



TIBCO BusinessWorks™ Container Edition

Release Notes

Version 2.10.0 | December 2024

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New Features

The following new features have been added in this release of TIBCO BusinessWorks™ Container Edition.

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Bindings

Support for configuring Proxy server through VM arguments

Proxy server details can now be added through VM arguments by setting the below system properties:

`http.proxyHost`

`http.proxyPort`

For HTTPS based proxy server use the below properties :

`https.proxyHost`

`https.proxyPort`

If the Proxy server is authentication enabled then we can provide the username and password for the same using below properties for HTTP and HTTPS based server:

`http.proxyUser`

`http.proxyPassword`

`https.proxyUser`

`https.proxyPassword`

Bindings

Note: If both the Proxy shared resource and System Properties are configured, then Proxy Shared Resource would take the priority.

Support for displaying "description" from Swagger file in Swagger UI

When a top-down REST service is invoked using a Swagger file having a "description" provided for the operation, its Request and Response objects, and its individual properties, are reflected in the Swagger UI.

Support for conversion of \$ref type parameter in XSD using Swagger 2.0 JSON files

Now when you right-click on a Swagger 2.0 JSON file to Generate XSD Schema, the parameters defined using \$ref are converted into elements in the XSD.

Support for RSA Algorithms in JWT

Support has been added for RS256, RS384, and RS512 algorithms in the **JWT Algorithm** drop-down. The **Public and Private Keys** fields are also added which are only displayed after selecting any of the RSA algorithms.

Support for the "nullable" keyword in the JSON file

When you generate XSD Schema from a Swagger file having "nullable": true keyword set for arrays or objects, then in the XSD file, the nullable="true" attribute gets added for those elements. This is applicable only for a top-down approach i.e. creating REST service using a JSON file or generating XSD Schema from a JSON file.

Common Features

Support for Oracle Java 17.x

TIBCO BusinessWorks™ Container Edition 2.10.0 now supports Oracle Java 17.x on the Windows, Mac, and Linux platforms.

New environment variables added for enabling and disabling opentelemetry.

The following environment variables are added for enabling or disabling opentelemetry:

- *BW_OTEL_ENABLED*
- *BW_OTEL_AUTOCONFIGURED_ENABLED*
- *BW_OTEL_TRACES_ENABLED*

For more information, see "Environment Variables for Docker" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Integration for Google Secret Manager with TIBCO BusinessWorks Container Edition.

This release adds support for Google Secret Manager for Credential Management Service for TIBCO BusinessWorks Container Edition applications.

For more information, see "Using Google Secret Manager for Credential Management Service" in *TIBCO BusinessWorks Container Edition Application Development*.

Support for importing and learning mapping data

With the import and learn feature, you can now import and learn the mapping data of all existing projects in the organization.

For more information, see "Importing and Learning Mapping Data" in *TIBCO*

Common Features

*BusinessWorks™ Container Edition
Application Development.*

Support for complex data types: Custom XPath Function Return type and Parameters type

Support is added for returning complex data types as output of Java Custom Function (XPath function) and also in XPath Function Parameter type. In the XPath Function Return Type field, a new option for BW XML Types is added and a separate drop-down to select the BW XML Types is provided. A similar change is also done in the XPath Function Parameters section.

Support for ResolveURI XPath function

A new ResolveURI() XPath function has been added now.

Design Time

A new option **Group by module** is added to list main module at the top in the Project Explorer view in TIBCO Business Studio for BusinessWorks.

To list main module at the top under the Project Explorer view, a new option **Group by module** is added under **View Menu** option.

By default this option is disabled and module is listed according to alphabetical order. Selecting this option, the main module lists at top and then related dependent module is listed according to alphabetical order.

Support for adding custom range for shared modules.

This release adds support for defining custom range to help with version management of the shared modules.

For more information, see "Adding custom range for shared modules" in

Design Time

the *TIBCO BusinessWorks™ Container Edition Application Development*.

New preferences added in TIBCO Business Studio for BusinessWorks to improve studio performance.

The following new preferences are added under **Preference > Validation** in the TIBCO Business Studio for BusinessWorks to improve studio performance:

- **Enable parallel validation of BW projects (experimental)**
- **Enable parallel validation of activities in BW projects (experimental)**
- **Enable parallel indexing of BW projects (experimental)**
- **Enable WSDL validation during Process Import validation (experimental)**

Support for **Update Site** preference

A new preference **Enable Update Site** is added under **Preferences > BusinessWorks > Validation**. By default, this preference is disabled. On enabling it, the Quick Fix option is provided on projects using older versions of plug-ins, to upgrade to the later version of plug-ins where the new activities are available.

Support for searching samples in File Explorer

A new "search" field has been added to search samples on the File Explorer tab.

Support added for keyboard shortcut keys

Support has been added for the following keyboard shortcut keys:

Design Time

- Ctrl+8: Debug application
 - Ctrl+9: Launch application
 - Ctrl+7: New Application module
 - Ctrl+0: New Application
-

A new option **Group by module** is added to list main module at the top in the Project Explorer view in TIBCO Business Studio for BusinessWorks.

To list the main module at the top under the Project Explorer view, a new option **Group by module** is added under **View Menu** option.

By default this option is disabled and the module is listed according to alphabetical order. By selecting this option, the main module lists at top and then the related dependent module is listed according to the alphabetical order.

Support for adding custom range for shared modules

This release adds support for defining custom range to help with version management of the shared modules.

For more information, see "Adding custom range for shared modules" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

GenXDM

Logging support for Custom XPath functions.

A new checkbox Use Logger is added on the Custom XPath Function wizard.

When this checkbox is selected, the import statements for org.slf4j libraries are added and the logger object is created to use its reference for further

GenXDM

implementation in the code

For more information, see "Creating Custom XPath Functions" in the *TIBCO BusinessWorks™ Container Edition Bindings and Palette Reference*.

Monitoring

Security context added to TIBCO BusinessWorks Container Edition Monitoring Container.

This release adds support for security context to TIBCO BusinessWorks Container Edition Monitoring Container to restrict access to File system for a specific user.

Support to connect SQLServer hosted on Azure for TIBCO BusinessWorks Container Edition Monitoring using Managed Identity.

This release adds supports to connect to SQLServer hosted on Azure for TIBCO BusinessWorks Container Edition Monitoring using Managed Identity.

Support for Load Balanced Connection String URL for TIBCO BusinessWorks Container Edition Monitoring.

This release adds support for installation of Load Balanced Connection String URL in Oracle EXADATA/RAC for TIBCO BusinessWorks Container Edition Monitoring.

Maven Plug-in

Provision for enabling Maven unit test build failure for skipped tests

A new flag `-DskippedTestError` has been introduced to ensure that the build fails explicitly if any test case is skipped.

For more information, see "Maven Goals" in *TIBCO BusinessWorks™ Container Edition Maven Plug-in*.

Support for adding Gold input/mock output file name

Support has been added to include the Gold input/mock output file name when generating a mock file in Debug

Maven Plug-in

in Debug mode

mode.

A new property added to run the BWEEngine independently

A new property `DindependentComponentStartup=true` is added in the Maven plug-in to run the BWEEngine independently even if there are errors in an unused shared resource.

For more information, see "Maven Goals" in *TIBCO BusinessWorks™ Container Edition Maven Plug-in*.

Support for generating mock output without running the application in debugger mode

This release adds support for generating mock output as a mapping without running the application in debugger mode.

For more information, see "Generating Mock Output File" in *TIBCO BusinessWorks™ Container Edition Maven Plug-in*.

Palettes

Support for Crontab in Timer activity

You can now add crontab-like specifications when a timer is fired.

Support dynamic timeout for Invoke REST API activity

A new field **activityTimeout** under `dynamicConfigurations` element is added on the Input tab of Invoke REST API activity. Provide the value in seconds. At runtime, it precedes over the Activity Timeout value on the Advanced tab.

Support for the ListFile activity with a new "recursive" field

A new field **recursive** is added to the Input tab of the ListFile activity. For value "true", it lists all the files and directories from the same directory as well as subdirectories.

Examples of the fileName input:

- Location/*
- Location/* . *

Palettes

Support parallel processing in "for-each" and "apply-templates" of XSLT

To enable parallel processing in XSLT using the "for-each" and "apply-templates" elements, you can add the attributes 'threads' and 'context-size' to the "for-each" loop. These attributes can be included in the XSL file when using the Transform XML activity, as well as in the XSLT source on the Input tab for all other activities that utilize the "for-each" loop.

Support for displaying Shared Resource Connection module properties

Module properties for Shared Resource Connection are now displayed in the Data source section under the Module Properties tree for JDBC Activity.

Support for Chunked Streaming in HTTP Palette

Support is added for Chunked Streaming to send a large file in HTTP palette with Apache HTTP Component Client.

Support for compressing requests using Gzip and Deflate in HTTP Palette

Support is now added for Gzip and Deflate compression types with the Jetty/Apache client to send compressed data from the client to the server, and it can also decompress the data at the server end.

Runtime

Support for TraceID and SpanID for OpenTelemetry Traces.

This release adds support to include TraceID and SpanID loggers in an applications ProcessContext for OpenTelemetry Traces.

Support for an Intelligent scheduler permitting the

Now, you can set an "intelligent"

Runtime	
application process to start	scheduler to permit an application process to start.
Support for Default Confidentiality in the OAuth Shared Resource	The Default Confidentiality checkbox has now been added to the security pane of the OAuth Shared Resource Configuration.
Support for integrating OpenTelemetry SpanID and TraceID	OpenTelemetry SpanID and TraceID have been integrated into the BWAppNode logs for the OpenTelemetry logs functionality.
Support for updating module properties of applications using REST API	You can now update the module properties of any specific application by using a REST API.
Unit Testing	
Support for generating mock output without running the application in debugger mode.	<p>This release adds support for generating mock output as a mapping without running the application in debugger mode.</p> <p>For more information see, "Generating Mock Output File" in the <i>TIBCO BusinessWorks Container Edition Maven Plug-in</i>.</p>
Support for JUnit view to enhance user experience.	<p>JUnit view now displays collated results, including process details and activities with assertions, along with counts for runs, errors, and failures after executing the Maven goal.</p> <p>For more information, see "Unit Test Results" in <i>TIBCO BusinessWorks™ Container Edition Maven Plug-in</i>.</p>

Release 2.9.2

Common Features

Certifications

The following certification has been added in this release:

- OpenShift 4.15.x and 4.16.x
- Docker 26.x.x and 27.x.x
- Kubernetes 1.30.x

Improved Logging for Credential and Configuration Management System

This release adds support for enhanced logging that displays an appropriate error message when the **credentialProvider** field is not set for Credential and Configuration Management System.

Design Time

A new property added to run the BWEngine independently.

A new property `DindependentComponentStartup=true` is added in the maven plug-in to run the BWEngine independently even if there are errors in an unused shared resource.

For more information, see "Maven Goals" in the *TIBCO BusinessWorks™ Container Edition Maven Plug-in*.

Monitoring

Support for MySQL database using SSL Configuration for TIBCO BusinessWorks Container Edition Monitoring

This release adds supports for MySQL Database using SSL Configuration for TIBCO BusinessWorks Container Edition Monitoring.

Monitoring

For more information, see "Setting Up TIBCO BusinessWorks Container Edition Application Monitoring On Docker" in the *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*.

Runtime

Support to set the Azure Vault value in the ConfigMap.

This release adds the option to use the value from Azure Vault directly in the ConfigMaps. The value must be in the format,
`AzureVault::vaultName::secretKey`.

Support for TracelD and SpanID for OpenTelemetry Traces.

This release adds support to include TracelD and SpanID loggers in an applications ProcessContext for OpenTelemetry Traces.

Release 2.9.1

Bindings

Support added for compressing requests using REST Service/Reference Binding and **Invoke REST API** activity.

Support added for compressing requests using REST Service/Reference Binding and **Invoke REST API** activity.

To enable compression of the request/response body, the "Content-Encoding" header must be added under the DynamicHeaders element on the Input tab of Invoke activity or httpResponseHeaders of Reply activity.

Bindings

Content-Encoding header with the values "gzip" and "deflate" type of compression is supported. The header can be added on both the client and service side or on either side to enable compression on the client or server. If the header is not added, the behavior of the application can be the same as before (without any compression/decompression).

Common Features

Certifications

The following certification has been added in this release:

- OpenShift 4.14.x
- Docker 25.x.x
- Kubernetes 1.28 and 1.29

Support added for AmazonLinux:2023 OS docker image in TIBCO BusinessWorks Container Edition.

This release adds support for AmazonLinux:2023 OS docker image in TIBCO BusinessWorks Container Edition.

Support added for encrypting the HashiCorp Vault environment variables.

This release adds support for encrypting the HASHICORP VAULT environment variables by using the BWObfuscator Utility. You can also use the "CUSTOM_ENCRYPTION_KEY" environment variable of the BWObfuscator utility.

For more information, see "HashiCorp Vault for Credential Management Service" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Common Features

Default Confidentiality for OAuth shared resource.	The Default Confidentiality feature has now been added to the security pane of the OAuth Shared Resource Configuration.
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Palettes

Support added for Delivery Delay (millisecond) field for JMS Send Message activity	Support is added now for the Delivery Delay (millisecond) field in the Input tab of the JMS Send Message activity.
--	--

Runtime

New environment variables added to configure ports at runtime.	<p>The following environment variables are added to configure ports at runtime to avoid conflicts in the <code>appnode_config.ini</code> file.</p> <ul style="list-style-type: none"> • <code>BW_OSGI_SSH_PORT</code>, • <code>BW_OSGI_SERVICE_PORT</code>, • <code>BW_REST_DOCAPI_PORT</code> <p>For more information, see "Environment Variable for Docker" in the <i>TIBCO BusinessWorks™ Container Edition Application Development</i>.</p>
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Auto-start component	Any component's auto start can be disabled and the same does not start at runtime.
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Release 2.9.0

Bindings

Support for parsing the Swagger files with the special character colon ":"

Support is provided to parse the Swagger files having element names with the special character ":" (colon) in the request and response schema objects.

Support for Array of Path Parameters in REST Service and Reference Binding

A new field **Repeating** has been added in the Path Parameters section of the REST service and reference binding. This field can be toggled to true or false. To create an array of Path parameters, set this field to true.

At runtime, the array of path parameters is sent with comma-separated values in the endpoint URL.

Support for empty body in PUT operation request

Support has been added to invoke the PUT operation of a REST service without a request body.

Note: If you are using the REST Reference Binding to invoke the service without a body, then you must set the Input as empty double quotes ("") in the Invoke activity.

From Swagger UI, the Request Body is not seen for top-down OAS 3.0 service. For Swagger 2.0 services, the body does not disappear from the Swagger UI. It is only made non-mandatory when the property `bw.rest.disable.requestbody.swagger2.service=true` is set in the VM arguments of TIBCO Business Studio for BusinessWorks.

Support for printing 4xx/5xx error codes on REST Service in the AppNode logs

Now if an error occurs when invoking a REST service, the corresponding 4xx or 5xx error code is printed in the TIBCO Business Studio for BusinessWorks console and BWAppNode logs.

Common Features

Certifications

The following certification has been added in this release:

- Tanzu Application Services 4.0.x
- OpenShift 4.13.x
- Enterprise Message Service 8.7.0
- TIBCO Rendezvous® Network Service 2.0.0
- TIBCO Rendezvous 8.7.0

A new bwdesign utility command `export_to_consul` is added.

This release adds support for a new bwdesign utility command `export_to_consul`. This command is used to export the profile to the Consul key-value store.

For more information, see "Using the BWDesign Utility" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Support is added for additional system properties for process, activity and transition events.

This release adds support for additional system properties that help determine which process, activity, and transition events should be published. These system properties can be utilized as filters to exclude events that aren't necessary, ensuring that only the essential data is sent through the OSGi EventAdmin service and handled by the statistical event handlers.

The system properties are:

- If the value is set to true, process events are published. If the value is set to false, no process events are published. The default value is true.
-

Common Features

```
bw.monitor.publishProcessEvents
```

- If the value is set to true, activity events are published. If the value is set to false, no activity events are published. The default value is true.

```
bw.monitor.publishActivityEvents
```

- If the value is set to true, transition events are published. If the value is set to false, no transition events are published. The default value is true.

```
bw.monitor.publishTransitionEvents
```

- If the value is set to true, only events from the main process, including Process, Activity, and Transition events, are published. If the value is set to false, events from all process events, including Process, Activity, and Transition events, are published. The default value is false.

```
bw.monitor.publishMainProcessEvents
```

Design Time

A new checkbox **Use underscore ('_') as a separator** is added in the Export Profile wizard.

A new checkbox **Use underscore ('_') as a separator** is added in the Export Profile wizard to export the application properties file with property names separated by a underscore.

Design Time

For more information, see "Exporting an Application Profile" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

A new **Test Connection** button is added on the Debug Configuration wizard.

To check connection with deployment server a new **Test connection** button is added on Debug configuration wizard for Remote BusinessWork Application.

For more information, see "Remote Debugging" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Support for mapping module properties to an Activity input

All the module properties as well as the properties from the Shared Module can now be mapped to an activity input without creating a process property.

For more information, see "Mapping Module Properties to an Activity Input" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Support for BusinessWorks Upgrade Manager

From upcoming releases, users will be able to upgrade the BusinessWorks version within the Studio itself using the Upgrade Manager.

Maven Plug-in

Support for Skipped test cases count

You can now view the "Skipped" test cases count when any test cases are being skipped.

Maven Plug-in

Support for mocking Set Shared Variable and Get Shared Variable activities

You can now mock the output of Set Shared Variable and Get Shared Variable activities.

Support for Gold input and Mock output generation after activity execution

You can now generate Gold input and Mock output files from Job Data in Debug mode when the activity is executed.

Palettes

Support for Saxon pluggable XSLT Engine for XSLT transformation

A new **EngineType** dropdown has been added in the General tab of TransformXML activity to select between TIBCO XSLT 2.0 and Saxon-B XSLT 2.0 for the XSLT transformation. By default, it is TIBCO XSLT 2.0.

Support for custom properties via OAuth shared resources

Support is added for OAuth shared resources to allow access to the "resource" custom property.

Support for different functions in Jolt JSON Mapper

Support is added in the Transform JSON activity to perform transformation with Input and Output JSON Schema files using a Jolt JSON Mapper. The Jolt JSON Mapper supports performing String, Numeric, and Array functions on the provided JSON files.

Runtime

Support to set the HashiCorp Vault value in the ConfigMap.

This release adds the option to use the value from HashiCorp Vault directly in the config maps.

Runtime

Support added for nested configMaps.	This release adds support for nested configMap to refer one configMap from another.
Support for USED_CPU_PERCENT in OpenTelemetry Metrics.	This release adds support to include USED_CPU_PERCENT meter to get CPU usage data in OpenTelemetry Metrics.
Support for logging functionality in OpenTelemetry Metrics	This release adds support for integration of Opentelemetry Metrics in BW appnode logs.
Support is added for enabling or disabling OpenTelemetry components with single property.	A new property <code>bw.engine.opentelemetry.trace.enable</code> is added to enable or disable OpenTelemetry Traces or Metrics component.
Support for major, minor, and patch application versions in logs	The property <code>bw.frwk.version.format</code> now enables you to print the <code>major.minor.patch</code> application versions in logs.

Release 2.8.3

Common Features

Certifications	<p>The following certification has been added in this release:</p> <ul style="list-style-type: none"> • Kubernetes 1.27.x • Docker 24.x.x
Support for multiple configuration management system.	This release adds support for multiple configuration management systems in the same application.

Common Features

Support for Rendezvous palette

This release adds support for Rendezvous palette in the container applications.

Support for a new bwdesign command `export_to_consul` is added for exporting a profile to Consul.

A new bwdesign command `export_to_consul` is added to export the profile to the Consul key-value store.

For more information, see "Using the bwdesign Utility" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Runtime

Support for `AWS_XRAY` in OpenTelemetry Traces.

This release adds support to include `AWS_XRAY` in OpenTelemetry Traces.

For more information, see "OpenTelemetry" in the *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*.

Support for TraceID and SpanID in for OpenTelemetry Traces.

This release adds support to include TraceID and SpanID loggers for OpenTelemetry Traces.

Support to export OpenTelemetry metrics to custom port

This release adds support to export OpenTelemetry metrics with remote setup having custom port exposed.

For more information, see "Metrics" in the *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*.

Release 2.8.2

Bindings

Support for choosing to apply Policy on REST Service Binding paths

A new check box **Apply Policy to Subpaths** is added on the **REST Service Binding** configuration tab. The user can now choose if a policy is to be applied to the sub-paths of a service.

When this checkbox is selected for a parent resource service path configured with Policy, the policy will be applied to the child paths at runtime.

If in case you do not wish to apply the policy to all the sub-paths but for selective paths, then do not select this checkbox and add the Policy for the required service paths.

For more information, see "REST Service Binding" in the *TIBCO BusinessWorks Container Edition REST Reference*.

Common Features

Certifications

The following certification has been added in this release:

- Kubernetes 1.26.x
- OpenShift 4.12.x
- Docker 23.x.x

Support for Confirm activity in Unit Testing.

This release adds support for the Confirm activity for Unit Testing.

Common Features

Support is added for bwobfuscator utility to encrypt password.

Support is added for the bwobfuscator utility to encrypt passwords for TIBCO BusinessWorks Container Edition. With this utility, you can encrypt passwords using the custom encryption key.

For more information, see "Password Obfuscator Utility" in the *TIBCO BusinessWorks Container Edition Application Development*.

Support is added for OpenTelemetry with ISTIO Services.

This release adds support for OpenTelemetry with ISTIO Services.

Support for XPath normalize-unicode function in the XSL Transform activity

The "normalize-unicode()" function is now added and listed under the String functions section.

Monitoring

Support is added for custom headers for OpenTelemetry.

This release adds support for customer headers like `api_key` to authenticate with the OpenTelemetry system on New Relic.

Runtime

A new method `net.logstash.logback.marker` is added in the `com.tibco.tpcl.logback_1.2.1300.004` osgi bundle

You can now use the `net.logstash.logback.marker` method from the `com.tibco.tpcl.logback_1.2.1300.004` osgi bundle to implement it in the java code.

Runtime

Support is added for B3 propagation format on Jaeger.

This release adds support for B3 propagation format in TIBCO BusinessWorks Container Edition on Jaeger.

Start an independent component of the TIBCO BusinessWorks Container Edition application

An option has been added now to start an independent component of the TIBCO BusinessWorks Container Edition application despite of an Impaired or StartFailed state.

Support for TIBCO BusinessWorks Container Edition metrics such as system data and process stats via OpenTelemetry

TIBCO BusinessWorks Container Edition metrics for system data and process stats can now be seen on any standard metric-supported data source via OpenTelemetry.

Palettes

Support for streaming non-multipart in Send HTTP Request activity

Sending a file as streaming non-multipart is now supported in Send HTTP Request activity.

Support for parsing the Swagger files with the special character "\$" and whitespace

Support is provided to parse the Swagger files having element names with the special character "\$" and whitespace in the query parameters, request, and response schema objects.

Support of Smart Engine for HTTP-based transport

You can now generate various HTML reports for the engine data collected for different performance use cases with applications using HTTP-based transport. The Smart Engine also analyzes the engine data collected and provides recommendations to improve the performance of your application.

Palettes

For more information, see the "Smart Engine" section in *TIBCO ActiveMatrix BusinessWorks™ Application Monitoring and Troubleshooting*.

Support for XSLT stylesheet selection in TransformXML activity

Support is added to select the XSLT stylesheet from the shared module in the TransformXML activity.

Support to override SQL statements via JDBC_Update activity

An **Override SQL Update Statement** checkbox is added on the Advanced tab of the JDBC_Update activity to override the SQL statement.

Release 2.8.1

Bindings

Support is added for Threadpool Shared Resource with REST Reference Binding.

The REST Reference Binding can now use the Threadpool Shared Resource when configured on the HTTP Client Shared Resource.

The name of the threads generated by the default thread pool (previously named as bw-flowlimit-executor-provider) is now changed to bw-rest-jersey-executor for clarity on component using the thread to end-users.

Common Features

Certifications The following certification has been added in this release:

- Kubernetes 1.25.x
- Tanzu Application Services 3.0

Support for String type module properties. This release adds support for String type module properties for AWS Secret Manager Credential Management Service provider.

Monitoring

Support is added to provide database connection details with segregated fields for TIBCO BusinessWorks Container Edition Monitoring connection.

This release provides capability to configure all required database details through their respective fields separately to allow obfuscated passwords to be added.

Palettes

Support is added for Azure Managed Identities for JDBC Shared Resource.

Support is provided for managed identities as an authentication method for Azure SQL Connections for the JDBC Shared Resource.

A new checkbox **Custom Access Logs Format** is added for **HTTP Connector** Shared Resource.

A new checkbox **Custom Access Logs Format** is added in the **HTTP Connector** shared resource.

You can now select the **Enable Access Logs** checkbox and provide a value for the newly added field with a custom log format to fetch the Jetty logs.

Runtime

Support is added for TraceID and SpanID in engine logging statements.

This release adds support to include TraceID and SpanID loggers in the engine logging statements.

Release 2.8.0

Common Features	
Certifications	<p>The following certification has been added in this release:</p> <ul style="list-style-type: none"> • Kubernetes 1.24.x • OpenShift 4.11.x
Updated default OS for base image.	<p>This release adds support for a new base Docker image, "debian:bullseye-slim".</p> <p>For more information, see "Creating the TIBCO BusinessWorks Container Edition Base Docker Image for Linux Containers" in the <i>TIBCO BusinessWorks Container Edition Application Development</i>.</p>
A new environment variable BW_LOGGER_OVERRIDES is added in TIBCO BusinessWorks Container Edition	<p>This release adds support for a new environment variable BW_LOGGER_OVERRIDES in TIBCO BusinessWorks Container Edition. This environment variable contains the list of loggers.</p> <p>For more information, see "Environment Variables for TIBCO Business Studio for BusinessWorks" in the <i>TIBCO BusinessWorks Container Edition Application Development</i></p>
Dynamic timeout in SOAP Invoke activity	<p>You can now use dynamic timeout in SOAP Invoke activity using the Set Context activity.</p> <p>A schema must be created with specific element names i.e. complexType element as "dynamicConfigurations" containing the "activityTimeout" element.</p> <p>The dynamic timeout overrides any static setting in the Advanced tab of the Invoke activity.</p>
Deploy the same EAR with different profiles using Maven	<p>A new option has been added now to deploy the same EAR file multiple times with different profiles using <code>bw6-plugin-</code></p>

Common Features

	maven.
Support for Inline Schema at request and response in OAS 3.0 Swagger files	OAS 3.0 JSON file with inline schema in request and response is now getting parsed when creating top-down REST service or reference binding.
Support for OAS 3.0 Multiple Response feature	Support has been added to create a top-down REST service with OAS 3.0 JSON file having multiple response content-types.
Support for anyOf and oneOf keywords in Swagger files	You can now generate XSD and create a top-down service or reference binding using an existing OAS 3.0 JSON file with anyOf or oneOf keywords for request and response schemas.

Design Time

A new field Record failure predicate is added for HTTP Client Shared Resource.	<p>A new field Record failure predicate is added in Circuit Breaker Configuration tab for the HTTP Client Shared Resource.</p> <p>Using this field you can browse and select a java class that implements the Predicate interface.</p> <p>For more information, see "HTTP Client" in the <i>TIBCO BusinessWorks Container Edition Bindings and Palette Reference</i>.</p>
Promote module properties in a batch	With this release, you can now promote module properties in a batch rather than individually.
TIBCO BusinessWorks™ Container Edition integration with TIBCO Cloud API Modeler	The TIBCO Cloud API Modeler (TCAM) APIs are now available on the TIBCO Cloud APIs website that ActiveMatrix BusinessWorks can leverage to make the API specs from TCAM discoverable in the API explorer.

Design Time

Support for multiple TIBCO Cloud Integration environments via SSO

You can now choose multiple TIBCO Cloud Integration environments and log in via SSO. An option is provided to select a cloud server in the SSO Settings dialog.

Support for importing/exporting application templates to TIBCO Cloud Integration Marketplace

This feature is an integration of the Application Template with the TIBCO Cloud Integration Marketplace via TIBCO Business Studio for BusinessWorks. It enables you to import/publish the app templates as marketplace listings on the TIBCO Cloud Integration Marketplace.

Test Connection feature for Smart Mapper

A new button named **Test Connection** is provided on the Database Configuration window of the Smart Mapper preferences. It enables you to verify the database connection for the Smart Mapper.

Learn Existing Links feature for Smart Mapper

The Learn Existing Links feature enables you to store all mapping data of all projects in the current workspace. For using this feature, you first need to configure the DB. All the mapping data gets stored in the respective DBs.

Importing/exporting recommendation info via Smart Mapper

This feature enables you to import/export the recommendation info. The Import button helps to import the mapping data present in the DBnfo file into the configured DB. Similarly, the Export button helps to export the mapping data present in DB to the DBinfo file.

Palette

Support is added for Hot Update for JDBC Shared Resource.

This release adds support for Hot Update for JDBC Shared Resource in TIBCO BusinessWorks Container Edition.

For more information see, "Hot Update of Application Module Properties and Module Property for JDBC Shared Resource" in the *TIBCO BusinessWorks Container Edition Application Development*.

Palette	
Support for OAuth 2.0 Authentication in Receive Mail Activity	OAuth 2.0 Authentication is now supported for Receive Mail Activity IMAP protocol in the Mail palette.
Support for XML type input parameter in Oracle stored procedure	XML type input parameter in Oracle stored procedure is now supported for Oracle.
Runtime	
Improved support to monitor status, readiness, and liveness of running applications	This release adds improved support to monitor status, readiness, and liveness for TIBCO BusinessWorks Container Edition applications via enhanced APIs.
Force stop application via Engine Command activity	<p>In TIBCO ActiveMatrix BusinessWorks™ 6.x, the stopapplication command is used in the Engine Command activity which gracefully shutdowns the application. Since it is the graceful shutdown of applications, it waits for all jobs to get completed.</p> <p>This enhancement is raised to have a "force shutdown/stop application" so that it can stop the application immediately.</p> <p>For the EngineCommand activity, a force option for the StopApplication command is added to stop the ActiveMatrix BusinessWorks application forcefully. For example, the existing process instances are canceled immediately.</p>
Introducing a new log level, Fatal in the Log Activity	A new log level named Fatal has been added to the Log Activity. This feature enables you to distinguish the Fatal log-level messages from the Error log messages and can also be used for observability goals.
Support for getting	In the input binding of activities and transitions, the TIBCO

Runtime

the Product Version BusinessWorks Container Edition product version can now be accessed by using the following property:

```
bw:getSystemProperty("BW.VERSION")
```

Release 2.7.3

Common Features

Certifications The following certification has been added in this release:

- Tanzu Application Services 2.13

Support is added for EKS Services for AWS Secret Manager This release adds support for credential and configuration management for AWS Secret Manager while deploying applications on EKS service.

Support is added for Circuit Breaker for **Rest Invoke** activity This release adds support for Circuit Breaker using Resilience 4j for the **Rest Invoke** activity.

Palettes

Support is added for two new configuration properties for Resilience4j Circuit Breaker functionality.

This release adds support for two new configuration properties in Circuit Breaker of the HTTP Client shared resource:

1. recordExceptions: Exceptions to record
2. ignoreExceptions: Exceptions to ignore

For more information, see "HTTP Client Shared Resource" in the *TIBCO BusinessWorks™ Container Edition Bindings and Palette Reference*.

Runtime

New property added to disable OSGi command

A new property `bw.osgi.disable` is added to disable OSGi commands.

For more information, see "Disabling OSGi Commands" in the *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*.

Release 2.7.2

Common Features

Certifications

The following certifications have been added in this release:

- OpenShift 4.9 and 4.10
 - Kubernetes 1.23.x
-

Support is added for Azure Vault for Certificate Management in TIBCO BusinessWorks Container Edition

This release adds support for fetching certificates from Azure Key Vault in TIBCO BusinessWorks Container Edition.

For more information, see "Using Azure Vault for Certificate Management" in *TIBCO BusinessWorks™ Container Edition Application Development*.

Support for SSL configured REST Services.

The Irestdoc URL is now secured for SSL configured REST Services.

Support to enforce authentication on REST Reference binding using **Authentication** check box on **HTTP Client** shared resource.

You can now enforce basic authentication on REST Reference binding using the **Authentication** check box on **HTTP Client** shared resource. The Authorization header for the same is reflected in the outbound request.

Ability to share Smart

With this version, you have the capability to connect the Smart

Common Features

Mapper Learning via externalized database

Mapper to an externalized database to be able to share learning done on one machine within your team to achieve an improved collaborative team development experience.

Support for "allof" keyword in Swagger files

We can now generate XSD, and create a top-down service or reference binding using an existing JSON file with "allof" keyword for request and response schemas.

Support for parsing the Swagger files with the special characters @ and #

Support is provided to parse the Swagger files having element names with the special characters @ and # in the request and response schema objects.

A new field **activityTimeout** under **dynamicConfigurations** element is added.

A new field **activityTimeout** under **dynamicConfigurations** element is added to the Input tab of the REST Invoke activity created with a reference binding. Provide the value in seconds. At runtime, it takes precedence over the Activity Timeout value in the Advanced tab.

Support to refer to the external JSON from OpenAPISpecification 3.0 JSON file

Support is added to generate XSD and create service and reference binding using OpenAPISpecification 3.0 JSON file, which refers to an external JSON file.

Creation of a web service with one-way operations returning faults is supported

Support is added to use One-Way operation along with Fault replies.

Design Time

The **Export as Json file** option is added in the **Export Profile** Wizard in TIBCO BusinessWorks Container Edition

The **Export as Json file** option is added in the **Export Profile** Wizard in TIBCO BusinessWorks Container Edition to export the application properties file in JSON format.

Design Time

Configure the REST Endpoints in Cloud Mesh via CICD.

You can configure and override the TIBCO Cloud Integration Cloud Mesh Resource Endpoints during the deployment process.

Send the password digest while using UsernameToken.

Now you can send password digest while using UsernameToken for security in the Soap Policy.

Add Custom Xpath function as a module dependency.

You can now add Custom Xpath function as a module dependency in pom.xml using TIBCO ActiveMatrix BusinessWorks Maven plug-in.

You can run an application using TIBCO Cloud Mesh with Single Sign On option selected.

When you select the Single Sign On option from Preferences and run an application with TIBCO Cloud Mesh service, you can select the **Enable TIBCO Cloud Mesh Services Consumer** check box available under **Run > Run configurations... > Advanced Tab** or **Run > Debug Configurations... > Advanced Tab**.

Support is provided to connect to TIBCO Cloud Integration from TIBCO Business Studio for BusinessWorks using Single Sign-On (SSO).

This release adds support to connect to TIBCO Cloud Integration from TIBCO BusinessStudio for BusinessWorks using Single Sign-On for enhanced authentication.

Note: You can only use one method at a time, either SSO Login or Password Grant, to connect to the cloud application.

Support for Assertion of activities within a group.

This release adds out of the box support for adding assertions to the activities within a group in a process.

Support for mocking of activities within a group

Support for mocking activities within a group is now provided.

Monitoring

Support is added for SSL enabled Oracle in TIBCO BusinessWorks Container Edition Monitoring.

This release adds support for SSL enabled Oracle for TIBCO BusinessWorks Container Edition Monitoring. An Oracle specific Docker file is added where you can choose to either enable SSL or use it without SSL.

To use this feature, perform the following steps:

1. Use the Dockerfile_Oracle and uncomment line number 31-33.
2. Perform all the steps for using Oracle DB for TIBCO BusinessWorks Container Edition monitoring.
3. Add the SSL Enabled Oracle server's `cwallet.sso`, `sqlnet.ora` and `tnsnames.ora` in the `instantclient` folder. Ensure that the correct server name is present in `tnsnames.ora`.
4. Create a monitoring container with the `USE_ORACLE_SSL=true` environment variable.

Palettes

Nested `mimeEnvelopeElement` is visible and supported.

Now nested `mimeEnvelopeElement` is visible and supported in the Input and Output schemas of the HTTP palette activities.

Support to provide a custom boundary for multipart content type

Support is provided to add the custom boundary for multipart content type on the Send HTTP Request and Send HTTP Response activities.

Runtime

The iterate loop variable resets after each iteration

Variable inside iterate loop resets now after each iteration when set to `bw.engine.enable.loop.reset=true`.

Release 2.7.1

Common Features

Certifications

The following certifications have been added in this release:

- Kubernetes 1.22.x
- Enterprise Message Service 10.1
- OpenShift 4.8

The **Activity Status Code** field is added for SOAP Binding.

The **Activity Status Code** field is added on the **Reply** activity interface to select the HTTP Response status from the Advanced properties section.

Support is added for new log details in SmartMapper.

For a better user experience, more details have been added in the logs for SmartMapper.

Design Time

Support is added for Custom Xpath function using TIBCO ActiveMatrix BusinessWorks Plug-in for Maven.

This release adds support for Custom Xpath function as a module dependency in `pom.xml` using TIBCO ActiveMatrix BusinessWorks Plug-in for Maven.

For more information, see "Using Custom XPath Functions with TIBCO ActiveMatrix BusinessWorks Plug-in for Maven" in *TIBCO BusinessWorks™ Container Edition Application Development*.

Palettes

Support is added for handling nested multipart/mixed MIME parts

This release adds support for parsing responses received as nested multipart/mixed MIME parts for the **Send HTTP Request** activity. An extra `mimeEnvelopeElement` is added in

Palettes

as responses for Send HTTP Request activity.

the **Output** tab of the **Send HTTP Request** activity.

For more information, see "Send HTTP Request" in *TIBCO BusinessWorks™ Container Edition Bindings and Palette Reference*.

Runtime

Upgrading Logback.

To enhance security, Logback is upgraded from version 1.2.3 to 1.2.10.

Enhancement for finding BW version in a running BW application.

In the input binding of activities and transitions, the ActiveMatrix BusinessWorks product version can be accessed by `bw:getSystemProperty("BW.VERSION")`.

Release 2.7.0

Common Features

Certifications

The following certifications have been added in this release:

- Kubernetes 1.21
- Docker 20.x
- OpenShift 4.7

Support is added to remember mappings made in a smart mapping session.

TIBCO BusinessWorks Container Edition now remembers mappings made during a smart mapping session and provides recommendation for mapping elements.

For more information, see "Smart Mapper" in *TIBCO BusinessWorks™ Container Edition Application Development*.

Common Features

Out of the box support provided for TIBCO BusinessWorks™ Container Edition plug-in for Apache Maven

The TIBCO BusinessWorks Container Edition installer now includes the installer of TIBCO BusinessWorks™ Container Edition plug-in for Apache Maven.

Support is added for Java 11.

Now TIBCO BusinessWorks Container Edition 2.7.0 supports Java 11 on the Windows, Mac, and Linux platforms.

Support added for Unit Testing for External Shared Module.

Starting this release, you can execute the test cases from External Shared Module while running the test goals on application module.

Support added for AmazonLinux 2 OS docker image in TIBCO BusinessWorks Container Edition.

This release adds support for AmazonLinux 2 OS docker image in TIBCO BusinessWorks Container Edition.

Support added for OpenTelemetry to fetch traces with any OpenTelemetry complaint service provider.

This release adds support for OpenTelemetry collector to receive traces from the OpenTelemetry SDKs, and to forward the data from the OpenTelemetry complaint service provider.

Testing is completed with Datadog as well with OpenTelemetry collector.

Support for dynamically overriding binary response format

You can override the binary response format only when "application/octet-stream" is selected in the Response Media Type using Content-Type Response Header on the Reply activity. Select the Use HTTP Headers check box and then pass the value in the Reply activity. The same value is reflected at runtime in the Response headers content-type.

Support is added for setting the

The **dynamicConfigurations** field is added on the **Input**

Common Features

request URL dynamically on REST reference binding

tab of the **Invoke** activity, which is used for invoking REST service with REST reference binding. The **dynamicConfigurations** consists of the following information:

URL: The endpoint URL to override from reference binding.

Note: This field is visible for newly created reference binding only.

Support is added for handling runtime expressions in Callback URL

When you drag a callback URL with runtime expressions from a Swagger 3.0 file to create a REST service or a reference binding, the **Resource Service Path** is set to /callback and the shared resources have localhost and 8080 as Host and Port values respectively.

The **Description** field is added on the REST service binding.

The **Description** field is added on the REST service binding for all the parameters. Set the description in TIBCO Business Studio for BusinessWorks and the same value is reflected in Swagger UI when you refresh the Swagger UI URL.

Support of Binary Response Format for OAS 3.0 REST services is provided.

The **Binary** check box is added in the Response Format for Swagger 3.0 service and reference binding.

Support added for implementing callbacks in OAS 3.0.

You can now create REST service or reference bindings from a JSON file containing a callback URL.

REST service can return HTML content to the browser.

REST service can return HTML content to browser by passing "text/html" as Content-Type header value in the response headers of the **Reply** activity. Select the **Use HTTP Headers** check box and Format as Text on the

Common Features

Response tab of REST service binding.

Enhancements are made in Unit testing and Mocking support.

TIBCO BusinessWorks Container Edition adds support for Mocking and unit testing for the following entities:

- Main process activities
- Events or process starters
- Service Binding
- SOAP service implemented as a constructor operation

Design Time

The temp files are no longer showed under Unstaged Changes.

Now the Git Staging tab does not show the temp files in the Unstaged Changes section after committing the changes.

The temp files are added to the .gitignore file.

Now the temp files are added to the .gitignore file.

Successful installation of AWS CodeCommit Plugin

Now you can successfully install AWS CodeCommit Plugin by following these steps:

1. Install Guava: Google Core Libraries for Java 21.0 from [here](#).
2. Install Eclipse Equinox Target Components from [here](#).
3. Install M2E from [here](#).
4. Install AWS Code Commit from [here](#).

The **View Documentation** icon is added for plug-ins in Plug-in Manager

The plug-ins in the Plug-in Manager now display a **View Documentation** icon. Click the icon to view the corresponding plug-in's documentation on docs.tibco.com

Design Time

Support is added for Eclipse 4.19 platform for TIBCO Business Studio for BusinessWorks

TIBCO Business Studio for BusinessWorks is now based on Eclipse 4.19 platform.

For more information, see "Eclipse 4.19 - New and Noteworthy" page on the [Eclipse's site](#).

Palettes

Support is added for TLS session resumption

All activities from the FTP palette now support TLS session resumption on the data connection.

Support is added to allow or restrict IP addresses in the HTTP Connector shared resource.

The following VM arguments are added in TIBCO Business Studio for BusinessWorks to allow or restrict IP addresses.

- `Dbw.plugin.http.httpConnector.allowIPs=<IP address>`
- `Dbw.plugin.http.httpConnector.restrictIPs=<IP address>`

You can provide a list of IP address by using a semicolon (;) as a separator.

For example:

`Dbw.plugin.http.httpConnector.allowIPs=10.98.179.102;10.98.179.110.`

In this example, both IP addresses 10.98.179.102 and 10.98.179.110 are allowed.

Use a hyphen to provide a range of IP addresses.

For example: `Dbw.plugin.http.httpConnector.restrictIPs=10.98.179.102-10.98.179.110.`

In this example, IP addresses 10.98.179.102 to 10.98.179.110, both inclusive are restricted.

You can also provide a range of IP addresses along with other IP addresses not in the IP address range separated by semicolons.

For example: `Dbw.plugin.http.httpConnector.restrictIPs=10.98.179.102-10.98.179.110;10.98.179.120.`

Use a hyphen to provide a range of IP addresses.

Palettes

For example: `Dbw.plugin.http.httpConnector.restrictIPs=10.98.179.102-10.98.179.110`.

In this example, IP addresses 10.98.179.102 to 10.98.179.110, both inclusive are restricted.

The performance of JDBC palette activities is improved.

Set the following VM arguments :

- `-Dbw.application.jdbc.validateConnection.frequency=55`

The frequency means how often to check connection validity when inside the pool. This value must not be above the Connection Idle Timeout property in the **JDBC Connection** shared resource.

- `-Dbw.application.jdbc.validateConnection=false`

Check whether to validate the connection prior to sending it to the activities.

Support is added for TLS 1.3 version.

The shared resources for **SSL Server Configuration** and **SSL Client Configuration** now support TLSv1.3 as SSL Protocol version for HTTP, REST, SOAP, Mail and TCP Palettes. TLS 1.3 supports only RSA certificates.

For more information, see "SSL Server Configuration" and "SSL Client Configuration" in *TIBCO ActiveMatrix BusinessWorks™ Binding & Palette Reference*.

Support added for module properties for additional configuration.

- You can use a module property for configuring **Confidentiality** on HTTP Connector shared resource.
For more information, see "Security" in *TIBCO ActiveMatrix BusinessWorks™ Binding & Palette Reference*
 - You can use a module property for providing the **HTTP Connector Name** on SOAP service binding.
For more information, see "Configuration for HTTP Transport" in *TIBCO ActiveMatrix BusinessWorks™ Binding & Palette Reference*
-

Runtime

Smart Engine You can now generate various HTML reports for the engine data collected for different performance use cases. Smart engine also analyzes the engine data collected and provides recommendation to improve performance of your application.

For more information, see "Smart Engine" section in *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*.

For more information about New Features before TIBCO BusinessWorks Container Edition 2.7.0 release, see [New Features](#)

Changes in Platform Support

Supported platforms are not affected in this release. For a complete list of supported platforms, see the Readme file.

Changes in Functionality

The following functionality and features have been changed in this release of TIBCO BusinessWorks Container Edition.

Release 2.10.0

Binding

Support for displaying "faultcode", "faultstring" and details in the default Fault Schema

Now you can choose between the schema options "message" or "faultfactor, faultstring, and faultcode" for the input when using Reply with Undeclared fault.

Support for customizing the error message for uncontrolled errors

Now, an error occurs without a stack trace in the browser window when ?wsdl is eliminated from the end of the endpoint URL.

General

Support added for Tibco Developer Hub icon on the welcome screen.

A new Tibco Developer Hub icon is added on the TIBCO Business Studio for BusinessWorks welcome screen.

Support for enhancing error logs

You can now use the property - `Dbw.pvm.dataexch.omitXSLT=true` to eliminate the XSLT stylesheet from the error logs.

Support added for a detailed view of data validation errors in XML

Now you can view detailed validation error outputs, including a detailed hierarchy of schema elements.

Maven Plug-in

Enhancements in the Shared Module Unit Testcases sample

In the "SharedModuleUnitTestcases" sample, the following parameters are implemented now:

- The "Addition" option is replaced with "Division".
 - A mock fault has been added in the "divide" option.
 - A customized icon has been added for all operations.
-

Support for execution of test cases

This release adds support for execution of test cases, when one of the test cases errors out in the same process.

Palettes

Support added for module property for JDBC Call procedure/Function name.

This release adds support for module property for JDBC Call procedure/Function name.

For more information, see "Enabling the module property in JDBC Call Procedure/Function for JDBC Call Procedure Activity" in the *TIBCO BusinessWorks™ Container Edition Bindings and Palette Reference*.

Upgraded the MSSQL jar to 12.x.

The MSSQL database jar is upgraded to version 12.x.

Support for Content Type validation in HTTP Receivers

Content Type validation is now provided for HTTP Receivers with the help of a system-based property.

Support is added to Content Type validation in HTTP for the following flags:

- Support for Global level:
`bw.http.content.type.validation.list`
 - Support for Application level: -
`Dbw.http.content.type.validation.list(Application_name).application="text/plain"(Content_type)`
-

Support for Microsoft Graph API in the Receive

Support has been added for the Microsoft Graph API in the Receive Mail activity using IMAP OAuth protocol.

Palettes

Mail activity

Support for Microsoft Graph API in the Send Mail activity

Support has been added for the Microsoft Graph API in the Send Mail activity using IMAP OAuth protocol.

Support for chunked streaming in HTTP Palette

Support has been added for chunked streaming to send large files using the Jetty client in the HTTP Palette.

Runtime

Support added for Activator process for shared modules.

Earlier, the activator process was supported only for application module.

Now, the activator process is supported for shared modules.

For more information, see "Creating an Activator Process" in the *TIBCO BusinessWorks™ Container Edition Application Development*.

Unit Testing

Support for execution of test cases.

This release adds support for execution of test cases, when one of the test cases errors out in the same process.

Release 2.9.2

Design Time

Support for "/" character in the manifest-bwce.json.

Earlier, the "_sLAsH_" character was present in the appProperties section of the manifest-bwce.json file.

Now, the "_sLAsH_" character present in the appProperties section of the manifest-bwce.json file is replaced with the actual "/".

Release 2.9.1

General

Support for micro and nano seconds in the parsedate function.	This release adds support for micro and nano seconds in parsedate function. Set property <code>com.tibco.xml.cxf.dateTime.micronanosupport</code> to true in VM arguments to get the required output. You can now give the input till nanoseconds. This fix uses <code>DateTimeFormatter</code> which is very strict as compared to earlier <code>SimpleDateFormat</code> . Please refer to https://docs.oracle.com/javase/8/docs/api/java/time/format/DateTimeFormatter.html (Patterns for Formatting and Parsing) for the examples and supported symbols which are given as input of <code>parseDateTime</code> function.
Support for scope variable option.	Earlier, the scope level variable is not shown in the reset variable option. Scope variable is now present in reset variable list for while loop.

Release 2.9.0

General

Base docker image is updated to <code>debian:bookworm-slim</code>	Earlier, the <code>debian:bullseye-slim</code> base docker image was supported Now, the base docker image is updated to <code>debian:bookworm-slim</code> .
Support for default enabling of Smart Mapper	The Smart Mapper and recording the user mapping selections are now enabled by default.

Design Time

Provision to generate an EAR using the <code>BWDesign</code> utility	Earlier, the <code>generate_manifest_json</code> command was creating the manifest json file.
--	---

Design Time

command `generate_manifest_json`.

Now, the `generate_manifest_json` command also generates an EAR. Input to the command is an EAR created using the earlier versions of the TIBCO Business Studio for BusinessWorks.

For more information, see "Using BWDesign Utility " in the *TIBCO BusinessWorks™ Container Edition Application Development*.

The `manifest-bwce.json` file is generated on creating an EAR.

The `manifest-bwce.json` file is generated for Container applications on creating an EAR.

The **Clear all blank lines** checkbox in the **Preferences -> XML -> XML Files -> Editor ->** is by default enabled.

Earlier, the **Clear all blank lines** checkbox in the **Preferences -> XML -> XML Files -> Editor ->** is not enabled.

Now, the **Clear all blank lines** checkbox in the **Preferences -> XML -> XML Files -> Editor ->** is by default enabled when the workspace is closed.

The Java compiler version is set to Java 11 for a BusinessWorks project.

Earlier, the Java Compiler version for a BusinessWorks Project created with Java configuration was set to 1.4.

Now, the Java Compiler version for a BusinessWorks Project created with Java configuration is set to Java 11.

Provision to export profiles with EAR using BWDesign utility

Support is added to export profiles with EAR using the BWDesign utility via a `-pf` option.

Maven Plug-in

Support for validation checks of Gold input files

Validation checks are now implemented when you rename or move the Gold input file within a workspace.

Support for OpenJDK is added.

You can now configure OpenJDK instead of `tibcojre` for deploying applications using Maven in Docker.

Maven Plug-in

Support for deploying an application with different versions

You can now deploy the same application with different versions in TIBCO Enterprise Administrator using the Maven plug-in.

Support for validation checks of Input XML files

Validation errors are now thrown when you rename or move the Input XML file on Process starter activities within a workspace.

Support for Dependency Exclusions is added

This release adds support for Dependency Exclusions on top level POM.

For more information, see *Dependency Exclusions in the TIBCO BusinessWorks™ Container Edition Maven Plug-in*.

Monitoring

Support for TIBCO BusinessWorks Container Edition Monitoring to make connections with non default port of Oracle database.

This release adds support for TIBCO BusinessWorks Container Edition Monitoring to make connections with non default port of the Oracle database.

Palette

Support for Basic Authentication in the HTTP responses

A new tag **HttpOnly** has been added when using Basic Authentication for the Set-Cookie attribute in HTTP responses. Also, a **secure** tag is added when using SSL.

Runtime

Support for disabling or enabling the input and output data storage using REST APIs

When using Stats collection, the input and output data storage can now be disabled or enabled for audit events using REST APIs.

Release 2.8.3

General	
Support for Oracle JRE 11.0.19	Earlier, Oracle JRE 11.0.18 was supported. Now, Oracle JRE 11.0.19 is shipped with this release.
Enhanced error description for OAuth Shared Resource Test Connection.	The error description is enhanced now for OAuth Shared Resource Test Connection faults.

Release 2.8.2

General	
The "Transformation failed for element" type error shows a complete XPath to the element.	Earlier, the simplified stack trace variable showed only the Caused by message and the element with the error. Now, if an exception occurs while processing an element's content, the Transformation failed for element type error shows the complete XPath to the element having the problem.
Ability to process XML elements of complex type with simple content for Render JSON activity:	Earlier, the Render JSON activity used to fail with the error <code>JsonRenderException: Unexpected child content</code> , if the XML input to Render JSON activity contained XML elements of complex types with simple content. Now, support is added for processing XML elements of complex type with simple content in Render JSON activity.
Support for Oracle JRE 11.0.18	Earlier, Oracle JRE 11.0.16.0.1 was supported. Now, Oracle JRE 11.0.18 is shipped with this release.
Auto-complete fixable after selecting recommended	For Smart Mapper, after selecting a recommended element which is a convertible type of the current target element, you

General

elements via existing internal QF for Smart Mapper. can use the existing internal QF that automatically casts it. This can help you to avoid an extra click.

Design Time

Provision of creating test suite/test files for newly created folders. Users can now create test suite/test files for newly created folders under the 'Tests' folder.

Provision of module property picker for input XML files. Users are now provided with a module property picker to provide test input XML files on process starter activities.

Palette

Enabling basic authentication for HTTP Receiver activity sub-paths. The basic authentication for the HTTP Receiver activity having sub-paths can be enabled by selecting the **Apply Policy to Subpaths** checkbox in the Advance tab.

Change in the cardinality of Allow header in Send HTTP Request activity. The Send HTTP Request activity fails with an "Activity output data validation" error when invoking a service responding with a repeated Allow header element.

The cardinality for Allow header field is now set to Repeating (*) in the Output Editor of Send HTTP Request activity.

Support for OAuth 2.0 with HTTP Client shared resources. OAuth 2.0 is now supported with HTTP Client shared resources for REST reference binding, Invoke REST API, and Send HTTP Request.

Runtime

Support for DSR command via Admin CLI. In TIBCO Business Studio for BusinessWorks, input options are present within the same DSR command scope. Whereas in Command Line, each input option of the DSR command now works as an individual command.

Release 2.8.1

General

Support is added for auto tokenize property value on export profile.

Earlier, on the application property editor in TIBCO Business Studio for BusinessWorks, for applications with deployment target as **Container** the **Tokenize** option is checked and non editable. So on exporting the profile as property file the property values are auto-tokenized.

Now, the **Tokenize** option is editable and not selected by default. Hence the property value do not get auto-tokenized on profile export. You can manually check the **Tokenize** option to auto-tokenize property value on profile export.

Default heap size for TIBCO Business Studio for BusinessWorks is increased to 4 GB.

Earlier, the default heap size of TIBCO Business Studio for BusinessWorks was 2 GB.

Now, the heap size is increased to 4 GB for TIBCO Business Studio for BusinessWorks.

Runtime

Upgrade OpenTelemetry jars with the latest compatible jars.

For a better user experience, the OpenTelemetry jars are upgraded with the latest compatible released jars.

Release 2.8.0

General

Disabling the **Persistent** option in TIBCO BusinessWorks Container Edition

Earlier, the **Persistent** option for a Module Shared Variable was enabled when the deployment target option was set to **Container** and the TIBCO Business Studio for BusinessWorks threw an error message.

Now, the **Persistent** option for a Module Shared Variable is disabled when the deployment target option is set to

General

Container.

New default value for the **Activation** option in TIBCO BusinessWorks Container Edition is set to Single AppNode.

Earlier, for all the Deployment Targets (BW6 AppSpace, Container, Cloud) the **Activation** option was set to Multiple Appnode.

Now, the **Activation** option is now visible for TIBCO BusinessWorks Container Edition and the default value is set to Single AppNode.

Support is added for the **Use Process Data** check box for the **FTP Put** and **FTP Get** activity in TIBCO BusinessWorks Container Edition

Earlier, the visibility of the **Use Process Data** check box was not enabled for the **FTP Put** and **FTP Get** activity in TIBCO BusinessWorks Container Edition.

Now, the visibility of the **Use Process Data** check box is enabled for the **FTP Put** and **FTP Get** activity when the deployment target is set to **Container** and **Tibco Cloud**.

Support is added for multiple XSD schemas with duplicate target namespaces.

When the user has multiple XSD schemas with duplicate target namespaces, TIBCO Business Studio™ for BusinessWorks™ application fails to validate them; whereas, when an application EAR is deployed, it throws an error.

Now, a Preference is added in TIBCO Business Studio for BusinessWorks application wherein either an Error, a Warning, or an Ignore option is provided in this scenario.

Enabling Memory Saving Mode by default

The Memory Saving Mode is enabled now by default in Design time and Runtime.

Palette

Upgrade to PostgreSQL 6.0 driver.

With this release, PostgreSQL has been upgraded to the latest 6.0 version driver.

Release 2.7.3

Palette

Support is added for custom line separator.	<p>Earlier, a dropdown was added to select a line separator with predefined options in Data Format shared resource.</p> <p>Now, a new option for custom line separator in Data Format shared resource is added.</p>
---	---

Runtime

New Data type added for Client Secret field.	<p>Earlier, the data type for the Client Secret field in the OAuth Shared Resource was String.</p> <p>Now, the data type is updated to Password.</p>
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Release 2.7.2

Bindings

Support is added for Authorize button on Swagger UI	<p>Earlier, for invoking REST services configured with Basic Authentication Policy from Swagger UI, you had to provide the Username and Password in the provided input fields and click the Explore button.</p> <p>Now, you can use the Authorize button and provide the log-in details.</p>
---	--

General

Updated spring framework libraries for Eclipse.	The spring framework libraries for Eclipse are updated to address the vulnerability issues.
---	---

General

Upgrade the JDK compiler compliance version to the one greater than 1.5.

The minimum JDK compiler compliance required is 1.5. If the project that you are importing with Java nature has JDK compiler compliance less than 1.5, you can choose to upgrade the JDK compiler compliance version to the one greater than 1.5.

Monitoring

Support is added for two separate Docker files to start TIBCO BusinessWorks Container Edition Monitoring.

Earlier, to use Oracle for TIBCO BusinessWorks Container Edition Monitoring, only one single monitoring Dockerfile was present.

Now, two Dockerfiles are used to start TIBCO BusinessWorks Container Edition Monitoring.

To use MSSQL Server, Postgresql or Mysql DBs, use the Dockerfile

To use Oracle DB: Dockerfile_Oracle. Before using, rename this file as 'Dockerfile'.

Palette

Improved error message for SOAP Client using HTTP and HTTPS

Earlier, while invoking a service using HTTPS, the error message returned by invoke was not very useful to identify the problem.

Now, an improved error message occurs for SOAP Client using HTTP and HTTPS.

Runtime

Password Digest option is provided in SOAP Reference.

The users have the option to choose the password type as Password Digest when using the UserNameToken for security in SOAP Reference.

Release 2.7.1

Palette

Support is added for discontinuing the extra mime part in the Send HTTP Request activity.

When sending a multipart/mixed request with Send HTTP Request activity, TIBCO BusinessWorks Container Edition is adding an extra mime part with an unspecified boundary at runtime.

Now TIBCO BusinessWorks Container Edition supports the behavior to avoid adding any extra headers by setting the `com.tibco.net.mime.mpwob=true` in VM arguments. As a workaround, if whitespace is prepended to the main Content-Type, then the extra headers are removed.

Release 2.7.0

General

Resilience4j for Circuit Breaker

Earlier, Hystrix Libraries were supported for Circuit Breaker.

Now, Resilience4j is supported for Circuit Breaker.

Change in the default setting of the **Always run in background** check box.

Earlier, the **Always run in background** check box located at Window > Preferences > General was clear by default.

Now, the **Always run in background** check box is by default selected.

Clear the check box to view progress bars for some events.

Palette

A new **JMS Fetch Timeout** field is

A new **JMS Fetch Timeout** field is added on the **Advanced** tab of the **Get JMS Queue Message** activity.

Palette

added. Additionally, the behavior of the timeout field on the **Input** tab is changed. For more information, see "Get JMS Queue Message" in *TIBCO BusinessWorks™ Container Edition Binding and Palette Reference*.

Support is added for OpenTelemetry to collect traces. Earlier, you could collect traces by using OpenTracing. Now, you can collect traces by using OpenTelemetry. For more information, see "OpenTelemetry" in *TIBCO BusinessWorks™ Container Edition Administration*.

For more information about Changes in Functionality before TIBCO BusinessWorks Container Edition 2.7.0 release, see [Changes in Functionality](#)

Deprecated and Removed Features

The following features have been deprecated or removed as of this release of TIBCO Business Studio for BusinessWorks.

Deprecated Features

Release 2.10.0

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.9.2

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.9.1

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.9.0

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.8.3

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.8.2

Support for Progress DataDirect drivers has been deprecated with this release.

Release 2.8.1

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.8.0

- The Profile Encryption feature is deprecated in the TIBCO Business Studio for BusinessWorks.

i Note: The Profile Encryption feature is now governed by a preference named "Profile Encryption". The preference is available at **Window > Preferences > BusinessWorks > Profile Encryption**. By default, it is disabled. You can use the feature by enabling it via the above-mentioned preference.

Release 2.7.3

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.7.2

Writing Process Statistic Data to an External Database using logback file is deprecated.

The Password Grant feature is deprecated.

The Analyzer feature is deprecated.

Release 2.7.1

No features are deprecated in TIBCO BusinessWorks Container Edition

Release 2.7.0

- TLS v1 and TLS 1.1 support is deprecated.
- Support for third-party JMS drivers which are JMS 1.1 compliant by using the Custom JMS driver approach is deprecated.

Removed features

Release 2.10.0

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.9.2

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.9.1

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.9.0

- Support for Progress DataDirect drivers has been removed from this release

For more information, see "Migrating existing JDBC applications with Progress DataDirect Drivers" in the TIBCO BusinessWorks™ Container Edition Bindings and Palettes Reference

Release 2.8.3

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.8.2

- The Profile Encryption feature in TIBCO Business Studio for BusinessWorks has been removed from this release.

Release 2.8.1

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.8.0

- This version of the product no longer supports the Password Grant feature.
- This version of the product no longer supports the analyzer feature.

Release 2.7.3

- This version of the product no longer supports PostgreSQL 9.x for TIBCO BusinessWorks™ Container Edition Monitoring.

Release 2.7.2

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.7.1

No features are removed in TIBCO BusinessWorks Container Edition

Release 2.7.0

- This release of TIBCO BusinessWorks Container Edition removes the Hystrix Circuit Breaker libraries with the product. This release onwards, support for Resilience4j for Circuit Breaker is added. For more information, see "HTTP Client Shared Resource" in TIBCO BusinessWorks Container Edition Bindings and Palette Reference.
- This release of TIBCO BusinessWorks Container Edition removes the out-of-the-box support for SVN version control plug-in.
- With TIBCO BusinessWorks Container Edition 2.7.0 release, OpenTracing libraries are

removed.

TIBCO BusinessWorks Container Edition 2.7.0 now includes OpenTelemetry support for tracing. All OpenTelemetry compliant service providers can be integrated to show traces for TIBCO BusinessWorks Container Edition applications.

For more information, see the "OpenTelemetry" in *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*

Closed Issues

The following issues have been fixed in this release of TIBCO BusinessWorks Container Edition.

The closed issues are grouped by components:

- [Binding](#)
- [General](#)
- [Maven Plug-in](#)
- [Migration](#)
- [Monitoring](#)
- [Palette](#)
- [Policies](#)
- [Runtime](#)

For more information about Closed Issues before TIBCO BusinessWorks Container Edition 2.7.0 release, see [Closed Issues](#)

Binding

This topic lists closed issues related to Binding.

Release 2.10.0

Key	Summary
BWCE-7842	TIBCO Business Studio for BusinessWorks goes into a non-responsive state when trying to drag-n-drop operations into a process file to create a REST service.
BWCE-7086	In a REST service with anyType element at the root an error is thrown at

Key	Summary
	<p>runtime.</p> <p>Now support is added for creating REST service with any element as root and to apply its effect at runtime set the system property <code>bw.rest.binding.resp.allowwildcard.inschemaroot=true</code> in the VM arguments.</p> <p>A couple of caveats:</p> <ol style="list-style-type: none"> 1. At designtime, the validation error <code>The wildcard elements/attributes are not permitted in the element</code> occurs. 2. The solution will work only when the element root in the schema configured for the REST service is a wildcard. The solution won't work if one or more elements in the schema are wildcards and some aren't.
BWCE-6805	<p>The REST Invoke activity with reference binding fails with the error <code>java.lang.RuntimeException: Cannot initialize a message part with a null value</code>, if a service responds with <code>Content-Type</code> other than <code>application/json</code>.</p>
AMBW-51188	<p>For undeclared faults, you now have a choice schema option of "message" or "fault actor, fault string, and fault code" at the input.</p>
AMBW-51162	<p>Swagger UI fails to load giving a "java.lang.NullPointerException" when the design time Swagger file is either deleted or manually renamed in the project containing a REST service.</p>
AMBW-51053	<p>The XSD generated from a Swagger file containing only the "minimum" keyword for integer type element has a validation error at design time since the <code>maxInclusive</code> restriction is getting added with a "null" value.</p>
AMBW-50934	<p>SOAP reference binding's output XML validation fails with an application-level system property.</p>
AMBW-50641	<p>The BusinessWorks application with REST service fails with a 500 error when the Use HTTP Header checkbox is selected and Content-Type is provided in the Input tab of the Reply activity.</p>

Key	Summary
AMBW-50639	<p>The "charset" is getting added along with the Content-type in the response header on invoking a REST service.</p> <p>Now the charset is not added by default. The charset can be present in the response header content-type by setting the property "bw.rest.autoAppendCharsetToMediaType=true" in the TIBCO Business Studio for BusinessWorks VM arguments or the config.ini file of the AppNode.</p>
AMBW-50632	Behavior differences are observed in ActiveMatrix BusinessWorks versions 6.7.x and 6.9.1 for a bad SOAP response.
AMBW-49956	An error "TIBCO-BW-CORE-500061: Reply activity error. The reply activity encountered an error on sending the response to the caller of this process." is thrown at runtime when trying to invoke an OAS 3.0 REST service operation configured with no response body.
AMBW-40923	The methods selected in the Disable HTTP Methods field of HTTP Connector shared resource configured with a REST service are still visible in the "Access-Control-Allow-Methods" response header when invoking the service.
AMBW-33406	You can now send a request to a REST service replying with Content-type as "text/xml" when the XML Format checkbox is selected in the Request tab of REST service binding.
AMBW-30360	An error, "The property called 'xxxxx' contains neither a 'type' nor '\$ref' property, which is not supported" is thrown at design time while trying to Generate XSD from a Swagger file.
AMBW-29949	A "NullPointerException" is thrown while trying to generate XSD Schema using Swagger 2.0 JSON file having parameters defined with \$ref.

Release 2.9.2

Key	Summary
BWCE-7558	The Connection pool shut down error is observed at runtime if the Authentication checkbox is enabled in the HTTP Client Resource of

Key	Summary
	REST Reference Binding.
BWCE-7516	If a request was sent to a REST service with property name starting with "xmlString" then at runtime the value for this property does not reflect.
AMBW-50724	An error, The property called 'xxxxx' contains neither a 'type' nor '\$ref' property, which is not supported. is thrown at design time while trying to create a REST Service or Generate XSD Schema from a Swagger file.
AMBW-50631	Behavior differences are observed in ActiveMatrix BusinessWorks version 6.7.x and 6.9.1 for a bad SOAP response.

Release 2.9.1

Key	Summary
BWCE-6730	When you try to retrieve concrete wsdL, the "?wsdl" operation does not work after the endpoint and an exception occurs.
BWCE-2048	When invoking a REST service, the CORS headers are exposed in the response. To disable this behavior, pass the "-Dbw.rest.disable.cors.headers=true" system property in the VM arguments. Additionally, you can pass another property, "bw.access.control.allow.origin.cors.header.url" for allowing requests from the specific origin (such as Swagger). For example, "-Dbw.access.control.allow.origin.cors.header.url=http://<hostname>:7777". This property takes effect only when the property for disabling CORS headers (bw.rest.disable.cors.headers) is set to true.
AMBW-49847	An error occurs when there are multiple schemas with no namespace in the same module or Shared module.
AMBW-49846	An error occurs when there are two schemas with the same namespace in the same module or Shared module.
AMBW-49706	High CPU usage is observed when processing a 24 MB file in SOAP activity.

Key	Summary
AMBW-49637	A "String length exceeds the maximum length" error is thrown when invoking a REST service with a large JSON file as Input for POST operation.
AMBW-50556	An error TIBCO-BW-CORE-500061: Reply activity error. The reply activity encountered an error on sending the response to the caller of this process. is thrown at runtime when trying to invoke an OAS 3.0 REST service operation configured with no response body.
AMBW-50554	<p>The "description" provided in the Swagger file does not reflect in the Swagger UI when the REST service is invoked.</p> <p>Now when a top-down REST service is invoked using a Swagger file having a "description" provided for operation, its Request and Response objects, and its individual properties, the same is reflected in the Swagger UI.</p>

Release 2.9.0

Key	Summary
BWCE-6162	The root namespace is replaced with child element namespace in the response received from a REST service.
BWCE-5087	The response schema for 201 status code is not reflecting in the Invoke activity on creating a REST reference binding from an OAS 3.0 swagger file which had 201 as a success response status code instead of 200.
AMBW-49116	Duplicate authorization has now been removed from the TCP trace.
AMBW-48942	When a REST service is invoked with invalid Query/Path parameters, the Catch All block in the service is not executed.
AMBW-48936	The attributes that are present at the root element level are missing in the output of Invoke activity while invoking a REST service having XML as the response content type.
AMBW-48920	Unable to retrieve WSDL in ActiveMatrix BusinessWorks version 6.9.0 for the attached project.

Key	Summary
AMBW-48638	<p>The expected JSON response is not obtained in the following cases:</p> <ul style="list-style-type: none"> • An array of strings has only one element, which is set explicitly to "nil" and the Use Empty Values for Null checkbox in the REST Service Binding response tab is selected. • The array of strings and array of objects have only one element set to "nil", and the Use Empty Values for Null checkbox is unselected. <p>Both the scenarios give expected results now. For the second scenario, set the <code>com.tibco.bw.restjson.array.null=true</code> property in the VM arguments of TIBCO Business Studio for BusinessWorks to get the expected result.</p>
AMBW-38146	The Content-Type header set in the Input tab of REST Reference binding's Invoke activity is not reflecting at runtime.
AMBW-32475	When "Null" as an input value is passed for some of the elements in a REST service, it is converted to an empty value in the output.

Release 2.8.3

Key	Summary
BWCE-5908	When a REST Service is invoked with an invalid Query or Path parameters, the Catch All block in the service is not executed.
BWCE-5811	<p>When REST Applications are deployed on container where SSL is configured from the outside rather than configuring it within the application, the Swagger UI does not load due to the protocol mismatch error.</p> <p>A new property <code>bw.rest.enable.secure.swagger.url</code> is added to switch the Swagger URL protocol to HTTPS when the property is set to true to resolve this issue.</p>
BWCE-5767	From a REST service with POST operation having Content-Type as "application/json" , if the JSON formatted text contents were sent to the REST client in response, then it was being received as normal text instead of JSON formatted contents.

Key	Summary
	<p>Note: If an invalid JSON which is a simple string is provided in the response, the Swagger UI shows a parsing-related error, can't parse JSON. <code>Raw result:</code> along with the response value; which is the expected behavior. The response value must be configured with the correct JSON format. For example, <code>{"name": "abc"}</code></p>
BWCE-5289	The <code>java.io.IOException</code> error occurs on running an application having the REST Reference Binding in Binary Shared Module.
AMBW-48261	The attributes that are present at the root element level are missing in the output of Invoke activity while invoking a REST service having XML as the response content type.
AMBW-48196	When a REST service is invoked with invalid Query/Path parameters, the Catch All block in the service is not executed.

Release 2.8.2

Key	Summary
BWCE-5375	On invoking a REST service using REST reference binding, if a fault is received in response then its failing with <code>NullPointerException</code> instead of giving the proper fault data.
AMBW-48168	When migrating TIBCO ActiveMatrix BusinessWorks 5.x SOAP project to 6.x, the input mappings on the Invoke activity are lost, causing an issue while invoking the SOAP service. <p>Note: The input of the <code>"_configData"</code> element from the ActiveMatrix BusinessWorks 5 project must be provided as an input in the SOAP Reference Binding -> Request Context -> <code>endpointURI</code> field.</p>
AMBW-48167	An error <code>"TIBCO-BW-FRWK-400030: Error destroying binding [RestService1], <CausedBy> java.lang.NullPointerException"</code> is thrown after the application restart when some changes are made to an already running application having

Key	Summary
	multiple REST services with similar resource service paths.
AMBW-48157	The anyType element in the input editor of the SOAP service, which is expected to receive any kind of requested XSD data structure is not mapping the received data in any element, resulting in an empty output from OnMessageStart.
AMBW-48028	The Error Code is not reflected in the FaultDetails/MsgCode element when a REST service fails due to a bad request.
AMBW-48017	Data types are missing during the Generation of XSD from the Swagger file containing JSON schema object with properties referring to other models.
AMBW-47607	To address security vulnerabilities in the snakeyaml-1.33.jar file, the SnakeYAML jar has been updated to version 2.0.

Release 2.8.1

Key	Summary
BWCE-5136	The attachments sent to a REST Service with multiple/form-Data-Content-type is saved in the temp folder causing disk space errors.
BWCE-4889	An input is required for OPTIONS operations of a REST Service implemented as Opaque, when invoked from Swagger UI.
AMBW-47555	When invoking a REST service without Policy configured on the binding, the Username and Password fields are not visible in the Swagger UI. To make the fields available in Swagger UI, set the property - <code>Dbw.rest.swaggerui.legacy.basicauth.enable=true</code> in the VM arguments of TIBCO Business Studio for BusinessWorks or a <code>config.ini</code> file of appnode. <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p>Note: If the REST service has a Policy configured on the binding as well as the above property is set to true, then the preference is given to the credentials passed from the Authorize button.</p> </div>

Key	Summary
AMBW-47514	The "charset" gets added along with the Content-type in the response header on invoking a REST service. Now, the charset is not added by default. The charset can be present in the response header content-type by setting the property <code>bw.rest.autoAppendCharsetToMediaType=true</code> in the TIBCO Business Studio for BusinessWorks VM arguments or the <code>config.ini</code> file of the appnode.
AMBW-47419	Status code 400 is not handled correctly in one-way SOAP invocation.
AMBW-47154	If multiple REST services (endpoints) are part of the same process and the Reply activity is configured to reply with 400 faults, then on invoking the service, the Fault message does not display for the client.

Release 2.8.0

Key	Summary
BWCE-4854	When the Invoke activity with reference binding is used to send multipart/form-data of File/Text type to a REST service, a <code>FormFileException</code> exception is thrown only on docker.
AMBW-46622	Invoking SOAP service fails with "Failed to initialize SoapReferenceBinding - TIBCO-BW-SCHEMA-RESOLVER-500201: WSDL not found" error.
AMBW-46604	The ProcessStack field under the FaultDetails tab is not populating the correct Process Name in the fault details when the process has two service bindings with the same operation.
AMBW-46557	The XML parser in TIBCO BusinessWorks™ Container Edition does not recognize the boolean value and treats it as a whitespace.
AMBW-46371	On installing TIBCO ActiveMatrix BusinessWorks™ 6.7.0 HF-005, whitespaces are getting trimmed in the output.
AMBW-46046	When a process has multiple reference bindings with "Enable DefaultFaultElement" and "Enable CustomFaultElement" selected ONLY in one

Key	Summary
	of the bindings, the fault in the Catch block throws design-time errors.
AMBW-22981	<p>When invoking a REST service's GET operation with Content-Type as "application/json" having response as "string" type, the response content-type changes to "text/plain".</p> <p>Note: If an invalid JSON i.e. a simple string is provided in the response, the Swagger UI shows a parsing-related error, "can't parse JSON. Raw result:" along with the response value; which is the expected behavior. The response value must be configured with the correct JSON format, for example:</p> <pre>{"name": "abc"}</pre>
AMBW-47033	The SOAP service returns <code>xml:lang="en_US"</code> instead of <code>xml:lang="en-US"</code> in the fault response under <code><soapenv:Reason></code> .
AMBW-46818	When TIBCO ActiveMatrix BusinessWorks 6.x exposes SOAP service over the service binding with the MTOM attachment style selected, it returns the attachments as SwA (SOAP with Attachments)

Release 2.7.3

Key	Summary
BWCE-4754	The SOAP fault returns HTTP Status Code as 200 instead of 500.
AMBW-46477	Invoking SOAP service fails with <code>Failed to initialize SoapReferenceBinding - TIBCO-BW-SCHEMA-RESOLVER-500201: WSDL not found</code> error.
AMBW-46009	The ProcessStack field under the FaultDetails tab is not populating the correct Process Name in the fault details when the process has two service bindings with the same operation.

Release 2.7.2

Key	Summary
AMBW-45639	When Invoke activity with REST Reference binding was configured with absolute file path for multipart form parameters, it deleted the files that were passed as mimePart input .
AMBW-45520	For bypassing the version validation in TIBCO Business Studio for BusinessWorks for swagger files having openapi version other than 3.0.0, pass the property <code>bw.plugin.rest.disableOpenApi3xVersionValidation=true</code> in the <code>TIBCOBusinessStudio.ini</code> file.
AMBW-45399	The application fails to start intermittently and throws an error "TIBCO-BW-SCHEMA-RESOLVER-500201: WSDL not found".
AMBER-45155	Runtime Swagger file does not include enumeration restrictions which are defined in a request and response XSD configured with the REST service.
AMBW-45154	The Runtime Swagger file of a REST service has optional extension elements declared in the XSD as required.
AMBW-45153	The Runtime Swagger file does not include field length restrictions which are defined in a request and response XSD configured with the REST service.
AMBW-43403	The XSD generation, and Service or Reference binding creation operation are no more blocked, by avoiding parsing of "#/components/examples".

Release 2.7.0

Key	Summary
AMBW-43816	For REST application deployed on an AppNode, the <code>bw-flowlimit-executor-provider</code> threads are not destroyed and keep on increasing even after starting and stopping an application.
AMBW-43397	You can now decide whether to send SOAP headers or not in the SOAP Envelope of the service. Set the - <code>Dbw.binding.soap.client.invoke.send.headers</code> property as a VM argument in TIBCO Business Studio for BusinessWorks or in the <code>config.ini</code> file to <code>false</code> to stop sending SOAP headers.

Key	Summary
	By default, the property value is set as true.
AMBW-43238	<p>Empty header is passed in response in the SOAP envelope even if you don't configure the SOAP service with Headers.</p> <p>To not send empty headers set the property <code>bw.binding.soap.client.reply.empty.header.override=true</code>.</p>
AMBW-42775	The "definitions" section in the runtime Swagger file does not show the type as "array" for the child properties of an object when you run a REST service configured with a complex element in an XSD, and the element's definition in the XSD contains <code><xs:extension></code> element with base attribute and array-based sub-elements.
AMBW-42550	The operationID field is now displayed in the runtime Swagger file of a REST service when it is hit from Swagger UI.
AMBW-42313	The Configure Local Swagger option does not work when you import a project in TIBCO Business Studio for BusinessWorks first and then configure the Local Folder path in the API Explorer tab.
AMBW-27634	The null pointer exception is thrown while adding the SOAP Unbound Headers.

General

This topic lists the closed issues related to General issues.

Release 2.10.0

Key	Description
BWCE-8032	The TIBCO BusinessWorks Container Edition app generates an empty port in the <code>manifest-bwce.json</code> for ER having shared resource reference from module property.

Key	Description
BWCE-8006	A NullPointerException exception occurs in TIBCO Business Studio for BusinessWorks when a process is renamed.
BWCE-7980	The BW Upgrade Manager does not display a pop up for further authentication in TIBCO Business Studio for BusinessWorks.
BWCE-7928	The message under the Error log is blank for the com.tibco.bw.mapper.resource.db plug-in.
BWCE-7739	After tokenizing the properties and exporting it then the properties in property file is picking up values from the module properties.
BWCE-7497	When the "com.tibco.bw.core.runtime.ActivityTimedOutException" exception is added to 'Record To Exception' table in circuit breaker, it does not work.
BWCE-7245	A Kyverno policy issue occurs with reducedStartupTime scripts for TIBCO BusinessWorks Container Edition applications.
BWCE-5760	Base docker images can now be created using the Docker Scratch image.
BWCE-5352	Iterate cannot be used in a group over a list when the elements are derived from abstract types to map inputs, because it does not have the variable type configured in the currentElement.
AMBW-51329	JDBC_Query activities generate an Input Configuration error after migrating from ActiveMatrix BusinessWorks version 6.6 to 6.9.
AMBW-51015	<p>REST API Schema throws an "Illegal start-complex invocation" error.</p> <p>The fix is available in the following two parts:</p> <ol style="list-style-type: none"> 1. You now have a validation check under Window > Preferences > BusinessWorks > Validation > WSDL Import Namespace Collision for locating missing schema locations. The default value for this setting is pre-set to Ignore, which means no error related to WSDL namespace collision is thrown. You must set this to Error or Warning, for which, in the Problems tab, the error related to WSDL namespace collision is seen. It can

Key	Description
	<p>be quick-fixed on most occasions.</p> <p>2. You must set the following property to resolve the runtime error "Illegal start-complex invocation":</p> <pre>com.tibco.bw.rest.refbinding.nsimportinwsdlabsent=true</pre>
AMBW-51014	For SOAP web service, getting activity input data validation error in Invoke activity for an input value restriction <code><xs:pattern value="\P{Z}(.*\P{Z})?"/></code> .
AMBW-50809	When importing a third-party WSDL, the sub-elements of a schema are missing in the output schema of activities.
AMBW-50605	When upgrading from ActiveMatrix BusinessWorks version 6.5.1 to 6.9.1 HF-001, there is a performance impact.
AMBW-50571	<p>Transitions are not evaluating correctly with custom XPath 2.0 and VM argument property.</p> <p>Use property <code>-Dbw.xml.comparable.legacy.booleanSingletonCheck=false</code> along with <code>-Dbw.engine.use.transition.xpath.expression.lang.1.0=true</code> to get the expected result.</p>
AMBW-50215	When importing a customer project, a process configuration error occurs that is not being cleared even after applying a Quick Fix.
AMBW-50189	BWDesign stops responding randomly when importing any project.
AMBW-49928	To address security vulnerabilities, JavaScript libraries have been upgraded to higher versions.
AMBW-49707	The XPath expression in the Mapper activity gives unexpected results after upgrading ActiveMatrix BusinessWorks from version 6.4.2 to 6.7.0.
AMBW-47709	<p>The coercion of "anyType" in the Iteration loop generates an "Attribute DataType cannot be null" error.</p> <p>If you see "No Variable Type Configured" for <code>CurrentElement</code> on the Data Source</p>

Key	Description
	tab for the Log activity input tab, remove the <code>VariableList</code> details from the General tab of the iterate group, save the project, and reselect the Variable List <code>\$ParseXml/</code> . You can then see the elements under <code>CurrentElement</code> .
AMBW-46074	The Schema Validation dialog in the Process launcher fails to generate any error/pop-up if invalid content is provided as input XML.
AMBW-33936	<p>Earlier, the <code>parse-dateTime</code> function generated an output depending on the current state of Daylight Savings Time (DST) of the machine it was running. For example, if DST is ON when the function is processing, it converts all the <code>dateTime</code> input as per DST ON.</p> <p>In the new implementation of this function, the DST dependency has been removed. Now, it hardly matters if the DST of the machine is ON or OFF. You can get the same result depending purely on the <code>dateTime</code> input given to the function.</p>

Release 2.9.2

Key	Description
BWCE-7548	If an SSL Client configuration resource is renamed, the old reference is still present in the JMS Connection and the program stops working.
BWCE-7520	A <code>NullPointerException</code> occurs while building a project after adding the dependency of the jar in the <code>pom.xml</code> file.
BWCE-7488	The Shared Module version is not visible in the EAR when the EAR is built via the maven plug-in.
BWCE-7487	When the dependency of a project is missing in the local repository (.m2), the workspace is unable to launch.
BWCE-7221	NMTOKENS in the mapper input does not work when used with an extra layer in the Schema.
AMBW-	Issues are observed when the Global checkbox is selected for the Iteration

Key	Description
50650	Element field on the Iterate Group.
AMBW-50588	The Schema Validation dialog in the Process launcher fails to generate any error/pop-up if invalid content is provided as input XML.
AMBW-50587	BWDesign stops responding randomly when importing any project.
AMBW-50585	When importing a customer project, there is a process configuration error that is not being cleared even after applying Quick Fix.
AMBW-50546	When upgrading from ActiveMatrix BusinessWorks version 6.5.1 to 6.9.1 HF-001, there is a performance impact.

Release 2.9.1

Key	Description
BWCE-6861	If a BusinessWorks application has a corrupted or encrypted profile an error occurs if the application is imported in TIBCO Business Studio for BusinessWorks.
BWCE-6843	All the 4xx error codes other than 404 are successful when it is used in Circuit Breaker.
BWCE-6820	When the Circuit breaker is turned ON and the load is pushed to the service, a 404 error occurs and the URI is getting duplicated by itself intermittently.
BWCE-6652	A parsing XSD error occurs with optional sequence element when you try to map an element from a sequence and the same group also has an optional element.
BWCE-6410	The activator from a Shared Module (as a Pom Dependency) is getting removed when the Shared Module Dependency is removed.
BWCE-6360	TIBCO BusinessWorks™ Container Edition application sets wrong environment variable if 'name' is used as a Module property.

Key	Description
Warning: Avoid using 'bwVarName' as environment variable.	
BWCE-6356	The Complex elements/attributes which are optional on a Call Process activity are not shown as optional in Process Launcher tab.
BWCE-6339	If a shared module has module properties which are referenced in an Application Module, and this Shared module is deleted, no validation errors are thrown for the reference of module properties which is broken.
BWCE-5691	When the AZURE_VAULT environment variable is set to false, the Azure Vault connection is not disabled.
AMBW-49696	Inconsistency while performing arithmetic operations on decimal inputs where warnings are being displayed incorrectly as errors.
AMBW-49692	Logback libraries are now upgraded to version 1.2.x.
AMBW-49534	Getting incorrect results for arithmetic operations. To get the correct results, set the <code>bw.xml.convert.cast-numeric-value</code> property to "true" in the VM arguments.
AMBW-49526	Unable to create when otherwise a transition between two SQL direct activities after migrating code from BW version 6.6.1 to 6.9.1.
AMBW-49457	An Activity output data validation error occurs for SOAP web service. Set the <code>bw.application.soap.message.laxvalidation</code> and <code>bw.binding.soap.server.lexical.decimal</code> properties to true when activity output validation is turned on to run the project.
AMBW-48483	BW Plugins Manager does not show details of the relevant plugins supported on the latest BW version.

Release 2.9.0

Key	Description
BWCE-6295	In TIBCO Business Studio for BusinessWorks, the Special Folder option does not appear when a new folder is created in an application.
BWCE-6190	BusinessWorks Project takes longer time than usual to import in TIBCO BusinessWorks Container Edition 2.8.3.
BWCE-5858	The original mapped fault schema in the Throw activity is lost after it is changed to a different schema.
BWCE-5791	When you try to rename or move jks files on Key Store Configuration OR rename or move Key Store Configuration resources on SSL Client Configuration, then all the references to these are updated automatically.
BWCE-5795	When you try to create two resources of different types with the same name, an EMF Validation error occurs stating the shared resource name is not unique in the project's context.
BWCE-5671	When the module version is updated in the pom.xml, the Provide-Capability field in Shared Modules manifest file does not get updated.
BWCE-5540	The BWDesignUtility displays extra errors which do not appear in TIBCO Business Studio for BusinessWorks.
BWCE-5356	The xsi:type schema in the XML file does not conform with schema definitions for the ParseXML activity. To add the namespace open the Preference->BusinessWorks->Validation page, enable the Add schema's Namespace imports to dependency for new activities option in TIBCO Business Studio for BusinessWorks, then add a new activity that uses or reference the element from the schema that uses or imports the particular namespace.
BWCE-4856	The wrong exception name BW Hystrix is displayed instead of Resilience 4j exception name after running an application in the console log when the circuit breaker is open.
AMBW-49326	The "XSLT Out of Sync" error does not get fixed even after carrying out a Quick Fix .

Key	Description
AMBW-49101	<p>The XSLT has a mismatch in the process file where one of the elements is missing in the Partbinding located in inputBinding. In certain situations, the Mapper's XSLT may miss the last param name needed for the XSLT document.</p> <p>After updating or resetting the process, you can see the param name="BackendStub" in the Partbinding. The param name="BackendStub" does not appear in the Partbinding of the text file of the process MappingOnReplyTask.bwp until the process gets reset or updated.</p>
AMBW-48917	<p>Preceding zeros are being trimmed in the String field of Mapper.</p>
AMBW-48700	<p>Unable to load TIBCO Cloud Integration API Modeler APIs for all supported regions except the US West region.</p>
AMBW-48504	<p>The string function "matches" gives a different output after upgrading from ActiveMatrix BusinessWorks version 6.5.1 to 6.8.1.</p> <p>Add the following properties in the Debug Configurations Window > Arguments > VM arguments tab of TIBCO Business Studio for BusinessWorks to get the results that match the previous BW version:</p> <ul style="list-style-type: none"> • -Dbw.xml.regex.disable-syntax-checking=true • -Dbw.xml.regex.disable-explicit-anchors=true <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p>Note: For running the project via TIBCO Enterprise Administrator, add the following properties in the bwappnode.tra file:</p> <ul style="list-style-type: none"> • bw.xml.regex.disable-syntax-checking=true • bw.xml.regex.disable-explicit-anchors=true </div>
AMBW-48110	<p>The previously saved changes from the "Export-Package" section in the manifest.mf file are removed when modification is done in the projects.</p>
AMBW-48031	<p>BusinessWorks Client fails to hit TIBCO Flogo Enterprise service when both are copied from one organization to another.</p>
AMBW-45622	<p>The Wait Activity does not reset its timeout in a loop.</p>

Release 2.8.3

Key	Description
BWCE-5505	An application is not complete if an activity in a process has multiple transactions of type "Success with no matching condition". Now an error validation message is shown in TIBCO Business Studio for BusinessWorks.
BWCE-5365	While building an EAR file from a BusinessWorks project which has the dependency of Jar file with <code>No-MANIFEST.MF</code> ; a non-informative error message occurs.
BWCE-5351	In the Throw activity the original mapped fault schema values are lost after the schema is changed to a different schema.
BWCE-4938	While running the Unit Tests for TIBCO BusinessWorks Container Edition 2.7.2 with Maven plug-in 2.9.2, inconsistencies are observed in the bwcoverage reports.
AMBW-48404	TIBCO Cloud Integration API Modeler APIs are not visible in TIBCO Business Studio for BusinessWorks for regions other than the US West region.
AMBW-45183	Non-readable POM file error is thrown when importing the CXF project from the Maven repository.

Release 2.8.2

Key	Description
BWCE-5423	While creating a new custom xpath function, the activator class does not get generated even if the Generate Activator Class check box is selected.
BWCE-5385	When the <code>pom.xml</code> file is generated for an application, it refers to an older version of "com.tibco.bw.palette.shared" jar.
BWCE-5385	When the <code>pom.xml</code> file is generated for an application, it refers to an older version of "com.tibco.bw.palette.shared" jar.
BWCE-	Iterate cannot be used in a group over a list when the elements are derived from

Key	Description
5352	abstract types to map inputs, because it does not have the variable type configured in the currentElement.
BWCE-5348	While migrating to TIBCO BusinessWorks Container Edition 2.7.1, an issue occurs with the coercion of a schema (fastbank-base.xsd) in parse XML and mapper activities. The elements are not visible in the output schema of the parse XML activity and then in subsequent activities in TIBCO BusinessWorks Container Edition 2.7.1.
BWCE-5297	While using the Maven plug-in, when there are redundant dependencies configured in the pom.xml file of an application, the workspace keeps displaying the message Validating External Shared Modules from Maven Dependencies indefinitely.
BWCE-4988	The Azure managed identity lookup fails at the time of getting access tokens and the POST method does not work with the Azure identity API.
AMBW-48156	The dateTime() function throws "[FORG0001] Invalid value for cast/constructor" error for the input value "xsd:dateTime("2022-12-20T17:14:50.Z")". Set the property -Dbw.xml.datetime.allowMissingFracSeconds=true to overcome the error while parsing the date and time for the input value. By default, this property is false.
AMBW-48034	The previously saved changes from the "Export-Package" section in the manifest.mf file are removed when modification is done in the projects.
AMBW-47854	Application with an iterate group running in Debug mode throws an Out of memory error.
AMBW-47723	A Null pointer error is thrown when promoting module properties with no/empty default value.
AMBW-47541	TIBCO Business Studio for BusinessWorks throws a StackOverflow error when it builds the workspace after importing a specific project.
AMBW-47019	When updating the XSLT version from 1.0 to 2.0, errors are thrown as "Invalid conversion from string? string? to item" relating to type-casting values from one

Key	Description
	type to another.
AMBW-36024	Tests tab and icon shown for mocked activities are missing when importing a project configured using Maven in a workspace.
AMBW-34062	An error is thrown when running an application having additional space in the element name of the schema.

Release 2.8.1

Key	Description
BWCE-5011	The repeat on error group does not iterate correctly when the stop repeat condition value is changed from the default value '2' to any other value.
BWCE-4893	When a TIBCO ActiveMatrix BusinessWorks application runs in debug mode in TIBCO Business Studio for BusinessWorks and if the application is terminated from the Console view, the activity halted on Breakpoint > Set Before is resumed and executed to produce its output.
BWCE-4731	When an EAR is created using the Maven plug-in from a BusinessWorks application which uses Custom XPath function; the EAR does not include the same.
AMBW-47478	When the Custom XPath Function is created with the name in Camel case format, a compile error is thrown because of the mismatch between capitalized plug-in (cxf) name and the lower-case package name (Activator class) derived from it.
AMBW-47450	The location of the error log file created after EAR generation is changed to <code>.bsproject</code> in the workspace.
AMBW-47374	Unable to open TIBCO BusinessWorks Plugin Manager on TIBCO Business Studio for BusinessWorks.
AMBW-47136	The XSLT has a mismatch in the process file where one of the elements is missing in the Partbinding located in inputBinding.

Key	Description
AMBW-46462	On Linux OS machines, the mapping lines are broken and cursor is invisible when the user is mapping values on the Input tab.
AMBW-45951	The Maven plug-in does not resolve the transitive dependencies when you create an EAR using the mvn package command.

Release 2.8.0

Key	Description
BWCE-4934	A <code>ClassNotFoundException</code> is thrown during Maven testing when a shared module has a Java class and it is called using the Java Invoke activity .
BWCE-4848	The Maven plug-in does not pick dependency versions from the parent <code>pom.xml</code> file.
BWCE-4847	When application modules have any external dependencies such as shared modules and custom xpath functions, these dependencies do not get imported automatically into the workspace.
BWCE-4726	A validation error is thrown when an activity has invalid name and the error message is not clear.
BWCE-4676	The JMS Receiver activity with sequence key throws an error in TIBCO BusinessWorks Container Edition when the deployment target is set as Container .
BWCE-4604	When you rename a module or application property group as "Application", TIBCO Business Studio for BusinessWorks crashes. It is a reserved keyword now and a validation error message is displayed.
BWCE-4029	It was not possible to upgrade TIBCO BusinessWorks Container Edition home from 2.6.2 onwards.
AMBW-46540	When you add external JAR files in Shared Module, the <code>Export-Package</code> entry from the <code>manifest.mf</code> file is removed.

Key	Description
AMBW-46579	When an integer value is mapped to a decimal element, the fractional values are always present even though there is no fractional part in the mapping.
AMBW-46474	TIBCO Rendezvous® (RV) projects throw NullPointerException with version RV 8.6.0.
AMBW-45744	The Timer Trigger process blocks when the EMS connection is lost.
AMBW-44570	TIBCO BusinessWorks™ Container Edition throws an error when a long-type value is mapped in the "int" type for XPath.
AMBW-40485	The XSLT Transform activity fails to recognize and transform certain data from the input XML string.
AMBW-28277	The XSLT Transform activity skips certain data from the input XML string.

Release 2.7.3

Key	Description
BWCE-4798	<p>If a REST service is configured with Blocking Queue Size on service binding, then after accepting certain number of requests, the remaining are not rejected. To achieve the expected behavior, the number of requests to process should be equal to the addition of Max QTP value on HTTP Connector shared resource and BQS value at binding.</p> <p>For example, if 50 requests are processed at any given time, and the Max QTP is 10, then we should set the Blocking Queue Size on service binding as 40.</p> <p>For applications with a service using HTTP Palette activities or SOAP Binding, we have to set the following property -</p> <pre>Dbw.engine.http.jetty.blockingQueueSize=<BQS_intger_value></pre> , in the VM arguments.

Key	Description
	<p>Note: If the above property is used for REST service, then its value should be same as the Blocking Queue Size on service binding.</p>
BWCE-4722	<p>The <code>Resilience4jCircuitBreakerOpenExceptionType</code> exception is thrown by the Send HTTP Request activity to catch the exception when the circuit breaker is opened.</p> <p>The <code>HystrixCircuitBreakerOpenException</code> exception is now removed from the list of exceptions thrown by the Send HTTP Request activity.</p>
BWCE-4677	The Maven plug-in does not pick dependency versions from the parent <code>pom.xml</code> file.
BWCE-4674	When application modules have any external dependencies and the shared modules as <code>xpath</code> custom functions library, these dependencies do not get imported automatically into the workspace.
AMBW-46613	The Maven plug-in does not pick dependency versions from the parent <code>pom.xml</code> file.
AMBW-46606	Adding external jars in Shared Module to Lib folder removes <code>Export-Package</code> entries from the <code>manifest.mf</code> files.

Release 2.7.2

Key	Description
BWCE-4551	When the export command is used with <code>bwdesign</code> utility, it fails to generate the EAR file due to an invalid keystore path in the project.
BWCE-4532	In TIBCO Business Studio for BusinessWorks, for the Thread Pool Shared resource, the Keep Alive Time unit is changed from seconds (s) to milliseconds (ms)
BWCE-4286	When the SOAP Service and Client uses SOAP over JMS with IBM MQ the property not valid and String index out of range error <code>JMSCC0049: The property name 'mime-version' is not a valid Java(tm) identifier</code> errors occur

Key	Description
AMBW-45923	For certain projects, TIBCO Business Studio for BusinessWorks displays a misleading error in the Problems tab as follows: <i>Inline schema is not cloned correctly.</i>
AMBW-45862	You cannot rename a file when you use the Parse Data activity to read the file in batches.
AMBW-45819	TIBCO ActiveMatrix BusinessWorks plugin for Apache Maven does not resolve the transitive dependencies when you create an EAR using the <code>mvn package</code> command.
AMBW-45716	The Keystore Provider URL field when mapped as a module property continues to throw an error even when user corrects a previous invalid/incorrect value. Now a warning message is shown for this field irrespective of the mapping being module property or literal value.
AMBW-45682	Whenever there are multiple transitions to the End activity, a new variable with an optional error report type is created and that variable takes precedence over the normal error variable.
AMBW-45457	Any element in output editor or RVSubscriber which is expected to receive any kind of requested XSD data structure is not mapping received data in any element, resulting in empty output from RVSubscriber.
AMBW-45449	The Rendezvous Subscriber activity fails to process messages that are generated with the third-party Rendezvous publishers.
AMBW-45414	Unable to map the iterator element value on transition post-migration.
AMBW-45326	An error is thrown when you try to start an application when using the remote debugging feature in TIBCO Business Studio for BusinessWorks.
AMBW-45489	If you provide any character in the Fill With field of the Data Format shared resource and then use the shared resource along with the Render Data or the Parse Data activities, TIBCO BusinessWorks Container Edition adds the 'O' character in the activity output instead of the character provided by you.

Key	Description
AMBW-44957	The context-sensitive help for TIBCO Business Studio for BusinessWorks is not currently available in TIBCO BusinessWorks Container Edition 6.8.0.
AMBW-44034	The JDBC Query activity result set adds extra space in the output for a field that is empty in the database.
AMBW-42932	Selecting the Generate Process Diagrams check box does not generate the process diagram in the application module.
AMBW-36625	When there are validation errors in a TIBCO ActiveMatrix BusinessWorks application, they are not reported by the bwdesign utility when using the Validate option.
AMBW-28561	You can use TIBCO ActiveMatrix BusinessWorks Maven plug-in to integrate the test reports, which are generated with the CI/CD tools like Jenkins.

Release 2.7.1

Key	Description
BWCE-4419	When the bwce-docker script is used from the master branch, container startup error occurs since the bwce-docker git repo still has references of Java 1.8.
BWCE-4019	On importing a project to a new workspace, an error occurs and the project sequences is changed.
BWCE-3922	Memory leak is observed in the Prometheus monitoring plug-in even though the application is not enabled.
BWCE-3709	The application container fails with unary operator expected error when reduced startup time scripts is used.
AMBW-45187	TIBCO Business Studio for BusinessWorks displays the following error in the Iterate group type element Group configuration error. Inline schema is not cloned correctly.

Key	Description
AMBW-45186	In TIBCO Business Studio for BusinessWorks, on the Problems tab, errors for all processes are not displayed.
AMBW-41919	TIBCO Business Studio for BusinessWorks throws a Null Pointer error when creating the custom xpath function.

Release 2.7.0

Key	Description
BWCE-3920	A Namespace error occurs while creating an iterate group, setting the variable list and saving it.
BWCE-3450	On debug, TIBCO Business Studio for BusinessWorks crashes and leaves the debug java engine running while loading logs or clearing logs in TIBCO Business Studio for BusinessWorks console.
BWCE-3397	BWDesign Utility crashes in SUSE 12.5
BWCE-2556	When an application containing Netsuite plug-in activities is deployed in TIBCO BusinessWorks Container Edition Container, a SSLHandShakeException is thrown.
AMBW-44487	While performing the Push to Cloud action from TIBCO Business Studio for BusinessWorks, the EAR generation operation does not time out for large projects.
AMBW-44475	TIBCO BusinessWorks Container Edition throws an error when mapping the JDBC Query activity's output to the Iterate group.
AMBW-44305	If you select the Generate Implementation Specification check box, the REST service binding binds properly with the newly generated Swagger specification and the same specification appears in the Manifest.json while exporting the application EAR.
AMBW-43710	On running an application, the Activity output data validation error is displayed when the JDBC Query activity is used with the Iterate group.

Key	Description
AMBW-43195	The <code>system:validate</code> command throws an error and returns incorrect status code for some projects.
AMBW-43138	TIBCO Business Studio for BusinessWorks becomes unresponsive intermittently when you import a shared module through maven plug-in.
AMBW-43109	<p>TIBCO Business Studio for BusinessWorks throws the <i>Value for context variable is null</i> error at runtime for some projects. Now a Quick Fix option is available which shows the <i>Invalid context variable configuration</i> error on the Problems tab when you import a project in TIBCO Business Studio for BusinessWorks for the Get Context activity.</p> <p>After applying the quick fix, the error is not displayed and you get a successful response.</p>
AMBW-43026	After renaming a process package, the Input tab of the Call Process activity is not displayed.
AMBW-42293	The XSLT is out of sync with schema component properties error continues to occur even after a quick fix is applied post-migration.
AMBW-42115	The last modified date of an API in the API Explorer tab is incorrect.
AMBW-42089	TIBCO Business Studio for BusinessWorks displays incorrect build order of modules when the projects are imported using the <code>bwdesign</code> utility.
AMBW-44449	<p>Transition condition with boolean value is not evaluated correctly against String true.</p> <p>Add the new - <code>Dbw.xml.comparable.legacy.booleanStringEquality=true</code> property as a VM argument along with the - <code>Dbw.engine.use.transition.xpath.expression.lang.1.0=true</code> property in TIBCO Business Studio for BusinessWorks</p>
AMBW-44448	Empty tag is not generated for optional-nil elements.

Key	Description
	<p>Now, a new Treat optional-nil elements as optional elements check box is added on Window > Preferences > Mapper page. Select the check box and clean the workspace.</p> <p>After cleaning the workspace, you get some XSLT out-of-sync errors on the Problems tab. Use the Quick Fix option to resolve those errors and execute the project again to generate empty tags for the optional-nil elements.</p>
AMBW-44435	Input and Output schemas are not formed correctly when creating a Mesh client for a TIBCO ActiveMatrix BusinessWorks and TIBCO Flogo Open API Specification 3.0 Mesh Service.
AMBW-44434	After Tibtunnel recovers from its termination, TIBCO BusinessWorks Container Edition cannot connect to the on-premise resources such as Enterprise Message Service (EMS) for one round of Timer trigger.
AMBW-44350	TIBCO ActiveMatrix BusinessWorks consumes a large memory heap and throws the out of memory error when you read a file using the Java Invoke activity.
AMBW-44305	If you select the Generate Implementation Specification check box, the Swagger specification links a REST Service binding with an incorrect Swagger specification. It results in incorrect artifacts when you export an application to TIBCO Cloud Integration.
AMBW-44090	TIBCO ActiveMatrix BusinessWorks does not display expected elements, if any, when an unexpected element is encountered while validating an XML document against a schema.
AMBW-43867	Oracle JDK 11.0.12 is now bundled with this release of TIBCO ActiveMatrix BusinessWorks.
AMBW-43209	When an XSLT transformation fails, the stack trace does not show the element that fails during the transformation and the cause of the failure on the Render JSON activity.
AMBW-43104	The Write File activity cannot generate a file when the TextContent field has the space character (" ") value.

Key	Description
AMBW-43100	<p>The literal white space character (' ') is not datatype-valid with respect to the datatype definition '<code>{http://www.w3.org/2001/XMLSchema}double</code>'. error is displayed in mapper.</p> <p>To avoid typecasting error, use the following VM argument:</p> <pre>-Dbw.xml.general-comparison.ignore-numeric-cast=true</pre>
AMBW-43098	<p>An application throws an error when an activity's XPath contains the <code>insert-before()</code> function.</p>
AMBW-43097	<p>The whitespace characters (' ') are trimmed in a string field of the Mapper activity.</p>
AMBW-43044	<p>The bwdesign utility shows the NLS unused message warning when exporting a project.</p>
AMBW-42903	<p>A SOAP service having the Reply activity throws the following error for an error configured on the Reply activity when the Reply activity has an input value mapped to the Description field:</p> <pre>\$\$\$\$\$ ERROR occurred while converting between Axiom and BW preferred node type.</pre>
AMBW-42657	<p>You cannot add the duplicate When condition along with its expression if you use the Surround with Choice option for an element, and then try to duplicate the When condition.</p>
AMBW-42568	<p>An application throws an error on design time and runtime when an activity's XPath contains the <code>min()</code> and <code>max()</code> function. A new Quick Fix option is provided to resolve the error.</p>
AMBW-41646	<p>Smart Mapper cannot create a For Each statement for a repeating element.</p>
AMBW-34798	<p>The <code>\$ParseXml/primitive>sum(\$ParseXml/NewElement)</code> expression generates incorrect results with XPath 2.0 when the following VM arguments are set in TIBCO Business Studio for BusinessWorks: -</p> <pre>Dbw.application.activity.validateInput=false and -</pre>

Key	Description
	<code>Dbw.application.activity.validateOutput=false</code>
AMBW-33760	Transition expression is not saved in MAC OS.
AMBW-33562	TIBCO Business Studio for BusinessWorks does not show the job data when debugging an application in the debugger

Maven Plug-in

This topic lists the closed issues related to Maven Plug-in.

Release 2.10.0

Key	Description
AMBW-49366	The generated mock output or gold input file is overwritten when two activities have the same name in the application.

Release 2.9.0

Key	Description
AMBW-48707	Non-readable POM file error is thrown when importing the CXF project from the Maven repository.
BWCE-5863	While running the Unit Tests for TIBCO BusinessWorks Container Edition 6.8.1 with Maven plug-in 2.9.2, inconsistencies are observed in the BW Coverage reports.

Migration

This topic lists the closed issues related to Migration.

Release 2.10.0

Key	Description
BWCE-7106	Post migration, an inconsistent behavior of migration utility with TIBCO BusinessWorks Container Edition 2.9.0 on Windows is observed where the process is not migrated correctly.
BWCE-6090	Post migration, the link between shared module and the application module is broken leading to incorrect/missing mappings inside a few of the activities.
AMBW-51328	Post migration, unable to display output schema for JDBC Query activity.
AMBW-50219	<p>Post migration from ActiveMatrix BusinessWorks 5.x to ActiveMatrix BusinessWorks 6.x, to avoid conflict of having similar namespace names while updating the namespaces, perform the following steps:</p> <ol style="list-style-type: none"> 1. In the Project Explorer pane, right-click the schema for which the namespace is to be updated, and select Refactor > Rename XSD Schema namespace. 2. Click OK. <p>This triggers the namespace change in all the connected process dependencies and even the mappings get updated without error.</p>

Release 2.9.2

Key	Description
BWCE-7551	A process migrated as an empty process, post migration leads to inconsistent behavior.
BWCE-7348	The TIBCO ActiveMatrix BusinessWorks 5.x projects are unable to migrate to the TIBCO BusinessWorks Container Edition 2.9.2 build.
AMBW-50806	The TO_CHAR() function fails after migrating from ActiveMatrix BusinessWorks version 6.6.0 to 6.10.0.

Key	Description
	A Boolean value of "true" must be provided for the following flag: -Dbw.application.activity.jdbc.keep.colname.compatibility
AMBW-33688	Post migration, unable to display output schema for JDBC Query activity.

Release 2.9.0

Key	Description
AMBW-49083	The Migration utility fails with an error while migrating a project containing DTD.
AMBW-48400	The HTTP Client Name field is blank in the SOAP Binding post migration.
AMBW-48367	The SOAP endpoint URI field displays the value from the concrete WSDL instead of the value in the global variable.
AMBW-33063	The schema location value is missing in the WSDL Inline Schema post migration from the import statement.

Release 2.8.3

Key	Description
AMBW-48154	Mapping on a transition is broken, which leads to validation error post migration.

Release 2.8.2

Key	Description
AMBW-	The RV publisher activity does not honor special keyword characters like "_plus_"

Key	Description
48159	and "_sp_" in the element name post Migration.
AMBW-47732	GV mapped to the JDBC activity timeout and Maximum rows are not showing up in ActiveMatrix BusinessWorks 5.x to 6.x migrated code. The "Timeout (secs)" and "Maximum rows" fields in the JDBC Call Procedure activity do not display the mapped module property value post migration but display the default literal values.
AMBW-32780	The REST Dispatch and Reply activity in TIBCO BusinessWorks Container Edition 5.x is migrated to the Invoke Rest API activity instead of the REST Service Binding.

Release 2.7.2

Key	Description
BWCE-4343	When TIBCO ActiveMatrix BusinessWorks™ 5.x projects are migrated using the Migrate as shared module option in the migration wizard, the module properties are migrated incorrectly.
AMBW-44538	After migration, the element inside the Catch all > error_variables are not resolved correctly when a process with more than one fault element is configured in the End activity.

Release 2.7.0

Key	Description
BWCE-3873	After migration, the "or " operator migrated as a " " character throws a warning in design time and an error at runtime.
AMBW-43791	Post-migration, the mapper input is empty when the schema is referenced from data format shared resource.
AMBW-43501	The migration tool migrates processes with the REST-Dispatch-and-Reply activity

Key	Description
	<p>to a REST resource. In TIBCO ActiveMatrix BusinessWorks™ 5.x, the service processing logic is delegated to a subprocess as per operation. Normally the subprocess is migrated. To supplement this, a call process is created to invoke that subprocess in the REST resource.</p> <p>You may need to fix the mapping for the newly created call process manually. This could fix the mapping itself, or the input and output schemas for the called subprocess.</p> <p>Note: The REST Service descriptor supports both internal and external WADL references. However, we do not support multiple resources pointing to the same resource path and having the same HTTP method.</p>
AMBW-42280	After migration, the Mapper activity was migrated as an empty activity.
AMBW-41353	Post-migration, if the variable list XPath expression of an Iterate group is linked to multiple schemas then the iterator schema does not get resolved.
AMBW-33641	Getting "Coercion error: Can't find substitution for ""." at design time after migrating a project.

Monitoring

This topic lists the Closed Issues related to Monitoring.

Release 2.10.0

Key	Description
BWCE-7888	A TIBCO BusinessWorks Container Edition application is not able to register which contains a JDBC activity in the process to a TIBCO BusinessWorks Container Edition monitoring service

Release 2.9.2

Key	Description
BWCE-7758	The obfuscate password using the <code>npm run obfuscate plainpassword</code> command fails in TIBCO BusinessWorks Container Edition 2.9.1.
BWCE-7670	The activity alignment of a respective process is not correct as it is aligned or shifted outside the Process Canvas box.
BWCE-7198	Process diagrams are not visible for any applications on TIBCO BusinessWorks Container Edition Monitoring UI.
BWCE-4011	Monitoring UI gets slows after registration of multiple applications, removing of any one application, stopping and on refreshing the activity.

Release 2.8.0

Key	Description
BWCE-4879	After restart, the application was not registering properly on TIBCO BusinessWorks Container Edition Monitoring.

Release 2.7.0

Key	Description
BWCE-3938	The activity name is not displayed on the process diagram with custom icons.

Palette

This topic lists the Closed Issues related to Palettes.

Release 2.10.0

General Activities Palette

Key	Summary
AMBW-50609	The <code>tib:UUID()</code> XPath expression does not work for any starter activity.

HTTP Palette

Key	Summary
AMBW-51618	Content-type and Content-Transfer-Encoding header values change when the Filename field is present in the Content-Disposition header.
AMBW-50467	Service sends gzip compressed data but the BW client truncates response when using Jetty Library.
AMBW-49933	An error occurs while sending <code>textContent</code> with content-type "application/json" via MIME envelope.

HTTP Client Shared Resource

Key	Summary
BWCE-7194	The Keystore refresh interval is not working for Client/Server side.

JDBC Palette

Key	Summary
AMBW-51321	<p>The <code>TO_CHAR()</code> function fails after migrating from ActiveMatrix BusinessWorks version 6.6 to 6.10.</p> <p>A Boolean value of <code>true</code> must be provided for the following flag:</p> <pre>-Dbw.application.activity.jdbc.keep.colname.compatibility</pre>
AMBW-	Migration of DataDirect to Oracle Native fails when the URL format is

JDBC Palette

Key	Summary
50747	tcp://,tcps://.
AMBW-50633	The Maximum rows field of the JDBC Call Procedure activity fails to work as expected with the native SQL server.
AMBW-50630	JDBC Stored procedure goes into an "Activity timed out" state after upgrading to the latest build.
AMBW-50568	JDBC Query activity with a subset size of 1 throws a "Result set is closed" error.
AMBW-50376	While using the Stored Procedure with Azure SQL Data Warehouse, an "Incorrect syntax near 'EXEC'" error occurs.
AMBW-48588	Outer join query fails to work for JDBC Query activity.

JMS Palette

Key	Summary
BWCE-7506	After EMS fails, BW continues throwing the error "Message not delivered" in EMS Explicit Client Acknowledge Mode and Flowlimit.
AMBW-51347	When you pass the JMS Connection Configuration from a Shared Module in JMS Activity by using a module property, it gives a "Connection not specified" error.
AMBW-51136	When the consumer receives the request from the producer and replies to the producer on a temporary destination, the JMS Request Reply Activity throws a "Producer is Closed" exception.
AMBW-50470	In a scenario of BWAppNode failover (2 AppNodes in FT group) following the recovery of the leader/primary AppNode, the consumer count remains "2" and the messages are stuck in the queue.

JMS Palette

Key	Summary
	<p>Now, after using the following properties in both the appnode.tra files and switching back to the primary AppNode, the consumer count becomes 1, and the messages are delivered successfully.</p> <ul style="list-style-type: none"> • <code>bw.jms.shared.primitives.closeFTConsumer=true</code> • <code>bw.jms.shared.primitives.enableFTConsumer=true</code>
AMBW-50290	In the JMS Request Reply activity, a timeout exception occurs when the JMS Correlation ID is set as empty.

Parse Palette

Key	Summary
BWCE-7335	The output parameters in the Output field of the Parse Data activity becomes unavailable if more than 100 parameters are used.

Rendezvous (RV) Palette

Key	Summary
AMBW-50807	If the output field of the RV publisher is empty, ActiveMatrix BusinessWorks 6.x eliminates the empty field in the XML tag, which causes parsing errors when the subscriber or Request Reply receives it.
AMBW-50216	<p>The reply RV message sent by "RV Publisher" and "RV RequestReply" in ActiveMatrix BusinessWorks 6.x is not received in the correct format.</p> <p>Use the <code>com.tibco.bw.rv.bw5Compliance=true</code> property to get the message in the correct format.</p>

REST and JSON Palette

Key	Summary
AMBW-50939	When an XML file containing nested double quotes (" ;) as a part of element value, is passed as an input to Render JSON activity with Generic schema type, it does not get escaped in the output JSON string.
AMBW-50782	In the Jolt JSON Mapper window of Transform JSON activity, if the mapping is applied first from Input to Output JSON and then any function is applied, the function does not appear on the Function tab.
AMBW-50637	Invoke REST API activity's mapping for resource path goes to the wrong resource service path with load test.
AMBW-45782	<p>The expected JSON response is not obtained in the following cases:</p> <ul style="list-style-type: none"> An array of strings has only one element, which is set explicitly to "nil", and the "Use Empty Values for Null" checkbox in the REST Service Binding response tab is selected. The array of strings and array of objects have only one element set to "nil", and the "Use Empty Values for Null" checkbox is cleared. <p>Both the scenarios give expected results now. For the second scenario, set the <code>com.tibco.bw.restjson.array.null=true</code> property in the VM arguments of TIBCO Business Studio for BusinessWorks to get the expected result.</p>

XML Palette

Key	Summary
AMBW-51046	Properties used to skip validation, particularly for parseXML activity are not working in GROUP mode.
AMBW-50635	CDATA section is not displayed for an element in Render XML activity if the element does not have a namespace.
AMBW-50459	When using a JavaToXML activity, issues may arise if a parent Java file depends

XML Palette

Key	Summary
	on a child Java file, and the child's XSD has already been created. Attempting to create the parent XSD in this scenario results in errors. This problem can be resolved by removing the reference to the child XSD, allowing the parent XSD to be generated correctly.
AMBW-44092	The <code>tib:translate-timezone()</code> function breaks when used after ParseXML activity without validation.

Release 2.9.2

General Activities Palette

Key	Summary
AMBW-50608	The <code>tib:UUID()</code> XPath expression does not work for any starter activity.

HTTP Palette

Key	Summary
AMBW-50628	Service sends gzip compressed data but the BW client truncates response when using Jetty Library.
AMBW-50599	<p>Content Type validation is now provided for HTTP Receivers with the help of a system-based property.</p> <p>Support is added to Content Type validation in HTTP for the following flags:</p> <ul style="list-style-type: none"> • Support for Global level: <code>bw.http.content.type.validation.list</code> • Support for Application level: <code>-Dbw.http.content.type.validation.list (Application_name).application="text/plain"(Content_type)</code>

JDBC Palette

Key	Summary
BWCE-7652	While using the Stored Procedure with Azure SQL Data Warehouse, an incorrect syntax near 'EXEC' error occurs.
BWCE-7651	The JDBC Call Procedure activity fails to connect when the timeout value is given as 0 with MS SQL Server Database.
AMBW-50629	JDBC Stored procedure goes into an Activity timed out state after upgrading to the latest build.
AMBW-50579	JDBC Query activity with a subset size of 1 throws a Result set is closed error.

JMS Palette

Key	Summary
BWCE-7451	A <code>NullPointerException</code> exception error occurs when the JMS Reply activity is started and restarted multiple number of times in Docker.
BWCE-7191	When the JMS Sender activity is sending messages in a queue and the queue capacity is reached at n messages, then for n+1 message, the application must throw an error.
BWCE-7126	If an XSD schema with an element contains only attributes and no elements, then such elements are not visible in the input or output editor for the JMS activities.
AMBW-50742	In a scenario of BWAppNode failover (2 AppNodes in FT group) following the recovery of the leader/primary AppNode, the consumer count remains "2" and the messages are stuck in the queue. Now, after using the following properties in both the <code>appnode.tra</code> files and switching back to the primary AppNode,

JMS Palette

Key	Summary
	<p>the consumer count becomes 1, and the messages are delivered successfully.</p> <ul style="list-style-type: none"> • bw.jms.shared.primitives.closeFTConsumer=true • bw.jms.shared.primitives.enableFTConsumer=true
AMBW-50558	In the JMS Request Reply activity, a timeout exception occurs when the JMS Correlation ID is set as empty.

Parse Palette

Key	Summary
BWCE-7547	The same validation error output with a detailed hierarchy of schema for the Parse XML is not seen in TIBCO BusinessWorks Container Edition as that in TIBCO ActiveMatrix BusinessWorks 5.x.
BWCE-7544	The Output tab of the Parse Data and JDBC Query activities do not show all the elements or parameters in it when the number of parameters are huge.

REST and JSON Palette

Key	Summary
AMBW-50627	<p>The output of Render JSON activity is not obtained as a JSON formatted string when XSD is selected as Schema Type.</p> <p>To get JSON formatted string in the output, a new Enable Pretty Print checkbox is added on the General tab of the Render JSON activity. This checkbox appears only when the Schema Type is selected as "XSD". By default, the checkbox is clear.</p>
AMBW-50491	In the Jolt JSON Mapper window of Transform JSON activity, if the mapping is applied first from Input to Output JSON and then any Function is applied, the function does not appear on the Function tab.

Rendezvous Palette

Key	Summary
AMBW-50557	<p>Reply RV messages sent by "RV Publisher" and "RV RequestReply" in ActiveMatrix BusinessWorks 6 are not received in the correct format.</p> <p>Use the <code>com.tibco.bw.rv.bw5Compliance=true</code> property to get the message in the correct format.</p>

XML Palette

Key	Summary
AMBW-50634	CDATA section is not displayed for an element in Render XML activity if the element does not have a namespace.

Release 2.9.1

General Activities Palette

Key	Summary
AMBW-49540	Parse Data and Mapper take more time to process in both BW Studio and AppNode.

HTTP Palette

Key	Summary
AMBW-49853	The " <code>bw.independent.component.startup=true</code> " property fails to work for HTTP Connector shared resource.

HTTP Client Shared Resource

Key	Summary
AMBW-49718	The Default Confidentiality checkbox under HTTP Client shared resource remains unselected even when the checkbox is selected and the process is saved.

JDBC Palette

Key	Summary
BWCE-6349	The SQL Direct activity throws <code>maximum open cursors exceeded</code> error while trying to insert 10k plus records.
BWCE-6258	TIBCO Business Studio for BusinessWorks is unresponsive after running a simple query using SQL Direct activity to return a single row.
AMBW-49512	The Maximum rows field of the JDBC Call Procedure activity is not working as expected with the native SQL server.

JDBC Shared Resource

Key	Summary
AMBW-49529	The Process property from JDBC shared resource referred by a module property in a shared module throws an error at the Application Module.

JMS Palette

Key	Summary
AMBW-39077	Some of the Message Queue client (<code>dhbcore.jar</code> , <code>jndi.jar</code> , <code>ldap.jar</code>) JARs mentioned in the <code>readme.txt</code> file have been removed/deprecated in the latest MQ 8.x/9.x versions. A new list of JARs supported by the latest MQ versions has been added now.

Parse Palette

Key	Summary
BWCE-6036	<p>Unable to produce space delimited data in Render data activity.</p> <p>To get correct output set property - <code>Dcom.tibco.bw.sharedresource.dataformat.emptyColumnSeparator=true</code> in VM arguments.</p> <p>Note: Space is not supported using module property as Column separator in Data Format shared resource for Render Data activity.</p>

REST/JSON Palette

Key	Summary
BWCE-6690	<p>The "java.lang.IllegalStateException: Unexpected attribute" exception is thrown at runtime on Render JSON activity for the following reasons:</p> <ol style="list-style-type: none"> 1. The order of occurrence of <code>xsi:nil="true"</code> attribute in the list of attributes for complex types with simple content element types. 2. No support for other attributes if a complex element (other than complex types with simple content) is null.
BWCE-6540	<p>The <code>JsonRenderException</code> exception is thrown at runtime on Render JSON activity if it is configured using an XSD having <code>complexType</code> with <code>simpleContent</code> without attributes.</p>
AMBW-49713	<p>The Jolt Json Mapper dialog does not launch when clicking the Map Input Output Json button for the Build Spec File field in Transform JSON activity.</p>
AMBW-49643	<p>A <code>String</code> length exceeds the maximum length error is thrown when converting a large JSON file to XML in Parse JSON activity.</p>

XML Palette

Key	Summary
AMBW-42524	CDATA section is not generated for an element in Render XML activity.

Release 2.9.0

HTTP Palette

Key	Summary
BWCE-6582	If an application has multiple Send HTTP Request activities and one of the activities is configured with the Write to File option, the output is empty for the Send HTTP Request activity whose Write to File option is disabled on multiple invocations.
AMBW-48843	Duplicate authorization has been removed from the HTTP request header.
AMBW-36475	In the HTTP Server scenario with a Repetition count of "1" and a Basic Authentication policy applied, a "heap memory leak" error is detected.

JDBC Palette

Key	Summary
AMBW-48893	JDBC stored procedures throw a timeout error when using the AS400JDBC custom driver.

JMS Palette

Key	Summary
AMBW-48991	GetJMSQueueMessage throws a Timeout exception when messages are pending in the queue on a JMS Local transaction.

JMS Palette

Key	Summary
AMBW-48683	When JMS Connection Configuration is passed from a Shared Module in JMS Activity using Module Property, it throws a "Connection not specified" error on the UI.
AMBW-36686	When the JMS connection is not secured or invalid details are passed under the Naming provider URL, an error is thrown after clicking Test Connection .

Parse Palette

Key	Summary
BWCE-6072	<p>The Parse Data activity fails when a child element of the main container element in the XML schema that was referred in the DataFormatResource was of ComplexType.</p> <p>A new property <code>com.tibco.bw.palette.parse.data.checkSchema</code> is added to use the new mechanism to validate/check schema. With property set to true we get exception for complex type schemas.</p>

XML Palette

Key	Summary
BWCE-6046	The Transform XML activity does not handle the XSLT variable correctly while transforming the Input.
BWCE-5356	The <code>xsi:type</code> schema in the XML file does not conform with schema definitions for the ParseXML activity. To add the namespace on the Preference->BusinessWorks->Validation page, enable the Add schema's Namespace imports to dependency for new activities option in TIBCO Business Studio for BusinessWorks.

Release 2.8.3

HTTP Palette

Key	Summary
BWCE-5558	<p>While using the Send HTTP Request activity in which a cookie value is set as input, the <code>MalformedCookieException</code> exception occurs.</p> <p>An Input Item is added with a new Advanced field which consists of the <code>CookieExpiresDatePattern: Date Time</code> pattern format for the expires attribute.</p>

JMS Palette

Key	Summary
BWCE-5686	<p>When a custom JMS provider is used, a Null Pointer exception occurs for the first message sent to the queue and topic.</p> <p>To overcome this issue, use the <code>-Dbw.custom.jms.provider.config.values=true</code> property in VM arguments.</p>
BWCE-5138	<p>When an EMS and Custom JMS provider is added in the same project and when an activity is trying to connect to EMS with EMS specific features, an <code>Unsupported Operation</code> exception occurs.</p>
AMBW-48670	<p><code>GetJMSQueueMessage</code> throws a <code>Timeout</code> exception when messages are pending in the queue on a JMS Local transaction.</p>

XML Palette

Key	Summary
BWCE-5366	<p>The Transform XML activity does not handle the XSLT variable correctly while transforming the Input.</p>

Release 2.8.2

HTTP Palette

Key	Summary
BWCE-5377	An error occurs for the HTTP Receiver activity when the Expose Security Context check box is enabled with Basic Authentication Policy.

Java Palette

Key	Summary
AMBW-47626	Java to XML activity does not return/generate proper schema when Maven Buildpath is added.

JDBC Palette

Key	Summary
BWCE-5306	The Custom JDBC Driver AS400 and the SQL Direct activity is not retuning the connections back to the pool.
AMBW-48187	Output Schema is not updated dynamically for overriding the SQL Statement checkbox selected in the Advanced tab of JDBC_Query activity.
AMBW-48165	A "Commit & Rollback Failed, Transaction Integrity Unknown" error is thrown for JDBC Stored Procedure Activity.
AMBW-47943	While clicking the Result Sets Use Schema option on the JDBC_Call_Procedure activity > Advanced tab, it should generate the output. Instead, it throws the "DRIVER IS LOCKED FOR USE WITH EMBEDDED APPLICATIONS" error pop-up with the TIBCO DD driver for MSSQL 2016 Server.

JMS Palette

Key	Summary
AMBW-42975	The <code>installdriver.xml</code> script is unable to install jars required for <code>jms.ibmmq.runtime</code> .

Parse Palette

Key	Summary
AMBW-47173	The Parse Data activity processes all rows successfully when the first value of the row is empty and the Continue on error checkbox is not enabled. Use the property <code>com.tibco.bw.palette.parse.data.throwExceptionForEmptyFirstColumn=true</code> for the proper exception of the usecase.

REST and JSON Palette

Key	Summary
AMBW-47850	The InvokeRESTAPI activity concatenated the header values when repeating headers are sent from a server in response.

XML Palette

Key	Summary
AMBW-47422	Unable to disable XML validation at activity level since Parse XML is not enforcing the properties in TIBCO BusinessWorks™ Container Edition. Use the following property to disable the XML validation at the activity level for Parse XML activity, - <code>Dbw.application.activity.validateOutput.<appName>.application.<appVersion>.<packagename>.<processname>.<activityname>=false</code>

Release 2.8.1

File Palette

Key	Summary
AMBW-25753	The Copy File activity does not work when the file name contains characters like [], { }, (). It gives the <code>java.util.regex.PatternSyntaxException</code> exception.

HTTP Palette

Key	Summary
BWCE-4817	The <code>java.lang.ClassCastException</code> error is thrown at runtime if the Threshold Data Size value on Send HTTP Request activity is configured with Module Property of Integer data type.
	Note: The Module Property value's data type should be of Long.

JAVA Palette

Key	Summary
AMBW-46587	XSD with required elements is not generated when a Java class is selected in XML to Java activity.

JDBC Palette

Key	Summary
AMBW-47730	<p>The <code>java.lang.IllegalStateException:Queue full</code> error is thrown for the JDBC Query activity.</p> <p>After upgrading to TIBCO BusinessWorks Container Edition 2.8.1, this issue is fixed and the NCName cache size is incremented.</p> <p>By default, the NCName cache is enabled. To disable the NCName cache, set the property <code>bw.application.activity.jdbc.cache.names</code> to false.</p>

JMS Palette

Key	Summary
AMBW-47395	While using the solace property Ack Mode: SOL_CLIENT_ACKNOWLEDGE with Solace JMS Provider, the session does not recover when there is a functional error, the received messages are not confirmed, and the JMS Receiver stops receiving further messages.
AMBW-46010	JMS receiver stops receiving messages with EMS Explicit Ack mode and flow limit.

Rendezvous Palette

Key	Summary
AMBW-47383	The element name in Rendezvous Requestor gets messed up when concurrent requests are sent.

REST/JSON Palette

Key	Summary
AMBW-47103	The Invoke REST API activity's mapping for resource path goes to the wrong path location with load test.

Note: For high loads, if request rejections are observed, change the default Blocking Queue Size value on the REST Service Binding to a non-default value that is comparable to the number of incoming requests.

Release 2.8.0

HTTP Palette

Key	Summary
BWCE-5022	The Send HTTP Request activity fails to upload files in the mimeType because of the missing "filename" parameter in the content-disposition header at runtime.
AMBW-46677	The Send HTTP Request activity fails to send image files in the mimeType because of the missing "filename" parameter in the content-disposition header at runtime.
AMBW-46605	The endpoint URL is generated as "HTTPS" instead of "HTTP" when the Confidentiality field on the HTTP Connector shared resource is configured with the module property value set to "false".

Java Palette

Key	Summary
AMBW-46550	Java object reference passed from parent process to subprocess fails to work.
AMBW-44678	The SOAP Invoke MTOM throws a Java heap space out of memory error with large payloads of 800 MB.
AMBW-36726	The output schema for JavaToXML activity is not generated if there is a defined public method without a defined respective member variable.
AMBW-33916	The JavaToXML activity fails to generate the schema for classes with no member variables.

JMS Palette

Key	Summary
BWCE-5019	When multiple messages are in the receiver queue, the project throws a <code>java.lang.NullPointerException</code> exception for the first Send JMS Message

JMS Palette

Key	Summary
	activity.
AMBW-46727	TIBCO BusinessWorks™ Container Edition application fails with a specific error, "Can not change client ID" when Client ID is set in EMS Server Level.

JDBC Palette

Key	Summary
AMBW-46797	JDBC Transaction Group does not end the database session when JDBC Call Procedure times out.
AMBW-46201	JDBC Update Activity inserts a "NULL" value instead of an empty string into the database.

Mail Palette

Key	Summary
AMBW-46731	The Send Mail input credentials are not overriding with SMTP shared resource credentials.

REST and JSON Palette

Key	Summary
AMBW-46603	When an XML file containing nested double quotes (") is passed as an input to Render JSON activity with Generic schema type, it does not get escaped in the output JSON string.
AMBW-46602	The Render JSON activity is unable to transform "'" from the XML string to single quote (') in Generic mode.

REST and JSON Palette

Key	Summary
AMBW-46580	<p>Runtime throws a "JsonParserException" error on Parse JSON activity with Generic mode when the content to be parsed is larger than 512 characters. The character limit is now increased by default to 1024 characters.</p> <p>To parse a large JSON file (for example, more than 1024 characters), the user has to pass the below property in the TIBCO Business Studio™ for BusinessWorks™ VM arguments to increase the default cache size:</p> <pre>com.tibco.plugin.restjson.json.setCacheSize = <Integer value></pre>

XML Palette

Key	Summary
AMBW-46044	Recursive extension type in schema gives run-time error.

Release 2.7.3

HTTP Palette

Key	Summary
AMBW-46259	The endpoint URL is generated as "HTTPS" instead of "HTTP" when the Confidentiality field on the HTTP Connector shared resource is configured with module property value set to <code>false</code> .

JDBC Palette

Key	Summary
BWCE-4738	The JDBC Query activity fails with output data validation error at runtime.
AMBW-46578	JDBC Transaction Group does not end the database session when JDBC Call Procedure times out.

JMS Palette

Key	Summary
BWCE-4695	After EMS fails, BW continues throwing the error Message not delivered in EMS Explicit Client Acknowledge Mode and Flowlimit.

REST and JSON Palette

Key	Description
AMBW-46289	<p>Runtime throws a <code>JsonParserException</code> error on Parse JSON activity with Generic mode when the content to be parsed is larger than 512 characters. The character limit is now increased by default to 1024 characters.</p> <p>To parse a large JSON file (for example, more than 1024 characters), you have to pass the below property <code>com.tibco.plugin.restjson.json.setCacheSize = <Integer value></code> in the studio VM arguments to increase the default cache size:</p>
AMBW-46277	The Render JSON activity is unable to transform ' from the XML string to a single quote (') in Generic mode.
AMBW-46258	When an XML file containing nested double quotes (") is passed as an input to Render JSON activity with Generic schema type, it does not get escaped in the output JSON string.

XML Palette

Key	Summary
AMBW-46241	Recursive extension type in schema gives run-time error.

Release 2.7.2

HTTP Palette

Key	Summary
AMBW-45532	For the applications using the HTTP Client shared resource configured with the Thread Pool shared resource having Core Pool Size greater than 10, "IllegalArgumentException" is thrown at runtime.
AMBW-45450	TIBCO ActiveMatrix BusinessWorks redirects a SOAP call to the HTTP Receiver activity if the Enable Access Log property is enabled and an application contains both a SOAP service and HTTP Receiver activity.

JDBC Palette

Key	Summary
AMBW-44571	You can see the Updated Parameter->Data type value in the JDBC statement parameter preparation.
AMBW-45455	Interpreted the Invalid XML Chars check box, not available in TIBCO BusinessWorks Container Edition 6.6.1. You can see an Invalid white space character (0x1c) in the text to output.
AMBW-45445	The Number element on the Input tab of JDBC Call Procedure activity shows an integer value and not a decimal value after loading the procedure or function.
AMBW-43303	TIBCO BusinessWorks Container Edition does not retrieve data of type timestamp from a database.

JMS Palette

Key	Summary
AMBW-45456	If we use a JNDI Destination name for the actual queue in the TIBCO BusinessWorks Container Edition project when connecting to the IBM MQ server, it gives InvalidDestinationException.

JMS Palette

Key	Summary
AMBW-45454	Huge memory consumption is causing the AppNode to hang. A new session is being created on every run causing huge memory consumption. Now, the Ack Mode in the key is used also while pulling which resolves the huge memory consumption issue as the session is not created on every run.
AMBW-45333	The null pointer exceptions are thrown when you destroy the JMS Reply activities while application instances are being stopped.
AMBW-44019	The JMSRequestReply activity in TIBCO BusinessWorks Container Edition 6.x creates a new Message Producer per request, which causes the disk overhead on the EMS side, hence leading to performance issues.
AMBW-43126	When you use an element from some external schema to join the conversation, the mapping showed an error "No matching namespace prefix".
AMBW-35465	There is no option available for "Supports XA Transactions" in JMS Connection in ActiveMatrix BusinessWorks 6.x.x.
AMBW-31953	GetJMSQueueMessage activity shows different types of timeout errors for the same scenario when there is no message in the queue.

Java Palette

Key	Summary
AMBW-44678	The SOAP Invoke MTOM throws a Java heap space out of memory error with large payloads of 800 MB.

Mail Palette

Key	Summary
AMBW-	Test connection for SMTP resource shows the error Configuration error in

Mail Palette

Key	Summary
45461	field [Host] and/or [Port], the value must be a valid hostname and/or port with correct values.

Parse Palette

Key	Summary
AMBW-45862	You cannot rename a file when you use the Parse Data activity to read the file in batches.

Release 2.7.1

HTTP Palette

Key	Description
BWCE-4411	The multipart/related Content-Type set in the Send HTTP Request activity was converted to multipart/form-data at runtime. Also a new flexibility is added for users to add a custom boundary for multipart content-types.

JDBC Palette

Key	Summary
BWCE-4347	The JDBC activity throws a timeout error instead of the actual [SQLState 23000] Duplicate row error error for Teradata Database.
AMBW-45076	The Number element on the Input tab of the JDBC Call Procedure activity shows an integer value and not a decimal value after loading the procedure or function.

JMS Palette

Key	Summary
AMBW-26882	If we use a JNDI Destination name for the actual queue in the TIBCO ActiveMatrix BusinessWorks project when connecting to the IBM MQ server, it gives <code>InvalidDestinationException</code> .

Release 2.7.0

HTTP Palette

Key	Description
BWCE-3918	The HTTP Connector shuts down when it receives a flowlimit request and no response is sent back.
AMBW-43969	The Send HTTP Request activity fails and throws <code>TimeoutException</code> when the HTTP Client shared resource is configured with the Jetty HTTP Client library along with SSL, and the Proxy shared Resource without authentication.
AMBW-43072	The Send HTTP Request activity fails with 500 error when the HTTP Client shared resource configured with Apache HTTP Components library and a request with MIME attachment is sent to REST service.
AMBW-42083	TIBCO BusinessWorks Container Edition can not handle non-preemptive basic authentication when the User-Agent header is not present in the HTTP request.

JDBC Palette

Key	Summary
AMBW-43984	An application goes into the Impaired state when the dbURL has special characters.
AMBW-43983	The JDBC Call Procedure activity throws an error and cannot call a stored procedure when you use PostgreSQL 12 database.

JDBC Palette

Key	Summary
AMBW-43965	The JDBC Query activity throws the Numeric overflow error when the number coming from the database is greater than 10 digits.
AMBW-43037	The SQL Direct activity fails for Unicode special characters.
AMBW-42443	TIBCO Business Studio for BusinessWorks now supports overloaded procedures from PostgreSQL.
AMBW-42049	The stored procedure input and output parameters with MSSQL DataDirect driver are inaccessible if the procedure is selected without selecting Schema, and Catalog or Package.
AMBW-41912	Heap memory leak is observed on an AppNode for the SQL Direct activity in an application,
AMBW-38321	The JDBC Tibco Driver for PostgreSQL is upgraded from 5.1.4.000097 to 5.1.4.000329
AMBW-31970	JDBC Driver for Microsoft SQL server is upgraded from 4.0 to 8.2.2.

JMS Palette

Key	Description
BWCE-3352	An activity configuration error is thrown for activities mapped with the output from Get JMS Queue Message activity of XML Type and having a schema without namespace.
AMBW-43981	Whenever EMS fault-tolerance server is switched or the EMS server is restarted, the JMS Send Message activity loses the first message after reconnecting.
AMBW-	Exchange of message takes place for a queue type messaging style configured in

JMS Palette

Key	Description
42608	JMS Sender and a topic type messaging style in JMS Receiver.
AMBW-37702	TIBCO Business Studio for BusinessWorks displays an error when connecting to an SSL enabled EMS server.

Mail Palette

Key	Summary
AMBW-43990	An application becomes unresponsive on the Send Mail activity and does not timeout when the existing engine threads are occupied.

REST and JSON Palette

Key	Summary
AMBW-43585	The Invoke REST API activity is migrated as empty for some activities.
AMBW-43255	The design time and run time Swagger files are now including the definitions of the extended elements from different XSD.

XML Palette

Key	Summary
AMBW-44572	<p>Non-default namespace can not map to empty URI Set the - <code>Dbw.xml.jsonrest.multiple-ns.removensprefix=true</code> property as a VM argument in TIBCO Business Studio for BusinessWorks.</p> <p>This property removes all non default prefixes from the XML and uses only default namespace prefix for all namespaces and ensures that a non default namespace</p>

XML Palette

Key	Summary
	is never bound to an empty URI.The Render XML activity adds an extra namespace xmlns=" " at the root level of the schema.
AMBW-43994	The Value-of max(xsd:int*) expression returned as a scientific notation value when the Transform XML activity has bigger numbers in input.
AMBW-41240	The Parse XML activity gives error when the input file encoding was UTF-8-BOM and the Validate Output check box was selected. Set the <code>-Dbw.application.activity.validateOutput.treeValidation=true</code> property as a VM argument when validating an output XML.
AMBW-33245	An error occurs when the YearMonth datatype is typecasted with the <code>xsd:string</code> ().

Policies

This topic lists the Closed Issues related to Policies.

Release 2.10.0

Key	Description
AMBW-46897	The application requires a restart if JKS (Keystore) file contents are changed on the filesystem, as these changes are not picked up by the Keystore shared resource even after Refresh Interval Time.

Release 2.8.2

Key	Description
AMBW-33546	For a better user experience, a tool <code>hashpassword.jar</code> has been provided for generating obfuscated passwords with basic XML Authentication.

Release 2.8.1

Key	Description
AMBW-46897	Applications require a restart if JKS (Keystore) file contents are changed on the filesystem, as those changes are not picked up by the Keystore shared resource even after Refresh Interval Time.

Release 2.8.0

Key	Description
AMBW-46589	The basic security profile compliance is not disabled for a SOAP service even when the <code>-Dbw.governance.bspCompliant.disabled=true</code> property is set at an AppNode level.

Runtime

This topic lists the Closed Issues related to Runtime.

Release 2.10.0

Key	Summary
BWCE-4307	When memory saving mode is enabled, some shared variable values is getting cleared.
AMBW-50954	A "java.util.ConcurrentModificationException" error occurs in the AppNode configuration logs. This has been fixed now.
AMBW-50437	The G1 Old Gen memory keeps increasing until it consumes all the heap memory.
AMBW-	When a pipe (" ") character is used in XSD, it does not throw any design time

Key	Summary
46596	validation error but throws a schema loading-related error at runtime.
AMBW-38591	After the refresh interval of the keystore, the module property is not picked up at runtime.
BWCE-7583	<p>While compiling XPath methods, the processing time is more in each TIBCO BusinessWorks process worker threads.</p> <p>The following are the system properties used to reduce the time consumption while compiling XPath methods:</p> <ul style="list-style-type: none"> • <code>bw.xml.xpath.cacheExpressions</code> - true/false • <code>bw.xml.xpath.cacheExpressions.size</code> - The default value of 2750. This value is arbitrary. • <code>bw.xml.xpath.cacheExpressions.percent</code> - The default value is 8. The percentage of the cache purged if full.

Release 2.9.2

Key	Summary
AMBW-50586	<p>In the "Repeat on Error" loop, activities, if faulted, remain in the Starting state even after completion.</p> <p>Now they are displayed in the Completed state.</p>
AMBW-50559	The G1 Old Gen memory keeps increasing until it consumes all the heap memory.
AMBW-50471	Properties used to skip validation, particularly for parseXML activity are not working in GROUP mode.

Release 2.9.1

Key	Summary
BWCE-6862	The Job View displays wrong information on the Job Shared Variables in Spawned process if the activity name is same.
BWCE-6781	While configuring circuit breaker with the HTTP Client shared resource the 422 status error code exceptions are not ignored.
BWCE-6669	In BWCE 2.9.1, due to EOL <code>com.tibco.tpcl.com.ibm.icu_3.9.0.001/'icu4j-3_8_1.jar</code> is upgraded to <code>com.tibco.tpcl.com.ibm.icu_3.9.200.002/icu4j-74.1.jar</code> version to resolve the icu4j EOL .
BWCE-5902	<p>While compiling XPath methods, the processing time is more in each TIBCO BusinessWorks process worker threads.</p> <p>The following are the system properties used to reduce the time consumption while compiling XPath methods:</p> <ul style="list-style-type: none"> <code>bw.xml.xpath.cacheExpressions</code> - true/false <code>bw.xml.xpath.cacheExpressions.size</code> - The default value of 2750. This value is arbitrary. <code>bw.xml.xpath.cacheExpressions.percent</code> - The default value is 8. The percentage of the cache purged if full.
BWCE-5635	Properties from environment variables does not throw error even if those properties are not using configuration management services.
AMBW-49572	Application-related logs are getting printed on both Application as well as AppNode log files leading to duplicate logs.

Release 2.9.0

Key	Summary
AMBW-48899	The startup time of the BusinessWorks application increases after using a larger schema.

Key	Summary
AMBW-48714	When two SOAP applications are started on the same AppNode simultaneously, then one of them fails to start.
AMBW-48648	The application configured with the property <code>bw.independent.component.startup=true</code> goes into a stopping state when any of the shared resources are not available.
AMBW-48486	BusinessWorks application having "Activator" as the only component remains in the Stopping state.
AMBW-48484	The checkpoint-related data is deleted from the <code>pg_largeobject</code> table after enabling the <code>bw.engine.enable.checkpointdata.delete</code> property for the PostgreSQL database.
AMBW-47920	ActiveMatrix BusinessWorks 6.x application with heavy XSLT mapping takes more than 15 minutes to start.
AMBW-46361	An NPE error is thrown in AppNode logs for Group mode with the Oracle database.
AMBW-28658	The AppNode logs fail to log an error/reason for the impaired state of an application.

Release 2.8.3

Key	Summary
AMBW-47873	When two SOAP applications are started on the same AppNode simultaneously, then one of them fails to start.

Release 2.8.2

Key	Summary
BWCE-5410	The TIBCOJRE is hardcoded in the setup.sh file.
BWCE-5391	The Configuration Management Services for AWS is not working if the application name is not set.
BWCE-5374	The format of number fields gets changed when they are of type string fields.
AMBW-48181	The activator process is slow when running an activity with large XML data in Debug mode.
AMBW-43215	For the SAP application, If the SAP component is not available, then the application goes into an impaired/start failed state.

Release 2.8.1

Key	Summary
AMBW-47598	Running an application with an activator process and large XML throws an out-of-memory error in Debug mode.
AMBW-47549	Input mapped from SalesforceQueryAll shows trimmed output in Mapper output activity. For example, the decimal value of "1200.0" is trimmed to "1200".
AMBW-46825	The white space characters in the appspace configuration.ini files fail to start in the appnode/application. The BWEngine now smartly removes the spaces, tabs, and other special characters while retrieving the configuration values from configuration files.

Release 2.8.0

Key	Summary
AMBW-46544	Application deployed to AppSpace configured in FT-group mode and FTL as group provider activates more than one active instance on restarting FTL servers configured in FT mode.
AMBW-46534	When Appnodes are configured in FT-group, the wrong Component status is shown differently on TIBCO® Enterprise Administrator UI and via REST API calls.
AMBW-46530	SOAP/JMS service throws an error, "cache cannot be null.stacktrace : java.lang.AssertionError: cache cannot be null" when the JMS receiver configured to the queue has a lot of pending messages more than the relative flow limit set for the component.
AMBW-46514	Heap memory increases due to memory leaks while using Notify and ReceiveNotification activities.
AMBW-46502	At runtime in ftgroup mode with weighted property, when the application contains a service-based sub-process call in a process, the Fault Tolerance mechanism stops working post secondary fail-over. A property named "bw.engine.ftgroup.activator.servicesubprocess" is now provided to fix this issue.
AMBW-46207	Applications with subprocess calls without the Spawn option are moving into an unresponsive state in group persistence appspaces because of logical deadlock.
AMBW-45361	The stopapp/startapp OSGi commands are not working in TIBCO ActiveMatrix BusinessWorks™ 6.7.x and 6.6.x code bases.
AMBW-39684	An "Attribute DataType cannot be null" error occurs when coercion is used for the "anyType" element in the iteration loop.
AMBW-36995	Variables inside the iterate loop do not reset after each iteration when they are not executed again.

Release 2.7.3

Key	Summary
AMBW-46512	Heap memory increases due to memory leaks while using Notify and ReceiveNotification activity
AMBW-46104	Applications with subprocess calls without the Spawn option are moving into an unresponsive state in group persistence appspaces because of logical deadlock.
AMBW-45599	At runtime in ftgroup mode with weighted property, when the application contains a service based subprocess call in a process, the Fault Tolerance mechanism stops working post secondary fail-over.

Release 2.7.2

Key	Summary
AMBW-44222	The module shared variable failed to reset to initial value on restarting an application.

Release 2.7.0

Key	Summary
AMBW-44452	When migrating the TIBCO ActiveMatrix BusinessWorks application from 6.4.1 to 6.6.0, the JobsharedVariable defined in a module is not recognized by other modules of an application.
AMBW-44451	Two applications incorrectly refer to the same hashmap in some cases when an AppNode starts the applications at the same time, and an activator process is used along with custom XPath functions.
AMBW-44450	For Group mode, if the AppNodes are unresponsive for more than 31 seconds then the process starter activity is disabled for the AppNodes which results in AppNodes are marked as inactive by the recovery system..Set the <code>com.tibco.bx.engine.recovery.failure.threshold</code> property to a value between 31 to 180 seconds.

Key	Summary
AMBW-43980	TIBCO ActiveMatrix BusinessWorks application containing the FTL Subscriber activity having flowlimit set along with engine threads displays the out of memory error when the number of transactions per second are increased above 50.
AMBW-43770	The JMS Receive Message activity running on an AppNode with the Group mode fails to start when a BWEEngine resumes from the Suspended state.
AMBW-43221	The Wait and Notify activities in the group persistence mode do not work with default values for the <code>bw.engine.threadCount</code> and <code>bw.engine.db.maxConnection</code> properties. Set the following new properties in the AppSpace's <code>config.ini</code> file: <div data-bbox="399 789 1040 888" style="background-color: #e6f2ff; padding: 10px; margin: 10px 0;"> <pre>com.tibco.bx.lockWaitNotify=true com.tibco.bw.throttle.notify.activity=true com.tibco.bw.throttle.wait.activity=true</pre> </div> Use the throttle properties when default configuration is used . The <code>bw.engine.db.maxConnection</code> property's value must be greater than the <code>bw.engine.threadcount</code> value.
AMBW-43220	Some of the TIBCO BusinessWorks Container Edition jobs are not processed intermittently when an application has Wait and Notify activities. To avoid the deadlock scenario, TIBCO recommends to set the <code>com.tibco.bx.lockWaitNotify=true</code> property and the value of <code>bw.engine.db.maxConnection</code> property = twice the value of <code>bw.engine.threadCount</code> .
AMBW-43102	On stopping the application, an application cannot call the delete method of the shared resource when the shared resource uses module property in one of the fields.
AMBW-43101	The <code>BW.MODULE.NAME</code> and <code>BW.MODULE.VERSION</code> module properties return empty values.
AMBW-	The Iterate group in a subprocess generates incorrect output when two different

Key	Summary
43099	processes call the same subprocess containing the Iterate group at the same time.
AMBW-42919	After new installation and setup of AppSpaces and the AppNodes, the AppNodes that have "group" settings cannot start and display the following error: Unable to find CheckpointModelFactory: DB.
AMBW-42506	Modifications done inside a running application in TIBCO Business Studio for BusinessWorks displays the Process not found error.
AMBW-42106	AppNode APIs now provide complete stack trace in a thread dump.
AMBW-41286	TIBCO Business Studio for BusinessWorks throws NullPointerException while running a project with different nested subprocesses.

Known Issues

The following known issues exist in this release of TIBCO Business Studio for BusinessWorks.

The known issues are grouped by components:

- [Binding](#)
- [General](#)
- [Migration](#)
- [Mocking Support](#)
- [Monitoring](#)
- [Palettes](#)
- [Policies](#)
- [Runtime](#)

Binding

This topic lists the Known Issues related to Binding.

Key	Description
BWCE-3983	<p>Summary: The Swagger UI does not load the resource path details for applications having multiple REST services with separate HTTP Connector for each endpoint on Cloud Foundry.</p> <p>Workaround: None.</p>
AMBW-50924	<p>Summary: Failed to load API definition error is seen on Swagger UI when it hits the 2.0 REST service having parameters referred using \$ref and are not defined inline.</p>

Key	Description
	<p>Workaround: Modify the swagger file to define the path/query parameters inline and then re-create the REST service.</p>
AMBW-46861	<p>Summary: When invoking a REST service created with a Swagger file having an "array" tag under the Components/Schemas section, the "array" tag is not reflected in the runtime Swagger file.</p> <p>Workaround: Add the "array" tag in the generated runtime Swagger file manually if you need to create a REST service/reference binding.</p>
AMBW-46806	<p>Summary: Accept header value for Fault response is not honored in Swagger UI when the OAS 3.0 REST service configured with multiple response formats is hit.</p> <p>Workaround: Use Postman Client to hit the service and pass the Accept Header according to the expected response content-type.</p>
AMBW-46721	<p>Summary: When creating a top-down REST service with an OAS 3.0 JSON file having response header parameters and multiple response formats, the parameters are not reflected in the service binding.</p> <p>Workaround: None</p>
AMBW-46663	<p>Summary: If an OAS 3.0 REST service is created using a JSON file having anyOf/oneOf keywords with one of the schema referred with "\$ref" and another sub-schema as "inline", then the inline schema is not reflected in the Reply activity.</p> <p>Workaround: None</p>
AMBW-46607	<p>Summary: If an OAS 3.0 REST service is created using a Swagger file having inline schema with "oneOf/anyOf" or nesting with "allOf", then the schema elements are not resolved in the Input tab of the Reply activity.</p> <p>Workaround: None</p>
AMBW-46002	<p>Summary: The "allOf" tag is not reflected in the runtime Swagger JSON generated for the REST service created using an imported Swagger JSON having the "allOf" tag.</p>

Key	Description
	<p>Note: The schemas are merged into a single schema object in the runtime Swagger file and this doesn't impact the functionality.</p> <p>Workaround: None.</p>
AMBW-45941	<p>Summary: The Swagger specifications having the <i>pattern</i> keyword are not supported in TIBCO BusinessWorks Container Edition 6.x.</p> <p>Workaround: You can either manually modify the Swagger specifications to remove the pattern tag before importing it in TIBCO Business Studio for BusinessWorks, or else after creating the service, you can manually modify the XSD by removing the pattern restriction for the respective element definition.</p>
AMBW-44739	<p>Summary: The deescription provided for form parameters on REST 3.0 service binding is not reflected on the reference binding as well as on top-down service binding's Form Parameters table.</p> <p>Workaround: None</p>
AMBW-44492	<p>Summary: The 415: Unsupported Media Type error is thrown on Invoke activity of a REST Reference Binding while invoking a REST service with Request and Response formats other than JSON. That is, XML or Text.</p> <p>Workaround : To get rid of the error, select JSON format in Request and Response along-with other formats.</p>
AMBW-44479	<p>Summary: The dynamicConfigurations WSDL part and dynamicConfigurations element aren't automapped by default for the input of Invoke activity created from the reference binding.</p> <p>Workaround: Either map manually or map using the Show Check and Repair option.</p>
AMBW-44338	<p>Summary: On selecting Binary checkbox in Response tab of REST Service Binding, if we keep default configurations in Resource Schema then the Reply activity's response is seen as "String" instead of base64Binary.</p> <p>Workaround: On selecting Binary checkbox re-select "binary" or "base64" from Resource Schema dropdown.</p>

Key	Description
AMBW-44208	<p>Summary: The <code>java.lang.NullPointerException</code> is thrown on adding new operation to a REST service when you change the JSON Definition Style or the Request schema from the drop-down for the newly added operation.</p> <p>Workaround: If you are adding new operation then select the required schemas in the REST Service Wizard and avoid modifying it from service binding.</p>
AMBW-44197	<p>Summary: REST Service Binding configuration error is thrown at design time when the Resource Schema of DELETE operation is modified in the Response tab of REST Service Binding.</p> <p>Workaround: If you want the DELETE operation response to be other than String then select the appropriate value in the drop-down menu for Response while creating a service using REST Service Wizard.</p> <p>This workaround is not applicable for the Binary Response format.</p>
AMBW-44116	<p>Summary: For REST 3.0 service if you select Binary check box in Response, then at design time the Resource Schema details "\$item base64Binary" is not displayed on Response tab for all operations on service binding and for POST operation on reference binding. There is no impact on anything at runtime.</p> <p>Workaround: None.</p>
AMBW-44022	<p>Summary: The Swagger UI accessed using <code>Lrestdoc</code> command is not supported to show the callbacks section for the REST Operation of an TIBCO BusinessWorks Container Edition REST Service Endpoint created by dragging a Swagger Path whose operation is configured with callbacks.</p> <p>Workaround: None.</p>
AMBW-43156	<p>Summary: The Swagger UI is blank when the swagger URL is hit from Internal Web Browser in TIBCO Business Studio for BusinessWorks 6.7.0</p> <p>Workaround: Hit the swagger URL from external browser.</p>
AMBW-43023	<p>Summary: For form parameter of password type, the Swagger JSON under service descriptors has missing "format": "password" key-value inside the Schema object.</p>

Key	Description
	<p>Workaround: Manually add the "format" : "password" tag to the form parameter in the swagger file.</p>
AMBW-36113	<p>Summary: A multipart message where one part points to type and the other part points to element and a message using mixed security mode is not supported.</p> <p>Workaround: Change mixed security mode in a given WSDL.</p>
AMBW-32951	<p>Summary: A SOAP service responding with mustUnderstand attribute as true is ignored irrespective of selecting or deselecting the Ignore mustUnderstand check box on the SOAP Reference binding. This behavior does not affect the client and server communication.</p> <p>Workaround: None</p>
AMBW-32760	<p>Summary: On creating SOAP Reference Binding with the concrete WSDL generated at run time with multilevel schema imports, the java.lang.NullPointerException is displayed when clicking the reference binding.</p> <p>Workaround: None</p>
AMBW-29098	<p>Summary: When creating a concrete WSDL by right-clicking on the Service Descriptor folder, the following error is generated at design time: WSDL import error.</p> <p>Workaround: None</p>
AMBW-27870	<p>Summary: On importing WSDL with RPC Encoded style, a validation error is generated at design time since the underlying schema with namespace http://schemas.xmlsoap.org/soap/encoding/ is not generated.</p> <p>Workaround: To remove the validation error and create the SOAP Reference Binding, download the encoding schema with the said namespace and ensure that schema is a part of the application module or the shared module.</p>
AMBW-27435	<p>Summary: When module properties used from a shared module project were renamed, the changes made were not reflected at the SOAP binding level.</p> <p>Workaround: Select the updated module property from the drop down in the SOAP binding.</p>

Key	Description
AMBW-26806	<p>Summary: When a REST service with a schema that uses a type which was imported from another XSD is invoked in a REST Reference Binding, it fails with the ServiceRuntimeException.</p> <p>Workaround: None</p>
AMBW-23104	<p>Summary: When the WSDL uses multiple parts in the Request body of an operation, a design time validation error occurs on the generated SOAP reference binding. The application works fine at run time.</p> <p>Workaround: None</p>
AMBW-22981	<p>Summary: When the REST Service which is implemented with GET Operation with Response as String, then the content-type of the response is changed from application/json to text/plain.</p> <p>Workaround: Use XSD Element in Response instead of String.</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

This topic lists the Known Issues related to General issues.

Key	Description
BWCE-6314	<p>Summary: The debian:bookworm-slim dockerfile is failing on Docker 20.10.x</p> <p>Workaround: None</p>
BWCE-5217	<p>Summary: In BW Debugger, job data has maximum 99 record limit.</p> <p>Workaround: None.</p>
BWCE-2073	<p>Summary: Marketo application generates run time SSLHandshakeException for TIBCO BusinessWorks Container Edition.</p> <p>Workaround: Copy the <code>libsunec.so</code> library found in <code>jre-8u<no>-linux-x64.rpm/tar.gz</code> which is available in Oracle resource library to <code>/resources/addons/lib</code> folder before you create the base image or buildpack.</p>
BWCE-2008	<p>Summary: FTL application does not work in windows container because of absence of FTL client libraries for windows.</p> <p>Workaround: None.</p>
BWCE-1433	<p>Summary: In the FTL application logs, an Invalid message type received from peer 'NULL' error message occurs.</p> <p>Workaround: None. These errors can be ignored.</p>
BWCE-1239	<p>Summary: An error, related to <code>libcrypto.so</code>, is displayed in the logs when the application is pushed to the Cloud Foundry or Docker.</p> <p>Workaround: None. These errors can be ignored.</p>
BWCE-103	<p>Summary: When specifying Application Properties, if invalid login credentials are specified in the Configure Container Connection Dialog, the dialog box asking for valid login credentials repeatedly opens even after valid login credentials are specified.</p> <p>Workaround: Press the Cancel button on the dialog box.</p>
AMBW-49418	<p>Summary: An error "Connection to the derby db failed" is thrown when the old workspace is opened i.e. the workspace created prior to ActiveMatrix BusinessWorks 6.10.0 containing the SmartMapper project that uses the Remoted</p>

Key	Description
	<p>DB feature with the provided DD driver URL.</p> <p>Workaround: To proceed further, in the error popup, click OK and in the Preference tab, change the DB details to the native driver URL. Then restart TIBCO Business Studio for BusinessWorks.</p>
AMBW-49366	<p>Summary: The generated mock output or gold input file gets overwritten when two activities have the same name in the application.</p> <p>Workaround: None</p>
AMBW-48925	<p>Summary: When a module property is directly mapped to an activity input without creating a process property, the mapping line is not seen.</p> <p>Workaround: None</p>
AMBW-47025	<p>Summary: After creating the Maven test file, if the user renames the TIBCO ActiveMatrix BusinessWorks™ Process name, the change is not reflected. The user cannot test run the same.</p> <p>Workaround: Re-create the test file after renaming the process.</p>
AMBW-46231	<p>Summary: When two properties from two different modules having a common name are promoted, only one property gets promoted and seen under the application.</p> <p>Workaround: Keep each property name unique before promoting in a batch.</p>
AMBW-45146	<p>Summary: The FluentD container fails to insert the activity (input/output) data if the data size is greater than 4000 characters for the Oracle database.</p> <p>Workaround: Set the MAX_STRING_SIZE = EXTENDED for the Oracle database, which increases the byte size capacity from 4000(default) to 32767. Note that this change is at the server level and is irreversible.</p>
AMBW-45015	<p>Summary: An activity having a large input data is not shown in the job details on the Execution History tab for MySQL.</p> <p>Workaround: None</p>

Key	Description
AMBW-44437	<p>Summary: Two .application folders are created when a new application is created in a new workspace.</p> <p>Workaround: On launching TIBCO Business Studio for BusinessWorks wait for 5-10 seconds to ensure that it loads completely and then create a new application. If there are two .application folders created after loading TIBCO Business Studio for BusinessWorks then restart it.</p>
AMBW-43860	<p>Summary: Consuming a TIBCO Flogo service with parameters having Object data type in Input and Output schema from TIBCO BusinessWorks Container Edition client is not supported.</p> <p>Workaround: None</p>
AMBW-43118	<p>Summary: For Swagger 3.0 service, the array of Form Parameters is sent as comma-separated values from Swagger UI which causes the request to fail with the 500 internal server error in TCI.</p> <p>Workaround: Use Runtime swagger file to create the service.</p>
AMBW-42046	<p>Summary: Encryption Setting Window shows no editable fields when opened by clicking on the Lock Icon if TIBCO Business Studio™ for BusinessWorks™ is not in full-screen mode.</p> <p>Workaround: Open Encryption Settings when TIBCO Business Studio for BusinessWorks is in full-screen mode or enter into full-screen mode for Encryption setting if it is opened in a minimized view.</p>
AMBW-41950	<p>Summary: In bwdesign, if we export substvar files with the same name twice in the same location, it does not overwrite the substvar file.</p> <p>Workaround: Delete the previous substvar file and export substvar again.</p>
AMBW-41948	<p>Summary: Many to one mapping is not supported for Smart Mapper.</p> <p>Workaround: None</p>
AMBW-41846	<p>Summary: Any operation on the module or application properties that leads to a change in their order results in a faulty difference generation. So, such operations are not supported in TIBCO BusinessWorks Container Edition 6.7.0.</p>

Key	Description
	Workaround: None.
AMBW-41832	<p>Summary: The lock icon on the encrypted profile in the difference viewer perspective is shown based on whether the workspace copy of the profile is encrypted or not. Currently, if the workspace copy of the profile is encrypted, then in the difference viewer perspective, the lock icon is shown even on the un-encrypted revisions of that profile.</p> <p>Workaround: None.</p>
AMBW-41827	<p>Summary: The properties and profile are not showing in the application property editor on opening the editor for the first time in a new workspace.</p> <p>Workaround: Close and reopen the editor, it shows all the details.</p>
AMBW-41779	<p>Summary: If a keystore file location or name is changed then on refresh blank property value is shown and on running the application, the File Not Found Exception is thrown.</p> <p>Workaround: Restore file with a valid name at a specified location on disk and do project clean.</p>
AMBW-41716	<p>Summary: Any changes in the module or application properties inside groups are not supported in TIBCO BusinessWorks Container Edition 6.7.0 and the corresponding difference generation is faulty in such cases.</p> <p>Workaround: None.</p>
AMBW-41715	<p>Summary: The difference viewer calculates the difference and highlights the properties, but does not highlight any corresponding fields of the properties.</p> <p>Workaround: Switch to the text difference mode and see the difference in the non-UI fields.</p>
AMBW-41499	<p>Summary: In the substitution variables file, only five types of module properties are saved: String, Integer, Long, Boolean, and Password.</p> <p>When a module property is assigned a type other than the above-mentioned types then that type is saved as a String in the substvar file in the Diff Viewer window.</p>

Key	Description
	Workaround: None.
AMBW-41474	<p>Summary: If there are any changes in the Description field of a module or application property, it is not highlighted in the difference viewer.</p> <p>Workaround: None.</p>
AMBW-41307	<p>Summary: Application property editor does not display value in case of removing encryption setting using the Clear All button and exporting profile.</p> <p>Workaround: Close the application properties editor and open it again.</p>
AMBW-41252	<p>Summary: The New Name field in the Rename Projects section on the Create Project From Template window is not enabled on a single click.</p> <p>Workaround: First click on the old name of the module or the application after which the field is enabled. .</p>
AMBW-41155	<p>Summary: The Password field is shown as changed while doing a Shared Resource diff, even if the password are the same.</p> <p>Workaround: None.</p>
AMBW-41238	<p>Summary: Confirmation message is displayed with any operation on encrypted profiles.</p> <p>Workaround: Click Yes.</p>
AMBW-41035	<p>Summary: The Authentication field is shown while doing a diff when the Confidentiality field is set for Http Connector shared resource.</p> <p>Workaround: None.</p>
AMBW-40811	<p>Summary: Default icon shown instead of Custom icon for the Call Process and Java Invoke activities within external shared module.</p> <p>Workaround: Manually browse the Custom icon field value and add respective icon to activity on importing external shared module.</p>
AMBW-	Summary: The null pointer exception reported on clicking Binding Section in

Key	Description
39899	<p>Components after the Refactoring operation.</p> <p>Workaround: Post refactoring, close the Module Descriptor section and reopen it. No popup is displayed.</p>
AMBW-36990	<p>Summary: When you delete a module shared variables or job shared variables from the Unused Resources view, then the editor for module shared variables or job shared variables does not get refreshed automatically</p> <p>Workaround: Close the module shared variables or job shared variables and open it again.</p>
AMBW-34416	<p>Summary: Failed to connect to AppNode using SSH client</p> <p>Workaround: Use HTTP client. Preferred way is using curl.</p>
AMBW-28941	<p>Summary: Ungrouping nested groups created inside a catch block of a group may not ungroup as expected.</p> <p>Workaround: None</p>
AMBW-28378	<p>Summary: When a Process Property is renamed , the change is not reflected in the activity and an error is displayed.</p> <p>Workaround: None</p>
AMBW-28319	<p>Summary: WSDL interface fails to resolve correctly if multiple WSDLs share the same target namespace and the SOAP invoke is created with an external binding reference.</p> <p>Workaround: Instead of an external reference binding, use binding reference.</p>
AMBW-28264	<p>Summary: When groups with the On Catch, Catch All and the OnEvent faults are created inside a constructor or a proxy operation, the activities inside them are lost after ungrouping.</p> <p>Workaround: None</p>
AMBW-27253	<p>Summary: The Identity Provider field in the WSSConsumer Policy resource does not support module properties.</p>

Key	Description
	Workaround: None
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 for BusinessWorks.</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 generated.</p> <p>Workaround: None</p>
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 generated.</p> <p>Workaround: Externalize the WSDL-inline schema and change the import statements to reference the newly created (external) schema.</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-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-11624	<p>Summary: TIBCO Business Studio for BusinessWorks 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 for BusinessWorks crashes occasionally on Windows 2012 R2 platform when switching workspace from File > Switch Workspace.</p> <p>Workaround: Retry by switching the workspace.</p>

Migration

This topic lists the Known Issues related to Migration.

Key	Description
BWCE-3763	<p>Summary: After migration, an element of simple type is not supported.</p> <p>Workaround: In the existing schema create an element reference for all WSDL messages which are referring type references.</p> <p>First create an element reference in inline or externalized schema and then update WSDL message to refer the element (newly created one for complex or simple type definition) and remove the reference of type definition.</p>
AMBW-40387	<p>Summary: After migration, a path is not executed that leads to the difference in output.</p> <p>Workaround: In TIBCO BusinessWorks Container Edition 5.x the transition condition <code>\$Map-Data/ConditionType[<i>last()</i>]</code> is treated as boolean but not in TIBCO BusinessWorks Container Edition 6.x as TIBCO BusinessWorks Container Edition 6.x has strict validations.</p> <p>In order to resolve this, please update the condition as follows:</p> <pre>count(\$Map-Data/ConditionType[<i>last()</i>])>0</pre>

Key	Description
AMBW-40187	<p>Summary: Migration of custom icon for the Call Process activity is not supported</p> <p>Workaround: After migration, manually browse the custom icon field value for the Call Process activity.</p>
AMBW-39231	<p>Summary: While migrating a project using XPATH language for transitions option, which is set to XPATH 1.0 by default, on the Migration Wizard, the Process inline namespace schema collision issue occurs intermittently after migration is complete.</p> <p>Workaround: Navigate to the faulted process and add the missing schema location field next to the namespace.</p>
AMBW-39230	<p>Summary: While migrating a project using the XPATH language for transitions option, which is set to XPATH 1.0 by default, the service agent process migrates as an empty process thereby throwing the Argument Cannot Be Null exception upon trying to view that process post Migration.</p> <p>Workaround: Migrate that project in a different workspace, because the issue is intermittent.</p>
AMBW-36094	<p>Summary: Post migration, a schema cannot refer the .WSDL file in it and if you try to run the project, the Schema not found error is displayed at the run time.</p> <p>Workaround: Copy the inline schema that gets created post migration of the project and paste it into the .WSDL file.</p> <p>Remove the inline schema dependency from the dependencies section and in the input editor of the inline schema activity, re-map the point to the inline element. After this remove the inline schema that is empty and execute the project.</p>
AMBW-36077	<p>Summary: After migration, if the migrated project contains any SOAP service or client binding that uses SOAP RPC Encoded arrays, the following WSDL validation error occurs:</p> <p>WSDL In-line schema SOAP encoded array type error. In-line schema in WSDL file contains SOAP encoded array type which requires a fix pattern.</p> <p>Workaround: Download the SOAP Encoding schema from 'http://schemas.xmlsoap.org/soap/encoding/', and put it into the TIBCO</p>

Key	Description
	BusinessWorks Container Edition project.
AMBW-35926	<p>Summary: The migration tool does not support external schema for multi-part message in the bindings.</p> <p>Workaround: Create wrapper schemas for all multi-part messages of WSDL.</p>
AMBW-35899	<p>Summary: Currently, only copy-of mapping is supported for context mapping of headers.</p> <p>Workaround: You can either create One-to-one mapping manually or use a copy-of option for context mappings.</p>
AMBW-33749	<p>Summary: After migration, additional round brackets in the names of the folder for externalized schema creates issues at run time.</p> <p>Workaround: Remove the special characters after migration in the folder names.</p>
AMBW-30656	<p>Summary: A schema cannot contain two global components with the same name.</p> <p>Workaround: Modify one of the schema namespaces or element names, so that the names are unique.</p>
AMBW-30476	<p>Summary: After migration, the input mapping for the End activity that refers to a multi-part WSDL message displays validation errors.</p> <p>Workaround: A WSDL message is not supported by a mapper. Create a new .xsd schema element with the structure similar to associated WSDL message, and then map the schema element in place of WSDL message.</p>
AMBW-26746	<p>Summary: The TransformXML activity from TIBCO BusinessWorks Container Edition 5.x did not migrate correctly if the Input/Output style of the activity was set to TREE in the TIBCO BusinessWorks Container Edition 5.x project.</p> <p>Workaround: None</p>
AMBW-14547	<p>Summary: When you migrate an TIBCO ActiveMatrix BusinessWorks 5.x project containing in-built functions in the JDBC Query activity, an Invalid Column name error is thrown in the JDBC Query activity.</p>

Key	Description
	Workaround: Use an Alias instead of the in-built functions in the TIBCO BusinessWorks Container Edition 5.x project.
AMBW-14295	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. Workaround: None
AMBW-13683	Summary: Shared resource module property references in the migrated TIBCO ActiveMatrix BusinessWorks 5.x projects do not show up correctly on non-Windows platforms. Workaround: Close and reopen the project.
AMBW-9969	Summary: ActiveMatrix BusinessWorks 5.x projects with SOAP headers configuration in SOAP activities are not properly migrated to TIBCO BusinessWorks Container Edition . Workaround: SOAP functionality in TIBCO BusinessWorks Container Edition is achieved through SOAP Binding where its detail configuration is outside of TIBCO BusinessWorks Container Edition 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.

Monitoring

This topic lists the Known Issues related to Monitoring.

Key	Summary
BWCE-2548	Summary: When a monitoring application is started with any database other than Oracle, the Oracle libraries are getting downloaded. Workaround: None.

(Continued)

Key	Summary
BWCE-2393	<p>Summary: TIBCO BusinessWorks Container Edition Monitoring does not work with Oracle Database on Docker.</p> <p>Workaround: In the Dockerfile, add RUN npm rebuild on line number 29.</p>
BWCE-1832	<p>Summary: In some cases, catch block, reference binding, service binding is misaligned in the process diagram in Monitoring UI.</p> <p>Workaround: None.</p>
BWCE-1810	<p>Summary: When Process Monitoring is enabled for an application, in PCF, all historical records also appear when observing process monitoring data when an application is deleted and same application is pushed again.</p> <p>Workaround: None.</p>
BWCE-1795	<p>Summary: Once you enable Process Monitoring, if your application completes all its jobs, before process monitoring is enabled then you do not see any process instances in the Monitoring UI.</p> <p>Workaround: Add sleep in your process or hit REST/SOAP/HTTP endpoints if any to see newly created process instances.</p>
BWCE-1396	<p>Summary: You have to edit the <code>logback.xml</code> every time you restart the application.</p> <p>Workaround: None.</p>

Palettes

This topic lists the Known Issues related to Palettes.

HTTP Palette

Key	Description
AMBW-46027	TIBCO BusinessWorks Container Edition does not throw an exception for the invalid HTTP header value sent by the HTTP service.
AMBW-43566	<p>Summary: The java.lang.IllegalStateException: Insufficient configured threads error is thrown if both Minimum QTP Threads and Maximum QTP Threads value is set to 1 in the HTTP Connector shared resource.</p> <p>Workaround: If Minimum QTP Threads is 1, then set the Max QTP Threads value to anything greater than 1.</p>
AMBW-36777	<p>Summary: Error occurred on the Send HTTP Request activity with client SR using HTTP1 Apache HttpComponents and connector SR using HTTP2.0 with Follow HTTP1 Compliance checked.</p> <p>Workaround: Use the Jetty client as the client library for implementation under HTTP client shared resource.</p>

JAVA Palette

Key	Description
BWCE-1740	<p>Summary: TIBCO BusinessWorks Container Edition Application throws java.net.UnknownHostException when deployed in Docker Swarm</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

Key	Description
BWCE-79	<p>Summary: Exceptions are seen when you import a project that contains a JDBC shared resource.</p> <p>Workaround: Restart TIBCO Business Studio for BusinessWorks and open the project in a new workspace. If the issue persists, recreate and reconfigure the JDBC shared resource.</p>
AMBW-36229	<p>Summary: Unnecessary error logs are displayed in the log file.</p> <p>Workaround: None</p>
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-23260	<p>Summary: MySQL Community Edition is not supported for Data Direct drivers</p> <p>Workaround: Use native drivers instead of DataDirect 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-20130	<p>Summary: The login timeout value is not effective when connecting to a Windows OS database. The JDBC Query activity fails with the error, <code>JDBCConnectionNotFoundException</code> at run time without honoring the Login Timeout value specified in the JDBC Connection Shared Resource.</p> <p>Workaround: None</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-14547	<p>Summary: When you migrate an TIBCO ActiveMatrix Business works™ 5.x project containing in-built functions in the JDBC Query activity, an invalid column name</p>

JDBC Palette

Key	Description
	<p>error is thrown in the JDBC Query activity.</p> <p>Workaround: Use an Alias instead of the in-built functions in the ActiveMatrix Business works 5.x project.</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-11624	<p>Summary: TIBCO Business Studio for BusinessWorks 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-8855	<p>Summary: The localized error messages of JDBC connection are not displayed correctly in TIBCO Business Studio for BusinessWorks.</p> <p>Workaround: None</p>

JMS Palette

Key	Description
AMBW-38735	<p>Summary: TIBCO BusinessWorks Container Edition does not support parsing the Date-Time elements in the JMS application properties schema.</p> <p>Workaround: TIBCO recommends not to use such elements in the JMS application properties schema.</p>

Mail Palette

Key	Description
AMBW-47225	<p>Summary: The OAuth 2.0 Token mail server gets connected back after session expiry but does not receive/fetch any new email.</p> <p>Workaround: Stop and rerun the application.</p>
AMBW-47189	<p>Summary: Intermediate Issue in Receive Mail Activity, the Basic protocol Test Connection button is not working.</p> <p>Workaround: None</p>

REST and JSON Palette

Key	Description
AMBW-51817	<p>Summary: When the Enable Pretty Print checkbox is selected on Render JSON activity, it is not serialized in the process and is automatically disabled.</p> <p>Workaround: Manually edit the process file add the prettyPrint="true" attribute in the <activityConfig> element's <value> tag for the Render JSON activity.</p>
AMBW-28795	<p>Summary: The Parse JSON activity fails to pick up the prefixes defined in the namespace registry and provides the output with the default namespace prefixes.</p> <p>Workaround: None</p>

XML Palette

Key	Description
AMBW-31813	<p>Summary: Use of pipe(union) (' ') character in XSLT throws the following error at runtime:</p> <p>com.tibco.bw.palette.xml.runtime.fault.XMLTransformException: Exception [org.genxdm.xpath.v20.err.ConcreteErrException] occurred during XSLT transformation. Exception detail [org.genxdm.xpath.v20.err.ConcreteErrException:</p>

XML Palette

Key	Description
	<p>[XPTY0004] Either the expression has a static type that is not appropriate for the context in which it occurs, or the dynamic type of the value does not match the required type.]</p> <p>Workaround: Open the XSLT file and manually convert the pipe (union) (' ') operator to "or" operator and run the project</p>
AMBW-14292	<p>Summary: The Parse XML activity displays blank ErrorCode and ErrorMessage for activity output data validation error.</p> <p>Workaround: None.</p>

Policies

This topic lists the Known Issues related to Policies.

Key	Description
AMBW-34607	<p>Summary: Marketo plug-in container edition breaks with the recent JRE upgrade.</p> <p>Workaround: Please refer Marketo plug-in documentation for more information.</p>
AMBW-19513	<p>Summary: If a SOAP binding is not configured with Transport, the Add New Policy icon should be disabled, the Policy field should not be displayed in the tree view, and a NULL pointer exception is generated if you try to add a policy on the binding.</p> <p>Workaround: None</p>

Runtime

This topic lists the Known Issues related to Runtime.

Key	Summary
BWCE-2571	Summary: Service Discovery fails with SSL applications on Pivotal Platform. Workaround: None.
BWCE-2072	Summary: When a module property has inputs with combinations of special characters like \$,% &, the complete input provided is not reflected in the output. Some part of the input is omitted. Workaround: None.

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Product-Specific Documentation

The following documentation for this product is available on the [TIBCO BusinessWorks™ Container Edition](#) page:

- *TIBCO BusinessWorks™ Container Edition Release Notes*
- *TIBCO BusinessWorks™ Container Edition Installation*
- *TIBCO BusinessWorks™ Container Edition Application Development*
- *TIBCO BusinessWorks™ Container Edition Application Monitoring and Troubleshooting*
- *TIBCO BusinessWorks™ Container Edition Bindings and Palettes Reference*
- *TIBCO BusinessWorks™ Container Edition Concepts*
- *TIBCO BusinessWorks™ Container Edition Error Codes*
- *TIBCO BusinessWorks™ Container Edition Getting Started*
- *TIBCO BusinessWorks™ Container Edition Maven Plug-in*
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