

IBM Tivoli Configuration Manager



Readme File for Fix Pack 5 - PTF U802044

Version 4.2

IBM Tivoli Configuration Manager



Readme File for Fix Pack 5 - PTF U802044

Version 4.2

Note

Before using this information and the product it supports, read the information in "Notices" on page 85.

First Edition (March 2005)

This edition applies to fix pack 5 (PTF U802044) for version 4, release 2, modification level 0 of IBM Tivoli Configuration Manager (program number 5724-C06).

© Copyright International Business Machines Corporation 2003, 2005. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

IBM Tivoli Configuration Manager Readme for Fix Pack 5 (PTF U802044).	1
About this release	1
CD-ROM structure	1
New features	2
New features contained in this fix pack	2
New features contained in previous fix packs	2
Product fix history	5
Fixes contained in this fix pack	6
Inventory	6
Software Distribution	15
Activity Planner	22
Change Manager	24
Tivoli Resource Manager	25
Web Interface	25
Directory Query	26
Fixes contained in previous fix packs and interim fixes	26
Backward compatibility issues	36
Product compatibility issues	37
Limitations	38
Limitations in DBCS environments	39
Installation	42
Hardware and software requirements	42
Supported platforms	42
System requirements	42
Traditional fix pack install methods	42
Installing fix packs using ISMP	43
Installing fix packs using the Tivoli desktop	44
Installing fix packs using the CLI	44
Installing fix packs using SIS	45
Software package block (SPB) fix pack install for GUI components	46
SPB Patch Installer	48
Software Distribution server command	49
Software Distribution disconnected command	49
Software package block fix packs	49
Updating the inventory schema	50
Using SQL scripts to upgrade the schema	50
Upgrading plug-ins	51
Documentation notes	52
New information contained in this fix pack	52
User's Guide for Software Distribution	52
User's Guide for Software Distribution	52
User's Guide for Software Distribution	53
Reference Manual for Software Distribution	53
User's Guide for Deployment Services	53
Release Notes	54
Documentation problems and corrections contained in this fix pack	54
Reference Manual for Software Distribution	54
Reference Manual for Software Distribution	54
User's Guide for Software Distribution	55
Planning and Installation Guide	55
Reference Manual for Software Distribution	55
User's Guide for Software Distribution	55
Planning and Installation Guide	56
New information contained in previous fix packs	56
Reference Manual for Software Distribution	56
Messages and Codes	58

User's Guide for Deployment Services	61
User's Guide for Software Distribution	67
Release Notes	68
Software Package Editor Online Help.	69
Documentation problems and corrections contained in previous fix packs	69
Planning and Installation	69
User's Guide for Deployment Services	70
User's Guide for Software Distribution	72
Reference Manual for Software Distribution	75
User's Guide for Inventory	82
Release Notes	82
Activity Planner Online Help	82
Contacting customer support	83
Notices	85
Trademarks	86

IBM Tivoli Configuration Manager Readme for Fix Pack 5 (PTF U802044)

This readme provides important information about Fix Pack 5 (PTF U802044) for IBM® Tivoli® Configuration Manager version 4.2. This readme is the most current information for the fix pack and takes precedence over all other documentation for IBM Tivoli Configuration Manager version 4.2. This fix pack fixes a variety of new defects on Software Distribution, Inventory, Activity Planner, Change Manager, Tivoli Resource Manager, Web User Interface, and Query Directory components and contains all fixes from prior IBM Tivoli Configuration Manager 4.2 fix packs plus all fixes released as interim fixes.

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

About this release

This section includes the following topics:

- “CD-ROM structure”
- “New features” on page 2
- “Product fix history” on page 5
- “Backward compatibility issues” on page 36
- “Product compatibility issues” on page 37
- “Limitations” on page 38
- “Limitations in DBCS environments” on page 39

CD-ROM structure

IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 includes two CD-ROMs:

Table 1. IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD 1 of 2

Directory or path	Contents
/apps	To install interim fixes using the ISMP installation program, XML files contained in this directory must be copied on the Tivoli management region server in the \$DBDIR/Upgrade/apps directory.
/docs	Readme file.
/images/INV	Images required for Inventory interim fixes.
/images/SWD	Images required for Software Distribution, Activity Planner, Change Manager, Tivoli Resource Manager, Enterprise Query Directory.
/images/SWD_L10N	Images required for internationalization support for Software Distribution, Activity Planner, Change Manager, Tivoli Resource Manager, Enterprise Query Directory

Table 2. IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD 2 of 2

Directory or path	Contents
/package	Software package block files used to patch GUI components and the XML descriptor file.

Table 2. IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD 2 of 2 (continued)

Directory or path	Contents
/spb_installer	SPB Patch Installer that installs SPB interim fixes locally and the SPB Patch Installer Guide.
/TWG_HP	Support for Tivoli Web Gateway on the HP-UX platform (all GA packages for the HP-UX platform and the Patch Installer to install SPB interim fixes).
/convcat	Contains the wconvcat command for each supported platform that converts the endpoint catalog so that it can be accessed by the disconnected command line at the version 4.2 GA level or FP01 level. For more information see "Product compatibility issues" on page 37.

New features

This section contains a cumulative list of new features introduced in the previous fix pack and the current fix pack.

New features contained in this fix pack

No new features are provided with this fix pack.

New features contained in previous fix packs

The following new features and enhancements have been introduced in previous fix packs:

- **Tivoli Web Gateway component support on HP-UX**

HP-UX support has been added for the Tivoli Gateway Component. This component can now be installed on HP-UX platforms using any of the installation mechanisms. The installation program, software package blocks, and images used for the installation are located in the TWG_HP directory on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 3 CD (2 of 2). Interim fixes for Tivoli Resource Manager components include the compatibility for the new HP-UX support for the Tivoli Gateway component.

- **Enabling User Context Switch**

On Windows NT[®], 2000, and XP operating systems, the Web user can perform the install, uninstall and verify operations on a software package even if he is not logged on as administrator. See "Enabling User Context Switch" in Documentation notes, New Information, User's Guide for Deployment Services for more details.

- **Unrestricted Access to Web Objects**

You can make Web objects accessible to all users by eliminating the use of the IBM Tivoli Access Manager and IBM Tivoli Access Manager WebSEAL security mechanisms. Running the Web Interface without user restrictions to Web objects means that no authentication is performed when accessing Web objects. When publishing Web objects, the administrator can choose to not specify user information so that the object published can be accessed by all users. When starting the Web Interface, type the Web address for the Web Interface server in the following form for unrestricted access:

```
http://hostname/WebConsole/com.tivoli.webui.servlets.ConsoleMain
```

where, the host name represents the machine where WebSphere[®] is installed and configured. Connecting to the Web Interface server in this way allows access to

all published Web objects. See "Unrestricted Access to Web Objects" in "New information contained in previous fix packs", "User's Guide for Deployment Services" on page 61 for more details.

- **Check datamoving retrieve status on mobile endpoints.**

New tags added to swdis.ini permit mobile users to check the status of data retrieve operations. Add the following new tags to the Software Distribution configuration by using `wswdcfg` command on the source host where the retrieve operation initiates:

- `ep_trace_level= 0` trace disabled (default value), `5` trace enabled
- `ep_trace_size=` value in bytes, default `1000000`
- `ep_trace_style= 0` trace file named `spde.trc`; `5` trace file named `spde.dxxhyy.trc`
- `ep_trace_tags=tag1, tag2,...` [at the moment the only available tag is "datamoving"]
- `ep_trace_override_local_settings= 0, 1` (default value)

- **New Search buttons for Activity Plan Editor and Change Manager graphical user interfaces.**

For the Activity Plan Editor and Change Manager graphical user interfaces, a search button has been added to browser dialogs that you use to select software packages, tasks, and targets. The search button permits you to search your Tivoli environment for specific objects.

- **Avoiding disk space problems during the reporting phase.**

To avoid corruption of the message file due to insufficient disk space during the reporting phase, the following limitations have been introduced:

1. The volume or drive in which the "message" directory resides now has a minimum free space limit of 10 MB. This limit is a hard-coded minimum of free space.
2. You can dedicate a percentage of volume/drive to the message directory. The limit is customizable. The key used to dedicate the disk space for the message directory is `message_dir_usable_quota` and the default is 100%. Each time the limit specified is reached, the same exception as the thread limiter is thrown, causing the report to be analyzed later.

- **Linux on PowerPC®**

Fix pack 1 releases an endpoint bundle to support Linux on PowerPC. To enable this feature you must install the following interim fixes on the Tivoli management region server:

- 4.1-TMF-0015 - Tivoli Framework Patch 4.1-TMF-0015 for linux-ppc (LCF41)
- 4.2-INVGW-0005 - Tivoli Inventory Gateway Linux PPC Patch 4.2-INVGW-0005

- **Performance Improvements**

- A performance improvement has been introduced that involves the accessing of the TNR. The TNR is now cached so that requests for the same information can be accessed from the cache rather than the TNR, minimizing TNR requests. The following information is stored in the TNR:
 - SPO attributes (name, version, src_host, ...)
 - Server host attributes (oid, hostname, ...)
 - Active integration (Inventory, Tivoli Enterprise Console®)
- A performance improvement has been introduced also to run many operations contemporaneously for the same spo (package). Now, no queuing effect should be visible on the server.

- **Checks on shared objects**

The `sharing_control` keyword has been added to the software package properties. An existence check is performed on files and registry values. This avoids their deletion when the package is removed, if these objects were already present on the target prior to the distribution of the software package. See "Defect 34924" in "Documentation problems and corrections contained in previous fix packs", "User's Guide for Software Distribution" on page 72 and "Reference Manual for Software Distribution" on page 75 for more details.

- **Reboot action during commit phase**

A restart action can be defined to be performed during the commit of the package. See "APAR IY34938" in "Documentation problems and corrections contained in previous fix packs", "Reference Manual for Software Distribution" on page 75 for more details.

- **Enable Java™ plug-in auto-download**

The java plug-in can be automatically downloaded on the Web user's machine by adding the URLs to the `webconsole.properties` file and setting the value of the `PLUGIN_AUTH_DOWNLOAD.ENABLED` key to "true". See "Enable Java plug-in auto-download" in "New information contained in previous fix packs", "User's Guide for Deployment Services" on page 61 for more details.

- **Added a check to handle the situation in which the reboot on Windows is not really performed**

A new mechanism has been added to check if the reboot of machine has been performed. This means that if the package is in a "changing" status, Software Distribution behaves in the following ways:

- If the reboot has not yet occurred, any subsequent operations cannot be performed on the package until the reboot actually occurs.
- If the package is in changing status and no reboot action is anticipated, the status is "inconsistent" and it is put in ERROR. To submit a subsequent operation you must specify the "force" option to avoid validation errors.

- **Add new flag in `wgetspop/wsetpop` command**

A new `-r` option has been added to handle the `'no_chk_on_rm'` SPO attribute:

Usage: `wgetspop` `{-h | -j | -L | -m | -P | -r | -u}` `spobj_name`

Usage:

```
wsetspop {[-h log_host] [-j log_mode] [-L log_path] [-m mail_id]
          [-P post_notice] [-r no_chk_on_rm] [-u log_uid]} spobj_name
```

For the `wsetspop` command, the acceptable values for the `-r` option are `y/n`. The default value for `no_chk_on_rm` is `y` (yes).

- **Added two attributes to the restart action:**

- timeout**

Used in the restart action to specify how many seconds Software Distribution must wait before considering the reboot failed. If a retry interval occurs during this timeout, the distribution simply exits and uses the checkpoint and restart feature to retry later. The default value is `'-1'` (infinite).

- force_restart**

This boolean flag is used to specify if a reboot must be "forced" (for Windows® only). The default value is `'n'` (not forced). The following is the behavior of restart action, depending on the value of the timeout attribute.

- If `timeout=-1` and `force_restart=n`, a soft reboot is invoked and, if it fails, Software Distribution retries for an infinite time.

- If `timeout=-1` and `force_restart=y`, a hard reboot is performed immediately.
 - If `timeout>=0` and `force_restart=n`, a soft reboot is invoked. If the reboot fails, the distribution fails after the timeout expires.
 - If `timeout>=0` and `force_restart=y`, a soft reboot is invoked and, in case it fails, a hard reboot is performed after the timeout expires.
- **Added the -B option in data moving operation.**
Before the introduction of this option, if a retrieve or send operation with a postscript was performed and the postscript returned an error code, the data moving operation completed as successful anyway. Using the "-B" option from the data moving command line, the retrieve and send operations correctly fail if a non-zero postscript exit code is returned.

- **Default path customization on endpoint Software Package Editor.**

You can customize the default path used by the Software Package Editor file browser dialog boxes, and the open and save dialog boxes, so that they always open in the path you specify. The default setting is `speditor_dir\interp\classes`, where, `speditor_dir` represents the directory where the Software Package Editor is installed, as defined in the `swdis.ini` file. Edit the `speditor.ini` file located in the `speditor_dir\config` directory. The structure of the file is simply as follows:

```
inipath=C:/tmp
```

where, `C:/tmp` represents the path used by the Software Package Editor.

- **User can decide how the section that corresponds to the ep-label should be created when it does not exist.**

Before the introduction of this feature, when Software Distribution runs on an endpoint for the first time, or if the endpoint name has been changed since the last Software Distribution operation, the section in the `swdis.ini` file that corresponds to the ep-label is created by cloning the contents of the section `[#MOBILE]`, if it exists. If this section does not exist, a new `prod_dir` is created. With the implementation of this feature, the user can decide how the section that corresponds to the ep-label should be created when it does not exist, particularly if the endpoint has been renamed.

A new key has been added to the `wswdcfg` command: **how_create_ep_section**.

The key can assume the following values:

- **clone_mobile** (default value): specifies that the section in the `swdis.ini` file that corresponds to the endpoint label is created by cloning the contents of the `[#MOBILE]` section if it exists. If the `[#MOBILE]` section does not exist, a new `product_dir` is created in the `swdis.ini` file, and a new path is created in the `$(system_dir)`.
- **specify_clone_mobile_or_first_ep_name**: a new endpoint section is created by cloning the `[#MOBILE]` section if it exists, otherwise by cloning the first endpoint label section if it exists. If none of the above sections exist, then a new endpoint label section is created based on a new `product_dir`.

Product fix history

IBM Tivoli Configuration Manager, Version 4.2, Fix Pack 5 supersedes all interim fixes released previously for the product. The following sections include all fixes shipped since the IBM Tivoli Configuration Manager, Version 4.2 release. It is divided into the following sub-sections:

- "Fixes contained in this fix pack" on page 6
- "Fixes contained in previous fix packs and interim fixes" on page 26

Fixes contained in this fix pack

The following table lists the interim fixes included in this fix pack:

Table 3. Interim fixes included in this fix pack

Interim fix	Component/Service
4.2-INV-FP05	Inventory, Version 4.2
4.2-INVGW-FP05	Inventory Gateway, Version 4.2
4.2-SWDSRV-FP05	Software Distribution, Version 4.2
4.2-SWDFR-FP05	Software Distribution, Version 4.2 (fr) French language support
4.2-SWDGW-FP05	Software Distribution Gateway, Version 4.2
4.2-SWDJPS-FP05	Software Package Editor, Version 4.2
4.2-SWDEP-FP05	Software Package Editor for Endpoints, Version 4.2
4.2-APM-FP05	Activity Planner, Version 4.2
4.2-CCM-FP05	Change Manager, Version 4.2
4.2-TRM-FP05	Resource Manager, Version 4.2
4.2-TRMGW-FP05	Resource Manager Gateway, Version 4.2
4.2-WEB-FP05	Web Interface, Version 4.2
4.2-DQY-FP05	Enterprise Directory Query Facility, Version 4.2

Inventory: The following APARs and defects for Inventory were fixed in this fix pack:

Table 4. Inventory APARs and defects included in this fix pack

Inventory, Version 4.2 4.2-INV-FP05				
173514	173901	173902	174421	174532
174581	174635	174642	174654	174790
174903	174921	175123	175134	175167
175168	175362	175382	175386	175464
175465	175507	175648	176561	IY58085
IY59253	IY59662	IY60094	IY60574	IY60578
IY60977	IY61539	IY61580	IY62206	IY62375
IY62654	IY62660	IY63636	IY64626	IY64758
IY65052	IY65127	IY65261	IY65342	IY65415
IY65476	IY65759	IY66256	IY66569	IY66638
IY66722	IY66780	IY66998	IY67171	IY67728
IY67806	IY67889	IY68056	IY68584	IY68757
IY68772	IY68793	IY68885	IY69103	

The following section describes in detail each APAR and some of the internal defects.

Defect 174581

Abstract:

wscanner does not detect hyperthread

Error Description:

The hardware scan does not detect that hyperthreading is enabled, which is causing the wscanner command to report incorrect processor count results. These symptoms were found on Windows 2000 Server systems and Red Hat Enterprise Linux 2.1 systems.

Defect 175382**Abstract:**

Memory leak with callback object

Error Description:

Inventory 4.0 is getting a memory leak when the callback object is invoked too much.

Defect 175507**Abstract:**

Hardware scan does not work on Windows 2003 with a big drive mapped

Error Description:

Distributing a hardware scan to a Windows 2003 endpoint, which has a big drive mapped, returns the following error message:

```
MIF parse error: tivhscan.mif: line 1198: syntax error
```

APAR IY58085**Abstract:**

Command `wepscan -i -n endpoint_name.dat` fails if machine is disconnected.

Error Description:

If you run the command `wepscan -i -n endpoint_name.dat`, you could receive the following error message:

```
argv0=wscanner.exe status=1280 errno2
```

This error only occurs when the machine is disconnected from the network.

APAR IY59253**Abstract:**

Command `wdistinv` returns scan ID `-1`.

Error Description:

The `wdistinv` command is unable to retrieve the scan ID of an InventoryConfig profile that belongs to an interconnected Tivoli region.

APAR IY59662**Abstract:**

Data inserted into `PACKAGE_NAME` field truncated if bigger than 64 bytes.

Error Description:

Data inserted into the `PACKAGE_NAME` field gets truncated if bigger than 64 bytes. See the section "Using SQL scripts to upgrade the schema" on page 50 for more details on installing this fix.

APAR IY60094

Abstract:

DB_VENDOR_DEBUG file in the \$DBDIR directory after installing 4.2-INV-FP03.

Error Description:

After installing 4.2-INV-FP03, a file named DB_VENDOR_DEBUG is created in the \$DBDIR directory on the Tivoli server and it fills up with identical rows like the following:

```
DB_Vendor = 1
```

every time an endpoint is scanned successfully. This file keeps growing and causes space problems in the \$DBDIR directory.

APAR IY60574**Abstract:**

Mylex RAID controller wrongly detected by Inventory.

Error Description:

Hardware scan performed on Linux SuSE servers with a Mylex AcceleRAID 352 PCI RAID Controller installed, wrongly reports the RAID Controller as Mylex i960 (AcceleRAID 170).

APAR IY60578**Abstract:**

Incorrect FS mount point and access point detected on Windows 2003.

Error Description:

Hardware scan performed on a Windows 2003 machine, reports wrong values for the FS mount point and access point information. The behavior is different when scanning a Windows 2000 target. For example, the FS Access Point and FS Mount Point on Windows 2003 are detected as "C:", " ", while on Windows 2000 they are detected as "C:\\", "C:\\".

APAR IY60977**Abstract:**

Inventory scan fails on HP COMPAQ NC4000.

Error Description:

Inventory fails on HP COMPAQ NC4000 laptops, when the docking station is connected. This error occurs at the USB portion.

APAR IY61539**Abstract:**

Inventory does not recognize local drives on Red Hat Enterprise Linux

Error Description:

Inventory 4.2.1 hardware scan does not recognize local drives on Red Hat Enterprise Linux endpoints:

CCISS drives: The fdisk -l command does not return any information about local drives.

IBM drives: The fdisk -l command returns 0 as hard disk size.

APAR IY61580**Abstract:**

Command wscanner causes an exception on NetWare

Error Description:

After installing 4.2-INV-FP03, the command wscanner causes the exception
File tivhscan.mif does not exist

on NetWare endpoints, when distributing an hardware scan.

APAR IY62206**Abstract:**

Command wdistinv with -T option fails

Error Description:

The command wdistinv is unable to distribute an InventoryConfig profile to all the endpoints specified in the subscription list file, if the list is particularly long and meanwhile one of the subscribers is deleted with the wdelep command.

APAR IY62375**Abstract:**

If you do not use the Windows Management Instrumentation (WMI) scanner, no all hard disks are detected.

Error Description:

When scanning a Windows 2000 endpoint without the Windows Management Instrumentation, Inventory does not detect all the hard disks if the endpoint has more than 20 hard disks.

APAR IY62654**Abstract:**

Processor family wrongly detected for Celeron and Pentium 4

Error Description:

Hardware scan performed on Windows 2000/XP machines using a Celeron or Pentium 4 processor, wrongly detects the processor as Pentium III.

APAR IY62660**Abstract:**

Incorrect values in output of the Driver Name and Driver Version attributes

Error Description:

In Inventory Version 4.0 and Version 4.2.1, when you use a Windows Management Instrumentation scanner, Driver Name and Driver Version attributes contain incorrect values.

APAR IY63636**Abstract:**

Inventory scan fails if mrmibios.mif contains a value enclosed in double quotation marks.

Error Description:

Inventory scan fails if the file mrmibios.mif contains a value enclosed in double quotation marks. An error message is displayed:

MIF parse error: mrmibios.mif: line 63: Syntax error: "LifeBook".

APAR IY64626

Abstract:

The inventory data handler crashes because the .DAT file is corrupt.

Error Description:

When the .DAT file contains invalid value, the inventory data handler crashes.

APAR IY64758**Abstract:**

Activity plan remains in started status if status collector is not installed on the same managed node as the Inventory Server.

Error Description:

Activity plan containing inventory activities remains in started status if the status collector is not installed on the same managed node as the Inventory Server.

APAR IY65052**Abstract:**

Incorrect output of PROCESSOR_NUM_QUERY

Error Description:

Custom scan of an endpoint with multiple processors returns multiple entries, one for each processor, in the PROCESSOR_NUM_VIEW. A new processor_num_view.sql script is provided to solve the problem. See the section "Using SQL scripts to upgrade the schema" on page 50 for more information on how to install this fix.

APAR IY65127**Abstract:**

Duplicated network printers entries

Error Description:

The hardware scan generates duplicated entries for the same network printer

APAR IY65261**Abstract:**

The Port Name attribute for network printers contains only the sever name.

Error Description:

The Port Name attribute for network printers contains only the server name. It should contain both the server name and the port name when available.

APAR IY65342**Abstract:**

How to hide an inventory distribution to a mobile

Error Description:

If the hidden flag set by the winvmgr command has a setting of false, the distribution will always be visible regardless of the value set by the wsetinvglobal -m command. The same issue also applies to the wake_on_lan setting. This is a problem because the documentation states

that the `wsetinvglobal` flag settings must always override the settings for `hidden` or `wake_on_lan`, that are obtained from the commands `winvmgr` or `wdistinv`.

APAR IY65415

Abstract:

Table `INST_SMBIOS_DATA` contains multiple entries for one endpoint

Error Description:

As the table `INST_SMBIOS_DATA` has both values `COMPUTER_SYS_ID` and `SMBIOS_ID` as primary key, under some circumstances there can be several BIOS versions reported for the same endpoint, while there should be only one.

APAR IY65476

Abstract:

General `oserv` failure when scheduling an inventory distribution

Error Description:

From the Inventory Profile panel , after having opened and closed the Add Scheduled job panel and then clicked on the Distribute and Close button, you get an `oserv` general failure.

APAR IY65759

Abstract:

After upgrading to 4.2-INV-FP04 is not possible to run the full schema script

Error Description:

The `dmi_RDBMS_type_schema.sql` generated when configuring a `dmi` scan, fails in dropping the table if it runs for the second time.

APAR IY66256

Abstract:

Duplicate IP address data in `tivhscan.mif`

Error Description:

Inventory is posting multiple entries for IP address information on many Windows-based endpoints which have a single IP address and a single network interface.

APAR IY66569

Abstract:

MIF parse error syntax error context: "-" on Linux endpoint

Error Description:

On a Linux endpoint, a MIF parse error in the file `tivhscan.mif` occurs when parsing the partition table: syntax error context: "-".

APAR IY66638

Abstract:

MIF file copied into `bk1` even if a parse error occurs

Error Description:

During a scan if a parse error occurs, a MIF file is copied into `bk1`, but

never sent to the database. During a scan if a parse error occurs, a roll back mechanism for bk1 and bk2 MIF files is needed.

APAR IY66722

Abstract:

Inventory scan forever pending when a custom MIF file is missing

Error Description:

When distributing an InventoryConfig profile enabled only to pick up a custom MIF file and this is missing on the endpoint machine, the Mdist2 profile shows the distribution 100% successful and the scan ID remains forever pending in the wgetsstat. If the logging is enabled (inv_ep_debug=3), the INV00(scan_id).log reports only a WARNING message due to the missing MIF file and nothing else happens.

APAR IY66780

Abstract:

inv_ora_42_FP05.sql is failing

Error Description:

inv_ora_42_FP05.sql has a syntax error because the row / is missing at the end of the following statement:

```
CREATE OR REPLACE TRIGGER INSTSMBIOSDATA_TR
BEFORE UPDATE ON INST_SMBIOS_DATA
FOR EACH ROW
BEGIN
:NEW.RECORD_TIME := SYSDATE;
END;
```

APAR IY66998

Abstract:

Column COMPUTER_BOOT_TIME in the table COMPUTER is not filled for Windows endpoints

Error Description:

The column COMPUTER_BOOT_TIME in the inventory table COMPUTER is not filled up for Windows systems. The data can be extracted through the Windows Management Interface (WMI) by using the class Win32_OperatingSystem, which is used by Tivoli Inventory for other information as well. The line is named LastBootUpTime and contains values such as 20041123084454.000000+060.

APAR IY67171

Abstract:

Corrupt data segment when running wloadiso sequentially

Error Description:

When running several times the wloadiso command sequentially on the same endpoint machine (Windows 2000) using different groups of DAT files, data from all or some DAT files of the last execution is not sent to the Inventory repository.

APAR IY67728

Abstract:

Incorrect return code for wwaitscan when using a timeout value

Error Description:

When running the `wwaitscan` with a timeout:

```
wwaitscan -i (scan_id) -t (timeout)
```

or

```
wwaitscan -e (ep_name) -t (timeout)
```

and the prompt is returned, the return code is 0 even if the inventory distribution is still active in the `wgetscanstat`. It needs to exit with a return code different from zero, when not all the data has been stored into the database.

APAR IY67806**Abstract:**

Inventory scan fails to detect the correct number of hard disks on Linux

Error Description:

On Red Hat 7.3, both Inventory 4.0 and the patch 56 detect the correct size for two installed hard disks but, in addition to that, they detect 7 hard disks with 0 MB size, which do not exist.

APAR IY67889**Abstract:**

System error when performing an upgrade from Inventory 4.0 to Inventory 4.2

Error Description:

When performing an upgrade from Inventory 4.0 to Inventory 4.2 on the HUB Tivoli region, the following error message occurs:

```
System error, repeater manager timeout
```

This error message is caused by a `dbcheck` operation performed on all the gateways.

APAR IY68056**Abstract:**

`swsigs.txt` file is sent with every signature scan

Error Description:

`swsigs.txt` file is sent with every signature scan. It is now possible to modify the dependency set of the `ic_discover` method to force the gateway to download also the file `swsigs.txt`, when an Inventory scan starts, if this file is not already in the `inv/SCAN` directory.

APAR IY68584**Abstract:**

Hardware scan shows unknown and WMI shows `intel(r) pentium(r) 4`

Error Description:

Hardware scan is not showing the correct value for the processor. It shows unknown and WMI shows `intel(r) pentium(r) 4 cpu 2.80GHz`.

APAR IY68757**Abstract:**

Problem scanning serial numbers of Toshiba Tecra 8xxx series

Error Description:

Inventory has a problem scanning the serial number of Toshiba Tecra 8xxx series notebooks. The scanned information in the COMPUTER table shows Y9343641E,PAT80AE-4B6A-GR,460092. This value should only contain the MIF attribute Serial Number of the MIF group ComponentId. The scanner is picking up the value from the mrmmbios.mif file and it is not removing the separated token ",".

APAR IY68772**Abstract:**

inv_cb_meths core dumps after application of 4.2.1-inv-fp02

Error Description:

After the application of 4.2.1-INV-FP02, INV_CB_METHS core dumps frequently. The installation of 4.2.1-INV-FP02 is the catalyst for this behavior. OSERVL0G in environments with this issue shows the following:

```
inv_cb_meths (method:2219-ic_callback, PID:29991) killed by
signal 10 (core dumped)
```

Standard cleanup methods do not solve this problem.

APAR IY68793**Abstract:**

Syntax error in MIF

Error Description:

A MIF parse error message occurs when performing an hardware scan, due to a negative value in the Memory Modules group.

```
Start Table
Name = "Memory Modules Table"
ID = 31
Class = "TIVOLI
Memory Modules
1"
1,-2048,8192,"DIMM 01","DIMM"
2,-2048,8192,"DIMM 02","DIMM"
End Table
```

APAR IY68885**Abstract:**

Error logged in System Event for PMEM services

Error Description:

After applying 4.2.1-INV-FP02, the System Event log is filling with errors for PMEM Service which fails to start on Windows 2000 and Windows 2003 systems. The system errors are logged each time the Inventory hardware scans are run. These errors do not occur on any systems prior to 4.2.1-INV-FP02 and do not occur on any systems that have the module PMEMNT.SYS in the directory c:\windows\system32\drivers.

APAR IY69103**Abstract:**

Parse error due to negative values in physical and fs total size

Error Description:

When running a hardware scan to a Windows system, a parse error may occur due to negative values of the Attributes Physical Size and FS Total Size.

Software Distribution: The following APARs and defects for Software Distribution were fixed in this fix pack:

Table 5. Software Distribution APARs and defects included in this fix pack

Software Distribution, Version 4.2 4.2-SWDSRV-FP05				
51711	52891	IY61729	IY62180	IY62830
IY62921	IY63714	IY64239	IY64478	IY65524
IY65973	IY66754	IY67569	IY68130	IY68396
IY68626				
Software Distribution Gateway, Version 4.2 4.2-SWDGW-FP05				
51869	52639	52693	53158	53439
IY61729	IY62378	IY62830	IY62924	IY62933
IY63714	IY63808	IY64706	IY65274	IY65596
IY66578	IY66786	IY67113	IY67996	IY68282
IY68380	IY68700			
Software Package Editor, Version 4.2 4.2-SWDJPS-FP05				
IY63378	IY63714	IY68380		
Software Package Editor for Endpoints, Version 4.2 4.2-SWDEP-FP05				
51869	52693	53158	53526	IY61729
IY62110	IY62378	IY62924	IY62933	IY63378
IY63714	IY63808	IY64706	IY65274	IY65596
IY66578	IY66786	IY67113	IY67890	IY67996
IY68161	IY68282	IY68380		

The following section describes in detail each APAR and some of the internal defects that were fixed in this fix pack:

Defect 51869**Abstract:**

A way to use packages with add=n for reg_keys

Error Description:

The variable `__ALWAYS_ADD_WINREG_KEYS__=YES` must be added in the `swdis.var` file to enable the behaviour before APAR IY53522. Now, when adding a registry value, the parent registry keys are created also if add=n.

APAR IY61729**Abstract:**

Import of a software package having `FOLLOW_LINKS=N` and `HARD_LINK=Y` in `REMOVE_LINK` section, returns a warning message.

Error Description:

If you import a software package having these keywords in the `REMOVE_LINK` section:

```
remove_link
follow_links = n
hard_link = y
source_file = duda
destination = dudalink
end
```

the import action returns the following error:

```
DISSE0001I Operation successful.
DISSE0468W Warning near line 43: Unknown attribute
'translate' it 'remove_link'. Attempting to skip...
```

APAR IY62110

Abstract:

Autopack cannot manage registry key longer than 255 characters.

Error Description:

Autopack cannot manage registry key longer than 255 characters.

APAR IY62180

Abstract:

Native AIX package fails to install

Error Description:

After creating a simple AIX patch package and providing some advanced options for 1) Expand File System, 2) Is Update, 3) Root Path, 4) Path for Backup, save the file as an SPB file and import it into the Tivoli region (TMR). Select the package icon, right-click, select INSTALL, select the target and finally install and close. While monitoring the central swdis log on server you see it fails. When you go to the endpoint and open the aix installp log you see instead of the string:

```
/usr/sbin/installp -a -X -t/data0/AIX_Backups -e /tmp/U498662.log
-Or -V3 X11.motif.mwm 5.1.0.36 the following string:
```

```
/usr/sbin/installp -r -X -e /tmp/U498662.log -Or -V3 X11.motif.mwm
5.1.0.36 ***
```

APAR IY62378

Abstract:

Installation of MSI packages ignores the changes in the feature levels.

Error Description:

Installation of MSI packages ignores the changes of the feature level contained in the transform file (.mst).

APAR IY62830

Abstract:

Importing a software package definition file (.spd) into a software package block (.spb) does not update the timestamp.

Error Description:

When you import a software package definition file (.spd) into a software package block (.spb) using the overwrite option, the timestamp of the .spb file is not updated to the current time on UNIX and Windows platforms.

APAR IY62921

Abstract:

Data moving performs a space check on source host and the current calculation is too high for zipped or already compressed files

Error Description:

Data Mover is unable to move packages larger than 100 MB. The following error appears in the DataMovingRequests.1.log file:

```
DISSE0005E Operation unsuccessful.  
DISSE0569E Not enough space available on /Tivoli/staging/junk
```

APAR IY62924**Abstract:**

Installation of several AIX packages can cause endpoint failure when trace level is higher than 3.

Error Description:

Installation of several AIX packages can cause endpoint failure when trace level is higher than 3.

APAR IY62933**Abstract:**

.spd files lose UNIX file permission information.

Error Description:

If you save a Software Distribution 4.1 .spd file with IBM Tivoli Configuration Manager 4.2.1 fix pack 1, the UNIX file permission information are lost.

APAR IY63378**Abstract:**

Registry value of the DWORD type displayed in Software Package Editor is misleading.

Error Description:

Software Package Editor displays the registry value of the DWORD type in a misleading way.

APAR IY63714**Abstract:**

The slash symbol is changed into a backslash symbol when creating Windows services using the Software Package Editor.

Error Description:

If you create a Windows service using the Software Package Editor and save the software package as a software package definition file, then open the software package (.sp) file in Software Package Editor, the backslash (/) is changed to a slash (\).

APAR IY63808**Abstract:**

A service with a very long display name causes the configuration manager to stop.

Error Description:

If the service name or display name for a service is too long, no data is returned because the available buffer is too small. Software Distribution

wrongly calls the same API again, using the same buffer, causing the IBM Tivoli Configuration Manager to stop.

APAR IY64239

Abstract:

Import of a .spb file from an endpoint fails.

Error Description:

Thread concurrency leads to random failure in the import of .spb files from endpoints.

APAR IY64478

Abstract:

The SD_H_INST table is updated even when the historical database feature and CMSTATUS are disabled.

Error Description:

If the local endpoint catalog, epsp.cat contains IC-D- cm status, the SD_H_INST table is updated even when the historical database feature and CMSTATUS are disabled.

APAR IY64706

Abstract:

The Software Package Editor cannot manage Windows registry keys named Default

Error Description:

Importing a software package containing Windows registry keys named Default, changes the registry key name.

APAR IY65274

Abstract:

Problem occurs while installing a MSI software package through a batch file

Error Description:

The Microsoft Software Installer (MSI) requires two .MST files and it fails when the user is logged on without the full administration permissions. In case the user has all the required permissions, the installation ends successfully.

APAR IY65524

Abstract:

A force-like option has been introduced

Error Description:

After implementing a fix for **APAR IY56409**, if among the targets there is at least one which is not valid for the inventory database (having more entries in computer_sys_id of COMPUTER table) the force option could not be used. No distribution can be submitted against these targets until the data in the inventory database is consistent. With this APAR it has now been introduced a force-like option in order to ignore bad inventory targets. If a distribution to 50 targets using a force option is submitted, and among the targets there are two duplicate entries in the inventory

database, the distribution is submitted to the 48 remaining targets. The need for a force-like option is useful when a previously failed installation (SP status IC--E) must be repeated.

Additional Info:

A new configuration variable IGNORE_BAD_INVENTORY_TARGETS has been added. If it is set to yes the behaviour is the one described above. The default value is set to false. To set this variable to yes, run the following command from the server:

```
wswdcfg -s ignore_bad_inventory_targets=yes
```

APAR IY65596

Abstract:

Corruption of the endpoint catalog file

Error Description:

If the local catalog gets corrupted on the endpoint there is no way to distribute software packages to that endpoint anymore. The only workaround consists of manually removing the corrupted files from the directory.

APAR IY65973

Abstract:

Software Distribution 4.1 activity plans in XML format fail

Error Description:

Software Distribution 4.1 activity plans in XML format, when importing to the IBM Tivoli Configuration Manager 4.2.1 environment, fail with the following error message: Error while importing plan:null.

Additional Info:

With this APAR the Software Distribution plug-in has been modified, therefore you need to run on the server the following script:

```
$BINDIR/TME/APM/SCRIPTS/upgr_swd_plugin.sh
```

APAR IY66578

Abstract:

SD_INST table is not updated as expected

Error Description:

After performing a datamoving operation, the epsp.bak file is removed by the get_sync_action method. The next operation performed against the same endpoint forces a complete resynchronization of the entire endpoint catalog.

APAR IY66754

Abstract:

wspmvdata fails when source path is empty

Error Description:

Performing a data moving command when the source path is empty, the wspmvdata command fails.

APAR IY66786

Abstract:

The owner of os/400 library (OS400_LIB) is not preserved on the target endpoint.

Error Description:

When sending an os/400 library, including a file, on a target machine, the owner of the library is not preserved. The library on the target machine is always created with QTIVR00T ownership, regardless of the owner on the source machine. The file included in the library is created with the correct source owner.

APAR IY67113**Abstract:**

Undo fails since corequisite file is not copied in the active area

Error Description:

When creating a software package running a User Program during an Undo operation, with Transactional=Y and with a corequisite file, and distributing this package, the corequisite file is not copied from the service area to the active area and the Undo operation fails. Another problem found is the following: if the package contains an execute_user_program during_commit, it is not executed during wundosp -ty -cn, while it is executed during wremovsp -ty -cn.

APAR IY67569**Abstract:**

4.2.1 Fix Pack 2- SWDMGR core dumps with Inventory integration

Error Description:

4.2.1 Fix Pack 2- SWDMGR core dumps with the Inventory integration enabled. If the wswdmgr setting is set to is_sw_d_inv_enabled=true , then SWDMGR consumes the system resources until it cores. This is caused by a hash table containing the list of signatures mapping that is incorrectly handled.

APAR IY67890**Abstract:**

INSTALLDIR is not a drop down option in the properties tab

Error Description:

INSTALLDIR is not a drop down option in the properties tab in the SPE, however it seems to be added to the SPD when manually typed in with a value.

Additional Info:

In the properties panel of the Install MSI product and patch of the SPEditor, the INSTALLDIR properties have been added to the combo box. Destination folder was left on the Wizard, export and import, only for backward compatibility.

APAR IY67996**Abstract:**

Installation of Software Package fails when the key wdusrprf.exe is not on the target

Error Description:

The key wdusrprf.exe has been deleted on the target machine but not the

file wdusrpcn.env located under the directory swdis. Installing a package that contains per-user actions, the distribution does not recreate the missing key and therefore it is unsuccessful.

APAR IY68130

Abstract:

SWDMGR traps with S=11

Error Description:

When running many software distributions (wspmvdata) and while processing the reports the SWDMGR traps with S=11 . From the software distribution traces it was clear that, when the problem occurs, the CPU usage is very high.

APAR IY68161

Abstract:

JSPE Solaris native package does not detect or display package

Error Description:

Using Solaris Java Endpoint Software Package Editor at base or Fix Pack 1 level, using Dialogs to embed a Solaris Package, from the Install Solaris Package panel , select the Package Instances tab, which should recognize and pre-fill with package attributes. The package attributes can be retrieved correctly using the pkginfo command:

```
pkginfo -l -d <path>/ActivePerl-5.6.1.63
```

When a root user launches the Software Package Editor and prepares the package, the attributes are correctly shown in the Package Instances panel, however, if a non-root user launches JSPE and prepares the install_solaris_product Software Package, the Package Instance properties are not displayed in the Package Instances panel.

APAR IY68282

Abstract:

If undo is made on undoable software package, Windows shell folder is not removed

Error Description:

If an undo operation is made on the undoable software package, the windows shell folder is not removed. The remove operation is done without any errors or warnings, but the folder remains on the desktop.

APAR IY68380

Abstract:

Problem with text file and command line objects

Error Description:

When creating an Add a command line object, and selecting the position Before last match , in the workspace of the Software Package Editor the position is displayed as After first matches. When installing the Software Package Editor for Endpoints created with the endpoint, the line is not added correctly.

APAR IY68396

Abstract:

Discrepancy between CM_STATUS_QUERY and SWDISTDATA_QUERY result

Error Description:

After installing a package on the endpoint the package fails. The SD_INST and the SD_H_INST tables contain an entry with IC--E. If you submit the package again (with force) and this time the endpoint is not available, the distribution goes in UNAVAILABLE or INTERRUPTED state. During this time the status of the package is IC--C (the final C shows the changing state). When the distribution expires or is canceled, the gateway returns the error to Software Distribution. Software Distribution does not receive a report from the endpoint. The final result is that also if the second distribution never reaches the endpoint, the final status of SD_INST is IC---.

Additional Info:

A new state G has been added to describe a changing state when the previous state was in error (E). Moreover, if an installation fails, the status of the package will always contain E as final flag.

APAR IY68626**Abstract:**

If a post script is not specified and the flag FailOnPostScript is set, the plan goes in Failed status

Error Description:

Submitting a plan containing a data moving operation, and a post script is specified at Endpoint level, and the flag FailOnPostScript is set to TRUE, you get these results:

- MDist2 returns successful
- APM returns failed
- DataMovingRequests.1.log displays the following:
DISSE0198I User program exit code: 0

APAR IY68700**Abstract:**

Software Distribution does not manage correctly an RPM package installation

Error Description:

An RPM Package is installed but when you force another install you receive the following error:

```
STANDARD ERROR (program: /bin/rpm - exit code = 1)
rpm: only installation, upgrading, rmsource and rmspec may be
forced
```

Activity Planner: The following APARs for Activity Planner were fixed in this fix pack:

Table 6. APARs and internal defects included in this fix pack

Activity Planner, Version 4.2 4.2-APM-FP05		
50410	IY60579	IY62024
IY63345	IY64443	IY64606
IY65552	IY65622	IY66056
IY67421	IY68138	

The following section describes each APAR in detail.

APAR IY60579

Abstract:

Activity Planner shows the gateway for the target endpoint as "-----".

Error Description:

In some situations where the default gateway policy is not used by the customer, Activity Planner is not able to recognize the gateway name, so for some endpoints, the gateway name is written as "-----".

APAR IY62024

Abstract:

Activity Planner 4.2.1 incorrectly stores the relative deadline with the keyword Deadline instead of with the correct keyword RelativeDeadline.

Error Description:

An Activity Plan with RelativeDeadline specified was not preserved in the Tivoli Management Framework, version 4.1.1 and Tivoli Configuration Manager, version 4.2.1 environment when performing an upgrade. Any attempt to set the Deadline in Tivoli Configuration Manager, version 4.2.1 Activity Planner after the migration generates the following error:
"You cannot specify both relative and absolute dealines.
Only one value is allowed"

APAR IY63345

Abstract:

Execution windows do not work when spread over the weekend.

Error Description:

When the execution window spreads over the weekend (Saturday through to Monday morning) and when a plan is submitted during the weekend, the closing window event is not generated for the Monday morning and the plan does not stop at the closing time.

APAR IY64443

Abstract:

4.2.1 Fix Pack 1 activity plan fails with out of memory error

Error Description:

IBM Tivoli Configuration Manager 4.2.1 Fix Pack 1 activity plan fails with out of memory error when the number of administration roles for the specific Administrator is very big. The executor log shows-> 04/10/11 14:48:06.629 MDT: [Executer] [F] : com.tivoli.apm.core.ExecuteAction : Exception : java.lang.OutOfMemoryError java.lang.OutOfMemoryError <<no stack trace available>>.

APAR IY64606

Abstract:

Activity Planner Editor: The multicast field appears unflagged

Error Description:

In the Activity Planner Editor flag the multicast field on a plan created to load a package into a repeater depot. After saving and reloading the package, the flag on the multicast field is lost.

APAR IY65552

Abstract:

Activity Planner truncates error message to fit in 251 chars

Error Description:

If an error message is longer than 251 chars, Activity Planner truncates it to 251 chars.

Additional Info:

To make this fix effective, the key `max_error_info_size` must be added in the `DEFAULT` section of the `apm.ini` file and, in the `ACT_STATUS_TGT` table of the `apm` database, the `ERROR_INFO` column must be enlarged to the same size.

APAR IY65622

Abstract:

Final activity hangs in status "Started" after restart of plan

Error Description:

During the installation of some activities inside the plan, one of them fails. The plan fails as well as the final activity due to a package problem. After solving the package problem, the plan is restarted and all plan activities end successfully. Only the final activity has not been restarted directly by restarting the plan. If you restart the final activity manually, it hangs in the "Started" status.

APAR IY66056

Abstract:

APM hanging to the point of having to restart oserv

Error Description:

When the `receive_report2` appears in the `odstat`, all commands hang until this method has finished/timed out. Then nothing works at all, no commands respond, attempting to stop and start APM does not help either, so restarting `oserv` is the only solution.

APAR IY67421

Abstract:

Repeated `wsubpln` & cause Activity Planner failure

Error Description:

Multiple plans submissions issued by `wsubpln` & cause an Activity Planner failure.

APAR IY68138

Abstract:

4.2.2 Fix Pack 2 when altering distribution deadline in activity

Error Description:

The distribution deadline in the Activity Planner 4.2.2 Fix Pack cannot be altered from a "Relative" setting to a "Default" or "Absolute" setting. This problem occurs while using the Activity Plan Editor endpoint client updated with Fix Pack 2.

Change Manager: The following APARs and defects for Change Manager were fixed in this fix pack:

Table 7. Change Manager internal defects included in this fix pack

Change Manager, Version 4.2 4.2-CCM-FP05		
50410	IY64369	IY68427

The following section describes each APAR in detail.

APAR IY64369

Abstract:

The Search for reference models option does not work.

Error Description:

The Search for reference models option does not work if the Table View of the reference model is selected. When you enter a reference model label in the Search for reference models panel, the reference model is found (the correct subscribers of that reference model are displayed), but it is not highlighted, and an incorrect reference model is highlighted.

When the fix pack has been installed, the correct reference model is highlighted.

APAR IY68427

Abstract:

Java exception when previewing reference model if state is blank

Error Description:

When running the preview action on a reference model, the action completes with the error message no action to perform, even if some packages should be installed on the endpoint. The CCM trace shows the following Java exception

```
java.lang.ArrayIndexOutOfBoundsException
```

after retrieving the blank state from the sd_inst table.

Tivoli Resource Manager: The Resource Manager, Version 4.2 4.2-TRM-FP05 and Resource Manager Gateway, Version 4.2 4.2-TRMGW-FP05 components do not contain any new fixed APARs with respect to fix pack 4.

Web Interface: The following APARs and defects for Web Interface were fixed in this fix pack:

Table 8. Web Interface internal defects included in this fix pack

Web Interface, Version 4.2 4.2-WEB-FP05		
52718	53959	IY60789
IY61378		

The following section describes each APAR in detail.

APAR IY60789

Abstract:

The Web User Interface does not download codesets.

Error Description:

If you try to install a software package using the Web User Interface, the installation might fail

APAR IY61378**Abstract:**

When you publish a software package, the Web browser does not work if you specify a path.

Error Description:

When you publish a software package, the Web browser does not work if you specify a path in the public name as follows:

```
wweb -publish -p /packs/ac -v 1.0 -w da-server -i all
-u mmouse SoftwarePackage:test^30
```

Directory Query: The Enterprise Directory Query Facility, Version 4.2 4.2-DQY-FP05 component does not contain any new fixed APARs with respect to fix pack 4.

Fixes contained in previous fix packs and interim fixes

The following APARs were shipped in either a previous fix pack or in a previous interim fix:

Table 9. APARs and defects included in this fix pack from fix pack 4.2-INV-FP01

Inventory, Version 4.2 4.2-INV-FP01				
133596	149408	149438	149611	149810
149884	149927	150020	150130	150144
150243	150661	150862	151660	151908
152161	152365	152467	152641	152651
152733	152902	152927	152936	153038
153359	153999	154136	154168	154319
154499	154560	154564	154630	154906
155372	155674	155835	155897	155914
155981	156448	156474	156797	157003
157345	158072	159018	IY32010	IY34390
IY34651	IY34668	IY34832	IY34930	IY34972
IY34973	IY35089	IY35157	IY35391	IY35653
IY35885	IY35975	IY36075	IY36559	IY37067
IY37257	IY37270	IY37277	IY37314	IY37423
IY37428	IY37904	IY38197	IY38210	IY38277
IY38807	IY38879	IY38932	IY39192	IY39499
IY39771	IY39823	IY40114	IY40461	IY40581
IY40609	IY40782	IY40820	IY41096	IY41530
IY42012	IY42064	IY42110	IY42357	IY42620
IY43145	IY43725	IY43748	IY43912	

Table 10. APARs and defects included in this fix pack from fix pack 4.2-INV-0015

Inventory, Version 4.2 Interim Fix 4.2-INV-0015				
161872	163347	164105	165409	165477
IY39620	IY41044	IY42258	IY42307	IY42606
IY42979	IY43486	IY44543	IY45133	IY45145
IY45209	IY45259	IY45589	IY45597	IY45604
IY45666	IY46356	IY46381	IY46410	IY46519
IY47255	IY48066			

Table 11. APARs and defects included in this fix pack from fix pack 4.2-SWD-FP01

Software Distribution, Version 4.2 4.2-SWD-FP01				
	22304	32368	32768	34124
34131	33648	33796	34531	34742
34924	34946	34981	34993	35037
35143	35158	35198	35208	35213
35214	35216	35231	35243	35324
35345	35354	35369	35392	35406
35416	35417	35454	35462	35467
35597	35598	35618	35638	35644
35656	35657	35686	35738	35785
35820	35838	35867	35938	35959
36025	36050	36064	36073	36080
36082	36084	36135	36139	36144
36180	36197	36129	36361	36403
36430	36490	36524	36559	36771
36806	36837	36838	36840	36846
36854	36862	36894	37009	37060
37102	37111	37198	37223	37224
37297	37366	37397	37451	37525
37528	37568	37712	37764	37858
38019	38048	38857	38726	38731
38987	38992	39150	39154	39270
39273	39275	39276	39543	39747
IY26435	IY32237	IY32372	IY32858	IY32953
IY33212	IY33397	IY34234	IY34603	IY34745
IY34938	IY35061	IY35667	IY35726	IY35909
IY35988	IY36020	IY36541	IY36541	IY37271
IY37376	IY37676	IY37700	IY38091	IY38358
IY38413	IY38946	IY40356	IY40431	IY40768
IY42647	IY42700	IY42898	IY43212	IY43240
IY43245	IY43681	IY43825	IY44096	IY44098
IY44317	IY44318	IY44319	IY44419	IY44574

Table 11. APARs and defects included in this fix pack from fix pack 4.2-SWD-FP01 (continued)

Software Distribution, Version 4.2 4.2-SWD-FP01				
IY45235	IY45433			

Table 12. APARs and defects included in this fix pack from fix pack 4.2-SWDGW-FP01

Software Distribution Gateway, Version 4.2 4.2-SWDGW-FP01				
10280	16948	22417	26232	27691
34131	33648	33796	34531	34742
34924	34946	34981	34993	35037
35143	35158	35208	35213	35214
35216	35231	35243	35324	35369
35392	35416	35454	35462	35467
35598	35638	35644	35656	35657
35738	35785	35838	35867	35938
36025	36064	36080	36084	36135
36139	36180	36197	36490	36524
36559	36771	36806	36838	36840
36854	36862	36894	37009	37060
37102	37111	37198	37223	37451
37525	37528	37568	37712	37764
37858	38019	38048	38726	38987
38992	39150	39154	39270	39273
39275	39276	39747	IY42647	IY42700
IY43212	IY43245	IY43825	IY44096	IY44098
IY44317	IY44318	IY44319	IY44574	IY45235
IY45433	IY26435	IY32237	IY32372	IY32953
IY33212	IY33397	IY34234	IY34603	IY34745
IY34938	IY35061	IY35667	IY35726	IY36541
IY37271	IY37700	IY38091	IY38358	IY38946
IY40356	IY40431	IY38413	IY37376	IY37676

Table 13. APARs and defects included in this fix pack from 4.2-SWDJPS-FP01

Software Package Editor, Version 4.2 4.2-SWDJPS-FP01		
31826	34526	34600
34924	35216	35265
35867	36077	36468
37864	IY44032	IY31157
IY33457	IY36541	

Table 14. APARs and defects included in this fix pack from 4.2-SWDEP-FP01

Software Package Editor for EP 4.2			
33229	IY43794	IY44592	IY44750

Table 15. APARs and defects included in this fix pack from 4.2-APM-FP01

Activity Planner, Version 4.2 4.2-APM-FP01		
29153	34119	34372
34512	34676	34692
34827	35137	35273
36160	36557	37312
38895	IY34573	IY35652
IY36010	IY36623	IY43022
IY44112	IY44677	IY44737

Table 16. APARs and defects included in this fix pack from 4.2-CCM-FP01

Change Manager, Version 4.2 4.2-CCM-FP01		
29153	33659	34353
34692	34728	34827
35757	IY44035	IY44677
IY34072		

Table 17. APARs and defects included in this fix pack from 4.2-TRM-FP01 and 4.2-TRMGW-FP01

Resource Manager and Gateway, Version 4.2 4.2-TRM-FP01 and 4.2-TRMGW-FP01		
33651	34425	34715
34862	35136	35634
35963	35968	36236

Table 18. APARs and defects included in this fix pack from 4.2-WEB-FP01

Web Interface, Version 4.2 4.2-WEB-FP01		
32310	34365	34727
34763	35612	35642
35857	36195	36317
36951	36952	38698
38731	38860	IY41396

Table 19. APARs and defects included in this fix pack from 4.2-DQY-FP01

Enterprise Directory Query Facility, Version 4.2 4.2-DQY-FP01		
28732	29427	35604
35606	35625	35722
35912		

Table 20. APARs and defects contained in this fix pack from Interim Fix 4.2-SWDSVR-F1P1

Software Distribution, Version 4.2, 4.2-SWDSVR-F1P1				
35684	39709	40184	40520	40602
40735	40770	40811	40893	40902
40904	41342	41364	42226	42889
42995	43023	43090	43136	43371
43527	43583	43674	43909	43913
43932	IY43316	IY45255	IY46065	IY46096
IY46528	IY46600	IY46927	IY47174	IY47239
IY47575	IY47585	IY47669	IY47864	IY48388
IY48433	IY48462	IY48649	IY49812	

Table 21. APARs and defects included in this fix pack from Interim Fix 4.2-SWDGW-F1P1

Software Distribution Gateway, Version 4.2, 4.2-SWDGW-F1P1				
20243	40080	40184	40240	40520
40531	40677	40735	41433	41627
41763	42047	42661	42995	43346
43527	43674	43932	IY43316	IY45255
IY45470	IY45527	IY45798	IY45823	IY45896
IY46065	IY46069	IY46287	IY46532	IY46600
IY46727	IY46950	IY46961	IY47106	IY47231
IY47428	IY47537	IY47575	IY47585	IY47667
IY47706	IY47864	IY48210	IY48388	

Table 22. APARs and defects included in this fix pack from 4.2-SWDJPS-F1P1

Software Package Editor, Version 4.2, 4.2-SWDJPS-F1P1		
40519	40677	41032
42661	IY45768	IY47556

Table 23. APARs and defects included in this fix pack from 4.2-SWDEP-F1P1

Software Package Editor for EP 4.2, 4.2-SWDEP-F1P1		
37127	41032	IY45470
IY45527	IY45768	IY45823
IY45896	IY46532	IY46600
IY46727	IY47106	IY47556
IY47706		

Table 24. Inventory APARs and defects included in this fix pack from 4.2-INV-FP02

Inventory, Version 4.2 4.2-INV-FP02				
142672	150159	152842	160145	161808
162147	162250	162856	162860	163710
164105	164349	164393	164998	165097

Table 24. Inventory APARs and defects included in this fix pack from 4.2-INV-FP02 (continued)

165433	165933	166267	166398	167046
167048	167049	167222	IY40716	IY46226
IY46644	IY46919	IY47432	IY47767	IY48233
IY48460	IY48892	IY49182	IY49598	IY49608
IY49857	IY49880	IY50127	IY50277	IY50315
IY50463	IY50785	IY50922	IY51319	IY51392
IY51468	IY51469	IY51473		

Table 25. Software Distribution APARs and defects included in this fix pack from 4.2-SWDSRV-FP02, 4.2-SWDGW-FP02, 4.2-SWJPS-FP02, and 4.2-SWDEP-FP02

Software Distribution, Version 4.2 4.2-SWDSRV-FP02				
36010	39246	39631	41927	43307
43479	43916	44044	44356	44403
44575	44580	44634	44688	44745
44799	45058	45432	45526	45762
45821	45908	45923	46185	46259
46407	46514	46529	46796	47538
47540	47895	IY45255	IY46065	IY46096
IY46528	IY46600	IY46927	IY47239	IY47395
IY47575	IY47585	IY47669	IY47824	IY47864
IY48388	IY48433	IY48462	IY48568	IY48649
IY49427	IY49464	IY49466	IY49516	IY49596
IY49739	IY49801	IY49820	IY49963	IY49993
IY50771	IY50855	IY50982	IY50987	IY51388
IY51399				
Software Distribution Gateway, Version 4.2 4.2-SWDGW-FP02				
42398	42857	43479	43847	44356
44403	44559	44745	44777	45198
45919	46077	46196	46259	46376
46416	46594	46674	46803	47817
IY43316	IY45255	IY45470	IY45527	IY45798
IY45823	IY45896	IY46065	IY46069	IY46216
IY46287	IY46532	IY46600	IY46727	IY46950
IY46961	IY47106	IY47115	IY47231	IY47428
IY47575	IY47537	IY47585	IY47667	IY47706
IY47824	IY47864	IY48121	IY48210	IY48388
IY49054	IY49131	IY49189	IY49427	IY49464
IY49512	IY49632	IY49798	IY49801	IY49963
IY49977	IY50194	IY50729	IY50748	IY50849
IY50853	IY50855	IY51048	IY51082	IY51864

Table 25. Software Distribution APARs and defects included in this fix pack from 4.2-SWDSRV-FP02, 4.2-SWDGW-FP02, 4.2-SWJPS-FP02, and 4.2-SWDEP-FP02 (continued)

Software Package Editor, Version 4.2 4.2-SWDJPS-FP02				
44384	44740	46172	IY45768	IY47556
IY50195				
Software Package Editor for EP 4.2 4.2-SWDEP-FP02				
29831	42857	44104	44384	44526
44559	44634	44740	44753	44777
45198	45919	46077	46172	46196
46376	46416	46529	46594	46674
46803	IY45470	IY45527	IY45768	IY45823
IY45896	IY46532	IY46600	IY46727	IY47106
IY47556	IY47706	IY49963	IY50194	IY50195
IY50276	IY50729	IY50849	IY50980	IY51082
IY51864				

Table 26. Activity Planner APARs and defects included in this fix pack from 4.2-APM-FP02

Activity Planner, Version 4.2 4.2-APM-FP02				
41176	41231	42134	42322	43197
43757	44096	44119	44696	44714
44718	44856	45670	45676	45927
46167	46177	46327	46944	47657
IY43584	IY45548	IY45994	IY46145	IY46418
IY47071	IY47186	IY47392	IY47395	IY47423
IY48278	IY48640	IY49263	IY49307	IY49542
IY50229	IY50400	IY50560		

Table 27. Change Manager internal defects included in this fix pack from 4.2-CCM-FP02.

Change Manager, Version 4.2 4.2-CCM-FP02				
42943	43514	43644	47722	

Table 28. Resource Manager internal defects included in this fix pack from 4.2-TRM-FP02 and 4.2-TRMGW-FP02.

Resource Manager, Version 4.2 4.2-TRM-FP02 and Resource Manager Gateway, Version 4.2 4.2-TRMGW-FP02				
42318	43760	46282	44885	

Table 29. Web interface internal defects included in this fix pack from 4.2-WEB-FP02

Web Interface, Version 4.2 4.2-WEB-FP02				
43344	43589	43695	45979	45980
47624	47625			

Table 30. Inventory APARs and defects included in this fix pack from 4.2-INV-FP03

Inventory, Version 4.2 4.2-INV-FP03				
168328	168509	168722	169342	169673
IY51050	IY51895	IY52329	IY52431	IY52452
IY52684	IY52718	IY52762	IY52916	IY53001
IY53426	IY54509			

Table 31. Software Distribution APARs and defects included in this fix pack from 4.2-SWDSRV-FP03, 4.2-SWDGW-FP03, 4.2-SWDJPS-FP03, and 4.2-SWDEP-FP03

Software Distribution, Version 4.2 4.2-SWDSRV-FP03				
46055	47621	48021	48209	48696
48947	48948	49715	IY52563	IY52566
IY53265	IY53499	IY53570	IY53595	IY53776
IY53959	IY54124	IY54254	IY54388	IY54597
Software Distribution Gateway, Version 4.2 4.2-SWDGW-FP03				
47526	47554	47620	48209	48392
48847	49234	49267	49319	
IY51842	IY51908	IY52239	IY52372	IY52801
IY52865	IY52971	IY53499	IY53522	IY53571
IY53595	IY53858	IY53916	IY53959	IY54450
Software Package Editor, Version 4.2 4.2-SWDJPS-FP03				
47869	IY52488	IY53990		
Software Package Editor for Endpoints, Version 4.2 4.2-SWDEP-FP03				
47526	47554	47620	48392	IY51842
IY51908	IY52239	IY52439	IY52488	IY53499
IY53522	IY53858	IY53990	IY54450	

Table 32. APARs and internal defects included in this fix pack from 4.2-APM-FP03

Activity Planner, Version 4.2 4.2-APM-FP03		
46897	47157	49292
49362	49381	49635
IY52378	IY52432	IY52664
IY52720	IY53020	IY53169
IY53466	IY53553	IY53706

Table 33. Change Manager internal defects included in this fix pack from 4.2-CCM-FP03

Change Manager, Version 4.2 4.2-CCM-FP03	
48407	48844

Table 34. Web Interface APARs and internal defects included in this fix pack from 4.2-WEB-FP03

Web Interface, Version 4.2 4.2-WEB-FP03	
45750	IY54275

Table 34. Web Interface APARs and internal defects included in this fix pack from 4.2-WEB-FP03 (continued)

Web Interface, Version 4.2 4.2-WEB-FP03		
46787		

Table 35. Directory Query APARs included in this fix pack from 4.2-DQY-FP03

Enterprise Directory Query Facility, Version 4.2 4.2-DQY-FP03		
IY52340		

Table 36. APARs and defects included in this fix pack from 4.2-SWDSVR-F3P1

Software Distribution, Version 4.2 4.2-SWDSVR-F3P1		
49291		
IY55058	IY55830	IY56038
IY56409	IY57781	IY58248
IY58979		

Table 37. APARs and defects included in this fix pack from 4.2-SWDGW-F3P1

Software Distribution Gateway, Version 4.2 4.2-SWDGW-F3P1		
49903		
IY55058	IY55275	IY55402
IY57797	IY58118	IY58248
IY59054		

Table 38. APARs and defects included in this fix pack from 4.2-SWDJPS-F3P1

Software Package Editor, Version 4.2 4.2-SWDJPS-F3P1		
IY58248		

Table 39. APARs and defects included in this fix pack from 4.2-SWDEP-F3P1

Software Package Editor for Endpoints, Version 4.2 4.2-SWDEP-F3P1		
49903		
IY55058	IY55275	IY55402
IY57797	IY58118	IY58248

Table 40. APARs and defects included in this fix pack from 4.2-APM-F3P1

Activity Planner, Version 4.2 4.2-APM-F3P1		
IY57122	IY57917	IY57981
IY58077		

Table 41. Inventory APARs and defects included in this fix pack from 4.2-INV-FP04

Inventory, Version 4.2 4.2-INV-FP04				
150162	160354	168423	169381	170105
170146	170640	172195	171238	172510
173510	IY52338	IY54391	IY54646	IY54960

Table 41. Inventory APARs and defects included in this fix pack from 4.2-INV-FP04 (continued)

Inventory, Version 4.2 4.2-INV-FP04				
IY55123	IY55170	IY55178	IY55215	IY55277
IY55916	IY55962	IY55993	IY56098	IY56104
IY56195	IY56240	IY56410	IY56521	IY56612
IY56944	IY57200	IY57351	IY57445	IY57580
IY57804	IY57967	IY58188	IY58285	IY58338
IY58587	IY58599	IY58786	IY58789	IY58894
IY58936	IY59666	IY60022	IY60878	

Table 42. Software Distribution APARs and defects included in this fix pack from 4.2-SWDSRV-FP04, 4.2-SWDFR-FP04, 4.2-SWDGW-FP04, 4.2-SWDJPS-FP04, and 4.2-SWDEP-FP04

Software Distribution, Version 4.2 4.2-SWDSRV-FP04				
49650	50482	50744	51070	
IY55298	IY55560	IY56524	IY56613	IY58339
IY58340	IY58637	IY59862	IY61460	IY61565
IY61585	IY62012	IY55563		
Software Distribution, Version 4.2 French language support 4.2-SWDFR-FP04				
IY55887				
Software Distribution Gateway, Version 4.2 4.2-SWDGW-FP04				
49997	49998	50104	50210	50227
51070	51205			
IY55766	IY55855	IY56568	IY56613	IY57874
IY58294	IY59015	IY59331	IY60521	IY60734
IY61152	IY61609	IY61670		
Software Package Editor, Version 4.2 4.2-SWDJPS-FP04				
No APARs				
Software Package Editor for Endpoints, Version 4.2 4.2-SWDEP-FP04				
49997	50104	50210	50227	51070
IY55298	IY55766	IY55887	IY56568	IY56613
IY58294	IY57874	IY59015	IY59331	IY59930
IY60521	IY60734	IY61609		

Table 43. APARs and internal defects included in this fix pack from 4.2-APM-FP04

Activity Planner, Version 4.2 4.2-APM-FP04		
49804	50094	50933
IY54615	IY55335	IY56020
IY56238	IY56589	IY58132
IY58571	IY58751	

Table 43. APARs and internal defects included in this fix pack from 4.2-APM-FP04 (continued)

Activity Planner, Version 4.2 4.2-APM-FP04		

Table 44. Change Manager internal defects included in this fix pack from 4.2-CCM-FP04

Change Manager, Version 4.2 4.2-CCM-FP04		
49765	51085	
IY55491	IY60055	

Table 45. Software Distribution APARs and defects included in this fix pack from 4.2-SWDSRV-0055, 4.2-SWDGW-0055, and 4.2-SWDEP-0055

Software Distribution, Version 4.2 4.2-SWDSRV-0055				
50163	51943	52352	IY61753	IY63340
Software Distribution Gateway, Version 4.2 4.2-SWDGW-0055				
50163	IY61753	IY62095	IY62418	IY63151
Software Package Editor for Endpoints, Version 4.2 4.2-SWDEP-0055				
50163	IY61753	IY62095	IY62418	IY63151

Table 46. APARs and internal defects included in this fix pack from 4.2-APM-0011

Activity Planner, Version 4.2 4.2-APM-0011		
IY62487		

Backward compatibility issues

The following backward compatibility issues exist with this fix pack.

- If you create and build software packages after installing Fix Pack 4, you cannot use those software packages with IBM Tivoli Configuration Manager, Version 4.2 GA level. Subsequent fix packs and interim fixes have introduced new keywords such as the "timeout" and "force_restart" keywords for the restart action (see APAR IY43316), as well as some other internal keywords (see APARs IY46065, IT50855, IY49963) that cause this incompatibility.
- With **APAR IY46065**, a new internal keyword has been added that causes the following backward compatibility issue:

You cannot use a connected environment and a disconnected environment at different interim fix levels on the same endpoint. Specifically, a connected environment at the GA or FP01 level is not compatible with a disconnected environment at the F1P1, FP02, FP03, or FP04 level and viceversa. However, if while you are migrating your environment to the FP04 level you encounter this situation, you can use the **wconvcat** command to convert the endpoint catalog so that it can be accessed by the back-level engine.

The **wconvcat** command is located in the convcat directory on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 4 CD 2 of 2. The command can be run directly from the CD, or you can copy it locally. To run the command locally, perform the following steps. To run the command directly from the CD, skip step and proceed to step.

1. Copy the contents of the convcat\ $\$(interp_type)$ directory located on CD 2 of 2 to a temporary directory.

2. Run the appropriate script to set up the LCF environment, depending on your operating system: `lcf_env.sh` or `lcf_env.csh` for UNIX, `lcf_env.bat` for Windows 98, and `lcf_env.cmd` or `lcf_env.sh` for all other supported Windows operating systems.
3. Add the path where the `wconvcat` command resides to the operating system environment variable depending on the operating system:

Interp_type	Value of environment variable
hpux	SHLIB_PATH
aix4-r1	LIBPATH
solaris2	LD_LIBRARY_PATH
linux-ix86	LD_LIBRARY_PATH
w32-ix86	Not necessary if you run the command from the location where the <code>wconvcat</code> command resides.
win95	Not necessary if you run the command from the location where the <code>wconvcat</code> command resides.
linux-ppc	LD_LIBRARY_PATH
linux-s390	LD_LIBRARY_PATH

4. From the path where the `wconvcat` command is located, run the command as follows:

```
wconvcat -d
```

After running the command, the endpoint catalog can be accessed by the GA/FPO1 level environment. The catalog has been converted to the back-level version without any loss of catalog information. However, if an operation is performed on the endpoint using the F1P1/FP02/FP03/FP04/FP05 engine, the catalog reverts to the original level and therefore, you must run the `wconvcat` command again to resume communication between the catalog and the back-level engine.

- For users that have not installed IBM Tivoli Configuration Manager, Version 4.2, fix pack 1, for IBM Tivoli Configuration Manager, Version 4.2 to function properly in the Tivoli management region environment, you must install the following interim fixes: 4.2-SWDSRV-FP05, 4.2-SWDGW-FP05 and 4.2-SWDJPS-FP05. If the components are not all updated properly, the installation of any preexisting software package containing an "execute_program" stanza or an "add_file"/"add_registry" stanza generates an exception of the `spd_eng` process. If you are working in a large environment, install the interim fixes in the following order:
 1. The 4.2-SWDGW-FP05 gateway interim fix.
 2. The 4.2-SWDJPS-FP05 Software Package Editor component.
 3. The 4.2-SWDSRV-FP05 interim fix to update the Server machines.

Product compatibility issues

The following product compatibility issue exists with this fix pack.

- IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 was tested using Tivoli Management Framework, Version 4.1 plus the following interim fixes:
 - 4.1.1-LCF-0016 interim fix for endpoints
 - 4.1-TMF-0072 interim fix for Tivoli management region servers, managed nodes, and gateways
 - 4.1-TMF-0073 interim fix for mobile endpoints.

Limitations

This section describes some limitations found during the usage of the IBM Tivoli Configuration Manager, Version 4.2 GA version, that were not reported in the *IBM Tivoli Configuration Manager: Release Notes*.

- **APAR IY46226:** If a record already exists in the database and the data handler attempts to insert another identical record, the database throws a "unique constraint violation" error. This error is typical and expected. When inserting into tables with `COMPUTER_SYS_ID` in the primary key, insert failures indicate that the record already exist, and a subsequent update will then be attempted. However, when inserting into leaf tables (tables with no `COMPUTER_SYS_ID`), the majority of records inserted likely already exist in the database, but we do not need to update the record as it must be unique. This can cause a serious performance degradation, particularly when inserting large amounts of file scan data into the database, and lead to deadlocks and rollbacks.

Any leaf table will have unique constraint violations, but the performance degradation is most pronounced when large numbers of rows are being inserted into the table and the number of unique rows is relatively small. This being the case, this fix specifically targets the leaf tables `FILE_DESC`, `FILE_PATH`, `NATIV_SWARE`, and `HEADER_INFO`. All other leaf tables process as before.

Leaf tables are processed by inserting first into a temporary table, then copying from the temporary table to the operational table only the records that do not already exist in the operational table. This removes unique constraint violations, because the only records inserted are rows that do not already exist. This also eliminates database rollbacks caused by too many unique constraint violations. For DB2 and MSSQL, these tables are dynamically created by the data handler. To minimize the load on the temporary tablespace, the records are processed in batches of 1000.

This fix is currently for DB2, Oracle and SQL only. Because of the way Sybase and Informix manage their temporary tables, this solution has not produced reliable results. The fixes for Sybase and Informix have been deferred for now.

For DB2, the temporary tablespace 'usertemp1' must first exist. If you are using an existing DB2 inventory database, run `inv_db2_admin_patch.sql` as the DB2 administrator user to create this tablespace. If you are installing a new DB2 database and using the `inv_db2_admin.sql` script, you do not need to run the patch script as it is now contained in the latest version of the admin script.

For Oracle, the global temporary tables persist, so they are created in the schema. Run `inv_ora_fp07.sql` for Inventory 4.0 or `inv_ora_FP02.sql` for Inventory 4.2 as the schema owner to create the temporary tables.

For SQL, no additional or admin scripts are required to enable this change.

- **APAR IY48116:** On a United Linux system with Kernel Version 2.4.1.9, the `wstartapm` command fails with the signal 11 error.
Workaround: Add the `APM_KERNEL_LINUX` variable to the Tivoli environment using the `odadmin environ set` command.
- **APAR IY48724:** If you launch the IBM Tivoli Configuration Manager, Version 4.2 GUIs remotely, for example using Exceed, you will experience performance problems. This is caused by the JRE, Version 1.2 and the JRE, Version 1.3.x (Sun Microsystems Inc. defect 4204845).
Workaround: Use the Desktop Administrative interfaces. You can install them using the IBM Tivoli Configuration Manager Desktop CD-ROM.
- **APAR IY49065:** A NetWare endpoint does not manage the DOS partition of the NetWare file system.

- **APAR IY49580:** In a Windows environment, the installation program located on the IBM Tivoli Configuration Manager Installation CD does not restart automatically after the workstation reboots due to the Tivoli Management Framework, Version 4.1 installation.

Workaround 1: If you have not run the installation yet, perform the following steps:

1. Copy into a temporary directory the setup.exe file, the media.inf file, and the SQL directory located on the /FRESH subdirectory of the IBM Tivoli Configuration Manager Installation CD.
2. Launch the setup.exe from the temporary directory

Workaround 2: If you are currently running the installation in the **Select When to Reboot to Complete the Installation** dialog, re-insert the IBM Tivoli Configuration Manager Installation CD before clicking **Next**.

Workaround 3: If you have already performed the installation and the reboot has already occurred, run the following command from the /FRESH subdirectory of the IBM Tivoli Configuration Manager Installation CD:

```
setup.exe -goto loadSavedParmsAfterReboot
```

Limitations in DBCS environments

This section describes some limitations that affect DBCS environments found during the usage of the IBM Tivoli Configuration Manager, Version 4.2 GA version, that were not reported in the *IBM Tivoli Configuration Manager: Release Notes*.

- **Defect 39743:** Help missing for Software Distribution Pre-Ex-Co Requisite. In Change Manager GUI, the Help button for Software Distribution Pre-requisite, Ex-requisite and Co-requisite dialog does not work in non-English environment. See also **Defect 47658** in this same section.

- **Defect 47615:** On Red Hat Linux 7.3 in a Japanese environment, all Japanese fonts are garbled on the Software Package Editor GUI.

Workaround: Set LANG=C and start the Software Package Editor. All text strings are displayed in English. However, with LANG=C, the Japanese input method on the Software Package Editor GUI is disabled, and Japanese directory and file names are garbled.

- **Defect 47616:** Software package block file import fails when the 0x5C is included in the input file path. Import of software package block fails if the input file path contains 0x5C DBCS characters, and if the path is specified by browsing and selecting from the GUI file browser.

Workaround: Type the input file path in the Input File Path text box manually, without using the file browser.

- **Defect 47655:** On a Red Hat Linux Enterprise 2.1 Tivoli management region server, the Japanese input method used to enter Japanese characters into several Tivoli Java-based GUIs, is not invoked when Shift + space bar is pressed. This problem occurs on the following GUIs: Activity Plan Editor, Activity Plan Monitor, Change Manager GUI, and Software Package Editor on managed nodes.

Workaround: The input method is correctly invoked if you add the XMODIFIERS environment variable to the Java GUI start script. Add the following two lines to the appropriate start script:

```
XMODIFIERS="@im=kinput2"
export XMODIFIERS
```

The following is a list of start scripts for each Java GUI:

- Activity Plan Editor: /opt/Tivoli/bin/linux-ix86/TME/APM/EDGUI/apmedit.sh
 - Activity Plan Monitor: /opt/Tivoli/bin/linux-ix86/TME/APM/MONGUI/apmmon.sh
 - Change Manager: /opt/Tivoli/bin/linux-ix86/TME/CCM/GUI/ccmgui.sh
 - Software Package Editor: /opt/Tivoli/bin/linux-ix86/speditor/classes/sped_mn.sh
- **Defect 47656:** In the pie chart view of the Activity Plan Monitor GUI, the chart displays some garbled text. It also displays incorrect chart data. These cases usually occur after the pie chart has been moved (2-dimensional to 3-dimensional and vice versa) using the mouse.
 - **Defect 47658:** Any new strings added to GUIs after the GA, included in fix packs, are not translated until the next release of the product. This includes any changes or additions to online help. Therefore, in non-English environments, new or changed help is not displayed in Java GUIs such as Activity Plan Editor, Activity Plan Monitor, Change Manager, or Software Package Editor GUIs.
 - **Defect 47862:** If you install fix pack 3 using the ISMP installation program that generates a single activity plan that upgrades all services and components, it may occur that the first activity related to the installation of the Activity Planner interim fix is installed successfully, but the state remains in "St" (Started) rather than "Su" (Successful). The remaining activities in the plan are not executed because of the incorrect "St" state of the first activity.
Workaround: To proceed with the remaining activities in the generated plan, re-submit the entire plan a second time.
 - **Defect 49709:** If a user has a DBCS user name, the name is garbled in the Resource Group Members dialog.
 - **Defect 168072:** The time stamp and elapsed time fields are not translated into Japanese when Tivoli Enterprise Console events are sent after an inventory profile is distributed.
 - **Defect 168113:** The phrase "Inventory Task" is not translated into Japanese in either the Edit->Create Activity menu in the APM Editor or the pop-up label for the Inventory Task icon.
 - **Defect 168114:** The following strings are not translated into Japanese in the APM Editor help:
 - Topic
 - Activity Plan Editor Dialogs
 - Inventory Scan Options
 The help contents for Inventory Scan Properties are also not translated into Japanese.
 - **Defect 168171:** In the Change Configuration Management GUI help, the Inventory Scan Online help is not translated into Japanese.
 - **Defect 169797:** Distributing a UNIX software scan profile to an AIX endpoint fails if basic information is selected to scan and send the results to the database. The MIF parser is not properly handling a DBCS character.
 - **Defect 169822:** The file name returned by an inventory scan is garbled when scanning files for basic information in DBCS environments.
 - **Defect 169823:** The inventory custom filter does not work in DBCS environments when the codeset for the endpoint differs from the codeset for the Tivoli server (such as a Windows endpoint and a Linux server).

- **Defect 169824:** When a DBCS signature is added, the file that matches the signature is not scanned on Red Hat Linux endpoints.

Installation

This section describes how to install fix pack 5 to upgrade the various components of IBM Tivoli Configuration Manager, Version 4.2. The method of installation depends on the component you are upgrading. Once you have installed the fix pack, you cannot uninstall it automatically. Ensure that you perform a complete backup of your system before installing this fix pack.

This section includes the following topics:

- “Hardware and software requirements”
- “Traditional fix pack install methods”
- “Software package block (SPB) fix pack install for GUI components” on page 46
- “Updating the inventory schema” on page 50

Hardware and software requirements

This section includes the following topics:

- “Supported platforms”
- “System requirements”

Supported platforms

Supported platforms at the time of the release are detailed in the *IBM Tivoli Configuration Manager: Release Notes*. For the most recent information, consult the supported platforms matrix on IBM software support Web site, as follows:

<http://www.ibm.com/software/support>

When you reach the Web site, select **Tivoli support** from the **Other support sites** list, and when the page displays, select **IBM Tivoli Configuration Manager** from the **Choose a product** pull-down list. Click the **Get The Latest Supported Platforms Matrix** link. You will be asked for your IBM registration ID and password.

System requirements

Hardware and software prerequisites are detailed in the *IBM Tivoli Configuration Manager: Release Notes*. There are currently no changes to the information included in the *Release Notes*.

Traditional fix pack install methods

You can install the fix pack for IBM Tivoli Configuration Manager using any of the following different installation mechanisms:

- “Installing fix packs using ISMP” on page 43
The InstallShield MultiPlatform (ISMP) program, which installs the appropriate IBM Tivoli Configuration Manager fix pack for the entire Tivoli management region (Tivoli region) using activity plans.
- “Installing fix packs using the Tivoli desktop” on page 44
A graphical user interface that enables you to select the fix pack to install and the target machines on which to install them.
- “Installing fix packs using the CLI” on page 44
Tivoli Management Framework command that enables you to specify the fix pack to install and the target machines on which to install them from the command line interface.
- “Installing fix packs using SIS” on page 45

The SIS console or SIS commands enable you to specify the fix pack to install and on which target machines to install them.

Installing fix packs using ISMP

The InstallShield MultiPlatform (ISMP) program provides a wizard-guided process for installing fix packs. It performs a check of the environment and installs prerequisites required, if any, to perform the upgrade process.

The ISPM tool generates an activity plan in XML file format that you can use to upgrade your IBM Tivoli Configuration Manager environment. It provides a depotting mechanism and allows you to plan the upgrade of the entire Tivoli region by creating activity plans that can be scheduled at a later date.

This installation can be used on all platforms supported as a Tivoli server, excluding Linux for S/390®.

Note: Before starting the upgrade process, back up the object database on the Tivoli server. Before running each generated activity plan, back up the object database on the Tivoli server and each affected managed node.

For details about performing backup operations, see Tivoli Management Framework Maintenance and Troubleshooting Guide.

To upgrade your IBM Tivoli Configuration Manager environment using a fix pack, complete the following steps:

1. Copy the XML files provided on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (1 of 2) located in the /apps directory, to the \$DBDIR/Upgrade/apps path on your local machine, overwriting any existing files, if this path already exists. If it does not exist, create it.
2. Locate and run the Upgrade_\$(INTERP) executable in the Upgrade directory on the IBM Tivoli Configuration Manager Version 4.2 Installation CD-ROM, where \$(INTERP) represents the operating system on which you are launching the upgrade process.
3. Accept the Software License Agreement. Click **Next**.
4. Either accept the default Directory Name, \$DBDIR/Upgrade, or type the path to the /apps directory on the local machine. Click **Next**.
5. The system determines which components are installed in your Tivoli region. Select the components you want to upgrade. Click **Next**.
6. The actions necessary to upgrade your environment are being generated. When the process completes, a panel displays the fix packs you must install. Click **Next**.
7. Accept the default Directory Name, \$DBDIR/Upgrade/Depot, or specify a different one. The installation images for the upgrade will be stored in this directory. Click **Next**.
8. You are prompted for the installation images. On the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (1 of 2), navigate to the /images directory that contains all the fix pack installation images (.IND files).

Note: At fix pack installation time, to access the images locally rather than from the CD-ROM, select the **copy all files** check box. Click **OK**.

9. Select whether to create a single plan or an individual plan.
 - Create a single plan: creates a single plan that contains all the activities to perform an upgrade.

- Create individual plan: creates a plan for each application, service or component, to upgrade.

Click **Next**.

10. The generated plans can be submitted immediately or scheduled at a later date.

Notes:

1. If you selected to create individual plans, only the first one is submitted. The remaining activity plans are not queued. You must submit the remaining plans one at a time in the same sequence in which they were generated. If an activity plan fails, you can restart it using the instructions for the Activity Planner component as documented in *IBM Tivoli Configuration Manager: User's Guide for Deployment Services*.
2. The **Automatically recycle of object dispatcher** option does not take place on the Tivoli Management Region server, even if you select it.

Installing fix packs using the Tivoli desktop

When installing fix packs using the Tivoli desktop, the images are located in the /images directory on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (1 of 2). The Tivoli desktop can upgrade the same product on multiple machines serially.

The basic procedure for using the Tivoli desktop to upgrade a product is as follows:

1. From the Tivoli desktop, select **Install->Install Patch** from the Desktop menu.
2. Select the media and component to be upgraded.
3. Select the machines where the component is to be upgraded.
4. Click **Install**.

For detailed information about using the Tivoli desktop to install or upgrade products, see *Tivoli Enterprise: Installation Guide*

Installing fix packs using the CLI

When upgrading products using the **wpatch** command, specify the name of the index file using the file shown in Table 47 on page 45. When using the **wpatch** command to upgrade a product, you specify the following information on the command line:

- The location of the image on the installation media.
- The name of the index file associated with the product to be installed or upgraded.
- The machines where the image is to be installed.

Example:

```
wpatch -c <CD-ROM>/images -i <index file> <managed node>
```

where,

-c <CD-ROM>/images

Specifies the path to images on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (1 of 2).

-i <index file>

Specifies the product installation index file to which the fix pack is installed.

<managed node>

Specifies the managed node on which the fix pack is installed.

If you do not specify a machine when running the **wpatch** command, the image is installed on all managed nodes in the Tivoli region when there is a prior version of this image.

For detailed information about using the **wpatch** command, see *Tivoli Management Framework: Reference Manual*.

The following table contains a list of .IND files you can find in this fix pack.

Table 47. .IND files for components

.IND file	Component name	Tag
42INVFP0	Inventory, Version 4.2	4.2-INV-FP05
42LCFFP0	Inventory Gateway, Version 4.2	4.2-INVGW-FP05
APMFP5	Activity Planner, Version 4.2	4.2-APM-FP05
CCMFP5	Change Manager, Version 4.2	4.2-CCM-FP05
DQYFP5	Enterprise Directory Query Facility, Version 4.2	4.2-DQY-FP05
TRMFP5	Resource Manager, Version 4.2	4.2-TRM-FP05
TRMGWFP5	Resource Manager Gateway, Version 4.2	4.2-TRMGW-FP05
SDSRVFP5	Software Distribution, Version 4.2	4.2-SWDSRV-FP05
SWDGF5	Software Distribution Gateway, Version 4.2	4.2-SWDGW-FP05
SWDJFP5	Software Package Editor, Version 4.2	4.2-SWDJPS-FP05
SDFP5_FR	Software Distribution, Version 4.2 (fr) French language support	4.2-SWDFR-FP05
WEBUIFP5	Web Interface, Version 4.2	4.2-WEB-FP05

Installing fix packs using SIS

When installing fix packs using Tivoli Software Installation Service, select the fix packs to be installed using the component name shown in Table 1.

Tivoli Software Installation Service does not distinguish between products and fix packs. Independent of whether the installation image is used for an installation or upgrade, Tivoli Software Installation Service refers to all installation images as products.

Tivoli Software Installation Service can install multiple products on multiple machines in parallel. This software can install more products on more computer systems in less time than using the installation mechanisms provided by Tivoli Management Framework.

The basic procedure for using Tivoli Software Installation Service to install products is as follows:

1. Import the product images into the Tivoli Software Installation Service depot.
2. Select the components to be installed.
3. Select the machines where each component is to be installed.
4. Click Install.

For detailed information about using Tivoli Software Installation Service, see *Tivoli Enterprise: Installation Guide*.

Software package block (SPB) fix pack install for GUI components

To upgrade the GUI components of IBM Tivoli Configuration Manager using the SPB fix packs on endpoints or stand-alone machines, use one of the following installation mechanisms:

- “SPB Patch Installer” on page 48
- “Software Distribution server command” on page 49
- “Software Distribution disconnected command” on page 49

The SPB fix packs prerequisite the IBM Tivoli Configuration Manager, version 4.2 GA package.

For a successful fix pack installation using any of these installation mechanisms, you must ensure that the values of the default variables specified in the software package block correspond to the existing installation on the machine to be upgraded. If they do not correspond, ensure they are stored in the swdis.var file. If these values were deleted from the swdis.var file, you must overwrite them at fix pack installation time using the appropriate panel of the SPB Patch Installer, or using the “-D” command line option (**wdinstsp -D variable=value GUI_component.spb**).

The default variables defined in the SPB fix packs are listed in the following table for each component.

Table 48. Default variables defined in SPB fix packs

Variable	Value	Description
Tivoli_APM_GUI_Fix.v4.2.0.FP05		
DSWIN_DIR	\$(program_files)\Tivoli\Desktop	The directory where the Tivoli Desktop is installed
TME_JAVATOOLS	\$(program_files)\Tivoli\JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_CCM_GUI_Fix.v4.2.0.FP05		
DSWIN_DIR	\$(program_files)\Tivoli\Desktop	The directory where the Tivoli Desktop is installed
TME_JAVATOOLS	\$(program_files)\Tivoli\JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_SWDEP_PC_Fix.v4.2.0.FP05		
target_dir	\$(product_dir)\speditor	The directory where the Software Package Editor is installed
TME_JAVATOOLS	\$(program_files)\Tivoli\JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_SWDEP_NW_Fix.v4.2.0.FP05		
target_dir	\$(product_dir)\SD42CLI	
Tivoli_SWDEP_OS2_Fix.v4.2.0.FP05		
package_type	ALL	
target_dir	\$(product_dir)\speditor	The directory where the Software Package Editor is installed
Tivoli_SWDEP_UNIX_Fix.v4.2.0.FP05		

Table 48. Default variables defined in SPB fix packs (continued)

Variable	Value	Description
target_dir	\$(product_dir)/speditor	The directory where the Software Package Editor is installed
TME_JAVATOOLS	/opt/Tivoli/JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_SWDEP_NTAS400_Fix.v4.2.0.FP05		
target_dir	\$(product_dir)\speditoras400	The directory where the Software Package Editor for AS/400® is installed
TME_JAVATOOLS	\$(program_files)\Tivoli\JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_SWDEP_400PS_Fix.v4.2.0.FP05		
Note: This package has to be installed on the AS/400 system to which user wants to connect through Software Package Editor for AS/400.		
Tivoli_WebUI_Fix.v4.2.0.FP05		
package_type	ALL	
target_dir	\$(product_dir)\speditor	
Tivoli_WebUI_L10N_Fix.FP05		
WebSrvHomeDir	/opt/IBMHTTPD	The path to the home directory for the Web server.
AppServerHome	/opt/WebSphere/AppServer	The path where the Tivoli Web Server is installed.
Tivoli_SWD_WebUI_plugin_Fix.v4.2.0.FP05		
LCF_LIBDIR	/opt/Tivoli/lcf/lib/aix4-r1	The LCF_LIBDIR of the Endpoint.
WebSrvHomeDir	/opt/IBMHTTPD	The path to the home directory for the Web server
Tivoli_INV_WebUI_plugin_Fix.v4.2.0.FP05		
LCFROOT	/opt/Tivoli/lcf	The LCFROOT of the endpoint.
WebSrvHomeDir	/opt/IBMHTTPD	The path to the home directory for the Web server.
Tivoli_APM_GUI_L10N_Fix.v4.2.0.FP05		
DSWIN_DIR	\$(program_files)\Tivoli\Desktop	The directory where the Tivoli Desktop is installed.
TME_JAVATOOLS	\$(program_files)\Tivoli\JavaTools	The directory where the JRE 1.3 is installed.
Tivoli_Web_Gateway_DB.4.2		
targetdir.UNIX	/tmp/TWG	The directory where the Tivoli Web Gateway database is installed
database	db2	Type of database server. Do not change.
dbServerPort	50,000	Default DB2® database server port

Table 48. Default variables defined in SPB fix packs (continued)

Variable	Value	Description
dmsDBAdmin	dmsadmin	Tivoli Web Gateway database admin ID. Do not change.
dmsDBAdminPW	ibmdb2	DmsDBAdmin ID password
dmsDBUserPW	ibmdb2	'dmsuser' password
dbHome	/db/db2	DB2 home location of Tivoli Web Gateway database.
dbFiles	/dmsdb	Location where Tivoli Web Gateway database files are placed.
dbAdmin	db2inst1	DB2 administrator (instance) ID
dbAdminGroup	db2iadm1	DB2 administrator ID group
dbFence	db2fenc1	DB2 fence ID
dbFenceGroup	db2fadm1	DB2 fence ID group
dbAdminServer	db2as	DB2 Admin Server ID
dbAdminServerGroup	db2asgrp	DB2 Admin Server ID group
Tivoli_Web_Gateway_SRV.4.2		
DMS.Destination	/opt/TivTWG	The path where the Tivoli Web Gateway is installed.
targetdir.UNIX	\$(DMS.Destination)/tmp_inst	The directory where the Tivoli Web Gateway is installed.
WebSrvHomeDir	/opt/HTTPServer	The path to the home directory for the Web server.
DatabaseName	dms	Name of the Tivoli Web Gateway database.
DatabaseAlias	dms	Alias of the Tivoli Web Gateway database.
DatabaseEngine	db2	Type of database server. Do not change.
JDBCdriver	/home/db2inst1/sqllib/java12/db2java.zip	Path to the JDBC 2.0 DB2 driver.

SPB Patch Installer

This installation method uses ISMP technology and enables you to install fix packs on an endpoint or stand-alone machine to upgrade IBM Tivoli Configuration Manager, Version 4.2 GUI components. The SPB Patch Installer is supported on Microsoft Windows, IBM AIX, Solaris Operating Environment, Linux (for Intel™), and HP-UX.

The following is a summary of the upgrade process using the SPB Patch Installer. Refer to the SPB Patch Installer Guide located in the `spb_installer` directory on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (2 of 2) for complete instructions on using this tool.

To install the SPB fix packs using the SPB Patch Installer, perform the following steps:

1. Insert the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (2 of 2).
2. Locate and run the setup program located in the spb_installer directory.
 - On Windows, run the setup.exe executable file.
 - On all other platforms, run the setup_platform.bin
3. Read the Welcome panel and click **Next**.
4. Specify the XML descriptor file for the fix pack located in the /package directory on the IBM Tivoli Configuration Manager, Version 4.2 Fix Pack 5 CD (2 of 2). Click **Next**.
5. Select the **Apply** option and click **Next**.
6. Specify the components you want to install and click **Next**.
7. Clear the selection of the components for which you do not want to install in undoable mode. Click **Next**.
8. You may be prompted to specify the value of some variables defined in the SPB. Ensure that they are consistent with the existing installation on the machine to be upgraded.
9. A Summary panel is displayed. Click **Next**.
10. The upgrade process starts.

Software Distribution server command

To use this type of installation, your Tivoli environment must contain an installation of the Software Distribution Server component, the Software Distribution Gateway component, and a Tivoli endpoint. The following steps must be performed to apply the SPB fix pack on the targets:

1. Create a new Profile in a Profile Manager, using the naming convention described in Table 49.
2. Import the SPB fix pack provided into the new Profile.
3. Select the endpoints to which you want to distribute the fix pack.
4. Submit the install using either the command line or the Tivoli desktop.

If you need to overwrite the values of the default variables, use the "-D" option (winstsp -D variable=value GUI_component.spb) from the command line, or the Default Variables panel from the Tivoli desktop.

Software Distribution disconnected command

To use this type of installation, you must have the Software Distribution Software Package Editor component installed on the endpoint. If you need to overwrite the values of the default variables, use the "-D" option (wdinstsp -D variable=value GUI_component.spb) from the command line.

Software package block fix packs

This table contains the names of the fix pack 5 software package blocks and the names of the software profiles that must be used when using SPBs to install components. The fix pack SPBs prerequisite the GA IBM Tivoli Configuration Manager, Version 4.2 SPBs.

Table 49. Names of SPB files and software profiles

SPB Files	Package name with version
Tivoli_Web_Gateway_DB.spb	Tivoli_Web_Gateway_DB.4.2
Tivoli_Web_Gateway_SRV.spb	Tivoli_Web_Gateway_SRV.4.2
Tivoli_WebUI_Fix.v4.2.0.FP05.spb	Tivoli_WebUI_Fix.v4.2.0.FP05

Table 49. Names of SPB files and software profiles (continued)

SPB Files	Package name with version
Tivoli_WebUI_L10N_Fix.v4.2.0.FP05.spb	Tivoli_WebUI_L10N_Fix.v4.2.0.FP05
Tivoli_SWD_WebUI_plugin_Fix.v4.2.0.FP05.spb	Tivoli_SWD_WebUI_plugin_Fix.v4.2.0.FP05
Tivoli_INV_WebUI_plugin_Fix.v4.2.0.FP05.spb	Tivoli_INV_WebUI_plugin_Fix.v4.2.0.FP05
Tivoli_APM_GUI_Fix.v4.2.0.FP05.spb	Tivoli_APM_GUI_Fix.v4.2.0.FP05
Tivoli_CCM_GUI_Fix.v4.2.0.FP05.spb	Tivoli_CCM_GUI_Fix.v4.2.0.FP05
Tivoli_SWDEP_\$(interp)_Fix.v4.2.0.FP05.spb	Tivoli_SWDEP_\$(interp)_Fix.v4.2.0.FP05
Tivoli_APM_GUI_L10N_Fix.v4.2.0.FP05.spb	Tivoli_APM_GUI_L10N_Fix.v4.2.0.FP05

Updating the inventory schema

You should update the schema whether or not you are interested in the fixes for the defects which are affected by the schema changes. Read the following section to determine whether to update the inventory schema.

The fix pack install will place files named `inv_<db>_schema.sql`, `inv_<db>_42_FP05.sql` on the managed nodes where the patch is installed, in the following directory:

```
$BINDIR/../../generic/inv/SCRIPTS/RDBMS
```

where `<db>` is the shortname for the database. For each of these scripts, there is also a history equivalent script for updating the history tables, and these scripts have the same names with a "h_" prefix.

All of these scripts allow you to either update or reinstall your database schema.

If you have already run the full schema scripts (`inv_<db>_schema.sql`) and you wish to preserve your existing data, then you will just need to run the `inv_<db>_42_FP05` scripts to update your database without losing any data.

Note: Installing the full schema scripts will remove all existing data.

You will need to copy the appropriate schema scripts to any system where SQL access is available (such as the database server or the database client machine if the client allows for SQL connectivity) to install the schema scripts.

DB2 only: Create the temporary tablespace "usertemp1" by running the `inv_db2_admin_patch.sql` script as a DB2 administrator. If you are installing a new DB2 database and using the `inv_db2_admin.sql` script, you do not need to run the patch script as it is now contained in the latest version of the admin script.

Notes for all Database Scripts: You may notice error or information messages displayed when running the database scripts. Each database has unique behavior, so some messages may be expected.

Using SQL scripts to upgrade the schema

This section contains additional information from APAR IY40716.

The following differences were noted in the SQL scripts used to upgrade Inventory, Version 4.0 to 4.2 compared to the SQL scripts used for a version 4.2 fresh install:

- The ACTION_PENDING column in the H_PTF_INFO and PTF_INFO tables is CHAR(8) if created with the fresh install scripts (inv_XXX_schema.sql), and VARCHAR2(15) if created with the upgrade scripts (inv_XXX_upgrade_42.sql).
- The inv_XXX_patch1.sql scripts contain an ON DELETE CASCADE clause for the table PC_SYS_PARAMS while it is missing in the fresh install scripts.

The fresh install and patch1 scripts were changed in order to remove the differences.

The following paragraphs describe how to update your schema.

If you ran the version 4.2 fresh install scripts when creating the Inventory, Version 4.2 schema, you need to run the (h_)inv_XXX_FP02.sql scripts.

If you migrated your schema from version 4.0 to 4.2 with the patch1 and upgrade scripts, you need to run the updated (h_)inv_XXX_patch1.sql scripts.

If you migrated your schema from version 4.0 to 4.2 with just the upgrade scripts (that is, you did not run the patch1 scripts because your version 4.0 environment was already at the 4.0-INV-FP01 or later schema level), you do not need to run any schema scripts for this APAR.

Upgrading plug-ins

To upgrade plug-ins, you need to run the upgrade scripts.

Activity Planner

If you have installed 4.2-APM-FP05, 4.2-SWDSRV-FP05, and 4.2-INV-FP05 run the scripts reg_swd_plugin.sh and reg_inv_plugin_patch.sh. These scripts are in the \$BINDIR/TME/APM/SCRIPTS directory. You need the APM_Admin Tivoli region authorization role to run them in the following way:

```
sh reg_swd_plugin.sh -r
```

```
sh reg_inv_plugin_patch.sh
```

The first script enables the Activity Planner for Software Distribution, while the second script enables the Activity Planner for Inventory.

Change Manager

If you have installed both 4.2-CCM-FP05 and 4.2-SWDSRV-FP05, run the following command to upgrade the CCM plug-in:

```
wccmplugin -s SoftwareDistribution -f $BINDIR/TME/CCM/GUI/swd_plugin.xml
```

You need the CCM_Admin Tivoli region authorization role to run it.

If the Activity Planner is up and running before launching this command, stop the Activity Planner using the wstopapm command.

Documentation notes

This information is cumulative and includes documentation information contained in this fix pack and previous fix packs for ease of reference.

This section includes the following information:

- New information and documentation problems and corrections contained in this fix pack.
- New information and documentation problems and corrections contained in previous fix packs.

New information contained in this fix pack

This section contains new information for documentation units of IBM Tivoli Configuration Manager, Version 4.2.

User's Guide for Software Distribution

The following new information applies to the *User's Guide for Software Distribution*.

- **APAR IY53218:** In Chapter 15 "Troubleshooting", in the section "Hints and Tips" the following information should be added at the end of the list:

Cloning software packages from the Tivoli desktop

When cloning software packages from one profile manager to another using the drag-and-drop function, the cloned software package might not work correctly.

To clone a software package from one profile manager to another, perform the following steps:

1. From the Tivoli desktop, open the profile manager containing the software package you want to clone.
2. Select the software package you want to clone.
3. Select Profiles/Clone in the Edit menu. The Clone Profile dialog is displayed.
4. In the Name/Icon Label type a name for the cloned software package.
5. Select a profile manager in the Clone to Profile Manager list.
6. Click Clone and Close. The selected software package is cloned to the specified profile manager.

Note: When naming software packages, do not use the .dup@ or .tmp@ character sequence in the name or version.

You can also move a software package from one profile manager to another, by performing one of the following procedures:

- On Windows, drag and drop the software package to the destination profile manager.
- On UNIX, drag and drop the software package to the destination profile manager while pressing the Shift key.

User's Guide for Software Distribution

The following new information applies to the *User's Guide for Software Distribution*.

- **APAR IY58372:** In Chapter 10 "Preparing a Software Package for Distribution", in the section "Change Management Operations", in the subsection "Installing the Appsample^1.0 Software Package", the following note should be added to the end of Step 5:

Note: If you build packages on the source host system with a specific code set, you cannot perform a delta installation using another source host system with a different code set.

User's Guide for Software Distribution

The following new information applies to the *User's Guide for Software Distribution*.

- **APAR IY59300:** In Chapter 10 "Preparing a Software Package for Distribution", in the section "Change Management Operations", in the subsection "Installing the Appsample^1.0 Software Package", step 5, the following note should be added after the sentence: "To upgrade an installed package using byte-level differencing, select the Delta Install check box and type the name and version of the built package to be upgraded in the Base Package text box."

Note: For UNIX source hosts, directory and file name checks are case-sensitive, so the base and the version packages must use the same case.

Reference Manual for Software Distribution

The following new information applies to the *Reference Manual for Software Distribution*.

- **APAR IY59478:** In Chapter 2, "Performing Change Management Operations", in the section "Byte-level Differencing", in the subsection "How Software Distribution Uses Byte-level Differencing", the paragraph "To apply the delta installation, the base and the version packages must have the same nested structure. The above operation is performed on the source host and generates a delta package that is sent to the target" should be modified as follows:

To apply the delta installation, the base and the version packages must have the same nested structure. In addition, if the base and the version packages use the same file in the same directory, the packages must be in software package block (built) format, otherwise the whole file is distributed. The above operation is performed on the source host and generates a delta package that is sent to the target.

- In Chapter 3 "Using Commands", in the section "Server Commands", in the subsection "winstsp", the explanation of `-d spobj_name` should be modified as follows:

To apply the delta installation, the base and the version packages must have the same nested structure. In addition, if the base and the version packages use the same file in the same directory, the packages must be in software package block (built) format, otherwise the whole file is distributed. Byte-level differencing uses dependency checking to verify that the base package has been installed.

User's Guide for Deployment Services

The following new information applies to the *User's Guide for Deployment Services*.

- **APAR IY62930:** In Part 4 "Web Interface", Chapter 13, "Administering the Web interface", in the section "Monitoring the Results of Operations" the following information should be added before the table:

The software packages distributed using Software Distribution are tracked in the Inventory database by the endpoint label, while the software packages distributed using the Web Interface are tracked by the workstation hostname. This condition can lead to a misalignment of information in the Inventory database if you install an endpoint on the Web Interface client workstation and distribute software packages to this workstation using Software Distribution.

To avoid this problem, you should install the endpoint with the same name as the workstation hostname or, if the endpoint is already installed, change its name to match the workstation hostname.

- In Part 4 "Web Interface", Chapter 13, "Administering the Web interface", in the section "Troubleshooting" the following information should be added after the last paragraph in the sub-section "Administrator on the Tivoli Server":

Information concerning software packages installed on a Web Interface client is not consistent when an endpoint is installed on the same workstation.

The software packages distributed using Software Distribution are tracked in the Inventory database by the endpoint label, while the software packages distributed using the Web Interface are tracked by the workstation hostname. This condition can lead to a misalignment of information in the Inventory database if you install an endpoint on the Web Interface client workstation and distribute software packages to this workstation using Software Distribution.

To avoid this problem, you should install the endpoint with the same name as the workstation hostname or, if the endpoint is already installed, change its name to match the workstation hostname.

Release Notes

The following new information applies to the *Release Notes*.

- **APAR IY64238:** In Chapter 3, "Software limitations, problems, and workarounds", in the section "Software problems and workarounds" the following information should be added after defect 28358:

APAR IY64238: Repeated attempts to install the IBM Tivoli Configuration Manager Web Gateway on Windows 2000 Advanced Server dual processor workstations might cause the installation process to stop abruptly.

Workaround: Install the IBM Tivoli Configuration Manager Web Gateway component using an alternate installation method, such as the software package block or silent installation methods. For more information on these methods, refer to the *IBM Tivoli Configuration Manager Planning and Installation Guide*.

Documentation problems and corrections contained in this fix pack

This section contains problems and corrections for the following manuals of the IBM Tivoli Configuration Manager, Version 4.2 library:

Reference Manual for Software Distribution

The following new information applies to the *Reference Manual for Software Distribution*.

- **APAR IY55404:** In Chapter 1 "Editing the Software Package Definition File", in the section "System Actions", in the sub-section "Restart", in the table "SPD file attributes of the restart stanza", the last bullet in the explanation of the `force_restart` attribute should be replaced with the following text:

If the timeout attribute is higher than or equal to zero and the `force_restart` attribute is set to `y`, a soft reboot is invoked. In case it fails, a hard reboot is performed after the timeout expires and when the gateway connects to the endpoint again.

Reference Manual for Software Distribution

The following new information applies to the *Reference Manual for Software Distribution*.

- **APAR IY56703:** In Chapter 1 "Editing the Software Package Definition File", in the section "Object-related Actions", in the sub-section "Attributes in the File System Stanzas", in the table "SPD File attributes in file system stanzas", the following note should be removed from the explanation of the `rename_if_locked` attribute:

Note: The `rename_if_locked` attribute is not supported for OS/400 endpoints.

User's Guide for Software Distribution

The following new information applies to the *User's Guide for Software Distribution*.

- **APAR IY57685:** In Chapter 12 "Integrating the Tivoli Enterprise Console", in the section "The tecad_sd.conf File", in the sub-section "RetryInterval", the sentence "The default interval is 120 seconds." should be modified as follows:
"The default interval is 1 second."

Planning and Installation Guide

The following new information applies to the *Planning and Installation Guide*.

- **APAR IY58932:** In Chapter 4, "Installing IBM Tivoli Configuration Manager", in the section "Installing components using the installation program", in the subsection "Desktop Installation", the following changes should be made:
Change the paragraph "The Desktop installation program installs Tivoli Desktop for Windows and the IBM Tivoli Configuration Manager administrative interfaces. This installation can be used on Windows operating systems only, except for Windows 98." into:
"The Desktop installation program installs Tivoli Desktop for Windows and the IBM Tivoli Configuration Manager administrative interfaces. This installation can be used on Windows operating systems only, except for Windows 98 and Windows Server 2003."

Add the following text after the second paragraph:

To install Tivoli Desktop for Windows on Windows Server 2003, open the Desktop directory on cd 3 of the IBM Tivoli Configuration Manager Desktop CD (cd3\desktop), then run setup.exe. When the Tivoli Desktop installation is complete, you can install components using Software Distribution (See the section Installing Components using Software Package Blocks for more information). You can also install using the wdinstsp command, if SPEDITOR is installed on the target.

Reference Manual for Software Distribution

The following information changes apply to the *Reference Manual for Software Distribution*.

- **APAR IY64823:** In Chapter 3 "Using Commands", in the section "Server Commands", in the explanation of the wsetsps command, replace the two paragraphs under the Description heading with the following two paragraphs:
Using this command, you can add applications that were installed independently of Software Distribution to the Software Distribution catalog on the endpoint. The specified software package is assigned a state of IC-D-, indicating that it is installed and discovered.
There are limitations to the change management operations that can be used for a discovered software package. Only the following operations are available:
 - Remove software package (not in Transactional mode). The related entry is removed from the Software Distribution catalog on the endpoint, but the application is not uninstalled.
 - Force install software package.

User's Guide for Software Distribution

The following information changes apply to the *User's Guide for Software Distribution*.

- **APAR IY66261:** In Part 1 "Preparing Software Packages", Chapter 1 "Overview of Software Distribution", in the section "Software Distribution Highlights", in the sub-section "Software Package Distributions and Operations" the Source and repair functionality item description should be modified as follows:

The repair functionality identifies which source and target objects have been modified or corrupted since the last successful installation of a software package, and rebuilds the software package with only these objects rather than installing the entire package again. The submission of a repair operation might take long time if the check of objects modified or corrupted is run for a large number of endpoints.

Planning and Installation Guide

The following information changes apply to the *Planning and Installation Guide*.

- **APAR IY68178:** In Chapter 4 "Working With Repositories and Queries", in the section "Upgrading Database Scripts", in the sub-section "Upgrading From IBM Tivoli Configuration Manager Version 4.2" the software distribution schema is incorrect and the current text should be modified as follows:

The Software Distribution upgrade from 4.2 to 4.2.2 does not require any upgrade script for the database repository.

New information contained in previous fix packs

This section contains new information for documentation units of IBM Tivoli Configuration Manager, Version 4.2.

Reference Manual for Software Distribution

The following new information applies to the *Reference Manual for Software Distribution*.

- **APAR IY44101:** Chapter 2. "Performing Change Management Operations". Insert a new section as the last section of this chapter, immediately after the "Transactional-and-Undoable Cycle" sub-section as follows: **Managing the Access Control List** Tivoli Software Distribution does not manage the access control list (ACL) of the files you distribute. If you are installing a software package that distributes some files from a source host to a Windows endpoint, the ACL of the distributed files on the target depends on the option you specify for the operation. This results in the following:
 1. If you set the transactional option to **n (winstsp -tn)**. The file inherits, for the destination directory, the ACL you specify in the software package for the parent directory.
 2. If you set the transactional option to **y (winstsp -ty)**. The file inherits the ACL of the parent directory. In this case the parent directory is the directory specified in the staging_dir attribute of the swdis.ini file on the endpoint. The ACL is not modified when the file is moved to the destination directory of the endpoint.
 3. If you set the transactional option to **y (winstsp -ty)**, and the target file already exists, the ACL of the target file is preserved.
- **APAR IY43316:** In Chapter 1. "Editing the Software Package Definition File", section "Other SPD File Actions", sub-section "restart", Table 22, add two new rows at the end of the table containing the explanation of two new attributes (force_restart, timeout).

Attribute	Comments			
	Values	Required	Default	Stanzas
force_restart	Specifies if the reboot action on the endpoint must be forced. This attribute is valid only on Windows systems. Possible values are y and n . The default value is n . This attribute interacts with the timeout attribute, as described in the following list: <ul style="list-style-type: none"> • If the default values are used, that is the timeout attribute is set to -1 and the force_restart attribute is set to n, a soft reboot is invoked and, in case it fails, Software Distribution retries for an infinite time. • If the timeout attribute is set to -1 and the force_restart attribute is set to y, a hard reboot is performed immediately. • If the timeout attribute is higher than or equal to zero and the force_restart attribute is set to n a soft reboot is invoked. If the reboot fails, the distribution fails after the timeout expires. • If the timeout attribute is higher than or equal to zero and the force_restart attribute is set to y, a soft reboot is invoked and, in case it fails, a hard reboot is performed after the timeout expires. 			
	y, n	No	n	restart
timeout	Specifies the number of seconds Software Distribution must wait before the reboot fails. If a retry interval occurs during this timeout, the distribution interrupts and the checkpoint and restart feature is used to retry later. The default value is -1. This means that Software Distribution retries the operation for an infinite time.			
	Integer	No	-1	restart

- **APAR IY49464:** In Chapter 3. "Using Commands", section "Server Commands", add the following option to the **wswdcfg** command:

how_create_ep_sections

Specifies how to create the section for an endpoint in the swdis.ini file when it does not exist, in particular, when an endpoint has been renamed. Possible values are **clone_mobile** and **clone_mobile_or_first_ep_name**. The default value is **clone_mobile**, which means that the swdis.ini section corresponding to the endpoint label is created by cloning the contents of the [#MOBILE] section if it exists. If the [#MOBILE] section does not exist, a new product_dir is created in the swdis.ini file, and a new path is created in the \$(system_dir). If you specify **clone_mobile_or_first_ep_name** a new endpoint section is created by cloning the [#MOBILE] section if it exists, or otherwise by cloning the first endpoint label section if that exists. If neither of the above sections exist, then a new endpoint label section is created based on a new product_dir.

- In Chapter 3 "Using Commands", section "Server Commands", command **wswdcfg**, add the following text in the **-s** option description:

notify_ext_directly{plan_name}

Specifies whether the reports for the Software Distribution activities contained in an activity plan are notified to Activity Planner directly without using notification manager. You can also skip validation operations against the Inventory database for activities submitted by Software Distribution. Possible values are **y** and **a**. If you specify **y**, the Software Distribution reports for the specified plan are skipped by notification manager. If you specify **n**, the Software Distribution reports for the specified plan are skipped by notification manager and Software

Distribution activities are not validated against the Inventory database. Use the *plan_name* variable to specify the name of plan. When specifying this variable, you can use wildcards. You can specify more than one of these variables. If you use variables specifying conflicting plan names, for example, `notify_ext_directly{MyPlan*}=y` and `notify_ext_directly{MyPlan*}=a`, the first statement you entered is used.

- **APAR IY62154:** In Chapter 3. "Using Commands", in the description of the `wspmvdata` command, add the following paragraph after the bulleted list in the Description section:

In the data moving architecture, data is moved between source hosts and endpoints and between one endpoint and multiple endpoints. A source host is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed. The source host corresponds to the origin system when send operations are performed, with the exception of send operations from one endpoint to multiple endpoints. During a retrieve operation, on the other hand, the source host is the destination system.

Messages and Codes

The following new information applies to *Messages and Codes*.

In Chapter 2 "Activity Planner Message", add the following messages:

AMN2001E Unable to look up Activity Planner object - password remains unchanged.

Explanation: The system failed to look up the Activity Planner object in the Framework object database.

System Action: The operation is not performed.

Operator Response: Verify whether the Activity Planner was installed correctly. Reinstall the service if the installation was not performed correctly.

AMN2002E Activity Planner initialization failed. For more information check the Activity Planner server log file.

Explanation: An error occurred during an attempt to start the Activity Planner engine.

System Action: The Activity Planner engine does not initialize.

Operator Response: Check the Activity Planner log file to determine why the Activity Planner initialization failed.

AMN2004E Only one of the following mutually exclusive options can be specified: -c, -p, -r, and -s

Explanation: You specified more than one mutually exclusive option.

System Action: The command is not performed.

Operator Response: Specify only one of the mutually exclusive options and resubmit the command.

AMN2005E Unable to read file *file name*. Verify that the name was entered correctly.

Explanation: The system cannot read the specified file.

Message Variables:

file name

The name of the file.

System Action: The operation is not performed.

Operator Response: Check and correct the file name, and resubmit the operation.

AMN2006E An error occurred during an attempt to create file *file name*.

Explanation: The system cannot create the specified file.

Message Variables:

file name

The name of the file.

System Action: The command is not performed

Operator Response: Check and correct the file name, and resubmit the command.

AMN2007E You do not have the necessary role assigned to perform the operation.

Explanation: You do not have the correct role assigned to perform the operation.

System Action: The operation is not performed.

Operator Response: Ask your Tivoli administrator to assign you the appropriate role.

AMN2008E Unable to open IOM channel for getting result data.

Explanation: The system is not able to open the Inter-Object-Messaging channel to receive the data resulting from the operation.

System Action: The operation is not performed

Operator Response: Check whether network connections are functioning correctly, and whether Tivoli Management Framework is working properly.

AMN2009W There is no RIM object labelled *RIM object name*

Explanation: The system cannot find the specified RIM object.

Message Variables:
rim name

The name of the RIM object.

System Action: The operation is not performed

Operator Response: Check and correct the name of the RIM object, and resubmit the command.

AMN2011E The value *value* for this level is invalid. Allowed values are as follows: *value*

Explanation: The trace level you specified is not valid.

Message Variables:
value The specified trace level value.

System Action: The operation is not performed

Operator Response: Specify a valid level and submit the command again.

AMN2012E The specified file is invalid.

Explanation: You specified a file name that is not valid.

System Action: The operation is not performed

Operator Response: Check and correct the file name, and resubmit the command.

AMN2013E Failed to create RIM Object *RIM object name* for Database Type *Database type*. Use `wcrtrim` to create the RIM Object before performing Activity Planner operations. RIM Error Message: *RIM error message* Explanation: An error has occurred while trying to create the RIM object.

Explanation: An error has occurred while trying to create the RIM object.

Message Variables:
RIM object name

The RIM object name.

Database type

The type of database.

RIM error message

The error message from the RIM object.

System Action: The operation is not performed

Operator Response: Use the `wcrtrim` command to create the RIM Object before performing any Activity Planner operations.

AMN2014E Failed to create RIM Object *RIM object name* for Database Type *Database type*. Use `wcrtrim` to create the RIM Object before performing Activity Planner operations. RIM Error Message: Instance Home parameter is missing.

Explanation: An error occurred while trying to create the RIM object for the specified database.

Message Variables:
RIM object name

The RIM object name.

Database type

The type of database.

System Action: The operation is not performed

Operator Response: Use the `wcrtrim` command to create the RIM Object before performing any Activity Planner operations

AMN2015E Failed to create the Activity Planner user. Return code: *return code*. Create it manually.

Explanation: The system is unable to create the Activity Planner user.

Message Variables:
return code

The return code of the program.

System Action: The operation is not performed

Operator Response: The system is unable to create the Activity Planner user.

AMN2016E The specified file already exists. Use `-o` option to overwrite it.

Explanation: The system cannot create the specified file because the file already exists.

System Action: The operation is not performed.

Operator Response: Specify a different name and resubmit the command, or resubmit the command using the `-o` option to overwrite the specified file.

AMN2017E The specified target list exceeds the maximum length allowed. To specify more targets, use the -T option.

Explanation: The maximum length allowed for target names is 250 single-byte characters.

System Action: The operation is not performed

Operator Response: Resubmit the command using the -T option.

AMN3001E Activity Plan Editor GUI failed to start on host *host name*. The Activity Plan Editor GUI must be installed on the same host as the Tivoli Desktop, the host must be a Managed Node and the Login/Group name of the administrator in use must be valid on the Managed Node.

Explanation: See message.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed.

Operator Response: Verify why the connection was not established, correct the error, and resubmit the operation.

AMN3002E An internal application error occurred.

Explanation: The operation cannot be completed because of an internal error (for example, a memory allocation failure).

System Action: The operation is not performed.

Operator Response: Check the log files. If the problem persists, collect trace information and, if necessary, contact Tivoli Customer Support.

AMN3003E Activity Plan Editor GUI host *host name* is ambiguous, and there is not a host with this name in the local Tivoli management region.

Explanation: The host name you specified is not recognized in the local Tivoli Management Region.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Check the host name and try the operation again.

AMN3004E The Activity Plan Editor GUI host *host name* cannot be found in this Tivoli management region.

Explanation: The host name you specified is not recognized in the local Tivoli Management Region.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Check the host name and try the operation again.

AMN3005E Internal Error: The WD_DESKTOP_HOST variable is not defined. Ensure that the Activity Plan Editor GUI has been installed on the same host as the Tivoli Desktop, and that the host is a Managed Node.

Explanation: The specified variable is not defined.

System Action: The operation is not performed

Operator Response: Ensure that the installation was performed correctly, and try the operation again.

AMN3006E The Java Runtime Environment was not found on host *host name*.

Explanation: See message.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Install or repair the Java Runtime Environment, and try the operation again.

AMN3007E Activity Plan Editor GUI .jar files were not found on host *host name*. Ensure that the Activity Plan Editor GUI has been installed on the same host as the Tivoli Desktop, and that the host is a Managed Node.

Explanation: The Activity Plan Editor is not installed on the specified host, or the installation is corrupted.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Install or repair the Activity Plan Editor, and try the operation again.

AMN3101E Activity Plan Editor GUI failed to start on host *host name*. The Activity Plan Editor GUI must be installed on the same host as the Tivoli Desktop, the host must be a Managed Node and the Login/Group name of the administrator in use must be valid on the Managed Node.

Explanation: See message.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed.

Operator Response: Verify why the connection was not established, correct the error, and resubmit the operation.

AMN3102E An internal application error occurred.

Explanation: The operation cannot be completed because of an internal error (for example, a memory allocation failure).

System Action: The operation is not performed.

Operator Response: Check the log files. If the problem persists, collect trace information and, if necessary, contact IBM Software Support.

AMN3103E Activity Plan Monitor GUI host *host name* is ambiguous, and there is no host with this name in the local Tivoli management region.

Explanation: The host name you specified is not recognized in the local Tivoli Management Region.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Check the host name and try the operation again.

AMN3104E The Activity Plan Monitor GUI host *host name* cannot be found in this Tivoli management region.

Explanation: The host name you specified is not recognized in the local Tivoli Management Region.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Check the host name and try the operation again.

AMN3105E Internal Error: The WD_DESKTOP_HOST variable is not defined. Ensure that the Activity Plan Monitor GUI has been installed on the same host as the Tivoli Desktop, and that the host is a Managed Node.

Explanation: The specified variable is not defined.

System Action: The operation is not performed

Operator Response: Ensure that the installation was performed correctly, and try the operation again.

AMN3106E The Java Runtime Environment was not found on host *host name*.

Explanation: See message.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Install or repair the Java Runtime Environment, and try the operation again.

AMN3107E Activity Plan Monitor GUI .jar files were not found on host *host name*. Ensure that the Activity Plan Monitor GUI has been installed on the same host as the Tivoli Desktop, and that the host is a Managed Node.

Explanation: The Activity Plan Monitor is not installed on the specified host, or the installation is corrupted.

Message Variables:

host name

The name of the host.

System Action: The operation is not performed

Operator Response: Install or repair Activity Plan Monitor, and try the operation again.

User's Guide for Deployment Services

The following new information applies to the *User's Guide for Deployment Services*

- In Part 1 "Planning, Scheduling, and Monitoring Activities", Chapter 2, "Using the Command Line", in the section "Managing Activity Plans" the syntax for the **wlstpln** command should include the following statement:
`wlstpln [-Qoption_to_query=value]`

Also, add the following entry in the **Options** list:

[-Option_to_query=value]

Specifies a filter criteria to be applied to the list of plans. The filter criteria and its possible values are as follows:

recursion_type

- * lists all recursive plans
- di** lists recursive plans with recursion type = Date Interval
- ti** lists recursive plans with recursion type = Time Interval
- dow** lists recursive plans with recursion type = Day of week
- dom** lists recursive plans with recursion type = Day of month

- In Part 3 "Web Interface", Chapter 7 "Administering the Web Interface", apply the following changes:

In the introductory paragraph, add the following bullet as the third bullet of the unordered list:

- Enable the Web user to perform install, uninstall and verify operations on a software package even if the user is not logged on as administrator, for the following operating systems:
 - Windows NT
 - Windows 2000
 - Windows XP

- After the "Making Web Objects Available" section, add the "Enabling User Context Switch" section as follows:

Enabling User Context Switch

On the Windows NT, 2000, and XP operating systems, to enable the Web user to perform the install, uninstall and verify operations on a software package even if he is not logged on as administrator, the administrator must perform one of the following procedures:

1. Log on as Administrator on the Web user workstation and perform the following steps:
 - a. Open a browser and connect to the Web interface as described in the Starting the Web Interface section.
 - b. Wait for the Operation Console to initialize. When the initialization completes the following message is displayed in the Operation Console report area:
Initializing ... done
 - c. Close the browser.
 - d. Edit the webui.properties file located under the %USERPROFILE% directory.
 - e. Change to TRUE the value for the ENABLE_UCS_AUTOINSTALL key.
 - f. Open the browser and connect to the Web interface.
 - g. During the Operation Console initialization steps the following message confirms the correct installation of the User Context Switch functionality:
Downloading UCS bundle ... done
2. From the Tivoli server, or from any available managed node for the Web user workstation, perform the following steps:
 - a. From the Tivoli desktop import the WebUIService_w32-ix86.spb software package as described in the IBM Tivoli Configuration Manager User's

Guide for Software Distribution. Perform the import of the software package on the profile manager that contains the Web user endpoint as subscriber. The WebUIService_w32-ix86.spb software package is located on the Web Gateway under the WebSrvHomeDir\htdocs\webui directory.

- b. From the Tivoli desktop install the WebUIService_w32-ix86.spb software package on the Web user endpoint where you want to enable User Context Switch service. After the installation completes the following message is displayed on the Tivoli desktop:

```
Distributing profile <name.version> ...  
Distributed profile <name.version>.
```

where, name.version is the name of the Software Package profile used to import the WebUIService_w32-ix86.spb package.

- c. On the Web user endpoint, verify that the WEBUI 4.2 UCS service is listed in the Services (Local) window with Started Status, Automatic Startup Type, and LocalSystem Log On As.

Note: To avoid an incorrect use of the Software Distribution disconnected command line by the Web user, be sure that the file system of the Web user client is NTFS and that the %WINDIR% directory has the write security permission only for the Administrators group. Besides, when the user is logged in the WebUI as Web user, he will find the trace file (webui.trc) under the %USERPROFILE%\webui\ path.

- In Part 3 "Web Interface", Chapter 8 "Using the Web Interface" add the following at the end of the introduction:

If while initializing the WebUI on the Web user machine, the following occurs:

- Java plug-in is not installed
- You did not press the Grant button on the certificate validation panel of the Operations Console
- The Operations Console cast some errors while initializing the client.

The centre of the browser's page will show an error icon which will replace the waiting bar and using the Operations Console will be impossible.

- In Part 3 "Web Interface", Chapter 7 "Administering the Web Interface", Section "Setting up the Web Interface", add another sub-section as follows:

Enable Java plug-in auto-download

The java plug-in auto-download feature on web-user machines can be enabled setting the value of the PLUGIN_AUTH_DOWNLOAD.ENABLED key to "true", by editing the webconsole.properties file located on the Web Gateway machine under the

\$WAS_HOME/installedApps/WebConsole.ear/WebConsole.war/WEB-INF/classes path. In order that the feature is really enabled, it is necessary to specify in the webconsole.properties file, the http URLs to download the java plug-in for the different operating systems supported on the web-user machines. Then there will be keys such as PLUGIN_DOWNLOAD_URL.<os_name>.

- In Part 3 "Web Interface", Chapter 8 "Using the Web Interface", Section "Starting the Web Interface", Sub-section "Operations Console", add the following at the bottom of the sub-section:

Following the fix pack installation, the files concerning the common and basic libraries, besides those concerning the command line of the Web applications installed on the WebUI (like SoftwareDistributionWeb and InventoryWeb), will be downloaded in a default directory defined as:

- \$HOME/WebUI on UNIX systems

- %USERPROFILE%\WebUI on Windows systems

while the Operations Console configuration file, webui.properties, will be located under the following directories:

- \$HOME on UNIX systems
- %USERPROFILE% on Windows systems

So, on web-user machines you will have to eliminate, if necessary, the configuration file and the runtime files of the WebUI and of the applications that had been installed because of the use of the WebUI prior to the fix pack 1 installation.

- With the introduction of the Unrestricted Access to Web objects new feature, the following changes need to be made:

To install and configure an environment with unrestricted access to Web objects, follow the instructions in the IBM Tivoli Configuration Manager, Version 4.2 documentation, eliminating the requirement of installing and configuring the IBM Tivoli Access Manager and IBM Tivoli Access Manager WebSEAL security mechanisms. Then, to access the Web objects, start the Web Interface by typing the Web address for the Web Interface server in the following form:

```
http://hostname/WebConsole/com.tivoli.webui.servlets.ConsoleMain
```

where, the host name represents the machine where WebSphere is installed and configured. See the following section for the new command syntax for the **wweb** command used to publish Web objects on the endpoints running the WebSphere Application Server.

In an existing environment with the IBM Tivoli Access Manager and IBM Tivoli Access Manager WebSEAL security mechanisms configured and installed, you can switch to an unrestricted environment where all Web objects already published and any new objects published become accessible for all users:

1. Change the setting of the websecurity_enabled key to false in the twgconfig.properties file on the machine where the Tivoli Web Gateway is installed.
2. Change the Web address used to start the Web Interface, to the unrestricted address as follows:

```
http://hostname/WebConsole/com.tivoli.webui.servlets.ConsoleMain
```

where, the host name represents the machine where WebSphere is installed and configured. In this way, you bypass the authentication on the WebSEAL machine.

3. Publish Web objects using the **wweb** command without user authentication restrictions omitting the -u argument. See the following section for the new command syntax for the **wweb** command.

In the Preface, section "Using the Command Line", sub-section "Command Line Syntax", the syntax of the **wweb** command in the Notes section, point 2. should be changed to the following syntax:

```
wweb {-publish|-unpublish} -p publicName -v version [-i all | [-i interp]...]
-w app_serv_ep_label [-w app_serv_ep_label]... [-c connSpeed] [-u all |
[-u user]...
[-U file]...] [-f|-n] @profile
```

In the same section, the command line syntax is shown with every option on a separate line. Replace the lines:

```
{-u all | -u user [-u user] ... } \
[-U userfile] ... \
```

with the following:

```
[-u all | [-u user]...[-U file]...]
```

Also, on the same page, from the list of bullets of what you must specify in the command, remove the following bullet:

- Either -u all or at least one occurrence of the -u keyword followed by a *user*

Instead, add the following bullet in the list of bullets of what you can optionally specify in the command:

- Either -u all or -u user and/or -U file

Chapter 7, "Administering the Web Interface", section "Making Web Objects Available", sub-section "Publishing and Unpublishing Web Objects", the syntax of the `wweb` command should be changed as follows:

```
wweb -publish -p publicName -v version {-i all | -i interp [-i interp] ... } \  
-w app_server [-w app_serv_ep_label] ... [-c connspeed] \  
[-u all | [-u user]...[-U file]...] [-f|-n] @profile  
wweb -unpublish -p publicName -v version -w app_server [-w app_server] ... \  
[-u all | [-u user]...[-U file]...] [-f|-n] @profile
```

Replace the descriptions for the { -u all | -u user [-u user] ... } and [-U userfile] ... options with the following:

[-u all | [-u user]...[-U file]...]

Users allowed to access the Web object from the Web, where a user is an Access Manager account name created using WebSEAL and where, -U file is a file containing a list of users. The default value is -u all.

Note: If you use the -u all attribute to publish a Web object, you must use the -u all attribute when you unpublish it.

Chapter 2, "Planning a configuration management environment", section "Software requirements for the Web Gateway component", sub-section "Software requirements for Web access", add the following new section:

Unrestricted access to Web objects

You can also use the Web Interface component in a non-secure environment, that is, without installing and configuring the IBM Tivoli Access Manager and IBM Tivoli Access Manager WebSEAL security mechanisms. Running the Web Interface in a non-secure environment means that no authentication is performed when accessing Web objects. When publishing Web object, the administrator can choose to not specify user information so that the object published can be accessed by all users. Refer to the `wweb` command in the *IBM Tivoli Configuration Manager: User's Guide for Deployment Services* for more information about publishing objects with unrestricted access.

- **APAR IY42830:** In Chapter 1 "Performing Activity Planner Operations", section "Defining an Activity", step 4 which describes the Name of Activity text box, change the text of the note as follows:

Note: For activity names you can use alphanumeric characters plus the following special characters:

- number sign (#)
- plus sign (+)
- dash (-)
- question mark (?)
- asterisk (*)
- open square bracket ([) and closed square bracket (])

- period (.)
 - tilde (~)
 - underscore (_)
- **Defect 43296:** In Chapter 3. Troubleshooting, add the following new section immediately after the section entitled "Checking the Activity Planner Configuration File".

Defining the Activity Planner Engine Parameters

To improve product performance, you can define the engine tuning parameters and set the **notify_ext_directly** key for Software Distribution operations. This key allows the user to skip the notification manager queue and the Inventory database validation when notifying Activity Planner about Software Distribution activities, thus improving product performance. For more information on this key, refer to *Reference Manual for Software Distribution*.

In the [ENGINE_TUNING] section of the apm.ini file, you can customize the following parameters:

load_paused_plans_at_startup

Specifies whether plans in paused state are loaded in the memory at engine start-up. Possible values are **yes** and **no**. The default value is **yes**.

pre_loading_tmf_objects_threshold

Specifies the minimum number of targets for an activity required to load the endpoint and managed node list available in the Tivoli Management Region. This list is used to search for the object ID of the target based on its name. This cache has no effect on the **cache_local_target_info** and **cache_global_target_info** caches. The average RAM usage for this cache is some megabytes if you have an environment with tens of thousands of endpoints. The default value is 200 targets.

cache_local_target_info

Specifies whether the engine must cache information about the targets of a single plan. If enabled, targets are evaluated only once at plan submission. This parameter applies only to plans in which the targets are specified at plan level and are resolved at plan submission. If several plans with many targets are submitted, setting this parameter can increase memory usage. The information contained in this cache is flushed when the plan is completed. Possible values are **yes** and **no**. The default value is **yes**.

cache_global_target_info

Specifies whether the engine must globally cache information about targets. This cache is unique in the Activity Planner database and its data is shared between all active plans. Enable this cache if you have many plans in which targets are specified at activity level or resolved at activity execution, because the local cache cannot be used in these cases. Possible values are **yes** and **no**. The default value is **no**.

global_cache_max_size

Specifies the maximum size for the global target cache. The default value is 5000 targets with the related information, such as gateway name, ID, and so on. The average RAM usage for this cache is some megabytes if you have an environment with tens of thousands of endpoints.

global_cache_refresh_timeout

Specifies the number of minutes after which the data in the Tivoli Management Framework cache and the global target cache are no longer valid and must be updated. The default value is 120 minutes (2 hours).

executer_max_threads

Specifies the maximum number of threads that can be generated to perform external activities. Possible values are 0, -1, and any finite number. The default value is 0, which means that thread pooling is disabled. If you specify -1, the number of threads is unlimited; if you specify a finite number, that number is applied.

executer_min_threads

Specifies the minimum number of threads that must be present in the thread pool. The default value is 0.

executer_max_idle_time

Specifies the maximum idle time after which a thread of the pool may be shut down. The default value is 120 seconds.

deep_gc_interval

Specifies the number of minutes the Activity Planner engine must wait before forcing a deep garbage collection. The default value is -1, that is the garbage collection is never explicitly invoked. The deep garbage collection is used to free memory, but the process is slow and should not be enabled if not strictly necessary. For example, on Windows machines, the import operation uses a large amount of memory and in that case it could be useful to enable this feature if a lot of imports must be done sequentially.

The data stored in the caches described above is updated only when the `global_cache_refresh_timeout` expires or when the Activity Planner engine is stopped and restarted.

User's Guide for Software Distribution

The following new information applies to the *User's Guide for Software Distribution*.

- **APAR IY43316:** In Chapter 3. "Creating Packages Using the Software Package Editor", section "Creating the Appsample Software Package", sub-section "Adding a Restart Action", add a new second paragraph to step 2 as follows:
Select the **Force** check box to specify that the reboot action on the endpoint must be forced. This option is valid only on Windows systems. This option interacts with the timeout option, as described in the following list:
 - If the timeout is set to -1 and the **Force** check box is not selected, a soft reboot is invoked and, if it fails, Software Distribution retries for an infinite time.
 - If the timeout is set to -1 and the **Force** check box is selected, a hard reboot is performed immediately.
 - If the timeout is set to 0 and the **Force** check box is not selected, a soft reboot is invoked. If the reboot fails, the distribution fails after the timeout expires.
 - If the timeout is set to 0 and the **Force** check box is selected, a soft reboot is invoked and, in case it fails, a hard reboot is performed after the timeout expires.

The **Timeout** box specifies the number of seconds Software Distribution must wait before the reboot fails. If a retry interval occurs during this timeout, the distribution interrupts and the checkpoint and restart feature is used to retry later. The default value is -1. See "Checkpoint Restart Service for Network Failure or Power Interruptions" on page 187 for more information about the checkpoint and restart feature. See "Setting Timeout Values for a Distribution" on page 315 for more details about the timeout.

Note: The restart action is ignored on all UNIX platforms, and for transactional operations on all other platforms.

- **APAR IY47556:** In Chapter 2. "Creating a Software Package", add the following section after the "Appsample Software Package" section:

Customizing the Default Path To customize the default path that the Software Package Editor launches when you select the browse button (...) from Software Package Editor dialogs, or when you open or save software packages, perform the following steps:

1. Create a new folder called **config** in the *speditor_dir* directory. The **speditor_dir** directory is defined in the *swdis.ini* file.
2. In the *speditor_dir/config* path, create a text file called **speditor.ini**.
3. Insert the following line in the *speditor.ini* text file:

```
default_file_path=directory_path
```

where *directory_path* represents the path automatically used by the Software Package Editor open and save dialogs and the browser dialog.

4. Save and close the *speditor.ini* file.

For example, if you inserted `default_file_path=d:\softpack` in the *speditor.ini* file, when you select the browse button from a Software Package Editor dialog, the dialog opens in the `d:\softpack` path.

- **APAR IY53218** In Chapter 15. "Troubleshooting", section "Hints and Tips", add the following text at the end of the list:

Cloning software packages from the Tivoli desktop

When cloning software packages from one profile manager to another using the drag-and-drop function, the cloned software package might not work correctly. To clone a software package from one profile manager to another, perform the following steps:

1. From the Tivoli desktop, open the profile manager containing the software package you want to clone.
2. Select the software package you want to clone.
3. Select **Profiles/Clone** in the **Edit** menu. The Clone Profile dialog is displayed.
4. In the **Name/Icon Label** type a name for the cloned software package.
5. Select a profile manager in the **Clone to Profile Manager** list.
6. Click **Clone and Close**. The selected software package is cloned to the specified profile manager.

Note: When naming software packages, do not use the `.dup@` or `.tmp@` character sequence in the name or version.

You can also move a software package from one profile manager to another, by performing one of the following procedures:

- On Windows operating systems, drag and drop the software package to the destination profile manager.
- On UNIX operating systems, drag and drop the software package to the destination profile manager while pressing the Shift key.

Release Notes

The following information changes apply to the Internationalization Notes section of the Release Notes:

- **APAR IY52072**

Valid characters in the activity plan name

The list of allowed characters is based on the standard Unicode 2.0. The valid characters in the activity name of APM plans are:

– Letter:

A character is considered to be a letter if and only if it is specified to be a letter by the Unicode 2.0 standard (category "Lu", "Ll", "Lt", "Lm", or "Lo" in the Unicode specification data file). Most ideographic characters are considered to be letters (Unicode category "Lo") for this purpose.

– Number:

In Unicode 2.0 a character is considered to be a digit if it is NOT in the range '\u2000' <= ch <= '\u2FFF' and its Unicode name contains the word "DIGIT". These are the ranges of Unicode characters that are considered digits:

0x0030 through 0x0039 ISO-LATIN-1 digits ('0' through '9')

0x0660 through 0x0669 Arabic-Indic digits

0x06F0 through 0x06F9 Extended Arabic-Indic digits

0x0966 through 0x096F Devanagari digits

0x09E6 through 0x09EF Bengali digits

0x0A66 through 0x0A6F Gurmukhi digits

0x0AE6 through 0x0AEF Gujarati digits

0x0B66 through 0x0B6F Oriya digits

0x0BE7 through 0x0BEF Tamil digits

0x0C66 through 0x0C6F Telugu digits

0x0CE6 through 0x0CEF Kannada digits

0x0D66 through 0x0D6F Malayalam digits

0x0E50 through 0x0E59 Thai digits

0x0ED0 through 0x0ED9 Lao digits

0x0F20 through 0x0F29 Tibetan digits

0xFF10 through 0xFF19 Fullwidth digits

– Special characters:

Number sign (#), plus sign (+), dash (-), question mark (?), asterisk (*), open square bracket ([) and closed square bracket (]), period (.), tilde (~), underscore (_), are allowed only in the English version.

Software Package Editor Online Help

The following information changes apply to the Software Package Editor Online Help documentation.

- **Defect 47869:** The PDFImp1.htm help file that corresponds to the first panel of the PDF Importer wizard has been updated. The text field **Source Image path** was erroneously documented as **Image path** in the help file.

Documentation problems and corrections contained in previous fix packs

This section contains problems and corrections for the following manuals of the IBM Tivoli Configuration Manager, Version 4.2 library:

- "Planning and Installation"
- "User's Guide for Deployment Services" on page 70
- "User's Guide for Software Distribution" on page 72
- "Reference Manual for Software Distribution" on page 75
- "Release Notes" on page 82
- "Activity Planner Online Help" on page 82

Planning and Installation

The following information changes apply to the Planning and installation manual.

- In Chapter 6, "Maintaining and troubleshooting a configuration management environment", Section "Maintaining the Web Gateway component", sub-section "Configuring for use with IP addresses", point 2 says to change the value of the InitParam_1 keyword to the IP address of the Web Gateway server. The value of InitParam_10 should also be changed in the same manner.
- **APAR IY46848:** In Chapter 4 "Installing IBM Tivoli Configuration Manager", add the following section after the "Uninstalling Software Distribution from NetWare gateways" section:

Uninstalling Tivoli Software Distribution endpoints After you remove the endpoints using the procedure described in the *Tivoli Enterprise: Installation Guide*, perform the following steps manually:

1. Delete the `\Product_Dir\swdis` directories from the appropriate drive.
2. Remove the `swdis.ini` and `swdis.bak` files from the `SystemDir` directory. On UNIX platforms, these files are located in `/etc/Tivoli`.
3. Delete the `SwdisUsrPCN.Endpoint_label` keyword from the Windows registry, located in the following path:
`HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run.`
4. Remove the
`HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\SwdisRestart`
registry key and all its content.

- **APAR IY50275:** In Chapter 3 "Planning for component Installations", section "Installation Options for Resource Manager" Table 17 change in the second last row in the table "Instance home (DB2 only) @RDBMS_DB_Param_two@" to "Instance name (DB2 only)" @RDBMS_DB_Param_two@.

Note: In previous versions of IBM Tivoli Configuration Manager, this field was synonymous with the INSTHOME variable. In this release, the entry has been simplified to be just the DB2 Instance Name.

- **APAR IY53601**

In "Chapter 2. Planning a Configuration Manager Environment", section "Using Configuration Management in Connected Tivoli Regions", replace the introductory sentence with the following:

This section discusses the requirements for running inventory scans, distributing software, and managing devices and users in connected Tivoli regions. If you plan to use IBM Tivoli Configuration Manager among Tivoli regions, the following conditions must be met:

- You can install the IBM Tivoli Configuration Manager components on the Hub region, or on the Hub and Spoke regions. Installing components on Spoke regions reduces the workload on the Hub region. For more information on Hub and Spoke regions, refer to *Tivoli Management Framework Planning for Deployment Guide*.

Note: If you install Activity Planner on more than one region, you need to create a separate Activity Planner database for each installation. These databases cannot communicate with each other and cannot share information on activity plans.

To workaroud this problem, you should write a script to extract data from each Activity Planner database and collect it at a central location, typically, the Hub region.

User's Guide for Deployment Services

The following information changes apply to the User's Guide for Deployment Services.

- **APAR IY36760:** In Part 1. "Planning, Scheduling and Monitoring Activities", Chapter 2, "Using the Command Line", Section "Managing Activity Plans", **wapmgui** command, add the following note after the first sentence:

Note: In a Window environment the user that starts the GUIs must belong to the Tivoli_Admin_Privileges group.

Part 2. "Modelling the Enterprise Configuration", Chapter 5, "Using the Command Line", **wccmgui** command, add the following note after the first sentence:

Note: In a Window environment the user that starts the GUIs must belong to the Tivoli_Admin_Privileges group.

- **Defect 23539:** In the Appendix "Accessibility" add the following section:

Enabling the IBM Voice Kit to Function with the Activity Planner and Configuration Change Manager GUIs.

To enable the IBM Voice Kit to Function with the Activity Planner and Configuration Change Manager GUIs, you must add in the system the system path variable the JRE path installed with the Tivoli_JRE_\$INTERP.spb package. For example, if you are working in a Windows environment, add the following path in the system variables drop-down list of the System Properties->Environment Variables dialog box:

C:\Program Files\Tivoli\JavaTools\JRE\1.3.0\jre

- **APAR IY42830:** In Chapter 1 "Performing Activity Planner Operations", Section "Defining an Activity", Step 4, change the text of the note as follows:

Note: For activity names you can use alphanumeric characters plus the following special characters:

- number sign (#)
- plus sign (+)
- dash (-)
- question mark (?)
- asterisk (*)
- open square bracket ([) and closed square bracket (])
- period (.)
- tilde (~)
- underscore (_)

- **Defect 46183:** In the IBM Tivoli Configuration Manager User's Guide for Deployment Services, chapter 3, section Managing Activity Plans, command **wlstpln**, add the following line to the Syntax description:

wlstpln [-Option_to_query=value]

Also, add the following text to the description of the options for the **wlstpln** command:

-Option_to_query=value

Specifies filters to be applied to the query. The query returns all submitted plans, templates, and drafts, based on their recursion settings. The option and its possible values are:

recursion_type

- * Lists all submitted plans, templates, and drafts, regardless of whether they are recursive.

- di** Lists all submitted plans, templates, and drafts with recursion type Date Interval.
- ti** Lists all submitted plans, templates, and drafts with recursion type Time Interval.
- dow** Lists all submitted plans, templates, and drafts with recursion type Day of week.
- dom** Lists all submitted plans, templates, and drafts with recursion type Day of month.
- nr** Lists all submitted plans, templates, and drafts with no recursion settings.
- r** Lists all recursive submitted plans, templates, and drafts.

Also, add the following line to the Syntax description:

```
wmonpln -f [FilterName] [-w]
```

Also, add the following text in the Options section for the **wmonpln** command:

-f FilterName

Displays a list of plans matching the filter criteria defined in the specified filter.

Also add the following example to the **wlstpln** command:

5. To display a list of all plans with recursion type set to days of week, enter the following command:

```
wlstpln -Qrecursion_type=dow
```

The following output is displayed:

Plan	Status	Recursion
test	Template	1
test_plan@06/10/03 09:19:34	Submitted	1,2,4
submission	Draft	4,5
jupiter	Submitted	st
juno	Template	2,3
venus	Draft	3,5

The st symbol indicates that the recursion for the specified plan was stopped.

- **APAR IY53211**

In "Chapter 2. Performing Activity Planner Operations", section "Using Variables", the text in the note at the end of the section should read as follows:

When performing Software Distribution operations, you can use Activity Planner internal variables or Software Distribution variables. To distinguish between these variables, precede the Software Distribution variables with a double \$ sign, for example \$\$(ep_label).

User's Guide for Software Distribution

The following information changes apply to the *User's Guide for Software Distribution*.

- **Defect 23539:** In the Appendix "Accessibility" add the following section:

Enabling the IBM Voice Kit to Function with the Software Package Editor

To enable the IBM Voice Kit to Function with the Software Package Editor, you must add in the system the system path variable the JRE path installed with the Tivoli_JRE_\$INTERP.spb package. For example, if you are working in a Windows environment, add the following path in the system variables drop-down list of the System Properties->Environment Variables dialog box:

C:\Program Files\Tivoli\JavaTools\JRE\1.3.0\jre

- **APAR IY36158:** In Chapter 10 "Preparing a Software Package for Distribution", Section "Change Management Operations", Sub-section "Overwriting Default Variables", add the following after the first paragraph:

If you are removing a software package that has already been installed, you can define or override only those variables that were not solved during the previous install operation.

- **APAR IY34924:** In Chapter 2, "Creating a Software Package", Section "Setting Software Package-level Properties", in the Sub-section "General Properties", add the following step 9:

9. In the sharing control drop-down list, select the appropriate value:

none No check is performed on the files and registry values already present on the target and distributed with the software package. When the software package is removed, all the distributed objects are removed.

only_shared

A check is performed only on the files and registry values that have the `is_shared` attribute set to `y`. When the software package is removed, these files and registry values are not removed if they were already present on the target prior to distributing the software package.

auto A check is performed on all the files and registry values distributed with the software package. When the software package is removed, all the files and registry values distributed with the software package are not removed if they already exist on the target.

If either `auto` or `only_shared` is specified, the version of the objects distributed with the software package is left on the target when a remove operation is performed.

The `PackGen.htm` help file was changed to reflect the change.

- **APAR IY34938:** In Chapter 2, "Creating a Software Package", Section "Adding a Restart Action", Step 2 change the first sentence as follows:

The restart action is executed in relation to four change management operations: install, remove, undo and commit.

The `Restart.htm` help file was changed to reflect the same change.

- **APAR IY35979:** In Chapter 2, "Creating a Software Package", Section "Launching the Software Package Editor", add a third bullet to the note list with the following text:

Any operation launched from the Software Package Editor hangs the process if the software package being processed is too large. To avoid this problem, tune the "`mx100m`" value parameters in the appropriate `.bat` file:

- On Windows NT, Windows 2000, and Windows XP platforms: the `speditor.bat` file.
- On Windows 98 platforms: the `swspe_95.bat` file.

Raise the value in small increments until you find the optimal value for your environment. For example, replace "`mx100m`" with "`-mx150m`" and then continue to increase this value until the machine performance improves.

- **APAR IY42761 and IY45768:**

- In Chapter 2. "Creating a Software Package", section "Program Actions in the Software Package Editor", sub-section "The InstallShield Program Action", change step 3. a. to 3. b. and add the following text as the new step 3. a.:

In the **Timeout** text box, enter the time, expressed in seconds, to wait for the program to complete. See "Setting Timeout Values for a Distribution" on page 315 for more details.

- In Chapter 10. "Preparing a Software Package for Distribution", section "Change Management Operations", sub-section "Advanced Options", sub-section "Defining Distribution Settings", change step 7. to read as follows:
Specify the **Execution Timeout**. The default is 300 seconds (five minutes). The Execute Timeout refers to the length of time a repeater will wait for Software Distribution to return the result of a distribution after all the data has been sent. This timeout is used to detect network, endpoint, or script failures, for example, a script that is running in an infinite loop. The value specified here overrides the value previously set using the **wmdist -s** command.
- In Appendix D. "Troubleshooting", section "Checking Configuration Files", sub-section "Checking Base Configuration Information", Table 15., change in the Description column the explanation for the send_timeout keyword to read as follows:

send_timeout	If the software package contains at least one program with a timeout setting, this value is used to extend either the repeater execute_timeout or the repeater send_timeout, depending on where the program action is positioned in the package. See "User Program Timeout" on page 316 for more information.
--------------	---

- **APAR IY47752:** In Chapter 2, "Creating a Software Package", section "Log File Properties", Step 1, replace the last sentence:

By default, Software Distribution overwrites the log file for each distribution of the software package. For more information about logs, see "Software DistributionLogs" on page 307.

with the following new sentence: By default, Tivoli Software Distribution appends at the end of the log file the information related to the last operation performed on the software package. For more information about logs, see "Software Distribution Logs" on page 307.

- **Defect 33398:** In Appendix E. "Authorization Roles", section, "Defining and Deleting Profiles", Table 17, modify the last row in the table (view/modify a software package profile) as follows:

Operation	Context	Required Role
View a software package profile (using the Software Package Editor)	Software package	admin, senior, or super

Also, add the following new row as the final row in the table:

Operation	Context	Required Role
Modify a software package profile (using the Software Package Editor)	Software package	senior, or super

- Chapter 9. "Configuring a Network Topology", section "Software Distribution Scenarios", Scenario 3: Distributing from a Source Host through Repeater, change the last sentence in the penultimate paragraph from:

Also, by specifying the **from_depot** attribute of the **winstsp** command, you can request that a software package be installed directly from the depot, rather than from the source host. to the following:

You can specify the **from_depot** attribute of the **winstsp** command, to request that a software package be installed directly from the depot connected to the endpoint, rather than from the source host. The depot must be previously loaded with the software package or the install operation fails.

Note: If you specify **from_depot** together with **roam_endpoints**, the software package must be loaded on all depots to which the endpoint can roam to avoid an install failure.

- In Chapter 12. "Integrating Inventory with Software Distribution", replace every occurrence of the table named SD_CM_STATUS to SD_INST.

- **APAR IY53753**

In Chapter 2. "Creating a Software Package", section "Launching the Software Package Editor", add the following note after the first note:

2. To use the Software Package Editor on Windows XP systems, you must be a member of the Administrators or Power Users group.

- **APAR IY52831** In Chapter 9. "Preparing a Software Package Distribution", section "Executing Change Management Operations", sub-section "Verify a Software Package", add the following new paragraph as the final paragraph of the section:

The verify operation checks whether files contained in the package are also present on the target system. The operation is successful if the date of the file on the target is equal to or greater than the date of the same file in the package. If the date of the file is older than the date of the same file in the package, the operation fails.

The verify operation does not check whether a file has been changed since it was installed. To perform this check, run a repair operation.

Reference Manual for Software Distribution

The following information changes apply to the Reference Manual for Software Distribution.

- **APAR IY33572:** In Chapter 3 "Using Commands", Section "Server Commands", **wimpspo** command, change the description of the Authorization section as follows:

Authorization:

- To create: senior or super
- To import: admin, senior or super

- **Defect 34924:** In Chapter 1 "Editing the Software Package Definition File", under "General Stanzas", make the following changes:
 - In the Sub-section, "The package Stanza", after the package_type = <string> line, add sharing_control = <string>
 - In the Sub-section, "Attributes in the General Stanzas", Table 5. SPD file attributes in the package log_object_list and generic_container_stanzas, add the following row after the server_mode row:

sharing_control	Specifies an existence check on files and registry values. This avoids their deletion when the package is removed, if these objects were already present on the target prior to the distribution of the software package. The values have the following meanings:		
	<p>none No check is performed on the files and registry values already present on the target and distributed with the software package. When the software package is removed, all the distributed objects are removed.</p> <p>only_shared A check is performed only on the files and registry values that have the is_shared attribute set to y. When the software package is removed, these files and registry values are not removed if they were already present on the target prior to distributing the software package.</p> <p>auto A check is performed on all the files and registry values distributed with the software package. When the software package is removed, all the files and registry values distributed with the software package are not removed if they already exist on the target.</p> <p>If either auto or only_shared is specified, the version of the objects distributed with the software package is left on the target when a remove operation is performed.</p>		
	none, only_shared, auto	No	none package

- APAR IY42761:** In Chapter 1 "Editing the Software Package Definition File", perform the following changes:

Section "Other SPD File Actions", Sub-section "execute_user_program", Subsection "Format of the execute_user_program Stanza", change the text below:

The value of this attribute can be set to either a number of seconds or to -1. Setting the timeout to -1 indicates that the user program timeout should be set to the highest value between the send_timeout attribute of the swdis.ini file on the endpoint and the repeater timeout setting.

with the following:

The value of this attribute can be set to either a number of seconds or to -1. If the timeout is set to -1, Software Distribution does not perform any action on the program. The distribution waits for the execute_timeout (the highest value between the execute_timeout of the gateway and the send_timeout of the swdis.ini file).

If the execute_timeout is reached and the program did not complete, the distribution interrupts. At the next retry if the program did not complete, the distribution ends in changing (C) status. If you set the timeout to a number of seconds and the program does not complete before the timeout expires, Software Distribution interrupts the program and the distribution ends in an error status.

Table 35, 36, 37, and 38. Change the text contained in the Comments column for the timeout attribute as follows:

Time expressed in seconds to wait for the program's completion. Use this value only if you are certain that your program will complete. See "Format of the execute_user_program Stanza" for detailed information.

- **APAR IY36158:** In Chapter 3 "Using Commands", Section "Server Commands", **wremovsp** command, Section "Disconnected Target Commands" **wdrmvsp** command, change the description of the -D variable=value argument as follows:
Defines the value of a variable used in the software package to add or override existing variables. If you are removing a software package that has already been installed, you can define or override only those variables that were not solved during the previous install operation. When specifying multiple variables, repeat the -D argument before each variable=value.
- **Defect 34491:** In Chapter 1 "Editing the Software Package Definition File", Section "Other SPD File Actions", Sub-section "execute_user_program", Table 34, Exit code values, modify the Operation Flow description of the fatal_failure row as follows:

fatal_failure	Stop running. If some corequisite files are specified in the software package, they are not removed.
---------------	--

- **APAR IY36697:** In Chapter 1."Editing the Software Package Definition (SPD) File, Section "Directories and Files", Sub-section "Specifying File and Directory Names with Wildcard Characters" do the following:
Change the sentence "The following examples show how to use wildcards when specifying directories" to:

"The following example shows how to use wildcards to add directories and files"

Add the following paragraph before the Note:

The following example shows how to use wildcards to remove directories and files.

```
remove directory
  destination = " c:\target\new*"
  descend_dirs = y
  name = "new*"
  remove= y
  remove_empty_dirs = y
  rename_if_locked = n
  stop_on_failure = y
end
```

In this example, directories and files that match the pattern in the name are removed from the target. For example, if the following directory and files are present on the target they are removed:

```
c:\target\newfile.txt
c:\target\newdoc.doc
c:\target\newweb.txt
c:\target\newdir\*.*
```

If the descend_dirs = n attribute is specified, only files at the top level of the specified directory structure are removed.

For the example above, the following files are removed from the target:

```
c:\target\newfile.txt
c:\target\newdoc.doc
c:\target\newweb.txt
```

- **APAR IY41487:** In Chapter 3 "Using Commands", Section "Server Commands", **winstsp** command, **-m** distribution_mode, add the following paragraph to the **Note:**

The **s** and **r** options cannot be used if you are performing a transactional installation (**t** transactional).

- **APAR IY34938:** In Chapter 1, "Editing the Software Package Definition (SPD) File", Section "Other SPD File Actions", Sub-section, "restart", perform the following changes:

In the format of the restart stanza, add the following line after the `during_undo = <none, after, immediately>` line:

`during_commit = <none, after, immediately>`

At the bottom of Table 22. SPD file attributes of the restart stanza, add the following row:

during_commit	Specifies when a restart must be performed during the commit of the package. If set to immediately , the restart takes place when the restart statement is encountered.			
	none, after, immediately	No	after	restart

- **APAR IY39826:** In Chapter 3, "Using Commands", Section, "Using Commands", Sub-section, "Server Commands", `wspmvdata` command perform the following changes:

After the description of the `-p tp:dest_path` option, add the following note:

Note: If you are performing a retrieve operation, the destination directory on the system is not created with this command, so it must be created beforehand. During the retrieve operation the program creates a new sub-directory under the specified destination directory using the following naming convention:

`endpointname_distributionID_timestamp`

In the Examples section add the following example after example Number 2:

3. The following command runs a pre-processing script called `export_file.sh` on the `pi003-ept`, `pi006-ept` endpoints to extract data. The extracted data is saved in a file called `trans`. The `trans` file is stored in the `/sales` directory on each endpoint. Afterwards the `trans` files are retrieved from the endpoints and stored on the source host system, in a sub-directory within the `/data/sales` destination directory:

```
wspmvdata -s @pi003-ept,@pi006-ept -t @centoff
-r tpost:/tmp/import_file.sh -r spre:/tmp/export_file.sh
-P sp:/sales -P tp:/data/sales trans
```

Note: The destination directory (`/data/sales`) on the system is not created with this command, so it must be created beforehand.

When the operation is completed the `trans` file is stored on the source host system under the following paths:

```
data/sales/pi003-ept_14614660071043934511_20030130144803/trans
data/sales/pi006-ept_14614660071043934511_20030130144803/trans
```

- **APAR IY42761 and IY45768:** In Chapter 1, "Editing the Software Package Definition File, make the following changes:
 - Section, "Other SPD File Actions, Sub-section "execute_user_program", sub-section, "Format of the execute_user_program Stanza", replace the following text:

The value of this attribute can be set to either a number of seconds or to `-1`. Setting the timeout to `-1` indicates that the user program timeout should be set to the highest value between the `send_timeout` attribute of the `swdis.ini` file on the endpoint and the repeater timeout setting. with the following text:

The value of this attribute can be set to either a number of seconds or to -1. If the timeout is set to -1, Software Distribution does not perform any action on the program. The distribution waits for the execute_timeout (The highest value between the execute_timeout of the gateway and the send_timeout of the swdis.ini.). If the execute_timeout is reached and the program did not complete the distribution interrupts. At the next retry if the program did not complete, the distribution ends in changing (C) status. If you set the timeout to a number of seconds and the program does not complete before the timeout expires, Software Distribution interrupts the program and the distribution ends in error status.

- Table 35, 36, 37, 38 change the text contained in the Comments column for the timeout attribute as follows:

Time expressed in seconds to wait for the program's completion. Use this value only if you are certain that your program will complete. See "Format of the execute_user_program Stanza" for detailed information.

- The timeout definition for the following Software Package Editor help files was also updated:

- Execute User Program Properties Advanced dialog
- Execute CID Program Properties Advanced dialog
- InstallShield Program Properties Advanced dialog
- MSSetup Program Properties Advanced dialog

- **APAR IY45898:** In Chapter 1."Editing the Software Package Definition (SPD) File, section "Other SPD File Actions", sub-section "execute_user_program", under "Attributes in the execute_user_program stanza and its Elements", Table 35. SPD file attributes in the execute_user_program stanza, make the following changes:

- Add the following row after the exit_codes row:

Attribute	Comments			
	Values	Required	Default	Stanzas
group_name	Specifies the group name necessary to obtain the specific GID under which the program is executed on a UNIX machine. Use this attribute in case the user name is present in several groups and you want to use a specific GID. This value overrides the GID value set at the package level. If no GID value is set, that is neither unix_group_id nor group_name are specified, the program is executed with root group privileges. This feature is supported for all UNIX endpoints excepting OS/400®. If you do not specify this attribute the value specified for the unix_group_id attribute is taken.			
	String	No	None	execute_user_program
	y: yes n: no	No	n	execute_user_program

- Add the following row after the user_input_required row:

Attribute	Comments			
	Values	Required	Default	Stanzas
user_name	The OS/2 [®] user required to execute the program.			
	String	No	None	execute_user_program

- **APAR IY50983:** In Chapter 3. "Using Commands", section "Server Commands", change the description of the **from_cd** option for the **winstsp** command as follows:

from_cd

Specifies that the images referenced in the software package are to be retrieved from the CD. Use this option only if the CD is available to the target where the installation is performed, otherwise, the installation fails. If you are performing the installation on a mobile target, you are prompted to insert the CD.

Note: You cannot specify **from_cd** and **from_depot** in the same command. However, you can specify **from_cd** and **from_fileserver** as alternative locations for the software package.

- **APAR IY51763:** In Chapter 3. "Using Commands", section "Server Commands", sub-section "wspmvdata", change the definition for the postscript to read as follows:

spost:src_postscript

Specifies a script to run on the origin system of the data file, after the data is transmitted if the origin system is a source host. Where the **-s** argument specifies a list of endpoints, the script runs on each endpoint.

Note: This option is also available if the origin system is an endpoint, however, the postscript starts before the data is transmitted.

- **APAR IY52831**

In Chapter 2. "Performing Change Management Operations", section "Types of Change Management Operations", sub-section "Verify Operation", add the following second paragraph before the note:

The verify operation checks whether files contained in the package are also present on the target system. The operation is successful if the date of the file on the target is equal to or greater than the date of the same file in the package. If the date of the file is older than the date of the same file in the package, the operation fails.

The verify operation does not check whether a file has been changed since it was installed. To perform this check, run a repair operation.

- **APAR IY62154:** In Chapter 3. "Using Commands", in the description of the **wspmvdata** command, in the Options section, replace the escription of the **spre:src_prescript**, **spost:src_postscript**, **tpre:targ_prescript**, **tpost:targ_postscript** options, with the following descriptions:

spre:src_prescript

Specifies a script to run on the origin system of the data file, before the data is transmitted. When sending data, the origin system must be a source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed, or an endpoint, when data is sent from one endpoint to one or more endpoints. When

retrieving data, the origin list can include multiple Tivoli endpoints, files that store a list of endpoints, profile managers, or a combination of these. Where the -s option specifies a list of endpoints, the script runs on each endpoint.

spost:src_postscript

Specifies a script to run on the origin system of the data file, before the data is transmitted. When sending data, the origin system must be a source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed, or an endpoint, when data is sent from one endpoint to one or more endpoints. When retrieving data, the origin list can include multiple Tivoli endpoints, files that store a list of endpoints, profile managers, or a combination of these. Where the -s option specifies a list of endpoints, the script runs on each endpoint.

tpre:targ_prescript

Specifies a script to run on the destination system, before the data is transmitted. When retrieving data, the destination system must be a source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed, which afterwards redirects the data to the destination systems. When sending or deleting data, the destination list can include multiple Tivoli endpoints, files that store a list of endpoints, profile managers, or a combination of these. Where the -t option specifies a list of endpoints, the script runs on each endpoint.

tpost:targ_postscript

Specifies a script to run on the destination system, before the data is transmitted. When retrieving data, the destination system must be a source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed, which afterwards redirects the data to the destination systems. During retrieve operations, the post-script on the origin system (an endpoint) runs before the data is sent to the destination system. When sending or deleting data, the destination list can include multiple Tivoli endpoints, files that store a list of endpoints, profile managers, or a combination of these. Where the -t option specifies a list of endpoints, the script runs on each endpoint.

- In the Scripts for Pre- and post-processing section, replace the first bulleted list with the following two lists:

The following list shows the sequence of scripts for send operations:

1. Origin pre-processing script on the origin system.
2. Destination pre-processing script on each endpoint.
3. Destination post-processing script on each endpoint.
4. Origin post-processing script on the origin system.

The following list shows the sequence of scripts for retrieve operations:

1. Destination pre-processing script on each endpoint.
2. Origin pre-processing script on the origin system.
3. Destination post-processing script on each endpoint.
4. Origin post-processing script on the origin system.

- In the Scripts for Pre- and Post-processing section, replace the descriptions for parameters 5 and 6 with the following descriptions:

Parameter 5 Endpoint Label

Unique endpoint identifier. This parameter is only available for the

post-processing script on the source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed.

Parameter 6 Endpoint Result

Result of the operation on the endpoint. Possible results are 0 (success) and 1 (failure). This parameter is only available for the post-processing script on the source host, that is a Tivoli managed node, functioning as a gateway or a repeater, where Software Distribution is installed.

- In the Scripts for Pre- and Post-processing section, replace the explanation for the example with the following explanation:
The destination system for this command is a source host and the source list includes two endpoints. The purpose of the merge.sh script is to create a single file on the source host system by merging the files that have been retrieved from the endpoints. The merge.sh script is performed as a post-processing script on the source host after the files have been retrieved from the specified endpoints.

User's Guide for Inventory

The following information changes apply to the *User's Guide for Inventory*.

- In Appendix B, "Commands," in the **wconsole** command, add the following to the last paragraph of the **-l** option section:
If you do not specify a path with this option, the directory is allocated in \$DBDIR.
Read access is also required at the root level to use the defaults. If you accept the defaults or do not provide READ or LIST access all the way down to the final directory, the command will not work.

Release Notes

The following information change applies to the *Release Notes*:

- **APAR IY52831:**
Table 1, "Supported Tier 1 operating systems by components and services," shows that the Tivoli Web Gateway component is supported on IBM AIX Versions 5.1 and 5.2. This component is supported only on AIX Version 5.1.

Activity Planner Online Help

The following information changes apply to the Activity Planner Online Help documentation.

- In the Activity Planner general help files for the Send, Retrieve, and Delete operations, replace this sentence:
You can use Activity Planner internal variables and data moving or Software Distribution variables. To distinguish between these variables, precede the Software Distribution variables entered in this dialog with a \$ sign, for example \$(ep_label).
with the following:
When performing Software Distribution operations, you can use Activity Planner internal variables or Software Distribution variables. To distinguish between these variables, precede the Software Distribution variables with a double \$ sign, for example \$\$ (ep_label).
The same text should be added in the help files for all Software Distribution operations performed using Activity Planner.

Contacting customer support

If you have a problem with any Tivoli product, refer to the following IBM Software Support Web site:

<http://www.ibm.com/software/sysmgmt/products/support/>

From this site, you can select the **IBM Software Support Guide** link. This document provides detailed information about how to contact Customer Support, depending on the severity of your problem, and contains the following information:

- Registration and eligibility.
- Telephone numbers and e-mail addresses, depending on the country in which you are located.
- What information you should gather before contacting support.

Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785 U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement might not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
2Z4A/101
11400 Burnet Road
Austin, TX 78758 U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information in softcopy form, the photographs and color illustrations might not display.

Trademarks

IBM, the IBM logo, AIX, DB2, Hummingbird, Informix, OS/2, OS/400, S/390, Tivoli, Tivoli Enterprise Console, the Tivoli logo, xSeries, and WebSphere are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

Lotus and Lotus Notes are trademarks of International Business Machines Corporation and Lotus Development Corporation in the United States, other countries, or both.

Intel, the Intel Inside logos, MMX, and Pentium are trademarks of Intel Corporation in the United States, other countries, or both.

Microsoft and Windows NT are registered trademarks of Microsoft Corporation in the United States, other countries, or both.



Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

SET and the SET Logo are trademarks owned by SET Secure Electronic Transaction LLC.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.



Program Number: 5724-C06