

HP Servicecontrol Manager 3.0 Troubleshooting Guide

Edition 1.1



Manufacturing Part Number: 5187-1883

January 2003

United States

© Copyright 2002 Hewlett-Packard Company. All rights reserved.

Legal Notices

The information in this document is subject to change without notice.

Hewlett-Packard makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Warranty

A copy of the specific warranty terms applicable to your Hewlett-Packard product and replacement parts can be obtained from your local Sales and Service Office.

Restricted Rights Legend

Use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 for DOD agencies, and subparagraphs (c) (1) and (c) (2) of the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 for other agencies.

HEWLETT-PACKARD COMPANY
3000 Hanover Street
Palo Alto, California 94304 U.S.A.

Use of this document and any supporting software media supplied for this pack is restricted to this product only. Additional copies of the programs may be made for security and back-up purposes only. Resale of the programs, in their present form or with alterations, is expressly prohibited.

Copyright Notice

Copyright © 2002 Hewlett-Packard Company. All rights reserved. Reproduction, adaptation, or translation of this document without prior written permission is prohibited, except as allowed under the copyright laws.

Trademark Notices

Java® and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. Hewlett-Packard is independent of Sun Microsystems.

Linux® is a registered trademark of Linus Torvalds.

MySQL® is a trademark of MySQL AB in the United States and other countries.

Red Hat® is a registered trademark of Red Hat, Inc. in the United States and other countries.

SuSE® is a registered trademark of SuSE Linux AG.

UNIX® is a registered trademark in the United States and other countries, licensed exclusively through The Open Group.

X Window System™ is a trademark of the Massachusetts Institute of Technology.

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>).

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

Publication History

The manual publication date and part number indicate its current edition. The publication date will change when a new edition is released. The manual part number will change when extensive changes are made.

Part Number: 5187-1883

- *January 2003, Edition 1.1*

This edition includes new Servicecontrol Manager issues.

- *December 2002, Edition 1*

Initial edition.

To ensure that you receive new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details.

New editions of this manual will incorporate all material updated since the previous edition. For the latest version, see the HP Servicecontrol Manager documentation on the Web:

<http://docs.hp.com/>

Please use the following Web form to send us feedback:

<http://docs.hp.com/assistance/feedback.html>

About this Guide

This guide describes installing, upgrading and getting started with Servicecontrol Manager. It also provides a basic overview of the Servicecontrol Manager functionality and terminology. It assumes that you are an HP-UX or Linux system administrator and familiar with installing and administering software in these environments.

This guide applies to the December 2002 (B.03.00.00) version of HP Servicecontrol Manager. If you need information for a previous version of Servicecontrol Manager, go to the Web:

<http://docs.hp.com>

Typographic Conventions

We use the following typographical conventions.

<i>audit</i> (5)	HP-UX or Linux manual page. <i>mxtool</i> is the name and <i>r</i> is the section. From the command line, you can enter “man mxtool” or “man 4 mxtool” to view the man page. See <i>man</i> (1).
<i>Book Title</i>	Title of a book. On the Web and on the Instant Information CD, it may be a hot link to the book itself.
Command	Command name or qualified command phrase.
ComputerOut	Text displayed by the computer.
<i>Emphasis</i>	Text that is emphasized.
Emphasis	Text that is strongly emphasized.
KeyCap	Name of a keyboard key. Note that Return and Enter both refer to the same key.
Term	Defined use of an important word or phrase.
User Input	Commands and other text that you type.
<i>Variable</i>	Name of a variable that you may replace in a command or function or information in a display that represents several possible values.
[]	Contents are optional in formats and command descriptions. If the contents are a list separated by , you must choose one of the items.
{ }	Contents are required in formats and command descriptions. If the contents are a list separated by , you must choose one of the items.
...	Preceding element may be repeated an arbitrary number of times.
	Separates items in a list of choices.

1. Troubleshooting SCM**2. Operating System and Networking Issues**

Agent Unable To nslookup The CMS Hostname	12
Authentication Failures Due To Time Synchronization Or Communication Time Limits	12
CMS Unable To nslookup Node Hostname	12
File Related Errors	13
Hardware Problems (Such As LAN Card Failures)	14
Incorrect Network Configuration	15
Insufficient File System Space In /var	16
Insufficient Kernel Resources	16
Insufficient Swap Space	17
Problems With getpwnam()/uid()	18
Problems With resolv.conf, hosts, nsswitch	19
SuSE CMS Reporting An IP Address Instead Of A Hostname	20
SuSE System Information Missing	20
Web Server Not Running	21

3. Servicecontrol Manager Issues

catalina.out Log Fills Up With A Repeated Error	24
Command Line Tool Does Not Complete A Task	24
Configuration Failure During CMS Update	24
Management Home Page Is Already Open	25
mx.properties File Missing	25
mxserver.bin Install Error	26
Obsolete Tools Migrated from SCM 2.5	26
Optional Tools Migrated from SCM 2.5	28
Problems With mxexec On A Managed Node (#1)	29
Problems With mxexec On A Managed Node (#2)	29
Removing A CMS From A Managed Node Fails	30
Repository Configuration Failure During Install	31
Repository Server Failure	32
SCM 2.5 Daemons Not Running During SCM 3.0 Upgrade	33
SCM Commands And Manual Pages Are Inaccessible	34
SCM Fails On Startup With No Error Messages	34
SCM GUI Isn't Available	36
ServiceGuard Manager's ClusterManagement Tab Missing	36
Syntax Problems In The Definition Files	37
Task Execution From The SCM GUI Fails With No Error	38
Tool Ownership Issue	38
WBEM Not Displayed As A Managed Protocol	39
Web Launch Tool With Parameters Not Supported	39
WLM and PRM Are Not Available Within SCM	40
X Window Tool Does Not Run For mxexec	40

Index	41
--------------------	-----------

This chapter provides general information on diagnosing issues associated with Servicecontrol Manager (SCM).

Complete steps [1-5](#) on the central management server (CMS) to diagnose the specific problems you are experiencing. Follow step [6](#) to verify and resolve the specific problems.

To Diagnose Issues with SCM

Step 1. Check for errors in the following log files.

- `/var/opt/mx/logs/mx.log`
- `/var/opt/mx/logs/MySQLInstall.log`
- `/opt/hpwebadmin/logs/catalina.out`
- For HP-UX®: `/var/adm/syslog/syslog.log`
For Linux®: `/var/log/messages`

Step 2. Verify that the required daemons are running.

```
/opt/mx/lbin/mxdtf
/opt/mx/lbin/mxdomainmgr
/opt/mx/lbin/mxagent
```

Step 3. Verify that the Tomcat Web server is running.

```
ps -fp $(cat /opt/hpwebadmin/logs/.tomcat.pid)
```

Step 4. Log on to the CMS and run the following simple commands.

```
mxnode
mxexec -t df -n cms
mxexec -t df -n node
```

where *cms* is the hostname of the CMS and *node* is the hostname of a managed node.

Step 5. Log on to the SCM graphical user interface (GUI) and verify basic functionality.

- a. Verify that the nodes list is populated with valid nodes.
- b. Verify that the tools menu appears with valid tools when you select a node from the nodes list
- c. Run `df` in the General Tools category on the selected node.
If this tool isn't available, select another command line tool to run instead.
- d. Run `View Properties` in the View category on the selected node.
If this tool isn't available, select another Web tool to run instead.
- e. Run `Accounts for Users and Groups` in the System Administration category on the selected node.
If this tool isn't available, select another X Window™ tool to run instead.

Step 6. Identify the applicable issue in one of the following chapters to troubleshoot and resolve your problem. Use the data collected in the previous steps to determine which issues may apply.

- **Operating System and Networking Issues**

See Chapter 2, “Operating System and Networking Issues,” on page 11. This chapter covers the following issues:

- “Agent Unable To nslookup The CMS Hostname” on page 12
- “Authentication Failures Due To Time Synchronization Or Communication Time Limits” on page 12
- “CMS Unable To nslookup Node Hostname” on page 12
- “File Related Errors” on page 13
- “Hardware Problems (Such As LAN Card Failures)” on page 14
- “Incorrect Network Configuration” on page 15
- “Insufficient File System Space In /var” on page 16
- “Insufficient Kernel Resources” on page 16
- “Insufficient Swap Space” on page 17
- “Problems With getpwnam()/uid()” on page 18
- “Problems With resolv.conf, hosts, nsswitch” on page 19
- “SuSE System Information Missing” on page 20
- “SuSE CMS Reporting An IP Address Instead Of A Hostname” on page 20
- “Web Server Not Running” on page 21

- **Servicecontrol Manager Issues**

See Chapter 3, “Servicecontrol Manager Issues,” on page 23. This chapter covers the following issues:

- “catalina.out Log Fills Up With A Repeated Error” on page 24
- “Command Line Tool Does Not Complete A Task” on page 24
- “Configuration Failure During CMS Update” on page 24
- “Management Home Page Is Already Open” on page 25
- “mx.properties File Missing” on page 25
- “mxserver.bin Install Error” on page 26
- “Obsolete Tools Migrated from SCM 2.5” on page 26
- “Optional Tools Migrated from SCM 2.5” on page 28
- “Problems With mxexec On A Managed Node (#1)” on page 29
- “Problems With mxexec On A Managed Node (#2)” on page 29

- “Removing A CMS From A Managed Node Fails” on page 30
- “Repository Server Failure” on page 32
- “SCM 2.5 Daemons Not Running During SCM 3.0 Upgrade” on page 33
- “SCM Commands And Manual Pages Are Inaccessible” on page 34
- “SCM Fails On Startup With No Error Messages” on page 34
- “ServiceGuard Manager’s ClusterManagement Tab Missing” on page 36
- “Syntax Problems In The Definition Files” on page 37
- “Task Execution From The SCM GUI Fails With No Error” on page 38
- “Tool Ownership Issue” on page 38
- “Web Launch Tool With Parameters Not Supported” on page 39
- “WLM and PRM Are Not Available Within SCM” on page 40
- “X Window Tool Does Not Run For mxexec” on page 40

Operating System and Networking Issues

The operating system and networking can impact SCM's functionality. Failure of the operating system or the networking can sometimes produce conditions that appear to be SCM related.

This chapter covers the following issues:

- “Agent Unable To nslookup The CMS Hostname” on page 12
- “Authentication Failures Due To Time Synchronization Or Communication Time Limits” on page 12
- “CMS Unable To nslookup Node Hostname” on page 12
- “File Related Errors” on page 13
- “Hardware Problems (Such As LAN Card Failures)” on page 14
- “Incorrect Network Configuration” on page 15
- “Insufficient File System Space In /var” on page 16
- “Insufficient Kernel Resources” on page 16
- “Insufficient Swap Space” on page 17
- “Problems With getpwnam()/uid()” on page 18
- “Problems With resolv.conf, hosts, nsswitch” on page 19
- “SuSE CMS Reporting An IP Address Instead Of A Hostname” on page 20
- “SuSE System Information Missing” on page 20
- “Web Server Not Running” on page 21

Agent Unable To nslookup The CMS Hostname

- Symptom** The command `mxagentconfig -a cms_name -p password` fails with:
Unknown host name: 'cms_name'
- Verification** Use `nslookup cms_name` to test the network name resolution on the managed node.
- Fix** Setup network name resolution properly on the managed node by adding CMS information to the managed node's `/etc/hosts` file. See “Problems With `resolv.conf`, `hosts`, `nsswitch`” on page 19 for additional information.
-

Authentication Failures Due To Time Synchronization Or Communication Time Limits

The CMS and managed nodes must be time-synchronized to prevent authentication failures. The communication time limit is 20 minutes, and exceeding this limit causes authentication failures.

- Symptom** Executing a tool on a managed node results in the error:
Authentication failure: The CMS and managed node time clocks may not be synchronized, or a communication time limit may have been exceeded.
- Fix** Use the command `xntpd(1m)` to configure the time synchronization.
-

CMS Unable To nslookup Node Hostname

- Symptom** The command `mxnode -a node_name` or `mxnode -r node_name` fails with:
Unknown host: 'node_name' Node ignored.
- Verification** Use `nslookup node_name` to test the network name resolution on the CMS.
- Fix** Setup network name resolution properly on the CMS. See “Problems With `resolv.conf`, `hosts`, `nsswitch`” on page 19 for additional information.
-

File Related Errors

Symptom	<p>For files you have permission to access and you know exist, you are intermittently getting error messages such as:</p> <p>An internal error occurred. The following file is unreadable by the user: /etc/opt/mx/config/mx.properties (File table overflow). If this file exists, verify that the user has permission to read the file.</p> <p>An internal error occurred. /opt/mx/j2re/lib/PA_RISC2.0/libnet.sl: No such file or directory</p> <p>An internal error occurred. Incorrect permissions to read the file /etc/opt/mx/config/.table.server (File table overflow)</p> <p>An internal error occurred. gnu/getopt/Getopt</p>
Verification	<p>Check the system log file for messages.</p> <ul style="list-style-type: none">• For HP-UX: /var/adm/syslog/syslog.log• For Linux: /var/log/messages <p>For HP-UX, the message will say:</p> <pre>vmunix: file: table is full</pre>
Fix	<p>Increase associated kernel tunables as required. For HP-UX, use SAM to increase kernel tunables.</p> <p>You can use the Java® Out-of-Box for HP-UX 11.0 and 11i to modify system tunables and provide a better "out of the box" behavior for Java. Go to http://www.hp.com/go/java/ for more information about this tool.</p>

Hardware Problems (Such As LAN Card Failures)

Symptom	You experience intermittent networking or communication errors with a system on the network. This assumes you are experiencing the errors between the CMS and a single managed node. If you think the CMS is the system having the problem, perform these steps with the CMS and managed node reversed.
Verification	<ol style="list-style-type: none">1. Log on to the CMS.2. Ping the managed node:<ul style="list-style-type: none">• For HP-UX: <code>/usr/sbin/ping node_name</code>• For Linux: <code>/bin/ping node_name</code>where <i>node_name</i> is the hostname of the managed node in question. If this fails to establish communication with the node, then there is a LAN communication problem.3. Execute:<ul style="list-style-type: none">• For HP-UX: <code>/usr/sbin/arp node_name</code>• For Linux: <code>/sbin/arp node_name</code>where <i>node_name</i> is the hostname of the managed node in question. If the ethernet address does not appear to be valid, you may have a failing LAN card.
Fix	<ol style="list-style-type: none">1. Log on to the managed node as <code>root</code>.2. Remove the cached ethernet address and force the address to be looked up again:<ul style="list-style-type: none">• For HP-UX: <code>/usr/sbin/arp -d node_name</code>• For Linux: <code>/sbin/arp -d node_name</code>where <i>node_name</i> is the hostname of the managed node in question.3. Verify that the ethernet address now appears to be valid:<ul style="list-style-type: none">• For HP-UX: <code>/usr/sbin/arp node_name</code>• For Linux: <code>/sbin/arp node_name</code>where <i>node_name</i> is the hostname of the managed node in question. You should now quit receiving the networking errors on the managed node.4. Log on to the CMS and execute:<ul style="list-style-type: none">• For HP-UX: <code>/usr/sbin/ping node_name</code>• For Linux: <code>/bin/ping node_name</code>This should now trade packets properly. If this fixes the problem, it will only be a temporary fix. You need to replace the LAN card in the managed node.

Incorrect Network Configuration

If `nslookup(1)` fails, Servicecontrol Manager cannot resolve hostnames and the `mxnode` command will fail.

Symptom

The command `mxnode -a hostname` fails with the error:

Unknown host: 'node_name'. Node ignored.

Verification

Verify that this command works: `nslookup $(hostname)`

The output must have a line beginning with `Name:` as well as one that follows that starts with either `Address:` or `Addresses:`. If the command fails:

- Check `/etc/nsswitch.conf`:
 - Does it exist?
 - Is the file readable by all?
 - What order is it specifying for IP address resolution?
- If `/etc/nsswitch.conf` specifies use of a file for IP address resolution (such as `/etc/hosts`):
 - Does this file exist?
 - Is it readable by all?
 - Is the `hostname` resolvable by its entry in this file?
 - Does this file have the CMS entry defined correctly?
- If `/etc/nsswitch.conf` specifies use of DNS:
 - Can any user use `nslookup(1)` to resolve the IP address of the `hostname`?
 - Do `nslookup short_hostname` and `nslookup fully_qualified_hostname` work for both root and non-root users?
 - Does `/etc/resolve.conf` exist, and is it readable by all?
 - Does `/etc/resolve.conf` specify the correct `search domain_name` for DNS to resolve the IP address of `hostname`?
 - On HP-UX, run `nslookup -swdebug hostname` to see how the IP address is being resolved. On Linux, run the `nslookup -debug hostname` command.

Fix

- Try using a fully qualified name with `mxnode -a` when adding the managed node.
- If required by `nslookup(1)`, make sure that `/etc/nsswitch.conf`, `/etc/hosts` and `/etc/resolve.conf` are readable by all, and have the correct and appropriate information for `nslookup(1)`.

Insufficient File System Space In /var

Symptom	If one or more of the following issues occur: <ul style="list-style-type: none">• You receive Log Manager failures.• You are unable to setup Servicecontrol Manager initially (<code>mxinitconfig</code> fails).• You are unable to add any new objects due to failures in writing the repository.
Verification	Use <code>df(1)</code> to check for free space on <code>/var</code> .
Fix	Increase size of <code>/var</code> or remove unnecessary files from the <code>/var</code> file system (such as large log files from other programs).

Insufficient Kernel Resources

Symptom	If one or more of the following issues occur: <ul style="list-style-type: none">• You receive “Remote Exception” errors from <code>mxexec</code>.• You receive “Connection Refused” errors from <code>mxexec</code>.• You receive “Out of memory” exception from <code>mxexec</code>.• Tasks run forever with some targets never completing.
Verification	Verify the kernel parameters against those listed in the system requirements at: http://software.hp.com/products/SCMGR/
Fix	Increase associated kernel tunables including threads and stack space as required. For HP-UX, use SAM to increase kernel tunables. You can use the Java Out-of-Box for HP-UX 11.0 and 11i to modify system tunables and provide a better "out of the box" behavior for Java. Go to http://www.hp.com/go/java/ for more information about this tool.

Insufficient Swap Space

Symptom	<p>One or more of the following issues happen intermittently depending on system loading.</p> <p>On HP-UX:</p> <ul style="list-style-type: none">• You receive “Out of memory” exceptions when running mxcommands.• Other HP-UX commands result in memory errors. <p>On Linux:</p> <ul style="list-style-type: none">• The system response becomes very slow. <p>On Either OS:</p> <ul style="list-style-type: none">• Running a command produces a voluminous debug output starting with: Unexpected Signal:10 and ending with: # HotSpot Virtual Machine Error:10• Files are created in the current directory named <code>hs_err_pidNNNN.log</code>.
Verification	<p>Check the system log file for messages relating to swap space failures.</p> <ul style="list-style-type: none">• For HP-UX: <code>/var/adm/syslog/syslog.log</code>• For Linux: <code>/var/log/messages</code> <p>On HP-UX, the message is:</p> <pre>vmunix: Deferred swap reservation failure pid:NNNN</pre> <p>where NNNN is the SCM daemon or SCM command process ID</p>
Fix	<p>Use <code>swapinfo(1m)</code> on HP-UX or <code>swapon(8)</code> on Linux to verify that enough swap space is available. View the swap space requirements at: http://software.hp.com/products/SCMGR/</p> <p>Increase available swap or kill an unnecessary process.</p>

Problems With `getpwnam()/uid()`

- Symptom** Your login user name is a valid SCM user, but you are no longer considered a valid user. Execution of any SCM commands fails with the error:
- ```
The name '?' does not represent a user in this system.
```
- Verification** Verify that you are still a HP-UX or Linux user.
- Execute the `id(1)` command. If it returns an empty string for the user name, then your HP-UX or Linux login name has been removed or is no longer accessible.
  - Execute:  

```
ypcat passwd | grep login
```

  
or  

```
grep login /etc/passwd
```

  
If no `passwd` line is found, you are no longer considered an HP-UX or Linux user.
- Fix** If you are using NIS, verify that `/etc/passwd` still contains the `+:0:0:::` entry at the end of the file. If not, try restoring this line. Determine if this fixes the problem by running the verification commands again.
- If your HP-UX user login is missing, log in as `root` and add the user back using the System Administration Manager tool, SAM. If your Linux user login is missing, log in as `root` and add the user back using the `useradd(8)` command.

---

## Problems With `resolv.conf`, `hosts`, `nsswitch`

**Symptom** The command `nslookup node_name` fails.

**Verification** Check these files and commands for similar content:

```
-- /etc/resolv.conf --
domain mycorp.com
nameserver 15.0.10.123
search mycorp.com

-- /etc/hosts --
aa.a.aa.aaa hostname.domain.name hostname
127.0.0.1 localhost loopback

-- /etc/nsswitch.conf --
hosts: dns [notfound=continue] files

-- `netstat -rn` --

Routing tables
Dest/Netmask Gateway Flags Refs Use Interface Pmtu
127.0.0.1 127.0.0.1 UH 0 284762 lo0 4136
15.1.49.175 15.1.49.175 UH 0 9759091 lan0 4136
15.1.48.0 15.1.49.175 U 2 0 lan0 1500
127.0.0.0 127.0.0.1 U 0 0 lo0 4136
default 15.1.48.1 UG 0 0 lan0 1500
```

- Fix**
- Make sure that the `/etc/hosts` file does not contain a line such as:  

```
127.0.0.1 node_name localhost.localdomain localhost
```

with both the `node_name` and the loopback IP address set to `127.0.0.1`. This situation would prevent successful task execution on the managed node.
  - On HP-UX, execute `set_parms initial`, and perform any additional manual modifications of the files that may be required. On Linux, perform any manual modifications of the files that may be required.

## SuSE CMS Reporting An IP Address Instead Of A Hostname

- Symptom** A SuSE CMS displays the IP addresses instead of the fully qualified DNS names in the **Name** field of the SCM nodes list.
- This is known to occur only on SuSE Linux, but it could occur on other systems using IPv6.
- Verification** The `mxgethostname` command will return an IP address:
- ```
mxgethostname -n node
```
- where *node* is the hostname or IP address of a managed node.
- Fix** On the CMS, edit the `/etc/nsswitch.conf` file. Change all references of **dns** to **dns6**. Verify the fix by repeating the `mxgethostname` command. This time it should return a fully qualified DNS hostname.

SuSE System Information Missing

- Symptom** The Name, IP address, Type, etc. is blank in the SCM nodes list for a SuSe® system.
- Verification** Verify the information is missing in the `mxnode` output:
- ```
mxnode -ld node
```
- where *node* is the hostname or IP address of a SuSE system.
- Fix**
1. Download and install the SuSE Linux 8.0 (i386) SNMP patch (`ucdsnmp`) from [www.suse.com](http://www.suse.com).
  2. Verify that the SuSE systems are now listed with a system name, IP address, etc.
- NOTE** You will experience similar symptoms when SNMP is not running on a system.

---

## Web Server Not Running

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | SCM commands run successfully on the CMS, but Web access is not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Verification</b> | Determine if the Tomcat Web server is running on the CMS using the command:<br><pre>ps -fp \$(cat /opt/hpwebadmin/logs/.tomcat.pid)</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Fix</b>          | Start the Tomcat Web server: <ul style="list-style-type: none"><li>• For HP-UX: <code>/sbin/init.d/mxtomcat start</code></li><li>• For Linux: <code>/etc/init.d/mxtomcat start</code></li></ul> If the <code>mxtomcat</code> command does not exist, then the Tomcat Web server has not been configured. See the Installing Servicecontrol Manager chapter of the <i>Servicecontrol Manager 3.0 User's Guide</i> for information on initializing and configuring the CMS.<br>If problems occur while starting Tomcat, check the log file at:<br><code>/opt/hpwebadmin/logs/catalina.out</code> |



Servicecontrol Manager (SCM) depends on a number of daemon processes executing on the Central Management Server (CMS) and the managed nodes. Failure of the daemons or failure of communication between the daemons can produce conditions that are not easily understood.

This chapter covers the following issues:

- “catalina.out Log Fills Up With A Repeated Error” on page 24
- “Command Line Tool Does Not Complete A Task” on page 24
- “Configuration Failure During CMS Update” on page 24
- “mx.properties File Missing” on page 25
- “mxserver.bin Install Error” on page 26
- “Obsolete Tools Migrated from SCM 2.5” on page 26
- “Optional Tools Migrated from SCM 2.5” on page 28
- “Problems With mxexec On A Managed Node (#1)” on page 29
- “Problems With mxexec On A Managed Node (#2)” on page 29
- “Removing A CMS From A Managed Node Fails” on page 30
- “Repository Configuration Failure During Install” on page 31
- “Repository Server Failure” on page 32
- “SCM 2.5 Daemons Not Running During SCM 3.0 Upgrade” on page 33
- “SCM Commands And Manual Pages Are Inaccessible” on page 34
- “SCM GUI Isn’t Available” on page 36
- “SCM Fails On Startup With No Error Messages” on page 34
- “ServiceGuard Manager’s ClusterManagement Tab Missing” on page 36
- “Syntax Problems In The Definition Files” on page 37
- “Management Home Page Is Already Open” on page 25
- “Task Execution From The SCM GUI Fails With No Error” on page 38
- “Tool Ownership Issue” on page 38
- “WBEM Not Displayed As A Managed Protocol” on page 39
- “Web Launch Tool With Parameters Not Supported” on page 39
- “WLM and PRM Are Not Available Within SCM” on page 40
- “X Window Tool Does Not Run For mxexec” on page 40

## catalina.out Log Fills Up With A Repeated Error

|                     |                                                                                                                                                                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | The catalina.out log file fills up with the following error:<br><code>can't find tag.dat</code>                                                                                                                                                                                                                |
| <b>Verification</b> | This message is generated each time you launch the View Properties tool from SCM.                                                                                                                                                                                                                              |
| <b>Fix</b>          | To suppress the message, change the logging level from 0 to 4 in the file at:<br><code>/opt/hpwebadmin/webapps/mxpropertypages/jsp/PropertyPages.jsp</code><br>Then delete the <code>/opt/hpwebadmin/logs/catalina.out</code> file. This file will be automatically regenerated without the repeating message. |

---

## Command Line Tool Does Not Complete A Task

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | A tool execution never completes; it remains in Pending state on all nodes.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Verification</b> | The tool command line uses the shell & operator to put execution of the command in the background.                                                                                                                                                                                                                                                                                                                                             |
| <b>Fix</b>          | Do not use the shell & operator. Instead use the tool attribute <code>launch</code> to launch the command and ignore its results.<br>If the tool is stuck in the Pending state, kill and restart the agents on each node that is running the tool: <ul style="list-style-type: none"><li>• For HP-UX: <code>/sbin/init.d/ServCtlMgr restart agent</code></li><li>• For Linux: <code>/etc/rc.d/init.d/ServCtlMgr restart agent</code></li></ul> |

---

## Configuration Failure During CMS Update

*This issue applies to HP-UX only.*

|                     |                                                                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | A failure occurs during the system startup step of “Configuring all unconfigured filesets” when updating CMS software with software that causes a reboot. |
| <b>Verification</b> | The <code>/etc/rc.log</code> file contains the message:<br>Run <code>swconfig -x reconfigure=true ServControlMgr</code>                                   |
| <b>Fix</b>          | Execute the command:<br><code>swconfig -x reconfigure=true ServControlMgr</code>                                                                          |

---

---

## Management Home Page Is Already Open

|                     |                                                                                                                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | <p>When you launch the View Management Home Page tool in the SCM GUI, you receive the message:</p> <p>The management home page for <i>CMS</i> is HP Servicecontrol Manager, which is already open.</p> <p>where <i>CMS</i> is the hostname of the CMS.</p> |
| <b>Verification</b> | <p>Verify that the CMS is the selected node.</p>                                                                                                                                                                                                           |
| <b>Fix</b>          | <p>SCM is the management home page for the CMS, and the SCM GUI cannot be launched with itself. Select any other managed node instead of the CMS before running this tool.</p>                                                                             |

---

## mx.properties File Missing

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | <p>All SCM commands results in the following error:</p> <p>This system does not appear to be configured. Please refer to the SCM Install Guide for steps to install and configure the SCM software.</p>                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Verification</b> | <p>The SCM software cannot locate the <code>mx.properties</code> file. Either the SCM is not installed or <code>mx.properties</code> was inadvertently moved or deleted. If SCM was installed, check in the directory <code>/etc/opt/mx/config</code> for the <code>mx.properties</code> file.</p>                                                                                                                                                                                                                                                                          |
| <b>Fix</b>          | <ul style="list-style-type: none"><li>• If the <code>mx.properties</code> file was moved to another directory and you can locate it, move the file back to <code>/etc/opt/mx/config</code>. Alternatively, if there is a backup from which the original <code>mx.properties</code> can be retrieved, restore it.</li><li>• If the SCM was not installed, install it. See the <i>HP Servicecontrol Manager 3.0 User's Guide</i> for details.</li><li>• If the <code>mx.properties</code> file was deleted, reconfigure the CMS:<br/><pre>mxinitconfig -a all</pre></li></ul> |

---

|                |                                                                         |
|----------------|-------------------------------------------------------------------------|
| <b>CAUTION</b> | Reconfiguring the CMS may cause data loss; make sure you have a backup. |
|----------------|-------------------------------------------------------------------------|

## mxserver.bin Install Error

|                     |                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | When you execute the <code>mxserver.bin</code> , you get the following error:<br><pre>Installing mxagent-B.03.00.00.i386-1.rpm... error: failed dependencies: libstdc++-libc6.1-1.so.2 is needed by mxagent-B.03.00.00</pre> |
| <b>Verification</b> | Executing the command:<br><pre>rpm -q compat-libstdc++</pre> returns the message:<br>package <code>compat-libstdc++</code> is not installed                                                                                  |
| <b>Fix</b>          | For Red Hat® 7.2 and 7.3, install the package <code>compat-libstdc++-6.2-2.9.0.16</code> :<br><pre>rpm -U compat-libstdc++-6.2-2.9.0.16.i386.rpm</pre>                                                                       |

---

## Obsolete Tools Migrated from SCM 2.5

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b> | If you upgraded from SCM 2.5 to SCM 3.0, several obsolete tools were migrated as part of the upgrade process. These tools are not supported or not applicable to SCM 3.0, and they should be removed.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Fix</b>     | <b>apt-get Linux Management Tools</b><br>Tools associated with Debian package management. This is no longer a supported OS for SCM 3.0. To remove the tools:<br><pre>cd /var/opt/mx/tools/tools /opt/mx/lbin/def2xml -t apt-gettools.tdef apt-gettools.xml mxtool -rf apt-gettools.xml</pre> <b>Toptools Integration</b><br>SCM 3.0 does not have direct integration with Toptools. Toptools can still be used, but to remove the Toptools integration:<br><pre>cd /var/opt/mx/tools/tools /opt/mx/lbin/def2xml -t toptools.tdef toptools.xml mxtool -rf toptools.xml</pre> |

## SCM Management

These SCM agent management tools no longer apply to with SCM 3.0. To remove these tools:

```
cd /var/opt/mx/tools/tools
/opt/mx/sbin/def2xml -t scmmgmt.tdef scmmgmt.xml
mxttool -rf scmmgmt.xml
```

## X Window Tools With Incorrect Tool Type

If you have created tools that launch X clients, you need to change the tool type from `launch` or `stdout` to `x-windows`. SCM 2.5 only supported `launch` and `nolaunch` (`stdout`), while SCM 3.0 now supports all three types. This modification has already been made to all X Window tools that shipped with the software. To modify your tool:

- Step 1.** Create an XML file for your tool by translating your TDEF file or extracting the XML file for a tool already added to SCM 3.0.

To translate your TDEF:

```
/opt/mx/sbin/def2xml -t toolname.tdef toolname.xml
```

To extract the XML file for an existing SCM 3.0 tool:

```
mxttool -lf -t "Tool Name" > toolname.xml
```

- Step 2.** Set the `command-type` attribute to `x-window`.

- Step 3.** Add or modify the tool.

To add a new tool to SCM 3.0:

```
mxttool -a -f toolname.xml
```

To modify an existing SCM 3.0 tool:

```
mxttool -m -f toolname.xml
```

## Optional Tools Migrated from SCM 2.5

**Symptom** SCM 3.0 ships with several tool definitions to improve tool definitions that initially shipped with other integrated HP applications. Several of these tool definitions may not be applicable to your environment and could be removed. The tools can be added to SCM again at a later date.

---

**NOTE** Partition Management tools do not apply to servers running HP-UX 11.00.

**Fix** To remove the tools that don't apply:

### Partition Management

Remove these tools if you don't have partitionable servers running HP-UX 11i.

```
cd /var/opt/mx/tools
mxtool -rf parmgrtools.xml
```

### Workload Management

Remove these tools if HP-UX Workload Manger is not being used.

```
cd /var/opt/mx/tools
mxtool -rf wlm-tools.xml
```

### Process Resource Management

Remove these tools if HP-UX Process Resource Manager is not being used.

```
cd /var/opt/mx/tools
mxtool -rf prmttools.xml
```

---

## Problems With mxexec On A Managed Node (#1)

- Symptom** The `mxexec` command fails on a managed node with the following message:  
Authentication failed.
- Verification** On the managed node, list the CMS systems that the agent is configured for:  
`mxagentconfig -l`  
The hostname of the CMS should appear in the `Servers` list.
- Fix** If the CMS doesn't appear in the `Servers` list, configure the agent to respond to the CMS. On the managed node, execute:  
`/opt/mx/bin/mxagentconfig -a -n cms_name -p password`  
where `cms_name` is the hostname or IP address of the CMS and `password` is the `MxConfigPassword`.

---

## Problems With mxexec On A Managed Node (#2)

The `mxexec` command may fail on a managed node when the CMS cannot connect with the node. Several common causes of this situation are:

- the network cable is unplugged
- the node is powered off
- the node doesn't have SCM agent software installed and running

- Symptom** The `mxexec` command fails on a managed node with the following message:  
Unable to retrieve a connection from the RMIRegistry to system  
`node_name`.  
Exception creating connection to: `node_name`; nested exception is:  
    `java.net.NoRouteToHostException: No route to host`  
where `node_name` is the hostname of the managed node.  
If the `mxexec` command failed, but this is the correct error message, see “Problems With `mxexec` On A Managed Node (#1)” on page 29.
- Verification**
1. Log onto the CMS.
  2. Attempt to establish communication with the managed node:  
`/usr/sbin/ping node_name`  
    where the `node_name` is the hostname of the managed node.
- If these verification steps fail to establish communication with the managed node then there is a LAN communication problem.

If the verification steps are successful and the host is accessible from the CMS, verify that the `mxagent` daemon is running on the managed node by logging onto the managed node and executing:

```
ps -ef | grep mxagent
```

**Fix**

- If you were unable to establish communication, verify that the managed node is powered on, booted and has network connectivity. Then repeat the verification steps.
- If you can establish communication but the `mxagent` daemon isn't running, start the daemon:

```
/opt/mx/bin/mxstart
```

---

## Removing A CMS From A Managed Node Fails

**Symptom**

Attempting to remove a CMS from a managed node results in the following error:

```
Failed to unregister from: cms
```

where `cms` is the hostname of the CMS server

**Verification**

This issue is the result of the following sequence of actions. If you performed the following actions in the order listed below:

1. removed SCM from the CMS while the managed node was down
2. reinstalled the CMS
3. brought the managed node back up
4. tried to remove the CMS from the managed node

Then complete the fix to resolve this issue.

**Fix**

On the managed node:

**Step 1.** Remove the agent software:

- For HP-UX: `swremove B8339BA`
- For Linux: `rpm -e mxagent`

**Step 2.** Reinstall the agent software. Follow the Adding Managed Nodes procedure in the *Servicecontrol Manager 3.0 User's Guide*.

---

## Repository Configuration Failure During Install

*This issue applies to HP-UX only.*

### Symptom

The SCM install fails when you run the command:

```
mxinitconfig -a server
```

You receive the following error messages:

```
Performing server setup.
 Configuring the repository...FAIL
Connection to the repository server failed.
Performing server unsetup.
 Stopping the server daemons...OK
 Unregistering managed agents
 Unable to create signature -- skipping unregister
 Unconfiguring Tomcat web server...OK
 Removing server authentication keys...OK
 Removing table of managed agents...OK
 Unconfigure the repository...FAIL
Connection to the repository server failed.
Completed unsetup of the server.
An internal error occurred.
Failed to complete setup of the server.
```

### Verification

SCM cannot configure MySQL when System Inventory Manager (SIM) is already installed on the CMS. Verify that SIM is installed on your CMS:

```
swlist | grep SysInvMgt
```

### Fix

SIM and SCM cannot be installed on the same machine. You can either:

- Remove SIM and reinstall SCM.
- Remove SCM and install it on another system.

## Repository Server Failure

### Symptom

You get the following error message:

```
Connection to the repository server failed.
```

### Verification

- Check if the MySQL® daemons (`mysqld` and `safe-mysqld`) are running:  

```
ps -ef |grep mysql
```

### Fix

- If the MySQL daemons are not running, start them:  
For HP-UX: 

```
/sbin/init.d/mysqld start
```

  
For Linux: 

```
/etc/rc.d/init.d/mysqld start
```
- If the MySQL daemons are running, or the problem continues, reconfigure the repository:  

```
/opt/mx/lbin/mxconfigrepo -U
```

This command preserves all existing data in the repository. If this command fails, you need to reconfigure the repository *and overwrite all existing data*:

```
/opt/mx/lbin/mxconfigrepo -a
```
- If MySQL or SCM has been previously installed and not properly removed, the password for MySQL installation may no longer correspond with the known SCM password.  
If SCM is the *only* user of MySQL, reconfigure the password and configure the repository:  

```
/opt/mx/lbin/mxconfigrepo -U -F
```

This command preserves all existing data in the repository. If this command fails, you need to reconfigure the repository *and overwrite all existing data*:

```
/opt/mx/lbin/mxconfigrepo -a -F
```

---

## SCM 2.5 Daemons Not Running During SCM 3.0 Upgrade

- Symptom** Data from SCM 2.5 is not available in SCM 3.0 after an upgrade is performed.
- Verification** The command `mxnode -ld` only shows the local hostname.
- Fix** This fix requires that the backup files you created from the upgrade procedure are available. See the HP Servicecontrol Manager 3.0 User's Guide for details.

1. Convert the backup files to XML files:

```
/opt/mx/lbin/def2xml -a mxnode.scm25 mxnode.xml
/opt/mx/lbin/def2xml -g mxngroup.scm25 mxngroup.xml
/opt/mx/lbin/def2xml -a mxuser.scm25 mxuser.xml
/opt/mx/lbin/def2xml -a mxrole.scm25 mxrole.xml
/opt/mx/lbin/def2xml -a mxtool.scm25 mxtool.xml
/opt/mx/lbin/def2xml -a mxauth.scm25 mxauth.xml
```

2. Add the XML data to SCM:

---

### NOTE

Order matters. The `mxauth` command must be executed last.

```
mxnode -a -f mxnode.xml
mxngroup -a -f mxngroup.xml
mxuser -a -f mxuser.xml
mxrole -a -f mxrole.xml
mxtool -a -f mxtool.xml
mxauth -a -f mxauth.xml
```

## SCM Commands And Manual Pages Are Inaccessible

When SCM is installed, the default system command shell path and man page path are updated. If the user has customized their login shell environment, the default paths may become invalid.

|                     |                                                                                                                                                                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | <ul style="list-style-type: none"><li>• Executing a command requires a full pathname, such as: <code>/opt/mx/bin/mxrole -ld</code></li><li>• Retrieving a man page results in the error:<br/><pre>No manual entry for mxcommand</pre></li></ul>                                                            |
| <b>Verification</b> | <p>Echo the environment variable for locating commands (<code>\$PATH</code>) and verify the path <code>/opt/mx/bin</code> is not included.</p> <p>Echo the environment variable for locating manual pages (<code>\$MANPATH</code>) and verify the path <code>/opt/mx/share/man</code> is not included.</p> |
| <b>Fix</b>          | <p>Modify the <code>.profile</code> for the shell to update the existing values:</p> <pre>PATH=PATH\$:/opt/mx/bin MANPATH=\$MANPATH:/opt/mx/share/man</pre>                                                                                                                                                |

---

## SCM Fails On Startup With No Error Messages

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b> | SCM fails to start when you first invoke it, and no error messages appear in the <code>/var/opt/mx/logs/mx.log</code> file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Fix</b>     | <p>Check the system log file.</p> <ul style="list-style-type: none"><li>• For HP-UX: <code>/var/adm/syslog/syslog.log</code></li><li>• For Linux: <code>/var/log/messages</code></li></ul> <p>To quickly locate Servicecontrol Manager error messages in this log file, use the command:</p> <ul style="list-style-type: none"><li>• For HP-UX: <code>grep SCM syslog.log</code></li><li>• For Linux: <code>grep mx messages</code></li></ul> <p>Possible errors and their remedies follow:</p> <ul style="list-style-type: none"><li>• <b>IO Exception or Error</b><br/>SCM may throw an I/O exception if it is unable to read the <code>mx.properties</code> file. If this is the case, the <code>mx.properties</code> filename will be listed in the system log file. Ensure that the unreadable file exists and has appropriate permissions. The <code>mx.properties</code> file resides in <code>/etc/opt/mx/config</code>.<br/>If this file does not exist, it may have been inadvertently moved or deleted.</li></ul> |

- If the file was moved to another directory and you can locate the correct file, move it back to the appropriate directory. Alternatively, if there is a backup from which the original file can be retrieved, restore it.
- If the file was deleted, reconfigure the CMS:

```
mxinitconfig -a all
```

---

**CAUTION**

---

Reconfiguring the CMS may cause data loss; make sure you have a backup.

- **Remote Exception or Malformed URL**

SCM may throw a remote exception or malformed URL exception if it is unable to bind with the RMI registry. Make sure the `mxagent` daemon is running:

```
ps -ef | grep mxagent
```

If `mxagent` failed to start, look for system log entries pertaining to `init`. The `init` syslog entries may indicate what is preventing `mxagent` from starting correctly.

To quickly locate these, use the command:

- For HP-UX: `grep init syslog.log`
- For Linux: `grep init messages`

- **Failed To Find `mx.properties` File**

SCM may not be able to locate the `mx.properties` file in the `/etc/opt/mx/config` directory. Make sure the file exists and has appropriate permissions.

If the file does not exist, it may have been inadvertently moved or deleted.

- If the `mx.properties` file was moved to another directory and you can locate the correct `mx.properties` file, move the file back to `/etc/opt/mx/config`. Alternatively, if there is a backup from which the original `mx.properties` can be retrieved, restore it.
- If the file was deleted, reconfigure the CMS:

```
mxinitconfig -a all
```

---

**CAUTION**

---

Reconfiguring the CMS may cause data loss; make sure you have a backup.

## SCM GUI Isn't Available

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | <p>When you navigate to <code>http://cms_hostname:50000</code>, the SCM GUI fails to load with error messages such as:</p> <p>The page cannot be displayed</p> <p>The connection was refused</p>                                                                                                                                                                                                                                                                                       |
| <b>Verification</b> | <p>Verify that your CMS is available on the network by logging on remotely through the command line.</p> <p>If your CMS is available on the network, Tomcat may not have been installed during the SCM installation. Verify that Tomcat isn't installed by searching on the CMS for the Tomcat bundle:</p> <ul style="list-style-type: none"><li>• For HP-UX: <code>swlist hpuxwsTomcat</code></li><li>• For Linux: <code>rpm -q tomcat4 xml-commons xml-commons-apis</code></li></ul> |
| <b>Fix</b>          | <p>Tomcat won't install during the SCM installation if remnant directories exist from a previous Tomcat installation. On the CMS:</p> <ol style="list-style-type: none"><li>1. Rename the following remnant directories if they exist.<br/><pre>    /var/tomcat<br/>    /etc/tomcat</pre></li><li>2. Reinstall SCM following the steps provided in the <i>HP Servicecontrol Manager 3.0 User's Guide</i>.</li></ol>                                                                    |

---

## ServiceGuard Manager's ClusterManagement Tab Missing

This issue occurs when ServiceGuard Manager A.03.00 is installed on a machine and afterwards Servicecontrol Manager 3.0 is installed.

|                |                                                                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b> | <p>ServiceGuard Manager's ClusterManagement tab isn't available when the tool's GUI is launched from within Servicecontrol Manager.</p>          |
| <b>Fix</b>     | <p>Execute the following command on the CMS:</p> <pre>/opt/mx/lbin/add_tools \<br/>/opt/hpwebadmin/webapps/sgmgr/tools/sgmwtools_linux.xml</pre> |

---

## Syntax Problems In The Definition Files

**Symptom** Using one of the following commands yields a syntax error for the associated *file.xml*.

```
mxnode -a -f file.xml
mxngroup -a -f file.xml
mxuser -a -f file.xml
mxrole -a -f file.xml
mxtool -a -f file.xml
mxauth -a -f file.xml
```

**Fix** View the syntax for the known good XML entries by using the optional `-lf` command format with an `mxcommand`. For example:

```
mxauth -lf
```

---

**NOTE** The output from the optional `-lf` command format includes a `guid` attribute. It stands for Global Unique ID, and this attribute is added automatically when the XML file is added to SCM. Your XML file should not contain this attribute, so ignore it when comparing the known good entries to your file.

---

Compare the failing XML file to the known good XML entries. Verify the syntax of the failing XML file using the following guidelines:

- **XML element tags**

An XML file consists of elements like:

```
<element_name>element data</element_name>
```

or

```
<element_name>
 <child_element_name>child data</child_element_name>
 ...
</element_name>
```

Each element must have a start tag and end tag. XML is case-sensitive, so the start tag and end tag must match exactly. For example, `<ElEmEnt></ElEmEnt>`.

- **Nested elements**

Elements must be nested consistently. All child elements must end before the parent element can end. The section 4 manual pages for the commands: `mxauth`, `mxngroup`, `mxnode`, `mxrole`, `mxtool`, and `mxuser` provide details on the required element order of the XML files.

- **Element attributes**

Some elements may have attributes specified:

```
<element_name attribute1="value1" attribute2="value2"></element_name>
```

Each attribute must be correctly spelled using the correct case, and each attribute value must be enclosed in "quotes".

---

## Task Execution From The SCM GUI Fails With No Error

**Symptom** A tool executed from the SCM graphical user interface encounters a fatal error. In the tool results screen, the task **Status** is `Failed` and the **Stderr** and **Stdout** tabs are blank.

**Fix**

1. Identify the **TaskID** in the tool results screen.
2. Display the exception output from the command line to view the error:

```
mxexec -l -d -I TaskID
```

---

## Tool Ownership Issue

Once an owner is defined for a tool, all roles assigned to the tool, other than the master role, are disabled.

**Symptom** Tools can be used only by the master role, regardless of other role assignments.

**Verification** Execute:

```
mxtool -lf -t toolname | grep owner
```

If `owner` appears in the output, the tool has an owner.

**Fix** A trusted user must modify the tool to remove the tool owner in order for all other roles assigned to the tool to be able to use the tool. To modify an XML tool definition:

**Step 1.** Extract the current tool definition from the repository into an XML file:

```
mxtool -lf -t "Tool Name" > toolname.xml
```

where *Tool Name* is the name of the non-trusted user's tool.

**Step 2.** Edit the tool definition file to remove the owner element, and commit the changes using the `mxtool modify` option from the command line:

```
mxtool -m -f toolname.xml
```

---

## WBEM Not Displayed As A Managed Protocol

*This issue applies to HP-UX only.*

|                     |                                                                                                                                                                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b>      | WBEM does not show up as a managed protocol for an SCM node even though WBEM is installed on that node.                                                                                                                                                                                             |
| <b>Verification</b> | <p>If the WBEM cimserver is not running on the managed node, SCM won't list WBEM as a managed protocol. Verify that the cimserver isn't running:</p> <pre>ps -ef   grep cimserver</pre> <p>If you do not see both cimserver and cimserverd running, then you must manually start the cimserver.</p> |
| <b>Fix</b>          | <p>Start the WBEM cimserver:</p> <pre>/opt/wbem/sbin/cimserver</pre>                                                                                                                                                                                                                                |

---

## Web Launch Tool With Parameters Not Supported

|                |                                                                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Symptom</b> | A Web launch tool requires parameters, but when it is launched from the GUI, there is no way to enter parameter values.                                                                        |
| <b>Fix</b>     | Web launch tools with parameters are allowed by the XML tool definition file syntax, but they are not supported. The Web application launched must prompt the user for the information needed. |

## WLM and PRM Are Not Available Within SCM

*This issue applies to HP-UX only.*

**Symptom** Workload Manager (WLM) and Process Resource Manager (PRM) appear to be added to SCM, but when you try to run either tool within SCM, the tool doesn't exist.

### Fix

**Step 1.** Verify that WLM or PRM is installed on a managed node or the CMS.

**Step 2.** Run the command:

```
swinstall -s node:/var/opt/mx/depot11 CMSConfig
```

where *node* is the system where WLM or PRM is installed.

**Step 3.** Add the tool to SCM:

```
mxtool -a -f tool.xml
```

where *tool.xml* is the name of the XML tool definition file.

**Step 4.** Verify that WLM or PRM is now available within SCM:

```
mxexec -t "Tool Name" -n node
```

where *Tool Name* is the name of the tool and *node* is the hostname or IP address of the target node.

---

## X Window Tool Does Not Run For mxexec

**Symptom** Running an X Window tool doesn't bring up the X Window GUI, and the `mxexec` command doesn't report an error.

**Verification** Verify that `DISPLAY` is set and exported correctly, and verify that the X Window application is allowed access to the X Window server.

**Fix**

- Set and export `DISPLAY` to reference the desired X Window server.
- Add each managed node to the X Server by executing the following command from a terminal window on the X Server:

```
xhost + node
```

where *node* is the hostname of the node where you want to launch the tool.

Or, to enable all nodes, run `xhost +`, which turns off access control.

**Symbols**

\$MANPATH, 34  
\$PATH, 34

**A**

apt-get, 26  
authentication failure, 12, 29

**C**

catalina.out, 7, 24  
cimsrserver, 39  
clock, 12  
ClusterManagement tab, 36  
command shell path, 34  
communication errors, 14  
compat-libstdc++, 26  
configuration errors, 25  
connection refused, 16

**D**

daemons required, 7  
Debian, 26  
default paths invalid, 34  
diagnose problems, 7  
DISPLAY, 40  
dns6, 20

**F**

file errors, 13  
file is unreadable, 13

**G**

graphical user interface (GUI), 36

**H**

hostname, 15, 19, 20  
hotspot virtual machine, 17  
hs\_err\_pidNNNN.log, 17

**I**

I/O exception, 34  
incorrect permissions, 13  
install failure, 26, 31  
internal error, 13  
IP address instead of hostname, 20  
IPv6, 20

**L**

log files, 7  
  catalina.out, 7, 24  
  messages, 7, 13, 17, 34  
  mx.log, 7  
  MySQLInstall.log, 7  
  rc.log, 24  
  syslog.log, 7, 13, 17, 34  
log manager failure, 16

**M**

malformed URL, 35  
man page path, 34  
managed protocol not showing up, 39  
memory errors, 17  
messages log, 7, 13, 17, 34  
mx.log, 7  
mx.properties, 25, 34  
mxagentconfig, 12  
mxexec failure, 29  
mxgethostname, 20  
mxinitconfig, 16  
  failure, 31  
mxnode failure, 12, 15, 20  
mxserver.bin, 26  
MySQL, 31, 32  
MySQLInstall.log, 7

**N**

name errors, 18  
networking errors, 14  
no manual entry, 34  
node ignored, 12, 15  
nodes list  
  display incorrect information, 20  
  missing information, 20  
nslookup failure, 15, 19  
nsswitch.conf, 15, 19, 20

**O**

obsolete tools, 26  
optional tools, 28  
out of memory exception, 16, 17  
ownership of a tool, 38

**P**

parameters, 39  
partition management tools, 28  
pending state, 24  
PRM, 28, 40  
process resource management tools, 28  
PropertyPages.jsp, 24

**R**

rc.log, 24  
reboot, 24  
remnant directories, 36  
remote exception, 16, 35  
repository  
  configuration failure, 31  
  server connection failed, 32  
  write failures, 16  
resolv.conf, 19

**S**

SCM  
  failure without errors, 34  
  not configured, 25  
SCM upgrade  
  data not available, 33

---

# Index

- obsolete tools, 26
- optional tools, 28
- ServiceGuard, 36
- shell & operator, 24
- SIM incompatibility, 31
- slow system response, 17
- SNMP patch, 20
- startup failure, 24
- SuSE, 20
- swap space failure, 17
- syntax errors, 37
- syslog.log, 7, 13, 17, 34

## T

- table is full, 13
- tag.dat, 24
- task
  - failure without error, 38
  - never completes, 16
  - status, 38
- TDEF, 27
- time limit, 12
- time synchronization, 12
- Tomcat, 7, 21
  - directories, 36
  - not installed, 36
- tool
  - owner, 38
  - pending state, 24
  - unavailable for assigned roles, 38
- tool definition file, 27
- Toptools, 26

## U

- unexpected signal, 17
- unknown host, 12, 15
- unknown host name, 12
- unregister failure, 30
- user validation errors, 18

## V

- View Management Home Page tool, 25
- View Properties tool, 24

## W

- WBEM
  - cimserver, 39
- Web access not available, 21
- Web browser error, 36
- Web launch tool parameters, 39
- WLM, 28, 40
- workload management tools, 28

## X

- X Window tools, 27, 40
- XML syntax error, 37
- XML tool definition file, 27, 39