IBM Tivoli License Manager

Readme File for Fix Pack 2.1.0–TIV-TLM–FP0001

Version 2.1

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> **Note**
>
> Before using this information and the product it supports, read the information in "Notices" on page 19.

Contents

Readme File for fix pack 2.1.0–TIV-TLM–FP0001

This readme provides important information about the fix pack 2.1.0–TIV-TLM–FP0001 for IBM® Tivoli® License Manager version 2.1. 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 interim fix.

This readme includes the following topics:
- "About this fix pack"
- "Installation, migration, upgrade, and configuration information" on page 8
- "General information" on page 11

About this fix pack

Fix pack 2.1.0–TIV-TLM–FP0001 introduces support for additional agent platforms, as well as providing fixes for reported APARs and defects. APARs and defects fixed in previous limited availability fixes for Tivoli License Manager, version 2.1 are also included in this fix pack.

This section includes the following topics:
- "New agent platforms"
- "Product fix history" on page 4
- "Problems fixed" on page 5
- "Backward compatibility" on page 8
- "Other changes as a result of this fix pack" on page 8

New agent platforms

The fix pack introduces support for agents on the following new versions of currently supported platforms:
- AIX® 5.3
- SUSE LINUX Enterprise Server, version 9
- Red Hat Enterprise Linux™, version 3.0 Update 3

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

Software use monitoring on SUSE LINUX Enterprise Server, version 9

The agent for SUSE LINUX Enterprise Server, version 9, does not have a kernel extension. Software use monitoring of products running on this platform is achieved by using the process list which is maintained by the operating system and comprises a list of all currently active processes. The agent retrieves the process list from the operating system at five minute intervals. It is able to determine which products have started or stopped during the interval between two retrievals by comparing the contents of two consecutive snapshots. The consequences of using this method of software use monitoring are the following:

- The high setting for license compliance is not usable because, in the absence of a kernel extension, it is not possible to detect the process before the application starts and prevent it from starting if necessary.
- Processes that run for a very short time and start and stop within the five minute interval between one process list retrieval and the next are not detected.

Changes to agent prerequisites

The introduction of the new agents involves changes in the agent prerequisites as described for Tivoli License Manager, version 2.1 in *IBM Tivoli License Manager: Planning, Installation, and Configuration*.

The new agent versions, on all supported platforms, are deployed with the bundled prerequisite GSKit 7c. In addition, agents for the following platforms, which previously bundled GSKit 7b, are now deployed with GSKit 7c:
- Red Hat Enterprise Linux 3.0 Update 1
- Red Hat Enterprise Linux 3.0 Update 2

Changes to agent deployment procedures

For most of the agent deployment methods, there is no visible change from the deployment procedures described for Tivoli License Manager, version 2.1 in *IBM Tivoli License Manager: Planning, Installation, and Configuration*. However for the RSH/SSH and manual deployment methods there are minor changes that are visible to the user, as detailed in the following sections.

RSH/SSH deployment: In the RSH/SSH deployment wizard, the pull-down list for the OS field has changed. Most of the values in the list cover more than one platform. During deployment, information is retrieved from the target node to determine which of the agents in the selected group is to be deployed. Table 1 shows the values that can be selected at the OS field and the corresponding platforms on which agents can be deployed.

Table 1. Operating system selection in the RSH/SSH deployment wizard

Value	Platforms
aix	AIX 5.1 (32 and 64-bit) AIX 5.2 (32 and 64-bit) AIX 5.3(32 and 64-bit)
hpux	HP-UX 11i on PA-Risc (32 and 64-bit)
linux	Red Hat Enterprise Linux ES/AS/WS 2.1 for Intel™ x 86 (Standard or Premium) Update 2 Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 1 Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 3 SUSE LINUX Enterprise Server, version 8 for Intel x 86 SUSE LINUX Enterprise Server, version 9 for Intel x 86
linux_ppc	Red Hat Enterprise Linux AS 3.0 for iSeries™ and pSeries® Update 2 Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 3 SUSE LINUX Enterprise Server, version 8 for iSeries and pSeries SUSE LINUX Enterprise Server, version 9 for iSeries and pSeries
linux_s390	Red Hat Enterprise Linux AS 3.0 for zSeries® and s/390 Update 1 Red Hat Enterprise Linux AS 3.0 for zSeries and s/390 Update 3 SUSE LINUX Enterprise Server, version 8 for zSeries SUSE LINUX Enterprise Server, version 9 for zSeries

Table 1. Operating system selection in the RSH/SSH deployment wizard (continued)

Value	Platforms
sun32	Sun Solaris 8 for SPARC platforms (32-bit) Sun Solaris 9 for SPARC platforms (32-bit)
sun64	Sun Solaris 8 for SPARC platforms (64-bit) Sun Solaris 9 for SPARC platforms (64-bit)

For a full description of the RSH/SSH deployment wizard, see the Deploy Agents chapter in *IBM Tivoli License Manager: Planning, Installation, and Configuration*.

Manual deployment: The manual deployment scripts `manualDeploy.bat` and `manualDeploy.sh` create a set of directories in a location that you specify when you run the script. Each of the directories contains the files required by the **installagent** command to install the agent on specific platforms. Table 2 shows the directories created by the scripts and the corresponding platforms.

Table 2. Directories created by the manualDeploy script

Directory	Platforms
aix_51	AIX 5.1 (32 and 64-bit)
aix_52	AIX 5.2 (32 and 64-bit)
aix_53	AIX 5.3(32 and 64-bit)
hpux	HP-UX 11i on PA-Risc (32 and 64-bit)
linux_sles8	SUSE LINUX Enterprise Server, version 8 for Intel x 86
linux21	Red Hat Enterprise Linux ES/AS/WS 2.1 for Intel x 86 (Standard or Premium) Update 2
linux_sles9–rhel3	Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 1 Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 3 SUSE LINUX Enterprise Server, version 9 for Intel x 86
linux_ppc-sles8	SUSE LINUX Enterprise Server, version 8 for iSeries and pSeries
linux_ppc-sles9	Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 2 Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 3 SUSE LINUX Enterprise Server, version 9 for iSeries and pSeries
linux_s390–sles8	SLES8 for zSeries
linux_s390–sles9–rhel3	Red Hat Enterprise Linux AS 3.0 for zSeries and s/390 Update 1 Red Hat Enterprise Linux AS 3.0 for zSeries and s/390 Update 3 SLES9 for zSeries
sun32	Sun Solaris 8 for SPARC platforms (32-bit) Sun Solaris 9 for SPARC platforms (32-bit)
sun64	Sun Solaris 8 for SPARC platforms (64-bit) Sun Solaris 9 for SPARC platforms (64-bit)
win32	2000 Professional for Intel x86(32-bit) 2000 Server for Intel x86(32-bit) 2000 Advanced Server for Intel x86(32-bit) Server 2003 for Intel x86(32-bit) XP Professional for Intel x86(32-bit)

For a full description of the manual deployment procedure, see the Deploy Agents chapter in *IBM Tivoli License Manager: Planning, Installation, and Configuration*.

Product fix history

This is the first fix pack to be issued for Tivoli License Manager, Version 2.1. It fixes the following APARs:

APAR IY63633

If there is more than one instance of DB2® created on the computer where the administration server or runtime server database is installed and the default instance is active, the server or catalog manager is not able to access the database if it is not installed in the default DB2 instance.

After installing the fix, the server or catalog manager will handle the DB2 instance correctly.

APAR IY63893

The software use monitoring functionality of the agent includes the capability to collect information about unknown executable files. When the agent detects the starting of an executable file it attempts to match it to a product in the catalog. If the executable file does not match a catalog entry, the agent adds it to the list of unknown modules to be sent to the runtime server and subsequently to the administration server, where they are stored in the administration server database and can be processed using the catalog manager tool.

This feature has caused performance problems when the agent is installed on a system where an application that generates a large number of transient executable files is running. In such a case, the agent and the runtime server are forced to store and process very large numbers of unknown modules. In addition to the storage and performance problems this causes to the agent and runtime server, it also populates the list of unknown modules with a large number of executable files that the user will not want to add to the catalog. This reduces the usefulness of the unknown modules list.

The solution implemented in the fix pack is to exclude executable files that start in certain directories from the list of unknown modules. This is implemented partly on the agent and partly on the runtime server. The agent excludes the following relative paths from collection of unknown module information:

Windows®
- *\temp*
- *\TEMP*
- *\tmp*
- *\TMP*

UNIX®
- */tmp/*
- */TMP/*

On the runtime server, an additional configuration file, `unknownFiles.properties` is added. You can use this file to define other paths for which unknown module information is not of interest. The runtime server rejects any executable files that started in any of the directories specified in the properties defined in this file and they are not included when unknown modules are transmitted to the administration server. The properties file is stored in the following location:

`<INSTALL_DIR>/runtime/conf`

It includes the following properties:

windowsPathToSkip

The relative paths that are to be excluded from unknown module monitoring on Windows systems.

unixPathToSkip

The relative paths that are to be excluded from unknown module monitoring on UNIX systems.

UNIX paths are case-sensitive.

Notes:

1. Wildcards are not permitted in the definitions of the paths to be skipped.
2. If multiple paths are specified, you must form a concatenated string within which the relative paths are separated by the character **;**.
3. The server must be stopped and restarted before the changes take effect.

APAR IY65120

On Windows platform, if the agent is not manually stopped before the system is shut down, information in the agent cache is lost.

After installing the fix pack, the problem is resolved.

APAR IY65790

Closing of browser windows when logging on or off the Web UI is handled incorrectly.

When the user logs on to the Web UI, the Web UI should open in a browser window in kiosk mode (without any browser control buttons or menus) and close the original window. When the user logs off, the browser should revert to normal mode and close the Window that is in kiosk mode. After the application of the Microsoft® Security path MS04–38, the automatic closing of browser windows is no longer correctly handled for Internet Explorer 6.x.

After installing the fix pack, the correct behavior is restored.

Problems fixed

The following is the list of problems found since the GA of Tivoli License Manager, version 2.1 and fixed with this Fix Pack:

- "For the administration server"
- "For the runtime server" on page 6
- "For the agent" on page 6
- "For agent deployment" on page 7

For the administration server

Wrong dialog displayed in Contracts task

When using the administration server Web UI to create or update contract information, the wrong dialog is displayed when the legal and business information tab is selected.

After installing the fix pack, the correct dialog is displayed.

Internal error generated in the Use Trend report

An internal error occurred when the Use Trend report attempted to report the use of a license that had since been deleted.

After installing the fix pack, the use trend report correctly reports use of the license even if it has been deleted.

Wrong value reported for the high water mark in the Unlicensed Use report.
The high water mark for unlicensed use of products was being wrongly calculated.

After installing the fix pack, the high water mark is correctly reported.

For the runtime server

Error message wrongly displayed in Current Use report
In the Current Use report, when the License Use option is selected from the main report page, an error message is displayed before the correct information is shown.

After installing the fix pack, the error message is not displayed.

Error message in the Distributed Licenses report cannot be closed
In the Distributed Licenses report, the error message that is displayed if the query returns no results does not contain a Close Message link.

After installing the fix pack, the error message contains a Close Message link.

A column header has the wrong label in the Distribute Licenses report
The column that is headed **Product Name** in the Distributed License report should be **License Name**.

After installing the fix pack, the correct column header is displayed.

For the agent

During reboot, the tlm script causes the startpar command to hang.
This problem affects Linux systems. After installing the fix pack, this problem is resolved.

Products are prevented from starting when hardware configuration information is not available.
For some license types, the agent must retrieve hardware information from the monitored computer. If it was not possible to retrieve this information because of a missing or corrupt MIF file, the license was denied and the product was prevented from starting even if the compliance level was set to **Low**.

After installing the fix pack, the product is allowed to start and an exception is returned. Use information is not transmitted to the server, as this could cause erroneous information to be included in reports.

The WebSphere® Application Server agent command line ends unexpectedly in some cases.
After installing the fix pack, this problem is resolved.

An agent warning message is shown on the console of a computer where the agent is running.
The message: **CCGBC0071W The logging method's parameter list is missing type markers** is shown periodically on the console of a computer where the agent is running.

After installing the fix pack, this message no longer appears.

The help argument for the tlmagent command ends with an error message.
When the **tlmagent** command is issued with the **-h** argument the output ends with an error message.

After installing the fix pack, this problem is resolved.

Incorrect memory size information detected by the agent on Linux 390 platforms.
> The agent information shown on the administration server Web UI for Linux 390 agents, includes incorrect information about the memory size of the host computer.
>
> After installing the fix pack, this problem is resolved.

First Failure Data Capture (FFDC) performed twice for agents on AIX platforms.
> The agent FFDC command, which is invoked automatically to copy problem determination information to the FFDC directories in the Tivoli Common Directory when the agent is stopped, is performed twice when an agent stops on an AIX computer.
>
> After installing the fix pack, this problem is resolved.

The WebSphere Application Server agent command line does not work with the IPv6 protocol.
> If the IPv6 protocol is enabled, the command line of the WebSphere Application Server agent does not work. SUSE LINUX Enterprise Server, version 9 systems have IPv6 enabled by default and so the WebSphere Application Server agent command line does not work on these systems if the default is used.
>
> After installing the fix pack, this problem is resolved.

On Linux platforms, the agent self-update fails with a disk space error, even though there is enough space available.
> This problem occurs when the self-update involves an upgrade of the WebSphere Application Server agent.
>
> After installing the fix pack, this problem is resolved.

On Linux platforms, information is lost if the agent is not stopped before the system is shut down.
> On Linux platforms, if the agent is not manually stopped before the system is shut down, any information about license or software use currently held by the agent is lost.
>
> After installing the fix pack, this problem is resolved.

For agent deployment

The RSH/SSH deployment wizard allows multiple selection in list boxes when defining the topology on which agents are to be deployed.
> The panel in the RSH/SSH agent deployment wizard, in which you set up a list of nodes where agents are to be deployed, includes list boxes for the deployment parameters: Organization, Division, and Runtime address. These list boxes support multiple selection. This is not useful because the tool is designed to allow the deployment of a group of agents that all use the same deployment parameters (Organization, Division, Runtime address). For each deployment run, you must select one set of deployment parameters and then specify the nodes on which agents are to be deployed using these parameters.
>
> After installing the fix pack, the list boxes support single selection only.

Using the SSH agent deploy method, the agent installation logs a failure return code after a successful installation.
> When the SSH agend deploy method is used, the return code -8 (agent

failed to start) is logged and a corresponding trace message is written even though the agent has been successfully installed and started.

After installing the fix pack, this problem is resolved.

Backward compatibility

Interim fix 2.1.0–TLM–0002LA is superseded by this fix pack.

Dependencies:
   IBM Tivoli License Manager, Version 2.1

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 Manager is installed), which keeps track of the current Tivoli License Manager version. After applying the fix, servers, databases, and agents (with the exception of the OS/400® agent which is not affected by this fix pack), as indicated in this file, will have a new version number of 2.1.0.10. However, the displayed version in the GUI and CLI of the servers will remain at version 2.1. The individual agents' software will be updated only when you specifically re–install the agent software, or after you have used the agent self–update facility in the agent configuration file, as described in *IBM Tivoli License 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" on page 9
- "Reverting to the previous version" on page 10

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 Manager: Planning, Installation, and Configuration*.

The fix pack introduces support for the following new versions of currently supported agent platforms:
- AIX 5.3
- SUSE LINUX Enterprise Server 9
- Red Hat Enterprise Linux 3.0 Update 3

System requirements

Hardware and software prerequisites are detailed in *IBM Tivoli License Manager: Planning, Installation, and Configuration*. See "Changes to agent prerequisites" on page 2 for information about changes in the agent prerequisites caused by the introduction of the new agent platforms.

Installing the fix pack

This section contains the instructions for installing the fix pack. Once you have installed the interim fix, you cannot uninstall it automatically. For details of how to revert to the previous version see "Reverting to the previous version" on page 10.

The fix pack includes the following files:

210–TIV-TLM-FP0001_servers_<*platform*>.zip

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

210–TIV-TLM-FP001_catmgr_<*platform*>.zip

> For each supported platform, the compressed file contains the files for installing the fix pack on computers where the catalog manager tool is installed.

2.1.0-TIV-TLM-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.

2.1.0-TIV-TLM-FP0001-RSH-SSH-Win.zip

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

The instructions for running the installation wizard are the same for both installation types.

Note: 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.

To install the interim fix, 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 Manager components is installed as Administrator (Windows) or root (UNIX).
2. Unpack the servers or catalog manager zip 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 Manager, version 2.1 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. 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.

6. 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 Manager: Planning, Installation, and Configuration*.

After installing this fix pack , there are changes to the versions of agent components as follows:

- The kernel extension version for Linux for Intel X86 and Linux for S(390 changes to 2_1_0_10.
- The driver agent version for AIX changes to 2101.

Where WebSphere Application Server is installed on a node that is monitored by Tivoli License Manager with a GA level agent, the agent must be upgraded as soon as the fix pack is applied to the runtime server with which the agent is registered. If the runtime server has the fix pack applied and the agent does not, the WebSphere Application Server agent will not work.

Where WebSphere Application Server is not installed, you can delay upgrading the agent to the fix pack level. However, if at any point you install WebSphere Application Server on a node that is monitored by an agent that has not been upgraded, you must immediately upgrade the agent. If you do not, the agent will not be able to download the WebSphere Application Server agent.

Reverting to the previous version

There is no automatic method for uninstalling this fix pack.

You must back-out 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 210-TIV-TLM-FP0001 which contains a subset file structure for the Tivoli License 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 these products were made available:

- "Publications"
- "Accessibility" on page 13
- "Tivoli technical training" on page 13
- "Contacting software support" on page 13
- "Conventions used in this readme file" on page 17

Publications

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

Tivoli License Manager library

The Tivoli License Manager library consists of the following books:

- *IBM Tivoli License Manager: Administration*, SC32-1430

  Provides an overview of Tivoli License Manager and gives information about how to use the product to set up a monitoring infrastructure, define licensing conditions, and produce reports.

- *IBM Tivoli License Manager: Planning, Installation, and Configuration*, SC32-1431

  Provides information about planning, installing, and configuring the Tivoli License Manager product

- *IBM Tivoli License Manager: Data Dictionary*, SC32-1432

  Provides descriptions of the database tables and indexes maintained in the Tivoli License Manager administration server database.

- *IBM Tivoli License Manager: Problem Determination*, SC32-9102

  Provides information about Tivoli License Manager diagnostic information, including messages, traces, and event logs, and about tools and techniques for diagnosing problems.

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

  Describes how to use the software catalog management tool to maintain an up-to-date master catalog of products and the modules that are used to detect their presence and use on monitored computers.

- *IBM Tivoli License Manager, Version 2.1: Warehouse Enablement Pack, Version 2.1.0 Implementation Guide for Tivoli Data Warehouse, Version 1.2*, SC32-1433

  Provides instructions and other information related to enabling the use of Tivoli Data Warehouse with Tivoli License Manager.

- *IBM Tivoli License 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 publications 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."

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 Manager documentation CD contains the publications that are in the product library, other than the *IBM Tivoli License Manager: Release Notes*, in all supported languages. The format of the publications is PDF, HTML, or both. To access the publications using a Web browser, open the `allpubs.htm` file. The file is in the `root` directory on the documentation CD. Select the language of your choice, and an Information Center for the product in that language is displayed. Select the publication and the format in which you want to view it.

Note: On Windows platforms, an autorun opens the `allpubs.htm` file in your default browser.

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:

www.ibm.com/software/tivoli/library

Scroll down and click the **Product manuals** link on the left pane of the Tivoli software library window. In the Tivoli Technical Product Documents Alphabetical Listing window, click the IBM Tivoli License Manager link to access the product library at the Tivoli 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, see the following Web site for a list of telephone numbers:

www.ibm.com/software/tivoli/order-lit/

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.

Tivoli technical training

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

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

Contacting 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 page and click **How to Enroll** . The Web address is the following:

    www.lotus.com/services/passport.nsf/WebDocs/Passport_Advantage_Home
  - **By phone**: For the phone number to call in your country, go to the IBM Software Support Web site (techsupport.services.ibm.com/guides/contacts.html) and click the name of your geographic region.
- 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 (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" on page 15
3. "Submit your problem to IBM Software Support" on page 15

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 the problem be recreated? If so, what steps led to the failure?
- Have any changes been made to the system? (For example, hardware, operating system, networking software, and so on.)
- Are you currently using a workaround for this problem? If so, please be prepared to explain it 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 Manager: Problem Determination*.

Submit your problem to IBM Software Support

You can submit your problem in one of two ways:

- **Online**: Go to the "Submit and track problems" page on the IBM Software Support site (www.ibm.com/software/support/probsub.html). Enter your information into the appropriate problem submission tool.
- **By phone:** For the phone number to call in your country, 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.

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 16.

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.
3. 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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