

TIBCO BusinessWorks™ Container Edition Release Notes

Software Release 2.2.1

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New Features

Here are the new features available in the named release of TIBCO BusinessWorks™ Container Edition.

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New Features

- This release adds certification for:
 - OpenShift
 - PCF 1.8
 - PCF 1.9
 - Kubernetes 1.4
- Support for JMX.
- Ability to override JAVA Garbage Collection configuration.
- Logging error messages for run time errors in the JDBC shared resource
- Support for HTTP PATCH method in REST Service and Reference Bindings. Refer to the REST Service Binding and the REST Reference Binding topics in the *REST Implementation in TIBCO BusinessWorks™ Container Edition* guide for additional details.
- **Reset Variables** field is now available for groups with conditions. Refer to following topics in the *Bindings and Palettes Reference* guide for additional details:
 - Iterate
 - While
 - For Each
 - Repeat
- A new check box, **Single XPATH Function Group Project**, is offered in the Project Migration Wizard. Refer to the topic Migrating Projects Using TIBCO Business Studio in the *Migration* guide for additional details.
- New option provided in the Project Migration Wizard to add third party jars to the XPATH Function Project. Refer to the topic Migrating Projects Using TIBCO Business Studio in the *Migration* guide for additional details.
- A new check box, **Interpret invalid XML chars**, has been added to the **Advanced** tab in the **JDBC Call Procedure** activity.

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New Features

- Support for the TIBCO FTL Palette.
- Hystrix (Circuit Breaker Pattern Implementation) and Service Discovery now support SOAP Reference Binding.
- Configuration Options for Memory: Applications can be configured to start with 512 MB memory (or higher) on Cloud Foundry or Docker environments.

Eco-system Support

- Support added for TIBCO ActiveMatrix BusinessWorks™ Plug-in for OData 6.0.1 on Cloud Foundry, Docker and Docker based platforms.

- Support added for TIBCO ActiveMatrix BusinessWorks™ Plug-in for MongoDB 6.1.1 on Cloud Foundry, Docker and Docker based platforms.

Functional Improvements

- REST Reference and Service Bindings now support plain text, as a request or response message format.
- Elements from different namespaces can now be used in the REST Service Binding.
- Query parameters now support multiple values.
- Support for anonymous arrays in JSON responses.
- BIGINT is a supported datatype for the input and output parameters on the **JDBC Call Procedure** activity.
- Add query parameters for individual REST operations.
- The **Receive Notification** activity and the **On Notification Timeout** are offered as process starter activities in the General Activities palette.
- Support for Kerberos (SPNEGO) Authentication for outbound HTTP requests.
- Additional elements have been added to the Catch All fault.
- Profiles for values of the Module Properties in an Application can now be imported and exported across applications using TIBCO Business Studio™ Container Edition.
- Binary shared modules can be created to hide the implementation details of a shared module from the users of the module.
- Added checks for validating composite XPath Expression for newly migrated projects using the **Migrate Projects** menu option.
- Password type application properties can now reference password type module properties.

Release 2.1.1

New Features

- This release adds certification for:
 - Pivotal Cloud Foundry 1.7
 - Kubernetes 1.3.7

Release 2.1.0

New Features

- Support for service discovery and registration for Cloud Foundry, Docker, and Docker based platforms.
- Support added for the circuit breaker mechanism through Hystrix libraries.
- Support for FTP and Mail palette.
- Support for migrating your projects from TIBCO ActiveMatrix BusinessWorks 5.x to TIBCO BusinessWorks Container Edition.

Eco-system Support

- Integration with TIBCO Mashery® for Docker applications.
- Support for TIBCO ActiveMatrix BusinessWorks™ Plug-in for WebSphere MQ and TIBCO ActiveMatrix BusinessWorks™ Plug-in for Data Conversion on Docker and Docker based platforms.

- Support for TIBCO ActiveMatrix BusinessWorks™ Plug-in for SAP and TIBCO ActiveMatrix BusinessWorks™ Plug-in for Salesforce.com on Cloud Foundry, Docker, and Docker based platforms.
- Ability to run TIBCO BusinessWorks Container Edition applications deployed to Linux Docker images managed and running inside Amazon EC2 Container Service and Azure Container Service.
- Support added for the Docker CS Engine and Docker approved open source engine which is in turn supported by:
 - Amazon EC2 Container Service - for more information see <https://aws.amazon.com/docker/>
 - Azure Container Service - for more information see <https://azure.microsoft.com/en-in/services/container-service/>

Functional Improvements

- The new **Wait for Notification** and **Notify** activities and the **Notify Configuration** shared resource handle inter-process communication. These activities are similar to semaphores in programming. A process containing a **Wait for Notification** activity waits for another process to execute a corresponding **Notify** activity.

The **Notify Configuration** Shared Resource specifies a schema for passing data between executing process instances.

- Support added for JSON based EMS configurations.
- Design time libraries (DTL) as a part of TIBCO ActiveMatrix BusinessWorks 6.x Migration Utility.
- Concrete WSDLs can now be generated at runtime for SOAP over HTTP bindings.
- Ability to select inline schemas from WSDLs in the same application module.
- Group index variable can be made available by selecting the **Global** check-box for groups.

Release 2.0.0

- Support for Docker and Docker-based platforms such as Kubernetes

You can now build applications and deploy them as Docker images to these cloud-native platforms. While doing so, the images can be customized for varied use cases and requirements.
- Cloud-Native Tooling

This release adds support for Consul as a configuration management solution when using with Docker. This is in addition to the ability to use Spring Cloud Config or Zuul when deploying to Cloud Foundry.
- Integration with TIBCO Microflow Container Edition

You can now build client-specific APIs and applications without changing their TIBCO BusinessWorks™ Container Edition applications and deploy them to Cloud Foundry using TIBCO Microflow Container Edition. Applications deployed to both Cloud Foundry and Docker are available for use with TIBCO Microflow Container Edition.
- Integration with TIBCO Mashery®

This release adds support for configuring your TIBCO Mashery® instance as a Create-User-Provided-Service (CUPS) in your Cloud Foundry environment. Subsequently any REST or SOAP service bound application to that CUPS will be exposed in TIBCO Mashery® for API distribution and management.

Functional Improvements

- Added support for header parameters described in the Swagger 2.0 specification.

- Support for Form, specifically application/www-x-form-urlencoded and multipart/form-data as a media type for REST Service and REST Reference bindings.
- Support for anonymous JSON arrays.
- You can now use a new non-WSDL-based subprocess, called a direct subprocess. A direct subprocess does not require a WSDL to define subprocess details. Instead, details are set on the **Start** and **End** activities in the process interface. During migration processes all subprocesses are migrated as direct subprocesses.
- You can now configure the REST Reference Binding to use HTTPS protocol.
- When configuring the **Post Data Type** field from the **General** tab, users can now choose to send post data as a string or as binary.
- The new **REST Reference** wizard in Business Studio allows users to invoke web services by providing the web service URL.
- Ability to reuse an **HTTP Connector** Shared Resource from a Shared Module in multiple applications deployed on the same AppNode.
- Ability to select HTTP methods to disable
- Ability to use default confidentiality
- Users can now use module properties when selecting an **HTTP Client** Shared Resource for Transport Configuration in SOAP binding
- Support for a custom fault schema for individual operations and fault codes for REST services.
- Improved ability to create XML schema from a JSON payload.
- Supports for NULL values in JSON. However, this support does not extend to supporting NULL values in root elements.
- Ability to select individual processes and resources during migration.
- Logging HTTP request and response time.
- Ability to select individual processes and resources when running the Debugger.

Release 1.0.1

Pivotal Cloud Foundry Tooling

- System defined user properties - You can now set Java properties for use at run time. Refer to the *Application Development* guide for more information.
- Support for SSH: You can now connect to the TIBCO BusinessWorks™ Container Edition runtime environment using SSH.

Platform and Ecosystem Improvements

- Support for Java Runtime Environment (JRE) 8 - JRE has been upgraded for TIBCO Business Studio Container Edition and the buildpack.
- Support for Plug-ins - This release provides the necessary tooling and support to use plug-ins with your TIBCO BusinessWorks Container Edition projects.

For TIBCO Business Studio Container Edition, these plug-ins can be installed using the plug-in installer. For instructions on customizing your buildpack to include the plug-in runtime, refer to the *Application Development* guide.

Functional Improvements

- Unshared State Failover (UFO) support in JMS - This feature introduces a new check-box to indicate the usage of Unshared State Failover in JMS. This check-box appears only when the option **Direct** is used in the **Connection Factory Type** field.

When using the unshared failover setup, if a connection loss is detected on Server (A), BusinessWorks will try to connect to Server (B) as defined in the connection factory configuration.

After enabling the check-box, you can pass the provider URL in the form of UFO. For example,
`tcp://serverA:7222+tcp://serverB:7222,`

where Server A and Server B are two EMS servers configured for sharing the Unshared State Failover.

Release 1.0.0

Native Eclipse Design-time

- Process Designer
- Shared modules for modular design of applications
- Integrated with the Eclipse ecosystem of frameworks and plug-ins

Graphical Modeler for Visually Building Cloud-native Micro Services with Zero-code

- Drag-and-drop process design user interface
- Extensive set of pre-built activities to build applications using technologies such as JDBC, JMS, HTTP
- Rich data mapping and XML management capabilities with shared context within processes
- Intuitive gestures for commonly performed tasks
- Multi-operation process definitions
- Support for Exception handlers and Error Transitions
- Visual process debugger with capabilities for powerful data inspection, breakpoints and stepping through execution
- Configuration management using scoped properties at Process or Module level and deployment specific environment profiles
- Support for converting TIBCO ActiveMatrix BusinessWorks Enterprise projects to TIBCO BusinessWorks Container Edition

Zero-resistance to Coding with Java Development Tooling

- Leverages the rich Eclipse java development features
- Full-fledged Java palette in BusinessWorks processes
- Java debugger to seamlessly interweave between code and visual process
- Ability to develop Java/OSGi modules

First Class Support for REST/JSON

- Wizard to convert resource definitions to testable APIs and services in a few clicks
- Option to choose between XML or JSON for resource representation
- Integrated Web UI for documentation and testing that generates Swagger 2.0 specification
- Easily consumable from web and mobile applications in Javascript, Python, Ruby etc
- Support for REST reference bindings using Swagger specifications.

Native Support for Cloud Foundry

- Tailored design-time environment for developing Cloud Foundry applications

- Out-of-the-box support for Spring Cloud Config and Zuul Configuration Management Services
- Cloud Foundry build-pack that participates in a native manner with all Cloud Foundry tooling
- Ability to customize buildpacks for third party drivers and adding support for custom or new services/tooling (such as managed services or monitoring)
- Native integration with Cloud Foundry external services such as database, messaging, and logging

Changes in Functionality

The following are the notable changes in functionality in the named releases.

Release 2.2.1

Migration	
Classes folder removed from the Custom XPATH Function Group Plugin project	After migration, the classes folder will no longer be available inside the Custom XPATH Function Group Plugin Project. The <code>customXPathFunction.jar</code> file for classes referred by the project are placed in the lib folder. The same JAR file will also be added to the project class path.
Custom XPATH Function Group Plugin	After migration, Custom XPATH Function Plugin Project will be included in the application project.
General	
Stricter validation for accepted response type	REST service has a stricter validation on the accepted response type, and if anything other than the supported response types is used, the unsupported response media type exception is thrown.

Release 2.2.0

Design-time	
Flow limit on REST Service Bindings	<p>To apply Flow Limit to applications that use HTTP-based transports, specify the number of maximum QTP threads on the HTTP Connector shared resource. The value you set for the minimum number of QTP threads should always be less than, or equal to, the number you set for maximum QTP threads.</p> <p>If applications are using non-HTTP-based transports, for example JMS, set the BW_APPLICATION_JOB_FLOWLIMIT environment variable.</p>

Design-time	
Removal of TIBCO Enterprise Message Service Client Libraries	<p>Starting with this release, TIBCO Enterprise Message Service (EMS) client libraries are no longer shipped with the product. This affects the following areas of the product:</p> <ul style="list-style-type: none"> • Palettes - JMS (when using EMS as the server) • Binding - SOAP (when using JMS transport) <p>A new <code>bwinstall</code> utility target has been created for users to easily add client libraries from the EMS installation. To install EMS Client libraries run the following command from <code><BW_HOME>/bin</code> folder and follow the prompts:</p> <pre>bwinstall ems-driver</pre>

Release 2.1.1

There are no changes in functionality in the version 2.1.1 of TIBCO BusinessWorks™ Container Edition.

Release 2.1.0

There are no changes in functionality in the version 2.1.0 of TIBCO BusinessWorks™ Container Edition.

Release 2.0.0

Design-time	
Invoke activities with a single Message-Part(Element) as the output, can be selected as the Output Activity for the group	The Accumulate Output check box is now supported for the Invoke activity when the activity is used inside of a group.
An easier way to create an XSD schema from a JSON payload in Business Studio	The new JSON to Schema Wizard provides a streamlined approach to creating an XML schema from a JSON Payload. It can be easily accessed by right-clicking on the Schemas folder from the Project Explorer pane, and clicking New > XML Schema File from JSON Payload .

Design-time	
Updates to the HTTP access logs	<p>The following HTTP Access Log properties have been removed:</p> <ol style="list-style-type: none"> 1. <code>bw.plugin.http.jetty.disableaccesslogs</code> 2. <code>bw.plugin.http.jetty.accesslogs.extended</code> 3. <code>bw.plugin.http.jetty.accesslogs.cookies</code> 4. <code>bw.plugin.http.jetty.accesslogs.servername</code> 5. <code>bw.plugin.http.jetty.accesslogs.dispatchtime</code> <p>Another update made was to the default behavior of HTTP access logs. Previously, HTTP access logs were printed by default. In this version of the software, HTTP access logs will not be printed by default. Users can choose one of the following options to enable the access log:</p> <ul style="list-style-type: none"> • To turn on HTTP access logs for new applications, select the Enable Access Logs check box in the HTTP Connector Shared Resource. • To turn on HTTP access logs for applications that were created using previous versions of the software, set the <code>bw.plugin.http.jetty.accesslogs.enable</code> to true.
The JDBC palette can be configured to use custom JDBC drivers	<p>The JDBC Connection Shared Resource can be configured to use custom drivers at run time. For additional details, refer to the "Using Custom Drivers for Run Time" section in the <i>TIBCO BusinessWorks Container Edition Palette Reference</i> guide.</p>
JMS activities now support dynamic JMS properties	<p>Users can add JMS properties to the following JMS activities at runtime:</p> <ul style="list-style-type: none"> • Get JMS Queue Message • JMS Receive Message • JMS Request Reply • JMS Send Message • Reply to JMS Message • Wait for JMS Request

Closed Issues

The following are the closed issues for the named releases of TIBCO BusinessWorks™ Container Edition.

Release 2.2.1

Key	Description
EPAS-738	Summary: When the Circuit Breaker feature was enabled, some requests for Docker applications might fail with a <code>No route to host</code> error even after the circuit is closed. This has been fixed.
EPAS-736	Summary: The Service Discovery and Circuit Breaker features was not supported for SOAP Reference Bindings.

Bindings

Key	Description
AMBW-25463	If the format is not explicitly specified in the Swagger file, Swagger to schema conversion changed the type integer to decimal in the schema. This has been fixed.
AMBW-25277	The REST Reference binding did not work if it referenced an HTTP Client Shared Resource that was configured to use a Proxy Configuration shared resource.

General

Key	Description
AMBW-26150	TIBCO Business Studio™ hung when the Salesforce object type was selected for coercion on substitution.
AMBW-26034	The sequence key did not work in the group mode when the key was set to a value. The error <code>Caused by: java.lang.NullPointerException: null</code> error was thrown.
AMBW-25918	TIBCO Business Studio™ would hang when users removed shared modules from the Application Includes page, which can be accessed from the Project Explorer view by fully expanding the application and double-clicking Includes under Package Unit .
AMBW-25786	The <code>bwinstall</code> TIBCO EMS driver failed when the installation contained only the run time environment.
AMBW-25785, AMBW-25754	An exception was thrown at run time, if binary shared modules contained encrypted process files. This has been fixed, and the encrypted process files can now be parsed successfully at runtime.

Key	Description
AMBW-25771	When Shared Module with JNDI Configuration Shared Resource is used in multiple applications that are deployed to the same AppSpace, configuration update for the JNDI Configuration Shared Resource in one application causes issues in the other application. This has been fixed.
AMBW-25718	Fixed an implementation bug in the handling of grouping in XSLT.
AMBW-25679	Mappings are maintained when copying and pasting a Call Process activity from one process to another.
AMBW-25660	When attempting to reference the attribute in schemas containing attribute definitions, the TIBCO Business Studio™ mapping tool created a copy of the attribute and generated the following error: Activity configuration error. The activity [Mapper] has input configuration error. Rename to about.
AMBW-25622	When an application with a Sleep activity was terminated in the debugging mode, the application was not terminated. This has been fixed.
AMBW-25571	The stackoverflow issue caused by circular dependency between shared modules has been fixed.
AMBW-25525	The \$_error field for error transitions was not populated in the parent process when an error was found in the called process.
AMBW-25486	When copying and pasting a process in the same package, TIBCO Business Studio™ incorrectly allowed users to rename the new process to use the name of an already existing process. Now, TIBCO Business Studio™ notifies users if a process with the same name already exists in the package.
AMBW-25424	Module properties are now supported in the Key field on the Receive Notification activity.
AMBW-25397	Schema variables were not getting resolved if WSDL and XSD files used the same target namespace. To avoid this issue, ensure WSDL and XSD files use different target namespaces
AMBW-25376	The process property in the Notify Configuration Shared Resource can now be configured to use module properties.
AMBW-24247	The variable list in an Iterate group was incorrectly reset when the JDBC activity inside the group was refreshed.
AMBW-25351	A Null Pointer Exception was intermittently thrown in a migrated project when a service was added to a component in the Module Descriptor.
AMBW-22281	When the input was a complex schema a service sub process could not be started from the TIBCO Business Studio™ process launcher.
AMBW-21735	Editing the sorting option in Statement tab will now give the correct command on the XSLT level.

Key	Description
AMBW-20732	Elements in Iterate groups did not display attributes for the assigned schema. Only the simple and complex elements were displayed.
AMBW-16594	Empty module properties, that have String set as the data type, are allowed, irregardless of whether they are used by an activity configuration. Empty process properties are not allowed. A validation error is thrown for empty process properties, irregardless of whether they are used by an activity configuration.

Palettes

JDBC Palette	
Key	Description
AMBW-26164	The JDBC Query activity threw a <code>Closed Connection</code> error if the Query Subset option inside a Local Transaction activity was used.
AMBW-25778	Upsert mode did not work if users had configured the JDBC Update activity for the TIBCO Oracle Data Driver, and the activity was set to use a prepared statement.
AMBW-25713	The Login Timeout field in JDBC Connection shared resource displayed <code>msecs</code> value instead of <code>secs</code> . This has been fixed to display <code>secs</code> .
AMBW-25678	Schema output was not refreshed in the stored procedure if the ResultSet Use Schema check box was selected. This has been fixed.
AMBW-25097	Toggling between JDBC Query activities that were in the same process caused issues when users selected the SQL button from the Statement tab to build a SQL statement.
AMBW-23265	DB2 is now supported with DataDirect drivers.
AMBW-22145	The SQL Direct , JDBC Call Procedure and the JDBC Query activities timed out at the default value of three minutes when the results from the database were not received within that period of time, not honoring the timeout value set by the user. This has been fixed.
AMBW-24348	JDBC activities did not parse the datetime columns when the GMT was set to ServerTimeZone .
AMBW-22098	The JDBC Call Procedure activity ignored the value set in the Timeout field.
REST and JSON Palette	
Key	Description
AMBW-25987	Special symbols like Euro (€) did not parse correctly in Json text, in the Generic mode. This is now fixed.

FTL Palette	
Key	Description
AMBW-24673	The FTL Subscriber activity allows the user to specify its durable name to allow it to dynamically create a durable listener.

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Bindings

Key	Description
AMBW-25225	When importing a project, a validation error was thrown on the REST Reference binding if the project contained an HTTP Client Shared Resource in a shared module.
AMBW-25151	The Parse JSON activity no longer throws a validation error when configured with elements which reference elements from other schemas using the import attribute.
AMBW-25126	A typo was fixed in the title of the REST Reference Wizard.
AMBW-25095	SOAP faults 1.2 generated by the ActiveMatrix BusinessWorks™ SOAP server did not display the xml:lang attribute.
AMBW-25004	Attribute values were not passed in an unbound SOAP header.
AMBW-24967	The SOAP Reference Binding exception "javax.jms.IllegalStateException: Illegal use of receive() from multiple threads" was thrown intermittently.
AMBW-24953	The REST Service binding became corrupted if users modified the Resource Service Path.
AMBW-24908	If a REST service was implemented in the Opaque mode, and XML was set as the response format, the response obtained was incorrect.
AMBW-24784	The JSON to XSD conversion mechanism assumed the object elements of an array as uniform.
AMBW-24577	After multiple successful calls, an exception was thrown on the REST Reference binding if authentication was enabled on the HTTP Client shared resource.
AMBW-24526	On importing projects created in earlier versions containing query parameters, users can now view and edit query parameters from the query parameters table.
AMBW-24441	REST Resources were not invoked correctly during run time if resource paths used a common prefix.
AMBW-23877	If a SOAP service used JMS for transport, and the SOAP action attribute for an operation contained, or began with, a leading slash character, the SOAP Service binding did not consume the JMS message.

Key	Description
AMBW-22177	The Swagger UI did not show the application/xml option if the service was configured with XML.
AMBW-21091	If REST resources were implemented as Opaque, the generated Swagger specification was incorrect.
AMBW-19163	The Swagger UI did not show the error code for bad requests such as client faults, invalid inputs, and so on.
AMBW-11795	Parameter templating was not supported for the Invoke REST API activity when it used a module property for the Resource Path. Module properties are now supported.

General

Key	Description
BWCE-810	The "Circuit Breaker Support" section in the <i>Application Development</i> guide included an incorrect URL for the Hystrix Dashboard Integration for Pivotal Cloud Foundry.
AMBW-25515	Fixed memory leaks that occurred when subprocesses completed with a fault.
AMBW-25482	When users deleted shared modules, and re-imported the project, the Call Process activity did not maintain the name of the subprocess it formerly referenced.
AMBW-25481	The Recover Activity IDs check box was re-enabled in the Repair BusinessWorks Projects wizard. Selecting this check box allows the Repair tool to recover the xpdI ID of the activity, or recreate the xpdI ID if it is missing. To access this check box, launch the Repair BusinessWorks Projects wizard by right-clicking on the project and selecting Refactor > Repair BusinessWorks Projects.... From the wizard, select the Recover Activity IDs check box. Follow instructions in the wizard and click Finish to repair the project.
AMBW-25188	The ProcessStack field in FaultDetails or ErrorReport has been fixed to show the full stack trace for direct subprocesses.
AMBW-25089	Improvements made to indexing and XSD parsing reduced the amount of time it took to import and validate large migrated projects.
AMBW-25027	A typo was fixed in the JDBC driver connector JAR files name.
AMBW-25003	The description for the timeout field was updated to "Specifies the waiting period for a message in milliseconds" in the "Get JMS Queue Message" topic from the <i>Bindings and Palettes</i> guide.
AMBW-24934	Coercion did not work when coercing multiple elements to the same type.
AMBW-24826	Changes made to module properties from the Module Property editor and from the Navigator View in the TIBCO Business Studio™ were not always saved.

Key	Description
AMBW-24704	When generating the EAR file from TIBCO Business Studio™, a Null Pointer Exception error was thrown if ActiveMatrix BusinessWorks™ Plug-in for ActiveSpaces® and ActiveMatrix BusinessWorks™ Plug-in for EDI were installed.
AMBW-24606	Duplicates of subprocesses and the Start activity were incorrectly shown in the process launcher view.
AMBW-24244	The bwdesign command, ignored the -name parameter in the non-interactive mode. The EAR file was created with the same name as the project that was being exported.
AMBW-24163	After migration, the command variable element was not present in the Data Source tab, for mapping.
AMBW-24113	Adding coercion to multiple Activity Data sources did not work. Coercion added to the first element was successful, but was lost when it was added to second element.
AMBW-24101	After migration, TIBCO Business Studio™ was unresponsive indefinitely when a folder was moved to the process directory.
AMBW-23443	The example provided in the tooltip for the Resource Service Path field in the REST Service Window was improved.
AMBW-22855	When editing properties from the Properties Editor in TIBCO Business Studio, the values of properties that were changed to strings were not preserved.
AMBW-22511	The ActiveMatrix BusinessWorks™ product version was updated to the most recent version when viewing product details in TIBCO Business Studio™.
AMBW-22197	The Null Pointer Exception was thrown, and the bwdesign export command failed to generate the EAR file if the project name and the application name were not the same.
AMBW-22062	In some cases, the timeout value for the Invoke activity was not saved properly if it was changed multiple times.
AMBW-21822	Installing ActiveMatrix BusinessWorks™ would prompt the user to install Java 6 on Mac OS X.
AMBW-21804	Process properties that were defined on an activity were deleted if the activity was removed from the process.
AMBW-21522	If a Surround with ForEach group was applied to an element that was currently part of a For Each group, the current-group() Xpath function did not display under the Data Source tab.
AMBW-21500	A process cannot be created in a shared module by selecting Overview > Create BusinessWorks Process .

Key	Description
AMBW-21200	Iterate groups did not accept values from schemas without a target namespace.
AMBW-21134	When a process file was moved from one folder to another folder, two threads were concurrently triggered, which caused deadlock.
AMBW-15804	When using the bwdesign utility an error was thrown while exporting a large EAR file because the export process did not wait for the EAR file to finish generating. This corrupted the EAR file, and the file could not be decompressed after it was exported.

Migration

Key	Description
AMBW-20896	XPath comments are now converted to the ActiveMatrix BusinessWorks™ 6.x. format when migrated from ActiveMatrix BusinessWorks™ 5.x.
AMBW-18591	The migration tool migrated all the global properties as process properties for every process, regardless of whether they were used by the process or not.
AMBW-16406	When you migrated a project using the command line, the output schema in the migrated project was missing.

Palettes

JAVA Palette	
Key	Description
AMBW-21453	Module properties were not supported in the key field for the Receive Notification activity.

JDBC Palette	
Key	Description
AMBW-25466	Instructions for setting up custom drivers for run time were updated to let users know that the plugins folder is automatically generated after you export the JAR file.
AMBW-25415	If existing connections become stale, ActiveMatrix BusinessWorks™ failed to re-create the connection.
AMBW-24966	The data types BLOB and DATE did not work when they were embedded as a Oracle table type. DATE was interpreted as xsd:date and BLOB threw a format conversion error.

JDBC Palette	
Key	Description
AMBW-23384	TIBCO ActiveMatrix BusinessWorks™ was unable to use functions that return the data type BIGINT if DataDirect drivers were used.
AMBW-23383	TIBCO ActiveMatrix BusinessWorks™ was unable to retrieve smallint values from the Postgres database if DataDirect drivers were used.
AMBW-22526	The JDBC Update activity failed to execute when the option, Insert if record does not exist was used with SQL Server 2012 or 2014.

XML Palette	
Key	Description
AMBW-24900	The Render XML activity failed to validate XML messages if one of the elements had a value supplied using a module property.

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Key	Description
BWCE-821	Deleting the End activity from a Call Process catch handler breaks the mapping in the parent process.
BWCE-820	Multiple output variables were created for a subprocess with multiple ends resulting in unpredictable behavior at runtime.
BWCE-769	Secure port configuration was not supported in REST for Service Registration and Discovery.
BWCE-764	Secure port configuration was not supported in HTTP for Service Registration and Discovery.
AMBW-25023	The lang attribute in the SOAP 1.2 faults was not generated.
AMBW-25018 AMBW-24854	When migrating a project from TIBCO ActiveMatrix Business Works 5.x to TIBCO ActiveMatrix Business Works 6.x, the Count() function incorrectly threw an error for a non-repeating elements.
AMBW-25017	Activities from the SOAP Palette and the On StartUp activity were not correctly migrated. Instead, these activities were incorrectly converted to the Rescue activity.
AMBW-25016	If the schema location was not pointed to the correct path location in the migrated XSD file, schemas were not migrated properly.
AMBW-24896	Using constructor functions from XSLT 1.0 caused a namespace error to be thrown.

Key	Description
AMBW-24706	Attribute values from a root element were not passed in an unbound SOAP header for SOAP services.

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Bindings

Key	Description
AMBW-24395	REST References can now be created if a process was created within a Shared Module.
AMBW-23984	An Invoke activity, configured to send a SOAP over JMS message to a webservice using an asynchronous operation, did not throw an exception when the connection to the EMS server broke.
AMBW-23966	The body of the request message did not contain the namespace defined in the WSDL when the SOAP Binding style was of type RPC/Literal .
AMBW-22848	Users can now view the associated Swagger file as a link in the REST Service Binding.
AMBW-22747	When the Swagger file has a property of type object an equivalent XSD was not generated and an error was thrown.
AMBW-16039	Incorrect Swagger specification models were generated for REST services when using the pass through mechanism (Opaque mode).

General

Key	Description
AMBW-24604	If no component process was selected, the Debugger did not validate process selection.
AMBW-24463	ActiveMatrix BusinessWorks incorrectly tried to look up namespaces on the network when loading a schema from a shared module that contained a target namespace corresponding to a network host, for example, ns.tibco.com.
AMBW-24408	When debugging a direct sub process, the process launcher loaded the incorrect schema element as the input element of the request message.
AMBW-24393	Calling the parent process failed after executing the Activator Process for OnStartup containing a Call Process activity.
AMBW-24310	While working in the Process Launcher view, users could not enter input for direct sub processes.
AMBW-24059	Imported projects took a long time to open in Business Studio because externally located documents were not getting resolved.

Key	Description
AMBW-23857	If a message failed on the SOAP Reference binding, the Java ClassCastException error message was thrown instead of the ActiveMatrix BusinessWorks error code and message.
AMBW-23699	When a Call Process activity called a direct subprocess, that was defined in the Shared Module, and the Shared Module was restarted, a Null Pointer Exception was thrown.
AMBW-23540	The issue of column names appearing twice on the tabs in the Module Properties editor has been fixed.
AMBW-22852	Module properties, that were part of a property group, can now be selected when configuring an activity.
AMBW-22273	The Invoke activity timeout attribute can be set to module property of type String or Integer, by selecting the required type in the drop down option added in the Activity Timeout field.
AMBW-20502	Removing an unused schema from a project did not remove the dependency of schema from the process.
AMBW-18366	The No Schema with target namespace found in the module errors were thrown when users migrated BusinessWorks 5.x projects to BusinessWorks 6.x.
AMBW-17807	When working in Mac OS X, the xpath expression was properly updated for the Sequence Key field after users selected OK in the xpath builder editor.

Palettes

Key	Description
HTTP Palette	
AMBW-24623	When a header was repeated in a HTTP fault response, the Send HTTP Request activity failed with the error, <code>java.lang.ClassCastException: [Ljava.lang.String; cannot be cast to java.lang.String.</code>
AMBW-23318	An exception was thrown, and the application failed to start, if the Send HTTP Request activity in an application process tried connecting to a remote, and secured, REST service configured to use a proxy server.
AMBW-12732	Dynamic Headers for HTTP Send Request activity were partially migrated. After migration, the user had to re-map these missing dynamic header fields by using original ActiveMatrix BusinessWorks 5.x mappings in reference.
JDBC Palette	
AMBW-24791	If a JDBC connection was marked as invalid after creation, the active connection count was not decremented, which prevented new connections from being created if the max connections value was reached.

Key	Description
AMBW-24446	The internal lock was not released when a database connection was not successful. This caused the thread to freeze and the thread did not continue the expected execution.
AMBW-24138	Activities from the JDBC Palette threw a JDBC Timeout Exception if the query loads too large for the connection pool could handle.
Java Palette	
AMBW-24008	Improvements have been made to the performance of the Java to XML activity.
JMS Palette	
AMBW-24033	The JMS Application Properties editor did not set the cardinality of the element.
AMBW-24032	When configuring the security settings of the JMS Connection Shared Resource, a NullPointerException occurred if the user name and password in the JNDI Resource were not set.
AMBW-23955	An error was thrown if the the JMS Receiver activity received a message that was configured to use application properties, but did not contain any application properties.
AMBW-22662	If the JMS Connection Shared Resource was configured with a Keystore Shared Resource, the JMS Connection Shared Resource failed to initialize when a module property was used for the Keystore URL field.
AMBW-22488	The JMS Receiver and Get JMS Queue Message activities threw a validation error if the JMS client sent a message with JMSXGroupID and JMSXGroupSeq header properties.
AMBW-21866	Attempts to reconnect to the JMS Request Reply activity failed after the EMS server was restarted.
AMBW-20889	JMS test connection failed when a module property was used to configure Keystore URL field.
AMBW-16250	The JMS Request Reply activity threw a warning if the Reply To Destination field was specified on the Input tab instead of the Advanced tab of the activity.
AMBW-10770	An exception was not thrown if messages sent to the WebSphere MQ queue were more than value specified by the MaxQDepth property.
Mail Palette	
AMBW-24217	The text body content is now sent in byte array.
REST and JSON Palette	

Key	Description
AMBW-24282	The parse exception was thrown when a JSON string, with decimal value restricted to 6 fractional digits was parsed to an XML activity. The Parse JSON activity converted large numbers into scientific form which was not validated against the decimal type. This also caused rounding off numbers when roundtripped, for example, when json is translated to xml, which is then translated back to json.
AMBW-18651	Descriptive error messages are now thrown when Parse JSON and Render JSON activities fail.
XML Palette	
AMBW-24089	When a complex element was selected in the Select Schema Element declaration window for CDATA section, CDATA was not applied to the child elements of the complex element.
Basic Activities Palette	
AMBW-24171	The error <code>IndexOutOfBoundsException</code> was thrown when Critical Section groups were used.

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Binding

Key	Description
AMBW-23581	If a SOAP service binding was configured to use JMS as the transport type, and the Acknowledge Mode field was set to Client or TIBCO Explicit, unconfirmed messages were not redelivered.
AMBW-23309	The 404 <code>Not Found</code> error was thrown for a REST Resource when multiple hierarchical REST Resources were deployed in the same application.
AMBW-22634	Swagger UI incorrectly used HTTP, instead of HTTPS, even if the HTTP Connector Resource used by the REST Service Binding was configured with HTTPS.
AMBW-22496	TIBCO ActiveMatrix BusinessWorks always published SOAP/JMS services response messages in the PERSISTENT mode, even if the request message has been published by the consumer in the NON_PERSISTENT mode.
AMBW-22495	Added an option to not confirm a message if an error is thrown in a process containing Service over JMS with TIBCO EMS Explicit Client ACK, or client ACK mode.
AMBW-22038	Swagger UI did not display the REST services if the operation response was configured to use Simple Element or Simple Type .

Key	Description
AMBW-21864	Renaming an implemented REST service binding operation from Business Studio did not work, and caused an exception to be thrown.
AMBW-21351	Query parameter types can now be edited in the REST binding. Query parameters are now defined for every REST operation instead of every service binding.
AMBW-21338	Swagger UI did not support fields for Basic Authentication.
AMBW-20990	The Connection Header field was not populated in a SOAP service request.
AMBW-20406	Users were unable to use an Invoke activity that had a reference inside an Event handler. The Invoke activity could reference to either a subprocess or an external service.
AMBW-19616	Changes were not saved when parameters in the Resource Service Path of a REST Service Binding were altered without pressing the Enter key.
AMBW-19194	The error REST Service Binding configuration error was thrown if unrelated REST bindings were deleted.

General

Key	Description
AMBW-23806	The cache did not properly resolve schemas when the bwdesign export command was used for complex projects.
AMBW-23207	If an array type was used in the JSON Request Body for the REST Service Binding, an incorrect Swagger was generated under the Service Descriptors folder.
AMBW-23127	For some nested schema imports Business Studio did not manage the shared components properly.
AMBW-22681	The resource tree locked exception was thrown while refreshing an internal repository file when running the bwdesign tool.
AMBW-22676	Infinite recursion, that occurs if nested coercion contains cyclic schema types, is now prevented.
AMBW-22660	Database locks were not detected when the engine was started.
AMBW-22658	A NullPointerException was reported when a Group contained the Reply activity.
AMBW-22497	When importing dependent schemas, schema references were not always properly resolved when the application was started.
AMBW-22494	The AppNode status hung if an application used JDK 1.7, or later versions of the software, and allowed unsynchronized access from multiple threads.

Key	Description
AMBW-22055	The enablestats command for <code>processinstance</code> failed in TIBCO Activematrix BusinessWorks 6.3.0.
AMBW-22053	A Shared Module was not added as dependency after a Module Property , which was pointing to a Shared Resource from a Shared Module , was referenced in the Application Module .
AMBW-22037	Users could not create new projects in Business Studio if the region and language format in their operating system was set to Thailand.
AMBW-21898	Custom plugins could not be installed in Business Studio.
AMBW-21803	When configuring Authentication and Confidentiality for the HTTP Client Shared Resource , an incorrect label displayed when users hovered over the ... icon.
AMBW-21713	The dbconnectionurl property value was corrected in the Administration guide topic "Database with TIBCO Enterprise Message Service Configuration for bwagent".
AMBW-21677	The XML model miscalculated prefixes when ancestor nodes contained two different prefix mappings for the same namespace and the current Appnode remapped one of those prefixes.
AMBW-21402	When the engine persistence mode was configured for datastore mode, the duplicate key detection feature did not work with the PostgreSQL database.
AMBW-21167	Business Studio was unable to send the first EMS message to the EMS server after restarting. However, the subsequent messages were successfully sent to the EMS server.
AMBW-21115	When users right-clicked on a module property in Business Studio, the menu incorrectly displayed duplicate options, and some options did not work.
AMBW-21083	Business Studio failed to add the necessary xslt parameter when a parameter reference followed an asterisk (*) in an xpath.
AMBW-20977	When the Create New Process Property button was used, while creating a new process property for a process starter, the error, <code>IllegalStateException: Cannot activate read/write transaction in read-only transaction context</code> was thrown.
AMBW-20900	The error <code>java.lang.reflect.InvocationTargetException</code> was intermittently thrown in Business Studio if users had configured an application module to use a shared module contained within another shared module .
AMBW-20725	After creating a new process and launching it in the Debugger, an exception was thrown.
AMBW-20720	When elements of data type any were coerced, their sibling elements were also coerced.

Key	Description
AMBW-20530	Business Studio did not support text content in XSLT files. In the Mapper activity, after mapping a text variable for the first time if you move to another tab, the text node disappeared from the UI.
AMBW-20368	Activities that the user had set to be hidden in Business Studio were incorrectly displayed in the Palettes pane if the user created a new process.
AMBW-20297	When the bwdesign import utility was executed from the command line, and the job failed, an errorlevel of 0 was incorrectly returned.
AMBW-19982	Migrating large projects took a long time to complete.
AMBW-19768	If an activity did not include a transition to the next activity, and the activity was renamed, the name change was not reflected in the XPATH expression of the next activity.
AMBW-19718	From Business Studio, processes were not successfully copied and pasted to the Components folder.
AMBW-19530	Nested inner loop accumulation did not reset on entry of each inner loop. On subsequent iterations of the inner loop, the accumulation variable of the inner loop contained accumulation values from the previous inner loop iterations.
AMBW-18516	While mapping a repeating element in the design time, the corresponding runtime XSLT was not generated properly. It missed one of the <code>xs1:param</code> element in the runtime XSLT.
AMBW-18219	An exception was thrown, and users were unable to connect to bwagent configured for SSL from the Business Studio Deployment Servers View.
AMBW-18079	Inline schemas that lacked a targetNamespace attribute, threw the Null Pointer Exception, when used in a project.
AMBW-17968	The value of the module property was not displayed in the combo box when they were selected on the Shared Resource .
AMBW-17550	When data was mapped from one mapper to another mapper, the schema that was produced incorrectly contained unused namespaces.
AMBW-15154	Large projects took a long time to migrate to . After fixing errors in the migrated project and saving the project in the workspace took a long time to build.

Palettes

HTTP Palette	
Key	Description
AMBW-22518	The TIBCO ActiveMatix BusinessWorks 6.3.1 HTTP client did not support for TLSv1.2 GCM ciphers offered in Java 8.

HTTP Palette	
Key	Description
AMBW-20924	The Authentication check-box for the HTTP Client Shared Resource was reset after the check-box was cleared.
AMBW-19092	The Send HTTP Request activity was unable to handle Chinese characters in the <code>filename</code> attribute of the content disposition header in the mimepart.
AMBW-19048	Logging the time stamp for sending a HTTP request and receiving the HTTP response in the Send HTTP Request activity was not supported in Business Studio.
AMBW-19075	The HTTP server did not recognize requests containing multiple Accept or Content-Type elements in the header.
JDBC Palette	
Key	Description
AMBW-22120	JDBC activities did not free temporary tablespace when working with Oracle LOB data.
AMBW-21860	An error was thrown if the output data type parameter in the JDBC Call Procedure activity was set to Null, or left empty.
JMS Palette	
Key	Description
AMBW-23031	The JMS Send Message activity with JNDI connection failed to send messages in the EMS Fault Tolerance with SSL mode.
AMBW-22588	The JMS Receiver activity incorrectly continued to create jobs even after the EMS Server was terminated.
AMBW-22500	Runtime XML serialization mishandled redeclaration of the default namespace mapping to the null namespace.
AMBW-22499	A session leak has been fixed on the JMS Connection Shared Resource.
AMBW-22498	The JMS Receiver activity threw an <code>out of memory</code> exception when the one of the applications using the shared resource was stopped.
AMBW-22481	When the JMS Receiver activity received messages of type XML Text, and the messages did not conform to the schema, the session was blocked and no additional messages were received.
AMBW-21167	The JMS Send activity was unable to send the first message to the EMS server after restarting. Subsequent messages however, were successfully sent to the server.

JMS Palette	
Key	Description
AMBW-21140	Applications deployed in one AppNode stopped consuming JMS inbound messages under load.
AMBW-21124	The JMS Connection Shared Resource test connection failed to connect to the EMS server if mutual authentication was enabled in TIBCO ActiveMatrix BusinessWorks 6.x.
AMBW-19105	Business Studio now supports JBOSS as a JMS provider.
AMBW-18646	Business Studio now supports IBM Websphere MQ as a JMS provider.
AMBW-18213	An unclear error message was displayed when a message was not successfully deserialized.

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Key	Description
EPAS-206	The buildpack did not prefix jdbc to the user provided service (CUPS) database services.
EPAS-181	Exceptions were seen when shutting down applications in your Pivotal Cloud Foundry environment.

Known Issues

The following are the known issues in this release of TIBCO BusinessWorks™ Container Edition.

Key	Description
BWCE-823	<p>Summary: Running the Stock Quote External sample results in a Null Pointer Exception.</p> <p>Workaround: None. These errors can be ignored.</p>
EPAS-751	<p>Summary: In the HTTP Client shared resource, if a module property is used for the Execution Timeout Enabled field for the Circuit Breaker configuration then the Execution Timeout (ms) field remains disabled irrespective of the value of the module property.</p> <p>Workaround: Do not configure the module property configuration for this field.</p>
EPAS-748	<p>Summary: When importing the ZipCodeLookup sample errors are seen in the workspace log file.</p> <p>Workaround: None. These errors can be ignored.</p>
EPAS-747	<p>Summary: When importing the JDBC Basic sample errors are seen in the workspace log file.</p> <p>Workaround: None. These errors can be ignored.</p>
EPAS-725	<p>Summary: (Windows only) Due to the limitation of the horizontal scrollbar, the Default Port configuration of the HTTP Client Shared Resource is not visible.</p> <p>Workaround: Resize the HTTP Client Shared Resource configuration UI.</p>
EPAS-103	<p>Summary: When specifying Application Properties, if invalid login credentials are specified in the Configure Container Connection Dialog, the dialog asking for valid login credentials repeatedly pops up even after valid login credentials are specified.</p> <p>Workaround: Press the Cancel button on the dialog.</p>
EPAS-79	<p>Summary: Exceptions are seen when you import a project that contains a JDBC shared resource.</p> <p>Workaround: Restart TIBCO Business Studio Container Edition™ and open the project in a new workspace. If the issue persists, recreate and reconfigure the JDBC shared resource.</p>

Bindings

Key	Description
AMBW-25972	<p>Summary: If the REST Reference Binding was referencing an HTTP Client Shared Resource that was configured to use a proxy server, the POST, PUT, and PATCH methods fail, and a 411 error code is thrown.</p> <p>Workaround: Use the Invoke REST API activity instead of the REST Reference Binding.</p>
AMBW-13607	<p>Summary: REST Doc UI is not supported on Firefox browser.</p> <p>Workaround: Use other browsers for the Doc UI.</p>
AMBW-13572	<p>Summary: For some use cases, REST Doc UI does not show the correct error code in case of Internal Server errors on the Server side.</p> <p>Workaround: Check the raw message that contains the correct error code.</p>
AMBW-13485	<p>Summary: REST Doc UI does not support browsers like Internet Explorer.</p> <p>Workaround: Use Chrome browsers for the Doc UI.</p>
AMBW-8982	<p>Summary: Changing the Resource name in the REST service Bindings tab, does not update the Resource Service Path.</p> <p>Workaround: None.</p>

General

Key	Description
AMBW-26294	<p>Summary: The Group and Datastore persistence mode causes HTTP and JMS issues inside an application when the activities Wait For HTTP Request or Wait for JMS Request are used inside the sub process.</p> <p>Workaround: Add <code>com.tibco.bw.palette.jms.runtime.eventcontext</code> for JMS and <code>com.tibco.bw.palette.http.runtime.helper</code> for HTTP under Module Descriptors > Dependencies > Imported Packages.</p>
AMBW-25073	<p>Summary: The option to test connections, for example JMS or sFTP, in a shared resource that has a profile is not supported in TIBCO Business Studio™.</p> <p>Workaround: Specify the server configuration details as literal value or module properties.</p>
AMBW-19540	<p>Summary: When a project contain abstract and concrete WSDL using same target namespace, a validation error is thrown.</p> <p>Workaround: None.</p>

Key	Description
AMBW-18459	<p>Summary: The ability to reference from a standalone (external) schema to an inline schema is not supported. If your project contains such a reference, a validation error is thrown.</p> <p>Workaround: Externalize the WSDL-inline schema and change the import statements to reference the newly created (external) schema.</p>
AMBW-17998	<p>Summary: The EAR file generated using bwdesign utility does not support non-ASCII characters.</p> <p>Workaround: None.</p>
AMBW-16256	<p>Summary: The first attempt to change the data type of an Operator's input or output schema element fails and the change is not committed. Subsequent attempts complete without any failure.</p> <p>Workaround: To commit the change, you must press the return key after every change.</p>
AMBW-14861	<p>Summary: Unable to enter an XPath expression on a transition using the XPath Builder. This issue is observed on Mac OS only.</p> <p>Workaround: Enter the XPath expression directly in the Properties tab > Expression field for the transition without using the XPath Builder.</p>
AMBW-14533	<p>Summary: Mapper does not throw typecasting error, if the Integer data type is mapped with String data type.</p> <p>Workaround: None</p>
AMBW-13823	<p>Summary: Directory browser dialog in BW Context Sensitive Help preference setting page does not consistently popup on Mac OS X 10.9.2</p> <p>Workaround: Copy and paste the directory path into the configuration field instead of using directory browser to pick it.</p>
AMBW-13683	<p>Summary: Shared resource module property references in the migrated TIBCO ActiveMatrix BusinessWorks 5.x projects do not show up correctly on non-Windows platforms.</p> <p>Workaround: Close and reopen the project.</p>
AMBW-13673	<p>Summary: Schema is not populated in Input Editor/Output Editor if there is no targetNamespace in the schema.</p> <p>Workaround: Provide targetNamespace in the schema.</p>
AMBW-12785	<p>Summary: When trying to exit TIBCO Business Studio™ before saving the process, the error <code>java.lang.NullPointerException</code> is thrown.</p> <p>Workaround: None.</p>
AMBW-12490	<p>Summary: Under certain circumstances, substitution types do not resolve properly in the mapper. The mapper shows errors for them.</p> <p>Workaround: Try closing and reopening the project. If that does not solve the issue, try closing and reopening Eclipse. If the errors still persist, perform a project clean (that is, go to the Project menu and click Clean...).</p>

Key	Description
AMBW-11853	<p>Summary: A process that has an XSLT with a substitution, throws a validation exception at run time, unless the process is explicitly importing the XML Schema.</p> <p>Workaround: The user should explicitly import the XML Schema in the process, by using the Add Process Import tool that is available in Process Properties > Dependencies tab.</p>
AMBW-11815	<p>Summary: A module shared variable cannot initialized with an XML file that contains double-byte characters.</p> <p>Workaround: None.</p>
AMBW-11624	<p>Summary: TIBCO Business Studio™ hangs when opening SQL Builder if the database details on the JDBC shared resource are changed from PostgreSQL to MySQL after a query has been created using SQL builder.</p> <p>Workaround: None.</p>
AMBW-11534	<p>Summary: TIBCO Business Studio™ crashes occasionally on Windows 2012 R2 platform when switching workspace from File > Switch Workspace.</p> <p>Workaround: Retry by switching the workspace.</p>

Migration

Key	Description
AMBW-20170	<p>Summary: Validation errors occur after migration when an XML element from an XSD schema, that does not have a target namespace, cannot be resolved.</p> <p>Workaround: None</p>
AMBW-14547	<p>Summary: When you migrate an ActiveMatrix BusinessWorks 5.x project containing in-built functions in the JDBC Query activity, an Invalid Column name error is thrown at the JDBC Query activity.</p> <p>Workaround: Use an Alias instead of the in-built functions in the ActiveMatrix BusinessWorks 5.x project.</p>
AMBW-14533	<p>Summary: Mapper does not throw typecasting error if Integer datatype is mapped with String datatype.</p> <p>Workaround: None</p>
AMBW-14295	<p>Summary: After migration, the output of project with Rest and JSON activities does not match with the input of the other activities in the migrated project.</p> <p>Workaround: None.</p>
AMBW-11449	<p>Summary: Mapping an anyType element to a XML Schema simple type value results in an error.</p> <p>Workaround: Coerce the anyType element with XML Schema simple type element and map. The type of the element used for coercion is determined by the value that is used in the mapping.</p>

Key	Description
AMBW-9969	<p>Summary: TIBCO ActiveMatrix BusinessWorks 5.x projects with SOAP headers configuration in SOAP activities are not properly migrated to TIBCO ActiveMatrix BusinessWorks 6.x.</p> <p>Workaround: SOAP functionality in ActiveMatrix BusinessWorks 6.x is achieved through SOAP Binding where its detail configuration is outside of BusinessWorks Process. The SOAP headers definition are defined at the Binding configuration and configured as generic context parameters for the Process. In the Process, you can use the Get Context activity (from Basic Palette) to retrieve and process the headers as context data. You can do this manually to complete the migrated project.</p>

HTTP Palette

Key	Description
AMBW-12732	<p>Summary: Dynamic Headers for HTTP send request activity are partially migrated. The user after migration has to re-map these missing dynamic header fields by using original ActiveMatrix BusinessWorks 5x mappings in reference.</p> <p>Workaround: Add the missing headers manually after migration.</p>

Java Palette

Key	Description
AMBW-22073	<p>Summary: Java classes, which require Spring framework, do not load in TIBCO ActiveMatrix BusinessWorks 6.3.1.</p> <p>Workaround: None.</p>
AMBW-13526	<p>Summary: In Java To XML activity, the Output tab is not populated correctly, if Java Class contains nested Object references in different classes.</p> <p>Workaround: None.</p>

JDBC Palette

JDBC Palette	
Key	Description
AMBW-23464	<p>Summary: The Oracle DataDirect driver does not support cursor datatype.</p> <p>Workaround: Use native drivers instead of DataDirect drivers.</p>
AMBW-23384	<p>Summary: TIBCO ActiveMatrix BusinessWorks is unable to use functions that return the data type BIGInt if DataDirect drivers are used.</p> <p>Workaround: Use native drivers instead of DataDirect drivers.</p>

JDBC Palette	
Key	Description
AMBW-23383	<p>Summary: Unable to retrieve smallint values from the Postgres database if DataDirect drivers are used.</p> <p>Workaround: Use native drivers instead of DataDirect drivers.</p>
AMBW-23265	<p>Summary: DB2 is not supported with DataDirect drivers.</p> <p>Workaround: Use native drivers.</p>
AMBW-23193	<p>Summary: When using DataDirect drivers with a JDBC Shared Resource, that is linked to a JDBC process, the SQL Builder Wizard does not work correctly.</p> <p>Workaround: Use native drivers.</p>
AMBW- 14547	<p>Summary: When you migrate an ActiveMatrix BusinessWorks 5.x project containing in-built functions in the JDBC Query activity, an Invalid Column name error is thrown at the JDBC Query activity.</p> <p>Workaround: Use an Alias instead of the in-built functions in the ActiveMatrix BusinessWorks 5.x project.</p>
AMBW- 11624	<p>Summary: TIBCO Business Studio hangs when opening SQL Builder if the database details on the JDBC shared resource are changed from PostgreSQL to MySQL after a query has been created using SQL builder.</p> <p>Workaround: None.</p>
AMBW-11667	<p>Summary: Using any in-built function in JDBC Query activity without "Alias" fails to execute the application and throws an Invalid Column name error at run time.</p> <p>Workaround: Use "Alias" to work with any in-built function in JDBC Query activity.</p>
AMBW-14624	<p>Summary: The Set Explicit Nil check box for Objects and Collections in JDBC Call Procedure activity is disabled.</p> <p>Workaround: None.</p>
AMBW-8855	<p>Summary: The localized error messages of JDBC connection are not displayed correctly in Studio.</p> <p>Workaround: None.</p>

Parse Palette

Parse Palette	
Key	Description
AMBW-12473	<p>Summary: Parse Data activity throws a NullPointerException for the XSD namespace collision scenario.</p> <p>Workaround: None.</p>

XML Palette

XML Palette	
Key	Description
AMBW-14292	Summary: Parse XML activity displays blank ErrorCode and ErrorMessage for activity output data validation error. Workaround: None.