

Readme File for Fix Pack 2.2.0–TIV-TLCM–FP0001

Version 2.2



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Note

Before using this information and the product it supports, read the information in "Notices" on page 21.

First Edition (June 2006)

This edition applies to the fix pack 2.2.0–TIV-TLM–FP0001 for version 2, release 2 of IBM Tivoli License Manager (program number 5724-D33).

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Readme File for fix pack 2.2.0-TIV-TLCM-FP0001

This readme provides important information about the fix pack 2.2.0-TIV-TLCM-FP0001 for IBM[®] Tivoli License Compliance Manager, version 2.2. This readme is the most current information for the fix pack and takes precedence over all other documentation.

Please review this readme thoroughly before installing or using this fix pack.

This readme includes the following topics:

- "About this fix pack"
- "Installation, migration, upgrade, and configuration information" on page 9
- "General information" on page 12

Note: To install the fix pack, you must be logged on as Administrator (on Windows®) or root (on UNIX®) to the computer where Tivoli License Compliance Manager is installed .

About this fix pack

Fix pack 2.2.0-TIV-TLCM-FP0001 includes support for additional agent platforms and includes fixes for reported APARs and defects. APARs and defects fixed in previous limited availability fixes for Tivoli License Compliance Manager, version 2.2 are also included in this fix pack.

This section includes the following topics:

- New functionality. See "New features and enhancements"
- "Agent platforms" on page 3
- "Product fixes" on page 4
- "Documentation fix history" on page 5
- "Backward compatibility" on page 8
- "Troubleshooting information" on page 8
- "Other changes as a result of this fix pack" on page 9

New features and enhancements

License management facilities for IBM Tivoli Configuration Manager users.

The License Management Extension feature integrates many of the license management facilities available with a full implementation of Tivoli License Compliance Manager into the Tivoli® Configuration Manager environment. The application of this fix pack to the administration server and administration server database is part of the procedure required to activate this feature. For information and instructions on installing and using the license management extension, see *IBM Tivoli Configuration Manager: License Management Extension*

Note: To use this feature on AIX[®], the administration server database needs AIX APAR IY73932 in addition to this fix pack.

Increased password complexity

Security is enhanced by changes to the rules for the definition of

passwords for users of the Web UI and for the communication passwords used for authentication of communications from runtime servers. Parameters in the main configuration file for the administration and runtime servers, system.properties define the rules to be used to determine the validity of a password. The lower limit of the existing parameter minimumPasswordLength is increased to 8 characters and two new parameters are introduced:

- maxNumberCharsRepeated: the maximum number of permitted consecutive occurrences of a given character. The default is 2.
- minimumNumberNonAlphaChars: the minimum number of non-alpha characters to be included in passwords. The default is 2.

Any passwords that are defined after this fix pack has been applied must be valid according to these rules. Existing passwords will be accepted even if they do not comply with the new rules. To take advantage of the enhanced security, you should change all Web UI and runtime server passwords to be compliant with the new rules.

Extension of agent command line functionality

The GA level agent command line restricted options for registering and deregistering agents as services to agents on Windows platforms. The fix pack extends this facility to all supported agent platforms except i5/OS[®]. The syntax of the command is:

Register agent as a service tlmagent -i

Deregister agent as a service tlmagent -r

Capability to change the installation directory of an agent

With this fix pack it is possible to modify the directory where an agent is going to be installed. This option is available using one of the following deployment methods:

- Individual local installation (manual deployment)
- Remote bulk distribution using IBM Tivoli Configuration Manager
- Remote bulk distribution using SSH or RSH

Capability to exclude agent directories from being scanned

The fix pack introduces the possibility to exclude some directories from being scanned on an agent.

This option is enabled by including a configuration parameter in the file tlmagent.ini.

To enable the option do the following:

- 1. Stop the agent by using the command tlmagent -e.
- 2. Edit the file tlmagent.ini to include the parameter scan_exclude_dirs. As parameter value, write the path of the directory that you want to exclude from the scan. The format of the path must be UTF 8. If you want to exclude more than one directory, include their paths separated by semicolon (;). Wildcard is supported, but only when used as a delimiter (for example, */folder/).
- 3. Restart the agent by using the command tlmagent -g.

Alternatively, you can enable the option by updating tlmagent.ini through software package blocks (SPBs) using the IBM Tivoli Configuration Manager (as indicated hereafter).

Note: Once you have enabled this option by editing the tlmagent.ini file, if you want to undo the change you must do what follows:

- 1. Stop the agent
- 2. Edit again tlmagent.ini and leave scan_exclude_dirs = with no path specified
- 3. Restart the agent

Capability to change the configuration parameters of an agent using IBM Tivoli Configuration Manager to distribute SPBs

Using this facility you can change the configuration parameters of an agent from the administration server.

The parameters that can be modified are: server, port, use_proxy, proxy, proxy_port, secure_port, security_level, division, scan_exclude_dirs, and clear cache.

Be aware that a change to the **server** or the **division** parameters causes the cache memory to be scratched. Also, if you set **clear_cache=n**, a subsequent change to the **server** or **division** parameters will still cause the cache to be scratched.

The file 2.2.0-TIV-TLCM-FP0001-T00LS-SPB.zip contains the following SPBs (named after their respective platform) that you can use to define the new settings and distribute to the endpoints where you want to apply the changed agent configuration:

- · change agt configuration win32.spb
- change_agt_configuration_aix.spb
- change_agt_configuration_hpux.spb
- change_agt_configuration_linux.spb
- change_agt_configuration_linux390.spb
- change_agt_configuration_linuxppc.spb
- change_agt_configuration_sun32.spb
- change_agt_configuration_sun64.spb

Note: To use this facility successfully, make sure you use it with Tivoli Configuration Manager version 4.2.2 Fix Pack 1.

Option to export a license without its distribution

A new parameter **-nodistribution** is available with the command **dataexp** to export licenses without their distributions. This parameter can only be used for a procuredLicense type of entity.

Agent platforms

The fix pack introduces support for agents on the following new versions of currently supported platforms:

- i5/OS V5R4
- Sun Solaris 10 on 64-bit Xeon[™] and Opteron processors
- Red Hat Enterprise Linux[®], version 3.0 Update 1 for xSeries[®]
- Red Hat Enterprise Linux, version 3.0 Update 1,2 for pSeries[®] and iSeries[™]

Note: On i5/OS V5R4, the agent code must be installed as follows:

- 1. on the agent, install the Tivoli License Compliance Manager, version 2.2 agent code using option -W ptfsV5R3.active=False
- 2. install 2.2.0-TIV-TLCM-FP0001 on the agent

The new agents are supported on all hardware that was supported at GA level for the earlier versions of the same platforms.

Supported partitioning technologies

The fix pack extends support for deploying agents in partitioned environments to include support for VMware on dual core systems.

Specifically, GSX 3.2 is supported on Linux and Windows hosting environments. However, there are some known limitations for dual core hardware especially on Linux 64 bit. Refer to the VMware official Web site for additional information.

This fix pack does not support ESX 2.5.* on dual core systems.

The supported VMware partitioning technologies are the same supported by the GA level of Tivoli License Compliance Manager.

Supported environments for J2EE monitoring

The fix pack extends monitoring of J2EE application on all supported agent platform to J2EE applications running in the following containers:

- WebSphere® Application Server, version 6.1 Base and ND
- WebSphere Application Server Commerce, version 6.0
- WebSphere Portal Server

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Product fixes

This is the first fix pack issued for Tivoli License Compliance Manager, version 2.2. It fixes the following APARs:

APAR IY84970

On Sun Solaris systems where the product Sun Sneep is installed, the system administrator can specify a serial number for the computer, which is then stored in the EEPROM. The Tivoli License Compliance Manager agent must be able to retrieve this serial number to identify the host where it is installed.

Problems fixed

The following problems were found since the general availability of Tivoli License Compliance Manager, version 2.2 and fixed with this fix pack:

For the administration server:

An out of memory error occurs on the administration server when processing the notification for inactive agents

When many agents are inactive, production of the inactive agent notification causes problems.

The fix pack introduces a less detailed inactive agent notification. Instead of listing the agent IDs of all inactive agents, the notification shows the number of inactive agents for each division. The inactive agents can then be identified using the Agent task on the Web UI, filtering by division and status.

At GA level for Tivoli License Compliance Manager, version 2.2, active agents cannot be deleted on the Web UI.

This problem was reported for Tivoli License Manager 2.1 and fixed as APAR IY79891.

After applying this fix pack it is possible to delete active agents. The recommended procedure for deleting active agents is the following:

- 1. Uninstall the agent
- 2. Wait long enough to ensure that all data sent by the agent has arrived at the administration server.
- 3. Delete the agent using the Web UI

Documentation fix history

This fix pack documents solutions for the following problems or errors in the product documentation:

Wrong value for HP-UX used in Data Dictionary guide

Problem (found in the *IBM Tivoli License Compliance Manager: Data Dictionary*): Replace every occurrence of HP-UX with HPUX.

Solution:

- The value of OS_NAME must be changed from HP-UX to HPUX in the following tables: AGENT, AGENT_DELETED, UNKNOWN.
- The value of NAME must be changed from HP-UX to HPUX in the PLATFORM table.
- The values of AGENT_PLATFORM must be changed from HP-UX to HPUX in the PLATFORM MAPPING table.

Missing step in agent installation scenarios

Problem (found in the *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration*): The documentation of an agent deployment using any of the following methods:

- · individual local installation using a wizard
- · remote bulk distribution using SSH or RSH

is missing the instruction about how the wizard should be started.

Solution:

On Windows platforms, you should start the wizard using the Add/Remove Program function that is available from the control panel. If Windows Terminal Server is installed on the computer where you want to run the setup file, or you are accessing another computer using Windows Terminal Services, you must ensure that the computer is in *install* mode when the setup file is launched.

To change into *install* mode manually, issue the command **change user** /install from a Windows command line. Then issue the command to run the setup file. After the uninstallation has completed, you must issue the command **change user** /execute to return to *execute* mode.

Wrong consideration in changing runtime server task (APAR IY86066)

Problem (found in the *IBM Tivoli License Compliance Manager: Administration*): The documentation for reviewing and changing runtime servers at page 40 (step 4) contains a consideration which is no longer

applicable because, with Tivoli License Compliance Manager, version 2.2, the runtime server cannot be accessed using the Web UI.

Solution:

The following bullet is removed:

• If you change the port number to anything other than the default (80), and you configure WebSphere Application Server to receive incoming requests on a different port, you must include the port number in the Web page address when accessing the runtime server. For example, http://alpha:8080/slmruntime/login.

Clarification about the statusinfo command (APAR IY85801)

Problem (found in the *IBM Tivoli License Compliance Manager: Problem Determination*): The description of the **statusinfo** command at page 51 wrongly states that the command provides a way of collecting database debug tables.

Solution:

At page 51 of the *IBM Tivoli License Compliance Manager: Problem Determination* the description of **statusinfo** must be rewritten in the following way:

"The **statusinfo** command provides a way of collecting the trace files and configuration files that can help IBM Software Support to resolve problems with the Tivoli License Manager server and catalog manager infrastructure elements. Use the DB2[®] utilities to collect database information."

Agent installation in silent mode (APAR IY86057)

Problem (found in the *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration*): The local installation of an agent in silent mode is not documented.

Solution:

When the install wizard runs in background or silent mode, it takes the parameters it requires from an InstallShield response file.

A template response file, ITLM_22_agentInstall_response.txt, is provided on the local agent deployment CD. You can edit this file to provide the values for parameters that the wizard must set. See Appendix B in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration* for a full description of the parameters.

An option exists to create a response file containing the values you specify when you run the wizard in interactive mode. To create a response file as part of an interactive installation, run the setup file with the following arguments:

-options <response_file.txt>

Where *response_file.txt* is the path where the response file is to be saved.

To run the install wizard in silent mode, do the following:

- 1. Update the response file with the parameters for the installation you want to perform.
- 2. Log on to the computer where you want to install the agent as a user with administrative rights (**Administrator** on Windows platforms or **root** on UNIX platforms).
- 3. Copy the response file to a temporary directory on a hard disk.

The response file can either be a file you have created during interactive installation on a different computer that has the same platform as the computer on which you are installing or a copy of the ITLM 22 agentInstall response.txt file provided on the Agent CD that you have updated.

4. Launch the wizard's setup command, with the following arguments:

Background mode

-options<*response_file.txt*>

Silent mode

-options<response_file.txt> -silent

Where <*response_file.txt*> is either the full or relative path to the response file you are using.

Note: On AIX 5.2 and Solaris 9, background mode is not available. To perform an installation using a response file on these platforms, use the syntax described for silent mode.

Clarification in the procedure for deploying an agent using IBM Tivoli Configuration Manager

Problem (found in the IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration): The procedure for deploying an agent using SPBs needs to be revised. In addition, the name of the Perl script is agt install.pl instead of agtinstall.pl.

Solution:

To deploy agents using the SPBs, do the following:

- 1. Copy the SPBs from the CD to a directory on the TMR server or a managed node.
- 2. Ensure that the Tivoli Environment is configured.
- 3. From a policy region, launch the Perl script:

```
agt install.pl -p <PATH>
```

where PATH is the full path of the directory where the SPBs are located.

If the SPBs are on a remote managed node, supply the additional parameter -h <HOST NAME> to identify the node.

The script performs the following actions:

- Creates a profile manager for each platform with the name ITLM Agt Deploy <PLATFORM>
- Creates a profile for each SPB
- Imports the SPBs
- 4. Create the CIT_Preinstall profile manager and the CIT_Preinstall.CIT profile, then import CIT Preinstall.spb.
- 5. Create the CIT profile manager and the CIT.2.2.1 profile, then import CIT.spb.
- 6. Distribute CIT Preinstall.spb in force mode to all computers to which you intend to distribute an agent SPB, setting the parameter CIT ExploiterID to 5724-D33.
- 7. Distribute the CIT SPB to all computers to which you intend to distribute an agent SPB.

This distribution must be made in **transactional** mode and must be committed after the installation has finished.

8. Perform distributions to deploy the appropriate platform-specific agent SPB on each target computer.

Distributions must be performed in **undoable** mode, using the **force** option.

You must provide values for the configuration parameters during the distribution. See Appendix C in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration* for a complete definition of the software package block and the possible values that can be assigned to each parameter.

9. Following the installation, accept the SPB.

Note: To uninstall all objects launch: agt_install.pl -uninst

Backward compatibility

Interim fix 2.2.0-TLCM-LA0001 is superseded by this fix pack.

Dependencies:

Tivoli License Compliance Manager, version 2.2

Troubleshooting information

This section provides information to help you diagnose problems that have an impact on Tivoli License Compliance Manager infrastructure elements.

Agent operation

Symptom: The agent does not start on Windows if gskit version 7 .dll files are installed in the wrong location.

When this happens, the agent trace shows an error indicating that the ikeyman key db file was not created.

Causes and solutions:

On 32 bit applications, Windows looks for .dll files at the following locations:

- The directory of the application's executable file.
- The current directory.
- The *%SystemRoot*%\SYSTEM32 directory.
- The *%SystemRoot*% directory.
- The directories in your path environment variable.

The gskit version 7 .dll files are normally installed in the following standard path: ProgramFiles ibm gsk7 lib.

If gskit version 7 .dll files with a different modification level than the gskit actually installed (for example, .dll files of version 7.0.3.7, while gskit 7.0.3.25 is installed) are found in at least one of the directories that Windows uses for the search, then it can happen that the agent does not start due to a .dll loading failure.

When this happens, to resolve the problem you must find all gskit .dll files stored in any of the directories that Windows uses for the search and remove or rename them.

Other changes as a result of this fix pack

This fix pack creates or updates a file called <INST_DIR>\product.xml (where <INST_DIR> is the directory where Tivoli License Compliance Manager is installed), which keeps track of the current Tivoli License Compliance Manager version.

Agents deployed after this fix pack has been applied to the runtime server will have a new version number of 2.2.0.10. The individual agents' software will be updated only when you specifically reinstall the agent software, or after you have used the agent self–update facility in the agent configuration file, as described in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration*.

Installation, migration, upgrade, and configuration information

This section includes the following topics:

- "Hardware and software requirements"
- "Installing the fix pack"
- "Upgrading agents" on page 11
- "Reverting to the previous version" on page 11

Hardware and software requirements

This section includes the following topics:

- "Supported platforms"
- "System requirements"

Supported platforms

Information about supported platforms at GA is detailed in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration.*

The fix pack introduces support for the following new versions of currently supported agent platforms:

- i5/OS V5R4
- Sun Solaris 10 on 64-bit Xeon Opteron processors
- Red Hat Enterprise Linux, version 3.0 Update 1 for xSeries
- Red Hat Enterprise Linux, version 3.0 Update 1,2 for pSeries and iSeries

Note: On i5/OS V5R4, the agent code must be installed as follows:

- 1. install the Tivoli License Compliance Manager, version 2.2 agent code with option -W ptfsV5R3.active=False
- 2. install this fix pack

System requirements

Hardware and software prerequisites are detailed in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration*.

Installing the fix pack

This section contains the instructions for installing the fix pack. Once you have installed the fix pack, you cannot uninstall it automatically. For details of how to revert to the previous version see "Reverting to the previous version" on page 11.

The fix pack includes the following files (the same files are available in .tar compressed format for UNIX platforms):

2.2.0-TIV-TLCM-FP0001-servers-<platform>.zip

For each supported platform, the compressed file contains the files for installing the fix pack on computers where an administration server, a runtime server, or an administration server database or runtime server database is installed.

2.2.0-TIV-TLCM-FP0001-SPB.zip

This file contains the software package blocks for each supported agent platform, to be used when deploying agents using IBM Tivoli Configuration Manager.

Note: To deploy agents, use the agt_install.pl script from this zip file, as its performances have been largely improved compared to the previous version.

2.2.0-TIV-TLCM-FP0001-RSH-SSH-<platform>.zip

This contains the files needed to deploy agents on UNIX platforms using the RSH/SSH deployment wizard.

2.2.0-TIV-TLCM-FP0001-agentOS400.zip

This contains the files needed to deploy agents on i5/OS platforms.

2.2.0-TIV-TLCM-FP0001-ManualDeploy-<platform>.zip

This contains the files needed to install agents using a local wizard.

2.2.0-TIV-TLCM-FP0001-catman-<platform>.zip

This contains the files needed for the Catalog Manager component.

2.2.0-TIV-TLCM-FP0001-TOOLS-SPB.zip

This file contains the software package blocks that must be installed to enable the fix for APAR IY82440.

The fix pack must be applied to all server and database components of Tivoli License Compliance Manager and to the catalog manager.

Notes:

- 1. Before starting the installation, back up the administration and runtime server databases and the installation directories of administration server, runtime servers, and the catalog manager.
- 2. During the installation of the fix on the administration server or a runtime server, the wizard stops and starts the server. If the server is running in a WebSphere Application Server secure cell, you will be asked to provide the user ID and password for the secure cell. Ensure that you have this information before you start.

The procedure for installing the fix pack is essentially the same for servers, databases, and the catalog manager. Therefore only one set of instructions is provided. However, when installing the fix pack on the administration server or database an additional prompt is included and you are asked to specify whether installation of the fix pack should include enablement of license management facilities for Tivoli Configuration Manager. No information about this option is provided in this readme, for complete information about enabling and using license management facilities for Configuration Manager, see *IBM Tivoli Configuration Manager: License Management Extension*.

To install the fix pack, complete the following steps on each computer where a component is installed:

1. Log on to the computer where one or more of the Tivoli License Compliance Manager components is installed as Administrator (Windows) or root (UNIX).

- 2. Unpack the servers or catalog manager compressed file into a temporary directory.
- 3. Launch the setup file for the platform on which you are installing the fix pack. The installation wizard starts.

Note: No license agreement panel is displayed. The fix pack is subject to the same terms and conditions under which Tivoli License Compliance Manager, version 2.2 is licensed.

4. Specify a directory where the wizard can create a backup of your server configuration and other files that are affected by the fix pack and click Next. If the wizard is unable to create the backup, the installation cannot continue. Ensure that you have the correct permissions to write to the specified directory and that there is sufficient space to create the backup.

Note: The wizard calculates the space required to create the backup based on the initial size of a server when it is installed. Under normal circumstances, the space occupied by the server directories should not increase very much. However, if other directories, for example directories required for manual agent deployment, have been created within the server file structure, the space required for the backup could be considerably more than anticipated. Under these circumstances, it is possible that the installation could fail because of lack of space. If this occurs, a message will be displayed informing you that the installation has failed, possibly because of insufficient permissions. You must then make more space available for the installation.

- 5. Select the option to install the fix pack only or to install the fix pack and enable license management for Configuration Manager.
 - If you select the license management for Configuration Manager option, you are prompted for further information. See *IBM Tivoli Configuration Manager: License Management Extension*.
- 6. Check the summary panel for the installation and click **Next** to confirm that you want to install the fix pack.
 - If you are applying the fix pack to a server that is running in a WebSphere Application Server secure cell, you will be prompted to supply a valid user ID and password when the wizard stops and starts the runtime server.
- 7. When the installation is complete, click **Finish**.

Upgrading agents

To apply the fixes to agents that are already deployed, you must redeploy or update the agent. For information about how to do this see the sections **Redeploying an agent** and **Agent self-update** in *IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration*.

Agents are supported only when they are registered to a runtime server with the same, or a higher, Tivoli License Compliance Manager maintenance level.

Reverting to the previous version

There is no automatic method for uninstalling this fix pack.

You must rollback the changes on each computer where the fix pack has been installed, as follows:

1. Stop the server.

- 2. Manually replace the files that were changed by the installation of the fix pack with the backup copies taken during the installation.
 - The backup directory specified during the installation of the fix pack contains a subdirectory 2.2.0-TIV-TLCM-FP0001 which contains a subset file structure for the Tivoli License Compliance Manager components to which the fix pack has been applied. You must copy the files manually from each subdirectory of the backup to the corresponding directory of the server or catalog manager installation.
- 3. If this is the first fix applied to the GA version of the code, delete the file <INSTALL DIR>\product.xml.
 - If previous fixes have been applied, the product.xml file is one of the files that you have restored from the backup directory.
- 4. Restart the server.

General information

This section contains the following general information that might have changed since the product was made available:

- · "Publications"
- "Accessibility" on page 15
- "Tivoli technical training" on page 15
- "Contacting IBM software support" on page 15
- "Conventions used in this readme file" on page 19

Publications

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

Tivoli License Compliance Manager

The Tivoli License Compliance Manager library consists of the following books:

- *IBM Tivoli License Compliance Manager: Overview*, SC32-1503 Provides general information about Tivoli License Compliance Manager.
- IBM Tivoli License Compliance Manager: Administration, SC32-1430
 Provides information about how to use Tivoli License Compliance Manager to set up a monitoring infrastructure, define licensing conditions, and produce reports.
- IBM Tivoli License Compliance Manager: Planning, Installation, and Configuration, SC32-1431
 - Provides information about planning, installing, and configuring the Tivoli License Compliance Manager product.
- IBM Tivoli License Compliance Manager: Commands, SC32-1501
 Provides descriptions of all Tivoli License Compliance Manager commands.
- IBM Tivoli License Compliance Manager: Data Dictionary, SC32-1432
 Provides descriptions of the database tables and indexes maintained in the Tivoli License Compliance Manager administration server database.
- IBM Tivoli License Compliance Manager: Problem Determination, SC32-9102
 Provides Tivoli License Compliance Manager diagnostic information, including messages, traces, and event logs, and information about tools and techniques for diagnosing problems.

- *IBM Tivoli License Compliance Manager: Catalog Management*, SC32-1434

 Describes how to use the software catalog management tool to maintain an up-to-date catalog of software products and the signatures that are used to detect their presence and use on monitored computers.
- IBM Tivoli License Compliance Manager: Security Management, SC32-1502
 Provides information about the security features of Tivoli License Compliance Manager.
- *IBM Tivoli License Compliance Manager: Release Notes*, SC32-1429

 Provides a summary of changes made in the release, lists the supported platforms for each component, documents known errors and workarounds, and includes the latest information about the product that could not be included in the main documentation. This document is not delivered on the documentation CD, but is available from the Tivoli Software Information Center. Updated versions of the document may be placed on the Tivoli Software Information Center at any time.

How to access the Tivoli Software Information Center is described in "Accessing publications online" on page 14.

Related publications

The following document also provides useful information:

- IBM DB2 Universal Database[™]: Quick Beginnings for DB2 Servers, GC09-4836
- *IBM DB2 Universal Database: Quick Beginnings for DB2 Clients*, GC09-4832 These *Quick Beginnings* guides provide an introduction to installing and configuring DB2 products.
- www.ibm.com/software/webservers/appserv/infocenter.html provides access to WebSphere Application Server product information.
- Redbook: DB2/UDB/WebSphere Performance Tuning Guide, SG24-6417
 This Redbook contains useful information about tuning DB2 and WebSphere Application Server for performance. In particular, see Sections 2.7–2.10, Chapter 3, Sections 3.3-3.5; and Chapters 4 and, 5.
- Redbook: IBM WebSphere V5.0 Performance, Scalability, and High Availability: WebSphere Handbook Series, SG24-6198
 - This Redbook contains information about tuning WebSphere Application Server for performance. In particular, see chapter 18.
- *IBM WebSphere Application Server, version 5.0.2: Monitoring and Tuning Performance,* This is the tuning guide for WebSphere Application Server, version 5.
- Redbook: IBM WebSphere Application Server, version 5.0 System Management and Configuration, SG24-6195
 - This Redbook contains information about configuring WebSphere Application Server, version 5.

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

www.ibm.com/software/tivoli/library

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

Accessing publications online

The Tivoli License Compliance Manager documentation CD contains an information center that includes the publications of the product library, other than the *IBM Tivoli License Compliance Manager: Release Notes*. The format of the publications is PDF and HTML, and they are available in all supported languages. See the readme.txt file to access the information center using a Web browser. The file is in the root directory on the documentation CD.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli software information center Web site. Access the Tivoli software information center by first going to the Tivoli software library at the following Web address:

http://www.ibm.com/software/tivoli/library/

Click **Tivoli product manuals**. In the Tivoli Technical Product Documents Alphabetical Listing window, click IBM Tivoli License Manager to access the product library at the Tivoli software information center.

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

Ordering publications

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

www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968

In other countries, contact your software account representative to order Tivoli publications.

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface.

This product is operated using a Web browser, which has certain built-in accessibility features, and has been provided with specific shortcut keys for navigating the Web interface, starting tasks, and performing toolbar actions.

For additional information, see the Accessibility appendix in the IBM Tivoli License Compliance Manager: Administration.

Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education Web site:

http://www.ibm.com/software/tivoli/education

Contacting IBM software support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have:

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus[®], and Rational[®] products, as well as DB2 and WebSphere products that run on Windows or UNIX operating systems), enroll in Passport Advantage[®] in one of the following ways:
 - Online: Go to the Passport Advantage Web site at

www.lotus.com/services/passport.nsf/WebDocs/Passport_Advantage_Home

and click How to Enroll.

- By phone: For the phone number to call in your country, go to the IBM Software Support Web site at techsupport.services.ibm.com/guides/ contacts.html and click the name of your geographic region.
- · For customers with Subscription and Support (S & S) contracts, go to the Software Service Request Web site at https://techsupport.services.ibm.com/ssr/
- For customers with IBMLink[™], CATIA, Linux, OS/390[®], iSeries, pSeries, zSeries[®] and other support agreements, go to the IBM Support Line Web site at http://www.ibm.com/services/us/index.wss/so/its/a1000030/dt006
- For IBM eServer[™] software products (including, but not limited to, DB2 and WebSphere products that run in zSeries, pSeries, and iSeries environments), you can purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM Business Partner. For more information about support for eServer software products, go to the IBM Technical Support Advantage Web page at www.ibm.com/servers/eserver/techsupport.html.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States or, from other countries, go to the contacts page of the IBM Software Support Handbook on the Web (techsupport.services.ibm.com/guides/contacts.html) and click the name of your geographic region for phone numbers of people who provide support for your location.

Follow the steps in this topic to contact IBM Software Support:

- 1. "Determine the business impact of your problem"
- 2. "Describe your problem and gather background information"
- 3. "Submitting problems" on page 17

Determine the business impact of your problem

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting. Use the following criteria:

Severity 1	Critical business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.	
Severity 2	Significant business impact: The program is usable but is severely limited.	
Severity 3	Some business impact: The program is usable with less significant features (not critical to operations) unavailable.	
Severity 4	Minimal business impact: The problem causes little impact on operations, or a reasonable circumvention to the problem has been implemented.	

Describe your problem and gather background information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can you re-create the problem? If so, what steps where performed to re-create the problem?
- Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, and so on?
- Are you currently using a workaround for the problem? If so, be prepared to explain the workaround when you report the problem.

The problem determination toolkit includes commands for assembling problem determination information for all product components. For more information see *IBM Tivoli License Compliance Manager: Problem Determination*.

Submitting problems

You can submit your problem to IBM Software Support in one of two ways:

Online

Click **Submit and track problems** on the IBM Software Support site at http://www.ibm.com/software/support/probsub.html. Type your information into the appropriate problem submission form.

By phone

For the phone number to call in your country, go to the contacts page of the IBM Software Support Handbook at techsupport.services.ibm.com/ guides/contacts.html and click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support provides a workaround for you to implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM product support Web pages daily, so that other users who experience the same problem can benefit from the same resolutions.

For more information about problem resolution, see "Searching knowledge bases" and "Obtaining fixes" on page 18.

Searching knowledge bases

If you have a problem with your IBM software, you want it resolved quickly. Begin by searching the available knowledge bases to determine whether the resolution to your problem is already documented.

Search the information center on your local system or network: IBM provides extensive documentation that can be installed on your local machine or on an intranet server. You can use the search function of this information center to query conceptual information, instructions for completing tasks, reference information, and support documents.

Search the Internet: If you cannot find an answer to your question in the information center, search the Internet for the latest, most complete information that might help you resolve your problem. To search multiple Internet resources for your product, expand the product folder in the navigation frame to the left and select **Support on the Web**. From this topic, you can search a variety of resources including:

- IBM technotes
- IBM downloads
- IBM Redbooks[™]
- IBM DeveloperWorks
- · Forums and newsgroups
- Google

Obtaining fixes

A product fix might be available to resolve your problem. You can determine what fixes are available for your IBM software product by checking the product support Web site:

- 1. Go to the IBM Software Support Web site (www.ibm.com/software/support).
- 2. Under **Products A Z**, select your product name. This opens a product-specific support site.
- 3. Under **Self help**, follow the link to **Search all Downloads**, where you will find a list of fixes, fix packs, and other service updates for your product. For tips on refining your search, click **Search tips**.
- 4. Click the name of a fix to read the description and optionally download the fix.

To receive weekly e-mail notifications about fixes and other news about IBM products, follow these steps:

- 1. From the support page for any IBM product, click **My support** in the upper-right corner of the page.
- 2. If you have already registered, skip to the next step. If you have not registered, click register in the upper-right corner of the support page to establish your user ID and password.
- 3. Sign in to My support.
- 4. On the My support page, click **Edit profiles** in the left navigation pane, and scroll to **Select Mail Preferences**. Select a product family and check the appropriate boxes for the type of information you want.
- 5. Click Submit.
- 6. For e-mail notification for other products, repeat Steps 4 and 5.

For more information about types of fixes, see the *Software Support Handbook* (techsupport.services.ibm.com/guides/handbook.html).

Updating support information

Information centers typically include one or more *support information plug-ins*. These plug-ins add IBM technotes and other support documents to the information center. The following steps describe how to update your support information plug-ins:

- 1. Go to the IBM Software Support Web site (www.ibm.com/software/support).
- 2. Under **Products A Z**, select your product name. This opens a product-specific support site.
- Under Search support for this product, type the keyword phrase: com.ibm.support. Click the Download check box, and click Submit.
- 4. Check the search results for updates to support information plug-ins. All support information plug-ins follow the naming convention, "com.ibm.support.product.doc." If an update is available, select it from the list and view the download instructions.
- 5. Save the attached zip file to a temporary location on your hard drive.
- 6. Unzip the downloaded file, making sure that you retain the subfolders.
- 7. From the location where you unzipped the file, copy the support information plug-in folder to your Eclipse plug-ins folder. For example, if your IBM software product is installed at *c:\IBM\WebSphere*, copy the updated plug-in folder (com.ibm.support.*product*.doc) to *c:\IBM\WebSphere\eclipse\plugins*.
- 8. To see the updated support information, start the information center (or shut it down and restart it), and expand the **Support information** node in the navigation tree.

Conventions used in this readme file

This readme file uses the following typeface conventions:

Bold

- · Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as Tip:, and Operating system considerations:)
- Column headings in a table
- · Keywords and parameters in text

Italic

- · Citations (titles of books, diskettes, and CDs)
- · Words defined in text
- Variables and values you must provide

Monospace

- Examples and code examples
- · File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- · Message text and prompts addressed to the user
- Text that the user must type
- · Values for arguments or command options

<text>

• Indicates a variable in a path name. For example in the path <INSTALL DIR>/admin/conf, INSTALL DIR depends on the location where you have installed the component, while /admin/conf is constant.

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Program Number: 5724-D33