WebSphere® IBM WebSphere Multichannel Bank Transformation Toolkit

IBM

Version 6.1.2

Release notes

Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 7.

Contents

IBM WebSphere Multichannel Bank Transformation Toolkit 6.1.2 release notes

This document contains information about version 6.1.2 of the IBM® WebSphere® Multichannel Bank Transformation Toolkit (Bank Transformation Toolkit). It describes the new components and functions at an architectural level.

New in this release

This version of the Bank Transformation Toolkit (BTT) has the following new and enhanced features:

- Enhanced tools support
- POJO Context
- Mobile Channel support
- Enhanced Web 2.0 On-Demand Workplace
- Jump Start Sample

Enhanced tools support

BTT version 6.1.2 provides the following new development and runtime tools:

- Transaction Editor:

  The Transaction Editor is a graphical editor for you to create and develop the BTT transactions. You can conveniently define and create the XML configuration of self-defined operation or flow processor, including context, data, format, type and operation.

- Deployment Descriptor Editor:

  Deployment Descriptor Editor is a graphical user interface tool to edit btt.xml file. With this tool, you can create btt.xml and manage the components and configuration items of the file in the user interface easily.

- Application Wizard:

  Application Wizard has the following enhancement:

  – The Channel Application Project Wizard is improved:
    - Supports Mobile Channel type.
    - Embeds HTML HelloWorld in the HTML Channel type.
  – BTT HelloWorld Samples are added:
    - HTML Channel HelloWorld
    - Rich Client HelloWorld
    - Web2 HelloWorld

- Rich Client Monitor:

  Rich Client Monitor helps to view the BTT data models in a tree like structure. With this tool, you can dynamically view the context structure and data content, and update the context data for tuning in the client side.

- Web Transaction Monitor:

  Web Transaction Monitor monitors the runtime status of the HTML channel web application. It makes debugging and testing easier in web application. You can use the Web Transaction Monitor in HTML channel application.

POJO Context support

In BTT version 6.1.2, BTT context supports POJO seamlessly. You can use context to access the data in POJO.

Mobile channel support

BTT version 6.1.2 provides a new mobile channel for mobile devices like mobile phones. Mobile channel enables eRCP mobile client to send data to BTT server, and after the BTT operation is executed, the server side sends the response back to the client.

Enhanced Web 2.0 On-Demand Workplace

BTT Web 2.0 On-Demand Wordplace is a Web based client platform with a widgets container that provides personalization, customization, marshup, and other Web 2.0 features. In BTT version 6.1.2, the BTT Web 2.0 On-Demand Workplace has the following enhanced features:
- Enhanced framework API
- Enhanced accessibility support
- Enhanced browser compatibility
- Enhanced event mechanism
- Extended user management

Jump Start Teller Sample

BTT version 6.1.2 provides an application sample for application developers. You can easily develop your own application based on the Jump-Start Sample with pre-build withdraw teller scenarios. It shows recommended programming models and best practices to use BTT. It also demonstrates the usage of BTT Business Components.

Product fix history

This section lists the closed APARs before version 6.1.2 of BTT.

Table 1. List of closed APARs against version 6.1.1

APAR	Description
JR30349	WAS throws out an `Array index out of bound` exception when the application gets a JCA Connection.
JR3046	If you define `<step1 class="xxx"  on1Do="return"/>` in the operation step, when the return value of the step is not 1, BTT throws the information: `Array index out of bound when getting steps`.
JR30462	The Validation tool reports `trace type not found` error by mistake.
JR30581	CCSID cannot be set for MQ connection.
JR30582	When operState and htmlState are used in mixture, a debug level information should be thrown instead of an information level log.
JR30712	The IO Exception is thrown when there are comments in Chinese in the XML file.
JR30816	Sometimes, BTT LU0 can not receive multi-frame messages from host .
JR31018	BTT Web Application fails when cookie is disabled in the Internet Explorer.

Table 1. List of closed APARs against version 6.1.1 (continued)

APAR	Description
JR31060	When the re-connection period is over, BTT creates a lot of threads to notify WAS that there is a connection error. The fix avoids creating too many threads.
JR31902	Add the ASYNC event support to LU0.
JR32041	Add CSServer Services, such as `<CSServer id="realCSServer" inactivityClientTimeout="600000" timeBetweenSessionCheck="60000"/>`. This service is used for channel and session management, and processor timeout.
JR32042	Add Channel Event mechanism. This mechanism is used to check the channel and processor expiration, fire channel timeout event, processor timeout, and handle the event.
JR32043	Add the `cookie=false` mechanism.

JR32045	Defining `<refService>` within a context is supported. Context maintains the service lifecycle management. The following code example demonstrates how to define `<refService>`:
	
	`<context id="accountTransferCtx" type="oper">`
	`        <refKColl refId="accountTransferData"/>`
	`        <refService refId="JournalService"`
	`          alias="JournalService" type="journal"/>`
	`    </context>`

JR32194	`Establishsessiontimeout` should be no less than 50 seconds, because BTT needs at least 50 seconds to identify that the session establishment is failed.
JR32405	MQ 2018 error: MQ connection is unavailable or disconnected after MQ connection pool is initialized.
JR32173	There are globalization problems in initializer and elementfactory. The solution is to make the encoding of the file and the definition in the first line of the file consistent.

Table 2. List of closed APARs against version 6.1.0

APAR	Description
JR29446	NullPointerException is thrown when initiating html flow processor.
JR29837	Improper exception is thrown from BTT LU0 JCA when destroying connection.
IZ25604	OOM error when parsing client request.
JR30273	Html Request Handler throws abnormal exception when the sessionpersistence value is set to be true in BTTSM.properties.
JR30458	log.error() can not accept multiple parameters.
JR30459	OperDef Tag supporting multiple operation definitions problem: When more than one operation is defined in one self-defined operation, the self-defined XML must be defined within the same directory as BTT.xml.
JR30496	When the application fails to get a new connection from LU0 Connection Factory, the bid thread of the unsuccessful ManagedConnection is not destroyed.

Table 3. List of closed APARs against version 5.2

APAR	Description
JR26373	NameNotFoundException is thrown from Context. The JMS function of BTTEvent is turned on by default. So, if JMS queue is not configured in WebSphere Application Server, exceptions are thrown.

Table 3. List of closed APARs against version 5.2 (continued)

APAR	Description
JR26375	The *getElementAt()* API is missing from OperationStep.
JR26378	Several GUI problems are restricting the use of the application. When using the DSEGuiBeans for the Java™ client, frequent screen freezes and unexpected behaviour with text fields and combo boxes are encountered.
JR26627	ava.lang.ClassCastException is thrown when using org.apache.struts.ActionMapping and com.ibm.btt.struts.BTTActionMapping together in BTT 5.2.0.

JR26283	The following two verbs are added to get the LU name from an LU62 connection:
	• Verb SYNC_GET_LOCAL_LU_NAME, used to get local LU name for the LU62 conversation
	• Verb SYNC_GET_PARTNER_LU_NAME, used to get remote LU name for the LU62 conversation.
	
	For the two new verbs, BTT will call SNA CPI-C APIs: Extract_Local_LU_Name and Extract_Partner_LU_Name by JNI call.
	Note: The two APIs only apply to the Communication Server running on AIX® and Linux® systems.
	
	The following code is the sample code for the two verbs:
	<pre>Lu62InteractionSpec ixnSpec = new Lu62InteractionSpec();
	Lu62Record outgoingData = new Lu62Record();
	Lu62Record returnData = new Lu62Record();
	ixnSpec.setInteractionVerb(ixnSpec.SYNC_GET_LOCAL_LU_NAME);
	connection.execute(ixnSpec, outgoingData, returnData);
	System.out.println("Local LU name :"+returnData.getData());</pre>

JR27142	String leaks in the CHA EJB cache.
JR27127	In general, there are two ways to manage conversations when sending continuous messages. One is to establish a new conversation for every message. The other is to create a single conversation and reuse it for sending different messages. The second method results in better performance. This APAR Viewer provides support for the first conversation mode: the host closes the conversation used by each unsolicited message.
JR27170	This APAR Viewer provides two parameters to configure the length of a TID/thread name in trace.
JR27198	In a performance environment, there might be thousands of threads pending, which can cause an out of memory crash in WebSphere Application Server. Each thread is waitOn Semaphore in the `receive()` method. When the connection is terminated, the waiting thread cannot be notified on Semaphore. As a result, it cannot exit. This APAR Viewer changes the event notification method to avoid creating too many threads.
JR27406	BTT does not support Opera Browser.
JR27597	BTT provides an extension for WTS to implement the `BTTRequestProcessorUtil.getProcessId (HttpServletRequest request)` method. However, when processing a transaction request, `createProcessorId()` is invoked unexpectedly, which causes the BTT module to replace the original processor ID with a new one. As a result, a new context is created. This causes a memory leak.
JR27322	Referenced objects are reserved after the conversation/ Lu62ManageConnection is terminated. These objects should be deleted, because this causes a memory leak.
JR27685	BTT LU62 JCA parameter **establishConversationRetries** does not work if its value is greater than 0.

Table 3. List of closed APARs against version 5.2 (continued)

APAR	Description
JR27954	When BTT JCA deallocates LU conversation, a conversation object must be printed in the trace. However, before printing, the conversation object is set to null. After BTT JCA deallocates an LU conversation, the object in the conversation is accessed. This APAR Viewer fixed these two problems.
JR28052	Every time BTT JCA creates a conversation, it loads a library, which is time-consuming.
JR28061	When implementing an invoker class which extends com.ibm.btt.cs.invoker.base.BeanInvokerImpl, the reference to the CHA Instance Id from the HttpSession will be removed and the HttpSession will be invalidated. So when the BTT client application calls the logoff operation (BTTServerOperation) on the server, the IllegalStateException from http session will be thrown.
JR28183	Request WAS pool to destroy BTT JCA connection immediately.
JR28225	JCA Performance issue: Exception is thrown when server stops.
JR27898	Missing header message when LU62 Message has multiple frames.
JR28208	Request to add parameter in BTT LU0 JCA to control whether to send TERMSELF after timeout.
JR28209	Change Request: a new custom property "sendInitSelf" is provided in order to disable sending init-self. The default value is true. Set it to false to disable sending init-self.
JR28345	JCAERR00047R timeout problem. Convert the getListenThreadSem() method to a synchronized method to prevent JCA timeout problem.
JR28687	BTT JCA supports 64-bit AIX systems.
JR28841	LU API SYNC_GET_ACTUAL_LU_NAME does not work in version 5.2.
JR28704	Unknown corrupt trace message because of the I18N problem.
JR28375	The establishSession is slow for the listen thread because run() is pending on sleep(timeBetweenBidRetry) if init() is not executed.
IY43326f_1	Session down is not correctly recovered when Lu0SnaSession is using a LU that belongs to a Communication Server pool.

Table 4. List of closed APARs against version 4.3

APAR	Description
IZ01114	In the JCA clone environment, a new method in the BTT LU0 service for closing an LU0 session is established on anther clone. Currently, the ccClose() method uses the user session ID, , but you need the same method using the LU0 name, which is passed as a parameter. A new API ccClose(String luName) is added to Lu0SnaSessionService and Lu0SnaSession class. The method will call Communication Server NOF API deactive_lu0_to_3 to terminate the LU0 session for the specified LU name. On the other clone that has already established a session for the LU, it will receive an UN-BIND message from the host and terminate the session.
JR26363	Add a new method setInitSelfUserData in Lu0SnaSessionService to send user data to the host when BTT LU0 Connector send INIT-Self to establish LU0 session.
JR24998	Cannot establish conversation with host using LU6.2.

Hardware and software requirements

For details of the hardware and software that are required to set up the Bank Transformation Toolkit development and runtime environments, see Hardware and software requirements in the *IBM WebSphere Multichannel Bank Transformation Toolkit: Installation Guide*.

Limitations, known issues, and workarounds

This section lists the limitations and known issues of this release. It also provides information about any fixes or workarounds that exist for resolving these limitations and issues.

The following limitations have been identified:

- In XUI Editor, if you set an image to a label, the texts on that label cannot be displayed.
- JSF Channel does not support self-defined context, data and formatter. You must define them in global definition files, such as context.xml, data.xml, and formatter.xml.
- In processor, BeanCollection and KeyedCollection cannot be defined as nested data elements.

  For example, in the following code sample, a BeanCollection is defined as the nested element of a Keyed Collection:

  Processor definition:

```
<context id="creditCardsCtx" type="process">
        <refKColl refId="creditCardApplData"/>
</context>
```

  Data definition:

```
<kColl id="creditCardApplData">
    <bColl id="creditCardApplDataBean" bean="com.ibm.btt.beancoll.CreditCardApplBean" />
</kColl>
```

  You must revise it as follows:

```
<context id="creditCardsCtx" type="process">
        <refKColl refId="creditCardApplData"/>
</context>
```

  Data definition:

```
<bColl id="creditCardApplData" bean="com.ibm.btt.beancoll.CreditCardApplBean" />
```

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