This edition of the IBM Tivoli System Automation for Multiplatforms Release Notes applies to IBM Tivoli System Automation for Multiplatforms Version 2.3, program number 5724-M00, and to all subsequent releases of this product until otherwise indicated in new editions.

This edition replaces SC33-8215-12.

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Make sure to include the following in your comment or note:

* Title and order number of this book
* Page number or topic related to your comment

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Chapter 1. Read this before installation

This software may contain errors that could result in critical business impact. It is highly recommended that you install the latest available fixes prior to using this software.

Fixes can be obtained from IBM Tivoli System Automation for Multiplatforms support at the following Web site:

The Release Notes document for IBM Tivoli System Automation for Multiplatforms, Version 2.3, includes information that will help you install this software. Always view the most current version of the release notes before installing and using the product.

The most current version of the release notes is available at the following Web site:
http://publib.boulder.ibm.com/tividd/td/IBMTivoliSystemAutomationforMultiplatforms2.3.html

The release notes document contains the latest updates for the product IBM Tivoli System Automation for Multiplatforms:
• Updates for the Base Component of IBM Tivoli System Automation for Multiplatforms are contained in Chapter 2, “IBM Tivoli System Automation for Multiplatforms 2.3 – Base Component,” on page 3
• Updates for the End-to-End Automation Management Component are located in Chapter 3, “IBM Tivoli System Automation for Multiplatforms 2.3 - End-to-End Automation Management Component,” on page 19

Changes since the last edition of this document are marked with a vertical bar (!) in the left margin.

Where to find IBM Tivoli System Automation for Multiplatforms documentation

Additional documentation about this software can be found either on the product CD, or on the product Web site at:
Chapter 2. IBM Tivoli System Automation for Multiplatforms
2.3 – Base Component

Required hardware and software

Supported platforms and distributions
Version 2.3 of the Base Component of IBM Tivoli System Automation for Multiplatforms supports Linux on System z, System x, System i, and System p, as well as AIX 5.2, AIX 5.3, AIX 6.1, and Windows.

The Base Component runs on all IBM eServer machines running Linux, and on IBM eServer pSeries machines running AIX, and on Windows. Detailed information about support of specific Linux distributions, AIX versions and Windows releases can be found in the following table:

Table 1. Supported platforms for the Base Component of IBM Tivoli System Automation for Multiplatforms

<table>
<thead>
<tr>
<th></th>
<th>System x¹</th>
<th>System z</th>
<th>System p</th>
<th>System i</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUSE SLES 9 (32 bit)</td>
<td>x</td>
<td>x²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUSE SLES 9 (64 bit)</td>
<td>x</td>
<td>x²</td>
<td>x</td>
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</tr>
<tr>
<td>SUSE SLES 10 (32 bit)³</td>
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</tr>
<tr>
<td>SUSE SLES 10 (64 bit)³</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>RedHat RHEL 4.5 (32 bit)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>RedHat RHEL 4.5 (64 bit)</td>
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</tr>
<tr>
<td>RedHat RHEL 5.0 (32 bit)⁵</td>
<td></td>
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</tr>
<tr>
<td>RedHat RHEL 5.0 (64 bit)⁵</td>
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<tr>
<td>AIX 5.2</td>
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<td>x³</td>
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</tr>
<tr>
<td>AIX 5.3</td>
<td></td>
<td>x³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIX 6.1</td>
<td></td>
<td></td>
<td>x⁷</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. xSeries (except Intel IA64 based servers) and any other 32-bit Intel based server, or AMD Opteron based server (64-bit), or Intel EM64T based server (64 bit).
2. Requires SUSE SLES9 SP1
3. Requires C++ Runtime Library for AIX version 7.0.0.1, which is included in PTFs U800738 and U800739. For DB V9R1, which is shipped with IBM Tivoli System Automation for Multiplatforms V2R3, AIX version 8.0.0.4 is required.
4. SUSE SLES10 SP1 must be installed.
5. SELinux is not supported and needs to be disabled.
7. Requires IBM Tivoli System Automation for Multiplatforms V2.3 with fix pack 2 or higher.

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Prerequisites on AIX systems

Supported RSCT versions and required RSCT APARs

The following RSCT prerequisites must be met before the Base Component can be installed:

- The file set rsct.basic must be installed. It is available on the AIX installation media.
- The RSCT versions and the corresponding APAR fixes listed in Table 2 must be available on the AIX system.

Table 2. RSCT prerequisites on AIX

<table>
<thead>
<tr>
<th>IBM Tivoli System Automation level</th>
<th>IBM Tivoli System Automation version</th>
<th>RSCT version</th>
<th>RSCT APAR number</th>
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</thead>
<tbody>
<tr>
<td>2.3 GA</td>
<td>2.3.0.0</td>
<td>2.3.11.3 (AIX 5.2)</td>
<td>IY94804 (AIX 5.2)</td>
</tr>
<tr>
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<td></td>
<td>2.4.7.3 (AIX 5.3)</td>
<td>IY94803 (AIX 5.3)</td>
</tr>
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<td>2.3 fix pack 1</td>
<td>2.3.0.1</td>
<td>2.3.11.5 (AIX 5.2)</td>
<td>IZ05089 (AIX 5.2)</td>
</tr>
<tr>
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<td></td>
<td>2.4.7.5 (AIX 5.3)</td>
<td>IZ05082 (AIX 5.3)</td>
</tr>
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<td>2.3.0.2</td>
<td>2.3.12.2 (AIX 5.2)</td>
<td>IZ08646 (AIX 5.2)</td>
</tr>
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<td></td>
<td>2.4.8.2 (AIX 5.3)</td>
<td>IZ08645 (AIX 5.3)</td>
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<td>IZ08643 (AIX 6.1)</td>
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<tr>
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<td>2.3.12.3 (AIX 5.2)</td>
<td>IZ12977 (AIX 5.2)</td>
</tr>
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<td></td>
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<td>IZ12979 (AIX 6.1)</td>
</tr>
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<td>IZ12977 (AIX 5.2)</td>
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<td>2.4.9.2 (AIX 5.3)</td>
<td>IZ21567 (AIX 5.3)</td>
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<td>2.5.1.2 (AIX 6.1)</td>
<td>IZ21568 (AIX 6.1)</td>
</tr>
<tr>
<td>2.3 fix pack 5</td>
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<td>2.3.12.3 (AIX 5.2)</td>
<td>IZ12977 (AIX 5.2)</td>
</tr>
<tr>
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<td>2.4.9.4 (AIX 5.3)</td>
<td>IZ26916 (AIX 5.3)</td>
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<tr>
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<td>2.3 fix pack 6</td>
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<td>2.5.3.3 (AIX 6.1)</td>
<td>IZ55805 (AIX 6.1)</td>
</tr>
</tbody>
</table>

For additional prerequisites on AIX systems, see the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide, SC33-8273.

Prerequisites on Linux systems

The following prerequisites must be met before the Base Component can be installed on a Linux system:

- The Korn shell must be installed.
- If Linux is running on System z under a VM environment, the fix for the following VM APAR must be applied for the ECKD tie breaker functionality to work properly:
  - VM63119
- Some 32-bit libraries must be installed on each RedHat 4.0 or RedHat 5.0 system, even if a 64-bit kernel is running, before the Base Component can be installed. These libraries are contained in the following RPM packages:
  - compat-libstdc++- 33-3.2.3
  - xorg-x11-deprecated-libs-6.8.1
Prerequisites for the tie breaker resource
The tie breaker is a very important resource within a cluster with an equal number of nodes. Therefore it is very important to ensure the defined tie breaker works as expected. See the following list of potential issues in order to verify if the defined tie breaker resource is valid or not:

- Disk tie breaker
  The disk tie breaker performs an SCSI-2 reserve against the defined SCSI disk. To be a valid tie breaker, the resource has to meet the following requirements:
  1. The disk must be accessible from all nodes at the same time (directly attached to each node).
  2. The SCSI-2 reserve must be able to reserve the disk.
  3. The SCSI-2 reserve must ‘exclusively’ reserve the disk. A reserve request of any other node will be rejected.

  The third requirement may not be given for virtual environments like VIO attached disks on a System p. Use the following procedure to test whether the exclusive reserve is working for a given disk:
  1. Create a 2-node domain and define a disk tie breaker resource as described in the Base Component Administration and Users Guide. To make sure that no resource is currently Online, stop any defined resource and do not create any resources.
  2. Log on to the console of both nodes and start a listing of the syslog (for example, tail -f /var/log/messages on a Linux system).
  3. Disable the network connection on one of the nodes, for example, unplug the network cable(s) or use ‘ifconfig <if> down’.
  4. Check the output of the syslog listing: after some seconds one of the nodes should show ‘HAS_QUORUM’, whereas the other node should show ‘PENDING_QUORUM’. If both nodes show ‘HAS_QUORUM’, then the disk cannot be used, as the reserve is not exclusive. The disk is not able to handle real split brain situations.

  If the domain is composed out of a larger number of nodes, the test is similar - the network needs to be split in half the number of nodes on both sides, and then the quorum state needs to be determined on one node of either sub cluster.

- Network tie breaker
  The network tie breaker should only be used for domains where all nodes are in the same IP sub net. Having the nodes in different IP sub nets makes it more likely that both nodes can ping the network tie breaker, while they cannot communicate to each other. Additionally, the default gateway IP address must not be used if it is virtualized by the network infrastructure. Choose an IP address, which can only be reached via a single path from each node in the domain.

Prerequisites for IBM Tivoli System Automation for GDPS/PPRC
Multiplatform Resiliency on System z (xDR)
With System Automation for Multiplatforms 2.3 fix pack 1 and above, xDR is also supported on RHEL4 and RHEL5 running under z/VM.

Considerations regarding the load on the nodes
System Automation for Multiplatforms requires some of its subsystems to be processed constantly on the node to ensure that the cluster services are working properly (for example, heartbeating and communication between those subsystems). If this is not guaranteed, System Automation may trigger the methods of ‘critical resource protection’ in case those subsystems cannot communicate in a given period of time. This leads eventually to a reboot of the node on which this issue occurred. To prevent this, it is recommended that the following prerequisites are satisfied:

- On AIX and Linux clusters:
- CPU load <= 100%
- Constant I/O and swap load < 10%

- On Windows clusters:
  - CPU load < 80%
  - Constant I/O and swap load < 3%
Migration

This part describes additional actions to be performed when IBM Tivoli System Automation for Multiplatforms has been migrated from a previous release.

Migrating from IBM Tivoli System Automation 2.2 to IBM Tivoli System Automation 2.3

The migration procedure is described in IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide, Chapter 1. After the product has been successfully migrated to the new release 2.3, the following additional steps are required to finalize the migration.

**Note:** Omitting these steps will result in loss of functionality.

1. Check the actual version and note down the current setting of the TraceLevel attribute:
   
   ```
   # lssamctrl
   ```

   **Note:** If the actual version is not 2.3, stop here. Ensure that System Automation V2.3 is installed on all nodes in the domain and that the steps described in “Completing the Migration” (see IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide, Chapter 1) have been performed.

2. Set TraceLevel to 0:
   
   ```
   # samctrl -l 0
   ```

3. Check the OperationalFlags attribute:
   
   ```
   # lsrsrc -c IBM.CHARMControl
   ```

   - If the value of the OperationalFlags attribute is 4, the migration needs to be finished with step 4.
   - If the value of the OperationalFlags attribute is 8, the migration is already complete: proceed with step 5.

4. Set the OperationalFlags attribute:
   
   ```
   # chrsrc -c IBM.CHARMControl OperationalFlags=8
   ```

   **Note:** IBM.RecoveryRM terminates in response to the command, but then restarts automatically.

5. Set the TraceLevel back to the original value (obtained in step 1):
   
   ```
   # samctrl -l <trace-level>
   ```

After the procedure above have been successfully completed, System Automation is completely migrated to release 2.3.

Service

See the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide for information about installing service for the Base Component and the Base Component operations console.

Fixes and problem-solving databases

Information about fixes and service updates for this software can be found at the following Web site:  

Installing fix packs to obtain level 2.3.0.1

**Note:** If the nodes have been migrated from System Automation release 2.2, ensure that you complete the additional steps described in “Migration” before starting the installation of the fix pack. If this has already been done during the installation of the product or a previous fix pack, no further action is required.
These are the archives you use for applying service to the Base Component to obtain level 2.3.0.1:
- 2.3.0-TIV-SABASE-AIX-FP0001.tar
- 2.3.0-TIV-SABASE-LIN-FP0001.tar
- 2.3.0-TIV-SABASE-WIN-FP0001.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0001.bin
- 2.3.0-TIV-SAE2E-I386-FP0001.tar
- 2.3.0-TIV-SAE2E-PPC-FP0001.tar
- 2.3.0-TIV-SAE2E-S390-FP0001.tar
- 2.3.0-TIV-SAE2E-WIN-FP0001.exe

**Installing fix packs to obtain level 2.3.0.2**

**Note:** If the nodes have been migrated from System Automation release 2.2, ensure that you complete the additional steps described in [Migration](#) on page 7 before starting the installation of the fix pack. If this has already been done during the installation of the product or a previous fix pack, no further action is required.

These are the archives you use for applying service to the Base Component to obtain level 2.3.0.2:
- 2.3.0-TIV-SABASE-AIX-FP0002.tar
- 2.3.0-TIV-SABASE-LIN-FP0002.tar
- 2.3.0-TIV-SABASE-WIN-FP0002.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0003.bin
- 2.3.0-TIV-SAE2E-I386-FP0003.tar
- 2.3.0-TIV-SAE2E-PPC-FP0003.tar
- 2.3.0-TIV-SAE2E-S390-FP0003.tar
- 2.3.0-TIV-SAE2E-WIN-FP0003.exe

**Installing fix packs to obtain level 2.3.0.3**

**Note:** If the nodes have been migrated from System Automation release 2.2, ensure that you complete the additional steps described in [Migration](#) on page 7 before starting the installation of the fix pack. If this has already been done during the installation of the product or a previous fix pack, no further action is required.

These are the archives you use for applying service to the Base Component to obtain level 2.3.0.3:
- 2.3.0-TIV-SABASE-AIX-FP0003.tar
- 2.3.0-TIV-SABASE-LIN-FP0003.tar
- 2.3.0-TIV-SABASE-WIN-FP0003.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0003.bin
- 2.3.0-TIV-SAE2E-I386-FP0003.tar
- 2.3.0-TIV-SAE2E-PPC-FP0003.tar
- 2.3.0-TIV-SAE2E-S390-FP0003.tar
- 2.3.0-TIV-SAE2E-WIN-FP0003.exe
Installing fix packs to obtain level 2.3.0.4
These are the archives you use for applying service to the base component to obtain level 2.3.0.4:
- 2.3.0-TIV-SABASE-AIX-FP0004.tar
- 2.3.0-TIV-SABASE-LIN-FP0004.tar
- 2.3.0-TIV-SABASE-WIN-FP0004.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0004.bin
- 2.3.0-TIV-SAE2E-I386-FP0004.tar
- 2.3.0-TIV-SAE2E-PPC-FP0004.tar
- 2.3.0-TIV-SAE2E-S390-FP0004.tar
- 2.3.0-TIV-SAE2E-WIN-FP0004.exe

Installing fix packs to obtain level 2.3.0.5
These are the archives you use for applying service to the base component to obtain level 2.3.0.5:
- 2.3.0-TIV-SABASE-AIX-FP0005.tar
- 2.3.0-TIV-SABASE-LIN-FP0005.tar
- 2.3.0-TIV-SABASE-WIN-FP0005.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0005.bin
- 2.3.0-TIV-SAE2E-I386-FP0005.tar
- 2.3.0-TIV-SAE2E-PPC-FP0005.tar
- 2.3.0-TIV-SAE2E-S390-FP0005.tar
- 2.3.0-TIV-SAE2E-WIN-FP0005.exe

Installing fix packs to obtain level 2.3.0.6
These are the archives you use for applying service to the base component to obtain level 2.3.0.6:
- 2.3.0-TIV-SABASE-AIX-FP0006.tar
- 2.3.0-TIV-SABASE-LIN-FP0006.tar
- 2.3.0-TIV-SABASE-WIN-FP0006.exe

These are the archives you use for applying service to the operations console:
- 2.3.0-TIV-SAE2E-AIX-FP0006.bin
- 2.3.0-TIV-SAE2E-I386-FP0006.tar
- 2.3.0-TIV-SAE2E-PPC-FP0006.tar
- 2.3.0-TIV-SAE2E-S390-FP0006.tar
- 2.3.0-TIV-SAE2E-WIN-FP0006.exe

Automation policy management
See the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide for information about configuring the end-to-end automation adapter.

Activating a new policy from the Base Component operations console when the end-to-end automation adapter is automated
If a new policy is activated, ensure that the new policy contains the resource definitions of the samadapter resource group.
To check that the new policy contains resource definitions of the samadapter resource group:

- Browse the XML policy file and look for an element `<ResourceGroup name="samadapter-rg" class="IBM.ResourceGroup">`.
  - If the new policy contains such an element, you can activate the new policy from the operations console.
  - If the new policy does not contain such an element, do not activate it. If you activate the new policy, the resource definitions of samadapter are removed and the adapter is stopped, which causes the domain to become unavailable in the operations console.

To reactivate the end-to-end automation adapter, use the Define function of the end-to-end automation adapter configuration dialog. This is described in the section "Configuring the end-to-end automation adapter" in the *IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide*.

To prevent the adapter being removed when activating a new policy:

1. Use the `sampolicy -s <file>` command to save the current policy that contains the resource definitions for samadapter.
2. Copy the resource definitions for samadapter to the new policy that you want to activate.
3. Activate the new policy from the operations console.
Known problems and issues

Base Component

Known problems and issues:

Activation and deactivation of a policy using sampolicy does not work if the domain is in manual mode.

Affected System Automation version: All 2.3

Problem: If the domain is in ManualMode, the automation policy cannot be activated, changed or deleted using the sampolicy command.

Solution: Set the domain to automation mode using samctrl command with the -M F option before executing the sampolicy command.

srcmstr does not run with system locale after initial installation.

Affected System Automation version: Windows only, version 2.3.0.0

Problem: The system resource controller master daemon srcmstr is started during the installation of System Automation before any national language package is installed on the system, and therefore runs with English language settings producing only English messages.

Solution: Restart the system resource controller service after the installation of System Automation is finished to have it run with the system locale.

Message 2645-061 appears although the prerequisite preprpnode commands have been completed successfully.

Affected System Automation version: All 2.3

Problem: mkrpdomain returns "2645-061 The requesting node cannot be authenticated by the target node" on SuSE SLES 10. The message appears although the prerequisite preprpnode commands have been completed successfully.

Solution: The SuSE SLES 10 installation leaves an entry 127.0.0.2 <your-hostname> in the file /etc/hosts.

RSCT does not work correctly with this entry.

Remove the entry on all of your cluster nodes and retry the mkrpdomain command.

Creating a relationship against an empty resource group will not be honored by the source resource of the relationship

Affected System Automation version: All 2.3

Problem: Creating a relationship against an empty resource group will not be honored by the source resource of the relationship. In this case the relationship has no effect, even if members are added later into the resource group.

Solution: Relationships against resource groups should not be created until at least one member resources has been added to the resource group.

It is not clearly documented which user needs to be specified during the installation of System Automation on Windows

Affected Operating System: Windows

Problem: During the installation on Windows, the Administrator User needs to be specified depending on whether the machine is part of a Windows domain, or not.

Solution: The correct user needs to be specified during the installation of System Automation on Windows:

• If the machine is running in a Windows domain, the name of the Windows domain administrator user needs to be specified as follows: DOMAIN-NAME+Administrator
• If the machine is NOT running in a Windows domain, the name of the local administrator user needs to be specified as follows: Administrator
The command 'recfgct' deleted the file /var/ct/cfg/ctadmins.cfg

Affected Operating System: Windows

**Problem:** Running the command *recfgct* incorrectly removes the file /var/ct/cfg/ctadmins.cfg, which contains the ID of the administrator user for System Automation. Subsequently, System Automation will not run with the correct user ID.

**Solution:** Create a copy of /var/ct/cfg/ctadmins.cfg before running *recfgct*, and then restore the original file /var/ct/cfg/ctadmins.cfg immediately after running *recfgct*.

IBM high-availability dead-man switch: Message descriptions do not appear in the system event log

Affected System Automation version: 2.3.0.0, Affected operating system: Windows

The Base component for Windows uses the IBM high-availability dead-man switch driver (HADMS) to monitor the health status of the domain nodes. If a node goes into a malfunction state, the dead-man switch driver triggers a blue screen error (BSOD), and the node is shut down to prevent damage to critical applications.

Whenever significant actions are triggered, the dead-man switch driver writes system messages to the system event log (Control panel > Administrative tools > Event Viewer > System). In Tivoli System Automation, Release 2.3.0.0, the event log only lists the message IDs but not the message descriptions. The missing descriptions are provided in the table below.

Note that starting with Tivoli System Automation, Release 2.3.0.1 (fix pack 1), the message descriptions do appear in the event log.

Table 3. Messages generated by the IBM high-availability dead-man switch driver

<table>
<thead>
<tr>
<th>Trigger for the event</th>
<th>ID</th>
<th>Severity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HADMS is loaded.</td>
<td>1</td>
<td>Informational</td>
<td>IBM HA dead-man switch driver was loaded.</td>
</tr>
<tr>
<td>HADMS is unloaded.</td>
<td>2</td>
<td>Informational</td>
<td>IBM high-availability dead-man switch driver has been unloaded.</td>
</tr>
<tr>
<td>HADMS is set to a different expiration time.</td>
<td>3</td>
<td>Informational</td>
<td>IBM high-availability dead-man switch timer was set to the new expiration time of <code>&lt;expiration_time&gt;</code> milliseconds.</td>
</tr>
<tr>
<td>HADMS is enabled.</td>
<td>4</td>
<td>Informational</td>
<td>IBM high-availability dead-man switch timer has been enabled.</td>
</tr>
<tr>
<td>HADMS is disabled.</td>
<td>5</td>
<td>Informational</td>
<td>IBM high-availability dead-man switch timer has been disabled.</td>
</tr>
<tr>
<td>HADMS times out and triggers a BSOD.</td>
<td>256</td>
<td>Warning</td>
<td>IBM high-availability dead-man switch timer expired and is shutting down the node.</td>
</tr>
<tr>
<td>HADMS receives the BSOD command.</td>
<td>257</td>
<td>Warning</td>
<td>IBM high-availability dead-man switch is forced to shut down the node.</td>
</tr>
<tr>
<td>An attempt is made to set the HADMS timer to a value that is too low.</td>
<td>258</td>
<td>Warning</td>
<td>An attempt was made to set the IBM high-availability dead-man switch timer to an expiration time that was too low. The timer has been set to 8 seconds.</td>
</tr>
</tbody>
</table>

IBM.RecoveryRM messages are written to the system log but are not available in the IBM Tivoli System Automation for Multiplatforms documentation

Affected System Automation version: All 2.3, Affected operating systems: All

The messages that are currently missing from the user documentation are listed below.
2621-400  RECOVERYRM_2621_400_ER Resource manager asynchronous error. Error id error_id.
Explanation: An asynchronous error has been detected.
User response: Check if the resource manager has been restarted.

2621-401  RECOVERYRM_2621_401_ER IBM.RecoveryRM daemon exiting - cluster is running in IW mode.
Explanation: IW mode is not supported - invoked stopsam IW Mode.
User response: Use the mkrpdomain and startrpdomain commands to define and start a cluster.

2621-402  RECOVERYRM_2621_402_ER IBM.RecoveryRM daemon stopped by SRC command or exiting due to an error condition. Error id error_id.
Explanation: An error has been detected. The daemon was stopped by a SRC command.
User response: Check the error code.

2621-403  RECOVERYRM_2621_403_ER Internal error - GS_JOIN_RETRY_COUNT exceeded limit.
Explanation: The join operation failed. The maximum number of retries was exceeded.
User response: Restart the daemon if not already restarted by SRC.

2621-404  RECOVERYRM_2621_404_ER Internal error - Group Services(GS) has died abruptly.
Explanation: Internal error.
User response: Restart the daemon if not already restarted by SRC.

2621-405  RECOVERYRM_2621_405_ER IBM.RecoveryRM group has been dissolved.
Explanation: Internal error.
User response: Restart the daemon if not already restarted by SRC.

2621-406  RECOVERYRM_2621_406_ER Received an EXPEL-PROTOCOL, stopping IBM.RecoveryRM daemon.
Explanation: Internal error.
User response: Restart the daemon if not already restarted by SRC.

2621-407  RECOVERYRM_2621_407_ER Received an RC_NOGO return code from RIBM, There may be a configuration error. Internal error message was: internal_error_message
Explanation: Internal error.
User response: Check the configuration.

2621-408  RECOVERYRM_2621_408_ER IBM.RecoveryRM daemon is exiting. Exit reason: Our install version (IVN) is incompatible to the current active version (AVN).
Explanation: Incompatible product versions have been detected.
User response: Reinstall the correct version of RecoveryRM daemon.
2621-409 RECOVERYRM_2621_409_ER IBM.RecoveryRM daemon is exiting. Exit reason: Our install version (IVN) is lower than the current active version (AVN).

Explanation: Incompatible product versions have been detected.
User response: Reinstall the correct version of RecoveryRM daemon.

2621-410 RECOVERYRM_2621_410_ER IBM.RecoveryRM daemon is exiting. Exit reason: Our local registry active version (AVN) is higher than our install version (IVN).

Explanation: Incompatible product versions have been detected.
User response: Reinstall the correct version of RecoveryRM daemon.

2621-411 RECOVERYRM_2621_411_ER IBM.RecoveryRM daemon is exiting. Exit reason: Our local registry active version (AVN) is higher than group state value (GAVN).

Explanation: Incompatible product versions have been detected.
User response: Reinstall the correct version of RecoveryRM daemon.

2621-500 RECOVERYRM_2621_500_ER IBM.RecoveryRM publisher configuration file syntax error.
Publisher configuration file name: file_name

Explanation: The publisher is disabled.
User response: Fix the problem with the publisher configuration files and enable this publisher by using the samctrl -e <publisher> command.

2621-501 RECOVERYRM_2621_501_ER IBM.RecoveryRM publisher configuration file not found. Publisher configuration file name: file_name

Explanation: The publisher is disabled.
User response: Fix the problem with the publisher configuration files and enable this publisher by using the samctrl -e <publisher> command.

2621-502 RECOVERYRM_2621_502_ER IBM.RecoveryRM publisher shared library load error. Publisher configuration file name: file_name

Explanation: The publisher is disabled.
User response: Fix the problem with the publisher configuration files and enable this publisher by using the samctrl -e <publisher> command.

2621-503 RECOVERYRM_2621_503_ER IBM.RecoveryRM publisher TEC EIF configuration problem.
Publisher configuration file name: file_name

Explanation: The publisher is disabled.
User response: Fix the problem with the publisher configuration files and enable this publisher by using the samctrl -e <publisher> command.

2621-504 RECOVERYRM_2621_504_ER IBM.RecoveryRM publisher TEC EIF configuration file not found.
Publisher configuration file name: file_name

Explanation: The publisher is disabled.
User response: Fix the problem with the publisher configuration files and enable this publisher by using the samctrl -e <publisher> command.
2621-505  RECOVERYRM_2621_505_ER IBM.RecoveryRM publisher configuration causes problems and all publishers will be disabled when the IBM.RecoveryRM restarts. Fix the problem with the publisher configuration files and enable the publishers by using the "samctrl -e <publisher>" command.

Explanation: All publishers will be disabled when the IBM.RecoveryRM restarts.

User response: Fix the problem with the publisher configuration files and enable the publishers by using the `samctrl -e <publisher>` command.

2621-506  RECOVERYRM_2621_506_ER One IBM.RecoveryRM publisher caused problems and is now disabled. Fix the problem with the publisher configuration files and enable this publisher by using the "samctrl -e <publisher>" command. Publisher name: `publisher_name`

Explanation: The publisher is disabled.

User response: Fix the problem with the publisher configuration files and enable this publisher by using the `samctrl -e <publisher>` command.

Leaving or joining a Windows Domain results in the product becomes unusable.

Affected System Automation version: All 2.3 on Windows Server 2003

Problem: If a Windows Server 2003 system leaves or joins a Windows domain after having installed System Automation for Multiplatforms 2.3 for Windows, the product may become unusable. It must be uninstalled and re-installed.

Solution: Uninstall System Automation for Multiplatforms 2.3 for Windows from the Windows Server 2003 system before leaving or joining a Windows domain. Re-install System Automation for Multiplatforms 2.3 for Windows after the Windows domain membership changes were completed.

The upgrade installation on Windows may hang.

Affected System Automation version: All 2.3 on Windows Server 2003

Problem: When performing an update installation of System Automation for Multiplatforms 2.3 for Windows to a newer version of System Automation for Multiplatforms 2.3, the update installer may be unable to stop and remove the 'System Resource Controller' service from the system. If this happens, the update installer blocks and does not finish the product update on this system. The 'System Resource Controller' service remains in the 'Stopping' state but never stops.

Solution:

- Check that the 'System Resource Controller' service remains in the 'Stopping' state. If the 'System Resource Controller' service is NOT in the 'Stopping' state, this solution description does not apply.
- Cancel the System Automation for Multiplatforms 2.3 update installer by pressing the 'Cancel' button or closing the update installer's window. If the update installer does not respond to these actions any more, stop the program named 'TSA_Setup.exe' in the Windows Task Manager.
- Ensure that the SUA process named 'srcmstr' is stopped. The following SUA Korn shell command can be used to determine whether the process is still running: `ps -e -o pid,cmdname -X unix I grep srcmstr`. The following SUA Korn shell command can be used to stop the process where `<pid>` is the process id of the 'srcmstr' process: `kill -KILL <pid>`.
- Issue the following command in SUA Korn shell to stop the 'System Resource Controller' service: `service stop 'System Resource Controller'`.
- Issue the following command in SUA Korn shell to remove the 'System Resource Controller' service: `service remove 'System Resource Controller'`.
- Open the Windows Registry Editor by issuing command 'regedit32.exe'. In the 'Registry Editor' window, navigate to registry key 'HKEY_LOCAL_MACHINE\SOFTWARE\IBM\TSA\Version'. Change the 'Version' entry value to '2.3.0.0'. Close the 'Registry Editor' window.
- Run the System Automation for Multiplatforms 2.3 for Windows update installer.
The uninstallation on Windows may hang.
Affected System Automation version: All 2.3 on Windows Server 2003

Problem: When performing an uninstallation of System Automation for Multiplatforms 2.3 for Windows, the uninstaller may be unable to stop and remove the 'System Resource Controller' service from the system. If this happens, the product cannot be fully removed from the system. The 'System Resource Controller' service remains in the 'Stopping' state but never stops. The uninstaller is not able to detect this problem and finishes without an error indication. A subsequent re-installation of System Automation for Multiplatforms 2.3 for Windows may fail.

Solution:
- Check that the 'System Resource Controller' service remains in the 'Stopping' state. If the 'System Resource Controller' service is NOT in the 'Stopping' state, this solution description does not apply.
- Ensure that the SUA process named 'srcmstr' is stopped. The following SUA Korn shell command can be used to determine whether the process is still running: 'ps -e -o pid,cmdname -X unix | grep srcmstr'. The following SUA Korn shell command can be used to stop the process where <pid> is the process id of the 'srcmstr' process: 'kill -KILL <pid>'.
- Issue the following command in SUA Korn shell to stop the 'System Resource Controller' service: service stop 'System Resource Controller'.
- Issue the following command in SUA Korn shell to remove the 'System Resource Controller' service: service remove 'System Resource Controller'.
- Manually remove the following files using the 'rm' command in SUA Korn shell:
  - rm /sbin/srcd /sbin/srcmstr /sbin/srcsemid /sbin/srcsetsm
  - rm -r /etc/usr/lib/libsrc/objrepos rm /usr/lib/libplatform.so
  - rm /usr/lib/libsrc.so /usr/lib/libsrcdb.so

Node-by-node migration on AIX 6.1 is not supported
Affected System Automation versions: 2.3.0.2 on AIX 6.1

Problem: A node-by-node migration on AIX 6.1 is not supported.

Solution: On AIX 6.1 always perform a migration of the entire domain.

Command stoprpnode may be rejected, stating resources are still online
Affected System Automation versions: 2.3.0.6, all platforms

Problem: Command stoprpnode may be rejected stating that resources are still running on the node to be stopped, even if there are no resources running.

Solution: Use the force option to stop the node: stoprpnode -f <node>
Automation adapter for the Base Component

Known problem:
The adapter stops whenever the Base Component operations console is stopped

Symptom: An automation adapter that is connected to a Base Component operations console stops whenever the operations console is stopped.

Solution: To avoid this behavior, set the value of the adapter property Remote contact activity interval to 0. You change the property value in the Advanced window of the Automation adapter configuration dialog (Configure -> Adapter tab -> Advanced button).

Base Component operations console

Known problem:
Turkish locale not supported for the End-to-End operations console and for the Base Component operations console

Problem: When the operations console is run in a Turkish locale, incorrect resource status values may be displayed.

Solution: The WebSphere Application Server that hosts the end-to-end automation J2EE framework must not run in a Turkish locale. If IBM Tivoli System Automation for Multiplatforms is installed on a Turkish system, ensure that the locale of the shell is switched to a non-Turkish locale before starting the WebSphere Application Server.

RSCT Storage resource manager

Known problems:

IBM.AgFileSystem resources are not correctly harvested if LABEL is used in /etc/fstab

Affected System Automation version: Linux only, RSCT 2.4.7.3

Problem: If the entry of a filesystem in the /etc/fstab file starts with LABEL, the attribute SysMountPoint is not harvested correctly.

Solution: Set the attribute MountPoint for those IBM.AgFileSystem resources using the following command:

```
# chrsr -s 'Name="<AgFSSName>"' IBM.AgFileSystem MountPoint="<mountpoint>"
```

Automated file system goes into OpState 3 (FAILED OFFLINE) when it is unmounted manually

Problem: Resources that are defined in an automation policy are controlled by IBM Tivoli System Automation for Multiplatforms and should not be activated or deactivated manually. If you do unmount an automated file system manually and monitoring is activated through the AutoMonitor attribute, System Automation detects the manual unmount and sets the OpState to 3 (FAILED_OFFLINE) for the manually unmounted file system resources, making them ineligible for further automation.

Solution: Resources in OpState 3 must be reset manually with the resetrsrc command to allow automation of the resources.

AutoMonitor attribute is ignored by the sampolicy command

Problem: When an automation policy is saved to an XML file using the command sampolicy -s and the policy contains user-defined resources of class IBM.AgFileSystem, the AutoMonitor attribute is ignored and not written to the XML file. When such a policy is reactivated with the command sampolicy -a, the file system resources will be created but the AutoMonitor attribute will no be set.

Solution: To enable active monitoring of all user-defined file systems after using the sampolicy -a command, you must set the attribute for all user-defined IBM.AgFileSystem resources using the chrsr command:

```
chrsr -s "UserControl == 1" IBM.AgFileSystem AutoMonitor=1
```
LVM resources (VolumeGroup, IBM.AgFileSystem) can disappear after a planned takeover for IBM.AgFileSystem when AutoDelete=1 is set.  
Affected releases: 2.3.* running on Linux

**Problem:** After a planned takeover, the logical volumes for IBM.AgFileSystem resources become GhostDevices. If the AutoDelete class attribute of IBM.Disk is set to 1, these GhostDevices will be automatically deleted on the next harvest cycle. A new harvest cycle of StorageRM is not able to find them anymore.

**Solution:** Do not set AutoDelete to 1
Chapter 3. IBM Tivoli System Automation for Multiplatforms

2.3 - End-to-End Automation Management Component

Required hardware and software

Supported operating systems

The following table lists the operating systems that are supported by the End-to-End Automation Management Component:

<table>
<thead>
<tr>
<th>Operating system</th>
<th>System x&lt;sup&gt;1&lt;/sup&gt;</th>
<th>System i</th>
<th>System p</th>
<th>System z</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX 5.2 (AIX 5L Version 5.2) ML 5</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>AIX 5.3 (AIX 5L Version 5.3) ML 4&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SUSE SLES 9 (32 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUSE SLES 9 (64 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>SUSE SLES 10 (32 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUSE SLES 10 (64 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Red Hat RHEL 4.0 AS (32 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Hat RHEL 4.0 AS (64 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Red Hat RHEL 5.0 AS (32 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Hat RHEL 5.0 AS (64 bit&lt;sup&gt;3&lt;/sup&gt;)</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Notes:
1. IBM System x with IA32, EM64T, or AMD64 architecture.
   Any other systems with IA32, EM64T, or AMD64 architecture are also supported. Systems with IA64 architecture are not supported.
2. The following Linux kernel architectures are supported for running with 32 bit:
   - x86 on IBM System x
3. The following Linux kernel architectures are supported for running with 64 bit:
   - ppc64 on IBM System i and IBM System p
   - s390x on IBM System z is supported for some distributions
4. APAR IY65979 must be installed.

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Installation prerequisites on SUSE SLES 10 Linux servers with Japanese locale

Before installing the End-to-End Automation Management Component on a SUSE SLES 10 Linux server with Japanese locale, make sure to install the kochi fonts on top of the SLES 10 installation.


The name of the package is kochi-substitute-20030809.tar.

If the fonts are not installed, Japanese characters are not displayed correctly on the pages of the following dialogs:

- WebSphere Application Server installation dialog
- Tivoli System Automation for Multiplatforms installation wizard
- Tivoli System Automation configuration dialogs

Service


Fixes and problem-solving databases

Information about fixes and service updates for this software can be found at the following Web site: [www.ibm.com/software/sysmgmt/products/support/IBMTivoliSystemAutomationforLinux.html](http://www.ibm.com/software/sysmgmt/products/support/IBMTivoliSystemAutomationforLinux.html)

Installing fix packs to obtain level 2.3.0.1

You upgrade the End-to-End Automation Management Component to level 2.3.0.1 by installing Fix Pack 1 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0. The archives you use to install the fix pack are listed in Table 5.


Before starting the installation, make sure that the WebSphere Application Server "server1" and the Integrated Solutions Console server (ISC_Portal) have been stopped.

Please stop also the End-to-end automation daemon using the following command:

```
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the End-to-end management daemon has been stopped and before the installation is started:

```
# /usr/sbin/slibclean
```

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0001.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0001.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0001.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0001.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0001.tar</td>
</tr>
</tbody>
</table>
After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```
# eezdmn -start
```

## Installing fix packs to obtain level 2.3.0.2

You upgrade the End-to-End Automation Management Component to level 2.3.0.2 by installing Fix Pack 2 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0. The archives you use to install the fix pack are listed in Table 6.

For a description of how to install fix packs, refer to the *IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide*.

Before starting the installation, make sure that the WebSphere Application Server "server1" and the Integrated Solutions Console server (ISC_Portal) have been stopped.

Please stop also the End-to-end automation daemon using the following command:

```
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the End-to-end management daemon has been stopped and before the installation is started:

```
# /usr/sbin/slibclean
```

### Table 6. Product fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0002.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0002.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0002.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0002.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0002.tar</td>
</tr>
</tbody>
</table>

After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```
# eezdmn -start
```

### Table 7. Automation adapter fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX (HACMP adapter)</td>
<td>2.3.0-TIV-SAADAPT-AIX-FP0002.bin</td>
</tr>
</tbody>
</table>

## Installing fix packs to obtain level 2.3.0.3

To update the end-to-end automation management component to level 2.3.0.3, you need to install WebSphere Application server fixes and a product fix pack. The following table lists the archives you use for installing the WebSphere Application server fixes.

### Table 8. WebSphere Application server fixes archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAWAS-WIN-FP0003.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAWAS-AIX-FP0003.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAWAS-I386-FP0003.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAWAS-PPC-FP0003.tar</td>
</tr>
</tbody>
</table>
To install the WebSphere Application Server fixes, download and extract the archive for your platform. The extracted archive contains the two directories Upgrade and Fixes. Use the UpdateInstaller in the directory Upgrade to install all the fixes for the WebSphere Application server, which are contained in the Fixes directory.

You upgrade the End-to-End Automation Management Component to level 2.3.0.3 by installing Fix Pack 3 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0, 2.3.0.1, or 2.3.0.2. The archives you use to install the fix pack are listed in Table 9.

For a description of how to install fix packs, refer to the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide.

Before starting the installation, make sure that the WebSphere Application Server “server1” and the Integrated Solutions Console server (ISC_Portal) have been stopped.

Please stop also the End-to-end automation daemon using the following command:

```
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the End-to-end management daemon has been stopped and before the installation is started:

```
# /usr/sbin/slibclean
```

Table 9. Product fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0003.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0003.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0003.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0003.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0003.tar</td>
</tr>
</tbody>
</table>

After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```
# eezdmn -start
```

Table 10. Automation adapter fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX (HACMP adapter)</td>
<td>2.3.0-TIV-SAADAPT-AIX-FP0003.bin</td>
</tr>
</tbody>
</table>
Installing fix packs to obtain level 2.3.0.4

To update the end-to-end automation management component to level 2.3.0.4, you need to install WebSphere Application server fixes and a product fix pack. The following table lists the archives you use for installing the WebSphere Application server fixes.

The content of the files for the WebSphere Application server fixes is the same as the content of the files provided with fix pack 3. If level 2.3.0.3 is already installed, there is no need to install the WebSphere Application server fixes of fix pack 4, since those are already installed.

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAWAS-WIN-FP0004.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAWAS-AIX-FP0004.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAWAS-I386-FP0004.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAWAS-PPC-FP0004.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAWAS-S390-FP0004.tar</td>
</tr>
</tbody>
</table>

To install the WebSphere Application Server fixes, download and extract the archive for your platform. The extracted archive contains the two directories Upgrade and Fixes. Use the UpdateInstaller in the directory Upgrade to install all the fixes for the WebSphere Application server, which are contained in the Fixes directory.

You upgrade the End-to-End Automation Management Component to level 2.3.0.4 by installing Fix Pack 4 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0, 2.3.0.1, 2.3.0.2, or 2.3.0.3. The archives you use to install the fix pack are listed in Table 12.

For a description of how to install fix packs, refer to the *IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide*.

Before starting the installation, make sure that the WebSphere Application Server "server1" and the Integrated Solutions Console server (ISC_Portal) have been stopped.

Please stop also the End-to-end automation daemon using the following command:

```
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the End-to-end management daemon has been stopped and before the installation is started:

```
# /usr/sbin/slibclean
```

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0004.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0004.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0004.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0004.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0004.tar</td>
</tr>
</tbody>
</table>

After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```
# eezdmn -start
```
Table 13. Automation adapter fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX (HACMP adapter)</td>
<td>2.3.0-TIV-SAADAPT-AIX-FP0004.bin</td>
</tr>
</tbody>
</table>

Installing fix packs to obtain level 2.3.0.5

To update the end-to-end automation management component to level 2.3.0.5, you need to install WebSphere Application Server fixes and a product fix pack. The following table lists the archives you use for installing the WebSphere Application Server fixes.

The content of the files for fix pack 5 is the same as the content of the files provided with fix pack 4. If level 2.3.0.4 is already installed, there is no need to install the fixes of fix pack 5, since those are already installed.

Table 14. WebSphere Application server fixes archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAWAS-WIN-FP0005.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAWAS-AIX-FP0005.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAWAS-I386-FP0005.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAWAS-PPC-FP0005.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAWAS-S390-FP0005.tar</td>
</tr>
</tbody>
</table>

To install the WebSphere Application Server fixes, download and extract the archive for your platform. The extracted archive contains the two directories Upgrade and Fixes. Use the UpdateInstaller in the directory Upgrade to install all the fixes for the WebSphere Application server, which are contained in the Fixes directory.

You upgrade the End-to-End Automation Management Component to level 2.3.0.5 by installing Fix Pack 5 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0, 2.3.0.1, 2.3.0.2, or 2.3.0.3. The archives you use to install the fix pack are listed in Table 15.

For a description of how to install fix packs, refer to the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide.

Before starting the installation, make sure that the WebSphere Application Server “server1” and the Integrated Solutions Console server (ISC_Portal) have been stopped.

Please stop also the End-to-end automation daemon using the following command:

```
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the End-to-end management daemon has been stopped and before the installation is started:

```
# /usr/sbin/slibclean
```

Table 15. Product fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0005.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0005.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0005.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0005.tar</td>
</tr>
</tbody>
</table>
Table 15. Product fix pack archives (continued)

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0005.tar</td>
</tr>
</tbody>
</table>

After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```bash
# eezdmn -start
```

Table 16. Automation adapter fix pack archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX (HACMP adapter)</td>
<td>2.3.0-TIV-SAADAPT-AIX-FP0005.bin</td>
</tr>
</tbody>
</table>

Installing fix packs to obtain level 2.3.0.6

Note: The content of the files for fix pack 6 is the same as the content of the files provided with fix pack 4. If level 2.3.0.4 is already installed, there is no need to install the fixes of fix pack 6, since those are already installed.

To update the end-to-end automation management component to level 2.3.0.6, you need to install WebSphere Application Server fixes and a product fix pack. The following table lists the archives you use for installing the WebSphere Application Server fixes.

Table 17. WebSphere Application server fixes archives

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAWAS-WIN-FP0006.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAWAS-AIX-FP0006.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAWAS-I386-FP0006.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAWAS-PPC-FP0006.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAWAS-S390-FP0006.tar</td>
</tr>
</tbody>
</table>

To install the WebSphere Application Server fixes, download and extract the archive for your platform. The extracted archive contains the two directories Upgrade and Fixes. Use the UpdateInstaller in the directory Upgrade to install all the fixes for the WebSphere Application Server, which are contained in the Fixes directory.

You upgrade the end-to-end Automation Management Component to level 2.3.0.6 by installing fix pack 6 on top of IBM Tivoli System Automation for Multiplatforms 2.3.0.0, 2.3.0.1, 2.3.0.2, or 2.3.0.3. The archives you use to install the fix pack are listed in Table 17.

For a description of how to install fix packs, refer to the IBM Tivoli System Automation for Multiplatforms Installation and Configuration Guide.

Before starting the installation, make sure that the WebSphere Application Server server1 and the Integrated Solutions Console server ISC_Portal are stopped.

Please stop also the end-to-end automation daemon using the following command:

```bash
# eezdmn -shutd
```

On AIX, the following command needs to be executed after the end-to-end management daemon has been stopped and before the installation is started:
# /usr/sbin/slibclean

**Table 18. Product fix pack archives**

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>2.3.0-TIV-SAE2E-WIN-FP0006.exe</td>
</tr>
<tr>
<td>AIX</td>
<td>2.3.0-TIV-SAE2E-AIX-FP0006.bin</td>
</tr>
<tr>
<td>Linux on System x</td>
<td>2.3.0-TIV-SAE2E-I386-FP0006.tar</td>
</tr>
<tr>
<td>Linux on POWER</td>
<td>2.3.0-TIV-SAE2E-PPC-FP0006.tar</td>
</tr>
<tr>
<td>Linux on System z</td>
<td>2.3.0-TIV-SAE2E-S390-FP0006.tar</td>
</tr>
</tbody>
</table>

After the installation of the fix pack, the End-to-end automation daemon needs to be started using the following command:

```
# eezdmn -start
```

**Table 19. Automation adapter fix pack archives**

<table>
<thead>
<tr>
<th>Platform</th>
<th>Archive name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX (HACMP adapter)</td>
<td>2.3.0-TIV-SAADAPT-AIX-FP0006.bin</td>
</tr>
</tbody>
</table>
Known problems and issues

Installation

Known problems:

If the umask value is set to xx7, the installation on AIX and Linux fails because a connection to the database cannot be established

**Symptom:** The installation of the End-to-End Automation Management Component on AIX and Linux fails when the DB2 access test, which is performed in the pre-installation phase, fails. This happens if the umask value is set to xx7.

**Solution:** Cancel the installation, change the umask value (for example, to 022), and restart the installation.

The installation of the End-to-end Automation Management Component fails, if the CD image has been copied to a local directory of a machine

**Symptom:** The installation of the End-to-End Automation Management Component fails with an issue of 'vpd.properties' if the CD image has been copied to a local directory.

**Solution:** Cancel the installation, and then restart the installation from the CD.

Post-installation steps for remote DB2 setup not explicitly mentioned in the installation description

**Symptom:** Chapter 10 of the Installation and Configuration Guide describes the installation of the End-to-end automation management component.

**Solution:** Step 11 on page 101 misses the information, that for a remote DB2 setup additional post-installation tasks are necessary. These tasks are described in the same document in the section 'Post-installation tasks for remote DB2 setup' on page 86.

End-to-End Component operations console

Known problems:

Turkish locale not supported for the End-to-End operations console and for the Base Component operations console

**Problem:** When the operations console is run in a Turkish locale, incorrect resource status values may be displayed.

**Details:** The WebSphere Application Server that hosts the end-to-end automation J2EE framework must not run in a Turkish locale. If IBM Tivoli System Automation for Multiplatforms is installed on a Turkish system, the locale of the shell has to be switched to a non-Turkish locale before starting the WebSphere Application Server.

Automation adapters

All automation adapters

Known problem:

The adapter stops whenever the Base Component operations console is stopped

**Symptom:** An automation adapter that is connected to a Base Component operations console stops whenever the operations console is stopped.

**Solution:** To avoid this behavior, set the value of the adapter property Remote contact activity interval to 0. You change the property value in the Advanced window of the Automation adapter configuration dialog (Configure –> Adapter tab –> Advanced button).
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<td>Company or Organization</td>
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<th>Phone No.</th>
<th>E-mail address</th>
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