IBM Tivoli License Manager

**IBM**

# Readme File for Fix Pack 2.1.0–TIV-TLM–FP0005

*Version 2.1*

IBM Tivoli License Manager

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*Version 2.1*

> **Note**
>
> Before using this information and the product it supports, read the information in "Notices" on page 37.

**First Edition (March 2006)**

This edition applies to the fix pack 2.1.0–TIV-TLM–FP0005 for version 2, release 1 of IBM Tivoli License Manager (program number 5724-D33).

IBM welcomes your comments.

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# Contents

# Readme File for fix pack 2.1.0–TIV-TLM–FP0005

This readme provides important information about the fix pack 2.1.0–TIV-TLM–FP0005 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 23
- "General information" on page 28

## About this fix pack

Fix pack 2.1.0–TIV-TLM–FP0005 includes support for additional agent platforms and extends monitoring of J2EE applications to those running within the WebSphere® Application Server version 6.0 and WebSphere Portal containers, as well as providing fixes for reported APARs and defects.

This section includes the following topics:
- "New in fix pack 2.1.0–TIV-TLM–FP0005"
- "New agent platforms" on page 2
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### New in fix pack 2.1.0–TIV-TLM–FP0005

Fix packs are cumulative, so this fix pack includes functionality, APARs and defects fixed in the previous fix packs and in interim fixes for Tivoli License Manager, version 2.1. This subsection provides a summary of the functionality and fixes that have been added for fix pack 2.1.0–TIV-TLM–FP0005. It aims to help users who have installed the previous fix pack, 2.1.0–TIV-TLM–FP0004 to understand what changes they can expect from this fix pack.

This fix pack also includes APARs fixed in previous fix packs for the Tivoli License Manager Warehouse Enablement Pack version 2.1 for IBM Tivoli Data Warehouse version 1.2. As such, this fix pack supersedes the previous fix pack, 2.1.0-TIV-TLM_WEP-FP0003.

The following items are introduced in this fix pack:
- Fixes for APARs IY83240, IY83212, IY82953, IY82762, IY82469, IY82508, IY82440, IY81905, IY81832, IY81415, IY81196, IY81103, IY80624, IY80475, IY80331, IY79988, IY79891, and IY79667. See "Product fix history" on page 6.

- Fix for APAR IY79732 for the Warehouse Enablement Pack. See "Product fix history for the Warehouse Enablement Pack" on page 14.
- Fixes for documentation APARs IY81829, IY81713, IY81330, IY80943, IY80606, and IY80533. See "Documentation fix history" on page 15.
- Fix for a defect on agent deployment. See "For agent deployment" on page 22.
- Support for agents on HP-UX 11i v2. See "New agent platforms."
- The Web application server on the administration and runtime servers can now run on IBM WebSphere Application Server version 6.0.2.5 or later, including IBM HTTP Server 6.0.2 or later, and the WebSphere Application Server plug in version 6.0.2.5 or later.

This fix pack does not change the Agent for OS/400®. The most recent version of this component is the one provided with fix pack 2.1.0–TIV-TLM–FP0002.

# 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
- Red Hat Enterprise Linux, version 3.0 update 4
- Red Hat Enterprise Linux ES/AS/WS 4.0
- HP-UX 11i v2 on PA-RISC 2.0

**Note:** To support Sub-Capacity licensing on Power 5 processors on AIX 5.3 and SUSE LINUX Enterprise Server 9 you need to have the following system levels:
- AIX 5.3 maintenance level 2
- SUSE LINUX Enterprise Server 9 SP1

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

## Dynamic reassignment of logical partitions (LPARS)

AIX 5.3, SUSE LINUX Enterprise Server, version 9, and Red Hat Enterprise Linux, version 3.0 Update 4 provide support for new partitioning technologies on IBM POWER5™ series hardware platforms. You can use the Hardware Management Console (HMC) to define LPARs and allocate resources to them. On AIX 5.3 and SUSE LINUX Enterprise Server, version 9, you can dynamically reassign resources between LPARs without the need to restart the affected LPARs.

In the case of Red Hat Enterprise Linux, version 3.0 Update 4, reassignment of resources requires a restart of the LPAR before the changes take effect. HMC provides several options for restarting an LPAR. If the Tivoli License Manager agent is monitoring the LPAR, you must not use the **Immediate** restart option, because this could cause the agent to lose data.

## Software use monitoring

The agents for:
- SUSE LINUX Enterprise Server, version 9
- Red Hat Enterprise Linux, version 3.0 (Update 4) and version 4.0
- HP-UX 11i v2

do not have a kernel extension. Software use monitoring of products running on these platforms 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 bundled GSKit 7b at the general availablity (GA) date of Tivoli License Manager, version 2.1, 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) <br> AIX 5.2 (32 and 64-bit) <br> AIX 5.3 (32 and 64-bit) |
| hpux | HP-UX 11i v1 on PA-RISC 2.0 (32 and 64-bit) <br> HP-UX 11i v2 on PA-RISC 2.0 (32 and 64-bit) |

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

| Value | Platforms |
|---|---|
| linux | Red Hat Enterprise Linux ES/AS/WS 2.1 for Intel® x 86 (Standard or Premium) Update 2<br>Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 1<br>Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 3<br>Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 4<br>Red Hat Enterprise Linux ES/AS/WS 4.0 for Intel x 86<br>SUSE LINUX Enterprise Server, version 8 for Intel x 86<br>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<br>Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 3<br>SUSE LINUX Enterprise Server, version 8 for iSeries and pSeries<br>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<br>Red Hat Enterprise Linux AS 3.0 for zSeries and S/390 Update 3<br>Red Hat Enterprise Linux AS 3.0 for zSeries and S/390 Update 4<br>Red Hat Enterprise Linux AS 4.0 for zSeries and S/390<br>SUSE LINUX Enterprise Server, version 8 for zSeries<br>SUSE LINUX Enterprise Server, version 9 for zSeries |
| sun32 | Sun Solaris 8 for SPARC platforms (32-bit)<br>Sun Solaris 9 for SPARC platforms (32-bit) |
| sun64 | Sun Solaris 8 for SPARC platforms (64-bit)<br>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 v1 on PA-RISC 2.0 (32 and 64-bit)<br>HP-UX 11i v2 on PA-RISC 2.0 (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 |

*Table 2. Directories created by the manualDeploy script (continued)*

| Directory | Platforms |
|---|---|
| linux_sles9–rhel3 | Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 1<br>Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 3<br>Red Hat Enterprise Linux ES/AS/WS 3.0 for Intel x 86 (Standard or Premium) Update 4<br>SUSE LINUX Enterprise Server, version 9 for Intel x 86<br>Red Hat Enterprise Linux ES/AS/WS 4.0 for Intel x 86 |
| linuxppc_sles8 | SUSE LINUX Enterprise Server, version 8 for iSeries and pSeries |
| linuxppc_sles9-rhel3 | Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 2<br>Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 3<br>Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 4<br>SUSE LINUX Enterprise Server, version 9 for iSeries and pSeries |
| linuxppc_rhel4 | Red Hat Enterprise Linux AS 4.0 for iSeries and pSeries (64 bit) |
| linuxs390_sles8 | SLES8 for zSeries |
| linuxs390_sles9-rhel3 | Red Hat Enterprise Linux AS 3.0 for zSeries and s/390 Update 1<br>Red Hat Enterprise Linux AS 3.0 for zSeries and s/390 Update 3<br>SLES9 for zSeries<br>Red Hat Enterprise Linux AS 4.0 for zSeries and s/390 |
| sun32 | Sun Solaris 8 for SPARC platforms (32-bit)<br>Sun Solaris 9 for SPARC platforms (32-bit) |
| sun64 | Sun Solaris 8 for SPARC platforms (64-bit)<br>Sun Solaris 9 for SPARC platforms (64-bit) |
| win32 | 2000 Professional for Intel x86(32-bit)<br>2000 Server for Intel x86(32-bit)<br>2000 Advanced Server for Intel x86(32-bit)<br>Server 2003 for Intel x86(32-bit)<br>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*.

## Monitoring J2EE applications running in WebSphere Application Server 6.0

This fix pack includes a new version of the WebSphere Application Server agent for all supported platforms. The new version adds monitoring of J2EE applications running inside the WebSphere Application Server, version 6.0 and WebSphere Portal containers.

If you have installed WebSphere Application Server, version 6.0 or WebSphere Portal on a monitored computer, or are planning to do so, you must redeploy the agent or use the agent self-update facility after installing this fix pack to enable monitoring of the J2EE applications.

WebSphere Application Server version 5.x and version 6.0 can coexist on the same system if the coexistence option was selected. In such a case, the Tivoli License Manager will monitor the J2EE applications running within both versions when this fix pack has been installed.

## Product fix history

This fix pack fixes the following APARs:

**APAR IY83240**

> The agent sometimes crashes during the discovery of WebSphere Application Server on Sun Solaris.
>
> This may happen after several hours or days of execution.
>
> With this fix pack the problem is resolved.

**APAR IY83212**

> If the runlevel internal setting is not properly configured, the hardware scan does not set the system hostname. Because of this, the agent gets an error when it tries to retrieve the hostname.
>
> The problem occurs on Sun Solaris.
>
> With this fix pack the problem is resolved.

**APAR IY82953**

> The upgrade of 1.1.1 agents to 2.1 does not work correctly when the agents belong to a secure environment.
>
> This happens when 1.1.1 agents are migrated after their division was made secure. The problem does not occur when 1.1.1 agents are migrated prior to securing their division.
>
> With this fix pack the problem is resolved.

**APAR IY82762**

> The monitoring of WebSphere Application Server 6.0.2.5 and WebSphere Portal 5.1.0.3 does not work correctly.
>
> With this fix pack the problem is resolved.

**APAR IY82469**

> The catalog manager does not show the correct product level.
>
> The problem occurs when importing an updated catalog.
>
> With this fix pack the problem is resolved.

**APAR IY82508**

> 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 SPB using the IBM Tivoli Configuration Manager (for details, see APAR IY82440).

**APAR IY82440**

This fix pack introduces the possibility to change the division of an agent, as well as other configuration parameters, 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.

To enable this option, you must install some SPBs using IBM Tivoli Configuration Manager, and specify, during their installation, the parameters to be modified.

The SPBs are provided by this fix pack in the file `2.1.0-TIV-TLM-FP0005-TOOLS-SPB.zip`. The names of the SPBs are:
- for Windows®: `change_agt_config_win.spb`
- for AIX: `change_agt_config_aix.spb`
- for any other UNIX® platform: `change_agt_config_unix.spb`

**APAR IY81905**

The installation of an agent fails on workstations running Solaris 10.

The problem occurs when the agent is deployed using SPBs and IBM Tivoli Configuration Manager.

With this fix pack the problem is resolved.

**APAR IY81832**

The agent dumps when it tries to parse the `tlmagent.ini` file at startup.

The problem, which occurs on all platforms, is due to a missing check.

With this fix pack the problem is resolved.

**APAR IY81415**

During the self-update of an agent, if a file cannot be downloaded, the previous version of the agent is uninstalled, but the new version is not installed. Therefore, at the end of the self-update, no agent is running on the workstation.

With this fix pack, if a file cannot be downloaded during the self-update, the agent remains installed and tries again the self-update until all files can be downloaded successfully.

**APAR IY81196**

Kernel extension tlmkagent causes AIX to crash with ISI_PROC.

With this fix pack the problem is resolved.

**APAR IY81103**

Agents running on Windows XP SP2 hang after the system is rebooted.

With this fix pack the problem is resolved.

**APAR IY80624**

An error occurs when re-installing Solaris agents using SPB on FP0004.

With this fix pack the problem is resolved.

**APAR IY80475**

A memory leak occurs on WebSphere Application Server agents.

The problem is due to the incorrect handling of threads, regardless of the operating system platform. With this fix pack the problem is resolved.

**APAR IY80331**

The Linux kernel ring buffer gets filled with messages "ipr: 0:0:15:0: Resetting device".

With this fix pack the problem is resolved.

**APAR IY79988**

The **dbpasswd** command does not accept the following special characters: asterisk (*), pipe (|), and equal (=).

With this fix pack, passwords can contain the asterisk, pipe, and equal characters. The fix applies also to the **rtpasswd** and **sslpasswd** commands. Also, be aware that DB2® version 8.1 does not support special characters, while DB2 version 7 and version 8.2 support special characters.

**APAR IY79891**

With the Tivoli License Manager 2.1 design, active agents cannot be deleted.

With 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 relevant data for an aggregation has arrived at the administration server (refer to the value of the **maxAggregateUsageAge** parameter of the system.properties file)
3. delete the agent using the Web UI

**APAR IY79667**

"EXIT 0" is missing in the script tlmcli.bat.

If a program launches a script that invokes tlmcli.bat as well as other commands, the control does not return to the calling program and the other commands in the script cannot be executed.

With this fix pack the 'EXIT 0' clause has been added to tlmcli.bat.

**APAR IY79394**

No alert message is displayed when the user hits the 'Agent SSL Communication' radio button.

When updating a division, the value of the 'Agent SSL Communication' radio button can be changed. When this happens, if the value is changed to "SSL enabled" and the environment is not configured for SSL communication, the agent cannot contact the runtime server and all agents of the division become inactive.

With the fix pack, an alert message is displayed when the value of the 'Agent SSL Communication' radio button is changed.

**APAR IY79371**

The dbpasswd command cannot handle passwords containing the '+' character.

With the fix pack, the problem has been resolved and users can insert passwords containing this character.

**APAR IY79223**

The script that installs the agent via SPB raises an exception during the initialization of the DEBUG variable.

The problem occurs on Red Hat Linux Advanced Server Release 2.1 AS/i686.

With the fix pack, the problem has been resolved.

**APAR IY79090**

The linuxintel.sh script of 2.1.0–TIV-TLM–FP0003 does not check for Red Hat 4.0.

With the fix pack, the problem has been resolved.

**APAR IY78784**

An error message (with code 0xc0000142, which occurs when the TLM agent is running) is displayed when Windows is shutdown.

With the fix pack, the problem has been resolved.

**APAR IY78523**

The CIT code is not able to detect if Power PC 604® or Power PC® 601 processors are on or off.

With the fix pack, the problem has been resolved.

**APAR IY78517**

The inventory install snapshot and inventory history do not have the document export function.

With the fix pack, the 'Document' option has been added to the Export pull-down for those reports.

**APAR IY78190**

The TLM agent cannot send Korean hostnames.

With the fix pack, a Korean hostname is correctly sent to the servers and displayed on the WebUI.

**APAR IY77577**

JVM signatures are not sent to 1.1.1 agents.

With the fix pack, JVM signatures (FILE type) are sent to 1.1.1 agents, and these agents are able to process them.

**APAR IY77467**

The agent gathers negative sizes if the executable files have sizes between 2 and 4 GB.

With the fix pack, the problem is resolved.

**APAR IY77327**

UNIX agents use too much CPU.

This is a performance problem that may occur if multiple commands are executed in sequence.

With the fix pack, the problem is resolved.

A new optional parameter, called **licensing_filtered_path**, has been added to `tlmagent.ini`. This parameter ensures that the paths to which it refers are not processed by the kernel extension. Because the parameter cannot be reloaded, the agent must be stopped and restarted to enable the filtering.

The parameter can contain more than one path, separated by ";". For example:

```
licensing_filtered_path = path1;path2
```

It is recommended that the agent traces are set to MIN, otherwise the performance improvement cannot be appreciated.

**APAR IY77256**

During migration, the administration server never receives an inactive status from agents that have been discontinued.

As part of the migration, the administration server should move to the unknown state all agents that did not execute a plugin to the migrated runtime servers. In some cases this is not done and the agents remain in the active state. When this happens, these agents cannot be moved to the inactive state and then deleted.

To solve the problem, this fix pack includes an sql script. The sql must be run only once when the problem occurs.

The sql moves to the unknown state the 1.1.1 agents that are active and that have no inventory data, or that have inventory data from a software scan that was run prior to the migration date. For this reason, you should customize the sql to indicate the number of days from the migration date.

The sql is located at: `<TLM_install_dir>`/admin/db/db2 and, to be executed, it needs a connection to the TLM agent database.

**APAR IY76003**

Add the capability to remove duplicated agents.

When a systems is reinstalled from scratch, and the tlmagent is also reinstalled, the agent shows up duplicated on the Web UI because, as part of the reinstallation, the agent_id is regenerated. A duplication occurs if an agent with the same hostname, operating system name and version is already present. Under these circumstances, the administration server can change the status of the old agent to unknown, so that the user can delete the agent from the Web UI. The status change is based on the plugin_time: the status of agents with an older plugin_time becomes unknown.

This check needs to be esplicitely set by adding two new system.properties in the administrator server under the Admin Server section:

```
inactivateDuplicatedAgentEnabled=[true/false]
inactivateDuplicatedAgentPeriod=[minutes]
```

If the property `inactivateDuplicatedAgentEnabled` is not defined, the default value is false. The default value of `inactivateDuplicatedAgentPeriod` is 2880 minutes (that is, 2 days) while

the minimum value is 1440 minutes (1 day). The second property is used only if the value of the first property is set to true.

To enable this configuration change, the administration server has to be stopped and restarted.

**APAR IY75919**

On Sun Solaris platforms, the installation of GSKit fails even if all required patches have been installed.

With the fix pack, the problem is resolved.

**APAR IY75757**

The characters in the Japanese version of the `itlm_dict.xsl` file are garbled.

With the fix pack, the problem is resolved.

**APAR IY75676**

An error occurs when importing a large update of the catalog.

With the fix pack, the problem is resolved.

**APAR IY75483**

On Linux there is no check that prevents the tlmagent executable file from being uploaded as an unknown file.

With the fix pack, the problem is resolved.

**APAR IY74433**

When logging to the Web UI, if the tlmsrv password has expired, a misleading error message is displayed.

With the fix pack, the text of the message is changed.

**APAR IY73952**

The hardware scan was performing a calculation of the CPU frequencies if the value of the CPU clock retrieved from Windows Management Instrumentation (WMI) and the value retrieved from the System Management BIOS (SMBIOS) were different.

This was generating a performance issue. After installing the fix pack, the calculation is only performed if neither WMI or SMBIOS is installed..

**APAR IY73923**

The hardware scan was being performed every 10 minutes.

This was generating a performance issue. After installing the fix pack, the interval between hardware scans is increased to 30 minutes.

**APAR IY73904**

The agent abends if the proxy is misconfigured.

If the communication between the runtime server and the proxy uses a different security level than that used between the proxy and the agent, the agent may crash when a new version of the catalog is downloaded. With the fix pack, the problem is resolved.

**APAR IY72870**

The installed software scan can take a long time on systems where Distributed File System (DFS™) volumes are mounted.

After installing the fix pack, DFS volumes are not included in the scan.

**APAR IY72259**

A Java™ stack overflow error occurs on the administration server when attempting to update the database with software use information.

With the fix pack, the problem is resolved.

**APAR IY70999**

When importing a license using the **dataimp** command, if the Component name field is not defined in the component entity file an undocumented error is displayed.

With the fix pack, the error message (with code CL7043E) is provided.

**APAR IY69278**

When importing a license using the **dataimp** command, an error occurs if the total cost information, which is an optional value, is not provided for the procured license.

With the fix pack, optional information are handled correctly.

**APAR IY68803**

After the installation of a patch, customizations to the file `unknownFiles.properties` are not preserved.

With the fix pack, the problem is resolved.

**APAR IY68811**

When upgrading an agent from version 1.1.1 to version 2.1, the agent prerequisites for version 2.1 are not checked before the version 1.1.1 agent is uninstalled. This creates a situation where the version 1.1.1 agent has been removed but the version 2.1 agent cannot be installed because of missing prerequisites.

With the fix pack, the prerequisite check precedes the uninstallation of the version 1.1.1 agent. If prerequisites are missing, the upgrade does not continue, leaving the version 1.1.1 agent installed.

**APAR IY66394**

The agent is not able to communicate using port numbers higher than 32 000. This APAR was opened against Tivoli License Manager, version 1.1.1 but also impacts version 2.1.

With the fix pack, the problem is resolved.

**APAR IY68617**

The software package block for deploying Windows agents contains a corrupted `info.exe` file.

With the fix pack, the problem is resolved.

**APARs IY68390 and 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. The wildcard character "*" can be used in the definition of paths to be skipped, as follows:
   - To skip all paths that start with the a particular string, specify: *<string>**
   - To skip all paths that end with the a particular string, specify: **<string>*

- To skip all paths that contain a particular string, specify: *<string>*
- To skip all paths that start with a specified string and end with a different specified string, specify: <string1>*<string2>

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 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.

With the fix pack, the correct behavior is restored.

**APAR IY65521**

The **statusinfo** command cannot be performed on the administration server.

With the fix pack, the problem is resolved.

**APAR IY65295**

Errors occurred when using the catalog manager to add software use monitoring modules to products in the catalog.

With the fix pack, the problem is resolved.

**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.

With the fix pack, the problem is resolved.

**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.

With the fix pack, the server or catalog manager will handle the DB2 instance correctly.

**APAR IY69113**

On AIX platforms, the agent kernel extension is inactive after Fix pack 2.1.0–TIV-TLM–FP0001 is installed

With the fix pack, the problem is resolved.

## Product fix history for the Warehouse Enablement Pack

This fix pack fixes the following APARs for the Warehouse Enablement Pack:

**APAR IY79732**

The Tivoli License Manager 2.1 WEP component takes a long time to be executed.

With this fix pack, the performance problems have been fixed and now the performances are acceptable.

**APAR IY71883**

There is a performance problem when using ETL2 with a large amount of data.

With the fix pack, the sql query has been changed to improve performances.

**APAR IY63586**

Performance problems occurred while running the Extract, Transform and Load procedures (ETLs). The ETL proceess was taking more than 24 hours to complete.

After you apply the fix pack, the problem does not occur.

## Documentation fix history

This fix pack documents solutions for the following documentation APARs:

**APAR IY81829**

Problem (found in the *IBM Tivoli License Manager: Administration*): Appendix C "Import and export formats" does not include an important information about using the DTD files to import, export, and convert data.

Solution: To use the DTD files to import, export, and convert data, the DTD files must be copied into the working directory of the command.

**APAR IY81713**

Problem (found in the *IBM Tivoli License Manager: Administration*): Appendix C "Import and export formats" does not state that **dataimp** and **dataexp** can also be used to move data between servers.

Solution: The **dataimp** and **dataexp** commands can also be used to move data between servers. To do so, you must change the IDs within the exported files according to the specifications that follow. An ID has the following format: TLM_xxxxx_n, where 'xxxxx' identifies a server uniquely, and 'n' is a sequence number. To change the ID, simply append a sequence number 'n' different from those already used on the target server.

**APAR IY81330**

Problem (found in the *IBM Tivoli License Manager: Administration*): The documentation about the **impcat** command is missing.

Solution:

**impcat**

Imports IBM software catalog into the administration server database from the administration server command line.

**Syntax**

**impcat** *<impfile.xml>*

**Description**

You can use this command to update the administration server database by importing an XML file containing a new version of the IBM software catalog.

The IBM catalog is updated periodically, and new versions can be downloaded from the following Web site:

You must provide the fully qualified name of the XML catalog file to be imported. You can not change the global import policy and the import replaces all the existing catalog entries.

**Options**

**<impfile.xml>**

Required. It is the fully qualified filename of the XML file to be imported.

**APAR IY80943**

Problem: The agent self-update facility does not provide enough flexibility in scheduling updates. The self-update facility is controlled by a property in the runtime server configuration file. If the value of this property is set to **Yes** for a runtime server, all of the agents that are registered with that runtime server and that are running on platforms for which changes to the agent code are available will request a download of the new agent code from the server.

Solution: The fix introduces an additional level of control, allowing scheduling of updates by division within each runtime server. The application of the fix to the runtime server database creates the column `rtm.division.selfupdate` and sets its value to 1 (enabled) for all existing divisions. The system property that controls agent self-update at the runtime server level is disabled by default. Before changing the system property to enable self update for the runtime server, you should disable those divisions that you do not want to schedule for update at this time.

To enable agents for self-update by division after you have applied the fix, complete the following steps:

1. Connect to the runtime server database with a DB2 client.
2. Obtain the ID of a division for which you do not want to update agents. For example:

   ```
   select id from rtm.division where name="division_one"
   ```
3. Change the value of the `rtm.division.selfupdate` column for the division in which agents are not to be updated. For example:

   ```
   update rtm.division set selfupdate=0 where id=1
   ```

   This statement updates the runtime server division table, setting the value of `selfupdate` to **0** (disabled) for the division with ID = 1.
4. Repeat these two steps for each division for which agents are not to be updated.
5. Disconnect from the runtime server database.
6. On the computer where the runtime server is installed, open the `system.properties` file.

   The system.properties file is stored in the following location:

   ```
   <INSTALL_DIR>\runtime\SLM_Runtime_Application.ear
   \slm_runtime.war\WEB-INF\conf
   ```
7. Ensure that the following parameters are set to the shown values:

   ```
   # Enables the agent self-update feature
   # Type: string, Range: [yes, no]
   updateAgentEnabled=yes

   # Time interval between checks by the agent
   ```

```
# for a new version of the agent code
# at the runtime server (minutes)
# Type: integer, Range: [10080-129600]
updateAgentPeriod=10080
```

8. Save and close the file.

9. Stop and restart the runtime server to apply the configuration changes.

**APAR IY80606**

Problem (found in the *IBM Tivoli License Manager: Planning, Installation, and Configuration*):

- In section "Prerequisites for agent deployment on RSH and SSH UNIX networks", within the Software table, it is stated that the wizard has been tested with the J2SSH-Lite libraries. Instead, it should be stated that the wizard has been tested with the J2SSH-Lite version 0.2.7 libraries.

- In section "Deploying agents to UNIX nodes using SSH and RSH", within step 2 there are instructions to navigate to the 3SP site to download the J2SSH-Lite libraries. This web site is no longer accessible.

  The entire text of step 2 should be replaced with:

  – **Obtain J2SSH libraries (first time only):** This deployment method requires you to obtain and build on the computer from which you want to run the wizard, a set of libraries that allow the computer to operate as an SSH client.

    For your information, the wizard has been tested using J2SSH-Lite version 0.2.7.

**APAR IY80533**

Problem (found in the *IBM Tivoli License Manager: Planning, Installation, and Configuration*): In the "Supported platforms" sections, all references to HP-UX 11i on PA-RISC must be changed to HP-UX 11i on PA-RISC 2.0. Earlier versions of PA-RISC are not supported.

**APAR IY78917**

Problem (found in the 2.1.0-TLM-TIV-FP0003 ReadMe): In the ReadMe for FP0003,Table 2 on page 4 contains wrong names for some linux directories and misses an entry for Red Hat Enterprise Linux AS 4.0 for iSeries and pSeries. In this ReadMe the wrong names have been corrected and the missing entry has been added to Table 2 on page 4.

**APAR IY78624**

Problem (found in the *IBM Tivoli License Manager: Administration*): the Tivoli License Manager 2.1 Administration book wrongly states that all the reports available on the Administration Server WebUI can be exported using the 'Document' option. Instead, with the GA level code, the reports that allow this option are: License Compliance, Unlicensed Use, and Export IBM Use. While, with 2.1.0-TLM-TIV-FP0004, the reports that allow this option are: Installs History, Installs Snapshot, License Compliance, Unlicensed Use, and Export IBM Use.

**APAR IY77517**

Problem (found in the *IBM Tivoli License Manager: Planning, Installation, and Configuration*): Tivoli License Manager servers cannot be installed on directories whose path contains at least one dot ".". This causes the installation procedure to exit with an error message. Check the installation path before installing Tivoli License Manager 2.1.

**APAR IY73958**

Problem (found in the *IBM Tivoli License Manager: Data Dictionary*): it is wrongly believed that AGENT_H.START_TIME is the time when the agent starts and the AGENT.PLUGIN_TIME the time when the agent plugs-in. So it is not clear why the PLUGIN_TIME is before the START_TIME.

Solution: AGENT_H.START_TIME is the date and time at which the agent record is either inserted by the initial deployment of the agent or updated by the redeployment of the agent, as indicated by the value I (insert) or U (update) held in the AGENT_H.START_ACTION field. Following the date and time indicated by AGENT_H.START_TIME, the agent remains current until the agent is deleted or updated, as indicated by the value D (delete) or U (update) held in the AGENT_H.END_ACTION field. Therefore, the period of time between the AGENT_H.START_TIME and the AGENT_H.END_TIME is the period of currency of the agent parameters held in the agent history record.

AGENT.PLUGIN_TIME is the date and time at which the agent last sent its plug-in information to the runtime server. The agent sends the plug-in information in the following circumstances:

- When the agent is initially deployed
- Whenever the agent is stopped and restarted
- Whenever the runtime server is stopped and restarted
- When the agent is redeployed or upgraded
- When the agent has detected a change in the hardware of the node it is monitoring
- When the tlmagent command is issued with the -p parameter

Since the START_TIME and the END_TIME are updated by the Administration Server when the agent data come from the Runtime Server it is possible that the PLUGIN_TIME is before the START_TIME, because the PLUGIN_TIME is communicated by the agent itself, while the START_TIME is the time when the data are available on the server for the first time or are updated.

**APAR IY75360**

Problem: an overview of the kernel extension functionality is missing from the documentation.

Solution: The kernel extension is a subcomponent of the Tivoli License Manager agent. It is installed together with the agent and is a kernel module that functions as an extension of the operating system of the computer on which the agent is installed. The kernel extension detects the starting and stopping of applications in a real-time mode and so enables the agent to collect information about the use of the applications and to generate requests for the grant and release of licenses.

The kernel extension is installed on all platforms of Tivoli License Manager 2.1 supported at GA time. None of the new platforms that have been introduced in fix packs, other than AIX 5.3, have kernel extensions.

## Problems fixed

The following problems were found since the general availability of Tivoli License Manager, version 2.1 and fixed with this fix pack:

- "For the administration server" on page 19
- "For the runtime server" on page 19

## For the administration server

**The impcat command does not work in an environment with the administration server deployed on WebSphere Application Server with secure cells.**

In general the administration cli is not able to run in such an environment.

With the fix pack, the problem is resolved but you need to take the following actions after you install the fix pack:

1. Copy the files `was.policy.50x` and `was.policy.51x` from path:

   `<INSTALL_DIR>/SLM_<TLMServer>_Application.ear/META_INF`

   to path:

   `<WAS_INSTALL_DIR>/config/cells/<cellName>/applications`
   `/SLM_<TLMServer>_Application.ear/deployments`
   `/SLM_<TLMServer>_Application/META_INF`

   where:
   - *INSTALL_DIR* is the installation path of Tivoli License Manager
   - *WAS_INSTALL_DIR* is the installation path of WebSphere
   - *TLMServer* is either `Admin` or `Runtime`
   - *cellName* is the hostname of the computer

2. Follow the procedure documented in *IBM Tivoli License Manager: Planning, Installation, and Configuration* to enable java 2 security

**Wrong dialog displayed in Contracts task**

During use of 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.

With 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.

With 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 incorrectly calculated.

With the fix pack, the high water mark is correctly reported.

## For the runtime server

**A Java security exception occurs after starting the runtime server.**

With the fix pack, the problem is resolved but you need to take the following actions after you install the fix pack:

1. Copy the files `was.policy.50x` and `was.policy.51x` from path:

   `<INSTALL_DIR>/SLM_<TLMServer>_Application.ear/META_INF`

   to path:

```
<WAS_INSTALL_DIR>/config/cells/<cellName>/applications
/SLM_<TLMServer>_Application.ear/deployments
/SLM_<TLMServer>_Application/META_INF
```

where:
- *INSTALL_DIR* is the installation path of Tivoli License Manager
- *WAS_INSTALL_DIR* is the installation path of WebSphere
- *TLMServer* is either `Admin` or `Runtime`
- *cellName* is the hostname of the computer

2. Follow the procedure documented in *IBM Tivoli License Manager: Planning, Installation, and Configuration* to enable java 2 security

**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.

With 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.

With 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 headed **License Name**.

With the fix pack, the correct column header is displayed.

## For the agent

**The agent takes a core dump on Red Hat Enterprise Linux AS 3.0 for iSeries and pSeries Update 3.**
After installing the fix pack, this problem is resolved.

**The WebSphere Application Server agent self-update fails on Linux 390.**
The problem occurs on sles 8 and rhel 3 U1 on 390, running the Tivoli License Manager GA code.

After installing the fix pack, this problem is resolved.

**The agent hangs when requested to stop.**
In some circumstances the agent hangs (on Linux 390) or takes a core dump (on Sun Solaris).

After installing the fix pack, this problem is resolved.

**The agent self-update process does not check that prerequisite fixes for GSKit have been installed.**
This problem occurs on Windows and Sun Solaris platforms.

After installing the fix pack, this problem is resolved.

**On Solaris platforms, any system shutdown or reboot causes the agent to terminate abnormally.**
The agent terminates abnormally even if the system is shutdown or rebooted in a clean manner.

After installing the fix pack, the agent is stopped correctly before system shutdown when the **init 6** or **init 0** procedures are used.

**On OS/400 platforms, strings containing paths were not converted to UTF8.**
WebSphere Application Server paths discovered by the WebSphere Application Server agent controller were not converted to UTF8 format.

With the fix pack, the conversion of paths is performed. If there is a discrepancy between the input and output values of the conversion, a warning is generated.

**During reboot, the tlm script causes the startpar command to hang.**
This problem affects Linux systems. With 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**.

With 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.**
With 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.

With 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.

With 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.

With 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.

With 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.

With the fix pack, this problem is resolved.

**On Red Hat 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.
>
> With 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.
>
> With the fix pack, this problem is resolved.

### For agent deployment

**The Web and RSH/SSH deployment of an agent on Red Hat Enterprise Linux 4.0 (64 bit) does not work.**
> After installing the fix pack, this problem is resolved.

**The manual agent deploy script for UNIX platforms does not work.**
> After installing the fix pack, this problem is resolved.

**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.
>
> With 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 agent 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.
>
> With the fix pack, this problem is resolved.

## Backward compatibility

All previous fix packs and interim fixes are superseded by this fix pack.

Dependencies:
> IBM Tivoli License Manager, Version 2.1

Dependencies for Warehouse Enablement Pack:
> Tivoli Data Warehouse, version 1.2

This fix pack has been tested using the latest available fix packs of Tivoli Data Warehouse, as follows:

- Tivoli Data Warehouse, version 1.2
- Tivoli Data Warehouse, version 1.2, Fix Pack 2

# 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.

Agents deployed after this fix pack has been applied to the runtime server will have a new version number of 2.1.0.50. 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 Manager: Planning, Installation, and Configuration*.

**Tivoli Data Warehouse, version 1.2**

On Tivoli Data Warehouse, version 1.2, this fix pack creates a new file called `<INSTALL_DIR>`/apps/cod/V2105/instal/logs/wep_install.cfg (where `<INSTALL_DIR>` is the directory where Tivoli Data Warehouse, version 1.2, is installed), which identifies the current product version.

# Installation, migration, upgrade, and configuration information

This section includes the following topics:
- "Hardware and software requirements"
- "Installing the fix pack" on page 24
- "After installing the fix pack" on page 25
- "Upgrading agents" on page 25
- "Reverting to the previous version" on page 26

# Hardware and software requirements

This section includes the following topics:
- "Supported platforms"
- "System requirements" on page 24

## 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
- Red Hat Enterprise Linux 3.0 Update 4
- Red Hat Enterprise Linux ES/AS/WS 4.0
- HP-UX 11i v2 on PA-RISC 2.0

**Note:** To support Sub-Capacity licensing on Power 5 processors on AIX 5.3 and SUSE LINUX Enterprise Server 9 you need to have the following system levels:
  - AIX 5.3 maintenance level 2
  - SUSE LINUX Enterprise Server 9 SP1

### System requirements

Hardware and software prerequisites are detailed in *IBM Tivoli License Manager: Planning, Installation, and Configuration*. See "Changes to agent prerequisites" on page 3 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 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 26.

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

**2.1.0–TIV-TLM-FP0005-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.

**2.1.0-TIV-TLM-FP0005-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-FP0005-RSH-SSH-Win.zip**
This file contains the files needed to deploy agents on UNIX platforms using the RSH/SSH deployment wizard.

**2.1.0-TIV-TLM-FP0005-catman-<*platform*>.zip**
This file contains the files needed for the Catalog Manager component.

**2.1.0-TIV-TLM-FP0005-TOOLS-SPB.zip**
This file contains the software package blocks that must be installed to enable the fix for APAR IY82440.

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

**Notes:**
1. Before starting the installation, back up the administration server database 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.

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 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 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**.

## After installing the fix pack

After you have installed the fix pack, you must perform the following tasks where appropriate:

- If you are using DB2 UDB Enterprise Server Edition, version 8.2 for your runtime server databases, you may experience problems in updating the software catalog tables when a new catalog is imported and downloaded from the administration server following application of the fix pack. These problems can be avoided by using the following DB2 configuration settings:
  - pckcachesz = 64000
  - locklist = 2000
  - dbheap = 20000
- If you had applied fix pack 2.1.0–TIV-TLM-FP0001 and are already using the unknown file skipping functionality described in APAR IY63893, the installation of this fix pack will have overwritten the `unknownFiles.properties` configuration file where you have defined the paths to be skipped because of the introduction of wildcard character (APAR IY68390). You can restore the configuration file from the backup created during the installation of the fix pack on the runtime server.

## 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*.

**Note:** On Solaris and Windows platforms, the agent deployment process does not check that the operating system has the required patches applied for the installation of GSKit. Before upgrading or deploying agents on these platforms, you should check that all necessary patches are applied.

After installing this fix pack the following version changes take effect:
- The agent version for all platforms becomes 2.1.0.50.
- 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 2105.

### WebSphere Application Server agents

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 this 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 GA level 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 to this fix pack. If you do not, the agent will not be able to download the WebSphere Application Server agent.

If you have WebSphere Application Server, version 6.0 or WebSphere Portal installed on a monitored computer, you should upgrade to, at least, fix pack 2.1.0–TIV-TLM-FP0002 to obtain monitoring of J2EE applications running inside these containers. If you do not apply the upgrade, the agent is unable to detect WebSphere Application Server, version 6.0 or WebSphere Portal and so will not monitor the applications that are running within them.

When WebSphere Portal is installed, the file `itlm.product` is installed in the directory: `<WebSphere_Portal_Home>\version`. This file contains commented entries that identify WebSphere Portal products and versions. To enable Tivoli License Manager monitoring of the WebSphere Portal product that you have installed, you must edit the file and uncomment the lines that relate to your product. If the file is changed after the Tivoli License Manager agent is upgraded to this fix pack, you must restart the agent for the changes you made to the `itlm.product` file to take effect.

## 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 `2.1.0-TIV-TLM-FP0005` 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.

# Installation, migration, upgrade, and configuration information for the Warehouse Enablement Pack

This section includes the following topics:

- "Limitations"
- "Hardware and software requirements"
- "Installing the fix pack"
- "Reverting to the previous version" on page 28

*Please review this section thoroughly before installing or using this product.*

**Note:** This section uses the Windows convention for variables and directory notation, unless the context is specifically a UNIX one. See "Operating system-dependent notation" on page 35 for information about applying the instructions to UNIX environments.

## Limitations

ETLs must be run only once a day.

## Hardware and software requirements

Hardware and software prerequisites are detailed in the *IBM Tivoli License Manager, Version 2.1: Warehouse Enablement Pack, Version 2.1.0 Implementation Guide for Tivoli Data Warehouse, Version 1.2*. There are currently no changes to the information included in the Release Notes®.

## Installing the fix pack

The following tells you how to install this fix pack. After you have installed a 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 28.

In addition to the instructions given here, you can also refer to *Installing and Configuring Tivoli Data Warehouse*.

Perform the following steps to install the fix pack:
1. Log on to the system using an account with administrator authority.
2. Back up the following components before starting the fix pack installation (backup procedures are described in the chapter on maintaining Tivoli Data Warehouse in *Installing and Configuring Tivoli Data Warehouse*):
   - The Tivoli Data Warehouse databases
   - The Tivoli Data Warehouse application software on each system in your configuration. This will include the files for the application warehouse enablement packs, so those packs are also backed up.
3. Copy the fix pack file `2.1.0-TIV-TLM_WEP-FP0005.zip` to a temporary directory or folder.
4. Unzip the fix pack files.

5. From the Windows **Start** menu, select **Programs –> Tivoli Data Warehouse ->
   Install a Warehouse Pack**.

6. A window is displayed. Follow the instruction described in *Installing and
   Configuring Tivoli Data Warehouse* and select `<TEMP_DIR>\tdw_weps\cod\v2105\`
   `twh_install_props.cfg` where *<TEMP_DIR>* is the folder where you extracted
   the fix pack file `2.1.0–TIV-TLM–FP0005-WEP.zip`

7. Verify that the fix pack has been correctly installed, as follows:

   a. Verify that the installation directory has been changed to
      `<INSTALL_DIR>\apps\COD\v2105\`.

   b. Navigate to the directory `<INSTALL_DIR>\apps\COD\v2105\`.

   c. To verify that the product has been upgraded, list the agent site information
      in the Tivoli Data Warehouse registry by following steps listed below:
      1) On the machine where the Tivoli Data Warehouse Control Center is
         installed, open a DOS prompt;
      2) from the DOS prompt, type:

         `bash`
      3) move to directory `<INSTALL_DIR> \tools\bin`
      4) type the command:

         `bash$ twh_list_agentsites`

         and check its output. Here is an output example:

         `Local Agent Site:`

         `Hostname: hostname.domain.com`

         `Version: 1.2.0.0`

         `Enabled/Disabled: Enabled`

         `Warehouse Pack Usage:`

         `Name: IBM Tivoli License Manager, Version 2.1.0.5`

         `Function: Central data warehouse process`

         `Name: IBM Tivoli License Manager, Version 2.1.0.5`

         `Function: Data mart process`

   **Note:** This fix pack does not create a new folder in the **Tivoli reports** folder of the
   Crystal Management console. It updates the content of **IBM Tivoli License
   Manager, Version 2.1.0** folder.

## Reverting to the previous version

To revert to the previous version perform the following steps:

1. Uninstall the Warehouse Enablement Pack for Tivoli License Manager.

   See the chapter on uninstalling warehouse packs in *IBM Tivoli Data Warehouse:
   Installing and Configuring*, GC32-0744.

2. Reinstall the Warehouse Enablement Pack.

3. Restore the Tivoli Data Warehouse Databases that you backed up at step 2 on
   page 27.

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## General information

This section contains the following general information that might have changed
since these products were made available:

- "Publications" on page 29
- "Accessibility" on page 31

- "Tivoli technical training" on page 31
- "Contacting software support" on page 31
- "Conventions used in this readme file" on page 35

## 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" on page 30.

## 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"
3. "Submit your problem to IBM Software Support" on page 33

## 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 34.

## 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.

## Operating system-dependent notation

This readme file uses the Windows convention for environment variables and directory notation.

When using the UNIX command line you should do the following:

**Environment variables**
First verify the correct value for the UNIX variable name, as many Windows and UNIX variables that perform the same task have different names (for example, %TEMP% in Windows is equivalent to $tmp in UNIX). Then replace **%***Windows_variable***%** with **$***UNIX_variable*.

**File and directory paths**
Replace each backslash ( \ ) with a forward slash ( / ).

**Note:** If you are using the bash shell on a Windows computer, you can use the UNIX conventions.

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