3.8.0-TEC-FP01 README

Date: April 2, 2003

Patch: 3.8.0-TEC-FP01

Component: Tivoli Enterprise Console 3.8

Important: This README does not replace the Tivoli Enterprise Console Release

Notes.

Before using this information and the product it supports, read the information in the "Notices" section, at the end of this document.

First Edition (March 2003)

This edition applies to version 3, release 8, of Tivoli Enterprise Console (product number 5698EAS) and to all subsequent releases and modifications until otherwise indicated in new editions.

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General Description

Tivoli Enterprise Console 3.8 Fix Pack 01, PTF U487941, contains solutions from all previous interim fixes, along with other APAR solutions.

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I. Fix Pack Contents

The 3.8.0-TEC-FP01.tar file containing:

- This README file
- An image report for this fix pack
- A CD-ROM image for this fix pack

Note: The README document is now provided in Adobe Acrobat format only.

II. Delta Fix Packs Superseded by This Fix Pack

- 3.8.0-TEC-0001
- 3.8.0-TEC-0002E
- 3.8.0-TEC-0003E

III. Prerequisites and Co requisites

Tivoli Enterprise Console version 3.8

The following delta fix packs are recommended when using Tivoli Enterprise Console in a Tivoli Management Framework version 3.7.1 environment:

- 3.7.1-TMF-0073
- 3.7.1-TMF-0074A
- 3.7.1-TMF-0083
- 3.7.1-TMF-0085A
- 3.7.1-TMF-0087
- 3.7.1-TMF-0090

The following delta fix packs are recommended when using Tivoli Enterprise Console in a Tivoli Management Framework version 4.1 environment:

4.1-TMF-0010E

Consult the Tivoli Enterprise Console version 3.8 Release Notes for specific information regarding Tivoli Management Framework delta fix pack compatibility.

Note: Patches can be downloaded from the IBM/Tivoli Support FTP site: ftp.software.ibm.com/software/tivoli support/patches

IV. Supported Platforms

Note: The following lists operating systems, RDBMS servers and other Tivoli products supported by 3.8.0-TEC-FP01 at the time of release. RDBMS support is contingent upon support from Tivoli Management Framework and RIM.

Supported Version by Platform	Event Server	Gateway	Endpoint Adapters	UI Server	Event Console
AIX 4.3.3	X	X	X	X	X
AIX 5.1	X	Х	X	X	X
AIX 5.1C (32bit)	X	Х	X	X	Х
AIX 5.2 (32,64bit)	X	Х	X	X	X
Solaris 2.6 (SPARC)	X	X	X	X	X
Solaris 7(SPARC)	X	X	X	X	X
Solaris 8 (SPARC)	X	X	X	X	X
Solaris 9 (SPARC) (32, 64bit)	X	X	X	X	X
HP-UX 10.20			X		
HP-UX 11 (SP1)	X	Χ	X	X	X
HP-UX 11i (32,64bit)	X	X	X	X	X
Windows NT 4.0 (SP6a)	X	Χ	X	X	X
Windows 2000 Pro (SP1/3)	X	X	X	X	X
Windows 2000 Server	X	Χ	X	X	X
Windows 2000 Advanced Server (SP3)	X	X	X	X	X
Windows XP Professional (SP1)			X		Non-TME Only
OS/400 V4R5			X		
OS/400 5.1, 5.2			X		
zOS 1.2			X		
zOS 1.3			X		
Red Hat Server 7.1/7.2	X	Χ	X	X	X
Red Hat Advanced Server 2.1 - IA32	X	Χ	X	X	X
SuSE SLES 7.0/7.1 IA32	X	X	X	X	X
SuSE SLES 7.0 S/390 & zSeries 7.0	X	Χ	X	X	X
SLES 8 (Powered by UnitedLinux 1) IA32	X	Χ	X	X	
Novell NetWare 5.0/ 5.1/6.0			X		
OS/2 Warp Server for eBusiness 4.5.1			X		
Compaq Tru64 5.0			X		
Compaq Tru64 5.1a			X		
Siemens Reliant UNIX 5.4.5			X		
SGI Irix 6.5.x			X		
SCO UnixWare 7.0.1/7.1.1/7.1.3			X		
Solaris 7, 8 (Intel)			X		
Sequent Dynix/PTX 4.5.1			X		
Turbo Linux for Intel 7.0	Х	X	X	X	X

Supported Databases

DB2 7.1

DB2 7.2 (FP7)

DB2 8.1

Informix 9.2

Informix 9.3 MS SQL 7.0

MS SQL Server 2000

Oracle 8i Oracle 9i

Oracle 9i v2

Sybase 11.9.2

Sybase 12 Sybase 12.5

Notes:

- 1. Tivoli Management Framework version 3.7.1 does not allow for RIM hosts to be configured on Linux.
- 2. Tivoli Management Framework version 3.7.1 does not support DB2 RIM objects on HP-UX.

IBM Tivoli Application Compatibility

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Tivoli Management Framework 3.7b, 3.7.1, 4.1
Tivoli Business Systems Manager 1.5, 2.1
Tivoli Data Warehouse 1.1
IBM Tivoli Monitoring 3.7, 4.1, 5.1, 5.1.1
IBM Tivoli Monitoring for WebSphere Application Server 5.1
IBM Tivoli Monitoring for TPETP 5.1
Tivoli Inventory 4.0
Tivoli Manager for DB2
Tivoli Manager for Domino
Tivoli Manager for Oracle
Tivoli NetView 7.1.2 7.1.3
Tivoli Remote Control 3.7
Tivoli Software Distribution 4.1
```

IBM MQ Series 5.2 IBM MQSI 2.1 WAS 4.0.3 TCM 4.2

IBM Tivoli PAC Compatibility

IIS PAC 5.1 Apache PAC 5.1 Informix PAC 5.1 DB2 PAC 5.1 iPlanet PAC 5.1 Domino PAC 5.1

V. Installation Order

Tivoli Enterprise Console Server
Tivoli Enterprise Console User Interface Server
Tivoli Enterprise Console Console
Tivoli Enterprise Console Adapter Configuration Facility
Tivoli Enterprise Console Event Integration Facility
Tivoli Enterprise Console Database Installation Assistant

Note: The Database Installation Assistant included with 3.8.0-TEC-FP01 is an updated version from Tivoli Enterprise Console version 3.8. All new database installations must use the updated Assistant included with this fix pack.

VI. Installation Instructions

Note: Read all fix pack notes in Section VIII prior to installation.

IMPORTANT

- 1. The minimum requirements specified in the Tivoli Enterprise Console version 3.8 Release Notes must be met prior to installing this fix pack.
- 2. Before applying this fix pack, stop the event server.

WARNING: The .tec_config file is replaced during the installation of 3.8.0-TEC-FP01. Users with a customized file must create a backup copy prior to installation, in order to use with the updated product.

3.8.0-TEC-FP01 Top Level Directory Tree:

Standard TME and non-TME directories: <380TECFP01_DIR>/TME <380TECFP01_DIR>/NON_TME

1. Extract the fix pack:

On a UNIX system:

Extract the contents into a temporary directory, using the following commands. For the purpose of this example, assume that the variable \$PATCH points to this temporary directory.

cd \$PATCH tar -xvf 3.8.0-TEC-FP01.tar

On a Windows system:

Extract the contents into a temporary directory, using the following commands. For the purpose of this example, assume that the variable %PATCH% points to this

directory, and X is the drive letter where %PATCH% is found.

 $SystemRoot%\system32\drivers\etc\Tivoli\setup_env$ x.

- > cd %PATCH%
- > tar -xvf 3.8.0-TEC-FP01.tar

NOTE: If extracting the tar image on a Windows system, you will find an executable for the tar utility in the TME installation on Windows:

bin/w32-ix86/tools/tar.exe

2. The following instructions are included for using Software Installation Service (SIS). If SIS is not used, skip to number 3.

NOTE: SIS can install Tivoli Software products on most hardware platform supported by Tivoli Software, however there are some hardware platforms on which SIS cannot be run. Check the Tivoli Enterprise Installation Guide for the list of platforms on which SIS can be run.

NOTE: You must have the install_product and super authorization roles to successfully install this fix pack.

IMPORTANT: The following SIS patch, available from the Tivoli Support FTP site, is required when installing via SIS version 3.7:

3.7-SIS-0005

- a) From the Tivoli desktop pull down menu, select Desktop --> Install --> Software Installation Service.
- b) SIS will initialize, and display the Get Installation Password dialog. Enter the installation password.
- c) Click the Install button on the dialog which contains the Tivoli image.
- d) Click the Select Product button on the Install Spreadsheet dialog.
- e) Click the Import Product button on the Select Product dialog.
- f) Locate the media to 3.8.0-TEC-FP01 using the file browser, and select the PATCHES.LST file by double-clicking it.
- g) Select 3.8.0-TEC-FP01 in the Import Product dialog, and click the Import Button.
- h) When the import is complete, click the OK button on the Global Progress dialog.
- i) Select 3.8.0-TEC-FP01 in the Select Product dialog, and click the OK button.
- j) Click the Select Machine button on the Install Spreadsheet dialog.
- k) Select the machine(s) you would like to install 3.8.0-TEC-FP01 to, and click the OK button.
- 1) Click the appropriate cell(s) in the Install Spreadsheet dialog. (NOTE: This should yield an X in the cell(s) for the machines to install 3.8.0-TEC-FP01 on).
- m) Click the Install button.
- n) Select the install algorithm you want to use in the Installation Algorithm dialog, and click the OK button.
- o) SIS will perform the installation(s) you designated in the Install Spreadsheet dialog.
- p) Installation is complete. Check the Additional Installation Instructions section below.
- 3. Use the following steps to install the fix pack using the classic Tivoli installation mechanism.

NOTE: The install_product and super authorization roles are required to successfully install this fix pack.

- a) Select Desktop -> Install -> Install Patch from the Tivoli Desktop tool bar to display the Install Patch dialog.
- b) Click the Select Media button to display the File Browser dialog.
- c) Enter the path to the directory containing the fix pack, \$PATCH, in the Path

Name field.

- d) Click the Set Media & Close button to return to the Install Patch dialog.
- e) The patch install list now contains the name of the fix pack. Select the fix pack by clicking on it.
- f) Select the clients to install this fix pack on. Fix packs typically need to be installed on the Tivoli server and on each Tivoli client.
- g) Click the Install button to install the fix pack.
- 4. Restart the event server after successful installation of the fix pack.

VII. Fix Pack Notes

Please read all of the following notes prior to installing the fix pack.

Consult your operating system reference manual(s) for operating system specific commands.

It is recommended to backup the following files, to restore original configuration after installing the fix pack:

- .tec_config
- .wic files
- Tivoli Object Database

Adapter Configuration update

ProcessPriorityClass

A new configuration option is available for all UNIX and Windows adapters. The ProcessPriorityClass attribute provides a mechanism to set the priority of the adapter thread, giving the user the option to adjust the amount of CPU time utilized by the adapter. The ProcessPriorityClass attribute value now defaults to the idle priority level for Windows adapters if nothing is specified by the user. (Previously, Windows defaulted to the normal priority.) UNIX adapters continue to default to the normal priority. Below are the options which can be set in the adapter configuration file:

Example:

ProcessPriorityClass=A

Options For Windows NT

- **A** = Idle Priority
- C = Normal Priority
- \mathbf{E} = High Priority
- F = Real Time Priority

Options For Windows 2000

- A = Idle Priority
- **B** = Below Normal Priority
- C = Normal Priority
- **D** = Above Normal Priority
- **E** = High Priority
- **F** = Real Time Priority

Options For UNIX

- A = 20 Very Low Priority
- B = 10Low Priority
- $\mathbf{C} = 0$ Normal Priority
- D = -5Above Normal Priority
- $\mathbf{E} = -10$ High Priority $\mathbf{F} = -20$ Very High Priority

Note: Using the default value is recommended to avoid performance degradation.

New trace messages have also been provided as follows:

"bad value of priority class, used default value"

"priority class was changed successfully"

"unable to change priority class"

ReadBufBlocks

To improve performance and stability, a new configuration option is available for all Windows adapters monitoring one or more files specified with the **LogSources** option. The **ReadBufBlocks** attribute provides a mechanism to specify the number of 4096 byte blocks to be read by the adapter at each polling interval. The default value of 10 is used when fewer than ten blocks are specified.

Example:

ReadBufBlocks=10

Note: If **ReadBufBlocks** is not specified in the adapter configuration file, the adapter will read all files to completion in the order specified.

Reference Manual update page 76: wrb command

Imports a file of event class specifications (a .baroc file) into a rule base, appending it to the end of the class specifications unless otherwise specified with arguments. An error message is displayed if the class set file contains syntax errors, references to nonexistent event classes or enumerations, or if duplicate event classes or enumeration are defined. If the classes in a class file are derived from classes in another file, import the class files into the rule base in an order that preserves the inheritance structure. For example, if class file B.baroc contains classes that are derived from class file A.baroc, you must import class file A.baroc first.

class file

Specifies the name of the class file to import. This must be a path to a .baroc file.

rule base

The name of the rule base to receive the imported class set.

-after class file

Specifies the name of the class file after which the imported class file will be placed.

-before class_file

Specifies the name of the class file before which the imported class file will be placed.

-encoding encoding

By default (when this option is not given), when importing a class file into a rule base, the file is opened in UTF-8 character encoding.

When the encoding option is given, the class file is opened in the specified character encoding. For more information about international encodings, see Character Encoding (Code Set) support section

-force Imports the class file even if it may cause rule base inconsistency.

-imprbrule rule file [-encoding encoding][-force] rule base

Imports a rule set file into the rule base. Because rule sets that have been imported into the rule base must then be imported into a rule base target before they are executed, the order that rule sets are imported into the rule base is not important. The order in which rule sets are imported into a rule base target specifies the order in which that particular rule engine will execute the rules. An error message is displayed if the rule being imported references a non-existent event class. You can skip this consistency checking by using the **-force** argument.

rule base

The name of the rule base to receive the imported rule set file.

rule file

The file name of the rule set to import to the rule base. This must be a path to a .rls file.

-encoding encoding

By default (when this option is not given), when importing a rule set file into a rule base, the file is opened in UTF-8 character encoding. When the encoding option is given, the rule set file is opened in the specified character encoding

-force Adds the rule set to the rule base even if a rule references a non-existent event class.

Installation Guide update

Oracle users only!

Tivoli Enterprise Console version 3.8 uses UTF8 encoding for data exchanged with an Oracle server. The TME server environment must be adjusted to incorporate the proper Oracle settings for UTF8 encoding.

The following instructions must be executed on the TME server by a user with permissions to change the TME environment settings:

- a. Source the Tivoli environment:
 - 1) UNTX:

From the command line, run the /etc/Tivoli/setup env.sh script.

2) Windows:

From the command line, run the following script:

%SystemRoot%\WINNT\system32\drivers\etc\Tivoli\setup env.cmd

b. Run **odadmin environ get > tempfile** to get the TME environment settings to a file.

Edit the **tempfile** to incorporate the following parameter:

 $NLS_LANG=language_territory.AL32UTF8$, where language and territory should reflect the local language and territory for your Oracle client.

- c. Run odadmin environ set < tempfile to import the new TME settings.
- d. Restart the TME server with the odadmin reexec all command.

Note that on Unix machines, the absence of the **LANG** setting in **tempfile** may cause the **odadmin environ set** command to fail. Please refer to the TMF Enterprise Installation Guide for information on the proper values for this setting.

Please refer to the "Oracle8i National Language Support Guide" or to the "Oracle9i Database Globalization Support Guide" (available from Oracle technical support) to choose the appropriate settings for these two parameters. For instance, for US English, the proper setting would be AMERICAN_AMERICA.AL32UTF8, whereas for Japanese, the proper setting would be JAPANESE JAPAN.AL32UTF8.

VIII. Known Defects and Limitations

Database Installation Assistant

Explanation: The Database Installation Assistant can fail when configured to use DB2 on Linux systems (kernel 2.4) with the following error:

SQL0902C A system error (reason code = "") occurred. Subsequent SQL statements cannot be processed. SQLSTATE = 58005

This error occurs because the maximum number of message queue identifier default value is set at 16. DB2 requires a value of at least 128 (1024 recommended). Work Around: Perform the following to increase the number of message queue identifier value:

sysctl -w kernel.msgmni=1024 (increase the default value)

Edit the /etc/sysctl.conf file and modify the following line: kernel.msqmni=1024

APAR: IY22142

Explanation: After upgrading to Tivoli Management Framework, Version 3.7.1, the time received for events displayed in a TME event console displays may show as one hour late. This occurs because the time zone (TZ) environment variable in the Tivoli Management Framework oserv process is not synchronized with the TZ variable in the operating system. The time received on the event console is displayed in Greenwich Mean Time (GMT), regardless of the selected time zone. This occurs only when daylight savings time is in effect and only on TME event consoles running on Tivoli Management Framework, Version 3.7.1. This does not occur on non-TME event consoles.

Work Around: Check your time zone setting using the wtimezone command. If the time displayed is incorrect, manually set the TZ environment variable for the Tivoli Management Framework oserv process. For more information about the wtimezone command, see the *Tivoli Management Framework Reference Manual*.

APAR: IY32703

Explanation: On systems using the Network Address Translator (NAT) to communicate with the event server, you cannot use the event console to view event information. This applies to both TME and non-TME event consoles.

Work Around: To run an IBM Tivoli Enterprise Console event console in an NAT environment, perform the following steps:

- 1. Enable NAT in the Tivoli management region on each managed node in the Tivoli management religion by typing the following command: odadmin set allow NAT TRUE
- 2. Recycle the Tivoli server with the following command: odadmin reexec all
- 3. Ensure that your router supports DNS lookup. In an NAT environment, host name lookup using DNS provides information necessary for the connection between the IBM Tivoli Enterprise Console UI Server and the event console. Without the DNS host name lookup support, the event console does not launch.

To minimize the number of ports opened by the event console, use the single port bdt provided by the Tivoli Management Framework:

- 1. In each Tivoli server, enter the following command: odadmin single port bdt TRUE all
- 2. In each managed node, enter the following command: odadmin single port bdt TRUE
- 3. Recycle the Tivoli server with the following command: odadmin reexec all

APAR: IY38429

Explanation: The Database Installation Assistant will not generate the necessary script files when the specified path contains white space.

Work Around: Use a valid path that does not contain white space.

APAR: IY39974

Explanation: After performing an upgrade from version 3.6.2 to 3.8 using the wrbupgrade command, custom rules no longer function.

Work Around: When upgrading from Tivoli Enterprise Console version 3.6, the .wic files must be copied from the default rule base into the TEC_TEMPLATES directory for custom rule bases. The rule base must be recompiled and reloaded.

APAR: IY40095

Explanation: Locale characters entered into the console login popup window using NLS keyboard mappings are not accepted.

Work Around: Avoid these non-alphanumeric characters while creating the operating system user account.

Defect: 104236

Explanation: The OS/2 adapter can be successfully distributed using the ACF, but does not automatically start.

Work Around: Reboot the OS/2 machine to start the adapter.

Defect: 123285

Explanation: If the Version 3.8 upgrade is applied in a Tivoli management region that was previously interconnected to another Tivoli management region that already has the IBM Tivoli Enterprise Console Version 3.7 or 3.7.1 product installed, and the TaskLibrary resource type has been exchanged, then creating or assigning operators to consoles in the other Tivoli management region might fail with a message similar to the following:

com.tivoli.framework.runtime.ExInvObjref,minor code =28,

completion status =No.

Work Around: From the Tivoli management region where the IBM Tivoli Enterprise Console, Version 3.7.1 product was not upgraded, exchange resources with the Tivoli management region where the IBM Tivoli Enterprise Console product was upgraded, using the following command:

wupdate -r TaskLibrary region

Where region is the Tivoli management region in which the IBM Tivoli Enterprise product was upgraded.

Defect: 133073

Explanation: Operators using Netscape as their default browser on Windows 2000 might see the following error message after clicking the Information button in the Event Viewer:

Unable to open "C:\/.tivoli/tec temp0.html".

The following location is shown in the browser window:

file:///C:/.tivoli/tec_temp0.html

A side effect occurs after the error message box pops up over the browser window. The focus can be changed from the browser to the active window, but the error message must be closed before returning to the event console or the event console windows become blank. This is a limitation of Windows and certain versions of Netscape. This problem has been seen occasionally in Netscape, Version 4.74 and earlier.

Work Around: Change the default browser to Internet Explorer or upgrade Netscape to a newer version.

Defect: 134898

Avertissement : Cannot convert string

Work Around: This message does not indicate any problems in the system and can be ignored. Not every X Window server has every font available. The message indicates that the mismatch of a font has occurred. When a font that is not installed in that particular X Window environment is requested, the X Window system maps the missing font to one of the fonts that exists in the environment.

Defect: 137525

Explanation: When starting the event console, the following Java exception might

GlobalPreferencesBean::loadPreferences() caught:

java.io.InvalidClassException:

javax.swing.plaf.basic.BasicLookAndFeel;Local class not compatible: stream classdesc serialVersionUID=6620516158032857937 local class

serialVersionUID=1855300154015691576

This exception occurs after a Version 3.8 event console is installed on a machine that previously had a Version 3.7.1 event console installed on it. It might also occur with a first-time IBM Tivoli Enterprise Console, Version 3.8 installation. Work Around: This exception is harmless and does not occur the second time the event console is started.

Defect: 138487.1

Explanation: The default paths displayed by the event database installation assistant for Informix dbspaces on Windows systems are incorrect. The incorrect paths have the following form:

drive letter :/IFMXDATA/server name /data/filename

The default path should be:

drive letter :/IFMXDATA/server name /filename

Accepting the incorrect default values causes the installation of the event database to fail.

Work Around: In the event database installation assistant, ensure that valid paths are specified for the dbspace file names.

Defect: 139074

Explanation: When running the wtdbclear command with an Informix database, a RIM error might be encountered. On Windows, the RIM agent process might stop responding. On UNIX, the RIM agent might get an iom receive 67 error. Work Around: Use the **wtdbclear.pl** command instead. This command does not call the stored procedure.

Defect: 140429

Explanation: Migration from IBM Tivoli Enterprise Console, Version 3.6.2 or Version 3.7.1 to Version 3.8 does not drop the existing IBM Tivoli Enterprise Console table space due to potential conflicts with customer application tables and triggers, and for Informix, MS SQL Server, and Sybase, the database system area (which should not be removed).

Work Around: There is a different workaround for each database type. For an IBM DB2 database:

For an IBM DB2 database:

- 1. Open a DB2 command line prompt.
- 2. At the prompt, enter the following commands:

db2 connect to tecdb user user id using

db2 drop tablespace tablespace name

Where tecdb is the name of the IBM Tivoli Enterprise Console database, user_id and password are the user ID and password of a user that has sufficient system privileges to drop a table space, and tablespace_name is the name of the IBM Tivoli Enterprise Console data table space. The table space name has the form userid_data. DB2 automatically removes the data files and directories that were used by the table space.

For an Informix database: To drop a device that is no longer in use by a database, perform the following steps:

- 1. Log into the Informix server or client machine as the IBM Tivoli Enterprise Console RIM user.
- 2. Issue the following command to list the existing dbspaces and their associated physical files allocations: onstat $\neg d$
- 3. Issue the following command to remove a dbspace:

onspaces -d dbspace name -y

4. Once all the dbspace names have been removed, delete the physical files for each device removed. Refer to step 2 to know which physical file was allocated to each device.

For an MS SQL Server database: No device deletions need to be done for MS SQL Server. The server deletes any devices and their physical files when a database is dropped.

For an Oracle database:

1. Start SQL*Plus. The user should log on to the IBM Tivoli Enterprise Console database as a user with SYSDBA privilege, such as SYS or SYSTEM. For example: sqlplus "sys/password @SID as sysdba"

where password is the password for the user and SID is the SID for the database.

2. Determine which data files are being used by the IBM Tivoli Enterprise Console, Version 3.7 data table space by issuing the following commands: SELECT file name

FROM dba data files

WHERE tablespace name = 'tablespace name '

Where tablespace_name is the name of the IBM Tivoli Enterprise Console data table space. The table space name has the form userid data.

3. Drop the IBM Tivoli Enterprise Console data table space with the following command:

drop tablespace tablespace name

- 4. Exit SQL*Plus.
- 5. If the table space was successfully dropped, delete the files that were listed in step 2.

Note: The table space must be successfully dropped before deleting the data files.

For a Sybase database: To drop a device that is no longer in use by a database, perform the following steps:

- 1. Log into isql as sa.
- 2. Use the sp_helpdevice command to see the names of all logical devices and the physical files they reside on. Make a note of the logical file names and their physical file names this information is unavailable after the server is stopped and restarted in step 4.
- 3. Use the sp_dropdevice command followed by the logical device name to remove the desired devices. For example:

sp dropdevice mydevice

Ensure that these devices are no longer in use by any database before removing them.

- 4. Stop and restart the Sybase server.
- 5. Delete the physical files for each device removed. Refer to step 2 to determine which physical file was allocated to each device.

Defect: 141869

Explanation: When using the event console with the NetView component, selecting more than 100 NetView events (event classes beginning with TEC_ITS_) to simultaneously ACK or CLOSE while continuing normal operations, may cause a deadlock situation. For all other event classes in the same situation, a timer is enabled to regulate processing.

Work Around: Select 100 or fewer events to simultaneously ACK or CLOSE while continuing normal operations. A counter is displayed in the upper right-hand corner of the Event Viewer. The counter displays the total number of events in the Working Queue and the number of events currently selected.

Defect: 142355

Explanation: The format for the Solaris log file changed from Solaris Operating Environment, Version 7, to Version 8. Some adapter format files no longer match entries in the system log.

Work Around: Either update the format file as outlined in Appendix B of the *IBM Tivoli Enterprise Console Adapters Guide* or set the log message format to Solaris 7

compatibility mode. To set the log file compatibility mode, add the following entry to the /kernel/drv/log.conf file:

msgid=0

Restart the syslogd daemon for the changes to take effect.

Defect: 144007

Explanation: When using the wtdbspace command with a Sybase database, you might encounter a RIM error. RIM trace output might display an error message similar to the following example:

Sybase Server Error: Msgno 953 Level 11 State 1Page '39680', passed to curunreservedpgs built-in function, is an invalid page number in database ID '10'. The highest page number in this database is '39679'.

This problem is caused by not removing devices associated with databases that have been dropped. Sybase reuses database IDs after a database has been dropped. Work Around: Remove unused devices using the **sp_dropdevice** devicename Sybase command, stop and restart the Sybase database server, and delete the physical files associated with each dropped device. See the Sybase documentation for additional information about this command.

Defect: 145200

Explanation: Operators using Netscape as their default browser on Windows NT might encounter an error message when clicking the Information button in the Event Viewer. The error message states that the shortcut to the file was not found. Work Around: The message can be ignored. To stop the display of this message you must reinstall Netscape.

Defect: 146129.1

Explanation: Java exceptions might appear intermittently on some platforms in the background command shell window. They do not affect the functionality of the event console or the online help.

Work Around: The exceptions can be ignored.

Defect: 146505.1

Explanation: After using the wmigcon command to migrate to the Version 3.7 or 3.8 event console, you must remove the Version 3.6 event console using the tecclient3.6-remove.sh script. This script removes the icons, information about the Version 3.6 Tivoli management environment installation, menu entries, and binaries. Work Around: Use the following steps to remove the Version 3.6 event console from the Tivoli management region server and all managed nodes:

- 1. Back up your event database.
- 2. Ensure that your Tivoli environment is properly sourced to run the /etc/Tivoli/setup shell script.
- 3. Start a bash shell in your Tivoli management region.
- 4. Copy the tec-client3.6-remove.sh script from the \$BINDIR/TME/TEC directory to a working directory, such as the /tmp directory.
- 5. From your designated working directory, run the tec-client3.6-remove.sh script as follows to uninstall Version 3.6 event console:
- ./tec-client3.6-remove.sh -rmfiles

where:

- rmfiles

Removes local database objects and attempts to remove all files associated with the database, regardless of whether they are shared files.

- usage

Prints a usage statement.

6. Run the wchkdb command to verify and modify database resources in your Tivoli environment. Running the wchkdb command ensures database synchronization. For more information about the wchkdb command, see the *Tivoli Management Framework Reference Manual*.

Defect: 146600

Explanation: The Database Installation Assistant generates Java NullPointerException error messages when navigating with the Back button during

some installations. The Assistant will continue to function correctly, and all installation scripts are created. These error messages can be ignored.

Defect: 146845

Explanation: After upgrading the IBM Tivoli Enterprise Console product on RedHat

Linux, there is high CPU usage due to the Java runtime environment (JRE).

Work Around: Set the environment variable using the **odadmin environ** command, as

follows:

LD ASSUME KERNEL=2.2.5

Defect: 147392

Explanation: Renaming the NON_TME directory on AIX after installation might cause the following error when attempting to launch the event console:

Unable to find xhpi, path used

/home/Non TME console/tec console/jre/bin/libxhpi.a

Could not create the Java virtual machine.

Work Around: Run the **slibclean** command as the root user to clean the AIX caching library information. Then, enter the **tec console** command.

Defect: 147452

Explanation: To install the IBM Tivoli Enterprise Console product on Linux RedHat, the Linux system must have the compress command installed and available. Work Around: Check your RedHat Linux documentation for the ncompress package to install and access the compress command.

Defect: 147591

Explanation: An operator that is unassigned from an event console by an administrator does not subsequently show as available for assignment to another console in the Console Properties dialog box.

Work Around: Delete the operator from the Operators folder in the Configuration view. The operator is now available for console assignment in the Console Properties dialog box.

Defect: 147727

Explanation: Uninstalling an IBM Tivoli Enterprise Console component fails using the wuninst command if the host where the component was uninstalled contains both a managed node and an endpoint with the same name.

Work Around: Use the following steps to uninstall a component:

1. Rename the label of the endpoint with the following command:

wep old_endpoint_label set_label new_endpoint_label

2. Run the wuninst command to remove the component. See defect 147763 for a related problem with the wuninst command on Windows. For more information about the wep command, see the *Tivoli Management Framework Reference Manual*. See the *IBM Tivoli Enterprise Console Installation Guide* for more information about using the wuninst command with IBM Tivoli Enterprise Console components.

Defect: 147743

Explanation: Attempting to modify configuration file options stored in adapter configuration profiles on endpoints with the wsetaeenv command results in a message similar to the following example:

FRWTE: 0021

Wed Aug 14 17:14:18 2002 (21):operation `_set_acpEnvironment 'not implemented Work Around: Add or modify configuration file options using the ACF and then distribute the profiles to endpoints.

Defect: 147763

Explanation: Uninstalling IBM Tivoli Enterprise Console components with the wuninst command does not remove the directories and files associated with the components. The files appear to have been removed if listed with the wuninst command, but they are still physically there.

Work Around: Run the appropriate script on the managed node from which you want to uninstall the component. The scripts are located in the \$BINDIR/TME/TEC directory, with a naming convention of product tag-remove.sh, where product tag corresponds to

the same product tag provided to the wuninst command for removing components. After running these scripts, run the wchkdb - u command to update the object database. See the *IBM Tivoli Enterprise Console Installation Guide* for additional information about using the wuninst command with IBM Tivoli Enterprise Console components and product tags. See the *Tivoli Management Framework Reference Manual* for additional information about the wuninst and wchkdb commands.

Defect: 147905

Explanation: When migrating from IBM Tivoli Enterprise Console Version 3.6.2 to Version 3.7.1, and then to Version 3.8, operators might see the following message when trying to open the Summary view in the Event Viewer:

ECO2026E: You are not assigned to a TEC Console.A TEC administrator must assign you to a TEC Console before you can view TEC events.

The Configuration view shows the operator as assigned to the event console. Work Around: In the Configuration view, select Assign Operators from the pop-up menu for the event console. Move the operator from the Current Operators list to the Available Operators list. Then, move the operator back to the Current Operators list. Click OK. The operator can now open the event console and view events.

Defect: 147969

Explanation: On Windows NT and Windows 2000, the login panel might not be displayed on top of existing windows. This problem occurs when you switch windows after running the tec console script.

Work Around: Minimize or move any windows selected after running the tec_console script. On Windows 2000, do not use the Show Desktop button, which hides all active windows, including the login panel.

Defect: 148159

Explanation: Installation of the event server fails without the correct permissions to the /tmp directory.

Work Around: To install the event server, the file permissions for the temporary directory on the Tivoli management region server must have both read and write access by all. For UNIX, the /tmp directory must have permissions of 777. For Windows, the Everyone account needs at least read and write permissions for the \$DBDIR\tmp directory. Additionally on Windows, all other users and groups need full control of the \$DBDIR\tmp directory.

Defect: 148309

Explanation: The wdbmaint.sh script with the stats option does not run when upgrading an Oracle event database from Version 3.6.2 or 3.7.1 to update database statistics. The database is still correctly upgraded.

Work Around: To update the database statistics, manually run the wdbmaint.sh script with the stats option after the database upgrade has successfully completed.

Defect: 148622

Explanation: This problem occurs with Informix when generating the scripts with the Generate Scripts Only option in the event database installation assistant (hereinafter referred to as the assistant), then exiting the assistant, and later selecting the Execute Scripts Only option to run the scripts. If you select the Generate and Execute Scripts option in the assistant, the scripts run successfully. Work Around: Use the following steps to correct the problem:

- 1. To exit the assistant, use the close-window control in the upper right corner of the window.
- 2. To remove the dbspaces, run the rm_db_inf.sh script as the Informix user. This script is in the directory where the generated scripts are located.
- 3. To run the generated scripts, enter the wdbconfig.sh cr command (for a new 3.8 database), the wdbconfig.sh upg command (for an upgrade from a 3.7.1 database), or the wdbconfig.sh upg_362 (for an upgrade from a 3.6.2 database). These scripts are in the directory where the generated scripts are located.

Defect: 148654

Explanation: When using the event database installation assistant on UNIX, the password fields cannot be overwritten by highlighting the text field and then typing a new password.

Work Around: When configuring the database with the event database installation assistant on UNIX, delete the entire password field using the backspace key or delete key before modifying the field.

Defect: 148740

Explanation: The last line in the configuration file is not read if it does not contain a carriage return. This is a problem with adapter and gateway configuration files, as well as the wpostzmsg, postzmsg, wpostemsg, and postemsg commands. Work Around: When creating or modifying a configuration file, ensure that there is a carriage return after the last configuration option line in the file. If the carriage return is missing, the last configuration option in the file is not read.

Defect: 148947

Explanation: When mounting the IBM Tivoli Enterprise Console, Version 3.8 CD installation images on HP-UX using the mount command or SAM, all file names end with the ;1 character string. HP-UX does not support the Rock Ridge format with the mount command. In some cases, the pfs_umount command might be required to unmount the CD-ROM directory.

Work Around: If you have already mounted an IBM Tivoli Enterprise Console, Version 3.8 installation image CD using the mount command or using SAM, the CD-ROM must be unmounted with the umount command before beginning.

1. Ensure that both the pfs_mountd and the pfsd processes are running. If they are not, start both processes using following commands: pfs mountd& $\$

pfsd&

2. Mount the CD-ROM using the following command:

/usr/sbin/pfs mount /dev/dsk/CD device mounting point

- 3. Confirm that no file names end with the ;1 characters string.
- 4. After completing the installation, you can unmount the CD-ROM using the umount command.

If you are using HP-UX 11 or HP-UX 11i, you can download HP-UX patches to enable Rock Ridge format support using the standard mount command. Contact Hewlett Packard customer support for additional information.

Defect: 148992

Explanation: Event strings generated by Windows XP are different from those generated by Windows 2000 and Windows NT. This causes the Windows event log adapter on Windows XP endpoints to only generate events of class NT_Base for all of the Windows XP events that satisfy the filtering criteria of the adapter. For example, an NT_Performance_Alert class event that would be generated from a Windows 2000 and Windows NT endpoint is generated with an NT_Base class event on a Windows XP endpoint.

Work Around: To enable the Windows event log adapter to match Windows XP events with IBM Tivoli Enterprise Console event classes, you must modify the tecad_win.fmt file (also known as a format file) to match the specific events you want to send to the event server. For more information on how to generate a new class definition statement (CDS) file after you modify a format file, see the "Activating Changes Made with a Format File...section of the "Format File Reference" chapter in the IBM Tivoli Enterprise Console Adapters Guide.

Defect: 152648

Explanation: The Tivoli Management Framework 4.1 web server (Spider) must be manually started in order for the console Information Button to function correctly. To start the web server, perform the following command: wstarthttpd

Defect: 152899

Explanation: The rule base load command, wrb -loadrb, does not copy files to the $\protect\operatorname{SDBDIR/tec}$ directory on SuSE Linux Enterprise Server (SLES).

Work Around: Create the following symbolic links:

ln -s /bin/gzip /usr/bin/compress

ln -s /bin/gunzip /usr/bin/uncompress

Note: The wrb -loadrb command utilizes the compress/uncompress utilities, which are not installed with SLES by default.

Defect: 153189

Explanation: When configuring the Tivoli Management Framework version 4.1 RIM

object on a Linux system, the default password is left blank.

Work Around: To resolve this, use the **wsetrimpw** command, leaving the original

password attribute blank.

bash% wsetrimpw tec "" <new-pw>

Defect: 153327

Explanation: If there are any blank lines containing white space within a configuration file used by the wpostzmsg command, the following error occurs:

syntax error in configuration file, line <line num> ignored

Note: Empty lines (no tab or single spaces) do not generate this error.

Defect: 153486

Explanation: In the console configuration, duplicate constraint values are

permitted when configuring a filter.

Defect: 153880

Explanation: Attribute string values in the Send_Event task ending with a "\" character or 0x5c (DBCS) do not parse correctly. This final character is interpreted as an escape character for the closing quote of the string. This is a universal problem that can occur using any code set, and is exasperated by multiple code set environments.

Work Around: Avoid ending messages in the Send_Event task with the character "\" or 0x5c (DBCS).

Defect: 154141

Explanation: The event viewer displays the n most recent events, where n is the number of events to be displayed (configured in the console settings). Changing the event state to closed will not purge the event from the number of events to display.

Work Around: Console filters must be configured to force the event viewer to retrieve only non-closed events.

Defect: 154562

Explanation: The wdbmaint command displays the database user password in plain text as it is entered on the command line, when executing the reorganization utility.

Defect: 154865

Explanation: This defect exhibits two similar symptoms. The first symptom occurs when the "Log reception of events" option is set and an event storm exceeds the value specified by the "Maximum number of event messages buffered in memory" value. There is a possibility that events are processed more than once, producing database error messages in the tec_dispatch log file. The error messages reflect duplicate attempts to write the same event to the event repository. Processing an event multiple times can also cause significant degradation in event throughput. The second symptom occurs when the "Log reception of events" option is not set, and an event storm exceeds the "Maximum number of event messages buffered in memory" value. This can cause the event server to stop processing events until it is restarted.

Work Around: To resolve either symptom, increasing the default value for the "Maximum number of event messages buffered in memory" option. The new value should

be set to a value greater than the expected number of events arriving at the event server during an event storm.

Note: The "Log reception of events" and "Maximum number of event messages buffered in memory" values are Tivoli Enterprise Console environment variables. They can be modified with the wsetesvrcfg command, or using the Tivoli Desktop.

IX. Problems Fixed and Tested

The fix pack was installed on all platforms, both TME and non-TME, using SIS, CLI and GUI installation methods.

Regression testing verified that prior maintenance release solutions included in the fix pack still function as expected.

Fixed in 3.8.0-TEC-0002E

APAR: IY34596

Symptoms: The tecad_nt.exe process generates a Dr. Watson error if the .fmt file has a statement that does not begin with %s*.

APAR: IY35278

Symptoms: The logfile adapter does not start if the .fmt file contains s^* in a match statement.

Fixed in 3.8.0-TEC-0003E

APAR: IY37400

Symptoms: Events are cached on gateway when sending events from an endpoint to the event server using the endpoint wpostemsg command.

Fixed in 3.8.0-TEC-0004E

APAR: IY37675

Symptoms: The tec_dispatch process terminates with a signal 211 error when receiving Risk Manager events if the locale is not set to C.

Fixed in 3.8.0-TEC-FP01

APAR: IY21196.1

Symptoms: AIX adapters do not automatically start with startup commands in the rc.nfs file.

Test Note: Verified that an entry was added in the /etc/inittab file, the file /etc/rc.tecad_logfile was created, and the appropriate commands were included in the file to start the adapter upon system restart.

APAR: IY28856

Symptoms: The wsetemsg process requires several minutes to complete with a large number of events in database.

Test Note: Verified the wsetemsg command correctly updated the specified events with more than 1000 events in the database, and returned within 2 seconds.

APAR: IY33041

Symptoms: The stored procedures do not execute correctly on DB2 when the wtdbclear command is executed.

Test Note: Verified the wtdbclear command successfully cleared the database using the stored procedures, without returning any errors.

APAR: IY33187

Symptoms: Log file adapters generate errors when the length of an event is greater than 4096 characters.

Test Note: The configuration file was modified to include the parameter

EventMaxSize=x and then sent events to the event server. The value of "x" was

replaced with 100, 4096, and 5000 and the tests were repeated. For events of size 4096 or less, all event data was verified at the event server. For events of size greater than 4096, the event data was correctly truncated.

APAR: IY33312

Symptoms: The wstopesvr process runs indefinitely and fails to terminate other tec * processes.

Test Note: The single_port_bdt variable was set to TRUE, and the event server and console were restarted. Verified the listen_to_server method was active, and then successfully stopped the event server with the wstopesvr command.

APAR: IY33602

Symptoms: The wtdbclear.pl script enters an infinite loop when the number of events to delete is greater than or equal to the buffer size, or the following attributes are specified:

-e -t 0 (without -s, -c, -r) OR -l -f -t 0

Test Note: The wtdbclear.pl command successfully cleared events as specified, without returning any errors. (Used 1500 events)

APAR: IY34129

Symptoms: Events are not sent to the event server with the tec_gateway process running in connection oriented mode when 3.7.1-TMF-0073 and 3.7.1-TMF-0075 are installed.

Test Note: Verified that all events were successfully received at the event server after applying the listed fixes, and configuring connection oriented mode.

APAR: IY34289

Symptoms: The tec_rule process terminates with a SIGSEGV violation while the event server is initializing when configured to forward events, and generates a core file.

Test Note: Verified a test event forwarding rule compiles, loads, and executes correctly, without generating any error signals.

APAR: IY34913

Symptoms: The init.tecad_logfile script does not process the "-S" option for Tier 2 DEC systems.

Test Note: Verified the adapter was successfully distributed to an endpoint on a DEC Tier 2 system. The adapter was started after updating the configuration file to monitor a file specified by the LogSources attribute, and verified the event was received at the event server.

APAR: IY34968

Symptoms: Adapters reading from a file specified with the LogSources option cannot forward events with more than 300 characters per line.

Test Note: Configured an adapter to monitor a specified log file, receiving at least 100 lines of 300 or more characters per minute. Verified all events were received at the event server correctly.

APAR: IY35033

Symptoms: The list of available hosts in the Task Execution window incorrectly displays host names instead of endpoint names.

Test Note: Verified the Current Hosts panel correctly displayed the endpoints after selecting an event, and choosing the Target Hosts tab from the Task Execution option.

APAR: IY35647

Symptoms: The Windows adapter exhibits performance degradation after applying 3.7.1-TEC-FP02.

Test Note: Verified the adapter sent all test messages (300) within 6 minutes and 45 seconds. This compares to 11 minutes with the base 3.8 release code.

APAR: IY35763

Symptoms: The console distributed with 3.7.1-TEC-FP03 does not start due to a Java class error.

Test Note: Verified the event groups, and other console preferences persisted after restarting the event console.

APAR: IY36144

Symptoms: The format specifier "%LENGTHs" does not parse correctly after upgrading from version 3.6.x.

Test Note: Distributed an adapter using the WIDTHSTRMEANING=YES option, and the LogSources option configured to read a test file. The .fmt file was modified, and a new .cds file was generated. After starting the adapter in debug mode, all variables were correctly mapped for each attribute.

APAR: IY36319

Symptoms: New TEC_ADMIN environment variable containing administrator name when TroubleTicket.sh is executed.

Test Note: Modified \$BINDIR/TME/TEC/TroubleTicket.sh to echo the value of the TEC_ADMIN environment variable. After executing TroubleTicket.sh, the correct value was displayed.

APAR: IY36572

Symptoms: The tec gateway process exhibits a memory leak.

Test Note: Verified the tec gateway process did not exhibit unbounded memory usage.

APAR: IY36686

Symptoms: The ServerLocation parameter in the tec_gateway.conf file is ignored when the local event server terminates and the parameter contains a trailing white space after the specified event server.

Test Note: Verified that events were correctly received at the event server when the ServerLocation parameter contained a trailing white space.

APAR: IY37000

Symptoms: Events are discarded when Java EIF receives null attribute values. Test Note: The SampleAdapters.java file was modified to include several null attributes, and verified the event server received the events.

APAR: IY37027

Symptoms: Strings enclosed with double quotes do not parse correctly with Java ${\ensuremath{\sf EIF}}$.

Test Note: The SampleAdapters.java file was modified to include double quotes. Verified the event server received the events correctly.

APAR: IY37051

Symptoms: Adapters do not send events to the event server when located in a separate, non-interconnected TMR.

Test Note: After configuring two interconnected TMR's, one event server was installed (in one TMR only). A tec_gateway.conf file was configured in the second TMR to send events to the event server. After configuring a Windows NT adapter in the second TMR (without the ServerLocation parameter set), events were generated. Verified that all of the events were received at the event server correctly.

APAR: IY37190

Symptoms: The Windows adapter utilizes 100% CPU while processing large log files. (ex. 100MB file)

Test Note: After adding over 1 million events to the adapter's log file which did not match any format in the .fmt file, the CPU utilization would occasionally spike up near 99%, however it remained around 0% for a majority of the time.

APAR: IY37675

Symptoms: The tec_dispatch process terminates with a SIG 211 error when the locale is set to Danish.

Test Note: Verified events were correctly processed by the event server with a Danish locale. Also verified that the events were correctly processed using the test rule base loaded, and the event server continued to handle incoming events.

APAR: IY37768

Symptoms: The tec_gateway process stops sending events to the event server after processing the contents of a full tec_gateway.cache file, and it has loaded data from the endpoint cache.

Test Note: Verified that events were properly cached at the gateway while the event server was stopped. Once the event server was restarted, the cache emptied as expected, and the gateway continued to handle incoming events.

APAR: IY37863

Symptoms: The HP adapter utilizes 100% CPU, and does not process events after upgrading from version 3.6.2 to 3.7.1-TEC-FP03.

Test Note: After distributing the HP adapter, and updating the .fmt and .conf files to match the test case, the adapter received a continuous stream of events for over 16 hours. Verified the adapter processed all events, and did not consume 100% CPU.

APAR: IY38116

Symptoms: When reception logging is disabled, the event server fails to process events.

Test Note: Verified the event server correctly received incoming events when reception logging is disabled.

APAR: IY38723

Symptoms: The DISPLAY environment variable is not properly set for the TroubleTicket.sh script.

Test Note: Verified the DISPLAY environment variable was properly set using the env command with xterm displayed on the local system.

APAR: IY39825

Symptoms: The Current Hosts listing in the Task Execution window should list the endpoint names, rather than the host names.

Test Note: After configuring a non-managed node endpoint system, an adapter was distributed. After an event was sent, it was selected in the event viewer with a right click, and Task Execution was chosen. Under the Current Hosts list, the endpoint system was correctly displayed.

APAR: IY40557

Symptoms: Extended event attributes are not available in the TroubleTicket.sh script, even though they are listed in the SLOTS environment variable.

Test Note: Verified the extended information was correctly listed after redirecting the SLOTS environment variable output to a file.

APAR: IY40864

Symptoms: Changes to the console properties do not appear when the operator activates the event viewer.

Test Note: Verified that all columns added, removed, or reordered in the event viewer persisted after restarting the console.

Note: This fix only applies when creating a new console, and not to console migrations.

APAR: IY40903

Symptoms: The wmigcon process generates a Java exception when upgrading from version 3.6.2 to 3.8.

Test Note: Verified the wmigcon command executes correctly without generating any Java exceptions.

APAR: IY41207

Symptoms: The event server fails to obtain a port to receive non-TME events. Test Note: Verified the event server obtains a port, and successfully receives non-TME events.

X. Files Added or Replaced by This Fix Pack

(for all supported values of \$INTERP)

bin/w32-ix86/TME/TEC/adapters/bin/tecad nt.exe bin/w32-ix86/TME/TEC/adapters/bin/tecadnts.exe bin/w32-ix86/TME/TEC/adapters/bin/tecad win.exe bin/w32-ix86/TME/TEC/adapters/bin/tecadwins.exe bin/aix4-r1/TME/TEC/adapters/bin/tecad_logfile bin/hpux10/TME/TEC/adapters/bin/tecad logfile bin/solaris2/TME/TEC/adapters/bin/tecad logfile bin/linux-ix86/TME/TEC/adapters/bin/tecad_logfile bin/linux-s390/TME/TEC/adapters/bin/tecad logfile TME/ACP/acp gateway.exe TME/ACP/tec-acf-remove.sh TME/TEC/tec gateway.exe TME/ACP/acp TME/ACP/acpep TME/ACP/acp gateway TME/ACP/tec-acf-remove.sh TME/TEC/tec gateway bin/waddac bin/wdelac bin/wsetac bin/wlsac bin/wsetaddflt bin/wlsaddflt bin/wsetaeenv bin/wlsaeenv bin/wsetadval bin/wlsadval bin/wsetadenv bin/wlsadenv bin/wsetadgui bin/waddacpattr bin/wlsadgui bin/wtouchac bin/postemsg bin/postzmsg bin/wpostemsq bin/wpostzmsq TME/TEC/tec gateway bin/chkclass bin/postemsg bin/postzmsg bin/wchkclass bin/wrb bin/wcomprules bin/wcprb bin/wcrtrb bin/wcrtsrc bin/wdelrb bin/wdelrbclass bin/wdelrbrules bin/wdelsrc bin/wimprbclass bin/wimprbrules bin/wloadrb bin/wlscurrb bin/wlsemsq bin/wlsesvrcfg

bin/wlsrb

bin/wlsrbclass bin/wlsrbrules bin/wlssrc bin/wpostemsg bin/wpostzmsg bin/wsendresp bin/wsetemsg bin/wsetesvrcfg bin/wsetrb bin/wsetsrc bin/wstartesvr bin/wstatesvr bin/wstopesvr bin/wtdbclear bin/wtdbclear.pl bin/wtdbstat bin/wtdbspace bin/wtdumper bin/wtdumprl bin/wtdumptr bin/wrimsql bin/winstruct event TME/TEC/tec_agent_demo TME/TEC/tec_ui_svr.jar TME/TEC/tec console.jar TME/TEC/tec svr.jar TME/TEC/avail common.jar TME/TEC/jcf.jar TME/TEC/jrim.jar TME/TEC/tec svr stubs.jar TME/TEC/tec_ui_svr_stubs.jar bin/wcrtnvgroups(!w32-ix86) bin/wcrtnvgroups.cmd(w32-ix86) bin/wconsole bin/wconsole.cmd bin/wmigcon bin/wmigcon.cmd bin/wtecexport.cmd bin/wtecimport.cmd bin/wtecexport bin/wtecimport bin/tec_console bin/tec console.cmd TME/TEC/contrib/console/addnewuser.sh TME/TEC/contrib/console/assignneweq.sh TME/TEC/adapters/bin/tecad hpov TME/TEC/adapters/bin/tecad hpov.exe TME/TEC/adapters/bin/tecad sem.cfg TME/TEC/tec_dispatch ${\tt TME/TEC/tec_reception}$ TME/TEC/tec server TME/TEC/tec rule TME/TEC/tec rule data TME/TEC/tec task TME/TEC/tec ui server TME/TEC/TroubleTicket.sh TME/TEC/TecUIServer ir.tar TME/TEC/TecUIServer_ist.tar

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