TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ Plug-in Distribution Quick Start Guide

Software Release 3.5
June 2017

TIBC®

Important Information

SOME TIBCO SOFTWARE EMBEDS OR BUNDLES OTHER TIBCO SOFTWARE. USE OF SUCH EMBEDDED OR BUNDLED TIBCO SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED TIBCO SOFTWARE. THE EMBEDDED OR BUNDLED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER TIBCO SOFTWARE OR FOR ANY OTHER PURPOSE.

USE OF TIBCO SOFTWARE AND THIS DOCUMENT IS SUBJECT TO THE TERMS AND CONDITIONS OF A LICENSE AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED SOFTWARE LICENSE AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER LICENSE AGREEMENT WHICH IS DISPLAYED DURING DOWNLOAD OR INSTALLATION OF THE SOFTWARE (AND WHICH IS DUPLICATED IN THE LICENSE FILE) OR IF THERE IS NO SUCH SOFTWARE LICENSE AGREEMENT OR CLICKWRAP END USER LICENSE AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENT IS SUBJECT TO THOSE TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document contains confidential information that is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of TIBCO Software Inc.

TIBCO, Two-Second Advantage, The Power of Now, TIB, Information Bus, Rendezvous, TIBCO Rendezvous, and Messaging Appliance are either registered trademarks or trademarks of TIBCO Software Inc. in the United States and/or other countries.

Enterprise Java Beans (EJB), Java Platform Enterprise Edition (Java EE), Java 2 Platform Enterprise Edition (J2EE), and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle Corporation in the U.S. and other countries.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only.

THIS SOFTWARE MAY BE AVAILABLE ON MULTIPLE OPERATING SYSTEMS. HOWEVER, NOT ALL OPERATING SYSTEM PLATFORMS FOR A SPECIFIC SOFTWARE VERSION ARE RELEASED AT THE SAME TIME. SEE THE README FILE FOR THE AVAILABILITY OF THIS SOFTWARE VERSION ON A SPECIFIC OPERATING SYSTEM PLATFORM.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENT. TIBCO SOFTWARE INC. MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S) AND/OR THE PROGRAM(S) DESCRIBED IN THIS DOCUMENT AT ANY TIME.

THE CONTENTS OF THIS DOCUMENT MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "READ ME" FILES.

Copyright © 2011-2017 TIBCO Software Inc. ALL RIGHTS RESERVED.

TIBCO Software Inc. Confidential Information

Contents

TIBCO Documentation and Support Services

Documentation for this and other TIBCO products is available on the TIBCO Documentation site. This site is updated more frequently than any documentation that might be included with the product. To ensure that you are accessing the latest available help topics, visit:

https://docs.tibco.com

Product-Specific Documentation

The following documents for this product can be found on the TIBCO Documentation site:

- *TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ Installation*
- *TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ User's Guide*
- *TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ Developer's Guide*
- *TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ Release Notes*
- *TIBCO Silver® Fabric Enabler for ActiveMatrix BusinessWorks™ Plug-in Distribution Quick Start Guide*

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, contact TIBCO Support:

- 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.

How to Join TIBCO Community

TIBCO Community is an online destination for TIBCO customers, partners, and resident experts. It is a place to share and access the collective experience of the TIBCO community. TIBCO Community offers forums, blogs, and access to a variety of resources. To register, go to the following web address:

https://community.tibco.com

Creating a TIBCO ActiveMatrix BusinessWorks Plug-in Distribution

If you want to add TIBCO ActiveMatrix BusinessWorks™ plug-ins to your components in TIBCO Silver® Fabric, then this guide will describe how you can create ActiveMatrix BusinessWorks Plug-in Extension Distributions to enable rapid and scalable publishing.

BusinessWorks Plug-in Extension Distribution Introduction

TIBCO Silver Fabric supports the use of ActiveMatrix BusinessWorks plug-ins with the BusinessWorks components deployed in a Silver Fabric managed runtime. To use an ActiveMatrix BusinessWorks plug-in, create a BusinessWorks Plug-in Extension Distribution using the steps described in this guide.

BusinessWorks Plug-in Extension Distribution

A BusinessWorks Plug-in Extension Distribution is a compressed archive that contains all the plug-in files for installation of TIBCO ActiveMatrix BusinessWorks. It also adds a couple of meta-data files: grid-library.xml and plugin.properties.

Making a BusinessWorks Plug-in Extension Distribution

To build and use an extension distribution, there are five basic steps:

Procedure

1. Determine what files are needed to install the plug-in. See Determining Required Plug-in Files on page 6 for details.
2. Create a `grid-library.xml file`. See Create the grid-library.xml File on page 6 for details.
3. Create a `plugin.properties file`. See Create the plugin.properties file on page 7 for details.
4. Create a plug-in distribution archive of the files from steps 1-3. See Archiving the Plug-in Distribution Files on page 8 for details.
5. Copy the plug-in distribution compressed file to the TIBCO Silver Fabric Broker. See Copying the Plug-in Distribution compressed file to TIBCO Silver Fabric Broker on page 8

Determining Required Plug-in Files

Procedure

1. Use an installation of ActiveMatrix BusinessWorks with the same operating system, bit length, and version as published on the TIBCO Silver Fabric Cloud.
2. Determine the files that need to be included in the Distribution.

   > You must note all the changed files, file additions, and JARs that are installed or changed by the required plug-in.

3. Make sure the plug-in version is compatible with the selected ActiveMatrix BusinessWorks version and platform.
4. Install the plug-in.

   Typically the files of interest are in the directory: `../bw/plugins/lib`

Create the grid-library.xml File

Grid Library

The `grid-library.xml` file is located at the root of a Grid Library archive. It specifies name, version, dependencies, paths, operating system, and other information about a Grid Library. The following is an example of a `grid-library.xml` for a distribution:

```
<?xml version="1.0" encoding="UTF-8"?>

<grid-library os="linux">

<grid-library-name>

TIBCO_BWPlugin_Dist

</grid-library-name>

<grid-library-version>

3.5.0.0

</grid-library-version>

</grid-library>
```

Your `grid-library.xml` must contain the following elements and attributes:

- Agrid-library element with an os attribute. The os attribute defines the operating system on which the distribution is running. You can define the element and attribute with value in any of the following ways:

  - `<grid-library os="linux">`

  - `<grid-library os="linux64">`

  - `<grid-library os="linux64">`

  - `<grid-library os="solaris">`

  - `<grid-library os="solarisX86">`

  - `<grid-library os="win32">`

  - `<grid-library os="win64">`

- If the distribution is platform-neutral, set the element and os attribute to: `<grid-library os="all">`

- A grid-library-name element. This defines the name of the distribution.

The distribution Grid Library must begin with "TIBCO_" so that it is recognized but any string may be appended after that. It can be named anything as long as it follows Silver Fabric Grid Library naming conventions. It is suggested to use the naming convention of TIBCO_BWpluginName_distribution_gridlib, where BW Plugin Name, is the BusinessWorks plug-in name used by TIBCO Universal installer.

- A grid-library-version element. This defines the version of the BusinessWorks plug-in. The numeric value may have at the most to five digits.

  For more information on the grid-library.xml file, see the "Using the Silver Fabric SDK" chapter of the *Silver Fabric Developer's Guide*.

Create the plugin.properties file

When the Enabler loads extensions in runtime, it reads the plugin.properties file of each extension. The Enabler may gather information such as the extension name, version, implementation class, and distribution dependencies from this file. Create a plugin.properties file, such as the example below.

product=MyName_BWPlugin

version=1.0. 0

TIBCO_ActiveMatrix_BW_Distribution=(5.9.2, 7.0.0]

The following checks must be done on your plugin.properties file:

- The product defines the name of the plug-in that appears in the Component Wizard UI.

- The version value is the version of the plug-in.

- The name, shown above as TIBCO_ActiveMatrix_BW_Distribution, must match the name of the BusinessWorks distribution grid library to be used with the plug-in. You can verify the grid-library-name of the TIBCO product distribution by opening the `grid-library.xml` file present in the TIBCO product distribution compressed file, which you have chosen to use with your plug-in.

You can specify the supported versions for the plug-in distribution by using square brackets [] to indicate a version is inclusive, or parenthesis () to indicate that the version number is exclusive. The above example indicates that the MyName_BWPlugin works with TIBCO ActiveMatrix BusinessWorks Distributions, which are greater than 5.9.2 and upto 7.0.0 version

Archiving the Plug-in Distribution Files

Procedure

1. Create the plug-in distribution grid library by collecting all files that are identified or created in steps 1 - 3.

2. Compress the files in the compressed file format.

3. Collect all the files installed or changed by the plug-in installation and add them to a archive retaining the relative directory paths.

4. Ensure that the `grid-library.xml` and `plugin.properties` files are placed at the top level of that compressed archive

Copying the Plug-in Distribution compressed file to TIBCO Silver Fabric Broker

Procedure

1. To copy the Plug-in Distribution archive compressed file to TIBCO Silver Fabric Broker, follow the given path: `SILVERFABRIC_HOME\webapps\livecluster\deploy\resources\gridlib\`

   The log shows that the new compressed file is "signed" and "detected".

2. You can create a new BusinessWorks Component, select the supported Distribution and your plug-in will be available for selection. Once the Distribution and Plug-in are selected for configuration within the Component, it is published to that TIBCO ActiveMatrix BusinessWorks Engine at runtime.

Uninstalling the Plug-in Distribution

Procedure

- To delete the Plug-in Distribution compressed archive from TIBCO Silver Fabric Broker, follow the given path: `SILVERFABRIC_HOME\webapps\livecluster\deploy\resources\gridlib\`