

# Release Notes

## TransactionVision 4.2.1 SupportPac A for WebSphere and WebLogic

These Release Notes provide the following information about TransactionVision 4.2.1 SupportPac A:

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### Overview

Welcome to TransactionVision, the only software that enables you to promise and deliver extraordinary levels of service. TransactionVision traces WebSphere MQ API, CICS API, J2EE servlet, EJB and JMS calls across transaction-based systems and graphically displays the flow of messages between applications and queues. TransactionVision enables you to visually track transactions across each touch-point, enhancing your ability to detect and prevent information flow problems.

### New in this Release

#### TransactionVision 4.2.1 SupportPac A:

- WebSphere MQ Sensor and API Exit Sensor support on the IBM OS/400 platform.
- BEA WebLogic support for the Java Sensors and Web User Interface.
- Fix for CICS Sensor SLMCabend.
- Event analysis view enhancements including support for single direction navigation to improve query performance, the ability to jump to a page number, and the ability to view events in a reverse time order.

#### TransactionVision 4.2.1:

- **Actions in Analyzer Transaction Classification**  
This feature allows custom Java code to be invoked when rules in the transaction classification file are triggered. Refer to the *TransactionVision Programmer's Guide* for details.

### Changed in this Release

#### TransactionVision 4.2.1:

- **Improved Analyzer Performance**  
This release provides significant Analyzer performance improvements over previous releases.

- **Embedded RMI in Analyzer**

The RMID and RMIRegistry programs are no longer used by the Analyzer. Instead, RMI registration is performed by the Analyzer Java program. This change results in changes to the **ServicesManager** and **TVisionSetup** utilities, the Analyzer.properties file, and Analyzers property page in the TransactionVision user interface. Any custom scripts using **ServicesManager** or the RMI daemons will need to be updated.

- **Analyzer Runs as Windows Service**

The Analyzer now runs as a Windows service on Windows platforms, and can be managed through the Windows service manager. The Analyzer service port number is now read from the analyzer\_port property in the Analyzer.properties file. The -rmiregp option to **ServicesManager** is no longer used by the Analyzer service at startup. However, the -rmiregp option of the **ServicesManager** script does take effect when communicating with an Analyzer that is already running.

- **Default Configuration Queue Check Interval**

The default configuration queue check interval for the WebSphere MQ Sensor is now 5 seconds on all platforms. On platforms other than OS/390, you can change the configuration queue check interval by setting the TVISION\_CONFIG\_CHECK\_INTERVAL environment variable to the desired interval in milliseconds.

- **Strict Local Transaction Analysis**

The Beans.xml file has been changed to use the MQStrictLocalTransactionBean for correlating events into local transactions. You can configure this bean select transactions that should not be split into separate local transactions by specifying exclusion criteria in the file TVISION\_HOME/config/services/MQStrictExclude.xml. By default, this file does not contain any criteria; therefore, each non-syncpointed MQPUT/MQGET pair will be put into its own local transaction.

- **Changed State and Result Constants**

State and Result constants in the <TVISION\_HOME>/config/technologyconst/TransactionConst.xml file have changed. For more information about using these constants, see the *TransactionVision Programmer's Guide*.

## Documentation

TransactionVision documentation is provided in electronic format on the TransactionVision CD-ROM. The Adobe Acrobat Reader is required to view these files.

- The *TransactionVision Installation and Configuration Guide* (TransactionVision\_4.2.1\_SPA\_Installation\_Configuration\_Guide.pdf) provides instructions for installing and setting up TransactionVision components, and configuring Sensors. This file is also available from the TransactionVision **Help** menu.
- The *TransactionVision Administrator's Guide* (TransactionVision\_4.2.1\_SPA\_Administrator\_Guide.pdf) provides instructions managing user accounts and communication links, configuring projects and data collection filters, and managing services and schemas. This file is also available from the TransactionVision **Help** menu.
- The *TransactionVision User's Guide* (TransactionVision\_4.2.1\_SPA\_User\_Guide.pdf) provides instructions using TransactionVision analysis views. This file is also available from the TransactionVision **Help** menu.
- The *TransactionVision Programmer's Guide* (TransactionVision\_4.2.1\_SPA\_Programmer\_Guide.pdf) provides information for creating custom beans and reports for use with TransactionVision.
- The *TransactionVision Security Guide* (TransactionVision\_4.2.1\_SPA\_Security\_Guide.pdf) provides an overview of the security features and setup procedures of TransactionVision. These features and procedures ensure that data collected by TransactionVision is secure and accessible to the appropriate people.

## Support

Contact customer support in any of the following ways:

- In the TransactionVision web user interface, choose the **Help > Bristol Support**
- Call 203 798 1007 or +1 203 798 1007 from outside the U.S.
- Send email to [support@bristol.com](mailto:support@bristol.com)
- Visit <http://www.bristol.com/support>

## Upgrading from a Previous Release

TransactionVision 4.1, 4.2, and 4.2.1 WebSphere MQ Sensors can be used with TransactionVision 4.2.1 SPA Analyzers. However, only 4.2.1 Java Servlet, JMS, and EJB Sensors are supported with the 4.2.1 SPA Analyzer. Java Servlet, JMS, and EJB Sensors from TransactionVision versions prior to 4.2.1 are **not** supported to work with the 4.2.1 SPA Analyzer. TransactionVision 4.2.1 SPA Sensors may **not** be used with previous versions of the TransactionVision Analyzer.

**Note:** Events from previous versions of the CICS Sensor are NOT compatible with the TransactionVision 4.2.1 SPA Analyzer.

If the installation script detects an installation of TransactionVision release 4.1, 4.2 or 4.2.1 when you install the TransactionVision Analyzer or Web User Interface, it provides an option to backup and migrate configuration files to release 4.2.1 SPA. After Analyzer and Web component migration, the script **TVisionSetupInfo** needs to be run. Project databases must be migrated with the **MigrateDB** script after TransactionVision is installed and configured before you can use them with TransactionVision 4.2.1 SPA. Please backup your databases before running the **MigrateDB** script.

Advanced users can make many customizations to TransactionVision, and in some cases these advanced customizations will not be automatically migrated.

**NOTE:** The TransactionVision 4.2.1 SPA Transaction Analysis View applet will **not** work with events collected from versions of the Servlet, JMS, and EJB Sensors prior to 4.2.1.

## Supported Platforms

### Supported CICS Sensor Platforms

| Platform | Operating Environment         | WebSphere MQ |
|----------|-------------------------------|--------------|
| z/OS     | z/OS 1.0-1.4 CICS TS 1.x, 2.x | 5.2, 5.3     |

### Supported WebSphere MQ Sensor Platforms

| Platform              | Operating Environment            | WebSphere MQ | Supports WebSphere MQ API Exit Sensor |
|-----------------------|----------------------------------|--------------|---------------------------------------|
| Microsoft Windows     | Windows 2000, 2003 Server        | 5.3          | Yes                                   |
| Sun Solaris           | Solaris 8, 9                     | 5.3          | Yes                                   |
| Hewlett-Packard HP-UX | HP-UX 11.00 / 11i                | 5.3 CSD 04   | Yes                                   |
| IBM AIX               | AIX 5L 5.2                       | 5.3          | Yes                                   |
| RedHat Linux          | Enterprise Linux 3.0<br>WS/ES/AS | 5.3          | Yes                                   |
| IBM OS/400            | OS/400 V5R3                      | 5.3          | Yes                                   |

|            |   |          |  |
|------------|---|----------|--|
| IBM OS/390 | OS/390 V2R5-10 Batch<br>OS/390 V2R5-10 CICS TS 1.x,<br>TS 20x<br>OS/390 V2R5-10 RRS<br>OS/390 V2R5-10 IMS 6, 7, 8   | 5.2, 5.3 |  |
| z/OS       | z/OS 1.0-1.4<br>z/OS 1.0-1.4 Batch<br>z/OS 1.0-1.4 CICS TS 1.x, 2.x<br>z/OS 1.0-1.4 RRS<br>z/OS 1.0-1.4 IMS 6, 7, 8 | 5.2, 5.3 |  |

To collect WebSphere MQ APIs from server binding JMS applications using the API Exit Sensor on UNIX platforms, WebSphere MQ 5.3 CSD06 is required.

The Sensor for WebSphere MQ 5.3 on HP/UX 11/11i requires CSD 04 or higher. On this platform, random hangs were seen in WebSphere MQ for the non-threaded client Sensor without CSD04 or higher.

**Note:** The TransactionVision Sensor for WebSphere MQ v5.3.1 on CICS requires a PTF for the APAR number: PQ79491 (ABEND0C4 IN CSQCTRUE+X'19E'). The fix can be downloaded at: <http://www-1.ibm.com/support/docview.wss?uid=swg1PQ79491>

### Supported Servlet Sensor Platforms

| Application Server   | Platform  | Operating Environment   |
|--|---|---|
| IBM WebSphere Application Server V5.1 Express, IBM WebSphere Application Server V5.1, IBM WebSphere Application Server Enterprise V5.1           | Microsoft Windows<br>Sun Solaris<br>IBM AIX<br>RedHat Linux | Windows 2000, 2003 Server<br>Solaris 8, 9<br>AIX 5L 5.2<br>RedHat Enterprise Linux 3.0 WS/ES/AS |
| IBM WebSphere Application Server 4.0.7 Advanced Edition (Windows only), IBM WebSphere Application Server 4.0.7 Enterprise Edition (Windows only) | Microsoft Windows   | Windows 2000, 2003 Server   |
| BEA WebLogic Application Server 8.1.4  | Sun Solaris<br>Microsoft Windows                            | Solaris 8 & 9<br>Windows 2000, 2003 Server  |

### Supported JMS Sensor Platforms

| Platform  | Operating Environment  | WebSphere MQ |
|---|--|--------------|
| Microsoft Windows<br>Sun Solaris<br>IBM AIX<br>RedHat Linux | Windows 2000, 2003 Server<br>Solaris 8, 9<br>AIX 5L 5.2<br>RedHat Enterprise Linux 3.0<br>WS/ES/AS | 5.3          |

## Supported EJB Sensor Platforms

| Application Server  | Platform  | Operating Environment   |
|---|---|---|
| IBM WebSphere Application Server V5.1, IBM WebSphere Application Server Enterprise V5.1 | Microsoft Windows<br>Sun Solaris<br>IBM AIX<br>RedHat Linux | Windows 2000, 2003 Server<br>Solaris 8, 9<br>AIX 5L 5.2<br>RedHat Enterprise Linux 3.0 WS/ES/AS |
| BEA WebLogic Application Server 8.1.4   | Sun Solaris<br>Microsoft Windows                            | Solaris 8 & 9<br>Windows 2000, 2003 Server  |

## Supported Application Server Platforms for TransactionVision Web Application

**Note:** If you need to install or upgrade to the required application server version, see the knowledgebase article at <http://www.bristol.com/support/transactionvision/tv0025.htm> for links to required fix packs and instructions.

| Application Server   | Platforms   | Operating Environments  |
|--|---|---|
| IBM WebSphere Application Server V5.1 Express, IBM WebSphere Application Server V5.1, IBM WebSphere Application Server Enterprise V5.1 | IBM AIX<br>RedHat Linux<br><br>Sun Solaris<br>Microsoft Windows | AIX 5L 5.2<br>RedHat Enterprise Linux 3.0 WS/ES/AS<br>Solaris 8 & 9<br>Windows 2000 & 2003 Server |
| BEA WebLogic Application Server 8.1.4  | Sun Solaris<br>Microsoft Windows                                | Solaris 8 & 9<br>Windows 2000 & 2003 Server   |

The **EventQueueCleanup** utility requires WebSphere MQ 5.3 CSD05 or higher due to a known WebSphere MQ bug that affects this utility. However, the Analyzer and the other TransactionVision command line utilities should function properly at any WebSphere MQ 5.3 CSD level.

## Supported Database Management Systems

**Note:** If you need to install or upgrade to the required DBMS version, see the knowledgebase article at <http://www.bristol.com/support/transactionvision/tv0025.htm> for links to required fix packs and instructions.

The following databases and associated platforms are supported by TransactionVision. Note that these are database server configurations that may be accessed remotely via the DB2 client or the Oracle oci9 or thin client interfaces. TransactionVision only supports JDBC 2.0.

| DBMS Client/Server                   | Operating Environment  |
|--------------------------------------|--|
| DB2 8.2, DB2 7.2<br>FP5+, Oracle 9.2 | AIX 5L 5.2<br>RedHat Enterprise Linux 3.0 WS/ES/AS<br>Solaris 8 & 9<br>Windows 2000, 2003 Server |

There is a memory leak in the Oracle 9.2 OCI driver (Oracle bug number 2533353), which has been fixed in the patch Oracle 9.2.0.2.1. Hence, it is recommended that any Oracle clients connecting to the database using the Oracle 9 OCI driver either apply this patch or have a higher OCI driver version number that includes this patch.

## Supported Analyzer Service Platforms

The following OS and WebSphere MQ combinations are supported by TransactionVision.

| Operating Environment                | WebSphere MQ |
|--------------------------------------|--------------|
| AIX 5L 5.2                           | 5.3          |
| Solaris 8 & 9                        | 5.3          |
| RedHat Enterprise Linux 3.0 WS/ES/AS | 5.3          |
| Windows 2000, 2003 Server            | 5.3          |

## Supported Browser Configurations

The following grid shows the supported browser configurations that are supported by TransactionVision.

| Browser              | Java Plugin    |
|----------------------|----------------|
| Microsoft IE 5.5 SP2 | Sun Java 1.5.0 |
| Microsoft IE 6.0 SP1 | Sun Java 1.5.0 |

## Supported WebSphere Business Integration Message Broker Configurations

The following grid shows the supported WebSphere Business Integration Message Broker (formerly known as MQ Integrator) configurations that are supported by TransactionVision.

| Operating Environment | WBIMB Version |
|-----------------------|---------------|
| AIX                   | 5.0.x         |
| Solaris               | 5.0.x         |
| Windows               | 5.0.x         |

The use of TransactionVision WBI Trace Nodes with the WebSphere MQ API Exit Sensor is not supported. If TransactionVision WBI Trace Nodes are being used, and there is a need to have the WebSphere MQ API Exit Sensor active on the broker queue manager, add the WebSphere MQ Library Sensor to the library search path before starting the broker. Include DataFlowEngine, bipbroker, and bipservice in the exit\_sensor.deny file (see "Configuring the WebSphere MQ API Exit Sensor" in the *TransactionVision Installation and Configuration Guide*). These actions will cause the Library Sensor to deactivate the API Exit Sensor for the broker, and the Library Sensor will be used instead.

## LDAP Support

TransactionVision supports IBM Directory Server 5.1, which is available for download from IBM's website (<http://www-3.ibm.com/software/tivoli/products/directory-server/>).

## Java Support

TransactionVision requires the Sun Java SDK 1.4.2 (<http://java.sun.com/j2se/1.4.2/download.html>) for running the Analyzer component on Windows. The Analyzer Windows Service is not supported to run with the IBM WebSphere JDK; do not set your JAVA\_HOME to the IBM WebSphere JDK location. Only the Sun JDK is supported when running the Analyzer as a Windows Service.

Supported JVMs for the JMS, Servlet, and EJB Sensors match those versions distributed with WebSphere Application Server 5.1.

The applets that display the Transaction Analysis and Component Topology Analysis views use JRE 1.5.

## SVG Viewer Support

TransactionVision requires Adobe SVG viewer 3.0 or higher.

## Installation

See the *TransactionVision Installation and Configuration Guide* for instructions on installing and configuring TransactionVision.

## Known problems and issues

- If a TransactionVision database schema has been migrated from a previous version of TransactionVision, it cannot be exported and re-imported correctly using the **CreateSqlScript** utility that ships with TransactionVision. This is because certain columns in the schema do not exactly match up between a migrated schema and a newly created schema. The workaround for this problem is to export and import the schemas using the commands as detailed below. Note that you cannot use a different schema name when importing data.

### For DB2:

1. db2move *database1* export -sn *schema* -l .
2. Make sure that in *database2*, a schema of the same name doesn't exist.
3. db2move *database2* import -l .
4. Use db2 command line utility to execute the following SQL statements:

```
CREATE SEQUENCE SCHEMA.SEQ_RAW_EVENT_EVENT_ID;
CREATE SEQUENCE SCHEMA.SEQ_SYS_MDL_OBJECT_OBJECT_ID;
CREATE SEQUENCE SCHEMA.SEQ_LOCAL_TRANSACTION_LOCAL_TRANS_ID;
CREATE SEQUENCE SCHEMA.SEQ_RAW_EVENT_OVERFLOW_OVERFLOW_ID;
CREATE SEQUENCE SCHEMA.SEQ_BUSINESS_TRANSACTION_SEQUENTIAL_ID;
CREATE SEQUENCE SCHEMA.SEQ_EVENT_LOOKUP_SEQUENTIAL_ID;
CREATE SEQUENCE SCHEMA.SEQ_BUSINESS_TRANSACTION_BUSINESS_TRANS_ID;
INSERT INTO TVISION.schema_version (schema,version) VALUES('SCHEMA',21);
```

5. CreateSqlScript -r -p SCHEMA

### For Oracle:

1. Before importing, make sure the corresponding user for the schema exists and is granted CONNECT and DBA rights.
2. exp user/passwd@dbname file=dmpfile.dmp owner=(SCHEMA)
3. imp user/passwd@dbname file=dmpfile.dmp fromuser=SCHEMA touser=NEW\_SCHEMA ignore=yes

- Due to a known problem in Oracle 9.2.0.6, connecting to an Oracle database with the oci driver is only supported if you use a local naming method (for example, using the tnsnames.ora file for lookup). Thin client connections are also supported.
- The WebSphere MQ Library Sensor is not supported for server binding Java applications and applications using non-blocking shared connection handles. Use the WebSphere MQ API Exit Sensor for these environments.
- The following error may be seen on UNIX platforms when running WebSphere MQ commands as root or mqm with the TransactionVision WebSphere MQ Library Sensor in the library search path.

```
TransactionVision Sensor: unexpected internal error - Sensor turned off.
```

This is not an error. The Sensor has been deactivated for WebSphere MQ commands.

- User exits are no longer supported on z/OS platforms, including Batch, IMS, and CICS.
- The TVISION\_REPORT\_ARGS environment variable is not currently supported with the API Exit Sensor.
- Due to limitations in the Oracle 9.2.\* JDBC drivers, standard JDBC update batching (jdbc\_batching=on) is **not** supported on Oracle 9.2.\*. . On Oracle 9, the default setting is to use Oracle update batching (oracle\_update\_batching=on). In most cases, the Oracle-specific batching will yield better results than standard JDBC batching.
- With certain update levels of IE 6.0, you may encounter a runtime error if you change the printing orientation options on the Print Setup > Page Setup dialog through the Print Preview window of the Component Topology or Transaction Analysis views. To workaroud this issue, do not change the Page Setup options through the Print Preview menu option; instead, change this setting through the Print Setup menu option in the toolbar at the bottom of these views.
- Users who have browser pop-up blockers must disable them for the TransactionVision user interface. Otherwise, certain reports may bring up windows with Session Expired error messages, and help pages will be inaccessible. Consult the documentation for your pop-up blocker to determine how to add TransactionVision to the list of web applications for which pop-ups are enabled.
- Spaces such as those in the following example are not allowed in the XDM file description attribute; they result in a javascript error when running reports.

```
<Column name="sap1compcode" type="VARCHAR" size="12" description="SAP1 Completion Code">
  <Path>/Transaction/SAP1CompCode</Path>
</Column>
```

- The Actuate report engine requires an X connection to run. Your web server should be started in an environment where DISPLAY is set to a valid X server. By default, it will try to connect to the default display, "0:0". If X is not available or permission does not exist for the user to access X on the server machine, then you must set the DISPLAY environment variable to a valid X server. If an X server is not available, the Actuate report engine fails to load and TransactionVision displays a message that the page cannot be displayed.
- The Tivoli TEC 3.8 Fix Pack 1 is recommended for fixing a problem where the Java EIF facility does not flush the cache file when the TEC server goes down and comes back up again.
- TransactionVision does not currently support queries containing user buffer data criteria in conjunction with other linear search criteria (WebSphere MQ MQI Broker and WebSphere MQ MQI Message Flow Name). Queries that use this combination will generate incorrect results.
- If the TransactionVision WebSphere MQ API Exit Sensor is enabled on a queue manager, do not enable the library Sensor on an application connecting to that queue manager.



- You can use the TransactionVision Servlet Sensor to monitor WebLogic Web Services; however, there are some limitations. The Sensor currently does not support the monitoring of Web Services that are created as JWS files through the WebLogic Workshop tool. The Sensor tracks the WebServiceServlet. If a web service does not use this servlet (as in the case of JWS/Workshop created web servlets), no data is collected.
- TransactionVision does not currently support the TransactionVision UI component running in a cluster of WebSphere application servers. Also, multiple application servers running the UI component should not access the same TransactionVision database tables.
- Before starting your WebSphere 5 server, your DB2INSTANCE environment variable must be set. Failure to set this variable will cause a failure during TransactionVision startup and cause the WebSphere server to fail to start and initialize.
- If you upgrade either WebSphere MQ or WebSphere Application Server, you must reinstrument both the servlet and JMS Sensor with **SensorAdmin**.
- When using MQ ActiveX (MQAX) objects with TransactionVision on a system with only the WebSphere MQ client installed, the TransactionVision Sensor may fail. If both the MQ client and server are installed, MQAX objects always use the server; when it finds the TransactionVision mqm.dll, it assumes the server is installed and binds with it. However, because the server is not actually installed, the Sensor fails. To work around this problem, remove the TransactionVision mqm.dll from the Sensor lib directory to force MQAX to use the client library.
- When a new XDM file containing XML mappings to new tables is added, older projects not containing these new tables will fail to get loaded by TransactionVision. To work around this, add the new tables to the older projects with the CreateSqlScript as follows:  
CreateSqlScript[.sh|.bat] -c -e -t *table-name schema-name*
- Many TransactionVision web client pages contain session information and are temporary. Therefore, creating browser bookmarks to return to these pages at a later time may not work.
- When you print the Component Topology Analysis and Transaction Analysis views, a Java dialog appears asking you whether to allow the print job; this is a Java security feature. The first time you print from either of these views in a session, however, the dialog appears multiple times. Click OK each time the dialog appears to print the view.
- To print the Component Topology Analysis and Transaction Analysis views in landscape mode, set the page orientation on the TransactionVision Page Setup dialog, not on the Windows print dialog.
- The Event Detail view message data window shows an exception for large amounts of data, 1Mb and greater.
- Since the MQSeries-IMS Bridge Sensor does not collect job step information, filtering on those job step values will not work.
- In the Component Topology Analysis view, WebSphere MQ Integrator broker nodes are shown with a flow name, even if grouping is set to Program Name or Program Name/Host Combination. Note that flows within a broker are individual threads and therefore can only be identified when grouping at the thread level. When grouping at the program level, only one flow name is shown when, in fact, the node represents all of the flows within the broker.