Tivoli® Business Service Manager

IBM

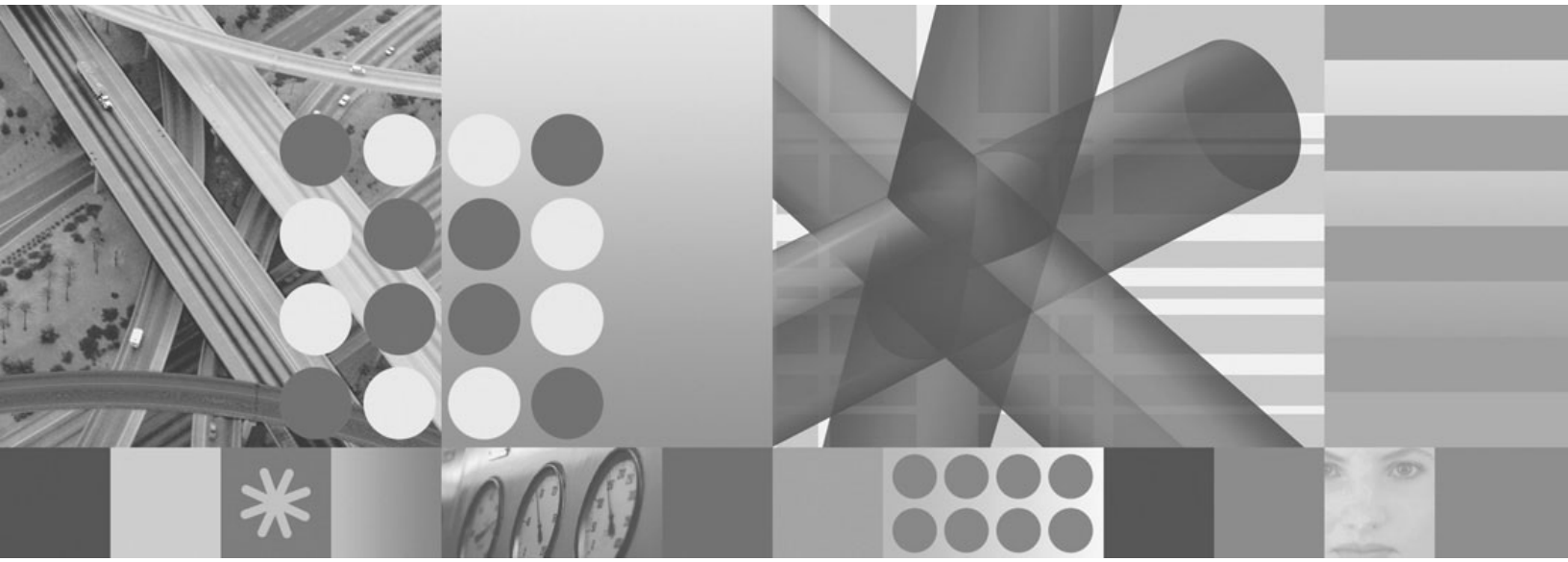
Version 3.1

3.1.0-TIV-BSM-FP0002 (Revised October 2006)

Tivoli® Business Service Manager

IBM

Version 3.1



3.1.0-TIV-BSM-FP0002 (Revised October 2006)

Note
Before using this information and the product it supports, read the information in "Notices" on page 89.

Fourth edition (July 2006)

This edition applies to Version 3, Release 1 of IBM Tivoli Business Systems Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. About this fix pack

3.1.0-TIV-BSM-FP0002 (also known as fix pack 2) fixes problems reported for Tivoli® Business Systems Manager 3.1. Fix pack 2 must be applied to Tivoli Business Systems Manager 3.1, or above for all the servers and client. This fix pack is cumulative and it includes fix pack 1, interim fixes, and limited availability fixes.

The Tivoli Business Systems Manager 3.1 client must be installed before the client component of the fix pack is installed.

This is an updated fix pack readme

This fix pack readme was revised in October 2006, as a result of OA1855. The following sections in the readme were revised:

- The installation section, "On the Tivoli Business Systems Manager Database Server:" on page 7. Added information about manually upgrading the database server.
- The installation section, "On the Tivoli Business Systems Manager History Server:" on page 8. Corrected one of the upgraded file names for the history server.
- The section, "XML Toolkit:" on page 11. Clarified the information about what is installed when the XML Toolkit is installed with the database server and when you install the XML Toolkit separately.
- Added a section, "Reporting System Updates" on page 30, which explains the new TEC Event Search Pattern field in event reports.
- Added a note to section, "Tivoli Enterprise Portal Feed" on page 84 (OA12386), explaining that you do not install LA0111 on top of fix pack 2, because it gets installed as part of the fix pack.

APARs included in this fix pack

- For APARs that were included in 3.1.0-TIV-BSM-FP0001, see Appendix A, "APARs included in 3.1.0-TIV-BSM-FP0001," on page 61.
- For APARs that are new with 3.1.0-TIV-BSM-FP0002, see Appendix B, "APARs included in 3.1.0-TIV-BSM-FP0002," on page 75.

New capabilities included in this fix pack

This fix pack provides the following functionality that was included in fix pack 1:

- the ability to set object level priority through ABS
- XML double-byte character set
- Microsoft® SQL Server service pack 4 support
- Windows® XP service pack 2 support
- Tivoli Workload Scheduler version 8.2 support
- Tivoli Business Systems Manager version 3.1 reporting compatibility with Crystal Reports and Tivoli Data Warehouse
- Tivoli Data Warehouse version 1.3 and Crystal Reporting Version 10
- Compatibility with IBM® Tivoli Switch Analyzer version 1.2.1 traps

- Tivoli Business Systems Manager version 3.1 generic resource discovery using XML
- IBM Transaction Server (CPSM) 3.1 support with PTF UK07505 for PK11002 for CPSM 3.1
- Mozilla Firefox level of 1.0.4 support
- Support for Tivoli NetView® for z/OS® 5.2 with NMC Console support on Windows and Solaris
- Support for IBM z/OS 1.7

This fix pack provides the following functionality that was not part of fix pack 1:

- Maintenance mode enhancements
- Enhanced double-click options in views
- OMEGAMON® XE Feed and Tivoli Business Systems Manager to Tivoli Enterprise™ Portal launch
- Tivoli Enterprise Console/Tivoli Business Systems Manager problem ticket synchronization
- Web console read only access
- TEC event message access
- Event Viewer launch in context
- Font size and color customizations for tables
- MKS v9 compatibility
- Automatically propagate new SQL jobs to the secondary site during Failover.
- Support for Tivoli NetView for z/OS 5.2 with NMC Console support on Windows and Solaris
- CCDMB enablement
  - As a CCMDB Identity Markup Language (IDML) reader that enables the loading of resources and relationship information from an IDML book into Tivoli Business Systems Manager
  - As a CCMDB IDML author or discovery library adapter (DLA) that writes IDML books for key resources contained within IBM Tivoli Business Systems Manager
- Enablement of Business Process Model (BPM) capabilities through integration with the IBM WebSphere® Business Integration Modeler V5.1.

Chapter 2. Installation and configuration

Prequisites

Fix pack 2 has the following prerequisites:

- Tivoli Business Systems Manager 3.1, or higher

The following are additional supported versions of prerequisites that have previously been listed for Tivoli Business Service Manager 3.1:

- Microsoft SQL Server 2000 Service Pack 4
- IBM WebSphere Application Server 5.0.2.15
- If you use MKS Toolkit 9.0 for System Administrators, you must be at Patch 3 and Hot Fixes for 9.0 Patch 3, or higher for 9.0
- IBM Tivoli NetView for z/OS 5.2
- IBM z/OS 1.7

Corequisites

If you plan to use Tivoli Business Systems Manager 3.1 with IBM Tivoli Workload Scheduler 8.2, install:

- IBM Tivoli Workload Scheduler fix pack 4 with test fix 173172 (APAR IY41442) and test fix 173502 (APAR IY41632) or Tivoli Workload Scheduler version 8.2 with fix pack 5
- Microsoft JDBC driver for the environment on which IBM Tivoli Workload Scheduler version 8.2 is running

If you use IBM Tivoli Business Systems Manager 2.1.1 EE with IBM Tivoli Business Systems Manager 3.1:

- Fix for APAR OA10534, which includes two parts. Both of these fixes must be applied.
  - The update to the Tivoli Business Systems Manager 2.1.1 EventEnablement software, contained in fix 2.1.1-BSM-0012-E37.
  - The update to the Tivoli Business Systems Manager 3.1 AgentListener service that is contained in this fix pack.

3.1.0.0-TIV-BSM-IF0003 (interim fix 3), is now included in the itecEventEnablement subdirectory. If you plan to use Event Enablement on Linux®, first install interim fix 3 and then upgrade to Fix Pack 2. Interim Fix 3 is available under .

itecEventEnablement/if3

If you plan to use the Generic Resource Discovery using XML:

- Tivoli Business Systems Manager Version 3.1 XMLToolkit

If you plan to use Business Process Model (BPM) capabilities through integration with the IBM WebSphere Business Integration Modeler V5.1:

- IBM WebSphere Business Integration Modeler, V5.1

The following are additional supported versions of corequisites that have previously been listed for Tivoli Business Service Manager 3.1:

- Base CICS® 3.1
- System Automation for z/OS 3.1
- ASG TMON for MVS™ 3.2
- IBM WebSphere for z/OS 6.01

Hardware and software requirements

Refer to the IBM Tivoli Business Systems Manager Version 3.1 Installation and Configuration Guide for the hardware and software requirements for installing Tivoli Business Service Manager.

Backing up databases

Back up all databases before applying the Tivoli Business Systems Manager Version 3.1 fix pack 2. It is critical to have valid database backups taken prior to applying fix pack 2, as you might need them in the event you want to reinstall the entire fix pack. The following 12 databases should be backed up before applying this fix pack:

- ASIRuleSvc
- Meta
- msdb
- Object
- ObjectEvents
- ObjectQueues
- Resource Object Data Manager (RODM)
- RODMLoad
- WebServer
- OPCLoad
- History
- Adapter

Ensure that these backups exist and the backups were completed during the same time frame. Typically, backups should be handled using a database maintenance plan. Save the backups until fix pack 2 has been successfully tested.

We recommend that you back up the databases again (into a new backup file) after successful fix pack installation. In the event that you have a hard failure of your system, taking this extra precaution saves you the time required to re-apply the fix pack.

Ensure that backups of all IBM Tivoli Data Warehouse databases are available before installing this fix pack.

Fix pack contents

- This readme file in two formats:
  - 3.1.0-TIV-BSM-FP0002.readme.pdf
  - 3.1.0-TIV-BSM-FP0002.readme (text file)
- 3.1.0-TIV-BSM-FP0002.tar

Before Installing the fix pack

Note: You should know that if you uninstall the fix pack you will be removing the entire product, (either the server component code or the client component code), not just fix pack code.

- This fix pack could require up to 5 Gb of free space on your SQL Server installation drive. Ensure that the free space is available before applying this fix pack.
- Before applying the fix pack, make sure no shell scripts are running in the background.
- Stop the following services and executables on all Tivoli Business Systems Manager servers and clients:
  - all Tivoli Business Systems Manager services
  - SQLServerAgent (SQL server agent)
  - MSSQLServer (SQL server)
  - IIS Admin Service and World Wide Web Publishing Service (if present)
  - All IntelligentMonitor adapters and their daemons

Do not apply the consoles component of this fix pack without first applying the base component.

This is a cumulative fix pack. It can be applied on a Tivoli Business Systems Manager base 3.1.

If you have installed limited availability (LA) fixes on your 3.1 Tivoli Business Systems Manager servers or clients, please note the following:

- Do not reapply LA fixes with the naming convention:
  - 3.1.0.0-TIV-BSM-LAxxx
  - 3.1.0.1-TIV-BSM-LAxxx
- After completing the fix pack 2 installation, reapply LA fixes with the following naming conventions:

  3.1.0.2-TIV-BSM-LAxxx

This fix pack includes the following interim fixes that were included in fix pack 1:

- 3.1.0.0-TIV-BSM-IF0001
- 3.1.0.0-TIV-BSM-IF0002
- 3.1.0.0-TIV-BSM-IF0003
- 3.1.0.0-TIV-BSM-IF0004
- 3.1.0.0-TIV-BSM-IF0005
- 3.1.0.0-TIV-BSM-IF0006
- 3.1.0.0-TIV-BSM-IF0007
- 3.1.0.0-TIV-BSM-IF0009

Do not reapply these interim fixes after applying this fix pack.

For your information

Note: Changes on the object, meta, RODM, and Web server databases do not show up on the history server until after the first backup has taken place after the install.

Note: If you are using or plan to use the RODM feed with Tivoli Business Systems Manager, read section "RODM users" on page 50.

Note: To apply this fix pack in a failover environment

1. Stop SQLServerAgent on both primary and secondary servers, and ensure that it is stopped.
2. Run the following stored procedure from the SQL Query Analyzer on the standby database server and history server.

   ```
   EXEC msdb..asisp_recover_databases
   ```

   Configuration for Failover environment is located at "Special configuration instructions for failover environment" on page 11.

Extracting the fix pack

To expand file 3.1.0-TIV-BSM-FP0002.tar:

1. Copy the file 3.1.0-TIV-BSM-FP0002.tar to your system.
2. Unpack the file with the following command:

   tar -xvf 3.1.0-TIV-BSM-FP0002.tar

   This creates a directory called /3100TIVBSMFP0002 that includes the following files:

   - TIV_BSM_3.1.0_FP0002_base.tar
   - TIV_BSM_3.1.0_FP0002_consoles.tar
   - TIV_BSM_3.1.0_FP0002_consolesSPB.tar
   - TIV_BSM_3.1.0_FP0002_IMfNetView.tar
   - TIV_BSM_3.1.0_FP0002_IMfOpenView.tar
   - TIV_BSM_3.1.0_FP0002_IMfPatrol.tar
   - TIV_BSM_3.1.0_FP0002_IMfTWS.tar
   - TIV_BSM_3.1.0_FP0002_itecEventEnablement.tar
   - TIV_BSM_3.1.0_FP0002_lang_pack.tar
   - TIV_BSM_3.1.0_FP0002_OperReports.tar
   - TIV_BSM_3.1.0_FP0002_TDW_ETL.tar
   - TIV_BSM_3.1.0_FP0002_TDW_fix.tar
   - TIV_BSM_3.1.0_FP0002_XMLToolkit.tar
   - TIV_BSM_3.1.0_FP0002_readme.txt
   - 3.1.0.1-TIV-BSM-LA0111.CONFIG.pdf
   - 3.1.0.1-TIV-BSM-LA0098.README.pdf
   - 3.1.0-TIV-BSM-LA0031-Enablement_Package_for_WB151.pdf

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Installing the fix pack

Note: In the following steps

- <fix pack> refers to the directory where this fix pack resides after you extract it from the tar file.
- <TivoliManager> refers to the directory where Tivoli Business Systems Manager is installed.

Note: If the database upgrade step fails for any reason during the fix pack install, do not rerun the install or the upgrade manually. Collect the install logs and contact IBM Service. The install logs can be found in these 2 locations:

- The system temp directory. Enter **cd %TEMP%** to get to the system temp directory. Send the install log from the system temp directory.
- The <TivoliManager>/sql directory. From this directory type the following 2 commands to package up the logs:
  1. **tar -cvf fp2_install_logs.tar *.log**
  2. **gzip -c fp2_install_logs.tar < fp2_install_logs.tar.gz**

On the Tivoli Business Systems Manager Database Server:

1. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_base.tar
2. Change to the <baseServices> directory.
3. Run the setup.exe file from the <baseServices> directory.
4. From the window that is displayed, select a language.
5. Click Next on the Welcome window.
6. Read the software license agreement. If you accept the terms of the agreement, click the button to indicate that you accept the terms and then click Next.
7. After you read the list of services that will be stopped, click Next.
8. You are asked if files that are being updated should be backed up first. **Yes** is the default and it is selected. If you **do not** want the files to be backed up, click the check box to remove the selection. Click Next.
9. Click the box that represents the type of installation, either distributed or distributed and z/OS.
10. A window is displayed while the Microsoft SQL Server service is started. You can choose to upgrade databases automatically, as a part of the installation.

    If you choose not to upgrade the databases the databases can be upgraded manually after the installation by going to the <TivoliManager>/sql directory and running

    ```
    sh applyfp2upg [ [-S<DBserver>] [-E | [[-U<DBuser>] [-P<DBpassword>]]] ] [-f ]
    ```

    Database parameters are as follows:

    -S<DBserver>
    Server where database resides. Default=[$tbsm_server]

    -E Use trusted connection

    -U<DBuser>
    Database username. Default=[$tbsm_userid]

    Otherwise, trusted connection used.

-P<DBpassword>
Database password. Default=[$tbsm_password]

Other parameters are as follows:

-f Will force the code for 3.1.0.1-TIV-BSM-LA0098 to be reapplied, even if it has been previously installed.

Without the **-f** option, 3.1.0.1-TIV-BSM-LA0098 will not be reapplied if it has been previously installed.

If you choose to manually update the database, make sure the MSSQLServer service is running before running the database upgrade script from the command prompt.

Click Next.

11. A summary is displayed. The Tivoli Business Systems Manager installation directory is listed, as is each component that will be updated on this server. Click Next to continue with the installation.
12. Status is displayed. The percentage completion bar is updated as files are installed.

    When the installation has finished, a summary is presented, indicating the state of the installation. Click Finish to exit the installation wizard.
13. Reboot the machine before starting any services and running Tivoli Business Systems Manager.

    If the upgrade is applied after the installation, instead of by the installer, ensure the SQL agent is not running and all of the Tivoli Business Systems Manager services have been stopped, including the history server.
14. After the system has rebooted, ensure all Tivoli Business Systems Manager services on the Tivoli Business Systems Manager Database Server have been restarted.

On the Tivoli Business Systems Manager History Server:

1. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_base.tar
2. Change to the <baseServices> directory.
3. Run the setup.exe file from the <baseServices> directory.
4. From the window that is displayed, select a language.
5. Click Next on the Welcome window.
6. Read the software license agreement. If you accept the terms of the agreement, click the button to indicate that you accept the terms and then click Next.
7. If it is not currently running, start MS SQL Server service.
8. You are asked if files that are being updated should be backed up first. **Yes** is the default and it is selected. If you **do not** want the files to be backed up, click the check box to remove the selection. Click Next.
9. A window is displayed while the Microsoft SQL Server service is started. You can choose to upgrade databases automatically, as a part of the installation.

   If you choose not to upgrade the databases and you are at 3.1 GA level, the databases can be upgraded manually after the installation by going to the <TivoliManager>/sql directory and running

   sh applyupgrade 3100tivbsmhistfp0001.upg

   and then run

sh applyupgrade 3101tivbsmhistfp0002.upg

If you choose not to upgrade the databases and you are at 3.1 plus fix pack 1 level, the databases can be upgraded manually after the installation by going to the <TivoliManager>/sql directory and running

sh applyupgrade 3101tivbsmhistfp0002.upg

Click Next.

10. A summary is displayed. The Tivoli Business Systems Manager installation directory is listed, as is each component that will be upgraded on this server. Click Next to continue with the installation.
11. Status is displayed. The percentage completion bar is updated as files are installed.

    When the installation has finished, a summary is presented, indicating the state of the installation. Click Finish to exit the installation wizard.
12. Reboot the machine before starting any services and running Tivoli Business Systems Manager.
13. After the system has rebooted, ensure all Tivoli Business Systems Manager services on the Tivoli Business Systems Manager Database Server have been restarted.

On each of the other Tivoli Business Systems Manager non-database servers:

1. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_base.tar
2. Run the setup.exe file from the <baseServices> directory.
3. From the window that is displayed, select a language.
4. Click Next in the Welcome window.
5. Read the software license agreement. If you accept the terms of the agreement, click the button to indicate that you accept the terms and then click Next.
6. This window lists the services that will be stopped. Click Next.
7. You are asked if files that are being updated should be backed up first. **Yes** is the default and it is selected. If you **do not** want the files to be backed up, click the check box to remove the selection. Click Next.
8. For the **Console server**, a window displays the WebSphere Server userid and password (the password is represented with asterisks). If this information has changed since the base installation, update this information. Click Next.
9. A summary is displayed. The Tivoli Business Systems Manager installation directory is listed, as is each component that will be upgraded on this server. Click Next.
10. When the installation is complete, a summary is presented, indicating the state of the installation. Click Finish to exit the installation wizard.
11. Reboot the machine before starting any services and running Tivoli Business Systems Manager.
12. After the system has rebooted, restart all Tivoli Business Systems Manager services on the Tivoli Business Systems Manager Server.

Note: If an error occurs installing the Console Server component, and you need to run the update manually (for example, if the WebSphere id or password was

entered incorrectly), do not rerun the fix pack installer. Instead, run the following command to update the console server:

```
"<WebSphere install dir>\AppServer\bin\wsadmin.bat"
 -f update.jacl -conntype SOAP -user <UserID> -password <UserPswd>
```

On each Tivoli Business Systems Manager client install:

1. Stop the console.
2. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_consoles.tar
3. The console is supported on a number of operating systems. Change to the directory representing the appropriate operating system. Run the setup file from the consoleInstall\<platform> directory.
4. From the window that is displayed, select a language.
5. Click Next in the Welcome window.
6. Read the software license agreement. If you accept the terms of the agreement, click the radio button to indicate that you accept the terms and then click Next.
7. You are asked if files that are being updated should be backed up first. **Yes** is the default and it is selected. If you **do not** want the files to be backed up, click the check box to remove the selection. Click Next.
8. A summary is displayed. The Tivoli Business Systems Manager installation directory is listed. Click Next to continue with the installation.
9. You are asked if you want the console to be started once the installation is complete **Yes** is the default and it is selected. If you **do not** want the console to be started once the installation is complete, click the check box to remove the selection. Click Next.
10. When the installation is complete, a summary is presented, indicating the state of the installation. Click Finish to exit the installation wizard.

Silent console installation

1. Run the setup.exe from the <fix pack> directory as follows:

   setup -options-template outputFileName.scr
2. Edit outputFileName.scr to change any installation settings.
3. To install:

   setup -options outputFileName.scr -silent

To uninstall the entire client, not just the fix pack code:

_uninst\uninstall -silent

Note: _uninst\uninstall -silent uninstalls the entire client component code not just the fix pack code.

Console Software Package Blocks (SPB) installation:

Using software package blocks (SPBs), the fix pack for the console can be distributed to endpoints in a Tivoli Managed Environment. Tivoli Business Systems Manager 3.1 needs to be installed on the endpoints before the fix pack can be distributed.

1. Enter tar -xvf TIV_BSM_3.1.0_FP0002_consolesSPB.tar to extract the SPBs.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide, Appendix D. Distributing the Console in a Tivoli Managed Environment, for more instruction regarding console SPBs installation.

   Note: The fix pack install program does not allow you to change the installation directories or server name. As such, there are no default variables to change when you install SPBs. The fix pack install program automatically locates the original installation directory on the endpoint.

To remove the console using software distribution, remove the original Tivoli Business Systems Manager 3.1 SPB. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide, Appendix D. Distributing the Console in a Tivoli Managed Environment, for more instruction with this task. You should not perform a remove of the fix pack's SPB.

Special configuration instructions for failover environment

1. Apply the upgrade to the primary and secondary servers as previously described in "Installing the fix pack" on page 7.
2. Reconfiguration of failover is required before re-starting the failover environment. Run the configuration script fo_config with -G option to regenerate the configuration template.

   ```
   sh fo_config -G > fo.cfg
   ```
3. Modify the fo.cfg to fit your environment before running the configuration script:

   ```
   sh fo_config -f fo.cfg
   ```
4. Start SQLServerAgent on both primary and secondary servers, and ensure that it is started.
5. From a Command Prompt on the primary database server, enter this command to reinitialize Log Shipping in the proper direction:

   sh fo_logship.ksh

For additional information, see "Tivoli Business Systems Manager Failover Enhancements" on page 52.

XML Toolkit:

Note: The portion of the XML Toolkit that automatically installs on the database server is not the complete XML Toolkit. It is a portion of the toolkit that is used to create business systems. (This is the portion of the XML Toolkit that is installed automatically on the database server when the database server is upgraded.)

The complete XML Toolkit is the toolkit that can be installed on a separate machine. The separate installation steps that are included in fix pack 2 include installing everything that is installed on the database server, plus additional functions for the discovery library.

If you previously installed the XML Toolkit as a separate component, then complete these instructions to upgrade that function. Do not follow these instructions if you are using the toolkit version that is automatically installed on the database server.

If you want to install the XML Toolkit as a separate component, install the base Toolkit first. The Tivoli Business Systems Manager 3.1 XML Toolkit software is on the Tivoli Business Systems Manager 3.1 Base Services CD, under the directory XMLToolkit. The CD contains a subdirectory for each of the supported operating systems. For more information about installing the XML Toolkit, see the information about the XML Toolkit in the chapter that explains optional components in the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide.

1. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_XMLToolkit.tar

   The XML Toolkit is supported on a number of operating systems. Change to the directory representing the proper operating system.
2. Run the setup file from the XMLtoolkit\<platform>directory.
3. From the window that is displayed, select a language.
4. Click Next on the Welcome window.
5. Read the software license agreement. If you accept the terms of the agreement, click the radio button to indicate that you accept the terms and then click Next.
6. If you plan to use CCMDB discovery library books and want this capability to be configured during installation of fix pack 2, click the appropriate selection and then click Next.
7. If you plan to use the CCMDB reader for discovery, enter the location for discovery library books.
8. When asked if files that are being updated should be backed up first, click the check box if you would want the files to be backed up. Click Next
9. Summary information is displayed. Click Next to finish the installation.
10. When the installation is complete, a summary is presented, indicating the state of the installation. Click Finish to exit the installation wizard.

Tivoli Workload Scheduler adapter:

Note: Note: If you are a Tivoli Business Systems Manager 2.1.1 customer migrating to Tivoli Business Systems Manager 3.1 and are applying this fix pack, disable and uninstall the Tivoli Business Systems Manager 2.1.1 Tivoli Workload Scheduler adapter and install this new version.

Unpack the file with the following command:

tar -xvf TIV_BSM_3.1.0_FP0002_IMfTWS.tar

Go to "Tivoli Workload Scheduler support" on page 30 for the installation instructions.

Tivoli Enterprise Console Event enablement component:

1. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_itecEventEnablement.tar
2. Use the following information to install patch from the Tivoli desktop:
   a. You must have the install_product and super authorization roles to successfully install this patch.
   b. You should not have a running RIM_MS_SQL_prog on your RIM host when you apply this patch.
   c. Select **Install -> Install Patch** from the **Desktop** menu to display the **Install Patch** dialog.
   d. Click the **Select Media** button to display the **File Browser** dialog.
   e. Enter the path to the directory containing the patch, <fix pack>/itecEventEnablement/fp2, in the **Path Name** field.
   f. Click the **Set Media & Close** button to return to the **Install Patch** dialog.
   g. The patch install list now contains the component name:

      3.1.0-Tivoli_BSM_Event_Enablement-FP0002
   h. Select the patch by clicking on it.
   i. Select the clients to install this patch on.
   j. Click the **Install** button to install the patch.

Tivoli Data Warehouse Components and Crystal Reports, Tivoli Business Systems Manager Warehouse Enablement Pack 3.2.0.0

If the Tivoli Data Warehouse Components and Crystal Reports, Tivoli Business Systems Manager Warehouse Enablement Pack 3.2.0.0 has already been installed on your Tivoli Data Warehouse Server then only the Tivoli Business Systems Manager Warehouse Enablement Pack 3.2.0.4 updates needs to be installed from this fix pack.

To expand file TIV_BSM_3.1.0_FP0002_TDW_ETL.tar:

1. Copy the file TIV_BSM_3.1.0_FP0002_TDW_ETL.tar to your system.
2. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_TDW_ETL.tar

To expand file TIV_BSM_3.1.0_FP0002_OperReports.tar:

1. Copy the file TIV_BSM_3.1.0_FP0002_OperReports.tar.
2. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_OperReports.tar

For additional installation information, see "Additional installation information" on page 17.

Tivoli Data Warehouse Server

- <fix pack> refers to the directory where this fix pack resides after you have extracted it from the tar file.
- <TivoliManager> refers to the full path of the Tivoli Business Systems Manager installation on the host.
- <tdw_weps>
- <OperReports>

On the Tivoli Data Warehouse Server:

1. Copy the <tdw_weps> directory from this fix pack to a temporary directory on the server.
2. Follow the install instructions in the TBSM_320WEP_for_TDW.pdf file in the <fix pack>\<tdw_weps>\gtm\doc directory.

On the Crystal Server:

1. Copy the <OperReports> directory from this fix pack to a temporary directory on the server.
2. Follow the install instructions in section About this release ->Documentation notes -> Documentation updates -> Updates to the Administrator's Guide -> Interim Fix Updates -> Operational Reports -> Installing Operational Reports of the Tivoli Business Systems Manager 3.1 Release Notes®. The most current release notes are located on the Web at:

   http://publib.boulder.ibm.com/tividd/td/BusinessSystemsManager3.1.html

Tivoli Business Systems Manager Warehouse Enablement Pack 3.2.0.4 updates

To expand file TIV_BSM_3.1.0_FP0002_TDW_fix.tar:

1. Copy the file TIV_BSM_3.1.0_FP0002_TDW_fix.tar to your system.
2. Unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_TDW_fix.tar
3. When installing this fix pack on the Tivoli Data Warehouse control server, follow the procedure from the Installing and Configuring Tivoli Data Warehouse version 1.2 Guide. This procedure is documented in Chapter 8, Installing and upgrading warehouse packs. The required configuration file (twh_install_props.cfg) is located in the \tedw_apps\gtm directory.

NetView adapter

To expand file TIV_BSM_3.1.0_FP0002_IMfNetView.tar, unpack the file with the following command:

tar -xvf TIV_BSM_3.1.0_FP0002_IMfNetView.tar

Tivoli NetView Server:

1. Copy the Intelligent Monitor for NetView install image from the <fix pack> \IMfNetView directory to the Tivoli NetView server.
2. Install the Intelligent Monitor for NetView. Refer to the Tivoli Business Systems Manager Installation and Configuration guide for instructions on how to install

the Intelligent Monitor for NetView. Please note: If you are update installing from IBM Tivoli Business Systems Manager 2.1.1 to IBM Tivoli Business Systems Manager 3.1 it is important that the adapter and all of its daemons be stopped prior to the update. When the update is complete and before restarting the adapter and its daemons the NETVIEW MQe queues for Tivoli Business Systems Manager should be deleted. This will prevent any non-conforming messages from 2.1.1 remaining in the queues. The queues upon restart of the tbsm adapter and its daemons will automatically get recreated.

3. Configuration information is available in the file

   IMfNetView_readme*.htm

   This file is located in the /usr/OV/doc directory on the Tivoli NetView server.

OpenView adapter

To expand file TIV_BSM_3.1.0_FP0002_IMfOpenView.tar, unpack the file with the following command:

tar -xvf TIV_BSM_3.1.0_FP0002_IMfOpenView.tar

OpenView Server:

1. Copy the Intelligent Monitor for OpenView install image from the <fix pack> \IMfOpenView directory to the OpenView server.
2. Install the Intelligent Monitor for OpenView. Refer to the Tivoli Business Systems Manager Installation and Configuration guide for instructions on how to install the Intelligent Monitor for OpenView. Please note: If you are update installing from Tivoli Business Systems Manager 2.1.1 to Tivoli Business Systems Manager 3.1 it is important that the adapter and all of its daemons be stopped prior to the update. When the update is complete and before restarting the adapter and its daemons the NETVIEW MQe queues for Tivoli Business Systems Manager should be deleted. This will prevent any non-conforming messages from 2.1.1 remaining in the queues. The queues upon restart of the tbsm adapter and its daemons will automatically get recreated.
3. Configuration information is available in the file

   IMfOpenView_readme*.htm

   This file is located in the /usr/OV/doc directory on the Tivoli OpenView server.

PATROL adapter

1. To expand file TIV_BSM_3.1.0_FP0002_IMfPatrol.tar, unpack the file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_IMfPatrol.tar
2. When you un-tar TIV_BSM_3.1.0_FP0002_IMfPatrol.tar, you get the setup.exe file. Run the setup.exe file.
3. After running the setup.exe file, complete the installation process as prompted by the installation program.

Language support updates for Tivoli Enterprise Console Event enablement component

If you previously installed national language support for the Tivoli Enterprise Console® Event enablement component, you need to update the language support using the Localization Pack installation images provided in the TIV_BSM_3.1.0_FP0002_lang_pack.tar file.

To use the Localization Pack included in the TIV_BSM_3.1.0_FP0002_lang_pack.tar file:

1. Expand the TIV_BSM_3.1.0_FP0002_lang_pack.tar file with the following command:

   tar -xvf TIV_BSM_3.1.0_FP0002_lang_pack.tar
2. Open the Tivoli desktop.
3. From the Desktop menu, click Install –> Install Patch. The Install Patch window is displayed.
4. Click the Select Media button. The File Browser window is displayed.
5. In the Path Name: field, type the path to the directory containing the patch. For example, <fix pack> /TMEimages/cdrom.
6. Click the Set Media and Close button. The Install Patch window is displayed.
7. In the Install Patch window, select the language and client.
8. Click the Install button.

Language support updates for other Tivoli Business Systems Manager 3.1 components

If you previously installed national language support for other Tivoli Business Systems Manager 3.1 components, you need to update the language support using the Localization Pack installation images provided in the TIV_BSM_3.1.0_FP0002_lang_pack.tar file.

Note: You can also install support for new languages and language support for new components, except the Tivoli Enterprise Console Event enablement component, with the installation images provided in the TIV_BSM_3.1.0_FP0002_lang_pack.tar file.

To use the Localization Pack included in the TIV_BSM_3.1.0_FP0002_lang_pack.tar file, expand the TIV_BSM_3.1.0_FP0002_lang_pack.tar file with the following command:

tar -xvf TIV_BSM_3.1.0_FP0002_lang_pack.tar

After you un-tar the file, complete the following steps for your respective component.

For Intelligent Monitor for NetIQ AppManager:

1. Go to the <fix pack> /ISMPimages/IM/IM_AppMgrSv directory.
2. Run the setup.exe file.
3. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Intelligent Monitor for NetIQ AppManager.″

For Intelligent Monitor for BMC PATROL:

1. Go to the <fix pack> /ISMPimages/IM/IM_Patrol directory.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Intelligent Monitor for BMC PATROL.″

For Intelligent Monitor for Unicenter TNG:

1. Go to the <fix pack> /ISMPimages/IM/IM_TNG directory.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Intelligent Monitor for Unicenter TNG.″

For Intelligent Monitor for NetView:

1. Go to the <fix pack>/ISMPimages/IM/IM_NetView directory.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Intelligent Monitor for NetView.″

For Intelligent Monitor for HP OpenView:

1. Go to the <fix pack>/ISMPimages/IM/IM_OpenView directory.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Intelligent Monitor for HP OpenView.″

For all other components:

1. Go to the <fix pack>/ISMPimages/TBSM directory.
2. Go to the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide. Follow the instructions provided in the section titled ″Installing National Language Support for Other Features and Components in a Non-Tivoli Management Environment (TME®).″

Additional installation information

Tivoli Data Warehouse and Crystal Reports

Note: The Warehouse Enablement Pack and the Tivoli Business Systems Manager server updates contained within this fix are corequisites and must be installed at the same time. If you have installed IBM Tivoli Business Systems Manager 3.1 Warehouse Pack 3.1.0.0 to support Tivoli Data Warehouse 1.2.0.2 or later, you must upgrade to the Warehouse Pack 3.2.0.0 contained in this package at the same time you update the Tivoli Business Systems Manager database server.

Publishing Tivoli Business Systems Manager Crystal Reports in a distributed environment:

If the Tivoli Business Systems Manager 3.2.0.0 Warehouse Enablement Pack is installed on a server that does not have the Crystal Enterprise 9.0 or later Server installed on it, then the following steps must be taken before installing the Tivoli Business Systems Manager 3.2.0.0 Warehouse Enablement Pack.

1. Apply the following hot fix from Business Objects:

```
Crystal Decisions RAS 9.0 Patch
         Hot Fix: ras90win_en.zip
         Language: English
         Platform: Windows
         Last updated on: 10/5/2004
         FTP Location:
             ftp://ftp1.businessobjects.com/outgoing/EHF/ras90win_en.zip

         Knowledge Base article:
          http://support.businessobjects.com/library/kbase/articles/c2010398.asp
```

2. Copy the following file from your Crystal Enterprise 9.0 Server machine to your Tivoli Data Warehouse server machine:

   u25tzcvt.dll

   This file can be found in the C:\Program Files\Common Files\Crystal Decisions\2.0\bin directory on the Crystal Enterprise 9.0 Server and must be copied to the same location on the Tivoli Data Warehouse server.

Ensuring 32k page size objects are defined completely:

Note: These instructions are required for Tivoli Data Warehouse version 1.2, not Tivoli Data Warehouse version 1.3.

If Tivoli Data Warehouse 1.2 fix pack 2 is being used, before installing the Tivoli Business Systems Manager 3.2 Warehouse Enablement Pack piece of this fix pack, ensure that the Central Data Warehouse and Data Mart have 32k page size objects defined completely.

If these databases are created on the distributed DB2® UDB, complete these instructions:

1. Make sure the 32k page size tablespace and bufferpool are created with enough disk space. See the readme file from Tivoli Data Warehouse 1.2 fix pack 2 for the procedure.
2. Find the db2.translate file in the <TWH_TOPDIR> \tools\translate\ directory on the Tivoli Data Warehouse control server, where <TWH_TOPDIR> refers to the Tivoli Data Warehouse install directory.
3. Add the following two blocks of code in the db2.translate file:
   a. Find the following section:

      ```
      -- ****************************************
      -- start CDW TWH_CDW
      -- ****************************************
      ```

      Add the following code in the beginning of this section:

      ```
      __TWH_CDW_DATATS32K
      __TWH_CDW_TBSPACE32K
      __TWH_CDW_INDEX32K
      ```

      If you have multiple cdw databases, the prefix should be replaced by the one you edited. For example, if you have __TWH_CDW1_ as a prefix in this section, you should add the code as:

```
__TWH_CDW1_DATATS32K
__TWH_CDW1_TBSPACE32K
__TWH_CDW1_INDEX32K
```

b. Find the following section:

```
-- ****************************************
-- start DM TWH_MART
-- ****************************************
```

Add the following code in the beginning of this section:

```
__TWH_MART_DATATS32K
__TWH_MART_TBSPACE32K
__TWH_MART_INDEX32K
```

If you have multiple cdw databases, the prefix should be replaced by the one you edited. For example, if you have __TWH_MART1_ as a prefix in this section, you should add the code as:

```
__TWH_MART1_DATATS32K
__TWH_MART1_TBSPACE32K
__TWH_MART1_INDEX32K
```

If the Central Data Warehouse and Data Mart are created on zOS, perform the following steps:

1. Verify that your databases are enabled to handle 32k page size based on the readme file from Tivoli Data Warehouse 1.2 Fix Pack 2.
2. Create the following 32k page size objects in both databases by running the following commands ON THE LOCAL HOST:

```
CREATE STOGROUP TWHS32K VOLUMES ('*') VCAT DSN71";

CREATE TABLESPACE TWH32K IN TWHCDWZ USING STOGROUP TWHS32K  PRIQTY
 500000 SECQTY 50000 SEGSIZE 64 BUFFERPOOL BP32K LOCKSIZE TABLE;

CREATE TABLESPACE TWH32K IN TWHDMZ USING STOGROUP TWHS32K  PRIQTY 500000
 SECQTY 50000 SEGSIZE 64 BUFFERPOOL BP32K LOCKSIZE TABLE;
```

   Note: Connect to the databases with the same user ID and password as entered when you installed Tivoli Business Systems Manager 3.2.0.0 Warehouse Enablement Pack.

3. Find the db2os390.translate file in the <TWH_TOPDIR>\tools\translate\ directory on the Tivoli Data Warehouse control server, where <TWH_TOPDIR> refers to the Tivoli Data Warehouse install directory.
4. Add the following two blocks of code in the db2os390.translate file:

   a. Find the following section:

```
-- ****************************************
-- start CDW TWH_CDW1
-- ****************************************
```

   Add the following code in the beginning of this section:

```
__TWH_CDW1_DATATS32K in __TWH_CDW1_DATABASE.__TWH_CDW1_TBSPACE32K
__TWH_CDW1_TBSPACE32K        TWH32K
__TWH_CDW1_INDEX32K   bufferpool BP32K using stogroup __TWH_CDW1_STOGROUP
```

If you have multiple cdw databases, the prefix should be replaced by the one you edited. For example, if you have __TWH_CDW2_ as a prefix in this section, you should add the code as:

```
__TWH_CDW2_DATATS32K in __TWH_CDW2_DATABASE.__TWH_CDW2_TBSPACE32K
__TWH_CDW2_TBSPACE32K        TWH32K
__TWH_CDW2_INDEX32K   bufferpool BP32K using stogroup __TWH_CDW2_STOGROUP
```

b. Find the following section:

```
-- ***************************************
-- start DM TWH_MART1
-- ***************************************
```

Add the following code in the beginning of this section:

```
__TWH_MART1_DATATS32K in __TWH_MART1_DATABASE.__TWH_MART1_TBSPACE32K
__TWH_MART1_TBSPACE32K        TWH32K
__TWH_MART1_INDEX32K      bufferpool BP32K using stogroup __TWH_MART1_STOGROUP
```

If you have multiple MART databases, the prefix should be replaced by the one you edited. For example, if you have __TWH_MART2_ as a prefix in this section, you should add the code as:

```
__TWH_MART2_DATATS32K in __TWH_MART2_DATABASE.__TWH_MART2_TBSPACE32K
__TWH_MART2_TBSPACE32K        TWH32K
__TWH_MART2_INDEX32K      bufferpool BP32K using stogroup __TWH_MART2_STOGROUP
```

Health Monitor System

Language Pack Installation

After installation of the language pack, the services should be restarted and the Health Monitor Service (HMS) GUI should be refreshed. This will ensure that the services and the HMS GUI pick up the new native language settings that have been made to the system.

Apparent SBCS Character Corruption Using Health Monitor Service (HMS)

If the user already has the system environment variable TBSM_OEM_CP set to '1' (because they previously followed the procedure in the Tivoli Business Systems Manager 3.1 Installation and Configuration Guide, page 255, to correct a corruption problem for other services), the national characters may be corrupted in the HMS. To workaround the problem:

1. Unset TBSM_OEM_CP variable.
2. Stop the HMS service.
3. Clear the HMS Input directory.
4. Restart the HMS service.

If you are running on a default Windows 2000/2003 Server platform using the Multilingual User Interface Pack from Microsoft, you could experience damaged or corrupted characters in the health monitor service your native language. If the initial installation of the product was performed using the default English (ENU) and the native language was changed in 'Regional Settings,' then certain registry key values are not updated correctly on these platforms, forcing the Tivoli Business Systems Manager product to have mixed behavior. This can be remedied by using regedit to modify the appropriate locale and language registry keys for the user to the appropriate native language settings and then restart the health monitor service.

Web console read only access

This enhancement provides two new Readonly roles to which users can be assigned in order to restrict their access to a view only capability while using the Tivoli Business Systems Manager 3.1 Web Console.

These two new roles are:

- TBSM_Operators_ReadOnly
- TBSM_Operators_Restricted_ReadOnly

Users assigned the TBSM_Operators_ReadOnly role may perform the same functions as those assigned the TBSM_Operators role, except for those actions in the list below, while users users assigned the TBSM_Operators_Restricted_ReadOnly role may perform the same functions as those assigned the TBSM_Operators_Restricted role, except those in this same list.

Operators in the Readonly roles will **not** be able to:

- Create or modify notes
- Take ownership of events or resources
- Create or modify problem tickets
- Transfer notes or events
- Closeout events
- Login to the installed Tivoli Business Systems Manager console (use is restricted to the Web console only)

Most of these restrictions are enforced by not including the restricted actions in menus and by removing controls (buttons, checkboxes, etc.) that would normally allow initiating those actions.

Operators in these roles will be able to perform other actions associated with their role level, such as:

- View allowed resources
- Add visible resources to their Critical Resource Lists
- Create filters to customize their view
- View notes that are routed to them (though that should not usually be done since the user will be unable to update the note or transfer it elsewhere – an administrator would have to do that for them.)

You should note that if a user is a member of multiple roles then the role with the highest level of access will be in effect. Tivoli Business Systems Manager and its underlying WAS-based security infrastructure permit a user to be a member of more than one security role. However, within Tivoli Business Systems Manager a user has only one effective role for authorization purposes. Tivoli Business Systems Manager uses a precedence hierarchy of roles to determine this effective role in cases where the user has been assigned more than one security role. The precedence, from highest to lowest, is:

1. TBSM_Administrators_Super
2. TBSM_Administrators
3. TBSM_Operators
4. TBSM_Operators_Restricted
5. TBSM_Operators_ReadOnly
6. TBSM_Operators_Restricted_ReadOnly

For example, if a user is a member of both the TBSM_Operators and TBSM_Operators_ReadOnly roles, then Tivoli Business Systems Manager will grant him the exact same permissions as if he were a member of TBSM_Operators only. This is because TBSM_Operators appears before TBSM_Operators_ReadOnly in the list above. Due to this, a user in a Readonly role should not also be assigned to a non-Readonly role in the list above.

In order to make use of the new Readonly capability of the Tivoli Business Systems Manager 3.1 Web console, it is necessary to associate the appropriate users with one of the new Readonly roles. This enhancement will not change the behavior of the product until this user assignment is performed.

Refer to the 'Console Security/Assigning Roles' section in Chapter 2 of the Tivoli Business Systems Manager 3.1 Administrator's Guide for information on how to assign users to roles.

Font size and color customizations for tables

This enhancement provides additional capabilities for customizing font size and colors for tables, including the Event Viewer. Previously, there was no capability to customize the font size for any table and only view tables provided the ability to customize colors.

Now, users will have the ability to specify 'default' color and font size preferences that apply to all tables, and to individually specify color and font size overrides for the Event Viewer and view tables. (Note: Though tables imbedded in dialogs will use the specified default color and size preferences, individual overrides cannot be specified for those tables).

The default font size to use for all tables can be specified using the new 'Text size' drop down list on the 'Table View' tab page of the Console Preferences dialog. The list provides five size choices to pick from (Tiny, Small, Medium, Large, Largest).

The default color size to use for all tables can be specified using the various existing color controls on the 'Display Properties' tab page for Table View on the Console Preferences dialog. Previously, the color preferences specified there were used only for Table views, but now apply to all tables including the Event Viewer and tables imbedded in dialogs.

An override font size, which will be used instead of the default preference value, can be specified for the Event Viewer and for each view table. This font size override can be specified by selecting the 'Text size' menu item from the table's white space context menu and then selecting one of the five text sizes displayed on the sub-menu. The white space context menu is displayed by right-clicking in the table's white space area, or on its status bar at the bottom of the table if there is no white space.

Override color selections that will be used instead of the default preference values can be specified for the Event Viewer and for each view table. To specify override colors for these tables, perform the following steps:

1. Deselect the check box for 'Always use the display properties in my preferences' on the 'Display Properties' tab page for Table View on the Console Preferences dialog. (This will enable the 'Display Properties' menu item on the white space context menu for the tables)

2. Display the white space context menu for the Event Viewer or view table by right-clicking in the table's white space area, or on its status bar at the bottom of the table if there is no white space.
3. Select the 'Display Properties' menui tem to display the 'Display Properties' dialog.
4. Deselect the check box for 'Use display properties from the Console Preferences' to enable the color choice controls on the dialog.
5. Select the override colors using the controls on the dialog.
6. Click the 'OK' button on the dialog.

To resume using the default color preferences for a table, select the check box for 'Use display properties from the Console Preferences' on the 'Display Properties' dialog , which is displayed by selecting the 'Display Properties' menu item on the table's white space context menu.

Event view launch in context

The event view launch in context feature uses the existing resource-based launch capabilities to provide event-specific launch menu items in the Event view on the console.

Items in the context menu can include both URLs (which launch the default Web browser), and applications that are installed on a user's local machine.

The attributes of the event object are available for substitution in the launch entries or URL menu items. Some available event attributes are: event id, name, description, DATE, Data1-4, ParentCID, ParentID, and AlertState.

Because it uses the existing launch-out capabilities, configuration is similar to the existing configuration performed for resource-based context menus.

User interface

The actual URL and application launch definitions, logic, and behavior have not been modified. The resulting launch behavior from an event is identical to the existing launch from a resource.

The event-based launch facility is available:

- For single events. If multiple events are selected, the Launch cascaded menu item is not displayed.
- In the Event View. So, for example, it is not available on properties pages.
- On the console. (It is not available in the Web console.)

Deployment

Although Event view launch in context requires updates to the Console Server and Java™ Consoles, these updates are automatically installed as part of the fix pack 2 install, so no additional deployment is necessary.

Configuration - Procedures

The procedures for defining and manipulating event context menu objects are almost the same as those used in Tivoli Business Systems Manager 2.x and 3.x for defining resource context menu objects. Following are the differences:

- You use the CID of the applicable event object class (MESG for messages, EXCP for exceptions, or EVNT for both) where a CID is used in the menu definition commands or scripts.

- The instance ID of events is ignored in menu items and you should specify it as 0 when creating your menu items.

Example configuration - Launch application

The following example adds a "Notepad" menu item to events.

1. On the Tivoli Business Systems Manager DB machine, run the following commands:

```
AddAppLauncherEntry.sh -E -n NOTEPAD -l Windows -cCmdLine -g "notepad.exe %name%.txt"

AddAppLauncherMenuItem.sh -E -n NOTEPAD -c EVNT -l "Notepad" -r "NOTEPAD, name=%name%"
```

2. Restart the console.
3. Open the Event View, then right-click on an Event. You should see menu item: Launch > Notepad.
4. When selected, it will open a file named <EVENTNAME>.txt in the notepad application..

Example configuration - Launch URL

The following example adds a top level URL menu item, and a cascaded menu to Exceptions.

1. Paste the following text into Query Analyzer and execute it.

```
declare @parentid int
-- Define a top level URL menu item for EXCP
exec asisp_definemenuitem 'topUrl', 'EXCP', 0, 'www.ibm.com', null, null,
'http://www.ibm.com', null, '',0x10000100

-- Define the parent menu item to contain URLs for EXCPs
exec asisp_definemenuitem 'urls', 'EXCP', 0, 'URLs', null, null, '', null, ''
,0x70000008
select @parentid = id from MenuItem where name='urls' and obj_cid='EXCP'

-- Define menu items to go under the "URLs" submenu.
exec asisp_definemenuitem 'w3', 'EXCP', 0, 'www.yahoo.com', @parentid, null,
'http://www.yahoo.com', null, '',0x10000100
exec asisp_definemenuitem 'googlename', 'EXCP', 0, 'google excp name', @parentid, null,
'http://www.google.com/search?hl=en&q=%EXCP_NAME%&btnG=Google+Search', null, ''
,0x10000100
```

2. Restart the console.
3. Open the Event View, then right-click on an Event. You should see the following menu items:

   www.ibm.com

   URLs > www.yahoo.com
   google excp name
4. Selecting the "google excp name" menu item will open the web browser displaying the results of the google search for the exception name (an example of including attributes in the URL):

```
http://www.google.com/search?hl=en&q=ELAP&btnG=Google+Search
```

Configuration - Event attributes

Specify attributes in your menu item the same way resource attributes are specified. For more information, see "Passing Data to the Target Application" in the 3.1 Administrator's Guide.

The following attributes are available for both EXCP and MESG objects:

```
id - event id
name (same as MESSAGE in Messages, same as EXCP_NAME in Exceptions)
description (same as REASON_CD in Messages, same as EXCP_CD in Exceptions)
ParentCID - CID of affected resource
ParentID - ID of affected resource
AlertState - Numeric alert state indicator
DATE - Time/Date part of TIME
MSEC - Millisecond part of TIME
NATIVE_KEY - Native key of affected resource
OBJECT_NAME -
OBJ_TYPE_ID -
Priority - Event priority
SEQ_NO - Event sequence number
TIME - Timestamp of event
Data1 - Data 1 slot from generic TEC event  (same for Data2, Data3, and Data4)
EVENT_OWNER - The userid of the event owner as shown in the event view
EVENT_NOTEID - The id of the NOTE object for owned events
Path - The path of the resource as shown in the location column in the event view
```

The following attributes are only available for EXCP objects:

```
EXCP_CD
EXCP_NAME
nEXCH
```

The following attributes are only available for MESG objects:

```
DISCOVERY_IND
MESSAGE
REASON_CD
STATE
StateID
```

Troubleshooting - Miscellaneous

New menu items and changes to existing menu items are displayed in the event's context menu **after** you restart the console.

If you are having problems with URL launches, verify the browser settings by clicking the Test button on Console Preferences> General> Web Browser.

Ensure the fully-qualified executable name for the browser is correct, if you are not using the system default browser.

Troubleshooting - Multiple attributes (%%)

You can specify multiple attributes for dynamic resolution. However %% is treated as a literal %, so you should be careful to avoid %% when you really want the resolution of attributes.

The following example results in neither name nor description being resolved to their respective values.

```
%name%%description%
```

Separating the attributes with a space as in the following example, gives the correct results :

```
%name% %description%
```

Troubleshooting - Column names and underscores

When specifying an attribute for replacement, if the column name has a leading underscore, the leading underscore should not be specified.

For example: _EEhost should be specified as %EEhost%

Troubleshooting - UNIX

For application launches on UNIX®:

- Use the appropriate case for the executable name (for example,. UPPERCASE or lowercase or Mixedcase). Otherwise, UNIX does not execute the application. Windows is not case-sensitive when executing commands.
- Define separate launch entries for Windows and UNIX. For example, in the notepad.exe examples discussed earlier, notepad.exe is not available on UNIX, so you should create a separate entry for UNIX with a different application (for example, emacs).

Tivoli Enterprise Console problem ticket synchronization

The following information pertains to TEC/TBSM problem ticket synchronization also known as the TEC bridge function:

Overview

IBM Tivoli Business Systems Manager currently allows for the creation, modification, and closing of problem tickets through the problem ticket and automatic trouble ticket features. These features allow for the customization of program user exits that interface with the customer's Problem Management application. Through these features problem tickets can be opened automatically, based on exception properties, or by an operator through a resource's context menu, and then later viewed, updated or closed as appropriate.

While the problem ticket and automatic trouble ticket features in IBM Tivoli Business Systems Manager provide an integrated approach, some customers will use other facilities to generate problem tickets. Another method of integrating with a customer's Problem Management application may include Tivoli Enterprise Console (TEC) or NetView for z/OS. A number of the popular Problem Management applications, such as IBM Tivoli Information Management for z/OS, Remedy HelpDesk and Peregrine Service Center, provide command line utilities that will connect to their applications. These command line utilities can be called from shell scripts invoked from the TEC rule engine or from NetView for z/OS automation.

IMPORTANT: This new "TEC Bridge" function DOES NOT replace the current IBM Tivoli Business Systems Manager Problem Ticket or Automatic Trouble Ticket functions. It is an enhanced extension to these functions, which will allow problem tickets created outside of IBM Tivoli Business Systems Manager to be known within this product. Therefore, if a customer does not use IBM Tivoli Enterprise Console for problem ticket creation, or is using the existing Problem Ticket and/or Automated Trouble Ticket functions in Tivoli Business Systems Manager, there will be no impact and no change to the existing IBM Tivoli Business Systems Manager integration to their Problem Management application.

Problem Management Integration

On the TEC Server, a rule(s) will need to be added to the TEC rulebase. This rule will catch the event that contains the problem ticket information, and it will call

ihstptec to forward this information to Tivoli Business Systems Manager. Support is not limited to the three Problem Management platforms discussed below, any platform can be supported as long as the problem ticket number can be obtained, the Tivoli Business Systems Manager resource can be identified, and the ihstptec executable can be called.

Note: Sample rules and baroc files are available in the IBM Tivoli Business Systems Manager installation and are located in the following directory: <TivoliManager>/TDS/EventService/config/tbsmtt

IMPORTANT: To complete the Problem Management Integration the IBM Tivoli Business Systems Management integration to the customer's Problem Management application must be implemented as outline in the IBM Tivoli Business Systems Manager Program User Exits Guide.

Administrator's Guide

The following SQL Server Job information should be added to "Appendix B. SQL Server Jobs and Stored Procedures", "Database Maintenance Jobs ", "Table 270. Data Maintenance Jobs":

Table 1.

Job Name	Job Description	Notes
TEC Bridge Cleanup Obsolete Problem Ticket Events	This sql script defines the job definition for the "TEC Bridge Cleanup Obsolete Problem Ticket Events" job. This is a scheduled job that is run by the SQL Server Agent. This job contains 1 scheduled step which calls the asisp_deleteTECBridgeEvents stored procedure with the parametes @daystokeep = 5 and @verbose = 0. The default schedule is to run this job every day at 2:00 am. The job is installed disabled and would have to be enabled by a Tivoli Business Systems Manager administrator. The parameter values passed, specifically @daystokeep, and the schedule can be adjusted to meet a customers needs.	Initially this job is disabled, When enabled it will run every day @2:00am EST .

Command Reference

Add the following to Chapter 6, Event Enablement Commands after the hostcmdoper command.

ihstptec

Purpose

The ihstptec command is used in IBM Tivoli Enterprise Console to send the problem ticket number to IBM Tivoli Business Systems Manager.

Syntax

```
ihstptec [ -t problemTicketNumber ]
[   [ [ -s original_event_server_handle ]   &
        [ -e original_event_event_handle ]    &
        [ -d original_event_date_reception ]   ]
    [ [ -p parentType –n parentName ] –z delimiter –c type -o name
        [ -i eventName] ]

]
```

Parameters

The (–s –e –d) options should be used when the problem ticket can be tied to a specific event that had been processed by TEC. The (-p –n -o –c -z) options should only be used if the problem ticket was not opened against a TEC event, as might be the case if the problem ticket was opened from NetView for z/OS.

-t the problem ticket number generated by the customer's problem ticket application. If this argument is not provided, then ihstptec will look for the slot "number." If the slot "number" exists, then its value will be used for the problem ticket number. If the slot "number" exists and –pt is specified, the value passed with –t will take precedence. If –t is not specified and there is not a "number "slot value, then the event is not sent to Tivoli Business Systems Manager.

-s this is the server_handle slot that was assigned to the original event that generated the problem ticket.

-e this is the event_handle slot that was assigned to the original event that generated the problem ticket.

-d this is the date_reception slot that was assigned to the original event that generated the problem ticket.

-p the parent class identifiers (CID) of the class identifier specified by –c. This is needed when the object name and CID is not unique by itself. From one to nine parent CIDs can be specified.

-n the parent resource name of the resource specified by –o. This is needed when the object name and CID is not unique by itself. From one to nine parent names, associated with the –p values, can be specified.

-z A delimiter that separates the values specified by –p and –n. If not specified, the dollar sign ($) character is used. If resource names can contain the dollar sign character, then you must specify a different character.

-o the resource name used when the resource was created in Tivoli Business Systems Manager

-c the class identifier (CID) used when the resource was created in TBSM.

-i the name of the exception/message that the trouble ticket was opened against. If the event name cannot be identified, then the trouble ticket will be opened against the resource, rather than a specific exception.

Event Enablement ihstttec command updates

Tivoli Business Systems Manager customers have reported problems due to the truncation of various event attributes, which are generally truncated at 255

characters in length. Problems with event attribute truncation are typically associated with the truncation of the TEC message slot, displayed as the event description in Tivoli Business Systems Manager, and the inability to forward messages greater than 255 characters in length to a problem management system via a problem ticket.

Overview

A new command option on the Event Enablement ihstttec command allows for the construction of an extended length attribute in Tivoli Business Systems Manager that can be as large as 4096 characters in length. Any event attribute or information that may exceed 255 characters in length and needs to be maintained in the Tivoli Business Systems Manager database and forwarded to a problem management system can be passed to Tivoli Business Systems Manager on the new -l option (lower-case L) on the ihstttec command. The new -l option will accept an extended length attribute up to 4096 characters in length.

Existing event attributes will remain unchanged and will continue to be processed by the Tivoli Business Systems Manager database and/or other components as they are today. It is recommended that customers continue to employ existing event attributes, truncated or not, as they do today to ensure no change or loss of function in the ihstttec command processing.

Through the new -l option on the ihstttec command, customers will be able to specify what data the extended length attribute will contain. The extended length attribute can be used for any data, such as customer specific text, selected TEC slots, or the entire TEC event presented in a name-value format.

ihstttec ... -l extended_length_attribute

-l Used to provide an extended length attribute of a TEC event that can be up to 4096 characters in length. The attribute can be specified as a string constant, a string containing event slot information, or an option-specific data constant.

The following table lists the supported data constants:

Table 2. Supported data constants

Data Constant	Represents
TEC_EVENT_ALL	The complete TEC event in a comma delimited, key-value format.
TTEC_PROBEID	Reuses the ihstttec command's complete **-p** option parameter without truncation at 255 characters. **Note:** The probe_ID specified on the ihstttec command's -p option parameter will continue to be used to specify the name of the Tivoli Business System Manager exception or message when processing an event. The **-l** option parameter will not be used as the name of an exception or message and will not play a role in clearing previous exceptions or messages with the same probe_ID or extended length event attribute.
TTEC_MESSAGE	Reuses the ihstttec command's complete **-m** option parameter without truncation at 255 characters.
TTEC_DATA1	Reuses the ihstttec command's complete **-1** option parameter without truncation at 255 characters.
TTEC_DATA2	Reuses the ihstttec command's complete **-2** option parameter without truncation at 255 characters.

Table 2. Supported data constants (continued)

Data Constant	Represents
TTEC_DATA3	Reuses the ihstttec command's complete **-3** option parameter without truncation at 255 characters.
TTEC_DATA4	Reuses the ihstttec command's complete **-4** option parameter without truncation at 255 characters.

While the new **-l** option on the ihstttec command will accept an extended length attribute up 4096 characters in length, command line length limitations on the local operating system may be encountered. Whenever possible, the option-specific data constants should be employed to limit overall command length.

Problem Ticketing Updates

The extended length attribute is an included data element in the <GUID>.in file, which is generated to provide input to a customer's problem request processor. The extended length attribute has an EXTENDED_LENGTH_ATTR field that could require one or more rows (lines) in the<GUID>.in file, depending on the length of the extended length attribute. The maximum length for a row in the <GUID>.in file is 2000 characters.

For example, the following could appear in the <GUID>.in file and it indicates that the extended length attribute is split into three parts:

```
EXTENDED_LENGTH_ATTR|1|3|<extended length attribute characters...>
EXTENDED_LENGTH_ATTR|2|3|<extended length attribute characters...>
EXTENDED_LENGTH_ATTR|3|3|<extended length attribute characters...>
```

The problem request processor, using the row number and number of rows (i.e.'|1|3|' indicates row 1 of 3), could then reconstruct the extended length attribute into a single string of characters to be forwarded to the problem management system.

For more information on problem request processors, refer to the IBM Tivoli Business System Manager Problem and Change Management Integration Guide.

Reporting System Updates

The TEC Event Search Pattern field has been added to Event reports. Information in this field causes a search of the extended length attribute on TEC events. Events that contain the search pattern in their extended length attribute, are displayed.

The following reports contain the new search field:

- Resource Class Events
- Business System Events
- Physical Resource Events

Tivoli Workload Scheduler support

On the Tivoli Workload Scheduler environment:

- These instructions assume that the prerequisite JDBC driver is installed. If the prerequisite JDBC driver is not installed, install it before using these instructions.
- If you are a Tivoli Business Systems Manager 2.1.1 customer migrating to Tivoli Business Systems Manager 3.1 and are applying this fix pack, disable and uninstall the Tivoli Business Systems Manager 2.1.1 Tivoli Workload Scheduler adapter and install this new version.

- If you are already using the initial release of the Tivoli Business Systems Manager Tivoli Workload Scheduler adapter, ignore Step 1.

1. Disable the old Tivoli Workload Scheduler Adapter
   a. Stop the CL Agent: conman clagent_stop
   b. Delete or rename the following files and directories

      <TWSHOME>/bin/clagent
      <TWSHOME>/ClEvents.conf
      <TWSHOME>/Tbsm
2. Install one of the following:
   - The Tivoli Workload Scheduler test fix for the internal defect 173172 (APAR IY41442) and 173502 (APAR IY41632) for Tivoli Workload Scheduler 8.2 fix pack 4
   - The Tivoli Workload Scheduler Version 8.2 with fix pack 5 and above

   These test fixes correct some data fields on the event.log file produced by Tivoli Workload Scheduler. Without one of these test fixes, the jobs are displayed in the wrong schedule/stream object in the Tivoli Business Systems Manager hierarchy.
3. Install new adapter code:
   a. Copy the appropriate executable file for the environment where the Tivoli Workload Scheduler Adapter will be installed. Each IMfTWS file contains the name of the platform to which it applies. The IMfTWS files should be copied to a temp directory on the Tivoli Workload Scheduler Server. The various executable files are:

      <fix pack>\IMfTWS\IMfTWS-aix4-r1
      <fix pack>\IMfTWS\IMfTWS-linux
      <fix pack>\IMfTWS\IMfTWS-solaris2.8
      <fix pack>\IMfTWS\IMfTWS-win32.exe
   b. Using the root user ID (or an Administrator id in the case of Windows), install the Tivoli Workload Scheduler Adapter by launching it from the temp directory in which you placed it.

      Note: The install program can run from the command line or graphical user interface. If you use a telnet session for installation, use the command line. To run from the command line, enter -console as the parameter for the install program.

      - For Solaris execute:

        ./IMfTWS-solaris2.8 {-console}
      - For Linux execute:

        ./IMfTWS-linux {-console}
      - For AIX® execute:

        ./IMfTWS-aix4-r1 {-console}
      - For Windows execute:

        IMfTWS-win32.exe

      Follow the instructions provided by the installer. The Installer asks for the location of the JDBC Driver. Install the JDBC Driver first.

4. Update and Customize: Once installed, switch to the <install-directory> and perform the following Adapter customization.
   a. Update DriverPlugIns.conf file
      1) Add a value to the Enterprise parm by replacing the <Enterprise name> data with an appropriate text string. This <Enterprise name> is the name that you want the Batch Schedule Sets and its resources to be displayed on the Tivoli Business Systems Manager Physical Hierarchy tree. The length of this text string can not be longer than 31 characters.
      2) If necessary, adjust the CycleTime parm (in seconds) for how often the adapter should check for and process event data.
   b. Update DB_Server.conf file
      1) Update all of the appropriate parms with the information required to access the Tivoli Business Systems Manager SQL Server.
      2) Because the file contains sensitive data such as the user ID and password, it needs to be encrypted with the following command from the Tivoli Workload Scheduler Adapter Home Directory:

         On UNIX Systems:
         sh ./bin/DBServerEncryptor.sh

         On Windows Systems:
         bin\DBServerEncryptor.bat

         These commands generate a new file called ″_DB_Server.conf″. At this point, the changes to 'DB_Server.conf' can be reversed or the file can be deleted to protect the password. The Adapter only uses the encrypted '_DB_Server.conf″ file and not the text version ″DB_server.confg″
   c. Update localadapter.config file
      1) Update the transport.local.ip.address, transport.request.address and transport.response.address entries with the fully qualified name or address of the Tivoli Workload Scheduler machine.
      2) Update the transport.server.ip.address entry with the fully qualified name or address of the Tivoli Business Systems Manager Server where the Common Listener runs.
      3) Update the proxy statements as needed and uncomment if necessary.
      4) At the moment, this configuration file is also set to automatically log the transport data. It is suggested it be disabled once you are satisfied with the results of any tests. The ″transport.trace.enable″ parm should be set to ″false″ instead of ″true.″ (A restart of the adapter is required to pickup the change).
   d. Update Log.conf file
      1) This configuration file is set to log everything. It is suggested that the value 'TYPE_LEVEL1' be removed once the adapter has been tested and you are satisfied with the results (a restart of the adapter is required to pickup the change).
   e. Update AdapterEnv.conf file
      1) Update the <hostname> parm. Please make sure it is the short name of the Tivoli Workload Scheduler server (without the entire domain name). As this could affect Tivoli Business Systems Manager ability to store and recognize Batch jobs if the combined resource name (which includes the Hostname) is greater than 54 characters.
   f. Update the TWSConf.conf file

1) Update the eventlog parm with the full path and name of the event.log file that is generated by Tivoli Workload Scheduler (<TWSHOME>/event.log)

5. Confirm the Tivoli Workload Scheduler is generating the event.log file (located in the <TWSHOME>/event.log). If the file is not being created or updated with the Tivoli Workload Scheduler events, please refer to the Tivoli Workload Scheduler Planning and Installation Guide for instructions to update the BmEvents.conf file.

   Note: A restart of the Tivoli Workload Schedule Engine is required to pickup the changes to the BmEvents.conf file.

6. Start the Tivoli Workload Scheduler Adapter. Please make sure that the Tivoli Business Systems Manager administrator has completed the installation of the Tivoli Workload Scheduler Adapter portion that pertains to the Tivoli Business Systems Manager database server. This has been accomplished if the administrator for Tivoli Business Systems Manager has applied Tivoli Business Systems Manager 3.1 fix pack 2.
   - **On UNIX environments:**

     To Start the adapter: ./adapterInit start
     or
     To Stop the adapter: ./adapterInit stop

     You can tell if the adapter is running
     by using a command similar to this one:

     ps -ef | grep -i adapterInit
     or
     ps -ef | grep -i {AdapterInstallDir}

     The system's response should look like this if the adapter is running:

     root 716 1 0 13:33:44 ?
     0:01 /bin/sh ./adapterInit start

     root 7144 716 0 13:57:48 ?
     0:00 /opt/Tivoli/IMfTWS/_jvm...

   Note: the Tivoli Workload Scheduler Adapter is not automatically installed on the /etc/ directories for auto start/stop during the reboots of the Tivoli Workload Scheduler server. Set this up according to each of the platforms on which the Adapter runs.

   - **On Windows environments:** To Start/Stop the Adapter, use the Windows Service that got automatically created when you installed the Tivoli Workload Scheduler Adapter code. The Service name is:

     Tivoli BSM Intelligent Monitor for TWS
     or
     the shortname: "ASITWSAdapter"

     The Service can be started or stopped through the Windows Services panel. Or through the following commands:

net start ASITWSAdapter
or
net stop ASITWSAdapter

CCMDB Enablement

When the Tivoli Business Systems Manager XMLToolkit component is installed, the ITBSM CCMDB Discovery Library service is created. This service facilitates communication with Tivoli Business Systems Manager and the CCMDB and CCMDB Identity Markup Language (IDML) Discovery Library books both as a 'reader' and as an 'author' of CCMDB IDML books.

The ITBSM CCMDB Discovery Library service acts as a 'reader' of IDML books with the purpose of loading Tivoli Business Systems Manager with information concerning discovered resources and their relationships. As an 'author' of IDML books, the service captures Tivoli Business Systems Manager business system resource information into the IDML format which facilitates its integration with the CCMDB and other Discovery Library book readers.

The Tivoli Business Systems Manager CCMDB 'reader' function was delivered and documented in 3.1.0.1-TIV-BSM-LA0098. Since this section only discusses the service as an 'author,' also called Discovery Library Adapter (DLA), it would be useful to review the information contained in the 3.1.0.1-TIV-BSM-LA0098 readme file before proceeding.

Overview

Tivoli Business Systems Manager enables customers to manage their IT resources from a business system perspective by providing grouping techniques, propagation services, and user interface features that enable users to quickly understand the relationships and impacts of resource situations to their business objectives.

The objective of the TBSM DLA CCMDB support is to provide the business system context and relationships to the resources that are contained within the CMDB through other discovery agents. To accomplish this objective, the TBSM DLA authors an IDML book whose contents detail the information within the Tivoli Business Systems Manager database with respect to the business systems Tivoli Business Systems Manager is managing. The business system context within the book is then loaded into the CMDB through the CCMDB features that support IDML books.

A Tivoli Business Systems Manager IDML book consists of:

- Tivoli Business Systems Manager business system objects represented by CMDB Business System class instances (CCMDB Common Data Model class: cdm:sys.BusinessSystem)
  - Tivoli Business Systems Manager business system shortcuts are not represented separately in the CMDB
  - If the Tivoli Business Systems Manager business system has a Tivoli Business Systems Manager service associated with it, the role and impact statements are contained with the CDM Business System class.
- Relationships between Tivoli Business Systems Manager business systems and other Tivoli Business Systems Manager business systems are written as CMDB cdm:federates relationships
  - Although a TBSM Business System shortcut is not written to the IDML book, its relationship with other Business Systems is captured into the book as a cdm:federates relationship.

- TBSM physical resources that are contained within a TBSM Business System are written into the TBSM IDML book if the following conditions are met.
  - If the TBSM physical object class contains Tivoli Enterprise Portal (TEP) managed system name information (see the 3.1.0.1-TIV-BSM-LA0111 readme file), and the mapping from the TBSM physical object class to the CDM class is contained in the file called 'TBSM_TO_CMDB_MAP.xml', the CDM class is written into the IDML book. See below for information on how to read the mapping file - TBSM_TO_CMDB_MAP.xml – to determine what CDM to expect.
  - If the TBSM physical object was loaded into TBSM through is CCMDB Reader feature (see the 3.1.0.1-TIV-BSM-LA0098 readme file), information about the object is written into the IDML book in the form of a CDM cdm:AbstractResource class instance. The cdm:AbstractResource class acts as a reference object carrying identifying information that is used by the CMDB to correlate the cdm:AbstractResource to the actual CDM resource it represents. IDML class instances of type cdm:AbstractResource are not captured into the CMDB. However, it the IDML book contains relationships to the cdm:AbstractResource the relationships between the actual objects represented by the cdm:AbstractResource are written into the CMDB.

  If neither of the two conditions above is met, the physical object is not written to the TBSM IDML book.
- Relationships between TBSM Business Systems and other classes of objects written into the TBSM IDML book are written into the IDML book. Relationships between resources other than business system resources are not captured in the TBSM IDML book.
- The resources that are written into the IDML book contain TBSM resource identifiers which enable applications to reference back into TBSM for information concerning the resource from TBSM's perspective. This information is used by IBM Tivoli Availability Process Manager (ITAPM) to gather TBSM status on resources known to TBSM.

Configuring and Enabling the Writing of a TBSM IDML book

Enabling the writing of a TBSM IDML book is a two step process involving the writing of TBSM information into its own proprietary format and then enabling the transformation of the data into the CCDMB IDML format.

1. The TBSM DLA process requires the activation of the TBSM XML export process. This process is controlled by a SQL job named 'Create TBSM XML – Business System Only'. The schedule of this job controls how frequently TBSM export would occur which in turn controls how frequently an IDML book may be written. Before activating the job, the TBSM SystemConfiguration table must be updated with information that controls the export process. A configuration SQL command file named tbsm_xml_config.sql is provided in the <TivoliManager>/sql directory to help with this configuration step. The SystemConfiguration properties that are added to the table are:
   a. Table: SystemConfiguration. groupname: XMLCreation . propertyname: xml_out_directory
      - Configures the location where the TBSM XML files are written during XML creation. For the Create XML - Business System Only the output is in a subdirectory name lobonly\current of the path specified here. Please make sure the base directory exists and enough disk space exists for the files. For each resource you have in the TBSM Business System tree, you should have 1000 bytes of space available to hold the XML that will be produced.

b. Table: SystemConfiguration. groupname: XMLCreation . propertyname: default_refresh_interval
   - This value controls the time interval of which the TBSM export process will refresh all information within the TBSM XML files directory. Between this interval, the export process will only update class instance information if a new resource has been added. Deleted resources and attribute changes of resources are exported during this refresh period. The default value for this property is to refresh the information every 24 hours.

c. Table: SystemConfiguration. groupname: XMLCreation . propertyname: ConsoleServerHostname
   - This value specifies the fully qualified hostname of the TBSM Console Server system. This value is written into the IDML book to provide hostname contact information for CMDB applications that may want to interact with TBSM concerning the objects in the book. This is an optional parameter.

2. Enable and schedule the SQL Server Job named 'Create TBSM XML – Business System Only' for execution.
3. Configure the ITBSM CCMDB Discovery Library service as an IDML DLA
   a. Open the xmltoolkit.properties file located in the XMLToolkit bin directory to configure the following properties:

      DL_TBSM_FileSystem
      Specifies the full path to the location of the TBSM XML file directory. This is the directory where the 'Business System Only' export is writing files. Do not specify the last directory name ('current') of the file's path. This property is required to activate the IDML book generation process. For example, C:/temp/tbsmexport/lobonly

      DL_TBSM_Export_only
      If 'true', the TBSM CMDB Reader Windows service starts in DLA-only mode. In this mode, the service does not read and import IDML books from other sources into TBSM. Otherwise, the service starts up expecting to process incoming IDML books as well as write TBSM DLA books. If this property is not set to 'true', the service delay all work until 'Reader' ability is fully established. For example, the Common Listener component connection is required to read IDML books so the service wait until a connection is established to the Common Listener before producing a TBSM IDML book. The default is 'false'.

      DL_TBSM_Post_Xform_Step
      Specifies the name of an executable called when a TBSM IDML book is completely written. The first parameter passed to the executable is the fully qualified name of the IDML book. The executable can be used to move the IDML book to another location for any operation including CMDB processing. This is an optional property. For example,. C:/temp/tbsmtocmdb/tbsmtodbcm.cmd

   b. Restart the ITBSM CCMDB Discovery Library service.

Problem tickets

The inteventserver.exe is a command line program that provides a mechanism to close open Notes linked to a problem ticket. In this fix, the .exe file is replaced with a new .exe file.

New inteventserver.exe features include:

- Parameter passing:

  Command line parameters are used to identify the problem ticket number value, which is used to identify and close notes.

  The previous version of inteventserver.exe supports five command line parameters:

  -s The system name of the event source. For example, Remedy,TSD390,Peregrine

  -t The type of event to process. For example, EVENT_PROBLEM or EVENT_CHANGE

  -e The event action. For example, PROBLEM_CLOSED, CHANGE_OPENED

  -f The key value of the item causing the event, such as the ticket number.

  -m A text message used for auditing. For example, ″The problem ticket SITEF-000001 was closed by Remedy.″

  Two of these five parameters are used in the Note closure process. The three other parameters were defined for future use. The new .exe file supports all five 5 parameters, so code already passing the parameter doesn't have to change.

  The new .exe file also supports a shorter parameter list of the two required parameters: the -e and -f parameters. The parameters are positional so the order does matter.

- Retry mechanism:

  To address a problem that intermittently the open Notes for a problem ticket were not getting closed, a configurable retry mechanism was added. This mechanism attempts the closure process a given number of times if the initial attempt failed.

- Serviceability and debugging:

  Multi-level logging is now supported. The following log levels have been implemented:

  Log level 0
  Initial log level: logs a minimal amount of information each time the inteventserver.exe is executed.

  Log level 1
  Adds trace information to the log, along with the log level 0 information.

  Log level 2
  Adds error information.

  The log file can be found in the <TivoliManager>\logs folder and has a naming convention of inteventserverYYYYMMDD.log where YYYY is the numeric value calendar year, MM is the numeric value of the calendar month and DD is the numeric value of the calendar day. A new file is created for each day the inteventserver.exe is run.

- Configuration files:

  A configuration file is now supported to allow for the configuration of both the retry value and the logging level. This configuration file is a simple name value pair text file that can be created by any text editor. The file can contain a value for the desired number of retries that should be attempted when closing notes. It also can contain a value that controls the logging level.

To provide a configuration file, create a text file with the name ″inteventserver.prop″ in the folder where inteventserver.exe is located. The location of inteventserver.exe should be <TivoliManager>\data folder.

The name of the configuration file must be ″inteventserver.prop″. Add the following lines to the ″inteventserver.prop″ file to ontrol the retry count and logging level:

```
close_retry_count=<retry value>
log_level=<logging value>
```

<retry value> is a number between 1 and 30 inclusive. Any other value will be considered invalid and the retry count will default to 3.

<logging value> is either 0, 1, or 2 for the log levels described earlier.

The initial log level can not be turned off; it provides a minimum amount of log information to validate that the executable was actually called.

If the ″inteventserver.prop″ file cannot be found or read for any reason, the defaults of close_retry_count=3 and log_level=0 are used. Both of these configuration options are optional. You can set the log_level without setting the close_retry_count. Likewise, you can set the close_retry_count without setting log_level.

Security

APAR OA12846 encrypts the database userid and password for the CommonListener, AgentListener, and EIFSender components that were previously stored in their properties file.

If after applying the fix pack, you need to change the database userid or password, use the command setDBAccess.ksh. Prior to using setDBAaccess.ksh, you must configure the userid and password to the Microsoft SQL Server through the Microsoft SQL Server Enterprise Manager.

Here is a list of the options available with the setDBAccess.ksh command:

```
sh setDBAccess.ksh [ [-U dbUserid] [-P dbPassword | -i | -N ]
                          [-k encryptionKey] [-l]
```

-U Set the database userid

-P Set the database password. Mutually exclusive with -i and -N.

-N Use empty string database password. Mutually exclusive with -i and -P.

-i Prompt for database password. Mutually exclusive with -P and -N.

-k Set the userid and password encryption key. The length limit is up to 32 characters. Any extra characters are truncated. If none provided, the previous one is used. If none found, a default is used.

-l Update database access information on localhost only.

After issuing the command to change the userid and password, restart the Tivoli Business Systems Manager Common Listener, Agent Listener, and EIF Sender services to use the new userid and password. The current database connection is still valid and is not altered until you restart the services.

If you set the userid, password, or encryption key to an invalid value (or do not know what the values are), you can verify the valid values with the SQL database administrator and enter the setDBAccess.ksh command.

Common Listener XML Tivoli Enterprise Console Resource Discovery documentation

Adding, updating, and deleting resources using XML

If your site uses a repository to contain an inventory of the resources in your environment, you can extract the data from the resource repository and populate the Tivoli Business Systems Manager database with the resources that represent the resources managed by the Tivoli Enterprise Console. You can then use delta discoveries to add, update, and delete resources from the Tivoli Business Systems Manager database.

After extracting the data from the repository, XML is used to describe the resources you want represented in the Tivoli Business Systems Manager database. The Tivoli Business Systems Manager enqueuecl command processor, available in the XML toolkit, parses the XML file and sends it to the common listener service. The common listener service parses the transaction and puts data into the common listener stage tables. The common listener service drives the cl_preprocessTECResources stored procedure.

The cl_preprocessTECResources stored procedure generates the physical hierarchy containing the resource. The parents in the physical hierarchy are affected by the auto placement and distributed object placement rules. After generating any required parents, the common listener service drives the cl_processNextTrans stored procedure, which processes the transaction. The cl_preprocessTECResources procedure is not started automatically. It must be enabled in the ASICommonListener.properties file with the following operational parameters:

```
# Enable the preprocessing of Tivoli Enterprise Console resource
# discovery data, previously received through XML through the
# enqueuecl command, through the automatic invocation of SQL
# procedure cl_preprocessTecResources.
   com.tivoli.tbsm.commonlistener.CL.enableTecXmlDiscovery=false
# Specifies how often SQL procedure cl_preprocessTecResources will be
# invoked to preprocess Tivoli Enterprise Console resource discovery data
# in the staging tables.
# Specifying zero will cause the stored procedure to be invoked as soon as
# a record becomes available.
# The value is specified in seconds.
   com.tivoli.tbsm.commonlistener.CL.sleepBetweenTecXmlPreprocess=10
```

Setting the com.tivoli.tbsm.commonlistener.CL.enableTecXmlDiscovery to 'true', enables the cl_preprocessTECResources procedure.

Note: When adding, updating, and deleting resources using XML, the cl_cacheGenericParents Tivoli Business Systems Manager database stored procedure must be executed from the SQL Query Analyzer whenever parent resources (for example, Enterprises, Network Regions, Network Locations, and Network Nodes) of generic resources have been renamed in the physical hierarchy. The renaming of the parent resources would typically occur on the Tivoli Business Systems Manager console's 'All Resources' view. The cl_cacheGenericParents procedure populates the common listener cache with required parent information for generic resources in the physical hierarchy and ensures that any new generic resources added through XML are placed under the correct parent resources, as defined by the traditional table-based placement algorithms or by physical placement rules. This

procedure may take several minutes to complete if your installation has many parent resources under which generic resources could be placed (for example, many Network Nodes, Network UNIXs, and NT Servers). A complete listing of renamed parent resources can be found in the Tivoli Business Systems Manager database's CL_Status table, after the cl_cacheGenericParents procedure completes, if the procedure is executed with a verbose output setting of 1.

Command usage from the SQL Query Analyzer:

```
exec cl_cacheGenericParents [verbose_output_setting]
```

For more information about generic resource placement, refer to "Placement of Instances in the Hierarchy" in the IBM Tivoli Business Systems Manager Administrator's Guide.

Performance considerations

When adding generic resources using XML, the location for each resource in the physical hierarchy is first determined by a physical placement rule. Physical placement rules are defined using the defineplacementrule command. If no applicable placement rule is defined for a resource, the traditional table-based placement algorithms (the GEM_EEhostToEnterprise, GEM_HostnameToLocation, and GEM_LocationToRegion tables) are used to determine the location of the resource in the physical hierarchy. Physical placement rules quickly perform the task of placing a resource in the physical hierarchy and use a lower database overhead than the traditional table-based placement processing.

For more information about the defineplacementrule command, see the IBM Tivoli Business Systems Manager Command Reference.

XML file format

The file created from the data contained in the operational repository consists of XML tags. The file contains a description of each resource. The resources created by the XML file are defined by a generic resource class in Tivoli Business Systems Manager. The generic class must be defined first using the gemgenprod command. See the IBM Tivoli Business Systems Manager Command Reference for more information about the gemgenprod command.

There must be an instance definition for each resource. The instance definitions are formatted as follows:

```
<inst>
   <prodver>resource_product_and_version</prodver>
   <instid>resource_instance_id</instid>
   <name>resource_display_name</name>
   <placement>physical_placement_rule_name</placement>
   <attr>
      <desc>resource_description</desc>
      <ostype>resource_operating_system</ostype>
      <EEhost>managing_TEC_hostname</EEhost>
      <TCPHost>resource_hostname</TCPHost>

      <MgedSystemName>resource_Tivoli_managed_system_name</MgedSystemName>
              <Data1>user-specific_data</Data1>
              <Data2>user-specific_data</Data2>
              <Data3>user-specific_data</Data3>
              <Data4>user-specific_data</Data4>
```

```
      <EPTTMR>managing_Tivoli_Management_Region</EPTTMR>
      <HeartbeatInterval>minutes_between_heartbeats</HeartbeatInterval>
    </attr>
</inst>
```

Where:

<inst> Indicates the beginning of a resource definition

<prodver>
The product and version of the class associated with the resource. The product and version values are associated with the Tivoli Business Systems Manager class, and were used as input arguments when the class was created. The classes were created using the gemgenprod.sh script. As an example, the previous sample would be associated with the Tivoli Business Systems Manager class created by the following command:

```
gemgenprod.sh -S abc -U 123 -P xyz -m 'IBM' -p 'xyzClass' -v '2.0'
```

This tag is required. The version is optional.

<instid>
The unique instance identifier for the resource. It should be the same value that is used on the ihstttec -i flag in the Tivoli Enterprise Console rule used to send Tivoli Enterprise Console events to Tivoli Business Systems Manager. The host name is often used for this value. The value has a limit of 425 characters. This tag is required.

<name>
The display name. This value has a limit of 54 characters. If a name is not provided, the <instid> value is used. However, because the <instid> value is up to 425 characters, using the default of the <instid> value can produce unexpected results.

<placement>
Specifies the physical placement rule that should be applied to this resource when the resource is created. This tag is optional.

<attr> Indicates that the tags that follow are attributes specific to this class. Each attribute has a tag name that is the same as the class attribute name. Attribute names in the Tivoli Business Systems Manager object model usually begin with an underscore (_), the underscore should not be included aspart of the XML tag.

<desc>
The description of the resource. This value has a limit of 255 characters and is optional. Text greater than 255 characters is truncated.

<ostype>
The operating system for the resource. Use the following valid numeric values:

0 aix4-r1

1 solaris2

2 w32ix86

3 os2-ix86

4 hpux10

5 hpux9

6 sunos4

7 win95

8 win3x

9 mips-irix5

10 nw3

11 nw4

12 nextstep3-ix86

13 osf-axp

14 u6000_svr4mp

15 sysv4-att

16 uw2-ix86

17 dgux5-ix86

18 dgux5

19 sysv4-m88k

20 os390

21 aix3-r2

22 Default

23 os400-v3r2

24 os400-v3r7

25 os400

26 nwr-ix86

27 os2

28 nt

29 linux-ix86

30 mips-reliant

31 nextstep-ix86

32 reliant-unix

33 sequent

34 solaris-ix86

35 generic

<EEhost

The fully qualified host name or IP address of the Tivoli Enterprise Console that is managing the resource. This value has a limit of 255 characters. Text greater than 255 characters is truncated. This value is required. This value should match the value used by Event Enablement when events are sent to TBSM.

<TCPHost>

The fully qualified TCP/IP hostname. This value has a limit of 255 characters and is required if the data warehouse is used.

<MgedSystemName>

The name by which Tivoli recognizes the system. For generic resources,

this would be the value of the hostname slot in a Tivoli Enterprise Console event. This value has a limit of 255 characters. Text greater than 255 characters is truncated. This tag is required if operational tasks are defined for the resource class.

<Data1> through <Data4>
User-specific data. Each value is optional and has a limit of 255 characters. Text greater than 255 characters is truncated. The <Data1> value can have special meaning. See the IBM Tivoli Business Systems Manager Command Reference for more information on the ihstttec command.

<EPTTMR>
The Tivoli management region that is managing this resource. This value has a limit of 255 characters. Text greater than 255 characters is truncated. This value is required if tasks are run against the resource.

<HeartbeatInterval>
The minutes between expected heartbeats. This value is an integer and is optional.

Method definitions

Method definitions allow class attributes to be set for the resource. Refer to the appendix in the IBM Tivoli Business Systems Manager Command Reference for the method definitions.

Action definitions

Action definitions describe what should be done with the resource described by an <inst> tag. These resources are created, deleted, or modified.

Add To create a resource, the <inst> tags should be enveloped with the following tags:

```
<tbsm:addObjectInstances>
</tbsm:addObjectInstances>
```

If the resource already exists, the resource is updated. The new instance definitions can contain different attribute values. Multiple sets of <inst> tags are inside of the addObjectInstances tags.

Delete To delete a resource, the <inst> tags should be enveloped with the following tags:

```
<tbsm:deleteObjectInstances>
</tbsm:deleteObjectInstances>
```

Multiple sets of <inst> tags are inside of the deleteObjectInstances tags. The delete definition is only valid for a delta transaction, type tecdelta or tecdeltaall on the enqueuecl command.

Modify
To modify an existing resource, the <inst> tags should be enveloped with the following tags:

```
<tbsm:modifyObjectInstances>
</tbsm:modifyObjectInstances>
```

Multiple sets of <inst> tags are inside of the modifyObjectInstances tags. Modify is only valid for a delta transaction, type tecdelta or tecdeltaall on the enqueuecl command.

Method

A method is run against the <instid> tag in the method definition. The <inst> tags should be enveloped with the following tags:

```
</tbsm:methodExecution>

</tbsm:modifyObjectInstances>
```

XML file sample

The following sample file creates two resources, and deletes one resource:

```
<tbsm:addObjectInstances>
             <inst>
                <prodver>xyzClass;2.0</prodver>
                <instid>resource1.xyz.com</instid>
                <attr>
                   <desc>Software level 3.1.0.522</desc>
                   <EEHost>tec1.xyz.com</EEHost>
                   <Data1>Joe's workstation</Data1>
                   <EPTTMR>tmr</EPTTMR>
                </attr>
             </inst>
             <inst>
                <prodver>xyzClass;2.0</prodver>
                <instid>resource2.xyz.com</instid>
                <attr>
                   <desc>Software level 3.1.0.522</desc>
                   <EEHost>tec1.xyz.com</EEHost>
                   <Data1>Mary's workstation</Data1>
                   <EPTTMR>tmr</EPTTMR>
                </attr>
             </inst>
          </tbsm:addObjectInstances>

          <tbsm:methodExecution>
             <methodgroupdefinitions>
                <methodgroup>
                   <instances>
                      <inst>
                         <prodver>xyzClass;2.0</prodver>
                         <instid>resource2.xyz.com</instid>
                      </inst>
                   </instances>
                   <methods>
                      <SetSendStateChangeEvent>
                         <StateChange>1</StateChange>
                      </SetSendStateChangeEvent>
                   </methods>
                </methodgroup>
             </methodgroupdefinitions>
          </tbsm:methodExecution>

          <tbsm:deleteObjectInstances>
             <inst>
                <prodver>xyzClass;2.0</prodver>
                <instid>resource1a.xyz.com</instid>
             </inst>
          </tbsm:deleteObjectInstances>
```

Changes to enqueuecl command

The enqueuecl command has the following two additional -t request type parameters:

tecdelta

Used for Tivoli Enterprise Console managed resources, the data in the XML file represents an update to the existing list of Tivoli Enterprise

Console managed resources for the specified registration name. The action taken (add, delete, or modify) is determined by the XML definitions.

tecdeltaall
Used for Tivoli Enterprise Console managed resources, the data in the XML file represents an update to the existing list of Tivoli Enterprise Console managed resources for the specified registration name. The action taken (add, delete, or modify) is determined by the XML definitions. The tecdeltaall request also affects resources that might have been created by a Tivoli Enterprise Console event processed by the Agent Listener.

Changes to querycltran command

The querycltran command has the following three additional return codes:

rc=7 The transaction is waiting to be preprocessed for Tivoli Enterprise Console hierarchy (applies to the tecdelta and tecdeltaall options)

rc=8 Preprocessing Tivoli Enterprise Console hierarchy (applies to the tecdelta and tecdeltaall options)

rc=9 Preprocessing Tivoli Enterprise Console hierarchy failed (applies to the tecdelta and tecdeltaall options)

Changes to LOBL link

The following parameters of the LOBL link definition have been modified:

<class>
Tivoli Business Systems Manager class (cname) with which the resource is associated.

- For the <tgt> endpoint, this value is always LineOfBusiness.
- For the <src> endpoint, this is the class of the physical resource. If the <src> is a Tivoli Enterprise Console managed resource, then <prodver> can be used instead of <class>. In this case, the product version (version is optional) is provided instead of the cname.

<instid>
The unique instance identifier for the resource. For a business system, this value should be the same as the <instid> value that was used when creating the business system. For example, the <instid> value included in the <inst> definition. If the <instid> value is not unique within the name space, then the resource uniqueness tags should also be used. The same resource uniqueness tags that were used when creating the business system should be used here.

For a physical resource, if the resource was created by the Common Listener, then use the Common Listener instance ID for the <instid> value. If the resource was created from a Tivoli Enterprise Console event (ihstttec command), then this should be the same as the value specified with the ihstttec -i parameter.

Changes to GENL link

The following parameter of the GENL link definition has been modified:

<instid>
The unique instance identifier for the resource. For a business system, this value should be the same as the <instid> value that was used when creating the business system. For example, the <instid> value included in the <inst> definition. If the <instid> value is not unique within the name

space, then the resource uniqueness tags should also be used. The same resource uniqueness tags that were used when creating the business system should be used here.

For a physical resource, if the resource was created by the Common Listener, then use the Common Listener instance ID for the<instid> value. If the resource was created from a Tivoli Enterprise Console event (ihstttec command), then this should be the same as the value specified with the stttec ihstttec -i.

Troubleshooting when Tivoli Enterprise Console managed resources are not in the TBSM database

If Tivoli Enterprise Console resources are not on Tivoli Business Systems Manager, run the querycltran command with the -d flag. This provides additional detail about the transaction. The states returned by the querycltran command provide the following information:

- If the state is 1, the process is queued for database processing.
- If the state is 3, there is probably a problem parsing the file.
- If the state is 4, the database is processing the request.
- If the transaction remains in a state of 1 or 4 for an extended period of time, or if the state is 3, refer to the section on Common Listener Problems in the IBM Tivoli Business Systems Manager 3.1 Troubleshooting Guide for information about resolving common listener queue problems.
- If the state is not 5 or 6, there is a problem processing the request.

If the detailed information returned by the querycltran command indicates that there are orphaned resources, then there is a problem with the link statements. If the link statements are incorrect, the resource is created but the parent is not known because of an incorrect link. Isolate the incorrect link statements, correct them, and then rerun the XML file.

If Tivoli Enterprise Console resources do not exist, and the querycltran command indicates that the transaction is either in state 2 or the transaction does not exist, check the common listener log file to see if the data has been received and processed successfully by the database. See the IBM Tivoli Business Systems Manager 3.1 Troubleshooting Guide for information about resolving common listener queue problems.

In the directory from which the enqueuecl command is run, the directory hostname .ENQUEUECL.QM is created by the MQe queue. This directory holds the request until it is delivered to the common listener. Verify that the directory and its subdirectories are empty. If they are not empty, then the data has not been delivered to the common listener. Verify that the server address and port number in the properties file are correct. The server address should match the values defined in the ASICommonListener.properties file.

In the directory from which the querycltran command is run, the directory hostname .QUERYCLTRANS.QM is created by the MQe queue. This directory holds the request until it is delivered to the common listener. Verify that the directory and its subdirectories are empty. If they are not empty, then the data has not been delivered to the common listener. Verify that the server address and port number in the properties file are correct. The server address should match the values defined in the ASICommonListener.properties file.

Running the importlobfromxml script with large file sizes

For customers running the importlobfromxml script with large file sizes, update the following properties in ASICommonlistener.properties file when any problems are encountered during processing:

- com.tivoli.tbsm.commonlistener.CL.transactionTimeOut=480
- mx=512000000

After updating the properties, recycle the Tivoli Business Systems Manager common listener service and retry the operation.

SetBSPriority method:

Command line interface:

SetBSPriority.ksh:

Purpose

The SetBSPriority.ksh command sets the Priority attribute to control propagation of child events from this Business System. The set request is processed asynchronously to the command completion.

Syntax

```
sh SetBSPriority [ [-S<DBserver>] [-E | [[-U<DBuser>] [-P<DBpassword>]]] ]

      [-f<input_file>]

                                        OR

[
       { {-c<resource type> {-r<resource id> | -i<instid> [-u<uinstid>]}} |
         {-p<prod> [-v<ver>] {-r<resource id> | -i<instid> [-u<uinstid>]}} |
         {-o<resource path> [-m<max resources>]} }

       -t<priority>

      ]
```

Parameters

Database connection options:

-S Specifies the name of the database server to which to connect. The default is the Tivoli Business Systems Manager database server which can be overridden by the environment variable, tbsm_server.

-U Specifies the user name to use to connect to the database. The default is the Tivoli Business Systems Manager database user. You can override the default by using the environment variable, tbsm_userid. Otherwise, the program tries to connect to the database using built-in security.

-P Specifies the password to use to connect to the database. The default is the Tivoli Business Systems Manager database user. You can override the default by using the environment variable, tbsm_password. This parameter can be specified only if the -U option is also specified.

-E Uses trusted access to connect to the database.

Resource identifiers:

-c Specifies the Tivoli Business Systems Manager resource type identifier. It can be the four-character abbreviation or the full name. An example is MACH or MACHINE for machine.

-r Specifies the ID. The ID is the resource identifier that Tivoli Business Systems Manager generates.

-i Specifies the unique identifier given when the resource is created with the <instid> XML message.

-u Specifies an additional qualifier for the inst_id value.

-p Specifies the name of the Tivoli software component product. This type of identifier is associated with distributed resources with dynamically-generated CIDs.

-v Specifies the version for the distributed product.

-o Specifies the path that uniquely qualifies the resource (instance). The syntax of the resource path is a comparison operand, followed by a pattern. The operands and pattern are based on SQL syntax. The comparison operands include:

- LIKE
- NOT LIKE
- =, <>, >, <. >=, <=

The pattern can include the following valid SQL wildcard characters:

- % To include any string of zero or more characters.
- _ To include any single character.

An example of the resource_path value is ″LIKE ’%/fredcics4 ’″ and ″=’/fredlob3/fredos3/fredcics_’″. The pattern is enclosed in single quotation marks, and the resource_path value is enclosed in double quotation marks.

-m This flag is associated with the objpath parameter. The parameter indicates how many resource resolutions are allowed. The default is 1.

0 Resolve to only one resource. Error if more than one.

1 Resolve to only one business system. Error if non-business system.

2 Resolve to multiple business systems. Non-business systems are ignored.

3 Resolve to multiple resources

Additional parameters:

-t The priority of the Business System. It can have the following value (not case sensitive):

- Critical or C or 1
- High or H or 2

- Medium or M or 3
- Low or L or 4
- Ignore or I or 5
- InheritFromEvent or E or 6

-f Specifies an input file containing a set of resources for which the Priority is set. This option is mutually exclusive with the other parameters (except the database options). The file is an XML file with the following valid tags for each resource. The value for each XML structure corresponds to the previous option descriptions. The resource path should not be delimited by double quotation marks (....) because the <objpath> and </objpat> replace the double quotation marks as delimiters.

```
<methodgroup>

       <instances>

         <inst>

           <class></class>or <prodver></prodver>
           <oid></oid>or <instid></instid><uinstid></uinstid>
           <objpath></objpath><nflag></nflag>
         </inst>
       </instances>
       <methods> <methods>


           </ NewPriority >
         </ SetBSPriority >
       </methods>
     </methodgroup>
```

The <inst> and <methodgroup> groups can occur multiple times.

-? Provides help for this command.

Examples:

In the following example, when the an event is received by the Business System with the resource id of 54, a child event is not generated (the event is ignored).

```
sh  SetBSPriority -c LOB -r 54 -t 5
```

Results:

If errors occur running a command, the instances and method parameters are displayed with the corresponding error information in <errordesc></errordesc> tags. See ″SetBSPriority.ksh″ for more information about the output format. If errors occur running non-command interfaces, issue the querycltran command or query the CL_Status table in Microsoft SQL Query Analyzer to view the error information.

XML Tags and parameters for SetBSPriority

Purpose

The following method XML sets the Priority attribute to control propagation of child events from the business system specified in <inst> tag of that methodgroup definition. See the Command Reference document for more information about the <inst> and <methodgroup> tags.

Valid tags:

```
<methods>
        <SetBSPriority>
                <NewPriority>string</NewPriority>
        </SetBSPriority>
</methods>
```

NewPriority Tag

New priority assigned to the Business System.Values (not case sensitive):

- Critical or C or 1
- High or H or 2
- Medium or M or 3
- Low or L or 4
- Ignore or I or 5
- nheritFromEvent or E or 6

ABS parameters for SetBSPriority

There is a new SetBSPriority section in the ABS configuration file. This is a new section representing the _SetBSPriority method. It is only applicable to the Business System class of objects.

Table 3. ABS parameters for SetBSPriority

Name	Description	Examples
Instance	A string value used to identify this particular instance of parameters. Must be unique to the section.	OS Priority
NewPriority	See NewPriority parameter of SetBSPriority method above.	L Ignore

Example:

```
SetBSPriority
Instance         NewPriority
LowPriority      L
IgnorePriority   Ignore
```

RODM users

If you want to use the RODM feed, you will no longer have the option of inserting the SNA/APPN Network resource and the GMFHS Aggregate resource under an OS or LPAR in the physical tree. However, you will still be able to insert these resources under a Machine, Complex or Enterprise.

If you have inserted the SNA/APPN Network resource and/or the GMFHS Aggregate resource under an OS or LPAR prior to applying this Interim fix and you plan to perform RODM failover, you will need to delete the SNA/APPN Network resource and/or the GMFHS Aggregate resource from the JAVA Console. Once this is done, you can insert the SNA/APPN Network resource and/or the GMFHS Aggregate resource at a higher level in the physical tree, and then use the RODM feed successfully, including RODM failover.

If you do not plan to perform RODM failover, you will not be affected, and no action is necessary.

If you have previously inserted the SNA/APPN Network resource and/or the GMFHS Aggregate resource higher in the physical tree than the OS or LPAR, you will not be affected, and no action is necessary.

Tivoli Workload Scheduler users

The default action for the Tivoli Workload Scheduler adapter is to automatically monitor three Tivoli Workload Scheduler events for Batch Jobs and three for Streams/Schedules. The Tivoli Workload Scheduler events that will automatically be monitored are the Started, Ended, and Abended events (Event IDs 101, 103, 104 for Jobs and 151, 153 and 154 for Streams).

If you want to monitor the other possible 50 event types, you need to enable them in the Adapter Database and let Tivoli Business Systems Manager know that you want to trap them (assuming these are already being produced by Tivoli Workload Scheduler in the event.log file).

The enabling process is as simple as issuing a SQL command against the Adapter..EventRecognizer and Adapter..EventParser tables to change the EvtSource field values from ″_TWS″ to ″TWS″ for example:

```
UPDATE Adapter..EventRecognizer SET EvtSource = ″TWS″
        WHERE EvtSource = ″_TWS″ AND EvtCat = ″TWS:109″
UPDATE Adapter..EventParser SET EvtSource = ″TWS″
        WHERE EvtSource = ″_TWS″ AND EvtCat = ″TWS:109″
```

Of course, the above makes the assumption that Tivoli Workload Scheduler is already recording the 109 event type to the event.log file where the Tivoli Workload Scheduler Adapter will be extracting its information. Please refer to Tivoli Workload Scheduler BmEvent.conf file for enabling the recording of Tivoli Workload Scheduler events to the event.log file.

SA390 users

After this fix pack is applied users can run stored procedure asisp_cleanupSA390LOBLinks using Query Analyzer to remove all non Aggregate resources discovered under the ″System Automation Resources″ Business System View.

1. Open Query Analyzer and verify the ’Object’ database is used.
2. EXEC asisp_cleanupSA390LOBLinks

Users who want to prevent the SA390 discovery feed in Tivoli Business System Manager from generating non-Aggregate resources under the ″System Automation Resources″ Business System view must ensure the ″Restrict″ rule is set to where action is DISCARD in the SA390ResourceTypeMap table as follows.

UPDATE SA390ResourceTypeMap SET action=’DISCARD’ WHERE name = ″Restrict ’System Automation Resources’ Business System to SA/390 Groups only″

Any Business Systems created by SA390/Tivoli Business Systems Manager discovery process will need to be recreated if asisp_cleanupSA390LOBLinks procedure is executed.

SQL Server Enterprise Manager users

To manually run the asisp_populateObjPathCache process, stop and disable the job Update ObjPathCache through the SQL Server Enterprise Manager.

To ensure the job is stopped and disabled, the process asisp_populateObjPathCache asks for confirmation and informs the Administrator that the process needs to be run with the @stop_update=2 input parm.

For example, EXEC asisp_populateObjPathCache @stop_update=2

Tivoli Business Systems Manager Failover Enhancements

Automatically propagate new SQL jobs to the secondary site

A new SQL job, TBSM Log Shipping Export SQL Jobs, is created on the primary database server during the failover configuration and is enabled when the log shipping is initiated. This new job is scheduled to run once a day to save the SQL job definitions to the Object database. The SQL job definitions will then get synchronized along with all other databases transactions through the log shipping process between the primary and the secondary database servers.

During a failover, the job definitions will be restored onto the msdb database from the Object database on the standby database server. If a SQL job already exists on the standby database server, it won't be replaced by this process. Extra jobs manually created on the secondary database server will be untouched during failover.

The automatic SQL jobs replication is supported only on the database server. For the new jobs created on the history server database, manual jobs replication will still be required.

Gracefully abort Log Shipping

A new option **-A** has been added to the fo_logship.ksh script to gracefully abort the log shipping process and bring both the secondary database and history servers read-only mode.

Support XML Tool kit service failover on Windows platforms

A new optional server role ROLE_XMLToolkit has been added to the failover configuration to include the XML Toolkit service failover (for Windows platform only). The XMLToolkit service configuration should be done in both the primary and the secondary servers. Failover script will not copy any of the configuration files from the primary server to the secondary server during failover.

Remove TSDMonitor role

Because ASITSDEventHandlerSvc is no longer shipped with Tivoli Business Systems Manager releases, failover no longer supports of the ROLE_TSDMonitor server role.

Chapter 3. Known problems and workarounds

This chapter describes known problems and workarounds.

OA14606

Problem ticket icons are orphaned on some objects

Problem icons appear next to resources that do not have open problem tickets associated with them. (This affects you if you use the problem ticket function.)

To correct this problem an SQL script, oa14606.sql, was developed. The oa14606.sql script identifies two categories of Tivoli Business Systems Manager resources that have problem icon flag checked and corrected, if needed:

- Resources that currently have no Open notes that have problem ticket values in the _ProblemID columns and the problem icon flags are set to 1.
- Resources that currently have no notes at all and the problem icon flag is set to 1.

Running the oa14606.sql script corrects these issues during a two-step process. The first step fixes those resources that fall into the first category, and the second step corrects the issues with resources that are in the second category.

Note: Backup all databases before running the oa14606.sql script.

1. Start MS SQL Query Analyzer and connect to the TBSM Database server.
2. Open the oa14606.sql script file and execute it by pressing F5, clicking the "Execute Query" button on the toolbar or pressing Ctrl+E

As the script is running, it generates output in the output window to indicate its progress. The script should complete without errors. If it doesn't, scroll through the output until you see the red error(s) and if there is corrective action you can take, correct the problem and re-execute the script. If there isn't a corrective action to take, copy the contents of the output window to a file and forward it to Tivoli support.

The two steps in this script has been observed to take approximately 10 minutes to complete on a basic desktop machine against a production copy of the Object database. The Object database tested contained approximately 64,000 distinct resources to check. Step 2 is much longer that step 1 and progress indicator output is displayed every 100 resource checked.

144231 DBCS INSTALL: Language Support installer hangs during install.

On rare occasions, the language support installer will hang when upgrading the database. The cause of this is an isqlw process that remains active even after completing its processing. Once this isqlw process is terminated from task manager, the database upgrade continues. This is because of a known Microsoft problem described in this article:

http://support.microsoft.com/default.aspx?scid=kb;en-us;830767

To resolve this issue, obtain the HotFix from Microsoft pertaining to this problem and install it. The language support install will not hang after the HotFix has been installed.

144312 DBCS WEBSPHERE: On DBCS testbeds cannot control WAS as a service

This problem is from WAS Windows Service code that cannot get the process id information from the SystemOut.log file due toa parsing error that only occurs in DBCS locales. The fix for this issue has been integrated into 5.0.2 release. So this fix already exists in a Tivoli Business Systems Manager environment as it prereqs WebSphere 5.0.2.6. However, the WAS Windows Service needs to be regenerated by running the WASService command. Here is an example:

```
C:\WebSphere\AppServer\bin\WASService.exe -remove <service name>

C:\WebSphere\AppServer\bin\WASService.exe -add <service name>
 -serverName server1 -logRoot "C:\WebSphere\AppServer\logs\server1""
```

When recreating the WAS service, ensure that you change the login account for the service to be the WAS account you created before the install. You also need to configure the service to auto start.

144406 DBCS XML: File is exported with Shift-JIS by exportlobasxml.sh

The following encoding is defined at the top of the exported XML file, so the file should be encoded by UTF-8:

<?xml version=″1.0″ encoding=″UTF-8″?>

However, the file is actually written in Shift-JIS (Japanese Windows encoding).

144742 DBCS: Mozilla will not start on Japanese RHEL2.1

The problem can be resolved by downloading and installing a language-specific Localization Pack for the appropriate Mozilla version. For some reason, the Localization Packs distributed with RHEL 2.1 as re0810 are either incomplete or otherwise faulty. Once the matching Localization Pack is installed, the problem goes away. There is no need to remove the ~/.mozilla directory and thus jeopardize user data for Mozilla itself and other Mozilla-based applications.

The basic steps for fixing the problem are as follows:

1. As root, run the following command:

   ```
   env LANG=en_US mozilla &
   ```

   # to start Mozilla in an English language environment, regardless of overall locale settings
2. Select **Edit –> Preferences** from the Mozilla menu.
3. Expand the Appearance category in the left-hand Category pane.
4. Click the Languages/Content option in the Appearance category. You will notice that no language pack or content pack for your language is listed.
5. In the right pane, click **Download More** under the Installed language packs: box. This will take you to a Mozilla Web site from which you can install additional language packs directly.

6. Find the latest version for the language you want. The information is presented in a four-column layout, as follows:

   ```
   <Version>    <Language>  <Language Pack link>  <Full Installer link>
   ```

7. In the case of Japanese for Mozilla 1.4x, you will find:

   ```
   Mozilla 1.4.2  Japanese  mac/unix/win  <list of platform-specific installers>
   ```

8. Click the link in the <Language Pack link> column.
9. Click **OK** on each of the next message panels (expect to see 3 of them).
10. Close Mozilla.
11. Restart Mozilla under the desired user ID and locale in the usual way (clicking desktop icon or executing mozilla & from the shell).

145804 DBCS Executive View: Date format not using defined locale.

The date format, in both Flash and HTML Executive View consoles, is mm\dd\yy even on a Japanese system where the locale specifies the yy\mm\dd format. In the Flash console, this format is also incorrect in the fly-over.

145957 DBCS Executive View: API trace configuration Web page is not translated.

The Web page used to setup an API trace for the Executive view is not translated.

146256 DBCS Event Enablement: Uninstall of Language Support for Event Enablement does not remove the entry from the Tivoli Framework database.

If the Event Enablement Language Support is uninstalled, the entry for the Language Support will still be listed in the Tivoli Framework database, so you may see an entry similar to the following remain:

1505382099.1.759#TMF_Install::ProductInfo# TBSM_TGM_JA_3.1

156807 DBCS Task Assistant: Some help text is not aligned for traditional Chinese

Some user assistance that is displayed in the Task Assistant in fonts that are bold or italicized, and also some text that is within ordered lists could display out of alignment relative to adjacent text.

156431 If the Reporting system is configured to point to the primary database (as default database), you could get an error similar to the following error:

Invalid column name 'extended_attr

after applying fix pack 2.

The TBSM Reporting System uses 2 named database connections. The connection named ***LiveData*** should be configured to connect to the Object database on the TBSM database server and the connection named ***DefaultData*** should be configured to connect to the Object database on the TBSM History Server.

The ***LiveData*** connection is used by reports that are defined as ***operational*** and require real-time data.

The ***DefaultData*** connection is used for reports that are defined as ***historical***.

Prior to the database changes made in fix pack 2, configuring the ***DefaultData*** connection to connect to the Object database on the TBSM Database Server did not cause an error within the Reporting System. After fix pack 2 is applied to the Object database on the TBSM Database Server, configuring the ***DefaultData*** connection to connect to the Object database on the TBSM Database Server causes ***historical*** type reports to fail with an invalid column error.

The solution to this known problem is to do the following:

- Configure the connection named ***LiveData*** to connect to the Object database on the TBSM database server
- Configure the connection named ***DefaultData*** to connect to the Object database on the TBSM History Server.

Problems and workarounds

Tivoli Business Systems Manager console

Problem:

Depending on your configuration, drag and drop might not work on consoles that are installed on the Solaris operating environment.

Workaround:

If drag and drop does not work, use the Copy and Paste actions that are available from the resource's context menu.

Reporting System

Problem:

After installing and configuring the TBSM 3.1 Fix Pack 2 Reporting System and attempting to run a report, the following error occurs:

-2147286781 Can't save. Can't save'

This error is caused by the IUSR_<machinename> account not having sufficient rights to create files in the <TivoliManager>\ASIReports\ ASIWeb\temp folder on the TBSM 3.1 Reporting System server. This folder is used to save working files that are used during report processing.

Workaround:

1. On the TBSM Reporting System server (where IIS and the Reporting System are installed), use Windows Explorer to navigate to the <TivoliManager>\ASIReports\ASIWeb\temp folder.
2. On the Security tab for the <TivoliManager>\ASIReports\ASIWeb\ temp folder, add the group *Everyone* and give the group *Full Control* permission for this folder.
3. Give *Full Control* permissions for *Web Applications* and *Web Anonymous Users*.
4. Save the new permissions and close all copies of Internet Explorer that might be accessing the Reporting System.
5. Try to run a report again. If the error persists it might be necessary to restart IIS and/or restart the IIS server.

Chapter 4. Changes to the TBSM 3.1 Library

This chapter describes some revisions to the information in the IBM Tivoli Business Systems Manager v3.1 library.

Installation and Configuration Guide

Chap 1, p 13, Table 12. Console hardware and software specifications

Because Windows NT® is no longer supported, remove **Windows NT V4.0 with Service Pack 6a.**

Introducing the Consoles

Chap 2, p 3, Table 1. Instructions for starting the console

Solaris operating environment starting instructions:

1. Open a command prompt.
2. Change to the installation directory.
3. Enter this command:

   ./TBSMConsole.sh

Administrator's Guide

Chap 1, p 17, Controlling the Number of Resources in the Maintenance State

The last sentence of the first paragraph contains an error. The paragraph and the example that follows it should read as follows:

You can place a limit on the number of resources that can be placed into maintenance mode using a single GTMMAINT event. An entry in the SystemConfiguration table of the Tivoli Business Systems Manager database sets this limit. The *groupname* value for this entry is set to `Maintenance` and the *propertyname* value is set to `MaintenanceLimit`. To disable future GTMMAINT messages and placing any resources into maintenance mode, set the *MaintenanceLimit* value to 0 (zero) as in the following example:

```
EXEC
_SetSystemConfiguration @groupname = 'Maintenance',
@propertyname = 'MaintenanceLimit',
@propertyvalue = '0',
@propertydatatype = 'INT'
```

Chap 2, p 71, Assigning Roles

Add the following note after Table 19:

Note: To specify a menu item as an operator task, blank the security flag for the menu item by setting it to '' using sp_definemenuitem. For more information on using the sp_definemenuitem command, refer to the Tivoli Business Systems Manager Command Reference.

Chapter 15, page 350, Creating a Dynamic Resource Hierarchy Definition File

The example dynamic resource hierarchy definition file that follows paragraph five contains some typographical errors and should be replaced with the following example:

```
include(BusinessObject.sqi)
BEGIN_DYNA_OBJ_PATH(NORTHERN PAYROLL, Group all payroll applications)
    DYNA_OBJ_PATH(BUSC, BUSC)
        DYNA_OBJ_PATH(ENT, ABC Insurance Corporation)
            DYNA_OBJ_PATH(COMP, Northern)
                DYNA_OBJ_PATH(MACH,Machine 1)
                    DYNA_OBJ_PATH(LPAR, LPAR 1)
                        DYNA_OBJ_PATH(OS,OS1)
                            DYNA_OBJ_PATH(BCYS, OS1, OPC applications owned by PAYMSTR)
END_DYNA_OBJ_PATH(NORTHERN PAYROLL)
BEGIN_DYNA_OBJ_PATH(Batch Print Jobs, Groups all batch print jobs)
    DYNA_OBJ_PATH(LOBC, LOBC)
        DYNA_OBJ_PATH(LOB, System Support)
            DYNA_OBJ_PATH(LOB, Printers)
                DYNA_OBJ_PATH(LOB, Batch Jobs)
END_DYNA_OBJ_PATH(Batch Print Jobs)
```

Command Reference

Chapter 2, page 16, asisp_definemenuitem

Replace the text that describes the *override* parameter with the following: text:

Specifies which menu item to override. Use the following format that uniquely identifies the menu item to be overridden:

```
"<obj_cid>/<obj_id>/<name>"
```

Specify NULL if this is a new menu item

Chapter 2, page 17, asisp_definemenuitem

Add the following text to the **Examples** section:

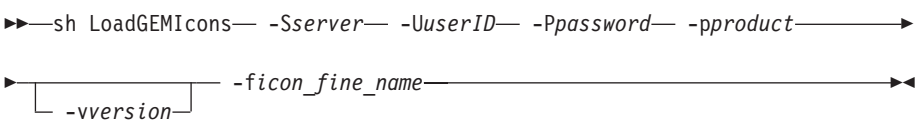
The following example updates the security flag to 'object_manage, for an existing menu item. Setting the security flag to a non-blank value has the effect of making it available to Administrators only.

```
exec asisp_definemenuitem 'Explore','OS',0,'Explore',nnnn,NULL,
'C:\Progra~1\Plus!\Micros~1\iexplore.exe','OS/0/Explore','object_manage',0x50000002
```

Where *nnnn* is the ID of the menu item ***Command***, that was created in the first example.

Chapter 5, page 139, loadgemicons.ksh

The syntax diagram should indicate that the -vversion parameter is optional. Following is the correct syntax diagram for script loadgemicons.ksh:



-v*version*

Specifies the version of the Tivoli software component product. This is an optional parameter.

Chapter 5, page 148, TllParser.sh: Document length restriction for menuitem

Note: The name and control id for menu items in the .sqi file, generated by TllParser.sh, have a length restriction of 22 characters. The name and control id generated have following format:

4 characters for object cid + '_' + 16 characters for task name + '_'.

If the task name is longer than 16 characters, then the first 8 and the last 8 characters of the task name are concatenated and used instead. Therefore, for task names longer than 16 characters it is important to make the string that is formed by the first 8 and the last 8 characters of the name unique.

Troubleshooting Guide

Chapter 4, page 80: Health Monitor Service

The example command in Step 2 contains a typographical error; following is a correct example of the command:

```
sh  -xvf  HMSQueries.ksh  -k <HMS server name>   >   HMSOUT.txt  2>&1
```

Guide for Warehouse Pack, Version 3.2.0.0, using Tivoli Data Warehouse, Version 1.2

Chapter 3, page 32: Product notes and limitations

In paragraph 3 the change time system variable is stated incorrectly. The correct system variable to configure is the GMT_CHANGE_TIME system variable. Following is a detailed explanation of the usage for the GMT_CHANGE_TIME system variable.

The Tivoli Business Systems Manager program uses the local time, as determined by the settings in the Windows operating system. But the Tivoli Data Warehouse program requires that all date timestamps be in Greenwich time, which is sometimes referred to as GMT (Greenwich mean time). Therefore, when moving any result sets from the Tivoli Business Systems Manager databases to the Tivoli Data Warehouse databases, the time values must be converted to GMT. Converting to GMT creates issues when running ETL stored procedures that have date timestamps in the Tivoli Business Systems Manager database that reflect Daylight Savings Time adjustments.

For example, assume that the Tivoli Business Systems Manager database server is configured to use Daylight Savings Time (DST) in your timezone and that the DST clock adjustments occur March 27, and October 30, at 2 AM.

In this example, data in the Tivoli Business Systems Manager database server that occurs before 2 AM on the above two dates requires a **different** time adjustment in GMT than those events that occur after 2 AM.

The different time adjustments are required because the date conversion process uses a value returned by the Windows operating system to determine how much time adjustment is required to convert a timestamp to GMT time. But, the value returned is based on the current datetime as configured in the Windows operating system. There is no function to call with a specific datetime and return the adjustment factor as required as that specific datetime.

If only one value is used to convert the timestamp records to GMT during the ETL run on the two days of the year when DST time changes can

occur, we would have the incorrect GMT time for those records that occurred before datetime March 27 and October 30 at 2 AM. Those records should be converted to GMT using the adjustment that was required before that datetime.

So, sometime before running the ETL when the time change occurs on March 27 and on October 30 (preferably several days before), you should execute the following from the SQL Server Query Analyzer:

```
_SetSystemConfiguration  ROOT , 0,  TWH ,  GMT_CHANGE_TIME ,
<date time>, DATETIME
```

where <date time> will be respectively '2005-03-27 02:00:00.000' and '2005-10-30 02:00:00.000'.

The ETL can then use the old GMT adjustment to correctly set the time values being sent to the Tivoli Data Warehouse, depending on whether or not those time values are before '2005-03-27 02:00:00.000' and '2005-10-30 02:00:00.000' or after that time on those dates.

Chapter 3, page 33: Central data warehouse sizing

Replace the corresponding information in the guide with the following information:

Disk Space column – Component

To calculate disk space, use the following formula:

```
<Number of components>* 1.3 (KB)
```

Disk Space column – Measurement

Find the number of business system components by running the following query in the Tivoli Business Systems Manager database:

```
SELECT COUNT(*) FROM LineOfBusiness_V WHERE deleted = 0
```

Calculate the disk space for the measurements using the following formula:

```
<Number of business system components + number of average state changes per day >
* <Number of days data is retained in the TWH_CDW database in Table 2 on page 32>
* 118 bytes / 1,0240,000,000 (GB)
```

Estimate the number of average state changes per day by running the following query in the Tivoli Business Systems Manager database:

```
select count (*) / (select datediff (day, min(ctime) ,max(ctime))
from AlertstateHistory) from AlertStateHistory
```

Appendix A. APARs included in 3.1.0-TIV-BSM-FP0001

The following APARs were included in 3.1.0-TIV-BSM-FP0001. APARs that are new in fix pack 2 are listed in Appendix B, "APARs included in 3.1.0-TIV-BSM-FP0002," on page 75.

OA08225:

TROUBLE TICKETS NOT CLOSING AUTOMATICALLY

Problem tickets do not close in all circumstances. Some tickets do not close in TBSM even though they have been closed in the Change/Problem application.

OA08328:

If you use the reporting system and run the New Resource report, might get a 'No records found' message even though there is resource data that matches the parameter values in the report.

OA08781:

tbsmadapter maintains the state of the tbsmtopo process even if tbsmtopo has been restarted.

OA08792:

When the description field in a create problem request exceeds 60 characters, the data passed to the problem ticket application is split in to multiple lines. If the 60th character is a blank, the blank space is stripped off, and then if the problem ticket application attempts to reconstitute the description, the blank is missing and this causes words to merge together.

OA08915:

Internal task names (mname symbolic in the template files) are truncated above 18 characters. In some cases, this results in task names that are not unique, so tasks are not defined correctly. If the parser detects that a symbolic task name in the TLL file contains more that 18 characters, a two digit numeric value is added to the end of the symbolic task name and to the procs it generates.

OA08983:

When a TEC 'closed' event is processed in the same SEL batch as an 'open' for another resource, it causes an 'empty' note to be created on a resource with no associated event. The 'CLOSED' event has to be for a resource that has a corresponding 'OPEN' event; no 'ACK' event came in after the 'OPEN.' Additionally, if 2 'CLOSED' events come in for 2 different resources but the events have the same eventhandle, serverhandle, tecclass, and datereception fields, AND they are processed in the same SEL batch along with an 'OPEN' event for a third resource, one of the 2 'CLOSED' events will not correctly clear the event from its associated resource.

OA09083:

When running the 'Remove Deleted Resources' SQL job, it fails with the following errors:

- Server: Msg 547, Level 16, State 1, Line 1 DELETE statement conflicted with COLUMN REFERENCE constraint 'opc_app_instance_btcy_id_FK'. The conflict occurred in database 'Object', table 'opc_app_instance', column 'btcy_id'

- Server: Msg 547, Level 16, State 1, Procedure tD_BCYS_BTCY_AGGC, Line 15 DELETE statement conflicted with TABLE REFERENCE constraint 'opc_app_link_link_FK'. The conflict occurred in database 'Object', table 'opc_app_link'.The menuitemcache cleanup job does not end and uses half of the processor resources.

OA09147:

The ipc_rc.log grows in size.

OA09302:

When running the Remove Deleted Resources" SQL job, it fails with the following error:

Server: Msg 547, Level 16, State 1, Line 1 DELETE statement conflicted with COLUMN REFERENCE constraint 'NVNO_A_FK' The conflict occurred in database 'Object', table 'NetViewNetworkObject_A', column 'id'. The statement has been terminated.

OA09510:

The following scenario results in a closed note without any event and a new note for the CRITICAL event, whereas the closed note should have the initial WARNING event attached to it and no note should be attached to the last OPEN CRITICAL event.

1. Send a TEC OPEN event.
2. Take Ownership of this event from the TBSM Console.
3. Send a TEC CLOSE event for the above OPEN event and another OPEN event with a different severity and process them in the same SEL batch.

OA09536:

The problem is due to the following deadlock when the Delete Orphaned Subsystems SQL job is run:

Server: Msg 1205, Level 13, State 50 Procedure tU_BATCH_C_cache, Line 40 Transaction (Process ID 127) was deadlocked on lock resources with another process and has been chosen as the deadlock victim. Rerun the transaction.

OA09721:

TBSM 2.1.1 (or higher) Intelligent Monitor for NetView is unable to forward IBM Tivoli Switch Analyzer 1.2.1 traps to TBSM CommonListener server.

OA09792:

Added support of Crystal reporting, which is optional in place of the typical reporting system. All of the existing historical reports are ported to Crystal, and 4 operational reports against the TBSM database are also available.

OA09799:

If AutoTicketing is configured to use batch mode, no <GUID>.batch.in files are created in the <TivoliManager>\data directory.

OA09808:

The makemvscomponentsdetail.ksh script used on win2003 running mks 8.7 to install basenames starting with the letter E might obtain corrupted registry Queue values in the QueuePath name value. The basename starting with E in the value is treated as the escape character corrupting the value.

The following services will not start.

- ASIMVSEventHandlerSvc-<basename>
- ASIMVSIPSenderSvc-<basename>

ASIMVSIPOSListenenerSvc will continue to run servicing other OS basenames that do not start with E. These basename services starting with the letter E will not connect.

OA09813:
All Tivoli Business Service Manager v 3.1 users who use the Problem Ticket GUI receive a cryptic error message. The error message shows the return code twice. The error message needs to show the text returned by the request processor.

OA09844:
When issuing abstest -t168 (or other combinations involving Pattern 168), the abstest would appear to hang. Whenever an entry in the CriteriaToPattern section uses the PatternRelated column, performance problems can surface when the number of resources in the related classes is high.

OA09872:
The following corrections made to both Business System Events and Physical Resource Events reports.

- Business System Events report:
  - Deleted resources are properly reflected in this report.
  - Duplicate events are not reported on where resources are posted in multiple business systems.
  - There is a new option to include deleted business system resources. It is located to the right of Show Machine / System. The text for this option states: Include Deleted Business Systems. When this option is selected, the resources that exist and those that were deleted that had events posted to them will be reported on.
- Physical Resource Events report:
  - Deleted resources are properly reflected in this report.
  - Show Machine / System check box is now aligned correctly on the Web page.

OA09892:
The number of OBJECT_DELETED records continuously grow in the Message_V table/view.

OA10028:
Common Listener receives 'unique key violation' when creating business system shortcuts via ABS.

OA10103
The General tab on the properties dialogue is missing for distributed objects if the language pack is used on the client but not on the TBSM database.

OA10155
Fixes connectivity failures when using svc_control.ksh utility service script.

OA10238
SA390 resources are discovered under the System Automation Resources Business System when the rule: 'Restrict System Automation Resources

Business System to SA/390 Groups only' is set where action is DISCARD in the SA390ResourceTypeMap table. These non-Aggregate Business System resources are not discarded.

OA10261

Cannot delete old dat files. When new dat files are generated after midnight and the ASIMVSIPOSListenerSvc service remains running, none of the dat files can be deleted.

OA10270

Event enablement memory leak causing event flow to stop. Memory leak is causing connection to stop.

OA10298

IEF402I MESSAGE NOT TRAPPED BY THE PUMP

Following is the description of IEF402I message:

- jobname FAILED IN ADDRESS SPACE ???
- SYSTEM ABEND S??? - REASON CODE ??

OA10300

Users taking ownership in Tivoli Business Service Manager of Tivoli Enterprise Console events found that the distinguished name was displayed in the Tivoli Enterprise Console console as the owner of the event and not the display name, even though the display name option was turned on. The distinguished name displayed in TEC was truncated at 40 characters.

OA10303

When transferring an ownership note in Tivoli Business Service Manager, the owner change was not reflected in Tivoli Enterprise Console.

OA10451

The Physical Resource Events report returns N/A for all machine names associated with the physical resources.

OA10473

The bldgemtasks.sh script incorrectly displays the directory path when the script is run, however, the script has always operated correctly. This APAR fixes the display of the directory path in the output.

OA10506

The exclude children option on the Business System Events report does not work. The Business System Events report returns the events of its children regardless that this option is checked.

OA10534

When a 2.1/ 2.1.1 EE sends events to a 3.1 AgentListener, @hostname is not added to the display name, which is the default in 2.1.1.

OA10560

Violation of primary key constraint, LOB_LINK_PK. Cannot insert duplicate key in object LOB_LINK during ABS creation process

ABS creation process job failed with the following error:

alobProcessQueueCreateLob (1 row(s) affected)
NO MATCHES AT® THIS LEVEL IN THE PATH
Server: Msg 2627, Level 14, State 1, Procedure asisp_init_lob_li

Line 219 Violation of PRIMARY KEY constraint 'lob_link_PK'.
Cannot insert duplicate key in object 'lob_link'.
The statement has been terminated.

OA10563

BATCH MANAGEMENT SUMMARY WINDOW NEEDS TO POPULATE TOTALRUNS GOODRUNS (TBSM BATCH SCHEDULER FEEDS FROM TWS)

A counter for the TotalRuns and GoodRuns columns for both the Batch Schedule and Batch Jobs was not available for Distributed Batch Feeds.

OA10575

In cases where CriteriaToPath section of the ABS config file is referencing CIDs having thousands of resources (i.e. STC, CICS), abstest takes hours to process.

O10576

ASISP_TGMTASK390 SCRIPT TRUNCATING LDAP DN @ 40 CHAR WHEN SENDING TO TGMTASK TO TRANSLATE TO NETVIEW USERID.

When using LDAP, distinguished names are used by the console for all authentication. The DN's over 40 characters are truncated.

OA10600

When migrating from TBSM 2.1.1 Fix Pack 6 to 3.1, step 130358 fails during the install process.

OA10618

If a TBSM JAVA Console user has expanded more than 10 nodes in a Tree view that is switched to a HyperView presentation, message GTMJC0706W is incorrectly issued when attempting to save the workspace.

OA10653

Historyserversetup.ksh fails because it is using trusted connections for the local server when the customer specified the -S, -U, and -P parameters.

OA10656

When Auto ticket is in batch mode, the TBSM job 'Auto ticket process output files' processes each '<unique_name>.batch.out' file. The job runs successfully & removes the '<unique_name.batch.out' file from the data directory, but the ownership notes are not being created.

OA10691

New business system shortcut is created empty after deleting a business system shortcut and its parent.

OA10706

JOB "RESTORE DATABASES FOR REPORTING SYSTEM" FAILS BECAUSE TRIES TO START OPTIONAL SERVICES

The IIS optional services

- msftpsvc - FTP Publishing Service
- nntpsvc - Network News Transfer Protocol Service
- smtpsvc - Simple Mail Transfer Protocol Service

are started by asisp_historyinit and these services might not exist on the history server.

OA10711

The Reason column on the Batch Management Summary window for the

pane showing the Batch Jobs did not match information being displayed for Non-Distributed Batch Feeds. This column needs to be the Workstation ID where the Batch Job executes.

OA10720

ASISP_DELETEOLDMESSAGES NEVER FINISHES

The 'Delete Old Messages' SQL job takes a very long time, causes heavy usage of CPU and never finishes.

OA10786

TWS BATCH MANAGEMENT SUMMARY WINDOWS SHOWS SOME STARTTIME

When processing multiple events in succession for the same Distributed Batch Object, latest StartTime, StopTime info is lost.

OA10858

PA_PROCESSPENDINGDELETES CAN CAUSE MSSQL DATABASE TO BLOCK WHEN IT IS PROCESSING A LARGE LIST OF OBJECTS

Propagation hangs and blocks everything in the database when a DB2 Data Sharing Group is deleted from the Console.

OA10966

PLACEMENT RULES MAY WORK IN A WRONG WAY IF ATTRIBUTES ARE USED FOR RESOURCES DIFFERENT THAN THE LAST BEFORE THE GENERIC ONE

When customer has placement rules in place for a resource, the resource is not created properly when ihstttect command is sent.

OA11044

Customer is unable to disable request processor calls on the Web console. This functionality is available on the Java Console, where the customer does not have to authenticate with the Request Processor each time a problem ticket is created.

OA11061

IMS™ AND DB2 BATCH DISCOVERIES ARE STAYING IN PSTAT OF **1** BUT THE DISCOVERIES WERE COMPLETED

pstat column in DiscoveryBatch table for IMS and DB2 records are not updated with value of **3** (COMPLETED). This causes an alert in Health Monitor.

OA11149

The current TWS Adapter being shipped with the TWS Distributed Software does not integrate properly with TBSM. It tends to flood TBSM with too many transaction events directed to the Common Listener and also does not properly manage the creation of TWS Objects in TBSM. Which is improperly creating new object instances every time a TWS Batch job and/or schedule has to re-run due to a failure. This in turn also causes the improper status display on the Batch Schedules which are constantly showing red (as we never get a clearing event for failed Batch Jobs/Schedules).

OA11181

HOSTCMD CORE DUMPS IHSSHSTC AFTER STARTING RESOURCE MODELS

When hostcmd is run from a framework task, the process ihsshstc (hostcmd) core dumps while processing the response from Host NetView.

OA11206

The ***Cleanup ObjPathCacheRun*** SQL job might fail because of a deadlock when it runs at the same time as the ***Update ObjPathCache*** SQL job..

OA11243

TBSM Console fails to launch the Internet Explorer Web Browser whenever the URL extension ends with **.htm** or .**html**.

OA11272

TASK SERVER: THE CONNECTION TO MAINFRAME DOESN'T WORK PROPERLY

Tasks issued from the framework were not completing.

OA11297

When TBSM Objects are deleted from the Physical tree, these objects remain on the LOB tree as ghosted resources even after the **Cleanup Deleted LOBs** job is run.

OA11408

ABS CONFIG FAILS TO LOAD WHEN LOB DESCRIPTION CONTAINS MORE THAN 128 CHARACTERS

ABS config fails to load when path description contains more than 128 characters. Via TBSM Console it is possible to enter more than 128 characters in the description field. Processing fails on procedure **alobLoadConfigBcp8, Line 246**. There you can see the limitation to **NVARCHAR(128)**.

OA11428

The Reporting System has lost the capability to allow one to select multiple alert states or priorities when generating a Business System Events report. The pull downs are only allowing a single selection.

OA11471

THE NOTE ID IS NOT BEING FOUND WHEN ASISP_CLOSEPROBLEMTICKET IS CALLED

Notes are not being closed when **asisp_closeProblemTicket** called.

OA11484

ETL: GTM_C10_S040_PROCESS_AVAIL_STAGING STEP 40 CHANGES EXTCTL_TO_DTTM VALUES CAUSING AMX NOT WORK

The purpose of this code is to correct the step that causes the update to EXTCTL_TO_DTTM so that it only updates the GTM step.

OA011527

CUSTOMERID TABLE DOES NOT SUPPORT NAMES LONGER THAN 30 CHARS

The purpose of this code is to increase the size of the CUSTID column in the CustomerID table. The previous default column size was 30 characters. This code expands that size to 255 characters.

OA11528

JOB ″DELETE OLD OBJECTEVENT RECORDS″ SHOWS FAILED.

The output View History is for step 1 Executed as user: Q8D32\tbsmadm. Invalid object name 'ASIPerfMonMsg'. [SQLSTATE 42S02] (Error 208). The step failed.

OA11536

DATE ERROR IN REPORTING SYSTEM: GETTING ERROR ″END DATE MUST BE GREATER THAN BEGIN DATE″ EVEN IF THEY ARE CORRECT.

This issue is related to the local settings of both the client and server. It is seen when customer is running with a non-US English locale.

OA11578

WHEN CLOSING TROUBLE TICKETS FROM THE TBSM JAVA CONSOLE THE CONSOLE WAITS AND PROCESSING DOES NOT OCCUR IN THE BACKGROUND

During the period of time that it takes the problem ticket to be closed, the user cannot perform other interactions with the console. The Note Properties dialog stays displayed and waits for the ticket closure to complete before dismissing or displaying an error message. Since TBSM is interfacing to an external problem management system, it can take awhile for the closure to be performed.

OA11614

PROCESSEDSTAGEDEVENT IS NO LONGER USED IN TBSM2.1.1, BUT THE CA7EVENT PROCESSING CODE IS CONTINUING TO INSERT INTO THIS TABLE

Removing table from affected procs and cleaning up table.

OA11656

WHEN ASKING REPORT ON A BS WITH THE 'INCLUDE DELETED RESOURCES' FLAG CHECKED, EVENTS FROM DIFFERENT BS ARE RETURNED.

When reporting events for deleted LOBs, duplicate events are displayed on the LOB Event Report.

OA11733

When using MKS 8.7, Operational task menu items are not created on resources after running the bldgemtasks.sh script.

OA11830

GETTING ERROR WHILE STOPPING THE TASK SERVER SERVICE AND WHEN TRYING TO START IT AGAIN THE TASK SERVER FAILS TO START.

When the task server has an active netconv with NetView, and the task server service is stopped, the task server does not stop cleanly. The service is eventually killed by the SCM and a message pop-up is displayed indicating that the service did not stop cleanly.

OA11891

OBJECT OF CLOSED EVENTS REMAINS RED

If SEL receives 2 closes for the same event, in 2 separated batches, we end up with a closed note for the exception, but the exception remains undeleted.

OA11963

TBSM 3.1 PRIMARY KEY CONSTRAINT IN SEL LOG CAUSED AT _CREATEOWNERSHIPNOTESBULK STORED PROCEDURE.

If duplicate ACKs are sent to TBSM from Tivoli Enterprise Console, Staged Event Loader encounters the following error : Server: Msg 2627, Level 14,

State 1, Procedure _CreateOwnershipNotesBulk, Line 179 Violation of PRIMARY KEY constraint 'PK__@oe__3B51FBCC'. Cannot insert duplicate key in object '#3A5DD793'.

OA12066

TWS ADAPTER LOOP FAILURE IN CHECKPROC SCRIPT

TWS Adapter for TBSM seems to go into a loop.

OA12074

TAKEOWNERSHIP WINDOW OUT OF SIZE IN MULTISCREEN JAVACONSOLE

TBSM 3.1 users with multi-screen console systems may experience a problem with excessive horizontal scrolling required on the Note Editor or Note Properties dialogs.

OA12243

AFTER TBSM 3.1 INTERIM FIX 4 INSTALLATION THE REPORTING SYSTEM DOES NOT RETURN EXCEPTIONS IN THE REPORTS

The Reporting System has lost the capability to display exceptions in the various reports.

OA12326

WHEN RECEIVING SENTRY EVENTS AND NO TCPHOST_211 PARAMETER IS RECEIVED, THE PARENT 'NODE' IS ALWAYS "DISCOVERED"

When DM events are sent to TBSM 3.1 using ihsztec, the resource is always placed under the discovered tree.

OA12493

ABSCONFIG.KSH SCRIPT DOES NOT ALLOW COMMENTS AND IS CASE SENSITIVE FOR THE HEADER SECTION.

absConfig.ksh fails to recognize file version information.

OA12572

REPORT DETAIL ONLY OPTION DOESN'T WORK FOR EXCEL EXPORT TYPE IN THE REPORTING SYSTEM

When exporting report contents to Excel, the report header text is included in the Excel spreadsheet when "Detail Only" is selected.

OA12749

TBSM 3.1 GENERIC RESOURCE DISCOVERY USING XML

This Interim Fix delivers support to add, update, and delete TBSM generic resources using XML. If your installation uses a repository to contain an inventory of the resources in your environment, you can extract the data from the resource repository and populate the Tivoli Business Systems Manager database with the resources that represent the resources managed by the Tivoli Enterprise Console (TEC). You can then use delta discoveries to add, update, and delete resources from the Tivoli Business Systems Manager database.

OA12752

PROBLEM WITH EXPORTLOBASXML COMMAND. IT DOES NOT CREATE OBJECT AS SERVICE IF IT IS NOT ASSIGNED TO AN EXECUTIVE USER.

A number of Business Systems are defined as services. However, not all of these services are actually assigned to a User. Only high level Business Systems are assigned to a User. Services defined at the lower levels are not assigned to a User.

OA12787

When asking for a report on Physical Resource events with the check on 'Include Children' a data truncation error is returned.

OA12829

VARIOUS DEFECTS IN XML IMPORT AND XMLTOOLKIT

- If the TBSM installation directory contains a space in one or more of the subdirectory names, running the enqueuecl command with the -v flag (verify), will result in the command failing because the script is unable to load the <installdir>/xml/lob.xsd file.
- Running importlobfromxml.sh script with a large import file, can result in the common listener running out of heap memory. The common listener will freeze when the memory uses reaches 100M. This occurs because the heap checking code checks after each message is processed. A problem occurs when messages are coming in at a very high rate, checking at just the msg level is not sufficient, as MQe is using more memory build its hash table of available messages, and the service is using more and more memory in the SQL batch sets. The solution is to limit the number of messages that can be put into the batch sets, shutting the MQe threads off when the batch set has reached its limit.
- Running importlobfromxml.sh with an import file containing threshold settings can result in the thresholds not getting properly imported when using importlobfromxml command. Error GTMPR1007E received. The problem occurs when thresholds are set for exceptions or child events on the physical resource, and then the physical resource is dragged into a business system.
- Running the importlobfromxml.sh with a large file can result in a deadlock in the database processing. Common Listener hangs (or never returns) when an LOB import of large size comes in. Specifically, in this case the SetBSPriority method is not returning as its in transaction code. So fixed the problem by removing transactions and also INSERT INTO #cl_status EXEC asisp_loadXXX calls in cl_processMethods proc.
- Sending XML TEC data via enqueucl can result in data from a particular instrumentation id from being processed if a rollback occurs for a transaction; a rollback being defined as invalid XML data being received and processed by the common listener.
- To increase performance of the Common Listener Service, the JITC has been enabled.
- Running the importlobfromxml.sh, not all of the LOBs were reinstantiated. Insert into CL_IDCache fails (in cl_processBulk procedure) with primary key violation when an object (inst xml) is sent with multiple instrumentationIDs.

OA12830

RESIZE EVENT IN EVENTVIEWER (TBSM CONSOLE) THE WINDOW

On any table in the JAVA Console, scrolling to the bottom of the table, selecting a row, then resizing a column will cause the focus to jump to the top of the table.With Tivoli Business Service Manager resources created by Tivoli Enterprise Console events, both generic events (ihstttec) and DM events (ihstztec) do not have the description attribute set on the resource.

The description attribute is the _Desc attribute in the database. This attribute is displayed both on the properties dialog and optionally in the fly-over text.

OA12846

MS SQL DATABASE ACCESS USER PASSWORD IS NOT ENCRYPTED IN TBSM CONFIG FILES FOR EXAMPLE ASIEIFSENDER.PROPERTIES.

This fix encrypts the database userid and password for the CommonListener, AgentListener, and EIFSender components that previously were stored in their properties file. It also removes the clear text information from a health monitor server file.

OA12896

SOME RESOURCE CAUSE A PROBLEM WHEN ATTEMPTING TO ADD THEM TO THE OBJPATHCACHE

Job 'Update ObjPathCache' seems to take too long to run after a run of the asisp_populateObjPathCache proc.

OA12939

REPORTS FROM REPORTING SYSTEM AND FROM CRYSTAL REPORTS ARE DIFFERENT USING TBSM WEP 3.2.

This fix corrects the following steps:

- GTM_C10_S040_PROCESS_AVAIL_STAGING -- use the twg.msmttyp table instead of the twg.cur_msmttyp view
- GTM_M10_S020_PROCESS_RESOURCES_STAGING --insert distinct data from the GTM.stg_d_comp_path table

OA12963

THE IHSTTTEC.EXE CODE BREAK (DR.WATSON ON WIN2000) AFTER 211- FP9 IS INSTALLED AND EXEC_PROGRAM_LOCAL IS USED IN THE TEC RULES

If in the reception action of the TEC rule that forwards events to TBSM, one calls exec_program_local instead of exec_program, if one is running with code >= 2.1.1-BSM-0009, ihstttec (or any TBSM executable that is called from the rule)will crash.

OA12965

AE OA11272 FIX COMPLETION

When customer installs 3.1.0.0-TIV-BSM-LA0053 on his Linux machine, the following files are erroneously deleted:

- TDS/EventService/ihstetec
- TDS/EventService/ihstitec
- TDS/EventService/ihstmtec
- TDS/EventService/ihststec
- TDS/EventService/ihstctec
- TDS/EventService/ihstztec
- TDS/EventService/ihstttec

OA013016

DEADLOCK IN ALOBPROCESSEVQUEUEOBJECT

The ABS discovery job deadlocks with itself on a multiprocessor machine.

OA13049

MAKEMVSCOMPONENTS DOES NOT ACCEPT -M VALUE FOR HEALTH MONITOR SERVER

When running the makemvscomponents.ksh script, the customer receives the error that the -M option is unknown and the ReconfigureHMS.ksh script is not found.

OA13135

EVENT ENABLEMENT FAILING BECAUSE OF NULL HOSTNAME (-H)

When Event Enablement is passed a null host name it fails.

OA13307

TBSM 3.1 IF USING ABS FOR OBJECTS CREATED VIA THE AGENTLISTENER, ABS DOES NOT WORK

Resources created by the agent listener using the ABS insert trigger do not work correctly.

OA13529

SELECT CLOSEOUT OF A NOTES WHICH ALREADY BEEN TAKEN OWNERSHIP

Users may have to press the Tab key or click the mouse button before typing in the Resolution field in the Closeout dialog box.

OA13535

CONNECTION TO CICS OMEGAMON DOES NOT CONNECT AFTER A CICS START UP

CICS OMEGAMON never tries to connect and must be initiated manually.

OA13558

THE FILTER IN THE EVENTVIEWER GIVES THE WRONG RESULT

When filtering by the owner column in the Event Viewer, if ″does not contain″ is selected, anything with a null owner does not display.

OA13647

DEADLOCK OCCURRING BETWEEN JOB ″DELETE OLD EXCEPTIONS″ AND THE STAGED EVENT LOADER SERVICE

Deadlock occurring between Job ″Delete Old Exceptions″ and the Staged Event Loader service resulting in the Job failure with the following message: Job ″Delete Old Exceptions″ fail with a deadlock.

OA13684

JOB ″REFRESH SQL RESPONSE TIME TESTS″ FAILS WITH ERROR 8152.

Job ″Refresh SQL Response Time Tests″ is failing because column size is too small on a temp table.

OA13749

STORED FUNCTION ’XP_ASISPRINTF’ IN THE LIBRARY ’ASIDBXP.DLL’

This LA fix deals with one of two issues that cause the ’XP_ASISPRINTF’ error. This LA fix corrects the issue with the Staged Event Loader (SEL) log. One sees the SEL log lose its format and start recording garbage on wrap-around lines.

OA13852

WHEN TAKING OWNERSHIP OF MULTIPLE EVENTS THE OWNERID IS SOMETIMES BLANK

If one presses OK on the take ownership dialog before the Owner field has populated when taking ownership of multiple events at the same time, the owner field of the note that is created remains blank.

OA13885

DEADLOCK OCCURRING WHEN LOADING THE OPC/TWS DAILY PLAN

Deals with various deadlock issues happening between the Staged Event Loader Service and various other Tivoli Business Systems Manager jobs.

OA13887

JOB DELETE ORPHANED SUBSYSTEMS DEADLOCKING WITH THE STAGED EVENT LOADER SERVICE

Deals with various deadlock issues happening between the Staged Event Loader Service and various other Tivoli Business Systems Manager jobs.

Defects included in 3.1.0-TIV-BSM-FP0001

The following defects are included in this fix pack:

136609, 137161, 139219, 139449, 140014, 140196, 140309, 140328, 140461, 140513, 140514, 140607, 140629, 140632, 140753, 140803, 140867, 140885, 140840, 141314, 141331, 141437, 141350, 141359, 141422, 141505, 141612, 141851, 141977, 142231, 142427, 142592, 142851, 142883, 142964, 142968, 142970, 143013, 143046, 143178, 143213, 143275, 143287, 143570, 143648, 143697, 143700, 143782, 143841, 143926, 144183, 144407, 144557, 144667, 144789, 144790, 144839, 144840, 144904, 144995, 145114, 145183, 147218, 147734, 147736, 147786, 147802, 147905, 147915, 148033, 148066, 149139, 149407, 149478, 149598, 149739, 149781, 149851, 150056

Appendix B. APARs included in 3.1.0-TIV-BSM-FP0002

The following APARs are new in 3.1.0-TIV-BSM-FP0002. (APARs that were included in fix pack 1 are listed in Appendix A, "APARs included in 3.1.0-TIV-BSM-FP0001," on page 61.) The APARs in this section are grouped by category.

ABS

OA14880

INCORRECT SYNTAX NEAR 'NNULL' RUNNING ALOBTESTDISCOVERY.SQL

n ″ N″ was added to the concatenation of some variables for double byte compatibility - but when the value can be NULL this causes an error. Problem Conclusion: The ″ N″ was removed from where it was causing problems. The fix for this APAR is contained in the following maintenance packages:

OA12714

ABSDELETE job deletes all business view

Issuing a delete for a path, deletes all paths with a common high-level parent. This can in some cases cause all paths to be deleted when just specifying a single path for deletion. Problem Conclusion: A new table is created to save entries that have multiple paths and same high level parent. If there are multiple paths with the same parent, then the path is not deleted; if this is the last path in this hierarchy, then delete.

Automation

OA14053

STAGEDEVENTLOADER is not able to handle Format Type 12

Format Type 12 EDI records for Auto/OPERATOR are not displayed on the console. They are processed by the Staged Event Loader as unprocessed events. The mapping for this format type is missing from EventProcMap table and data type tables.

Special considerations:

After installing fix pack 2, the GTMEDITB.txt file will be regenerated and must be transferred to the mainframe systems. Additional information about the GTMEDITB.txt file is available in Chapter 16, Automation Monitoring, page 382, of the TBSM 3.1 Administrator's Guide.

Auto ticketing

OA13983

Missing required parameter <note_expiration> running ATRULEUTILITY.KSH without parameters

Special considerations: Ensure that backups of all databases are available before installing this limited availability fix.

Backup the following files from <TivoliManager>\sql\procs if they exist:

- at_addrule.sql

Backup the following files from <TivoliManager>\bin if they exist:

- atruleutility.ksh

OA14606

The problem ticket icons are orphaned on some objects.

Ownership notes closed before TBSM is notified that an associated problem ticket has been closed by the autoticketing system, may cause the ″problem ticket″ decorator to remain visible on physical resources.

CA7

OA14126

Poor explanation of the flags field in the SAMPLE_MESSAGEDESCRIPTION.SQI and in the manuals

Console - Event Viewer

OA14510

The owner column sorting order is not by the last names on the event viewer.

OA15928

PREVENT OLD CLOSED NOTES MESSAGES RE-APPEARING ON EVENT VIEWER

This fix also improves the performance of Delete Old Exceptions and Delete Old Messages jobs (and truncates the obsolete table, LatestObjectActivity).

Supersedes OA13558: The filter in the event viewer gives the wrong result.

If the @daystokeep parameter for asisp_deleteoldmessage and asisp_deleteOldNotes is different (″Delete Old Messages″ and ″Delete Old Closed Notes″ jobs), then execute the two procedures with the same value for @daystokeep to delete old messages.

After applying this fix pack, the messages associated with closed notes will be deleted when the note is deleted by the ″Delete Old Closed Notes″ job regardless of the @daystokeep parameter value for the two jobs.

Console - Other

OA12818

CREATE MAINTENANCE MODE ON TBSM GUI TO DOUBLE CLICK

3.1.0.1-TIV-BSM-LA0093 contains the following information:

GUI Enhancements for Navigation

Console users can specify their preference for the action that occurs when they double-click a resource while using Tree views and Hyperviews. This preference is available for Tree views and HyperViews. Access these preferences from the Console menu.

- Console -> Preferences -> Tree View
- Console -> Preferences -> HyperView

Options are:

- When the resource has children, expand / collapse the resource. Otherwise, open the Properties dialog box.

  This option is the default behavior. If the resource has children, the branch expands or collapses when you double-click the resource icon. If the resource is a leaf node (does not have children), the Properties dialog box for the resource opens when you double-click the resource.
- When the resource has children, open a new view. Otherwise, open the Properties dialog box.

  This option specifies that if the resource has children, a new view opens when you double-click the resource icon. The new view that opens is a view with the selected resource and its immediate children. If the resource is a leaf node (does not have children), the Properties dialog box for the resource opens when you double-click the resource.
- Always open the Properties dialog box.

  The Properties dialog box for the resource opens when you double-click a resource icon, even if the resource has children.

Administrator preference to specify 'Open as New View' behavior

Using a new administrator preference, administrators can choose to use the tree view for the 'Open as New View' action. Access this preference from the Console menu: **Console -> Administrator Preferences -> View**.

The default behavior is to use the tree view for the 'Open as New View' action.

If this preference is not checked, the 'Open as New View' behavior is to open the view in the same form as the view from which 'Open as New View' was selected.

GUI Enhancements for Maintenance Mode

- Administrators can put resources in and remove resources from maintenance mode.
- All users can access a new Maintenance view that contains information about resources that are currently in maintenance mode.

Administrators have the options of putting only the selected resource or the selected resource and its children in maintenance mode. dministrators can also specify the duration (in minutes) that the resource will be in maintenance mode. A zero (0) in the **Duration** field indicates that the resources will be in maintenance mode indefinitely.

To put resources in maintenance mode, administrators do the following steps:

1. Right click the resource icon and place the cursor over the **Maintenance** menu item to open a menu that shows Maintenance options.
2. Click **Put resource into maintenance**. A dialog box opens for the user to choose the scope and duration of the maintenance.

To remove resources from maintenance, administrators do the following steps:

1. Right click the resource icon and place the cursor over the **Maintenance** menu item to open a menu that shows Maintenance options.
2. Click **Remove resource from maintenance**.

Maintenance menu items are displayed for a resource regardless of the current maintenance state of the resource. Putting a resource in maintenance that is already in maintenance is not an error and has no effect except to update the scheduled end time of the maintenance window if duration is specified. Similarly, removing a resource from maintenance that is not in maintenance has no effect.

Maintenance View

A view with resources that are in maintenance mode is available to all Console users. The maintenance mode view displays all of the resources in the system that are currently marked as being in maintenance mode. The information is displayed in a table that has filtering capabilities. Resources are added to or removed from the view as a result of a refresh (manual or timed).

Access this view from the Console menu. Console -> Open Maintenance.

Resources in Maintenance view has the following columns:

Has Ownership Note
Indicates if an ownership note exists for any event that is associated with the resource.

Location
Location of the resource. Example:

```
Tivoli Systems/RTP/IBM-001
```

Type Type of resource

Name Name of the resource

Start Time
Time resource was put in maintenance

Expiration Time
Time resource is scheduled to be removed from maintenance

Description
Description of the resource

The maintenance change is applied to all applicable resources as specified by the scope parameter, regardless of the maintenance state of the context resource. It could take a minute or two before the resource is actually in or out of maintenance mode. This is indicated by the presence or absence of an indicator icon (wrench) and the addition to or removal of the resource from the Maintenance view.

OA14138

Shell script GEMGENPROD.SH does not include the version when creating labels for generic objects

Updating the label information of generic objects to include the product version number (when supplied).

If you have used the gemgenprod.sh script to define generic software components and you have not customized the label information, then you

should be able to use the following proc to correct the labels and have them recreated with the product and version information. This script will only affect the label information related to generic resources which are defined to the GEMLookupCID table.

OA14938

Operational task only appearing when logging on to the console as administrator and not as operator.

New Operational Task menu items are, by default, created with security 'object_manage'. This means that only administrator users can access them. To update the security attribute of a menu item, the stored procedure sp_definemenuitem is used. However, this procedure resets any menu attributes which were not passed as stored procedure parameters.

To specify a menu item as an operator task, blank the security flag for the menu item by setting it to '' using sp_definemenuitem. Refer to IBM Tivoli Business Systems Manager Command Reference for more information on using this command.

The <override> parm as listed on Page 16 of the IBM Tivoli Business Systems Manager Command Reference is incorrect. The format that uniquely identifies the menu item to be overridden should be in the form listed below:

"<obj_cid>/<obj_id>/<name>"

OA15282

For a business system with two children even if in the propagation page there are 58 entries, one can click only on the first of the list.

If shortcuts exist for a Business System and these are not all at the same level, then the children displayed on the Propagation page are duplicated for each of these shortcuts.

OA15809

Job **Delete old closed notes** fails.

ETL

OA13322

Tivoli Business Service Manager ETL2 causes a foreign key violation during the insert into gtm.f_event table and the steps fail.

OA14110

Tivoli Business Service Manager **REPAIRING** entries in DYK.EXT_AVL were being considered as unavailable.

OA14937

ITM ETL AMX_C05_S040_COMP_MSMT fails with error CDWEX8087E because of a conflict on the mapping of resources with Tivoli Business Service Manager.

Event enablement

OA14614

Allow event attributes longer than 255 characters

OA15100

The Tivoli Business Service Manager event enablement component's task server hangs while processing high rates of tasks.

Failover

OA16062

TBSM FAILOVER LOG SHIPPING OPTION:ADD PAUSE OPTION FOR MANUAL DBBACKUP FILES TRANSFER

Note: fo_logship.ksh has a new (-C) option to Pause and allow user to perform a manual transfer of the backup files.

This enhancement enables the Tivoli Business Systems Manager log shipping to pause for manual database back up files transfer from the primary server to the secondary server.

This change enables the Tivoli Business Systems Manager failover log shipping to pause for manual transfer of the database backup files from the primary server to the secondary server.

If the -C option is used when executing the fo_logship.ksh script, then the script will execute in Manual mode and wait for user interaction. If the option is not used then the script will run in AUTO mode (which is the default mode).

```
sh fo_logship.ksh -C
```

This manual approach is recommended only for a Tivoli Business Systems Manager failover environment that has a limited network bandwidth in between the primary servers and the secondary servers. (Where it might be necessary to compress the data and manually move it between servers.)

OA16260

FSENDERSVC MISSING DURING FAILOVER PROCESS

This enhancement enables the Tivoli Business Systems Manager Failover log shipping to pause for manual database back up files transfer from the primary server to the secondary server.

This approach is recommended only for a Tivoli Business Systems Manager Failover environment that has a limited network bandwidth in between the primary servers and the secondary servers.

Health Monitor

OA13231

HMSQUERIES.KSH file containing a typo error at line TEMPPASSWORD=″$PDPASSWORD″

Health Monitor is then unable to get the correct information when customer performs failover.

OA15484

Health Monitor does not recognize multiple sender services host

OA14491

MVSIPOSListener is up and running but the Health Monitor shows a red alert for it.

Propagation - Database

OA16065

LOBS IN YELLOW/RED ALERTSTATE WITHOUT CORRESPONDING CHILDEVENT

Resources have the incorrect alert state

Reporting System

OA11656.1

WHEN ASKING REPORT ON A BS WITH THE 'INCLUDE DELETED RESOURCES' FLAG CHECKED, EVENTS FROM DIFFERENT BS ARE RETURNED.

OA14249

CICS START/STOP TIME REPORT AGAINST LOB WITH CHILDREN FAILS

CICS START/STOP time report against lob with children fails with no data returned.

OA15053

HISTORYSERVERSETUP.KSH SCRIPT SETTING THE WRONG DESCRIPTION

HISTORYSERVERSETUP.KSH script setting the wrong description for the **event_v** view in table **syscolumns**

The definition of the database view name ″event_V″ which is used by the TBSM Reporting System may revert to its pre-IF4 definition. The pre-IF4 definition does not include the new column evt_id. If the old event_V definition is applied by mistake, the Staged Event Loader service will fail. The service fails because it indirectly fires the tI_Message_C and tI_ExceptionHistory_C table insert triggers which used the event_V to populate a table with events to be moved to the History Server. The event_V definition will not match the target table structure an a SQL runtime error be raised.

OA15099

PROCEDURES DETACHHISTORYDATABASES/ ATTACHHISTORYDATABASES FAIL

When the attachhistorydatabases or detachhistorydatabases sql scripts are run on a non-English History server, a call to sp_defaultdb uses the hardcoded English name 'BUILTIN\Adminitrators', instead of the language specific group name.

OA16049

CICS START/STOP TIME ANALYSIS BY BUSINESS SYSTEM″ REPORT DOESN'T DISPLAY

The report for CICS Start/Stop time analysis generates and error when executing. -2147217900 [Microsoft][ODBC SQL ServerDriver][SQL Server]

Where Clause :=e.obj_cid='CICS'AND e.obj_id=CICS_id AND e.ctime>=CONVERT(DATETIME,'3/6/2006 13:18:42',101) AND e.ctime <CONVERT (DATETIME,'3/11/2006 13:18:43'.101) AND e.name=m.MSG_name

Service - agent listener

OA14992

Tivoli Business Service Manager 3.1 TEC events lost when agent listener loses DB server connection.

OA15000

SQL EXCEPTION WHEN RECEIVING EVENT FROM TEC VIA AGENTLISTENER

Cannot insert the value NULL into column *fields*, of the table #notifyLinkChange.

Service - staged event loader

OA14053

STAGEDEVENTLOADER is not able to handle Format Type 12

Format Type 12 EDI records for Auto/OPERATOR are not displayed on the console. They are processed by the Staged Event Loader as unprocessed events. The mapping for this format type is missing from EventProcMap table and data type tables.

Special considerations:

After installing fix pack 2 the GTMEDITB.txt file is regenerated and must be transferred to the mainframe systems. Additional information about the GTMEDITB.txt file is available in Chapter 16, Automation Monitoring, on page 382,.in the TBSM 3.1 Administrator's Guide.

OA15294

ERROR IN STAGEDSJM PROCESSING

The StagedEXCP and StagedMESG tables grow due to a failure in processing of StagedSJM related events. The failure would occur where there is No containment link table entry defined between IMSS and IMIR object. This would happen only if the IMIR resource was deleted but, not all of its events had been processed.

OA14537

When job "delete old Exception is running," TBSM seems to hang.

Web console

OA13400

Some operators receive GTMWC3040E error messages from Web console when trying to access the event filter

OA14904

Insufficient validation of the skin parameter value leading to a Tivoli Business Service Manager cross-site scripting vulnerability

Note: Special considerations for OA14904

Users who remain logged on to the TBSM Console during the application of this maintenance will be reconnected after this maintenance is applied. We recommend changing the SOAP timeout parameter

com.ibm.SOAP.requestTimeout in file:

<was_path\AppServer\properties\soap.client.props

from 180 to 600 seconds before running wsadmin command on the console Server. I

If you increase the timeout to 600 seconds, you should not receive the message:

```
WASX7017E: Exception received while
running file "update.jacl"; exception information:
com.ibm.bsf.BSFException: error while evaluating Jacl
expression: com.ibm.ws.scripting.ScriptingException:
com.ibm.websphere.management.exception.ConfigSericeException
```

OA15014

Read only Web console

The TBSM Web Console enhanced to support two new read-only roles:

- TBSM_Operators_ReadOnly
- TBSM_Operators_Restricted_ReadOnly

These two new roles closely correspond to the current TBSM_Operators and TBSM_Operators_Restricted roles, except that users in the new roles do not perform actions that create or update Tivoli Business Systems Manager data. This read-only support is restricted to the Web console and users in the new roles can login to the installed Tivoli Business Systems Manager console.

XML

OA14000

EXPORTLOBFROMXML.SH is only exporting the first business system's descriptions, all others are blank

OA14536

Error during the IMPORTLOBFROMXML

OA14819; OA14819.1

If a LOBL link contains any special characters on exportlobasxml this character is not preserved and thus on import the link becomes invalid causing the business sytem resource to not be linked to the physical object.

CCMDB Reader

OA14019

CCMDB discovery library sparkler for Tivoli Business Service Manager provides an out of the box initial discovery process.

This fix takes advantage of discovery library books generated for CCMDB. These books will be transformed from idml to TBSM XML and then read into TBSM using the common listener. The fix for this APAR is contained in the following maintenance package: LA interim fix 3.1.0.1-TIV-BSM-LA0098.

The IBM Tivoli CCMDB Reader for Tivoli Business Systems Manager (TBSM) allows TBSM to read CCMDB Discovery Library books, providing resource discovery and relationship data to TBSM.

Installation and Configuration: If you had not previously installed LA0093, please see 3.1.0.1-TIV-BSM-LA0093.README for installation and configuration information pertaining to 3.1.0.1-TIV-BSM-LA0093. This file is located in the Docs directory of the extracted image. Please see 3.1.0.1-TIV-BSM-LA0098.README.pdf for detailed information on installing and configuring 3.1.0.1-TIV-BSM-LA0098. The pdf file is located in the Docs directory of the extracted image.

For information about function and customization of the IBM Tivoli Enterprise Portal Data Source for Tivoli Business Systems Manager, see the 3.1.0.1-TIV-BSM-LA0098.CONFIG.pdf.

Tivoli Enterprise Portal Feed

OA12386

Tivoli Business Service Manager Tivoli Enterprise Portal Feed

The IBM Tivoli Enterprise Portal data source for Tivoli Business Systems Manager (TBSM) provides discovery of managed system resources and logical views from Tivoli Enterprise Portal (TEP) into TBSM. In addition, it supports event flows into TBSM and event synchronization of acknowledge/close event actions into TBSM and ownership/close event actions into TEP.

For information about function and customization of the IBM Tivoli Enterprise Portal Data Source for Tivoli Business Systems Manager, see 3.1.0.1-TIV-BSM-LA0111.CONFIG.pdf. The pdf file is located in the Docs directory of the extracted image.

Note: OA12386 / LA0111 is already in fix pack 2. Do not install LA0111 on top of fix pack 2.

OA15384

Tivoli Enterprise Portal (TEP) discovery failed.

Capability

OA12386

OA14634

DEFINEPLACEMENTRULE FAILS - GTMCI0005E EXCEPTION DATA:$DBMANAGER$ (DOC APAR)

Documentation

OA12494

Correct Tivoli Business Service Manager 3.1 installation guide documentation for all automation feeds to include GTMEDITB procedure

Corrected the information in the **OPS/MVS** section on page 142, (Chapter 9. Installing and Configuring z/OS Data Sources) of the Installation and Configuration Guide, by adding GTMEDITB procedure. This section should read as follows:

Tivoli Business Service Manager interfaces directly with Computer Associates Unicenter CA-OPS/MVS through the implementation of the

External Data Interface (EDI), which enables an external application program to pass text-based messages directly into the source/390 object pump on the same MVS system.

The following modifications are required for the installation of the OPS/MVS EDI interface:

1. Edit the OPS/MVS client-specific REXX program and include the REXX calls as documented in the *IBM Tivoli Business Systems Manager Administrator's Guide.*
2. Save the REXX code in a library available to the SYSEXEC DD of the OPS/MVS started tasks (both the server and main tasks). This is preferably the first data set in the concatenation.
3. GTMEDIOP and GTMEDITB, the Tivoli Business Service Manager REXX programs must be copied from the SGTMSAMP library to a library available within the OPS/MVS started tasks (both the server and main tasks) SYSEXEC DD. If applicable, GTMEDIOP must be updated starting at the pipe symbol (|) to the appropriate concatenation symbol for your environment. For example, change the pipe to an exclamation point (!) if you are using the German code page on your z/OS system.

   Note: Calls to GTMEDIOP *cannot* be made from OPS/MVS rules (MSG, TOD, CMD, and so on). Calls can only be made from OPS/MVS REXX routines. These routines can then be called by OPS/MVS rules.
4. The hlq.SGTMMODS library must be added to the OPS/MVS started tasks (both the server and main tasks) STEPLIB concatenation.
5. Ensure that the following statements reside in the source/390 object pump startup parameters:

   ```
   OPSMVS_JOBNAME=stcname,stcname
   ```

   Where `stcname = started task name` for the OPS/MVS server and main task, the server task name requires the server task prefix followed by an asterisk (*) to allow for all task names started by the server task. For example, if your server task name is OSFSRV and your main task name is OPSMVS, code

   ```
   OPSMVS_JOBNAME=OPSMVS,OSF*
   EDI_BUFFER_SIZE=2048 | size
   ```

   A size value of `5000` is needed for the OPS/MVS interface implementation.
6. If you are using the ACC1IDxx card as described in the section, *Running Multiple Copies of Source/390 on a z/OS Image* on page 91, add this card to your OPS/MVS started task.

OA14212

Typo error in Tivoli Business Service Manager V 3.1, Guide for Warehouse Pack, V 3.2.0.0, Using Tivoli Data Warehouse, V 1.2

OA14677

Page 31 of Tivoli Business Service Manager Version 3.1, Guide for Warehouse Pack, Version 3.2.0.0, Using Tivoli Data Warehouse Version 1.2 needs some changes.

OA14981

Tivoli Business Service Manager 3.1 Installation and Configuration guide should be modified in order to remove Windows NT v4.0 from console operating system prerequisites.

LDAP

OA12673

JAVA.LANG.NULLPOINTEREXCEPTION ERROR

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Describe the problem and gather background information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

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If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support provides a workaround for you to implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM product support Web pages daily, so that other users who experience the same problem can benefit from the same resolutions.

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