

Multichannel Bank Transformation Toolkit  
Version 8.0.1

*Installation guide*



**Note!**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 17.

This edition applies to Version 7, Release 1, Modification 0, of *IBM WebSphere Multichannel Bank Transformation Toolkit* (5724-H82) and to all subsequent releases and modifications until otherwise indicated in new editions.

IBM welcomes your comments. You can send to the following address:

IBM China Software Development Lab  
Bank Transformation Toolkit Product  
Diamond Building, ZhongGuanCun Software Park, Dongbeiwang West Road No.8,  
ShangDi, Haidian District, Beijing 100193 P. R. China

Include the title and order number of this book, and the page number or topic related to your comment.

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© Copyright IBM Corporation 1998, 2012.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

## Contents

### Installing WebSphere Multichannel Bank

#### Transformation Toolkit . . . . . 1

##### Hardware and software requirements . . . . . 1

###### Hardware requirements. . . . . 1

###### Software requirements . . . . . 2

###### Additional requirements . . . . . 4

##### Setting up a Bank Transformation Toolkit

##### development environment. . . . . 4

###### Installation package structure. . . . . 4

##### Installing the toolkit on a development

##### workstation. . . . . 5

##### Installing toolkit applications on a runtime platform 7

##### Functional units, packages, and dependencies . . . 8

##### Where to find missing prerequisites . . . . . 15

### Notices . . . . . 17

#### Trademarks . . . . . 19



---

# Installing WebSphere Multichannel Bank Transformation Toolkit

This section describes how to install IBM® WebSphere® Multichannel Bank Transformation Toolkit. This installation guide also describes the hardware and software requirements for WebSphere Multichannel Bank Transformation Toolkit.

WebSphere Multichannel Bank Transformation Toolkit V8.0 supports 64-bit Windows 2008, 64-bit AIX® and 64-bit Linux on IBM System z® as runtime environments. For other platforms, WebSphere Multichannel Bank Transformation Toolkit V8.0 supports 32-bit runtime and development environments.

---

## Hardware and software requirements

This section lists the hardware and software requirements for the runtime and development environments of IBM WebSphere Multichannel Bank Transformation Toolkit version 8.0.

### Hardware requirements

#### Hardware requirements for IBM WebSphere Application Server

For Microsoft Windows XP, Windows 7, Windows Server 2003 and 2008

- Intel Pentium processor at 500MHz or faster
- Intel EM64T or AMD Opteron.
- Minimum 512 MB physical memory; 1 GB recommended
- Minimum 2 GB RAM
- Minimum 1 GB of free disk space for installation (includes SDK)

For Linux x86

- Intel Pentium processor at 500 MHz or faster
- Intel EM64T or AMD Opteron
- Minimum 512 MB of physical memory; 1 GB recommended
- Minimum 1 GB of free disk space for installation (includes SDK)

For Linux on IBM System z

- System z processors
- Minimum of 1,119MB available disk space for installation
- Minimum of 512 MB memory; 1 GB recommended
- CD-ROM drive

For IBM AIX (32 bit WebSphere Application Server)

- IBM POWER® family of processors
- Minimum 512 MB physical memory; 1 GB recommended
- Minimum 1 GB of free disk space for installation

For IBM AIX (64 bit WebSphere Application Server)

- IBM POWER family of processors

- Minimum 1 GB physical memory recommended
- Minimum 1 GB of free disk space for installation

For Solaris SPARC

- Sun Solaris operating environment compatible SPARC workstation at 440MHz, or faster
- Minimum 512 MB physical memory; 1 GB recommended
- Minimum 1 GB of free disk space for installation

For additional software products, for example DB2® or IBM Communications Server, refer to the respective product documentation.

### **Hardware requirements for Client**

- x86 processors capable of supporting the supported operating systems
- 512 MB RAM
- 500 MB free disk space
- Display Resolution: Super video graphics array/adaptor (SVGA) 1024 x 768 display
- High Contrast Mode: 1152 x 768 display, only default font settings (10pt Sans)

### **Hardware requirements for IBM Rational® Application Developer**

- Intel Pentium III processor at 800 MHz, or higher recommended
- Display, minimum requirements: 1024 x 768
- 1 GB RAM minimum, 2 GB RAM
- Disk space requirements: 3.7 GB minimum for installing Rational Application Developer and additional disk space for development resources (minimum disk space can be reduced if optional features and run-time environments are not installed).

If the development environment requires additional software products, such as DB2 or IBM Communications Server, refer to the specific product documentation.

For the latest hardware requirements, refer to the documentation at <http://www.ibm.com/software/>.

## **Software requirements**

### **Supported platforms**

- Server
  - Red Hat Enterprise Linux (RHEL) Server 6.0 Advanced Platform (32bit and 64bit)/Linux -Red Hat Enterprise Linux (RHEL) 6.0(64bit WAS)
  - Microsoft Windows Server 2003, Enterprise & Standard with SP2(32-bit)
  - Microsoft Windows Server 2008, Enterprise & Standard (32-bit)
  - Microsoft Windows Server 2008, Enterprise with SP2(64-bit)
  - AIX 6.1 with Recommended Maintenance package 6100-00-01-0748 (32 and 64 bit)
  - AIX 6.1 with Recommended Maintenance package 6100-00-01-0748 (32 and 64 bit)
  - AIX 8.0 with Recommended Maintenance package 7100-00-01
  - Sun Solaris operating environment, Version 10 with the latest Patch Cluster (32 bit kernel support)

- Client and development
  - Windows XP Professional + SP3
  - Windows Vista business + SP1
  - Windows 7 Profession/Ultimate + SP1
  - Red Hat Enterprise Linux (RHEL) Server 6.0 Advanced Platform (32bit and 64bit)
- Installation program
  - Windows XP Professional + SP3
  - Windows Vista business + SP1
  - Windows 7 Profession/Ultimate + SP1
  - Red Hat Enterprise Linux Desktop with Workstation option 6.0

### **Supported database**

- IBM DB2 UDB Enterprise Server Edition V9.5 FP1
- IBM DB2 UDB Enterprise Server Edition V9.7
- Oracle 11g Enterprise Edition 11.2.0.1

**Note:** The Oracle Exadata platform is not supported.

- Microsoft SQL Server Enterprise 2008

### **Supported development environment**

- IBM WebSphere Application Server V7.0.0.17(32bit and 64bit)
- IBM Rational Application Developer V8.0.4 + Interim Fix 001
- IBM WAS Developers Tools Edition for Eclipse 8.0

### **Supported browsers**

- Internet Explorer 6.0 SP2 or above
- Internet Explorer 7.0
- Internet Explorer 8.0
- Firefox 3.6

### **Supported JDK**

- Server
  - IBM SDK for multiplatforms, Java Technology Edition, V6.0
- Client and development environment
  - IBM SDK for multiplatforms, Java Technology Edition, V6.0

### **Optional software**

- Lotus® Expeditor V6.2 - Client for Desktop, Windows
- Lotus Expeditor V6.2 - Client for Desktop, Linux on x86
- IBM WebSphere MQ for Windows, V7.0.1.6
- IBM WebSphere MQ for Linux on x86, V7.0.1.6
- IBM WebSphere MQ for AIX, V7.0.1.6
- IBM WebSphere MQ for Solaris SPARC, V7.0.1.6
- IBM Communications Server for Linux, Version 6.4
- v IBM Communications Server for zLinux, Version 6.4
- IBM Communications Server for Windows, Version 6.4

- IBM Communications Server for AIX, Version 6.4
- IBM Tivoli® Directory Server for AIX, V6.3
- IBM Tivoli Directory Server for Windows, V6.3
- IBM Tivoli Directory Server for Linux, V6.3
- IBM Tivoli Directory Server for Solaris, V6.3
- IBM Unica Campaign 8.5
- IBM Unica Interact 8.5

For the latest supported software, see <http://www.ibm.com/software/components>

## Additional requirements

Depending on the framework services that you use, you might require other hardware and software to support financial devices. The following additional requirements applies to the workstation (client, server, or development) that accesses the financial device.

*Table 1. Additional financial devices requirements*

Framework component	Additional requirements
J/eXtensions for Financial Services	Any financial printer, magnetic stripe reader/encoder, or check reader with a device service that is compliant with the J/XFS specification

## Setting up a Bank Transformation Toolkit development environment

Use these topics to set up a development workstation so that you can develop applications that are based on IBM WebSphere Multichannel Bank Transformation Toolkit V8.0.

The development workstation must comply with the requirements listed in the “Hardware and software requirements” on page 1 section, and it must have IBM Rational Application Developer installed.

The following procedure describes how to install Bank Transformation Toolkit. Each functional unit is contained in its own JAR file to provide greater flexibility both in the development environment and in the runtime environment. Consider reviewing functional units, packages, and dependencies to decide which functional units you require to develop your application.

**Note:** You can add or remove functional units at any time, but you must account for their corequisite functional units (functional units that must also exist on the system at the same time).

## Installation package structure

The WebSphere Multichannel Bank Transformation Toolkit installation package contains two main groups of components: components for the development environment and components for the runtime environment.



## Development environment

For the development environment, WebSphere Multichannel Bank Transformation Toolkit supports IBM Rational Application Developer V8.0 or Eclipse 3.6.

Plug-ins for IBM Rational Application Developer V8.0 or Eclipse 3.6 are provided for the development environment. The plug-ins include components that have dependencies on features provided by IBM Rational Application Developer V8.0

If you want to use IBM Rational Application Developer V8.0 on your system, you must manually install the plug-ins from the `$D(plugins)/updateSite/BTT_UpdateSite.zip` by updateSite way, or use BTT IDE in `$D(BTT_IDE)/eclipse`. Plug-ins can be found in the `<toolkit_root>/plugins`

## Runtime environment

For the runtime environment, WebSphere Multichannel Bank Transformation Toolkit supports WebSphere Application Server V7.0.0.17 and V8.0.0.1.

## Installing the toolkit on a development workstation

This topic describes how to install WebSphere Multichannel Bank Transformation Toolkit on a development workstation.

### Procedure

To set up the development workstation, do the following steps:

1. Install IBM Rational Application Developer, or directly use BTT IDE in installation directory.
2. Insert the WebSphere Multichannel Bank Transformation Toolkit CD into the CD-ROM and browse the CD.
3. Start the Installation Wizard for WebSphere Multichannel Bank Transformation Toolkit.
  - For Windows platforms, locate and double-click the `setupWin.exe` file.
  - For Linux platforms, locate and invoke the `setupLinux.bin` file.

The Introduction window opens.

4. Click **Next**. The "Product license agreement" window opens.
5. Select the **I accept the terms in the license agreement** check box and click **Next**.

#### Note:

The Installation Wizard detects if any version of Bank Transformation Toolkit is already installed on your system. WebSphere Multichannel Bank Transformation Toolkit V8.0.0 can coexist with any previous Bank Transformation Toolkit Version but can't coexist with itself.

6. Select the destination directory for the installation files. By default, the destination directory is:
  - For Windows: `C:\Program Files\IBM\WebSphere\Multichannel Bank Transformation Toolkit 8.0.0.0`
  - For Linux: `/opt/IBM/WebSphere/Multichannel_Bank_Transformation_Toolkit_8.0.0.0`

If you do not want to select the default destination directory, click **Browse**, and then select the folder that you want to use. Click **Next**.

7. On the Pre-Installation Summary window, review the installation summary, and then click **Install**. The Bank Transformation Toolkit installation program creates the directories on the target workstation.

*Table 2. Directories created by the installation program.*

Directory name	Description of contents
BTT_IDE	BTT 8.0 bundle with IBM WAS Developers Tools Edition for Eclipse 8.0
license	Product license files
javadoc	Product Java documentation
lib	Product runtime libraries
plugins	Tooling: <ul style="list-style-type: none"> <li>• Transaction Editor plug-in</li> <li>• Migration tool plug-in</li> <li>• Formatter Simulator plug-in</li> <li>• Application Wizard plug-in</li> <li>• XUI Editor plug-in</li> <li>• Deployment Descriptor Editor plug-in</li> </ul> Runtime: <ul style="list-style-type: none"> <li>• Business component plug-in</li> <li>• Rich client platform plug-in</li> </ul>
samples	Product samples
jre	Install Anywhere bundled JVM
Uninstall	Product uninstallation files
migration	Migration-related files
reference	Open source components

8. Start IBM Rational Application Developer or Eclipse.
9. Set your preferences before you import WebSphere Multichannel Bank Transformation Toolkit Java source:
  - To work with complex projects, use the source folders as source containers instead of creating packages inside the project. To use source folders as source containers, create source folders as children of the project and create packages inside these source folders. To automate this, click **Window > Preferences**. Expand the Java node, and then select the **New Project** node. Select the **Folders** check box.
  - To develop applications by using WebSphere Multichannel Bank Transformation Toolkit, add the framework functional units (the JAR files containing the classes) to the application classpath. You can use any approach to do this, but you must account for the class loader policies. A recommended approach is to add an overall classpath variable named **BTT** to point to the root directory of the Bank Transformation Toolkit installation. To do this, do the following steps:  
 Another approach is to define a classpath variable for each functional unit available in the product. Each classpath variable points to the concrete JAR associated with the functional unit (see the tables in Functional units, packages, and dependencies).

- a. Click **Window > Preferences**.
- b. Expand the **Java** node and select **Build Path**.
- c. Expand the **Build Path** node and select **Classpath Variables**.
- d. Click **New** and enter BTT in the **Name** field.
- e. In the **Path** field, enter the path in which WebSphere Multichannel Bank Transformation Toolkit is installed.
- f. Click **OK**.

To add another classpath variable, repeat steps 9a - 9f. You might want to add a classpath variable named **BTT\_EXTERNAL** to point to the external dependencies. To enable the external classpath variable, all the required external JAR files must be in the directory to which this variable points. The overall classpath variables makes it easier for you to select the WebSphere Multichannel Bank Transformation Toolkit JAR files for your Java project. The remainder of this procedure and all the other procedures assumes that you are using the recommended approach.

10. Create a Java project for your application.
  - a. Select **File > New > Project**.
  - b. In the left panel, select **Java**; and then in the right panel, select **Java Project**. Click **Next**.
  - c. Enter the name of your project, and then click **Finish**.
11. Embed WebSphere Multichannel Bank Transformation Toolkit functional units and the required application resources inside the J2EE EAR file to deploy an application.

WebSphere Multichannel Bank Transformation Toolkit uses functional units to provide a coherent structure of JAR files for you to build an application. The JAR files in the functional units contain the required set of classes for an execution environment.

To enable the functional units to become available to your project, add either the compiled JAR files to the project classpath or import the JAR files into the workspace. You might want to import the JAR files into the workspace if you want to embed the JAR files and resources into your application when, for example, it is self-contained and independently deployed.

For either option, you only add or import the JAR files and the corequisite functional units that are required to optimize the deployment and distribution of the application. For more information on JAR files and their corequisite functional units, see the Functional units, packages, and dependencies topic.

## Results

After you have installed WebSphere Multichannel Bank Transformation Toolkit, you can develop solutions that are based on WebSphere Multichannel Bank Transformation Toolkit.

---

## Installing toolkit applications on a runtime platform

### About this task

Installing Bank Transformation Toolkit applications on a runtime platform consists of deploying EAR files to the WebSphere Application Server. You can do the packaging by using IBM Rational Application Developer, or by using the Application Assembly Tool in WebSphere Application Server.

## Functional units, packages, and dependencies

This section identifies the external dependencies and framework corequisites for each functional unit. You must load these dependencies and corequisites to have a clean development environment. In addition to the components provided by the required features for the Bank Transformation Toolkit, you may need other external packages. See Obtaining missing prerequisites for a list of these packages.

The tables below include a brief description of the functional unit, and the functional unit's JAR file. Each row shows the direct framework corequisites and the corequisites of these corequisites.

**Note:** For the jars in the external dependency column, core.jar can be found in the \java\jre\lib directory of WebSphere Application Server and other jars can be found in the \lib directory of WebSphere Application Server.

Table 3. External dependencies and corequisites for functional units-JAR files

JAR Name	Functional unit or component	External dependency	Corequisite JAR
bttbusinesslogic	Business Logic	core, j2ee, com.ibm.ws.runtime	bttcore
bttchannels	Channels	core, j2ee, struts, commons-digester, commons-logging, commons-beanutils, commons-collections, commons-validator, com.ibm.ws.runtime, com.ibm.ws.webcontainer	bttcore, bttinvoker
bttcore	Core Component	core, j2ee, com.ibm.ws.runtime	
bttddbsvc	Database Service	com.ibm.ws.runtime	bttcore
bttinvoker	Invoker	core, j2ee, axis, com.ibm.ws.runtime	bttcore
bttldapsvc	LDAP Service	core, j2ee	bttcore
bttmqsvc	MQ Service	core, j2ee, com.ibm.mq	bttcore
bttopsaejb	OpStep Adaptor EJB	core, j2ee, com.ibm.ws.runtime	bttcore
bttroleprovider	Rule Provider	core, j2ee, com.ibm.ws.runtime	bttcore
bttsmartchannel	Smart Channel	core, j2ee, com.ibm.ws.runtime	bttcore, bttchannel, bttroleprovider, bttweb2
bttweb2collector	BTT Web2 data collector	core, j2ee, com.ibm.ws.runtime	bttcore, bttchannel, bttroleprovider, bttweb2
bttwssvc	BTT Webservice	core, j2ee, javax.xml.rpc, sdo-int, ServiceRegistryClient, com.ibm.ws.admin.client	bttcore
bttunica	BTT Unica Integration Service	core, j2ee	bttcore

Table 4. External dependencies and corequisites for functional units-RAR files

RAR name	Functional unit or component	External dependency	Corequisite JAR
dummynalu0	BTTDummySnaLu0Connector	core, j2ee, com.ibm.ws.runtime	
snalu0	BTTLu0Connector	core, j2ee, com.ibm.ws.runtime	
snalu62	BTTLu62Connector	core, j2ee, com.ibm.ws.runtime	

Table 5. External dependencies and corequisites for functional units-plugin-ins

Plug-in Name	Functional unit or component	External dependency	Corequisite plug-ins
com.ibm.btt.core	Core Component	org.eclipse.core.runtime	

Table 5. External dependencies and corequisites for functional units-plugin-ins (continued)

Plug-in Name	Functional unit or component	External dependency	Corequisite plug-ins
com.ibm.btt.tools.common	Transaction Editor	rg.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.core
com.ibm.btt.tools.dde	Deployment Descriptor Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.ui.ide, org.eclipse.ui.forms, org.eclipse.ui.editors, org.eclipse.ui, org.eclipse.jface.text, org.eclipse.jdt.core, org.eclipse.jdt.launching, org.eclipse.jdt.ui, org.eclipse.wst.xml.core, org.eclipse.wst.sse.core, org.eclipse.wst.xml.ui, org.eclipse.wst.sse.ui	com.ibm.btt.core
com.ibm.btt.tools.migration	Migration Tool	org.eclipse.ui, org.eclipse.core.runtime, org.eclipse.jdt.core, org.eclipse.core.resources, org.eclipse.jface.text	com.ibm.btt.core
com.ibm.btt.tools.perspective	Transaction Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.core, com.ibm.btt.tools.common, com.ibm.btt.tools.transaction.editor, com.ibm.btt.tools.transaction.dominated

Table 5. External dependencies and corequisites for functional units-plugin-ins (continued)

Plug-in Name	Functional unit or component	External dependency	Corequisite plug-ins
com.ibm.btt.tools.transaction.diagram	Transaction Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.core.expressions, org.eclipse.jface, org.eclipse.ui.ide, org.eclipse.ui.views, org.eclipse.ui.navigator, org.eclipse.ui.navigator.resources, org.eclipse.emf.ecore, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.gmf.runtime.emf.core, org.eclipse.gmf.runtime.emf.commands.core, org.eclipse.gmf.runtime.emf.ui.properties, org.eclipse.gmf.runtime.diagram.ui, org.eclipse.gmf.runtime.diagram.ui.properties, org.eclipse.gmf.runtime.diagram.ui.providers, org.eclipse.gmf.runtime.diagram.ui.providers.ide, org.eclipse.gmf.runtime.diagram.ui.render, org.eclipse.gmf.runtime.diagram.ui.resources.editor.id;visibility:=reexport, org.eclipse.gmf.runtime.diagram.ui.resources.editor, org.eclipse.gmf.runtime.draw2d.ui, org.eclipse.gef, org.eclipse.draw2d, org.eclipse.ocl.ecore, org.eclipse.jdt.core, org.eclipse.jdt.launching, org.eclipse.gmf.runtime.diagram.ui.printing, org.eclipse.gmf.runtime.diagram.ui.printing.render	com.ibm.btt.core, com.ibm.btt.tools.transaction, com.ibm.btt.tools.transaction.edit, com.ibm.btt.tools.transaction.dominate
com.ibm.btt.tools.transaction.dominate	Transaction Editor	org.eclipse.ui, org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.jdt.core, org.eclipse.jdt.launching, org.eclipse.ui.ide, org.eclipse.emf.transaction.ui, org.eclipse.ui.views.properties.tabbed, org.eclipse.jdt.ui, org.eclipse.emf.validation, org.eclipse.emf.validation.ui	com.ibm.btt.core, com.ibm.btt.tools.transaction
com.ibm.btt.tools.transaction.edit	Transaction Editor	org.eclipse.core.runtime, org.eclipse.emf.edit, org.eclipse.swt	com.ibm.btt.tools.transaction, com.ibm.btt.tools.transaction.dominate

Table 5. External dependencies and corequisites for functional units-plugin-ins (continued)

Plug-in Name	Functional unit or component	External dependency	Corequisite plug-ins
com.ibm.btt.tools.transaction.editor	Transaction Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.tools.transaction.edit, com.ibm.btt.tools.transaction.diagram, com.ibm.btt.tools.transaction.dominant, com.ibm.btt.core, com.ibm.btt.tools.common
com.ibm.btt.tools.transaction	Transaction Editor	org.eclipse.core.runtime, org.eclipse.emf.ecore	com.ibm.btt.core
com.ibm.btt.tools.xui.editor2	Design and build the XUI File by dragging in graphical tools	org.eclipse.ui, org.eclipse.core.runtime, org.eclipse.gef, org.eclipse.core.resources, org.eclipse.ui.ide, org.eclipse.ui.workbench.texteditor, org.eclipse.ui.editors, org.eclipse.ui.views.properties.tabbed, org.eclipse.jdt.ui org.eclipse.jdt, org.eclipse.jdt.core, org.eclipse.wst.xml.core, org.eclipse.wst.xml.ui, org.eclipse.wst.sse.core, org.eclipse.wst.sse.ui, org.eclipse.wst.common.core, org.eclipse.wst.validation, org.eclipse.wst.validation.ui, org.eclipse.jface.text, org.eclipse.jdt.launching, org.eclipse.debug.core, org.eclipse.debug.ui, org.eclipse.jdt.debug.ui, org.eclipse.core.expressions, org.eclipse.pde.ui	com.ibm.btt.core
com.ibm.btt.rcp.xui	RUI Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.tools.transaction.edit, com.ibm.btt.tools.transaction.editor, com.ibm.btt.tools.transaction.dominant,
com.ibm.btt.rcp.xui.editor	RUI Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.tools.transaction.edit, com.ibm.btt.tools.transaction.editor, com.ibm.btt.tools.transaction.dominant,

Table 5. External dependencies and corequisites for functional units-plugin-ins (continued)

Plug-in Name	Functional unit or component	External dependency	Corequisite plug-ins
com.ibm.btt.tools.transaction.rcp	RUI Editor	org.eclipse.core.runtime, org.eclipse.core.resources, org.eclipse.emf.ecore.xmi, org.eclipse.emf.edit.ui, org.eclipse.ui.ide, org.eclipse.emf.transaction, org.eclipse.ui, org.eclipse.jdt.ui, org.eclipse.jdt, org.eclipse.jdt.core	com.ibm.btt.tools.transaction.edit, com.ibm.btt.tools.transaction.editor, com.ibm.btt.tools.transaction. dominate,
com.ibm.btt.tools.fs.core	Formatter Simulator Core Component	org.eclipse.core.runtime, org.eclipse.debug.core, org.eclipse.jdt.launching, org.eclipse.jdt.core, org.eclipse.core.resources, org.eclipse.ui	com.ibm.btt.core
com.ibm.btt.tools.fs.ui	Formatter Simulator UI Component	org.eclipse.core.resources, org.eclipse.core.runtime, org.eclipse.jface.text, org.eclipse.ui, org.eclipse.ui.ide, org.eclipse.ui.forms, org.eclipse.debug.ui, org.eclipse.jdt.core	com.ibm.btt.tools.fs.core
com.ibm.btt.tools.aw	Application Wizard Tool	org.eclipse.ui org.eclipse.core.runtime, org.eclipse.jst.j2ee.ui, org.eclipse.wst.common.modulecore, org.eclipse.wst.common.frameworks, org.eclipse.wst.common.frameworks. ui, org.eclipse.jem.util, org.eclipse.jst.servlet.ui, org.eclipse.pde.ui, org.eclipse.jdt.core, org.eclipse.wst.common.project.facet. ui, org.eclipse.wst.web, org.eclipse.wst.web.ui, org.eclipse.wst.common.project.facet. core, org.eclipse.jst.j2ee.ejb, org.eclipse.jst.common.frameworks, org.eclipse.jst.server.ui, org.eclipse.jst.j2ee, org.eclipse.jst.j2ee.web, org.eclipse.ui.ide, org.eclipse.core.resources, com.ibm.btt.core	com.ibm.btt.core

The following table lists the packages included in the product and the JAR or RAR files that contain them. Note that some Java packages are in more than one JAR to optimize the contents of the JAR files.

Table 6. JAR, RAR or WAR files for packages

Package name	JAR/RAR/WAR name
com.ibm.btt.automaton	bttcore.jar
com.ibm.btt.automaton.ext	bttcore.jar



Table 6. JAR, RAR or WAR files for packages (continued)

Package name	JAR/RAR/WAR name
com.ibm.btt.automaton.ext	bttchannels.jar
com.ibm.btt.automaton.html	bttchannels.jar
com.ibm.btt.base	bttcore.jar
com.ibm.btt.base.types	bttcore.jar
com.ibm.btt.base.types.ext	bttcore.jar
com.ibm.btt.channel	bttchannels.jar
com.ibm.btt.clientserver	bttchannels.jar
com.ibm.btt.config	bttcore.jar
com.ibm.btt.config.impl	bttcore.jar
com.ibm.btt.config.exception	bttcore.jar
com.ibm.btt.cs.html	bttchannels.jar
com.ibm.btt.cs.html.util	bttchannels.jar
com.ibm.btt.cs.java	bttchannels.jar
com.ibm.btt.cs.servlet	bttchannels.jar
com.ibm.btt.cs.sessionpropagation	bttchannels.jar
com.ibm.btt.cs.marketing	bttunica.jar
com.ibm.btt.element	bttcore.jar
com.ibm.btt.element.exception	bttcore.jar
com.ibm.btt.element.impl	bttcore.jar
com.ibm.btt.element.scope	bttcore.jar
com.ibm.btt.element.simple	bttcore.jar
com.ibm.btt.element.simple.impl	bttcore.jar
com.ibm.btt.element	bttcore.jar
com.ibm.btt.element	bttcore.jar
com.ibm.btt.event	bttcore.jar
com.ibm.btt.gui.jsptags	bttchannels.jar
com.ibm.btt.http	bttchannels.jar
com.ibm.btt.invoker	bttinvoker.jar
com.ibm.btt.invoker.ejb	bttinvoker.jar
com.ibm.btt.invoker.jms	bttinvoker.jar
com.ibm.btt.invoker.pojo	bttinvoker.jar
com.ibm.btt.invoker.timer	bttinvoker.jar
com.ibm.btt.invoker.utils	bttinvoker.jar
com.ibm.btt.invoker.ws	bttinvoker.jar
com.ibm.btt.invoker.ws.dynamic	bttinvoker.jar
com.ibm.btt.invoker.ws.dynamic.axis_extension	bttinvoker.jar
com.ibm.btt.invoker.ws.dynamic.tool	bttinvoker.jar
com.ibm.btt.jsf	bttchannels.jar
com.ibm.btt.jsf.el	bttchannels.jar
com.ibm.btt.jsf.event	bttchannels.jar

Table 6. JAR, RAR or WAR files for packages (continued)

Package name	JAR/RAR/WAR name
com.ibm.btt.samples.business.sna.lu0	sn0dummy.jar
com.ibm.btt.samples.business.sna.lu0.exception	sn0dummy.jar
com.ibm.btt.samples.business.sna.lu0.host	sn0dummy.jar
com.ibm.btt.samples.business.sna.lu0.host.event	sn0dummy.jar
com.ibm.btt.samples.business.sna.lu0.trace	sn0dummy.jar
com.ibm.btt.samples.business.sna.lu0.resource	sn0dummy.jar
com.ibm.btt.server.bean	bttbusinesslogic.jar
com.ibm.btt.server.bean.ejb	bttopsaejb.jar
com.ibm.btt.services	bttcore.jar
com.ibm.btt.services.comms	bttmqsvc.jar
com.ibm.btt.services.jdbc	bttdbsvc.jar
com.ibm.btt.services.ldap	bttldapsvc.jar
com.ibm.btt.services.ldap.model	bttldapsvc.jar
com.ibm.btt.services.mq	bttmqsvc.jar
com.ibm.btt.struts	bttchannels.jar
com.ibm.btt.struts.actions	bttchannels.jar
com.ibm.btt.struts.base	bttchannels.jar
com.ibm.btt.struts.config	bttchannels.jar
com.ibm.btt.struts.exception	bttchannels.jar
com.ibm.btt.struts.plugins	bttchannels.jar
com.ibm.btt.struts.resource	bttchannels.jar
com.ibm.btt.struts.resources	bttchannels.jar
com.ibm.btt.struts.session	bttchannels.jar
com.ibm.btt.struts.taglib.html	bttchannels.jar
com.ibm.btt.struts.utils	bttchannels.jar
com.ibm.connector2.sna.lu0	snalu0.jar
com.ibm.connector2.sna.lu0.exception	snalu0.jar
com.ibm.connector2.sna.lu0.host.event	snalu0.jar
com.ibm.connector2.sna.lu0.host	snalu0.jar
com.ibm.connector2.sna.lu0.resource	snalu0.jar
com.ibm.connector2.sna.lu0.util	snalu0.jar
com.ibm.connector2.sna.lu62	snalu62.jar
com.ibm.connector2.sna.lu62.exception	snalu62.jar
com.ibm.connector2.sna.lu62.host	snalu62.jar
com.ibm.connector2.sna.lu62.host.event	snalu62.jar
com.ibm.connector2.sna.lu62.resource	snalu62.jar
com.ibm.connector2.sna.lu62.trace	snalu62.jar
com.ibm.connector2.sna.lu62.util	snalu62.jar
com.ibm.connector2.sna.services	snalu62.jar
com.ibm.connector2.sna.util	snalu62.jar

Table 6. JAR, RAR or WAR files for packages (continued)

Package name	JAR/RAR/WAR name
com.ibm.connector2.sna.util	snalu0.jar
com.ibm.btt.base.ws	btwssvc.jar
com.ibm.btt.services.ws.jaxrpc	bttwssvc.jar
com.ibm.btt.services.ws.jaxws	bttwssvc.jar

## Where to find missing prerequisites

Use the following table to locate and obtain any missing prerequisites. Some of them can be found in other JAR or ZIP files.

Table 7. Locations for prerequisites

Prerequisite	Resource name	How to get them
WebSphere MQ	com.ibm.mq.jar	Available from WebSphere MQ



---

## Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation  
Licensing  
2-31 Roppongi 3-chome, Minato-ku  
Tokyo 106, Japan

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Lab Director  
IBM China Software Development Lab  
Diamond Building, ZhongGuanCun Software Park, Dongbeiwang West Road No.8,  
ShangDi, Haidian District, Beijing 100193 P. R. China

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples may include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. You may copy, modify, and distribute these sample programs in any form without payment to IBM for the purposes of developing, using, marketing, or distributing application programs conforming to IBM's application programming interfaces.

---

## Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (<sup>®</sup> or <sup>™</sup>), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml)

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java is a trademark of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.