TIBCO ActiveMatrix BusinessWorks™ ActiveAspects Plug-in

Release Notes

Software Release 1.2.0
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Preface

TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in (BWAA) extends the capabilities of TIBCO ActiveMatrix BusinessWorks by adding an Aspect Oriented Programming capability. This allows you to modularize and inject crosscutting concerns to enhance your BW processes at deploy time while keeping the original BW process intact. It exposes a JAVA API to build jar files that can alter the execution of a BusinessWorks Application.

Topics

- Typographical Conventions, page vi
- Connecting with TIBCO Resources, page viii

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
TIBCO_HOME	Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as *TIBCO_HOME*. The value of *TIBCO_HOME* depends on the operating system. For example, on Windows systems, the default value is `C:\tibco\bw\plugins`. Incompatible products and multiple instances of the same product can be installed into different installation environments.
BW_*HOME*	TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in installs into the BW directory within *TIBCO_HOME*. This directory is referenced in documentation as *BW_HOME*. The value of *BW_HOME* depends on the operating system. For example on Windows systems, the default value is `C:\tibco\bw\5.9`.
`code font`	Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use `MyCommand` to start the foo process.
`bold code font`	Bold code font is used in the following ways: • In procedures, to indicate what a user types. For example: Type **`admin`**. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, `MyCommand` is enabled: `MyCommand [`**`enable`**` | disable]`
italic font	Italic font is used in the following ways: • To indicate a document title. For example: See *TIBCO ActiveMatrix BusinessWorks Concepts*. • To introduce new terms For example: A portal page may contain several portlets. *Portlets* are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: `MyCommand` *PathName*

Table 1 General Typographical Conventions (Cont'd)

Convention	Use
Key combinations	Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C. Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Connecting with TIBCO Resources

How to Join TIBCOmmunity

TIBCOmmunity is an online destination for TIBCO customers, partners, and resident experts, a place to share and access the collective experience of the TIBCO community. TIBCOmmunity offers forums, blogs, and access to a variety of resources. To register, go to http://www.tibcommunity.com.

How to Access All TIBCO Documentation

After you join TIBCOmmunity, you can access the documentation for all supported product versions here:

http://docs.tibco.com/TibcoDoc

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, please contact TIBCO Support as follows.

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

  http://www.tibco.com/services/support

- If you already have a valid maintenance or support contract, visit this site:

  https://support.tibco.com

  Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Release Notes

Check the TIBCO Product Support web site at https://support.tibco.com for product information that was not available at release time. Entry to this site requires a username and password. If you do not have a username, you can request one. You must have a valid maintenance or support contract to use this site.

Topics

- New Features, page 2
- Changes in Functionality, page 4
- Deprecated and Removed Features, page 5
- Migration and Compatibility, page 6
- Closed Issues, page 7
- Known Issues, page 9

New Features

This section lists features added since the last major (1.0.0) release of this product.

Release 1.2

The following are new features in this release:

- **Getting Started Guide** A Getting Started guide has been added to the documentation set which contains information about creating and testing a TIBCO ActiveMatrix BusinessWorks project using TIBCO Designer, setting development environment in Eclipse, advice development in Eclipse and finally getting the expected results.
- **JAVA doc** JAVA doc for Activity Configuration has been added.
- **Support for Resuming Hibernated Jobs through Advice API** This is in addition to previous release's capability to resume hibernated jobs through BWAA Resume activity.
- Access to TIBCO ActiveMatrix BusinessWorks Activity configuration in Advice implementation is now supported.

Release 1.1

The following are new features in this release:

- **Object Sharing** TIBCO ActiveMatrix BusinessWorks ActiveApects Plug-in (BWAA) provides this feature for the activities of the JAVA palette to pass objects between each other by means of defining a "Java Object Reference" type for Input and/or Output schema of the activities involved.
- **NOT EQUAL Operator Support** Comparison operator “!=” (NOT EQUAL) can now be used while comparing the property values.
- **Monitoring and Management** The Monitoring and Management feature is provided by a monitoring interface, which is implemented by a TIBCO Hawk microagent.
- **BWAA Palette** BWAA palette contains the activity to resume a previously hibernated job.

Release 1.0

Following are the features in this release.

- **Aspect Oriented Programming (AOP) capabilities to TIBCO ActiveMatrix BusinessWorks** TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in (BWAA) extends the capabilities of TIBCO ActiveMatrix BusinessWorks by adding an Aspect Oriented Programming capability. This allows you to modularize and inject crosscutting concerns to enhance your BW processes at deploy time while keeping the original BW process intact. It exposes a JAVA API to build jar files that can alter the execution of an TIBCO ActiveMatrix BusinessWorks Application.
- Develop advice implementations that can intercept calls to any activity that is executed as part of a BusinessWorks process. They can both read and change any activity's input and output messages.
- Develop advice implementations that can intercept any exception thrown by any activity that is executed as part of a BusinessWorks process. They can both read and change any exception message.
- Develop advice implementations that can change the control flow of a running BusinessWorks process instance by throwing exceptions at various points inside a process.
- **Hibernate Resume** The main features of hibernate resume are:
  - An advice implementation can 'Hibernate' a process in its execute method.
  - A process is said to be hibernated when the process state is written out to the disk (or database) and the process is completely removed from memory.
  - Hibernation internally does use the logic similar to checkpointing for TIBCO ActiveMatrix BusinessWorks.
  - A hibernated process can be started at a later stage in time using the `RestartHibernatedProcess` TIBCO Hawk command exposed by TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in on the BW engine.
- **Asynchronous Advice Implementations** Asynchronous Advice Implementation addresses the performance concerns related to the Synchronous Advice Implementations.
- **Point Cut Query Language** TIBCO ActiveMatrix BusinessWorks defines a simple query language used for writing point cut expressions. This language consists of a small set of primitives. Each one of these primitives is designed to narrow down the scope of the search based on certain conditions (for example, search for all File Read activities, search for all process that have their namespace starting with "`http://example.com/`", etc.).

Changes in Functionality

This section lists changes in functionality since the last major (1.0.0) release of this product.

Release 1.2

The are no changes in functionality in this release.

Release 1.1

This section lists changes to existing product functionality in this release.

Full Installer

TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in 1.1.0 is a full installer and does not need to be installed over 1.0 version.

Deprecated and Removed Features

This section describes deprecated features (if any), and lists features, if relevant, that may be useful alternatives to the deprecated features. Any use of a deprecated feature should be discontinued as it may be removed in a future release. You should avoid becoming dependent on deprecated features and become familiar with the suggested alternative features.

This section also lists features that are removed (if any).

Release 1.2

Deprecated Features

No features are deprecated in this release.

Removed Features

No features are removed in this release.

Release 1.1

No features are deprecated in this release.

Migration and Compatibility

This section explains how to migrate from a previous release to this release.

Release 1.2

There are no migration procedures or compatibility issues in this release.

Release 1.1

There are no migration procedures or compatibility issues in this release.

Closed Issues

The table in this section list issues that were closed in the named releases.

Closed in Release	Key	Summary
1.2.0	BWAA-501	Monitoring and Management: The Elapsed and Executed time returned by `getAdviceInstanceMetrics()` did not record the time of the advice instances, that encountered an error during the execution process.
1.1.0	BWAA-294	TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in installer did not display the disk space required by the plug-in during installation.
1.1.0	BWAA-301	Weaving advices in the AFTER RETURNING, AFTER THROWING and AFTER join points of the Start Activity is now supported.
1.1.0	BWAA-303	Weaving Asynchronous advices in the AFTER RETURNING, AFTER THROWING and AFTER join points of asynchronous activities is now supported.
1.1.0	BWAA-304	This release now supports weaving advices in the BEFORE join point of the Wait Activity.
1.1.0	BWAA-313	A `NullPointerException` was thrown when the BW engine started in an environment where the TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in was installed but the "`aspectPath`" property was not specified in the TRA file.
1.1.0	BWAA-316	If an advice executed in an AFTER THROWING join point mutated the incoming document, the `$error_<ACTIVITY_NAME>` element available in the process context was not properly set and continued to have the old exception message.
1.1.0	BWAA-317	If a job was hibernated as in AFTER THROWING join point, the exception was not propagated properly to the process once the job resumed and the Catch Activity did not catch the original exception based on its type.
1.1.0	BWAA-326	Hibernating jobs in the AFTER RETURNING and AFTER joint points of activities that did not have output schemas, threw an `OptionalDataException` while resuming the hibernated jobs. No functionality was hampered by this exception, though.

Closed in Release	Key	Summary
1.1.0	BWAA-337	The "`kind`" parameter of `process()` primitive did not work and the point cut expressions built with it did not get evaluated properly.
1.1.0	BWAA-362	A validation error was encountered when "=" character was used as a property value in the query expression.
1.1.0	BWAA-399	A Null Pointer exception was thrown when "description" property was used in the query expression even though there was no description defined on the activity.
1.1.0	BWAA-413	Aspects were not being weaved for Process Starters when property 'description' was used in the query expression.

Known Issues

The table in this section lists known issues in this release.

Key	Summary/Workaround
BWAA-818	**Summary** The '**Line Separator**' and '**Fill Character**' field values using advice implementation are not retrieved. **Workaround** None.
BWAA-842	**Summary** Retrieving of the Proxy configuration (`ProxyConfigurationConfigProps`) description field (`DESCRIPTION`) value using an advice implementation returns a null value. **Workaround** None.
BWAA-862	**Summary** After installing TIBCO ActiveMatrix BusinessWorks XA Transaction Manager and enabling TIBCO ActiveMatrix BusinessWorks ActiveAspects Plug-in, the TIBCO ActiveMatrix BusinessWorks project does not run in TIBCO Designer. **Workaround** Use engine mode.
BWAA-877	**Summary** An interface is required to retrieve the Remove File activity's configuration properties. **Workaround** Use `CommonProps` interface.
BWAA-878	**Summary** Individual interface is required for all the FTP activities to retrieve configuration properties. **Workaround** Use `FTPActivitiesCommonConfigProps` interface.
BWAA-883	**Summary** When trying to retrieve a property which is not available on the UI at that point based on some other property or flag selection, it does not throw an exception. **Workaround** None.
BWAA-324	**Summary** An asynchronous advice cannot be located in the AFTER RETURNING and AFTER pipelines of a Call Process Activity. **Workaround** If appropriate, implement the advice as a synchronous advice.

Key	Summary/Workaround
BWAA-340	**Summary** An advice that hibernates jobs cannot be located BEFORE an asynchronous advice in the same advice pipeline, if the pipeline belongs to a parallel track. **Workaround** Place the advice that hibernates jobs at the end of the pipeline.
BWAA-355	**Summary** An asynchronous advice cannot be located in an AFTER-RETURNING pipeline. **Workaround** If appropriate, implement the advice as a synchronous advice.
BWAA-505	**Summary** An asynchronous advice cannot be located in the Wait Activity's AFTER and AFTER-RETURNING pipelines. **Workaround** If appropriate, implement the advice as a synchronous advice.
BWAA-512	**Summary** Monitoring and Management: There is no way to filter out the information returned by `getAdviceInstances()` based on the name of the folder that contains a process. **Workaround** None.
BWAA-517	**Summary** Monitoring and Management: There is no way to distinguish a process with same name existing in two folders in a BW Project from the output displayed. **Workaround** None.