

Multichannel Bank Transformation Toolkit
Version 8.0.1

*Migrating from WebSphere
Multichannel Bank Transformation
Toolkit version 7.0.1 to WebSphere
Multichannel Bank Transformation
Toolkit version 8.0.1*



Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 13.

This edition applies to Version 8, Release 0, Modification 0, of *IBM WebSphere Multichannel Bank Transformation Toolkit* (5724-H82) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

Migrating from version 7.1.0 to version

8.0.1 1

General Migration Steps (if the Ajax channel is disabled) 1

General Migration Steps (if the Ajax channel is enabled) 2

Special Migration Points 6

 Pagination Table migration 6

 Widget Extension Migration 10

Tooling Extension Migration. 10

Tooling Module Artifact Migration 10

Number Widget Migration 11

Locale and Format for Remote Flow Migration . 11

New ECA rule re-generation limitation 11

M714 related Migration 12

Notices 13

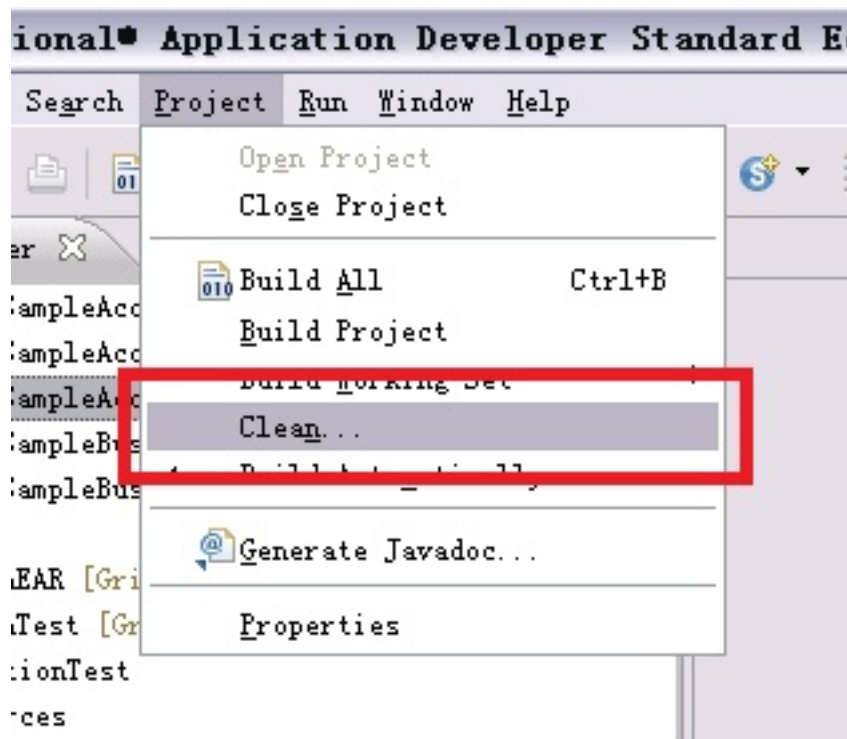
Trademarks 15

Migrating from version 7.1.0 to version 8.0.1

General Migration Steps (if the Ajax channel is disabled)

Procedure

1. Update BTT tooling plugins to BTT version 8.0.1 or later.
2. Restart RAD with "-clean" option to make sure the latest BTT tooling plugin will take effect. This step is optional.
3. Replace BTT jar files with BTT version 8.0.1 or later.
4. Clean project, to make sure BTT DDE editor can locate the new version classes. This step is optional.



5. Replace the All BTT JavaScript file with BTT version 8.0.1 or later.
6. Replace the generation template with BTT version 8.0.1 or later. If project already contains a customized generation template, then please update it by following steps:
 - a. Update all \${encoding} to UTF-8, this will solve most of the encoding problem.
 - b. Add following Java snippets to templates:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<jsp:useBean id="utb" scope="page" class="com.ibm.btt.cs.html.DSEJspContextServices">
  <%
    utb.initialize(request);
  %>
</jsp:useBean>
<html>
```

- c. Add following CSS which used for screen cover:

```

@import "js/dijit/themes/claro/document.css";
@import "js/com/ibm/btt/dijit/templates/Grid.css";
@import "js/com/ibm/btt/dijit/templates/ScreenCover.css";

<#list cssFiles as css>
@import "${css}";
</#list>

```

- a. Change ECA engine clarification to following, which support mode change between ajax submission and form submission:

```

<script type="text/javascript">
    if(!window.engine){
        <%if(utb.ajaxNavigationEnabled()){%>
            window.engine = new com.ibm.btt.event.NavigationEngine();
        <%}else{%>
            window.engine = new com.ibm.btt.event.Engine();
        <%}%>
        engine.setMonitor(new com.ibm.btt.event.BaseMonitor());
    }
</script>
</head>

```

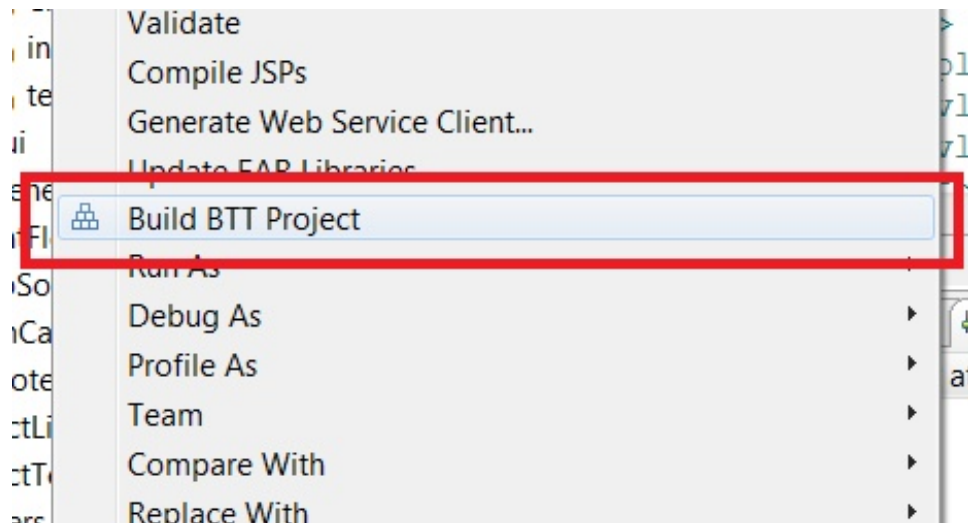
- b. Change ECA rule js import snippet into <body></body> section in order to be compatible with IE browser as following:

```

<body class="claro" style="visibility:hidden">
<#if js_file??>
<script type="text/javascript" src="${js_file}"></script>
</#if>
${content}
</body>

```

7. Rebuild project to re-generate BTT artifacts, such as xml, jsp and js.



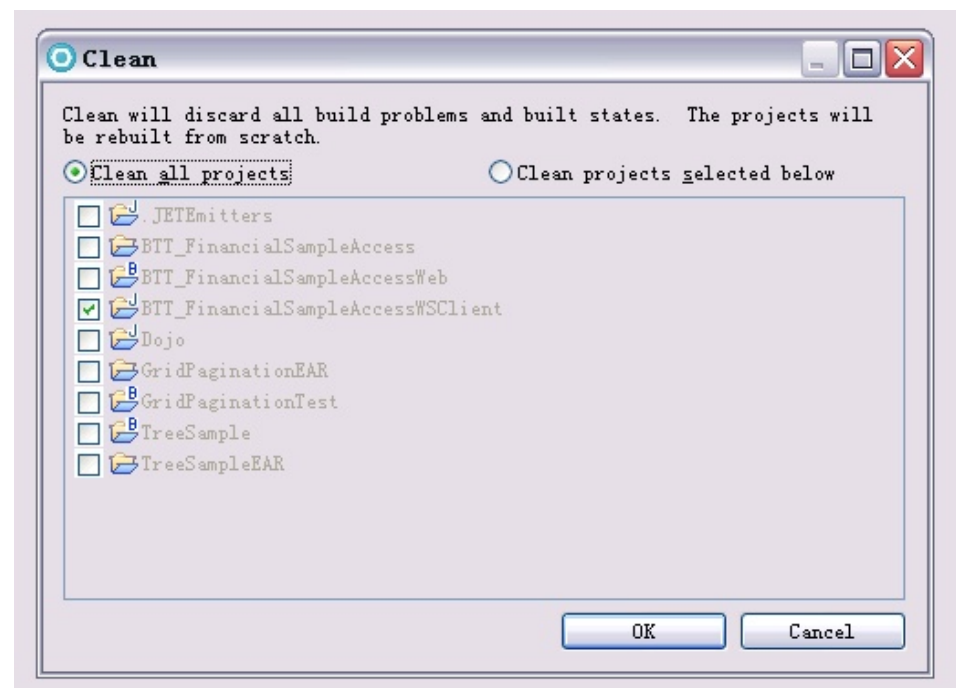
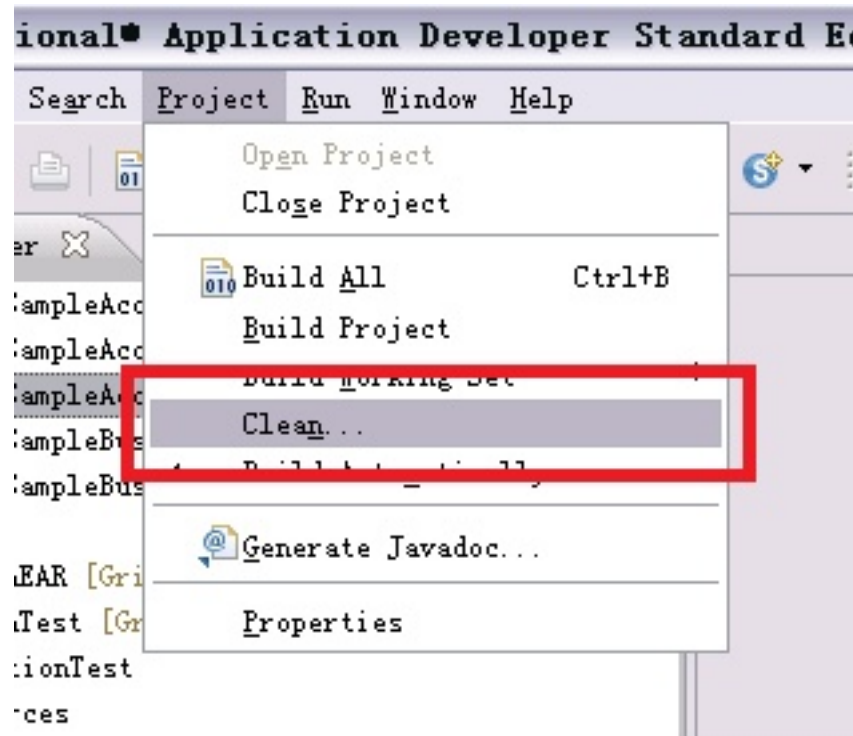
8. Deploy the application and run to verify all of scenarios.

General Migration Steps (if the Ajax channel is enabled)

Procedure

1. Update BTT tooling plugins to BTT version 8.0.1 or later.

2. Restart RAD with "-clean" option to make sure the latest BTT tooling plugin will take effect. This step is optional.
3. Replace BTT jar files with BTT version 8.0.1 or later.
4. Clean project, to make sure BTT DDE editor can locate the new version classes. This step is optional.



5. Update btt.xml
 - a. Add new parameter "navigationMode" to HTML channel definition. If customer wants to enable popup and client state, this parameter should set

to ajax. Otherwise, if customer want to keep using legacy form submission, this property is unnecessary to add, or set the value to "html".

Sample : `<field id="navigationMode" value="ajax" />`

```
<!--
<kColl id="html">
  <field id="encoding" value="UTF-8" />
  <field id="cookies" value="true" />
  <field id="runInSession" value="true" />
  <field id="navigationMode" value="ajax" />
  <field id="requestHandler"
    value="com.ibm.btt.cs.html.HtmlRequestHandler" />
  <field id="presentationHandler"
    value="com.ibm.btt.cs.html.ExtendHtmlPresentationHandler" />
</kColl>
```

- b. Change the implementation class of presentationHandler for both html channel and remote channel.

ImplClass : `com.ibm.btt.cs.html.ExtendHtmlPresentationHandler`

```
<!--
<kColl id="html">
  <field id="encoding" value="UTF-8" />
  <field id="cookies" value="true" />
  <field id="runInSession" value="true" />
  <field id="navigationMode" value="ajax" />
  <field id="requestHandler"
    value="com.ibm.btt.cs.html.HtmlRequestHandler" />
  <field id="presentationHandler"
    value="com.ibm.btt.cs.html.ExtendHtmlPresentationHandler" />
</kColl>

<kColl id="remoteBTTApp"
  description="Channel Handler for remote BTT operation/flow calling">
  <field id="encoding" value="UTF-8" />
  <field id="cookies" value="true" />
  <field id="runInSession" value="true" />
  <field id="requestHandler"
    value="com.ibm.btt.cs.html.remote.RemoteRequestHandler" />
  <field id="presentationHandler"
    value="com.ibm.btt.cs.html.ExtendHtmlPresentationHandler" />
</kColl>
```

- c. Add PopupPageState definition to processor definition. Sample:

```
<field
id="popupPageState" value="com.ibm.btt.automaton.ext.PopupPageClientState"
/>
```

```
<kColl id="processor">
  <!-- Processor -->
  <!-- A processor is a representation of -->
  <!-- a particular route through a business process or business operation. -->
  <field id="extFile" value="processor.xml"
    description="The recommended location is under same folder of btt.xml" />
  <field id="initializer"
    value="com.ibm.btt.automaton.ProcessorInitializer" />
  <kColl id="classTable">
    <field id="popupPageState"
      value="com.ibm.btt.automaton.ext.PopupPageClientState" />
    <field id="remoteFlowState"
      value="com.ibm.btt.cs.html.remote.RemoteFlowState" />
    <field id="processor"
      value="com.ibm.btt.automaton.DSEProcessor" />
    <field id="opProcessor"
      value="com.ibm.btt.automaton.ext.DSEOperationProcessor" />
  </kColl>
</kColl>
```

6. Change the implementation class of "CSReqServlet" in web.xml.

ImplClass : com.ibm.btt.cs.html.HTMLReqServlet

```
</servlet>
<servlet>
  <display-name>CSReqServlet</display-name>
  <servlet-name>CSReqServlet</servlet-name>
  <servlet-class>com.ibm.btt.cs.html.HTMLReqServlet</servlet-class>
</servlet>
</servlet>
```

7. Replace the All BTT JavaScript file with BTT version 8.0.1 or later.
8. Replace the generation template with BTT version 8.0.1 or later. If project already contains a customized generation template, then please update it by following steps:
 - a. Update all \${encoding} to UTF-8, this will solve most of the encoding problem.
 - b. Add following Java snippets to templates:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<jsp:useBean id="utb" scope="page" class="com.ibm.btt.cs.html.DSEJspContextServices">
  <%
    utb.initialize(request);
  %>
</jsp:useBean>
</html>
```

- c. Add following CSS which used for screen cover:

```
@import "js/dijit/themes/claro/document.css";
@import "js/com/ibm/btt/dijit/templates/Grid.css";
@import "js/com/ibm/btt/dijit/templates/ScreenCover.css";

<#list cssFiles as css>
@import "${css}";
</#list>
```

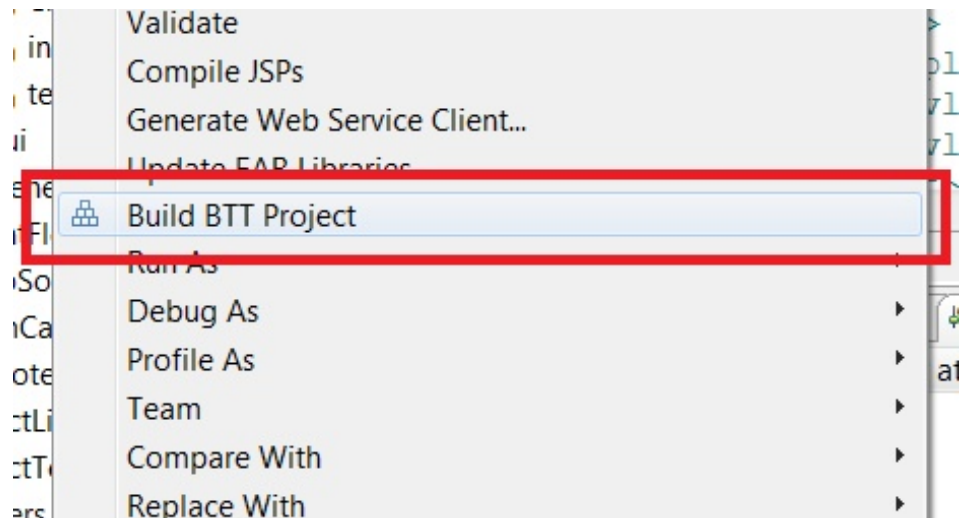
- d. Change ECA engine clarification to following, which support mode change between ajax submission and form submission:

```
<script type="text/javascript">
  if(!window.engine){
    <%if(utb.ajaxNavigationEnabled()){%>
      window.engine = new com.ibm.btt.event.NavigationEngine();
    <%}else{%>
      window.engine = new com.ibm.btt.event.Engine();
    <%}%>
    engine.setMonitor(new com.ibm.btt.event.BaseMonitor());
  }
</script>
</head>
```

- e. Change ECA rule js import snippet into <body></body> section in order to be compatible with IE browser as following:

```
<body class="claro" style="visibility:hidden">
<#if js_file??>
<script type="text/javascript" src="${js_file}"></script>
</#if>
${content}
</body>
```

9. Rebuild project to re-generate btt artifacts, such as xml, jsp and js.



10. For newly created projects, user can directly use application wizard, the newly created project will following new approach and contains all modifications mentioned above.

Special Migration Points

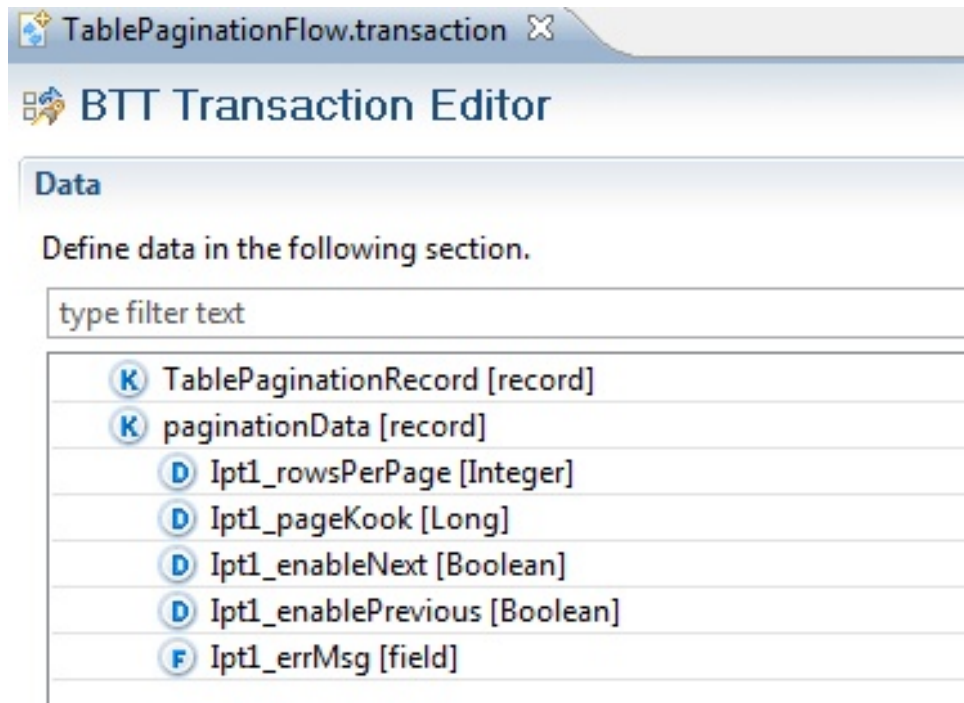
Pagination Table migration

About this task

Pagination table requests customer to use table id (defined in xui) to be the prefix of pagination data. After applied NR01-2, BTT tooling will generate new type id (pageName_widgetId) for every widget. This change may cause the id inconsistent. Customer need to change the pagination data definition if pagination table used. Below are the detailed steps for customer to migrate pagination table transactions:

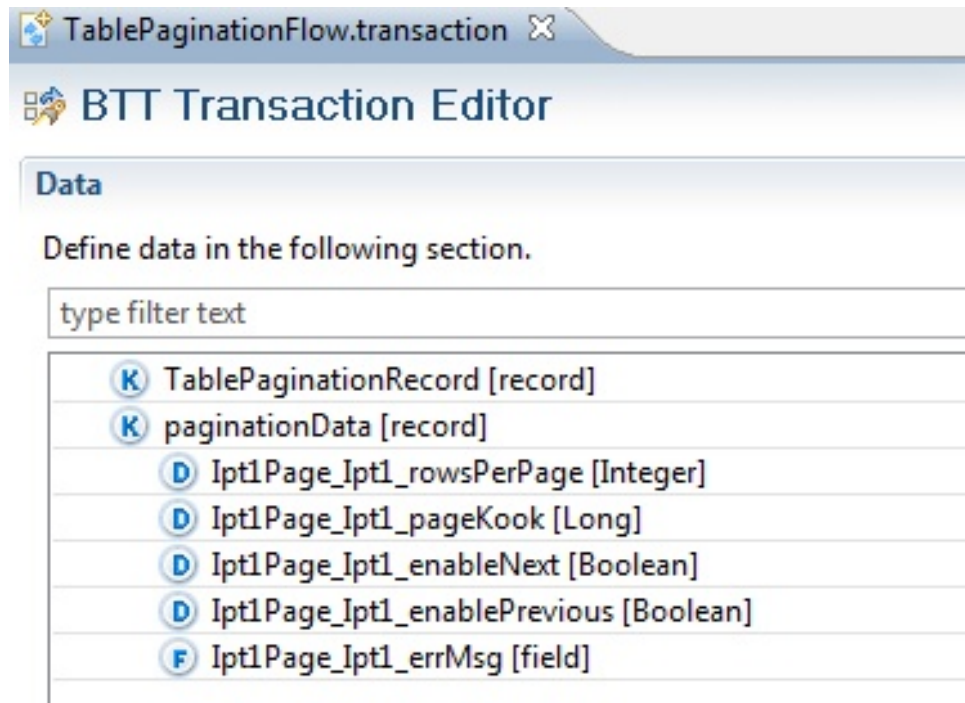
Procedure

1. Open the transaction in which the pagination data is defined
2. Click the "Data" tab in transaction editor, locate and open the "paginationData" record definition, please reference the below screen capture:



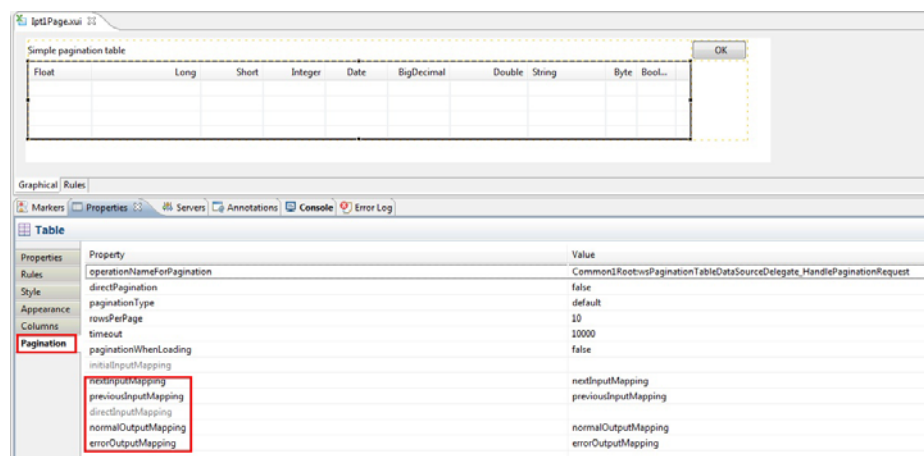
```
<kColl id="paginationData">
  <data id="Ipt1_rowsPerPage" value="10" refType="Integer"/>
  <data id="Ipt1_pageKook" value="1" refType="Long"/>
  <data id="Ipt1_enableNext" value="false" refType="Boolean"/>
  <data id="Ipt1_enablePrevious" value="false" refType="Boolean"/>
  <field id="Ipt1_errMsg"/>
</kColl>
```

3. For each element of pagination controlling data definition, e.g. "Ipt1_rowsPerPage", change the name to \${PAGE_NAME}_+"OriginalName". "\${PAGE_NAME}" is the page's name in which pagination table is defined.
4. Suppose the page name is "Ipt1Page.xui", after changing the names, following definitions are expected:

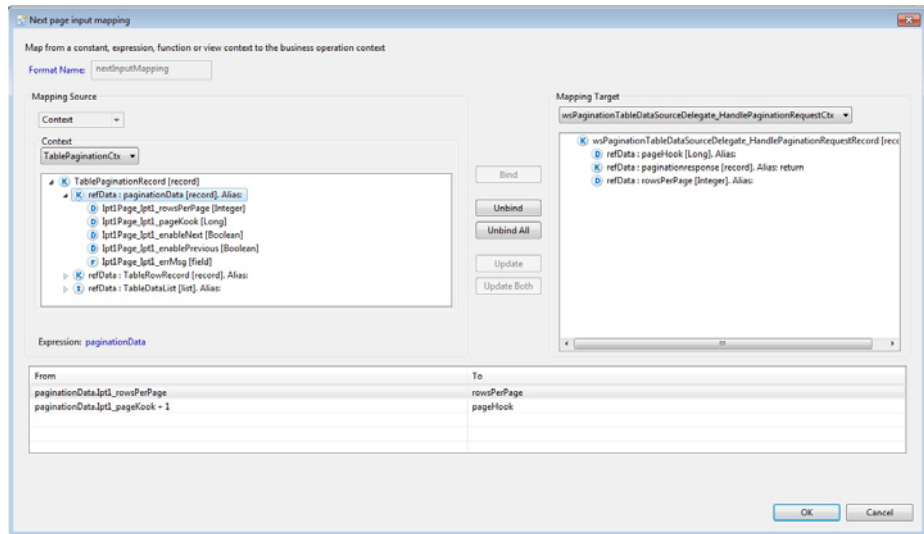


```
<kColl id="paginationData">
  <data id="Ipt1Page_Ipt1_rowsPerPage" value="10" refType="Integer"/>
  <data id="Ipt1Page_Ipt1_pageKook" value="1" refType="Long"/>
  <data id="Ipt1Page_Ipt1_enableNext" value="false" refType="Boolean"/>
  <data id="Ipt1Page_Ipt1_enablePrevious" value="false" refType="Boolean"/>
  <field id="Ipt1Page_Ipt1_errMsg"/>
</kColl>
```

5. After renaming the pagination control data definitions, generate the transaction.
6. Then customer need to change the mappings definitions which are created while creating pagination table, below are the detailed steps to changing the mapping definitions:
 - a. Open the XUI page that contain pagination table, in this case, the page name is "Ipt1Page.xui".
 - b. Click the pagination table widget, then click "Pagination" tab in the "Properties" window, see below screen capture.



- c. Click the "nextInputMapping" item and click "Browse" button, then the mapping editor popped up, see below screen capture:



- d. For each mapping item, update the “From” column to latest pagination control data definition, see below captures: before and after updating:

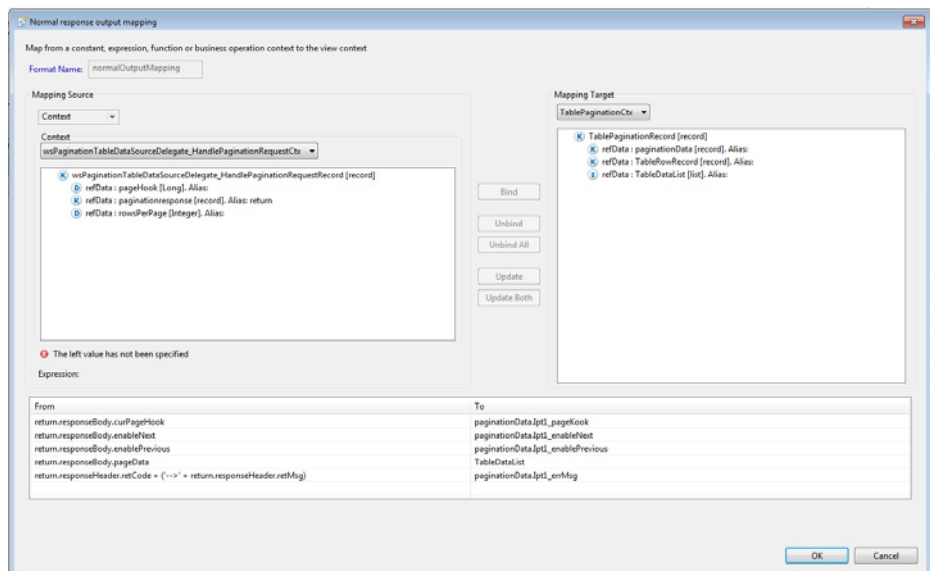
Before

| From | To |
|----------------------------------|-------------|
| paginationData.lpt1_rowsPerPage | rowsPerPage |
| paginationData.lpt1_pageHook + 1 | pageHook |

After

| From | To |
|---|-------------|
| paginationData.lpt1Page.lpt1_rowsPerPage | rowsPerPage |
| paginationData.lpt1Page.lpt1_pageHook + 1 | pageHook |

- e. Apply same actions (steps “c” and “d”) to “previousMapping”.
- f. Click the “normalOutputMapping” item and click “Browse” button, then the mapping editor popped up, see below screen capture:



- g. For each mapping item, update the “To” column to latest pagination control data definition, see below captures: before and after updating:

Before

| From | To |
|------------------------------------|------------------------------------|
| return.responseBody.curPageHook | paginationData.lpt1_pageHook |
| return.responseBody.enableNext | paginationData.lpt1_enableNext |
| return.responseBody.enablePrevious | paginationData.lpt1_enablePrevious |
| return.responseBody.pageData | TableDataList |

After

| From | To |
|------------------------------------|---|
| return.responseBody.curPageHook | paginationData.lpt1Page.lpt1_pageHook |
| return.responseBody.enableNext | paginationData.lpt1Page.lpt1_enableNext |
| return.responseBody.enablePrevious | paginationData.lpt1Page.lpt1_enablePrevious |
| return.responseBody.pageData | TableDataList |

- h. Apply same actions (steps “f” and “g”) to “errorOutputMapping”.
7. After applying above actions, generate the XUI page. Finally, the task is finished.

Widget Extension Migration

With NR01-2, the form submission has been taken over by Ajax submission, and also the page rendering is taken over by BTT JS engine. So together with this migration guide, there is a development guide which helps alpha developers for migration existing widgets and developing new widgets, please refer it for more information.

Tooling Extension Migration

As agreement, Lab provides migration reference project (the reference project has modified some compiling errors) to customer. At same time, the on-site engineer will provide some help for migrating customer extension project.

BTW, pageState configuration xml need to be updated to add state mapper in GBP tooling plugin.

Tooling Module Artifact Migration

There are some old tooling module’s files (transaction and xui) are created by old version of BTT tooling. There maybe some module changed impact for those old module files. If the new tooling module can not compatible the old module file, BTT tooling lab team can help to fix these module files manually to be compatible to new tooling.

For the “import” issue, take reference as below:

It is not necessary for customer to adjust the "import". If customer does some adjustments, they can get so much the better user experience, like locating the "imported files (under source folder other than bin folder) accurately", otherwise they have same experience as BTT v710 at least. For the locating multi-level "import" and nested "import", it was limitation in v710. We devoted much energy to overcome the limitation in v801 and we can say we support it no matter the v801 style import or v710 style currently.

For WS Wizard, not only common-services.xml but common-services.transaction file will be generated in BTTv801. In self-definedOp.transaction, the previous delivery (on 28th March) shows 'import file="common-service/abc.xml"'. In order to be consistent with other relative import, in the coming delivery (on 20th April) , it will change to 'import file="common-service/abc.transaction". BTTv801 is capable of downward compatibility for this point, no migration required.

Number Widget Migration

Because number input box fix some customer incidents for locale and format, if customer use this widget on UI, please replace type.transaction and type.xml from 8.0.1 package to adapt this change.

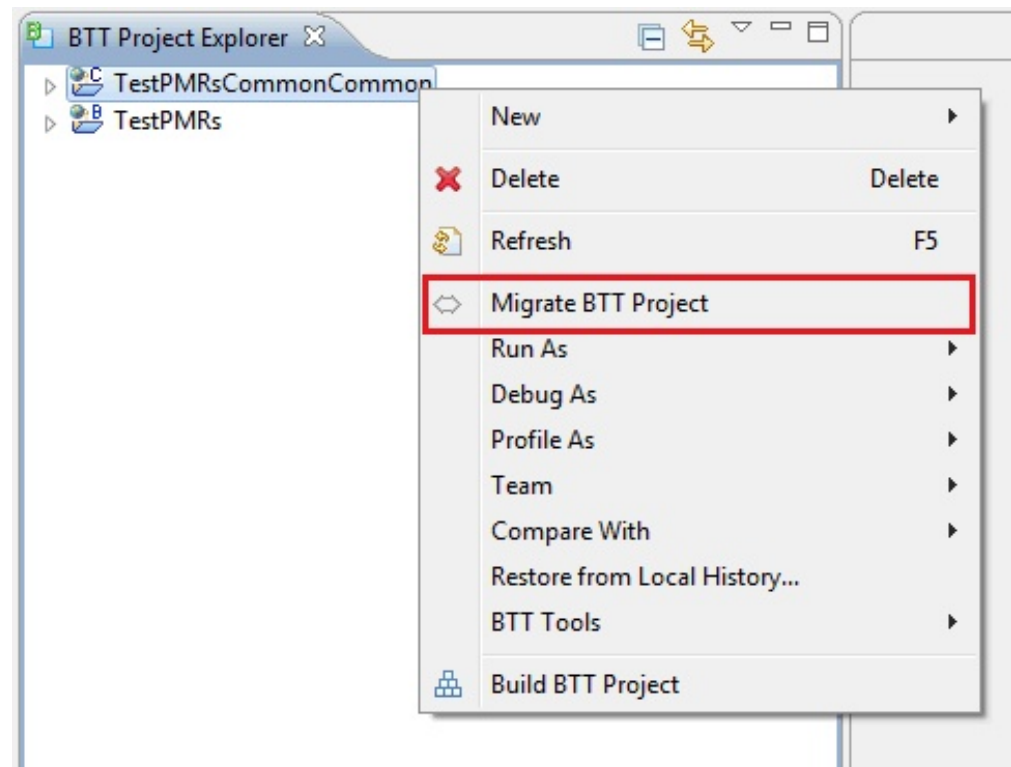
If user has modified these files based on iFix, they can ignore this item.

Locale and Format for Remote Flow Migration

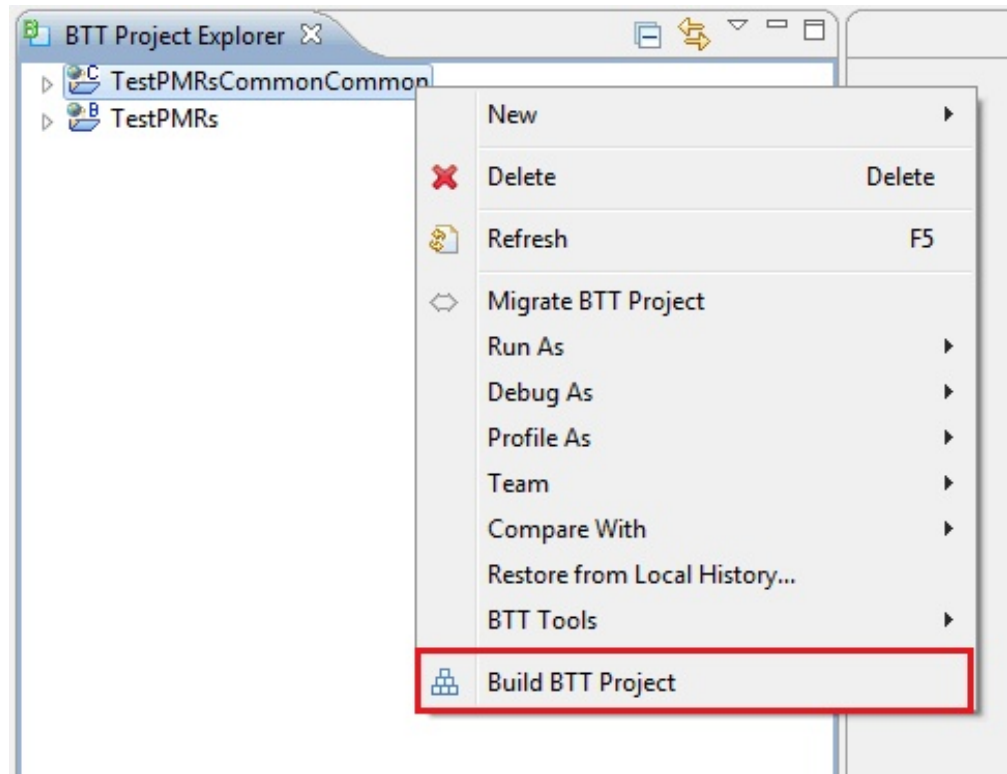
In remoteBTT_Redirect.jsp, an API has changed in iFix: convertToJson() in order to adapt the locale and format function enhancement in iFix015. As a result, GBP alpha developer should modify it for adding the third parameter, like this way: AjaxUtils.convertToJson(utb.getContext(), Locale.getDefault(), "default")

New ECA rule re-generation limitation

1. Add the migration plugin with GBP tooling environment. Once done, there will be a new item in context menu of BTT project in project explorer named "Migrate BTT Project" as following. Click on it will mark all XUI files "ruleDirty" to true inside the project.



2. After that, click build project will trigger fully build for the whole project, all ECA JS files should be generated again.



M714 related Migration

User need to copy xsd2type-mappings.xml into the target project root directory if want to do SDO generation with BTT type mapping. [M714 related]

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