to Verbose, Apply
  - After recreating the problem, collect the following files and information from the endpoint EPLLabel:
    1. All files in the directory %systemRoot%\system32\wbem\logs
    2. Reset logging level back to previous value

TPAMWMN01

- Before recreating the problem, set the following parameters for the managed node MNLabel:
  1. At the Framework level, activate objcalls and services for the managed node MNLabel by running the following commands:
     - odadmin trace objcalls MNLabel oserv od
     - odadmin trace services MNLabel oserv od
  2. At the Framework level, place trace start markers by running the following commands:
     - objcalls 0.0.0 START
     - wlookup -r ManagedNode START
  - After recreating the problem, run the following commands on the managed node MNLabel, and collect the resulting files and information:
    1. At the Framework level, place trace start markers by running the following commands:
       - objcalls 0.0.0 END
       - wlookup -r ManagedNode END
    2. At the Framework level, reset the trace level by running the command odadmin trace errors MNLabel oserv od
    3. odadmin db_sync MNLabel oserv od
    4. wait 20 seconds
    5. odstat > /tmp/MNLabel_odstat.out
    6. wtrace -jHk $DBDIR > /tmp/MNLabel_wtrace.out

Note: MNLabel is the name of the managed node. MNLabel oserv od is the dispatcher number of the managed node. The commands which reference MNLabel oserv od can be run on the Tivoli server or another managed node, but those without this reference MUST be run on the managed node itself. Do not use tasks to achieve this, as this can cause additional problems.

TPAMWMN02

- Before recreating the problem, at the Framework level set the gateway debug log level to 8 by running the command:
**wgateway GWLabel set_debug_level 8**

*Note:* *GWLabel* is the name of the gateway. If you want to reduce the size of the gatelog to be sent, stop the gateway, rename the gatelog in $DBDIR, and restart the gateway.

- After recreating the problem, collect the gatelog file in the $DBDIR directory from the gateway *GWLabel*’s managed node (at the Framework level).

**TPAMWMN03**

- Before recreating the problem, perform the following actions on the managed node *MNLabel*:
  1. At the Framework level, set the gateway debug log level to 8 by running the command: `wgateway GWLabel set_debug_level 8`

     *Note:* *GWLabel* is the name of the gateway residing on the managed node. If you want to reduce the size of the gatelog to be sent, stop the gateway, rename the gatelog in $DBDIR, and restart the gateway.

  2. At the Tivoli Monitoring level, set the dmml tracing to highest for all Tivoli Monitoring dmml processes by running the following commands:

     - `wdmmn -m MNLabel -stop -b -h -d -r -t`
     - `wdmconfig -m MNLabel -D dmml.trace_level=4`
     - `wdmconfig -m MNLabel -D dmml.trace_size=5120000`
     - `wdmmn -m MNLabel -start -d -r -t`
     - `wdmheartbeat -m MNLabel -s number minutes in seconds`

- After recreating the problem, collect the following files and information from the managed node *MNLabel*:

  1. At the Framework level, collect the gatelog file in the directory $DBDIR

  2. At the Tivoli Monitoring level, make a tar file containing the files in the logs directory $DBDIR/AMW, or use the DMCollectMnLog task (see the section “Serviceability tasks” on page 28).

**TPAMWMN04**

- Before recreating the problem, set on the managed node *MNLabel* the dmml tracing to highest for all Tivoli Monitoring dmml processes by running the following commands:

  1. `wdmmn -m MNLabel -stop -r`

  2. `wdmconfig -m MNLabel -D request-manager.trace_level=2`

  3. `wdmconfig -m MNLabel -D request-manager.trace_size=5120000`

  4. `wdmmn -m MNLabel -start -r`

     *Note:* *MNLabel* is the name of the managed node with the request manager process.

- After recreating the problem, collect the following files and information from the managed node *MNLabel*:

  1. Collect all the log files named trace_tmnt_rm_engx.log from the directory $DBDIR/AMW/Logs, where x is a number from 1 to 9

  2. Collect the .config file from the $DBDIR/dmml directory
TPAMWHC01

• Before recreating the problem, set the following log and trace levels on the Web Health Console Server (WHCS):
  
  1. Increase the size of the AMW logs for the WHCS files to 4 MB by editing the PDLLog.properties file located in the WHC-installation-directory/installedApps/dm.ear/dm.war/Web-INF/classes/com/ibm/dm/web/util directory, and change the line with tmeLogger.trc_level to tmeLogger.trc_level=DEBUG_MAX
  
  2. Stop and start the WebSphere Application Server.
     - On UNIX, run:
       WHC_installation_directory/bin/startServer.sh
       WHC_installation_directory/bin/stopServer.sh
     - On Windows, either stop and start the Windows service "IBM WebSphere Application Server V4 - WebSphere for Tivoli Monitoring" or run:
       WHC_installation_directory/bin/startServer.bat
       WHC_installation_directory/bin/stopServer.bat

• After recreating the problem, collect the following files and information from the Web Health Console Server:
  
  1. All the logs in ITMLogDir, ensure this includes the traceDMWebConsole.log file
  2. All the XML files in ITMLogDir/XMLTrace
  3. WebSphere logs from WHC_installation_directory/logs:
     - activity.log
     - adminserver_stderr.log
     - Default_Server_stderr.log
     - Default_Server_stdout.log
     - wasdb2.log (for Windows only)
     - wssetup.log (for Windows only)
     - WebSphere.instl (for UNIX only)
  4. Apache logs from Apache_installation_directory/logs (error.log and access.log)

  Note: ITMLogDir is the directory for all Tivoli Monitoring Web Health Console log files. The default location, if not changed, is:
     - On Windows: c:\Tivoli\AMW\logs
     - On AIX: /usr/Tivoli/AMW/logs
     - On Solaris, HP/UX, Linux: /opt/Tivoli/AMW/logs

Problems and their workarounds

The following table describes troubleshooting techniques for common problems that can be found using Tivoli Monitoring.

Table 4. Problems and their workarounds

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing prerequisites</td>
<td>• A prerequisite is missing, for example SNMP for the TCP/IP resource model, Network Monitoring Agent for the Network Interface Card resource model, or an operating system other than Windows 2000 for the Printer resource model, etc.</td>
</tr>
<tr>
<td></td>
<td>• Dependency (MOF or Provider or other) not set in the package.</td>
</tr>
<tr>
<td>Problem</td>
<td>Solution</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
</tr>
</tbody>
</table>
| Renaming an endpoint does not update the endpoint cache on the corresponding gateway | When renaming an endpoint, follow these steps:  
  • use the `wep set_label` command with the `-s` option, as in the following syntax:  
    `wep old_endpoint_label set_label -s new_endpoint_label`  
  • then restart Tivoli Monitoring at the endpoint by using the command:  
    `wdmcmd -restart -e new_endpoint_label`  
  This enables the information in the endpoint cache to be updated on the gateway, as soon as the endpoint sends an upcall to the gateway. |
| Events not sent to Tivoli Enterprise Console | • Tivoli Enterprise Console server not specified in the profile.  
  • ACF not installed on the gateway when sending secure events.  
  • Baroc not installed on the server. |
| Uninstall at Windows endpoint fails | • Uninstall at a Windows endpoint can fail because a provider is locked by WMI. To resolve the problem, stop the Windows Management Instrumentation from the Windows Control Panel, and retry after about 15 minutes. |
| Commands fail on endpoints with error in profile name | • Check that the profile has been fully qualified with the region name. The correct syntax is `profile#region`. |
| Working with UNIX or Linux endpoints, you have uninstalled and reinstalled the server or gateway, and the endpoint does not respond correctly | • Stop the engine and the Tivoli Management Agent at all endpoints, and wait until you are certain that both processes have stopped.  
  • Delete the following files in the data directory within the engine installation directory at all endpoints:  
    ```
    *.*.dmprf
    engine.pid
    ```  
  • Restart the agent and the endpoint engine at all endpoints. |
| The Web Health Console does not see the endpoints in an interconnected one-way TMR. | This problem occurs only when the connection is one-way. To avoid the problem, the roles needed to get the endpoints (in other words, senior and super) should be explicitly mapped between the regions. You need to be careful while doing this, as the action may present security exposures. |
| You have uninstalled and reinstalled the product at the server or managed node, and the managed node functions (heartbeat engine, Tivoli Business Systems Manager engine, task engine) are not working correctly | • Restart the gateway |
| Messages and events from the product are appearing in English on a non-English language Tivoli Enterprise Console server | • Use the `wdmrm` command with the `-addcat` option to install the appropriate NLS catalog for the language in question. |
### Table 4. Problems and their workarounds (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>
| **A `wdmdiscovery` command fails with the error: REGISTER TIMEOUT** | The problem is caused by one of the following:  
- A misalignment of the time settings of the systems where the Tivoli Business Systems Manager’s Adapter and CommonListener are installed. The Adapter expects that the CommonListener will respond to a discovery command within a configurable time-out (the default is 300 seconds). If the systems are out of synchronization by more than this value, the command will fail with the indicated error. Two possible solutions are as follows:  
  - Adjust the time settings on the two systems to be the same.  
  - If the time settings cannot be changed, change the time-out value by using the `wdmconfig -D adapter.register.timeout=time` command, where `time` is a number of seconds greater than the time difference between the two systems.  
- Network problem between the Adapter and the CommonListener, causing a genuine time-out to occur. Resolve the problem and retry the command.  
- Incorrect configuration of the Tivoli Business Systems Manager Adapter, which could have, for example, an incorrect IP address for the CommonListener. Check the settings are correct and retry the command. If the problem persists reset the time-out to a large value, and try again.  
- The port used by the Tivoli Business Systems Manager Adapter to communicate with the CommonListener is busy. Wait for a brief period, then retry the command. If the problem persists, modify the port number by issuing the `wdmconfig` command to change the values for the keys transport.request.port and transport.response.port. These values are set by default to 6969, and should be changed to the same common value that you know is available for use. |
| **The command `wdmlseng` is not executed on an endpoint.** | To investigate the problem do the following:  
1. Check if the endpoint is reachable by issuing the Framework command: `wep endpoint_name status`  
2. If the endpoint is not reachable, refer to the Tivoli Management Framework Maintenance and Troubleshooting Guide.  
3. If the endpoint is reachable, restart the endpoint engine by issuing the command: `wdmcmd -e endpoint_name -restart`  
4. Now check if the endpoint engine is active by issuing the command: `wdmlseng -e endpoint_name -verbose`  
5. If the engine is active, check the output from the `wdmlseng` command in the `1cfd.1og` at the endpoint.  
6. If the engine is not active, collect and examine the `dmxout.1og` on the endpoint. If the log says that the engine tried to start an incorrect version of Java on the endpoint, determine if the correct version of Java was distributed to the endpoint. When that didn’t happen, distribute the correct version of Java and try to start the engine again. |
| **The installation of JRE with SIS fails when the chosen install path is on a system running Windows NT Workstation, and the path contains a directory with spaces in its name.** | The directory name must be specified between single quotes, as in this example: `D:’\Program Files’\jre`. |
Table 4. Problems and their workarounds  (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>A distribution fails with the error that JRE was not found.</td>
<td>• Check that the correct version (1.3.0) of JRE is installed on the target system, and run the DMLinkJre task to ensure that the product is linked to the target system directory where that JRE version resides. It is advisable to use the IBM version of JRE, to facilitate any support activity that may be necessary.</td>
</tr>
<tr>
<td>A distribution fails for any reason not connected with the product during the installation of the resource model on the endpoint, such as a full disk.</td>
<td>• One option is to run the DMEndpointUninstall task. This cleans up all product files on the endpoint. When you retry the distribution, the product components will automatically be reinstalled.</td>
</tr>
</tbody>
</table>
| A distribution fails with a message containing the following sentence:  | 1. List all repeaters in your Tivoli management region using wrpt with no option  
| "The specified segment ID (<RM name>@<interp>) with version (x.x) cannot be removed because it is currently in use. Try again later." | 2. For every repeater, check if the MDist 2 segment indicated by the message is in use by using the command (wdepot <repeater> list -I, see "Reference count" counter).  
| | 3. If greater than zero, check if any pending MDist 2 distribution is being processed by the repeater (wmdist -I <repeater>). If yes, wait until it ends normally or, if the distribution is not in a useful state, cancel it and then run the following command: "wdepot <repeater> delete id^version".  
| | 4. Repeat step 2 and 3 until the MDist 2 segment is no more referenced.(See TMF Reference Manual for more details on wdepot and wmdist commands.)  
| | 5. When the above is not sufficient to clean-up the error, you may use the wmdist command (wmdist -A -B repeater ) to resolve the situation. Be careful when using this command, and see the TMF Reference Manual for more details. |
| After it has been distributed, the profile does not start on the endpoint, whose endpoint label was previously changed using the wep command. | • There are two possible solutions to this problem:  
| | 1. Use the -s option of the wep command for set_label, which forces the synch of the endpoint’s gateway and updates the endpoint with the new label.  
| | 2. Run 'wep synch_gateways' after the 'wep set_label' command (without the -s option). |
| After the first profile distribution on UNIX endpoints, the profile doesn’t run on the endpoint, though the distribution log at the server (msg_profile-name.log) is not showing any errors. | There is a two-step solution for this problem:  
| | 1. Re-submit the wdmiseng command after a reasonable time. If the output of the command shows that the profile is running, then no other action is needed.  
| | 2. Otherwise run wdmcmd -restart -e endpoint to restart the endpoint engine. |
### Table 4. Problems and their workarounds (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>
| The installation of Tivoli Monitoring fails on a Linux system.          | Check if the system is using a 2.95 version (or a later version) of the gcc compiler. When this is the case, the installation fails because the `will` Tivoli Management Framework command (used by the installation program) does not interpret correctly the output from the preprocessor of the compiler. The workaround consists into hiding the preprocessor before the installation of Tivoli Monitoring.  
To apply the workaround, do the following:                                  |                                                                                                                                 |
<p>|                                                                         | 1. rename the preprocessor file:                                                                                                        |                                                                                                                                 |
|                                                                         |   - <code>mv /usr/bin/cpp /usr/bin/cpp.orig</code>                                                                                                 |                                                                                                                                 |
|                                                                         | 2. link the preprocessor file to the <code>cat</code> command:                                                                                       |                                                                                                                                 |
|                                                                         |   - <code>ln -s /bin/cat /usr/bin/cpp</code>                                                                                                        |                                                                                                                                 |
|                                                                         | 3. install Tivoli Monitoring                                                                                                              |                                                                                                                                 |
|                                                                         | 4. remove the link <code>/usr/bin/cpp</code>:                                                                                                       |                                                                                                                                 |
|                                                                         |   - <code>rm /usr/bin/cpp</code>                                                                                                                    |                                                                                                                                 |
|                                                                         | 5. rename <code>/usr/bin/cpp.orig</code> to the original name:                                                                                       |                                                                                                                                 |
|                                                                         |   - <code>mv /usr/bin/cpp.orig /usr/bin/cpp</code>                                                                                                 |                                                                                                                                 |
|                                                                         | If the Linux system does not have the preprocessor <code>/usr/bin/cpp</code>, apply the following workaround:                                        |                                                                                                                                 |
|                                                                         | 1. link the preprocessor file to the <code>cat</code> command:                                                                                       |                                                                                                                                 |
|                                                                         |   - <code>ln -s /bin/cat /usr/bin/cpp</code>                                                                                                        |                                                                                                                                 |
|                                                                         | 2. install Tivoli Monitoring                                                                                                              |                                                                                                                                 |
|                                                                         | 3. remove the link <code>/usr/bin/cpp</code>:                                                                                                       |                                                                                                                                 |
|                                                                         |   - <code>rm /usr/bin/cpp</code>                                                                                                                    |                                                                                                                                 |
| You have stopped the task engine (using <code>wdmnn -stop -t</code>), then you have distributed a profile with an event that sends a notice, but the task engine is not restarted and the request is not satisfied. | Start the task engine using <code>wdmnn -start -t</code>.                                                                                           |</p>
<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Deleting a profile manager shows error message “Cannot remove profile manager profile_manager_name because it still has original profiles” | • Check that any profile has been deleted from the profile manager and that all subscribers have been removed.  
• If the previous steps have been performed but the profile manager still cannot be deleted, run the following commands:  
  1. `profile_manager_OID= wlookup -r ProfileManager profile_manager_name`  
     Retrieve the profile manager OID.  
  2. `idlattr -tgv $profile_manager_OID members`  
     Check to see if the members attribute is empty in the database.  
  3. `imp_TMF_CCMS:ProfileOrganizer:database_list`  
     Check which database still contains references to profiles that were once members of the profile manager.  
  4. `idlcall $profile_manager_OID delete_db "tw2kDatabase"`  
     This should be sufficient to remove the database and the corresponding CCMS entries. The CCMS database is maintained as a set of attributes with names starting with BDBPG. However, it is worth checking for any remaining BDBPG attributes.  
  5. `objc $profile_manager_OID contents | grep BDBPG`  
     To check for BDBPG attributes. Should the BDBPG attributes exist after deleting the database entries, they can be removed using the remove attribute command.  
  6. `objc $profile_manager_OID contents | grep BDBPG | cut -d: -f2,3,4,5,6,7 | \ while read y do \ echo "removing ATTRIBUTE: $y" \ objc $profile_manager_OID rmattr "$y" done`  
     Run this script to remove all the BDBPG attributes.  
  7. `wdel @ProfileManager:profile_manager_name`  
     Once the BDBPG attributes are removed, you should be able to delete the profile manager. |
| The trace trace_dmxengine.log reports that a null pointer exception 'java.lang.NullPointerException' is generated while evaluating an expression. | The exception may occur using a JRE 1.3.1 build older than September 2002. Use a JRE build dated September 14 2002, or newer. |
| Windows NT endpoints not working when an attempt is made to start the engine or a profile is distributed | The problem is caused by conflicts among shared dll resources. The only workaround is to reboot the system. |
| Lock timeout exceptions showing in the db2j.log and in the trace_dmxengine.log of a UNIX endpoint whose Cloudscape database is accessed by an external application using Network Server | Make sure that all queries from the external application are as simple as possible. |
Table 4. Problems and their workarounds (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message AMW0051E (&quot;The engine is not running or is unreachable&quot;) is shown when the wdmlseng command is run for a UNIX endpoint that is active and running</td>
<td>Check if the engsync file exists in &quot;Tmw2k/Unix/data&quot;. If it does not exist, check the hosts file for localhost definition and make sure that ping for localhost is enabled.</td>
</tr>
</tbody>
</table>
| The status Missed Prereq is shown for certain Windows resource models (e.g. TMW_MemoryModel or TMW_Process) and the tmw2k.log shows return code 80041001. | Most likely, the problem is caused by the fact the performance counters have been disabled on the endpoint. To verify this, you can:  
  1. check the wmiadap.log on the endpoint and see if any performance counters were disabled  
  2. check the Application Log and the System Log on the event viewer to see if they contain any errors or warnings from performance counters.  

To enable the performance counters again do the following:  
1. start regedit (Start -> Run -> regedit)  
2. select the registry key: HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services  
3. select Edit -> Find  
4. do a search using the key "Disable Performance Counters": the search will locate the services for which that value was set. The services that have been disabled are those for which "Disable Performance Counters" is set to 1. Enable them again by setting "Disable Performance Counters" back to 0.  

For additional information on this problem, refer to the Microsoft Knowledge Base Articles Q249138 and Q248993 available on the Microsoft support web site: [http://support.microsoft.com/](http://support.microsoft.com/). |
| Using the installation wizard on some AIX systems, the step "ITM - Region Creation: ITM_Region" may fail due to APAR IY53420 for Tivoli Management Framework 4.1.1. | Do the following:  
1. Click Deferr and then click Cancel.  
2. Check the deploy.log file in the depot dir/deployEngine/logs directory to find the failing command. For example:  
   
   >>> runCmdOut - Dutil/DeployCmd.py (372) -  
   Wed Feb 18 21:44:33 2004 -->>  
   LOG CMD:  
   wrctrpr -a Root_mwwwin-region -m Tmw2kProfile  
   -m ProfileManager ITM_Region  
   <<< runCmdOut - Dutil/DeployCmd.py (432) -  
   Wed Feb 18 21:44:35 2004 -->>  
   OUTPUT:  
   Cannot add Resource type "1157669530.1.287#TMF_SysAdmin::InstanceManager#"  
   It exists in the interconnected region.  
   Do not use the -m option in this case.  
3. From the command line, run the failing command as seen in the deploy.log file:  
   . /etc/Tivoli/setup_env.sh  
   wrctrpr -a Root_mwwwin-region -m Tmw2kProfile  
   -m ProfileManager ITM_Region  
4. Return to the installation wizard, and click Run All to continue. |
### Web Health Console troubleshooting

The Web Health Console is an application that works and interacts with other IBM Tivoli software. Understanding the very basics of these interactions will enable basic troubleshooting of the Web Health Console software.

#### Tivoli Monitoring internal processes

The Web Health Console communicates with Tivoli Monitoring in two different ways. The first is directly to Tivoli Monitoring endpoint engines, and the second is to the Tivoli Monitoring request manager processes running on managed nodes.

**Tivoli Monitoring endpoint engine**

This is where the resource models run on individual endpoints, the means of collecting and storing data. The Web Health Console connects to the endpoints to retrieve certain types of information, as well as run commands against the endpoint (start engine, and so on).

**Request manager process**

This process is the aggregating process that collects endpoint information to make frequent endpoint calls more efficient, putting less stress on the Tivoli Monitoring system.

#### WebSphere Application Server and HTTP Server

Two separate but closely linked pieces of software in this solution is the WebSphere Application Server, and IBM Apache HTTP Server.

WebSphere Application Server is the application server which provides an environment for the J2EE enterprise Web Health Console application. It provides services which allow the XSLT, JSP, Servlets and Java components of the Web Health Console to run. The HTTP Server provides a scalable and robust implementation of the HTTP protocol, which allows the Web Health Console to...
intercept Web requests. The HTTP Server primarily forwards the requests it receives back to the WebSphere Application Server to be handled by the Web Health Console.

**Unable to connect to the main Web Health Console web page**

**Incorrect main Web Health Console page**
Make sure that you are connecting to the proper main Web Health Console page. The correct URL is: http://machineName/dmwhc

**Incorrect login information**
Make sure the host name is correct and that you can connect to it using the Tivoli desktop. It is possible that you need to fully qualify the Tivoli management region server host name in order to connect. Verify that the user and password is correct and that you can connect to it using the Tivoli desktop.

**HTTP Server is not running**
Restart the HTTP Server and try logging in again.

**WebSphere Application Server is not running**
Restart the WebSphere Application Server HTTPServer and try logging in again.

**Slow or unresponsive Web Health Console screens or panels**
Because the Tivoli Monitoring data is retrieved from the Tivoli Monitoring request manager process, it is necessary for the request manager to retrieve the data before it can be sent to the Web Health Console. Many things can effect the load of the request manager, including the number of Web Health Console users, the number of WebSphere Application servers connecting to the Tivoli management region processes, and the number of endpoints in the Tivoli region.

Other operations from the Web Health Console connect directly to the endpoints, and the response time for retrieving data depends on the response time of the Tivoli Monitoring engine in servicing the data request. This time depends on the machine speed and performance, as well as the Tivoli Monitoring engine tasks.

Configure the request manager by changing the number of threads. See section on configuration.

**Unable to perform any operations at some random point during a Web Health Console session**

**The main Tivoli process (oserv) may be offline or had a “reexec” run against it.**
Try logging out of the current Web Health Console sessions and log back in. Logging back in will reset the Tivoli connection and clear the problem.

**WebSphere Application Server or the HTTPServer is not responding or is offline**
This is unusual once it has successfully started, but is possible. Refer to the "Unable to connect to the main Web Health Console web page" above, with the WebSphere Application Server and HTTP Server restart steps.

**Error messages displaying graphs**

**Invalid environment set while starting WebSphere Application Server.**
If, when generating Historical or Online Metric graphs, you see the following error message:
AMW4805E An error occurred while creating the graph

Make sure of the following in the UNIX environment where WebSphere was started:

1. The DISPLAY variable was set correctly. The DISPLAY variable must be set correctly in the shell environment where WebSphere is started. This must be done before WebSphere is started. If your UNIX machine has an X Server and you intend to stay logged on to the machine after WebSphere is started, then you can set DISPLAY to point at the X Server on the local machine. For example,

   export DISPLAY=:0.0
   <WEBSPHERE_DIR>/bin/startServer.sh

   If your UNIX machine does not have an X Server or you intend to log off the machine after WebSphere is started, then you must set DISPLAY to another machine where you can obtain an X client session - a Windows machine running Exceed, or another UNIX machine where which has an X Server running and a logged on user. For example,

   export DISPLAY=<ip_address>:0.0
   <WEBSPHERE_DIR>/bin/startServer.sh

2. The user who started the WebSphere process and the host on which WebSphere was started each have authority to access the X Server that is being pointed to by the DISPLAY variable. Authority to access an X Server is dictated by the xhost command. For example,

   xhost +<hostname>
   xhost +<username>

Other possible problems

WebSphere Application Server not starting up properly
This is an unlikely situation assuming the installation succeeded to begin with. Refer to the trouble shooting section on the installation of the WebSphere Application Server.

HTTP Server not starting up properly
This is an unlikely situation assuming the installation succeeded to begin with. How to check: Refer to the trouble shooting section on the installation of the WebSphere Application Server.

Tivoli Monitoring endpoint engine not up or able to be contacted
If an endpoint cannot be contacted (either by the Web Health Console or the Tivoli Monitoring request manager directly), there are several possible reasons. In order to check if the endpoint has "logged in" properly to the Tivoli Monitoring middle layer processes, you can run the command

   wdmmsgcache -l

   If an endpoint you expect to be there is not in that list, then it has not connected properly and more general Tivoli Monitoring troubleshooting needs to be followed.

Tivoli Monitoring endpoint engine running but data is not being received or resource models are not running properly
It is possible that an endpoint can be contacted but data cannot be retrieved, or there is no data to be retrieved. Check if the endpoint has valid data to be retrieved, you can run the command

   wdmiseng -e endpointName -verbose
This command will print out the resource models running on this endpoint, the status of those resource models, and the health of those resource models. If data is not there that you expect to be there, more general Tivoli Monitoring troubleshooting needs to be followed.

**Starting and stopping WebSphere Application Server**
There are several advanced troubleshooting steps possible for investigating problems. Some of these only really mean something to Tivoli Monitoring support, but they are listed here for referenced and for help when working with Tivoli Monitoring support personnel. Although you should normally never have to change the status of the WebSphere Application Server, it can be started and stopped manually.

**In UNIX:**
To start: Export a display for the logged in users screen, such as
```bash
> export DISPLAY=machineName:0.0
```
Run the script file `WHC_INSTALL_DIR/bin/startServer.sh`
To stop: Run the script file `WHC_INSTALL_DIR/bin/stopServer.sh`

**In Windows:**
To start: Start the Windows Service WebSphere Application Server.
To stop: Stop the Windows Service WebSphere Application Server or
To start: Run the batch file `WHC_INSTALL_DIR/bin/startServer.bat`
To stop: Run the batch file `WHC_INSTALL_DIR/bin/stopServer.bat`

**Starting and Stopping HTTP Server**
Although you should normally never have to change the status of the Apache HTTP Server, it can be started and stopped manually.

**In UNIX:**
To start: Run the file `APACHE_INSTALL_DIR/bin/apachectl start`
To stop: Run the file `APACHE_INSTALL_DIR/bin/apachectl stop`

**In Windows:**
To start: Start the Windows Service "IBM HTTP Server"
To stop: Stop the Windows Service "IBM HTTP Server"

**MDist 2 troubleshooting**
You can use the following Tivoli Management Framework commands to ensure that MDist 2 is properly setup to be used for Tivoli Monitoring distributions:

- **wrpt**
  Displays the names of the repeaters in your Tivoli region.

- **wmdist -I repeater_name**
  Enables you to view which distributions (or jobs) are being sent and received by a specific repeater. You also can view how many connections are available and how many connection sessions are in use.

- **wdepot repeater_name list ["filter"] [-I]**
  Lists all entries in a depot. Use this option to view how much disk space the segments are occupying or to decide whether any segments are no longer
Installation wizard troubleshooting

This section provides troubleshooting information, procedures, and hints to correct problems that may occur using the installation wizard (hereafter also referred to as the installer).

See also Table 4 on page 48 for specific installer problems.

Resolving installer problems

This procedure describes actions that you can take in the Step List panel to resolve or work around problems that can arise during a Typical or Evaluation installation.

The Step List provides detailed information about the progress of installation. This panel is displayed near the end of the installation process, when the installer is processing all of your configuration settings.

Double-click any step in the Step List to see information on the step in the Detail window:

- The software that you are installing and configuring
- The installation status of the current step
- A short description of the step
- Messages and error resolution options in case of a warning or step failure

To perform the procedure, run the following steps:

1. *(Optional)* If you want to cancel the installation while the Step List is running, do the following:
   a. Click Stop and allow the currently running process to finish.
      If you click Cancel without allowing the currently running process to finish, the system might remain in an unpredictable state.
   b. Click Cancel to stop the installation and close the installer.
   c. Delete the temporary depot directory created by the installer.

2. *(Optional)* Double-click any item in the Step List to see details and to set processing instructions for that step in the Detail window. Table 5 describes the status icons and options of the Detail window.

<table>
<thead>
<tr>
<th>Status</th>
<th>Icon</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pending</td>
<td>None</td>
<td>The step has not been run yet.</td>
</tr>
<tr>
<td>Passed</td>
<td>✔</td>
<td>The step completed successfully.</td>
</tr>
</tbody>
</table>
### Table 5. Status icons and buttons for the Step List panel of the installer (continued)

<table>
<thead>
<tr>
<th>Name</th>
<th>Icon</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status icons in the Step List</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passed_Reboot</td>
<td>![emoji]</td>
<td>The step completed successfully and you must reboot the system. This status causes the installer to prompt you to restart the computer.</td>
</tr>
<tr>
<td>Passed_Warning</td>
<td>![emoji]</td>
<td>The step completed with one or more warnings. For example, the installer could list warnings from the installation logs of the Tivoli Management Framework.</td>
</tr>
<tr>
<td>Failed</td>
<td>![emoji]</td>
<td>The step failed. This procedure describes how to analyze and handle failed steps.</td>
</tr>
<tr>
<td>Deferred</td>
<td>![emoji]</td>
<td>The step was postponed. This icon is displayed after you defer a step in the Detail window, as described near the end of the installation procedure. See the description for the <strong>Deferred</strong> option in this table for more information.</td>
</tr>
<tr>
<td>Locked</td>
<td>![emoji]</td>
<td>The step will be skipped because it is dependent on a previous step that has been deferred. The only way a locked step can be unlocked is for you to enable (or &quot;un-defer&quot;) all steps on which the locked step is dependent. To see a list of these dependencies, double-click on the locked step and read the error message in its Detail window.</td>
</tr>
<tr>
<td>Breakpoint</td>
<td>![emoji]</td>
<td>The step was placed in a breakpoint mode. The installer stops processing steps at the breakpoint. You can check progress and change settings, if necessary.</td>
</tr>
<tr>
<td><strong>Options</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defer/Enable</td>
<td></td>
<td>Postpones the step to a later time. If a step has failed, you can, as a last resort, defer the step. After that, the only way to reactivate the step is by pressing <strong>Execute</strong> (see description below).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you defer a step before it is executed (such as when it has a &quot;Pending&quot; status), you can enable the step. The <strong>Defer</strong> option turns into <strong>Enable</strong>, allowing you to return its status from &quot;Deferred&quot; to &quot;Pending&quot;. If subsequent steps are dependent on a deferred step, they will automatically be locked. A locked step cannot run. For example, if you defer a step for creating a managed node, all other steps that install to that managed node are locked, since they are dependent upon its creation. These locked steps are only reset when the deferred step changes status.</td>
</tr>
<tr>
<td>Toggle Breakpoint</td>
<td></td>
<td><strong>Activate</strong> or <strong>Deactivate</strong> the breakpoint. If you activate the breakpoint, the automatic installation process is interrupted when it reaches that step and you are asked for input. If you want the installer to pause after specific steps are complete, activate a breakpoint on the subsequent step. For example, you can set a breakpoint to enable installation of a proxy endpoint.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
<td>Returns to the previous window.</td>
</tr>
<tr>
<td>Execute</td>
<td></td>
<td>Executes a deferred step that occurs prior to the current step. After the completion of the deferred step, any locked steps that were dependent on this step change to the &quot;Pending&quot; status. Click <strong>Run Steps</strong> on the Step List to run the subsequent steps.</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td>Enables you to make the following types of change:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Change the user id and password</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Change the destination directory for the creation of a managed node or endpoint</td>
</tr>
<tr>
<td><strong>Note:</strong> Some steps do not have Change as an active option. Steps that do have Change as an option include managed node and endpoint creation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Respond to the Step List’s error, event, or action prompts that might be displayed.
   • **Message logs:** Consult the following resources in case of installation errors
     - The error log in the following directory:
       `<tivoli/depot/DeployEngine/logs/deploy.log>`. IBM Software Support uses this file to determine the source of problems.
     - See the *Tivoli Enterprise Installation Guide* that comes with Tivoli Management Framework, for complete troubleshooting analysis.
   • **Warnings:** The step might complete with one or more warnings. For example, the installer might warn you to restart computers on which you installed the Web Health Console. Otherwise, the console is not activated. The installer might also list warnings from the installation logs of the Tivoli Management Framework. You can consult the documentation that comes on the installation CDs for Tivoli Management Framework for information on this type of warning. Also see the “Logs for installation errors” on page 62.
   • **Change value operations:** Perform the following steps any time you become aware of a user name or password error:
     a. Double-click the step in which an error occurs to display the Detail window.
     b. Click **Change** to display the Change Value window.
     c. Enter the new value in the Change Value window for user ID, password, and destination directory, as needed.
     d. Click **OK**.

4. If a Change Value operation fails, perform the following steps:
   a. See Table 5 on page 59 for a description of the proper use of **Defer**.
   b. Click **Defer** in the Step Detail window.
   c. Allow the installer to finish processing the Step List.

5. If you have made changes that will permit successful execution of deferred steps, execute steps that you deferred.
   For example, you can successfully execute a deferred step after this sequence of events:
   
   **Event 1:** The installer initially failed to create a managed node on a computer because the target computer was down.
   
   **Event 2:** You defer the step so that installation can continue while the target computer is restarting.
   
   **Event 3:** The installer finishes processing the Step List and the target computer for the managed node finishes restarting.
   
   Perform the deferred steps as follows:
   a. Double-click the first deferred step in the Step List to display the Detail window.
   b. Click **Execute**.
   c. Double-click the next deferred step in the Step List to display the Detail window.
   d. Click **Execute**.
   e. Continue executing the deferred steps in sequence until all steps are complete.

6. If failed steps remain in the Step List, perform the following steps:
The installation can be successful even when deferred steps exist or when optional steps fail or generate warnings. For example, the creation of the Tivoli environment and installation of the product is successful when the following optional steps fail:
- Creation of managed nodes or endpoints
- Installation of the Web Health Console

For these types of failures, the installer does not display a completion window or other options, but the installation is successful. You can exit the installer and begin to run the product. Resolve failed steps and warnings as follows:

a. Click **Cancel** to dismiss the user interface of the installer.

b. If possible, resolve conditions that prevented failed steps or caused warnings. For example, resolve network connectivity problems. Also, be sure the prerequisite conditions exist on the computers on which failure occurred. You might be able to use the procedures in the *Tivoli Enterprise Installation Guide* that comes with the Tivoli Management Framework software to manually complete failed steps, such as the installation of managed nodes and endpoints. See the *IBM Tivoli Monitoring: Release Notes* that provides the latest information about known product limitations and workarounds.

c. Analyze the installation logs. See “Logs for installation errors” for further information.

### Logs for installation errors

The installer prompts you when errors occur. The last entry in a log file often corresponds to the event that caused the error. In some cases, the installer guides you to resolve the problem. In other cases, you can defer a step in the list and resolve it later.

If you encounter installation errors, see the details in the logs that are automatically created in the directories listed in Table 6. If you need help, contact IBM Software Support and send the installation log file.

*Table 6. Error logs and descriptions*

<table>
<thead>
<tr>
<th>Log file name</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
</table>
| deploy.log    | /tivoli/depot/deployEngine/logs/deploy.log | Lists the events for the installation of the Tivoli environment. See the *Tivoli Enterprise Installation Guide* that comes with Tivoli Management Framework for further information on this set of errors.
| BAMinstall.log| The temporary ($TMP or %TEMP%) directories that are defined for your operating system. | Lists the events that the installer generates.

### Testing the endpoint connectivity

Follow this procedure if you need to test the connectivity between the Tivoli server and a specific endpoint. The procedure can be performed only from the command line.

1. Access the Tivoli environment (using the command line interface).
2. Run the **ping** command from the Tivoli server to confirm that the endpoint is accessible over the network. If you receive connection or timeout errors, stop at this point and contact your network administrator for help.

3. If you do not know the name of the endpoint, run the following command on the Tivoli server to see a list of all endpoints that are connected to the server:
   \[\text{wlookup -a -r Endpoint}\]

4. Run the following command on the Tivoli server:
   \[\text{wadmin ep ep_name view_version}\]
   
   where `ep_name` is the name of a specific endpoint on a Tivoli Monitoring server. See the list generated in Step 3 to obtain the names of endpoints.

5. If you receive a message other than one containing a version number, the endpoint software must be restarted. You can manually restart the endpoint on that server by doing the following steps on the endpoint:
   
   - **On Windows systems:**
     a. Run the following command on the endpoint to stop `lcfd`, the process of the endpoint:
        \[\text{net stop lcfd}\]
     b. Run the following command on the endpoint to start the `lcfd` process:
        \[\text{net start lcfd}\]
   - **On UNIX systems:**
     a. Set the environment using the following command:
        \[. /etc/Tivoli/lcf/endpoint_number/lcf_env.sh\]
     b. Use the following command to stop the endpoint process:
        \[\$\text{LCF_DATDIR/lcfd.sh stop}\]
     c. Use the following command to restart the endpoint process:
        \[\$\text{LCF_DATDIR/lcfd.sh}\]
   - **On OS/400 systems:**
     Start and stop the endpoint using the following commands:
     \[\text{STRMEEPT ENDMEEPT}\]

6. Monitor the state of the endpoint you have just restarted from a Web browser using the following URL:
   \[\text{http://host:ep_port}\]
   
   where `host` is the name of the Tivoli Monitoring server host and `ep_port` is the name of the port that you assigned for endpoint transactions in the Tivoli server. The value of **Status** for the endpoint must be **running**.
Chapter 4. Messages

This appendix explains the messages that can be issued by the server, client and gateway when Tivoli Monitoring is running.

Messages are listed in ascending numeric order.

Identifying a message

Messages are of different type but are all identified in the same way. The following example shows a typical message and explains its identifying components.

<table>
<thead>
<tr>
<th>Identity</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW0001E</td>
<td>You must specify a label for this profile.</td>
</tr>
</tbody>
</table>

AMW   This prefix identifies the message as belonging to Tivoli Monitoring

0005  The unique serial number of the message

E     Is the type of message and may be:

I     **Information messages** provide feedback about something that has happened in the product or system that may be important. These messages also give guidance when you are requesting a specific action from the product.

W     **Warning messages** call your attention to an exception condition that is not necessarily an error but may cause problems if not attended to.

E     **Error messages** indicate that an action cannot be completed because of a user or system error. These error messages always require user response.

Notation

Some messages, especially information and warning messages, are multi-purpose. The same basic text can contain different strings such as different command names or application names, according to the way the application was behaving when the message was generated. These messages are shown in the following sections with the string identity displayed in italics at the appropriate part of the message.
Messages

The following messages can be displayed.

AMW0001E  A label was not specified for the profile.
Explanation:  A profile was created, without specifying a label.
User Response:  Specify a label for the profile.

AMW0002E  Could not create the profile database. An error occurred with the profile manager.
Explanation:  The profile entry in the Tivoli database could not be created. This is a serious error that indicates that something is wrong with the Tivoli Object Database.
System Action:  Uninstall and reinstall the product.
User Response:  Contact a system administrator to reinstall the product.

AMW0003E  Cannot find the IBM Tivoli Monitoring default profile. Errors might have occurred during installation.
Explanation: During installation, a default policy region, a default profile manager, and a default profile are created. The default profile is used as a template to create all the other profiles. If it is deleted, it is not possible to create other profiles.
System Action:  Uninstall and reinstall the product.
User Response:  Contact a system administrator to reinstall the product.

AMW0004E  A name for the resource model was not specified. The record could not be added to the database.
Explanation:  A resource model was added to a profile without specifying a name.
User Response:  Specify the resource model name and repeat the operation.

AMW0005E  An IBM Tivoli Monitoring internal application error occurred while getting the values from the Tivoli Object database.
Explanation:  The object database is corrupted.
User Response:  Delete the profile and create a new one.

AMW0006E  Could not add the resource model to the profile. The resource model instance identifier was not specified.
Explanation:  A resource model was added, without specifying a name.
User Response:  Set the field for the resource model name and repeat the operation.

AMW0007E  The function convert_entry_to_nmval failed. An internal application error occurred while trying to insert the resource model information in the profile database.
Explanation:  It is not possible to add new resource models to the profile database.
System Programmer Response:  If the problem persists, uninstall and reinstall the product.
User Response:  Close the IBM Tivoli Monitoring graphical interface, wait for 30 seconds and then reopen it. If the problem persists, contact a system administrator to uninstall and reinstall the product.
AMW0008E The function CCMS_Database_add_record failed. The resource model record record_name is already in the profile database for the target profile.

**Explanation:** It is not possible to have multiple instances of the same resource model in a single profile. If you receive this error while moving or copying a resource model to another profile, the target profile already contains a resource model with the same identifier of the one being moved or copied. To overwrite the resource model in the target profile, delete the old instance in the target profile before you move or copy the resource model.

If you receive this error while adding a resource model (with or without default values) to a profile, the profile database already contains a resource model with the same instance identifier. You can either change the instance identifier of the new resource model to add, or delete the existing resource model.

**User Response:** If you receive this error while moving or copying records from a source profile to a target profile, you must delete the instances of the same resource models in the target profile. If you receive this error while adding a resource model to a profile, delete the profile and create a new one.

---

AMW0009I Added an entry for resource_model to the name profile.

**Explanation:** You entered a new entry for resource_model to profile_name.

**User Response:** None.

---

AMW0010I Finished adding entries to the profile_name profile. Number of entries entered: number_of_entries.

**Explanation:** The operation of adding entries has been completed successfully.

**User Response:** None.

---

AMW0011E You are not authorized to retrieve a policy or validation record.

**Explanation:** The operation could not be performed. You are not authorized to retrieve the content of a policy or of a validation record.

**User Response:** None.

---

AMW0012E The list of keys is empty.

**Explanation:** Internal error. The list of keys that corresponds to the records that internally identify the resource models is empty. The profile database may be corrupted.

**User Response:** Delete the corrupted profile. If the problem recurs on other newly created profiles, contact your Tivoli Customer Support.

---

AMW0013E Cannot retrieve the record with the key key_number. An IBM Tivoli Monitoring internal application error occurred.

**Explanation:** Internal error. A serious error occurred, because the record that corresponds to the key_number could not be retrieved. The profile database may be corrupted.

**User Response:** Delete the corrupted profile. If the problem recurs on other newly created profiles, contact your Tivoli Customer Support.

---

AMW0014E The key record_key is already in use. An IBM Tivoli Monitoring internal application error occurred.

**Explanation:** A serious error occurred due to a corruption of the profile database.

**User Response:** Delete the corrupted profile. If the problem occurs in other profiles, contact your Tivoli Customer Support.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW0015I</td>
<td>Removed the following entries from the <em>profile_name</em> profile:</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The specified entries were removed from <em>profile_name</em>.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> None.</td>
</tr>
<tr>
<td>AMW0016E</td>
<td>Cannot retrieve default record with the key <em>key_number</em>. An IBM Tivoli Monitoring internal application error occurred.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> Internal Error. A serious error occurred. It was not possible to retrieve the default record corresponding to the key. The profile database may be corrupted.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Delete the corrupted profile. If the problem recurs on newly created profiles, contact your Tivoli Customer Support.</td>
</tr>
<tr>
<td>AMW0017E</td>
<td>Cannot retrieve validation record with key: <em>key_number</em>. An IBM Tivoli Monitoring internal application error occurred.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> Internal Error. A serious error occurred. It was not possible to retrieve the validation record corresponding to the key. The profile database may be corrupted.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Delete the corrupted profile. If the problem recurs on newly created profiles, contact your Tivoli Customer Support.</td>
</tr>
<tr>
<td>AMW0018I</td>
<td>The following records could not be moved or copied: <em>record1</em> {<em>record2</em> <em>record3</em>}.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The records listed could not be moved or copied.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Repeat the operation. If the problem recurs, contact your Tivoli Customer Support.</td>
</tr>
<tr>
<td>AMW0019I</td>
<td>Removed the <em>profile_name</em> profile.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The specified profile was removed.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> None.</td>
</tr>
<tr>
<td>AMW0020E</td>
<td>First select the entry you want to remove.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> You tried to remove an entry without selecting it.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Select the entry you want to remove first. Then repeat the remove operation.</td>
</tr>
<tr>
<td>AMW0021E</td>
<td>First select the entry you want to lock or unlock.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> You tried to lock or unlock an entry without selecting it.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Select the entry you want to lock or unlock first. Then repeat the remove operation.</td>
</tr>
<tr>
<td>AMW0022E</td>
<td>You cannot currently edit this entry. This entry is currently being edited by another user.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> Internal error. You tried to edit an entry that is currently being edited by another user.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> None.</td>
</tr>
<tr>
<td>AMW0025E</td>
<td>An IBM Tivoli Monitoring internal application error occurred. Contact Tivoli Customer Support for assistance.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> Something failed during the creation of the default profile. This error can happen during product installation.</td>
</tr>
<tr>
<td></td>
<td><strong>System Programmer Response:</strong> This is a serious error. Contact your Tivoli Customer Support for assistance.</td>
</tr>
</tbody>
</table>
AMW0026E  An application error occurred while distributing the profile. Contact your system administrator for assistance.

Explanation: This error is generated when a distribution fails for reasons other than a CCMS distribution failure, such as an error with an endpoint or with the oserv.

System Programmer Response: Verify that the subscribers to the distribution are defined correctly, in particular that the endpoints are running. If this does not resolve the problem, contact your systems administrator for assistance.

AMW0027E  There are no records in the specified profile. The profile database is empty.

Explanation: When a profile is created, the default record, the validation record, and a record that holds general information are created. This error indicates that either the database is corrupted or that there was a failure during profile creation.

User Response: Create a new profile, open it and verify if the problem persists. If the new profile is created correctly, this indicates that the profile database associated with the first profile is corrupted. If the problem persists, contact the Tivoli Customer Support.

AMW0028E  Could not retrieve the records associated with the profile, because you do not have read access rights to the profile database.

Explanation: The user who attempted to open the profile does not have the permissions to access the profile database.

User Response: Contact a system administrator to verify that the user has the correct access rights. If the user has the correct access rights and still cannot access the database, contact the Tivoli Customer Support because a critical error condition has occurred.

AMW0030I  Added the general record for the profile_name profile.

Explanation: The general record was added to the specified profile.

User Response: None.

AMW0031I  The record was deleted from the profile_name profile.

Explanation: The record was deleted from the specified profile.

User Response: None.

AMW0032E  Insert a numeric value of zero or greater.

Explanation: The operator attempted to insert an alphanumeric value in a text field that accepts only numeric values.

User Response: Insert a numeric value and repeat the operation.

AMW0033E  You must enter a location for the Tivoli Enterprise Console server.

Explanation: You specified in the properties dialog to send Tivoli Enterprise Console server events but did not specify the location of the Tivoli Enterprise Console server.

User Response: Open the IBM Tivoli Monitoring profile, select the Edit * Properties menu and enter the location of the Tivoli Enterprise Console server.

AMW0034E  The IBM Tivoli Monitoring profile is currently being used by another user.

Explanation: The IBM Tivoli Monitoring profile is currently being used by another user.

User Response: None.
AMW0036E  Cannot open file file_name.
Explanation:  None.
User Response:  None.

AMW0037E  A fatal error occurred during parsing.
Explanation:  The command failed while parsing the resource model.
User Response:  Use the workbench to create the resource model again, making sure that all the internal names of the resource model are alphanumerical and do not include blanks.

AMW0038E  Transaction error.
Explanation:  A transaction error occurred. The command wdmrm cannot be completed because it is not possible to start a new transaction.
User Response:  None.

AMW0039I  Zip and message catalog files cannot be removed because they are being used by another resource.
Explanation:  Another resource is currently using the files you are trying to remove, therefore they cannot be removed.
User Response:  Determine which resources are locking the files. First release them, then try again.

AMW0040E  Resource resource_name does not exist.
Explanation:  The resource you specified does not exist.
User Response:  Enter a correct resource name.

AMW0041E  You tried to add an older version of the resource resource_name.
Explanation:  You tried to add a version of the specified resource that is older than the current one.
User Response:  Check the version number of the resource you are trying to add. Perform the add operation with the newer version.

AMW0044E  An internal error occurred in the Parameters dialog.
Explanation:  An error occurred due to incorrect parameters.
User Response:  Enter the correct parameters.

AMW0045E  You must enter an element to add to the list.
Explanation:  The add operation failed because you did not specify the element to be added to the list.
User Response:  Specify the element to be added to the list.

AMW0046E  Unable to perform the operation. An error occurred.
Explanation:  The command wdmrm cannot complete successfully because it is unable to determine the installation directory for the product. Check that the Tivoli environment has been set correctly.
User Response:  None.
AMW0047I  The resource model already has this status.

Explanation:  The resource model already has the status to which you tried to change it.
User Response:  None.

AMW0048E  The resource model was not distributed.

Explanation:  You tried to perform an operation on a resource model that has not been distributed.
User Response:  First distribute a profile containing the resource model, and then repeat the operation.

AMW0049E  The profile was not distributed.

Explanation:  You tried to perform an operation on a profile that has not been distributed.
User Response:  First distribute the profile and then repeat the operation.

AMW0050E  The profile cannot be deleted. It has not been distributed.

Explanation:  You tried to remove a profile from an endpoint to which it has not been distributed.
User Response:  None.

AMW0051E  The engine is not running or is unreachable.

Explanation:  The operation you are trying to perform on the endpoint cannot be executed, either because the engine is not running on the endpoint, or because the endpoint is not reachable.
User Response:  Check that the IBM Tivoli Monitoring engine and the Tivoli Management Agent at the endpoint are both running, and retry the operation.

You can take the following actions:
  • Check the endpoint status by issuing `wep endpoint_label status`
  • Restart the engine by issuing `wdmcmd –e endpoint_label –restart`
  • If the engine started successfully, check again the wdmlseng output by issuing `wdmlseng –e endpoint_label –verbose`
  • On UNIX, check the dmxout.log on the endpoint (by issuing `wadminep endpoint_label view_file LCFNEW/Tmw2k/Unix/data/dmxout.log`); the dmxout.log tells if java is installed and its version.
  • On UNIX, check if the engsync file exists in `Tmw2k/Unix/data`. If it does not exist, check the hosts file for localhost definition and make sure that ping for localhost is enabled.

AMW0052E  The schedule for the entry is not correct. Ensure that the stop date is later than the start date and at least one scheduling rule exists.

Explanation:  The values entered to schedule this rule are not correct.
User Response:  Ensure that the stop date is later than the start date and that at least one scheduling rule has been defined.

AMW0053E  The specified schedule rules do not overlap with the specified date range. At least one day from one rule must fall within the scheduled start and stop dates.

Explanation:  The specified schedule rules do not overlap with the specified date range.
User Response:  Ensure that at least one day in one of the rules falls within the specified date range.

AMW0054E  An internal error occurred within IBM Tivoli Monitoring. Contact your Tivoli Customer Support for assistance.

Explanation:  The scheduling rule is incorrect. Check the consistency of the parameters.
User Response:  Contact your Tivoli customer Support for assistance.
AMW0055E  A rule name was not specified.
Explanation: You did not specify any rule name.
User Response: Specify a rule name.

AMW0056E  The rule name contains invalid characters.
Explanation: You entered an invalid character in the rule name.
User Response: Enter the rule name again, using only valid characters. Do not use the equals (=) character.

AMW0057E  A schedule cycle was not specified.
Explanation: You did not specify any schedule cycle.
User Response: Specify a schedule cycle.

AMW0058E  You must select an element to delete from the list.
Explanation: The delete operation failed because you did not specify the element to be deleted from the list.
User Response: Specify the element to be deleted from the list and retry the operation.

AMW0059E  The schedule rule has an invalid stop time. Ensure that the stop time is later than the start time.
Explanation: You entered an invalid stop time.
User Response: Ensure that the stop time is later than the start time.

AMW0060E  An internal error occurred in the Parameters dialog.
Explanation: An internal error occurred in the Parameters dialog.
User Response: None.

AMW0061E  The resource model resource_model1 cannot be installed, because it redefine the event event which is already used by the resource model resource_model2.
Explanation: As message.
User Response: None.

AMW0062E  The historical period must be greater than zero.
Explanation: The historical period determines the period of time that data is maintained in the logger database. For the logger to record any data, the historical period must have a value. Check the name of the profile and attempt the operation again.
User Response: Select a value greater than zero in the Historical Period drop-down list.

AMW0063E  The historical period must be greater than the aggregation period, and the aggregation period must be greater than zero.
Explanation: During aggregation periods, data are collected, and minimum, average, and maximum values obtained. A historical period must be long enough to hold data from one or more aggregation periods. If a historical period is shorter than an aggregation period, it cannot obtain the data to average.
User Response: Select a new value for the historical period or for the aggregation period, so that the requirements outlined in the explanation are met.
AMW0064E  The Tmw2KProfile profile_name does not exist.
Explanation:  The system could not find the profile that you tried to edit.
User Response:  Check the name of the profile and attempt the operation again.

AMW0065E  The resource model resource_model does not exist.
Explanation:  The system could not find the resource model that you tried to add to the profile.
User Response:  Check the name of the resource model and attempt the operation again. You can display a list of resource models by using the following command:

    wdmrm -list

AMW0066E  The following resource model does not belong to the following profile. Resource Model: resource_model  
Profile: profile_name
Explanation:  You tried to delete or edit a resource model. However, the system could not find the resource model in the specified profile.
User Response:  Check the name of the resource model. You can list all the resource models in a profile by using the following command:

    wdmeditprf -P profile_name -list

Alternatively, add the resource model to the profile with the following command:

    wdmeditprf -P profile_name -add resource_model

AMW0067E  The cycle time is missing.
Explanation:  The cycle time was not included in the following command:

    wdmeditprf -P profile_name -add resource_model -c cycle_time

User Response:  Enter the command again, making sure you include a value for the cycle time.

AMW0068E  The cycle time must be an integer, expressed numerically.
Explanation:  The cycle time must be a positive integer. Typically, this has a value in the range 60 - 300.
User Response:  Enter the command again, making sure you include a value in the correct format.

AMW0069E  The logging period is missing.
Explanation:  The logging period was not included in the following command:

    wdmeditprf -P profile_name -add resource_model -Log -p logging_period

User Response:  Enter the command again, making sure you include values for the logging period in the format hh:mm.

AMW0070E  The logging period must be in the format hh:mm.
Explanation:  The logging period was incorrectly specified in the following command:

    wdmeditprf -P profile_name -add resource_model -Log -p logging_period

The logging period must be specified in hours and minutes, in the format hh:mm. For example, 22:15.
User Response:  Enter the command again, using the correct syntax.
The aggregation setting was not specified.

Explanation: The aggregation option was included in the following command, but the corresponding value was not included:

wdmeditprf -P profile_name -add resource_model -Log -Agg

User Response: Enter the command again, including the aggregation option and the value yes or the value no.

The logging aggregation period is missing.

Explanation: The aggregation period option was included in the following command, but the corresponding value was not included:

wdmeditprf -P profile_name -add resource_model -Log -ap aggregation_period

User Response: Enter the command again, including the aggregation period option and the corresponding value. This is expressed in hours and minutes, in the format hh:mm. For example, 22:15.

Explanation: The aggregation period option was included in one of the following commands, but the corresponding value was specified in an incorrect format:

wdmeditprf -P profile_name -add resource_model -Log -ap aggregation_period
wdmeditprf -P profile_name -edit resource_model -Log -ap aggregation_period

User Response: Enter the command again, including the aggregation period option and the corresponding value in the correct format. This is expressed in hours and minutes, in the format hh:mm. For example, 01:20.

The event name is missing.

Explanation: The event option was included in one of the following commands, but the corresponding value was not included:

wdmeditprf -P profile_name -add resource_model -e event_name
wdmeditprf -P profile_name -edit resource_model -e event_name

User Response: Enter the command again, including the event option and a value for the event name.

The value for the number of occurrences is missing.

Explanation: The occurrence option was included in one of the following commands, but the corresponding value was not included:

wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value

User Response: Enter the command again, including the occurrence option and a suitable numeric value. Typical values are 1 - 10.

The value for the number of holes is missing.

Explanation: A series of potential event triggers causes an event. These triggers are called occurrences. The number of occurrences required to cause the event is specified by the occurrence value. However, gaps (or holes) in the series of occurrences can also be specified. For example, if a value of 1 is specified for the number of holes, and a value of 3 is specified for the occurrence value, then the following does not cause an event:

potential_trigger_1, potential_trigger_2, hole_1, hole_2, potential_trigger_3

However, the following does cause an event:

potential_trigger_1, potential_trigger_2, hole_1, potential_trigger_3

The occurrence option was included in one of the following commands, but the corresponding value was not included:
wdmeditprf -P profile_name -add resource_model -e event_name -o occur_value -h holes_value
wdmeditprf -P profile_name -edit resource_model -e event_name -o occur_value -h holes_value

**User Response:** Enter the command again, including the holes option together with a suitable numeric value. Typical values are 0 - 5.

---

**AMW0077E** Event `event_name` does not exist.

**Explanation:** You entered a command specifying an event that the system cannot find in the resource model.

**User Response:** Enter the command again, specifying an existing event. You can list all events available for a resource model with the following command:

```
wdmeditprf -P profile_name -print resource_model -e
```

---

**AMW0078E** The threshold name is missing.

**Explanation:** The threshold option was included in one of the following commands, but the corresponding name was not included:

```
wdmeditprf -P profile_name -add resource_model -t threshold_name threshold_value
wdmeditprf -P profile_name -edit resource_model -t threshold_name threshold_value
```

**User Response:** Enter the command again, specifying a threshold name. You can list all threshold names available for a resource model by using the following command:

```
wdmeditprf -P profile_name -print resource_model -t
```

---

**AMW0079E** The threshold value is missing.

**Explanation:** The threshold option was included in one of the following commands, but the corresponding value was not included:

```
wdmeditprf -P profile_name -add resource_model -t threshold_name threshold_value
wdmeditprf -P profile_name -edit resource_model -t threshold_name threshold_value
```

**User Response:** Enter the command again, specifying a threshold value.

---

**AMW0080E** Threshold `threshold_name` does not exist.

**Explanation:** You entered a command specifying a threshold name that the system cannot find in the resource model.

**User Response:** Enter the command again, specifying an existing threshold name. You can list all threshold names available for a resource model by using the following command:

```
wdmeditprf -P profile_name -print resource_model -t
```

---

**AMW0081E** The Tivoli Enterprise Console server `server_name` is not available.

**Explanation:** You entered a command specifying a Tivoli Enterprise Console server that the system cannot find. This could be because the system does not exist, or because there is a serious error with the database.

**User Response:** Enter the command again, specifying an existing Tivoli Enterprise Console. Check your database.

---

**AMW0082E** The Tivoli Enterprise Console server name is missing.

**Explanation:** The Tivoli Enterprise Console server option was included in one of the following commands, but the corresponding name was not included:

```
wdmeditprf -P profile_name -Tec secure -S TEC_server_name
wdmeditprf -P profile_name -Tec unsecure -S TEC_server_name -p port_number
```

**User Response:** Enter the command again, specifying a name for the Tivoli Enterprise Console server.
AMW0083E  The Tivoli Enterprise Console server port number is missing.

Explanation: The Tivoli Enterprise Console server option was included in the following command, but the corresponding port number was not included:

```
wdmeditprf -P profile_name -Tec unsecure -S TEC_server_name -p port_number
```

User Response: Enter the command again, specifying a number for the Tivoli Enterprise Console server port. This a numeric value.

AMW0084E  The string specifying the Tivoli Enterprise Console delivery type is incorrect. Available types are "secure", "unsecure" and "none".

Explanation: The Tivoli Enterprise Console server option was included in one of the following commands, but the corresponding string for the delivery type was not entered correctly:

```
wdmeditprf -P profile_name -Tec secure -S TEC_server_name
wdmeditprf -P profile_name -Tec none
wdmeditprf -P profile_name -Tec unsecure -S TEC_server_name -p port_number
```

User Response: Enter the command again, specifying one of the following values:

```
secure
unsecure
none
```

AMW0085E  The parameter parameter_name is not allowed.

Explanation: You entered the `wdmeditprf` command specifying a parameter or option that the system does not recognize.

User Response: Check the command syntax and enter the command again.

AMW0086E  It is not possible to start this transaction.

Explanation: This is a Tivoli Management Environment Framework error. The command is unable to start a new transaction.

User Response: Contact your Tivoli Customer Support.

AMW0087E  The following resource model already belongs to the following profile. Resource Model: resource_model  resource_model

Profile: profile_name

Explanation: You tried to add a resource model to a profile by using a command of the type:

```
wdmeditprf -P profile_name -add resource_model
```

However, the profile already contained the resource model.

User Response: If you want to add a resource model to the profile specified, you cannot. You must either specify a different resource model or a different profile. However, if you performed the command because you wanted to change a value, run the command again. For instance:

```
wdmeditprf -P profile_name -edit resource_model -t threshold_name threshold_value
```

where `threshold_name` is the name of a threshold associated with editing a resource model, and `threshold_value` is an integer value indicating a threshold.

AMW0088E  The severity identifier is missing.

Explanation: The severity indicator option was included in one of the following commands, but the corresponding severity value was not included:

```
wdmeditprf -P profile_name -add resource_model -e event_name -severity severity_type
wdmeditprf -P profile_name -edit resource_model -e event_name -severity severity_type
```
User Response: Enter the command again, specifying one of strings shown above for the severity type. If you enter an empty string, you must enclose it with quotes.

AMW0089E The following resource model cannot be distributed to the endpoint, because the resource model does not support the interp. Resource Model: resource_model
Endpoint: endpoint_name
Interp: interp_name

Explanation: Some code in a resource model is platform-specific. Resource models are logically contained in profiles. Some profiles, therefore, can be distributed only to some platforms.

User Response: Perform the action again, specifying a different resource model or endpoint.

AMW0091E An error occurred during Xerces-c initialization. Exception Message: exception_message

Explanation: An external error occurred in the Xerces linked library while running the wdmloadprf command. The exception message can sometimes help to resolve this problem.

User Response: The user response is determined by the message.

AMW0092E An error occurred during parsing.
Exception Message: exception_message

Explanation: An external error occurred in the Xerces linked library while running the wdmloadprf command. The exception message can sometimes help to resolve this problem.

User Response: The user response is determined by the message.

AMW0093E An error occurred during parsing.

Explanation: An external error occurred in the Xerces linked library while running the wdmloadprf command.

User Response: Check the XML file for indications as to what caused this error.

AMW0094I A warning message was generated. File: file_name
Line in File: file_line
Column in File: file_column
Warning Message: message

Explanation: A warning message was generated due to an error found at the indicated place in the indicated file. A warning message is less serious than an error message, and the system continues to function.

User Response: Check the XML file for indications as to what caused this warning. The warning message can offer additional information.

AMW0095E An error message was generated. File: file_name
Line in File: file_line
Column in File: file_column
Warning Message: message

Explanation: An error message was generated due to an error found at the indicated place in the indicated file. An error message is more serious than a warning message. The system cannot function.

User Response: Check the XML file for indications as to what caused this error. The error message can offer additional information.

AMW0096E A fatal error message was generated. File: file_name
Line in File: file_line
Column in File: file_column
Warning Message: message

Explanation: A fatal error message was generated due to a fatal error found at the indicated place in the indicated file. A fatal error message is more serious than an error message. The system cannot function.
User Response: Check the XML file for indications as to what caused this error. The error message can offer additional information.

AMW0097E  XML declaration not found.
Explanation: A mistake was made in the XML syntax of the file you tried to load.
User Response: Check the XML file for indications as to what caused this error.

AMW0098E  DTD not found.
Explanation: A mistake was made in the XML syntax of the file you tried to load.
User Response: Check the XML file for indications as to what caused this error.

AMW0099E  Element not found.
Explanation: A mistake was made in the XML syntax of the file you tried to load.
User Response: Check the XML file for indications as to what caused this error.

AMW0100E  The DTD defined in the specified XML file is not supported.
Explanation: A mistake was made in the XML syntax of the file you tried to load.
User Response: Check the XML file for indications as to what caused this error.

AMW0101E  A valid number greater than zero is required for the attribute_name attribute.
Explanation: A mistake was made in the XML syntax of the file you tried to load.
User Response: Check the XML file for indications as to what caused this error.

AMW0102E  The profile version that you are importing is too old.
Explanation: XML files contain a version number indicating the version of the profile. You tried to load a file with a profile version that was out of date, and could not run with your version of the product.
User Response: Generate a new XML file, using the latest version of the product.

AMW0103E  The profile version that you are importing is too new.
Explanation: XML files contain a version number indicating the version of the profile. You tried to load a file with a profile version that was more recent than your version of the product.
User Response: Update your software. Alternatively, generate a replacement XML file, using the older version of the product.

AMW0104E  The profile name is missing in both the XML file and in the command line options.
Explanation: Your XML file does not contain a string indicating the name of the profile.
User Response: You must either include the string in the XML file or specify it on the command line.

AMW0105E  Only the value 'TRUE' or 'FALSE' is allowed for the attribute_name attribute.
Explanation: A value other than TRUE or FALSE was specified for the attribute indicated. The element is not indicated in the message.
User Response: Check the XML file for indications as to what caused this error.
AMW0106E Only the value 'Unsecure', 'Secure' or 'None' is allowed for the attribute_name attribute.
Explanation: A value other than Unsecure, Secure, or None was specified for the attribute indicated. The element is not indicated in the message.
User Response: Check the XML file for indications as to what caused this error.

AMW0107W The Tivoli Enterprise Console server TEC_server_name is not available in this region. Events to the Tivoli Enterprise Console are disabled.
Explanation: You included syntax in your XML file specifying a Tivoli Enterprise Console server that the system cannot find. This could be because the system does not exist, or because there is a serious error with the database.
User Response: Edit your XML file, specifying an existing Tivoli Enterprise Console. Check your database.

AMW0108W A Tivoli Enterprise Console server for the non-Tivoli connection was not specified. Events to the Tivoli Enterprise Console are disabled.
Explanation: The Tivoli Enterprise Console server name is missing in the XML file.
User Response: Edit your XML file, specifying a value for the Tivoli Enterprise Console server.

AMW0109E Resource model resource_model is not installed in this Tivoli management region.
Explanation: The XML file tried to perform an operation on a resource model that the system could not find in the Tivoli management region specified.
User Response: Edit your XML file, specifying a different value for the resource model. You can list all available resource models by using the following command:
wdmr -list
Alternatively, add a new resource model by using the following command:
wdmr -add resource_model_tarfile

AMW0110E The zip file associated with the resource model resource_model in the XML file is not the one defined in the resource model.
Explanation: The resource model associates a zip file with itself. The syntax of the XML file attempted to associate a different zip file with the resource model.
User Response: Edit your XML file appropriately. You can list the zip file for each resource model by using the following command:
wdmr -list

AMW0111E The list of supported platforms for resource model resource_model is not correct.
Explanation: A resource model can run only on chosen platforms. This is defined by a list in each resource model. The list of platforms in the XML file was different to the list in the resource model.
User Response: Edit your XML file appropriately. You can list the platforms for each resource model by using the following command:
wdmr -list

AMW0112E The version of the resource model resource_model included in the XML file you are importing is not the same as the version of the resource model currently installed.
Explanation: The version of the resource model included in the syntax of the XML file must match that of the resource model you have installed. It does not.
User Response: Check the XML file to find out whether the resource model version is earlier or later than that of the one you have installed. Update your resource model, or install an older version, as appropriate. Alternatively, do not import this XML file.
AMW0113E  Resource model resource_model does not have logging capabilities.

Explanation: This message can refer to the wdmeditprf or the wdmloadprf command. You tried to set logging capabilities but the resource model you specified is not able to perform this function.

User Response: If you used the wdmeditprf (edit profile) command, try the command again without the -Log option. If you used the wdmloadprf (load profile) command, edit and reload the XML file.

AMW0114E  The aggregation period cannot be greater than the logging period, and both values must be lower than 1440.

Explanation: Same as message.

User Response: Edit your XML file appropriately.

AMW0115W  Threshold threshold_name does not belong to resource model resource_model. The threshold will be ignored.

Explanation: Your file specifies a threshold name that the system cannot find in the resource model.

User Response: None.

AMW0116W  Threshold threshold_name of resource model resource_model was not found in the file. The threshold will be added to the resource model.

Explanation: A threshold was not found in the file. The threshold will be added to the resource model.

User Response: None.

AMW0117W  Parameter parameter_name does not belong to resource model resource_model. The parameter will be ignored.

Explanation: This message can refer to:

• The strong wdmeditprf /strong command
• The strong wdmloadprf /strong command
• Your file specifies a parameter name that the system cannot find in the resource model. The parameter will be ignored.

User Response: None.

AMW0118W  Parameter parameter_name of resource model resource_model was not found in the file. The parameter will be added to the resource model.

Explanation: A parameter was not found in the file. The parameter will be added to the resource model.

User Response: None.

AMW0119E  The type of parameter parameter_name, of resource model resource_model, is incorrect.

Explanation: The resource model associates each parameter name with a parameter type. The parameter type and parameter name included in the XML file must correspond to this definition.

User Response: Edit your XML file appropriately. The resource model documentation lists all parameter names and their types.

AMW0120E  One value must be specified for the choice list parameter parameter_name, of the resource model resource_model.

Explanation: The XML file specified either no value, or several values for the indicated choice list parameter.

User Response: Edit your XML file appropriately, so that the choice list parameter has one value. You can list all parameter names available for a resource model by using the following command:

wdmeditprf -P profile_name -print resource_model -par
AMW0121E The value value is not allowed for the parameter parameter_name of the resource model resource_model.

Explanation: This message can be caused by running the wdmloadprf or wdmeditprf command. A parameter value was specified that is not permitted for the parameter type of the indicated parameter.

User Response: If the message was caused by running the wdmloadprf command, edit your XML file appropriately, and run the command again. If the message was caused by running the wdmeditprf command, enter the command again, using the correct syntax. The documentation for the resource model contains listings of all available values.

AMW0122W The event event_name does not belong to resource model resource_model. The event will be ignored.

Explanation: The file contains syntax specifying an event that the system cannot find in the resource model. The event will be ignored.

User Response: None.

AMW0123W Event event_name of resource model resource_model was not found in the file. The event will be added to the resource model.

Explanation: An event was not found in the file. The event will be added to the resource model.

User Response: None.

AMW0124E Valid severity types for an event are: HARMLESS, MINOR, WARNING, CRITICAL, FATAL, or an empty string.

Explanation: This message can be caused by the severity indicator option being included in one of the following commands, but the corresponding severity type having an incorrect value:

```
wdmeditprf -P profile_name -add resource_model -e event_name -severity severity_type
wdmeditprf -P profile_name -edit resource_model -e event_name -severity severity_type
```

Alternatively, the message can be caused by an error in the XML file, when using the wdmloadprf command.

User Response: If this message was caused by the wdmeditprf command, enter the command again, specifying one of strings shown above for the severity type. If you enter an empty string, you must enclose it with quotes. If this message was caused by the wdmloadprf command, edit the XML file appropriately.

AMW0125E Built-in action builtin_action is not allowed for the event event_name of resource model resource_model.

Explanation: This message is caused by an error in the XML file, when using the wdmloadprf command. Only some actions are permitted for a given event.

User Response: Edit the XML file appropriately.

AMW0126E Unable to access the Tivoli name registry in the database.

Explanation: For some reason, the area of the database containing the Tivoli names cannot be accessed. This is a critical error, and indicates a database malfunction.

User Response: Contact your Tivoli Customer Support.

AMW0127E Profile profile_name already exists. Specify one of the flags -k, -s, or -m to update it.

Explanation: When loading a profile with the wdmloadprf command, you specified a profile that already exists in the policy region. However, you can only do this if you specify one of the following flags:

- `-k`
- `-s`
- `-m`

User Response: Run the command again, including one of the required flags. See the man pages for more information.
AMW0128W  Profile profile_name does not exist. Options -k, -s, or -m are ignored.

Explanation: When loading a profile with the wdmloadprf command, you specified a profile that does not exist in the policy region. The profile is loaded, but any options specified by the flags -k, -s, and -m are not valid, and cannot be performed.

User Response: None.

AMW0129W  Task task_name from the task library task_library will not be set in response to the event event_name. The task cannot be found.

Explanation: When loading a profile with the wdmloadprf command, syntax in the XML file specified a task that cannot be associated with the event specified, because it does not exist.

User Response: Edit the XML file appropriately, or create the task.

AMW0130W  The arguments specified for the task task_name from the task library task_library are not necessary and will be ignored. (The task is in response to the event event_name.)

Explanation: When loading a profile with the wdmloadprf command, syntax in the XML file specified arguments for a task that cannot accept arguments.

User Response: No response is required, but you can edit the XML file to avoid displaying this message.

AMW0131W  A wrong number of arguments was specified for the task task_name from the task library task_library. (This task is in response to the event event_name.) The task is not imported.

Explanation: When loading a profile with the wdmloadprf command, syntax in the XML file specified too many or too few arguments for a task. Tasks require a fixed number of arguments.

User Response: Edit the XML file appropriately.

AMW0132W  Invalid scheduling settings were specified for the resource model resource_model. The resource model will run without scheduling.

Explanation: When loading a profile with the wdmloadprf command, syntax in the XML file specified invalid scheduling settings for a resource model.

User Response: Edit the XML file appropriately.

AMW0133E  The parameter name and value are missing.

Explanation: When you use the wdmeditprf command with the -AddPar flag, you must include a name and value for the parameter. This was not done.

User Response: Enter the command correctly.

AMW0134E  The parameter value is missing.

Explanation: When you use the wdmeditprf command with the -AddPar flag, you must include a name and value for the parameter. The name was included, but the value was not.

User Response: Enter the command correctly.

AMW0135E  The parameter value must be specified in numerals.

Explanation: When you use the wdmeditprf command with the -AddPar flag, you must include a name and value for the parameter. The name was included correctly, but the value was not correctly specified. You can use only numeric characters (and the decimal point) for the value.

User Response: Enter the command correctly.
AMW0136E  Parameter parameter_name does not exist.

Explanation:  When you use the wdmeditprf command with the -AddPar or -DelPar flag, the parameter name specified must belong to the resource model.

User Response:  Enter the command correctly. You can list all parameter names available for a resource model by using the following command:

wdmeditprf -P profile_name -print resource_model -par

AMW0137E  Parameter parameter_name does not contain the value value that you tried to delete.

Explanation:  The system could not find the parameter value that you tried to delete.

User Response:  Enter the command correctly. You can list all parameter names and values for a resource model by using the following command:

wdmeditprf -P profile_name -print resource_model -par

AMW0138E  Command syntax is incorrect.

Explanation:  An error was made in typing a command.

User Response:  Use the associated man page to check the syntax of the command you entered. Enter the command again.

AMW0139E  Invalid value for parameter parameter_name.

Explanation:  When using the command wdmeditprf with the -AddPar flag, an incorrect value for a parameter was specified.

User Response:  Enter the command again. The resource model documentation lists valid values for all parameters.

AMW0140E  You can select, but cannot delete a choice parameter value. The choice parameter for which you tried to delete a value was parameter_name.

Explanation:  Choice parameters allow you to select one value from a list. You cannot delete or add values (the wdmeditprf command with the -Add flag is used to select a value).

User Response:  Enter the command again, using the -Add flag to select a value.

AMW0141E  The -x flag of the wdmloadprf command is available only on w32-ix86 platforms.

Explanation:  The -x flag is currently supported only on w32-ix86 platforms.

User Response:  None.

AMW0142E  The installation failed. The system cannot open the file or directory file_or_directory_name.

Explanation:  The system could not open the file or directory indicated. This could be because the file or directory does not exist, or because you do not have the necessary access permissions.

User Response:  Make sure the file exists, and that you have the required access rights.

AMW0143E  The installation failed. An error occurred while extracting files from the tar file tar_filename.

Explanation:  This message is associated with the wdmrm command. This command opens the resource model tar file, containing the code, message catalogs, and configuration files for the resource model. There could be an error in the tar file due to a transmission error.

User Response:  Perform the command again on a new copy of the tar file.
AMW0144E  The installation failed. An error occurred while creating the tar file `tar_filename`.
Explanation: This message is associated with the `wdmrm` command. The command creates a zip file that contains a tar file (although this action is transparent to the user). An error has occurred during this process.
User Response: Make sure you have enough disk space. Enter the command again.

AMW0145E  You must configure the Tivoli environment appropriately, before you can run this command.
Explanation: You tried to run a Tivoli command, without first setting up the Tivoli command line interface.
User Response: Run the `setup_env` script to set up the Tivoli command line interface.

AMW0146E  The downcall DMAE_EngineInit failed on the endpoint `endpoint_name`. It could be unreachable.
Explanation: The product could not find the endpoint. For example, maybe there was a network problem, or the endpoint could be switched off.
User Response: Check the name of the endpoint and its availability in the network, before retrying the distribution.

AMW0147E  It is not possible to download dynamic dependencies to the endpoint `endpoint_name`.
Explanation: There is something wrong with the integrity of the resource model. It could be, for example, that the resource model was corrupted in transmission to the endpoint, or the integrity of the resource model on the server is damaged in some way.
User Response: List and check the details of the resource model on the server, before retrying the distribution.

AMW0148E  The CCMS push failed for the endpoint `endpoint_name`.
Explanation: There is something preventing the resource model from starting its processing at the endpoint. For example, perhaps the prerequisites at the endpoint (operating system level, ODBC, JRE) have not been satisfied.
User Response: Check that the prerequisites for the endpoint are satisfied before retrying the distribution.

AMW0149E  Setting the boot method for the endpoint `endpoint_name` failed.
Explanation: Something has gone wrong with the setting up of the endpoint to restart the resource model automatically after being rebooted.
User Response: Retry the distribution. If the problems persists and cannot be resolved, contact your Tivoli Customer Support.

AMW0154E  The profile `profile_name` is empty.
Explanation: None.
User Response: None.

AMW0155I  Operation successful.
Explanation: None.
User Response: None.

AMW0156E  Operation unsuccessful.
Explanation: None.
User Response: None.
AMW0157E  File file_name not found. MDist2 segment cannot be created.
Explanation:  None.
User Response:  None.

AMW0158E  Cannot open file file_name for write. Error number is error_number.
Explanation:  None.
User Response:  None.

AMW0159E  Cannot open file file_name for read. Error number is error_number.
Explanation:  None.
User Response:  None.

AMW0160E  Error adding RM's file file_name to MDist 2 segment segment_name.
Explanation:  None.
User Response:  None.

AMW0161E  The host host_name is not configured as a MDist 2 Repeater.
Explanation:  None.
User Response:  None.

AMW0162I  Operation successfully submitted. Distribution ID is id_number.
Explanation:  None.
User Response:  None.

AMW0163E  System exception caught.
Explanation:  None.
User Response:  None.

AMW0164E  An error occurred while trying to execute the task task_name on host host_name.
Explanation:  One of the tasks queued in the task engine could not be executed. This can be caused either by wrong parameters passed to the task or by system problems (e.g. in the case of e-mail sending, if the mail server has not been configured).
User Response:  Check task parameters and system configuration.

AMW0165E  The task task_name of library library_name was not found.
Explanation:  No task with the specified name has been found in the specified library.
User Response:  Check if the library is correctly installed and if it contains the task.

AMW0166I  The task engine has been correctly started.
Explanation:  None.
User Response:  None.
AMW0167W  The task engine cannot be started.
Explanation:  It is impossible to start the task engine. This can happen either because it is already running, or because it is shutting down.
User Response:  Check if the engine is running.

AMW0168I  The task engine has been correctly stopped.
Explanation:  None.
User Response:  None.

AMW0169W  The task engine cannot be stopped.
Explanation:  It is impossible to stop the task engine. This can happen either because it is not running, or because the stop command has been issued while it was already shutting down.
User Response:  Check if the engine is running.

AMW0170E  target_name is not a valid target for distribution.
Explanation:  An error occurred during the target validation of the distribution procedure.
User Response:  Verify that each target of the distribution is a target of a valid type for the distribution of a Tivoli Monitoring profile. All targets must be valid.

AMW0171E  Cannot parse property property_name.
Explanation:  An invalid or not supported option has been specified on the command line.
User Response:  See the IBM Tivoli Monitoring: User’s Guide for the parameters supported by this command.

AMW0172E  subscriber_name is not subscriber of profile_name.
Explanation:  An error occurred during the distribution subscribers validation, if the lenient option is not specified.
User Response:  Verify that each target of the profile distribution is a valid subscriber for the Tivoli Monitoring profile. All targets must be valid.

AMW0173E  The profile profile_name does not have subscribers.
Explanation:  A profile has been distributed but no valid target of the distribution has been specified.
User Response:  Specify at least one valid target.

AMW0174W  IBM Tivoli Monitoring not installed on the Managed Node managed_node_name.
Explanation:  The product is not installed on the specified managed node.
User Response:  None.

AMW0175E  The name of the event to which you are adding a task is missing.
Explanation:  When you use the wmdeditprf command with the -AddTask option, you must include the name of the event, the task library, the task name and task parameters (if required).
User Response:  Enter the command correctly.
AMW0176E  The task library name is missing.

Explanation:  When you use the wdmeditprf command with the -AddTask option, you must include the name of the event, the task library, the task name and task parameters (if required).

User Response:  Enter the command correctly.

AMW0177E  The task name is missing.

Explanation:  When you use the wdmeditprf command with the -AddTask option, you must include the name of the event, the task library, the task name and task parameters (if required).

User Response:  Enter the command correctly.

AMW0178E  The task task_name belonging to the library library_name was not found.

Explanation:  You are trying to set a task as feedback action for the given event, but the task library, or task, is not available.

User Response:  Check the names of the task and its library.

AMW0179E  The task task_name belonging to the library library_name is not set as response to the event event.

Explanation:  You are trying to remove a task from response actions for the given event, but the task is not bound to that event.

User Response:  Check the names of the task and its library.

AMW0180I  Adding a new request for data uploading for the endpoint endpoint_name.

Explanation:  None.

User Response:  None.

AMW0181I  The distribution with ID distribution_id succeeded on the endpoint endpoint_name.

Explanation:  None.

User Response:  None.

AMW0182E  The distribution with ID distribution_id failed on the endpoint endpoint_name with the following exception: exception.

Explanation:  It was not possible to execute a distribution to the given endpoint.

User Response:  Check the logs of MDist2.

AMW0183E  The gateway is not configured as a repeater.

Explanation:  The gateway involved in the distribution is not configured as a repeater. This made it impossible to complete the distribution.

User Response:  Check the gateway settings.

AMW0184E  The endpoint OID is not valid: OID_Number.

Explanation:  The endpoint Object ID is not present in the Name Registry.

User Response:  Check the endpoint.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW0185E</td>
<td>It was not possible to create the working directory <code>directory_name</code>.</td>
<td>There was an error trying to create a new directory.</td>
<td>Check the system configuration and permissions.</td>
</tr>
<tr>
<td>AMW0186E</td>
<td>It was not possible to rename the file <code>file_name</code>.</td>
<td>There was an error trying to rename a file.</td>
<td>Check the system configuration and permissions.</td>
</tr>
<tr>
<td>AMW0187E</td>
<td>An invalid segment was found. The number is <code>segment_number</code>.</td>
<td>One of the segments of MDist2 could be corrupted.</td>
<td>Check the logs of MDist2.</td>
</tr>
<tr>
<td>AMW0188E</td>
<td>There was an error trying to read a net stream.</td>
<td>MDist2 could have encountered problems.</td>
<td>Check the logs of MDist2.</td>
</tr>
<tr>
<td>AMW0189I</td>
<td>The data related to the request <code>request_id</code> has been successfully received.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW0190E</td>
<td>The data related to the request <code>request_id</code> was not successfully received.</td>
<td>The Request Manager could have encountered problems.</td>
<td>Check the logs of Request Manager.</td>
</tr>
<tr>
<td>AMW0191E</td>
<td>A connection with the database could not be established.</td>
<td>It was not possible to connect to the database.</td>
<td>Check the logs of RIM.</td>
</tr>
<tr>
<td>AMW0192I</td>
<td>The connection with the database was correctly established.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW0193E</td>
<td>It is impossible to obtain information about the endpoint <code>endpoint_name</code>.</td>
<td>There have been problems trying to get information about an endpoint.</td>
<td>Check the endpoint and the system configuration.</td>
</tr>
<tr>
<td>AMW0194E</td>
<td>It is impossible to load the information about the endpoint <code>endpoint_name</code> in the database.</td>
<td>There could have been problems with the RIM connection.</td>
<td>Check the RIM log.</td>
</tr>
</tbody>
</table>
### AMW0195E

**It is impossible to create the directory tree** directory_name.

**Explanation:** There were problems trying to create a new directory tree.

**User Response:** Check the system configuration and permissions.

### AMW0196E

**It is impossible to extract the file** file_name.

**Explanation:** One of the zip files could be corrupted.

**User Response:** Check the file integrity.

### AMW0197E

**It is impossible to list the archive directory** directory_name.

**Explanation:** One of the archives could be corrupted.

**User Response:** Check the archive integrity.

### AMW0198I

**The data related to the file** file_name **has been successfully loaded into the database.**

**Explanation:** None.

**User Response:** None.

### AMW0199E

**The data related to the file** file_name **could not be loaded into the database.**

**Explanation:** An error has occurred while trying to load data into the database.

**User Response:** Check this log file the actual cause of the error.

### AMW0200E

**It is impossible to commit the transaction.**

**Explanation:** An error has occurred while trying to commit the transaction in the database.

**User Response:** Check the log of the RIM.

### AMW0201I

**A request with ID** request_id **has been submitted for endpoint** endpoint_name **; refresh time:** time_interval.

**Explanation:** None.

**User Response:** None.

### AMW0202I

**The file** file_name **is going to be processed for upload.**

**Explanation:** None.

**User Response:** None.

### AMW0203E

**It is impossible to process the file** file_name.

**Explanation:** An error has occurred while trying to process the specified file, in order to load its content into the database.

**User Response:** Check the system configuration and permissions. Check the file integrity.

### AMW0204E

**Please insert an integer value greater than** minimum_value **and lower or equal to** maximum_value.

**Explanation:** You have entered a numeric value not contained in the allowed range for that variable.

**User Response:** Insert an allowed value.

---

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<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW0205W</td>
<td>The distribution with ID ID_number did not collect any data for the endpoint endpoint_name.</td>
<td>No TEDW information was generated on the given endpoint.</td>
<td>If you frequently get this message verify that you set the TEDW logging option for the resource models you want to upload the data for, and verify that the ITM engine is up and running.</td>
</tr>
<tr>
<td>AMW0206E</td>
<td>Connection lost while receiving data for the endpoint endpoint_name. The associated distribution ID is ID_number.</td>
<td>TEDW information generated on the given endpoint got lost.</td>
<td>If you frequently get this message verify your system’s configuration.</td>
</tr>
<tr>
<td>AMW0207E</td>
<td>Location_name is not a valid location for the Tivoli Enterprise Console server.</td>
<td>You specified an invalid location of the Tivoli Enterprise Console server in the properties dialog.</td>
<td>Open the IBM Tivoli Monitoring profile, select the Edit --&gt; Properties menu and enter the right location of the Tivoli Enterprise Console server.</td>
</tr>
<tr>
<td>AMW0208W</td>
<td>Server_names are not known Tivoli Enterprise Console servers. The server name will be resolved on the endpoint. Do you want to proceed?</td>
<td>None.</td>
<td>Press OK if you want to proceed.</td>
</tr>
<tr>
<td>AMW0209W</td>
<td>Server_names are not known Tivoli Enterprise Console servers. The server name will be resolved on the endpoint.</td>
<td>None.</td>
<td>Check the profile that has been created.</td>
</tr>
<tr>
<td>AMW0210E</td>
<td>Location_name is not a valid location for the Tivoli Enterprise Console server in Fail-Over mode. Only non-TME servers are allowed here.</td>
<td>You specified an invalid location of the Tivoli Enterprise Console server in the properties dialog.</td>
<td>Open the IBM Tivoli Monitoring profile, select the Edit --&gt; Properties menu and enter the right location of the Tivoli Enterprise Console server.</td>
</tr>
<tr>
<td>AMW0211E</td>
<td>The resource model resource model_name is not installed.</td>
<td>Probably you distributed a profile containing a resource model not installed to the interconnected TMR.</td>
<td>Install the resource model to the interconnected TMR.</td>
</tr>
<tr>
<td>AMW0212E</td>
<td>The resource model instance identifier cannot contain the characters &quot; ( &quot; or &quot;) &quot;.</td>
<td>The operator attempted to insert a resource model instance identifier that contains characters which are not allowed.</td>
<td>Remove forbidden characters and repeat the operation.</td>
</tr>
<tr>
<td>AMW0213E</td>
<td>The managed node managed node_name cannot be reached due to the following reason.</td>
<td>A method invoked on the given managed node has failed.</td>
<td>Check the oserv status on the managed node.</td>
</tr>
</tbody>
</table>
AMW0214E  The TEDW setting was not specified.

Explanation:  The TEDW option was included in the following command, but the corresponding value was not included:

    wdmeditprf -P profile_name -add resource_model -Log -TEDW

User Response:  Enter the command again, including the TEDW option and the value yes or the value no.

AMW0215E  The RAW setting was not specified.

Explanation:  The RAW option was included in the following command, but the corresponding value was not included:

    wdmeditprf -P profile_name -add resource_model -Log -RAW

User Response:  Enter the command again, including the RAW option and the value yes or the value no.

AMW0216E  There are no resource model types matching with the endpoints interpreter.

Explanation:  The distribution does not occur because there are no resource model types matching with the endpoints interpreter in the profile.

User Response:  Add a valid resource model to the profile, or subscribe the profile to an appropriate endpoint.

AMW0217E  Unable to print command output due an internal application error. Retry the command.

Explanation:  Something failed when printing the command output.

User Response:  Retry the command.

AMW0218E  The profile cannot be deleted. Check whether the engine is unreachable.

Explanation:  The removal of profile operation fails due to a possible broken communication between the engine and the endpoint.

User Response:  None.

AMW0219E  Incompatible logging options have been specified. Check usage and correct the command line.

Explanation:  Wrong or invalid option combination has been used in the command line.

User Response:  Check usage, correct the command line and retry the command.

AMW0250I  No profiles are running on the endpoint.

Explanation:  None.

User Response:  None.

AMW0251E  Only profile manager is required. Check usage and correct the command line.

Explanation:  Wrong or invalid option combination has been used in the command line.

User Response:  Check usage, correct the command line and retry the command.

AMW0252E  Missing argument. Check usage and correct the command line.

Explanation:  Argument has been omitted.

User Response:  Check usage, correct the command line and retry the command.
AMW0253E  The collection time interval has to be an integer value which falls within the range from 1 to 24. Check usage and correct the command line.

Explanation: Wrong or invalid option combination has been used in the command line.

User Response: Check usage, correct the command line and retry the command.

AMW0254I  Starting purging data.

Explanation: None.

User Response: None.

AMW0255I  Purging data completed.

Explanation: None.

User Response: None.

AMW0256I  Rim Handler process has started for the data upload.

Explanation: None.

User Response: None.

AMW0257I  Rim Handler process has completed the data upload.

Explanation: None.

User Response: None.

AMW0258E  The value for schedule is missing.

Explanation: The Schedule option was included in the following command, but the corresponding value was not included:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Schedule option and a suitable value. Typical values are in the format -start Year-Month-Day -stop Year-Month-Day [ -Rule rule_name day1:day2:.. [ -interval Hour:Minute Hour:Minute ]].

AMW0259E  The value for start is missing.

Explanation: The start option was included in the following command, but the corresponding value was not included:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the start option and a suitable date and time value. Typical values are in the format Year-Month-Day.

AMW0260E  The value for stop is missing.

Explanation: The stop option was included in the following command, but the corresponding value was not included:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the stop option and a suitable date and time value. Typical values are in the format Year-Month-Day.
AMW0261E  The value for rule is missing.
Explanation: The Rule option was included in the following command, but the corresponding value was not included:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and a suitable value. Typical values are in the format rule_name day1:day2:: [ -interval Hour:Minute Hour:Minute].

AMW0262E  The value for rule name is missing.
Explanation: The Rule option was included in the following command, but the corresponding value for name was not included:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and a suitable value. Typical values are in the format rule_name day1:day2:: [ -interval Hour:Minute Hour:Minute].

AMW0263E  The value for rule cycle is missing.
Explanation: The Rule option was included in the following command, but the corresponding value for cycle was not included:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and a suitable value. Typical values are in the format rule_name day1:day2:: [ -interval Hour:Minute Hour:Minute].

AMW0264E  The value for rule interval is missing.
Explanation: The Rule option was included in the following command, but the corresponding value for interval was not included:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and a suitable value. Typical values are in the format rule_name day1:day2:: [ -interval Hour:Minute Hour:Minute].

AMW0265E  The values for rule time are invalid.
Explanation: The Rule option was included in the following command, but the corresponding time values for interval were invalid:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and suitable time values. Typical values are in the format rule_name day1:day2:: [ -interval Hour:Minute Hour:Minute].

AMW0266E  The day value for -Start option is invalid.
Explanation: The Start option was included in the following command, but the corresponding day value was invalid:

```
wmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Start option and a suitable day value (1-31). Typical values are in the format -start Year-Month-Day.
AMW0267E  The month value for -Start option is invalid.

Explanation: The Start option was included in the following command, but the corresponding month value was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Start option and a suitable month value (1-12). Typical values are in the format -start Year-Month-Day.

---

AMW0268E  The year value for -Start option is invalid.

Explanation: The Start option was included in the following command, but the corresponding year value was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Start option and a suitable year value. Typical values are in the format -start Year-Month-Day.

---

AMW0269E  The day value for -Stop option is invalid.

Explanation: The Stop option was included in the following command, but the corresponding day value was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Stop option and a suitable day value (1-31). Typical values are in the format -stop Year-Month-Day.

---

AMW0270E  The month value for -Stop option is invalid.

Explanation: The Stop option was included in the following command, but the corresponding month value was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Stop option and a suitable month value (1-12). Typical values are in the format -stop Year-Month-Day.

---

AMW0271E  The year value for -Stop option is invalid.

Explanation: The Stop option was included in the following command, but the corresponding year value was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Stop option and a suitable year value. Typical values are in the format -stop Year-Month-Day.

---

AMW0272E  The value for rule cycle is invalid.

Explanation: The Rule option was included in the following command, but the corresponding value for cycle was invalid:

```
wdmeditprf -P profile_name -add resource_model -e event_name -o occurrence_value -Schedule schedule_info
wdmeditprf -P profile_name -edit resource_model -e event_name -o occurrence_value -Schedule schedule_info
```

User Response: Enter the command again, including the Rule option and a suitable value. Typical values are in the format rule_name day1:day2:... [ -interval Hour:Minute Hour:Minute].
AMW0273E  The ITM engine could not be started on the endpoint endpoint_name.
Explanation:  The product could not start on the endpoint.
User Response:  Check product prerequisites on the endpoint.

AMW0274E  An Error occurred while parsing the file of labels.
Explanation:  A formatting problem affects the file of labels. Some labels cannot be parsed correctly.
User Response:  The correct format is: a sequence of labels separated by ‘CR/LF’ characters. Check your file and perform the command again.

AMW0275E  The command specified cannot be executed when using the ‘all’ argument for managed nodes.
Explanation:  The ‘all’ argument can be used only with the -t or -q options.
User Response:  Correct command usage and enter the command again.

AMW0276E  The MDist2 property specified in the option option_name is not allowed or not existing.
Explanation:  The MDist2 property was misspelled or it is not allowed in the current release of the product.
User Response:  Check the documentation of the wdmdistrib command for a list of the supported MDist2 properties.

AMW0277W  The wdmdistrib command was not able to set the lenient option for the distribution.
Explanation:  This setting is necessary while distributing to a profile manager that is not a subscriber of the profile manager the profile belongs to. If distributing to other resources (endpoints, proxies...) it has no effect.
User Response:  As a workaround, subscribe the profile manager to the profile manager the profile belongs to.

AMW0278E  An error occurred while attempting to purge data.
Explanation:  The data purging operation did not complete successfully due to an internal exception.
User Response:  Retry the purge command later. In case of repeated failures contact your Tivoli Customer Support.

AMW0279E  A wrong number of arguments was specified for the task task_name from the task library task_library. (This task is in response to the event event_name. The task specification is invalid.
Explanation:  Too many or too few arguments have been specified for a task. Tasks require a fixed number of arguments.
User Response:  Correct command usage and enter the command again.

AMW0280E  The command has been aborted. It had no effect. No information have been committed.
Explanation:  The command has been aborted in consequence of a malformed input. No changes have been saved or committed.
User Response:  Correct command usage and enter the command again.

AMW0281E  No targets available.
Explanation:  The managed node or profile manager does not contain any endpoint.
User Response:  Specify a valid managed node or profile manager.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW0282E</td>
<td>None of the specified endpoint exists.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> None of the specified endpoint exists.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Specify at least one existing endpoint.</td>
</tr>
<tr>
<td>AMW0283E</td>
<td>An invalid argument has been specified for the ‘clearing’ option. The ‘clearing’ argument should be ‘yes’ or ‘no’.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The ‘clearing’ argument should be ‘yes’ or ‘no’. The command aborted. No changes from the edit command were actually saved in the profile.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Correct the usage and enter the command again.</td>
</tr>
<tr>
<td>AMW0284E</td>
<td>Missing argument for the ‘clearing’ option.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The ‘clearing’ option was included in the command, but the corresponding argument value was not specified. The command aborted. No changes from the edit command were actually saved in the profile.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Correct the usage and enter the command again.</td>
</tr>
<tr>
<td>AMW0285E</td>
<td>Property property_name not found.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The specified property was not found for the managed node.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Check the documentation for the wdmconfig command for a list of supported properties.</td>
</tr>
<tr>
<td>AMW0286E</td>
<td>An error occurred while trying to communicate with the gateway. Check the gateway status.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The gateway is not responding. It may be down or experiencing problems.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Check the gateway status and its responsiveness.</td>
</tr>
<tr>
<td>AMW0287E</td>
<td>The indication was not found.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> You tried to perform an operation on an indication that does not exist in the specified resource model.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Check the indication name and repeat the operation.</td>
</tr>
<tr>
<td>AMW0288E</td>
<td>Value property_value is incorrect.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> The value specified for the property is incorrect.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Check the documentation for the wdmconfig command for the list of supported properties.</td>
</tr>
<tr>
<td>AMW0289E</td>
<td>The action name is missing.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> When you use the wdmeditprf command with the -AddAction or -SetAction flag, you must include the name of the action.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Enter the command correctly.</td>
</tr>
<tr>
<td>AMW0290E</td>
<td>The retry parameter is missing.</td>
</tr>
<tr>
<td></td>
<td><strong>Explanation:</strong> When you use the wdmeditprf command with the -AddAction or -SetAction flag, you must include the retry parameter.</td>
</tr>
<tr>
<td></td>
<td><strong>User Response:</strong> Enter the command correctly.</td>
</tr>
</tbody>
</table>
AMW0291E  The parameter value must be an integer within the range 0 to 32000.
Explanation: When you use the wdmeditprf command with the -AddAction or -SetAction flag, you must include a name and value for the retry parameter. The name was included correctly, but the value was not correctly specified. You can use only numeric characters for the value.
User Response: Enter the command correctly.

AMW0292E  The action was not found.
Explanation: You tried to perform an operation on an action that does not exist in the specified indication.
User Response: Check the action name and repeat the operation.

AMW0293E  AddAction option is not allowed with the -add option.
Explanation: You tried to use -AddAction with the -add resource model option. You can use -AddAction only with the -edit option.
User Response: Use the -SetAction option and repeat the operation.

AMW0294I  No endpoints for this managed node.
Explanation: There are no endpoints for this managed node.
User Response: None.

AMW0295E  An error occurred while executing task task_name on the target.
Explanation: An error occurred while executing the task.
User Response: None.

AMW0296I  Task task_name was successfully executed on the target.
Explanation: None.
User Response: None.

AMW0297E  An exception occurred while executing task task_name on the target.
Explanation: An exception occurred while executing the task.
User Response: None.

AMW0298I  Starting the upload process for the expired archives.
Explanation: None.
User Response: None.

AMW0299I  The upload process has been completed.
Explanation: None.
User Response: None.

AMW0300E  An error occurred while attempting to upload the data.
Explanation: The data purging operation did not complete successfully due to an internal exception.
User Response: Retry the upload command later. In case of repeated failures contact your Tivoli Customer Support.
The profile already exists, but it is subscribed to another profile manager. It is not possible to modify it.

Explanation: It is not possible to modify a profile subscribed to a profile manager that is different from the one given in input.

User Response: Modify the profile name or the profile manager.

The datacollector will not process the endpoint `endpoint_name` because an exception was raised by the Request Manager. A common reason is that the endpoint is not valid.

Explanation: An exception was raised by the request manager. The endpoint may be not valid or the request manager cannot access the internal structure with the current requests.

User Response: Check that the endpoint is valid. "wep ls", "wlookup -ar Endpoint", `wdmmngcache -m all -lv` are the basic commands for this check. If they all are successful, a look at the trace files is required.

The engine is not running because it was stopped by the user.

Explanation: The engine is not running because it was stopped by the user with the "wdmcmd -stop" command or with the Web Health Console.

User Response: Use the "wdmcmd -restart" command or the Web Health Console to restart the engine.

The event `event_name` has been sent to Tivoli Business Systems Manager.

Explanation: None.

User Response: None.

The event `event_name` has been sent to Tivoli Enterprise Console.

Explanation: None.

User Response: None.

The engine has been started.

Explanation: None.

User Response: None.

The engine has been shut down.

Explanation: None.

User Response: None.

The profile `profile_name` has been distributed.

Explanation: None.

User Response: None.

The profile `profile_name` has been started.

Explanation: None.

User Response: None.
AMW2007E  An internal error has occurred while performing operation_name.
Explanation: An internal error has occurred while performing an operation.
User Response: Try to perform the operation again.

AMW2008E  The profile profile_name failed to start.
Explanation: The profile failed to start because of an internal error.
User Response: Distribute the profile again.

AMW2009W  The profile profile_name is already active.
Explanation: You are trying to start a profile already started.
User Response: None.

AMW2010I  The profile profile_name has been stopped.
Explanation: None.
User Response: None.

AMW2011W  The profile profile_name is not active.
Explanation: You are trying to stop a profile that has not been started.
User Response: None.

AMW2012W  The resource model resource_model is already active in profile profile_name.
Explanation: The resource model is already active in the profile.
User Response: None.

AMW2013I  The status of resource model resource_model_name has been changed in every profile.
Explanation: None.
User Response: None.

AMW2014I  The resource model resource_model_name of profile profile_name has been started.
Explanation: None.
User Response: None.

AMW2015I  The resource model resource_model of profile profile_name has been stopped.
Explanation: None.
User Response: None.

AMW2016E  The resource model resource_model of the profile profile_name has failed to start.
Explanation: The resource model failed to start because of an internal error.
User Response: Distribute the profile again.
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMW2017E</td>
<td>The resource model \textit{resource_model} of the profile \textit{profile_name} has failed to stop.</td>
<td>The resource model failed to stop because of an internal error.</td>
<td>Try to stop the resource model again.</td>
</tr>
<tr>
<td>AMW2018I</td>
<td>The settings for the profile \textit{profile_name} have been saved.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW2019E</td>
<td>The settings for the profile \textit{profile_name} have not been saved.</td>
<td>The profile settings have not been saved because of an internal error.</td>
<td>Distribute the profile again.</td>
</tr>
<tr>
<td>AMW2020I</td>
<td>The connection to \textit{url_name} has been created.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW2021E</td>
<td>Unable to connect to the local database, Web address: \textit{url_name}.</td>
<td>The connection to the local database has failed.</td>
<td>Restart the UNIX engine.</td>
</tr>
<tr>
<td>AMW2022I</td>
<td>The local database has been successfully cleaned of data of profile \textit{profile_name}.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW2023E</td>
<td>Unable to clean data of profile \textit{profile_name}.</td>
<td>The cleaning query has failed to remove data for the profile.</td>
<td>Contact Customer Support for assistance.</td>
</tr>
<tr>
<td>AMW2024I</td>
<td>The resource model for profile \textit{profile_name}, model \textit{resource_model_name}, has been initialized.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>AMW2025E</td>
<td>The resource model initialization for the profile \textit{profile_name}, resource model \textit{resource_model}, has failed.</td>
<td>The resource model initialization has failed because of an internal error.</td>
<td>Distribute the profile again.</td>
</tr>
<tr>
<td>AMW2026I</td>
<td>Registering the endpoint \textit{endpoint_name} to Heartbeat.</td>
<td>None.</td>
<td>None.</td>
</tr>
</tbody>
</table>
The start is deferred because the resource model is disabled. Profile `profile_name`, resource model `resource_model`.

**Explanation:** The resource model has been previously disabled.

**User Response:** Enable the resource model and distribute the profile again.

---

The resource model `resource_model` of the profile `profile_name` has not been stopped.

**Explanation:** The resource model failed to be stopped because of an internal error.

**User Response:** Try to stop the resource model again.

---

The CIM method has been correctly invoked.

**Explanation:** None.

**User Response:** None.

---

The program has been executed.

**Explanation:** None.

**User Response:** None.

---

The xml file `xml_file` has been successfully written.

**Explanation:** None.

**User Response:** None.

---

The xml file `xml_file` could not be written.

**Explanation:** The xml file could not be written because of an internal error.

**User Response:** None.

---

The xml file `xml_file` has been successfully moved in `archive_dir`.

**Explanation:** None.

**User Response:** None.

---

The xml file `xml_file` could not be moved in the archive directory.

**Explanation:** The xml file could not be moved because of an internal error.

**User Response:** None.

---

Cloudscape network server has been started on port `port_number`.

**Explanation:** None.

**User Response:** None.

---

Cloudscape network server has been stopped.

**Explanation:** None.

**User Response:** None.
AMW2040I  The profile profile_name has been deleted.
Explanation: None.
User Response: None.

AMW2041E  Unable to find class name class_name.
Explanation: The class name has not been previously defined in the Dynamic Model.
User Response: Change the class name defined into the AssociateParameter method in order to match the class name defined into the DefineClass method.

AMW2050E  Not applicable.
Explanation: A profile was created without a label being specified.
User Response: Specify a label for the profile.

AMW2051E  The profile profile_name cannot run on the interpreter_name interpreter.
Explanation: The machine interpreter is not a supported one.
User Response: Distribute the profile on a workstation with a supported interpreter.

AMW2052E  The engine failed to start with error code: error_code.
Explanation: The engine failed to start because of an internal failure.
User Response: Contact your Customer Support for assistance.

AMW2053E  The dependencies for the profile profile_name cannot be downloaded and installed.
Explanation: An internal failure occurred during the downloading of engine dependencies.
User Response: Contact your Customer Support for assistance.

AMW2054E  I/O error on file file_name . The error number is error_number.
Explanation: A run-time error occurred during an attempt to open the file.
User Response: Contact Customer Support for assistance.

AMW2055E  The distribution expired.
Explanation: The distribution status changed to expired state.
User Response: Contact Customer Support for assistance.

AMW2056E  The distribution was canceled.
Explanation: The distribution status changed to canceled state.
User Response: Contact Customer Support for assistance.

AMW2057E  Fatal error in file file_name at line line_number.
Explanation: An internal failure occurred during the downloading of segments.
User Response: Contact Customer Support for assistance.
| AMW2058E | Cannot unzip file *file_name*.  
**Explanation:** An internal failure occurred during the downloading of engine dependencies.  
**User Response:** Contact Customer Support for assistance. |
|---|---|
| AMW2059E | The resource models for the profile *profile_name* cannot be processed.  
**Explanation:** An error occurred while configuration information for the resource models in the profile was being read.  
**User Response:** Contact Customer Support for assistance. |
| AMW2060E | Java failure on the endpoint. Java Runtime Environment is not installed or was not found. The engine could not be started.  
**Explanation:** Java Runtime Environment (JRE) is not installed, or the link to it is not correct.  
**User Response:** Install Java Runtime Environment and run the DMLinkJre task. If you have already installed a supported version of JRE, ensure that the link to it was correctly created. |
| AMW2061E | Java failure on the endpoint. The current version of Java Runtime Environment is not supported. The engine could not be started.  
**Explanation:** The supported version of Java Runtime Environment (JRE) is 1.3.0. Previous versions are not supported.  
**User Response:** Install Java Runtime Environment, Version 1.3.0. |
| AMW2062E | Java failure on the endpoint. The endpoint's operating system is not supported. The engine could not be started.  
**Explanation:** The endpoint runs an operating system that is not supported.  
**User Response:** Contact Customer Support for assistance. |
| AMW2063E | Java failure on the endpoint: Java Runtime Environment was not started. The engine could not be started.  
**Explanation:** Java Runtime Environment (JRE) did not start.  
**User Response:** Contact Customer Support for assistance. |
| AMW2064E | A Windows Management Instrumentation failure on the endpoint. Either Windows Management Instrumentation is not installed, or it is failing.  
**Explanation:** Either Windows Management Instrumentation could not be installed, or it is failing.  
**User Response:** Install Windows Management Instrumentation. If it is already installed, restart it. |
| AMW2065W | Database connection failure on the endpoint. Either the ODBC driver is missing or is an old version. The engine will work but without logging.  
**Explanation:** The engine is not able to connect to the local database because the ODBC driver is missing, or is an old version.  
**User Response:** Update the ODBC driver of the machine. The ODBC driver for Microsoft Access 2000 must be installed on the endpoint. |
AMW2066E  General failure on the endpoint. The engine could not be started.
Explanation:  The engine did not start.
User Response:  Contact Customer Support for assistance.

AMW2067W  The path to the jre is not set on the endpoint.
Explanation:  The path to the jre is not set on the endpoint, nevertheless the engine will keep on working even if java providers can’t work.
User Response:  Run the DMLinkJre task specifying the correct path to the JRE, or run the command wdmdistrib with the ‘-J’ option.

AMW2068W  The endpoint engine did not respond to this data collection request. The collected data is not lost: it will be uploaded with the data collection request immediately following the next start of the engine.
Explanation:  The engine cannot be contacted. It is probably down. Because of this, the collection of data for TEDW failed because of this. The data already collected will be uploaded with the next collection request.
User Response:  Check if the engine is down. Restart the engine or distribute a profile, if appropriate. No action is required to re-establish the TEDW functionality.

AMW2200E  The engine cannot retrieve the host information.
Explanation:  The IP address search order (/etc/hosts, then DNS etc.) or the way the IP address is resolved is incorrect.
User Response:  Check the network configuration for your endpoint.

AMW2201E  The tar file was not created.
Explanation:  An error occurred while unquoting the xml file list received from the server.
User Response:  None.

AMW2202I  The engine was started using the following command: command.
Explanation:  The EngineUpdate runs the script to start the engine.
User Response:  None.

AMW2203W  The endpoint method is unable to contact the engine.
Explanation:  The engine cannot be contacted: it may be down.
User Response:  Check if the engine is down or check if the port is configured in the engsync file in the directory $LCF_DATDIR/LCFNEW/Tmw2k/Unix/data is listening. The $LCF_DATDIR/LCFNEW/Tmw2k/Unix/data/dmxout.log file may contain the error message.

AMW2204I  The engine init procedure completed successfully.
Explanation:  The engine init procedure completed.
User Response:  None.

AMW2205I  The engine is ready to start monitoring.
Explanation:  The EngineUpdate sends a signal to the engine and starts all profiles or resource models for this endpoint.
User Response:  None.
AMW2206I  The engine is logging data for the resource model.
Explanation: The engine is logging data according to the specifications provided with the resource model.
User Response: None.

AMW2207I  The engine checks the built-in actions specified for the event: event_name.
Explanation: The engine checks the built-in actions predefined for a given event generated by the resource model.
User Response: None.

AMW2208I  The engine checks the tasks specified for the event: event_name.
Explanation: The engine reads the tasks predefined for a given event generated by the resource model.
User Response: None.

AMW2209I  The engine is unzipping the package_filename package on the endpoint directory.
Explanation: The file is unzipped on the endpoint.
User Response: None.

AMW2210E  An invalid profile command or resource model state was invoked, status: status.
Explanation: The engine is trying to run an invalid profile command or is trying to change an invalid resource model state.
User Response: None.

AMW2211I  The status of the resource model has changed.
Explanation: None.
User Response: None.

AMW2212I  The Tivoli Monitoring engine started successfully.
Explanation: None.
User Response: None.

AMW2213E  The Tivoli Monitoring engine failed to start.
Explanation: The engine failed to start after the completion of the task.
User Response: Check the engine trace file to find the error.

AMW4400E  The message properties file is missing or corrupt. An exception error was detected: I/O_exception.
Explanation: This occurs when the JLog file cannot be found. The properties file should be in the Java classpath.
User Response: Ensure that the properties file exists. Check the syntax of the properties file. If necessary, extract the original log properties file from the util.jar file.

AMW4401E  The message properties file is missing or is corrupted. An exception error was detected: I/O_exception.
Explanation: This occurs when the JLog file cannot be found. The properties file should be in the Java classpath. The log system could not load the message bundle in order to translate this string.
User Response: Ensure that the properties file exists. Check the syntax of the properties file. If necessary, extract the original log properties file from the util.jar file.
AMW4402E  An error occurred during the log system initialization. The log properties file might be corrupted.
An exception error was detected: `log_exception`.

**Explanation:** The logging system encountered an error when it tried to load the properties from the log properties file.

**User Response:** Check the syntax of the properties file. If necessary, extract the original log properties file from the util.jar file.

AMW4403E  An error occurred during the log system initialization. The log properties file might be corrupted.
An exception error was detected: `log_exception`.

**Explanation:** The logging system encountered an error when it tried to load the properties from the log properties file. The log system could not additionally load the message bundle to translate this string.

**User Response:** Check the syntax of the properties file. If necessary, extract the original log properties file from the util.jar file.

AMW4404E  The message logger is no longer valid. No log messages can be written.

**Explanation:** An attempt was made to log a message where no logger existed. This may be a result of problems occurring during the log system initialization.

**User Response:** Check that the log system initialized correctly. Respond to any messages in the standard out stream that pertain to the log system.

AMW4405E  The message logger is no longer valid. No log messages can be written.

**Explanation:** An attempt was made to log a message where no logger existed. This may be a result of problems occurring during the log system initialization. This message also could not be translated, indicating that the translation bundle is missing.

**User Response:** Check that the log system initialized correctly. Respond to any messages in the standard out stream that pertain to the log system.

AMW4406E  The trace logger is no longer valid. No trace messages can be written.

**Explanation:** An attempt was made to log a trace message where no logger existed. This may be a result of problems occurring during the log system initialization.

**User Response:** Check that the log system initialized correctly. Respond to any messages in the standard out stream that pertain to the log system.

AMW4407E  The trace logger is no longer valid. No trace messages can be written.

**Explanation:** An attempt was made to log a trace message where no logger existed. This may be a result of problems occurring during the log system initialization. Also, this message could not be translated, which indicates that the translation bundle is missing.

**User Response:** Check that the log system initialized correctly. Respond to any messages in the standard out stream that pertain to the log system.

AMW4410E  A connection could not be made to the Tivoli management region during login. A connection exception error was detected: `connection_exception_error`.

**Explanation:** An error occurred during the login process. The Web application server was unable to setup a connection with the Tivoli managed node.

**User Response:** Ensure the Tivoli managed environment is running. Check the connection between the Tivoli Monitoring Web Health Console application server and the managed node specified for the connection. Check the user ID and password that were specified.
AMW4411E  The application server was unable to initialize its internal data structures during login. The following exception error was raised: cache_exception.

Explanation: An error occurred during the login process. The server was not able to set up the caching data structures.

User Response: Ensure the machine has enough memory and disk space. Check the status of the Web application server. Restart the Tivoli Monitoring Web Health Console.

AMW4412E  An unknown error occurred during login. The following exception error was raised: exception_error.

Explanation: An error occurred during the login process. No more information is known.

User Response: Ensure the Tivoli managed environment is running. Check the connection between the Tivoli Monitoring Web Health Console application server and the managed node specified for the connection. Check the user ID and password that were specified.

AMW4413E  The login was unsuccessful for the user userid on the managed node managed_node.

Explanation: An error occurred during the login process. The Web application server was unable to set up a connection with the Tivoli managed node. This may be the result of an incorrect user ID, password, or managed node.

User Response: Ensure the Tivoli Managed Environment is running. Check the connection between the Tivoli Monitoring Web Health Console application server and the managed node specified for the connection. Check the user ID and password that were specified.

AMW4414E  The managed node managed_node is unreachable.

Explanation: An error occurred during the login process. The managed node was unreachable or was unable to respond.

User Response: Ensure the Tivoli Managed Environment is running. Check the connection between the Tivoli Monitoring Web Health Console application server and the managed node specified for the connection.

AMW4415E  An error occurred when the user userid tried to log on to the managed node managed_node.

Explanation: An error occurred during the login process. The Web application server was unable to set up a connection with the Tivoli managed node.

User Response: Ensure the Tivoli managed environment is running. Check the connection between the Tivoli Monitoring Web Health Console application server and the managed node specified for the connection.

AMW4416E  The user ID or password is invalid for userid on the managed node managed_node.

Explanation: The user ID or password was invalid when the user attempted to log into the Tivoli management region.

User Response: Check the user name and password. Make sure the user has the authority to perform the requested action.

AMW4417E  The default preferences could not be loaded from preferences_file.

Explanation: An I/O exception occurred while the default preferences were being loaded from the classpath.

User Response: This is a critical error only if the user did not set any preferences set yet. Check to ensure the classpath is correct and that the jar files shipped with the application have not been corrupted.

AMW4418E  The default preferences could not be loaded from preferences_file. The file was not found. Default preferences will be used.

Explanation: A FileNotFoundException occurred when the user preferences were loaded. Check to ensure the file exists in the path specified.
AMW4419E • AMW4984E

User Response: Log off with this user and log on again. The preferences will be reset to the defaults.

AMW4419E The user preferences could not be loaded from preferences_file. An error occurred while reading the file. Default preferences will be used.

Explanation: An IOException occurred when the user preferences were loaded. Check to ensure the file exists in the path specified.

User Response: Log off with this user and log on again. The preferences will be reset to the defaults.

AMW4421E The user preferences could not be saved in preferences_file. An error occurred while the file was being read.

Explanation: An IOException occurred while an attempt was made to save the user’s preferences.

User Response: check the permissions on the directory in which the file should be saved.

AMW4920E Could not find the WebSphere archive file.

Explanation: The installer could not locate the compressed file containing pieces of the Web Health Console. The installation will fail if this file cannot be located.

User Response: If using CD media, this indicates that the CD has not been correctly mounted, especially on an HP-UX machine. To correct, mount the CD properly and reinstall. If installing from a local hard drive or network drive, this indicates the archive file is unavailable or nonexistent. In this case, ensure that the correct installation images are available and reinstall.

AMW4983E ITM Web Health Console could not be found on the Application Server.

Explanation: The Tivoli Monitoring Launcher Web Application could not find any version of the Web Health Console on the Websphere Application Server.

User Response: Ensure that the Web Health Console is installed and running on the Websphere Application Server. Ensure that the Tivoli Monitoring Launcher Web Application resides on the same Websphere Application Server as the Web Health Console.

AMW4984E The endpoint you have attempted to view was not found on the managed node.

Explanation: An attempt was made to launch the Web Health Console directly into the Endpoint Drilldown View for a particular endpoint, but a search of the managed node to which the Web Health Console was connected did not find any endpoint by that name, hostname, or IP address.

User Response: Ensure that the desired endpoint is connected to the managed node that you are attempting to log in to, and that a profile has been distributed to the endpoint. If you are using an IP address to designate the endpoint in the launching application, ensure that the IP address is correct. If you are using a hostname to designate the endpoint, make sure that the hostname is correct and fully qualified.
Chapter 5. Contacting IBM Software Support

IBM Software Support needs to be contacted if a problem cannot be resolved using the troubleshooting steps described in this guide. Support engineers ask a number of standard questions before troubleshooting a problem. When customers have this information ready before a support call, the time it takes the engineer to provide a resolution can be greatly reduced. The information needed by support includes:

- Define the problem - articulate the symptom(s) of the problem, provide any error messages or error output associated with the problem, and provide as many details related to the issue as possible.
- Gather relevant information - determine any associated software products and versions, the operating system and/or database platform and version, if this problem has occurred before or if this is an isolated incident, what occurred before the problem was detected, and if any changes have been made recently to the system.
- Determine the business impact - determine how this affects your system and your ability to meet your business needs.
- Collect the proper contact information - your IBM Passport Advantage or Tivoli Customer ID, appropriate phone number or e-mail address, your preference for return correspondence: by phone or e-mail, alternate phone numbers (if possible), and if not responding to you, the name and contact information for the person IBM Software Support needs to contact.

In addition, support engineers need the following product-specific information to resolve the reported problem:

- Tivoli server, managed node, and endpoint operating system information:
  - on Windows 2000: run `winmsd/report/s filename`
  - on Windows NT: run `winmsd/a` (output is to `%systemroot%\%HOSTNAME%.txt`
  - on AIX: run `osversion`
  - on Solaris: run `uname -a`
  - on HP-UX: run `uname -a`
  - on Linux: run `uname -a`

**Note:** the recommended method for getting operating system information on an endpoint is by using the Tivoli Monitoring `DMCollectEpEnv` task. For details, see section “Serviceability tasks” on page 28.

- If the problem is on a Windows endpoint, from the Tivoli server or managed node run the Tivoli Monitoring `wdmcheckprereq` command to collect information related to the set prerequisites for that endpoint.
- Run the following Tivoli Management Framework commands on the Tivoli server:

  **odadmin**
  
  This command is used to manage object dispatchers. It provides a command line interface to many configuration settings and management operations.

  **odadmin odlist**
  
  This command lists information about each currently attached object dispatcher (region, object dispatch number, port, IP address, hostname). It lists information about the dispatchers in an installation.
**wlsinst -ah**
This command lists all products and patches installed on the Tivoli server.

**wgateway**
This command starts or stops a gateway, modifies or list properties of a gateway, controls access to the gateway HTTP server, or defines logging characteristics.

- Run the command `wgetadmin administrator running actions`. This command shows the current administrator’s name, logins, roles, and notification groups.
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