



Tivoli. software



IBM Tivoli Enterprise Console 3.9.0 Fix Pack 5 README

IBM Tivoli Enterprise Console Version 3.9.0 Fix Pack 5 Readme 07/05/07

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Component: IBM® Tivoli Enterprise Console® Version 3.9.0

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

First Edition (June 2006)

This edition applies to version 3, release 9 of IBM Tivoli Enterprise Console (product number 5698-TEC).

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Revision History

This section provides information about changes since the original release of this document.

Version	Date	Short Description
1.0	06/12/2006	Version sent to translation
1.1	06/28/2006	Added APAR IY83053 to "defect solutions included with this fix pack" section.
1.2	07/14/2006	Added Microsoft SQL 2005 to the list of supported databases.

About this fix pack

This section provides general information about this fix pack. Read this entire document before you install this fix pack. This readme file is provided in both Adobe Acrobat and HTML formats.

This fix pack supersedes all previously released Tivoli Enterprise Console (TEC) 3.9 interim fixes and fix packs. The format of the TEC fix pack Readme has been updated to supersede all previously released TEC 3.9 Readmes and the TEC 3.9 Release Notes.

New in this fix pack

The section provides information about changes that have been made to the Tivoli Enterprise Console product.

The numbers listed below beginning with "MR" represent Marketing Field Requirement numbers. Customers may also know them as enhancement requests.

- The TEC non-TME AS400 adapter has been verified to work on i5/OS4 version V5R4M0.
- The Java version used by the TME TEC console, non-TME TEC Java Console, and the TEC Server has been uplifted to 1.4.2 SR4 (from 1.4.2 SR1). Included in this JRE version is the Australian Time Zone fix.
- Support has been added for the non-TME TEC gateway (tec_gwr) on HPUX.
Note: MR0927041246
- The Oracle 10G R2 database has been verified to work with TEC.
- Documented how to allow the selection of auto-adjust for Daylight Savings Time. Please see [186805](#) in the [Documentation Updates](#) section for further information.
Note: MR0424035644
- Customers want the TEC Console (Java and Web) to pass TEC_ADMIN to the execution environment of Custom Buttons and Web Custom Buttons, where TEC_ADMIN is equal to the label of the Tivoli administrator who is logged in to the TEC Console. TEC_ADMIN is already passed to trouble tickets and TME tasks.
Note: MR0930044733
- We now provide a way that customers may turn off the Console auto-update switch. In order to disable the Console auto-update check on your Non-TME Console computer, set the following environment variable before starting the Event Console.
TEC_CONSOLE_DISABLE_UPDATE=true
Note: MR1125053154
- Display TEC events in 24 hour format based on GMT.
Currently, the Event Console displays the following attributes from using a 12 hour clock:
Time Received
Time Modified
Time Occurred
Some customers have their systems set up for military time (24 hour clock) and would like these times in the Event Console to reflect that setting by converting the time to a 24 hour clock format.
Note: MR0428051521, MR0731023312, MR1219016020, MR0414042253
- Audible event-based alert on the TEC Console. The TEC Console will now allow users to assign an audible severity alert to each of the severities defined by the currently loaded rule base. A severity alert is simply the mapping of a severity to the Uniform Resource Locator (URL) of an audio resource. The URL may point to a resource on the file system, or to a resource on the World Wide Web or company intranet. When a new event of that severity is received, the TEC Console will attempt to load and play the

audio resource using the Java Sound engine. Only the TME/Non-TME Java Console will be capable of playing the alerts. Please see the following section detailing the new audible alerts: [TEC Java Console Audible Alerts](#).

Note: MR050604485, MR1111031524, MR1122026833, MR0617021720

- The TEC Web Console now supports IBM WebSphere Application Server (WAS) 6.1.
- Added the ability to hard code a slot value using the baroc files. The user will no longer get a parse fail.
Note: MR0118053413
- A new function was added to the TEC adapters so that they can be configured to be either manually or automatically started when a machine is rebooted. Currently the adapters are Windows Services or Unix daemons that are automatically started when the operating system is booted. This new function includes changes to the ACF GUI, ACF CLI commands, and non-TME adapter installation scripts. Please see [179197](#) in the [Documentation Updates](#) section for further information and new parameter changes.
Note: MR0425056842
- A new BAROC file, `ibm_director.baroc`, has been included with the default rule base. This file defines the event classes that are sent by the IBM Director Server and Agent, and is disabled by default. To use this file, you must use the `wrb -imprbclass` command.
 - A new Rule file, `agentcore.rls`, has been included with the default rule base. This rule file supports IBM Director and is marked inactive by default. To use this rule file, import it into your Rule base with the `wrb -imprbrule` command.
 - The `director.baroc` file, which defines the event classes for the Tivoli IT Director Server, remains in the default rule base as before and is also disabled by default.
 - Contact IBM Director Level 2 support for any issues regarding these files.

New in Fix Pack 4

- Starting with Fix Pack 4 it is possible to automatically update a non-TME (Tivoli Management Enterprise or Tivoli Management Framework) console to the latest version, after applying 3.9.0-TEC-FP04 to the UI server. When a non-TME console connects to the UI server, and the console detects a compatible UI server (reference the [console version checking](#) documentation), the user is presented with the option of upgrading the console to the latest version. If the user selects to upgrade, the updates will be downloaded to a staging directory, verified, and then applied. Upon successful completion of the update, the user will be prompted to restart the console in order for the updates to take effect. Only Fix Pack 4 and later consoles contain the support required to automatically update themselves, consoles prior to Fix Pack 4 are incapable of performing the automatic update. Additionally, the automatic update feature is only available when the UI Server host name is placed in the "Host Machine" field of the Console log in panel. Updates will not be downloaded if the user inputs the host name of a managed node where the UI Server is not installed. Please see the [Automatic non-TME console update](#) section for screen shots.

Note: MR0425056855, MR1124033140, MR0411052834

- The following Web console preferences are now saved between sessions:
 - Status filters
 - Severity filters
 - Owner filters
 - Sorting criteria for columns

The following Web console preferences are not saved between sessions: custom filters and column visibility preferences.

Note: MR0131055314, MR0331043558, MR0324043619, MR0331042822

- The non-TME versions of the Windows event logfile adapter, Simple Network Management Protocol (SNMP) and Hewlett-Packard (HP) OpenView (OV) adapters are now packaged with an updated version of InstallShield. Please see the [TEC 3.9 non-TME Windows adapter install](#) section for screen shots. This updated version allows for the installation (both standard and silent) of the adapters on all currently supported versions of Windows (32 & 64-bit). For more information about installing or removing these adapters, see the [Installation Instructions](#).

Note: MR0627032934

- The SNMP event log adapters now support SNMP V2 traps.
Note: MR0131052239, MR0328034444, MR1106023648, MR011304428, MR091302458, MR071601585, MR0124026952
- The IBM Support Assistant (ISA) is now accessible from both the Java and Web versions of the event console and includes a TEC plug-in. For more information, see the [Fix Pack Notes](#) section of this document.

Note: MR0422046655, MR1120024927

- The `re_send_event_conf()` predicate has been improved to allow for an increased rate at which events are forwarded from one event server to another.
Note: MR1028046853
- This fix pack improves the reliability of event delivery, and prevents the loss of events while stopping the event server. To improve the reliability of event delivery, we now allow the sender (for example, an adapter) to verify that an active connection is available before sending the event. These enhancements include new configuration parameters, which are detailed in the [Documentation Updates](#) section.

For an explanation of the new parameters available please see the following section:

[New parameters for event delivery reliability](#)

Notes:

- **This improvement does not currently pertain to Windows.**
- MR0414043322
- The Logging function on Adapter Configuration Facility (ACF) has been improved. See APAR [IY68248](#) for more information.
Note: MR0616053747
- The ability to log the Byte position of a logfile being read by the logfile adapter has been added. See defect [180227](#) for more information.
Note: MR0622053044
- WebSphere Network Deployment tolerance for the TEC web console. See the [Installation and Configuration](#) section for more information.
- The following are now supported by this fix pack: Red Flag Linux 4.0 and 4.1, Solaris 10, Windows 2003 SP1, IBM Websphere Application Server (WAS) 5.1.1 and 6.0, HP OpenView 7.0 and 7.x (provided as Beta for this fix pack), Red Hat 4. See the [Installation and Configuration](#) section for a complete listing of supported operating systems, databases, and applications.
Note: MR0511056625, MR0917041047, MR1013045653, MR0705044139
- Specifying a script to be initiated from a console custom button can result in an error if the script is not installed on the same system as the initiating console. In order to initiate a script from a custom button defined in the console, the script must first be installed on the same system as the console. For more information regarding the use of custom buttons, refer to page 33 of the *IBM Tivoli Enterprise Console User's Guide Version 3.9*.
Note: MR0822036330
- The connect timeout that the Java EIF Sender uses when connecting to the TEC Server has been parameterized in the EIF configuration file. The new parameter is called "**ConnectTimeout**". The value is an integer and is interpreted as milliseconds. Values less than 0 will be ignored. A value of 0 means that the connect timeout is infinite. This parameter can only be used to reduce the connect timeout from the operating system value; it cannot be used to extend the timeout beyond the operating system's connect timeout. If **ConnectTimeout** is not included in the configuration file, then the operating system's connect timeout will be used instead.

The **ConnectTimeout** is only supported when the runtime JRE used with the Java EIF is of version 1.4.x. If the runtime JRE version is below 1.4.x and **ConnectTimeout** is specified in the EIF configuration file, then an error will be logged to the EIF log file indicating that the **ConnectTimeout** parameter is unsupported. The Java EIF will then use the 1.3.1 `java.net.Socket` methods to try to connect. This means that the Operating System timeout will still be used when connecting on a 1.3.1 JRE.

The following example will timeout in 2 seconds (assuming the Java version is 1.4.x)

ConnectTimeout=2000

- Persistence of Sorts and filters has been added to the Web Console. By default persistence is turned on, in order to turn off persistence do the following:
Create the following JVM Property in the WAS Admin Console (steps follow):
persistSortsAndFilters=false

The following are the steps to follow in order to turn off persistence

1. Log into the WAS Admin Console. Drill down to
Servers → Application Servers → <server name> → Process Definition → Java Virtual Machine → Custom Properties
where <server name> is the name of the server on which you installed the Web Console.
2. In Custom Properties, click the New button.

3. Enter **persistSortsAndFilters** in the Name field. Enter **false** in the Value field. Click OK.
4. Save the WAS Configuration and restart WAS.

When persistence is turned on (by default) then changes are made to the sorting and filtering on an event view, the sorts and filters will still be the same after logging out and logging back in to the TEC Web Console.

New in Fix Pack 3

- The Tivoli Enterprise Console user interface (UI) server design has been improved to prevent an incorrect version of the event console, both Java and Web, from making a connection and corrupting the event database. See [Fix Pack Notes](#) below.
- The Enterprise Console UI server has been updated to prevent the connection between an event console and the UI server from being closed by a network firewall. See [Fix Pack Notes](#) below.
- The event server binary files have been built using improved optimization for the Linux-S/390 platform.
- The SNMP adapter now handles multi-line traps.
- A new user preference is available in the Web version of the event console, allowing the user to set their local time zone. See the [Documentation Updates](#) section below.

New in Fix Pack 2

- Console version now available via **Help**→**About** menu selection. ([IY51515](#))
- ProcessExistingMsgs configuration file parameter for AS/400 adapter. ([IY55077](#))
- New -e option to wsetemsg to specify encoding for slot values. ([IY54892](#))

New in Fix Pack 1

- The non-TME® version of the event console can now be installed on any supported Microsoft Windows® system without using the installation wizard. For more information, see "[Installing the event console using the stand-alone installer](#)" in the [Documentation Updates](#) section.
- The triggerMode attribute is a new optional attribute on the resetOnMatch and passthrough rule types. This provides additional flexibility when selecting which events get sent to the rule actions instead of always sending the first event. For the passthrough rule, the triggerMode sending modes perform the following functions when the passthrough rule completes and sends events to its defined actions:

firstEvent

This sending mode sends the trigger event that starts the event sequence and is the default mode.

lastEvent

This sending mode sends the event that completes the event sequence.

allEvents

This sending mode sends all events for the completed event sequence.

For the resetOnMatch rule, the triggerMode sending modes perform the following function when the resetOnMatch rule timer expires and sends events to its defined actions:

firstEvent

This sending mode sends the trigger event that starts the event sequence and is the default mode.

lastEvent

This sending mode sends the last event that was received during the time window.

allEvents

This sending mode sends all events that match the event sequence and were received during the time window.

- A new EIF API keyword: **ReadRetryInterval** is used to configure the timeout value that is used by the EIF API when a partial event is received.

ReadRetryInterval

This keyword specifies the timeout value that is used by the Event Integration Facility API during the reception of partial events. The default value for this keyword is 120 seconds.

When the EIF sender works with events that are larger than 2 KB, it divides the event into two packets that are delivered on the socket connection. If the EIF receiver determines that the event is a partial event, it waits for the period of time that is specified by this keyword before it retrieves the second packet and completes the process. If the second packet is not received during this period of time, the partial event that was received is discarded and a message is written to the event delivery trace log.

- The following keywords are available in the EIF configuration file to configure event forwarding to ping the destination server prior to sending an event:

PingTimeout

The maximum timeout (in seconds) for the ping call to try to access the destination server. If the PingTimeout is not specified, a ping call is not executed by the EIF before calling the socket connect call.

NumberOfPingCalls

The number of times the ping function should be invoked before determining the destination server is available. Due to some TCP/IP configurations, the very first ping call after the destination server is unplugged can return successfully. The default value for this keyword is 3.

- A new version of the **wstoptecgw** command has been created to stop a TEC gateway that is installed on a managed node. The new version of the **wstoptecgw** command is installed on a managed node and the existing version of the **wstoptecgw** command is installed on endpoints. The appropriate **wstoptecgw** command is automatically called when a `tec_gateway` profile is distributed to either a managed node or to an endpoint. See the addendum to the [Command and Task Reference](#) in the [Documentation Updates](#) for more information.

Note: A problem with the TMF prevents the distribution of the `tec_gateway.conf` profile for TMF, version 4.1 installations. To prevent this problem, issue the following command before distributing the profile:

```
In -s $BINDIR/bin/wdiff /usr/local/bin/diff
```

New in TEC 3.9 Release

This section describes what is new in this release.

- HP-UX 10.20 and Windows NT® operating systems are no longer supported, and any reference to these operating systems in the documentation is not valid. Although the Windows NT operating system is not supported, as a convenience, the Windows NT event log adapter is available as part of the Adapter Configuration Facility in release 3.9; and you can distribute the Windows NT event log adapter to Windows NT endpoints.
- Web version of the event console, which you can use to manage events from a Web browser.
- Start_Maintenance task, which you can use to inform the event server about computers that are in maintenance mode.
- Simplified packaging of the Tivoli® Event Integration Facility (EIF). The EIF is no longer an installable component of the TEC product. This facility is a toolkit that is available on the product images but does not need to be installed. However, the Javadoc HTML documentation for the EventList class has been inadvertently omitted from the EIF. See this Readme Appendix A, "Javadoc HTML documentation for the EventList class," for this information.
- TEC gateway can now receive events from non-TME adapters.
- Enhancements to state correlation including: – Correlation of events from TME adapters with events from non-TME adapters at the TEC gateway – Support for customizable actions – New state correlation rules For more information, refer to Part 2 of the *IBM Tivoli Enterprise Console Rule Developer's Guide*.
- New default rule base, which includes preconfigured rule sets that provide support for processing common application and infrastructure events. The rules in the Default rule set provide functions that include the following:
 - Causal analysis of network infrastructure and e-business application events based on service impact and dependency relationships.
 - Scheduling of maintenance windows and discarding of events from systems currently undergoing maintenance.
 - Integration with external trouble ticket systems – Heartbeat monitoring and detection of missed heartbeat pulses For more information, refer to the *IBM Tivoli Enterprise Console Rule Set Reference*.
- Enhancements to unified system and network management including:
 - Rules that correlate system-related and network-related events, which are based on predefined associations and help in performing root cause analysis.
 - Rules that understand and automatically process network events.
 - Predefined event console and event groups for IBM Tivoli Netview® events, which you can use to manage these events immediately.
- Optimized event management for key e-business applications including:
 - Predefined event consoles and event groups for IBM WebSphere® MQ, IBM DB2®, and IBM WebSphere Application Server events.

- Rules based on predefined associations among the WebSphere MQ, the DB2, and the IBM WebSphere Application Server applications that help you identify the root cause of a problem.
- Predefined event groups for all events in open and acknowledged state and maintenance events that are not closed.
- A default event console that is assigned to the root administrator and to which all predefined event groups are assigned.
- Improved installation wizard that helps you complete the following tasks:
 - Configure an event database. The version 3.8 event database installation wizard has been integrated into the installation wizard.
 - Install the product components. Installation of the Windows® non-Tivoli Java™ version of the event console has been integrated into the installation wizard.
 - Uninstall and upgrade the product components as appropriate.
- Enhanced Tivoli Data Warehouse Enablement Pack (WEP) that extracts availability data from the event database for outage reporting by IBM Tivoli Service Level Advisor. For more information, refer to the *IBM Tivoli Enterprise Console Warehouse Enablement Pack: Implementation Guide*.

Backward compatibility

The following list describes the compatibility issues for the Tivoli Enterprise Console product.

- The following compatibility issues exist when using mixed versions of TEC components:
 - Event servers, user interface (UI) servers, event consoles, and the Adapter Configuration Facility must be at the same version. For example, a version 3.9 event console works with a version 3.9 UI server, and a version 3.9 UI server works with a version 3.9 event server. Using mixed versions of components is not supported, and unexpected results can occur. Ensure that the Tivoli Enterprise Console components are of the same version.
 - Adapters can generally send events to any currently supported version of the event server, and the event server can successfully receive the event information. However, compatibility issues exist for sending events from adapters in non-English environments.
 - To forward events from version 3.9 rules to a version of the event server prior to version 3.9, you must update the root.baroc file in the prior version to include the fqhostname event attribute in the EVENT class, which contains the fully qualified host name of the machine. Otherwise, these events will fail with a PARSING_FAILED error. Add the following entry to the attribute list: fqhostname STRING; Alternatively, For version 3.8, you can apply Fix Pack 1 (3.8.0-TEC-FP05) to obtain the update for the fqhostname event attribute.
- Because changes have been made to the Default rule base in version 3.9, the version 3.9 rule base does not work with prior versions of the TEC product. To use the new default rule base and the preconfigured rule sets, you must install version 3.9 of the TEC product.
- Because of dependencies on changes made to the rules in version 3.9 of the TEC product, the rules shipped with version 1.2 of the Tivoli Data Warehouse Enablement Pack (WEP) do not work with prior versions of the TEC product. To use the preconfigured rules that version 1.2 of the WEP provides, you must install version 3.9 of the TEC product.

Product compatibility

The following list describes compatibility issues when using other products with the Tivoli Enterprise Console product.

- When using both the TEC product and the Tivoli Risk Manager (TRM) product, you must install the IBM WebSphere Application Server (WAS) product that is provided with the TEC product on a different computer than the TRM Information Facility to avoid port contention problems.
- When using both the TEC Web Console product and the TRM Web Application product, each application should be installed on separate computers that are running the Websphere Application Server product that was provided with the TEC Product in order to avoid port contention problems.
- The version of Tivoli Availability Intermediate Manager (AIM) (version 3.7) that is shipped with version 3.9 of the TEC product is the same version that was shipped with version 3.7.1 and version 3.8 of the TEC product and is provided for convenience only.
Note: The Tivoli AIM component is no longer supported.

Fix Pack Notes

Read the following notes before installing the fix pack. See the [Documentation Updates](#) section for information about changes that have been made to the documentation.

- IBM Tivoli Enterprise Console Warehouse Enablement Pack (WEP) updates are shipped as a separate downloadable fix pack. The first of these fix packs is 1.3.0.0-TIV-TEC_WEP-FP0001. Please contact IBM Support for more information.
- Prior to TEC 3.9 Fix Pack 3, incompatible versions of the event console could potentially cause corruption of console definitions in the event database. In TEC 3.9 Fix Pack 3, the TEC user interface (UI) server design was improved to prevent incompatible versions of the event console, both Java and Web, from corrupting console definitions in the event database. A version checking feature was added, giving the UI Server the ability to verify that the version of the event console is compatible with the version of the UI Server before allowing the console to access the event database. (175577)

WARNING: Any console version prior to TEC 3.9 Fix Pack 3 is incompatible with the TEC 3.9 Fix Pack 3/Fix Pack 4 UI Server. Attempting to use an incompatible event console when the version checking feature is disabled or not installed on the UI Server can result in corruption of the console definitions in the event database.

The version checking feature is controlled by a configuration file, `$BINDIR/TME/TEC/ui_server_config`, which is created during the installation of a TEC 3.9 Fix Pack 3 or later UI Server. The file includes a parameter named `tec_ui_server_version_checking_enabled`. This parameter determines whether the version checking feature is enabled or not. The default value is true; the feature can be disabled by setting the parameter to false.

When the version checking feature is disabled on the UI Server, unpredictable results will occur when using incompatible versions of the event console. In some cases, the console will display a blank screen; in other cases, the console will appear to function normally, but may cause corruption of the console definitions in the event database.

When the version checking feature is enabled on the UI Server, all incompatible versions of the event console, with the exception of the 3.8.0-TEC-FP05 console, will display a blank screen once an operator logs in to the console. The Summary, Priority and Configuration views will not be available in these consoles, and all `wconsole` commands will fail. The 3.8.0-TEC-FP05 console will display a pop-up error message informing the operator of the incompatibility between the console and the UI Server. This version of the console will terminate immediately after the operator acknowledges the message.

The 3.9.0-TEC-FP03 and later event console cannot be used with any version of the UI Server prior to 3.9.0-TEC-FP03. If an operator attempts to connect to a prior version of the UI Server, a pop-up error message will appear informing the operator of the incompatibility between the console and the UI Server. The console will terminate immediately after the operator acknowledges the message.

In order to facilitate future updating of consoles to levels compatible with the UI Server, TEC 3.9 Fix Pack 4 introduces an automatic update mechanism for the Non-TME Console only. Please see the [Automatic non-TME console update](#) section for more information.

Important: For the version checking feature to take effect and work correctly, both the UI server and console components must be upgraded to TEC 3.9 Fix Pack 3 or later and then **restarted**. When the UI server is installed on a managed node, the `tec_ui_server` process must be stopped manually (if it is active) after the upgrade is complete. This can be done by terminating the process, or restarting the `oserv` process.

Important: While the version checking feature prevents corruption of the console definitions in the event database, an issue was found whereby incompatible event consoles could reset the global console preferences for all operators to the default values even with the version checking feature enabled (see APAR [IY71489](#)). To ensure that incompatible console versions can no longer overwrite the global console preferences for the Java console or Web console, an administrator with the senior role must do the following using a 3.9.0-TEC-FP04 or later console.

For the **non-TME console**, change to the installation directory of the console and do the following steps.

1. Run `./wtelexport -h <UI Server host name> -u <Administrator login name> -p <Administrator password> -f ./console_export.out`
2. Run `./wtceimport -h <UI Server host name> -u <Administrator name> -p <Administrator password> -f ./console_export.out -x r`

For the **TME console**, source the TME environment and do the following steps.

1. Run `wtelexport -h <UI Server host name> -u <Administrator login name> -p <Administrator password> -f ./console_export.out`
2. Run `wtceimport -h <UI Server host name> -u <Administrator name> -p <Administrator password> -f ./console_export.out -x r`

In addition, any new TEC operators MUST be created using a 3.9.0-TEC-FP04 or later console. If new TEC operators are created using the 3.9.0-TEC-FP03 console or earlier, the problem described in [IY71489](#) will reoccur. Operators may continue using the 3.9.0-TEC-FP03 console only if their Tivoli role assignments preclude them from accessing the Console Configuration view and from creating operators using the `wconsole` command.

- Some network environments implement firewall rules that close idle connections after a specified length of time. In some cases, this idle timeout period is short enough to close the connection between the event console (Java and Web) and the UI server. To prevent this, a new configuration parameter, `tec_ui_server_conn_keepalive_interval`, has been implemented to maintain an active connection. This parameter, which is located in the `$BINDIR/TME/TEC/ui_server_config` file, specifies a sleep interval used by a keep-alive thread in the UI server. See the addendum to the *Command and Task Reference* in the [Documentation Updates](#) below. (175328)
- ([IY61709](#)) When the TEC product is upgraded to version 3.9 in an environment where IBM Tivoli Monitoring for Application mySAP.com is currently installed, the dependencies for `acpep-postemsg` are removed but not restored. To restore the `acpep-postemsg` dependencies, you must run the `$BINDIR/./generic_unix/TME/ABH/sh/sap_dependency.sh` script in a sourced Tivoli environment on the Tivoli server.

- [\(IY64008\)](#) The use of control characters, Ctrl-A through Ctrl-E, within a rule attribute now generates an error message when the rule base is compiled and no longer ends with a segmentation fault
- Due to updates in IBM DB2 Version 8.2, a C compiler is no longer needed to install the stored procedures.
Note: This only applies to IBM TEC Version 3.9 event servers configured to use IBM DB2 Version 8.2.
- EIF Reference Guide Update regarding socket transport and **BufferEvents** configuration option:
In the EIF Reference Guide, there is an example of a configuration file that should be used to enable the application to receive events using sockets. In that example, **BufferEvents=YES** is set. This is not recommended and will cause the application to not to function as expected. This value should always be set to **BufferEvents=No** on the receiver using socket transport. When **BufferEvents** is set to yes, the EIF pulls information from the socket and the event is immediately placed in the buffer where the `tec_get_event` retrieves it. This may cause event loss if the buffer grows so large that it wraps in the buffer file.
- The non-TME Windows adapter is now packaged with an updated version of InstallShield. Because of this, **it is recommended that any previous non-TME Windows adapters be uninstalled prior to installing the Fix Pack 4 adapter**. Failing to do so can leave an entry in the list of programs displayed in the Add/Remove Programs window of the Control Panel. Attempting to uninstall the previous version of the adapter at a later time can result in unexpected behavior. Please see the [Windows event log adapter](#) section for details.
- In order to install a product and/or patch through the TMF (Desktop or CLI) on the Windows Server 2003 operating system, with Service Pack 1 (SP1) installed, the following steps must be followed to modify the Windows configuration options.

Upon installation of Windows 2003 SP1, the "Windows Firewall/Internet Connection Sharing (ICS)" service in Microsoft Windows Server 2003 must be running. This will allow the "Windows Firewall" to be available through the Windows Control Panel (Start->Settings->Control Panel). Ensure that the Windows Firewall radio button is set to "Off" or properly configure the firewall before a TMF installation can be executed.

If the "Windows Firewall/Internet Connection Sharing (ICS)" is not started, and an attempt is made to access the Windows Firewall, a dialog box stating that the service must be running in order to access the option appears and offers to start the service. This does not mean the Firewall is "Off". Ensure the service is running to turn the Firewall "Off" within the control panel.

IBM is pursuing this issue with Microsoft to better understand the underlining cause and to investigate other solution options. The following Technote specifies these same details:

[IBM - Windows Server 2003 SP1 MAY produce a General Oserv Failure when performing a TMF install](#)

- If an oserv process is not configured to run as the root user, a core file may not be generated if the process ends abnormally. To allow an oserv process to execute as the root user (instead of the default user 'nobody'), perform the following steps:

```
objcall $BO om_set_id <method> {<user>|""} {<group>|""} [<interp>]
(Where $BO is the Behavior Object)
```

For example to change the user from <blank> to \$root_user of the 'subscriber' method, issue the following command:

```
objcall $BO om_set_id subscriber "\$root_user" ""
```

Next, perform the following command:

```
odadmin db_sync
```

This step writes the imdb cache to the object database. To verify that the changes were correctly applied issue the following command:

```
objcall $BO om_stat <method>
```

To retrieve the behavior object, issue the following commands:

```
wlookup -ar ResourceType
objcall OID resolve <startup method>
```

The following example illustrates the steps used to configure the `tec_ui_server` process.

Determine the startup method by finding the first instance of `TecUIServer` from the following output:

```
odstat |grep -i tecuiserver
```

Example output:

```
516 O+hdoq done 6 0 10:15:26
1573083731.1.635#TecUIServer::Console#validate_operator
```

Using the object ID (OID) value returned above, (also available from the "**wlookup -ar TecUIServer**" command) determine the behavior OID for the startup method:

```
objcall 1573083731.1.635 resolve validate_operator
```

Example output:

```
1573083731.1.633
```

Check the SET_USER value:

```
objcall 1573083731.1.633 om_stat validate_operator
```

Example output:

```
CATALOG=
SET_USER=
SET_GROUP=
EXPORT=TRUE
EXECUTE=FALSE
default
```

Use the method om_set_id to modify the user:

```
objcall 1573083731.1.633 om_set_id validate_operator "$root_user" ""
```

Note the empty string after "\$root_user" indicated by a pair of double quotes. If the om_stat call is repeated as above, the output should show "SET_USER=\$root_user". For this example, the tec_ui_server process must be restarted, if it is active. The new tec_ui_server process ID will then display the root user as the process owner. (179166)

- ([IY68620](#)) The communication protocol between the Java console and UI server was extended in TEC 3.9 Fix Pack 4 in order to address IY68620. Any UI servers installed prior to Fix Pack 4 will not recognize the additions to the protocol. If a Java console (installed as of Fix Pack 4 or later) connects to a UI server that has not been upgraded to Fix Pack 4, messages like the following will appear in the UI server log file each time the console opens a new Event Viewer:

```
ERR ConsoleProxy.C:498: parseMsg - invalid msg type
ERR ConsoleProxy.C:279: ClientReader - exception caught parsing msg: FRWTE0017E Tue
Apr 26 10:41:28 2005 (17): system Problem: `ConsoleProxy::parseMsg - invalid msg
type'
```

These messages do not indicate a serious problem with the UI server. However, they do indicate that the problem described in IY68620 will remain until both the Java console and the UI server have been upgraded to Fix Pack 4 or later.

- ([IY69520](#)) To compile the EIF SDK with GLIBC version 2.3.x on Red Hat 3, and Linux-ppc use the compat-glibc package to compile using older GLIBC libraries or update your EIF library with the provided object file.

Updating your EIF library with the new object file:

EIF SDK now provides ctype_eif_23x.o (in lib/linux-ix86 and lib/linux-s390) that has been compiled with GLIBC 2.3.x to make EIF compatible in your environment. To use this, you must substitute it for the object file already in the EIF library using 'ar'. First remove the old object file:

```
ar -d <EIF_LIB.a> ctype_eif.o
```

and then insert the new object file:

```
ar -r <EIF_LIB.a> ctype_eif_23x.o
```

You can now compile using the EIF library without compilation errors.

The older version object file, lib/linux-ix86/ctype_eif.o, is also provided to allow you to restore it if needed.

Using the Red Hat compatibility library:

Install the compat-glibc package from Red Hat and set the environment variables CPLUS_INCLUDE_PATH, C_INCLUDE_PATH, and LIBRARY_PATH to the compatibility directories (such as /usr/i386-glibc21-linux or /usr/lib/i386-redhat-linux7). For example:

```
export CPLUS_INCLUDE_PATH=/usr/i386-glibc21-linux/include
export C_INCLUDE_PATH=/usr/i386-glibc21-linux/include
export LIBRARY_PATH=/usr/i386-glibc21-linux/lib
```

Compilation will now work using the compatibility libraries.

- [IY55816](#) Setting the **Maximum number of events in Event Viewer** option in the general console preferences to 0 displays all events (meeting the filter criteria) in the Event Viewer. If the Event Viewer is configured to display less than the amount originally specified in the console, then the console preferences remain in place.
- Event Integration Facility and EIF Return Code Reference
The following table explains the return codes returned for the tec_errno API:

Return Code	Return Value	Meaning
ED_ERR_BASE	820	Unable to create primary transport
ED_ERR_HANDLE_ALLOC	821	Unable to allocate a handle
ED_ERR_PROCESSES	822	Unable to initialize one of the handle/transport processes
ED_ERR_CACHE_CONTROLLER	823	Unable to open/enable the cache controller
ED_ERR_COMMON_AGENT	824	Unable to initialize the handle
ED_ERR_TRANSPORT_LIST	825	Unable to initialize the transport list
ED_ERR_TRANSPORT_CONTROLLER	826	Unable to initialize the transport controller
ED_ERR_JVM	827	Unable to initialize the JVM
ED_ERR_STATE_CORRELATOR	828	Unable to initialize the state correlator
E_BAD_HANDLE	29	Incorrect handle specified
E_NO_MEM	32	No memory available for request
E_SCALL	38	System call failed
E_IPC_BROKEN	67	IPC shutdown
E_IPC_CORRUPT	73	IPC message distorted

- [IY48053](#) When using the state-based correlation engine (SCE) and filtering at the gateway, the following configuration option should be set in the IBM Tivoli Management Framework event sink configuration file (eventsink.cfg):
MAX-NUM-EVENTS-TO-SEND=1

• IBM Support Assistant

Feature Description

The IBM Support Assistant is an extensible client application that can be displayed in a web browser on a customer's desktop computer. It is a framework that accepts IBM software product plug-ins to provide customers with self-help, diagnostic tools, and education information for the product. It will improve customer access to product support information, and will contribute quick access to ESR tools so that customers can submit PMRs directly from the product. An ISA plug-in has been developed for TEC as of Fix Pack 4. The TEC Java Console is enabled to launch the ISA in a web browser window from a menu item on the Java Console Help menu. The TEC Web Console now provides a link from the welcome page that allows the customer to launch the ISA application in a new instance of the web browser. The capability of enabling/disabling the ISA launching is also a feature. For more general information about IBM Support Assistant please refer the product's website at:

<http://www-306.ibm.com/software/tivoli/solutions/storage/support.html>

Installation Instructions:

The IBM Support Assistant application is not shipped with TEC, but is instead available as a separate install image. Please see the following link for instructions on downloading and installing ISA:

<http://www-306.ibm.com/software/support/isa/>

When used with TEC, ISA must be installed on the same workstation where the TEC Server is installed. This allows for proper data collection. ISA does not support remote data collection at this time.

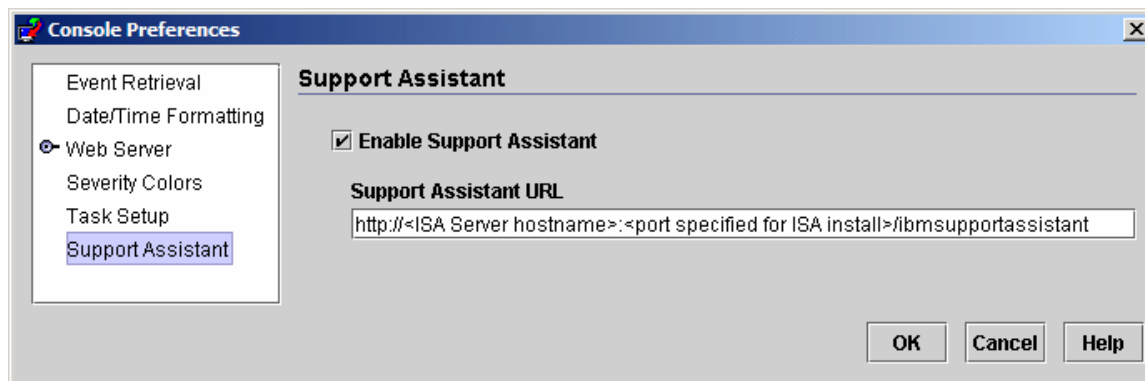
The ISA plug-in that TEC provides will be available as a download from the IBM Support Assistant site as a zip file.

Usage Description

For Windows platforms the ISA is installed as an Eclipse application that provides its own user interface using a SWT widget that contains an internal browser. Therefore the interface can be viewed directly from the server, if desired, on Windows servers. On UNIX and Linux platforms the ISA is installed as a headless Eclipse application. The ISA application runs continuously as a daemon process and the User interface has to be provided by an external browser.

URL: `http://<ISA Server hostname>:<port specified in installation>/ibmsupportassistant`

However for all Java Console platforms enable access via the Console Preferences configuration window:



Features:

Search

Allows users to run a search that accesses multiple IBM Support databases and displays results in a hierarchical arrangement. In addition to searching TEC related information, users are also able to search for information on NetView, Risk Manager, and Tivoli Management Framework.

Education

Allows users to choose learning materials to help them understand the product better. There are several TEC education related links.

Support

This component is a consolidated list of IBM web links organized by brand and product. TEC has supplied several support links.

Service

A collection utility is provided that collects specified information from the workstation where ISA is installed. For use with TEC Fixpack 4, it must be installed on the same machine as the TEC server. The information is gathered in a jar file whose file name is in the format **collector_yymmdd_hhmm.jar**. Contained in the jar file will be various log files and output files generated from TEC specific commands that TEC has deemed helpful when helping a user debug a problem. The information may vary depending on the operating system where the data collection is being performed. The jar file will be stored in the **ISA_Install_root/workspace/metadata**

In order for the Collector to collect data, input fields have been provided to indicate where certain data is located on the file system.

- Installation directory refers to the file system location where your Tivoli Enterprise Console product is installed.
(Ex. Windows: C:\PROGRA~1\Tivoli UNIX: /opt/Tivoli)
- Log files directory refer to the file system location where the log files are created and stored.
(Ex: Windows: C:\tmp UNIX: /tmp)
- The DB Directory is the file location that is associated with the \$DBDIR environment variable. This variable is only set and available after setup_env.bat or setup_env.sh have been called.
- The setupenv directory refers to the file system location where the scripts setup_env.bat (Windows) or setup_env.sh(UNIX) are located. (Ex. Windows: C:\WINNT\system32\drivers\etc\Tivoli UNIX: /etc/Tivoli)
- Currently Loaded Rule Base Path is the file system location where the currently loaded rule base can be found. To get this information simply performed the following:
 - wrb -lscurrb** returns the name of the rulebase
 - wrb -lsrb -path <RuleBase>** returns the directory

If TEC Web Console is installed and data collection needs to be done, the data collection utility that WebSphere has provided in its IBM Support Assistant plug-in should be used. The TEC data collection utility does not collect WebSphere specific logs. **There are IBM Support Assistant plug-ins available for each version of Websphere Application Server (WAS) supported by TEC. Customers should use whichever plug-in is appropriate for the version of WAS in their environment.**

The Service component also allows users to submit a PMR by providing access to the IBM Electronic Service Request (ESR) tool. The **collector_yymmdd_hhmm.jar** generated during the data collection step can be attached to the PMR being opened or modified

Launching Usage Description

Enablement and location specification of the IBM Support Assistant launching from TEC

An option to specify enablement of ISA and specification of the location of ISA on the operator's system has been added to the TEC Console's preferences. All operators will be able to use this URL to launch ISA with their local browser.

Launching the IBM Support Assistant in TEC Java Console

An additional menu item has been added to the Help Menu in the Java Console. When selected, a browser window will be launched with the specified ISA URL. If ISA has not been enabled the menu item will be disabled.

Launching the IBM Support Assistant in the TEC Web Console

A link has been added to the bottom of the Welcome Page in the Web Console. When selected, a new browser window will be launched with the specified ISA URL. If ISA has not been enabled, the link will not appear on the Welcome Page

Installation and Configuration

Tar Files

The fix pack download directory includes the tar files of the different components of the fix pack. You can use these tar files to download only the parts of the fix pack you want, to save download time and disk space. The readme files are only available in the top-level directory. A tar file containing all of the components listed below is not available. For more fix pack specific information please see the following link: <http://www-1.ibm.com/support/docview.wss?uid=swg24010611>.

List of component files and sizes:

Component	Directory	File name	Size (MB)
TMF install images	TME®	3.9.0-TEC-FP05-TME.tar.gz	356
Installation Assistant	INSTALLASSISTANT	3.9.0-TEC-FP05-INSTALLASSISTANT.tar.gz	185
NLS Language Pack	NLS	3.9.0-TEC-FP05-NLS.tar.gz	12.3
Non-TME files (console and adapters)	NON_TME	3.9.0-TEC-FP05-NON_TME-AIX4-R1.tar.gz	52.1
		3.9.0-TEC-FP05-NON_TME-AS400.tar.gz	2.58
		3.9.0-TEC-FP05-NON_TME-EIF.tar.gz	24.5
		3.9.0-TEC-FP05-NON_TME-GENERIC.tar.gz	22.7
		3.9.0-TEC-FP05-NON_TME-HPUX10.tar.gz	64.3
		3.9.0-TEC-FP05-NON_TME-LINUX-IX86.tar.gz	55.3
		3.9.0-TEC-FP05-NON_TME-LINUX-S390.tar.gz	11.2
		3.9.0-TEC-FP05-NON_TME-LINUX-PPC.tar.gz	3.52
		3.9.0-TEC-FP05-NON_TME-MIPS-IRIX5.tar.gz	2.56
		3.9.0-TEC-FP05-NON_TME-NW4.tar.gz	2.11
		3.9.0-TEC-FP05-NON_TME-OSF-AXP.tar.gz	2.66
		3.9.0-TEC-FP05-NON_TME-RELIANT-UNIX.tar.gz	2.50
		3.9.0-TEC-FP05-NON_TME-SOLARIS2.tar.gz	57
		3.9.0-TEC-FP05-NON_TME-SOLARIS2-IX86.tar.gz	2.43
		3.9.0-TEC-FP05-NON_TME-UW2-IX86.tar.gz	2.43
		3.9.0-TEC-FP05-NON_TME-W32-IX86.tar.gz	108

Software requirements

IBM Tivoli Enterprise Console Version 3.9.0

IBM Tivoli Management Framework Version 3.7.1, 4.1, or 4.1.1 (along with the recommended and/or superseded patches listed below)

IBM WebSphere Application Server Version 5.0.1, 5.0.2, 5.1.1, 6.0, or 6.1 (required to install and host the Web console component)

Notes:

1. Please refer to the IBM WebSphere Application Server Getting Started manual for further information regarding the WebSphere Application Server installation.

2. For information about the IBM WebSphere Application Server prerequisites and supported operating systems, please refer to the system requirements document, which can be found at the following URL:

<http://www-306.ibm.com/software/webservers/appserv/doc/latest/prereq.html>

One of the following Web browsers (for the TEC Web Console):

- Microsoft Internet Explorer 6.0 or later
- Mozilla 1.7x
- Mozilla Firefox 1.x
- Netscape 6..2.x (Netscape 7.x and 8.x are not supported)

IBM Tivoli NetView Version 7.1.3 or 7.1.4 (required for the IBM Tivoli NetView product integration functionality)

The following table lists the recommended IBM Tivoli Management Framework patches

IBM Tivoli Management Framework Version	Patches
3.7.1	3.7.1-TMF -125, 3.7.1-TMF-126, 3.7.1-LCF-0018
4.1	4.1-TMF-FP04, 4.1-TMF-0008 ¹ , 4.1-TMF-0078, 4.1-LCF-024 (4.1-TMF-FP04 includes 4.1-TMF-0072, 4.1-TMF-0073, and 4.1-LCF-0023)
4.1.1	4.1.1-TMF-0003 ² , 4.1.1-TMF-FP03, 4.1.1-TMF-0041 ³ , 4.1.1-TMF-0049, 4.1.1-TMF-0055, 4.1.1-TMF-0060, 4.1.1-LCF-0034 (4.1.1-TMF-FP03 includes 4.1.1-TMF-0039, 4.1.1-TMF-0044, and 4.1.1-TMF-0046, 4.1.1-LCF-0020)

¹ 4.1.1-TMF-0008 is required for Tier 2 endpoint support.

² **Solaris only:** 4.1.1-TMF-0003 is required for Solaris operating systems when using the GUI rule builder. This framework fix provides libraries for backward compatibility with applications built on those libraries. More information may be found at this link: <http://www-1.ibm.com/support/docview.wss?uid=swg21158648>

³ **Solaris 10 only:** 4.1.1-TMF-0041 fixes a problem where the installation of Framework 4.1.1 TMRs and managed nodes fails for Solaris 10 machines. No other patches or fixpacks need to be installed prior to the installation of this patch, but 4.1.1-TMF-0044 should be installed immediately on any system where a TMR or managed node was created using 4.1.1-TMF-0041. **Note that 4.1.1-TMF-0041 should only be used for installations on Solaris 10 TMRs and managed nodes. It should not be used for any other platforms.** More information may be found at this link: <http://www-1.ibm.com/support/docview.wss?uid=swg24009817>

Installation Scenarios	Patches
To utilize single port bulk data transfer, BDT	3.7.1-TMF-0097
Installing with Software Installation Services, SIS, V 3.7.1	3.7.1-SIS-0005
Installing with Software Installation Services, SIS, V 4.1	4.1-SISCLNT-0002, 4.1-SISDEPOT-0002

Supported operating systems

This section lists the operating systems that are supported by this fix pack, for the IBM Tivoli Enterprise Console product.

Please see the following link for the latest Tivoli platform and database support:

http://www-306.ibm.com/software/sysmgmt/products/support/Tivoli_Supported_Platforms.html

Supported operating systems for the IBM Tivoli Enterprise Console event server, UI server, and gateway

Operating System	Version	Architecture	TMF Server or Managed Node		
			Event Server	UI Server	Gateway
AIX	5.1	Power (iSeries, pSeries, RS/6000 32 and 64-bit)	X	X	X
	5.1.0.c		X	X	X
	5.2		X	X	X
	5.3		X	X	X
Solaris ¹	8	SPARC	X	X	X
	9	SPARC	X	X	X
	10	SPARC	X	X	X
HP-UX	11i	PA-RISC	X	X	X
Red Hat Enterprise Linux	AS 2.1	IA-32	X	X	X
	AS 3.0	IA-32	X	X	X
		zSeries (31 and 64-bit)	X	X	X

	AS 4.0	IA-32	X	X	X
		zSeries (31 and 64-bit)	X	X	X
SUSE Linux Enterprise Server (SLES)	8 (United Linux 1)	IA-32	X	X	X
		zSeries (31 and 64-bit)	X	X	X
	9	IA-32	X	X	X
		zSeries (31 and 64-bit)	X	X	X
Red Flag Linux	4.0	IA-32	X	X	X
	4.1	IA-32	X	X	X
Windows ²	Server 2003 (Standard, Enterprise and Datacenter Editions) including SP1 ³ and SP2	IA-32	X	X	X

Supported operating systems for the IBM Tivoli Enterprise Console Adapters and Java Console

Operating System	Version	Architecture	TMF Endpoint Logfile and SNMP	Stand-alone Logfile and SNMP	HPOV NNM 6.41 NNM 7.x ⁴	Java Console
AIX	5.1	Power (iSeries, pSeries, RS/6000 32 and 64-bit)	X	X		X
	5.1.0.c		X	X		X
	5.2		X	X		X
	5.3		X	X		X
HP-UX	11i	PA-RISC	X	X	X	X
	11i V2	IA-64	X	X		
Irix	6.5.x		X	X ⁵		
NetWare	6.0	IA-32		X		
	6.5			X		
i5/OS (OS/400)	5.2	V5R2 supported AS/400 and iSeries		X		
	5.3	V5R3 supported iSeries		X		
	5.4	V5R4 supported iSeries		X		
Red Flag	4.0	IA-32	X	X		X
	4.1		X	X		X
Red Hat Enterprise Linux	AS 2.1	IA-32	X	X		X

Operating System	Version	Architecture	TMF Endpoint Logfile and SNMP	Stand-alone Logfile and SNMP	HPOV NNM 6.41 NNM 7.x ⁴	Java Console
		IA-64	X	X		
	AS 3.0	IA-32	X	X		X
		IA-64	X	X		
		Power (iSeries and pSeries)	X	X		
		zSeries	X	X		
	AS 4.0	IA-32	X	X		X
		AMD64/EM64T (64-bit)	X	X		
		IA-64	X	X		
		Power (iSeries and pSeries)	X	X		
		zSeries	X	X		
Reliant	5.45		X	X ⁵		
SCO UnixWare	7.1.1, 7.1.3		X	X ⁵		
Solaris	8	SPARC	X	X	X	X
		IA-32	X	X ⁵		
	9	SPARC	X	X	X	X
		IA-32	X	X ⁵		
	10	SPARC	X	X	X	X
SUSE Linux Enterprise Server (SLES)	8 (United Linux)	IA-32	X	X		X
		IA-64	X	X		
		Power (iSeries and pSeries)	X	X		
		zSeries	X	X		
	9	IA-32	X	X		X
		AMD64/EM64T (64-bit)	X	X		
		IA-64	X	X		
		Power (iSeries and pSeries)	X	X		
		zSeries	X	X		
Tru64	5.1b		X	X ⁵		
Turbo Linux	7	IA-32	X	X		
Windows	XP Professional	IA-32	X	X		X

Operating System	Version	Architecture	TMF Endpoint Logfile and SNMP	Stand-alone Logfile and SNMP	HPOV NNM 6.41 NNM 7.x ⁴	Java Console
	Server 2003 Standard, Enterprise, Datacenter Editions including SP1	IA-32	X	X	X	X
		AMD64/EM64T (64-bit)	X	X		
		IA-64				

¹ See notes for APAR [IY78866](#) which require local (nscd or /etc/hosts) name resolution for Solaris.

² Windows 2000 is no longer supported

³ SP1 issue with ICS and firewall. Please see the following information: [SP1 issue with ICS and Firewall](#).

⁴ The event logfile adapter for HP OpenView NNM Versions 7.x has been provided as Beta.

⁵ SNMP V2 traps not supported on this platform

Supported databases

The section lists the databases that are supported by this fix pack.

RDBMS Vendor	Version
IBM DB2®	8.1 (FP4), 8.2.2 (equivalent to 8.1 FP 9/9a), 8.2 FP2
Oracle	9i, 9i v2, 10g Rel 2
Sybase	12.0, 12.5
Microsoft SQL Server	2000, 2005
Informix®	9.4

Notes:

- Microsoft SQL Server 7.0 is no longer supported.
- IBM Tivoli Enterprise Data Warehouse Version 1.2 support is available as 1.3.0.0-TIV-TEC_WEP-IF0001.
- TEC does not support DB2 on z/OS.

Patches superseded by this fix pack

The following patches are superseded by this fix pack:

3.9.0-TEC-FP01
3.9.0-TEC-FP02
3.9.0-TEC-FP03
3.9.0-TEC-FP04
3.9.0.4-TEC-0040LA
3.9.0.4-TEC-0041LA
3.9.0.4-TEC-0042
3.9.0.4-TEC-0043
3.9.0.4-TEC-0044LA
3.9.0.4-TEC-0045LA
3.9.0.4-TEC-0046LA
3.9.0.4-TEC-0047LA
3.9.0.4-TEC-0048LA

Installation Instructions

Windows 2003 users

Please see the following APAR note if installing this fix pack on a Windows 2003 system : [IY81662 On Windows 2003 systems, the Tivoli tar command must be used to uncompress the 3.9.0-TEC-FP05-TME.tar file before installing the TME portion of the fix pack.](#)

Important Notes:

- Before installing this fix pack, make a backup of the current Tivoli environment. For important information regarding the ability to restore an event server to the pre-fix pack state, refer to the section titled "[Uninstallation](#)" before proceeding.
- Before installing the JRE component, close any active Java consoles on the system being upgraded. Failing to do so can prevent the JRE update from completing successfully.
- In order to use the Install Assistant with the Red Hat Enterprise Linux 3.0/4.0 for zSeries operating system, the 31-bit version of the compat-libstdc++ library must be installed. For example, compat-libstdc++-7.2-2.95.3.80.s390.rpm
- If Installing on Windows 2003 Server SP1, please see the following Technote before installing:
[IBM - Windows Server 2003 SP1 MAY produce a General Oserv Failure when performing a TMF install](#)
- **The UI Server portion of the fix pack install may take longer than previous installs because the JRE has been updated to a newer service release.** The updated JRE's must be moved during the UI Server install so that they are available during the next Console update.
- Please see your Tivoli Management Framework documentation for specific solaris 10 upgrade issues.
- The Web Console was updated in Fix Pack 4 to support WAS 5.1.1\6.0, and was updated in Fix Pack 5 to support WAS 6.1, but the Install Assistant was not updated to support installing these versions of WebSphere. At this time, the Install Assistant is only capable of installing WebSphere 5.0. If you intend to use a WebSphere 5.1.1\6.0\6.1 application server to host the Web Console, please refer to the documentation provided with WebSphere for instructions on how to install the application server.

Installing this fix pack in a Tivoli environment.

1. Extract the fix pack.

Use the following command on a UNIX® system to extract the contents into a temporary directory. For the purpose of this example, assume that the variable PATCH points to this temporary directory.

```
cd $PATCH
tar -xvf 3.9.0-TEC-FP05.tar
```

Use the following command on a Windows operating system to extract the contents into a temporary directory. 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.cmd
X:
> cd %PATCH%
> tar -xvf 3.9.0-TEC-FP05.tar
```

Note: If you extract the TAR image on a Windows system, the executable file for the TAR utility is in the Tivoli bin/w32-ix86/tools/tar.exe installation directory.

- #### 2. The following instructions are for using the Software Installation Service (SIS). If you do not use the SIS, go to step 3.
- SIS can install Tivoli Software products on most hardware platform supported by Tivoli Software; however, there are some hardware platforms on which SIS cannot run. Refer to the *Tivoli Enterprise Installation Guide* for the list of platforms on which SIS can run. Refer to the Prerequisites section of this document for information about SIS patches. You must have the install_product and super authorization roles to install this fix pack.

- a) From the Tivoli desktop pull-down menu, click **Desktop** → **Install** → **Software Installation Service**.
- b) From the Get Installation Password window, type the installation password.
- c) In the window that contains the Tivoli logo, click **Install**.
- d) From the Install Spreadsheet window, click **Select Product**.
- e) From the Select Product window, click **Import Product**.
- f) Use the file browser to locate the media for 3.9.0-TEC-FP05, and double-click the PATCHES.LST file.
- g) From the Import Product window, select 3.9.0-TEC-FP05, and then click **Import**.
- h) From the Global Progress window, click **OK** after the file is imported.
- i) From the Select Product window, select 3.9.0-TEC-FP05 and click **OK**.

- j) From the Install Spreadsheet window, click **Select Machine**.
- k) Select the machines you would like to install 3.9.0-TEC-FP05 on, and click **OK**.
- l) From the Install Spreadsheet window, select the appropriate cells.
NOTE: An X is displayed in the cells for the machines on which the 3.9.0-TEC-FP05 fix pack will be installed.
Click **Install**.

From the Installation Algorithm window, select the install algorithm you want to use and click **OK**. SIS performs the installations you requested from the Install Spreadsheet window.

Go to step 4 to complete the installation.

3. Perform the following procedure to install the fix pack using the classic Tivoli installation method.
Note: The install_product and super authorization roles are required to successfully install this fix pack.
 - a) From the Tivoli Desktop menu bar, click **Desktop** → **Install** → **Install Patch** to display the Install Patch window.
 - b) From the Install Patch window, click **Select Media** to display the File Browser window.
 - c) From the File Browser window, type the path to the directory containing the fix pack, \$PATCH, in the **Path Name** field.
 - d) Click **Set Media & Close** to return to the Install Patch window.
 - e) From the Install Patch window, click the name of the fix pack to select it.
 - f) Select the clients to install the fix pack on. Fix packs typically need to be installed on the Tivoli server and on each Tivoli client.
 - g) Click **Install**.
4. The fix pack installation is complete. Restart the event server.

Server installation instructions for the Red Hat Enterprise Linux 3 or later, SUSE Linux Enterprise Server 9 or later, and Red Flag operating systems

To support Red Hat Enterprise Linux 3 and SUSE Linux Enterprise Server 9, you must follow these instructions or you will have failures when installing the Server and UI server portions of Tivoli Enterprise Console:

1. If installing on the Linux environment for zSeries, create a zSeries node using Framework version 4.1.1 with 411-TMF-0001
Note that 4.1.1-TMF-0001 is not a regular patch but instead updates your Framework version 4.1.1 GA image so that you can create a zSeries Managed Node. You do not need to perform the "Additional Installation Instructions" noted in the 4.1.1-TMF-0001README because they will be done by the Tivoli Enterprise Console install.
2. Install Tivoli Enterprise Console JRE 3.9 GA only.
Note: If you use the Installation Assistant or SIS, install just the JRE product. Do not select any of the other Tivoli Enterprise Console products for installation. For more information, please consult the IBM Tivoli Enterprise Console 3.9 Installation Guide or the Tivoli Management Framework Enterprise Installation Guide.
3. Upgrade Tivoli Enterprise Console JRE to 3.9.0-TEC-FP05
This must be upgraded **before** any other Tivoli Enterprise Console components are installed on the zSeries machine. Only install Tivoli Enterprise Console JRE at this time.
4. Restart the oserv process
5. Re-source your environment (setup_env.sh or setup_env.csh)
6. Install the Tivoli Enterprise Console Server and applications from the 3.9 GA image, and then continue with the upgrade to Tivoli Enterprise Console Fix Pack 4

Upgrading the Web console using the Install Assistant

In order to install the Web console upgrade, the current version must first be removed. Follow the steps outlined below to remove the Web console currently installed, and then install the Web console included with this fix pack. After successfully installing the Web console, restart the WebSphere Application Server.

Uninstalling the Web console

You can uninstall the Web console using the installation wizard. During this process, you must specify the location of the WebSphere Application Server product. At the end, the WebSphere Application Server product is stopped and restarted.

Installing the Web console using the installation wizard

The Tivoli Enterprise Console Web console requires WebSphere Application Server, Version 5.0 Base Edition. If you have already installed WebSphere Application Server, Version 5.0 Base Edition, specify its location during installation. The Web console must be run on a dedicated WebSphere Application Server environment. If you have not already installed the WebSphere Application Server, the installation wizard can help you install this program. The wizard does this by starting the WebSphere Application Server installation program and providing customized default settings. After the WebSphere Application Server has been installed, the installation wizard starts the WebSphere Application Server and continues.

Notes:

1. As part of the installation process, the installation wizard prompts you to insert the WebSphere Application Server installation CD. If you are using Windows, the WebSphere Application Server installation program then starts automatically. At this point, close the WebSphere Application Server installation program, and click **OK** in the installation wizard. The installation wizard then starts the WebSphere Application Server installation program as part of its process. Running the WebSphere

Application Server installation program independently may cause confusion and interfere with proper installation of the Web console.

2. To improve performance and to avoid any potential problems with the operation of the Web console, it is recommended that you do not install the sample applications that are shipped with the WebSphere Application Server.
3. If the WebSphere Application Server has already been installed and is operating in a secure mode, specify this on the installation wizard panel and provide the user ID and password for the WebSphere Application Server. For more information on WebSphere Application Server installation, see the WebSphere Application Server installation documentation.
4. The following steps can be used to enable UTF-8 encoding on the WebSphere Application Server (WAS) product.

WAS 5.1.1

1. On the Administrative console, select **Servers → Application Servers** and select the server to enable for UTF-8
2. Click **Process Definition**
3. Click **Java Virtual Machine**
4. Choose **Custom Properties** near the end of the page
5. Click **New**
6. Enter `client.encoding.override` in the name field, and enter **UTF-8** in the Value field and click OK
7. Restart the application server.

WAS 6.0\6.1

1. On the Administrative console, select **Servers → Application Servers** and select the server to enable for UTF-8
2. Expand Java and Process Management under Server Infrastructure
3. Click **Process Definition**
4. Click **Java Virtual Machine**
5. Chose **Custom Properties** near the end of the page
6. Click **New**
7. Enter `client.encoding.override` in the Name field and enter **UTF-8** in value field and click OK
8. Restart the application server

After you complete the previous steps, you must then set up the Web console.

WebSphere Network Deployment tolerance for the TEC web console

The initial version of the TEC 3.9 Web Console could only be deployed in the WebSphere Application Server in a single server environment. If WebSphere Network Deployment environment is already deployed it was not possible to deploy TEC web console as well.

In TEC 3.9 FP04, the Installation Wizard has been updated to support deploying the TEC Web Console in a WebSphere Network Deployment environment. The support is limited to tolerance mode only. This means, the TEC Web Console installation will not support clustering, failover, or any other extended type of deployment. It is only intended to allow the ability to install the TEC 3.9 Web Console into a single application server in a federated node in the WebSphere Network Deployment environment. This requires that the installation be executed at the physical node machine housing the target application server. If the Web Console needs to be moved to another physical node, then it must be uninstalled from the existing node and re-installed at the new target node.

When the TEC Web Console is installed into a federated WebSphere environment, the Web Console application will not start upon completion of the installation process. The **WebSphere Application Server must be manually** restarted and the Web console application will then start up successfully.

Setting up the Web console

As part of installing the Web console, you must set up the Web console so that operators can use the Web console to monitor events in the event servers in Tivoli regions.

1. To add a Tivoli region to the list of Tivoli regions that Web console can operate with, click **Add**.
2. Type the host name, port number, user name, and password for the region's Tivoli Server. The Web console uses this information to access the event database.

3. Type the timeout values for the Web console, and click **Next**. When an operator requests information on events, event summary, and tasks, the Web console stores this information in caches. With these values, you determine how long this information remains in the caches before it is deleted. The shorter the timeouts the more up-to-date the information is but the more the database server and the WebSphere Application Server use resources.
4. Select the managed nodes. The Web console can be configured to connect to any managed node within that Tivoli region so that operators defined in that managed node can log on and view events. The installation wizard displays all the managed nodes for the specified Tivoli server. Select the managed nodes you want the web console to connect to for connectivity.

By default, the Web console is not configured to operate in SSL mode. If you require SSL for the Web console, you must configure the WebSphere Application Server to activate SSL. For instructions, refer to the WebSphere Application Server documentation.

For more information on adding and configuring regions after installation, see *IBM Tivoli Enterprise Console User's Guide*.

Upgrading the Web console without using the Install Assistant

It is also possible to manually update the Web console component. The following instructions outline the steps required.

Note: The Web console can also be updated through the Install Assistant. Instructions for this method are shown above in the [Installing the Web console using the installation wizard](#) section.

Note: 3.9.0-TEC-FP05 is the first release of the Web Console to support WebSphere 6.1. Therefore, the 3.9.0-TEC-FP05 version of the Web Console must be installed using the Install Assistant in order to run on WebSphere 6.1. If you are upgrading the Web console to 3.9.0-TEC-FP05 on a WebSphere 5.0.x, 5.1.1 or 6.0 Application Server, follow the instructions below.

1. Navigate to the NON_TME/GENERIC/WC50 directory of the fix pack if you are upgrading a WebSphere 5.0.x installation. Otherwise, navigate to the NON_TME/GENERIC/WC directory of the fix pack.
2. If you are upgrading a WebSphere 5.x installation, copy tecrimds.jar to the AppServer/TEC directory of the WebSphere Application Server installation, overwriting the existing file. Otherwise, copy tecrimds.jar to the TEC directory under the WebSphere profile where the Web Console is currently installed, overwriting the existing file.
3. Update the TecConsoleEar.ear file from the WebSphere Administrative Console:
 - a) In the panel on the left, click the plus sign (+) next to Applications, and then select Enterprise Applications.
 - b) In the panel on the right, check the box next to TecConsoleEAR. Click Update.
 - c) If you are upgrading a WebSphere 5.x installation, check 'Local path' or 'Server path', depending on where the 3.9.0-TEC-FP05 version of TECConsoleEAR.ear is located. If you are upgrading a WebSphere 6.0 installation, select the 'Replace the entire application' option, and then select either 'Local file system' or 'Remote file system', depending on where the 3.9.0-TEC-FP05 version of TECConsoleEAR.ear is located. Enter the path to the 3.9.0-TEC-FP05 version of TECConsoleEAR.ear in the appropriate path field. Click Next.
 - d) At the "Preparing for the application update" panel (WebSphere 5.x only), accept all defaults and click Next.
 - e) At steps 1, 2 and 3 of the "Install New Application" panel, accept all defaults and click Next. Please note that none of the options are checked in step 2, including the TecConsoleWeb option. This is the expected behavior, and there is no need to select the TecConsoleWeb option in this step.
 - f) At the final step of the "Install New Application" panel, click Finish.
 - g) Once the application is installed, click the link which saves the master configuration for WebSphere.
 - h) If prompted to "Click the Save button to update the master repository with your changes", click Save.
4. If you are upgrading a WebSphere 5.x installation, use the winrar utility to extract tecra.rar to the AppServer/InstalledConnectors/tecra.rar directory of the WebSphere Application Server installation, overwriting the existing files and folders. Otherwise, use the winrar utility to extract tecra.rar to the InstalledConnectors/tecra.rar directory of the WebSphere profile where the Web Console is currently installed, overwriting the existing files and folders.

SSL in the Web console

In order for the Web console to connect to UI Server/RIM Host managed nodes using SSL, your TME managed node(s) must be updated with the 4.1.1-TMF-0050 patch as per the instructions in the 4.1.1-TMF-0050 readme.

You will need to set a custom property via your WAS Admin Console. Login to the Admin Console via Web Browser:

http://hostname:9090/admin
Select Servers->Application Servers
Click on the Application Server on which the Web Console is installed i.e. "server1"
Click on the Configuration Tab if not already selected.
Click on the "Process Definition" link in the "Additional Properties" table.
Click on the "Java Virtual Machine" link in the "Additional Properties" table.
Click on the "Custom Properties" link in the "Additional Properties" table.
Click on the "New" button to create a property and fill in the Name, Value boxes like so:

Name: javax.net.ssl.trustStore
Value: \${USER_INSTALL_ROOT}/installedConnectors/tecra.rar/jcf.jks

Click Apply
Click Save at top of Admin Page
Click Save button
Restart WAS for the new property to take effect.

Localization pack information

Note: Users of this fix pack will no longer see language support in their Java Consoles unless they install the Fix Pack 4 Localization Pack. Please see below for details.

Special installation instructions:

Install the TEC 3.9 FP05 Localization Pack (when available). If you install a pre-FP05 Localization Pack, the fix will still work but the console will not be translated into any other language but English no matter what you set the machine locale to. This is because the FP05 console is incompatible with any Localization Pack prior to FP05.

Localization pack updates included with the 3.9.0-TEC-FP05 fix pack contain separate install images for TME-based components and the non-TME Java console in the following directories:

<390TECFP05_DIR>/NLS/TME
<390TECFP05_DIR>/NLS/NON_TME

Localization pack installation in a Tivoli Management Environment

The updated localization pack for TME-based components must be installed as a patch, not as a product. This requires that the original Tivoli Enterprise Console, Version 3.9 localization pack for the language that you want to update is already installed. Install it using the same TME instructions used above for other TME components. Install only the language packs you need.

Localization pack installation for the non-Tivoli Management Environment Java Console

The lp_setup.jar file contains the InstallShield MultiPlatform installation program. All NLS class and help files are installed into the nls subdirectory. Use the following procedure to install the localization pack into the same location as the non-TME console:

1. Change to the installation file directory: <390TECFP05_DIR>/NLS/NON_TME/Setup
2. Issue the following command:
`<TECConsole_installdir>/jre/bin/java -jar lp_setup.jar`
(This uses Java, which is installed with the Java console.)
3. Select your non-Tivoli Management Environment console directory and click **Next**.
4. Select the languages you want to install and click **Next**.
5. Confirm the installation information and click **Next**.
6. Click **Finished**.

Installing the console and adapter components in a stand-alone (non-Tivoli) environment

Notes:

- The non-TME Windows adapter is now packaged with an updated version of InstallShield. Because of this, **it is recommended that any previous non-TME Windows adapters be uninstalled prior to installing the Fix Pack 4 adapter**. Failing to do so can leave an entry in the list of programs displayed in the Add/Remove Programs window of the Control Panel. Attempting to uninstall the previous version of the adapter at a later time can result in unexpected behavior.
- It is possible for extra, unused directories to be created when using the InstallShield Wizard to install a non-TME Windows adapter (both event log and SNMP/HPOV). This can occur when the "Change" option is used to specify the installation

directory, a custom directory name is given, and the "OK" button is pressed. If the installation is cancelled, or the adapter is later removed, any directories created by the Wizard will be removed.

- In the event that the InstallShield "repair" option is needed for a non-TME adapter installed on the Windows operating system, it is possible for corrupt or missing files to be replaced with standard files containing default configuration settings. For example, the file `tecad_win.conf` would contain a value of "localhost" instead of the host name for the event server originally specified.

The following instructions are for installing the stand-alone components of this fix pack. These can also be referred to as the non-TME components (i.e. non-TME adapters, non-TME console).

Windows event log adapter

To install the Windows SNMP or HPOV adapter, perform the following:

```
C:\<Path_to_install_file>\TEC39WINAdapterSetup.exe
```

This will start the InstallShield Wizard, which will provide guidance to complete the installation. Please see the [TEC 3.9 non-TME Windows adapter install](#) section for screen shots. The Wizard will prompt for the installation location, as well as the connection information for the event server. An option is also available to specify an identifier, if more than one adapter is going to be installed on a single system. Once the installation completes, a new service called "TECWINAdapter" is registered and started. (Restarting the system is not required.) This service is registered with Windows to automatically start every time the system starts.

Silent Install

The Windows adapter can also be installed "silently" using InstallShield. In order to install the adapter silently (without using the InstallShield Wizard), a response file must first be created. This initial step does require the use of the Wizard, however it is possible to use the response file to install the adapter on other systems. To create a silent installation response file, you must invoke the installation application with the following command:

```
TEC39WINAdapterSetup.exe /r /f1"responsefile"
```

To perform the silent installation on subsequent systems, issue the following:

```
TEC39WINAdapterSetup.exe /s /f1"responsefile"
```

TEC39WINAdapterSetup.exe - name of installation program

/r	- option to generate a response file
/s	- indicates this will be a silent installation
/f1	- filename indicator pointing to silent install script file
responsefile	- full path defining the silent installation response file

For example: `c:\temp\WinInstallScript.iss`

Once the installation starts, you proceed through the installation Wizard, choosing the appropriate options and filling in the appropriate fields. When the installation completes successfully, a record file with all the options and settings selected during installation was been created and placed in the location indicated by the "responsefile" option.

With the response file, the silent installation can be run on any system with a similar base setup. This implies that any system the adapter will be installed on has enough free disk space, and is intended to send events to the same event server as the originating system.

Windows SNMP/HPOV adapter

Notes:

- The SNMP event log adapters now support SNMP V2 traps.
- The `tecad_snmp.cds` file has been updated to capture SNMP v2 specific traps and also counter 64 data.

To install the Windows adapter, perform the following:

```
C:\<Path_to_install_file>\TEC39SNMPAdapterSetup.exe
```

This will initiate the InstallShield Wizard, which will provide guidance to complete the installation. The Wizard will prompt for the installation location, as well as the connection information for the event server. Once the installation completes, a new service called "TECSNMPAdapter" is registered and started. (Restarting the system is not required.) This service is registered with Windows to automatically start every time the system starts.

Silent Install

The SNMP adapter can also be installed "silently" using InstallShield. In order to install the adapter silently (without using the InstallShield Wizard), a response file must first be created. This initial step does require the use of the Wizard, however it is possible to use the response file to install the adapter on other systems. To create a silent installation response file, you must invoke the installation application with the following command:

```
TEC39SNMPHPOVAdapterSetup.exe /r /f1"responsefile"
```

To perform the silent installation on subsequent systems, issue the following:

```
TEC39SNMPHPOVAdapterSetup.exe /s /f1"responsefile"
```

TEC39SNMPHPOVAdapterSetup.exe - name of installation program

/r - option to generate a response file

/s - indicates this will be a silent installation

/f1 - filename indicator pointing to silent install script file

responsefile - full path defining the silent installation response file

For example: c:\temp\WinInstallScript.iss

Once the installation starts, you proceed through the installation Wizard, choosing the appropriate options and filling in the appropriate fields. When the installation completes successfully, a record file with all the options and settings selected during installation was been created and placed in the location indicated by the "responsefile" option.

With the response file, the silent installation can be run on any system with a similar base setup. This implies that any system the adapter will be installed on has enough free disk space, and is intended to send events to the same event server as the originating system.

Windows Java console

To install the Java console on a supported Windows operating system, execute the following command to start the InstallShield Wizard:

```
%PATCH%\NON_TME\CONSOLE\W32-IX86\setupwin32.exe
```

UNIX/Linux logfile adapter

To install the logfile adapter on a supported UNIX/Linux operating system, perform the following:

Extract the file \$PATH/NON_TME/LOGFILE/\$INTERP/LOGFILE.TAR into the installation directory of your choice:

```
tar -xvf LOGFILE.TAR
```

Set the TECADHOME environment variable:

```
export TECADHOME=<installation directory>
```

Execute the initialization script as follows:

```
$TECADHOME/bin/tecad_logfile.cfg
```

UNIX/Linux console

To install the Java console on a supported UNIX/Linux operating system, perform the following:

Extract the file \$PATCH/NON_TME/CONSOLE/\$INTERP/CONSOLE.TAR into the installation directory of your choice:

```
tar -xvf CONSOLE.TAR
```

Note: This will create a directory called tec_console in the installation directory.

Start the console as follows:

```
$INSTALL_DIRECTORY/tec_console/tec_console
```

New Interfaces

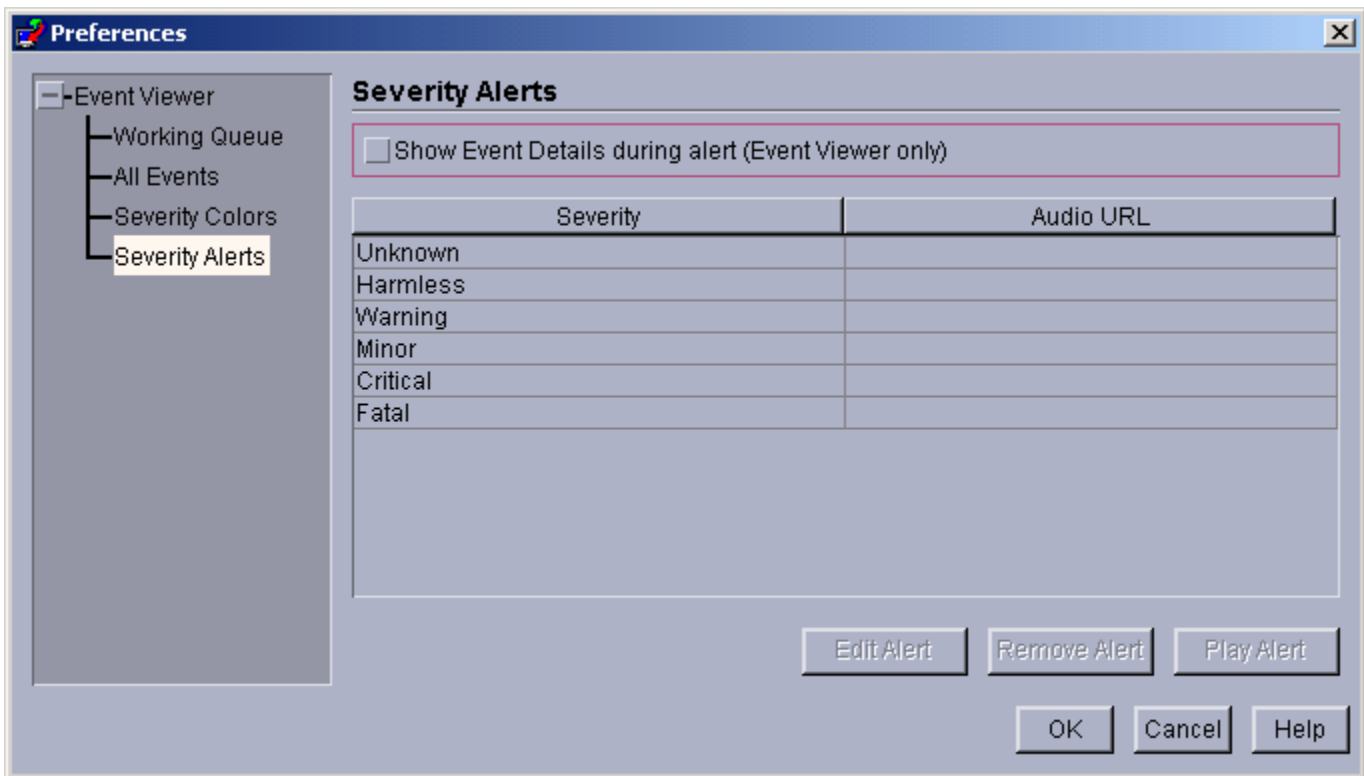
TEC Java Console Audible Alerts

USER INTERFACE

Each operator will have the ability to define their own severity alerts. Administrators will not have the ability to define severity alerts across the enterprise (no global configuration). TEC will not provide any default alerts; therefore, the alert feature will be "disabled" by default. The feature becomes enabled on an operator-by-operator basis, when an operator decides to utilize the feature. The operator must install the 3.9.0-TEC-FP05 console (or upgrade from FP04 to FP05 via the automatic update feature) in order for the operator to take advantage of the feature.

The severity alert feature will be configurable under a new tab, 'Severity Alerts', in the operator-level preferences, which are accessed from the Edit menu of the Event Viewer. See the user interface in Figure 1 below (Severities are from the Default rule base).

Figure 1

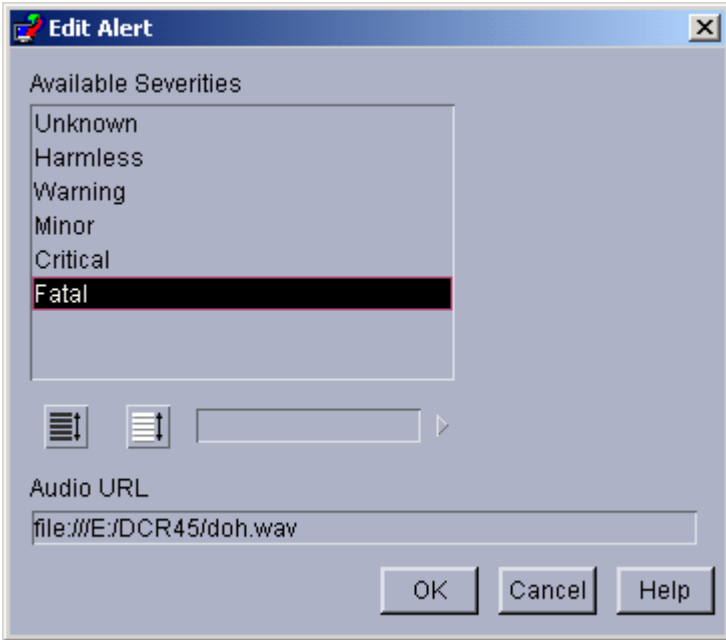


The user interface displays a table of the severity alerts created by the TEC Console operator. The left hand column displays the name of the severity, while the hand right column displays the URL of the audio file that will play when an event of that severity is received. Buttons below the table allow the operator to edit and remove alerts, and to play alerts for previewing purposes. Upon installation of the MDV containing this feature, all severities are listed in the table but no severities are assigned to alerts.

Note the checkbox above the table, "Show Event Details during alert". When this option is checked and the Event Viewer plays an alert, the Viewer will also pop up the Event Details box for all new events which caused the alert.

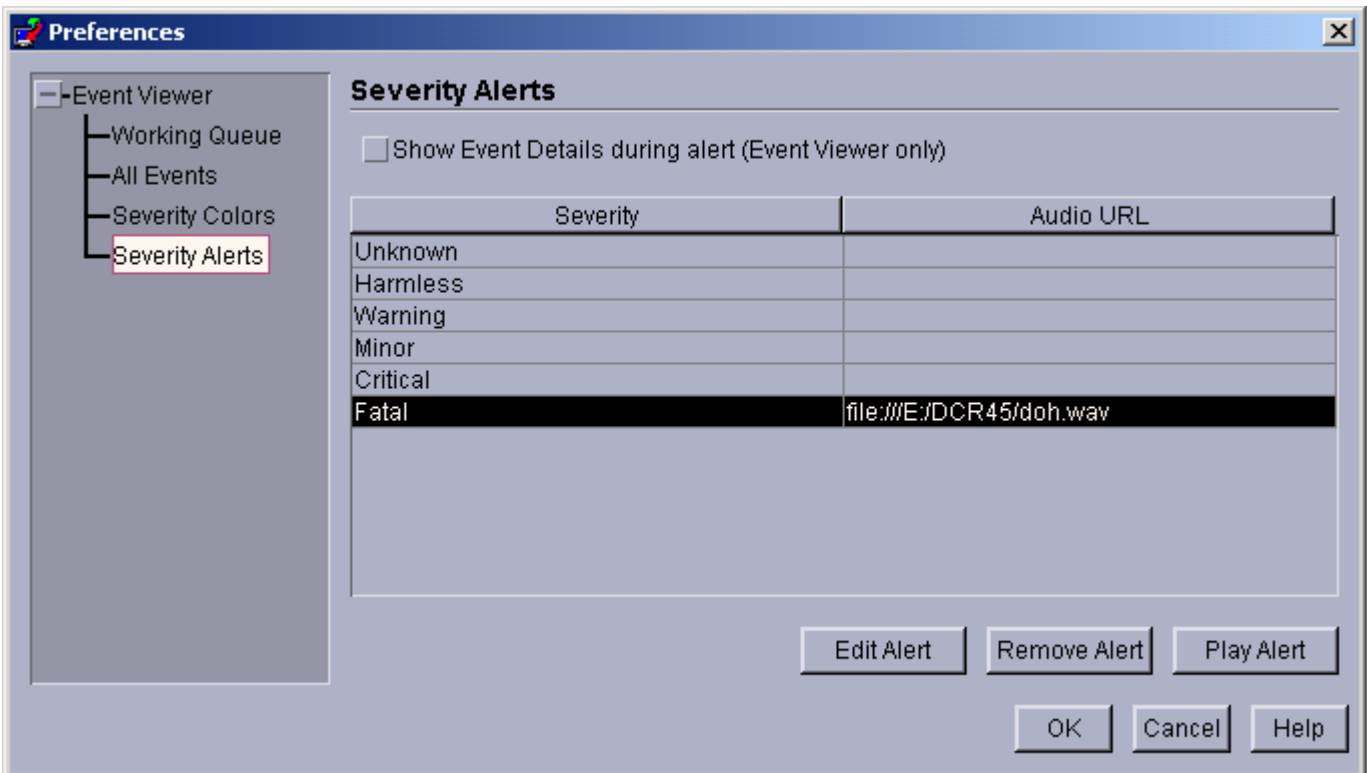
When a row in the table is selected, the 'Edit Alert' button becomes enabled. When 'Edit Alert' is clicked, a dialog is launched which presents the user with all severity types that have not already been assigned an alert. See Figure 2 below.

Figure 2



Note that multiple severities are selectable, however, when defining a new alert. This means that a single alert may be assigned to multiple severities. The user will select one or more severities from those still available and then type in the URL of the audio resource that should be associated with the selected item(s). Clicking the OK button adds the newly defined alert to the table in Figure 1. See Figure 3 below.

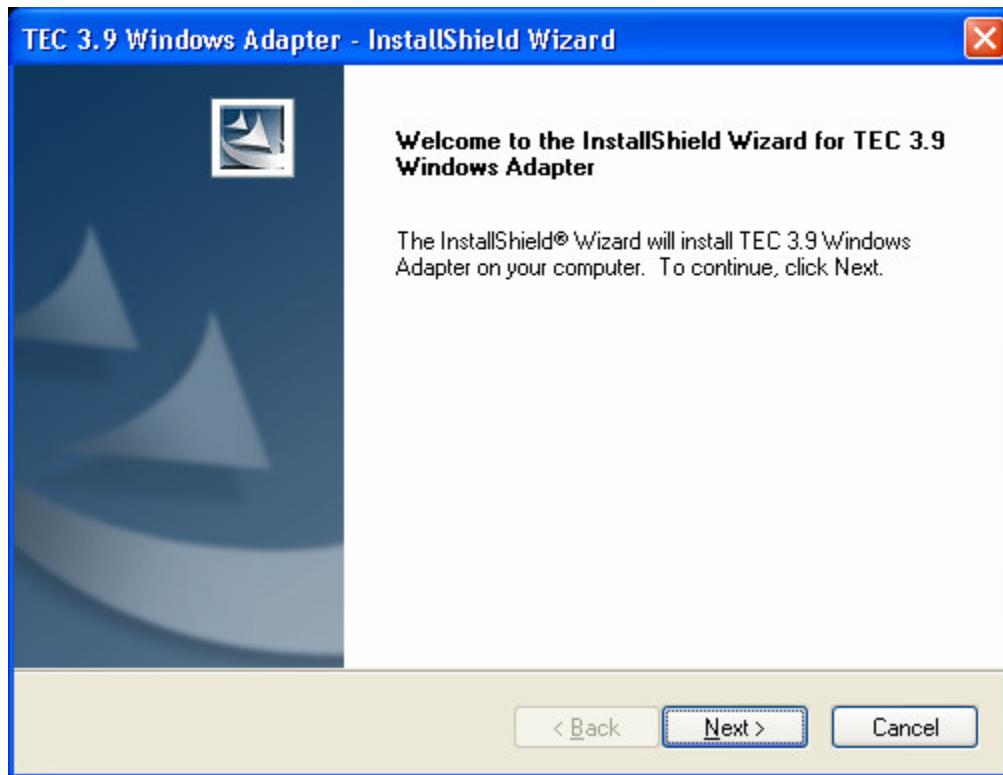
Figure 3

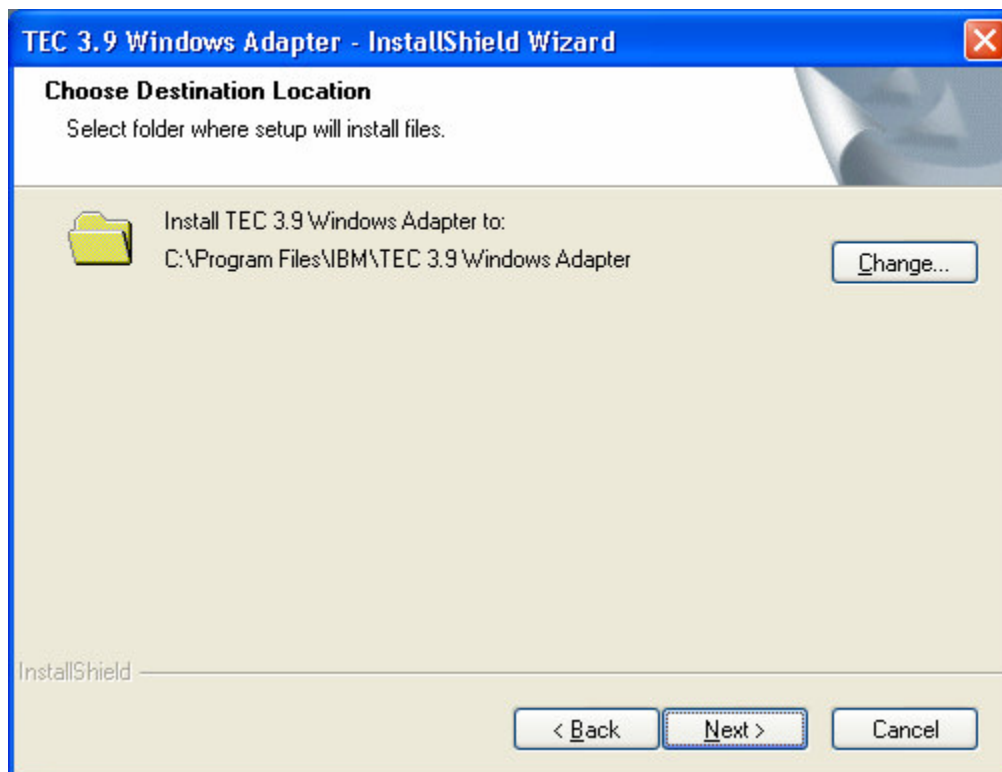
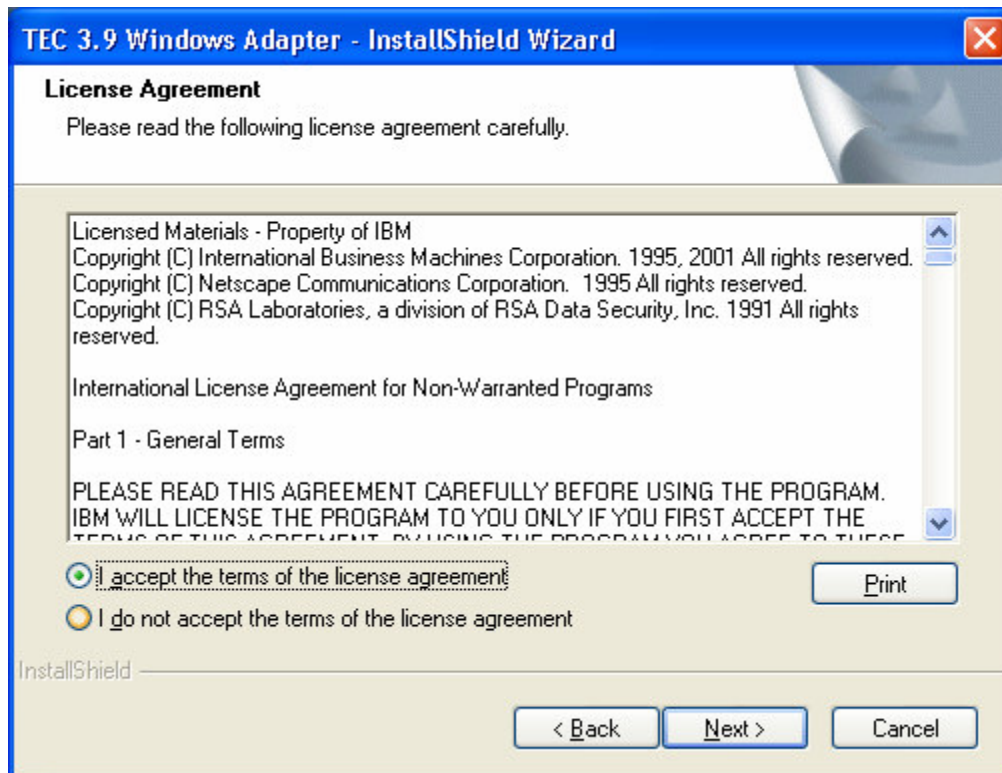


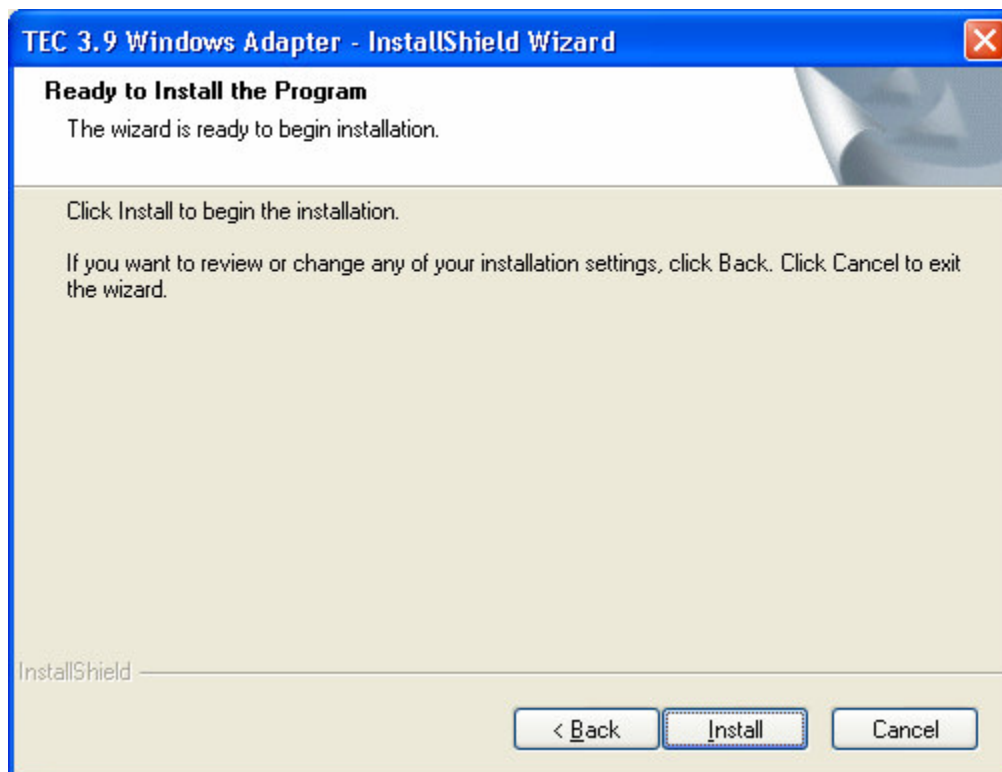
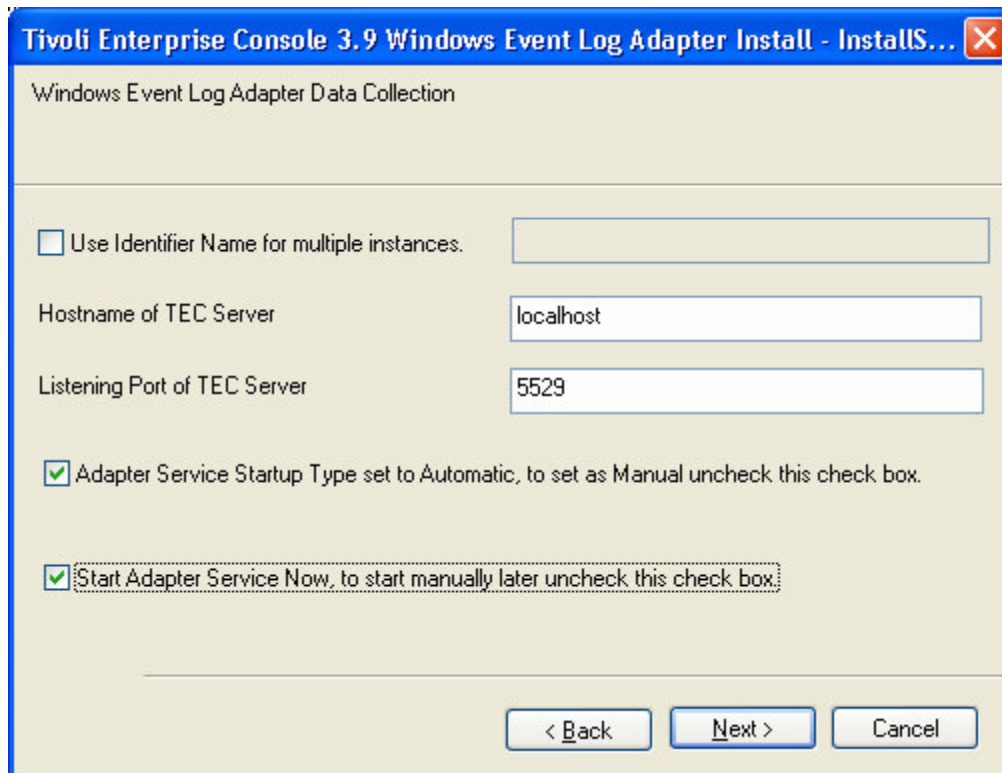
As previously stated, specifying the URL format for audio resources allows operators of the TEC Console to play alerts from either the file system or from the internet/intranet. Note that it takes Java longer to load an audio resource from the web than from the file system.

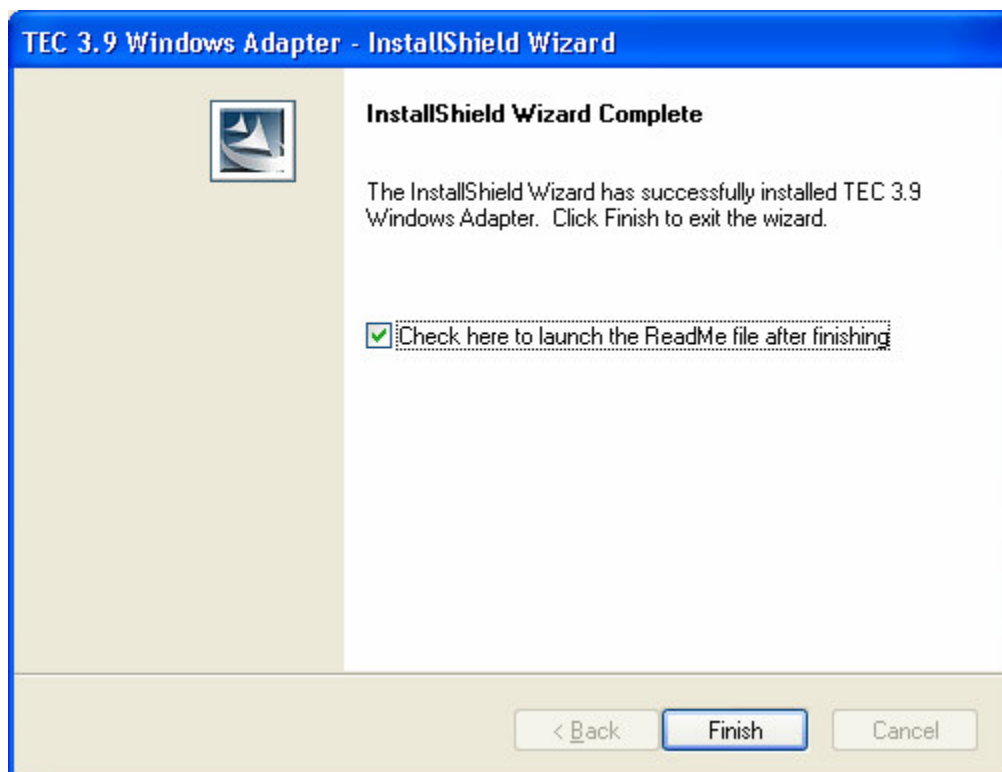
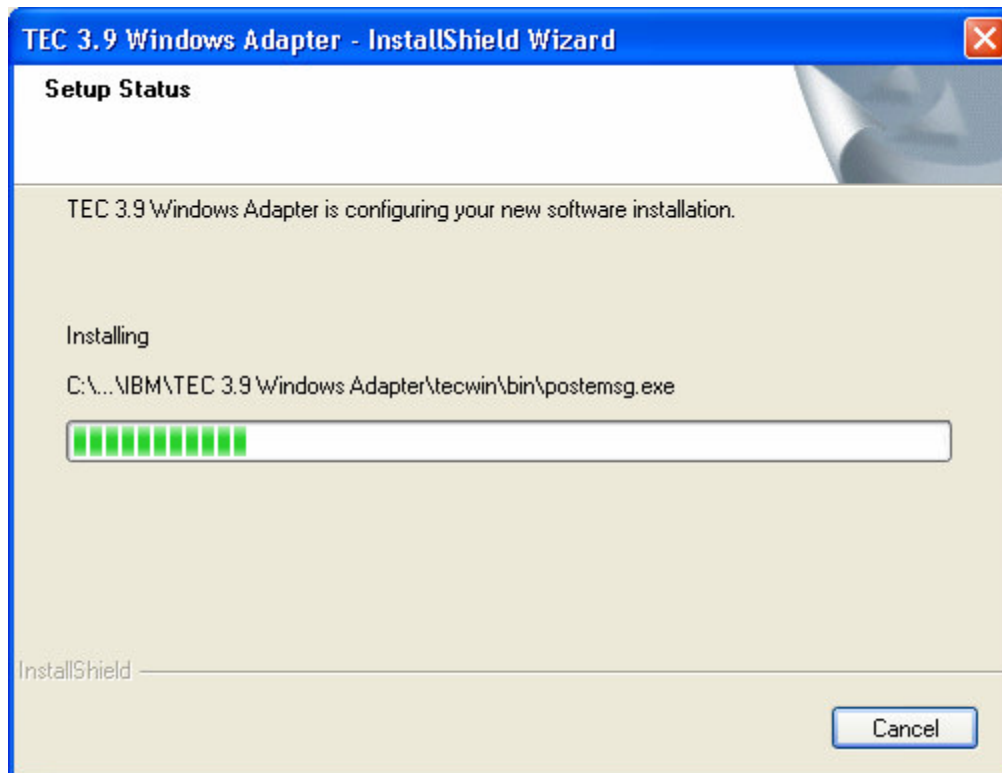
TEC 3.9 non-TME Windows adapter install

The following section shows the progression of the windows displayed during installation of the TEC 3.9 non-TME Windows event log adapter. This progression will also be seen when installing the Windows non-TME SNMP or Windows non-TME HPOV adapters.





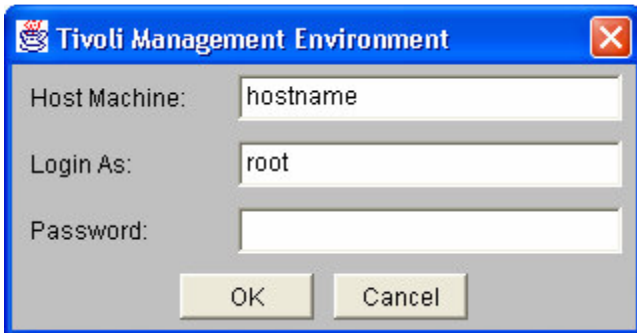




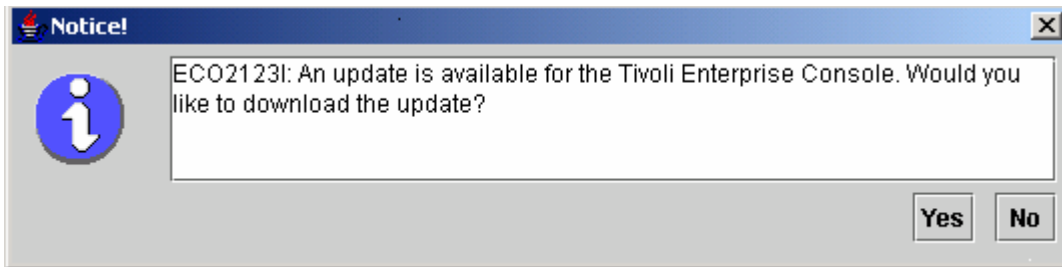
Automatic non-TME console update screen shots

It is now possible to automatically update a non-TME (Tivoli Management Enterprise or Tivoli Management Framework) console to the latest version, after applying 3.9.0-TEC-FP04 or later to the UI server. When a non-TME console connects to the UI server, and the UI server detects a compatible console (reference the console version checking documentation), the user is presented with the option of upgrading the console to the latest version. If the user selects to upgrade, the updates will be copied to an update directory, verified, and then applied. Upon successfully completing, the user will be prompted to restart the console in order for the updates to take effect. (Note: MR0425056855, MR1124033140, MR0411052834)

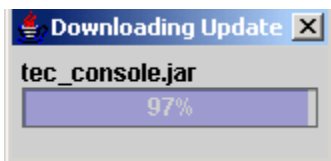
When starting the Non-TME TEC Console normally, the login dialog is displayed as below.



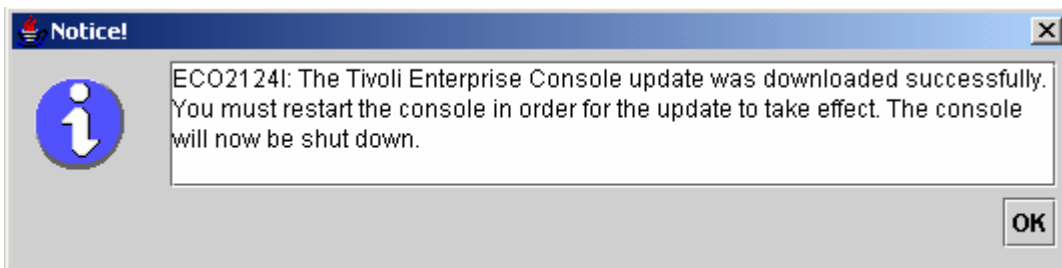
Enter the login information and press OK. At this point, the Non-TME Console will perform the UI Server check for Non-TME updates and if one is available for download, the following message will be seen:



If **No** is clicked, the main Console Window opens as it normally would after a successful log in. If **Yes** is clicked, the updates are downloaded and a progress bar indicating the status will be displayed:



Once the download is complete, a message indicating the download was successful will be displayed. At that point the console must be restarted in order for the update to take effect.



At this point the user must click OK. The Console will be shut down and the user must restart it and log in again. The Console will now be updated to the same level as the UI Server. You will see no more update prompts until the next patch containing Non-TME Console updates is applied to the UI Server.

Updating your task library ([IY66997](#), [IY74316](#), [IY80636](#))

This fix pack does not update your Task Library with this fix, because some customers modify their Task Library and this update would overwrite their customizations. The `$BINDIR/TME/TEC/tec_tasks.tll` file has been updated. To get this fix you must run some additional steps to update your task library.

Note: If you perform this task on a Linux system, remove all of the spaces between a command line option and its argument for all `wll` commands: For example, the first `wll` command would become:

```
$BINDIR/bin/wll -r -pTEC-Region -P/bin/cat $BINDIR/TME/TEC/tec_tasks.tll
```

Note: If you perform this task on a Windows system, replace `/bin/cat` with `cat.exe` and `/usr/lib/cpp` with `cpp.exe`.

1. If you have not modified your T/EC Tasks task library, run the following command to update the task library with the new `tec_tasks.tll` file:

```
$BINDIR/bin/wll -r -p TEC-Region -P /bin/cat $BINDIR/TME/TEC/tec_tasks.tll
```

This deletes all tasks from the T/EC Tasks task library and then recreates them from the `tec_tasks.tll` file.

2. If you only added tasks to the T/EC Tasks task library and you have not modified any of the default tasks, do the following:
 - a. Remove all tasks from T/EC Tasks except for your tasks.
 - b. Run the following command:

```
$BINDIR/bin/wll -i -p TEC-Region -P /bin/cat $BINDIR/TME/TEC/tec_tasks.tll
```

This inserts all tasks from the new `tec_tasks.tll` into the T/EC Tasks Task Library.

3. If you have connected TMRs, run the following command from each TMR to update the information across regions:

```
wupdate -r TaskLibrary <other-region-name>
```

Uninstallation

Restoring an event server to the original pre-fix pack state

In order to uninstall a TEC fix pack, the directory structures must be archived prior to the initial installation. In the event the system needs to be restored to the state prior to the fix pack installation this archive can be restored. The following steps can be used as a simplified example:

Create an archive of the current Tivoli environment. Perform the following from the root directory:

```
tar -cvf ITEC-PRE-FP.TAR DirectoriesWhereTivoliIsInstalled
```

Where `DirectoriesWhereTivoliIsInstalled` is your Tivoli installation directories, for example:

```
/etc/Tivoli      /usr/local/Tivoli
```

Extract the archive in order to restore the system to its pre-fix pack state. Perform the following from the root directory:

```
tar -xvf ITEC-PRE-FP.TAR
```

Note: In a Windows environment perform these steps from a Tivoli bash shell started with instructions similar to the following:

- a) Source the Tivoli environment:

From the command line, run the following script:

```
%SystemRoot%\system32\drivers\etc\Tivoli\setup_env.cmd
```

- b) Start the bash shell by typing:

```
bash
```

Removing the IBM Tivoli Enterprise Console Windows non-TME event log adapter

The Windows adapter can be removed by selecting "TEC 3.9 Windows Adapter" from the "Add or Remove Programs" utility, in the Windows Control Panel.

The Windows adapter can also be removed silently. To initiate the silent uninstall procedure, invoke the file "uninst.bat." Use the fully qualified path when invoking this file from the command line. For example:

```
C:\>%INSTALL_PATH%\uninst.bat
```

Removing the IBM Tivoli Enterprise Console Windows non-TME SNMP or HPOV adapter

The SNMP adapter can be removed by selecting "TEC 3.9 Windows Adapter" from the "Add or Remove Programs" utility, in the Windows Control Panel.

The SNMP adapter can also be removed silently. To initiate the silent uninstall procedure, invoke the file "uninst.bat." Use the fully qualified path when invoking this file from the command line. For example:

```
C:\>%INSTALL_PATH%\uninst.bat
```

The same process is used. However when InstallShield detects an installed adapter, the Wizard takes the user through the adapter removal steps.

These steps are recorded in the response file and can then be used on similar systems without the need to invoke the Wizard.

Removing the non-TME logfile adapter (installed on any supported UNIX/Linux operating system)

Issue the following command:

```
$TECADHOME/bin/tecad-remove-logfile.sh
```

Remove the \$TECADHOME directory as follows:

```
rm -Rf $TECADHOME
```

Removing the non-TME Java console installed on the Windows operating system

There are two options to removing the stand-alone console product.

1. Use the "Uninstall" shortcut from the *Start* → *Programs* → *IBM Tivoli Enterprise Console* menu to initiate the uninstall procedure.
2. Use the "Add/Remove Programs" control panel utility to remove the IBM Tivoli Enterprise Console product.

Removing the non-TME Java console installed on any supported UNIX/Linux operating system

1. Stop the tec_console process if it is running.
2. Remove the directory where the console was installed. For example:

```
rm -Rf /usr/local/Tivoli/tec_console
```

Fix pack Contents

Known Problems, Limitations, and Workarounds

This section describes known defects in this release of the Tivoli Enterprise Console product. Where applicable and known, suggested workarounds are identified. Note that this might not be a complete list of defects.

Installation

This section describes problems with installation of the base product and configuration of the event database.

Tivoli Enterprise Console installation and upgrade:

The following problems and workarounds relate to installing or upgrading the base TEC product:

Problem: (IY81662) - On Windows 2003 systems, the Tivoli tar command must be used to uncompress the 3.9.0-TEC-FP05-TME.tar file before installing the TME portion of the fix pack. Users may use winzip to uncompress the gzip (gz) file which results in a tar file, but the tar file must be uncompressed using the Tivoli tar command, not winzip. If winzip is used to uncompress the tar file then users will see errors during installation of the UI Server and Console portions of the fix pack.

Workaround: Here is an example session using winzip to uncompress the gzip file and Tivoli tar to uncompress the tar file:

From Winzip:

File->open Archive

then go to the directory that contains 3.9.0-TEC-FP05-TME.tar.gz

click on Open

the screen says:

Archive contains one file:

3.9.0-TEC-FP05-TME.tar

should WinZip decompress it to a temporary folder and open it?

Click Yes

This will uncompress the gzip file and leave you with 3.9.0-TEC-FP05-TME.tar

You must then save the tar file before continuing:

FileManage ArchiveCopy

Select a folder where you would like the 3.9.0-TEC-FP05-TME.tar file to be placed

Click OK

Exit Winzip

open a TME environment window

change directories to the directory that contains the 3.9.0-TEC-FP05.tar file

Untar the file using the Tivoli tar command to extract the image:

```
tar -xvf 3.9.0-TEC-FP05.tar
```

Problem: (176936) The following Java error can occur when using the InstallAssistant as described below:

```
java.lang.NullPointerException: surfaceData
    at sun.awt.windows.Win32Renderer.doFillRect(Nativ Method)
    at sun.awt.windows.Win32Renderer.fillRect(Win32Renderer.java:168)
    at sun.java2d.SunGraphics2D.fillRect(SunGraphics2D.java:2146)
    at sun.java2d.SunGraphics2D.clearRect(SunGraphics2D.java:2193)
```

This error can occur after any sequence where the *Next* button is clicked instead of the *Finish* button (for example, after successfully installing a component), and then the *Cancel* button is clicked.

Solution: This error can be safely ignored, and will not affect the product installation.

Problem: The database upgrade from 3.7.1 to 3.8 or 3.9 requires the tablespace definitions to be updated if they are to be system-managed instead of database-managed. The upgrade process declares the tablespaces to be database-managed only.

Workaround: If your tablespace definitions are to be system-managed, update them prior to upgrading from 3.7.1 to 3.8 or 3.9.

Problem: Importing the IBM Tivoli Monitoring (ITM) BAROC and rule set files (either manually or by using the ITM **dmae_tec_inst.sh** script) into the TEC rule base fails if the target rule base contains any of the following BAROC files:

- DB2Agents.baroc
- DB2CpuUtilization.baroc
- DB2DatabaseStatus.baroc
- DB2_Event.baroc
- DB2HostThroughput.baroc
- DB2InstanceStatus.baroc
- itmwas_dm_events.baroc
- WebSphere_MQ_Channel.baroc
- WebSphere_MQ_Queue.baroc
- WebSphere_MQ_QueueManager.baroc

This problem can occur because the TEC product ships a subset of the BAROC files for the ITM, the IBM Tivoli Monitoring for Business Integration: WebSphere MQ, the IBM Tivoli Monitoring for Databases: DB2, and the IBM Tivoli Monitoring for Web Infrastructure: WebSphere Application Server products as part of the default rule base.

Workaround: Before integrating ITM with the TEC product, modify the target rule base. To do this, use the before and after installation scripts that the TEC product provides. Alternatively, it is possible to manually perform the steps that the before and after installation scripts perform.

Using the before and after installation scripts

To use the before and after installation scripts to enable ITM to integrate with the TEC product, follow these steps:

1. Copy the pre-installation script, **before_install.sh**, and the post-installation script, **after_install.sh**, from the \$BINDIR/TME/TEC/contrib directory to the directory in which the target rule base resides.
2. Run the pre-installation script from the directory in which the target rule base resides. Enter the following command:

```
./before_install.sh target_rule_base -ITM
```

Where *target_rule_base* is the name of the rule base to which the ITM BAROC files will be imported to.

3. Run the ITM **dmae_tec_inst.sh** script or manually import the IBM Tivoli Monitoring BAROC and rule set files. For more information, refer to the *IBM Tivoli Monitoring User's Guide*.
4. Run the post-installation script from the directory in which the target rule base resides. Enter the following command:

```
./after_install.sh target_rule_base -ITM
```

Manual steps:

To manually enable ITM to integrate with the TEC product, follow these steps:

1. Create a temporary subdirectory in the directory in which the target rule base resides.
2. If the ebusiness rule set was imported in the EventServer target of the target rule base, delete this rule base from the EventServer target.
3. If the ebusiness rule set has been imported into the target rule set:
 1. Copy the ebusiness.rls file from the TEC_RULES directory of the target rule base to the temporary subdirectory that you created in step 1.
 2. Delete the ebusiness rule set from the target rule base.
4. Copy the following BAROC files from the TEC_CLASSES directory of the target rule base to the temporary directory:
 1. DB2DatabaseStatus.baroc
 2. DB2CpuUtilization.baroc
 3. DB2HostThroughput.baroc
 4. DB2Agents.baroc
 5. DB2_Event.baroc
 6. DB2InstanceStatus.baroc
 7. itmwas_dm_events.baroc
 8. WebSphere_MQ_Queue.baroc
 9. WebSphere_MQ_QueueManager.baroc
 10. WebSphere_MQ_Channel.baroc
5. Delete the following BAROC files from the target rule base in the following order:
 1. DB2InstanceStatus.baroc
 2. DB2DatabaseStatus.baroc
 3. DB2CpuUtilization.baroc

4. DB2HostThroughput.baroc
5. DB2Agents.baroc
6. DB2_Event.baroc
7. itmwas_dm_events.baroc
8. WebSphere_MQ_Queue.baroc
9. WebSphere_MQ_QueueManager.baroc
10. WebSphere_MQ_Channel.baroc
6. Run the ITM **dmae_tec_inst.sh** script or manually import the ITM BAROC and rule set files. For more information, refer to the *IBM Tivoli Monitoring User's Guide*.
7. From the temporary directory, import the following BAROC files into the target rule base in the following order:
 1. WebSphere_MQ_Channel.baroc
 2. WebSphere_MQ_QueueManager.baroc
 3. WebSphere_MQ_Queue.baroc
 4. itmwas_dm_events.baroc
 5. DB2_Event.baroc
 6. DB2Agents.baroc
 7. DB2HostThroughput.baroc
 8. DB2CpuUtilization.baroc
 9. DB2DatabaseStatus.baroc
 10. DB2InstanceStatus.baroc
8. If the ebusiness.rls file exists in the temporary directory, import the ebusiness.rls file into the target rule base and import the ebusiness rule set into the EventServer target of the target rule base.
9. Compile and load the target rule base.
10. Delete the temporary directory and its contents.
11. Stop and restart the event server.

Problem: When integrating the ITM for Databases: DB2 product with the TEC product using the ECC_Configure_TEC_Classes task, a new rule base is created. When copying from an existing rule base to create the new rule base, the integration fails if the rule base to be copied contains any of the following BAROC files:

- DB2_Event.baroc
- DB2Agents.baroc
- DB2HostThroughput.baroc
- DB2CpuUtilization.baroc
- DB2DatabaseStatus.baroc
- DB2InstanceStatus.baroc

This problem can occur because the TEC product ships a subset of the BAROC files for the ITM for Databases: DB2 product as part of the default rule base.

Workaround: Before integrating the ITM for Databases: DB2 product with the TEC product, modify the rule base to be copied. Use the before and after installation scripts that the TEC product provides. It is also possible to manually perform the steps that the before and after installation scripts perform.

Using the before and after installation scripts To use the before and after installation scripts to enable the ITM for Databases: DB2 product to integrate with the TEC product, follow these steps:

1. If the rule base to be copied is the default rule base, create an interim copy of the default rule base. This is required because the default rule base cannot be modified. Follow these steps:
 - a. Enter the following command to create a new rule base:

```
wrb -crtrb -path directory Default_copy
```

Where *directory* is the directory in which the rule base files are to be created.

- b. Enter the following command to copy the Default rule base files into the Default_copy rule base:

```
wrb -cprb -force Default Default_Copy
```

2. Copy the pre-installation script, **before_install.sh**, and the post-installation script, **after_install.sh**, from the \$BINDIR/TME/TEC/contrib directory to the directory that contains the rule base to be copied.
3. Run the pre-installation script from the directory that contains the rule base to be copied. Enter the following command:

```
./before_install.sh copy_rule_base -DB2
```

Where *copy_rule_base* is the name of the rule base you want to copy.

4. Run the ECC_Configure_TEC_Classes task to import the ITM for Databases: DB2 BAROC and rule set files. For more information, refer to the *IBM Tivoli Monitoring for Databases: DB2 User's Guide*.
5. Run the post-installation script from the directory that contains the rule base that was copied. Enter the following command:

```
./after_install.sh target_rule_base -DB2
```

Where *target_rule_base* is the name of the target rule base.

Manual steps:

To manually enable the ITM for Databases: DB2 product to integrate with the TEC product, follow these steps:

1. If the rule base to be copied is the default rule base, create an interim copy of the default rule base. This is required because the default rule base cannot be updated. Follow these steps:
 - a. Enter the following command to create a new rule base:

```
wrb -crtrb -path directory Default_copy
```

Where *directory* is the directory in which you want to create the rule base files.

- b. Enter the following command to copy the Default rule base files in to the Default_copy rule base:

```
wrb -cprb -force Default Default_Copy
```

2. Create a temporary subdirectory in the directory that contains the rule base to be copied.
3. If the ebusiness rule set was imported in the EventServer target of the target rule base, delete the ebusiness rule base from the EventServer target.
4. If the ebusiness rule set has been imported into the rule set to be copied:
 - a. Copy the ebusiness.rls file from the TEC_RULES directory of the rule base to be copied to the temporary subdirectory that created in Step 2.
 - b. Delete the ebusiness rule set from the rule base to be copied.
5. Delete the following BAROC files from the rule base to be copied in the following order:
 - i. DB2InstanceStatus.baroc
 - ii. DB2DatabaseStatus.baroc
 - iii. DB2CpuUtilization.baroc
 - iv. DB2HostThroughput.baroc
 - v. DB2Agents.baroc
 - vi. DB2_Event.baroc
6. Run the ECC_Configure_TEC_Classes task to import the ITM for Databases: DB2 BAROC and rule set files. For more information, refer to the *IBM Tivoli Monitoring for Databases: DB2 User's Guide*.
7. If the ebusiness.rls file exists in the temporary directory, import the ebusiness.rls file into the target rule base and import the ebusiness rule set into the EventServer target of the target rule base.
8. Compile and load the target rule base.
9. Delete the temporary directory and its contents.
10. Stop and restart the event server.

Problem: In version 3.9 of the TEC product, only one console can be assigned to an operator. If upgrading from version 3.6.2 of the TEC product and have multiple consoles assigned to a single operator, manual intervention is required.

Workaround: After the upgrade process has completed, update the console definitions to assign only one console to one operator.

Note: TEC 3.6.2 is no longer supported.

Problem: When you use Tivoli Risk Manager 4.1 with TEC 3.9, setting the single_port_bdt option with the set_port_range option might cause the TRM 4.1 installation to fail.

Workaround: Set the single_port_bdt option without the set_port_range option.

Problem: When installing the TEC product from a managed node in a Tivoli environment that consists of multiple locales, the output of the installation process might be corrupted.

Workaround: In a Tivoli environment with multiple locales, install the TEC product from the Tivoli server.

Problem: After upgrading the TEC product on RedHat Linux, there is high CPU usage due to the Java Runtime Environment (JRE).

Workaround: Set the environment variable using the following command:

```
odadmin environ get > /tmp/env.out
```

Edit the file /tmp/env.out and add the following line:

```
LD_ASSUME_KERNEL=2.2.5
```

```
odadmin environ set < /tmp/env.out
```

Problem: The TEC installation wizard does not start on AIX 5.1 systems running with the GB18030 code page. This problem is because the GB18030 code page causes poor system performance.

Workaround: Install TEC using a different code page than GB18030.

Problem: For SuSE and SuSE Linux Enterprise Server (SLES) distributions of Linux, if the compress utility is not installed, problems may be experienced, such as the rule base not being loaded or the event server not starting due to a missing rule base. TEC requires the compress utility, and more recent versions of Linux distributions from SuSE do not include the compress utility.

Workaround: Obtain the compress utility from an older level of Linux distributions from SuSE.

Problem: To install the TEC on RedHat Linux, the Linux system must have the **compress** command installed and available.

Workaround: Check your RedHat Linux documentation for the compress package to install and access the **compress** command.

Problem: Uninstalling a TEC 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.

Workaround: 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. For more information about the **wep** command, refer to the *Tivoli Management Framework Reference Manual*. For more information about using the **wuninst** command with TEC components, refer to the *IBM Tivoli Enterprise Console Installation Guide*.

Problem: Installation of the event server fails without the correct permissions to the temporary directory on the Tivoli server.

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

Problem: When mounting the TEC, Version 3.9, 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_unmount** command might be required to unmount the CD-ROM directory.

Workaround: If you have already mounted a TEC, Version 3.9, installation image CD using the **mount** command or using SAM, the CD-ROM must be unmounted with the **unmount** 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 file names do not end with the ;1 character string.
4. After completing the installation, you can unmount the CD-ROM using the **unmount** 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. For additional information, contact Hewlett-Packard customer support.

Limitation: When using the installation wizard, users must specify a temporary directory to which the installation wizard can copy files for use. This temporary directory must not contain a subdirectory named tec39; if it does contain a subdirectory named tec39, important files in that subdirectory might be mistakenly deleted. During installation, the installation wizard creates the tec39 subdirectory under the user-specified directory. The installation wizard then copies several installation files to that directory and restarts from that temporary location. When the installation wizard finishes, it removes the tec39 subdirectory.

Event database installation and upgrade

The following problems and workarounds relate to installing or upgrading the event database:

Problem: Migration from version 3.6.2 or version 3.7.1 of TEC to version 3.9 does not drop the existing TEC table space due to potential conflicts with customer application tables and triggers. For Informix®, Microsoft SQL Server, and Sybase databases, the migration process does not drop the TEC database system area.

Note: TEC 3.6.2 and 3.7.1 are no longer supported.

Workaround: See the workaround for the appropriate database type.

For a DB2 database:

1. Open a DB2 command line prompt.

2. At the prompt, enter the following sequence of commands:

```
db2 connect to tecdb user user_id using password
db2 drop tablespace tablespace_name
```

Where *tecdb* is the name of the TEC 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 TEC data table space. The table space name has the form *userid_data*.

The DB2 database 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, follow these steps:

1. Log in to the Informix server or client machine as the Tivoli Enterprise Console RIM user.
2. Enter the following command to list the existing dbspaces and their associated physical files allocations:

```
onstat -d
```

3. Enter the following command to remove a dbspace:

```
onspaces -d dbspace_name -y
```

4. When 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 a Microsoft SQL Server database:

No devices need to be deleted. 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 TEC 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 TEC version 3.7 data table space. To do this, enter the following command:

```
SELECT file_name FROM dba_data_files WHERE tablespace_name =
'tablespace_name'
```

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

3. Drop the TEC 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, follow these steps:

1. Log in to 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 appropriate 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.

Problem: When using the **wtdb space** command with a Sybase database, a RIM error may be encountered. 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 and a new one has been created, the Sybase system tables still contain references to devices and their associated database IDs. The Sybase system tables also contain the information about the device pages that exist for a database and the pages in use by the unremoved devices are outside that range, thereby causing the error.

Workaround: 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. For more information about the **sp_dropdevice** command, refer to the Sybase documentation.

Problem: 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.

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

Note: TEC 3.6.2 and 3.7.1 are no longer supported.

Problem: When using the installation wizard to configure the event database on the UNIX operating system, the password fields cannot be overwritten by highlighting the text field and then typing a new password.

Workaround: When using the installation wizard to configure the event database on the UNIX operating system, delete the entire password field using the backspace key or delete key before modifying the field.

Problem: The **wtdbclear.pl** command loops when the number of events retrieved is greater than the buffer size. The **wtdbclear.pl** command retrieves all events that match the SQL where clause instead of retrieving the output in buffer-sized pieces. If the number of events retrieved is greater than the buffer size (default=1000), the **wtdbclear.pl** command goes into an endless loop.

Workaround: Use the **wtdbclear** command or change the buffer size to avoid this problem.

Problem: DB2 connectivity fails and wrimtest will receive **wrimtest** will receive the DB2 error **SQL1224N**.

NOTE: For performance and reliability, it is recommended that you install the database server on a system separate from the event server.

Solution: Create a loop back node and a database alias on that node. To do this, use the following steps:

```
db2 get dbm cfg | grep SVCENAME
```

This returns an entry similar to: "TCP/IP Service name (SVCENAME) = 50000" (where 50000 is the servicename in this example). Use your value in this command:

```
db2 catalog tcpip node LOOPBACK remote 127.0.0.1 server <servicename>
```

Recatalog the database to point back to itself:

```
db2 catalog db <db_name> as <new_db_name> at node LOOPBACK
```

Refresh the DB2 cache:

```
db2 terminate
```

Change RIM to use the new database name:

```
wsetrim -d <new_db_name> tec
```

Use **wrimtest -l tec** to confirm the connection now works.

Problem: Event groups cannot filter the "Message" keyword when the event database is installed on Informix version 9.4.

Workaround: To work around this problem, use a different column as the key to identify the data needed from the database. This problem stems from a RIM limitation with this version of Informix. (Searches for the data type 'TEXT' do not work correctly.)

[Adapter Configuration Facility upgrade](#)

The following problem and workaround relates to upgrading the Adapter Configuration Facility.

Problem: When upgrading the Adapter Configuration Facility (ACF), adapter configuration profiles (ACPs) do not get upgraded and it is not possible to work with older versions of the ACPs. Some problems resulting from this situation are as follows:

1. If upgrading from version 3.6.2 of TEC, the existing profiles do not distribute successfully. This problem is caused by the fact that new binary files are distributed, but the old file setup is still being used. For example, on Solaris systems, the adapter

fails to restart because it cannot find the FMT file; that is, the adapter is looking in the new location (etc/C/tecad_logfile.fmt), but the file is still in the old location (etc/tecad_logfile.fmt).

2. To use the new function, explicitly add it to the ACP. For example, if upgrading from version 3.6.2 of the TEC, the profile does not contain default entries for filters or prefilters; these must be added in the ACF. Also, the FQDomain and TransportList keywords are not specified by default in an older profile as they are in a new profile.

Workaround: To upgrade the ACF, follow these steps:

1. Note changes to the older adapter configuration profile so that they can be added to a new profile later.
2. Distribute a blank adapter configuration profile to remove the old adapter.
3. Upgrade TEC as usual, including the ACF.
4. Create a new profile entry for each new adapter and add the changes noted earlier to the new profile.
5. Distribute the new ACP to each applicable endpoint.

Note: TEC 3.6.2 is no longer supported.

Event consoles

The following problems and workarounds relate to event consoles:

Java Console

Problem: When using the new Play Alert function from within the TEC Java Console on a Linux system that does not have a sound card installed, an incorrect message may appear. The message is as follows:

```
EC021416E: The audio file you have entered has been compressed using a scheme that is unsupported by the Tivoli Enterprise Console. Only Linear PCM audio files are supported. Please enter different URL and try again.
```

The error message displayed should be message number "ECO2147E" as follows:

```
ECO2147E : The audio alert associated with <SEVERITY> cannot be played because there is no sound device on the system or the device is in use by another application.
```

Problem: ([IY73643](#)) When you install the Java console on a managed node, the installation can generate an error due to the incorrect revision level of the TEC_JCONSOLE object.

Solution: The following steps can be used to resolve this issue:

Create Tivoli backup of TMRServer and ManagedNodes where the product will be installed

1. Issue the following command:

```
wlookup -r ProductInfo TEC_JCONSOLE
```

2. Using the OID that's returned (number portion only), issue the following command:

```
idlcall $OID _get_revision
```

3. This should return a value of "3.9". If not, change it using the following command:

```
idlcall $OID _set_revision '"3.9"'
```

Problem: The TMF_SELF variable is no longer used in the console, which can prevent the TroubleTicket.sh script from working correctly if configured to use it.

Solution: Use the following statement to obtain the user ID associated with the current console executing the script:

```
objcall 0.0.0 o_get_principal
```

Problem: When you perform Task Execution on an event in the Java version of the event console, any trailing spaces contained in an event slot value are stripped off when the attribute values are passed to the task. (APAR [IY70219](#))

Problem: Running a non-Tivoli event console on a machine with multiple network interface cards (NICs) can cause problems and prevent the event console from starting. The problems occur because of the bind order of NICs.

Workaround: Change the bind order of the NICs.

Problem: 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 in the Java version of the event console:

```
Unable to open "C:\v.tivoli\tec_temp0.html"
```

The following location is shown in the browser window:

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


A side effect occurs after the message box is displayed on top of 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.

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

Problem: When a Java GUI process is launched in an X Window environment, error messages regarding font conversion, such as the following may be seen:

```
*****  
Avertissement : Cannot convert string "-jdk-lucida-medium-r-normal--*-120-75-75-p*-iso8859-15" to type FontStruct  
*****
```

Workaround: This message can be ignored because it does not indicate any problems in the system. 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.

Problem: When starting the Java version of the event console, the following Java exception might occur:

```
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 3.9 event console is installed on a machine that previously had a version 3.7.1 or later event console installed on it. It might also occur with a first-time, version 3.9 installation of TEC.

Workaround: This exception can be ignored because it is harmless. This exception does not occur the second time the Java version of event console is started.

Problem: When you use the Java version of the event console with the Netview component, selecting more than 100 Netview events (event classes beginning with TEC_ITS_) to simultaneously acknowledge or close the events while continuing normal operations might cause a deadlock situation. A timer is enabled for all events other than Netview events to regulate processing.

Workaround: Select 100 or fewer event to simultaneously acknowledge or close the events 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.

Problem: Renaming the NON_TME directory on AIX after installation might cause the following error when starting the Java version of 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.
```

Workaround: Run the **slibclean** command as the root user to clean the AIX caching library information. Then run the **tec_console** command.

Problem: On Windows 2000, the login panel might not be displayed on top of existing windows. This problem occurs when switching windows after running the **tec_console** command.

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

Note: Windows 2000 is no longer supported.

Problem: The Help text for the Event_Query Task available from the java console shows the asterisk (*) as the wildcard character but the correct wildcard character is the percent (%) character. The incorrect text is in the following location:

```
From the Java console, select an event  
from the "Selected" pulldown "menu", choose "Task Execution"  
choose "Event_Query" on the left hand side under "Task Libraries", click the "Help" button (lower right of the screen)  
choose "Event_Query" on the left hand side under "TEC Task Library"  
You will see this sentence within the paragraph:
```

```
All of the options let you manually enter text, including the asterisk (*)  
wildcard character to specify the values for an attribute.
```

This sentence should specify the "%" character instead of the "*" character.

Workaround: Use the "%" character instead of the "*" character as a wildcard character when using the Event_Query Task.

Limitation: The definitions of event groups, consoles, and operators can be exported to a file using the `wteexport` command or event console user interface and then imported into another Tivoli region using an event console or `wteimport` command. This procedure does not apply to the preferences that are opened by the 'Console Preferences' menu option in the Configuration view. These preferences (including the new 'Use 24-hour Clock' option under the Date/Time Formatting preference) cannot be exported or imported by any means.

Limitation: When using the Java version of the event console, effect events might not be displayed in the Effect Events area of the Related Events tab for an event group. This situation can happen when an event group definition does not match the rules definitions. For example, if an event group is configured to display only open and acknowledged events and your rules close some effect events, the event group filters out the closed effect events. If you want the event group to include the effect events, modify the event group definition.

Web Console

Limitation: The Web Console was updated in Fix Pack 4 to support WAS 5.1.1\6.0, and was updated in Fix Pack 5 to support WAS 6.1, but the Install Assistant was not updated to support installing these versions of WebSphere. At this time, the Install Assistant is only capable of installing WebSphere 5.0. If you intend to use a WebSphere 5.1.1\6.0\6.1 application server to host the Web Console, please refer to the documentation provided with WebSphere for instructions on how to install the application server.

Problem: ([IY82303](#)) The TEC Web Console cannot log in to a managed node whose object dispatcher is configured with the following settings.

Perform local hostname lookup for IOM connections = TRUE
Use Single Port BDT = TRUE

Workaround: Use the following procedure to correct the problem.

1. Log in to the WebSphere Administrative Console.
2. In the left-side navigation panel, open Resources -> Resource Adapters.
3. In the right-side panel, select TEC 3.9.0 Resource Adapter.
4. In the right-side panel, select J2C Connection Factories
5. In the right-side panel, do the following for each connection factory.
 - a. Select the link associated with the connection factory.
 - b. From the connection factory view, select Custom Properties
 - c. From the Custom Properties view, select managedNodeList
 - d. In the managedNodeList view, examine the Value field. You'll see a list of managed nodes in the following format:
<Managed Node Name>(<IP Address>):<Port>
 - e. Search the list of managed nodes for the node you are unable to connect to. Replace the IP Address of this node with its fully qualified hostname.
 - f. Click the OK button.
6. Save your configuration changes. Log out of the Administrative Console and restart WebSphere.

Problem: Inability to launch a HTML page using the Information button from a Non-Tivoli event console running on a Solaris 5.8 system when using JRE v1.4 computer and using an alternative Web server.

Workaround: Change the version of Java used by the event console on startup to JRE v1.4.2.

Problem: When using the Task Assistant search facility in the Web version of the event console, the search results might contain a topic that is listed as —>. Selecting this topic produces the following message:

No Help Available

Workaround: None. Ignore this help topic.

Problem: The following message received when logging into the Web version of the event console does not indicate the cause of the login failure.

Authentication failed

A login failure can occur for any one of the following reasons:

- Incorrect user ID or password
- Insufficient Tivoli authorization roles
- Operator is not assigned to the event console

Workaround: An administrator can determine the exact cause of the login failure through IBM WebSphere Application Server logging.

Problem: When using the Web version of the event console in Netscape 6.2.x, selecting items in drop-down lists with the mouse does not work within the task wizard.

Workaround: The selections can be accessed in a drop-down list using the keyboard in Netscape 6.2.x, or by using Microsoft Internet Explorer to run the Web version of the event console.

Problem: When displaying a help panel for the first time in the Web version of the event console, the left arrow on the toolbar of the Task Assistant is active, indicating that you can go back to the previously visited help topic. Because a previous help topic does not yet exist, the following message is displayed:

No Help Available

Workaround: None.

Limitation: When you use the Web version of the event console, some Web browser controls, such as Refresh are not supported. Using Web browser controls when you are running the Web version of the event console can cause unpredictable results.

Limitation: IY56733 When you manually refresh events in the Web version of the event console, the events might not be refreshed immediately. This is because the Web version of the event console gets the events from the event cache and is, therefore, refreshed when the event cache is updated. Assume that the cache interval is set to 5 minutes. When you manually refresh the events in the Web version of the event console, it can take up to five minutes for the events to be refreshed. The same situation can occur if you set the automatic timeout to be less than the cache interval. v The supported configuration for a Web browser that is running the Web version of the event console is to allow cookies. Because preference settings are stored in cookies, allowing cookies enables preferences to persist across login sessions. Disabling cookies during a login session of the Web version of the event console is not supported.

Limitation: The IBM WebSphere Application Server product provides URL rewriting as an alternate method of storing session information in a Web browser. However, URL rewriting does not persist the session information across login sessions. Using URL rewriting is not supported for the Web version of the event console.

Limitation: Popup blocking software might interfere with the Web version of the event console. For example, some of the operations of the Web version of the event console start new browser sessions, and popup blocking software might prevent these new sessions from starting. When using the Web version of the event console, either ensure that popup blocking software is not running, or consult the documentation for the popup blocking software to configure the software properly.

Limitation: (180401) The Web console installation (via the Install Assistant) has been updated to provide limited support for a WebSphere Network Deployment environment. This support is limited to tolerance mode only, and does not allow for clustering, fail-over, or any other type of extended environment.

Limitation: (180497) If the RDBMS server is stopped, and the information message indicating this has not been displayed, any attempt to close an event from the Web console will generate an HTML "Page not found!" error.

Limitation: Unexpected results can occur if the time zone user preference is not set in the Web console.

Limitation: The refresh rate for the event viewer in the Web console is set to a minimum of 5 minutes. This interval cannot be reduced.

Limitation: (170061) The list of available hosts displayed during a task execution on the web console does not contain a complete host list, as seen in the Java console. It should be noted that the "Refresh Host List" button is not currently available in the web console.

Limitation: (166468) The web console does not allow you to run a task on an event which is selected via a checkbox. It will allow you to check an event with the check box, and you may select Run Task from the menu on the left but when you try to run the task you will get an error message stating that no event is selected. This function works in the Java Console.

Java and Web Console

These problems may be seen on either the Java or Web console.

Problem: Creating an event group filter with the **causing event received** attribute does not filter effect events correctly.

Workaround: To create an event group filter to filter effect events, create an event group filter with an SQL constraint. To do this, follow these steps from the Configuration view of the Java version of the event console:

1. Right-click on the appropriate event group and select **Create Filter** from the context menu.
2. In the Add Event Group Filter window, enter a name and description for the new filter, and then click **Add SQL**.
3. In the Add SQL window, do one of the following to create the filter:
 - To filter in effect events, enter the following SQL expression:

```
cause_date_receptn <> 0
```

- To filter events other than effect events, enter the following SQL expression:

```
cause_date_receptn = 0
```

Problem: A large number of event group filters (typically 100 or greater depending on the size of the individual filters) defined within a single event group in version 3.6.2 of TEC might not migrate to version 3.9. This problem is due to a limitation in the size of the event group filter in version 3.9 of TEC.

Workaround: Rework the event group filters prior to migrating to version 3.9.

Note: TEC 3.6.2 is no longer supported.

Problem: After upgrading to version 3.9 of the TEC on Tivoli Management Framework (TMF), version 3.7.1, the time received for events displayed in a Tivoli event console might show as one hour late. This occurs because the time zone environment variable (TZ) in the TMF 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 Tivoli event consoles running on TMF, version 3.7.1. This does not occur on non-Tivoli event consoles.

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

Problem: If the version 3.9 upgrade is applied in a Tivoli region that was previously interconnected to another Tivoli region that already has version 3.7.1 or later of TEC installed, and the TaskLibrary resource type has been exchanged, then creating or assigning operators to event consoles in the other Tivoli region might fail with a message similar to the following example:

```
com.tivoli.framework.runtime.ExInvObjref, minor code = 28, completion status = No
```

Workaround: From the Tivoli region where version 3.7.1 or later of TEC was not upgraded, exchange resources with the Tivoli region where TEC was upgraded, using the following command:

```
wupdate -r TaskLibrary region
```

Where *region* is the Tivoli region in which TEC was upgraded.

Rules

The following problems and workarounds relate to rules:

Problem: The strings, `commit_action`, `commit_rule`, and `comit_set` when used inside of quoted strings, may be treated as predicates during rule base compilation. This will cause unexpected behavior within a rule action. To avoid this problem, modify the strings by using upper case characters, adding characters, or omitting the strings.

Problem: (IY69101) Compiling a Rule Base with DBCS strings in an `exec_task` or `exec_program` predicate can fail with this Java exception:

```
java.lang.ArrayIndexOutOfBoundsException:  
    at com.oroinc.text.regex.Perl5Matcher._repeat
```

This is caused by a problem with a third party regular expression library and cannot be fixed at this time.

Workaround: Move the DBCS string from the format string to the argument list. For example, if this `exec_task` predicate causes compilation failure:

```
exec_task(_ev2, 'TASK2', '-l "LIB" -h "k2" -a "<DBCS> %s"', [_msg], 'NO')
```

then move the `<DBCS>` string so the call looks like this:

```
exec_task(_ev2, 'TASK2', '-l "LIB" -h "k2" -a "%s" -a "%s"', ['<DBCS>', _msg], 'NO')
```

Problem: Prolog action names that contain one or more spaces cause a compilation error when tracing is turned on.
Workaround: Do not use spaces in prolog action names.

Problem: TEC version 3.9 added e-business rule sets for ITM 5.1.1. To take advantage of these rule sets, events must include the `fqhostname` slot, which contains the fully qualified host name of the machine.
Workaround: Ensure that the ITM 5.1.1 Fix Pack 5 is applied. If using the ITM for Business Integration: WebSphere MQ, the ITM for Databases: DB2, or the ITM for Web Infrastructure: WebSphere Application Server products, ensure that the latest version of these products is installed, which includes support for the `fqhostname` event slot.

Problem: The `all_instances()` predicate might return the same event multiple times if the class name is not instantiated.
Workaround: Do not use this version of the predicate:

```
all_instances(event:_event of_class _class where attribute_conditions)
```

Always use this version of the predicate:

```
all_instances(event:_event of_class 'Class_Name' where attribute_conditions),
```

Problem: When compiling a prolog rule file that contains more than 70 rules or more than 4000 lines of code, using the `wrb -comprules` command with the `-trace` option does not produce an ERR file when the system finds a syntax error during the processing of that prolog rule file.

Workaround: Either disable the `-trace` option for the prolog rule file, or put the rules in multiple prolog rule files.

Limitation: Under certain circumstances, compiling a rule set containing the `netware.rls` rule file can generate the following error:

```
"Translating to prolog" step of the netware.rls ruleset.  
Exception in thread "main" java.lang.StackOverflowError  
at com.oroinc.text.regex.Perl5Matcher._pushState(Perl5Matcher.java)  
at com.oroinc.text.regex.Perl5Matcher._match(Perl5Matcher.java)  
at com.oroinc.text.regex.Perl5Matcher._match(Perl5Matcher.java)  
at com.oroinc.text.regex.Perl5Matcher._match(Perl5Matcher.java) ... ..
```

Note: The specific rule that causes this error is `novell_duplicate_minor_events`.

Adapters

The following problems and workarounds relate to adapters:

Problem: The `postzmsg` command cannot be used on the HP-UX platform unless event buffering is disabled.

Workaround: To disable event buffering, set the following configuration parameter: `BufferEvents=NO`

Problem: When processing a large `LogSources` file, the HP logfile adapter can lock up and stop sending events.

Solution: This problem is caused by resource issues on the machine and can be alleviated by increasing the `nfile` parameter using the **SAM** utility.

Problem: If you issue the `postzmsg` command with an invalid argument as opposed to no argument, a different usage statement is produced.

Workaround: The usage statement displayed after issuing the command with an invalid argument shows an outdated usage, including the `-p <port>` parameter. This parameter is no longer supported, and should be ignored. The correct usage information is as follows:

```
Usage: postzmsg { -S <server> | -f <config_file> } [-r <severity>]  
        [-m <message> ] [<slot_name=value>, ...] <class> <source>
```

Problem: If you start the logfile adapter with the `-s` option, the logfile adapter is not put in the background on the Compaq Tru64 operating system.

Workaround: Start the adapter with `'&'` at the end of the command to start it in the background.

Problem: On HPUX 11, `postmsg -S <hostname> <CLASS> <SOURCE>` caches the event even though `nslookup` resolves the host to an IP address. This also happens with all non-TME EIF adapters. (APAR [IY71145](#))

Solution: This happens on systems with an `/etc/nsswitch.conf` entry similar to the following, because the system call is exiting when it fails to find the host listed in `/etc/hosts`.

```
hosts:    files dns
```

There are four ways to make this work:

1. Add [NOTFOUND=continue] after "files" in nsswitch.conf:
hosts: files [NOTFOUND=continue] dns
2. Add an entry for the hostname to /etc/hosts
3. Use the IP address instead of the hostname in the postmsg command:
postmsg -S <IPaddress> <CLASS> <SOURCE>
4. List "dns" first in nsswitch.conf:
hosts: dns files

Problem: Events from a TME Windows event log adapter might be lost during high event traffic or when sending events from a cache file.

Workaround: Add the BufferFlushRate and MaxPacketSize keywords to the adapter configuration file so that the adapter bundles the events that are sent to the gateway. The following example illustrates how to set the BufferFlushRate and MaxPacketSize keywords.

```
BufferFlushRate=1200  
MaxPacketSize=4000
```

Problem: When using TEC 3.9 logfile adapters, watching log files that are in UTF-8 format and setting the NO_UTF8_CONVERSION=YES option might corrupt the event information.

Workaround: Ensure that the log files are created in local code page and set the option to: NO_UTF8_CONVERSION=NO

Problem: When installing the HP OpenView adapter, a soft error may be seen, and the adapter might not register correctly with HP OpenView.

Workaround: To make the HP OpenView adapter functional, manually unregister and reregister the HP OpenView adapter with HP OpenView by running the following sequence of commands:

```
ovdelobj /etc/opt/OV/share/tecad_hpov.lrf  
ovstop  
ovstart  
ovaddobj /etc/opt/OV/share/tecad_hpov.lrf  
ovstart tecad_hpov
```

Problem: The \$TIVOLIHOME/tec directory is used by the TEC gateway function and is created when the ACF is installed on the managed node machine. If this directory is removed, TEC gateway does not function correctly.

Workaround: Ensure that \$TIVOLIHOME/tec directory exists before distributing the TEC gateway profile. If \$TIVOLIHOME/tec directory does not exist, create it manually. By default, \$TIVOLIHOME is set to the following depending on the operating system:

- For UNIX: /etc/Tivoli
- For Windows: %WINDIR%\system32\drivers\etc\Tivoli

Problem: Unpredictable results can occur when a syslog or log file that is being monitored includes a message that exceeds 3900 bytes.

Workaround: Limit the total size of the event data to 3900 bytes.

Problem: The OS/2® adapter does not automatically start after distributing it using the ACF.

Workaround: Restart the OS/2 machine to start the adapter.

NOTE: The OS/2 Adapter is no longer supported.

Problem: The format file for the UNIX logfile adapter does not match Solaris Operating Environment, Version 8, syslogd events file. 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.

Workaround: Either update the format file as described 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/dev/log.conf file:

```
msgid=0
```

Restart the syslogd daemon for the changes to take effect.

Problem: Modifying configuration file options stored in adapter configuration profiles on endpoints with the **wsetaenv** command fails. A message similar to the following example is displayed:

FRWTE:0021 Wed Aug 14 17:14:18 2002 (21): operation `_set_acpEnvironment' not implemented

Workaround: Add or modify configuration file options using the ACF, and then distribute the profiles to endpoints.

Problem: Event strings generated by Windows XP are different from those generated by Windows 2000. 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 from a Windows 2000 endpoint is an NT_Base class event on a Windows XP endpoint.

Workaround: To enable the Windows event log adapter to match Windows XP events with Tivoli Enterprise Console event classes, modify the tecad_win.fmt file (also known as a format file) to match the specific events to be sent to the event server. For more information on how to generate a new class definition statement (CDS) file after modifying format file, refer to the *IBM Tivoli Enterprise Console Adapters Guide*.

Note: Windows NT and 2000 are no longer supported.

Limitation: ([IY71659](#)) The format specifier, %s*, will match leading white spaces when the specifier immediately follows a constant or literal value. For example, the format defined below will match any of the three messages illustrated.

Format:

```
//leading white space matched by %s*  
FORMAT NT_Base_Test  
before company%s* after  
slot1 $1  
END
```

Messages matched:

```
before companythis is test message after  
before company this is test message after  
before  company this is test message after
```

The first message is expected to match, per the definition of the %s* format specifier in the *IBM Tivoli Enterprise Console Version 3.9 Adapters Guide*. The second and third examples, however, will also match.

Solution: To prevent undesired messages from matching, modify the format such that the %s* specifier does not immediately follow a constant or literal value. For example:

Format:

```
//white space matched  
FORMAT NT_Base_Test  
before company %s*after  
slot1 $1  
END
```

Message matched:

```
before company this is test message after
```

Note the white space between the words "company" and "this" is taken into consideration before the use of the %s* specifier. This will ensure that only a single space will be matched.

Event Server

Problems related to the TEC Event Server:

Problem: Under certain circumstances, the send_email task on the HP-UX operating system generates the following error:

```
"Sending message to tecuser@us.ibm.com ...  
Who are you?: Not a typewriter  
cannot open /no/such/directory/dead.letter: No such file or directory"
```

Solution: This error occurs due to the user ID associated with the user 'nobody'. Verify the UID is a non-negative value. Contact your HP-UX system administrator for more information regarding UID values.

Problem: If an event server is configured to use Informix Windows ODBC versions 3.81 or 3.82 (CSDK versions 2.80 or 2.81 respectively) with Informix Dynamic Server (IDS) 9.4.0, the event server will not start.

Workaround: To work around this problem, use the back-level Informix ODBC driver version 3.80, available in the CSDK version 2.70. Using the latest ODBC driver with IDS Version 9.4 will prevent the event server from starting. For more information, and to check for a solution from RIM, please search the IBM Support web site for internal defect 177189.

Problem: After you apply 4.1-TMF-0060, it is no longer possible to login to a managed node configured on Red Hat Linux using the Tivoli Desktop. The oserv log will show the following error:

PAM: pam_acct_mgmt failed=User account has expired (13) @rconnect: Login failed for root from host

Workaround: The workaround for this problem is documented in DCF document ID 1182029, and contains the following information:

```
Add the following line to the /etc/pam.d/oserv file
account required /lib/security/pam_unix.so
```

Limitation: Control characters in the message of an event cause the event to fail with a PARSING_FAILED error.

Scripts

The following problem and workaround relates to a database maintenance script:

Problem: When using the **wtdbclear.pl** script to clear the event database, the script fails to complete if the system tmp subdirectory does not have sufficient space, errors may be seen. Because the **wtdbclear.pl** script uses the system tmp subdirectory to store table and data information, this problem can occur when clearing an event database that has a large amount of data.

Workaround: If deleting a large amount of data from the event database, increase the size of the system tmp subdirectory, or delete the data incrementally in smaller amounts.

Troubleshooting tips

The TISDIR environment variable is set by Tivoli software products and points to the code set directory. The code set directory contains the conversion tables to convert local encoded data to UTF-8 encoded data. If event data is unusable, check the TISDIR variable and ensure that it is pointing to the correct code set directory. Also ensure that the code set directory has the appropriate conversion table for the locale. For example, the file named 932 must be in the code set directory for a Windows environment in Japan.

Check locale environment variables for correct settings.

Software limitations, problems, and workarounds for internationalization issues

This section describes known problems in this release that are related to internationalization issues.

- When using Netscape 6.2.x, the attributes table of Sample Event Information is not completely translated into the national language. In the attributes table shown, the top part of the HTML page is translated into the national language, but the bottom part of the HTML page is not translated into the national language. This problem is because of limitations of Netscape 6.2.x when dealing with DBCS characters (Japanese, Korean and Chinese). Microsoft Internet Explorer displays the characters correctly.
- When the TEC installation wizard is running on the AIX operating system under the Chinese (Traditional) code page, characters in bold fonts might be difficult to read. This is a limitation of the Java Runtime Environment.
- The logfile adapters produce unexpected results when using the German code page IBM-850 on AIX. Do not use code page IBM-850.
- When using national language support (NLS) keyboard mapping, the user ID and password for the event console is limited to alphanumeric characters. Do not use non-alphanumeric characters for the user ID or password.
- When using the installation wizard to configure the event database, the text in some help windows does not wrap properly at line end when DBCS and SBCS characters are mixed on the window. For example, when there is an English keyword, the immediately trailing DBCS text starts on the next line.
- When using the installation wizard to configure the MS SQL Server event database, the first row of the **Unit** drop-down list is intentionally blank.
- When using the installation wizard to configure the DB2 event database, the default for the **Select the Database Locale** field is USA, regardless of the locale set for the local machine.
- When using the installation wizard to configure the MS SQL Server or Oracle event database, on the file group specification panel, the value Unlimited in the **Maximum Size** field is intentionally in English.
- For the Java version of the event console, if the tec_help.pl file is configured to display extended ASCII (hex 128 to 255) or DBCS characters on Event Information Web pages, these files must be converted into UTF8 format. Do this for the tec_help.pl file and any supporting HTML files that contain these extended characters. If the tec_help.pl file and the HTML files are not converted into UTF8 format, displaying event information fails with the following error:

ECO2032E: Failed to receive event information from http://server:port/cgi-bin/cgi_perl_script

Use the Tivoli Management Framework **wiconv** utility to convert your files to the UTF8 format. For example, use a command similar to the following example:

```
wiconv -f ISO88599 -t UTF8 < tec_helpORIG.pl > tec_helpUTF8.pl
```

In addition, print out this entry as part of the HTML header:

```
<META HTTP-EQUIV="Content Type" CONTENT="text/html; charset=UTF 8">
```

Doing this ensure that Web browsers use UTF8 encoding to display the Event Information page.

[Upgrading from version 3.6.2](#)

This section contains information about changes to the Tivoli Enterprise Console product as of version 3.8 that you should be aware of if you are upgrading from version 3.6.2 to version 3.9.

Note: TEC 3.6.2 is no longer supported.

[Event adapters no longer shipped](#)

The following event adapters are no longer shipped:

- The SPECTRUM adapter for the Cabletron SPECTRUM Enterprise Manager
- The Sun Solstice/SunNet Manager adapter

[Tivoli Enterprise Data Warehouse enablement](#)

The Tivoli Enterprise Console product is enabled for the Tivoli Enterprise™ Data Warehouse with a warehouse enablement pack. You can expect enhancements to the Tivoli Enterprise Console warehouse enablement pack over time. Check with IBM Software Support or the IBM Passport Advantage® program for subsequent enhancements to this component.

[Event database configuration using the installation wizard](#)

The following items pertain to configuring the event database using the installation wizard:

Do not generate scripts to the \$BINDIR/TME/TEC/sql directory. If mistakenly attempted to generate them in that directory, a message similar to the following is issued:

The directory that you specified for the generated scripts directory is the same as \$BINDIR/TME/TEC/sql. Specify another directory.

Specify a different directory and generate the script again.

[Rule enhancements](#)

Developing rules and managing rule bases is very different in versions later than 3.6.2. If you have developed rules and managed rule bases in previous versions of TEC, familiarize yourself with the information contained in the *IBM Tivoli Enterprise Console Rule Developer's Guide*.

[Prefixes used in prolog file names](#)

The Tivoli Enterprise Console product previously required the use of the `tec_r` prefix in Prolog files that were used with the **TECpcomp** command or predicates that operated with Prolog files, such as the `compile` or `consult` predicates. For version 3.9, files no longer need the prefix. If existing files contain the prefix, the prefix is automatically removed when you compile the file. For additional information about prefixes for Prolog files, refer to the *IBM Tivoli Enterprise Console Rule Developer's Guide*.

[Upgrading rule bases to version 3.9](#)

For rule bases created for versions 3.6.x, the `WIC` and the `root.baroc` files are automatically upgraded when you upgrade to version 3.9. To use the upgraded rule bases, you must recompile and reload them. Rule bases that were created in a 3.7.x or later version of the Tivoli Enterprise Console product do not need to be upgraded.

[Deprecated BAROC features](#)

The following items are deprecated in version 3.9 and will not be supported in future releases. When TEC 3.9 rule compiler encounters any of the deprecated items, a warning message is issued. These are the deprecated items:

- Multiple Class Inheritance Event classes can no longer inherit from more than one superclass. Single class inheritance is not deprecated.
- Using an event class name as an attribute type Base data types no longer include event class names. Valid base data types are now enumerated types: `INT32`, `INTEGER`, `REAL`, and `STRING`.

[Changes to the first instance and all instances predicates](#)

The `first_instance` and the `all_instances` rule language predicates now validate that each attribute referenced in an attribute filter has been defined in one of the classes listed in the class filter. That is, to filter on an attribute, the attribute must be defined in the class that causes the rule to run or in a Super Class that the class inherits from. For example, if the attribute **disk** is not defined in the event class `Logfile_Baroc`, the following use of the `first_instance` predicate is not valid:

```
first_instance(event: _dup_event of_class 'Logfile_Base' where [ disk: equals 'c:' ] )
```

Attribute filters in rules are checked to ensure that the type complexity (SINGLE or LIST_OF) of the attribute in the filter is the same as the filter value. For example, the following rule results in a compilation error if the attribute **msg** is defined as a SINGLE complexity, while the value is a LIST_OF complexity.

```
rule: single_eq_list: ( event: _event of_class _class where [ msg: equals ['one', 'two', 'three'] ]  
action: ( drop_received_event ) ).
```

Differences in predicate behavior from past releases

In version 3.6.x of the TEC, the `all_instances` and the `first_instance` rule language predicates return different results from the event cache when a free class variable is used in the event filter. The returned result depends on whether or not a time window was specified. If no time window is given, then only events of leaf-node classes are returned. If a time window is specified, then all events in the cache are returned, including superclass events. In version 3.7 and later, this behavior changed so that the result does not include superclass events, regardless of whether or not a time window is specified. However, this is inconsistent with the way event filters handle free class variables

This has been corrected in version 3.7.1 and later of the Tivoli Enterprise Console product. Regardless of whether a time window is specified, when the `all_instances` or the `first_instance` rule language predicates are called with a free class variable in the event filter, all events in the event cache are returned. The following sample code returns all events in the event cache.

```
all_instances(event: _dup_event of_class _dup_class where [ status: outside ['CLOSED'] ],  
_event - 3600 - 3600
```

The behavior has also changed in these two predicates in the case where the event cache is searched for a superclass. In the following rule, version 3.6.2 of the Tivoli Enterprise Console product returns child class events of `NT_Base` and events of class `NT_Base` (a superclass).

```
all_instances(event: _dup_event of_class 'NT_Base' where [ status: outside ['CLOSED'] ],  
_event - 3600 - 3600
```

However, if the time window `_event - 3600 - 3600` is not specified, then only events of leaf-node classes are returned. This has been changed to return only events of leaf-node classes specified in the event filter, regardless of whether a time window has been specified.

Defect solutions included with this fix pack

IY71122

Symptom: After a period of time the Solaris `tecad_logfile` adapter binary stops processing events from a LogSources file, even though the `tecad_logfile` binary is still running. The period of time can vary from days to weeks and does not seem to happen at any regular interval.

Resolution: We found that if a large event was received by the adapter, the adapter could get caught in an infinite loop trying to pick up the remainder of the event even though the event was larger than the buffer and therefore it would never be able to pick up the remainder of the event. The adapter will now throw away events that are too large and log them in the trace log if logging is turned on for the adapter.

IY72679

Symptom: The HP logfile adapter hangs or cores. The HP logfile adapter is making non thread safe calls. This problem was fixed in IY56169 for all platforms except HP. The problem could not be fixed in `hpux10` due to threading issues.

Resolution: We now compile on `hpux11` so the fix can be ported. In order to port the fix we also have to change the HP logfile adapter to use the Enhanced EIF.

IY73134

Symptom: When the `-S` option is used with `postemsg`, and at some point in time previously a copy of the 3.6.x version of the AS/400 adapter existed, the `ServerLocation` from the old configuration file would be picked up and `postemsg` will attempt to send to the server from the old configuration file.

Resolution: Pulled the code which tries to read the old configuration file (the file name was changed in post-3.6.x TEC).

IY73664

Symptom: Server failure with "Invalid object failure" error when using MS-SQL database.

Resolution: This can be caused when changes are made to the initial configuration of the RIM object or RDBMS user. Please see [IY73664](#) in the [Documentation Updates](#) section for further information.

IY73868

Symptom: When an SNMP adapter running on Unix receives a trap containing one or more unlauded characters, the adapter converts the unlauded characters to hexadecimal text.

Resolution: In order to resolve this problem, the adapter must be configured to run in a German locale. See the [Documentation Updates](#) section for further information.

IY73902

Symptom: Events from the TEC Non-TME AS400 adapters are received at the Event server with their underscore characters and semicolon characters replaced by other characters so the events get a PARSING_FAILED message. This only happens on an AS400 system that has a CCSID other than 65535 (for example when it is set to 1144 for Italian).

Resolution: The 2 configuration file parameters FromCCSID and ServerCCSID were available according to the source code but were not fully implemented. We changed them so that now users can set them and they will convert the event according to the CCSIDs set in the configuration file.

IY75333

Symptom: Sybase returns a 100028 soft fault when running **dbcc checkstorage**.

Resolution: This error is caused by TEC's use of **sp_placeobject** and can be ignored. See [IY75533](#) in the [Documentation Updates](#) section for further information.

IY75346

Symptom: **wrb -loadrb -use** causes the TEC server to crash.

Resolution: Server no longer crashes when using **wrb -loadrb -use**.

IY75567

Symptom: 1) A syntax error in an adapter configuration file filter statement is not reported if the adapter is run as a service/daemon. For this case, the adapter still starts. 2) A missing .fmt, .cds, .err, or .conf file is not reported if the adapter is run as a service/daemon. For these cases the adapter does not start.

Resolution: With this fix, the filter statement syntax errors will be written to the EIF log if tracing is enabled. Missing .fmt and .cds files will be written to the log specified in the .err file. Missing .err and .conf files will not be written to any log but an error message will be displayed if the adapter is started in debug mode.

IY75600

Symptom: The update_conf script used during the start and stop of adapters sometimes generates an error, for example:

```
/usr/local/Tivoli/lcf/dat/1/../../../../bin/aix4-r1/TME/TEC/adapters/  
bin/update_conf: no process to read data written to pipe
```

Resolution: The error will no longer be seen during start or stop of the adapter.

IY75984

Symptom: A duplicate rule set entry is not detected when importing a ruleset into a rule base target using the "-before" or "-after" options.

Resolution: Duplicate rule sets are now detected when importing a ruleset into a rule base target using the "-before" or "-after" options.

IY76327

Symptom: The TEC_ADMIN environment variable is not available to TME Tasks that are launched by the TEC Java Console or Web Console. Per page 160 of the TEC 3.9 Command and Task Reference Guide, the variable should be available to tasks launched by a Console.

Resolution: TEC_ADMIN is now present in the task's shell environment and is set to the label of the TME Administrator that launched the task.

IY76466

Symptom: If the TEC Server is stopped and restarted while the TEC Console is running, messages ECO2086I (TEC Server stopped) and ECO2087I (TEC Server started) will pop up N times on the Console display, where N is equal to the number of open event viewers. ECO2088I (TEC Server Initializing) may or may not pop up, but if it pops up at all, will also pop up N times.

Resolution: Messages ECO2086I and ECO2087I each pop up one time only per Server restart, regardless of how many Event Viewers are open. If ECO2088I pops up at all, it pops up only once per Server restart.

IY76715

Symptom: The Event Information HTML page displays garbled text for event slot values containing DBCS characters under the following conditions:

1. The Information page is launched from a TEC Console running in a DBCS locale and
2. The default cgi program (tec_help.pl) is used to generate the information page and
3. An HTML page for the event class is not available in \$BINDIR/./generic/HTTPd/Tec/<Console locale> or \$BINDIR/./generic/HTTPd/Tec on the managed node where Sample Event Information is installed.

Resolution: The Event Information HTML page displays the correct text for event slot values containing DBCS characters.

IY76781

Symptom: There is no indication by the logfile adapter when a LogSources file exists but cannot be read.

Resolution: With this fix, error logging can be enabled in the tecad_logfile.err (or tecad_win.err) file (UTILS MAJOR) to write this error condition to a file.

IY76832

Symptom: The documentation for SNMP_PORT which is on page 144 of the 3.9 Adapter's Guide should be removed.

Resolution: The SNMP_PORT parameter is not used by our SNMP adapter. The following line has been pulled from page 144 of the TEC 3.9 Adapter's Guide:

SNMP_PORT Specifies the port where the adapter listens for SNMP requests.

IY76869

Symptom: Event slot values containing DBCS characters become garbled when USESTATECORRELATION=YES is set in the TEC gateway configuration file and the TEC gateway host runs in a non-UTF8 DBCS locale such as Shift-JIS.

Resolution: Event slot values containing DBCS characters will be displayed correctly when USESTATECORRELATION=YES is set in the TEC gateway configuration file and the TEC gateway host runs in a non-UTF8 DBCS locale such as Shift-JIS.

IY77019

Symptom: Users are not able to start an adapter if they have two adapters with IDs and one ID is a prefix of the other ID. For example, if there are two adapters named "ain" and "ain_inbound" and "ain_inbound" is running, when the user starts the "ain" adapter they will get an error message stating: An adapter with identifier "ain" is already running.

Resolution: The adapter will now start even if the ID of one adapter is a prefix of a currently running adapter's ID.

IY77058

Symptom: The Windows logfile adapter fails to update the Registry with information about the last event processed from the Event Log. A MAJOR error message will be issued when there is a failure writing to the Registry.

Resolution: Retry logic was added in case there is a temporary lock on setting the registry.

IY77085

Symptom: When run as a service, any Windows-based adapter enabling State-based Correlation via the EIF C library will abort if one user logs off the adapter host and another user logs on.

Resolution: The adapter will no longer abort when one user logs off the adapter host and another user logs on. The adapter will continue running.

IY77098

Symptom: The documentation for exec_task_local() does not clearly state what the different return codes are. See [IY77098](#) in the [Documentation Updates](#) section for further information.

Resolution: The documentation has been modified to clearly state the return codes.

IY77187

Symptom: EIF event reception programs grow (due to memory leaks) when receiving events. Each new connection causes the program to grow by about 2K. The programs involved include tec_gwr and samples: eifrcv1 and iget. The memory leaks only happen on Solaris.

Resolution: The process size will grow by a few Kilobytes with the first few events but then will stop growing.

IY77217

Symptom: When the TEC Java Console's "Maximum Number of Events" preference for an Event Viewer is set to 0, no events are displayed when the Event Viewer is opened in the Web Console.

Resolution: When the "Maximum Number of Events" preference for an Event Viewer is set to 0, the Web Console will display events up to the limit configured in the "Maximum number of events to show in each event viewer" Web Console preference.

IY77253

Symptom: Garbled events appear at the TEC Server when using the tec_gwr if the machine sending the event is running in a different locale than the machine running tec_gwr.

Resolution: All events will show up correctly at the TEC Server, even if the tec_gwr machine sending the event is running in a different locale than the machine running tec_gwr.

IY77941

Symptom: There is no documentation which explains how to make the TEC UI Server work in an interconnected TMR environment.

Resolution: The missing documentation has been added. See [IY77941](#) in the [Documentation Updates](#) section for further information.

IY77944

Symptom: When the SNMP adapter runs on a German system, attribute values in a trap's \$VARBIND list may contain unlauded characters. Any unlauded characters in a \$VARBIND attribute are corrupted by the SNMP adapter and appear as question marks when viewed by the Event Console or wtdump* commands.

Resolution: The unlauded characters in the event appear correctly when viewed in the Event Console.

IY78139

Symptom: Need explanation on when change_* and exec_* predicates are acted on during event analysis.

Resolution: Added more information for when change_* and exec_* predicates are processed. See [IY78139](#) in the [Documentation Updates](#) section for further information.

IY78317

Symptom: wstopesvr can cause tec_reception to hang or core on AIX with TMF 4.1.1.

Resolution: The tec_reception process no longer hangs or cores during wstopesvr on AIX with TMF 4.1.1.

IY78386

Symptom: When logging in to the Web Console using an incorrect username or password, error message ECOWSO001E is displayed rather than the expected error message, ECOWSO002E. This problem occurs on WebSphere Application Server 5.0.2 when 5.0.2 Cumulative Fix 7 or later is installed. The problem also occurs on WebSphere 6.0.

Resolution: The correct error message ECOWSO002E is displayed when logging in to the Web Console using an incorrect username or password.

IY78440

Symptom: The all_clear_targets predicate fails to clear some target events when used in a user's rule base.

Resolution: The all_clear_targets predicate will successfully clear all target events when used in a user's rule base.

IY78521

Symptom: Distributing a tec_gateway or tec_gateway_sce profile to a Managed node fails.

Resolution: An incorrect call to an endpoint was being made during the distribution. This call has been altered so that the distribution will now work to a Managed node.

IY78541

Symptom: The instructions for "Upgrading the Web console without using the Install Assistant" in the 3.9.0-TEC-FP04 readme file result in a non-functional Web Console if applied on a WebSphere 5.0.x Application Server. The following error appears in SystemOut.log when logging in to the Web console:

```
java.lang.NoSuchMethodError: java.lang.StringBuffer: method
append(Ljava/lang/StringBuffer;)Ljava/lang/StringBuffer; not found
```

Resolution: The 3.9.0-TEC-FP04-README.doc has been updated to show instructions for installing the Web Console on WAS 5.0.x.

IY78569

Symptom: Using wsetemsg to set the status of an event may cause the TEC UI Server to crash if the size of the combined where clause for all the console's event group filters exceeds 4096 bytes.

Resolution: The UI Server will no longer crash no matter how large the console's event group filters are.

IY78794

Symptom: The wstartmaint.sh script sets start_time to one day earlier than requested during certain times of the day, for example when Central time is 9pm and GMT is 3am of the following day.

Resolution: Result is the correct time in your timezone as set by the wstartmaint.sh command.

IY78833

Symptom: upg_baroc.pl causes Rule Base corruption. When the base EVENT is replaced with a custom class in tec.baroc, the upgrade script will put duplicate entries into tec.baroc, resulting in this compilation error:

```
ECO3507E The enumeration type "HEARTBEAT_LEVEL" is already defined.
```

Resolution: The upg_baroc.pl script does not corrupt tec.baroc with duplicate entries.

IY78866

Symptom: On Solaris 8 or later, TEC server processes and/or client commands may core dump if nscd or /etc/hosts not properly configured due to TMF issue (APAR IY38638).

Resolution: This problem has been documented as a known issue in the *IBM Tivoli Enterprise Console Release Notes Ver. 3.9*. See [IY78866](#) in the [Documentation Updates \(Release Notes\)](#) section for more details.

IY78898

Symptom: When the machine load is high and there is a delay during the tec_gwr process start-up, the init.tec_gwr program displays "Not Started!" when the tec_gwr process has been started.

Resolution: A delay has been added to the script where it checks to see if the tec_gwr process has been started in order to give the process time to start up on a heavily used machine.

IY79064

Symptom: When used with the **-x r** option to replace a large number of existing operators in the TEC Database, the **wtecimport** command may take over an hour to complete.

Resolution: A few areas in the import code were optimized, therefore the **wtecimport** command is substantially faster when using the **-x r** option.

IY79072

Symptom: Need to document that the use of the DEFAULT keyword in a format file entry for a slot other than origin, hostname, or fqhostname will cause an event to not match the format file entry.

Resolution: Altered the documentation in the Adapters Guide. See the [Documentation Updates](#) section for further information.

IY79201

Symptom: The create event_sequence predicate does not work in all cases.

Resolution: Added more information to documentation describing event_sequence declaration constraints. Please see [IY79201](#) in the [Documentation Updates](#) section for further information.

IY79270

Symptom: When you attempt to do any of the following in the TEC Web Console,

- 1) Acknowledge an event that has been acknowledged by another operator
- 2) Acknowledge an event that has been closed by another operator
- 3) Close an event that has been closed by another operator

the Console's browser window will display an internal server error (error code 500).

Resolution: A Web console error was being thrown that should not have been thrown because it was caught at a different level. So the above conditions will no longer result in an internal server error being displayed.

IY79362

Symptom: Need to document that the minimum time setting for clearing closed events in the rules cache.

Resolution: Added documentation that the minimum time to clear closed events is one hour. See [IY79362](#) in the [Documentation Updates](#) section for further information.

IY79404

Symptom: The Adapters Guide gives an incorrect statement about maximum lines in a logfile.

Resolution: This line can be ignored and will be removed. See the [Documentation Updates](#) section for further information.

IY79455

Symptom: The non-TME TEC Gateway (tec_gwr) hangs when it tries to process an event that is greater than 4096 bytes. The tec_gwr tries to send the large event to the tec_gateway but gets a -1 return code from the EIF because the default EventMaxSize is exceeded.

Resolution: The fix is to change the EIF to return a 0 in this case to indicate that the event was filtered. So the large event is discarded and future (smaller) events are processed.

IY79577

Symptom: When multiple event viewers are open in the TEC Web Console, the event viewers that are not actively displayed may no longer refresh properly after a period of inactivity that exceeds the event viewer refresh rate. This problem occurs only with Internet Explorer 6.0 on Windows XP Service Pack 2.

Resolution: All event viewers will refresh properly no matter how long they are inactive, even if the inactivity time exceeds the event viewer refresh rate.

IY79674

Symptom: String predicates for the State Correlation Engine do not match attribute values that contain one or more spaces. For example, consider the following predicate:

```
<predicate>
  <![CDATA[ &msg == "server down"
  ]]>
</predicate>
```

This predicate fails to match events whose msg slot value has been set to **server down**.

Resolution: State Correlation Engine predicates must account for the fact that attribute values containing a space are enclosed with quotes by TEC. Please see [IY79674](#) in the [Documentation Updates](#) section for further information.

IY80056

Symptom: The file `/etc/Tivoli/acp_unknown` gets created when you distribute an adapter from a profile that was created by cloning.

Resolution: The file `/etc/Tivoli/acp_unknown` will no longer be created when distributing an adapter from a profile that was created by cloning.

IY80117

Symptom: Need to document new adapter behavior with regard to the LogSources keyword. In TEC 3.8, if a LogSources file could not be read for one or more poll intervals, the adapter still maintained a pointer to the last entry processed. Therefore, if the file could later be read, only additional entries were processed and sent as events to the TEC Server. Starting with the 3.8 Enhanced adapters and continuing to TEC 3.9, the internal pointer to a LogSources file is discarded if the file cannot be read. Therefore, if the file is rediscovered on a later poll interval, it is treated as a new file and each entry is processed.

Resolution: Documented the behavior in the TEC Adapters Guide. See the [Documentation Updates](#) section for further information.

IY80140

Symptom: The `tec_gateway` trace shows ERR (error) and WNG (Warning) for messages that should be TR2. Messages about starting up, shutting down and resolving `lhostname` were showing up as WNG and ERR in the trace even though they are not warning or error conditions. The three trace lines are:

```
tec_gateway[26338] WNG gw_send_event.c:382: STARTING UP tec_gateway
tec_gateway[26338] ERR gw_state_correlator.c:1160: lhostname==tecsun02
tec_gateway[26338] WNG gw_send_event.c:1858: SHUTTING DOWN tec_gateway
```

Resolution: The messages now show up in the trace log as TR2 messages. For example:

```
tec_gateway[12931] TR2 gw_send_event.c:382: STARTING UP tec_gateway
tec_gateway[12931] TR2 gw_state_correlator.c:1160: lhostname==tecsun02
tec_gateway[12931] TR2 gw_send_event.c:1858: SHUTTING DOWN tec_gateway
```

IY80176

Symptom: Each time a timer expires in the rulebase, `tec_rule` sends a modify message to `tec_dispatch` and `tec_dispatch` attempts to update the `TEC_Tick` event in the database. This update is not necessary.

Resolution: The attempted update of the `TEC_Tick` event has been pulled from the code so it will no longer try to update that event in the database.

IY80192

Symptom: When executing a TME task, the Web Console does not pass the `ev_key` environment variable to the task.

Resolution: The `ev_key` environment variable is now passed to the task when executing a TME task.

IY80231

Symptom: When the State Correlation Engine goes into suspend mode, the TEC Gateway disables or restarts the state correlation process.

Resolution: Fixed so that the TEC Gateway does not disable or restart the SCE when the SCE goes into suspend mode.

IY80284

Symptom: Active Directory GUIDs are not translated by Event Log Adapter.

Resolution: Active Directory creates events with GUIDs (in the format `%{f30e3bc2-9ff0-11d1-b603-0000f80367c1}`) that are converted to strings in the Windows Event Viewer but were not converted by the TEC Event Log Adapter. These strings are now properly converted.

IY80340

Symptom: When querying the base event attributes for the Event Details view, the TEC Console uses the columns from the `tec_v_console_list` view rather than the table `tec_t_evt_rep` table to get the list of attribute names. A customer had modified their `tec_v_console_list` database view (encouraged by a comment in the database setup scripts) and afterward could no longer see all of the base attributes in Event Details. This is because the Event Details view has always used the columns of `tec_v_console_list` to build the list of base attributenames.

Resolution: We will now pull the list of base attribute names from the columns of the tec_t_evt_rep table which cannot be modified by the customer.

IY80517

Symptom: DB2 is not supported on z/OS and this fact needs to be documented.

Resolution: Please see the note below the [Supported Databases](#) table in this document.

IY80562

Symptom: When running many **wsendresp** commands concurrently to send different popup messages to an Administrator's desktop, some messages may be lost and in their place will be duplicates of another message.

Resolution: The correct number of popups appear in the Console based on the number of **wsendresp** commands that were executed, and each message that was sent appears in one of the popups.

IY80628

Symptom: **wstopmaint.sh** sets start_time to one day earlier than requested during certain times of the day. (Related APARs are: IY78794 and IY64197)

Resolution: wstopmaint.sh sets start_time properly.

IY80636

Symptom: Start_Maintenance task sets start_time to one day earlier than requested.

Resolution: Start_Maintenance task sets start_time properly. See [IY80636](#) in the [Updating your task library](#) section for more information.

IY80821

Symptom: When an immediate message (sent using SNDMSG) is sent on the AS400, it should have a severity of 80. The immediate message is coming into the TEC server with a severity of zero.

Resolution: Set the severity of immediate messages properly so that they come into the TEC server with a correct severity.

IY81031

Symptom: When an AS400 message adapter is started from one AS400 login session and the user ends it from a different login session, the ENDTECADP command will display this message "Message file QTECAMSGF in *LIBL not found" when the user hits the F10 (display detailed messages) key. The adapter ends successfully but it will still display the message.

Resolution: The library containing the QTECAMSGF file is now added to the library list by the ENDTECADP command during command execution. If the library was not previously in the library list it will be added then removed as the command runs. If the library was previously in the library list, it will be left in the library list.

IY81242

Symptom: There has been a request for us to document the Prolog If-Then-Else predicate.

Resolution: Documentation has been added. Please see [IY81242](#) in the [Documentation Updates](#) section of this document for further details.

IY81285

Symptom: The TEC 3.9.0 FP04 console displays a pop-up error message, ECO2140E, when an operator without the RIM_Update or higher authorization role logs into the console.

Resolution: To fix this, a helper method will be added to the DBService to determine if the operator has the necessary Tivoli authorization roles for updating RIM (one of RIM_update, senior, super are required). The role check will be done globally at the TMR level, rather than at the resource level.

IY81590

Symptom: Logfile adapters with lots of incoming logsource data coupled with builtin 1 second minimum next interval delay (APAR IY65539) can lead to high system resource utilization.

Resolution: The solution provided by IY65539, while addressing the concerns specified at the time, needs to allow for better end user fine tuning of the max/min poll intervals. This allows the customer to tune their adapters so that tradeoffs between event processing flow and system resource utilization can be better controlled.

The change here will allow the customer to effectively specify a window in which a logfile adapter will continue to process pending events, if available. The window is specified via the existing PollInterval configuration parameter and a new MinPollInterval configuration parameter. Granularity is seconds with a minimum of 1 second for both parameters and the following behavior(s):

- Default PollInterval if not specified or incorrectly specified (not a positive integer) is 120 seconds
- Our default tecad_logfile.conf files have PollInterval=30
- At adapter startup or reload time, MinPollInterval is either set as properly specified, defaults to 5 seconds or is set to same as PollInterval if value (specified or default) of MinPollInterval > PollInterval.
- As of this APAR, the logfile adapter will:

- 1) Logsources will be polled each "PollInterval" seconds.
- 2) If more data is available and the event FIFO (pipe) is full, then reset the next poll interval to be (PollInterval/2) if > MinPollInterval or MinPollInterval if not. This will continue until all pending data is processed.

So for example with PollInterval of 30 seconds and MinPollInterval of 5 seconds and lots of pending Logsource data the adapter will:

- Process logsources after approx 30 seconds and send events to FIFO until FIFO is full.
- Reset next poll interval to 30/2 -> 15 seconds
- Process logsources after approx 15 seconds and send events to FIFO until FIFO is full.
- Reset next poll interval to 15/2 seconds -> 7 seconds
- Process logsources after approx 7 seconds and send events to FIFO until FIFO is full.
- Reset next poll interval to 5 seconds (7/2 -> 3 seconds is < MinPollInterval so we use MinPollInterval).
- Process logsources after approx 5 seconds and send events to FIFO until FIFO is full.
- Continue processing logsources approx every 5 seconds while pending events continue to fill FIFO. Once there are no more pending events, we will reset next poll interval to the original 30 seconds.

Please see [IY81590](#) in the [Documentation Updates](#) section for details about the MinPollInterval keyword.

IY81662

Symptom: On Windows 2003 systems, the Tivoli tar command must be used to uncompress the 3.9.0-TEC-FP05-TME.tar file before installing the TME portion of the fix pack. Users may use winzip to uncompress the gzip (gz) file which results in a tar file, but the tar file must be uncompressed using the Tivoli tar command, not winzip. If winzip is used to uncompress the tar file then users will see errors during installation of the UI Server and Console portions of the fix pack.

Resolution: Documented a workaround for this problem. Please see the following link: [IY81662](#).

IY81691

Symptom: **wtecimport** may remove all of the operator assignments from a console if any one of the saved operators is not a valid Tivoli Administrator.

Resolution: All of the operator assignments will no longer be removed after the **wtecimport** command is run even if one of the saved operators is not a valid Tivoli Administrator.

IY82418

Symptom: On Solaris 10, the TEC 3.9.0 FP04 TME console fails with the following error when running the **wconsole** command.

```
ECO2097E: An exception occurred while waiting for client helper to connect in. The waiting
time is (in seconds): "6"
java.net.SocketTimeoutException: Accept timed out
ECO2096E: An exception occurred while accessing Tivoli Management Region.
com.tivoli.framework.runtime.ExCommFailure vmcid: 0x0 minor code: 22 completed: No
```

Resolution: The **wconsole** command will no longer fail on Solaris 10 using the Fix Pack 4 TME console.

IY82303

Symptom: The TEC Web Console cannot log in to a managed node whose object dispatcher is configured with the following settings.

Perform local hostname lookup for IOM connections = TRUE

Use Single Port BDT = TRUE

Resolution: Please see [IY82303](#) in the [Known Problems, Limitation and Workarounds](#) section for a workaround.

IY82470

Symptom: The EIF SDK fails to compile with GLIBC 2.3.x on Red Hat 3 Compilation fails with "undefined reference to `__ctype_b'" (and other similar errors) because of a Red Hat change in GLIBC 2.3.x on linux-ppc.

Resolution: Use Red Hat's compat-glibc package to compile using older GLIBC libraries or update your EEIF library with the provided object file. NOTE: This only works with the new EEIF libraries (lib*eeif*.a).

IY82602

Symptom: On Windows, the Non-TME TEC Console installer fails to create the icons associated with the software under the 'Start -> Programs -> IBM Tivoli Enterprise Console' menu. This problem occurs only if the Windows 'Regional and Location Options' have the following selections.

Location: Brazil

Standards and Formats: Portugese (Brazil)

Resolution: On Windows, the Non-TME TEC Console installer will no longer fail under the condition above.

IY82738

Symptom: The TEC Web Console executes the trouble ticket command under the user ID that was configured during installation of the Web Console, rather than that of the user who opened the trouble ticket.

Resolution: The TEC Web Console will no execute the trouble ticket command under the user ID of the user who opened the trouble ticket.

IY82864

Symptom: Need some extra tracing to show when there are problems creating the rules trace file.

Resolution: Tracing was added around the creation of the rules trace file to ensure proper problem determination.

IY83053

Symptom: The TEC Web Console can cause an OutOfMemoryError in WebSphere when users are logged in for an extended period of time (for example, 20 web console sessions open concurrently for 48 hours) and have their event viewers configured for a low refresh interval.

Resolution: The leak was found in Presentation Services v5.1. We upgraded to PS v5.1 in 3.9.0-TEC-FP04 in order to support WAS 5.1.1 and WAS 6.0.

IY83170

Symptom: In the TEC Console, automated tasks fail to pass any extended slots into the task environment, whereas manually executed tasks do pass the extended slots.

Resolution: Automated tasks will now pass extended slots into the task environment.

IY83461

Symptom: The TEC 3.9 fix pack 5 JRE should be a pre-requisite install to the TEC server, Console, and UI server components because all of these components at some level need the JRE. If the TEC 3.9 Fix Pack 5 JRE is not installed with the other 3.9 fixpack 5 components, the ITM 6.1 event sync install may fail.

Resolution: Made the TEC 3.9 Fix Pack 5 JRE a pre-requisite install to the TEC server, Console, and UI server components. If the TEC 3.9 Fix Pack 5 JRE is not installed before the user tries to install the 3.9 Fix Pack 5 TEC Server, UI Server, or Console components, they will receive an error stating that the JRE is a pre-requisite.

IY83592

Symptom: When configuring the event database in the TEC Install Assistant, you are not allowed to uncheck the 'Create RIM Object' setting if the 'New Install' and 'Generate Only' choices are selected in the install wizard.

Resolution: You will now be allowed to uncheck the 'Create RIM Object' setting in the scenario described above.

IY83938

Symptom: A timer rule fired on a dropped event can cause tec_rule to SIGSEGV.

Resolution: When events are dropped, all timers associated with that event are dropped as well so they will not fire later. Please see [IY83938](#) in the [Documentation Updates](#) section for a workaround.

IY84010

Symptom: The TEC Web Console displays times in GMT if daylight savings time is in effect on the client machine and the browser client is Internet Explorer, regardless of the actual time zone setting on the client machine.

Resolution: Times will now be displayed in the correct time zone by the WebConsole.

IY85387

Symptom: The logfile adapter appears to hang or significantly slow down in the processing of events. During the hang, CPU usage is not excessive and no events get sent. During the slow down, events are still sent but there is a long delay (up to several hours) between being written to the log and being sent to the TEC Server.

Resolution: It appears that the pipe space that the adapter uses was slowly getting smaller and smaller due to a common variable being used to keep track of the pipe space size. This variable under certain circumstances was getting updated to by 2 different threads and therefore was inaccurate over a period of time, making the pipe space appear smaller than it actually was. This problem has now been fixed.

184725

Symptom: The cache is not flushed when the C Event Integration Facility tec_destroy_handle() API is called; for example, when a custom adapter sends an event to the event server and immediately destroys the handle.

Resolution: A new API, tec_destroy_handle_delay(), has been added that will allow time for the cache to be flushed before the handle is destroyed. See the [Documentation Updates](#) section for further information.

186823

Symptom: The ability to hard code an attribute value using the baroc file in regard to received events.

Resolution: Changed the behavior associated with the parse facet. If the parse facet is set to no, an attribute retains the defined default value if the attribute is set within a received event and the event id processed. Previously, the event failed parsing. See [186823](#) in the [Documentation Updates](#) section for further information.

Defect solutions included as of 3.9.0-TEC-FP04

IY64639

Symptom: When the State Correlation Engine (SCE) terminates, hangs, or becomes unavailable for whatever reason during operation of the tec_gateway process, the TEC Gateway can no longer send events.

Resolution: A notification event is now sent indicating the SCE is no longer available. The gateway will continue to receive and send events, but will no longer send events to the SCE but will instead send them directly to the TEC Server. See [IY64639](#) in the [Documentation Updates](#) section for further information.

IY64697

Symptom: The TEC Server hangs at startup if there are many events in the queued state (for example 20,000 events), and events are being posted to the TEC Gateway via adapters/wpostzmsg while the server is starting.

Resolution: The event server starts successfully, and the queued events are processed.

IY65130

Symptom: The tec_task process can end abnormally when the exec_program() predicate is called.

Resolution: A memory overwrite error has been resolved in the tec_task process.

IY65201

Symptom: When using the create_event_sequence predicate, the 'clears' statement conditions are ignored.

Resolution: These conditions are now checked and completed.

IY65276

Symptom: When copying a rule base to another rule base, any imported data files are not copied.

Resolution: Imported data files are now copied if the rule base targets are copied. See the [Documentation Updates](#) section for further information.

IY66246

Symptom: If the configuration file as denoted in re_send_event_conf(_conf,_event) does not exist, tec_rule CPU usage climbs to 100%. This occurs after a large number of calls to re_send_event_conf over an extended period of time.

Resolution: An error message is now sent to the tec_rule trace file if the configuration file does not exist, and a failure is returned before the event is processed by the EIF.

IY66429

Symptom: When re_send_event_conf() is called, a server path entry is added to the server_path attribute list. There are no checks in place to make sure the list doesn't grow beyond usable lengths if the event is continually resent.

Resolution: The attribute list is checked to ensure the length does not exceed a usable limit of EventMaxSize which by default is 4096 bytes.

IY66689

Symptom: When upgrading an event database from 3.7.1 to 3.9, with Tivoli Decision Support (TDS) for Event Management installed, the upgrade may fail due to the existence of a TDS trigger.

Resolution: Using the supplied SQL scripts, the database upgrade can be completed successfully. See the [Documentation Updates](#) section for further information.

IY67193

Symptom: The *IBM Tivoli Enterprise Console Version 3.9 Adapters Guide* needs clarification regarding the NumEventsToCatchUp configuration option. Specifically, concerning under what circumstances will an event that has already been processed be re-read by the adapter.

Resolution: The configuration parameters have been updated in the Adapters Guide. See the [Documentation Updates](#) section for further information.

IY66801

Symptom: (w)chkclass command returns different results than the wrb baroc parser.

Resolution: The results from the (w)chkclass command are identical to the wrb baroc parser.

IY66867

Symptom: Closing a large number of events (for example 500 or more) that are not in the event cache can result in the status slot for one or more of the events being set to 16 or another value not defined by the STATUS enumeration in root.baroc.

Resolution: Invalid status values are no longer assigned or stored in the event database.

IY66875

Symptom: The line immediately above the adapter entry in the **rc.shutdown** file is deleted.

Resolution: This line is no longer deleted.

IY66997

Symptom: The Start_Maintenance task fails on HPUX with the errors "expr: An integer value was expected" and "expr: Syntax error"

Resolution: The Start_Maintenance task now runs on HPUX without error. See [IY66997](#) in the [Installation and Configuration](#) section for information about updating the task library for this problem.

IY67023

Symptom: The tec_server can have an oserv failure during shutdown

Resolution: The tec_server shuts down correctly.

IY67078

Symptom: Unable to set host in maintenance mode after reloading the rule base using the **wrb -loadrb -use** command.

Resolution: The User will need to run **\$BINDIR/TME/TEC/wrbupgrade -n <rule base name>** to update the designated rule bases .load_templates file. There is no real need to update the rule set files.

IY67231

Symptom: Failure to initialize state based correlation for the Windows event logfile adapter can lead to an application fault. The fault occurs in the msvcr7.dll wscanf() function.

Resolution: An appropriate error message is now displayed if the adapter is not initialized correctly.

IY67272

Symptom: Database errors may be seen if an internal event calls an exec_* function and the internal event is dropped.

Resolution: A 'WNG' message is now logged in the trace file, indicating the event was dropped before the task was executed.

IY67330

Symptom: **wsetemsg** does not set the Administrator attribute (slot) when used to update an event's status. This is inconsistent with the behavior of the TEC Console, which always sets the administrator slot when changing the status of an event.

Resolution: The administrator attribute is now set correctly by **wsetemsg**.

IY67395

Symptom: Editing a rule using the GUI Rule Builder generates an oserv error on Linux-ix86 which prevents the Rule Edit GUI from being displayed.

Resolution: The Rule Edit GUI is displayed.

IY67422

Symptom: The report generated by the print_event_activity call does not display event activity.

Resolution: Using the update_event_activity call to record event activity was not documented within the event activity calls. The needed information has been added to the Rule Developer's Guide. See the [Documentation Updates](#) section for further information.

IY67714

Symptom: The option for adding a unique adapter identifier for **wsetaddflt**, **wsetac** and **waddac** does not work for customized default adapter types.

Resolution: The unique identifier can now be added with these commands.

IY67883

Symptom: When FQDomain is set to "YES" for the windows logfile adapter, the logfile adapter process can leave process and thread HANDLE resources open and can eventually exhaust systems capacity for total number of handles. This will happen if normal hostname resolution via DNS api calls fails in which case the adapter will fall back to executing an nslookup via a spawned command.

Resolution: The spawning of the nslookup command using the CreateProcess() API leaves open 2 process handles which it is the callers responsibility to clean up. We were not cleaning up those handle resources prior to this fix. With this fix, if we do resort to using nslookup for FQDomain resolution, we will now remove the handle resources when we are finished and no longer need them.

IY68034

Symptom: The TEC Web Console is slowed when the WebSphere server cannot resolve the hostname of the browser client.

Resolution: Use a Web Server plug-in rather than the internal WebSphere HTTP transport to access the TEC Web Console. See the [Documentation Updates](#) section for further information.

IY68094

Symptom: The AS400 Message adapter does not pick up events after the message queue is deleted. The adapter sends a warning that the message queue has been deleted, but does not retrieve new messages when the queue is re-created.

Resolution: New messages are now displayed after the notification that the message queue has been deleted.

IY68248

Symptom: ACF distribution does not always distribute the appropriate adapter/gateway files even though no apparent errors are logged or displayed.

Resolution: In the event an ACF profile distribution does not complete successfully, an error will now be displayed and logged in the `lcf.d.log` file. The tracing information has also been improved using a higher level of trace that will yield more detailed error information in the `lcf.d.log` file.

IY68263

Symptom: The *IBM Tivoli Enterprise Console Version 3.9 Rule Developer's Guide* lists incorrect information about starting the Prolog interpreter.

Resolution: The steps listed on page 443 of the *Rule Developer's Guide* have been updated to inform the user to start the interpreter from the `$BIM_PROLOG_DIR/bin` directory. Starting the interpreter from another directory, regardless of the `$PATH` configuration, can result in an error. See the [Documentation Updates](#) section for further information.

IY68620

Symptom: `wconsole -lconsoleup` displays duplicate entries for each event viewer opened by a TEC Java Console. Only one line per Java Console should be displayed.

Resolution: The correct number of entries are now displayed.

IY68651

Symptom: The `commit_set` predicate does not function correctly in a rule action.

Resolution: The regular expression parsing has been corrected, thus allowing the `commit_set` predicate to function appropriately as documented in the *IBM Tivoli Enterprise Console Rule Developer's Guide*.

IY68767

Symptom: When entering Configuration Information in the TEC 3.9 Installation wizard for the Web Console, if the `oserv` is down on any of the Managed Nodes in the TMR region, the following error will appear even if a connection to the TMR server can be established:

```
"The connection to the Tivoli server failed. To verify the information that you entered, click CANCEL. Otherwise, click OK to proceed using the specified information."
```

If OK is clicked, the Web Console will install, but the list of managed nodes that comes up after clicking OK has a potential problem. The only managed node listed is the one corresponding to the TMR Server. If the UI Server is on a managed node that is not the TMR Server the Web Console will be installed but will not allow the user to log in.

Resolution: The error message is no longer displayed, and a list of managed nodes is presented correctly.

IY68778

Symptom: When using the **forward_event** action to send events from one TEC Server to another, the `ConnectionMode` conf file keyword is ignored. The conf file used with the **forward_event** action is `tec_forward.conf`. The connection mode used is always `connection_less`. This is most easily seen by using the `netstat -a` command, where a separate connection for each event that was forwarded is displayed.

Resolution: The **ConnectionMode** configuration parameter is now used, and the correct results can be seen when issuing the `netstat -a` command.

IY68970

Symptom: The *IBM Tivoli Enterprise Console Version 3.9 Rule Developer's Guide* does not show the proper way to use the `sprintf()` predicate when more than one `_value` is listed.

Resolution: In order to use more than one `_value` in the `sprintf()` predicate, enclose the comma-separated list within square brackets (`[]`). An example has been provided illustrating the correct usage of the `sprintf()` predicate where more than one `_value` is listed. See the *IBM Tivoli Enterprise Console Version 3.9 Rule Developer's Guide* section of the [Documentation Updates](#) for further information.

IY69101

Symptom: Compiling a Rule Base with DBCS strings in an `exec_task` or `exec_program` predicate can fail with the following Java exception:

```
java.lang.ArrayIndexOutOfBoundsException:  
    at com.oroinc.text.regex.Perl5Matcher._repeat
```

Resolution: This is caused by a problem with a third party regular expression library and cannot be fixed at this time. Please see the [Known Problems, Limitations, and Workarounds](#) section for a workaround.

IY69047

Symptom: A short refresh time such as 1 second in the Event Groups View or Event Viewer List in the console causes increased utilization of the CPU on the database server where the TEC database is installed.

Resolution: The *IBM Tivoli Enterprise Console Version 3.9 User's Guide* has been updated with a detailed explanation of the factors which affect CPU utilization on the database server when Event Consoles are used. See the [Documentation Updates](#) section for further information.

IY69520

Symptom: The EIF SDK does not compile with GLIBC version 2.3.x on the Red Hat Enterprise Linux 3 operating system.

Resolution: The Red Hat compat-glibc package must be used to compile with the older GLIBC libraries, or use the updated object file, `ctype_eif_23x.o`, included with this fix pack. See the [Fix Pack Notes](#) section for more information about using either option.

IY69537

Symptom: Some logfile adapter messages displayed in double-byte character sets appear malformed or unreadable.

Resolution: The UTF-8 conversion code in the adapter has been updated, and the message text is now displayed correctly.

IY69665

Symptom: The error handling for the `'wtbbspace runstats'` command does not behave as expected.

Resolution: The `wtbbspace` command has been updated to display any error messages that are returned by the unlink call and reset the error handling variables before making the next system call. Additionally, the temporary file names are now generated using the process ID instead of a time stamp.

IY69720

Symptom: After the 12th day of each month the TEC Console receives an 'RDBMS cannot be reached' error when the user attempts to Acknowledge or Close an event. This occurs in an environment where the database server is Microsoft SQL Server (version does not matter), the locale of the TEC Server and database server is French and the RIM user is configured in Microsoft SQL Server to use French as the default language.

Resolution: The Console now uses the ODBC standard time format, allowing for correct queries to the database regardless of the system locale.

IY69755

Symptom: The `tec_disp_clt_lock_timeout` configuration parameter is not documented in *IBM Tivoli Enterprise Console Version 3.9 Command and Task Reference* documentation.

Resolution: The documentation in the *IBM Tivoli Enterprise Console Version 3.9 Command and Task Reference* manual has been updated to include this configuration parameter. See the [Documentation Updates](#) section for further information.

IY70219

Symptom: When performing Task Execution on an event in the TEC 3.9 Java Console, any trailing spaces contained in an event slot value are stripped off when the slots are passed to the task.

Resolution: The trailing white space characters are correctly preserved in the event attribute.

IY70288

Symptom: `tec_rule` removes `&`, `%` and `!` from attribute strings

Resolution: The characters `&`, `%` and `!` are no longer removed from the attribute strings.

IY70481

Symptom: If an operator of the TEC Web Console is a TME Administrator whose name contains a blank, the administrator slot of an event does not get updated when the operator closes or acknowledges the event.

Resolution: The administrator attribute is now correctly updated.

IY70908

Symptom: Application of 3.9.0-TEC-FPO3 ACF component causes ACP distributions to fail with timeout errors if the profiles after actions (see "Actions" pane for adapter profile configuration) have additional after actions added to the default after actions. The timeout is due to the `acpep` process, which runs on the endpoint, failing as a result of the added after actions.

Resolution: Additional trace added for a prior fix led to a buffer overflow when formatting the after actions for printing to trace. The buffer, which was sufficient for the default after actions, did not correctly allocate enough space for additional after actions items. Buffer allocation for tracing has been corrected to allocate required space.

IY71136

Symptom: Event filtering documentation is not clear regarding class hierarchy.

Resolution: `Filter:Class=` statements must list every class and not just parent classes. See the [Documentation Updates](#) section for further information.

IY71145

Symptom: On HP/UX 11, `postmsg -S <hostname> <CLASS> <SOURCE>` caches the event though nslookup resolves the host to an IP address.

Resolution: See the [Known Problems, Limitations, and Workarounds](#) section for available solutions.

IY71318

Symptom: TEC 3.9 EIF receiver function requires "`BufferEvents=NO`".

Resolution: See the [IY71318](#) in the *Tivoli Event Integration Reference Version 3.9* in the [Documentation Updates](#) section for more configuration information for this parameter and its usage.

IY71489

Symptom: The global preferences for all TEC operators are reset to the default values if the preferences were last modified by a TEC 3.9 Fix Pack 1, 2, or 3 console when connecting to a 3.9 Fix Pack 3 UI Server with any of the following consoles:

TEC 3.7.1 Fix Pack 4, 5, or 6

TEC 3.8 Fix Pack 1 or 2

TEC 3.9 RTM

This occurs regardless of whether or not version checking is enabled on the UI Server.

Resolution: Global preferences set by a Fix Pack 4 console will not be reset to the default values, provided the special installation instructions for the APAR are followed. Please see the [important note](#) in the [Fix Pack Notes](#) section for more information about this issue as well as restricting the use of different versions of the console with the UI server.

IY71659

Symptom: The format specifier `%s*` will match leading white spaces when the specifier immediately follows a constant or literal value.

Resolution: This is a limitation of the `%s*` format specifier, and is documented in the [Known Problems, Limitations, and Workarounds](#) section of this Readme file.

IY71669

Symptom: When the `tec_ui_server_conn_keepalive_interval` option is enabled on the TEC UI Server, and the UI Server Managed Node is TMF version 3.7.1, any console that connects to the UI Server will display a blank gray screen. The following exception will appear in the console command window/shell:

```
com.tivoli.framework.runtime.ExObjAdapter minor code: 17 completed: No
```

Resolution: When the Managed Node is TMF version 3.7.1, the `tec_ui_server_conn_keepalive` option will be disabled. This option is now only available when used with TMF version 4.1 or later.

IY71967

Symptom: The TEC event server and logfile adapter does not function on the Solaris 10 operating system.

Resolution: The event server and underlying adapter libraries have been updated to operate on the Solaris 10 operating system.

IY72257

Symptom: The description of the `exec_task_local()` predicate in the *IBM Tivoli Enterprise Console Rule Developer's Guide, Version 3.9*, is incorrect.

Resolution: The `file_name` argument should be changed to `task_name` and the description should state it can be run on Managed Nodes and Endpoints. See the [Documentation Updates](#) section for more information.

IY72345

Symptom: When stopping/starting the Unix logfile adapters, the wrong lock files could be removed.

Resolution: When shutting down, the logfile adapter checks to make sure the lock files it removes have not been created by a newly started adapter.

IY72347

Symptom: When a machine is rebooted the Unix logfile adapter does not start but the `/etc/syslog.conf` file is properly updated. When `init.tecad_logfile` calls `update_conf` to add the appropriate lines to `/etc/syslog.conf`, the value returned in `$?` is 1.

Resolution: The adapter startup logic has been corrected and no longer exhibits this behavior.

IY72353

Symptom: If the ACP defaults are deleted for a TEC adapter prior to the fix pack installation, the ACF fix pack component installation does not recreate the ACP Defaults for that adapter type. In this situation the TME Administrator cannot create an ACP profile entry for that adapter type.

Resolution: If the ACP default values are not available, they are automatically generated.

IY72403

Problem: The logfile adapter on Solaris will shutdown if CTRL-C is entered in the same terminal that started the adapter.

Resolution: This problem has been documented as a known problem in the *IBM Tivoli Enterprise Console Release Notes Ver. 3.9*. See the [Documentation Updates \(Release Notes\)](#) section for more details.

IY72477

Symptom: An event with a STRING slot containing a left bracket ([) will not be loaded into the rules cache during an event server restart.

Resolution: The event will be properly loaded into the rules cache.

IY72489

Symptom: On Windows 2003 Server, the Enhanced Windows Adapter generates greater than 500 kilobytes of I/O activity every time it polls for events, even if there are no events available to be processed.

Resolution: If no new events were available in the log since the previous poll, the adapter was unnecessarily overwriting the event ID and timestamp in the registry with identical values from the previous poll interval. The behavior was changed so that the timestamp is calculated and the registry values are written only if a new event has been processed from the event log during the current poll.

IY72491

Symptom: The *IBM Tivoli Enterprise Console Rule Developer's Guide, Version 3.9*, incorrectly shows examples of the `fopen()` and `fclose()` predicates in separate actions.

Resolution: The `fopen()` and `fclose()` predicates should be included in the same `action` in order to keep the `_fp` variable within scope. See the [Documentation Updates](#) section for more information.

IY72690

Symptom: The TEC Windows Adapter cannot send events after a reboot if the cache file is corrupt.

Resolution: The adapter will create a backup of the corrupt cache file, called `<cache_file_name>.corrupt`, and then create a new cache file to use. See also [IY74177](#).

IY72851

Symptom: Defining a user defined predicate with the same name as an existing built-in predicate causes the `tec_server` process to fail upon startup.

Resolution: The *IBM Tivoli Enterprise Console Rule Developer's Guide - Appendix A* has been updated to mention this problem. See [IY72851](#) in the [Documentation Updates](#) section for details.

IY72862

Symptom: On Solaris, "`init.tecad_logfile stop <adapter ID>`" fails to stop the named adapter under the following conditions:

- 1) The lock file for the named adapter has been deleted
and
- 2) "`bin/tecad_logfile -n -c $TECADHOME`" is greater than 80 characters in length once `$TECADHOME` is expanded for the named adapter.

Resolution: The "`init.tecad_logfile stop <ID>`" command now stops the specified adapter when the length of the "`bin/tecad_logfile -n -c $TECADHOME`" is greater than 80 characters.

IY72983

Symptom: Modifying an event with "`re_mark_as_modified`" in a change rule does not update the event in the database.

Resolution: Events modified with "`re_mark_as_modified`" in a change rule will be updated in the database.

IY73012

Symptom: The TEC Web Console displays the following messages as garbled text if the locale of the WebSphere Server and the locale of the TEC Server differ:

```
ECO:0001:0084 - The Tivoli Enterprise Console Server is running.  
ECO:0001:0059 - The Tivoli Enterprise Console Server is not currently running.  
ECO:0001:0322 - The Tivoli Enterprise Console Server is initializing . . .
```

Resolution: Updated messages have been provided for the supported NLS languages and now display correctly.

IY73092

Symptom: The `wtdbSPACE` command fails if the `$BINDIR/TME/TEC/sql/db2_runstats` script generates any DB2 warning message.

Resolution: The `wtdbSPACE` command has been updated to correctly differentiate between DB2 error and warning messages and will now only fail on error messages.

IY73291

Symptom: The Java EIF `sendEvent` API drops events containing the double quote character "" in the message slot.

Resolution: Slot values containing embedded double quote characters and other special characters must be enclosed with either single or double quotes and the embedded double quotes must be properly escaped. See the [Documentation Updates](#) section ([Tivoli Event Integration Facility Reference version 3.9](#)) for more information.

IY73386

Symptom: When creating a new Filter in the ACP Configuration panel, if one of the slot names being filtered starts with 'A' or 'B', the Filter will be saved in an invalid format which adapters will ignore at runtime.

Resolution: Filters created in the ACP configuration panel beginning with the letters 'A' or 'B' are now correctly saved and events are correctly filtered. NOTE: There was never a problem with slot names beginning with 'C' through 'Z'.

IY73563

Symptom: Event extended attributes that do not have a value are not inserted into the event database. These extended attributes can not be viewed from the *Event Console*.

Resolution: Documented a method to set extended attributes to a default value. See the [Documentation Updates](#) section for more information.

IY73643

Symptom: When installing the Java Console on a managed node, the installation can generate an error due to the incorrect revision level of the TEC_JCONSOLE object.

Resolution: The steps required to resolve this problem can be found in the [Known Limitations and Workarounds](#) section of this document.

IY73727

Symptom: Failure of the ACF after script during fix pack installation stops the installation of ACF.

Resolution: ACF will not fail if errors in the script are not critical to the installation.

IY74177

Symptom: If the cache file of the logfile adapter is corrupted the adapter can no longer send events after being restarted.

Resolution: The adapter will create a backup of the corrupt cache file, called <cache_file_name>.corrupt, then create a new cache file to use.

IY74244

Symptom: The **wtdumpri** command can print events improperly and in an inconsistent format when large events are in the Reception Log.

Resolution: The **wtdumpri** command output is displayed correctly when the reception log contains large events.

IY74316

Symptom: Send_Email task, when run from Windows, does not specify the To: entry. This can result in "undisclosed recipients" listed instead of a valid address.

Resolution: The Send_Email task has been modified to set the To: entry properly. See [IY74316](#) in the [Installation and Configuration](#) section for information about updating the task library for this problem.

IY74576

Symptom: When a new event is created in an event log that the Windows adapter is monitoring, the adapter generates approximately 500K of I/O activity per call to ReadEventLog, regardless of any updates to the event log.

Resolution: The Windows adapter has been updated to use only the necessary amount of I/O activity to read the event log data, and does not generate extraneous I/O activity.

IY74640

Symptom: The documentation surrounding the upgrading of the Web console component is not accurate with regard to uninstalling the current Web console components.

Resolution: The [Installation Instructions \(Upgrading the Web console using the Install Assistant\)](#) in the fix pack readme file have been updated to show the steps needed to upgrade the Web console using the Install Assistant.

IY74714

Symptom: The event server may continue to run when the event database is shutdown.

Resolution: A new configuration parameter, **tec_server_dbfail_shutdown**, has been created. Setting this to 'YES' instructs the server to shutdown when it fails to connect to the database. See the [Documentation Updates](#) section for a full description of the parameter.

IY74616

Symptom: User facts and predicates are not created using the user_predicates procedure.

Resolution: This only occurs on Windows environments with new TMF 4.1.1 installations. New instructions have been added to the user_predicate and compile predicate documentation. See [IY74616](#) in the [Documentation Updates](#) section for more information.

IY74861

Symptom: The rc.shutdown file entries created during an ACP distribution/installation of the SNMP adapter on the AIX operating system are not deleted when the adapter is removed via subsequent ACP distribution.

Resolution: The appropriate entries in the rc.shutdown file are now removed when an adapter is removed by a subsequent ACP distribution.

IY74964

Symptom: If a RIM error occurs while the console is attempting to save the operator's preferences, no error message is displayed.

Resolution: An error message will now be displayed in a pop-up message box.

IY75038

Symptom: After changing the root_user widmap entry for w32-ix86, the server no longer automatically starts when the oserv is restarted, but it does start with **wstartesvr**.

Resolution: This problem has been documented as a known problem in the *IBM Tivoli Enterprise Console Release Notes Ver. 3.9*. See the [Documentation Updates \(Release Notes\)](#) section for more details.

IY75056

Symptom: The State Correlation Engine drops events that have duplicate attributes defined.

Resolution: The SCE now accept events with duplicate attributes keeping the last value that is provided for an attribute. This is also how the legacy event server handles duplicate attributes. **NOTE:** Events should not be sent with duplicate attributes. It is an improper format and because duplicates are dropped data is lost. See the [Documentation Updates](#) section for more information.

IY75245

Symptom: The UNIX logfile adapter can fail to initialize if the /etc/syslog.conf file does not exist.

Resolution: When the adapter is initiated with the -s option, it will start when /etc/syslog.conf does not exist.

IY79980

Symptom: When TEC is installed with framework 4.1.1, the GUI rule builder may get an oserv general failure error "FRWOG0003E" if patch 4.1.1-TMF-0003 is not installed.

Resolution: Added patch 4.1.1-TMF-0003 to the recommended patches table on page 17 of the Fix Pack 4 Readme file. See the following link for more information on the 4.1.1-TMF-0003 patch: <http://www-1.ibm.com/support/docview.wss?uid=swg21158648>

164889

Symptom: The AS/400 adapter needs its version updated since it still shows V3R6M0 when customers check the version.

Resolution: The version has been updated to reflect the current TEC version. For this release it is V3R9M0.

165694

Symptom: When the TEC database contains an empty/null event i.e. an event with all 0 or null values, a NullPointerException is raised in the TEC Console Event Viewer if the user clicks on any of the show/hide severity toggle buttons. Due to the exception, the show/hide severity action does not get applied to the events in the Event Viewer table.

Resolution: No exception is raised in the command window/shell window of the TEC Console. The show/hide severity action is applied to the events in the Event Viewer table, and the events are filtered as expected based on which severity was toggled.

165770

Symptom: wtdb space fails with SQL30082N error from a DB2 client with the following error message:

```
SQL30082N Attempt to establish connection failed with security reason "17"  
("UNSUPPORTED FUNCTION"). SQLSTATE=08001
```

Resolution: wtdb space will now recognize this error and prompt for the DB2 user's password.

174886

Symptom: The rules compiler allows class names longer than the maximum of 64 bytes.

Resolution: Due to limitations with the database schema, class names must be no more than 64 bytes in length. The *IBM Tivoli Enterprise Console Version 3.9 Rule Developer's Guide* has been updated to reflect this. This information can also be found in the [Documentation Updates](#) section, under defect number [174886](#).

175948

Symptom: The Java EIF receiver consumes an excessive amount of CPU time when the receiver listens on only one server address/port and is idle, i.e. a connection is established to the receiver but no events are being sent over the connection.

Resolution: Used a different function in order to determine whether data is available to be read on the connection. If no data is available, the program returns immediately from that connection without creating a CPU expensive IOException.

178762

Symptom: After installation of Windows Server 2003 Service Pack 1 (SP1), a "general oserv failure" error may occur when installing patches and/or products through the Tivoli Management Framework (Desktop or CLI).

Resolution: Modifying configuration options within Windows will allow the correct installation of products and/or patches through the TMF. See the [Fix Pack Notes](#) section for more information.

179425

Symptom: Server failover does not work when multiple servers are specified in the ServerLocation setting when using a non-TME adapter.

Resolution: Fixed the code to honor multiple servers and to correctly send events to the failover servers if the primary server (the first one listed in the ServerLocation parameter) is not responding.

180040

Symptom: The /etc/rc.d/init.d/tec_gwr script becomes corrupted after the gateway is deleted via an ACP profile. Subsequent distribution appends to the corrupted "original" rc file and will then fail to start tec_gwr on reboot.

Resolution: The file is deleted completely as it should be when a delete is done.

180227

Symptom: MR0622053044: Request for logging of logfile byte position in adapter tracing

Resolution: The Logfile Adapter will now log trace information showing the byte location within a logfile that it is reading. This trace will be logged to the UTILS module with a LOW severity, as set through the tecad_logfile.err file. An example trace when reading a new line from the file /var/adm/proc5.log would be:

/var/adm/proc5.log: Last byte read=638

/var/adm/proc5.log: Read 48, last byte read=686

Defect solutions included as of 3.9.0-TEC-FP03

IY54436

Symptom: When two Java Console Operators modify event group filters at the same time, only one will be saved.

Resolution: Data is now protected so multiple changes can be made at once.

IY56782

Symptom: When the oserv shuts down, the Console continues running and appears to perform work, though it is not connected to the TEC server.

Resolution: When the oserv shuts down, a dialog is provided to either shutdown the Console or disable it.

IY56816

Symptom: Java and Web Consoles format slots differently when events are passed to CGI scripts or tasks.

Resolution: Format differences have been resolved. The slots date_reception, cause_date_reception, last_modified_time are printed out as numeric values. The severity slot is printed in string format instead of numeric value (e.g. HARMLESS instead of 20). The cause_date_reception slot is always fully spelled out instead of the cause_date_receptn abbreviation. Newlines and trailing spaces are properly printed.

IY57076

Symptom: Opening the Configuration View in the Java Console can take a long time when many Operators are defined.

Resolution: Performance has been improved when opening this view.

IY57527

Symptom: Netware adapter doesn't work with Netware 6.5

Resolution: Netware adapter now works with Netware 6.5

IY57643

Symptom: The **tecad_logfile.fmt** file supplied for linux-86 is not compliant with Red Hat 2.1/3.0.

Resolution: The default logfile format file was changed for linux-ix86 to reflect changes in Red Hat 2.1/3.0 message entries. To pick up these changes, you need to redistribute the **tecad_logfile.cds** file.

IY57986

Symptom: Need to document Parameters in the **.tec_config** file.

Resolution: See the [Documentation Updates](#) section for a description of the parameters.

IY58134

Symptom: Windows adapter has delays when sending large amounts of events from a LogSources file.

Resolution: No delay when there are pending events to send.

IY58245

Symptom: `wdbmaint.sh` fails against Oracle with "specified index does not exist".

Resolution: When an event server is upgraded from ITEC 3.8 (pre-FP02) to ITEC 3.9 and the event database is configured to use an Oracle database server, the following command must be executed in order to use the `wdbmaint.sh` utility:

`$BINDIR/TME/TEC/sql/ora_idx_upgrade.sh`

This command updates the database with three missing indexes (introduced in 3.8.0-TEC-FP02) required to reorganize the database via the `wdbmaint.sh` utility.

IY58277

Symptom: The UNIX Logfile Adapter shuts down after running "`kill -HUP`" when `LogSources` points to a non-existent directory.

Resolution: After issuing "`kill -HUP`" the adapter does not shutdown.

IY58303

Symptom: The Non-TME logfile adapter parses differently on 3.8.0-TEC-FP01 than it does on 3.9.0-TEC-FP01

Resolution: Documentation has been updated to reflect the reason for the different behaviors. See [IY58303](#) in the [Adapters Guide](#) section of the [Documentation Updates](#).

IY58867

Symptom: The UNIX Logfile Adapter shuts down on HPUX 11 after running "`kill -HUP`".

Resolution: After issuing "`kill -HUP`" the adapter does not shutdown.

IY58868

Symptom: Not allowed to configure task timeout from Java or Web Console.

Resolution: When running a task from the Console, a field is now available to specify the timeout period.

IY58910

Symptom: The SNMP Adapter loses events during a burst of traps.

Resolution: Trap bursts are handled better. Because of the nature of UDP, packet delivery is not guaranteed so packet loss is still possible under extreme loads.

Increasing the UDP high-water mark can also help this problem. For example, on Solaris:

- 1) Check the value of UDP:
`/usr/sbin/ndd /dev/udp udp_recv_hiwat`
- 2) The default is normally 8192. You can increase this value to 64k like this:
`/usr/sbin/ndd -set /dev/udp udp_recv_hiwat 65535`

IY58937

Symptom: When a `link_effect_to_cause` predicate is issued and the cause event is no longer in the rules cache, `tec_rule` crashes with a 211 SIGSEGV.

Resolution: `tec_rule` no longer crashes when this is done. After installing the fix pack, the `TEC_TEMPLATES` directory for your Rule Base must be updated for this change to take effect. To do this, run the following:

```
/etc/Tivoli/bin/perl $BINDIR/TME/TEC/upg_templates.pl <rule base path> 1
```

IY58951

Symptom: The TEC WEP has a translation error for French. The string "closed in 15 to 30 minutes" is improperly translated to "Ferm entre 15 30 heures"

Resolution: French text is properly translated.

IY59229

Symptom: `tec_dispatch` crashes when modifying an event in a non-C locale

Resolution: `tec_dispatch` no longer crashes under these circumstances

IY59230

Symptom: When a Task run from the Java Console fails due to a TMF error, the Console does not display the reason for the failure.

Resolution: Java Console provides a better error message.

IY59625

Symptom: Issuing `wsighup` against a running Windows Adapter service fails with "The service <servicename> is not correctly running".

Resolution: `wsighup` works as expected.

IY59743

Symptom: The `re_create` and `re_*_match` predicates fail on Linux.

Resolution: These predicates now work on Linux.

IY59888

Symptom: In WEP, EC2_c05_s030_src_transform fails when the message column in stage_evt_msg contains a string longer than 254 characters.

Resolution: EC2_c05_s030_src_transform does not fail under this condition.

IY59889

Symptom: In WEP, EC2_c05_s030_src_transform fails with an "Error in assignment" error when data is inserted into the wrong column.

Resolution: EC2_c05_s030_src_transform does not fail under this condition.

IY59907

Symptom: Logfile Adapter shutdown updates **syslog.conf** even when "-s" is specified.

Resolution: Shutting down the Logfile Adapter no longer updates **syslog.conf** when "-s" is specified.

IY59911

Symptom: There is no documentation for the SNMP Adapter CDS file keywords PRINTF, SUBSTR, IPNAME, IPADDR, and FQNAME.

Resolution: An update to the *IBM Tivoli Enterprise Console Version 3.9 Adapters Guide* has been provided explaining the keywords. The documentation includes examples. See the [Documentation Updates](#) section below.

IY59925

Symptom: Automated Tasks on the Java Console do not execute on Endpoints when the TEC 3.9 Language Pack is installed and the locale of the Console is not English.

Resolution: Automated Tasks now run under these conditions.

IY60354

Symptom: ACF and tec_gateway do not honor SPBDT settings on Linux Managed Nodes.

Resolution: ACF and tec_gateway now follow SPBDT settings.

IY60459

Symptom: When a rule in the State Correlation Engine modifies and then forwards an event, the event is not removed from the persistence store.

Resolution: The event is now removed from the persistence store.

IY60461

Symptom: The State Correlation Engine enters suspend mode before the maximum file size for the persistence files has been reached.

Resolution: With persistence enabled, the State Correlation Engine only enters suspend mode when the maximum file size has been reached.

IY60587

Symptom: tec_gateway distribution fails to a Windows Managed Node when the Administrator account does not exist.

Resolution: If you have renamed your Administrator account on a Windows Managed Node, you must properly set the USER of the profile before distributing a tec_gateway ACF profile. The USER field is set under the "General" tab in the profile entry.

You can set this to the name of the new Administrator account or "BuiltinNTAdministrator" to have it automatically determine your Administrator account.

You can also use a widmap entry, such as "\$root_user". This allows you to control the user for all profiles from the widmap interface and use the same profile for distribution to Windows and UNIX nodes. NOTE: After changing the root_user widmap entry for Windows, restart your Tivoli Desktop on Windows or you will not be able to create or distribute profiles properly.

If you leave USER as 0, it will default to "Administrator" on Windows nodes.

IY60870

Symptom: The drop_duplicate action always fails in simple rule created via the Gui Rule Builder.

Resolution: The drop_duplicate rule works now.

IY60945

Symptom: With full tracing enabled on the Web Console, the user's password is displayed in plain text.

Resolution: The password is no longer displayed in the trace output.

IY61472

Symptom: The Logfile Adapter processes old LogSources files as new files, resending all of its events.

Resolution: Events are not resent.

IY61623

Symptom: With **watch_status=YES** set when running a program from the Rule Base, insertion into tec_t_task_rep can fail if the results are larger than 3467 bytes.

Resolution: Insertion works without failure and the results data is truncated to fit into the table.

IY61687

Symptom: Logfile and SNMP adapters on Solaris multi-NIC machines may bind to the wrong network interface.

Resolution: The adapters will bind to the interface that can reach the TEC server.

IY61709

Symptom: Upgrading to ITEC 3.9 in an environment with ITM Application for mySAP.com removes the acpep-postemsg dep-sets, but does not restore them.

Resolution: See the [Fix Pack Notes](#) section for complete resolution details.

IY61758

Symptom: In TEDW, outage events are not recorded for Multiple Customer Support when the EC1_c10_ETL1_Process is run.

Resolution: Outage events are recorded.

IY61762

Symptom: An Automated Task constraint cannot be edited in the Java Console if the attribute is Class and the operator is IN or NOT IN.

Resolution: Constraints can be edited now.

IY62178

Symptom: There is no documentation for the EIF toolkit support for z/OS that was shipped starting with 3.9.0-TEC-FP01.

Resolution: Provide z/OS specific documentation including supported z/OS releases. See [IY62178](#) in the [Documentation Updates](#) section.

IY62200

Symptom: ENUMERATION: Enum with leading zero compiled with out error, but causes TEC server start failure.

Resolution: Integer data types specified in the ENUMERATION are correctly filtered (when preceded by a zero) prior to compile time, preventing them from being interpreted as an octal. Thus allowing the event server to start normally.

IY62261

Symptom: Clicking on an empty summary chart in the HP-UX version of the TEC 3.9 Java Console causes the Console's java process to exit abnormally.

Resolution: This problem is a result of a bug in the HotSpot Java Virtual Machine. Therefore, a .hotspot_compiler file is now created when the console is initialized to prevent the HotSpot JVM from stopping the console process.

IY62270

Symptom: The transform step fails when null values exist in events being extracted from the TEC database.

Resolution: The transform step now handles null values correctly.

IY62283

Symptom: After importing console definitions from a file, the user of the TEC 3.9 Java Console is allowed to continue using the Configuration view without restarting the Console first. This can cause database corruption in the console definitions.

Resolution: A message box now appears instructing the user to restart the console in order for the changes to take effect. In addition, the configuration view and import menu will be disabled until the console is restarted.

IY62405

Symptom: The event server startup and wtdumper command execute slowly because of oserv method calls.

Resolution: The number of internal method calls has been reduced to improve performance.

IY63086

Symptom: A TEC Java console operator defines an automated task and assigns some hosts for the task to run on, but the hosts no longer appear in the 'Current Hosts' list when the task is reopened for editing.

Resolution: The list of 'Current Hosts' is correctly displayed when an automated task is reopened for editing. If a host is no longer a valid TME host, then the name will not be displayed.

IY63136

Symptom: The logfile adapter can sometimes process old LogSource files as new files, resending all its events to event server.
Resolution: The adapter correctly processes LogSource files, preventing old events from being resent.

IY63368

Symptom: The `wsetemsg` command fails with Error "ECO:0001:1444" when used to modify an event whose event handle or server handle is greater than 1 digit in length.
Resolution: The `wsetemsg` command correctly updates the specified event, and the aforementioned error does not occur.

IY63407

Symptom: Tivoli Enterprise Console Version 3.8 adapters are not removed after applying a Tivoli Enterprise Console Version 3.9 adapter.
Resolution: An update to the *IBM Tivoli Enterprise Console Version 3.9 Adapters Guide* has been provided explaining the procedure for upgrading or removing a previously installed adapter. See the [Documentation Updates](#) section below.

IY63436

Symptom: The following error can occur when running the `EC2_c05_s020_src_extract.generic` ETL with a Sybase 12.0 database:

```
CDWEX8087E A general SQL error occurred:
SQL_ERROR: 'Execute Src Select' 2004.10.11 13:03:34.669
sqlState = HY000, nativeErr = 195, errorMsg =
MERANT ODBC Sybase driver SQL Server
'CAST' is not a recognized built-in function name.
sqlState = 42000, nativeErr = 156, errorMsg =
MERANT ODBC Sybase driver SQL Server
Incorrect syntax near the keyword 'AND'.
```

Resolution: The ETL script now executes successfully without generating the error displayed above.

IY63455

Symptom: When modifying the value of a message slot from a normal length (<255) to a long length, the long message value is truncated and placed in the regular msg field in the database. If the length of the original value in the message slot is modified then the new value is placed in the msg field in the database but the old value is left in the long_msg field in the database. This leads to confusion as to which value is the correct one.
Resolution: The long message is stored in its entirety, and the correct fields in the database are populated.

IY63547

Symptom: The operator of the Java Console is unable to open the event viewer for an empty event group from the console's summary chart. When the label of the empty event group is clicked, the event viewer for the next closest non-empty event group appears.
Resolution: The event viewer for the empty event group is now displayed.

IY63581

Symptom: Format matching of `%s*` followed by `%n` does not work correctly after applying 3.9.0-TEC-FP02. The problem occurs if when `%s*` tries to match 0 or 1 strings immediately followed by a `%n` or newline.
Resolution: Format matching correctly matches `%s*` when followed by `%n` or newline.

IY63643

Symptom: Simple rule fails to compile if the value for `watch_status` is enclosed in single quotes as specified in the rule builders guide.
Resolution: Rules compile correctly when the `watch_status` value is enclosed in single quotes. Additionally, a task event is created when the `watch_status` value is set to YES.

IY63716

Symptom: The `wsetemsg` command fails when using Single Port BDT.
Resolution: The `wsetemsg` command functions correctly when single port BDT is used.

IY63859

Symptom: If a user of the TEC Java Console defines an automated task, one of whose event filters uses an operator other than "Equal To", the user can no longer log in to the TEC Web Console.
Resolution: The user can now log into the Web console after defining an automated task where the event filter uses an operator other than "Equal To".

IY63863

Symptom: The `postzmsg` command usage statement shows `'-p <port>'`, but this option is not in documentation nor defined in the code.
Resolution: As the `'-p <port>'` option was not designed into the `postzmsg` command, the usage statement has been updated, and no longer displays this option.

IY63871

Symptom: Using the **wsetemsg** command to set the value of a custom slot can return the following error, specifically when executed from within a script from a rule:

Error::ECO:0001:0272 No matching classes found

Resolution: The **wsetemsg** command updates the specified event correctly, and the 'No matching classes found' error does not occur.

IY64008

Symptom: The **tec_dispatch** process can end abnormally with a segmentation fault (SIGSEGV) when a rule modifies a slot value with a control character.

Resolution: The rule base will fail to compile and generate an error message indicating the invalid control character.

IY64197

Symptom: The **wstartmaint.sh** script sets an incorrect start time, one day ahead, when the UTC date is a day behind the local date.

Resolution: The **wstartmaint.sh** script will correctly adjust the start time in the event the UTC date is a day behind the local date.

IY64202

Symptom: Using a non-TME, connection-less configuration, empty events force connections and cache checks.

Resolution: Empty events are now discarded, preventing unnecessary connections and polling of the cache.

IY64209

Symptom: The **tec_rule** process ends abnormally with SIGSEGV 211 error while processing an event timer with an ID of zero.

Resolution: Event timer ID's are now checked, and an ID of zero is not processed.

IY64449

Symptom: The **wconsole** command incorrectly displays the error message "The RDBMS can not be reached" when a customer has corrupted the database by using incompatible versions of the TEC Console in the same environment.

Resolution: An error message is now displayed, indicating an incompatible version of TEC.

IY64619

Symptom: When the ETL steps **EC2_c05_s010_src_pre_extract** and then **EC2_c05_s020_src_extract** are executed against an Oracle database, the following error can occur:

CDWEX8087E A general SQL error occurred: SQL_ERROR: 'Execute Src

Select' 2004.11.03 16:46:02.265 sqlState = HY000, nativeErr = 932, errorMsg = [MERANT][ODBC Oracle 8 driver][Oracle 8]ORA-00932: inconsistent datatypes: expected NUMBER got LONG.

Resolution: The scripts have been modified to allow the ETL steps to execute correctly.

IY64670

Symptom: The 3.9 documentation is unclear and it appears that IBM WebSphere Application Server will run on the operating systems listed in the Supported Platforms table.

Resolution: See the [Installation and Configuration](#) section for information regarding the supported platforms for WebSphere Application Server.

IY64774

Symptom: Secondary and subsequent distributions of an ACF profile can delete the first line after the adapter entry in **/etc/rc.shutdown** file on the AIX operating system.

Resolution: The **/etc/rc.shutdown** file is updated correctly following a secondary (and subsequent) distribution of an ACF profile.

IY64909

Symptom: If the user of the TEC Web Console attempts to run a task using the 'Run on the host that is named in the event' option, and the hostname is an Endpoint hostname, then the task will fail to run on the Endpoint. The Web Console displays a return code of 0.

Resolution: The Web console will now compare the host name listed in the event with the list of available managed nodes and endpoints. If the host name matches, the task will execute as expected. If the host name cannot be found, an error message will be displayed indicating the specified host name is not valid.

IY65092

Symptom: Example of **is_clearing_event** predicate is incorrect in the *IBM Tivoli Enterprise Console Version 3.9 Rules Developers Guide*.

Resolution: An update to the *IBM Tivoli Enterprise Console Version 3.9 Rule Builders Guide* now describes the correct usage. See the [Documentation Updates](#) section.

IY65212

Symptom: If event contains an INTEGER TYPE attribute which doesn't follow an Integer, Octal, or Hexadecimal

notation will not be parsed correctly on reception.

Resolution: The documentation in the *IBM Tivoli Enterprise Console Version 3.9 Rule Developer's Guide - Appendix B BNF Grammar for Baroc files* now describes the accepted integer type notation. See the [Documentation Updates](#) section.

IY65221

Symptom: When editing roles for event groups in the TEC Java Console Configuration GUI, if the user selects multiple event groups from the Assign Event Groups panel and changes the roles, only the first selected event group will have its roles updated. The rest of the event groups' roles will remain unchanged.

Resolution: The console has been updated to allow multiple event groups to be updated.

IY65280

Symptom: The logfile adapters resend events after a timeout on the send event upcall and the gateway sends duplicated events to the event server.

Resolution: The adapters no longer experience a timeout on the upcall, and duplicate events are no longer sent.

IY65448

Symptom: The 3.9 Java Console with Fix Pack 2 or 3.9.0-TEC-0024LA applied will only list the first 100 operators if more than 100 operators are defined.

Resolution: The console will now display all operators, even when more than 100 have been defined.

IY65472

Symptom: The **wtelexport** command will exit with a java.lang.OutOfMemory error on UNIX when exporting the entire configuration of a large-scale customer environment.

Resolution: The **wtelexport** command has been modified to minimize memory consumption, and now completes successfully.

IY65478

Symptom: When you use **wrmadmin** to restart an eif component (for example an eif_receiver or an incident sender) multiple times, the command appears to hang. If you check the msgHRM.log file, you will see a message similar to the following:

```
<Message Id="HRMAG0092E" Severity="ERROR">
  <Time Millis="1092856694986"> 2004.08.18 15:18:14.986-05:00</Time>
  <Component></Component>
  <LogText><![CDATA[HRMAG0092E Caught exception java.lang.OutOfMemoryError.]]></LogText>
  <Source FileName="com.tivoli.RiskManager.Agent.rmaThreadGroup" Method="public void
  uncaughtException(Thread,Throwable)"/>
  <TranslationInfo Type="JAVA" Catalog="rmagent_msg"
  MsgKey="HRMAG0092E"><Param><![CDATA[java.lang.OutOfMemoryError]]></Param></TranslationInfo>
  <Principal></Principal>
</Message>
```

Resolution: The **wrmadmin** command executes correctly, and the component starts successfully.

IY65515

Symptom: When running several **wsendresp** commands consecutively to send different popup messages to an Administrator's desktop, some messages may be lost and in their place will be duplicates of another message.

Resolution: The correct number of popup message boxes is displayed, each containing the correct message.

IY65520

Symptom: The **wconsole -crtoperator** command will fail with the error "ECO2071E - X is not a valid TME administrator" under the following conditions:

1. The total number of TME administrators is greater than 1000
2. The total number of TME administrators is not evenly divisible by 100
3. If you list all the TME administrators in ascending order by creation time, X is a TME administrator that appears after the last number evenly divisible by 100 on the list. For example, if there are 1150 total TME admins, wconsole will display the error message if you try to create an Operator for any TME admin past 1100 on the list. If, on the other hand, you had exactly 1100 TME admins, the error message would not appear if you tried to create an Operator for any of the admins.

Resolution: The new operator is now created successfully, and the above error does not occur.

IY65534

Symptom: When creating a Trouble Ticket (modified to use **wsendresp**) from an event in the TEC Java Console event viewer, the **wsendresp** sent from the trouble ticket program will pop up messages for event viewers that are closed in addition to the currently open event viewers. Only event viewers that are currently open should pop up messages.

Resolution: The popup messages are now sent to open event viewers only.

IY65539

Symptom: For many new incoming events there is a noticeable time delay in extracting events from Log Sources for **PollInterval** values which are greater than the minimum of 1 second. For the scenario described in this APAR for example, it took 5 1/2 minutes to go through 100 events with **PollInterval** of 30 seconds.

Resolution: The **LogSources** events are processed in a more efficient and timely manner.

IY65557

Symptom: A warning is generated when installing an adapter on SUSE Linux, if a "-pre" file exists in the **/etc/init.d** directory and a new adapter is installed. (For example, **/etc/init.d/tecad_logfile-pre**)

Resolution: In the event an existing "-pre" file exists on the SUSE system during the installation of an adapter, the "-pre" file is removed, allowing for a successful installation (without any warning messages).

IY65620

Symptom: The 3.9 Java Console with Fix pack 2 or 3.9.0-TEC-0024LA applied will return the error message "'operator_name" is not a valid TEC operator' when a **wconsole -lsooperator** is issued for a valid operator whose corresponding TME Administrator name is past the 100th item in the list of TME Administrators. Also, if a **wconsole -lconsole -a** is issued for a console to which this operator is assigned, the operator will not appear in the list of operators assigned to the console.

Resolution: The **wconsole** command has been updated to handle scenarios where more than 100 administrators are defined.

IY65628

Symptom: TEC 3.8 Java Console overwrites the Console Preferences saved by the TEC 3.9 Java Console and resets them to the defaults.

Resolution: An update to the *IBM Tivoli Enterprise Console Version 3.9 User's Guide* has been provided explaining the loss of configuration data that can occur when the TEC 3.7.1 or TEC 3.8 Event Consoles are used in a TEC 3.9 environment. See the [Documentation Updates](#) section for more information.

IY65953

Symptom: Need to add documentation for the **bo_instance_of** predicate.

Resolution: Add new description of **bo_instance_of** predicate. See the [Documentation Updates](#) section.

IY66044

Symptom: The **tec_gwr** files were not included in the 3.9.0-TEC-FP02 package.

Resolution: The fix pack packaging files have been modified to include the **tec_gwr** adapter files.

IY66169

Symptom: When the **wdbmaint.sh** is run against Oracle database fails with error ORA-12154 or ORA-01005.

Resolution: The **wdbmaint.sh** script has been corrected to use the database server ID, instead of the database ID, which now allows for normal operation.

IY66655

Symptom: The line immediately above the adapter entry in the **rc.shutdown** file is deleted.

Resolution: When an adapter is added or removed, the **rc.shutdown** file is modified such that only the corresponding line is modified.

IY67845

Symptom: The SCE URL that is generated was incorrect causing the default distribution of the **tec_gateway_sce** profile to yield an install that doesn't send events.

Resolution: The SCE URL has been corrected.

Defect: 176256

Symptom: The NON-TME Rule Engine function has been deprecated and is not supported.

Defect: 176626

Symptom: The console cannot connect to an event server where **set_comm_check** is set to TRUE. In addition, when connecting the console on to an event server where **single_port_bdt** is set to TRUE, the Summary View shows no events and the following exception can appear in the trace log:

```
java.sql.SQLException: Exception the ADR tag "0x64=application:constructed:pstr"
was expected but "0x02=universal:primitive:integer" was read at
com.tivoli.rim.RIMIterativeSet.next(RIMIterativeSet.java:84)
```

Resolution: The TME Console can connect.

Defect solutions included as of 3.9.0-TEC-FP02

IY50864

Symptom: Using rules tracing for extended periods of time causes the event server to stop.

Resolution: A problem with the rule tracing process has been corrected to prevent it from stopping the event server.

IY51511

Symptom: A Windows non-TME Console silent installation does not update the INSTALL_DIR and JRE_DIR entries in the console launch or cli command file. This causes the **tec_console.cmd**, **wconsole.cmd**, **wtecexport.cmd**, and **wtecimport.cmd** commands to fail.

Resolution: The INSTALL_DIR and JRE_DIR entries in the CMD files are now updated correctly.

IY51515

Symptom: There is no easy way to determine the version or revision of the TEC product.

Resolution: The version and revision information for the Tivoli Enterprise Console product is now displayed when you click **Help** → **About**.

IY51534

Symptom: The **wsetemsg** command does not set the value of a slot if the slot does not already exist in the database.

Resolution: If the slot already exists in the class, the slot is added to the **tec_t_slots_evt** table in the database. If the slot does not exist, an invalid slot error message is displayed.

IY51605

Symptom: An incorrect event count is displayed in the Summary Chart View when one event group contains a large number of events.

Resolution: The correct event count is now displayed.

IY51905

Symptom: Fix Pack 1 HP/UX log file adapter uses an incorrect naming convention in the **/sbin/init.d** file.

Resolution: The correct naming convention is now used.

IY52198

Symptom: INT32 slots sent in hexadecimal or octal cause PARSING_FAILED errors for the event.

Resolution: INT32 slots can now be sent in decimal, hexadecimal or octal and they are parsed correctly. In the environment for **exec_task()** and **exec_program()**, INT32 slots are represented in hexadecimal. Forwarding from a task or program now functions correctly when INT32 slots are used.

IY52418

Symptom: When the **wdbmaint.sh** script is run with an Oracle database, it fails to update the indices due to a misnamed variable.

Resolution: The script runs without generating an error message, and the database indexes are updated correctly.

IY52701

Symptom: The system requirements for the Web console are not documented.

Resolution: The system requirements are now documented in the **Prerequisites** section under Installation and Configuration.

IY52912

Symptom: The **tec_ui_server** process stops if **trace2** is enabled.

Resolution: Tracing no longer stops the **tec_ui_server** process.

IY52986

Symptom: The Event Integration Facility return codes for the **tec_errno** API are not documented.

Resolution: The return codes for the **tec_errno** API are documented in the [New in Fix Pack 2](#) section.

IY53030

Symptom: Outage durations were stored in Tivoli Enterprise Data Warehouse in seconds rather than in minutes.

Resolution: Outage durations are now stored in Tivoli Enterprise Data Warehouse in minutes.

IY53185

Symptom: The ServiceUnavailable event group does not display the correct Tivoli NetView events.

Resolution: The **wupdnvgroups** script is provided to update the ServiceUnavailable event group filter to display the correct Tivoli NetView events. See the [Documentation Updates](#) section.

IY53206

Symptom: The **tec_dispatch** process stops with a SIGSEGV error during startup when an event is loaded from the event database with a LIST_OF STRING slot larger than 2048 characters.

Resolution: The tec_dispatch process continues to run and the extra characters of the slot are truncated and replaced with ellipses (...).

IY53223

Symptom: A memory leak in the tec_rule process was caused when an event created by the generate_event() predicate was dropped with drop_received_event ().

Resolution: The memory leak in the tec_rule process does not occur when an internally generated event is dropped.

IY53311

Symptom: Rule engine output fails to display via the Web console the task results for exec_program with the watch status enabled.

Resolution: Rule engine output displays properly for the task results for exec_program with the watch status enabled.

IY53841

Symptom: On the Web console, event groups defined to use custom SQL queries with embedded SELECT statements fail to display with the error message ECOWEV001E: "The events cannot be retrieved from the event server database. Refresh the event viewer."

Resolution: The event viewer now shows the events matching the filter criteria.

IY53942

Symptom: On UNIX systems, an oserv failure occurs when a PreFilter with more than 30 characters is specified.

Resolution: Prefilters with more than 30 characters can now be used.

IY53943

Symptom: The **waddac** command does not set a PreFilter on a new configuration record when the PreFilter: prefix is not specified.

Resolution: The **waddac** command now sets a PreFilter on a new configuration record when the PreFilter: prefix is not specified. Also, the documentation now shows the correct usage of the **waddac**, **wsetac**, and **wsetadflt** commands. See [IY53943](#) in the [Documentation Updates](#) section for more information.

IY54050

Symptom: A SIGSEGV error occurs in the tec_ui_server process when event attributes are changed.

Resolution: Events are now processed without stopping the tec_ui_server process.

IY54072

Symptom: The last_modified_time shows the date instead of time stamp on trouble tickets opened from the Web console.

Resolution: The last_modified_time is now correctly represented as an integer.

IY54074

Symptom: Enhanced adapter identifier names cannot be reused. If they are reused, the distribution is successful; however the service is not created or displayed.

Resolution: Enhanced adapter identifier names can now be reused.

IY54334

Symptom: Nested ACP profiles are not deleted on endpoint adapters.

Resolution: Nested ACP profiles are now deleted on endpoint adapters.

IY54345

Symptom: The **wpostemsg** command core dumps on Solaris systems when the hostname attribute is specified and nsd is not running.

Resolution: The **wpostemsg** command now correctly sends the event.

IY54407

Symptom: A TEC_Maintenance event was sent specifying a particular machine was in maintenance mode but subsequent events from that machine were displayed on the console with the status set to OPEN.

Resolution: The documentation now clarifies usage of the maintenance mode rule set. See the [Documentation Updates](#) section.

IY54432

Symptom: The log file format processor does not parse correctly when a variable contains the delimiter.

Resolution: The processor parses correctly.

IY54504

Symptom: DBCS characters are incorrectly displayed in the Task Choice List window. This happens when you are using the ButtonLabel and ChoiceFile and the file used by ChoiceFile was created on one machine that has different encoding than the Java version of the event console . For example, the file was created on a Solaris system using EUC_JP and the Java version of the event console is using Windows encoding.

Resolution: Edit the tec_console.cmd file on Windows systems or the tec_console file on UNIX systems and change the TEC_ENCODING environment variable to specify the basic encoding set that you are using on the server.

IY54505

Symptom: The TME EIF libraries and the non-TME EIF libraries have different behaviors regarding setting the process codeset.

Resolution: The documentation in the [Tivoli Event Integration Facility Reference Version 3.9](#) now reflects the different behaviors. See the [Documentation Updates](#) section.

IY54538

Symptom: If two or more events are selected to run a trouble ticket that runs the **wsendresp** command, the message that is displayed contains information that pertains only to the last event in the list of selected events and information for the other events is not provided.

Resolution: The event ID is added to the message to ensure that they are unique.

IY54652

Symptom: Attributes of trouble tickets opened from the Web console do not match those of trouble tickets opened from the Java version of the event console.

Resolution: Trouble tickets opened from the Web console and the Java version of the event console are the same.

IY54892

Symptom: The **wsetemsg** command does not recognize local encoding for DBCS attribute values.

Resolution: A new **-e** option specifies the character encoding you are using. See the [Documentation Updates](#) section.

Known Problem: Some DBCS strings are not converted properly. Defects 174338 and 174729 have been opened to address this issue with the conversion libraries.

IY54989

Symptom: The Linux log file adapter appears as 3 separate processes in the output from the **ps** command.

Resolution: The documentation now indicates that this is the expected behavior. See the [Documentation Updates](#) section.

IY54992

Symptom: When single-port Bulk Data Transfer (BDT) is enabled, the **wconsole** command encounters an "RDBMS cannot be reached" error message.

Resolution: The **wconsole** command completes successfully when single-port Bulk Data Transfer (BDT) is enabled.

IY55014

Symptom: If the target host is unreachable during a task execution, a return code of zero is displayed.

Resolution: Task failure will result in a return code not equal to zero.

IY55077

Symptom: When started, the AS/400 adapter sends old events.

Resolution: A new configuration file parameter, **ProcessExistingMsgs**, has been added to control how the adapter sends events from the MSG queue. The possible values are:

YES: Send all events from the beginning of the MSG queue

NO: Only send events that have not already been sent (Default value)

FromAdapterStart: Only send events that arrive in the queue after the adapter starts.

IY55303

Symptom: The **tec_ui_server** process stops and an **oserv** error occurs when the **wsetemsg** command specifies an event console having an event group with a complex filter longer than 4096 characters.

Resolution: The **tec_ui_server** process does not stop when the **wsetemsg** command specifies an event console having an event group with a complex filter longer than 4096 characters.

IY55317

Symptom: The **tec_rule** process fails with a SIGSEV 211 if there is a format mismatch within a **sprintf** statement in a rule base rule.

Resolution: The documentation now clarifies this format mismatch. See the [Documentation Updates](#) section.

IY55329

Symptom: Silent installation for Windows enhanced logfile adapters does not work.

Resolution: The **setup.iss** file can now be configured for a silent installation. See [IY55329](#) in the [Documentation Updates](#) section for more information.

IY55376

Symptom: The "stop adapter" information is added to the end of the **rc.shutdown** file on AIX systems. If an exit statement occurs in the **rc.shutdown** file, the stop adapter logic is not run.

Resolution: The stop adapter logic is now placed at the beginning of the **rc.shutdown** file.

IY55401

Symptom: While monitoring syslog and a LogSources file, the UNIX logfile adapter can stop sending events to the event server.

Resolution: The UNIX logfile adapter does not stop sending events.

IY55414

Symptom: The tec_task process ends unexpectedly with a SIGBUS error when a large number of arguments are passed to the exec_program predicate.

Resolution: The tec_task process no longer ends unexpectedly with a SIGBUS error when a large number of arguments are passed to the exec_program predicate.

IY55610

Symptom: The generic tecad_logfile ACP entry does not support new enhanced functions.

Resolution: A new tecad_enh_logfile profile type has been added to support the enhanced functions.

IY55708

Symptom: The TWS Connector stops working after installing Tivoli Enterprise Console 3.8 Server Component.

Resolution: The LD_ASSUME_KERNEL=2.2.5 entry has been removed from the osvrv environment for linux-ix86.

IY55718

Symptom: Tivoli Enterprise Console 3.8 enhanced adapter profiles are not handled as enhanced after upgrade to Version 3.9.

Resolution: Adapter profiles work as expected.

IY55802

Symptom: Reinstallation of the UI Server component (or a new installation reusing an existing database) fails with a FAILED (soft error) message for FILE46.PKT.

Resolution: FILE46.PKT now processes without generating an error.

IY55816

Symptom: When the **Maximum number of events in Event Viewer** option is set to 0, in the general console preferences, all events are displayed in the event viewer.

Resolution: The documentation has been updated. See [IY55816](#) in the [Fix Pack Notes](#) section.

IY55820

Symptom: Rule processing large fact files causes a Prolog overflow error, resulting in the tec_rule process exiting with exit code 82.

Resolution: The documentation now explains how to set the table expansion preference. See the [Documentation Updates](#) section.

IY55824

Symptom: The sender filter of a change rule does not resolve to the Administrator login name.

Resolution: The documentation now clarifies that the returned operator value for a sender filter is the Administrator name and not the Administrator login name. See the [Documentation Updates](#) section.

IY55848

Symptom: When **TEC_EXECTASK_DBCS=TRUE** is specified in .tec_config, a memory overwrite problem can occur when the exec_program predicate is called.

Resolution: Memory overwrite no longer occurs when **TEC_EXECTASK_DBCS=TRUE** is specified and when exec_program predicate is called.

IY55851

Symptom: The **PollConnection** option does not function correctly when **FILTERMODE=IN** is specified, because the zero length event

is being filtered.

Resolution: All filtering for the **PollConnection** option is ignored when zero length events are sent.

IY55909

Symptom: The versions of OpenView supported by the HP OpenView adapter need to be clearly documented.

Resolution: The documentation now explains what versions of OpenView are supported by the HP OpenView adapter. See [Documentation Updates](#) section.

IY55911

Symptom: The documentation needs to explain how to change the port number used by the Web console.

Resolution: The documentation now explains how to change the port number used by the Web console. See the [Documentation Updates](#) section.

IY55954

Symptom: The non-TME log file adapter does not set **TISDIR** environment variable.

Resolution: The **TISDIR** environment variable is set.

IY56153

Symptom: The adapter appears to stall and uses over 90% of the CPU usage on Solaris when the **nscd** process is running.

Resolution: The adapter no longer takes up high CPU usage when **nscd** is running.

IY56166

Symptom: The Java version of the event console cannot delete automated tasks that had been renamed after they were initially created.

Resolution: The Java version of the event console now deletes automated tasks that had been renamed after they were created.

IY56169

Symptom: The UNIX logfile adapters appear to stall after several days of operation.

Resolution: The adapter no longer stalls after several days of operation.

IY56178

Symptom: Lines in the class definition statement file for an AS/400 system cannot be longer than 1024 characters.

Resolution: The documentation now reflects this restriction. See the [Documentation Updates](#) section.

IY56186

Symptom: The `bo_add_at_slotval_begin` and `bo_add_at_slotval_end` predicates are distorting event data when the event contains a list of more than three elements.

Resolution: The `bo_add_at_slotval_begin` and `bo_add_at_slotval_end` predicates do not distort event data.

IY56318

Symptom: A `java.lang.ClassCastException: java.lang.String` exception is thrown when importing a rule set, a rule pack, or a data object into a rule base target when a data object had been previously imported.

Resolution: Importing a rule set, a rule pack, or a data object works properly when a data object had been previously imported.

IY56526

Symptom: The Web console displays times with the incorrect time zone when Daylight Saving Time is in effect.

Resolution: The correct time is displayed.

IY56536

Symptom: After installing TEC 3.9 Fix Pack 1 sorting by severity and status columns in the Java version of the event console does not work correctly.

Resolution: Sorting by severity and status columns in the Java version of the event console now works correctly.

IY56560

Symptom: Running the `after_install` script in `$BINDIR/TME/TEC` removes the null device (`/dev/null`).

Resolution: Running the `after_install` script in `$BINDIR/TME/TEC` no longer removes the null device (`/dev/null`).

IY56664

Symptom: Output from `wconsole -lsoperator` is inconsistent with the console GUI after deleting an administrator who is also an assigned console user.

Resolution: The user is deleted as expected.

IY56699

Symptom: The Web console displays incorrect local time when the computer's time zone has a nonzero minute offset from Greenwich Mean Time (GMT).

Resolution: Time is displayed correctly.

IY56728

Symptom: The `wconsole` CLI running as root on an AIX system returns an error code of 0, indicating success, even when the usage parameters are incorrect.

Resolution: The `wconsole` CLI running as root on the AIX system no longer returns an error code of 0 when the usage parameters are incorrect.

IY56733

Symptom: The explanation of the manual refresh for the Web console is incorrect.

Resolution: The documentation now includes the correct explanation of the manual refresh of the Web console. See [Documentation](#)

Updates.

IY56781

Symptom: The initial database selection order of the Java version of the event console is not documented.

Resolution: The documentation now includes the initial database selection order of the Java version of the event console. See [Documentation Updates](#) section.

IY56806

Symptom: A new line character is appended to the end of each BAROC file every time it is compiled.

Resolution: A new line character is no longer appended to the end of the each BAROC file every time it is compiled.

IY56880

Symptom: When TroubleTicket in the Java version of the event console is executed, the environment variables should be formatted the same as from the rule base.

Resolution: The TroubleTicket execution output from Java version of the event console matches the rule base.

IY56893

Symptom: Sleep is required after `tec_put_event` for thread switching using the Event Integration Facility SDK.

Resolution: The documentation now clarifies this requirement. See the [Documentation Updates](#) section.

IY56990

Symptom: If single port bulk data transfer (BDT) is enabled on a managed node, then the users are not able to log on to the Web console.

Resolution: If single port BDT is enabled on a managed node, then the users can log on to the Web console.

IY57170

Symptom: While the `init.tecad_logfile stop` command is running, a `grep` error occurs. This problem is caused by a non-existent adapter ID being used in the `grep` command.

Resolution: While the `init.tecad_logfile stop` command is running, a `grep` error no longer occurs.

IY57176

Symptom: Task execution results associated with a cache engine search are not displayed in the Java Console if the received event is dropped.

Resolution: Task execution results associated with a cache engine search are now displayed in the Java Console if the received event is dropped.

IY57206

Symptom: The `commit_set` predicate is not translated properly if it is not the last call in an `all_instances` or `first_instance` clause.

Resolution: The `commit_set` predicate is now translated properly.

IY57226

Symptom: `tec` adapter installed under `mrt` directory is not updated during the profile distribution.

Resolution: The adapter binary file installed under the `mrt` directory (`$LCF_BINDIR`) is updated and does match the one under `adapters/bin`.

IY57519

Symptom: Stopping the event server causes a general `oserv` error.

Resolution: Stopping the event server no longer causes a general `oserv` error.

IY57632

Symptom: With AS/400 Event Integration Facility objects, the event is not sent correctly, and there is no indication as to what happened to the event.

Resolution: With AS/400 Event Integration Facility objects, the event is sent correctly and makes it to the server.

IY57681

Symptom: Starting more than one adapter with the same ID is not prevented.

Resolution: Starting more than one adapter with the same ID is prevented.

IY57682

Symptom: The Linux adapter installation script does not generate the `rc` links correctly for SUSE Linux.

Resolution: The Linux adapter installs correctly for SUSE Linux.

IY57831

Symptom: The readme file for Tivoli Enterprise Console Version 3.9.0 Fix Pack 1 did not include instructions for applying the fix for APAR [IY53702](#).

Resolution: Instructions for applying this fix are now provided. See Step 4 of [Installation instructions](#).

IY57854

Symptom: ECO_c05_s010_extract warehouse process step fails when extracting data from a MS-SQL server source database.

Resolution: ECO_c05_s010_extract warehouse process step no longer fails when extracting data from a MS-SQL server source database.

IY57911

Symptom: The tec_task process does not remove all of the files prefixed with tec_t from the /tmp directory.

Resolution: Temporary files are now removed correctly. However, if a script or task that you wrote does not exit, the files are not removed until it exits.

IY57912

Symptom: The erase_global predicate call does not completely erase global variables resulting in memory growth of the tec_rule process.

Resolution: The erase_global predicate call completely erases global variables.

IY58075

Symptom: UNIX Logfile Adapter autostart script is not updated when -s is added to the profile after actions.

Resolution: The logfile autostart script is updated and the -s flag is added to it.

IY58120

Symptom: The UNIX logfile adapters do not use the syslog system startup script (if present) when they are refreshed or started.

Resolution: The syslog daemon starts the same way it is started upon rebooting the system on which the adapter resides.

The entire change resides in the init.tecad_logfile.

IY58136

Symptom: The LogSources configuration keyword is a list of file names separated by commas (.). When a file name includes a comma, the comma is parsed as a separator. The intended file path is therefore split at the comma producing an undesirable result. For instance, The file path /tmp/5,6/file.dat results in two names: /tmp/5 and 6/file.dat.

Resolution: The new parsing routine is now capable of reading existing configurations and recognizes quotation marks as starting and stopping delimiters. Either single quotation marks or double quotation marks can be used. Escape sequences are not recognized. Use quotation marks before and after a file name that has commas to have it parsed as a single name. Quotation marks need not be used for file names that do not contain commas. For instance: abc,"de,f",ghi.

IY58156

Symptom: bdt_timed_open process fails because the Tivoli Enterprise Console product uses ports outside the specified range.

Resolution: The Tivoli Enterprise Console product uses ports inside the specified range, allowing ports to be blocked.

IY58157

Symptom: When the set_force_bind setting is enabled, the tec_reception process makes a connection using the physical host name instead of using the logical host name.

Resolution: When the set_force_bind setting is enabled, the tec_reception process makes a connection using the logical host name.

IY58228

Symptom: A logsource that is a symbolic link causes the adapter to exit when the file that is referenced by that link is deleted.

Resolution: The adapter does not exit when the file it references is deleted.

IY58245

Symptom: The following error occurs when running the **genreorg.sh** script:

```
ALTER INDEX tec_asignopcon_idx REBUILD
*
```

```
ERROR at line 1:
```

```
ORA-01418: specified index does not exist
```

```
Explanation: The tec_asignopcon_idx index does not exist for the Oracle database in the TEC 3.8 or TEC 3.8 Fix Pack 1 releases. However, the index does exist in TEC 3.8 Fix Pack 2 release.
```

Resolution: When upgrading from TEC 3.8 to Tivoli Enterprise Console 3.9 users using an Oracle database must ensure the database is at TEC 3.8 Fix Pack 2 level.

IY58276

Symptom: The server locks up with IPC calls.

Resolution: A new `.tec_config` option allows the IPC communication between the TEC processes to be changed from sockets to pipes. To switch from sockets to pipes, add this entry to your `.tec_config` file:

```
tec_ipc_type=PIPES
```

Note: This option should only be set at the request of a Tivoli service representative.

IY58306

Symptom: The color scheme algorithm for Java Client Event Viewer puts black text on red background for CRITICAL events, making it very difficult to read. The text cannot be changed to white except by changing the background from red to dark brown, which is too similar to FATAL, which has a black background.

Resolution: The text for the UNKNOWN, HARMLESS, CRITICAL and FATAL severities columns and cells now have white text and the remaining severities have black text.

IY58371

Symptom: The `tecad_logfile.conf` file has a NULL as the last character in the file, which made it appear to be a binary file to utilities like `grep`.

Resolution: `tecad_logfile.conf` no longer appears to be a binary file to utilities.

IY58509

Symptom: Use of the question mark (?) wildcard in the **LogSources** option of the adapter is not documented.

Resolution: The documentation now includes an explanation of the question mark (?) wildcard. See [IY58509](#) in the [Documentation Updates](#) section.

IY58740

Symptom: Windows event logfile adapter does not recognize **PreFilter:Log=File Replication Service**.

Resolution: The adapter now recognizes **PreFilter:Log=File Replication Service** and **PreFilter:Log=FRS**.

IY58783

Symptom: `tec_dispatch` loads more events from the event repository than are needed for the rules cache.

Resolution: `tec_dispatch` no longer loads more events from the event repository than are needed for the rules cache.

IY58929

Symptom: Automatic console tasks occur multiple times for apparently single events. The console autotask execution is actually occurring for previously closed events that may or may not have already had task execution take place for that event.

Resolution: Automatic console tasks no longer occur multiple times for apparently single events.

IY59125

Symptom: A success message is displayed for each selected event that the Trouble Ticket action was run against. This can be bothersome if many events are selected.

Resolution: Trouble Ticket success messages can now be turned off for individual operators. From the EventViewer window, click **Edit → Preferences** and clear the Display Trouble Ticket success messages check box, which by default is cleared.

IY59476

Symptom: A file descriptor leaks when the rules cache is cleared. Each time the rules cache fills and is automatically cleared, the `tec_rule` process opens a file descriptor and does not close it. This causes `tec_rule` tracing to stop if the file descriptor limit for the process is reached.

Resolution: Only one file descriptor is opened.

IY59540

Symptom: Due to network delays or the unplugging of the network cable more events per second are delivered to the Server from the Gateway than were specified with the **EventSendThreshold** and **BufferFlushRate** keywords.

Resolution: The **EventSendThreshold** and **BufferFlushRate** keywords properly control the rate at which events are sent from the Gateway to the Server..

Defect solutions included as of 3.9.0-TEC-FP01

IY22158

Symptom: The OS/2 adapter process ID lock file is not deleted when the `tecadini.sh stop` command is issued.

Resolution: The adapter unlocks the file when the system shuts down so the file can be deleted.

IY34268

Symptom: Task results are not reported to the `tec_dispatch` process because the `TISDIR` environment variable was not set correctly in the TMF environment.

Resolution: The tec_task process was modified to report task results to the tec_dispatch process.

IY35199

Symptom: Predicates that contain commit_* preceded by an opening parenthesis do not parse correctly. For example, commit_*(.

Resolution: The rule compiler was modified to allow commit_* predicates to parse correctly.

IY36164

Symptom: Rules that use the tec_compile predicate do not successfully compile and run because the tec_compile predicate fails due to a sub-predicate extension error.

Resolution: Rules using the tec_compile predicate successfully compile and run.

IY36538

Symptom: When more than 200 task results are loaded in the event viewer, console performance declines.

Resolution: The database calls were modified to retrieve all events more efficiently.

IY36663

Symptom: When the **wconsole** command is issued from the command line with a password that is not valid, a login window is displayed and an error code is not returned.

Resolution: The **wconsole** command now exits with a non-zero return code and a login window is not displayed when a password that is not valid is specified.

IY37101

Symptom: After opening the Task Execution menu **Selected** → **Task Execution** in the event console, only the first 100 task library entries are displayed.

Resolution: All task library entries are displayed when the task execution menu is opened.

IY37108

Symptom: For event consoles running on Windows 2000 systems, if the UI Server goes down and you start the Event Viewer, a UI server error message is displayed. However, if you display a different window and then redisplay the Event Viewer, the Event Viewer does not respond and the UI server error message can only be displayed using the Alt and Tab keys. Once the UI server error message is displayed, you can click **OK** and the Event Viewer can be used. **NOTE:** Windows 2000 is no longer supported.

Resolution: A different method for displaying the Event Viewer and error message is used so that the Event Viewer and error message can now be displayed.

IY37669

Symptom: Two entries are recorded in the adapter trace file for every event that is sent.

Resolution: Adapter tracing correctly records each event entry.

IY37772

Symptom: The event console incorrectly displays end-of-line and control characters as small boxes.

Resolution: End-of-line and control characters are now displayed correctly.

IY38047

Symptom: The task execution GUI displays the host names of all events instead of only the endpoints that are specified by the task library policy.

Resolution: Only the host names of endpoints and managed nodes that are specified by the task library policy are displayed.

IY38500

Symptom: Event server (and oserv) error messages are not displayed in the console summary view or priority view.

Resolution: The appropriate error message is displayed in a pop-up message box when such an event occurs.

IY38591

Symptom: The tec_task process ends incorrectly with a signal 211 and generates a core file when forwarding an event with a large server_path slot value to the event server.

Resolution: Events that contain large server_path slot values are successfully forwarded to the event server. If a slot value exceeds the internal limit, an error message is generated in the tec_rule logfile and the event server continues to function correctly.

IY39339

Symptom: Multiple clearing events that are created by the create_clearing_event() predicate cannot be created when the clearing events have the same event class. The first clearing event is created and subsequent attempts fail.

Resolution: Multiple clearing events that have the same event class can now be created.

IY39436

Symptom: The component specifier %s is incorrectly processed by UNIX logfile adapters.

Resolution: The delimiting character used at the end of a message has been modified to allow the proper processing by the adapter.

IY39758

Symptom: On Linux platforms, the syslogd process is started after an adapter is stopped even if it was not running when the adapter was stopped.

Resolution: The syslogd process is not started if it was not running when the adapter is stopped. The syslogd process is restarted if it was running when the adapter is stopped.

IY39827

Symptom: The role authorizations of an Event Group can be modified from the console GUI, but the authorizations cannot be updated from the command line.

Resolution: The role authorizations can now be changed using the command line. For example, assume that an event group is created with super and senior authorization with the following command:

```
wconsole -assigneg -h host -u user -p password -C Console1 -E EG1 -r super:senior
```

The following command will now change the authorization to admin and user:

```
wconsole -assigneg -h host -u user -p password -C Console1 -E EG1 -r admin:user
```

IY40622

Symptom: When a multi-column sort is performed on the Event Viewer, the first event is not sorted.

Resolution: The first column of the event viewer is now sorted correctly.

IY41391

Symptom: When the startup parameter is specified for an adapter, syslog is only refreshed after the adapter updates the lock file in the time frame specified by the startup parameter.

Resolution: The syslog refresh is delayed until the adapter startup is complete and new events are not missed.

IY41444

Symptom: The event console does not adjust the Event Date Reception time for daylight savings time when the time zone is set to British Summer Time.

Resolution: The event console now supports the Europe/London time zone definition. The TEC_CONSOLE_TZ environment variable must be set to Europe/London. For example,

```
TEC_CONSOLE_TZ=Europe/London
```

```
Export TEC_CONSOLE_TZ
```

IY41567

Symptom: A memory leak causes the Solaris adapter to end abnormally and generate a core file when reading events from a custom event source.

Resolution: A memory leak in the adapter was resolved.

IY41592

Symptom: For AIX®, when the system is turned off, the operating system stops the adapter without calling a script to stop the adapter.

Resolution: The **init.tecad_logfile stop** command was added to the **/etc/rc.shutdown** script.

IY41667

Symptom: The logfile adapter encloses the brackets ([]) around a slot that is of the type List_Of_Strings with single quotation marks. This causes a server parser error.

Resolution: The logfile adapter no longer encloses the brackets with single quotation marks. If you want to enclose the slot between single quotation marks when it is enclosed with brackets, change the FMT file using the PRINTF statement, for example:

```
-tmp_msg $1
```

```
msg PRINTF (" '%s' ", tmp_msg)
```

IY42235

Symptom: The DBCS administrator name is incorrectly displayed in the event console. On Windows systems, the administrator name field is empty, but on UNIX systems the name is displayed as boxes.

Resolution: The administrator name is now correctly displayed in DBCS environments.

IY42237

Symptom: Rule compilation fails with a lexical parsing error if the action body in the rule contains a first_instance() predicate that contains a ')' character as part of a quoted string.

Resolution: Rules using a first_instance() predicate, containing a ')' character, compile correctly.

IY42463

Symptom: The event console does not always start on operating systems that have multiple network adapters installed. It depends on the order in which they are bound in the operating system.

Resolution: An updated version of JCF is provided to improve the functionality of systems with multiple network adapters.

IY42694

Symptom: Events that are received from an AS/400® operating system that contain an opening or closing parenthesis can cause a PARSING_FAILED error at the event server.

Resolution: The AS/400 adapter now checks for parentheses and encloses the value in quotations marks if a parenthesis is found.

IY42754

Symptom: TEC_DB events that originate in a Japanese locale are not displayed correctly in the event console.

Resolution: The tec_dispatch process notifies the Event Integration Facility that an incoming event is already in UTF8 format to prevent multiple UTF-8 conversions.

IY43235

Symptom: REAL type attributes with locale specific decimal separators might cause the tec_dispatch process to exit with a segmentation violation.

Resolution: REAL type attribute values must be passed to the TEC Server using the C locale (POSIX) decimal separator (.), but were not processed internally using the C locale. REAL type attributes are now always processed internally using the C locale

IY43295

Symptom: Rule compilation fails when the rule contains non-English text.

Resolution: The rule parser has been updated to correctly process non-English text in rules.

IY43376

Symptom: The adapter format file does not correctly bind messages when using the characters %s*.

Resolution: Parsing now correctly matches when using the characters %s*.

IY43702

Symptom: When task choice lists are loaded from an external file, the list is not displayed in the event console.

Resolution: The event console now correctly loads the task choice lists that are maintained in external files.

IY43799

Symptom: The **wsetemsg** client command allows an event to be set to ACK status multiple times.

Resolution: Setting the event status to ACK multiple times is no longer permitted by default. You must now use the -f flag to acknowledge an event that already has a status of ACK.

IY44309

Symptom: A rule base that contained a BAROC event class and an enumeration with the same name compiled and loaded successfully but prevented the event server from starting.

Resolution: An event class and an enumeration cannot have the same name. The compiler generates an error when there is an attempt to compile a rule base which contains an event class and an enumeration with the same name.

IY44435

Symptom: The **wtdbclear** client command does not detect errors on a Sybase database and fails to clear events.

Resolution: The problem with stored procedures on Sybase was fixed. For this change to take affect, you must reinstall the IBM Tivoli Enterprise Console database using the Installation Wizard (or manually via the generated scripts).

IY44517

Symptom: On HP-UX systems, when rule base tracing is enabled or when the convert_local_time or get_local_time predicates are called, a /TMP/KIRKDB.txt file is created and grows continuously as rules are processed.

Resolution: The debug output was removed from the \$BINDIR/TME/TEC/interpreter/lib/unix/UNIXTime.wic file.

IY44577

Symptom: An unnecessary dependency on the TMF DependencyMgr:acpep-ep library causes the libraries to be distributed to endpoints when the adapter is distributed. Some customers do not want the latest TMF libraries to be distributed because of product constraints.

Resolution: A compatible version of the libraries is available on the endpoints for TEC adapters. The dependency was removed and the libraries are no longer distributed along with the adapter.

IY44924

Symptom: A RIM error occurs for the TEC_Start event when the IBM Tivoli Enterprise Console product is restarted and the

add_to_repeat_count predicate is called.

Resolution: This problem occurred because the last_modified_time value was initialized during event server startup. This value is now initialized correctly.

IY44974

Symptom: The following error message is displayed when selecting Task Execution in the event console even though the oserv daemon is running:

ECO2069E: The oserv stopped running. Please restart the console after the oserv is running.

Resolution: Empty task libraries defined in the Tivoli region were not handled correctly. The event console now handles these libraries correctly and does not display an error message.

IY45167

Symptom: Some characters that are displayed in the graphical rule builder are displayed incorrectly.

Resolution: The characters are now displayed correctly.

IY45644

Symptom: Slots parsed by the substr statement for SNMP adapters that exceed the maximum event string length cause a malloc failure and the event is discarded.

Resolution: A warning message is written to the trace file and the event is sent. Slots that exceed the maximum string length are replaced by an empty string.

IY45756

Symptom: Running the **wtdb space** command on HP-UX systems against a Sybase database fails with the following error:
RIM access error -quitting

Resolution: The problem with the **wtdb space** command was caused by incorrect number conversion. Numbers are now converted to the correct format.

IY45807

Symptom: The tec_rule process has continued memory growth when events are forwarded.

Resolution: A problem with temporary allocation not being freed was corrected.

IY45915

Symptom: The Windows logfile adapter does not send SAP events.

Resolution: The limitation of 64 substrings in a message is too small for SAP events because SAP events require 91 substrings. The new limit is 128 substrings.

IY45978

Symptom: Parameters or variables that are passed to the exec_program predicate with slots that contain two backslashes (\\) are truncated and the two backslashes are removed. This problem occurred with Japanese characters that have the same ASCII code as the backslash character: x5C and 5C.

Resolution: The backslashes are retained and the parameter or variable is not truncated.

IY46556

Symptom: Real values are formatted and displayed in exponential notation.

Resolution: The **tec_disable_exponential_format** configuration setting now allows real numbers to be formatted in either exponential or floating point format.

IY46725

Symptom: Valid events are discarded from the event server due to PARSING_FAILED errors.

Resolution: The timestamp for incoming events was incorrectly checked against the tec_rule_cache_full_history configuration parameter which caused some events to be discarded. Incoming event timestamps are no longer checked.

IY46751

Symptom: The error messages displayed in the tec_gateway process trace file are misleading.

Resolution: The error messages have been updated to provide more accurate information.

IY46770

Symptom: Pop-up messages in the event console generated by the **wsendresp** command keep actions from being performed in the console until the pop-message is closed.

Resolution: The pop-up message attributes were changed and are no longer modal.

IY46800

Symptom: A segmentation violation can occur when using the EIF `tec_put_event()` application programming interface (API) call if connection problems occur during event processing.

Resolution: Extraneous freeing of memory allocation when network problems exist caused the problem. Memory is now only being freed once.

IY46861

Symptom: When a rule is used that has an outside clause in the class filter and the `tell_err()` predicate is used, an error message similar to the following message is written to the file that is specified in the `tell_err()` predicate:

*** RUNTIME 404 *** Illegal call : unknown predicate false/0.

Resolution: The error message is no longer written to the log.

IY46977

Symptom: Rules compiled without tracing enabled might have parsing errors when `comit_rule` predicates are used.

Resolution: The rule compiler was handling the backslash (`\`) incorrectly when rules were parsed. This led to `commit_*` predicates being parsed as part of the string that contained the backslash.

IY47079

Symptom: When `ConnectionMode=connection_less` is specified in the configuration file for the `forward_event` or `re_send_event_conf` predicates, the `tec_rule` process suspends event processing for up to 4 minutes if the destination server is unavailable.

Resolution: The `PingTimeout` and `NumberOfPingCalls` configuration keywords were added to allow event forwarding to ping the destination server prior to sending an event. See [New in this fix pack \(New in Fix Pack 1\)](#) for more information.

IY47552

Symptom: When `DRVSPEC` tracing is enabled for the SNMP logfile adapter, an incorrect v1 trap or any non v1 SNMP trap can cause a segmentation violation.

Resolution: Debug trace processing attempted to print processed SNMP traps even if the SNMP trap was not successfully processed. Tracing is now performed only if the SNMP trap was successfully processed.

IY47646

Symptom: Non-TME events are lost when the TEC Server that is running on a UNIX platform is shut down.

Resolution: The `tec_server` process has been modified to prevent event loss during the event server shutdown sequence on a UNIX platform.

IY47708

Symptom: When one or two events are selected and the `ACK` or `CLOSE` push buttons are used in the Java® Console GUI, the push buttons are unavailable for 8 seconds.

Resolution: The buttons are now available for immediate use if only one or two events are selected.

IY47948

Symptom: When you run the `wtdbpace -T` command to limit the display of data to the TEC table spaces, data is not displayed in the correct order.

Resolution: The variable name was overwritten which created a reference to the wrong table space. This problem has been corrected.

IY47983

Symptom: During Linux logfile adapter installation, the `syslogd` process is blocked when it tries to open a named pipe while running the `$(TECADHOME)/bin/update_conf` script.

Resolution: Incorrect usage of pipes on Linux systems caused the `syslogd` process to be blocked. The `init.tecad_logfile` startup script was modified to use named pipes correctly.

IY48053

Symptom: The SCE drops events that are received by the event sink, because they are not formatted correctly.

Resolution: The `tec_gateway` process has been modified so that the SCE does not drop events. In addition, a configuration parameter must be configured. See [IY48053](#) in the [Fix Pack Notes](#) section for more information.

IY48227

Symptom: The autostart information for TME adapters on UNIX systems was defined in the `rc.nfs` file. For Tivoli Enterprise Console, Version 3.9, the startup information was moved to the `rc.tecad_logfile` file; however, the autostart information was not removed from the `rc.nsf` file, and error messages are written to the log.

Resolution: The autostart information has been removed from the `rc.nsf` file.

IY48310

Symptom: The logfile format editor does not perform pattern matching consistently.

Resolution: The logfile format editor now performs pattern matching in a consistent manner.

IY48508

Symptom: A Java exception can be thrown when a rule base is compiled as follows:

1. A data file is imported into a rule base target (such as rule_sets_EventServer)
2. A rule pack is later imported into the same rule base target, and the rule base pack is positioned after the data file entry in the rule base target file.

Resolution: A rule base will now compile correctly when a rule pack is imported into the rule base after a data file is imported into the rule base target and positioned after the data file entry in the target file.

IY48565

Symptom: The **wrb -imptgtdata** command fails to import a data file correctly.

Resolution: The command now imports the data file correctly. See the [imptgtdata](#) section of the [Documentation Updates](#) for more information about the **-imptgtdata** option of the **wrb** command.

IY48723

Symptom: The enumeration ID for custom statuses is displayed in the Hide Status icon.

Resolution: The status is now displayed. Pause the cursor over the icon to display the complete status text.

IY49078

Symptom: The TEC Java EIF libraries block infinitely on TECAgent.sendEvent() call if the **cache.dat** file is corrupt.

Resolution: The corrupt **cache.dat** file is renamed **cache.file.corrupt**, a new cache file is created, and the event is sent to the server.

IY49270

Symptom: Non-English text is incorrectly displayed in the graphical rule builder Conditions Synopsis and Action Synopsis fields.

Resolution: The non-English text is now displayed correctly.

IY49393

Symptom: The following message is displayed when the non-TME version of the HP OpenView adapter is installed in a directory path that has a space in one of the directory names. The following error is displayed:

```
E:\TECHPOV\BIN>Files\HP\bin\gen_lrf E:\Program Files\HP
The system cannot find the path specified
E:\TECHPOV\BIN>E:\Program\bin\ovaddobj
E:\Program\lrf\tecad_hpov.lrf
The system cannot find the path specified
```

Resolution: The HP Openview adapter can now be installed in a directory path that contains spaces.

IY49600

Symptom: The tec_dispatch process ends abnormally when events are modified using the event console.

Resolution: Events can now be modified without the tec_dispatch ending abnormally.

IY49463

Symptom: The **wconsole -lsoperator -a** command output lists operators that are assigned to consoles, but they are not listed in they are not listed in the **wconsole -lsconsole -a** command output.

Resolution: Operators are now listed in the listed in the **wconsole -lsconsole -a** command output.

IY49711

Symptom: The tec_dispatch process ends abnormally if the BAROC parsing of a Tivoli Enterprise Console request message fails.

For example, the problem can occur when slot attributes are set to a reserved word by rules processing.

Resolution: BAROC processing was changed so that reserved words can be used in slot attributes.

IY49757

Symptom: The tec_gateway process uses all of the CPU resources when it flushes a corrupted cache file.

Resolution: The cache file is now truncated to reduce CPU utilization.

IY50024

Symptom: The adapter *_gencds command is slow to produce a .CDS file.

Resolution: Command processing was changed to make .CDS file generation faster.

IY50115

Symptom: The Java event console can generate the following error when using single port bulk data transfer and the RIM host has a name that starts with the letter I:

```
RDBMS cannot be reached
```


Resolution: An updated jcf.jar file is now packaged with the Tivoli Enterprise Console product to correct this problem.

IY50466

Symptom: When an empty event is sent to clear the cache file, the empty event is also processed. This null event has not importance because it is discarded at the tec_gateway level, but it causes an overload in the LCF and gateway Framework level.

Resolution:

IY50558

Symptom: The tec_rule process ends abnormally while stopping the event server when several thousand events are cached.

Resolution: The cached events are processed accordingly, and the tec_rule process exits successfully.

IY50909

Symptom: The TMF files_transfer function fails when the log file format editor is started in the following environment:

- The ACF is installed on a UNIX managed node
- The TMR server is installed on a Windows platform
- The event server is installed on the UNIX managed node

The following error message is displayed:

FRWTE0002E 'files_transfer' operation error when saving/closing

Resolution: The log file format editor is closed correctly and an error is not displayed.

IY50978

Symptom: Changes made in an ACP profile are not made to copies of the profile when it is distributed.

Resolution: The changes are made to copies of the profile.

IY51105

Symptom: The startup time for an adapter is longer than it was for TEC version 3.6.2 adapter.

Resolution: Processing was changed to improve the time that is required to start an adapter.

IY51189

Symptom: The **wtdbSPACE** command output is not displayed correctly when any of the database table spaces are configured with an MRT (minimum recovery time) on the DB2® product.

Resolution: The output is now correctly displayed.

IY51190

Symptom: The **getport_timeout_seconds**, **getport_timeout_usec**, **getport_total_timeout_seconds**, and **getport_total_timeout_usec** configuration settings do not function correctly.

Resolution: These configurations are now correctly implemented instead of the system default timeout previously used.

IY51376

Symptom: Adapters do not read log files correctly when the LogSources configuration keyword is specified and the file name contains the question mark (?) pattern matching character.

Resolution: File names specified using pattern matching characters are now found.

IY51458

Symptom: IBM Tivoli Risk Manager incident summary events can cause high CPU utilization by the tec_dispatch process due to superfluous extended slot updates.

Resolution: The extended slots are no longer updated when the data has not changed.

IY51718

Symptom: The **wconsole -lsoperator -a** command output lists operators that are assigned to consoles, but they are not listed in the **wconsole -lsconsole -a** command output.

Resolution: Operators are now listed in the listed in the **wconsole -lsconsole -a** command output.

IY52041

Symptom: Installation of TEC version 3.9 fails when TMF version 4.1.1 is installed.

Resolution: TEC version 3.9 successfully installs on TMF 4.1.1.

IY52318

Symptom: The Windows adapter prefilter function does not filter based on the event type.

Resolution: The prefilter function on Windows adapters now functions correctly.

IY52333

Symptom: Creating operators in the event console can cause other operators to be assigned.

Resolution: Operators are not unassigned when an operator is assigned.

IY52367

Symptom: The UNIX adapters can fill up the /tmp file system due to continuous output to the **/tmp/.tivoli.tecad_logfile.lock.<hostname>.<id>** file.

Resolution: Only the PID is written to the aforementioned file.

IY52425

Symptom: The UNIX log file adapters monitor syslog events regardless of the **-S** parameter specified in the configuration file.

Resolution: The adapters correctly recognize the **-S** configuration parameter and monitor or ignore syslog events accordingly.

IY52514

Symptom: The Windows adapter does not match event log events. The "%S*" format specifier must be used, however this does not always map the data to the correct event attributes.

Resolution: The Windows adapter now matches characters in multi-line events correctly.

IY52787

Symptom: The cache is not flushed when the Java Event Integration Facility is disconnected; for example, when a custom adapter sends an event to the event server and immediately disconnects.

Resolution: The event is sent and the cache is flushed before the Event Integration Facility is disconnected.

IY52997

Symptom: Logfile adapters end abnormally when they are started if the file specified by the **LogSources** keyword does not exist.

Resolution: The logfile adapters do not end abnormally and an error message that describes the problem is displayed.

IY53702

Symptom: When the WebSphere Application Server (WAS) 5.0 FP02 is upgraded to version 5.0.2, the web console does not function correctly and an error message is displayed.

Resolution: The back-end web console software has been updated to interact correctly with WAS 5.0.2.

IY53153

Symptom: When specifying a LogSource entry, events are left in the syslog pipe file on the AIX 5.2 operating system.

Resolution: The adapters now use two named pipes, rather than one named pipe and one unnamed pipe. This enables the adapter to process all of the corresponding events correctly.

IY54334

Symptom: Nested ACP profiles are not deleted on endpoint adapters.

Resolution: Nested ACP profiles are now deleted on endpoint adapters.

IY54997

Symptom: An adapter can stop sending events while monitoring a LogSources file when more than one adapter thread attempts to access the same data at the same time. When this occurs, the cache tail pointer is set to zero.

Resolution: A lock was implemented to prevent more than one thread from accessing the same data at the same time.

IY55723

Symptom: When multiple adapters are installed, and one is removed, the corresponding startup script entry (the entry in **/etc/init.d/tecad_logfile**) is not updated correctly.

Resolution: The startup script is now updated correctly when an adapter is removed from a multiple adapter environment.

Files Added or Replaced With This Fix Pack

Please see the image report named **image.rpt** packaged with this fix pack in order to see which binary files are affected.

Documentation Changes

This section describes organizational changes to the documentation for version 3.9, and it describes important terminology information.

The following table describes the books that have been renamed in version 3.9 of the Tivoli Enterprise Console product:

Previous book name	New book name
<i>IBM Tivoli Enterprise Console Reference Manual</i>	<i>IBM Tivoli Enterprise Console Command and Task Reference</i>
<i>IBM Tivoli Enterprise Console Rule Builder's Guide</i>	<i>IBM Tivoli Enterprise Console Rule Developer's Guide</i>
<i>Tivoli Event Integration Facility User's Guide</i>	<i>Tivoli Event Integration Facility Reference</i>

- The *IBM Tivoli Enterprise Console Rule Set Reference* is a new book in this release. It provides reference information about the Tivoli Enterprise Console rule sets. Rule developers should read this book to understand the functionality that the Tivoli Enterprise Console rule sets automatically provide.
- The *IBM Tivoli Enterprise Console Installation Guide* has been completely updated and revised. It now includes chapters on using the installation wizard and on troubleshooting as well as an appendix describing a sample, step-by-step installation of all Tivoli Enterprise Console components in a simple working deployment.
- The *IBM Tivoli Enterprise Console User's Guide* has been completely updated and revised. It now includes a chapter specifically for operators.
- The online HTML reference for TEC is no longer available on the event server host at \$BINDIR/./generic_unix/TME/TEC/BOOKS/HTML/reference.html. The *IBM Tivoli Enterprise Console Command and Task Reference*, which is available in both PDF and HTML formats, contains this information.
- The following table describes information that has moved to a new location:

Information	Previous location	New location
Writing rules to correlate events at the adapter or the Tivoli Enterprise Console gateway (state correlation) <i>Tivoli</i>	<i>Event Integration Facility Reference</i>	Part 2 of the <i>IBM Tivoli Enterprise Console Rule Developer's Guide</i>
Installing, upgrading, and uninstalling adapters	<i>IBM Tivoli Enterprise Console Installation Guide</i>	<i>IBM Tivoli Enterprise Console Adapters Guide</i>
Tivoli Enterprise Console gateway	<i>IBM Tivoli Enterprise Console Adapters Guide</i>	<i>IBM Tivoli Enterprise Console User's Guide</i>
Event flow	<i>IBM Tivoli Enterprise Console Command and Task Reference</i>	<i>IBM Tivoli Enterprise Console User's Guide</i>
Adapter Configuration Facility	<i>IBM Tivoli Enterprise Console User's Guide</i>	<i>IBM Tivoli Enterprise Console Adapters Guide</i>
Logfile format editor	<i>IBM Tivoli Enterprise Console User's Guide</i>	<i>IBM Tivoli Enterprise Console Adapters Guide</i>
postzmsg , TECAgent , and wpostzmsg commands	<i>Tivoli Event Integration Facility Reference</i>	<i>IBM Tivoli Enterprise Console Command and Task Reference</i>

In the documentation, the terms TME® and non-TME are used primarily in reference to adapters. A TME adapter is an adapter that runs on either a managed node or an endpoint. A non-TME adapter is an adapter that does not use the Tivoli Management Framework (managed node or endpoint) to send events to the event server. In the adapter configuration file, you set the type of transport mechanism that an adapter uses to send events to the event server. A TME adapter uses either the endpoint transport (transport type set to LCF) or the managed node transport (transport type set to TME) to send events. A non-TME adapter uses the socket transport (transport type set to SOCKET) to send events. The term Tivoli (as opposed to non-Tivoli) is used primarily in reference to the Tivoli environment, which was formerly known as the Tivoli Management Environment® (TME). Tivoli environment is defined as the Tivoli applications, based upon the Tivoli Management Framework, that are installed at a specific customer location. In some cases, you might find that these terms are used synonymously:

- Tivoli and TME
- Non-Tivoli and non-TME

Documentation Updates

The following information about the Start_Maintenance task is available in the online help of the Java version of the event console in English only. This information is provided here to support national languages.

The Start_Maintenance task informs the event server that a host has been put in maintenance mode. Select the event server to inform, type the name of the host to put in maintenance mode, and specify the duration for the maintenance mode.

To configure the task:

1. Select **Start_Maintenance** from the TEC Tasks list in the Task Execution dialog box. The configuration options for the task are displayed in the right pane.
2. In the right pane, type or select values for the following fields:
Event Server's Name
The event server to inform. This is a required field.

hostname

The fully qualified name of the host to put in maintenance mode. This is a required field. The default for this field is an asterisk. If you do not change this default, all hosts are put in maintenance mode.

Maintenance Owner Information

Optional information, such as an e-mail address or phone number, that you can enter regarding the person who is overseeing the maintenance for the host.

Maintenance Duration

The number of minutes during which the host is in maintenance mode. This is a required field. The default is 60 minutes.

Time to Start Maintenance

The time at which the host is put in maintenance mode. If you leave this field blank, the host is put in maintenance mode immediately. Specify the time in this format: yyyy mm dd hh mm ss For example, 2003 06 12 23 30 00 indicates that the host is put in maintenance mode on 12 June 2003 at 23:30:00, or 11:30 p.m.

Assumptions and Prerequisites:

This task assumes that the **wpostemsg** command is available on the host where the task executes. The **wpostemsg** command is always available on the event server host and endpoints that have an event adapter installed.

Authorization Required:

super, senior, admin, user

Command-Line (CLI):

This task can be run from the command line. This can also be put a host in maintenance mode by running the **wstartmaint.sh shell** script, which resides on the event server. Do not use the **wpostemsg** command to send a TEC_Maintenance event.

For information about tasks, environment variables available to tasks, and how to configure and run tasks from the command line, refer to the *IBM Tivoli Enterprise Console Command and Task Reference*.

Internationalization notes

The information in this section supersedes the information in the Tivoli Enterprise Console library. This section outlines TEC support for international languages.

Enabling language support

The Tivoli Enterprise Console product is translated into the following languages:

- German
- Spanish
- French
- Italian
- Japanese
- Korean
- Portuguese (Brazilian)
- Chinese (Simplified)
- Chinese (Traditional)

To enable these languages and use the fully-translated event console task windows, install the appropriate language support pack from the *IBM Tivoli Enterprise Console Language Support* CD. The appropriate IBM Tivoli Enterprise Console, Version 3.9 language

support pack must be installed. Multiple language support packs for a single product can be installed. For installation instructions, refer to the *IBM Tivoli Enterprise Console Installation Guide*.

Event adapter and event server compatibility

Different versions of event adapters can send their event data to event servers with different character encoding. Additionally, different versions of event servers expect event data in different character encoding. If combining versions of event adapters and event servers in a non-English environment, especially a multi-byte character set (MBCS) environment, it is important to understand the compatibility among the various versions of event adapters and event servers.

Note: It is recommended to keep all components of the Tivoli Enterprise Console product at the most recent version.

The term *UTF-8* patch is used to refer to the patches shown in the following table:

Custom applications built with Tivoli Event Integration Facility

For adapters and other applications built with Tivoli Event Integration Facility, the **NO_UTF8_CONVERSION** keyword specifies the encoding for the events, configuration file, and any other data input. The **Pre37Server** and **Pre37ServerEncoding** keywords specify the encoding of the output from Tivoli Event Integration Facility.

For example, when the **NO_UTF8_CONVERSION** keyword is set to YES and the **Pre37Server** keyword is set to YES, Tivoli Event Integration Facility expects event data and its configuration file to use UTF-8 encoding, but it transmits the event to the event server using DBCS encoding.

Event adapters

Some changes to the event processing for international environments that might require changes to some adapters, their configuration files, or filters. The following table describes the compatibility between different versions of adapters and event servers.

Settings for internationalization support for non-TME adapters

Adapter version	Event server version	Event data stream encoding	Comments
3.8 or 3.9 ₁	3.8 or 3.9	UTF-8 data is sent. Pre37Server must be set to NO, which is the default value. NO_UTF8_CONVERSION=NO	Data can be passed to tasks and programs in UTF-8 or local encoding. See the <i>IBM Tivoli Enterprise Console Rule Developer's Guide</i> for additional information.
	3.7	UTF-8 data is sent. Pre37Server must be set to NO, which is the default value.	Data can be passed to tasks and programs in UTF-8 or local encoding. See the <i>IBM Tivoli Enterprise Console Rule Developer's Guide</i> for additional information.
	3.6, 3.6.1, and 3.6.2 with the UTF-8 patches	UTF-8 data is sent. Pre37Server must be set to YES and Pre37ServerEncoding must be set to UTF-8.	Data is passed to tasks and programs in UTF-8 encoding.
	3.6, 3.6.1, and 3.6.2 without the UTF-8 patches	Local encoded data is sent. ³ Pre37Server must be set to YES and Pre37ServerEncoding must be set to the Tivoli encoding at the event server. See the <i>Tivoli Management Framework User's Guide</i> for additional information about Tivoli text encoding support.	Data is passed to tasks and programs in local encoding.
3.7 and 3.7.1 ₂	3.7 and later	UTF-8 data is sent. Pre37Server must be set to NO, which is the default value.	Data can be passed to tasks and programs in UTF-8 or local encoding.

	3.6, 3.6.1, and 3.6.2 with UTF-8 patches	UTF-8 data is sent. Pre37Server must be set to YES and Pre37ServerEncoding must be set to UTF-8.	Data is passed to tasks and programs in UTF-8 encoding.
	3.6, 3.6.1, and 3.6.2 without UTF-8 patches	Local encoded data is sent. Pre37Server must be set to YES and Pre37ServerEncoding must be set to the Tivoli encoding at the event server. See the <i>Tivoli Management Framework User's Guide</i> for additional information about Tivoli text encoding support.	Data is passed to tasks and programs in local encoding.
3.6, 3.6.1, and 3.6.2 with UTF-8 patches	3.7 and later	Not supported.	None.
	3.6, 3.6.1, and 3.6.2 with UTF-8 patches	UTF-8 data is sent.	Data is passed to tasks and programs in UTF-8 encoding.
	3.6, 3.6.1, and 3.6.2 without UTF-8 patches	Not supported.	None.
3.6, 3.6.1, and 3.6.2 without UTF-8 patches	3.7 and later	Local encoded data is sent. ³	Data can be passed to tasks and programs in UTF-8 or local encoding.
	3.6, 3.6.1, and 3.6.2 with UTF-8 patches	Not supported.	None.
	3.6, 3.6.1, and 3.6.2 without UTF-8 patches	Local encoded data is sent. ³	Data is passed to tasks and programs in local encoding.
Notes:			
<ol style="list-style-type: none"> 1. An internal inconsistency in the 3.7 and 3.7.1 adapters required users to unconditionally set NO_UTF8_CONVERSION to YES. This workaround allowed events to correctly reach the event server but caused encoding mismatches between event data and event filters set in the adapter configuration files. As a result, filtering events (using the Filter keyword in the configuration files) based on attributes containing DBCS or UTF-8 characters would not work. The problem is fixed for the 3.9 event adapters. Set NO_UTF8_CONVERSION to YES only if the adapter input (events), format file (for logfile adapters), and configuration file are already encoded in UTF-8 format. If the adapter input, format file (for logfile adapters), and configuration file are encoded in DBCS, set NO_UTF8_CONVERSION to NO. 2. Non-TME logfile-type adapters shipped with Tivoli Enterprise Console, version 3.7.1, must have the NO_UTF8_CONVERSION configuration file option set to YES because the event data has already been converted to UTF-8 before being passed to Tivoli Event Integration Facility for forwarding to the event server. If this option is not set to YES, the non-English event data will be unusable because it will have been converted to UTF-8 encoding twice, once by the adapter and again by Tivoli Event Integration Facility. 3. Local encoding of adapters and event server must be the same. For example, SJIS encoded data sent from an adapter is not supported by an event server set to EUJCP encoding. 			
TEC 3.6.x and 3.7.x are no longer supported			

Non-English data in adapter format files

For logfile-type adapters, non-English characters can be used in a format string in a format file. The non-English characters must be entered in local or UTF-8 encoding. This is different than previous versions. The following table summarizes the encoding of characters in format files for various versions.

Note: The contents of a format file should not contain different strings encoded in both local and UTF-8 encoding. Using mixed encoding in the same file might cause many problems, including mismatches on event filtering, unreadable event contents on event server, and others.

Version 3.6.2 with UTF-8 patches	Version 3.7	Version 3.7.1	Version 3.8 or 3.9
UTF-8 encoding	Local encoding with patches (see the Tivoli Support Web site for patch information)	Local encoding	Local encoding or UTF-8
¹ Event data, the configuration file, and the format file must all use the same encoding. If the encoding is DBCS, the NO_UTF8_CONVERSION keyword must be set to NO (the default setting). If the encoding is UTF-8, the NO_UTF8_CONVERSION keyword must be set to YES, because all the data is already in UTF-8 format.			

Note: TEC 3.6.x and 3.7.x are no longer supported

Non-English data in filters in adapter configuration files

For logfile-type adapters, non-English characters can be used in an attribute filter specification defined by the Filter keyword in an adapter configuration file. The non-English characters must be entered in local encoding. This is different than previous versions. The following table summarizes the encoding of characters in configuration files for various versions:

Version 3.6.2 with UTF-8 patches	Version 3.7	Version 3.7.1	Version 3.8 or 3.9
Not supported	Local encoding with patches (see the Tivoli Support Web site for patch information)	Local encoding	Local encoding ¹ or UTF-8
¹ Event data, the configuration file, and the format file must all use the same encoding. If the encoding is DBCS, the NO_UTF8_CONVERSION keyword must be set to NO (the default setting). If the encoding is UTF-8, the NO_UTF8_CONVERSION keyword must be set to YES, because all the data is already in UTF-8 format.			

To use UTF-8 in event data, complete the following:

1. Customize both the format file and the configuration file in local encode (for example, SJIS)
2. Generate a .cds file using logfile_gencds for UNIX
3. If any DBCS characters are used, convert the configuration file, the format file and the .cds file to UTF8 encode.
4. Ensure the UTF-8 converted format file is copied to /etc/C directory
5. Start the adapter in UTF-8 locale (on aix4-r1 platform, this can be set in LANG and LC_ALL environment variables as EN_US.UTF-8)

Notes:

1. To monitor event data in UTF-8 encode the adapter's configuration file, format file and .cds file must all be set to UTF-8 encode
2. The preceding procedure requires modification for w32-ix86 platform.

IBM Tivoli Published Document Updates

IBM Tivoli Enterprise Console Version 3.9 Adapters Guide

[IY58303](#) The following is an addendum to the **Format Specifications** section of *Appendix B*.

If the component specifier %s* is used in an adapter format file, whitespace preceding and following the %s* component specifier will be considered by the adapters when matching messages. Consider the following format specification as an example:

```
FORMAT Test
%s* [x] %s*
END
```

To match a message to this format specification whitespace must occur as follows:

- There must be whitespace directly after the [x] in the log message
- There must be no whitespace between the [x] and the constant immediately preceding the [x] in the message.

This was incorrectly documented in the *IBM Tivoli Enterprise Console Version 3.8 Adapters Guide*. The problem was resolved in the TEC 3.8.0 Fix Pack 2 and subsequent releases.

Note: Any whitespace preceding the first non-whitespace character in a message is ignored by the adapters.

[IY63407](#) The following is an addendum to Chapter 2, "Installing Adapters"

When upgrading an existing version 3.8 adapter to version 3.9 for an endpoint, the version 3.8 adapters can continue to run while the Adapter Configuration Facility (ACF) is upgrading. After the ACF is upgraded, distributing the Adapter Configuration profile (ACP) version 3.9 to the endpoints on which the version 3.8 adapters are running causes the following actions to occur:

1. The version 3.8 adapter is stopped
2. The version 3.8 adapter is overwritten by the version 3.9 adapter
3. The version 3.9 adapter is started

Notes:

1. This process is also true for the enhanced adapters.
2. The migration path described above requires virtually no downtime for the adapters.

To remove an existing version 3.8 adapter (instead of upgrading it) from an endpoint after ACF version 3.9 has been installed, do the following:

1. Edit the existing ACF profile that is currently active on the endpoint
2. Remove all entries from the profile and save the profile
3. Distribute the profile to the endpoints. The version 3.8 adapter on the endpoint is stopped and removed

Note: The existing Adapter Configuration Facility profile that is currently active on the endpoint must be used in order for the empty profile distribution to successfully remove the version 3.8 adapter. Creating a new, empty Adapter Configuration Facility profile on version 3.9 and distributing it to the endpoint will not remove the version 3.8 adapter.

[IY59911](#) The following is an addendum to Chapter 9, "SNMP Adapter". This information has been added to the section titled "Class definition statement file".

SNMP event example

```
CLASS Port_Segmenting_CBT
  SELECT
    1: ATTR(=, $ENTERPRISE), VALUE(PREFIX, "1.3.6.1.4.1.52");
    2: $SPECIFIC = 258;
    3: ATTR(=, "boardIndex");
    4: ATTR(=, "portIndex");
  FETCH
    1: IPNAME($AGENT_ADDR);
    2: FQNAME($AGENT_ADDR, $FQ_DOMAIN);
  MAP
    hostname = $F1;
    fqhostname = $F2;
    boardIndex = $V3;
    portIndex = $V4;
    sub_origin = PRINTF("board %s, port %s", $V3, $V4);
    status = CLOSED;
END
```

Keywords

IPNAME(ip_addr) - converts a given IP address into an IP name

IPADDR(ip_name) - converts a given IP name into an IP address

FQNAME(ip_name, domain) - converts a given IP name or address and domain name into a fully qualified hostname. The variable \$FQ_DOMAIN (which is set according to the FQDomain keyword in the adapter configuration file) can be used for the domain. The algorithm used to build the fully qualified name is based on the value of the domain parameter:

1. If the **domain** is a value other than "NO", then a check will be done to see if the input name is already fully qualified.
2. If the **domain** is "YES", then the fully qualified name will be determined using **gethostbyname()**. If that fails, **nslookup** will be used on Windows or **res_search** will be used on UNIX/Linux.
3. If the **domain** is any other value, the fully qualified name will be created by appending the domain parameter to the ip_name parameter.

PRINTF - builds an event attribute using a C-style **printf()** format string. For more information see Appendix C, Class definition file reference.

SUBSTR - extracts a substring out of an attribute value. For more information see Appendix C, Class definition file reference.

The following is an addendum to [Appendix C "Class definition statement file reference"](#)

Replace the example in the "*FETCH statement*" section with the following:

```
FETCH
  1: SUBSTR($V2, 1, 5);
```

This statement uses the value of the variable \$V2, as assigned from *<select_statement>* number 2, and assigns the substring represented by the first four characters of \$V2 to the variable \$F1.

Replace the "*MAP statement*" section with the following:

The MAP statement creates the event attributes and associated values to be put in the outgoing Tivoli Enterprise Console event. The MAP segment is composed of one or more *<map_statement>* expressions. Each *<map_statement>* has one of the following formats:

```
<slot_name> = <string>;
<slot_name> = <variable>;
<slot_name> = PRINTF(<format_string, <var1>, ..., <varn>);
```

<slot_name>

Specifies the name of any event attribute. This should be an event attribute that corresponds to an event attribute defined in the adapter's BAROC file on an event server.

<string>

Any character string.

PRINTF

Specifies that the value of the event attribute should be created using a C-style **printf()** format string. This format string supports only the %s format specifier.

<var>

Can contain either a *<string>* or a *<variable>*.

An example of a MAP statement:

```
MAP
  origin = $V2;
  hostname = $HOSTNAME;
  msg = PRINTF("The origin is %s", $V2);
```

In this example the **origin** event attribute is given the value of the SELECT statement variable \$V2. The **hostname** event attribute is given the value of the \$HOSTNAME keyword. Assuming the value of the variable \$V2 is **9.17.123.234**, the **msg** event attribute is given the value **The origin is 9.17.123.234**.

The output of the MAP statements is a list of event attribute name and attribute value pairs that are used to generate the outgoing Tivoli Enterprise Console event that will be sent to the event server.

[IY67193](#) The following is an addendum to page 169.

NumEventsToCatchUp

Specifies which event in the Windows event logs that the adapter starts with. This option provides some flexibility if the source being monitored is new or the adapter has been stopped for an extended period of time. Valid values are as follows:

0 Start with the next event in the logs. This is the default value.

-1 Start with the oldest event in the logs.

n *n* represents any positive number other than zero (0). Start with the *n*th event from the most current event in the logs; that is, start *n* events back from the most current event in the logs. If *n* is greater than the number of events that are available, all the events that are available are processed.

If an event has already been processed, it will not be read again unless the value specified is **-1**.

[IY71136](#) The following information is a clarification of the "**Event Filtering**" section of *Chapter 1*.

Replace this sentence:

The class name specified for an event filter entry must match a defined class name; an adapter does not necessarily have knowledge of the class hierarchy.

with the following:

The class name specified for an event filter entry must match a defined class name and must list every class to be filtered. The adapter does not have knowledge of the class hierarchy defined by ISA keywords in BAROC files or FOLLOWS keywords in FMT files.

For example, assume the FMT file includes the following entries:

```
FORMAT Event_Base
FORMAT Event_Print_Error FOLLOWS Event_Base
```

If both classes are to be filtered, both must be listed:

```
Filter:Class=Event_Base
Filter:Class=Event_Print_Error
```

If you list only the Event_Base in the FMT file, then only the Event_Base class will be filtered. The Event_Print_Error class will not be filtered.

[IY54989](#) The following information has been added to the "**Troubleshooting the UNIX logfile adapter**" section of *Chapter 10 - UNIX logfile adapter*

For Linux: The output of the **ps -ef** command shows multiple processes for the Linux logfile adapter. This behavior is normal, and all processes are stopped when the adapter is stopped. Manually stopping any of the processes might cause the adapter to fail or malfunction.

[IY55909](#) The following information should be added to the "**OpenView**" section in *Chapter 7 - OpenView adapter*

This adapter is delivered for OpenView 6 and 7 for HP-UX, Solaris, and Windows.

Note: The event logfile adapter for the HP OpenView Version 7 and 7.5 platform has been provided as Beta.

[IY56178](#) The following information has been added to the "**Class definition statement file**" section in *Chapter 5 - AS/400 message adapter*

Note: The maximum number of characters per line in the CDS file is 1024.

[IY75056](#) The following should be considered an addendum to the "Event information and attributes" section of Chapter 1.

An event must never repeat attribute names. If an event arrives at the Server or state correlation engine with repeated attributes, the last value listed will be kept and previous values will be dropped. Repeated attribute names represent an improper event and must be modified at the source to avoid having dropped data.

[IY58509](#) The following information should be added to the *IBM Tivoli Enterprise Console Adapter's Guide* in the Configuration file section in Chapter 10, "UNIX logfile adapter":

LogSources

Specifies the log files to poll. The complete path to each file must be specified, and file names must be separated by commas(,). Within each file name, you can also use an asterisk (*) to represent any sequence of characters, or a question mark (?) to represent any single character. For example, mylog* would result in polling all log files whose names begin with mylog, while mylog??? results in polling all log files whose names consist of mylog followed by exactly three characters. The question mark cannot be used to substitute the period between a file name and a file extension. For example, to find mylog.txt, specify mylog.???, not mylog?????. These wildcard characters are supported only within the file name; the path must be explicitly specified.

[IY73868](#) The following is an addendum to [Chapter 9 9 -SNMP Adapter](#).

On Unix platforms if the SNMP adapter runs in a non-German locale and SNMP traps are generated that contain unlauded characters, the adapter will convert the unlauded characters to hexadecimal text. The adapter may fail to match these traps to events.

The SNMP adapter runs by default in the locale of the root user. If the locale of the root user is non-German and you expect the adapter to receive traps containing unlauded characters, you should modify `init.tecad_snmp`, the startup and shutdown script for the adapter, in order to set the locale of the adapter process to German. The `init.tecad_snmp` file is located in `$TECADHOME/bin`. Search the file for the following two lines:

```
PATH=$PATH:/usr/ucb:/sbin:/usr/sbin:/usr/bin:/bin
export PATH
```

Below 'export PATH', add another variable definition and export statement for the LANG environment variable. The value of LANG must be set to the name of a German locale installed on the adapter host. For example:

```
LANG=de
export LANG
```

Restart the SNMP adapter after modifying the `init.tecad_snmp` startup script.

[IY76832](#) The following line should be pulled from the "Configuration file" section of [Chapter 9 -SNMP Adapter](#).

SNMP_PORT Specifies the port where the adapter listens for SNMP requests.

[IY79072](#) The following should be added to the Note in the description for the DEFAULT keyword in the "Mappings" section of "Appendix B. Format file reference".

The only attributes that support the DEFAULT keyword are `origin`, `hostname`, and `fqhostname`. Use of the DEFAULT keyword for other attributes will cause the log file entry to not match the format file entry.

[IY79404](#) The following line should be removed from the LogSources entry in the "Configuration file" section of [Chapter 10 – UNIX logfile adapter](#).

Note: The maximum number of lines that can be concatenated to a log file is 16,384.

[IY80117](#) The following should be added to the end of the description for the LogSources configuration file keyword in both [chapter 10 UNIX logfile adapter](#) and [chapter 11 Windows event log adapter](#).

If the file is polled and cannot be found, the internal pointer is deleted. If the file is rediscovered on a later polling interval it will be treated as a new file and each entry will be processed.

[IY81590](#) The following new keyword should be added on page 158 to the adapter configuration keywords for the UNIX logfile adapters.

MinPollInterval

This value is used to specify the minimum frequency, in seconds, to poll each file listed in the LogSources field for new messages. The PollInterval specifies the maximum and default frequency between the polling of LogSources. However, there is a limit on how many new messages can be "queued" up for processing each poll period so it's possible we don't complete polling all LogSources within each PollInterval. If we do not complete polling within an interval, we will accelerate the frequency to the next poll to a time not less than MinPollInterval. So for large volumes of events, this allows for the adapter to automatically increase the polling frequency down to as little as 1 second. Events will be processed more quickly but the adapter will then consume more CPU time. The default value is 5 seconds and can be set to any from 1 second up to PollInterval. If set to be greater than PollInterval, it is set to be the same as PollInterval.

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[IY73291](#) The following is an addendum to the *TEC Event* subsection of "**Java Language API**" in *Appendix A* on page 66.

A legitimate event string has the following form:

```
ID SEMICLN ( ID = (STRING | VALUE | EMPTY_STRING) SEMICLN ) * "END" [CNTRL_A]
```

The tokens for the event string grammar are explained in detail below:

```
SEMICLN := ";"
```

```
EQUALS := "="
```

```
CNTRL_A := "\001"
```

ID := Any non-empty sequence of characters from the set
a-z,A-Z,0-9,_,-,. ,

containing at least one character from
a-z,A-Z

STRING := Begins and ends with either single quotes or double quotes. Any embedded quotes that are the same as the quotes being used to delimit the string must be escaped with the same quote character. For example:

- 'embedded single()' would be written 'embedded single()'
- "embedded double()" would be written "embedded double()"
- "embedded single()" would be written "embedded single()"

The only other restriction on STRING tokens is that they can't contain the NUL character ('\000') or control-A ('\001').

VALUE := Any non-empty sequence of characters excluding all ASCII control Characters (" - ""), the space character (" "), the single quote ("'"), the equals sign ("="), and the semi-colon (";").

EMPTY_STRING := This token represents an empty string. No quotes are needed for this value.

The first ID token is the class name of the event. The sequence of instances of "ID=(STRING|VALUE);" specify the slot/value pairs and "END" marks the end of the event. The terminating character ^A is optional. Each ID used as a slot name must be unique with respect to all the other IDs used as slot names and the slot name can't be "END". Before and after any of the tokens in an event string, there can be an arbitrary amount of whitespace (characters " ", "\t", "\r", "\n") with one exception. Nothing can appear after the terminating ^A if it's present. The following are examples of valid event strings:

```
Class1;
  msg='embedded quote ''.' ;
  hostname=artemis;
END

Class2;END^A

Class3; msg = theMessage ; END

Class4;
  msg='Here''s a newline
rest of msg';
END
```

[IY56192](#) The following information should be added to the "Regular Expressions in Filters" section of *Chapter 5 - Filtering Events at the Source*. This text should be placed just before the "Note:" in that section.

Syntax of Regular Expressions:

A regular expression is zero or more branches, separated by "|". It matches anything that matches one of the branches.

A branch is zero or more pieces, concatenated. It matches a match for the first, followed by a match for the second, etc.

A piece is an atom possibly followed by "*", "+", or "?". An atom followed by "*" matches a sequence of 0 or more matches of the atom. An atom followed by "+" matches a sequence of 1 or more matches of the atom. An atom followed by "?" matches a match of the atom, or the null string.

An atom is a regular expression in parentheses (matching a match for the regular expression), a range (see below), "." (matching any single character), "^" (matching the null string at the beginning of the input string), "\$" (matching the null string at the end of the input string), a "\" followed by a single character (matching that character), or a single character with no other significance (matching that character).

A range is a sequence of characters enclosed in brackets "[]". It normally matches any single character from the sequence. If the sequence begins with "^", it matches any single character not from the rest of the sequence. If two characters in the sequence are separated by "-", this is shorthand for the full list of ASCII characters between them (e.g. "[0-9]" matches any decimal digit). To include a literal "]" in the sequence, make it the first character (following a possible "^"). To include a literal "-", make it the first or last character.

A sample program is provided in the EIFSDK for testing regular expressions. The sample is provided for each operating system in the <eifsdk>/bin/\$INTERP directory. The sample name is 'regtest'. A sample input file, regtest.data, is also provided.

Note: The regular expression code is a slightly altered version of code originally written by Henry Spencer Copyright (c) 1986 by University of Toronto. Not derived from licensed software. Permission is granted to anyone to use this software for any purpose on any computer system, and to redistribute it freely, subject to the following restrictions:

1. The author is not responsible for the consequences of use of this software, no matter how awful, even if they arise from defects in it.
2. The origin of this software must not be misrepresented, either by explicit claim or by omission.
3. Altered versions must be plainly marked as such, and must not be misrepresented as being the original software.

The following is an addendum to the disconnect() reference of ["Java Language API" in Appendix A on page 59.](#)

disconnect(time)

Flushes the cache and then closes any open connection to the event server.

Synopsis

`disconnect (max_seconds_to_wait)`

Arguments

Note: For all values control is returned to the caller as soon as the cache is emptied.

< 0 Wait forever or until the cache is emptied. If the server is down, this routine will not return.

= 0 Send events from the cache while the connection remains up. This could take a long time if the cache is large.

>= 0 Stop emptying the cache after the specified number of seconds.

Examples

```
public synchronized void disconnect(int max_seconds_to_wait)
```

[IY62178](#) The following is an addendum to *Chapter 4 - Building an adapter.*

Table 7 Libraries for non-TME adapters developed with Event Integration Facility C API has been updated with the following entry:

Libraries	Provided by	Notes
librplib.a Standardz/OS Language Environment libraries	Operating system	For adapters on z/OS

A new section has been added to the end of the chapter with the title **"Using the Event Integration Facility on z/OS"**. This section will contain the following information:

The following Event Integration Facility toolkit binaries are unique to z/OS. To use these binaries, you must transfer them to your z/OS USS system in binary. Note: These files only support non-TME transport.

- EIFSDK/bin/os390/postzmsg
- EIFSDK/lib/os390/libteceef.a

The following Java files may also be transferred in binary and used on z/OS. These files are used for both the Java version of the Event Integration Facility and for State Correlation with the C version.

- EIFSDK/jars/evd.jar
- EIFSDK/jars/log.jar
- EIFSDK/jars/zce.jar
- EIFSDK/jars/xercesImpl-4.2.2.jar
- EIFSDK/jars/xml-apis-4.2.2.jar

Note: the EIFSDK directory is found on the IBM Tivoli Enterprise Console TME New Installations CD or in the directory where you placed it.

In order to use the C version of the Event Integration Facility on z/OS the appropriate EBCDIC codeset files (such as IBM-1047) need to be in the \$TISDIR/codeset directory. This will allow for UTF-8 conversion to take place. These files can be transferred (in binary) to a USS directory such as /etc/Tivoli/codeset. To use the codeset, export TISDIR=/etc/Tivoli on your USS system.

The following is an addendum to *Chapter 5-Filtering events at the source*

Table 10 Library paths and directories for adapters built with the C API has been updated with the following entry:

Operating System and Library	Environment Variable	Directories
z/OS: libjvm.so	LIBPATH	<java_path>/bin/classic <java_path>/bin

The following information have been added to the "Activating state machines" section in chapter 5.

In order to use State Based Correlation on z/OS, do the following:

1. Your xml rules must be in codepage IBM-037 rather than IBM-1047. To convert a file from IBM-1047 to IBM-037, use the following command:

```
iconv -f IBM-1047 -t IBM-037 filename > outfile
```

2. Transfer **tecscce.dtd** to your US system. Note: **tecscce.dtd** cannot be in EBCDIC. Therefore, you must do a binary transfer.
3. If JIT needs to be disabled, use Java version 1.3.1 to do so with the following command:

```
export JAVA_COMPILER=NONE
```

[IY71318](#) The following is an addendum to *Chapter 3 page 13*.

The following is an example of a configuration file that enables the application to receive events using sockets:

```
BufferEvents=NO
BufEvtPath=/tmp/eif_socket_recv.cache
TransportList=t1
t1Type=SOCKET
t1Channels=t_
t_ServerLocation=my.server.com
t_Port=5151
```

Note: When the receiver is configured to use sockets, the value of **BufferEvents** must be set to **NO** the receiver using socket transport. When **BufferEvents** is set to **YES**, the EIF pulls information from the socket and the event is immediately placed in the buffer where the `tec_get_event` retrieves it. This may cause event loss if the buffer grows so large that it wraps in the buffer file.

[IY54505](#) The following information has been added to the section documenting how to program the adapter in *Chapter 4 -Building an adapter*

When building a TME adapter using the Tivoli Application Development Environment the `tec_create_handle` API calls the `tis_set_def_cs` function, which sets the default code set for other `tis` calls. When building a non-TME adapter the locale is set independently of the Event Integration Facility. Calling the `tec_create_handle` API does not change the locale.

[IY56893](#) The following information has been added to the `tec_put_event` section of *Appendix A, "Application programming interfaces"*

Note: If buffering is enabled in the configuration file, events are placed into a buffer and then sent on a separate thread. If a call to `tec_put_event` is followed by a call to `tec_destroy_handle`, the handle might be destroyed before the event can be sent. To prevent this from happening use the `ed_sleep` utility function after `tec_put_event` to allow time for the event to be sent. For example:

```
ed_sleep(0,100);
```

[IY67231](#) The following information is an update to *Chapter 5: Filtering events at the source* page 33.

Before activating the state based correlator, ensure that the rules have been written based on the information described in the *IBM Tivoli Enterprise Console Rule Developer's Guide*.

Follow this procedure to enable the state based correlation:

1. Modify the state correlation keywords in the configuration file. The following code fragment illustrates the use of the appropriate keywords:

```
UseStateCorrelation=YES
# for Windows only
StateCorrelationConfigURL=file:C:\tmp\test.xml
# for all other INTERPs
# StateCorrelationConfigURL=file:///tmp/test.xml
```

2. To run state correlation on an adapter place both the XML and DTD files in the path specified in step 1.

Note: The DTD, `tecscce.dtd` is the supported type definition for TEC state based correlation and is provided by both the ACF component (`$BINDIR/TME/TEC/default_sm/tecscce.dtd`) and the EIF SDK (`default_sm/tecscce.dtd`).

3. Add the following files to the CLASSPATH environment for the adapter. This can be done either in the environment from which the adapter is run or via the adapters configuration file. The files:

- `zce.jar`
- `log.jar`
- `xercesImpl-4.2.2.jar`
- `xml-apis-4.2.2.jar`
- `evd.jar`

are provided with the ACF component (`$BINDIR/./generic_unix/TME/TEC`) and the EIF SDK (`jars/*`) as well as the TME logfile adapters and the non-TME logfile adapters for AIX, SOLARIS(Sparc), HP/UX and Linux (all supported platforms). They are also provided for the TME installed Windows logfile adapter.

Note: `xercesImpl-4.2.2.jar` and `xml-apis-4.2.2.jar` replaces `xerces-3.2.1.jar` as of 3.9.0-TEC-FP01.

Set the CLASSPATH via the configuration file for the logfile adapters with the `PREPEND_CLASSPATH` or `APPEND_CLASSPATH` keywords. For TME adapters, the jar files are located at:

```
$TECADHOME/../../../../generic_unix/TME/TEC
```

and for non-tme:

```
$TECADHOME/jars
```


Add one of either PREPEND_CLASSPATH or APPEND_CLASSPATH to your configuration file (using the appropriate path separator, : for unix and ; for windows) using the full path to each of the jar files listed above. For example on a Solaris TME unix logfile adapter:

```
PREPEND_CLASSPATH=$TECADHOME/../../../../generic_unix/TME/TEC/zce.jar:\
$TECADHOME/../../../../generic_unix/TME/TEC/log.jar:\
$TECADHOME/../../../../generic_unix/TME/TEC/xercesImpl-4.2.2.jar:\
$TECADHOME/../../../../generic_unix/TME/TEC/xml-apis-4.2.2.jar:\
$TECADHOME/../../../../generic_unix/TME/TEC/evd.jar
```

Note: The above would all be on one line (no "\") and the value of \$TECADHOME should be expanded. For TME adapters, it is possible to use \$TECADHOME in the ACF "Environment" panel without expanding it and it will be filled in by ACF.

- For adapters that are built using the C API such as the TEC logfile adapters, it is necessary to have the library path point to the java libraries in order to use state base correlation via JNI. This is documented in the aforementioned "Activating State Machines" section of the Tivoli Event Integration Facility reference but can also be effected by the use of either the PREPEND_JVMPATH or APPEND_JVMPATH configuration file keywords. As with the classpath example above, the appropriate path separator must be used if more than one path and should point to the location where the JVM shared library for the jre is located. Using the Solaris TME UNIX logfile adapter example above assuming that the JRE (Java runtime) to be used is located at \$TECADHOME/./jre, add:

```
PREPEND_JVMPATH=$TECADHOME/./jre/lib/sparc
```

Note: See Table 10 in the Tivoli Event Integration Facility reference for other interps. Also note that \$TECADHOME must be expanded as with the previous example.

Table 10. Library paths and directories for adapters built with the C API

Operating System and Library	Environment Variable	Directories
AIX: libjvm.a	LIBPATH	/InstallDir/bin/aix4-r1/TME/TEC/jre/bin/classic /InstallDir/bin/aix4-r1/TME/TEC/jre/bin
HP-UX: libjvm.sl	SHLIB_PATH	/InstallDir/bin/hpux10/TME/TEC/jre/lib/PA_RISC/classic /InstallDir/bin/hpux10/TME/TEC/jre/lib/PA_RISC/
Linux: libjvm.so	LD_LIBRARY_PATH	/InstallDir/bin/linux-ix86/TME/TEC/jre/bin/classic /InstallDir/bin/linux-ix86/TME/TEC/jre/bin
Solaris Operating Environment: libjvm.so	LD_LIBRARY_PATH	/InstallDir/bin/solaris2/TME/TEC/jre/lib/sparc
Windows: libjvm.dll	PATH	\InstallDir\bin\TME\TEC\jre\bin\classic

Note: Failure to initialize state based correlation for the Windows event logfile adapter can lead to an application fault. The fault occurs in the msvcrt.dll wscanf() function.

[184725](#) The following is an addendum to Appendix A - Application programming interfaces.

tec_destroy_handle_delay

Destroys the handle to the event server created by tec_create_handle, tec_create_handle_c, tec_create{EIF}_handle, and tec_create_handle_r and closes any established connections. The second parameter indicates that the cache should be flushed before the handle is destroyed.

Synopsis

```
void tec_destroy_handle_delay (tec_handle_t handle, long max_seconds_to_wait)
```

Arguments

handle The tec handle returned from a call to a create_handle function.

max_seconds_to_wait < 0 - Wait forever or until cache is emptied. If the server is down this API call will not return.
= 0 - Send events from the cache while the connection remains up. It could take a while to send all the events if the cache is large. The API call will return as soon as the cache is empty or the connection to the TEC Server is lost.
> 0 - Stop emptying the cache after the specified number of seconds. The API call will return as soon as the cache is empty or after the specified number of seconds.

Examples

```
#include "tec_eef.h"  
tec_destroy_handle_delay(handle, 0)
```

IBM Tivoli Enterprise Console Version 3.9 Command and Task Reference

The following information is an addendum to [Chapter 1](#)

wstoptecgw (managed node version):

The managed node version of the **wstoptecgw** command is used to stop a Tivoli Enterprise Console gateway that is installed on a managed node. The managed node version of the **wstoptecgw** command is installed on a managed node and the endpoint version of the **wstoptecgw** command is installed on endpoints. The appropriate **wstoptecgw** command is automatically invoked when a `tec_gateway` profile is distributed to either a managed node or to an endpoint.

The **EnableSigTerm** keyword is used to determine which version of the command is installed. The default value is **EnableSigTerm=YES**, which means the new version of the **wstoptecgw** command is used when the gateway is installed on a managed node.

Syntax:

wstoptecgw

Description:

The managed node version of the **wstoptecgw** command stops a Tivoli Enterprise Console gateway that services managed nodes. The Tivoli Enterprise Console gateway restarts automatically upon receipt of an event, so there is no corresponding command to start the gateway. This command must be run in the shell sourced on the host (managed node) that contains the gateway. To get the **wstoptecgw** command on the shell sourced on the host (managed node) that contains the gateway, perform the following steps.

1. Ensure that the Adapter Configuration Facility is installed on the managed node to act as the Tivoli Enterprise Console gateway.
2. Create an adapter configuration profile entry for the `tec_gateway` configuration file and ensure that **EnableSigTerm=YES** is specified.
3. Distribute the `tec_gateway` adapter configuration profile to the managed node. The **wstoptecgw** command is now installed in the `$BINDIR/bin/` directory on the managed node.

The following is an update to the `-imptgtdata` option of the `wrb` command on [page 78](#):

-imptgtdata *data_file target rule_base*

Imports a supporting data file into a rule base target. This file must already exist in the `TEC_RULES` subdirectory, and it is distributed with the rule base. For example, the following files can be imported:

- Event Integration Facility configuration file
- Prolog fact file
- Prolog data file

data_file

Specifies the name of the file to be imported to the named rule base target. Specify the file name, not the path. The file must already exist in the `TEC_RULES` subdirectory.

target

Specifies the name of the rule base target that will receive the imported data file.

rule_base

Specifies the name of the rule base that contains the target.

The following information is an addendum to the "[Configuration Parameters Appendix](#)."

The following parameters can be set in the `.ui_server_config` file, which is located in the `$BINDIR/TME/TEC` directory.

Parameter	Use	Default Value
-----------	-----	---------------

Parameter	Use	Default Value
tec_ui_server_version_checking_enabled	Specifies whether or not to verify a compatible version of the event console (Java or Web version) when attempting to connect to the UI server. The values for this parameter are TRUE and FALSE.	TRUE
tec_ui_server_conn_keepalive_interval	Specifies sleep interval in minutes used by the UI server keep-alive thread. This thread prevents the unexpected closure of the connection between the console and the UI server when communicating through a firewall.	Not applicable.

[IY57986](#), [IY69755](#), [IY67023](#) [IY74714](#) The following information is an addendum to the "Configuration Parameters Appendix."

The following parameters can be set in the .tec_config file, which is located in the \$BINDIR/TME/TEC directory. The parameters can be viewed within rules by using the get_config_param predicate. The values specified in the tec_recv_agent_port, tec_disp_rule_port, and tec_rec_rule_port parameters should be set greater than 5000 to avoid conflicting with automatically assigned ports.

Parameter	Use	Default Value
tec_recv_agent_port	Specifies the port that the tec_reception process should use to receive events that are sent by non-TME adapters. This parameter is required on Windows systems.	0 (specifies that portmapper is used)
tec_disp_rule_port	Specifies the port used for inter-process communication for the tec_dispatch process.	0 (specifies that portmapper is used)
tec_recv_rule_port	Specifies the port used for inter-process communication for the tec_rule process.	0 (specifies that portmapper is used)
tec_recv_timeout	Specifies a timeout, in seconds, for the tec_reception process when reading events from a socket. If the tec_reception process hangs for tec_recv_timeout seconds when reading an event, it ends the connection and continues receiving events so that other agents are not delayed.	5 (seconds)
tec_tmpfile_dir	Specifies the directory where temporary files can be created and manipulated. These temporary files are used when rules write to a temporary directory.	The default directory is \$DBDIR.
tec_restart_server	Specifies whether the tec_master process automatically restarts other processes when a process either ends or loses communication with the tec_master process. The values for this parameter are YES and NO.	NO (specifies that if the tec_master process cannot reach a child process, it shuts down other processes)
tec_rule_cache_size	This parameter is obsolete. This is now specified with the wsetesvr cfg command and viewed with the wlsvr cfg command.	Not applicable.
tec_rule_cache_full_history	This parameter is obsolete. This is now specified with the wsetesvr cfg command and viewed with the wlsvr cfg command.	Not applicable.
tec_rule_cache_non_closed_history	This parameter is obsolete. This is now specified with the wsetesvr cfg command and viewed with the wlsvr cfg command.	Not applicable.
tec_rule_cache_clean_freq	Specifies the frequency for emptying the rule engine event cache. The value is specified in seconds.	3600 (seconds which is one hour).
tec_rule_trace	This parameter is obsolete. This is now specified with the wsetesvr cfg command and viewed with the wlsvr cfg command.	Not applicable.

tec_rule_trace_file	This parameter is obsolete. This is now specified with the wsetsvrcfg command and viewed with the wlsvrcfg command.	Not applicable.
tec_rule_host	Specifies the host where the rule engine runs.	The default is to use the TMF function <code>local_host_name()</code> .
tec_rule_use_portmapper	This parameter is used on all platforms except Windows to specify whether to register the port specified by the <code>tec_recv_agent_port</code> keyword with the portmapper. If the <code>tec_recv_agent_port</code> parameter is set to 0 or is not specified, the portmapper is used regardless of the <code>tec_rule_use_portmapper</code> keyword. The values for this parameter are <code>yes</code> and <code>no</code> .	
tec_rule_mgmt_port	This parameter is obsolete.	Not applicable.
tec_rule_mport_enable_level	This parameter is obsolete.	Not applicable.
tec_rule_password	This parameter is obsolete.	Not applicable.
tec_server_dbfail_shutdown	Specifies whether the server should shutdown when it cannot connect to the database. The values for this parameter are <code>YES</code> and <code>NO</code> . <code>NO</code> indicates that the server will continue to receive and process events in the Rule Engine and reconnect to the database when it becomes available. New events and modifications received during this time will not be updated in the database. <code>YES</code> indicates that the server should shutdown when it is not able to connect to the database.	NO
tec_server_handle	Specifies the numeric identifier for the server. If there are multiple Tivoli Enterprise Console servers, use this parameter to assign each unique IDs.	1
tec_server_portmap_shutdown	Specifies whether <code>tec_server</code> will shutdown the <code>tec_reception</code> portmapper port when the server shuts down. The values for this parameter are <code>YES</code> and <code>NO</code> .	YES (specifies the event server will shutdown the portmapper port at shutdown)
event_cache_file	Specifies the file name of the event cache. This is used to cache incoming events when events are received faster than they can be processed.	None
tec_exectask_dbcs	Specifies how slot parameters of type string should be passed to the task engine. If set to <code>true</code> , slot parameters are converted to the local code set before the task is run. If set to <code>false</code> , the parameters are passed as UTF8.	false
always_expect_utf8	Indicates whether all incoming events are to be in UTF8 format. The values for this parameter are <code>yes</code> and <code>no</code> .	no
tec_benchmark_report_period	Specifies the frequency at which processing rates are printed. For more information, see the <i>IBM Tivoli Enterprise Console Rule Developer's Guide</i> .	0 (specifies that reports are not generated)
tec_benchmark_sample_period	Specifies the time window for which event arrival and processing rates are computed. For more information, see the <i>IBM Tivoli Enterprise Console Rule Developer's Guide</i> .	0 (specifies that reports are not generated)
tec_disp_clt_lock_timeout	Specifies a timeout in seconds for the <code>tec_ui_server</code> process when an event change transaction takes place. If a timeout occurs the following error message will be written to the <code>tec_ui_server</code> process log file: processServerData() – NACK trans end This usually indicates a client lock timeout.	30 (This value can be increased as necessary)

	<p>If this occurs increase the value for <code>tec_disp_clt_lock_timeout</code>.</p> <p>After receiving this error the initiating console will continue to show an updating status (for example, Acknowledging). Reloading the events will update the status.</p>	
--	---	--

New Parameters for event delivery reliability

The following parameters have been added in order to help improve the reliability of event delivery and prevent the loss of events while stopping the event server. To improve the reliability of event delivery, an update to the Event Integration Facility (EIF) library allows the sender (for example, an adapter) to verify an active connection is available before sending the event. These enhancements include new configuration parameters, which are detailed below.

EIF Sending Process Parameters

Parameter	Use	Default Value
<code>RespectRTSS</code>	NO/YES	YES
<code>PORTMAPPER_REMEMBER_PORTS</code>	NO/YES	YES
<code>ServerPortCTS</code>	0-65000,N	5549

EIF Receiving Process Parameters

Parameter	Use	Default Value
<code>SendRTSS</code>	NO/YES	YES
<code>TimeoutRTSS</code>	1-65000	120
<code>ControlledShutdown</code>	NO/YES	YES
<code>ServerPortCTS</code>	0-65000,N	5549

Keywords

RespectRTSS

Default YES
 YES - stop sending when RTSS
 NO - do check for RTSS

PORTMAPPER_REMEMBER_PORT

Default YES
 YES - try the previous port obtained do not request from portmapper unless this port fails.
 NO - use portmapper on every connection

SendRTSS

Default YES
 YES - send RTSS "SHUTDOWN"
 NO - do not send RTSS "SHUTDOWN"

TimeoutRTSS

Time (seconds) to wait for all data to be received
 Default 120
 0 - wait indefinitely
 max 3600 (1hr)

ControlledShutdown

Default YES
 YES/NO

ServerPortCTS

Similar to ServerPort but specifies a CTS port for this location. Setting a ServerPortCTS will enable CTS port.
Default <not defined> will not use CTS port
Value - <portnumber>,N

Sender

Sender keywords can be set in adapter configuration files and forward.conf.

When using RespectRTSS the sender will check for data available on the socket before sending, when the data available on the socket is a "SHUTDOWN" message the send will fail to the application. If no data is available then the send will proceed. A SHUTDOWN" message sent out by the receiver does not indicate that it is done reading, just that it wants the connection to stop sending data.

By default, a sender that makes multiple calls to send in connection-less mode, and portmapper is used, will try to reuse the port from the previous connection. The PORTMAPPER_REMEMBER_PORT keyword can disable this so that a request to portmapper is made every time.

To explain the ServerPortCTS keyword, knowledge of ServerLocation ServerPort configuration is necessary.

A comma-separated list of entries for ServerLocation will configure multiple destinations. The comma-separated list of ports for ServerPort will match 1:1 with the ServerLocations. Fewer ServerPorts will result in port 0 for each extra location. Fewer locations will yield destinations to localhost on the extra port.

A comma-separated list of ports for ServerPortCTS will match up with ServerPort keyword. An 'N' for a port will indicate None and disable ServerPortCTS for that destination.

The configuration examples below show how this might work.

Example 1:

```
ServerPort=5529
SeverPortCTS=5549
```

Example 2:

```
ServerPort=5529,8801,8803
SeverPortCTS=5549,9901,9903
```

A port of N for the CTS port indicates None, port 0 will indicate portmapper and remaining ports will use the last one used similar to how ServerLocation and ports match up.

Example 3:

```
ServerPort=5529,8801,8803
SeverPortCTS=5549,N,9903
```

Port 5529	cts	8801
Port 8801	cts	None
Port 8803	cts	9903

Omission of keywords for the Sender will yield the following functionality

```
RespectRTSS=YES
ServerPortCTS=N
```

Receiver

Receiver keywords are to be set in the .tec_config file and are read by tec_reception.

When SendRTSS is enabled the receiver will send a "SHUTDOWN" message to all active connections when in shutdown. The receiver will continue to read data from sockets until no more data is available, and adapters that choose to ignore the

"SHUTDOWN" message (all previous adapters) may keep this process alive indefinitely. The TimeoutRTSS is the amount of time to wait before simply closing all connections and discarding data in transit. The EEIF uses a connection pool and cannot distinguish between a 'well_behaved' adapter and a chaotic one.

ControlledShutdown tells TEC Reception to use the controlled shutdown when set to YES. When this is set to NO TEC Reception will not use the controlled shutdown.

[IY65276](#) The section on the `wrb` command has been updated with this information.

The following command copies an existing rule base to another existing rule base.

```
-cprb [-classes] [-rulesets] [-rulepacks] [-targets] [-delete | overwrite] [-force]  
source destination
```

If any of the -classes, -rulesets, -rulepacks, or -targets arguments are not specified, then the class sets, rule sets, rule packs, rule base targets, and data files are all copied.

-targets

Copies rule base targets and data files.

The following information has been added to the section documenting the `wlsemmsg` command options.

-k *key*

This parameter specifies the field sort selection criteria. Events are sorted in ascending order by event_handle, server_handle, and date_reception. Other values are Administrator, Class, Hostname, ID, Message, Origin, Repeat_Count, Severity, Source, Status, Sub_Source and Sub_Origin. The ID field is defined..."

[IY53185](#) The following information has been added to the section documenting the `wupdnvgroups` command options.

wupdnvgroups

Updates the ServiceUnavailable event group required to use the netview.rls rule set.

Syntax

```
wcrtnvgroups [host[:port]] user password
```

Description

The **wupdnvgroups** script uses the **wconsole** command to update the ServiceUnavailableEvents Event group filter for the ServiceUnavailable event group. This event group contains events from the IBM Tivoli NetView product that indicate that IBM WebSphere Application Server, DB2, and WebSphere MQ applications are unavailable.

Authorization

senior

Options

host[:port]

Specifies the name of the host where the event console runs and optionally, the port used by the host. If port 94 is not used, the port must be specified.

user

Specifies the user name of the administrator. If not specified the ID of the user that is currently logged on is used.

password

Specifies the password of the administrator. This option is required if specifying a user.

Note: If operating on an AIX system and logged in as root, explicitly specify the host name, user ID, and password to prevent the login window from displaying. This is not necessary if logged in to an AIX system under any other user ID.

Examples

The following example updates the ServiceUnavailable event group on a system called phizer:

```
wupdnvgroups phizer.dev.tivoli.com jford my_password
```

See Also

wconsole, **wcrtnvgroups**

[IY53943](#) The following is an addendum to the section documenting the **waddac** command options.

-p *prefilter*

Defines a PreFilter to be placed in the adapter configuration record for the Windows and NetWare adapters.

The log specification must be defined. Optionally, the EventID, the EventType, and the Source specifications can be defined. The prefilter string must be in the following format:

```
Attribute=Value ;[Attribute=Value ;Attribute=Value ;...]
```

The entire string must be enclosed in single quotation marks (') to prevent the command-line interpreter from reacting to the semicolons.

To define a prefilter that is initially in the disabled state, prefix the prefilter string with `#reFilter:.`

Enabled prefilters can optionally be prefixed with `PreFilter:.` For example, the following command adds a single, disabled prefilter record to the profile named `winProf`.

```
waddac -p '#reFilter:Log=Application;'tecad_win winProf
```

Many **-p** options can be utilized.

[IY53943](#) The following information has been added to the section documenting the **wsetac** command options.

-p *prefilter*

Defines a prefilter to be placed in the adapter configuration record for the Windows and the NetWare adapters.

The log specification must be defined and optionally, the EventId, the EventType, and the Source specifications. The prefilter string must be in the following form:

```
Attribute=Value ;[Attribute=Value ;Attribute=Value ;...]
```

The entire string must be enclosed in single quotation marks (') to prevent the command-line interpreter from reacting to the semicolons.

To create a prefilter that is initially in the disabled state, prefix the prefilter string with `#reFilter:.` Enabled prefilters can optionally be prefixed with `PreFilter:.` For example, the following command appends a single, disabled prefilter to the entry with key 12 of the profile named `winProf`.

```
wsetac -p '#reFilter:Log=Application;'12 winProf
```

Many **-p** options can be utilized.

[IY53943](#) The following information has been added to the section documenting the **wsetadflt** command options.

-p *prefilter*

Defines an event prefilter to be used as the default value for the specified adapter type for the Windows and NetWare adapters.

The log specification must be defined and optionally, the EventId, the EventType, and the Source specifications.

The prefilter string must be in the following form:

```
Attribute=Value ;[Attribute=Value ;Attribute=Value ;...]
```

The entire string must be enclosed in single quotation marks (') to prevent the command-line interpreter from reacting to the semicolons.

To create a prefilter that is initially in the disabled state, prefix the string with #reFilter:. Enabled prefilters can optionally be prefixed with PreFilter:. For example, the following command appends a disabled prefilter to the list of default filter statements for the adapter type tecad_win:

```
wsetaddflt -a -p '#reFilter:Log=Application;' tecad_win
```

Many -p options can be utilized.

[IY54892](#) The **wsetemsg** command description now includes a new option for attribute values being changed. With the new **-e** encoding option, values are converted from the given code set to UTF-8. If this option is not specified, values are assumed to be in UTF8 format.

Update to the usage statement:

```
wsetemsg [-t status] [-f] [-r severity] [-e encoding] [attribute=value...] console event_ID
```

-e encoding

Specifies the character encoding for attribute values being changed. If this option is not specified, values are assumed to be in UTF8 format. With this option, values are converted from the given code set to UTF8.

The following list of basic encoding sets is for the -e encoding option

Big5	Big5, Traditional Chinese
Big5_HKSCS	Big5 with Hong Kong extensions, Traditional Chinese
Cp037	USA, Canada (Bilingual, French), Netherlands, Portugal, Brazil, Australia
Cp273	IBM Austria, Germany
Cp277	IBM Denmark, Norway
Cp278	IBM Finland, Sweden
Cp280	IBM Italy
Cp284	IBM Catalan/Spain, Spanish Latin America
Cp285	IBM United Kingdom, Ireland
Cp297	IBM France
Cp420	IBM Arabic
Cp424	IBM Hebrew
Cp437	MS-DOS United States, Australia, New Zealand, South Africa
Cp500	EBCDIC 500V1
Cp737	PC Greek
Cp775	PC Baltic
Cp838	IBM Thailand extended SBCS
Cp850	MS-DOS Latin-1
Cp852	MS-DOS Latin-2
Cp855	IBM Cyrillic
Cp856	IBM Hebrew
Cp857	IBM Turkish
Cp858	Variant of Cp850 with Euro character
Cp860	MS-DOS Portuguese
Cp861	MS-DOS Icelandic
Cp862	PC Hebrew
Cp863	MS-DOS Canadian French
Cp864	PC Arabic
Cp865	MS-DOS Nordic
Cp866	MS-DOS Russian
Cp868	MS-DOS Pakistan
Cp869	IBM Modern Greek
Cp870	IBM Multilingual Latin-2

Cp871	IBM Iceland
Cp874	IBM Thai
Cp875	IBM Greek
Cp918	IBM Pakistan (Urdu)
Cp921	IBM Latvia, Lithuania (AIX, DOS)
Cp922	IBM Estonia (AIX, DOS)
Cp930	Japanese Katakana-Kanji mixed with 4370 UDC, superset of 5026
Cp933	Korean Mixed with 1880 UDC, superset of 5029
Cp935	Simplified Chinese Host mixed with 1880 UDC, superset of 5031
Cp937	Traditional Chinese Host mixed with 6204 UDC, superset of 5033
Cp939	Japanese Latin Kanji mixed with 4370 UDC, superset of 5035
Cp942	IBM OS/2 Japanese, superset of Cp932
Cp942C	Variant of Cp942
Cp943	IBM OS/2 Japanese, superset of Cp932 and Shift-JIS
Cp943C	Variant of Cp943
Cp948	OS/2 Chinese (Taiwan) superset of 938
Cp949	PC Korean
Cp949C	Variant of Cp949
Cp950	PC Chinese (Hong Kong, Taiwan)
Cp964	AIX Chinese (Taiwan)
Cp970	AIX Korean
Cp1006	IBM AIX Pakistan (Urdu)
Cp1025	IBM Multilingual Cyrillic: Bulgaria, Bosnia, Herzegovinia, Macedonia (FYR)
Cp1026	IBM Latin-5, Turkey
Cp1046	IBM Arabic - Windows
Cp1097	IBM Iran (Farsi)/Persian
Cp1098	IBM Iran (Farsi)/Persian (PC)
Cp1112	IBM Latvia, Lithuania
Cp1122	IBM Estonia
Cp1123	IBM Ukraine
Cp1124	IBM AIX Ukraine
Cp1140	Variant of Cp037 with Euro character
Cp1141	Variant of Cp273 with Euro character
Cp1142	Variant of Cp277 with Euro character
Cp1143	Variant of Cp278 with Euro character
Cp1144	Variant of Cp280 with Euro character
Cp1145	Variant of Cp284 with Euro character
Cp1146	Variant of Cp285 with Euro character
Cp1147	Variant of Cp297 with Euro character
Cp1148	Variant of Cp500 with Euro character
Cp1149	Variant of Cp871 with Euro character
Cp1250	Windows Eastern European
Cp1251	Windows Cyrillic
Cp1253	Windows Greek
Cp1254	Windows Turkish
Cp1255	Windows Hebrew
Cp1256	Windows Arabic
Cp1257	Windows Baltic
Cp1258	Windows Vietnamese
Cp1381	IBM OS/2, DOS People's Republic of China (PRC)
Cp1383	IBM AIX People's Republic of China (PRC)
Cp33722	IBM-eucJP - Japanese (superset of 5050)
EUC_CN	GB2312, EUC encoding, Simplified Chinese

EUC_JP	JIS X 0201, 0208, 0212, EUC encoding, Japanese
EUC_JP_LINUX	JIS X 0201, 0208, EUC encoding, Japanese
EUC_KR	KS C 5601, EUC encoding, Korean
EUC_TW	CNS11643 (Plane 1-3), EUC encoding, Traditional Chinese
GBK GBK	Simplified Chinese
ISO2022CN	ISO 2022 CN, Chinese (conversion to Unicode only)
ISO2022CN_CNS	CNS 11643 in ISO 2022 CN form, Traditional Chinese (conversion from Unicode only)
ISO2022CN_GB	GB 2312 in ISO 2022 CN form, Simplified Chinese (conversion from Unicode only)
ISO2022JP	JIS X 0201, 0208 in ISO 2022 form, Japanese
ISO2022KR	ISO 2022 KR, Korean
ISO8859_2	ISO 8859-2, Latin alphabet No. 2
ISO8859_3	ISO 8859-3, Latin alphabet No. 3
ISO8859_4	ISO 8859-4, Latin alphabet No. 4
ISO8859_5	ISO 8859-5, Latin/Cyrillic alphabet
ISO8859_6	ISO 8859-6, Latin/Arabic alphabet
ISO8859_7	ISO 8859-7, Latin/Greek alphabet
ISO8859_8	ISO 8859-8, Latin/Hebrew alphabet
ISO8859_9	ISO 8859-9, Latin alphabet No. 5
ISO8859_13	ISO 8859-13, Latin alphabet No. 7
ISO8859_15_FDIS	ISO 8859-15, Latin alphabet No. 9
JIS0201	JIS X 0201, Japanese
JIS0208	JIS X 0208, Japanese
JIS0212	JIS X 0212, Japanese
JISAutoDetect	Detects and converts from Shift-JIS, EUC-JP, ISO 2022 JP (conversion to Unicode only)
Johab	Johab, Korean
KOI8_R	KOI8-R, Russian
MS874	Windows Thai
MS932	Windows Japanese
MS936	Windows Simplified Chinese
MS949	Windows Korean
MS950	Windows Traditional Chinese
MacArabic	Macintosh Arabic
MacCentralEurope	Macintosh Latin-2
MacCroatian	Macintosh Croatian
MacCyrillic	Macintosh Cyrillic
MacDingbat	Macintosh Dingbat
MacGreek	Macintosh Greek
MacHebrew	Macintosh Hebrew
MacIceland	Macintosh Iceland
MacRoman	Macintosh Roman
MacRomania	Macintosh Romania
MacSymbol	Macintosh Symbol
MacThai	Macintosh Thai
MacTurkish	Macintosh Turkish
MacUkraine	Macintosh Ukraine
SJIS	Shift-JIS, Japanese
TIS620	TIS620, Thai

[IY48565 \(166960\)](#) The `-imptgtdata` option of the `wrb` command has been updated as follows:

-imptgtdata *data_file target rule_base*

Imports a supporting data file into a rule base target. This file must already exist in the TEC_RULES subdirectory and will be distributed with the rule base. For example, the following files can be imported:

Event Integration Facility configuration file

Prolog fact file
Prolog data file

data_file

Specifies the name of the file to be imported to the named rule base target. Specify the file name, not the path. The file must already exist in the TEC_RULES subdirectory.

target

Specifies the name of the rule base target that receives the imported data file.

rule_base

Specifies the name of the rule base that contains the target.

[IY79362](#) The following should replace the **-k seconds** option in the section describing the **wsetesvrcfg** command.

-k seconds

Retains closed events going back the specified number of seconds. The default value is 86400 seconds (1 day). The minimum value allowed is 3600 seconds (1 hour).

The following should replace the Syntax description for the **wsetesvrcfg** command on page 107. There was an erroneous **-r [seconds]** parameter listed which should not have been there.

Syntax

wsetesvrcfg [**-S** *server*] [**-b** *events*] [**-c** *events*] [**-e** [*seconds*]] [**-k** *seconds*] [**-m** *seconds*] [**-n** *seconds*] [**-t** [*file*]]

[179197](#) The following documentation updates have been made concerning whether the adapter will be started manually or automatically on system reboot.

The following "adapter_details" option should be added to the description for the commands:

waddac (page 17 of the Command and Task Reference)
wsetac (page 88 of the Command and Task Reference)
wsetaddflt (page 92 of the Command and Task Reference)

The description for the new option is:

-s on|off

Specifies whether or not the adapter should be automatically started when the machine where the adapter resides is rebooted. The value "on" indicates that the adapter should be automatically started.

The following new "format" option has been added for the commands:

wlsac (page 46 of the Command and Task Reference)
wlsaddflt (page 49 of the Command and Task Reference)

The description for the new option is:

%17 The adapter autostart switch

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[IY65092](#) The following is an addendum to *Chapter 5 - Correlation Examples* page 228.

In the section describing *process_clearing event rule*: The example for `is_clearing_event` should be:

```
rule: 'process_clearing_event': (  
  event: _clr_ev of_class 'EVENT',  
  reception_action: 'clear_all_targets' (  
    is_clearing_event(_clr_ev),  
    (  
      all_clear_targets(_clr_ev, _target, 3600, 0),  
      ....  
    )  
  )  
)
```

[IY65212](#) The following is an addendum to the *Appendix B BNF Grammar for Baroc files*

In the section describing Terminals, the description for Integer should be changed to:

INTEGER:

```
<DECIMAL_LITERAL> ([ "+" , "-" ]? [ "1" - "9" ] ([ "0" - "9" ]*)+ >  
| <HEX_LITERAL> ([ "+" , "-" ]? " 0 " [ "x" , "X" ] ([ "0" - "9" ] ([ "0" - "9" , "a" - "f" , "A" - "F" ])+ >  
| <OCTAL_LITERAL> ([ "+" , "-" ]? " 0 " ("0" - "7"*) >
```

[IY65953](#) The following should be considered and addendum to "Chapter 4. Rule language reference".

`bo_instance_of`
Backtracking predicate which returns pointer to event with class.

Synopsis

```
bo_instance_of(classname, _evtptr)  
--OR--  
bo_instance_of(classname, evtptr, attribute_value_pairs )
```

Description

Succeeds once for each event that satisfies the specified classname and additional attribute conditions if they are specified.

Arguments

`classname`

The name of event class. Needs to be ground.

`_evtptr`

The returned pointer to event. The argument must be free.

`attribute_value_pairs`

A list of *attribute = value* pairs that must be met by an event. Attribute must be ground. The attribute value can be free or ground.

The following example determines whether duplicate events exist that have the same class name and hostname as the event under analysis.

```
rule: drop_dups: (  
  event: _event of_class _class  
    where [ hostname: _hostname ],  
  reception_action: (  
    bo_instance_of(_class, _evt, [ hostname = _hostname ]),  
    bo_get_slotval(_evt, status, _status),  
    _status \== 'CLOSED',  
    set_event_status(_evt, 'CLOSED'),  
    bo_set_slotval(_evt, 'administrator', 'Rules Engine'),  
    re_mark_as_modified(_evt, _)  
  )  
)
```



```
)  
).
```

[IY67422](#) The following is a correction to *Chapter 4 -Alphabetic listing of rule language predicates* page 174.

The `init_event_activity` Description should end with:

The supporting event activity calls `update_event_activity`, `print_event_activity`, and `reset_event_activity` are needed to record, print, and reset recording actions respectively.

Sections 1 and 2 of the predicate usage example has been changed to:

```
rule: 'TEC_Start_setup':  
(  
  event: _event of_class 'TEC_Start',  
  
  reception_action: statistic: (  
    _rep_freq is 600,  
    init_event_activity(  
      '/tmp/event_activity.txt', % Report File  
    ['TEC_Heartbeat', 'TEC_Maintenance'], % Exclude these classes  
    [source, hostname, severity, status], % Reported attributes  
      5 %  
  ),  
  
  Threshold  
)  
  
% The initial timer for event activity report is associated to a TEC_Tick event.  
  first_instance(event: _ev of_class 'TEC_Tick' where []),  
  set_timer(_ev, _rep_freq, 'Report')  
)  
).  
  
% Record all event activity  
rule: activity_update:  
(  
  event: _event of_class 'EVENT',  
  reception_action: call_update:  
  (  
    update_event_activity(_event)  
  )  
)  
).  
  
% Timer rule to print event activity report, reset event activity recording, and set  
new timer.  
timer_rule: print_activity:  
(  
  event: _event of_class 'TEC_Tick',  
  
  timer_info: equals 'Report',  
  timer_duration: _rep_freq,  
  
  action: print_and_reset: (  
    print_event_activity,  
    reset_event_activity,  
    set_timer(_event, _rep_freq, 'Report')  
  )  
)  
).
```

The following should be considered a correction for the description section of the "update_event_activity" predicate, page 215.

This predicate captures information from an event and stores it internally. The recorded event information is used by the `print_event_activity` predicate to print out an event report following the criteria defined by the `init_event_activity` predicate. It is typically called in a rule that runs on every event class.

[IY68263](#) The following is a correction to *Appendix A - Using the Prolog interpreter* page 443.

To use the interpreter:

1. Unzip the files from the `$BINDIR/TME/TEC/interpreter.tar` file.
2. Setup the environment with one of the following commands from a bash or supported UNIX shell. This command sets the environment variable to the root directory of the host on which the rule engine resides.

UNIX:

```
set BIM_PROLOG_DIR=$BINDIR/TME/TEC
```

Windows:

```
export BIM_PROLOG_DIR=%BINDIR%\TME\TEC
```

3. Start the interpreter with the **BIMprolog** command from the `$BIM_PROLOG_DIR/bin` directory. (Starting the interpreter from another directory can result in an error.) The interpreter displays the `?-` prompt.
4. To exit the interpreter, enter **halt.** (note the period).

[IY68970](#) The following is an addendum to *Appendix A* page 432.

Examples

The following example shows various uses of the predicate:

```
_integer is 123,  
_real is 12.3,  
_string = 'Hello, World',  
% Assign values.  
  
sprintf(_string1, '%s', _string),  
% _string1 is unified with 'Hello, World'.  
  
sprintf(_string1, '%s %s', [_string, _string]),  
% Note: When listing more than one _string value, enclose the comma separated list  
% within square brackets.  
% _string1 is unified with 'Hello, World. Hello, World.'
```

[IY72257](#) The following are corrections to the "**Rule language predicates**" section in *Chapter 4*.

The header description for `exec_task()` has been changed to:

exec_task

Launches a task from the Task engine

Synopsis: `exec_task(_event, task_name, format_string, _arg_list, watch_status)`

Description: This predicate launches a task from the Task engine (`tec_task` process) using `wruntask`. It can be run on a Managed Node or Endpoint. The task's completion status can be monitored from the event console. Tasks provided by the Tivoli Enterprise Console product are described in the *IBM Tivoli Enterprise Console Command and Task Reference*.

The header description for `exec_task_local()` has been changed to:

exec_task_local

Launches a task from the Rule engine

Synopsis: `exec_task_local(_name, _event, task_name, format_string, _arg_list, watch_status)`

Description: This predicate launches a task asynchronously from the Rule engine (`tec_rule` process) using `wruntask`. It can be run on a Managed Node or Endpoint. Tasks provided by the Tivoli Enterprise Console product are described in the *IBM Tivoli Enterprise Console Command and Task Reference*.

When the program finishes, a TASK_COMPLETE event is generated if the watch_status argument is set to 'YES'. This event contains details about the task's execution. The TASK_COMPLETE event class is defined in the root.baroc file. A description of its attributes are as follows:

The *file_name* argument for `exec_task_local()` has been changed to:

task_name

Specifies the name of the task to run.

[IY72491](#) The following are corrections for the specified pages.

Note: It is important to keep the `fopen()` and `fclose()` predicates within the same `action` in order to keep the `_fp` variable within scope. Based on this, the examples below have been updated.

The example on page 397 now reads:

```
action: open_file: (  
    fopen(_fp, '/var/prolog/nt_hosts', 'r'),  
    fclose(_fp)  
)
```

The example on page 419 now reads:

```
action: write_data: (  
    fopen(_fp, '/tmp/eventdata.txt', a),  
    printf(_fp, 'Event of class %s was closed  
by %s', [_class, _administrator]),  
    fclose(_fp)  
)
```

The example on page 421 now reads:

```
action: open_and_read: (  
    fopen(_fp, '/var/prolog/tec_r.nt_hosts', 'r'),  
    read(_fp, _term),  
    % _term is unified with nt_hosts(hmckinne).  
    fclose(_fp)  
)
```

The example on page 422 now reads:

```
loghostaction: open_hosts: (  
    fopen(_fp, '/etc/hosts', 'r'),  
    readln(_fp, _hostsEntry),  
    % _hostsEntry is unified with  
    % '127.0.0.1\tlocalhost\t'.  
    fclose(_fp)  
)
```

The example on page 441 now reads:

```
rule: write: (  
    event: _event of_class _class,  
    action: write_assertions: (  
        fopen(_fp, '/tmp/event.txt', 'w'),  
        write(_fp, 'Event of class '),  
        write(_fp, _class),  
        write(_fp, ', '),  
        write(_fp, _source),  
        write(_fp, ' received.\n'),  
        fclose(_fp)
```

```
)  
).
```

[IY72851](#) The following is an addendum to Appendix A. Using Prolog in rules.

When creating a custom predicate a good coding practice is to verify that the custom predicate name is not the same as an existing predicate either custom or built-in. This can be done by reviewing the documented built-in predicates in the Tivoli Enterprise Console Rule Developer's Guide and using the flisting predicate to query the Prolog database of the current rule base to see if a given predicate name exists. To use the flisting predicate, add an action to a rule which evaluates a "TEC_Start" event:

```
rule: check:  
(  
  event: _event of_class 'TEC_Start',  
  
  reception_action: check_predicates: (  
    fopen(_fp, '/tmp/check_predicate.pro',w),  
    flisting(_fp, 'my_predicate')  
    fclose(_fp)  
  )  
)  
).
```

If the output file contains an entry for 'my_predicate', then a predicate with that name exists in the current rule base.

[IY73563](#) The following is an addition to the "Event attribute definitions" page 38.

When the Tivoli Enterprise Console product initially saves an event in the event database, it stores only extended attributes that have values. This improves performance and reduces the amount of used disk space. As a result, the extended attributes that are not inserted into the event database are not displayed when the event class of which they are a member is viewed from the event console. If you want to see these extended attributes from the event console, you must give them a non-null default value when they are defined within the event class definition. For example:

```
TEC_CLASS:  
  TEC_GWR_Event ISA EVENT  
  DEFINES {  
    runtime_mode:      GWR_RUN_MODE,  default=UNDEFINED;  
    tod:               STRING,        default="undefined";  
    start_time:        STRING,        default="undefined";  
    destination_loc:   STRING,        default="undefined";  
    reception_port:    INTEGER,       default=0;  
    uptime:            STRING,        default="undefined";  
    source: default = "TEC_GWR";  
    severity: default = HARMLESS;  
  };  
END
```

[IY55317](#) The following information has been added to the sections documenting the **printf** and **sprintf** commands in Appendix A "Alphabetic listing of built-in predicates and operators"

Note: A format mismatch between a string format specification (%s) and an actual integer or real value can cause the Tivoli Enterprise Console rule engine (tec_rule) to stop with a SIGSEGV 211 error.
For example:

```
_integer is 123,  
_real is 12.3,  
.  
sprintf(_string, 'Cannot format integer %s and real %s values as strings', [_integer,  
_real])
```

[IY55820](#) The following information has been added to the "**Internal table management**" section of *Chapter 3 - Rule engine concepts*

At run time the rule engine manages global variables and Prolog facts as an internal table in memory. This table is automatically managed in order to accommodate the necessary data. In some circumstances the, the preferences that control how this table is managed might need to be adjusted. When more space is required for additional data the rule engine uses a combination of garbage collection (removal of obsolete strings) and table expansion to make room. A configurable expansion preference parameter controls how much the memory management should rely on garbage collection and how much it should rely on expansion. By default, the expansion preference is set to 0, which indicates a maximum preference for garbage collection This minimizes memory consumption by reusing existing table space whenever possible. This parameter can be set to any value between 0 (maximum preference for garbage collection) and 100 (maximum preference for expansion).

Under some circumstances the default value may need to be changed:

- To increase execution speed by reducing the reliance on garbage collection. This approach should be used with caution. Continual expansion causes higher memory consumption and can lead to increased memory swapping, which results in decreased performance.
- If using large fact files or global files and the table overflows because it is not possible to reclaim sufficient space using garbage collection. When this happens the rule engine exits with an exit code of 82. If error logging is configured with the `tell_err` predicate, the log file contains the following message:
***OVERFLOW 710 ***String table overflow (Fatal)

To change the expansion preference, use a rule similar to the following:

```
rule:table_change:
(
    event:_event of_class 'TEC_Start ',
    reception_action:change_expansion_preference:
    (
        table('T ',e100)
    )
).
```

This example sets the expansion preference to 100 (maximum preference for expansion). To specify a different value replace 100 with any value between 0 and 100. To ensure that the expansion preference is set before any other files are loaded, make sure this rule is the first rule listed in the rule base.

[IY55824](#) The following information has been added to the "**Change rule filters**" section of *Chapter 4 - Rule language reference*

operator(name)

An administrator from an event console.

Note: **operator**(name) is the administrator's name, not the administrator's login name.

[174886](#) The following information is an addendum to *Chapter 2 - Event class concepts* in the "**Event class definitions**" section.

Note: Class names must be less than 64 bytes long. Names that are 64 bytes or longer will result in a compilation error.

[IY74616](#) The following is an addition *Appendix A. Using Prolog in rules* page 442

Note: To load predicates and facts from files first ensure that the object dispatcher environment includes the `BIM_PROLOG_DIR` environment variable and for Windows environments the `SHELL` environment variable. See "compile" on page 391 for more information.

Appendix A. Using Prolog in rules page 391.

Before using the `compile` predicate, you must set the value of the `BIM_PROLOG_DIR` environment variable to the value of `$BINDIR/TME/TEC` in the environment for the Tivoli Enterprise Console event server's object dispatcher. For Windows environments set the `SHELL` environment variable to the value of `$BINDIR/tools`.

1. From a shell command line, redirect the output from the following **odadmin environ get** command into a file. See the following example:

```
odadmin environ get > /tmp/oserv.env
```

2. Using a text editor add the BIM_PROLOG_DIR environment variable and set its value to \$BINDIR/TME/TEC, where \$BINDIR is the actual value of the \$BINDIR environment variable. For Windows environments also add the SHELL environment variable and set its value to \$BINDIR/tools/bash.exe, where \$BINDIR is the actual value of the \$BINDIR environment variable.

For example:

```
BIM_PROLOG_DIR=/my_install_dir/bin/w32-ix86/TME/TEC
SHELL=/my_install_dir/bin/w32-ix86/tools/bash.exe
```

3. From a shell command line, reset the object dispatcher environment to the information contained in the newly created and modified temporary file (oserv.env in this example). The following example shows how to do this:

```
odadmin environ set < /tmp/oserv.env
```
4. Stop and start the oserv.

[IY77098](#) The following should replace selected sections of the description of the exec_task_local predicate

Problem: The TASK_COMPLETE attributes which describe task status need to be explained correctly. The following should replace the existing fields.

execution_msg

Output from the task. This attribute contains a list of strings, each string representing a line of output from the program or script. The output will include the return code of the task script as well as standard out and standard error output from the task script. This list is limited to 512 lines.

exit_status

The exit status set by the operating system for the task child process.

task_status

The exit status of the task child process as defined in the root.baroc file as RUNNING, SUCCESS, FAILURE, or UNKNOWN.

[IY78139](#) The following should replace noted sections of "Processing events" found in "Rule Engine Concepts".

Problem: Need explanation on when change_* and exec_* predicates are acted on during event analysis.

Section 3 should read:

3. Internal change requests, for example, those created by the change_event_administrator, change_event_severity, or change_event_status predicates.

The rule engine queues internal change requests and then processes them in FIFO order after the current transaction, all internally generated events have been processed, and all change rules have been evaluated.

Section 6 should read:

6. External program launch requests, for example, those created by the exec_program, exec_program_local, exec_task, and exec_task_local predicates.

The rule engine queues program launch requests and then processes them in FIFO order after all of the other previously listed actions and requests have completed.

[IY79201](#) The following should be added to the Example section of the create_event_sequence predicate description.

4. A root cause event can not be specified as an effect event in a sequence where the cause event was the effect event in a previous sequence. During the creation of create_event_sequence, if the same event class association has been previously created, the new association fails. The following partial create_event_sequence predicate definitions show this incorrect relationship:

```
create_event_sequence(  
  ['Sequence1,  
   'Sequence2'  
 ],
```

```

...
create_event_sequence(
  ['Sequence2',
   'Sequence3'
  ],
...
create_event_sequence(
  ['Sequence3',
   'Sequence2'
  ],
...
create_event_sequence(
  ['Sequence2',
   'Sequence1'
  ],
...

```

This final create_event_sequence fails because Sequence1 was already specified as a root cause of Sequence2 in the first call to create_event_sequence.

[IY79674](#) The following is an addendum to *Chapter 9 – State Correlation Reference* in the "**String predicates**" section.

Commands such as wpostmsg will place single quotes around the value of an event attribute if the attribute value contains spaces or other special characters. When writing a String predicate for the State Correlation Engine, the quoting of attribute values must be taken into account in order for the predicate to match the desired events. For example, if you wish to write a predicate which will match events with a value of **Server Down** for the msg slot, the following predicate would not successfully match such events.

```

<predicate>
  <![CDATA[ &msg == "Server Down"
  ]]>
</predicate>

```

This predicate will not match the desired events because the constant value, **Server Down**, is not identical to the actual value of the msg slot, **'Server Down'**. There are several ways to rewrite the predicate so that it will match the desired events.

The first method is to enclose the constant value, **Server Down**, with single quotes in order to match the formatting of the msg slot. See the example below.

```

<predicate>
  <![CDATA[ &msg == "'Server Down'"
  ]]>
</predicate>

```

A variation on the first method uses a variable in place of the constant value, **Server Down**. In this case, the declaration of the variable encloses **Server Down** with single quotes in order to match the formatting of the msg slot.

```

<variable name="SERVER_DOWN" type="String">
  <value> <![CDATA[ "'Server Down'" ]]> </value>
</variable>

```

```

.
.
.

```

```

<predicate>
  <![CDATA[ &msg == $SERVER_DOWN
  ]]>
</predicate>

```

The second method is to use the *contains* predicate. With the *contains* predicate, enclosing **Server Down** with single quotes is optional. With or without the quotes, the predicate would match the desired events. See the example below.

```

<predicate>

```



```
<![CDATA[ contains(&msg,"Server Down")
]]>
</predicate>
```

[186823](#) The following should replace selected sections of the description of the parse facet

If an event is received by the event server that contains an attribute defined as parse=no and a value has been inserted for the attribute, the event is given a status of PARSING_FAILED in the reception log and it is discarded.

Change to:

If an event is received by the event server that contains an attribute defined as parse=no and a value has been inserted for the attribute, the attribute retains its default value as declared in the attribute definition.

A WARNING message has been added to report that a non-parsable attribute containing a value has been found on event reception. To see the message edit \$BINDIR/TME/TEC/.tec_diag_config and change the following two lines:

```
tec_rule Highest_level          error    /tmp/tec_rule
....
tec_rule Tec_Baroc              error    /tmp/tec_rule
To
tec_rule Highest_level          warn     /tmp/tec_rule
...
tec_rule Tec_Baroc              warn     /tmp/tec_rule
```

[IY81242](#) The following should be added to the *Alphabetic Listing of Built-in Predicates* found in *Appendix A. Using Prolog in Rules*

```
-> ;
```

If-Then-Else Predicate

Synopsis

```
term -> term ; term
```

Description

If the term on the left-hand side of -> succeeds then the middle term is evaluated. If the term on the left-hand side fails then the term on the right-hand side of the ; is evaluated. The term on the left-hand side of the -> may not contain a cut. Backtracking into the goal on the left-hand side does not take place, only the first solution is considered.

Arguments

- _term
Any Prolog structured term
- _term
Any Prolog structured term
- _term
Any Prolog structured term

Examples

The following example shows that if the term _h is unified with a back-slash, append a forward slash to the list _path with the results unified with the list _newpath. Else if the term _h is not unified with a back-slash then append the term _h to the list _path the results unified with the list _newpath.

```
_h = (\) ->
append(_path, [?/?], _newpath)
;
append(_path, [_h], _newpath)
```

See Also
None

[IY83938](#) - The following is an addendum to the `set_timer` section of Chapter 4 - Rule language reference:

Note: If you run the `drop_received_predicate` on an event, any timers created with `set_timer` for that event will be deleted because timer rules can only run on events in the event cache.

The following should be added as a new section in *Appendix A. Using Prolog in Rules.* (187073)

Reserved Words:

The following are considered to be rule set reserved words and should not be used except as documented when developing rules.

- "action"
- "agent"
- "attribute"
- "canceled_by"
- "cancels"
- "caused_by"
- "causes"
- "change_event_severity"
- "change_event_status"
- "change_rule"
- "correlation_rule"
- "description"
- "directive"
- "drop_duplicate_event"
- "engine"
- "event"
- "event_acknowledged"
- "event_closed"
- "event_received"
- "event_relation"
- "exec_program"
- "exec_task"
- "fire_on_non_leaf"
- "forward_event"
- "frequency_exceeds"
- "greater_or_equals"
- "greater_than"
- "minutes"
- "minutes_after_event_reception"
- "NO" ["n","N"]["o","O"]
- "of_class"
- "operator"
- "outside"
- "profile"
- "reception_action"
- "redo_action"
- "rule"
- "sender"
- "set_event_message"
- "set_to"
- "severity_downgraded"
- "severity_upgraded"
- "simple_rule"
- "slot"
- "smaller_or_equals"
- "smaller_than"
- "timer_duration"

```
"timer_info"  
"timer_rule"  
"trace"  
"when"  
"where"  
"within"  
"YES" ["y","Y"]["e","E"]["s","S"]
```

IBM Tivoli Enterprise Console Version 3.9 User's Guide

[IY65628](#) The following information is an addendum to *Chapter 4 -Using the Java Version of the Event Console*

Using version 3.7.1 or 3.8 event consoles in a version 3.9 environment is unsupported and will result in loss of configuration information. Although a previous version of the event console seems to function properly, it can overwrite configuration data for all Tivoli Enterprise Console operators even if the operator of the previous version of the event console does not have access to the Configuration screen. For example, if the event console from version 3.9 Fix Pack 1 or later is used to edit the console preferences, followed by any version of TEC 3.7.1 event console being started in the version 3.9 environment, it will overwrite the console preferences and reset them to the default settings for all operators. Any version 3.8 event console prior to Fix Pack 3 that is started in the version 3.9 environment will also reset the console preferences to the default settings for all operators. This overwrite occurs every time the previous console versions are started in a version 3.9 environment after any operator of the 3.9 version event console has modified the console preferences.

When the event server is upgraded to version 3.9 or any new version 3.9 fix pack level, the event consoles for all operators must be updated to the same level to avoid loss of configuration data.

See the [Fix Pack Notes](#) above for specific compatibility information.

[IY69047](#) The following is an addendum to the "**Customizing an Event Console**" section in *Chapter 2*.

Each installed Event Console retrieves event data directly from the TEC event database. CPU Utilization on the database server is therefore impacted by the factors listed below.

Minimum refresh times for the Event Viewer and the Event Groups View. Minimum refresh times for event data are configurable for the event viewer and the Event Groups View under the **Event Retrieval** section of the **event console Preferences**. Minimum refresh times establish the shortest time interval that event data can be retrieved from the database. These settings apply to all event consoles. An operator may customize the Event Viewer refresh time for his or her event console only, but is not allowed to set a value below the minimum refresh time. When configuring a minimum refresh time to a short period (less than 30 seconds), consider that the shorter the refresh time, the more often a database query is run to refresh the event console. *CPU utilization on the database server will therefore increase when minimum refresh times are shorter.*

The number of active Event Consoles and Event Viewers. Each active event console and each event viewer opened by an event console will query the event database at to the configured refresh times. Therefore, each active event console has the potential to raise the CPU usage of the database server. *Shortening the refresh times increases the impact.*

Maximum number of Events in the Event Viewer. The maximum number of events to display in an event viewer is configurable under the Event Retrieval section of the **Console Preferences**. This value limits the size of the database query that is made by an event console each time an event viewer refreshes. The setting applies to all consoles. An operator may customize the number of events displayed in the event viewer for his or her event console only, but is not allowed to set a value higher than the maximum value defined in the Event Retrieval preferences. *Increasing the value of the maximum number of events can result in increased CPU utilization on the database server. Shortening the event viewer refresh time increases the impact.*

[IY68034](#) The following is an addendum to the "**Tuning the performance of the Web version of the event console**" section in *Chapter 2*.

WebSphere provides an internal HTTP transport system that can serve web applications without a web server plug-in. Typically this transport is hosted on port 9080. The TEC Web Console can be accessed via this internal HTTP transport at the URL below.

http://computer_name:9080/TecConsoleWeb

Where `computer_name` is the fully-qualified name of the computer where the WebSphere server is running.

WebSphere does not recommend using the internal transport system in a production environment because the internal transport lacks the performance available when using a web server plug-in. WebSphere only recommends using the internal transport system in a test or development environment. Performance in the TEC Web Console can be poor if the internal transport system is used to access the console. To increase the performance of the TEC Web Console, configure WebSphere to use a Web Server plug-in such as the IBM HTTP Server. Instruct console users to access the console via the web server URL instead of the internal WebSphere transport. For example, use the following URL to access the TEC Web Console via the web server.

http://computer_name:80/TecConsoleWeb

Where `computer_name` is the fully-qualified name of the computer on which the web server is running

If installing the TEC Web Console into a WebSphere environment on which a web server plug-in is already configured, use the following procedure to regenerate the web server plug-in configuration after the TEC Web Console is installed. Do this before attempting to access the TEC Web Console using the web server.

1. Log in to the WebSphere Administrative Console
2. In the left-hand panel, drill down to Environment --> Update Web Server Plugin. Click the *Update Web Server Plugin* link
3. In the right-hand panel, Click the **OK** button to update the Web Server plug-in configuration file
4. Log out of the WebSphere Administrative Console
5. Restart the web server if it is running

The following information is an addendum to *Chapter 4 - Using the Web version of the event console*, of the *IBM Tivoli Enterprise Console Version 3.9 User's Guide* page 64.

Time zone

Configures the time zone for the web version of the event console. The default value is set to `Detect` from Web Browser

[IY75056](#) The following is an addendum to the "**Events**" section of *Chapter 1*.

An event should never repeat attribute names. If an event arrives at the Server or state correlation engine with repeated attributes, the last value listed will be kept and previous values will be dropped. Repeated attribute names represent an improper event and should be modified at the source to avoid dropped data.

[IY55911](#) The following information has been added to the "**Changing the port for the Web version of the event console**" section in *Chapter 2 - Configuring the Tivoli Enterprise Console product*

When the Tivoli Enterprise Console product is installed, an administrator can accept the default port number (9080) or change the port number for the web version of the event console. To change the port number for the web version of the event console after installation follow these steps:

1. From the WebSphere Application Server Administrative Console, navigate to **Environment** -> **Virtual Hosts** -> **default host** -> **Host Aliases**. Select the appropriate port (either 9080 or the port that was configured when the Tivoli Enterprise Console product was installed) and change the port to the new port number.
2. Navigate to **Servers** -> **Application Servers** -> **server_name** -> **Web Container** -> **HTTP transports**. Select the appropriate port and change the port to the new port number as in Step 1.
3. Click **Save** on the taskbar.
4. Stop and restart the WebSphere Application Server for the changes to take effect. For specific information about the IBM WebSphere Application Server product, refer to the online help in the WebSphere Application Server Administrative Console and the IBM WebSphere Application Server product documentation, which can be accessed from the WebSphere InfoCenter at: <http://www-3.ibm.com/software/webservers/appserv/library/index.html>

[IY56781](#) The following information has been added to the "**Starting the event console**" section of *Chapter 4 - Managing events*

The event console can be started from the command line in a bash shell or from the Windows task bar. When the event console is started, the events are ordered by the last modified time.

[186805](#) - The following is an addendum to the "Starting the Event Console" section of *Chapter 4 - Managing Events*

The Java version of the event console runs by default in the currently selected time zone of the operating system. If you would like the event console to run in a different time zone, set the `TEC_CONSOLE_TZ` environment variable to the identifier of the desired time zone before starting the event console.

In order to determine the time zone identifiers supported by the Java Runtime Environment, execute the following command as appropriate for your environment.

Non-TME console on Windows:

```
<Installation directory>\tec_console\jre\bin\java -cp ".\tec_console\tec_console.jar" com.tivoli.tec.util.ListTimeZones
```

Non-TME console On Unix:

```
<Installation directory>/tec_console/jre/bin/java -cp "./tec_console/tec_console.jar" com.tivoli.tec.util.ListTimeZones
```

TME console on Windows:

```
%BINDIR%\TME\TEC\jre\bin\java -cp "%BINDIR%\..\generic_unix\TME\TEC\tec_console.jar"  
com.tivoli.tec.util.ListTimeZones
```

TME console on Unix:

```
$BINDIR/TME/TEC/jre/bin/java -cp "$BINDIR/../../generic_unix/TME/TEC/tec_console.jar" com.tivoli.tec.util.ListTimeZones
```

For each supported time zone, the command outputs a line in comma-delimited format as shown below.

```
<Time Zone Identifier>,<Display Name>,<GMT offset>,<Uses Daylight Savings Time>
```

Example output of the command is shown below.

```
SystemV/CST6,Central Standard Time,-6:0,false  
SystemV/CST6CDT,Central Standard Time,-6:0,true  
US/Central,Central Standard Time,-6:0,true  
America/Bogota,Colombia Time,-5:0,false  
America/Cayman,Eastern Standard Time,-5:0,false  
America/Detroit,Eastern Standard Time,-5:0,true
```

Note: The GMT offset column shows the difference between Greenwich Mean Time (GMT) and the specified time zone. The offset value is expressed as [-]Hours[:Minutes]. A negative value indicates the offset is west of GMT, whereas a positive value indicates that the offset is east of GMT.

Note: `TEC_CONSOLE_TZ` can also be used to override the Daylight Savings Time settings of the operating system. If your TEC console computer is configured to automatically adjust for Daylight Savings Time, but you do not want the TEC console to automatically adjust for Daylight Savings Time when displaying time attributes for events, you would set `TEC_CONSOLE_TZ` to a time zone identifier that does not use Daylight Savings Time, but has the same GMT offset as the operating system time zone. For example, if the TEC console computer is running in Central Daylight Time, setting `TEC_CONSOLE_TZ` to "SystemV/CST6" would prevent the TEC console from automatically adjusting for Daylight Savings Time.

[IY64639](#) - The following information has been added to the "[Configuring the gateway](#)" section of *Chapter 5 - Tivoli Enterprise Console Gateway*

A new parameter named **MaxStateCorrelationEngineRestarts** is now available for the `tec_gateway.conf` configuration file. This parameter controls the behavior of the TEC Gateway when the State Correlation Engine terminates unexpectedly or becomes unresponsive. Should such a problem occur, the TEC Gateway will attempt to restart the State Correlation Engine unless the number of restarts already attempted is greater than or equal to the configured value of `MaxStateCorrelationEngineRestarts`. If the number of restarts already attempted is greater than or equal to the configured value of `MaxStateCorrelationEngineRestarts`, the TEC Gateway will disable State Correlation for all events and will shut down the State Correlation Engine process (if the process is still running).

The TEC Gateway will continue to process events during the periods when the State Correlation Engine is restarting or is disabled. Events received by the gateway during these periods will not undergo state correlation.

The value for **MaxStateCorrelationEngineRestarts** must be an integer greater than or equal to zero. The default value will be zero.

The TEC Gateway will send a TEC_Notice event to the TEC Server in each of the following cases:

1. A restart of the State Correlation Process is attempted by the TEC Gateway. The msg slot of the event will contain the following:

"Error sending events to the state correlation process. The state correlation process will be restarted."

2. An attempt to restart the State Correlation Process is successful. The msg slot of the event will contain the following:

"The state correlation process has failed. State correlation is now disabled."

3. State Correlation is disabled by the TEC Gateway. The msg slot of the event will contain the following:

"The state correlation process has failed. State correlation is now disabled."

IBM Tivoli Enterprise Console Version 3.9 Installation Guide

The following is an update to the "Installing the event console" section on page 40:

Installing the event console using the installation wizard

1. Click **Install, upgrade or uninstall components in a Tivoli environment**, and click **Next**.
2. After the wizard searches for installed components (it will find none), click **Next**.
3. Click **Install IBM Tivoli Enterprise Console 3.9 components**, and click **Next**.
4. Click **Event console** and then click **Next**:
5. If your environment contains more than one managed node, the installation wizard displays several managed nodes to choose from. However, because this installation is for a single machine, the steps are not displayed. A list of rule sets to be activated is displayed and they are all selected. To continue without deactivating any rule sets, click **Next**.
6. Click **Next** to continue without changing any of the event server start options.
7. Click **Next** to continue without selecting language packs.
8. Review your selections and then click **Next**.
9. Insert the Tivoli Enterprise Console installation CD and click **Next**.
10. After reviewing the installation messages, click **Next**. The main installation window is displayed.

Installing the event console using the stand-alone installer

The stand-alone installation of the non-TME event console for Windows systems is now available with this fix pack. This provides the ability to install the event console without using the installation wizard.

Run the following command to install the event console without using the installation wizard:

```
%PATCH%\NON_TME\W32-IX86\setupwin32.exe
```

[IY55329](#) The following information should be added to the *IBM Tivoli Enterprise Console Installation Guide* for silent installation of the Windows enhanced logfile adapters with an adapter ID. The existing section in the book should be used for adapters that do not have an adapter ID:

Use the following procedure to configure the setup.iss file for a silent installation:

1. Edit the setup.iss file and modify it as described in the following table.
2. Run the **setup /s** command from the Windows InstallWin directory to silently install the adapter.

Value to change	Change to make
[AskDestPath-0] szPath=C:\TECWIN	<ul style="list-style-type: none">• The TECWIN value to the destination directory
[AskText-0] szText=localhost	<ul style="list-style-type: none">• The localhost value to the name of the host where events are to be delivered
[AskText-1] szText=0	<ul style="list-style-type: none">• The 0 to the port number where the server is configured to listen for events

Value to change	Change to make
[DlgOrder] Dlg0=Welcome-0 Dlg1=AskDestPath-0 Dlg2=AskOptions-0 Dlg3=AskText-0 Dlg4=AskText-1 Dlg5=AskYesNo-0 Dlg6=MessageBox-0 Count=7	<ul style="list-style-type: none"> • Add a new Dlg3 • Change the Count value to 8 • Renumber the other Dlg values as follows: <pre>[DlgOrder] Dlg0=Welcome-0 Dlg1=AskDestPath-0 Dlg2=AskOptions-0 Dlg3=AskText-0 Dlg4=AskText-1 Dlg5=AskText-2 Dlg6=AskYesNo-0 Dlg7=MessageBox-0 Count=8</pre>
[AskOptions-0] Result=1 Sel-0=1 Sel-1=0	<ul style="list-style-type: none"> • The Sel values as follows: <pre>Sel-0=0 Sel-1=1</pre>
None	<ul style="list-style-type: none"> • Add the following lines after the AskOptions-0 block • The myid value to the identifier name that you want to use for the adapter: <pre>[AskText-0] szText=myid Result=1</pre>
[AskText-0] szText=localhost	<ul style="list-style-type: none"> • AskText-0 to AskText-1 • The localhost to the name of the system where events are to be delivered
[AskText-1] szText=0	<ul style="list-style-type: none"> • AskText-1 to AskText-2 • If you are not using the port mapper function, change 0 to the port number where the server is configured to listen for events.

[IY73664](#) The following is an addendum to the "**Microsoft SQL Server considerations**" section of *Chapter 4 - Configuring the event database*

RDBMS User Settings

The RDBMS user must be the owner of the TEC tables and views and must have the TEC database as its default database. This also must be the user set in the tec RIM object. The RDBMS user is created with these settings by the database configuration scripts. If you change the user in RIM or in the database you must ensure these rules are met or TEC will fail to start with errors similar to this:

```
Message : FRWRA0012E The RDBMS server call has failed.
The operation was: MS SQL Error: Msgno 208 Level 208 State 208S0002[Microsoft][ODBC
SQL Server Driver][SQL Server]Invalid object name 'tec_t_evt_rec_log'.
```

[IY75333](#) The following is an addendum to the "**Sybase considerations**" section of *Chapter 4 - Configuring the event database*.

When running **dbcc checkstorage** against the TEC database on Sybase you will receive a 100028 soft fault, indicating misplaced pages, but this error can be safely ignored. TEC uses **sp_placeobject** to specify a segment for new allocations and this can cause the error. As noted in the Sybase manual for **sp_placeobject**:

When **sp_placeobject** splits a table or an index across more than one disk fragment, the diagnostic command **dbcc** displays messages about the data that resides on the fragments that were in use for storage before **sp_placeobject** executed. Ignore those messages.

[IY77941](#) The following should replace the "**Preparing to install components in interconnected Tivoli regions**" section in *Chapter 2 – Preparing for installation*.

For interconnected Tivoli regions to work with the Tivoli Enterprise Console product, you must provide a two-way connection between the Tivoli regions. Assuming you have two Tivoli regions named A and B, use the following procedure to create this

type of configuration:

1. Install the event server in Tivoli region B.
2. On the Tivoli server of Tivoli region A, register the EventServer resource using the following command:

```
wregister -i -r EventServer
```

3. Install the user interface server in Tivoli region B.

Note: Installing the user interface server in multiple Tivoli regions is not supported.

4. On the Tivoli server of Tivoli region A, register the TecUIServer resource using the following command:

```
wregister -i -r TecUIServer
```

5. Exchange all resources on Tivoli region A and Tivoli region B. You must update the resources either from the Tivoli desktop or with the wupdate command. For additional information about the wregister command and the wupdate command, refer to the Tivoli Management Framework Reference Manual.
6. Manually create the tec RIM object in Tivoli Region A. See the "Understanding RIM object creation" section of Chapter 4. Event consoles logging in to Tivoli Region A will be unable to access the event database until the tec RIM object is created in Tivoli Region A.
7. Install non-Tivoli event consoles as needed. Event consoles may log in to any Managed Node in Tivoli region A or Tivoli region B.

IBM Tivoli Enterprise Console Version 3.9 Rule Set Reference

[IY54407](#) The following information is an addendum to the *IBM Tivoli Enterprise Console Rule Set Reference* in the Maintenance mode rule set (maintenance_mode.rls) section:

During the maintenance window, any events received from the system with the fqhostname attribute specified (other than TEC_Maintenance events) are ignored. These events are either closed or dropped, depending on how the rule set is configured.

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[IY77941](#) The following is an addendum to the "Known problems and workarounds" section

Problem: The Task Execution dialog cannot be opened in the Java version of the event console if the console is connected to a Tivoli region in which no task libraries are defined. This is true even if the Tivoli region is interconnected with other regions that do have task libraries defined.

Workaround: The Tivoli region that your event console logs in to must contain at least one task library. It is not necessary for this task library to contain any Tasks. The Task Execution dialog can display tasks defined in interconnected regions, but only if the region the event console is connected to contains at least one task library.

Problem: If the Java or Web version of the event console is connected to a Tivoli region where the Tivoli Enterprise Console Event Server is not installed, the following configuration options for the Event_Query task under the "T/EC Tasks" task library will not be completely functional.

1. Under the 'Match Class' option, the list of available event classes will be empty.
2. Under the 'Match Source' option, the list of available sources will be empty.

In addition, the Java version of the event console will display error message ECO2089E when the Task Execution dialog is opened.

Workaround: Log in with the event console to the Tivoli Region where the Tivoli Enterprise Console Event Server is installed.

[IY78866](#) The following is an addendum to the "Known problems and workarounds" section

Problem: On Solaris 8 or later, TEC server processes and/or client commands may core dump if nscd or /etc/hosts not properly configured due to TMF issue (APAR IY38638).

Workaround: When running TEC 3.9.0 at any fixpack level on Solaris 8 or later you may get core dumps starting or running TEC commands if the nscd process is not running and local dns resolution isn't enabled for hostname resolution of the managed node where TEC is installed. This is the problem documented in TME APAR IY38638 and in Technote 1108249 (see also related technotes: 1108256, 1107432 and 1143037). Also note that since the underlying problem is in the 3.7.x TME libraries used by TEC, the actual installed version of TME does not matter since even with TMF 4.1.1, TEC is still linked against the 3.7.1 shared TMF libraries in order to provide for backwards compatibility.

In order to avoid DNS lookup, which causes the core dump, you need to either enable nscd (Name Server Cache Daemon) or ensure that hostnames for dependent managed nodes are locally resolvable via /etc/hosts and properly configured /etc/nsswitch.conf.

For nscd:

Ensure that /etc/nscd.conf contains(see technote 1108249):
enable-cache hosts yes

then start the nscd process by running:
/etc/init.d/nscd start

For /etc/hosts:

Add entries for the hostname(s) or ip address(es) of the TEC Server to the /etc/hosts file. Also make sure that /etc/nsswitch.conf has:

```
hosts: files ....
```

and not

```
hosts: dns ...
```

[IY72403](#) The following is an addendum to the "Known problems and workarounds" section

Problem: When the adapter is started from within Bourne shell (sh), the logfile adapter on Solaris shuts down if you enter a **CTRL-C** in the same terminal that started the adapter.

Workaround: Run the adapter from Korn shell (ksh). If you run it from sh, exit the shell to avoid entering a **CTRL-C** that might shutdown the adapter.

[IY75038](#) The following is an addendum to the "Known problems and workarounds" section

Problem: After changing the root_user widmap entry for w32-ix86, the server no longer automatically starts when the oserv is restarted, but it does start with wstartesvr.

Workaround: You must delete and recreate the EventServer boot_method. Backup your oserv database before doing this and contact support if you have any questions or problems. Run these commands from a bash shell on the event server.

```
BO=`objcall 0.0.0 self`  
OSERV=`objcall $BO getattr oserv`  
objcall $OSERV boot_method delete EventServer  
EServer=`wlookup -r EventServer EventServer`  
objcall $OSERV boot_method add EventServer $EServer start_server  
objcall $OSERV boot_method list
```

This last command should list, among other entries, EventServer.

Appendix A. Javadoc HTML documentation for the EventList class

This appendix contains the Javadoc HTML documentation for the EventList class.

com.tivoli.zce.engine

Class EventList

```
java.lang.Object
|
+--com.tivoli.zce.engine.EventList
public final class EventList
```

extends java.lang.Object

The EventList class stores an array of Events and keeps track of the last index used in this array.

This implementation uses the ArrayList class which efficiently increases the capacity of the list on demand. For cases where large numbers of elements are removed from EventList, we provide a mechanism to call ArrayList.trimToSize method

Author:

fer (Metin Feridun)

Constructor Summary

(EventList) ((Event) event)	Create EventList with one given event in it
(EventList) (int size)	Create EventList of specific size

Method Summary

(Event)	(eventAt) (int position)	Get Event at given position in list
int	(length) ()	Get maximum size of list.
void	(removeLast) ()	Remove last element in the list
void	(setEventAt) ((Event) event, int position)	Set Event at given position in list
int	(size) ()	Get current size of list (index of last element set)
java.lang.String	(toString) ()	Return contents of the EventList as a String.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait

Constructor Detail

EventList

```
public EventList(int size)
    Create EventList of specific size
```

Parameters:

size - Size of list to be created

EventList

```
public EventList((Event) event)
    Create EventList with one given event in it
```

Parameters:

event - Single event contained in this list

Method Detail

setEventAt

```
public void setEventAt((Event) event,
    int position)
```

Set Event at given position in list

Parameters:

event - Event to be stored in list
position - Position this Event will be stored in list

eventAt

public (Event) **eventAt**(int position)
Get Event at given position in list

Parameters:

position - Position in list we want to get Event from

Returns:

Event at given position

size

public int **size**()
Get current size of list (index of last element set)

Returns:

Size of list

removeLast

public void **removeLast**()
Remove last element in the list

length

public int **length**()
Get maximum size of list. For ArrayList implementation, the value returned by this method is the same as the number of elements in the list.

Returns:

Maximum size of list

toString

public java.lang.String **toString**()
Return contents of the EventList as a String.

Overrides:

toString in class java.lang.Object

Returns:

String representation of the contents of the EventList

Contacting software support

For problems with any Tivoli product refer to the following IBM Software Support Web site:
<http://www.ibm.com/software/sysmgmt/products/support/>

To contact software support see the IBM Software Support Guide at the following Web site:
<http://techsupport.services.ibm.com/guides/handbook.html>

The guide provides information about how to contact IBM Software Support, depending on the severity of the problem being experienced, and the following information:

1. Registration and eligibility
2. Telephone numbers and e-mail addresses arranged by country location
3. Information required prior to contacting IBM Software Support

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