TIBCO BusinessWorks™ Container Edition

Refactoring Best Practices

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Changing Help Preferences

By default, documentation access from TIBCO Business Studio™ for BusinessWorks™ is online, through the TIBCO Product Documentation website that contains the latest version of the documentation. Check the website frequently for updates. To access the product documentation offline, download the documentation to a local directory or an internal web server and then change the help preferences in TIBCO Business Studio for BusinessWorks.

Before you begin

Before changing the help preferences to access documentation locally or from an internal web server, download the documentation.

1. Go to https://docs.tibco.com/
2. In the **Search** field, enter TIBCO ActiveMatrix BusinessWorks™ and press **Enter**.
3. Select the TIBCO ActiveMatrix BusinessWorks™ product from the list. This opens the product documentation page for the latest version.
4. Click **Download All**.
5. A compressed .zip file containing the latest documentation is downloaded to your web browser's default download location.
6. Copy the .zip file to a local directory or to an internal web server and unzip the file.

To point to a custom location:

Procedure

1. Perform one of the following steps in TIBCO Business Studio for BusinessWorks based on your operating system:
   - On Windows OS: Click **Window > Preferences**
   - On macOS: Click **TIBCO Business Studio > Preferences**.
2. In the Preferences dialog, click **BusinessWorks > Help**.
3. Click **Custom Location**, and then browse to the `html` directory in the folder where you extracted the documentation or provide the URL to the `html` directory on your

internal web server.

4. Click **Apply**, and then click **OK**.

Refactoring REST Services

The following refactoring options are possible for a REST Service.

Updating a REST Service Path Name

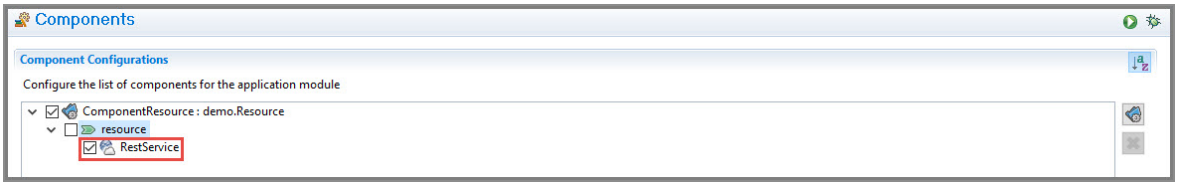
A REST Service path name can be updated only if it is created using the **REST Service** wizard.

Procedure

1. Navigate to the **Bindings** panel on the **General** tab and select **ComponentResource/resource - RestService**.

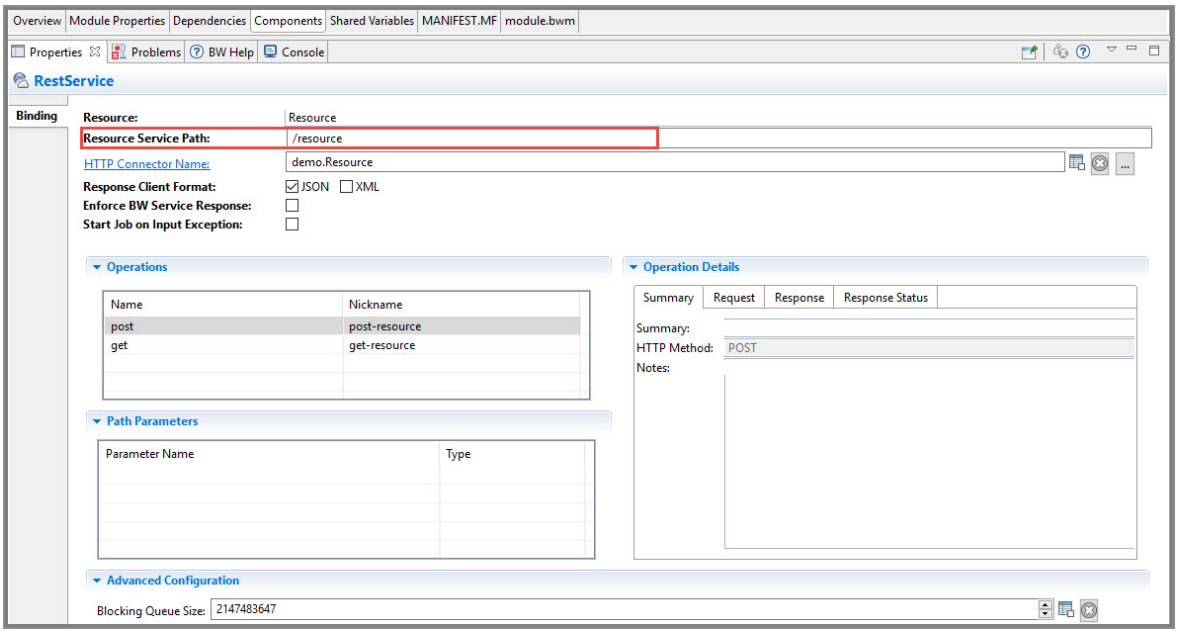
   The **Components** panels is displayed.

2. In the **Component Configurations** panel select **RestService**.



   The **Bindings** tab for the REST service is displayed.

3. On the **Bindings** tab, update the name of the service in the **Resource Service Path** field.



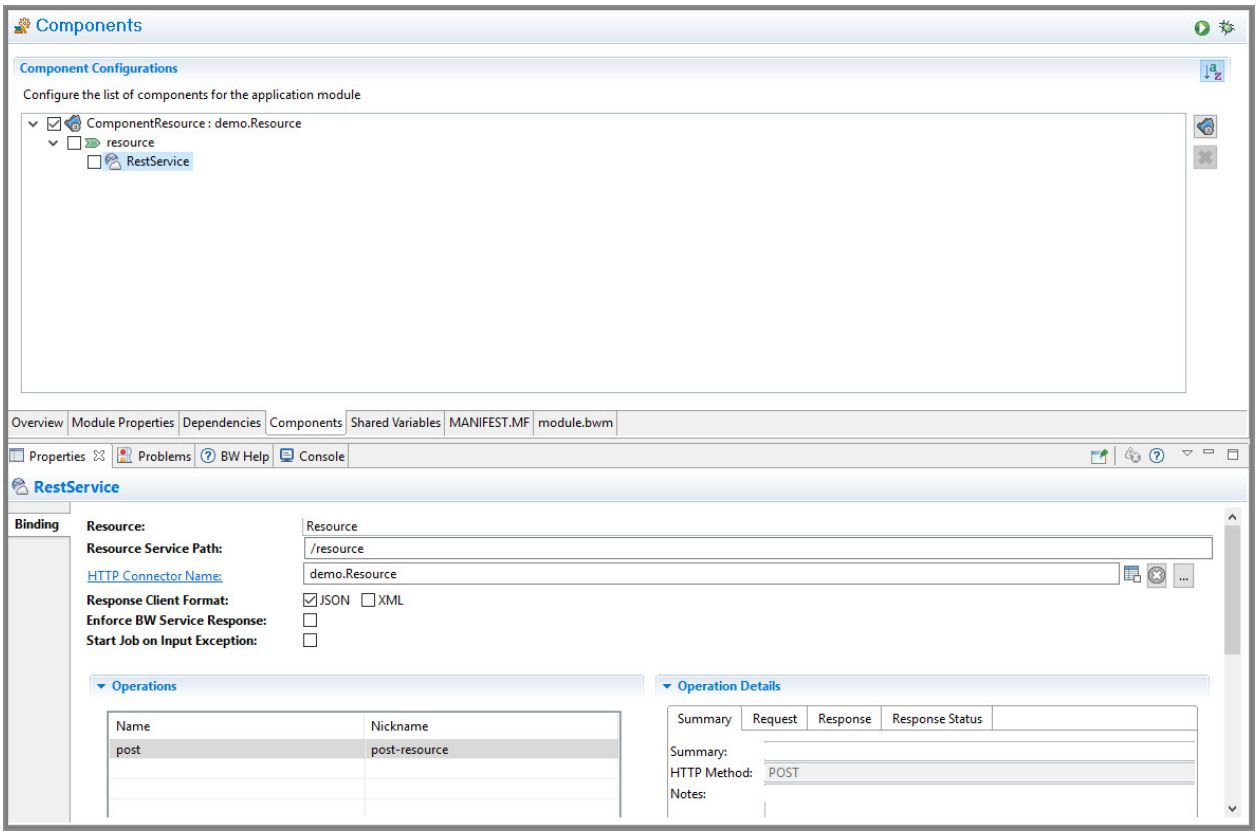
Click the on the right side of the **Resource Service Path** to update the REST Service path name.

Updating Rest Service Path Name using Path and Query Parameters

The service path names can be configured by adding the path and query parameters in **Resource Service Path** field on the **Bindings** tab in the following formats:

`/resource1/{pathparam}?q1={queryparam}` or `/resource1/{pathparam}?{queryparam}&{queryparam2}`

The path parameters are reflected in the Path Parameters table and the query parameters are reflected in the Query and Header Parameters table for are all the operations.



Note: To reflect the above changes in the REST Reference Binding, a new Reference Binding should be created using the swagger file.

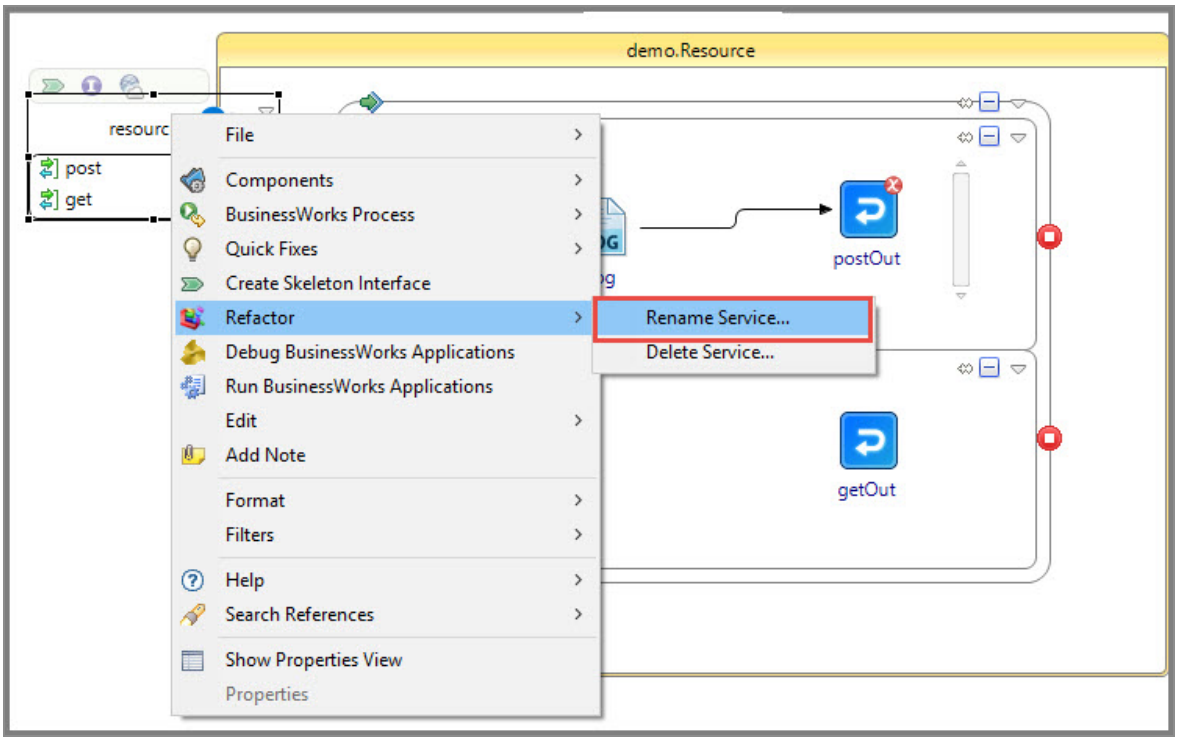
Renaming a REST Service

Before you begin

You can rename a REST service only if it is created using the REST Service wizard.

Procedure

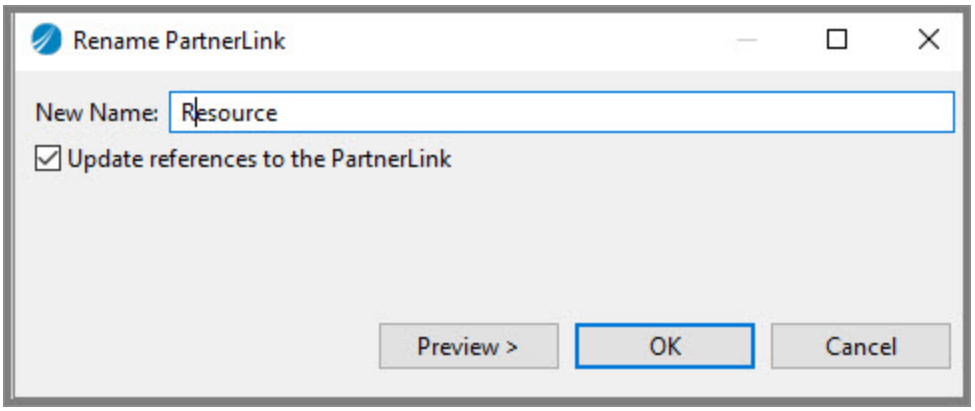
1. Right-click the created REST service and select **Refactor > Rename Service**.



The Rename PartnerLink wizard is displayed.

2. In the Rename PartnerLink wizard, provide a new name and click **OK**.

   By default, the **Update references to the PartnerLink** checkbox is already selected.



Important: TIBCO recommends to keep the **Update references to the PartnerLink** checkbox selected when performing the refactoring operations.

Updating Request and Response Schemas

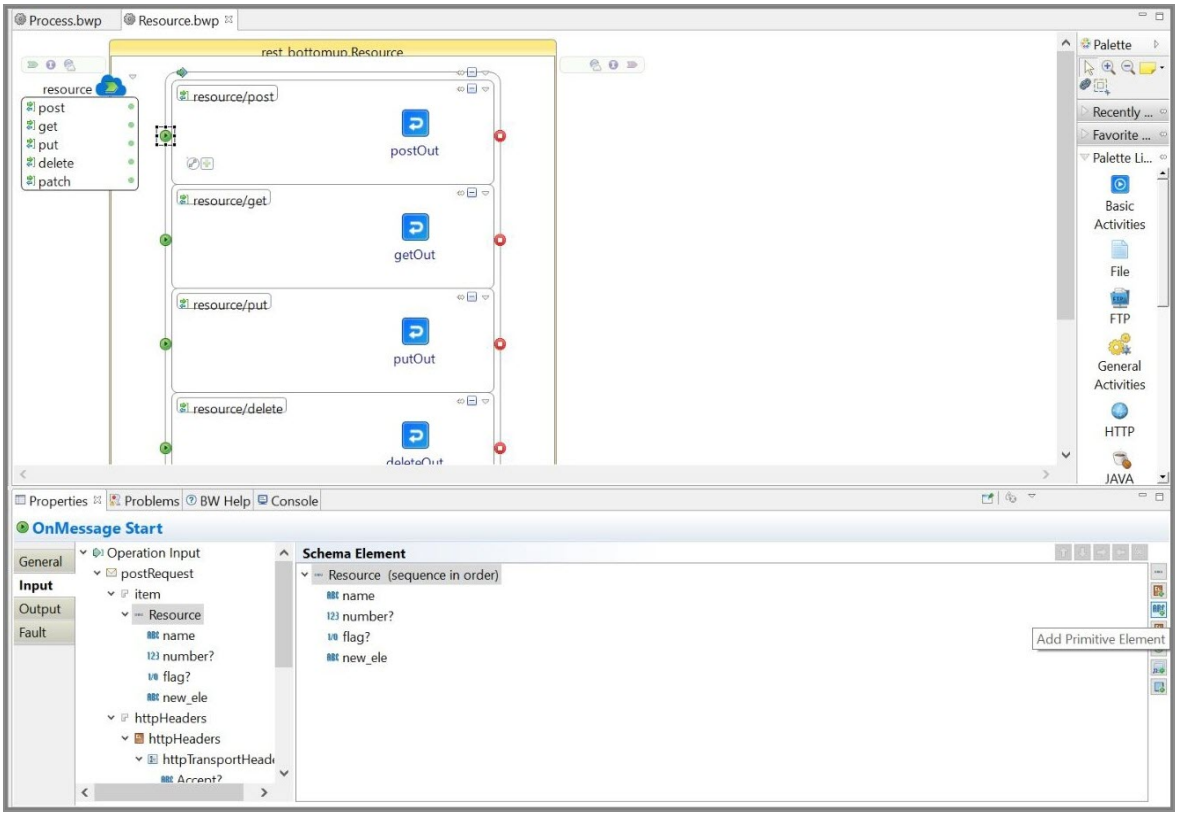
Before you begin

You can update a REST service only if it is created using the REST Service wizard.

Procedure

1. Click the **OnMessage Start** of the constructor for any of the operations. For example, POST operation.
2. On the **Input** tab, select **Complex Element** under **Operation Input**.

   The Schema Element with its corresponding elements is visible.



> **Note:** To update the schema elements, add or remove the elements.

The changes for all the operations on REST service are reflected if the same schema is used in the Request and Response Schemas.

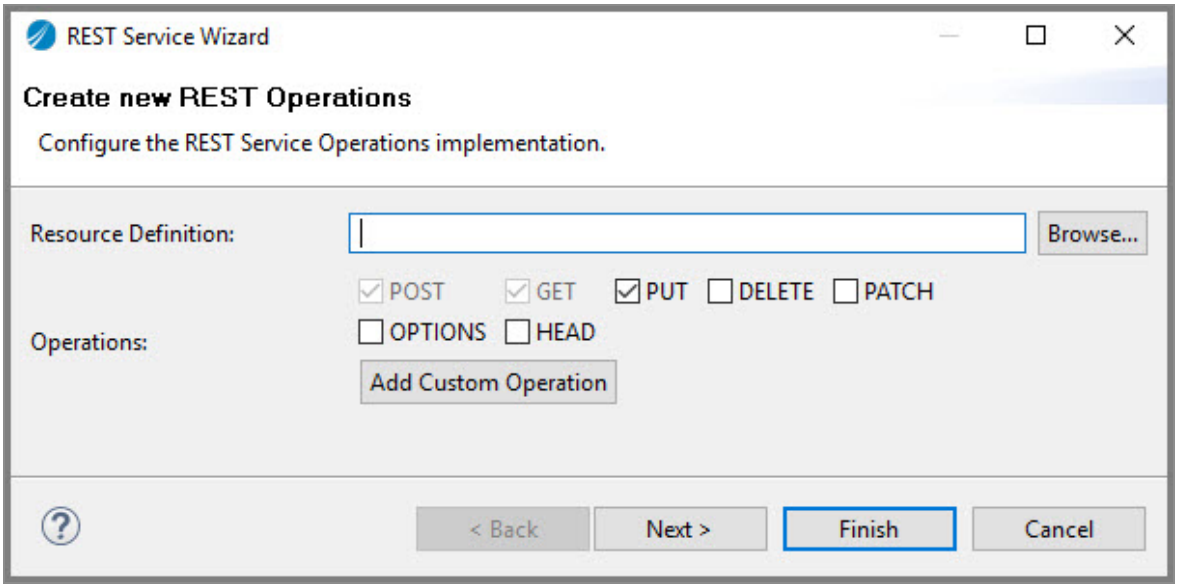
Adding Operations

Procedure

1. Click the down arrow of the REST service and select **Create REST Operation**.

   The **REST Service Wizard** is displayed.

2. In the **REST Service Wizard**, select the operation and the schema element for any Request or Response schemas.



3. Click **Finish**.

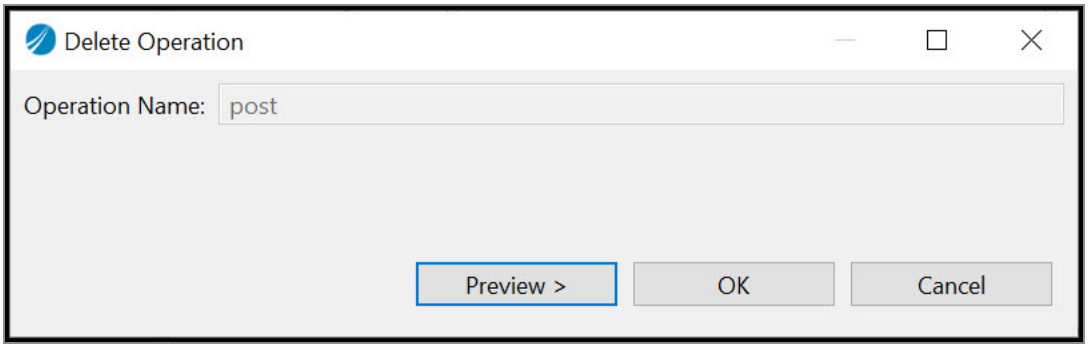
   To reflect the changes in the REST reference binding, a new reference binding must be created using the Swagger file.

Deleting Operations from REST Service

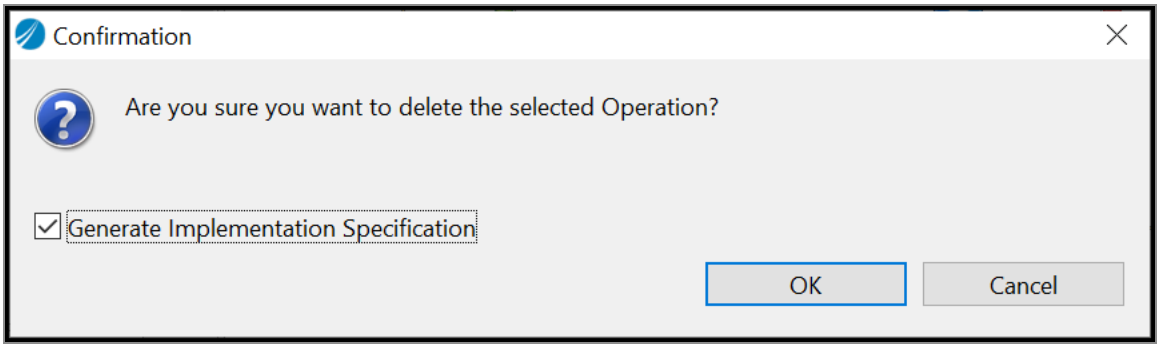
Procedure

1. Select an operation in a REST service. Right-click the operation and select **Refactor > Delete Operation**

   If you created a REST service using wizard, the Delete Operation dialog is displayed.

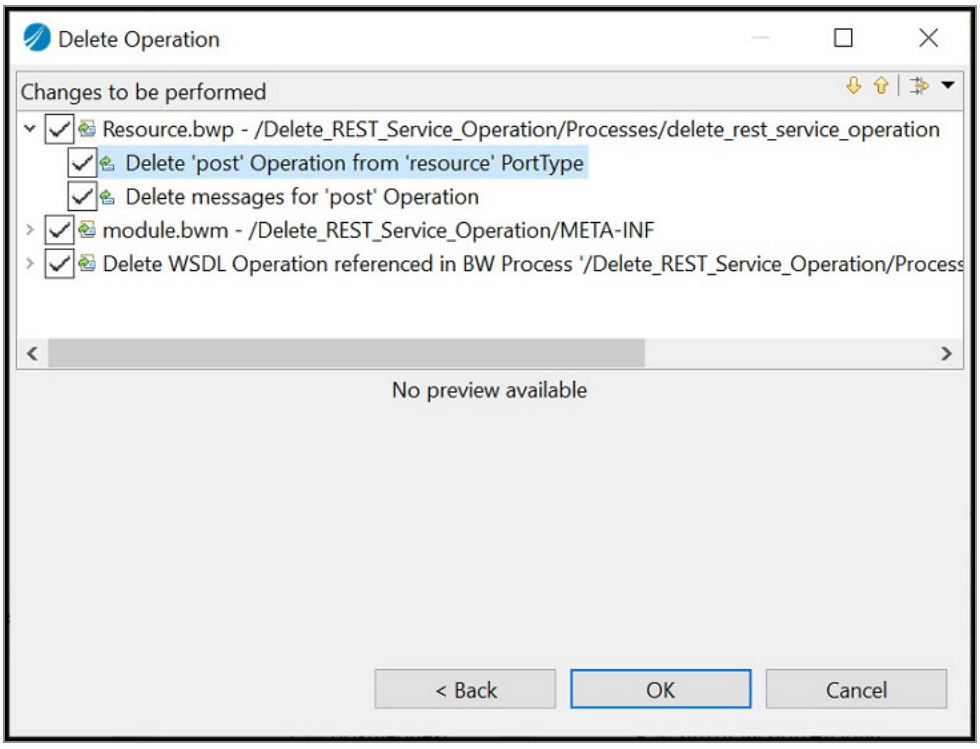


   If you created a REST service using external swagger file, the following dialog is displayed:

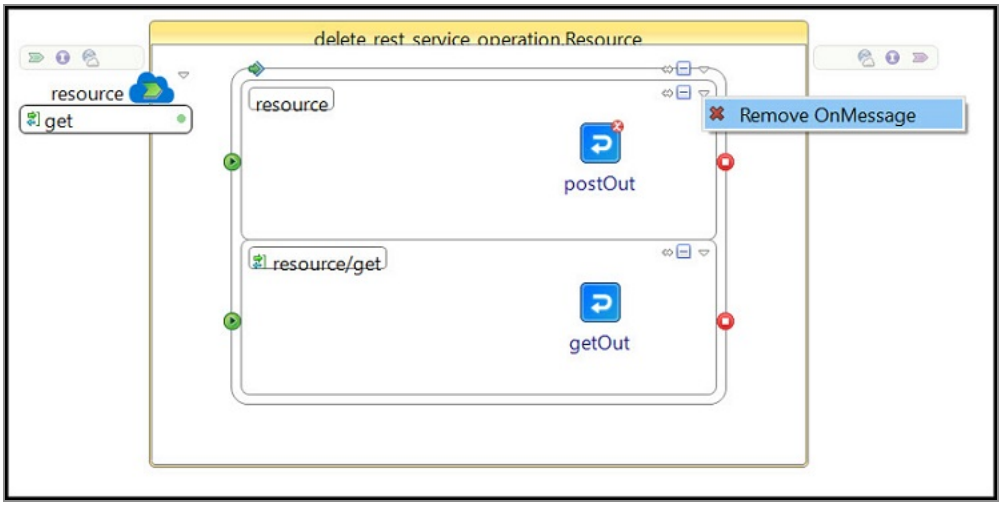


   Note: It is recommended to keep the **Generate Implementation Specification** checkbox selected to generate a swagger file.

2. Optional. To see the changes that are performed, click **Preview**.

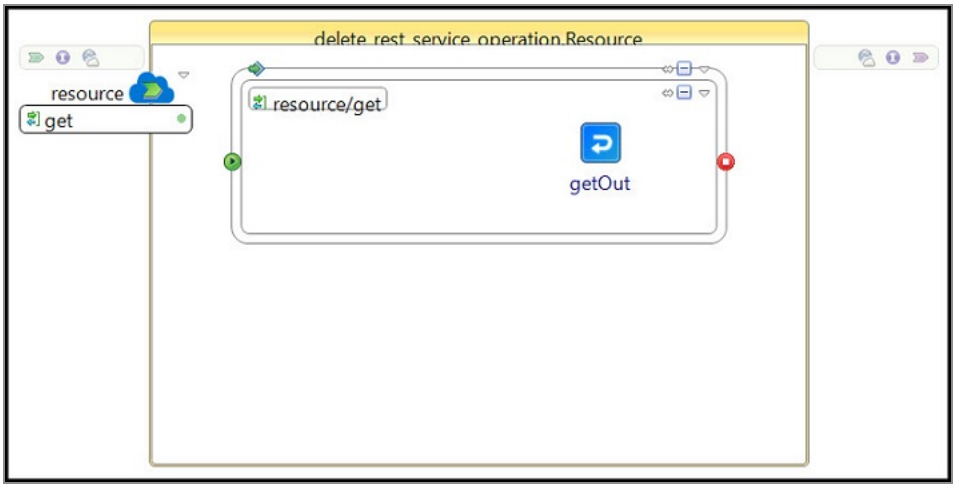


3. Once you delete an operation, remove the constructor implementation by selecting the **Remove OnMessage**.



> **Important:** If you created a REST service using external swagger file, then to reflect the changes in the REST reference binding, a new reference binding should be created using the newly generated swagger file. However, if you created a REST service using wizard, then create a new reference binding with an existing swagger file only.

The operation is deleted.



Deleting an HTTP Connector from REST Service

Procedure

1. Click the REST service in the process and navigate to the **Bindings** panel on the **General** tab and select **ComponentResource/resource - RestService**.

   The **Components** tab is displayed.

2. On the **Bindings** tab of the REST service, click button at the end of the **HTTP Connector Name** field.

   The existing HTTP Connector is deleted.

Adding Query Parameters

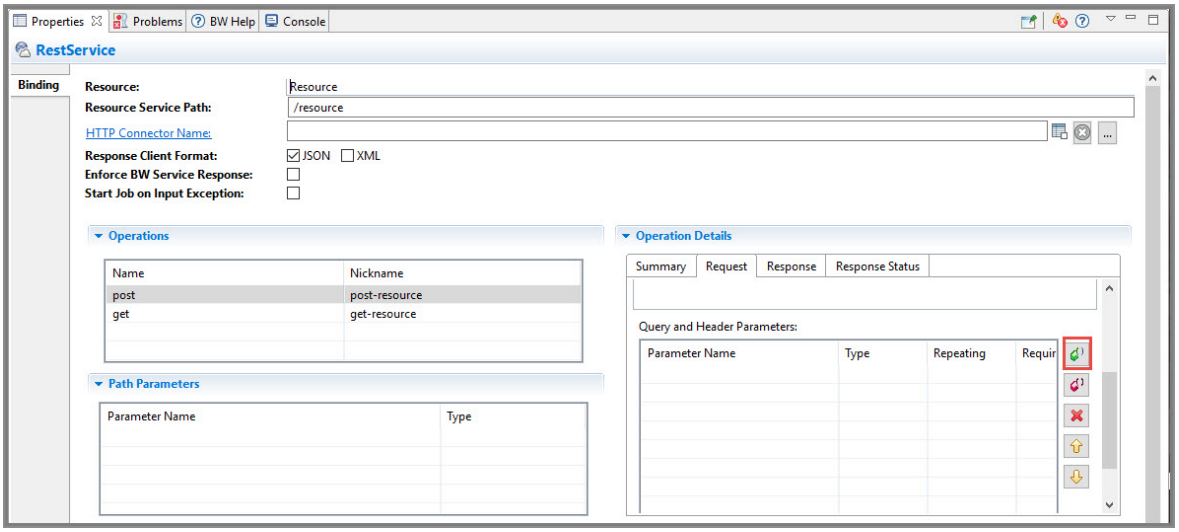
Procedure

1. Click the REST service in process and navigate to the **Bindings** panel on the **General** tab and select **ComponentResource/resource - RestService**.

   The **Components** tab is displayed.

2. Query Parameters can be added in the **Resource Service Path** field. Adding query parameters from the **Resource Service Path** field applies query to all operations.

3. Query Parameters can also be added by selecting the button from the Query and Header Parameters table for a particular operation of the **Request** tab of the **Operation Details** panel in the **Bindings** tab.



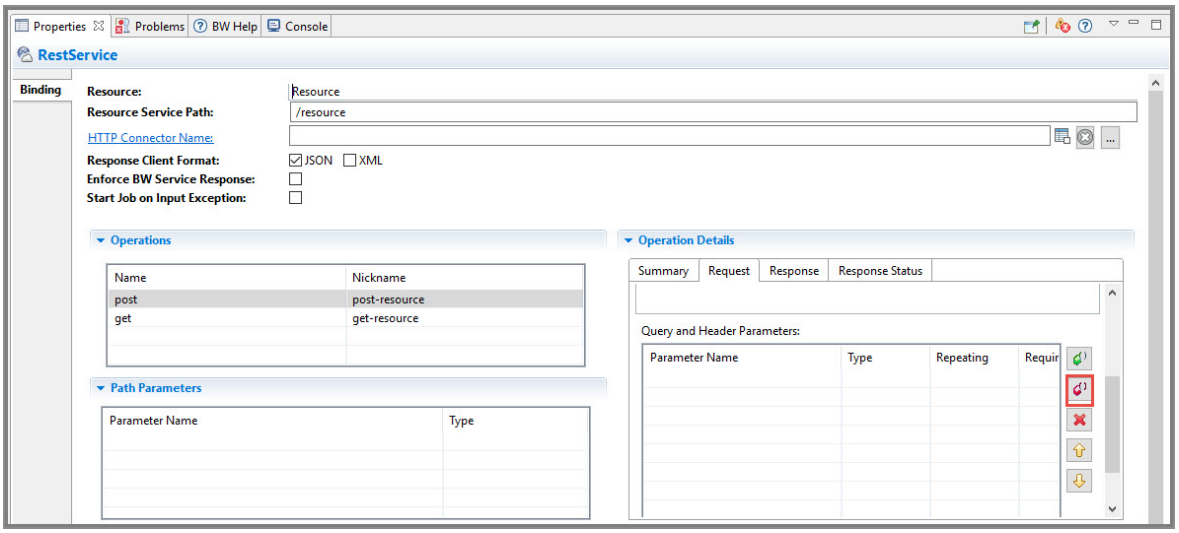
Adding Request Header Parameters

Procedure

1. Click the REST service in the process and navigate to the **Bindings** panel on the **General** tab and select **ComponentResource/resource - RestService**.

   The **Components** tab opens.

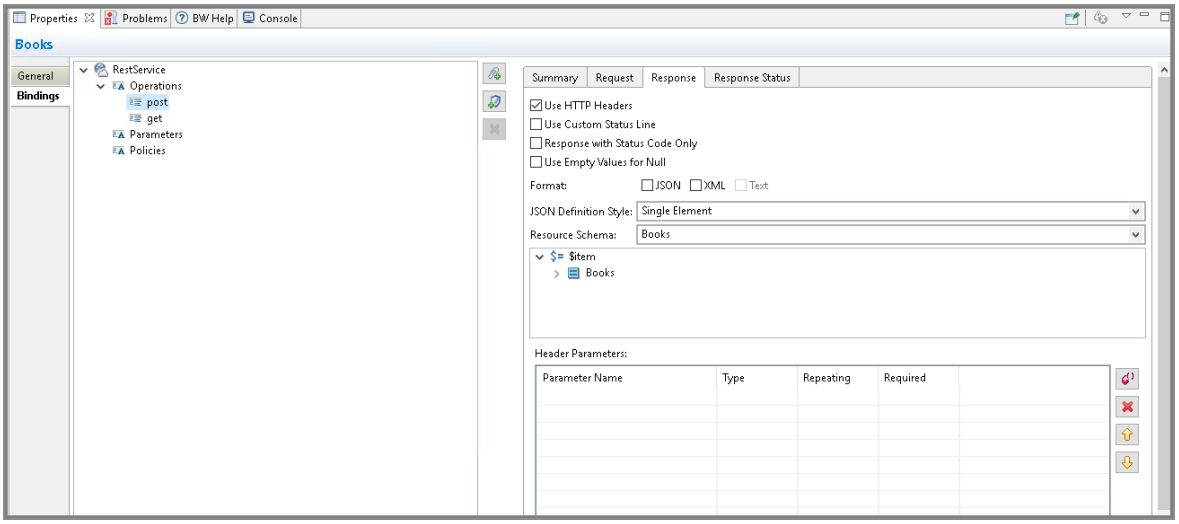
2. To add the Request Header Parameters, select the button from the Query and Header Parameters table for a particular operation of the **Request** tab of the **Operation Details** panel in the **Bindings** tab.



Header Parameters can also be added in **Response** tab.

3. In the **Response** tab of the **Operations Details** panel, select the **Use HTTP Headers** checkbox.

   After selecting the **Use HTTP Headers** checkbox, the button gets activated in the Header Parameters table to add header parameters.



Deleting Parameters

Select the parameter to delete and click the red cross icon.

Note: To reflect the above changes in the REST Reference Binding, a new Reference Binding should be created using the swagger file.

Updating an HTTP Connector Name

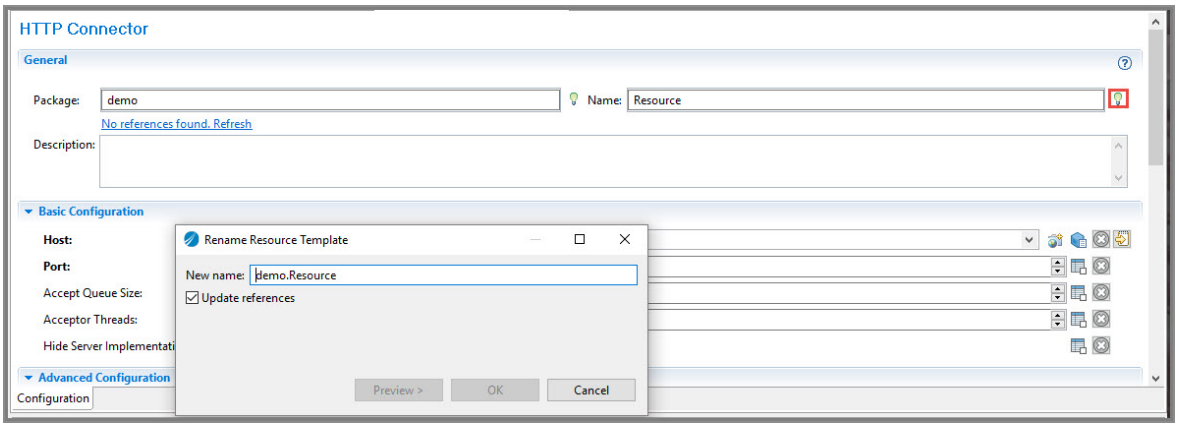
Procedure

1. Navigate to the **Resources** section in application module and open the HTTP Connector shared resource.
2. To update the HTTP Connector Name click the green bulb.

   The Rename Resource Template wizard is displayed.
3. In the Rename Resource Template wizard, update the name of the HTTP Connector in the **New name** field and click **OK**.

   By default, the **Update references** checkbox is already selected.

   Important: TIBCO recommends to keep the **Update references** checkbox selected when performing the refactoring operations.

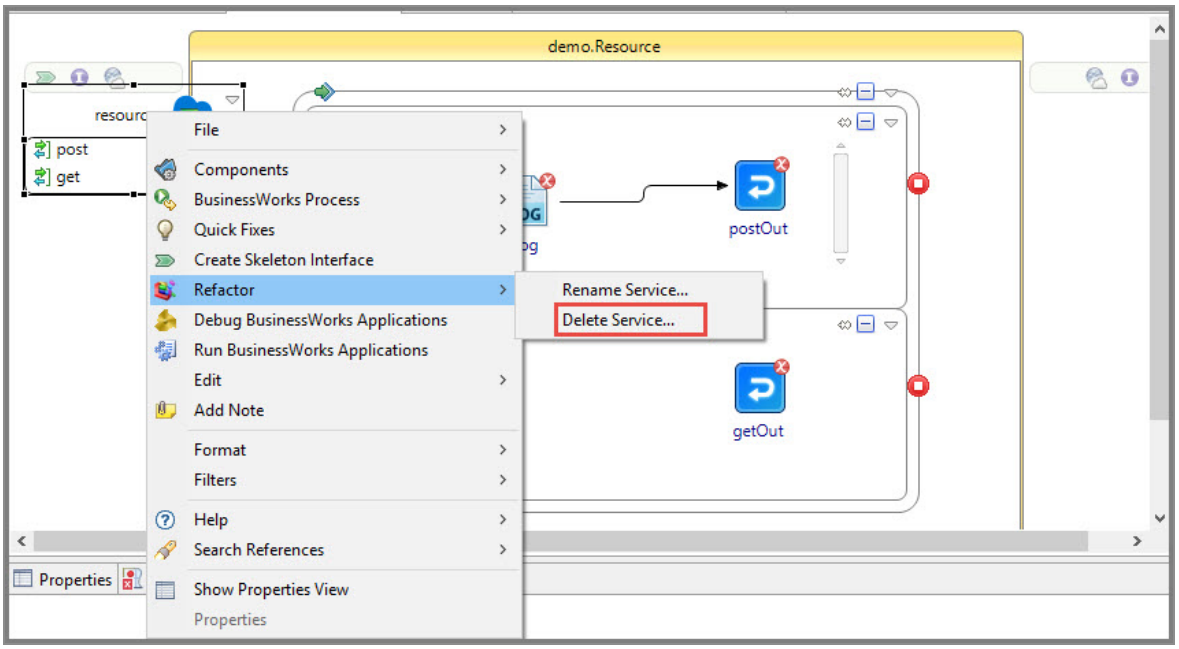
   

   The new name reflects in the **HTTP Connector** shared resource of the REST service bindings.

Deleting a REST Service

Procedure

1. Right-click the REST service and select **Refactor > Delete Service** option.



2. Click **OK**

> **Caution:** Once the REST service is deleted, it is not possible to add it again.

Refactoring Swagger Files

The following refactoring operations are possible for swagger files.

Copying and Pasting Swagger files

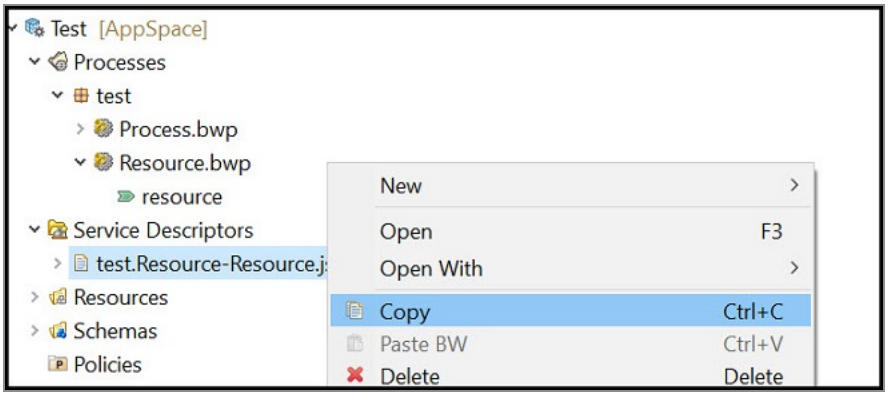
When you create a BusinessWorks REST Resource, by default, the swagger files are present in the `Service Descriptors` folder.

You can copy and paste swagger files in another application module, other folders in the same application module, and in a shared module in the other project.

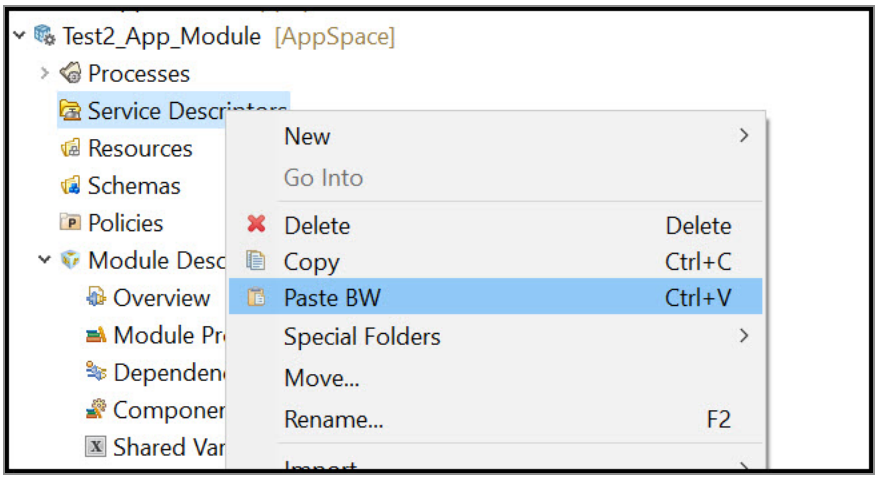
Follow the steps to copy and paste the swagger file

Procedure

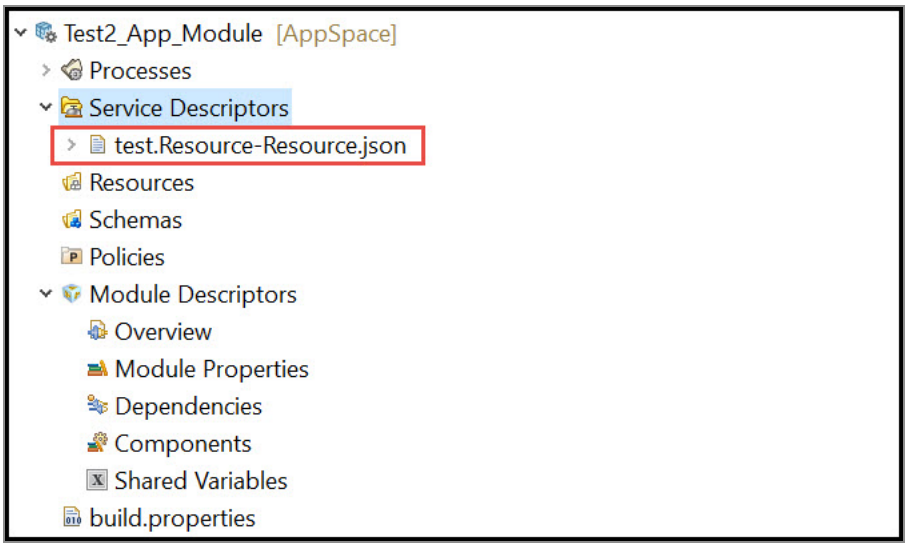
1. In an application module, navigate to the `Service Descriptors` folder and select the swagger file.
2. Right-click the swagger file and select the **Copy** option.



3. Select the folder in which you want to paste the swagger file. Right-click and select the **Paste BW** option.



The swagger file is copied to the selected folder.



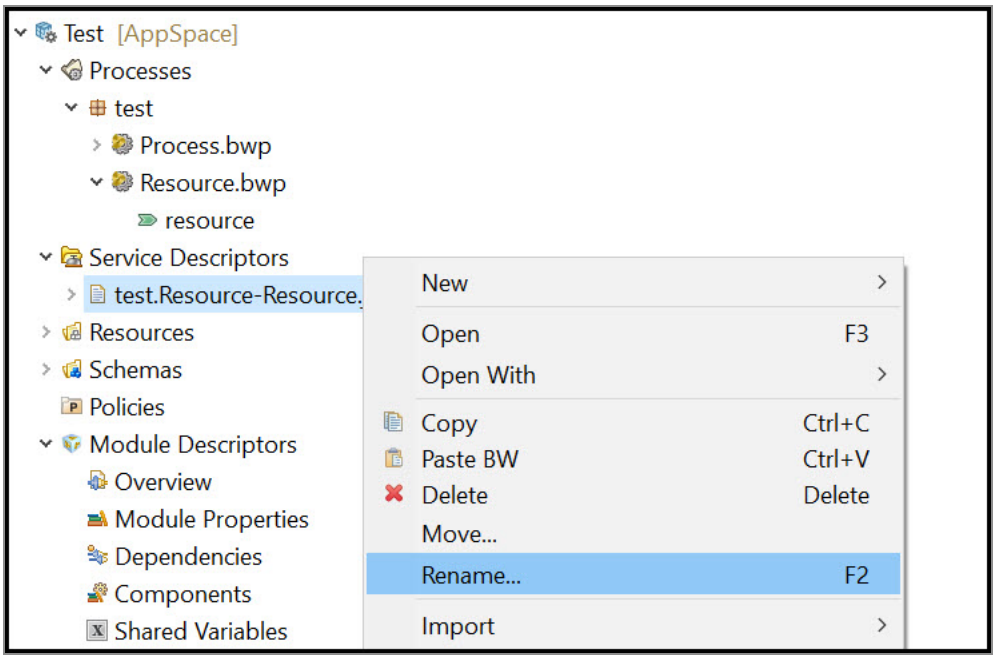
Note: Do not copy and paste the swagger file from an application module to the shared module on which the source application module is dependent, you get the following error:

Duplicate Resource Problems : Duplicate file name {JSON file name}, in Service Descriptors Folder, is not permitted in this project and/or its referenced project set.

Renaming Swagger Files

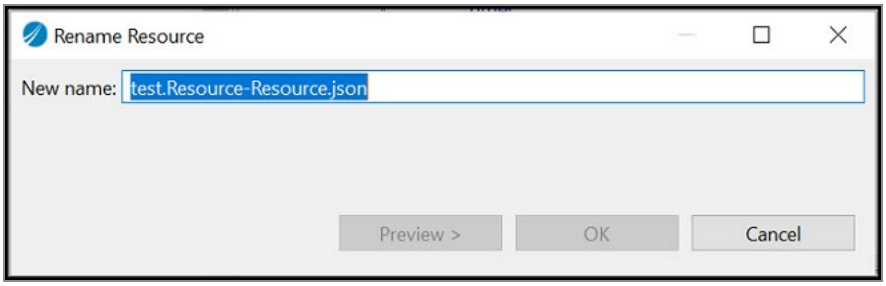
Procedure

1. Select the swagger file to rename. Right-click and select the **Rename** option.

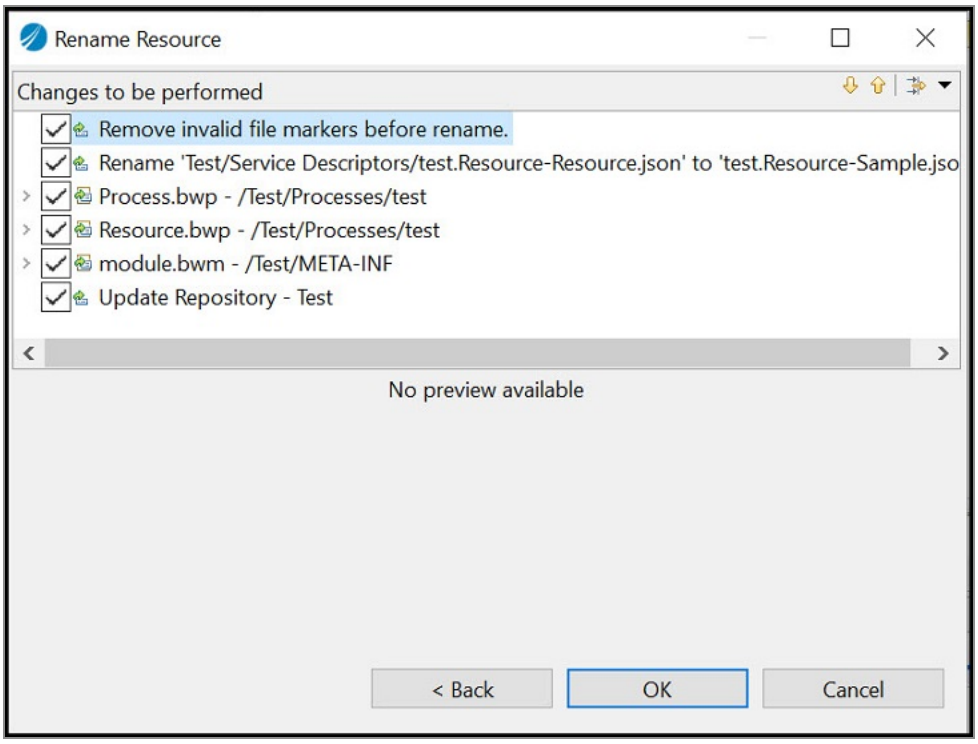


2. Change the swagger file name in the Rename Resource dialog.

   The new file name should have the `<new_file>.json` format.



3. Optional. To see the changes that are performed, click the **Preview** button.



Important: It is recommended to keep all the checkboxes in the Rename Resource dialog selected.

4. Click **OK**.

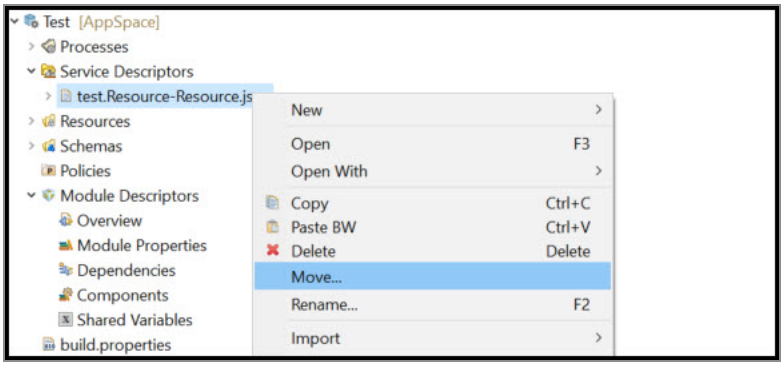
Note: If you rename an external Swagger file that is copied into an application module, the rename is successful. But, if you rename the default Swagger file for a newly created bottom-up REST service, from `<Module_Name>.Resource-Resource.json` to `<Module_Name>.Resource-<New_File_Name>.json`, the default Swagger file remains unchanged, and a new file `<Module_Name>.Resource-<New_File_Name>.json` is created in the same folder.

Moving Swagger Files

Follow the steps to move swagger file from one module to another module.

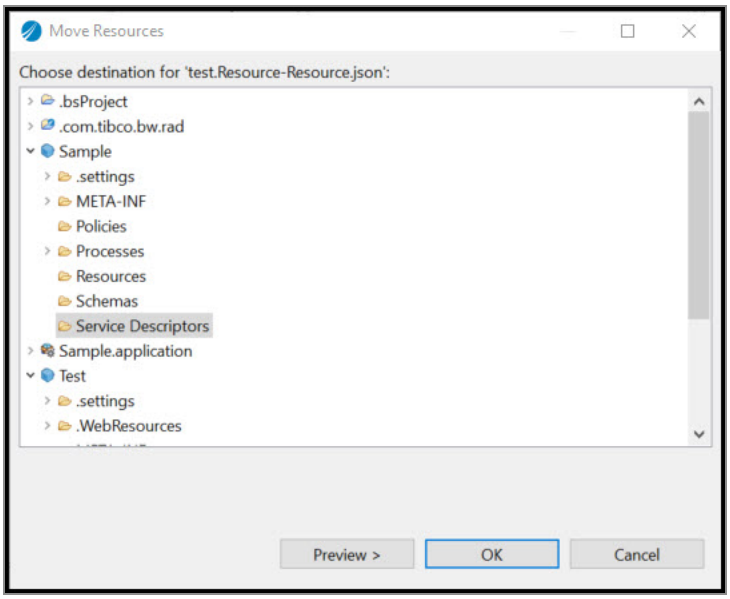
Procedure

1. Navigate to the folder with swagger files. Select the swagger file.
2. Right-click the swagger file and select the **Move** option.

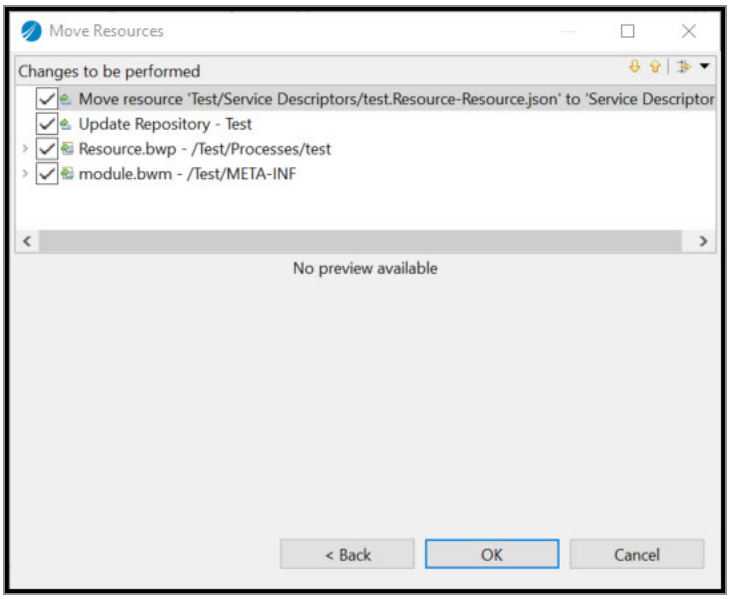


   The Move Resources dialog appears.

3. Select the `Service Descriptors` folder to move the swagger file.



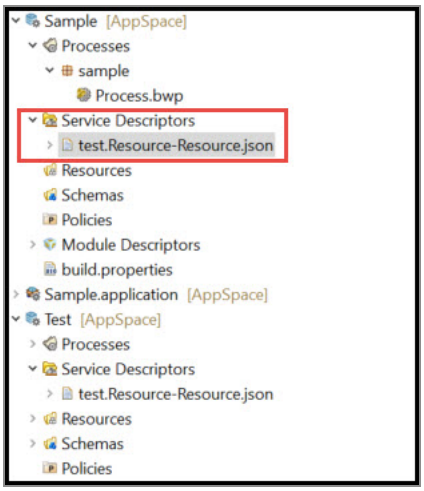
4. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the checkboxes in the Move Resources dialog selected.

5. Click **Ok**.

   The swagger file is moved to a new location.



Refactoring REST References

The Reference Binding created with a Swagger document cannot be modified.

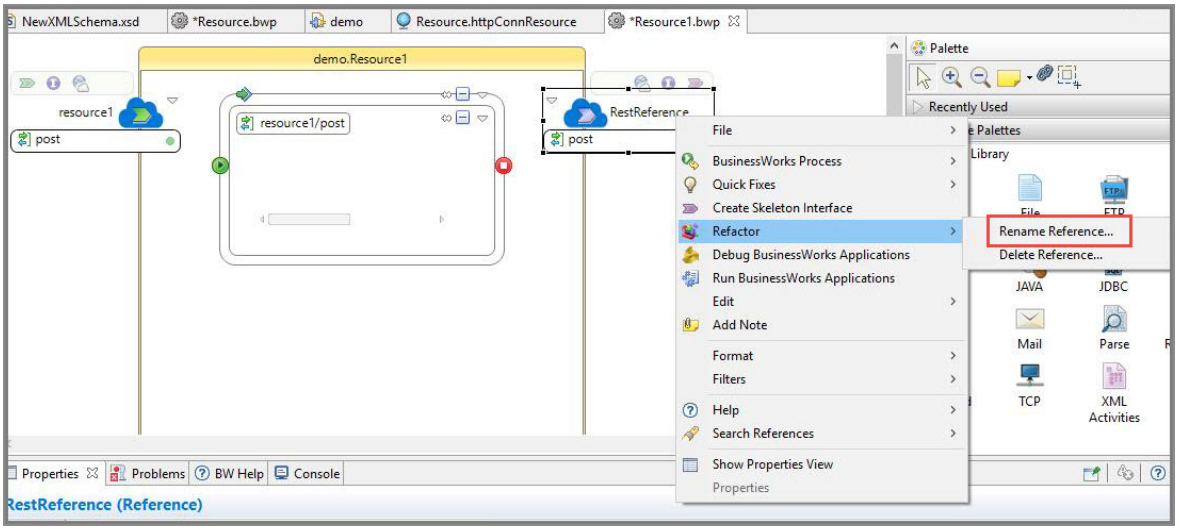
Renaming a REST Reference

Before you begin

You can rename a REST reference only if it is created using the **REST Reference** wizard.

Procedure

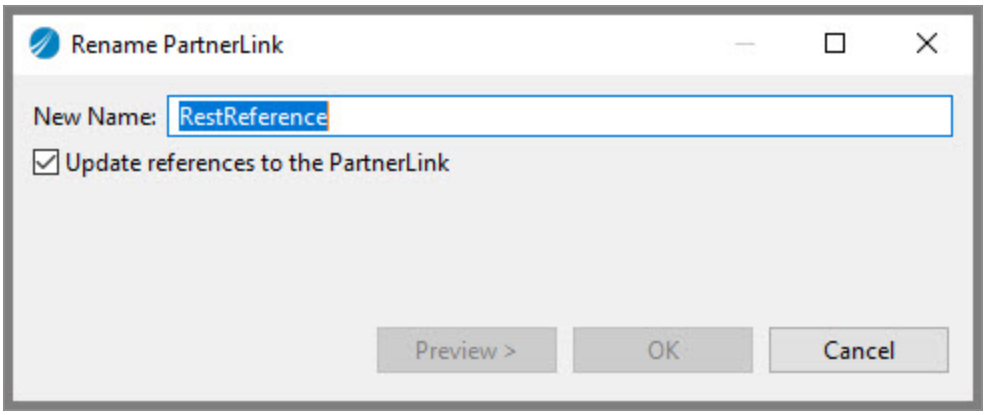
1. Select and right-click the created REST service and select **Refactor > Rename Reference**.



   The Rename PartnerLink wizard is displayed.

2. In the Rename PartnerLink wizard, add a new name in the **New Name** field for the Rest reference and click **OK**.

   By default, the **Update references to the PartnerLink** checkbox is already selected.

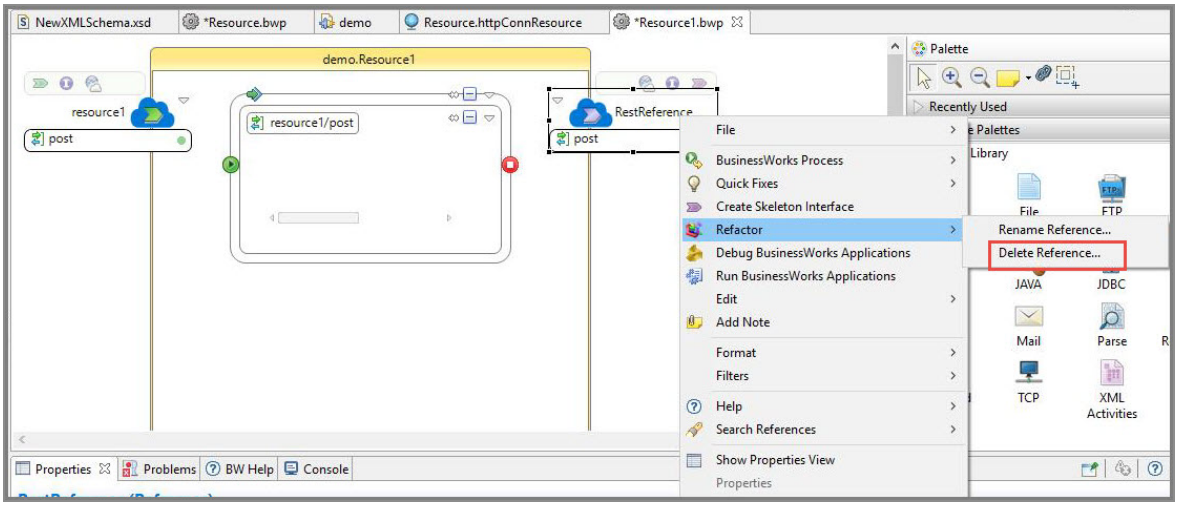


Important: TIBCO recommends to keep the **Update references to the PartnerLink** checkbox selected when performing the refactoring operations.

Deleting a REST Reference

Procedure

1. Right-click the Rest reference and select **Refactor > Delete Reference** and



2. Click **OK**.

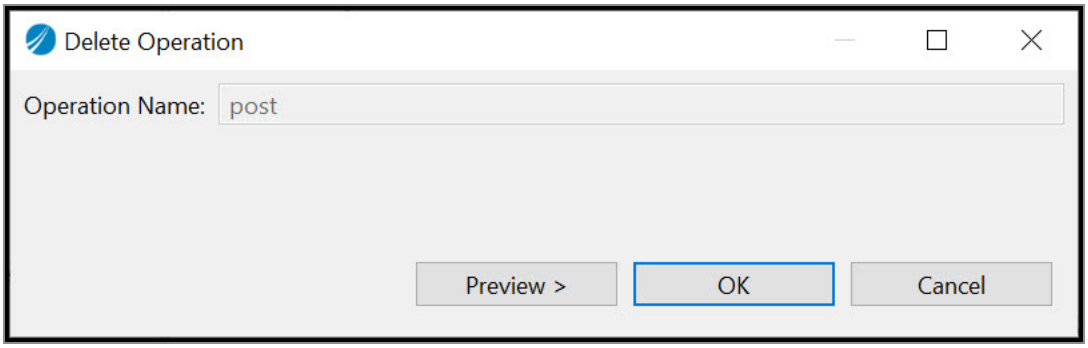
   The REST reference is deleted.

Deleting Operations from REST Reference

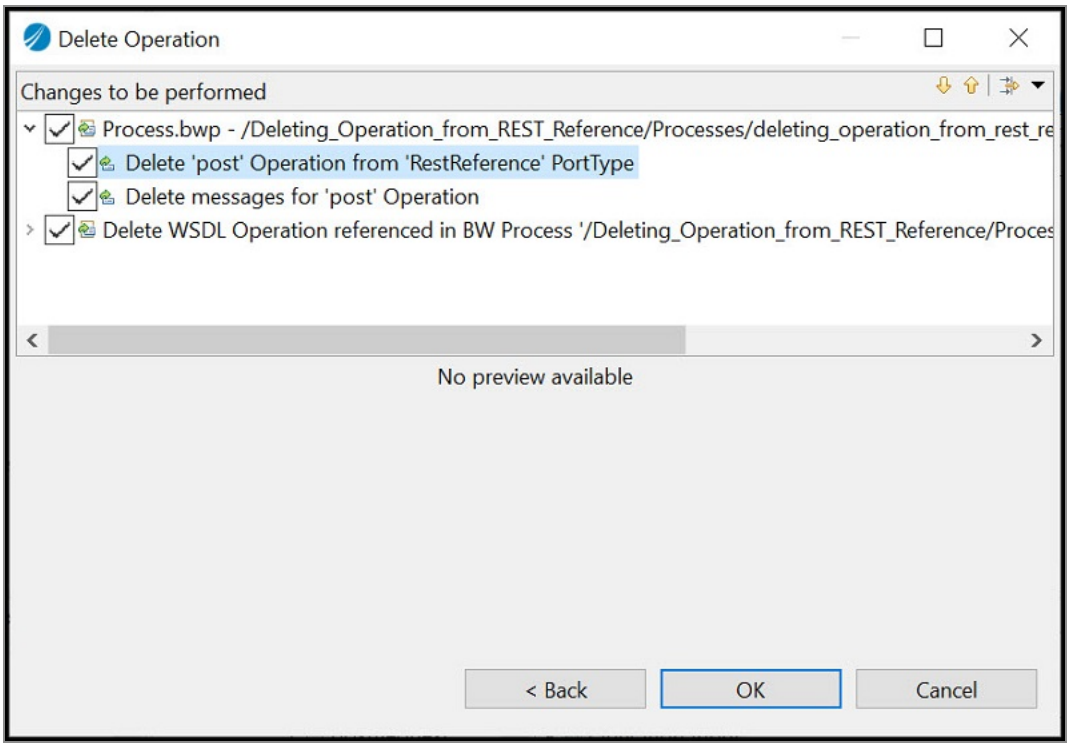
Procedure

1. Select a REST reference operation to delete. Right-click the operation and select **Refactor > Delete Operation**.

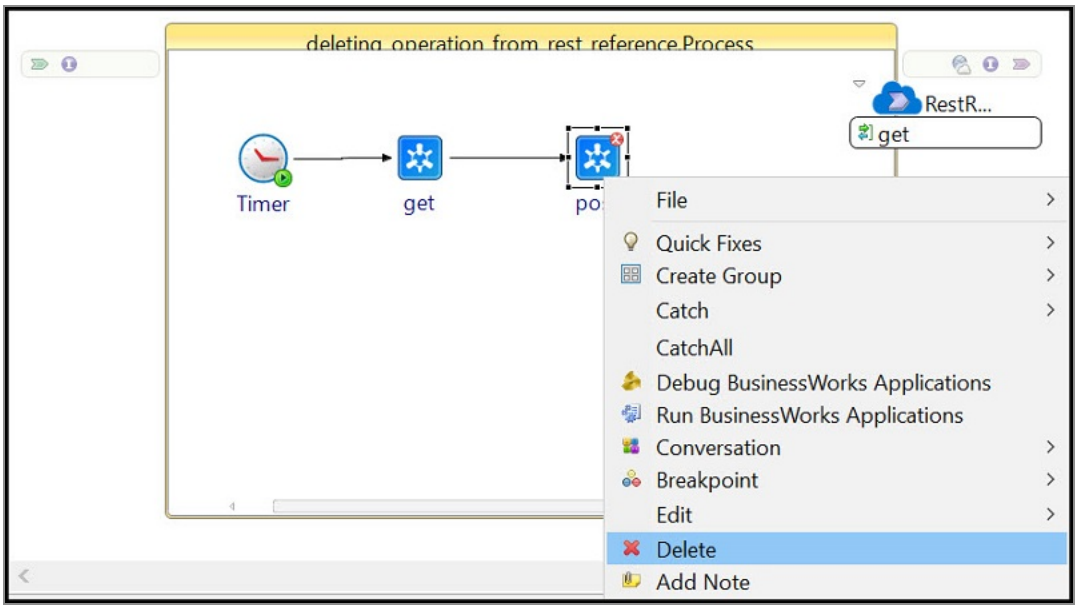
   The Delete Operation dialog is displayed.



2. Optional. To see the changes that are performed, click **Preview**.



3. Click **OK**.
4. Delete the corresponding implemented operation manually.



The REST operation is deleted.

5. If necessary, reconfigure the mapping of the other activities.

Refactoring SOAP Binding

SOAP Binding is used to create service providers and consumers based on the SOAP Protocol.

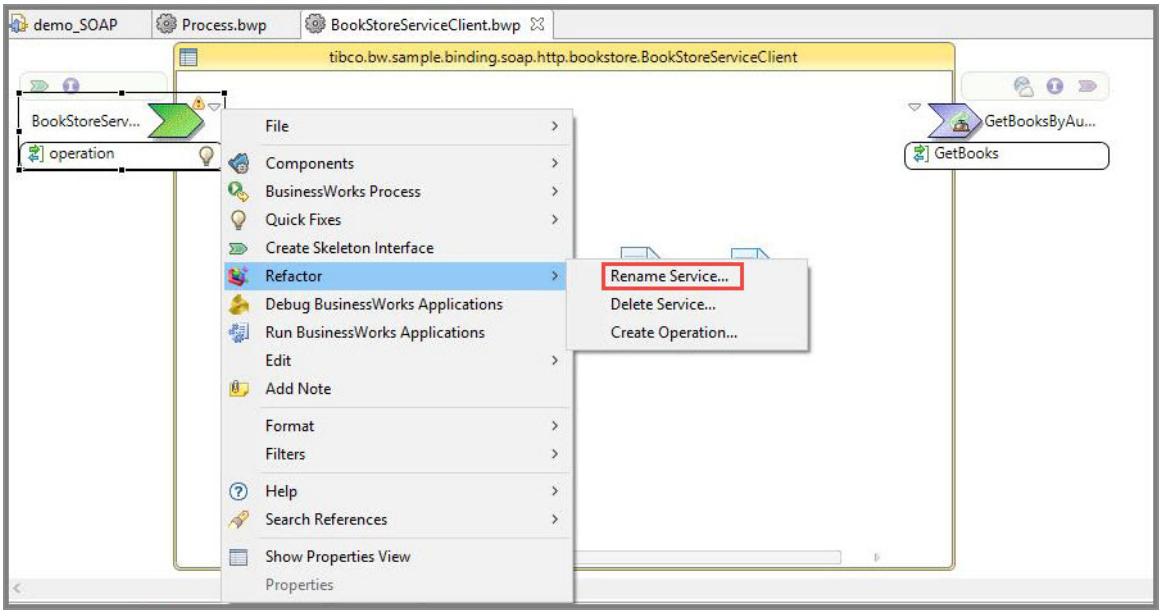
Refactoring a SOAP Service

The following refactoring options are supported for a SOAP Service

Renaming a SOAP Service

Procedure

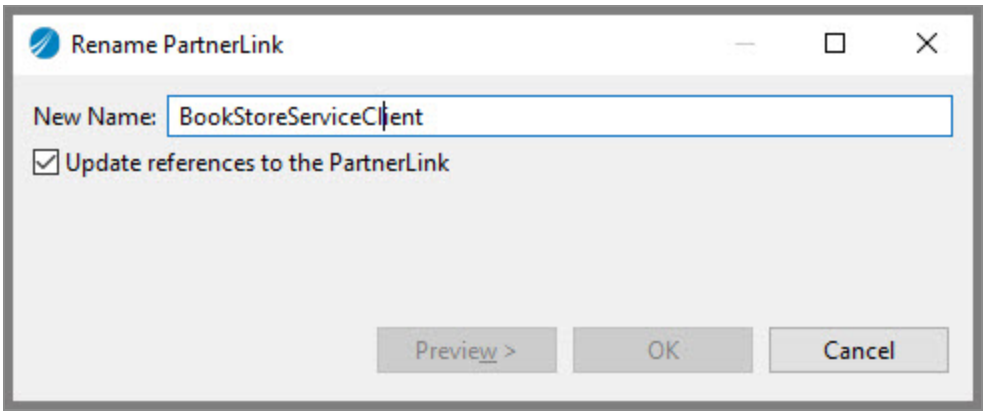
1. Select and right-click the created SOAP Service and select **Refactor > Rename Service**.



The **Rename PartnerLink** wizard is displayed.

2. In the **Rename PartnerLink** wizard, add a new name in the **New Name** field for the SOAP Service and click **OK**.

   By default, the **Update references to the PartnerLink** checkbox is already selected.

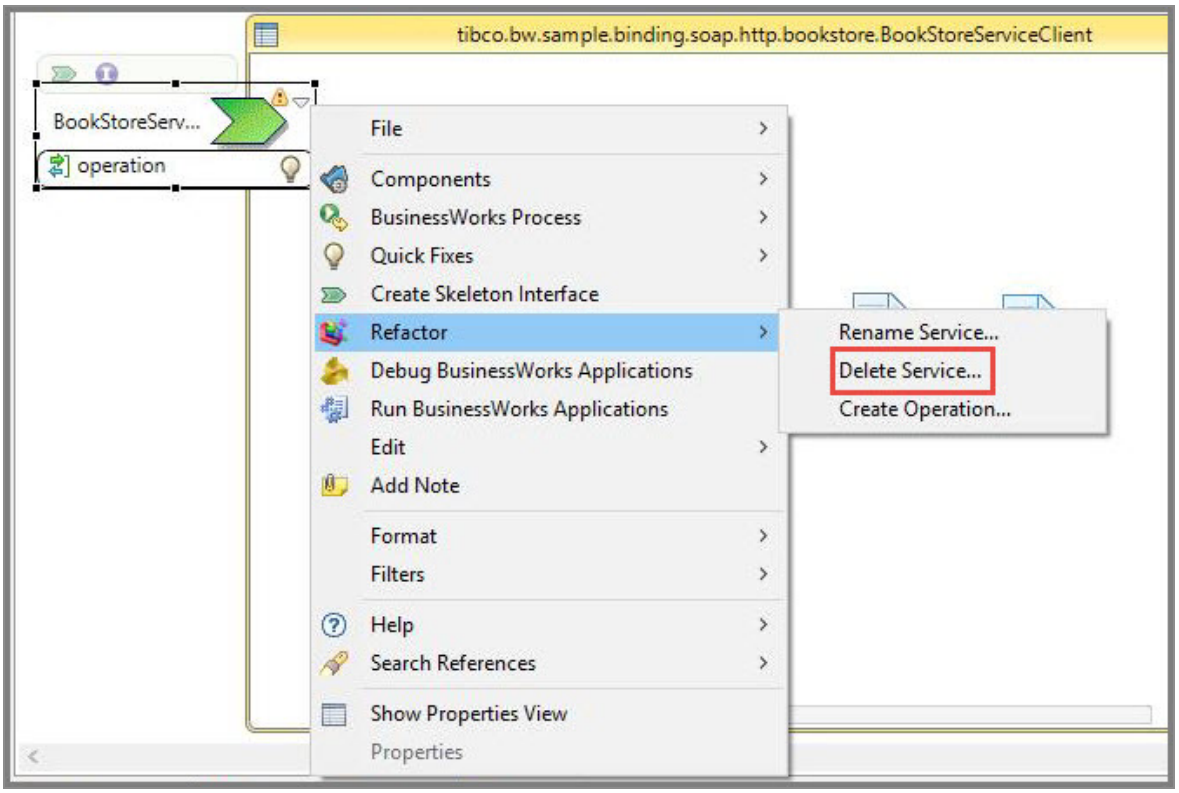


Important:
TIBCO recommends to keep the **Update references to the PartnerLink** checkbox selected when performing the refactoring operations.

Deleting a SOAP Service Binding

Procedure

1. Right-click the SOAP Service and select **Refactor > Delete Service** option.



2. Click **OK**.

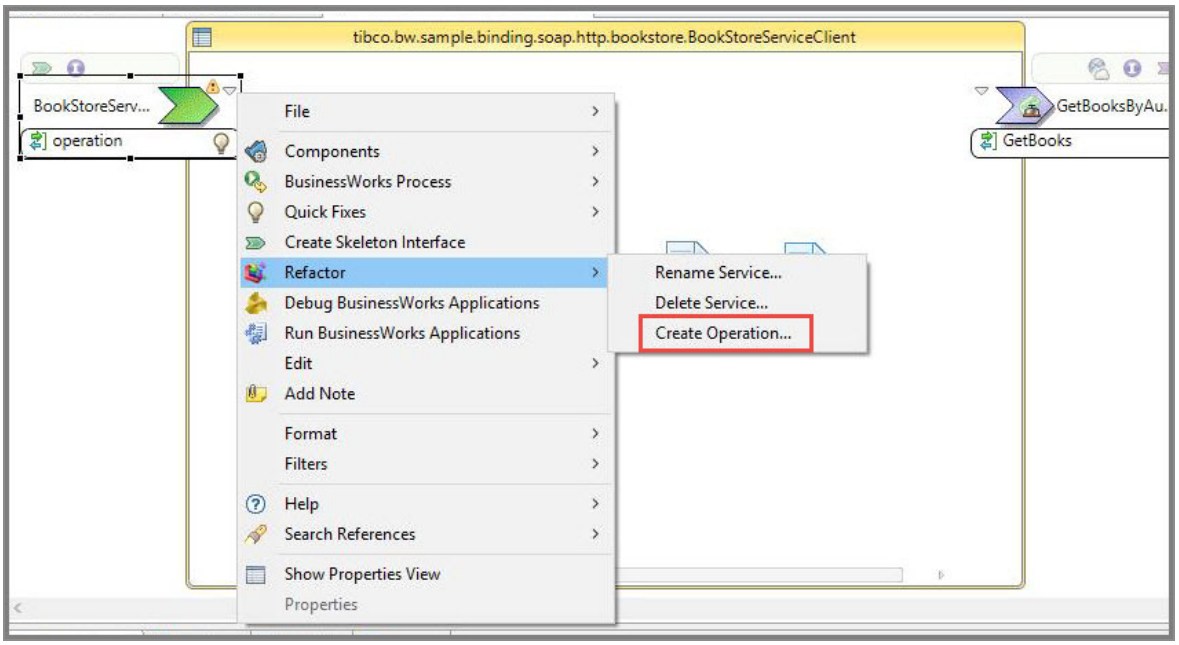
   The selected SOAP Service Binding is deleted.

> **Caution:** Once the SOAP Service Binding is deleted for the same process, it cannot be added again. In that case, a completely new SOAP Service Binding is created.

Adding Operations for a SOAP Service

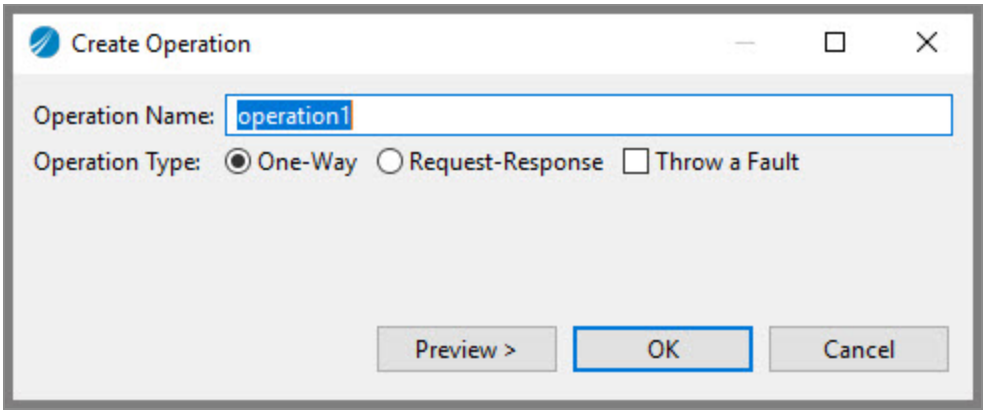
Procedure

1. Right-click the SOAP service. Select **Refactor > Create Operation** option.



The Create Operation dialog is displayed.

2. In the Create Operation dialog, add an operation name in the **Operation Name** field and select an **Operation Type** for the SOAP Service and click **OK**.

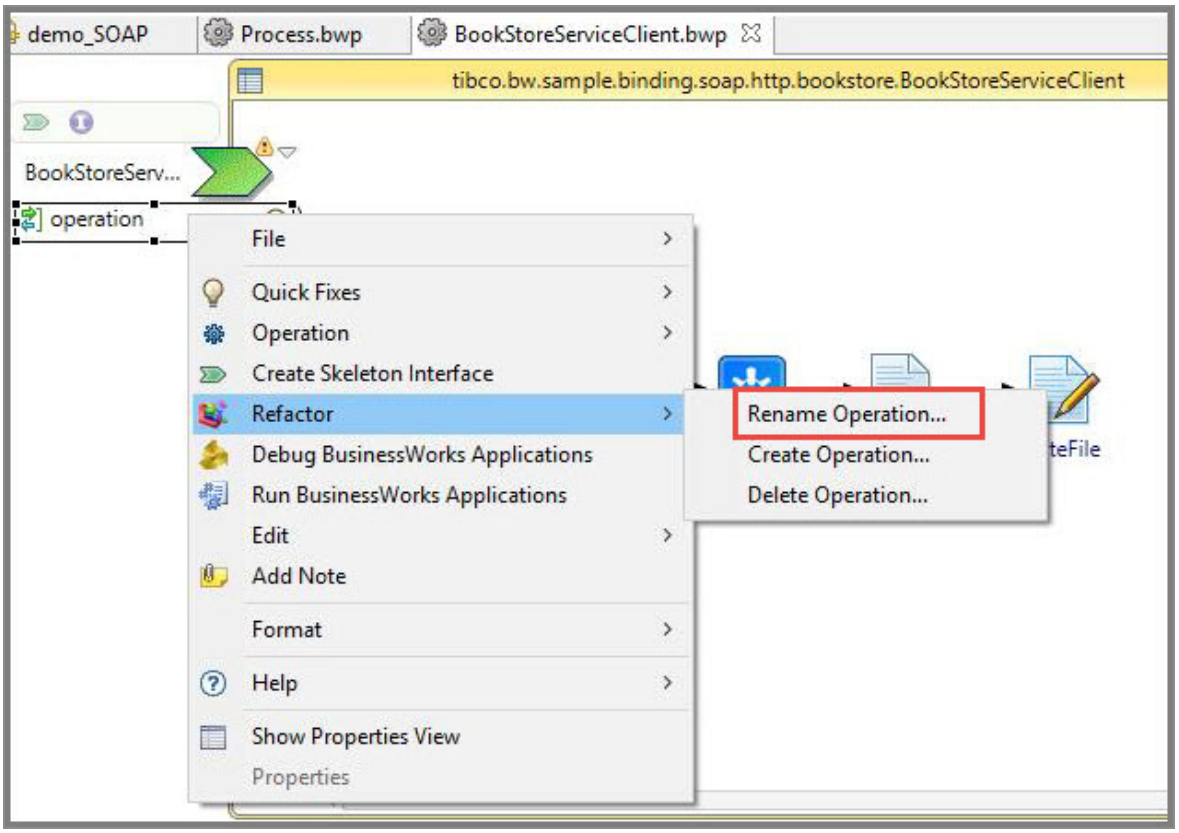


3. Generate a new concrete WSDL so that the new operation is incorporated in it. Create a new SOAP reference binding if not present or update the existing SOAP Reference by removing the binding and add new binding for the updated concrete WSDL.

Renaming Operations of a SOAP Service

Procedure

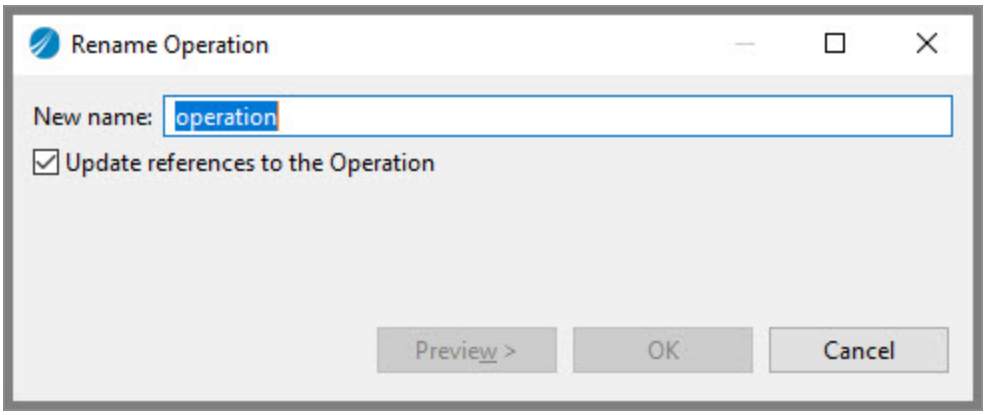
1. Right-click the operation and select **Refactor > Rename Operation** option.



   The Rename Operation wizard is displayed.

2. In the Rename Operation wizard, add a new name in the **New Name** field for the operation and click **OK**.

   By default, the **Update references to the Operation** checkbox is already selected.

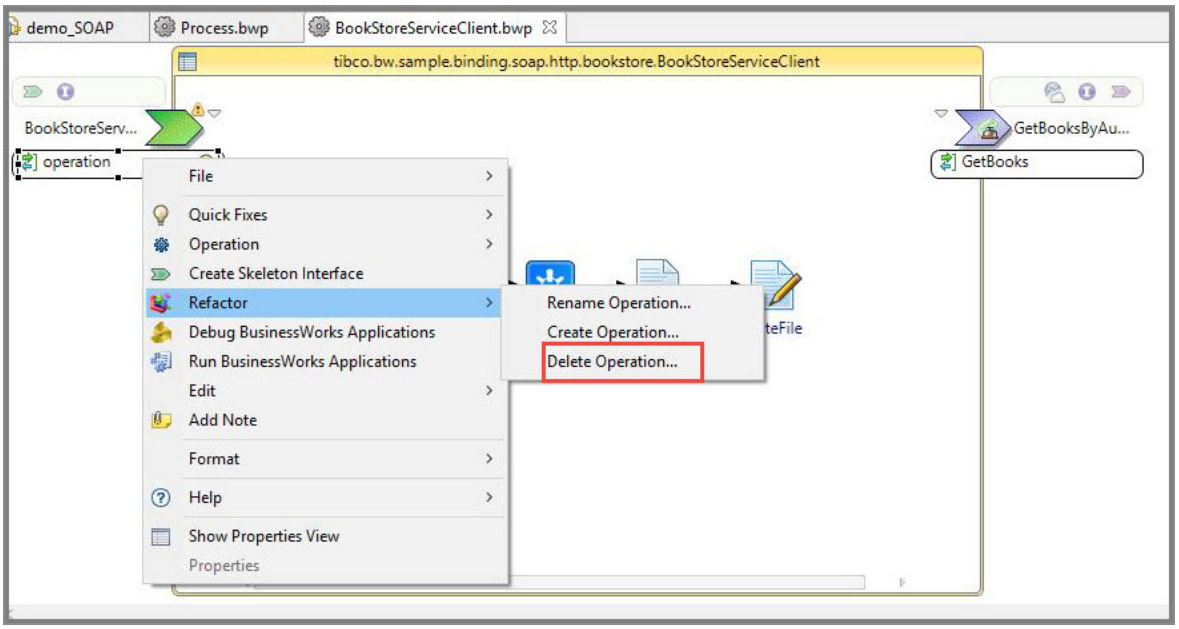


Important: TIBCO recommends keeping the checkbox checked while performing the refactoring operations.

Deleting Operations of a SOAP Service

Procedure

1. Right-click the created SOAP Service operation and select **Refactor > Delete Operation** option.
2. Click **OK**.



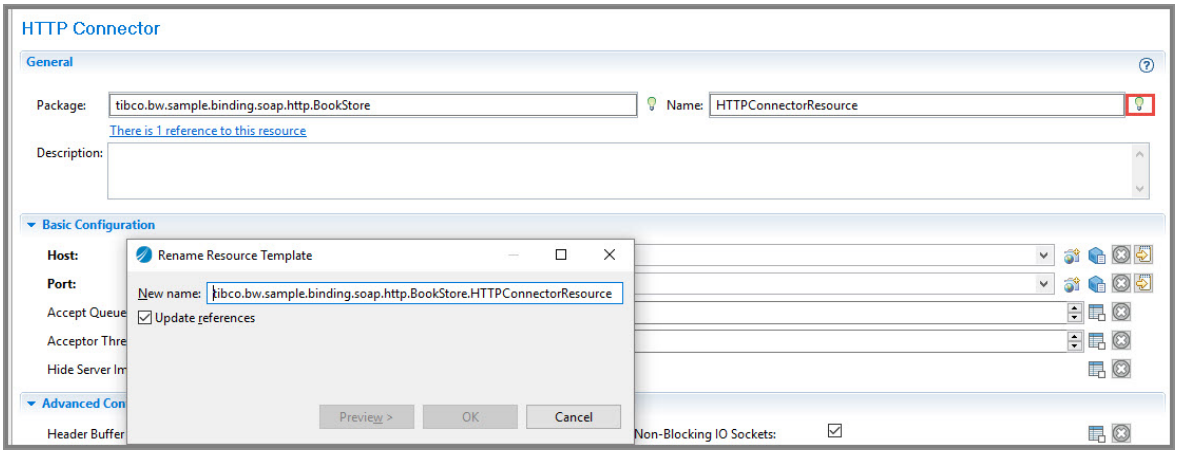
The selected SOAP Service operation is deleted.

Renaming an HTTP Connector for SOAP Service

Procedure

1. Navigate to **Resources** section in application module and open the HTTP Connector shared resource.
2. To update the HTTP Connector Name click the green bulb icon.

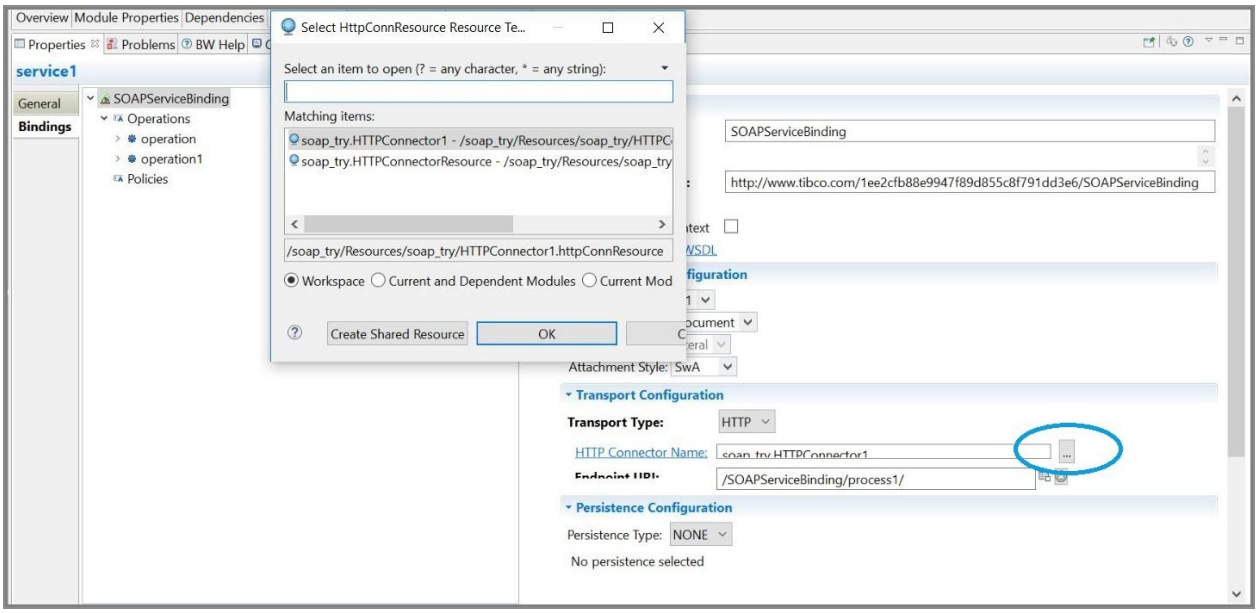
   The Rename Resource Template wizard is displayed.
3. In the Rename Resource Template wizard, update the name of the HTTP Connector in the **New name** field and click **OK**.



   The new name reflects in the HTTP Connector shared resource of the SOAP service bindings.

Deleting an HTTP Connector for SOAP Service

You cannot delete an HTTP Connector for SOAP Service Bindings. A different HTTP Connector can be selected by using the option available for the **HTTP Connector Name** field.



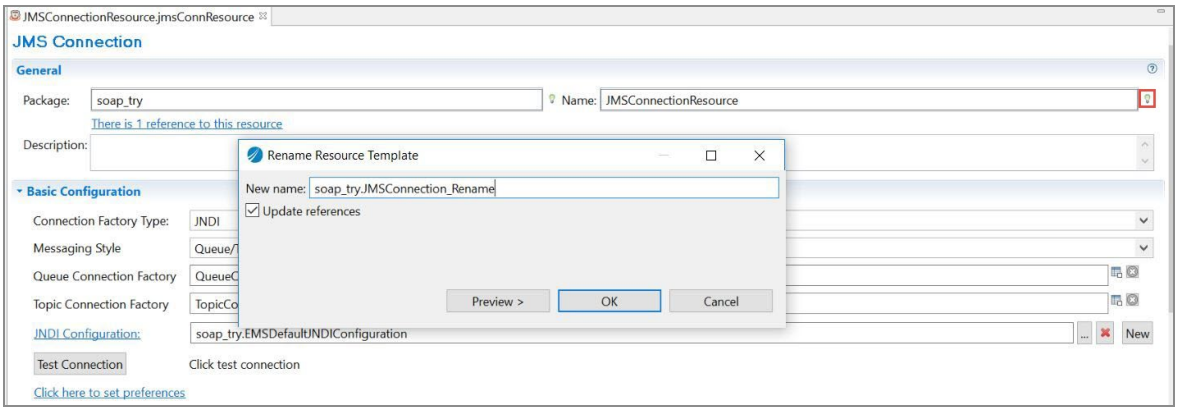
Renaming a JMS Connector for SOAP Service

Procedure

1. Navigate to **Resources** section in application module and open a JMS Connection shared resource.
2. To update the JMS Connection Name click the green bulb icon.

   The Rename Resource Template wizard is displayed.
3. In the Rename Resource Template wizard, update the name of the JMS Connection in the **New name** field and click **OK**.

   By default, the **Update references** checkbox is already selected.

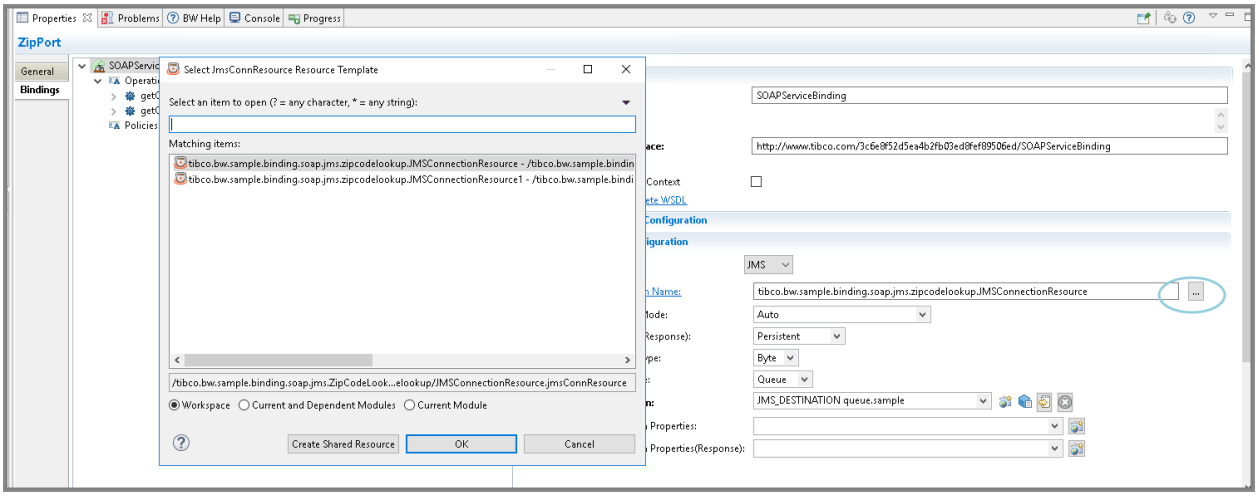


Important: TIBCO recommends to keep the **Update references** checkbox selected when performing the refactoring operations.

The new name reflects in the JMS Connection name of the SOAP Service Bindings.

Deleting a JMS Connector for SOAP Service

You cannot delete a JMS Connector for SOAP Service Bindings. A different JMS Connector can be selected by using the option available for the **JMS Connector Name** field.



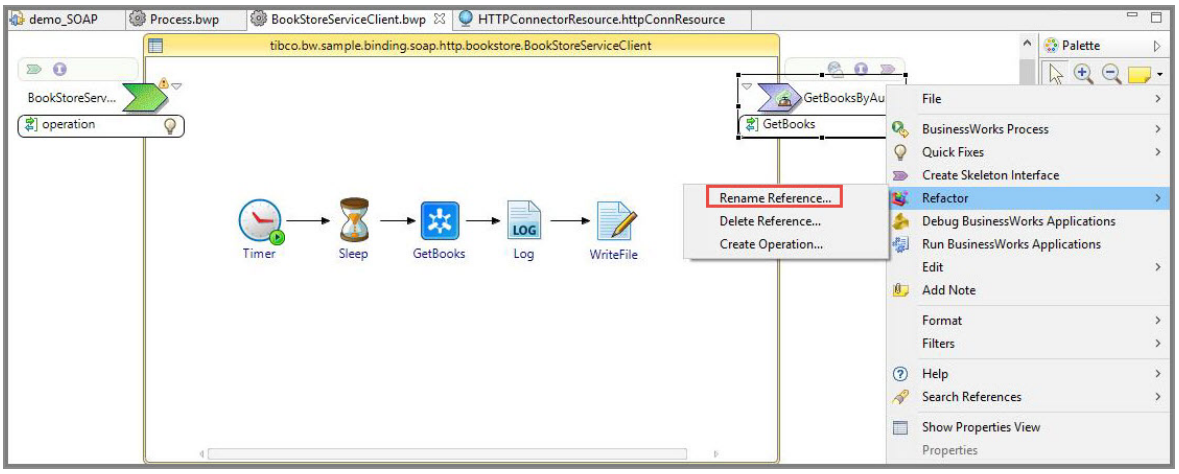
Refactoring SOAP Reference

The following refactoring options are possible for a SOAP Reference.

Renaming a SOAP Reference

Procedure

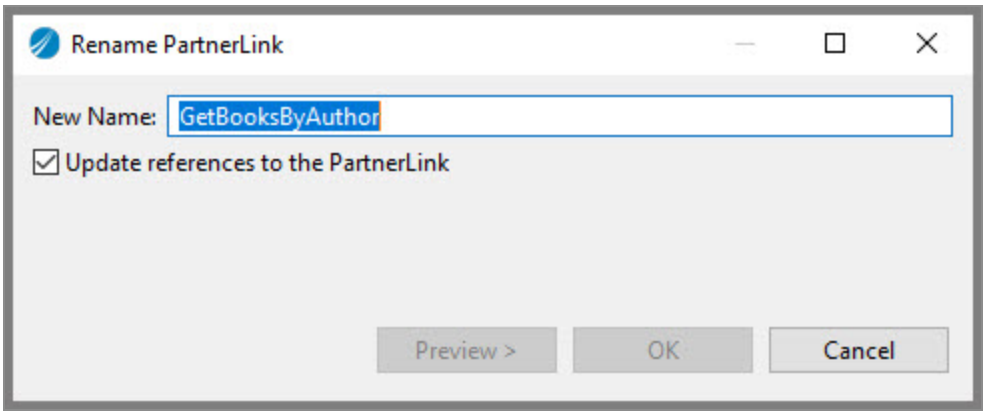
1. Select and right-click the created SOAP Reference and select **Refactor > Rename Reference**.



   The **Rename PartnerLink** wizard is displayed.

2. In the **Rename PartnerLink** wizard, add a new name in the **New Name** field for the SOAP Reference and click **OK**.

   By default, the **Update references to the PartnerLink** checkbox is already selected.

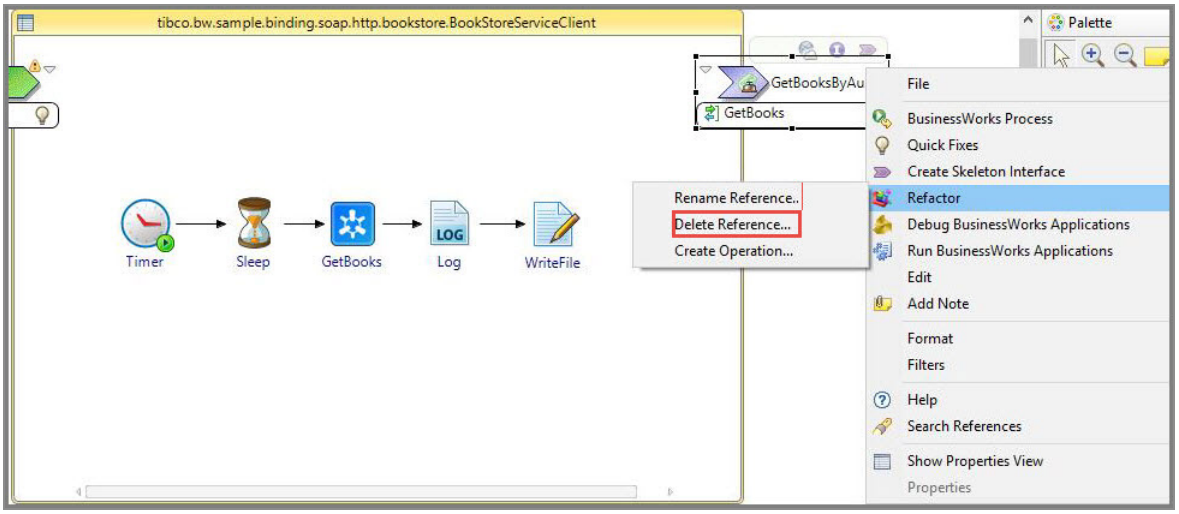


Important: TIBCO recommends to keep the checkbox selected when performing the refactoring operations.

Deleting a SOAP Reference

Procedure

1. Right-click the SOAP Reference and select **Refactor > Delete Reference** option.
2. Click **OK**.

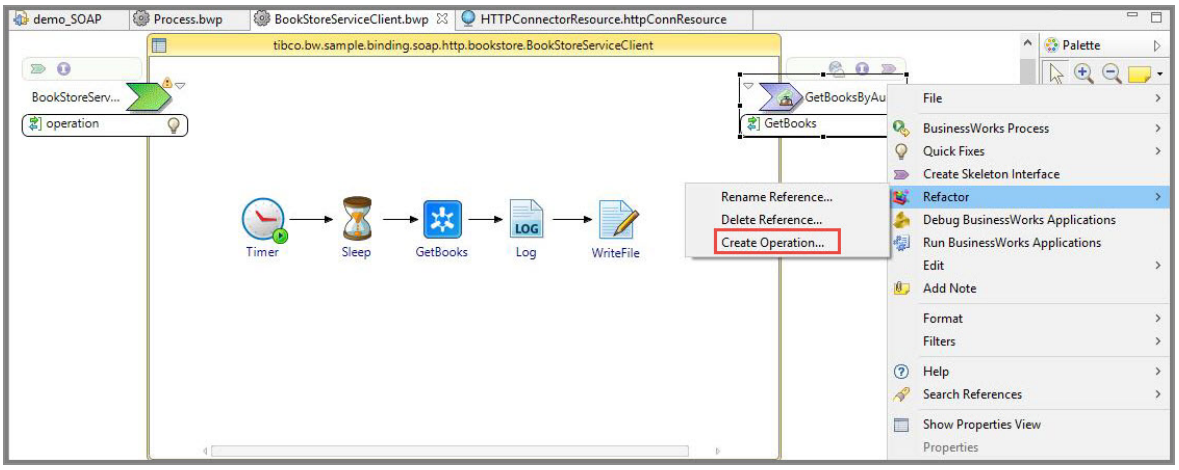


The selected SOAP Reference Binding is deleted.

Adding Operations for a SOAP Reference

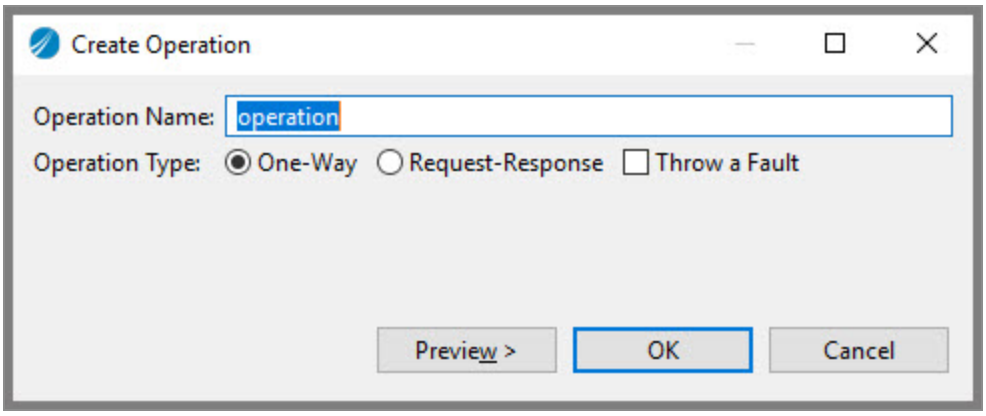
Procedure

1. Right-click the SOAP Reference. Select **Refactor > Create Operation** option.



The Create Operation wizard is displayed.

2. In the Create Operation wizard, add an operation name in the **Operation Name** field and select an **Operation Type** for the SOAP reference.



3. Click **OK**.

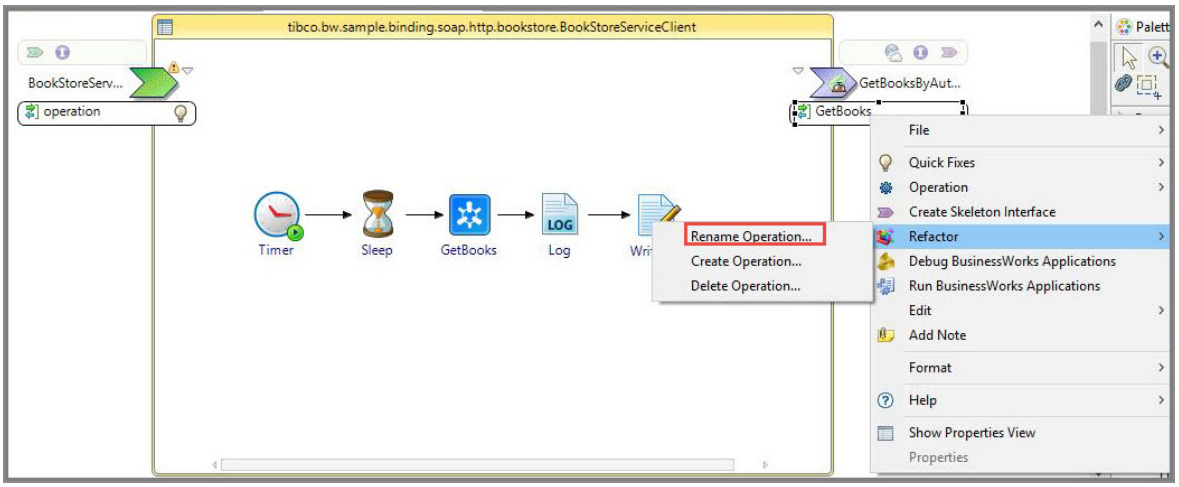
Result

Recreate the SOAP reference binding after the operation is added.

Renaming Operations of a SOAP Reference

Procedure

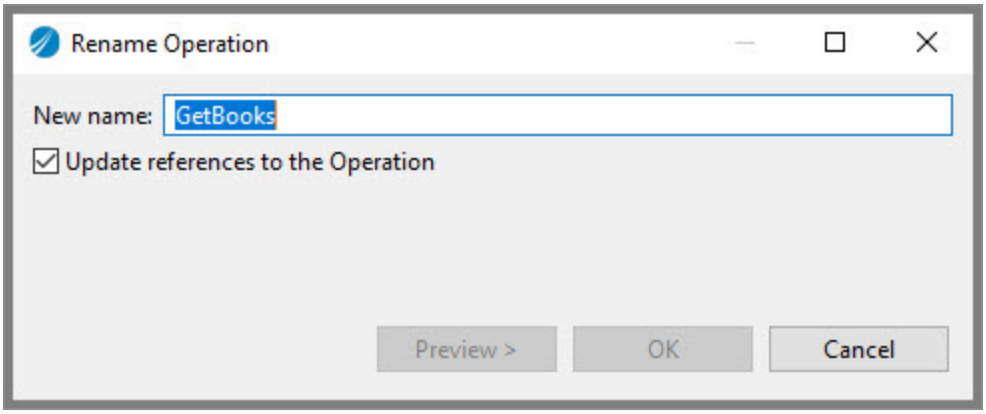
1. Right-click the operation and select **Refactor > Rename Operation.**



The Rename Operation wizard is displayed.

2. In the Rename Operation wizard, add a new name in the **New Name** field for the operation and click **OK**.

   By default, the **Update references to the Operation** checkbox is already selected.



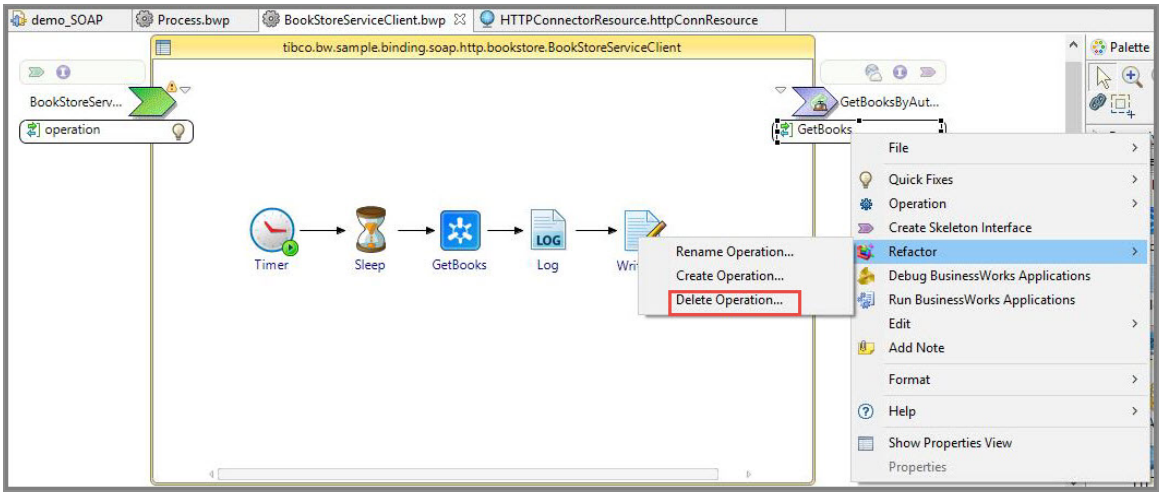
Important: TIBCO recommends to keep the **Update references to the Operation** checkbox selected when performing the refactoring operations.

Note: If the created operation is renamed on the SOAP reference side, the operation name on the SOAP service binding must be renamed. The Client and Service should be in two different application modules.

Deleting Operations of a SOAP Reference

Procedure

1. Right-click the created SOAP Reference operation and select **Refactor > Delete Operation** option.



2. Click **OK**.

   The selected SOAP Reference operation is deleted.

Renaming an HTTP Client for SOAP Reference

Follow the steps to rename an HTTP Client for SOAP Reference in TIBCO Business Studio for BusinessWorks.

Procedure

1. Navigate to **Resources** section in application module and open the HTTP Connector shared resource

   The HTTP Client Resource opens.

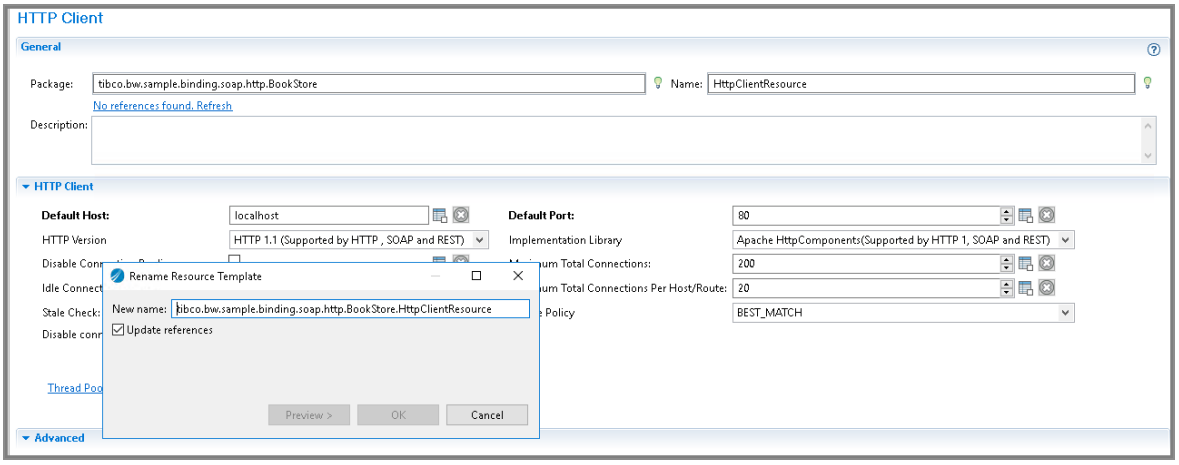
2. To update the **HTTP Client Name** click the green bulb icon.

   The Rename Resource Template wizard is displayed.

3. In the Rename Resource Template wizard, update the name of the HTTP Client in the

Name field and click **OK**.

By default, the **Update References** checkbox is already selected.



> **Important:** TIBCO recommends to keep the **Update References** checkbox selected when performing the refactoring operations.

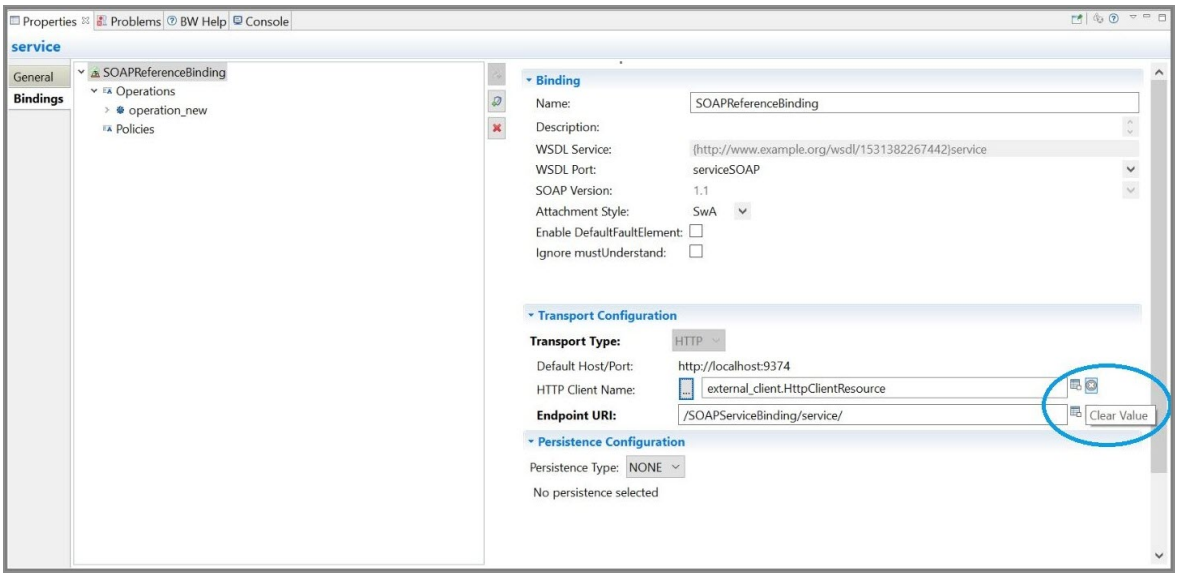
The new name reflects in the HTTP Client of the SOAP Reference Bindings.

Deleting an HTTP Client for SOAP Reference

Follow the steps to delete an HTTP Client for SOAP Reference from TIBCO Business Studio for BusinessWorks.

Procedure

1. On the **Components** tab, select **Bindings**.
2. On the **Bindings** tab, click the for the **HTTP Client Name** field from the **Transport Configuration** panel.



Refactoring WSDL

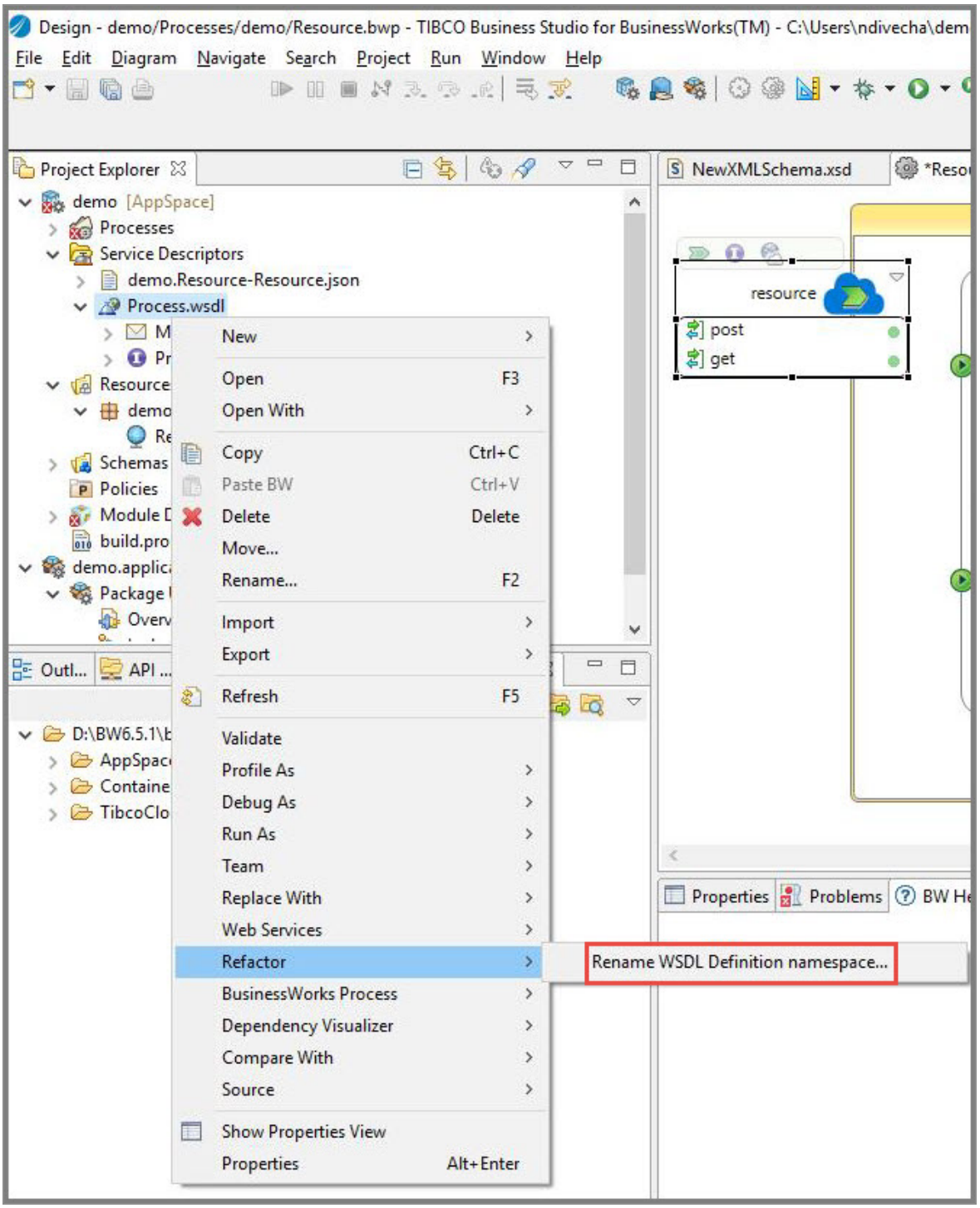
The following refactoring operations are supported for WSDL.

Updating WSDL NameSpace

Follow the steps to update a WSDL namespace into TIBCO Business Studio for BusinessWorks

Procedure

1. In the **Project Explorer** view, select and right-click the abstract WSDL and select **Refactor > Rename WSDL Definition namespace**



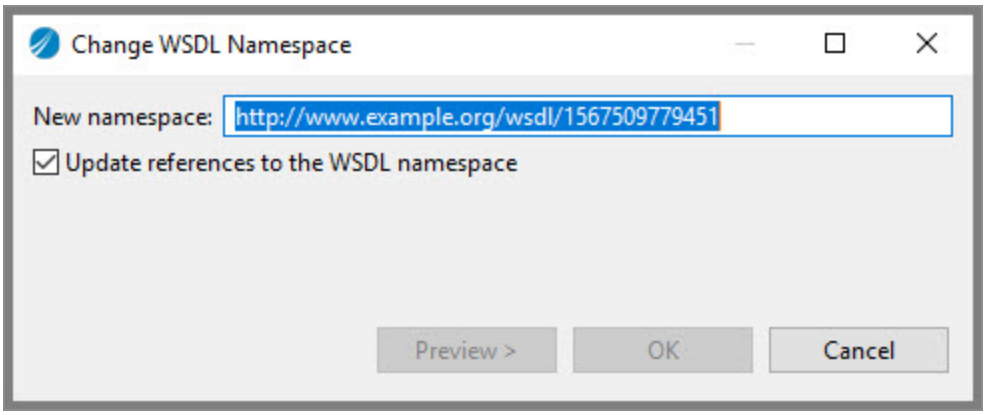
The Change WSDL Namespace wizard is displayed.

2. In the Change WSDL Namespace wizard, add a new namespace in the **New**

namespace field and click **OK**.

By default the **Update references to the WSDL namespace** checkbox is already selected.

> **Important:** TIBCO recommends to keep the **Update references to the WSDL namespace** check box selected while performing the refactoring operations.



The changes are reflected in the SOAP Services.

Updating WSDL PortType

Follow the steps to update a WSDL PortType into TIBCO Business Studio for BusinessWorks.

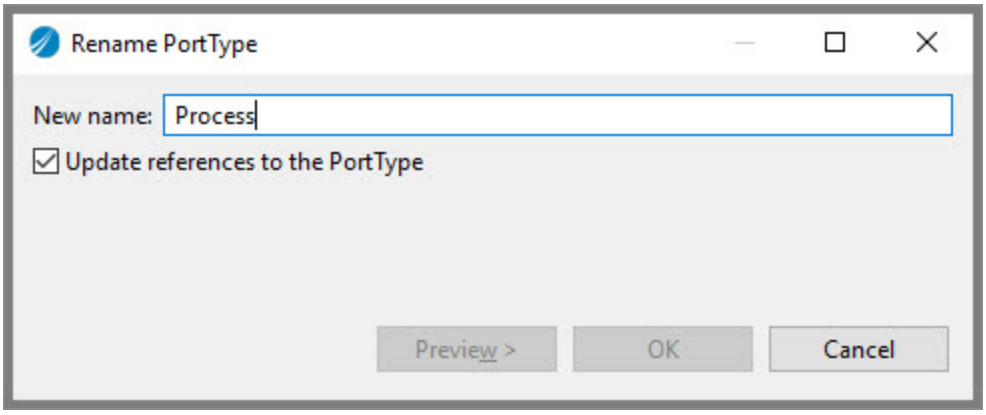
Procedure

1. In the Project Explorer view, expand the abstract WSDL, select the WSDL PortType, right-click and select **Refactor > Rename WSDL PortType**

The **Rename PortType** wizard opens.

2. In the **Rename PortType** wizard, add a new name in the **New name** field and click **OK**.

   By default, the **Update references to the PortType** checkbox is already selected.



> **Caution:** TIBCO recommends to keep the **Update references to the PortType** checkbox selected when performing refactoring operations. Otherwise, you have to update port type references manually.

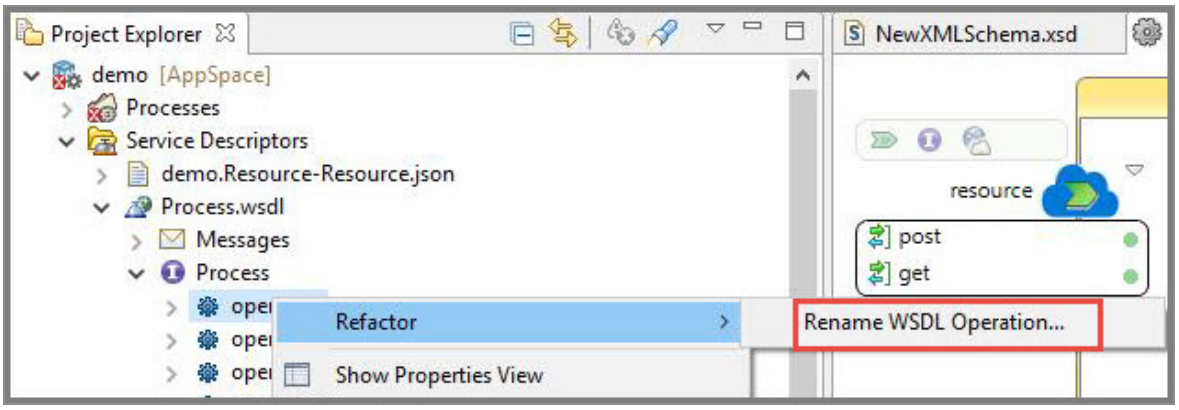
The changes are reflected in the SOAP Services.

Updating WSDL Operation Name

Follow the steps to update a WSDL operation name into TIBCO Business Studio for BusinessWorks.

Procedure

1. In the **Project Explorer** view, expand the abstract WSDL and right-click the operation and select **Refactor > Rename WSDL operation**

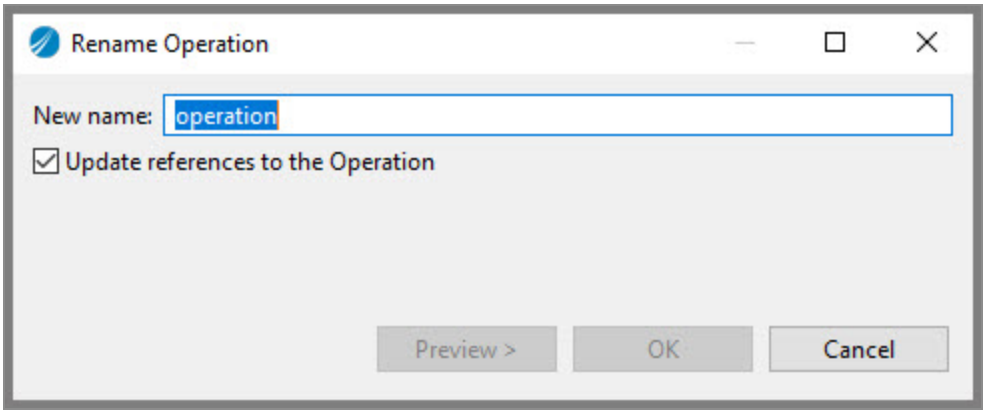


   The Rename Operation wizard is displayed.

2. In the Rename Operation wizard, add a new name in the **New name** field and click **OK**.

   By default, the **Update references to the Operation** checkbox is already selected.

> **Important:** TIBCO recommends to keep the **Update references to the Operation** checkbox selected while performing the refactoring operations.



   The changes are reflected in the SOAP Services.

   The same refactoring of WSDL can be performed for a concrete WSDL which has the abstract WSDL and a schema embedded in it.

Copying and Pasting a WSDL File

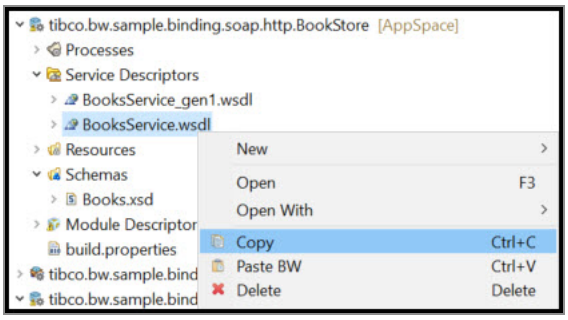
Follow the steps to copy and paste a WSDL file.

Before you begin

Ensure that the dependent .xsd schema file is available in the application module, where you want to copy the WSDL file. If the dependent .xsd schema file is present in a shared module, ensure that the required application module is dependent on the shared module.

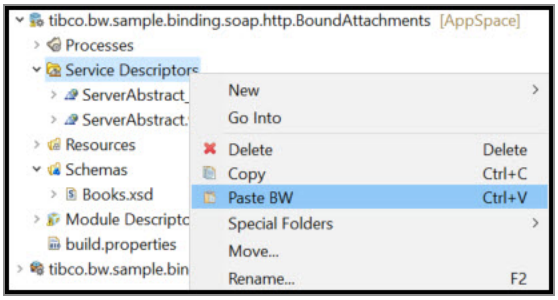
Procedure

1. In an application module, navigate to the `Service Descriptor` folder, and select a WSDL file.
2. Right-Click the WSDL file and select **Copy** option.



3. Right-click the `Service Descriptors` folder of the required application module, and select **Paste BW** option.

   The WSDL file is copied in the required application module.

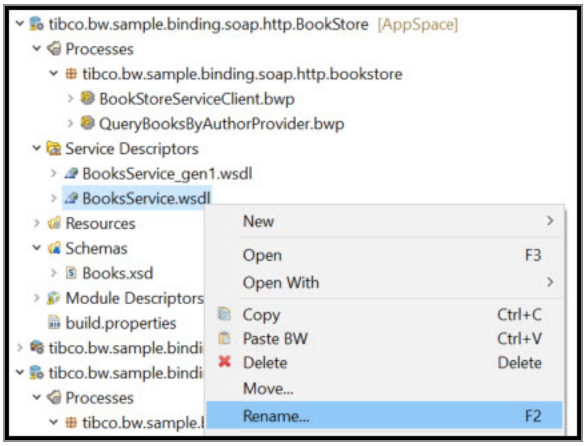


Renaming a WSDL File

Follow the steps to rename a WSDL file.

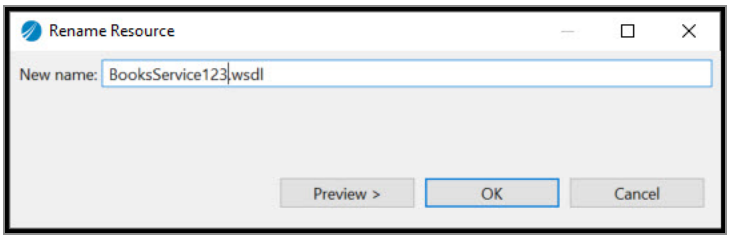
Procedure

1. In an application module, navigate to the `Service Descriptors` folder and select the WSDL file to be renamed.
2. Right-click the WSDL file and select the **Rename** option.

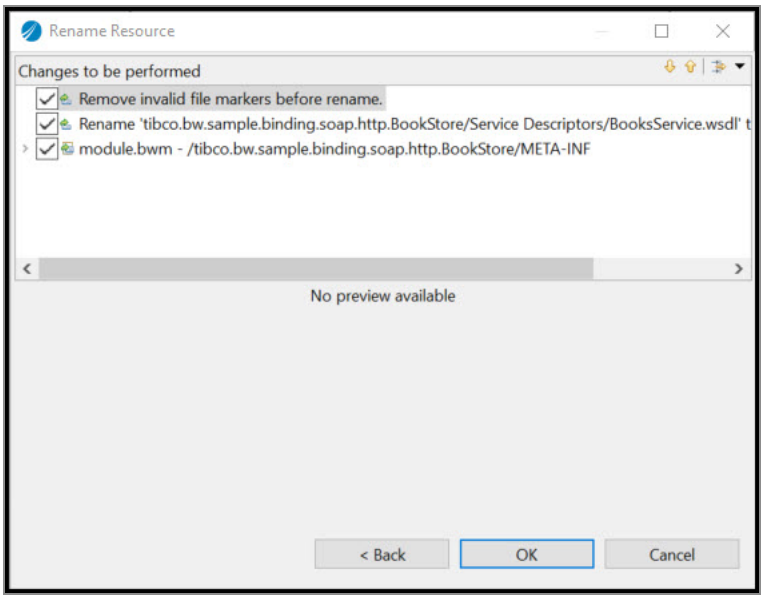


The Rename Resource dialog is displayed.

3. Provide a new name in the Rename Resource dialog.



4. Optional. To see the changes that are performed, click **Preview**.

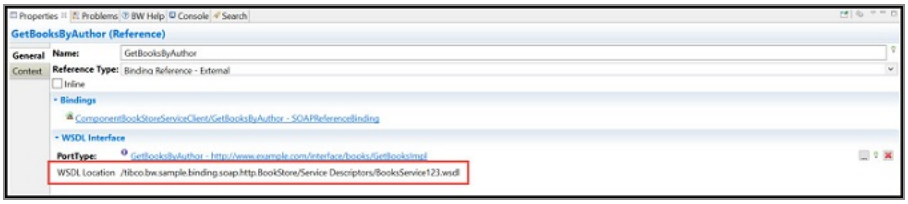


Important: TIBCO recommends to keep all the checkboxes in the Rename Resource dialog selected.

5. Click **Ok**.

   The WSDL file is renamed.

   The **WSDL Location** field of a reference is also updated.



Refactoring Activities

The following refactoring operations are possible for activities.

- Copying and Pasting an Activity
- Deleting an Activity
- Moving and Activity
- Renaming an Activity

Copying an Activity

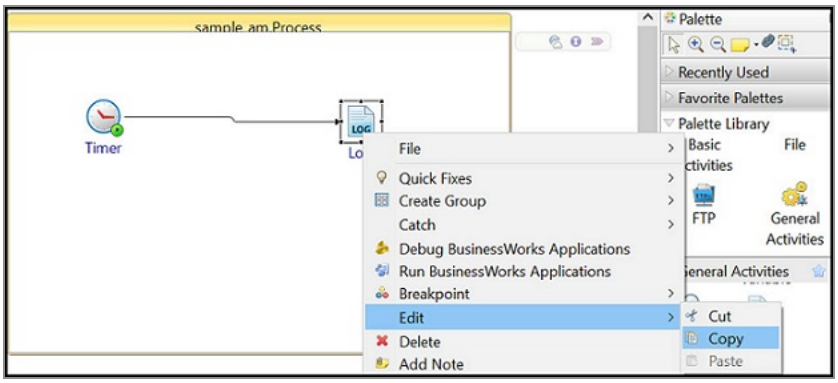
You can copy an activity within a same process or within a same module in a different process.

Within Same Process

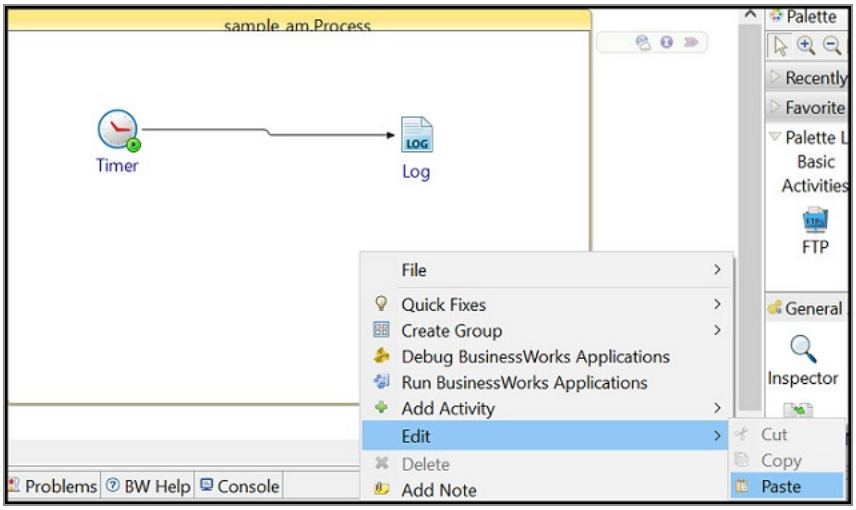
Follow the steps to copy an activity within a same process.

Procedure

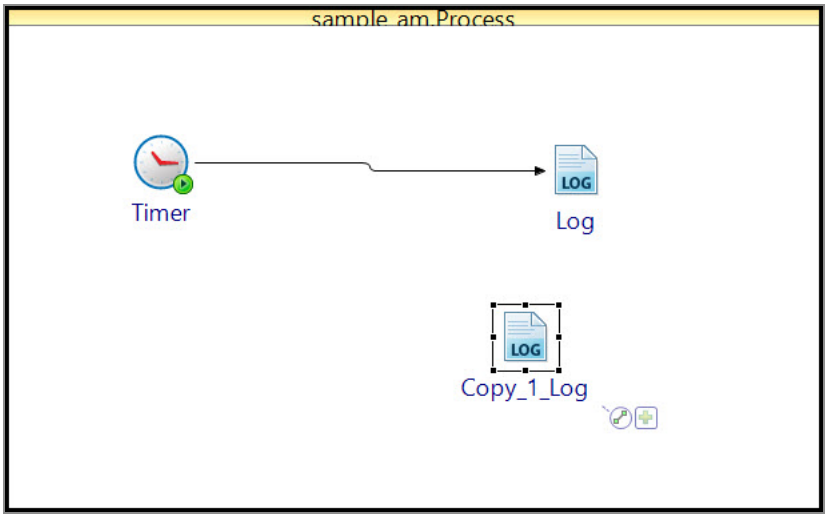
1. Select an activity to copy.
2. Right-click the activity and select **Edit > Copy**



3. Right-click the empty space in a process and select **Edit > Paste**



The activity is pasted with the same properties as of the source activity. The pasted activity has the `Copy_1_` prefix.



Within Same Module

Follow the steps to copy activities within a same module.

Procedure

1. Select an activity to copy.
2. Right-click the activity and select **Edit > Copy**
3. In the Process Editor, open the destination process to copy the activity.

4. Right-click in the empty space in a process and select **Edit > Paste**

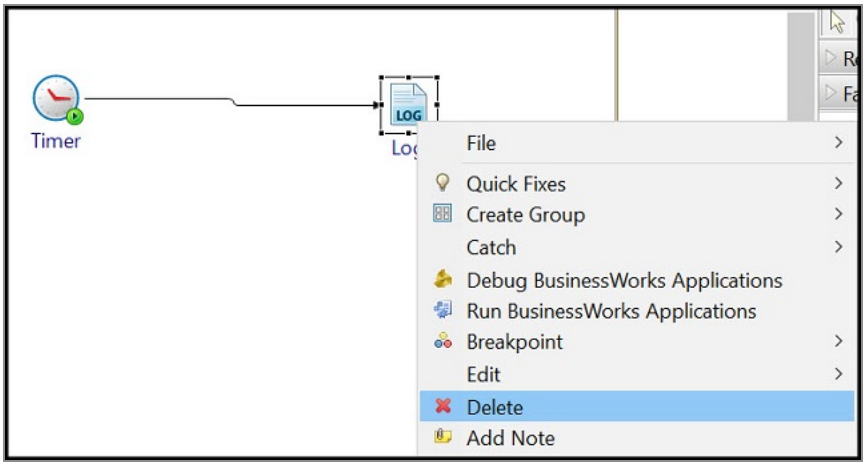
   The activity is copied with the same properties as that of the source activity.

Deleting an Activity

Follow the steps to delete an activity in a process.

Procedure

1. Select an activity to delete.
2. Right-click the activity and select the **Delete** option.



   The selected activity is now deleted.

3. Reconfigure the activities that were connected to the deleted activity.

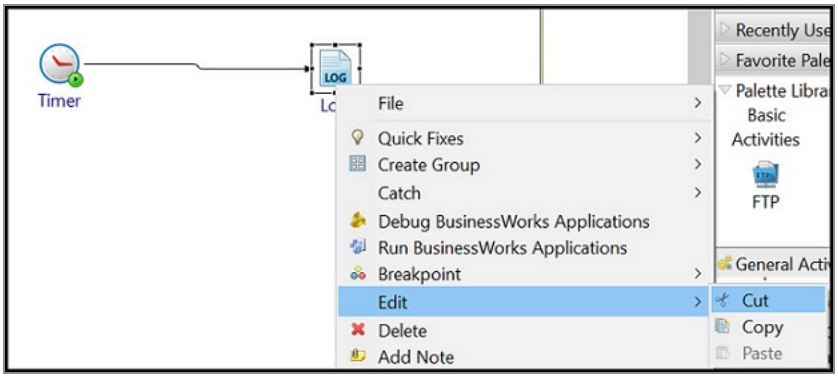
Moving an Activity

Follow the steps to cut and paste an activity from one process to another process within a same module:

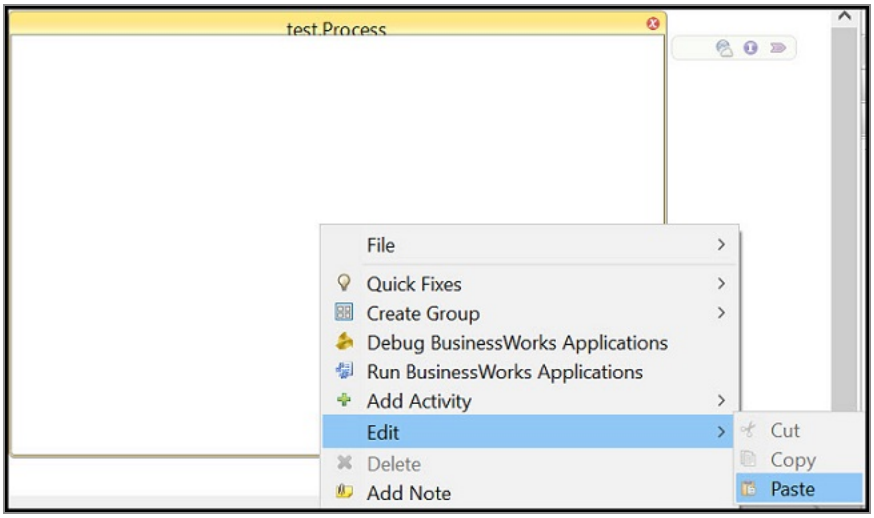
Procedure

1. Select an activity to move.

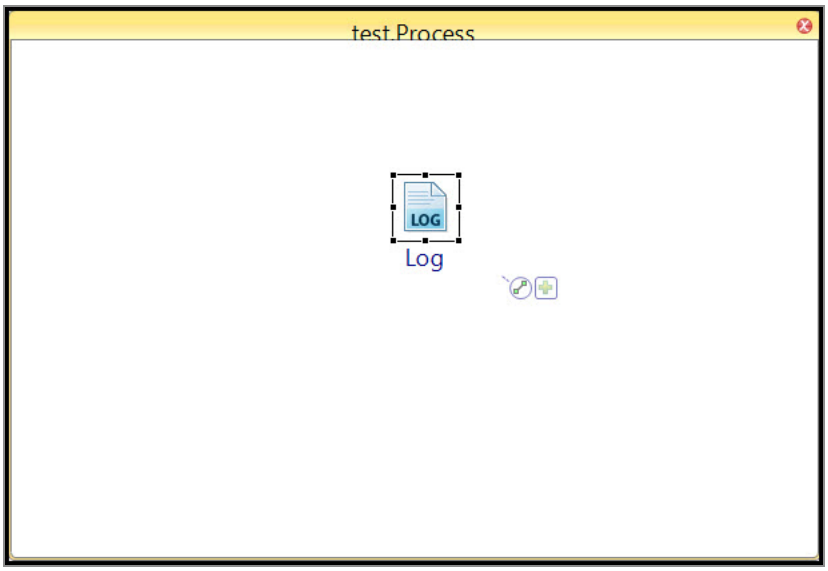
2. Right-click the activity and select **Edit > Cut**



3. Open another process in the Process Editor. Right-click and select **Edit > Paste**.



The activity is displayed in the process.



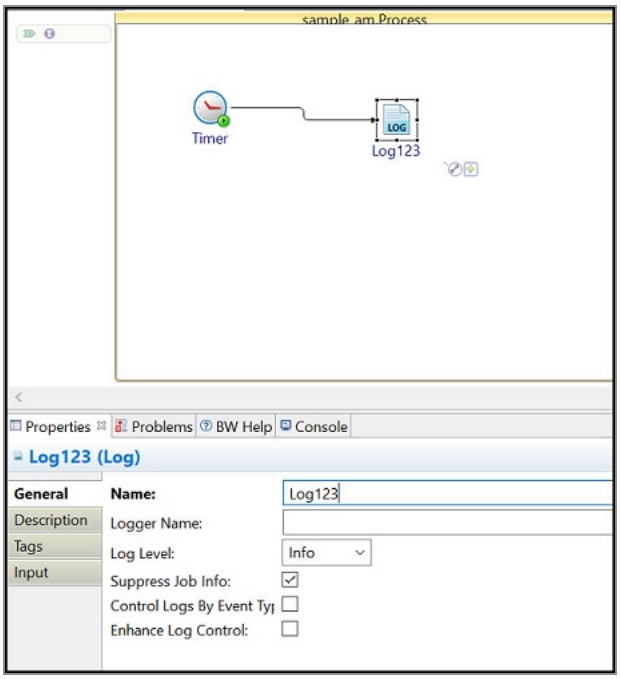
Renaming an Activity

Follow the steps to rename an activity:

Procedure

1. Select an activity to rename.
2. On the **General** tab in the **Properties** view, change the name.

   The new name is reflected in the Process Editor.


sample.am.Process
Timer
LOG
Log123
Properties
Problems
BW Help
Console
Log123 (Log)
General
Description
Tags
Input
Name:
Log123
Logger Name:
Log Level:
Info
Suppress Job Info:
Control Logs By Event Ty
Enhance Log Control:

Refactoring Groups

The following refactoring operations are supported for groups.

- Copying and Pasting Groups
- Deleting a Group
- Moving a Group

Copying Groups

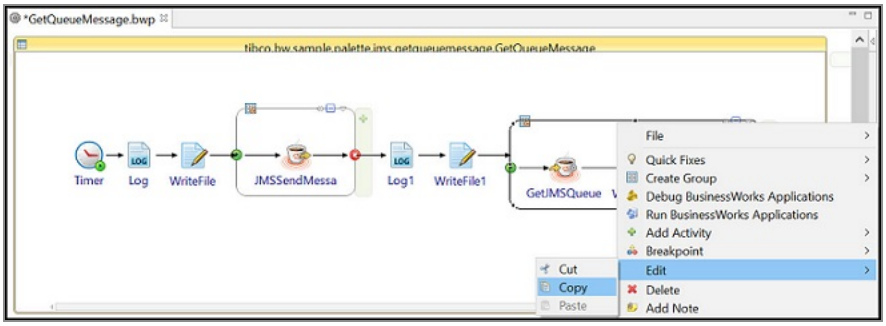
You can copy a group from a process to a location within the same process or to another process in the same package.

Within Same Process

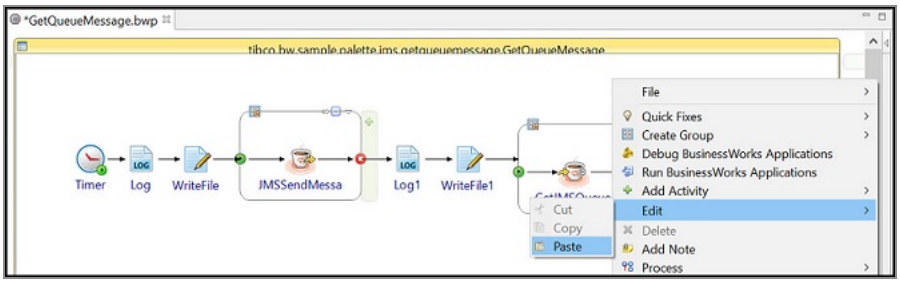
Follow the steps to copy a group within the same process.

Procedure

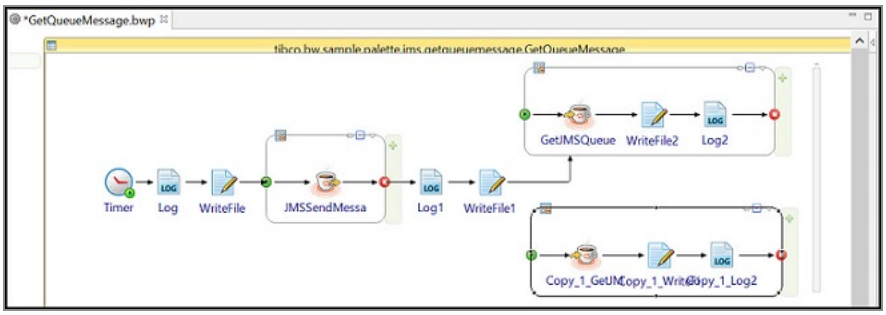
1. Select a group in a process. Right-click the group and select **Edit > Copy**



2. Click at the empty space in a same process.
3. Right-click in the Process Editor and select **Edit > Paste**



The group is copied on the source group. Use arrow keys to place the group at appropriate position. The group name and all activities within the group have Copy_1_ prefix.



4. To remove configuration related errors, configure the group.

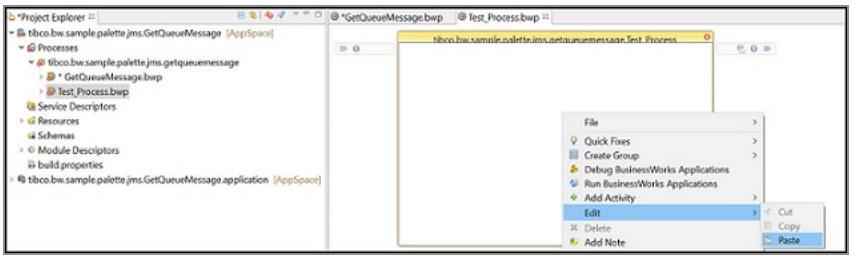
To Another Process Within the Same Package

Follow the steps to copy a group to another process in the same package.

Procedure

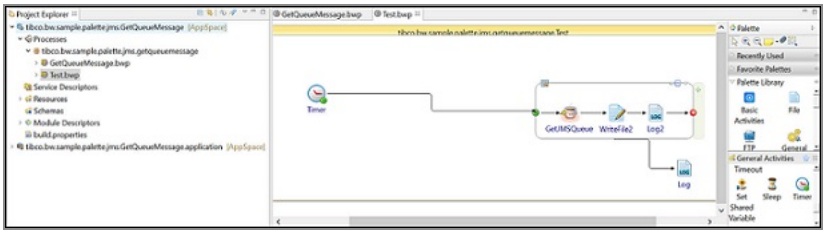
1. Select a group in a process. Right-click the group and select **Edit > Copy**
2. Click at the empty space in another process within a same package.
3. Right-click in the Process Editor and select **Edit > Paste**

   The group is copied at same co-ordinates of the source group.



4. To get the group within process editor's boundaries, change dimensions of the process editor.

   Name of the group and the activities within the group have same name as that of the source group.



5. To remove configuration related errors, configure the group.

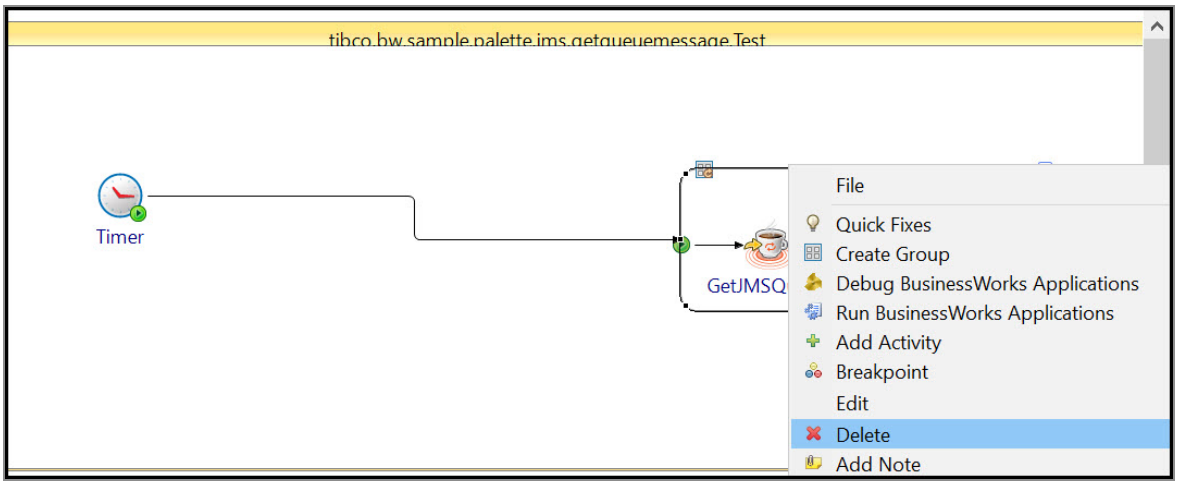
Removing a Group

Follow the steps to delete a group from a process.

Deleting a Group Along With the Activities in the Group

Procedure

1. Select a group. Right-click the group and select the **Delete** menu.



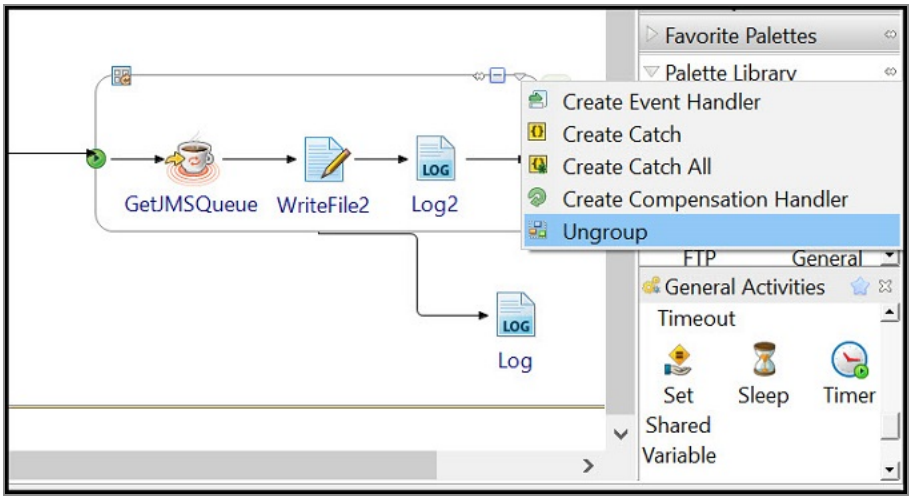
The group is deleted along with all activities within the group.

2. Reconfigure the remaining activities in a process.

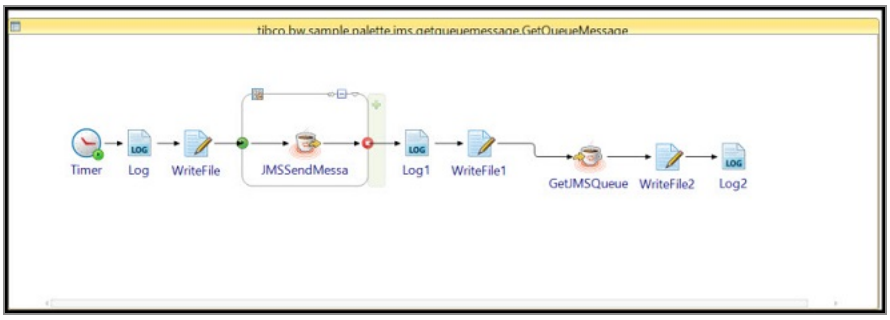
Ungrouping the Activities Within the Group

Procedure

1. Select a group. Select the Menu button on the group and select the **Ungroup** menu.



The group is deleted without removing activities within that group.



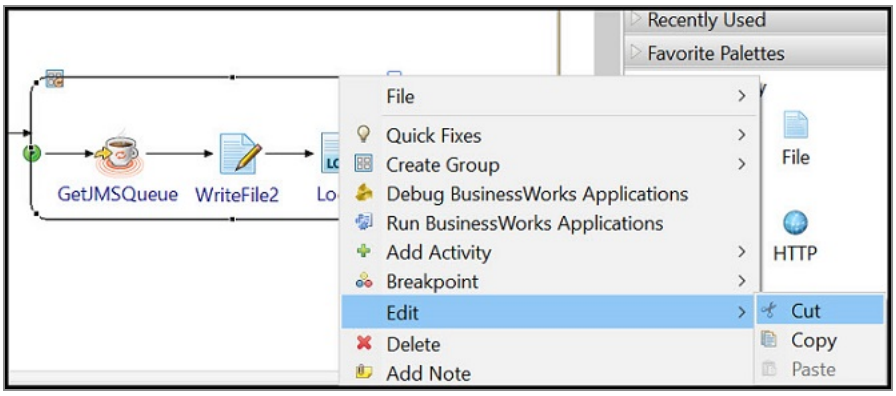
2. If you get any configuration related errors, reconfigure the activities in a process.

Moving a Group

Follow the steps to move a group from one process to another within same package.

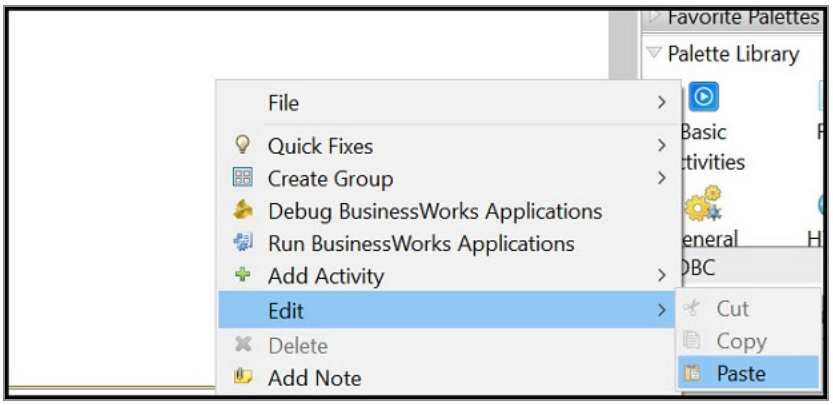
Procedure

1. Select a group. Right-click the group in a process and select **Edit > Cut**

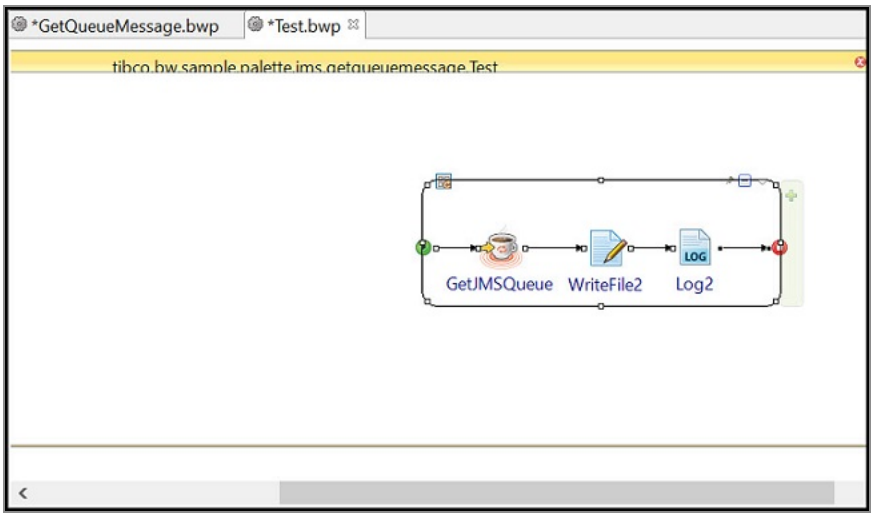


   The group is cut from the process.

2. Open another process from a same package in a process editor. Right-click in a process editor and select **Edit > Paste**.



The group is copied to the other process.



3. Reconfigure the process to avoid configuration-related errors.

Refactoring Shared Resources

The following refactoring operations are supported for shared resources.

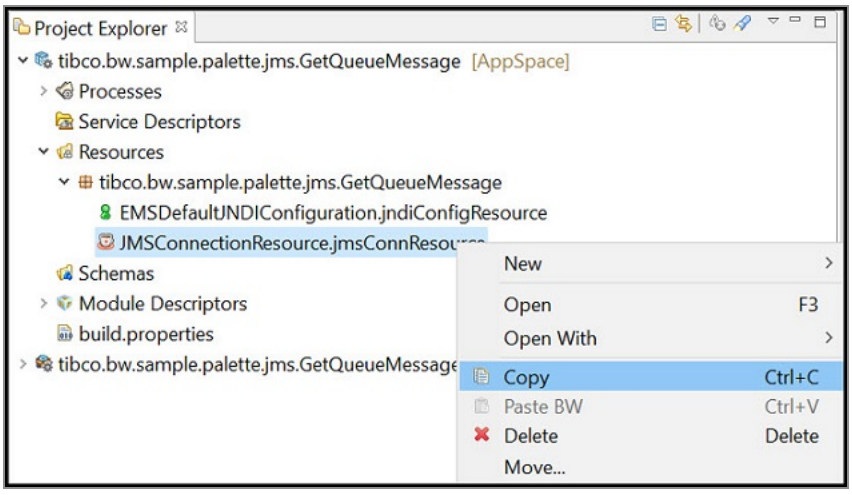
- Copying and pasting a shared resource
- Deleting a shared resource

Copying and Pasting a Shared Resource

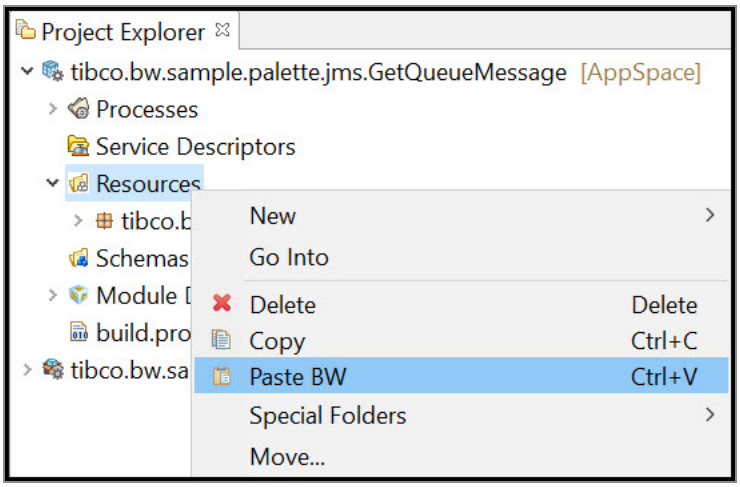
Follow the steps to copy and paste a shared resource.

Procedure

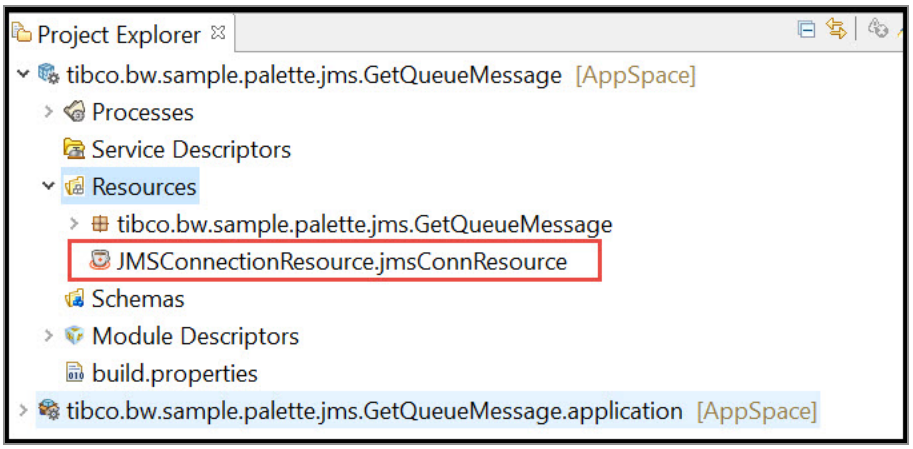
1. Select a shared resource to copy.
2. Right-click the shared resource and select **Copy** menu.



3. Select a special folder. Right-click the special folder and select the **Paste BW** menu.



The shared resource is copied in the special folder.



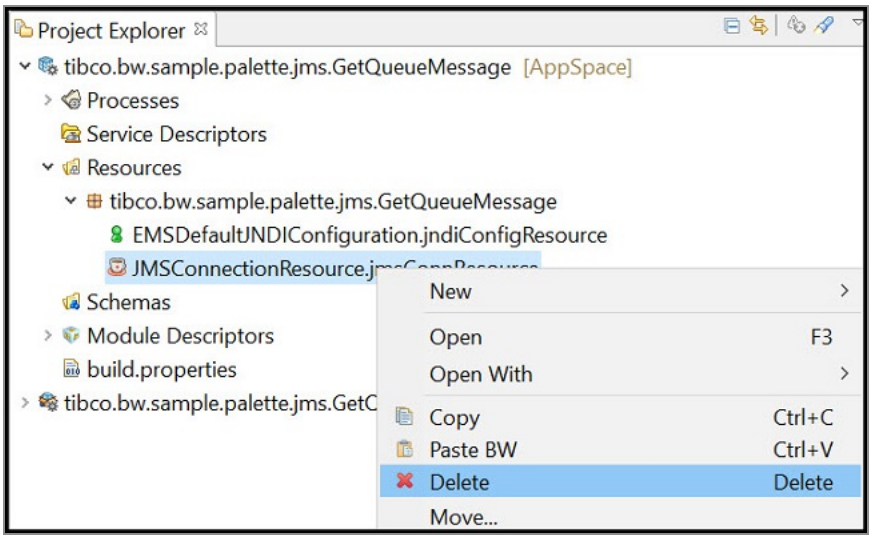
Important: TIBCO recommends to copy a shared resource in special folders only.

Deleting a Shared Resource

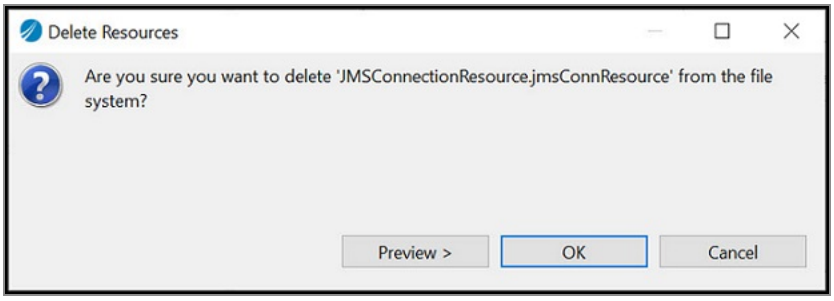
Follow the steps to delete a shared resource.

Procedure

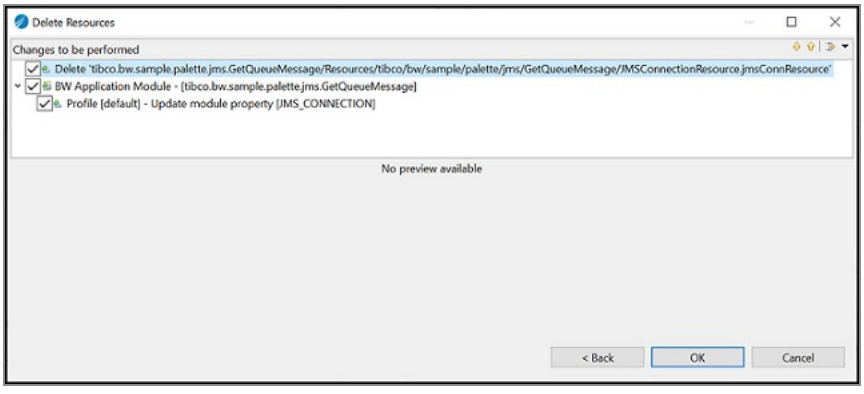
1. Select a shared resource to delete.
2. Right-click the shared resource and select the **Delete** option.



The Delete Resources dialog is displayed.



3. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the check boxes in the Delete Resources dialog selected.

4. Click **Ok**.

   The shared resource is deleted.

Refactoring Packages

The following refactoring operations are possible for packages:

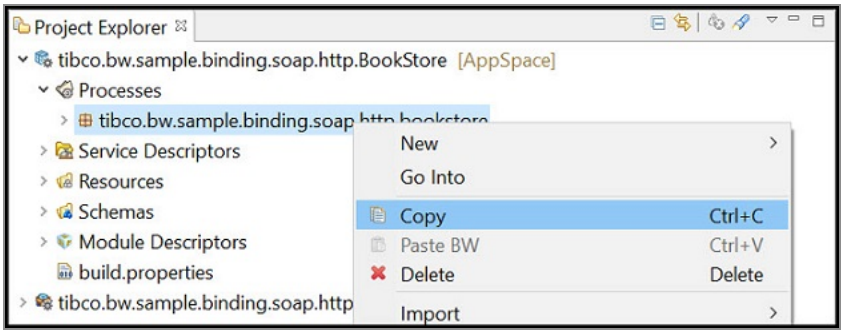
- Copying and Pasting Packages
- Deleting Packages
- Renaming Packages

Copying and Pasting Packages

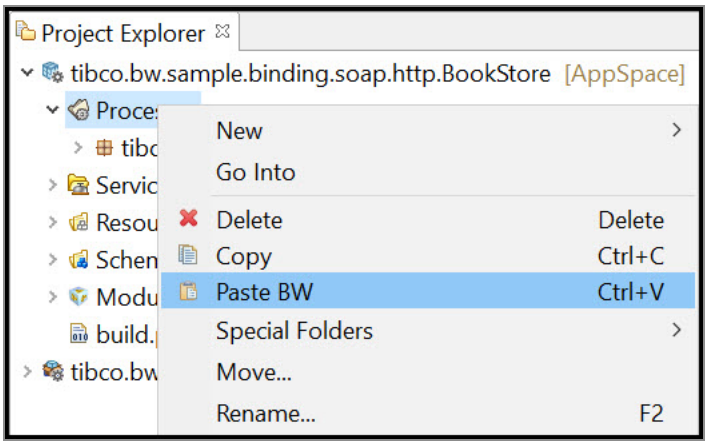
Follow the steps to copy and paste a package within same application module.

Procedure

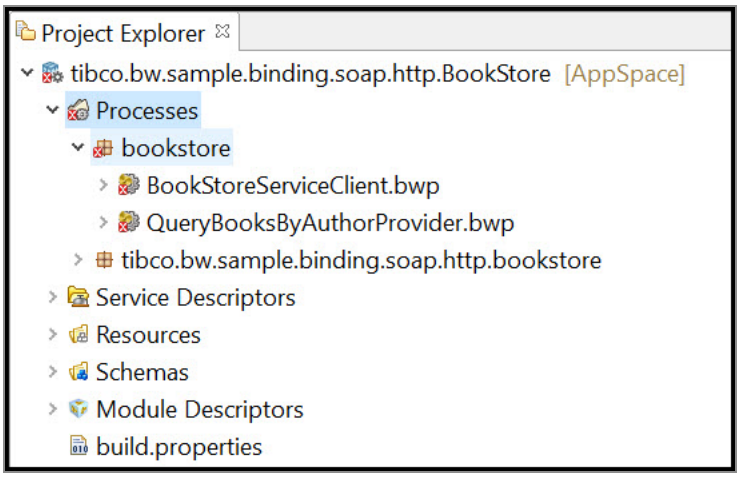
1. Select the package to copy.
2. Right-click the package and select the **Copy** option.



3. Right-click the **Processes** and select the **Paste BW** option.

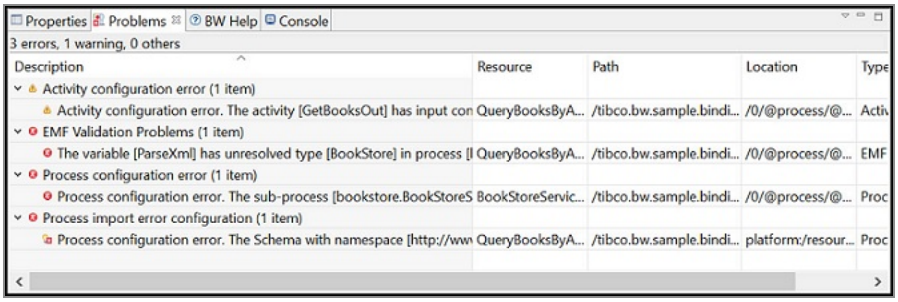


The package is displayed under **Processes** section.



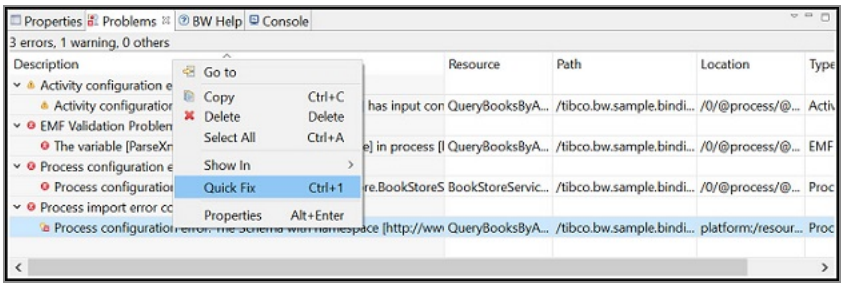
After you copy the package, all processes within that package are also copied.

However, depending on your process configuration, TIBCO Business Studio for BusinessWorks displays some errors.

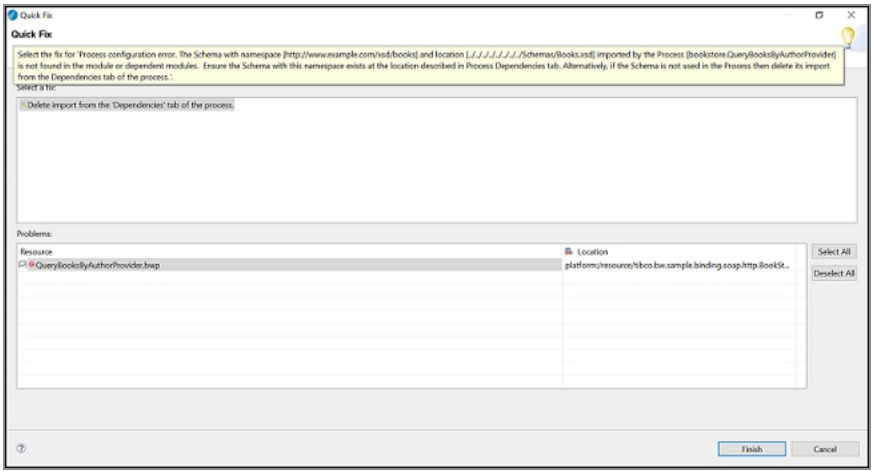


Follow the steps to resolve `Process import error configuration` errors.

a. Right-click the error in Process import error configuration section and select the **Quick Fix** menu.



b. In the Problems section, to select all checkboxes click on the **Select All** button.



Click **Finish**.

The Process import error configuration errors are resolved.

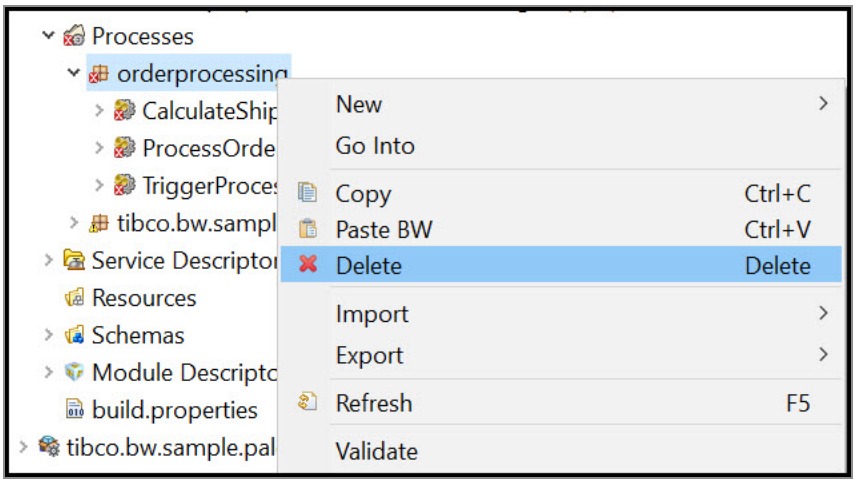
c. To resolve other types of errors, re-configure the activities within the processes.

Deleting Packages

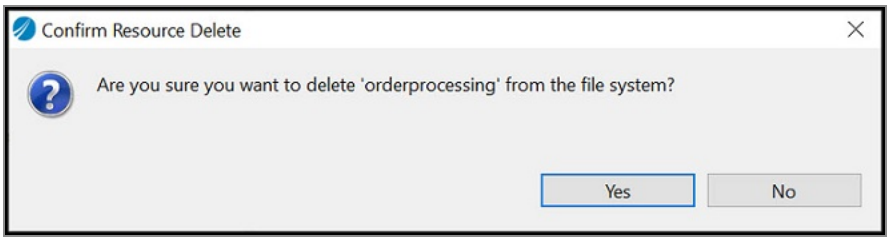
Follow the steps to delete a package.

Procedure

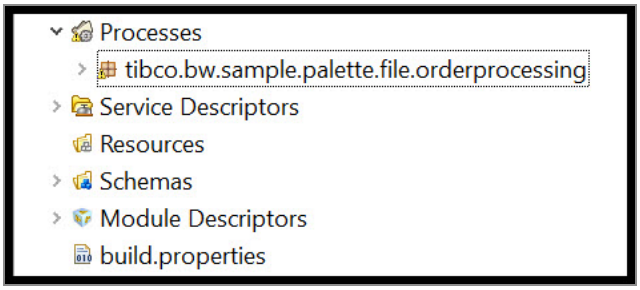
1. Select a package to delete.
2. Right-click the package and select the **Delete** option.



3. In the Confirm Resource Delete dialog, click **Yes**.



The package is deleted.

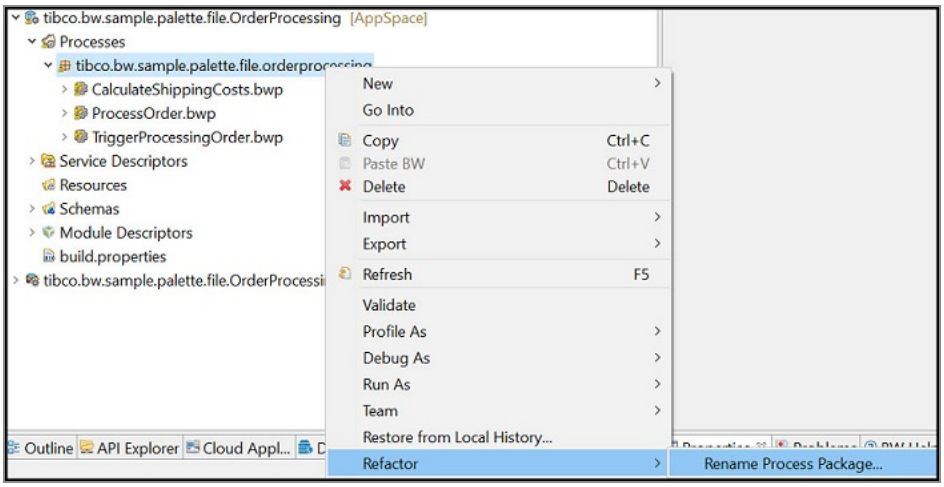


Renaming Packages

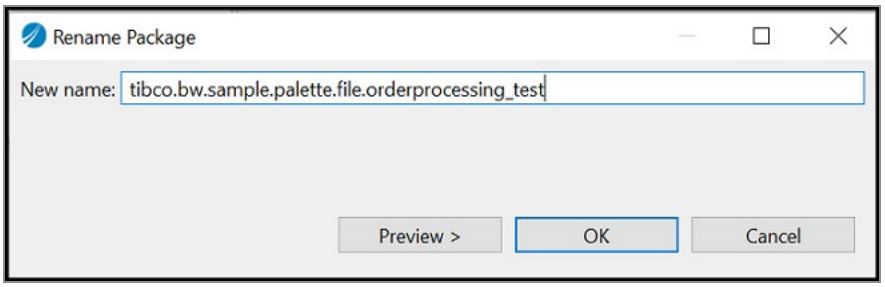
Follow the steps to rename a package

Procedure

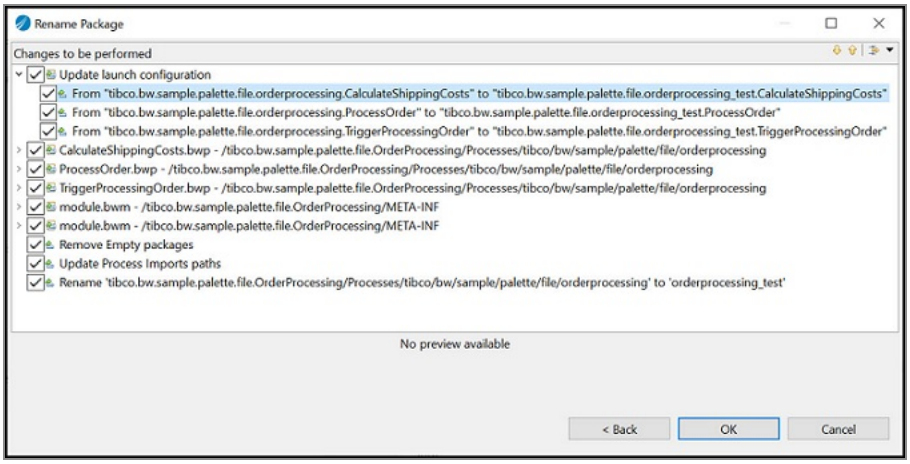
1. Select a package to rename.
2. Right-click the package and select **Refactor > Rename Process Package**.



3. In the Rename Package dialog, change a name of the package.



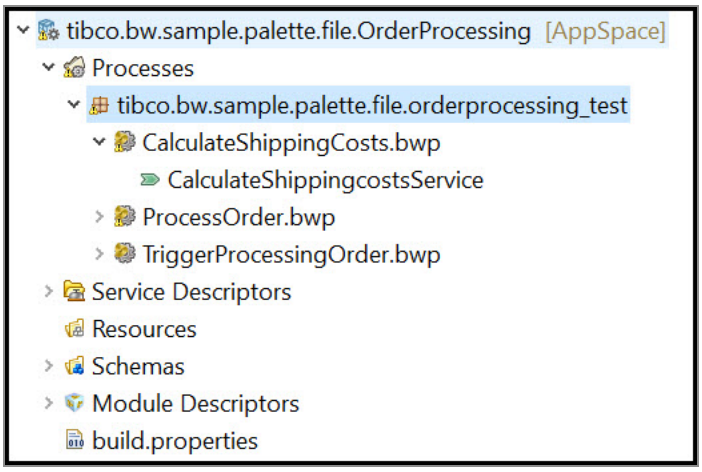
4. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the check boxes in the Rename Package dialog selected.

5. Click **Ok**.

   The new package name is displayed in the **Project Explorer** view.



Refactoring Processes

The following refactoring operations are supported for processes.

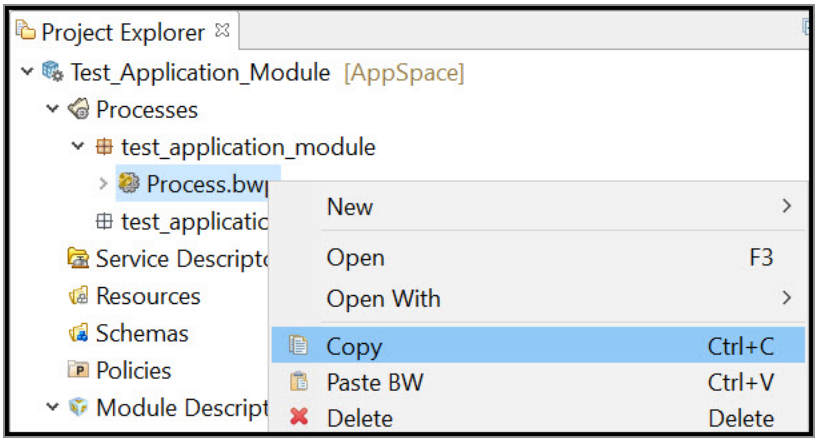
- Copying and pasting processes
- Renaming processes
- Deleting processes
- Moving processes

Copying and Pasting Processes

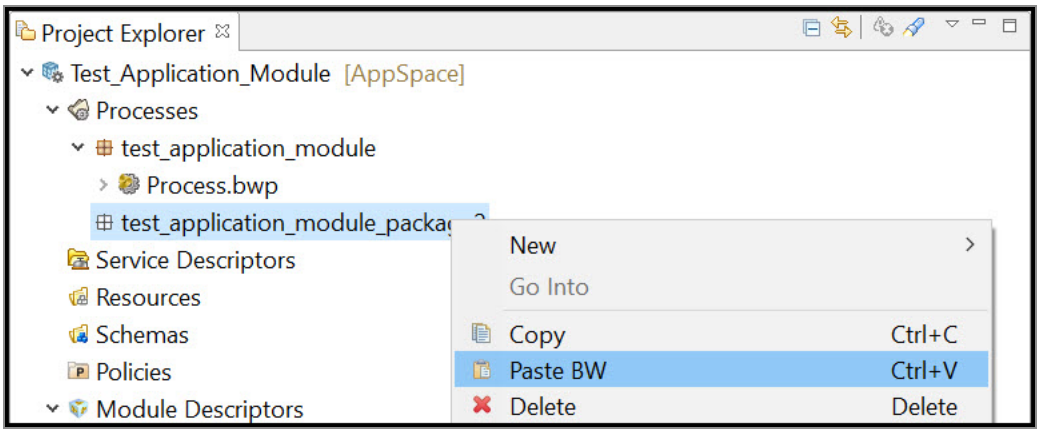
Follow the steps to copy and paste processes within a same module

Procedure

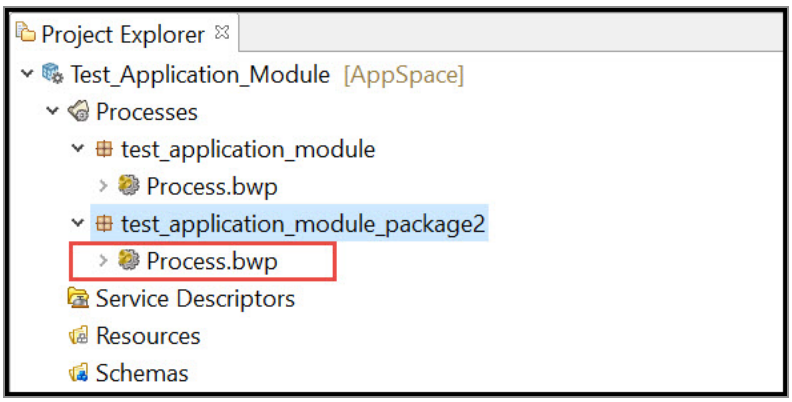
1. Select a process in a package. Right-click the process and select the **Copy** menu.



2. Select a package to copy the process. Right-click the package and select the **Paste BW** menu.

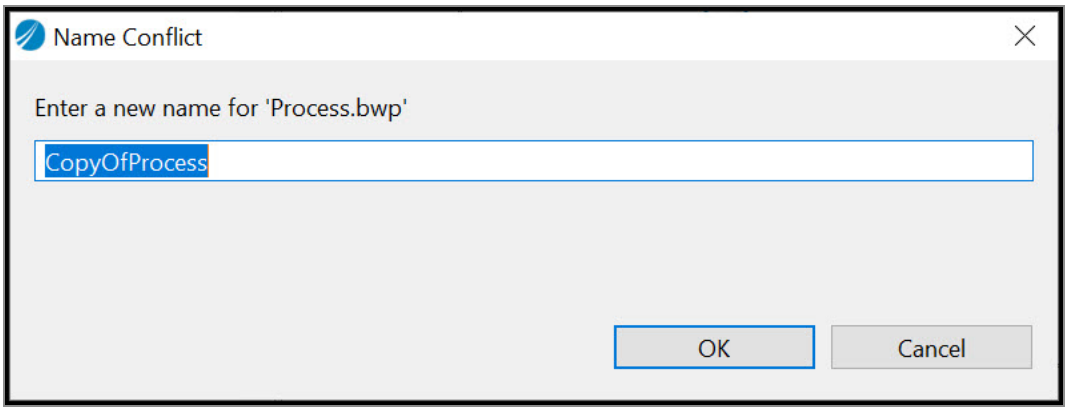


The process is copied in the package.



TIBCO recommends to copy a process in a package.

Note: If you select a same package to paste a process, the Name Conflict dialog is displayed.



Similarly, you can copy processes

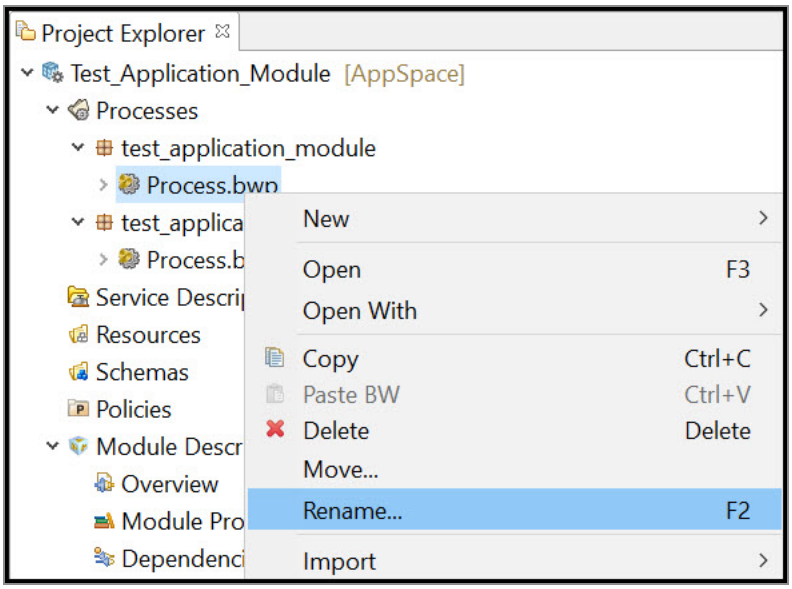
- Outside a package
- inside any folder
- At an application module level.

Renaming Processes

Follow the steps to rename a process

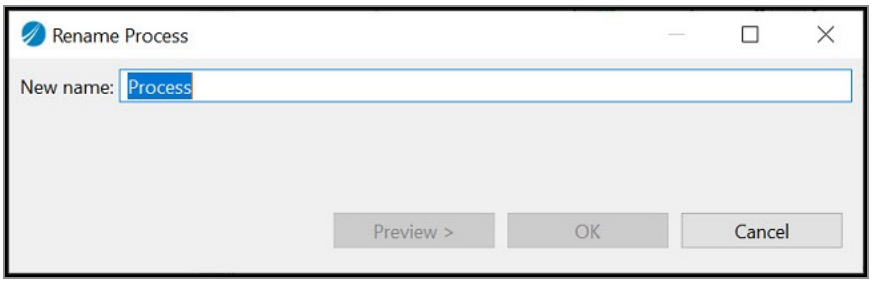
Procedure

1. Select a process. Right-click the process and select the **Rename** option.

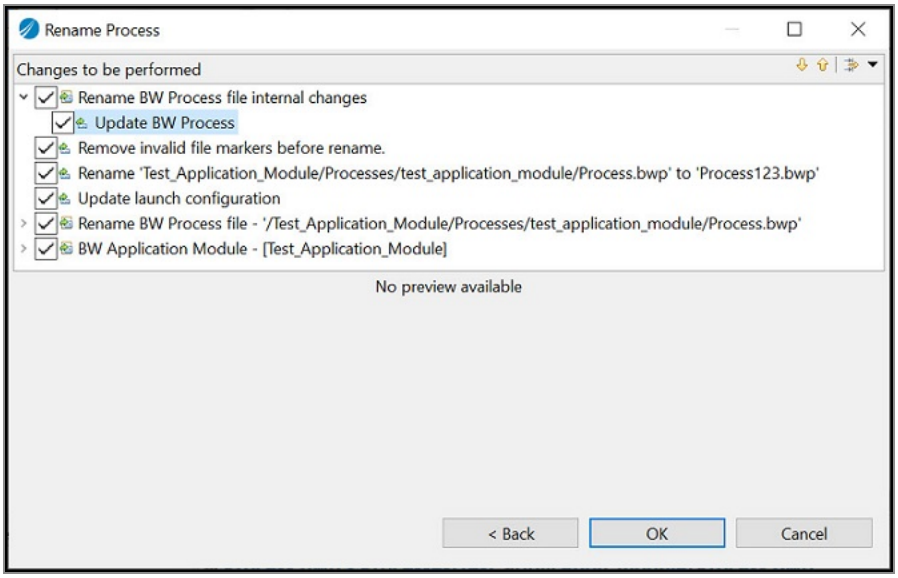


   The Rename Process dialog is displayed.

2. In the Rename Process dialog, change the name of the process.



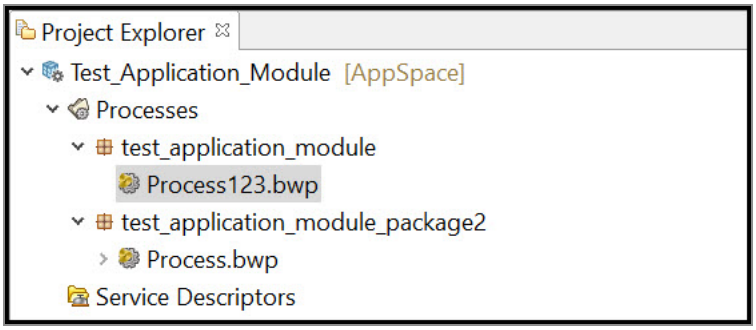
3. Optional. To see the changes that are performed, click **Preview**.



> **Important:** TIBCO recommends to keep all the check boxes in the Rename Process dialog selected.

4. Click **Ok**.

   The name of the process is changed.

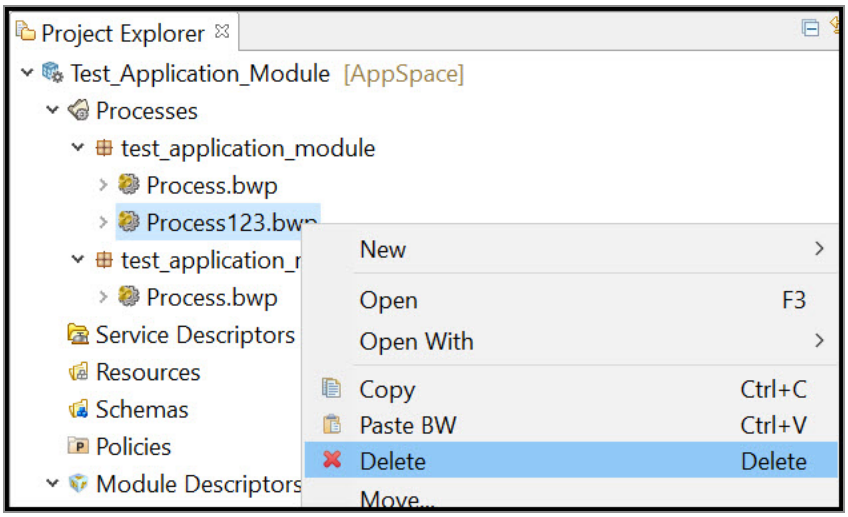


Deleting Processes

Follow the steps to delete a process.

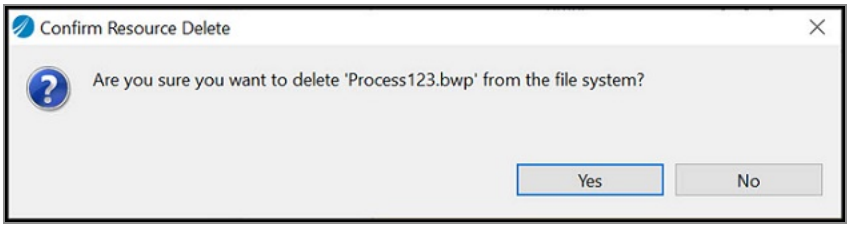
Procedure

1. Select a process to delete. Right-click the process and select the **Delete** menu.

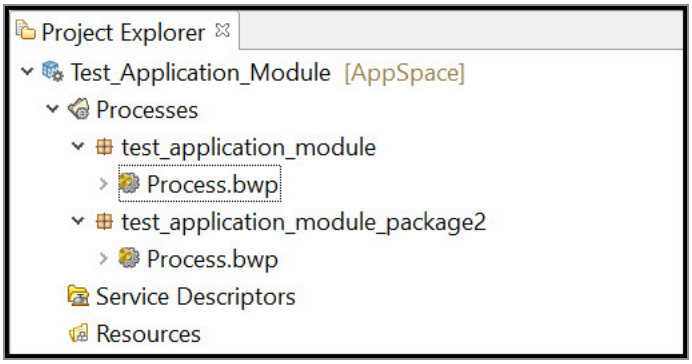


The Confirm Resource Delete dialog is displayed.

2. In the Confirm Resource Delete dialog, click **Yes**.



The process is deleted from a package.

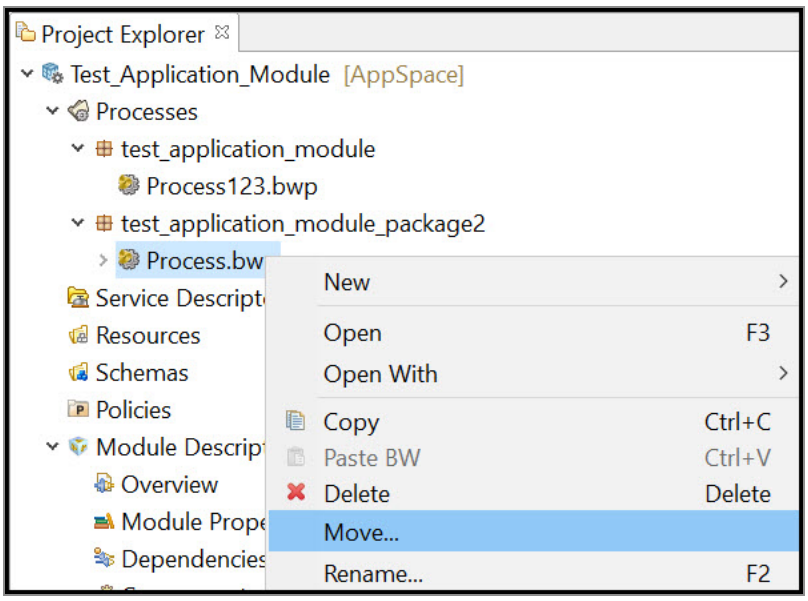


Moving Processes

Follow the steps to move a process.

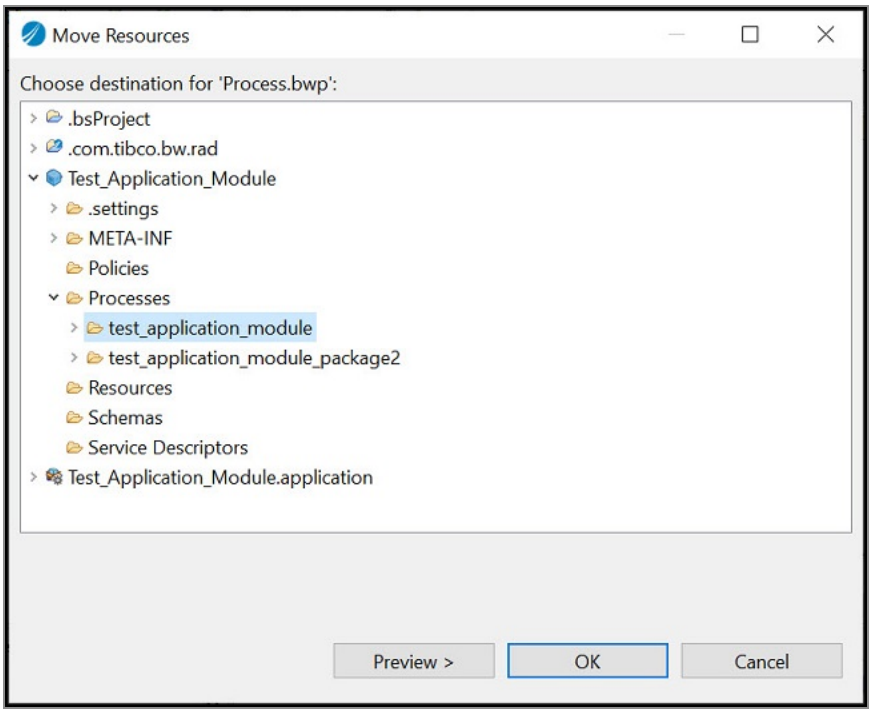
Procedure

1. Select a process. Right-click the process and select the **Move** option.

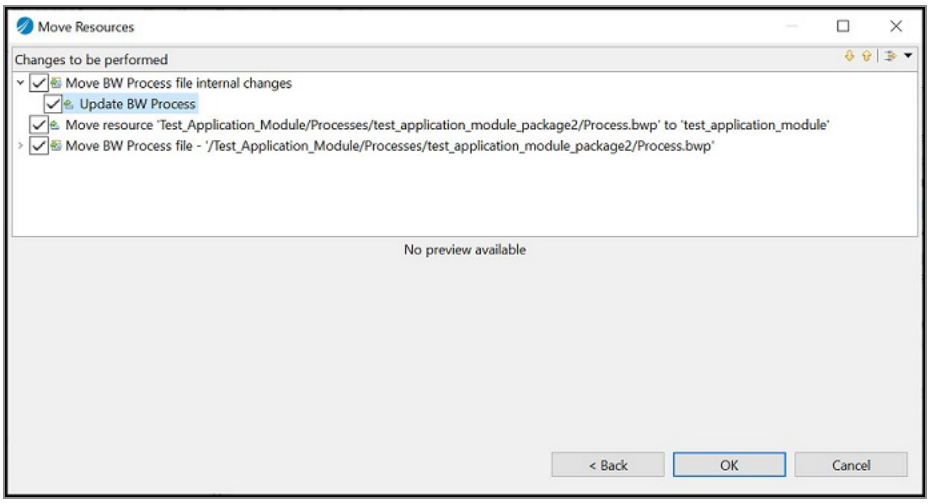


The Move Resources dialog is displayed.

2. In the Move Resources dialog, select a folder in a module.



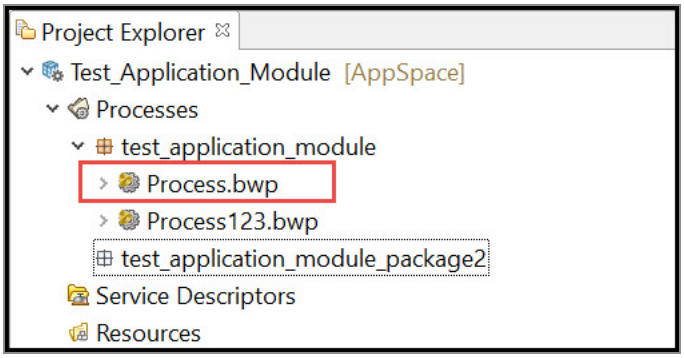
3. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the check boxes in the Move Resources dialog selected.

4. Click **OK**.

   The process is moved to the selected package.



Refactoring Schema Namespaces

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:

Procedure

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**.

This triggers the namespace change in all the connected process dependencies and even the mappings get updated without error.

Refactoring Policies

The following refactoring operations are possible for policies.

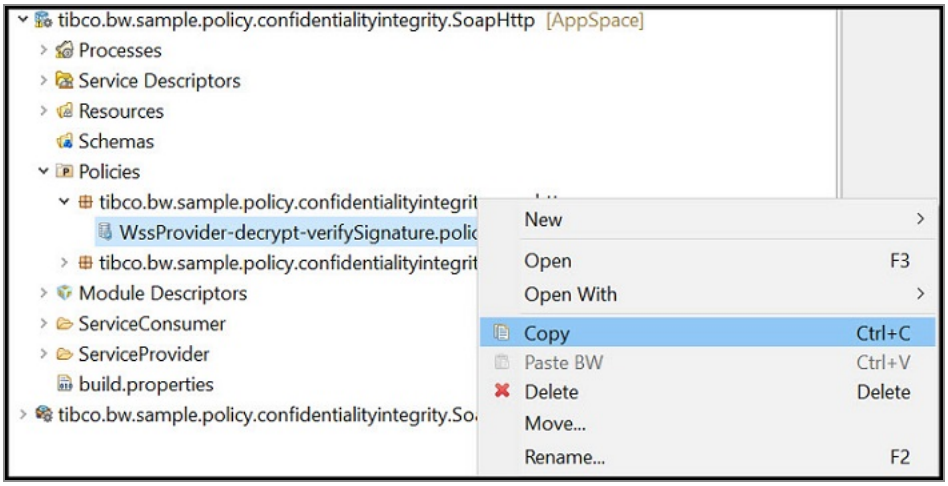
- Copying and Pasting policies
- Renaming policies
- Deleting policies
- Moving policies

Copying and Pasting Policies

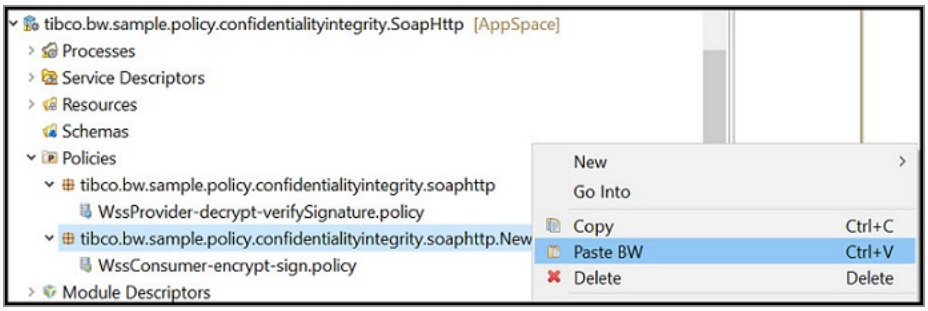
Follow the steps to copy and paste policies.

Procedure

1. In an application module, navigate to the `Policies` folder and select the policy in the package.
2. Right-click the policy and select the **Copy** option.



3. Navigate to the package in which you want to paste the policy.
4. Right-click the package and select **Paste BW** option.



A policy is pasted in the new package.

Renaming a Policy

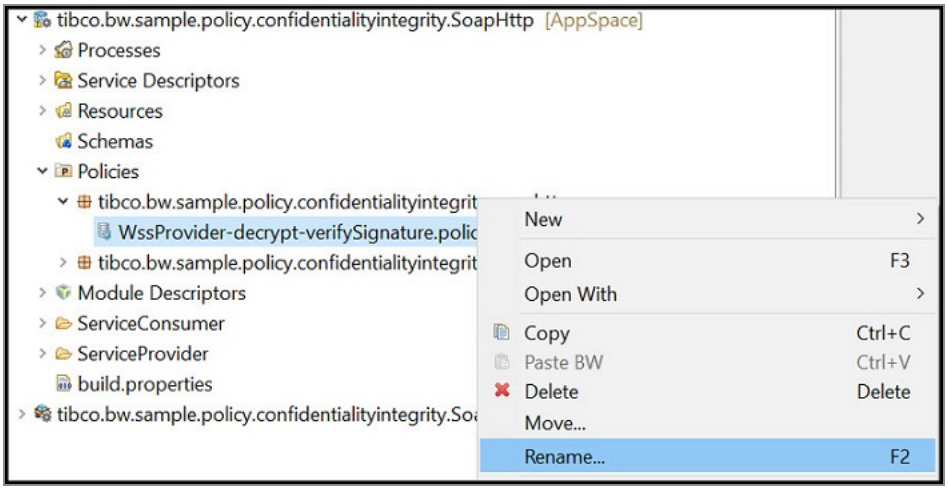
You can rename a policy by:

- Using the Rename Menu
- Using Rename Policy Wizard

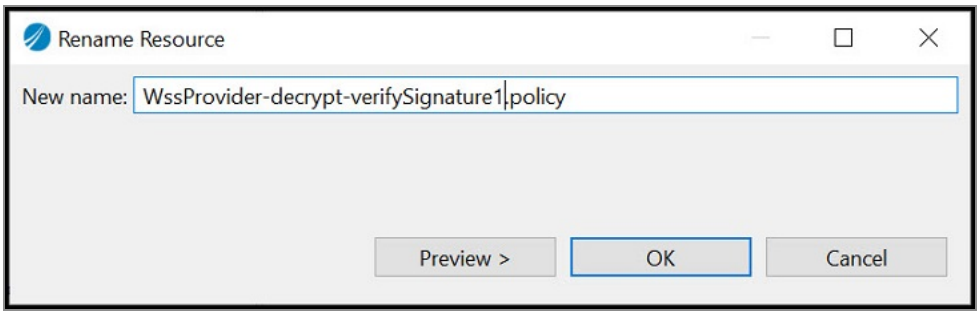
Using the Rename Menu

Procedure

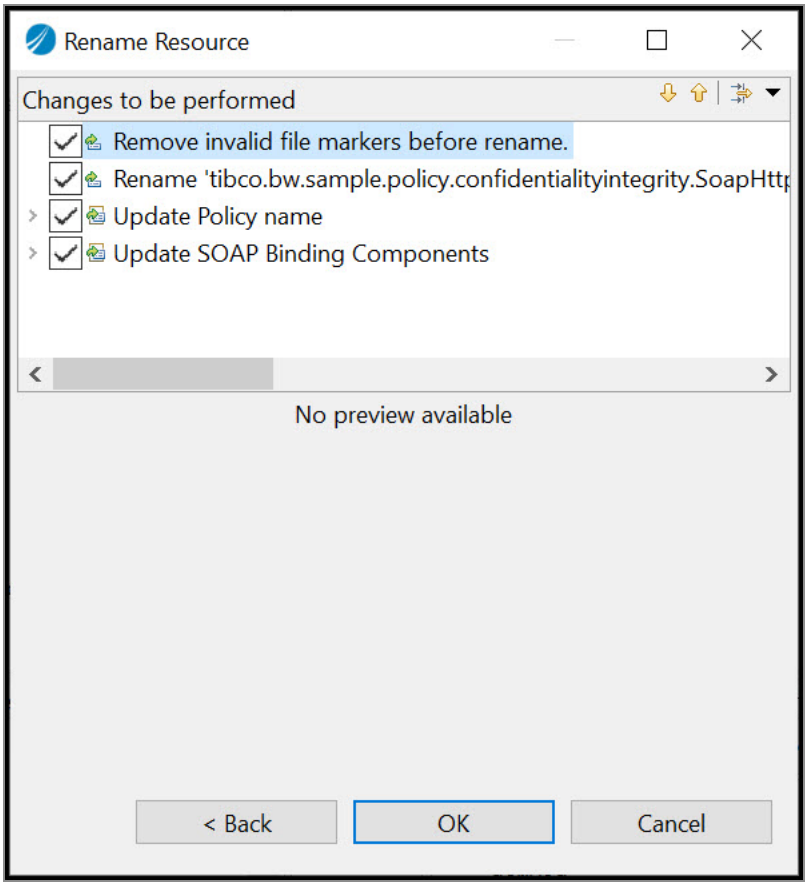
1. Select the policy to rename. Right-click the policy and select the **Rename** option.



2. In the Rename Resource dialog, provide a new name to the policy in the form `<new_name>.policy`

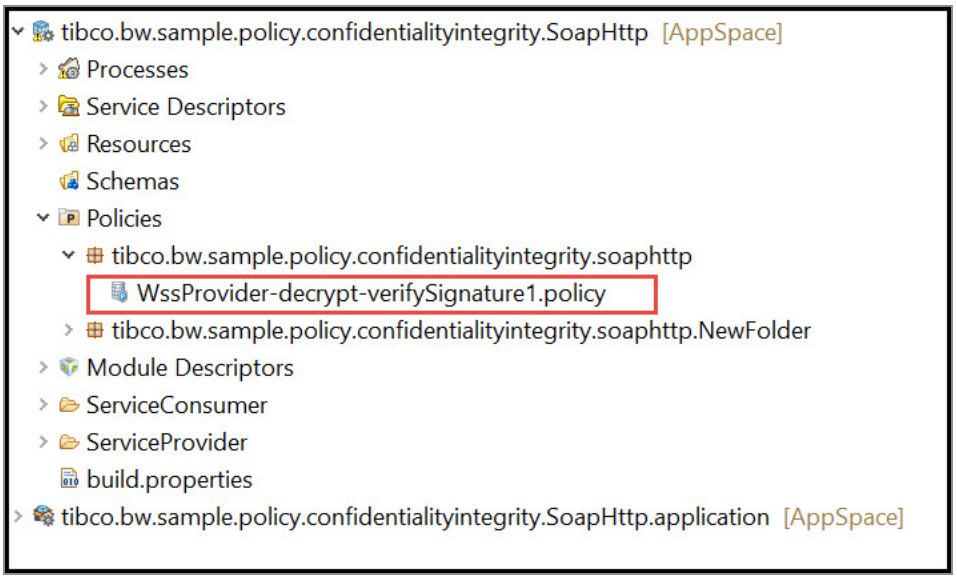


3. Optional. To see the changes that are performed, click **Preview**.



> **Important:** TIBCO recommends to keep all the check boxes in the Rename Resource dialog selected.

4. Click **OK**.



Using the Rename Policy Wizard

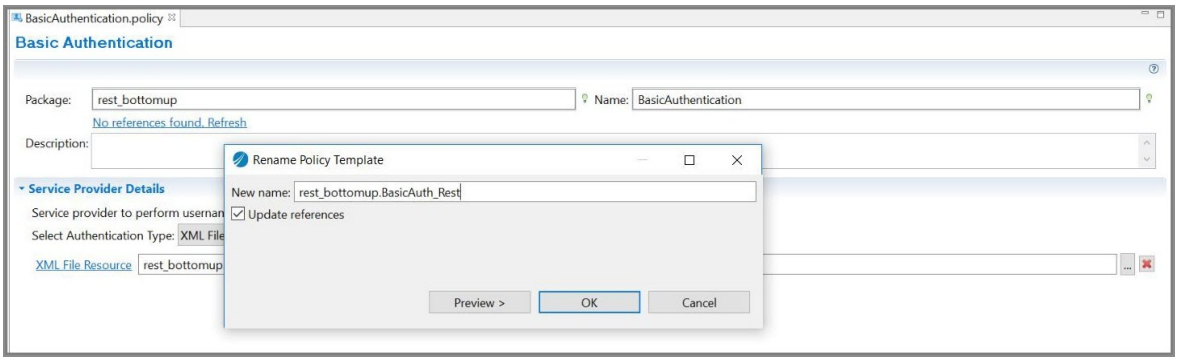
Procedure

1. Navigate to the `Policies` folder of the application module and select the policy to rename.
2. In the `Policies` folder of the application module select the green bulb icon of the **Name** field.

   The Rename Policy Template dialog is displayed.
3. In the Rename Policy Template dialog, change the name of the policy.

   By default, the **Update references** checkbox is already selected.

   > **Important:** TIBCO recommends to keep the checkbox selected while performing the refactoring operations.



4. Optional. To see the changes that are performed, click **Preview**.
5. Click **OK**.

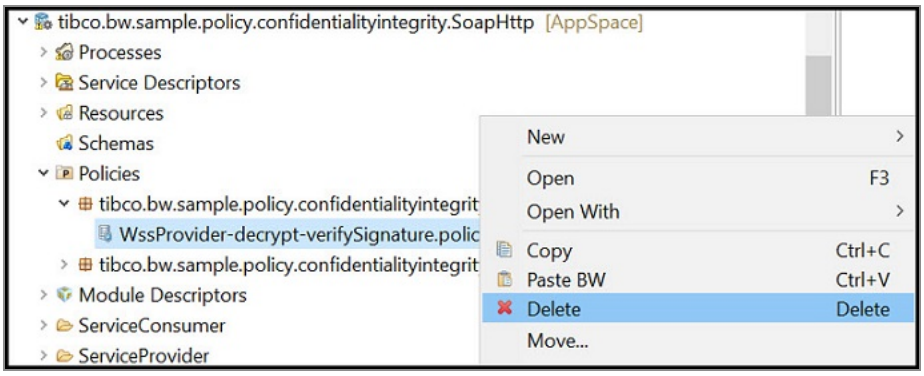
   The policy name is updated on the Rest or SOAP Service or Reference Bindings.

Deleting Policies

Follow the steps to delete a policy:

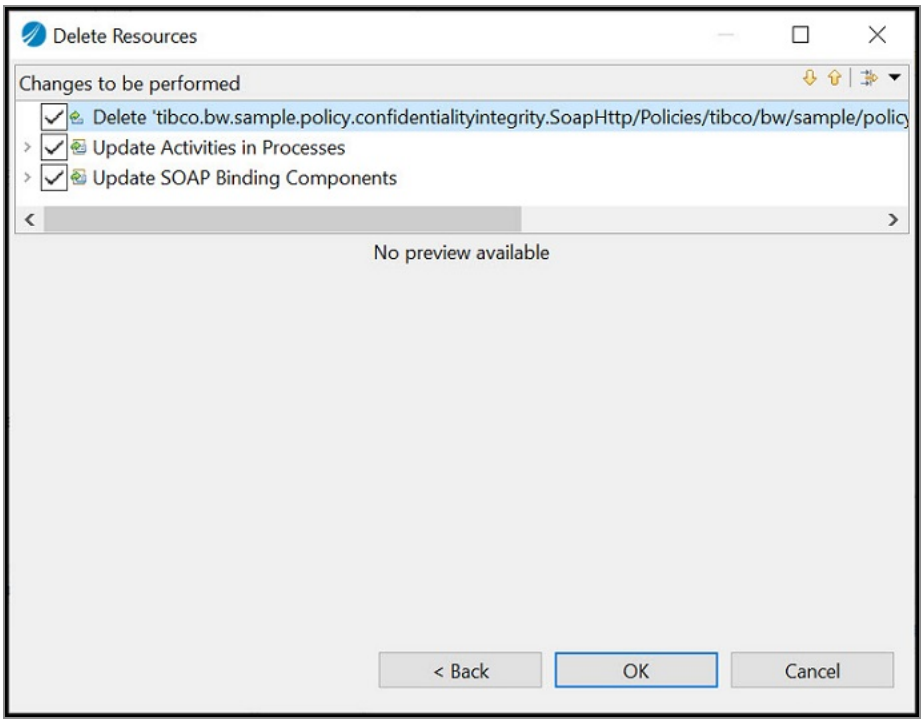
Procedure

1. Select a policy to delete.
2. Right-click the policy and select the **Delete** option.



   The Delete Resources dialog is displayed.

3. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the checkboxes in the Delete Resources dialog selected.

4. Click **OK**.

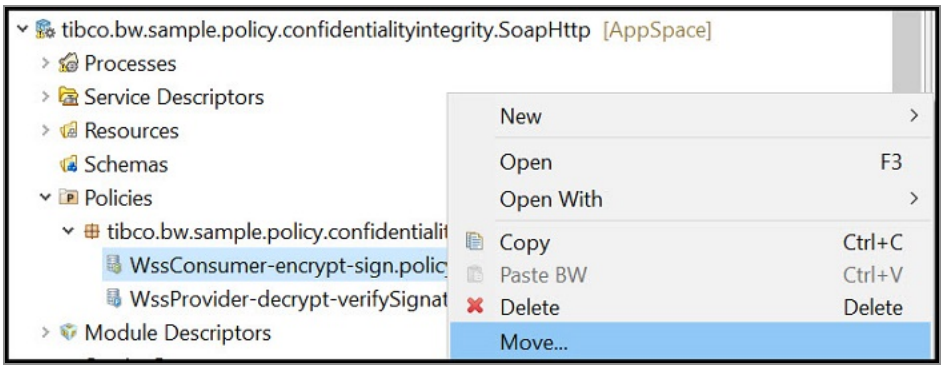
   The policy is deleted.

Moving Policies

Follow the steps to move a policy.

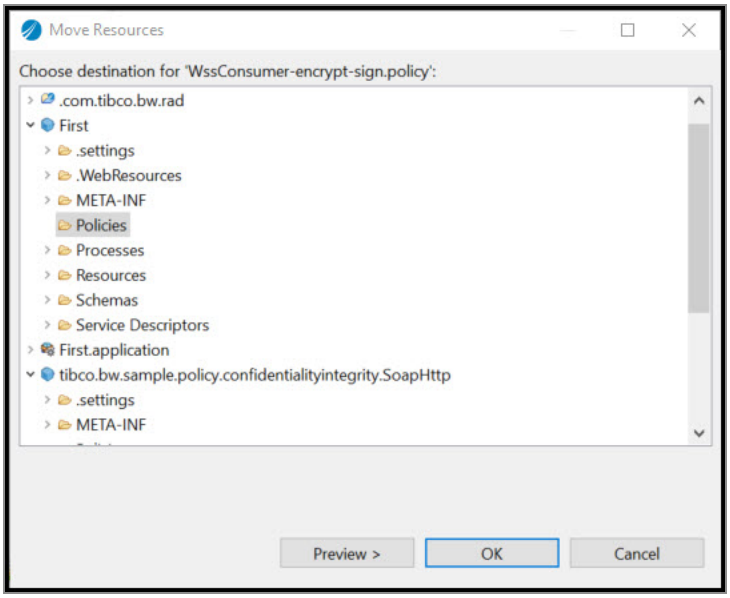
Procedure

1. Select a policy to move.
2. Right-click the policy and select the **Move** option.



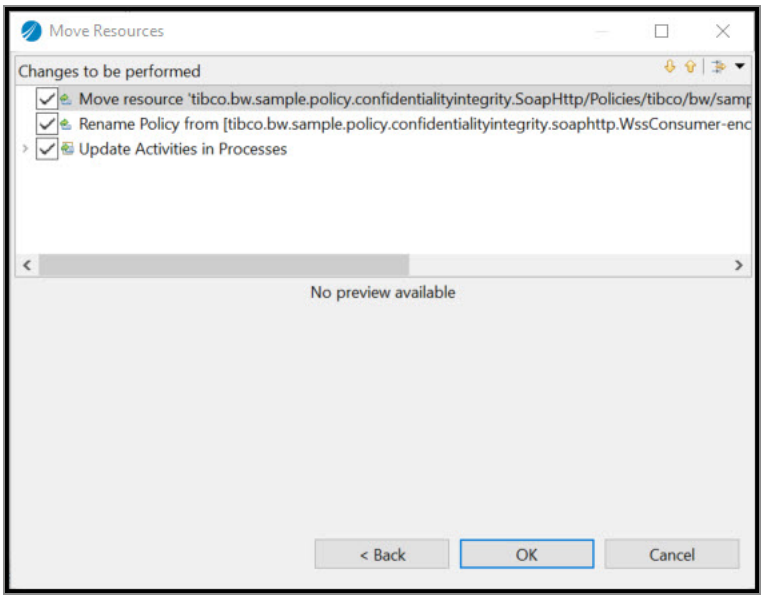
The Move Resources dialog is displayed.

3. In the Move Resources dialog, select the folder to move the policy.



Important: TIBCO recommends to move a policy in a special folder only.

4. Optional. To see the changes that are performed, click **Preview**.



Important: TIBCO recommends to keep all the checkboxes in the Move Resources dialog selected

5. Click **OK**.

   The policy is moved to the specified special folder.

Refactoring Policies with SOAP and REST Binding

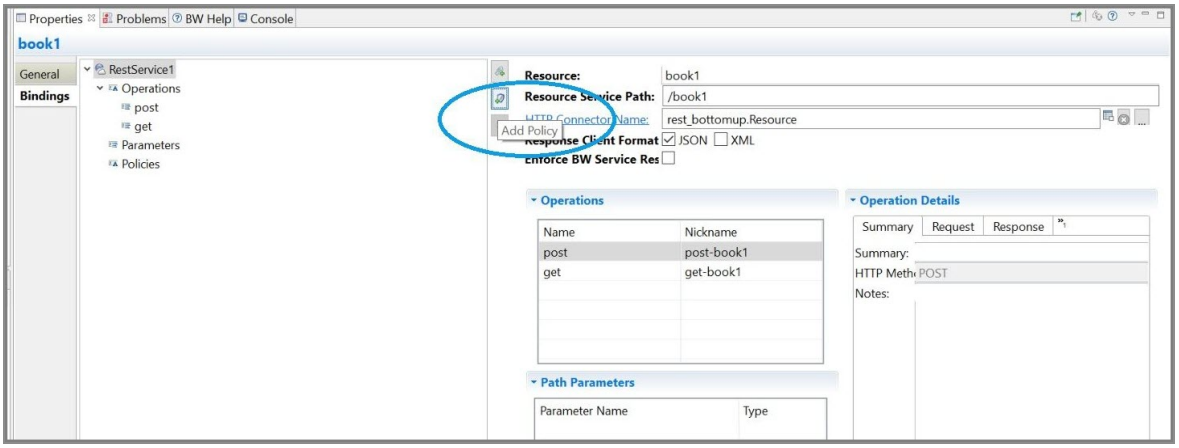
The following refactoring operations are supported for the policies using the SOAP and REST Binding Services.

Adding a Policy

Follow the steps to add a policy into TIBCO Business Studio for BusinessWorks

Procedure

1. Navigate to the **Components > Bindings** tab and click the **Add Policy** button on the service.



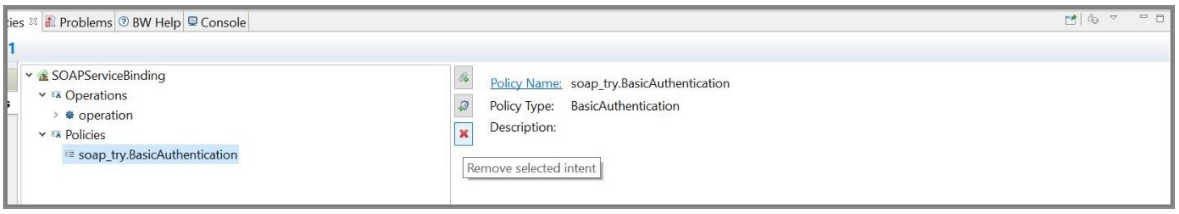
   If a policy is present for the module, it is listed in the available policies. Otherwise, a new policy is created.

Deleting a Policy

Follow the steps to delete the policy of a SOAP Service or Reference Binding from TIBCO Business Studio for BusinessWorks.

Procedure

1. Navigate to the **Components > Bindings** tab of the SOAP Service or Reference Bindings.
2. Click the red cross icon of the policy name to be deleted.



Result

The policy is removed from the bindings.

Refactoring Properties

Refactoring of the following properties is possible.

- Process properties
- Module properties
- Application properties

Refactoring Process Properties

The following refactoring options are supported for Process Properties.

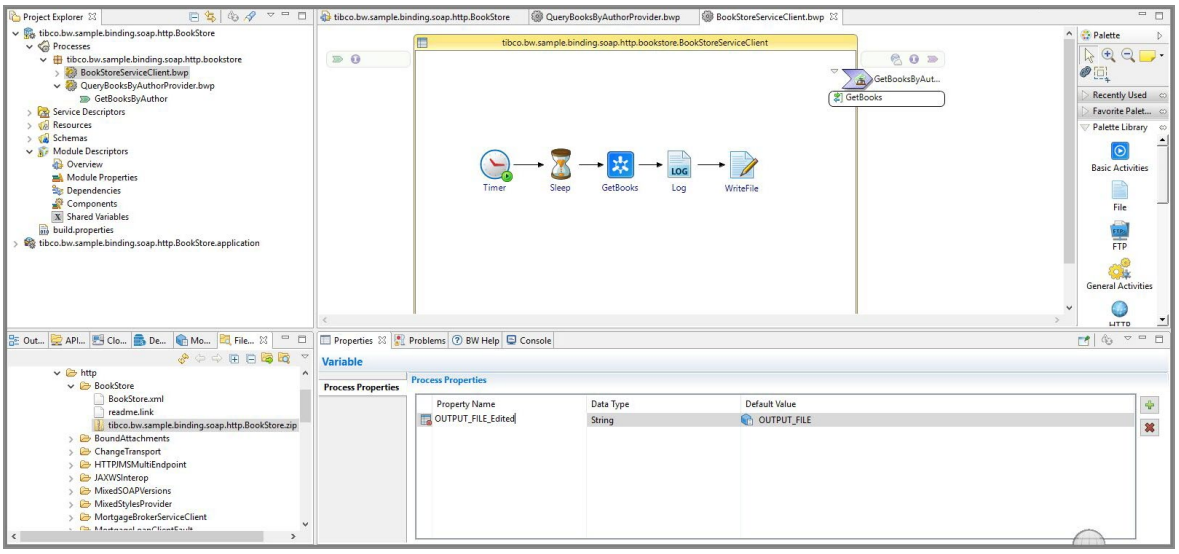
- Renaming a Process Property
- Deleting a Process Property
- Renaming a Shared Resource Reference in Process Property
- Deleting a Shared Resource Reference in a Process Property

Renaming a Process Property

Follow the steps to rename a process property into TIBCO Business Studio for BusinessWorks.

Procedure

1. Select the process property to rename.
2. On the **Process Properties** tab, select the **Property Name** column and edit the name in the column.



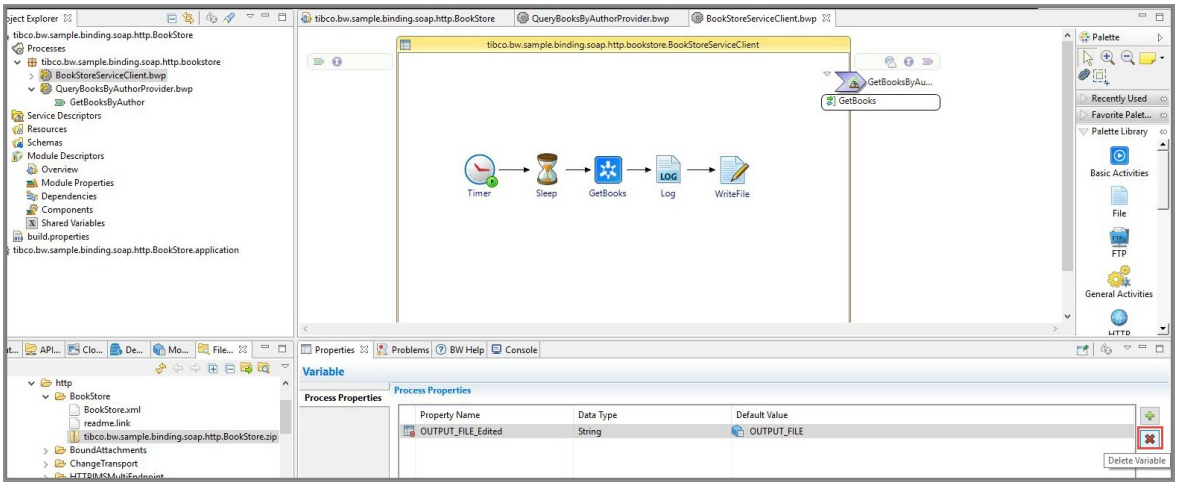
The Process Property is renamed successfully.

Deleting a Process Property

Follow the steps to delete a process property from TIBCO Business Studio for BusinessWorks.

Procedure

1. Select the process property to delete and click the delete variable icon.



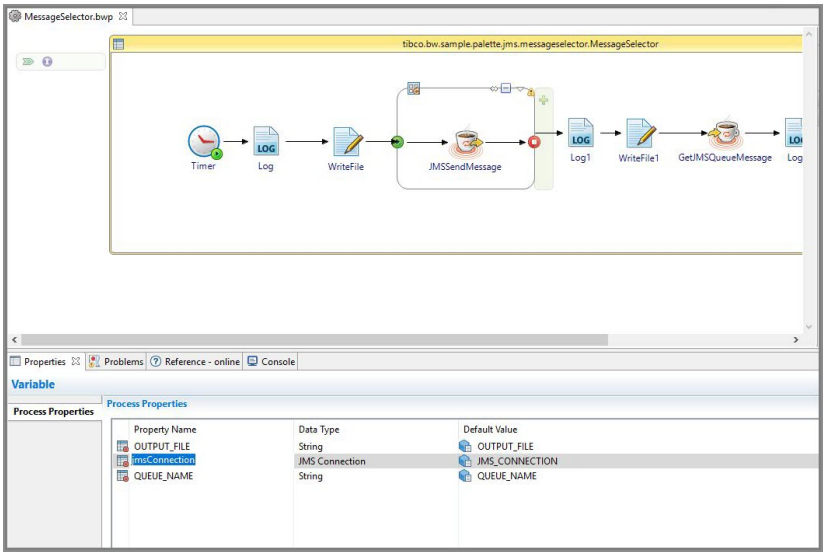
The selected process property is deleted.

Renaming a Shared Resource Reference in Process Property

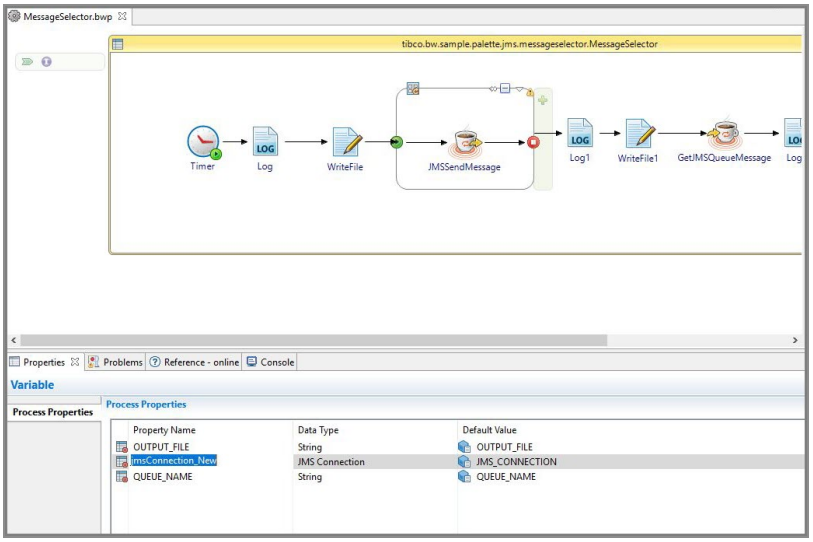
Follow the steps to rename a shared resource reference in a process property for TIBCO Business Studio for BusinessWorks.

Procedure

1. Select the process property which is referencing the shared resource.



2. On the **Process Properties** tab, select the **Property Name** column and edit the name in the column.



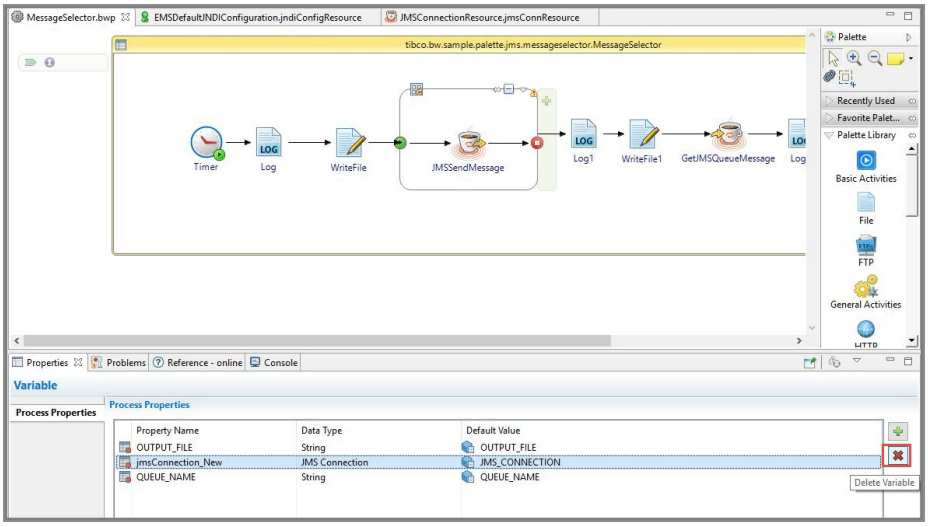
All the name references are updated.

Deleting a Shared Resource Reference in a Process Property

Follow the steps to delete a shared resource reference in a process property from TIBCO Business Studio for BusinessWorks.

Procedure

1. Select the property from the shared resource and click the delete variable icon.



The shared resource reference property is deleted.

Refactoring Module Properties

The following refactoring options are supported for Module Properties.

- Renaming a Module Property
- Deleting a Module Property
- Renaming a Module Property Group
- Moving a Module Property to a Group

- Deleting Module Property Group

Renaming a Module Property

Follow the steps to rename a module property.

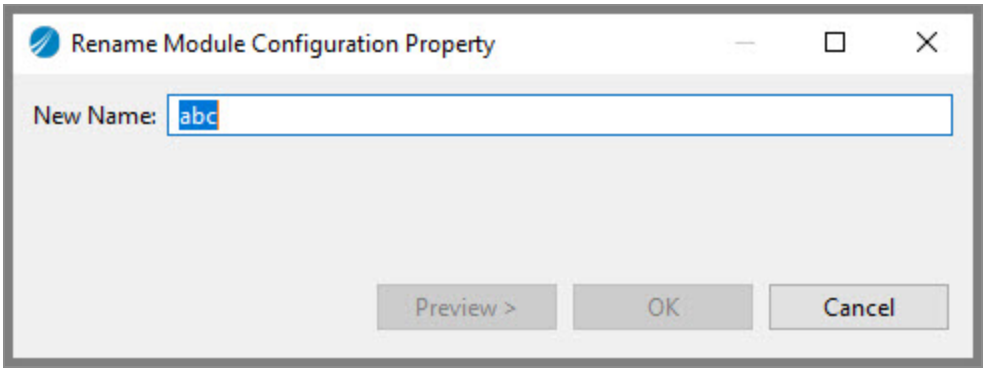
Procedure

1. In the **Project Explorer** view, navigate to the **Module Properties** section and double-click it.
2. In the **Module Properties** view, select the property to rename.

3. On the **General** tab of the **Module Property** section, click the **Rename Properties Configuration Group** icon.

   The Rename Module Configuration Property dialog is displayed.

4. In the Rename Module Configuration Property dialog, change the name of the module property.



5. Optional. To see the changes that are performed, click **Preview**.
6. Click **OK**.

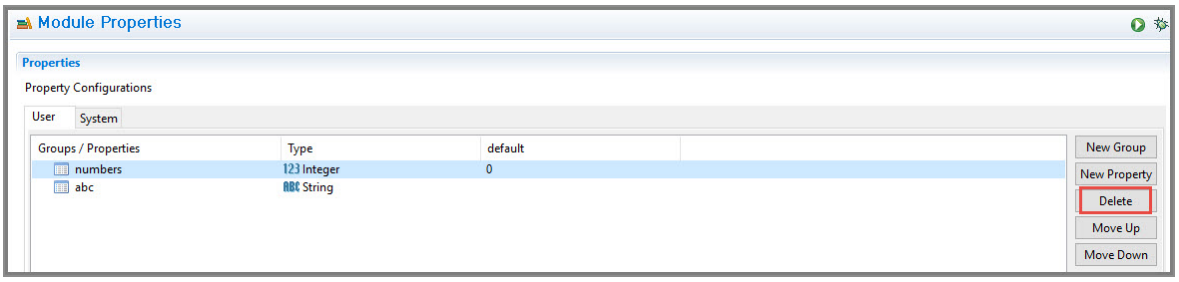
   The name of the module property is changed.

Deleting a Module Property

Follow the steps to delete a module property.

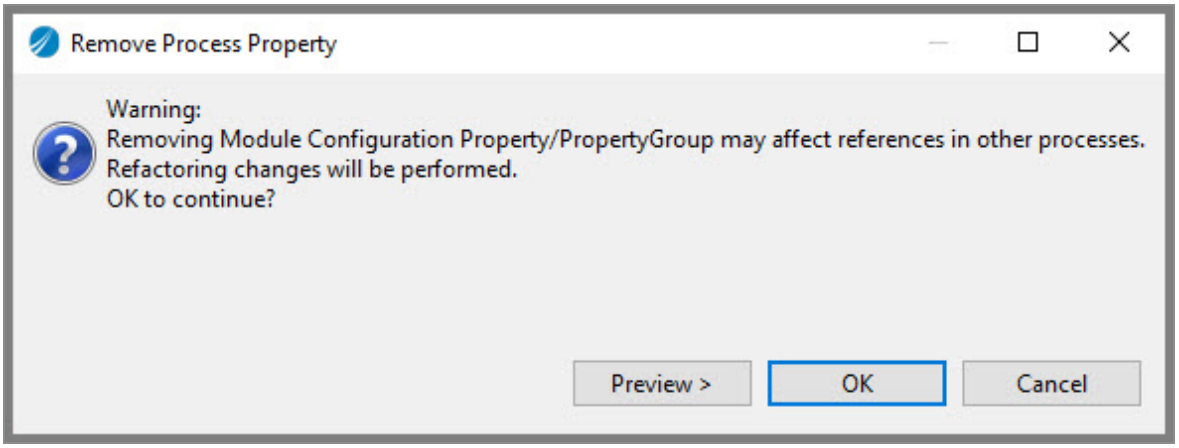
Procedure

1. In the **Project Explorer** view, navigate to the **Module Properties** section and double-click it.
2. In the **Module Properties** view, select the module property to delete. On the right hand side panel click **Delete**.



   The Remove Process Property dialog is displayed.

3. Optional. To see the changes that are performed, click **Preview**.



4. Click **OK**.

   The module property is deleted.

Renaming a Module Property Group

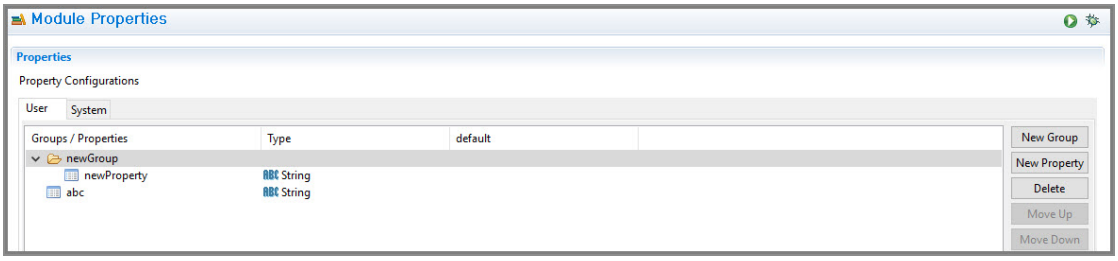
Follow the steps to rename a module property group.

Procedure

1. In the **Project Explorer** view, navigate to the **Module Properties** section and double-click it.

   The **Module Properties** view is displayed.

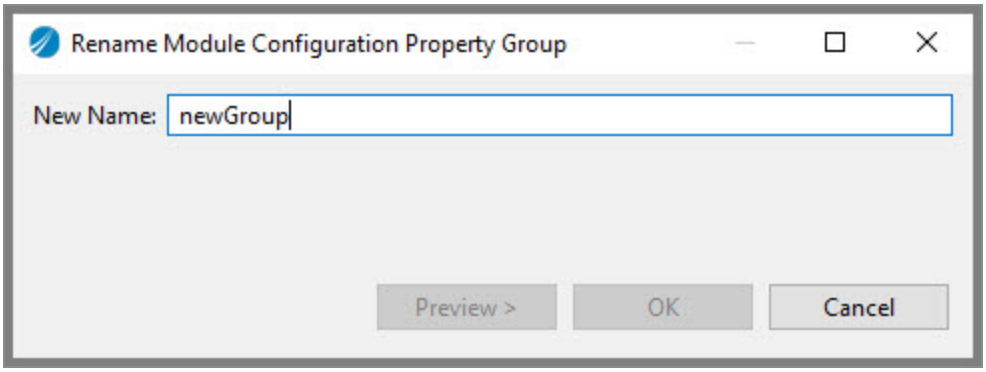
2. In the **Module Properties** view, select the module property group to rename.



3. On the **General** tab of the **Module Property Group** section, click the **Rename Properties Configuration Group** icon.

   The Rename Module Configuration Property Group dialog is displayed.

4. In the Rename Module Configuration Property Group dialog, change the name of the module property group.



> **Note:** If a module property group is renamed as "Application", a validation error message occurs, because if you try to promote that property with the name "Application", the group falls into an infinite loop since the name of the application property section is also "Application".

5. Optional. To see the changes that are performed, click **Preview**.
6. Click **OK**.

The name of the module property group is changed.

Moving a Module Property to a Group

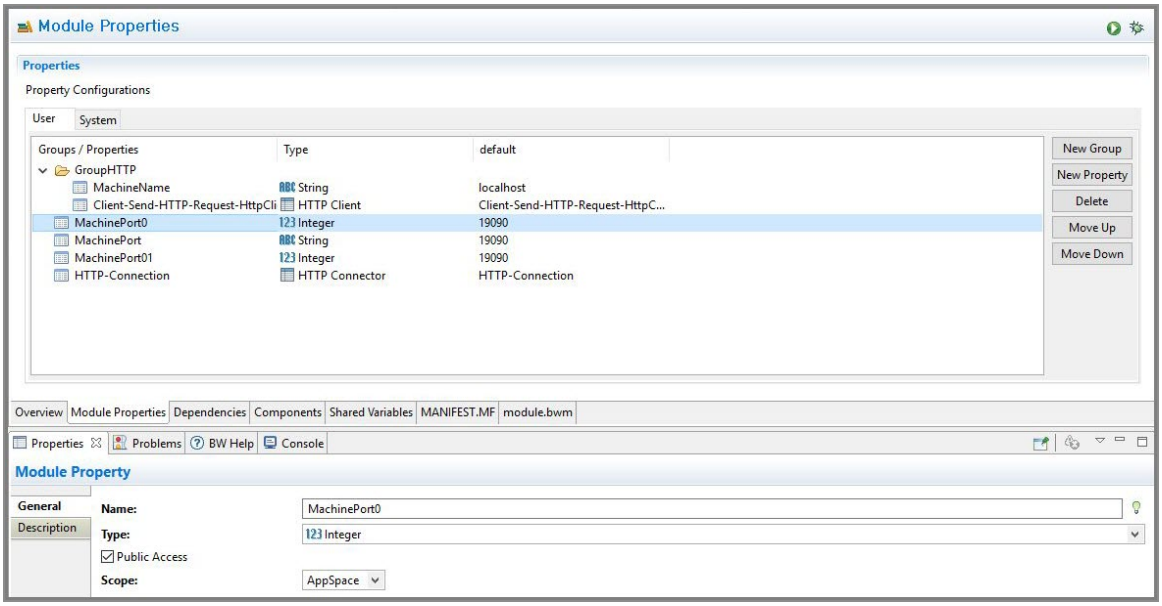
Follow the steps to move a module property to a group.

Procedure

1. In the **Project Explorer** view, navigate to the **Module Properties** section and double-click it.

   The **Module Properties** view is displayed.

2. In the **Module Properties** view, select the module property to move into a group.



3. Drag and drop the selected module property to the group.

   The module property is moved to the specified group.

Deleting Module Property Group

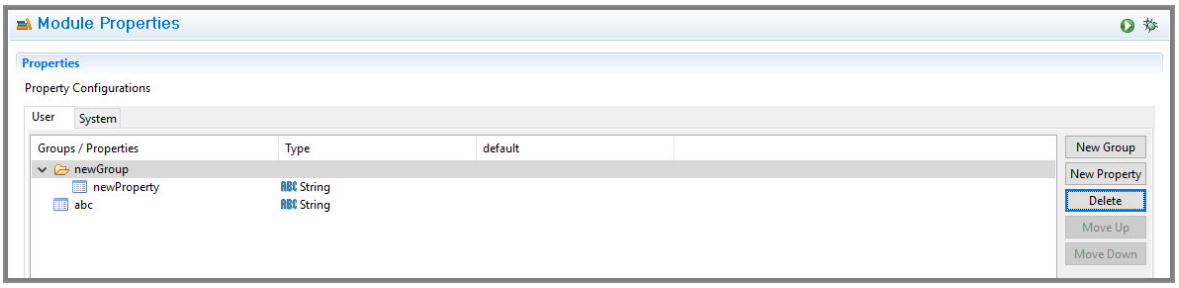
Follow the steps to delete a module property group.

Procedure

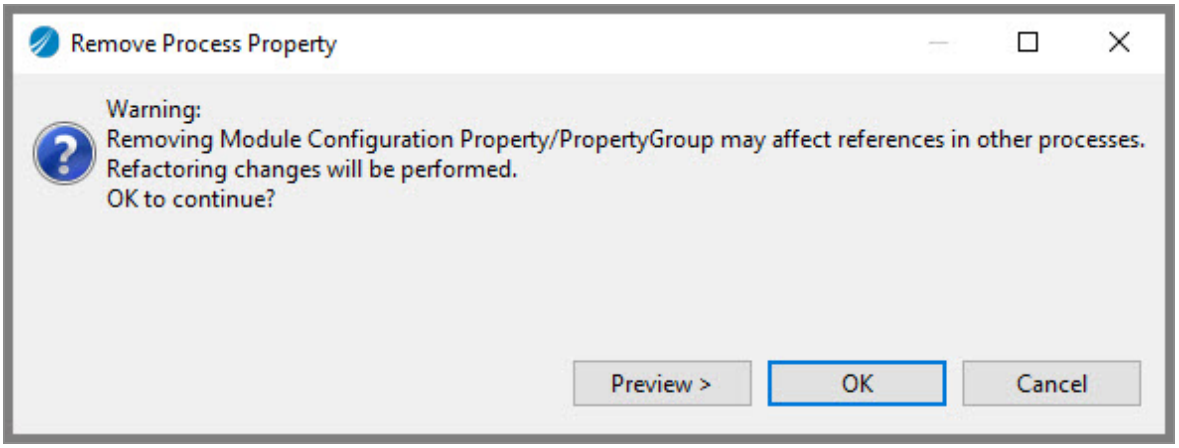
1. In the **Project Explorer** view, navigate to the **Module Properties** section and double-click it.

   The **Module Properties** view is displayed.

2. In the **Module Properties** view, select the module property group to delete. On the right hand side panel, click **Delete**.



   The Remove Process Property dialog is displayed.



3. Optional. To see the changes that are performed, click **Preview**.

   > **Important:** TIBCO recommends to keep all the check boxes in the Remove Process Property dialog selected.

4. Click **OK**.

   The module property group is deleted.

Refactoring Application Properties

The following refactoring options are supported for Application Properties.

- Renaming an Application Property
- Deleting an Application Property

Renaming an Application Property

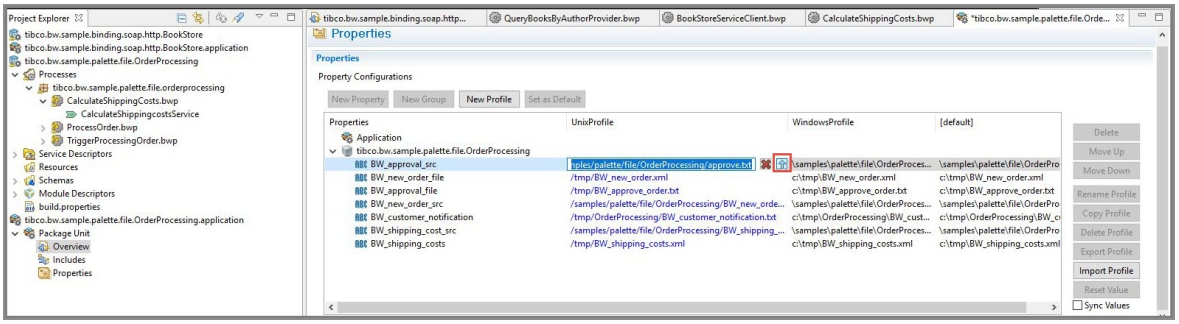
Follow the steps to rename an application property into TIBCO Business Studio for BusinessWorks.

Before you begin

To rename an application property, it first needs to get promoted.

Procedure

1. In the **Properties** view, select the application property and click the arrow to promote it.



2. In the **Property** section, add a new name in the **Name** field of the promoted application property and save the application.

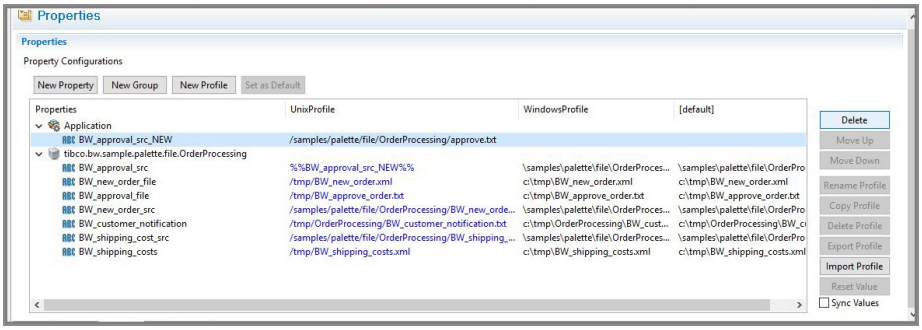
> **Note:** If an application property group is renamed as "Application", a validation error message occurs, because if you try to promote that property with the name "Application", the group falls into an infinite loop since the name of the application property section is also "Application".

Deleting an Application Property

Follow the steps to delete an application property from TIBCO Business Studio for BusinessWorks.

Procedure

1. Select the promoted application property and click the **Delete** button on the right hand side panel.



The application property is deleted.

Refactoring Modules

The following refactoring operations are possible for modules:

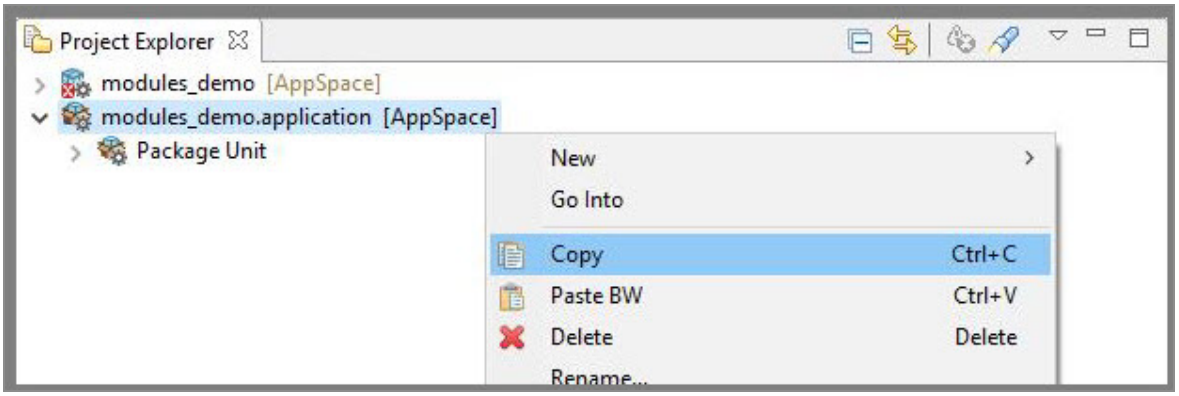
- Copying and Pasting Modules
- Renaming Modules
- Deleting Modules

Copying and Pasting Application Modules

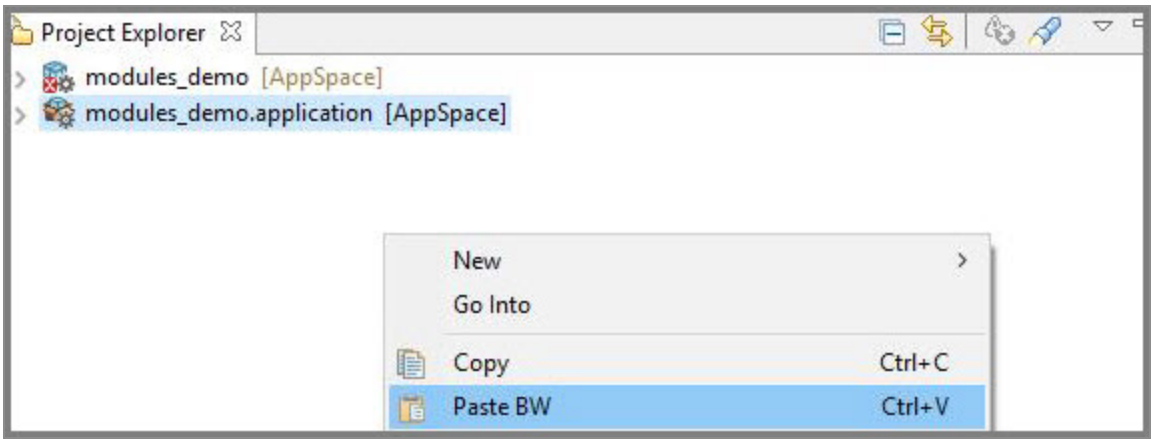
Follow the steps to copy and paste an application module into the same workspace in TIBCO Business Studio for BusinessWorks

Procedure

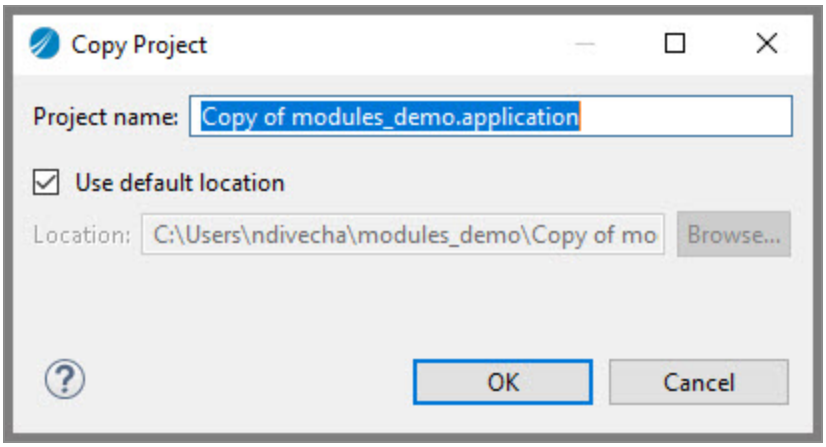
1. Select an application module to copy.
2. Right-click on the application module and select the **Copy** option.



3. Right-click and select **Paste BW** option.



The **Use default location** checkbox is selected by default. You can select the location where you want to paste the copied application module.



If you want to select a different location other than the default location, disable the **Use default location** checkbox, browse and select a new location from the **Browse for Folder** window.

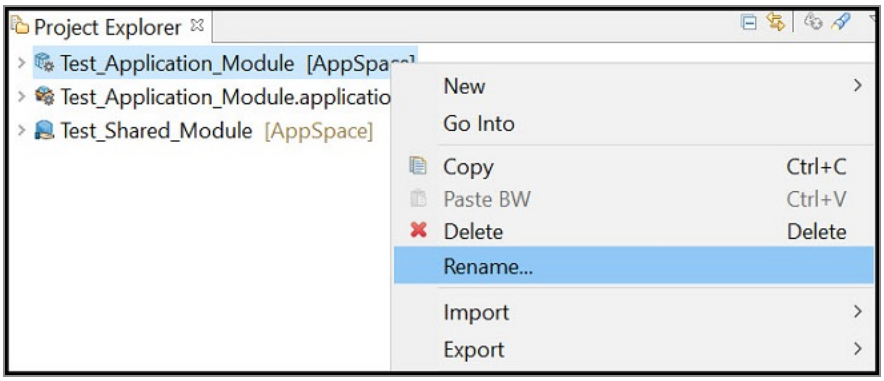
The application module is copied to the desired location.

Renaming Modules

Follow the steps to rename an application module.

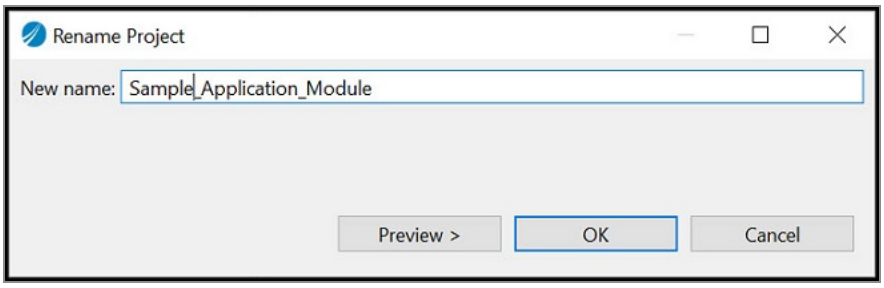
Procedure

1. Select an application module to rename.
2. Right-click on the application module and select the **Rename** option.

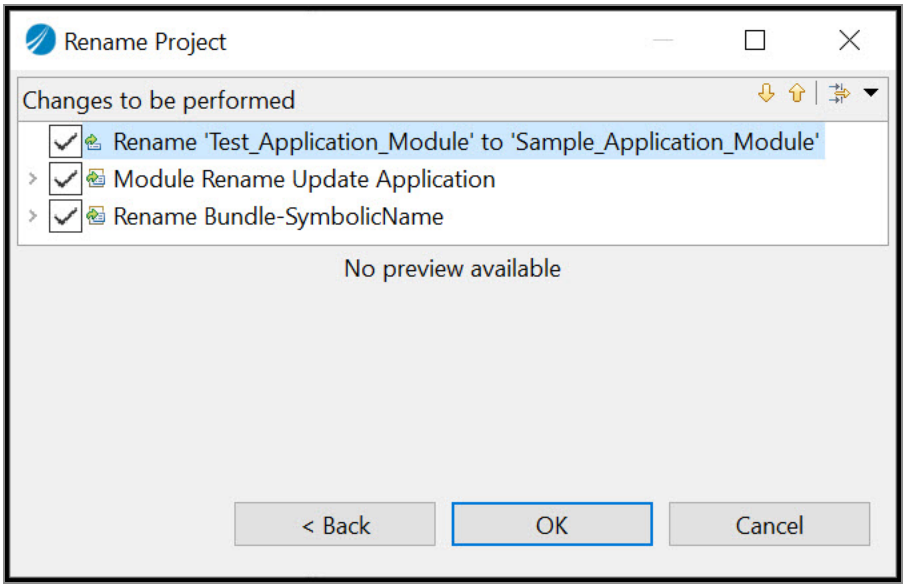


The Rename Project dialog is displayed.

3. In the Rename Project dialog, change the name of the application module.



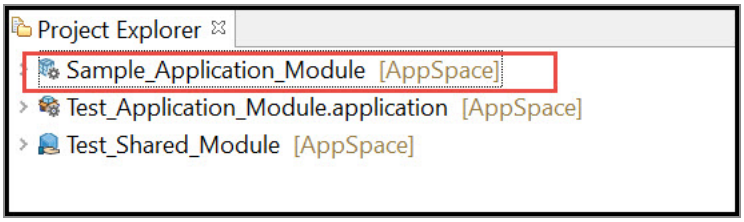
4. Optional. To see the changes that are performed, click **Preview**.



> **Important:** TIBCO recommends to keep all the checkboxes in the Rename Project dialog selected.

5. Click **OK**.

   The new application module name is displayed in the **Project Explorer** view.



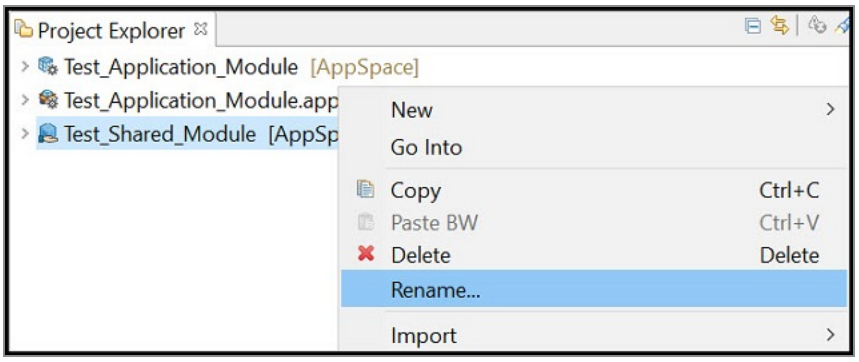
> **Note:** The package name remains unchanged.

Renaming a Shared Module

Follow the steps to rename a shared module.

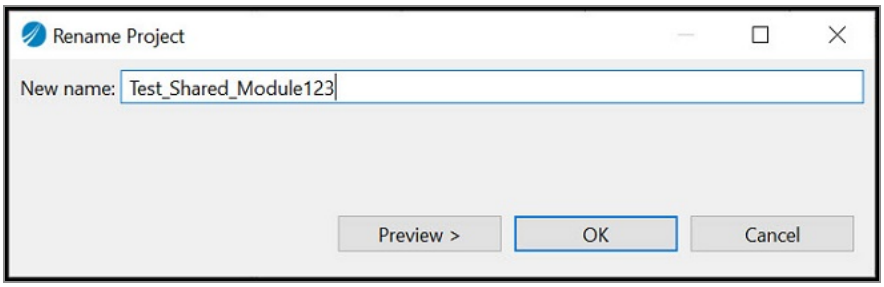
Procedure

1. Select a shared module to rename.
2. Right-click on the application module and select the **Rename** option.

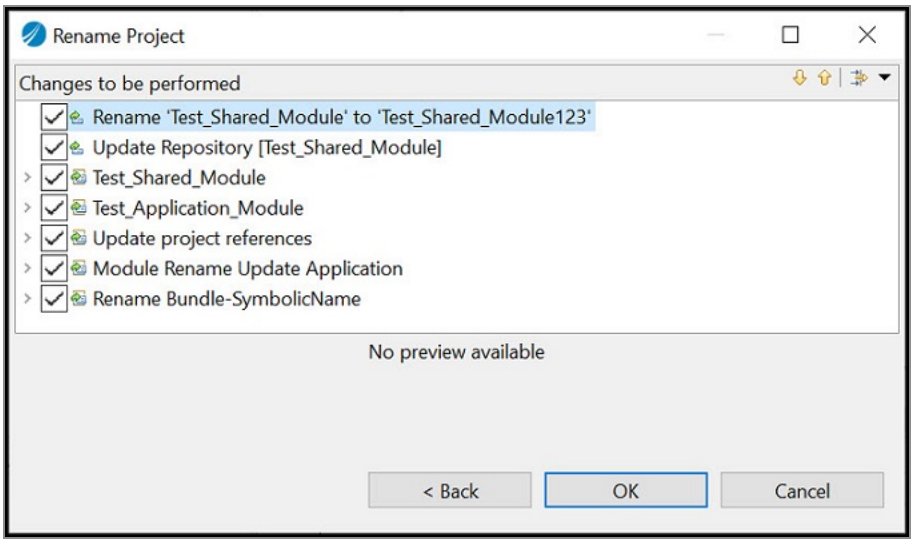


   The Rename Project dialog is displayed.

3. In the Rename Project dialog, change the name of the shared module.



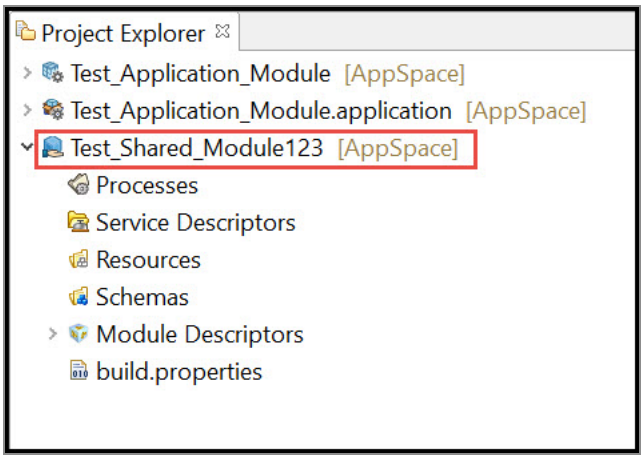
4. Optional. To see the changes that are performed, click **Preview**.



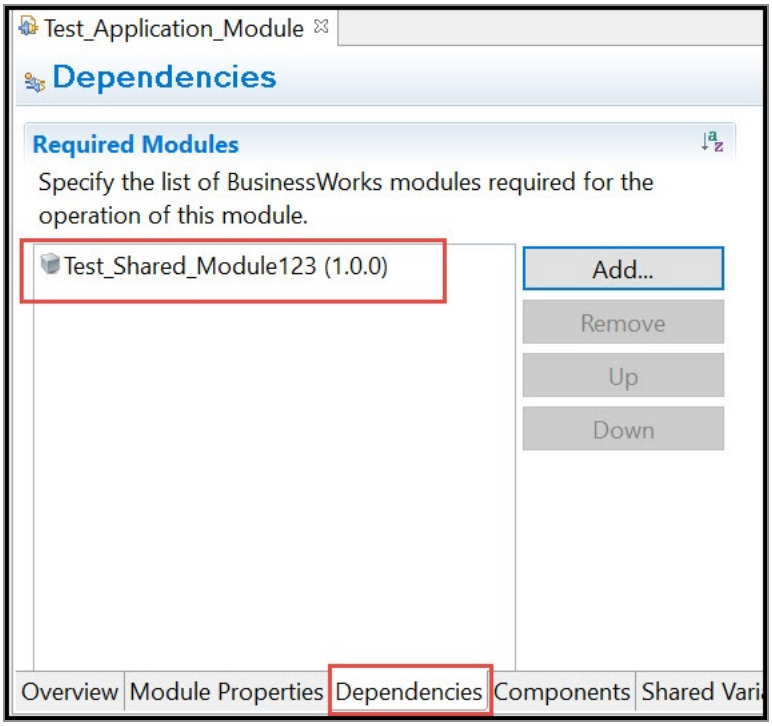
> **Important:** TIBCO recommends to keep all the check boxes in the Rename Project dialog selected.

5. Click **OK**.

   The new name is displayed in the **Project Explorer** view.



If any application module has dependency on the shared module, the new name of the shared module is also reflected in the **Dependencies** section of the application module.

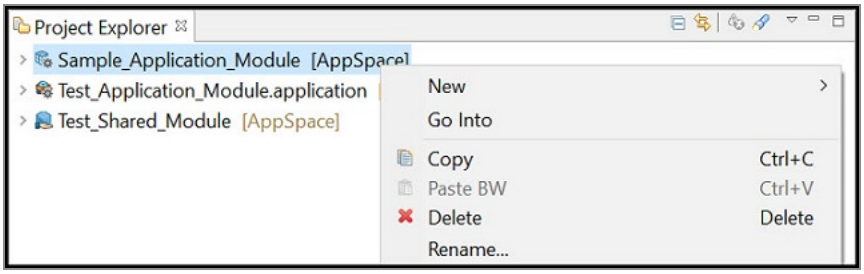


Deleting an Application Module

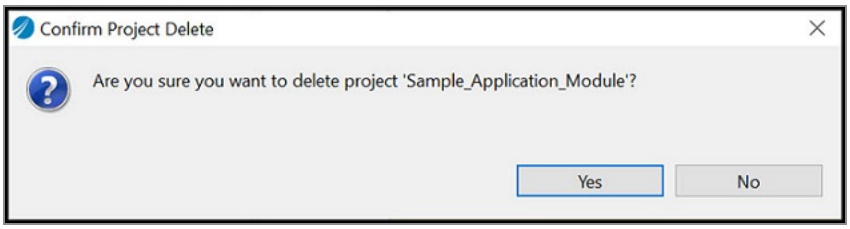
Follow the steps to delete an application module from TIBCO Business Studio for BusinessWorks

Procedure

1. Select an application module to delete.
2. Right-click on the application module and select the **Delete** option.



The Confirm Project Delete dialog is displayed.



3. Click **Yes**.

   The selected application module is deleted.

   Delete the corresponding `.application` as well. Otherwise, you get the following validation error:

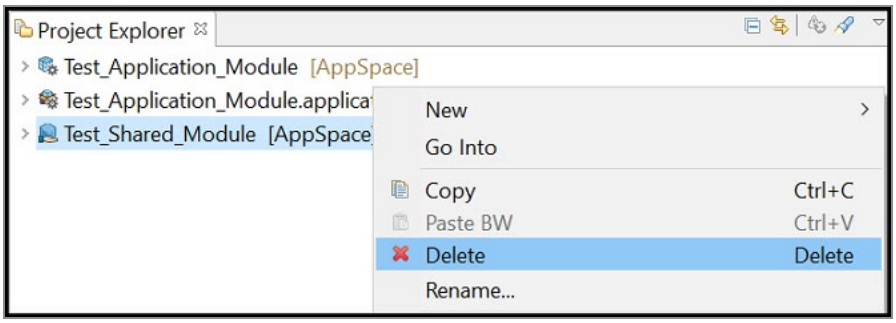
   Application configuration error. The Application [Test_Application_Module.application] must include at-most one BusinessWorks Application Module.

Deleting a Shared Module

Follow the steps to delete a shared module:

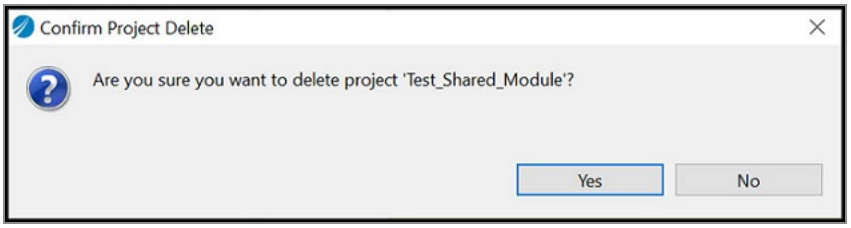
Procedure

1. Select a shared module to delete.
2. Right-click on the shared module and select the **Delete** option.



The Confirm Project Delete dialog is displayed.

3. In the Confirm Project Delete dialog, click **Yes**.



The selected shared module is deleted. If the shared module was referenced by other shared or application modules, you get dependency related errors.

Import the deleted shared module to resolve dependency related errors.

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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*
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