

## Building an Application to Dynamically Execute Partner Process Flows

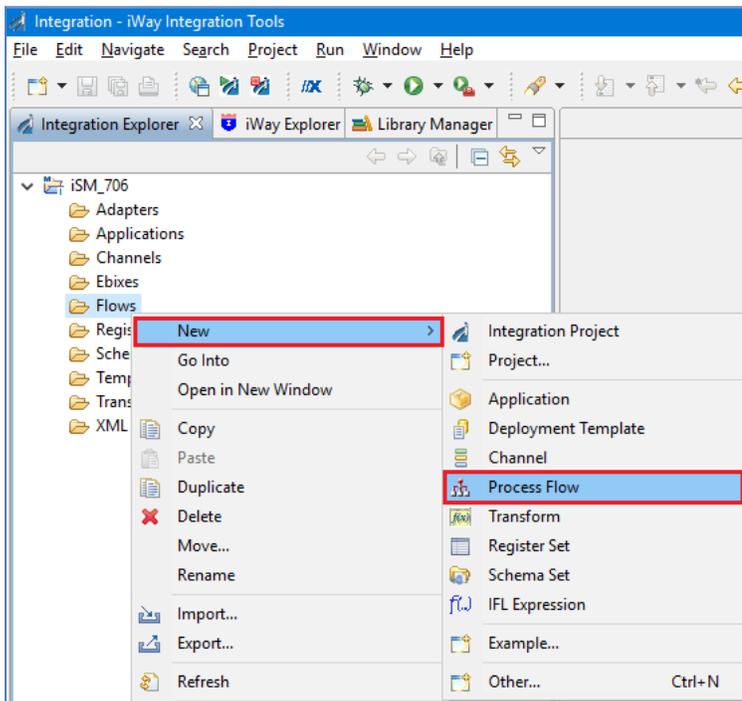
This topic describes how to configure an application using iWay Integration Tools (iIT) that will dynamically execute partner process flows. Once the application (an iWay Integration Application (iIA)) is configured, this topic describes how to deploy and test the iIA using iWay Service Manager (ISM) Version 7.0.x.

The *local\_706\_workspace\_archive.zip* archive file that is provided contains all of the preconfigured components for this how-to. Before continuing, download and extract this archive file to a location on your file system, which you can then import into iWay Integration Tools (iIT).

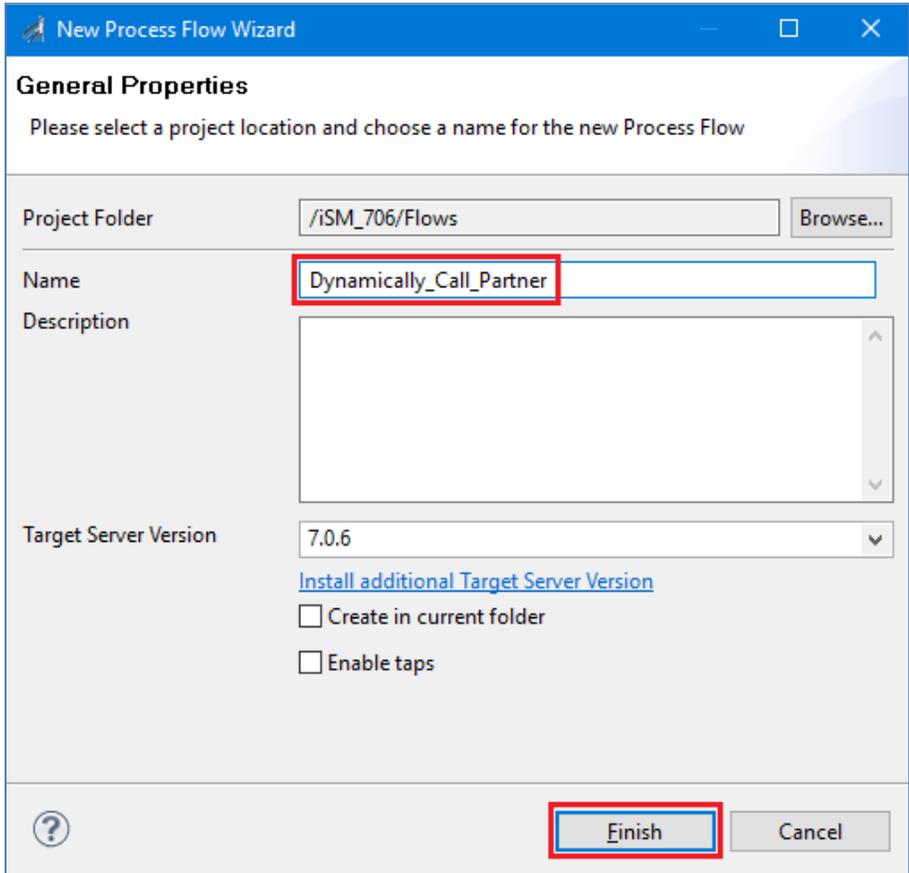
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## Configuring a Process Flow to Dynamically Execute Partner Process Flows

1. Open iWay Integration Tools (iIT).
2. Create a new Integration Project or use an existing Integration Project if one is available.
3. Create a new process flow by right-clicking the *Flows* folder, selecting *New*, and then clicking *Process Flow* from the context menu, as shown in the following image.

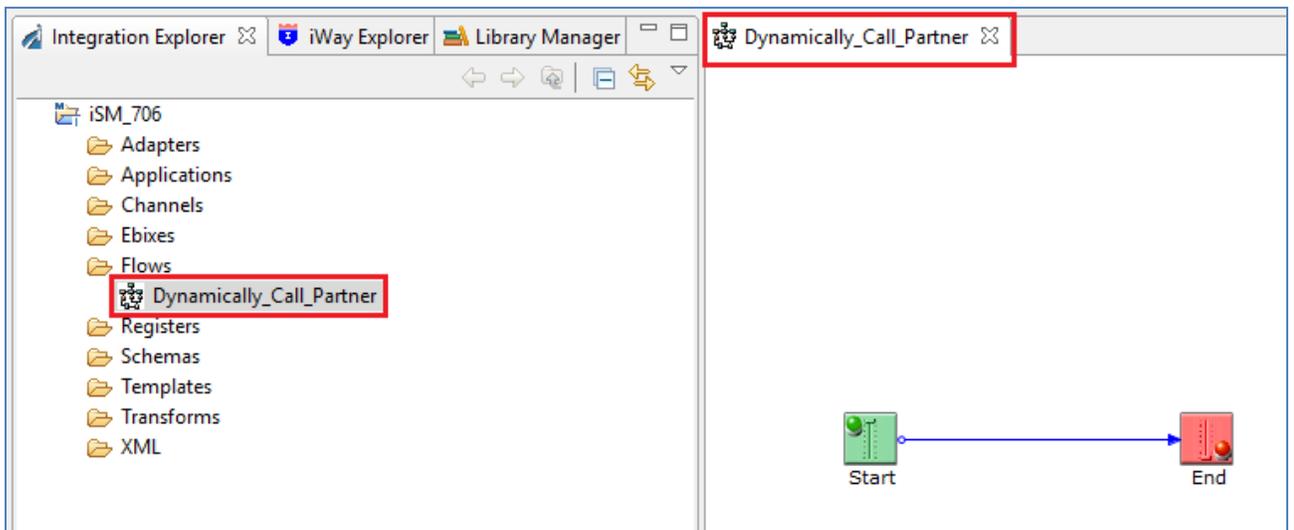


The New Process Flow Wizard dialog opens, as shown in the following image.

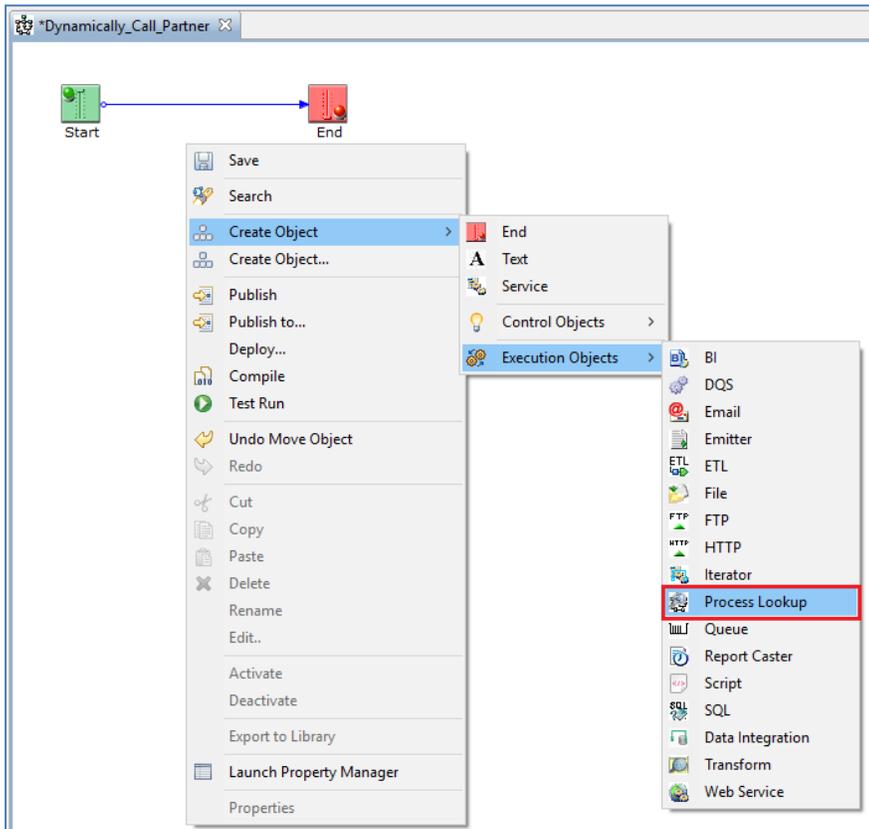


4. In the Name field, type *Dynamically\_Call\_Partner* and then click *Finish*.

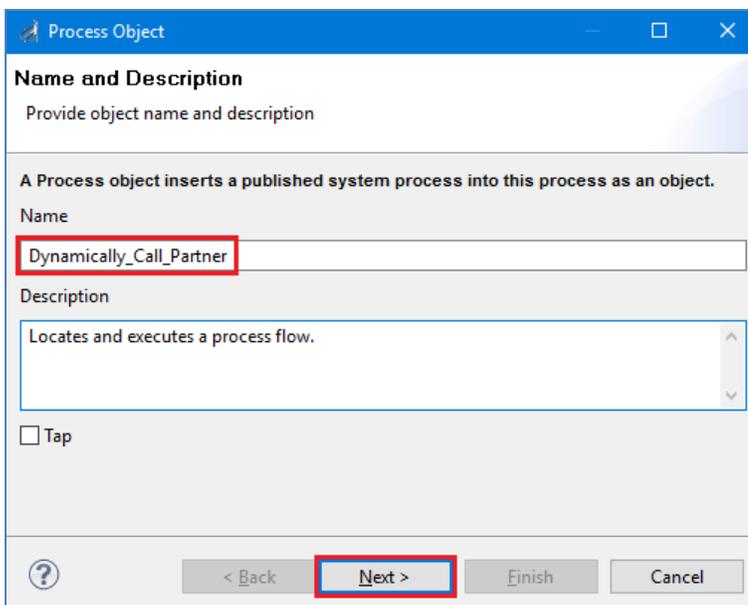
The new process flow (*Dynamically\_Call\_Partner*) opens in the workspace area as a new tab.



5. Right-click anywhere within the process flow workspace area, select *Create Object, Execution Objects*, and then click *Process Lookup* from the context menu, as shown in the following image.

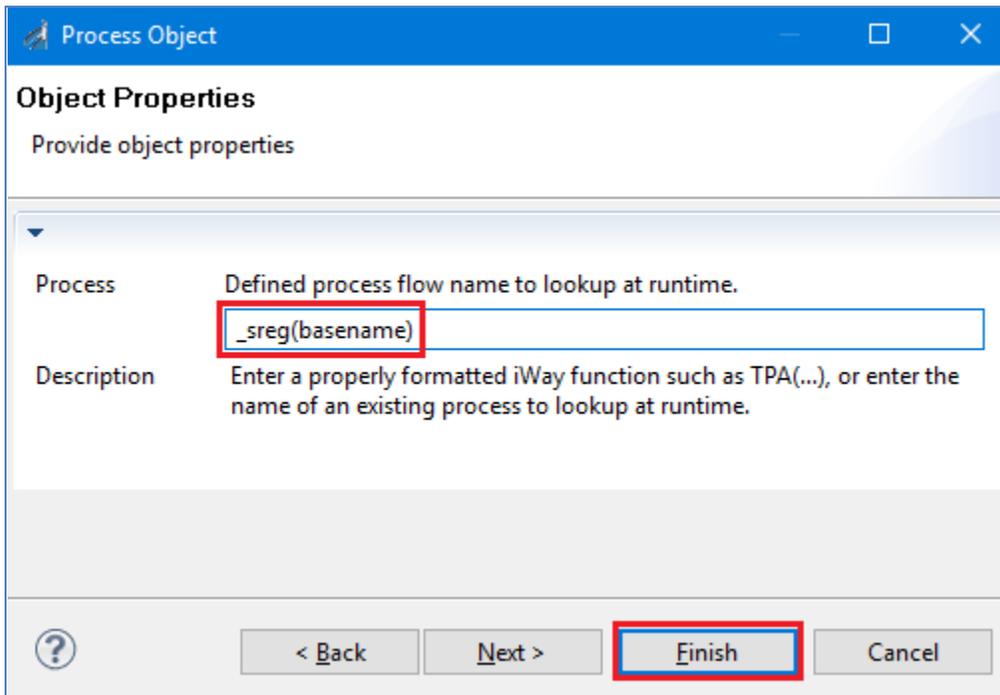


The Process Object dialog opens, as shown in the following image.



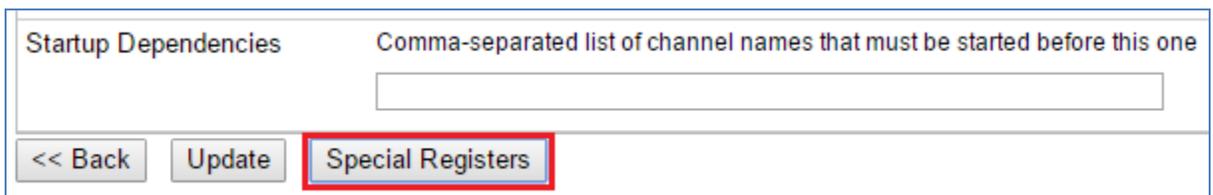
6. In the Name field, type *Dynamically\_Call\_Partner* and then click *Next*.

The Object Properties pane opens, as shown in the following image.



7. In the Process field, type `_sreg(basename)` and then click *Finish*.

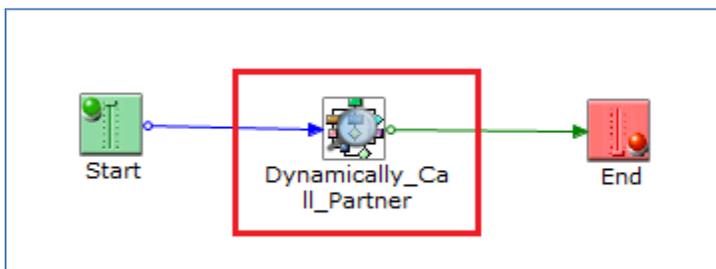
**Note:** The `_sreg(basename)` points to the `basename` Special Register (SREG) that is already created by the File listener as part of its default SREGs created for each file consumed. For a list of default SREGs, open any existing listener in the iWay Service Manager (iSM) Administration Console, scroll to the bottom of page, and click *Special Registers*, as shown in the following image. Please note that the listener must be created first.



The following image shows a sample list of SREGs for the File listener in iSM version 7.0.6.

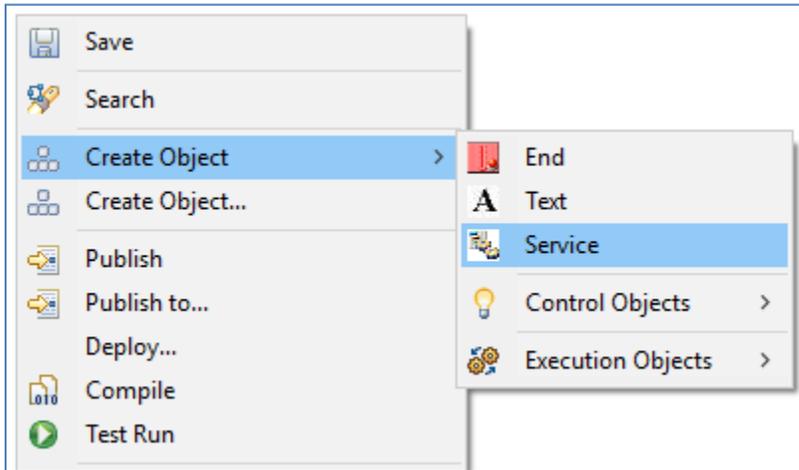
Name	Source	Level	Type	Description
basename	Listener	Document	String	File name without extension
extension	Listener	Document	String	Extension to the filename (mime type)
filename	Listener	Document	String	File basename.extension
ipay.channel	Listener	System	String	Full name of the channel (may include channelname.inlet.listener)
ipay.channelname	Listener	System	String	Channelname portion of the name (from full channel name of channelname.inlet.listener)
ipay.inletname	Listener	System	String	Inlet name portion of the name (from full channel name of channelname.inletname.listener)
ipay.listener	Listener	System	String	Name of the listener
ipay.pid	System	System	String	Process ID of server, if available
ipay.serverfullhost	System	System	String	Full host name of server (includes domain)
ipay.serverhost	System	System	String	Host name of server
ipayconfig	System	System	String	Current active configuration name
ipayhome	System	System	String	Base at which the server is loaded
ipayversion	System	System	String	Release version of this server
ipayworkdir	System	System	String	Path to base of the current configuration
msgsize	Listener	Document	Integer	Physical length of the message payload
name	Listener	System	String	Assigned name of the master -- same as ipay.channel
parent	Listener	Document	String	Path to the file name
protocol	Listener	System	String	Protocol on which message was received
source	Listener	Document	String	Full name of the input file
zipentry	Listener	Document	String	Entry name in zip file if zip is being exploded

- Drag the new Process Lookup object (*Dynamically\_Call\_Partner*) onto the line between the existing Start and Stop objects, as shown in the following image.

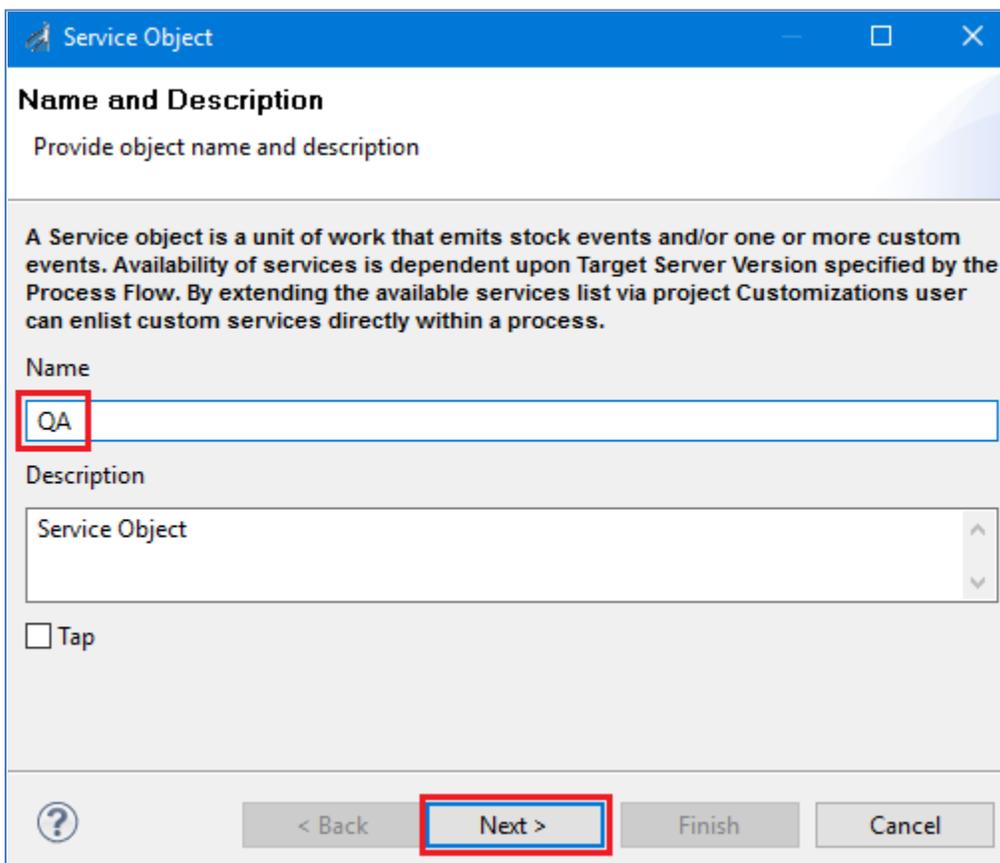


Notice the looking glass icon within the object, which indicates that this is a Lookup object.

- Right-click anywhere within the process flow workspace area, select *Create Object* and then click *Service* from the context menu, as shown in the following image.

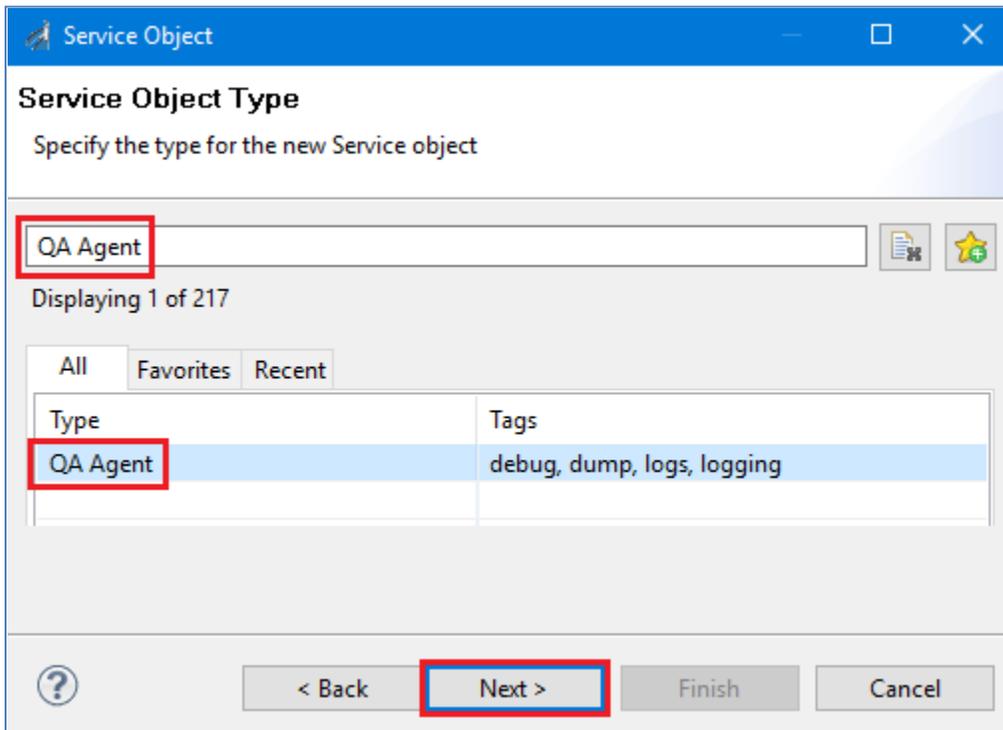


The Service Object dialog opens, as shown in the following image.



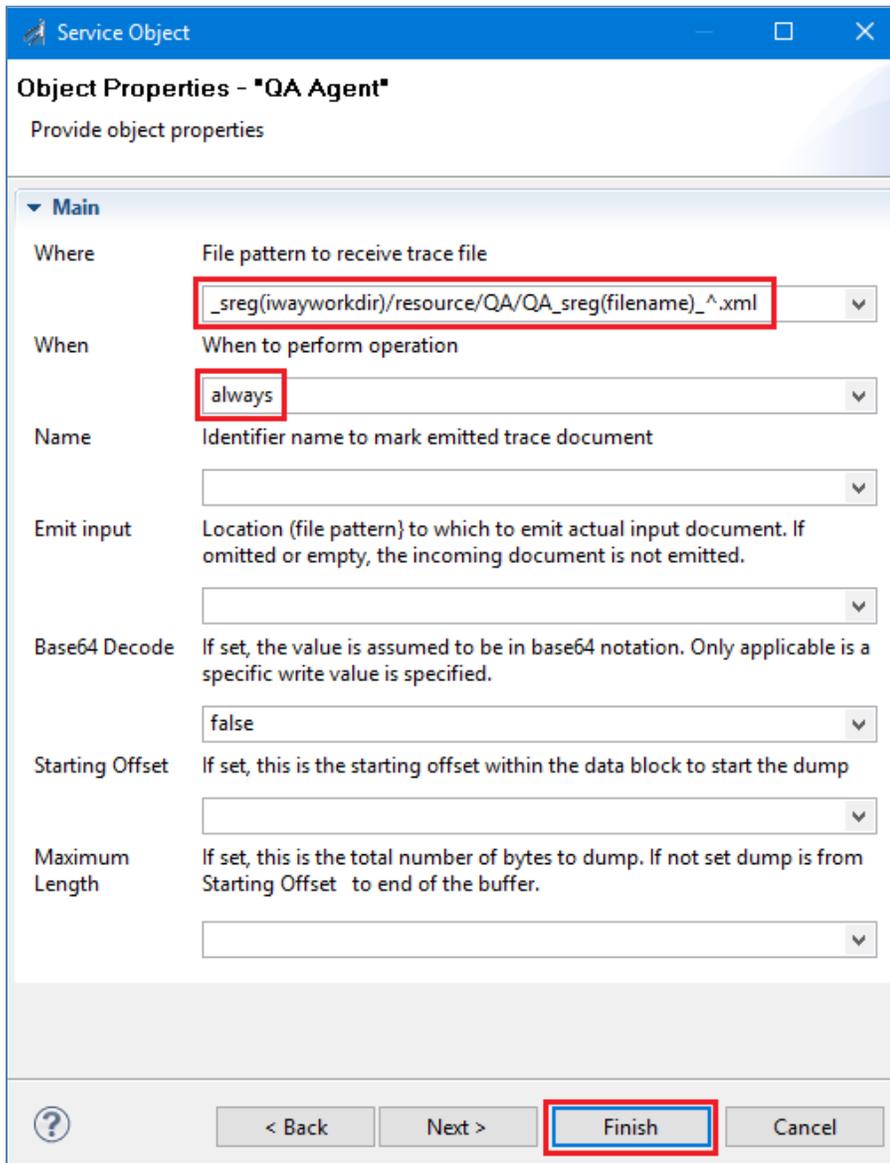
10. In the Name field, type QA and then click Next.

The Service Object Type pane opens, as shown in the following image.



11. In the filter field, type *QA Agent*, select *QA Agent* under Type, and then click *Next*.

The Object Properties – “QA Agent” pane opens, as shown in the following image.



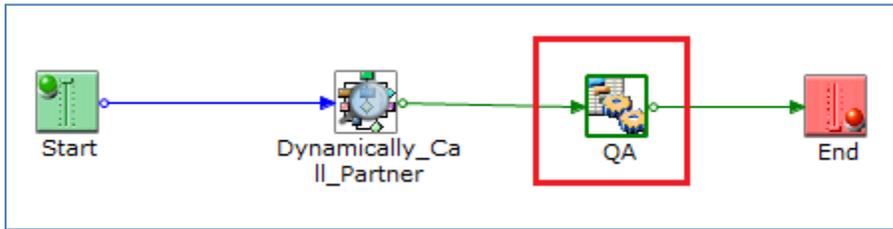
12. Specify the following value for the Where parameter:

`_sreg(iwayworkdir)/resource/QA/QA_sreg(filename)_^.xml`

13. Ensure that *always* is selected as the value for the When parameter.

14. Click *Finish*.

15. Drag the new Service object (*QA*) onto the line between the Process Lookup object (*Dynamically\_Call\_Partner*) and End object, as shown in the following image.

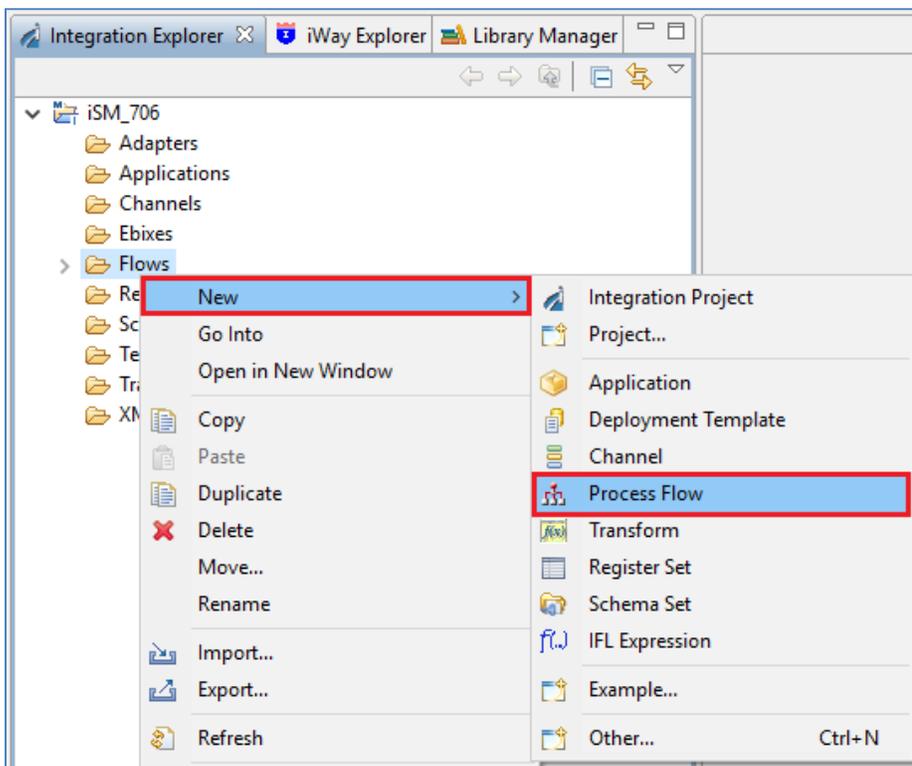


**Note:** The QA service object (com.ibi.agents.XDQAAgent) will write to a directory located under your Application deployment. The file will contain the payload, all SREGs, and indicate the state of the document.

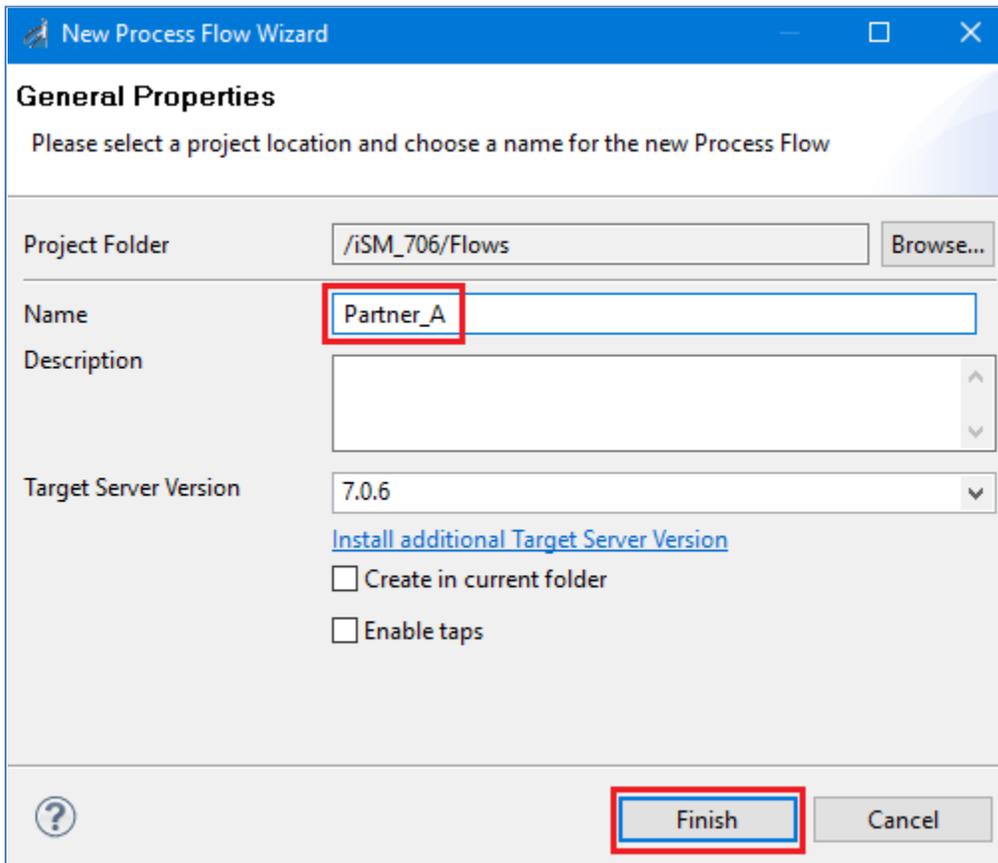
16. Click the *Save* icon on the iIT menu bar or press *Ctrl+S*.

### Configuring a Partner Process Flow

1. Within the same Integration Project, create a new process flow by right-clicking the *Flows* folder, selecting *New*, and then clicking *Process Flow* from the context menu, as shown in the following image.

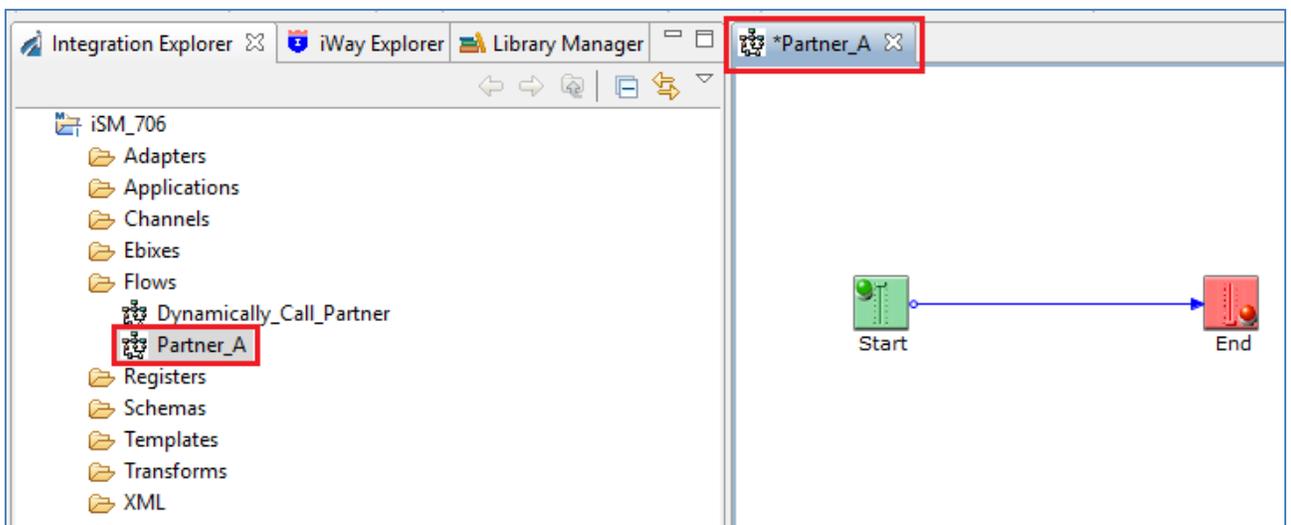


The New Process Flow Wizard dialog opens, as shown in the following image.

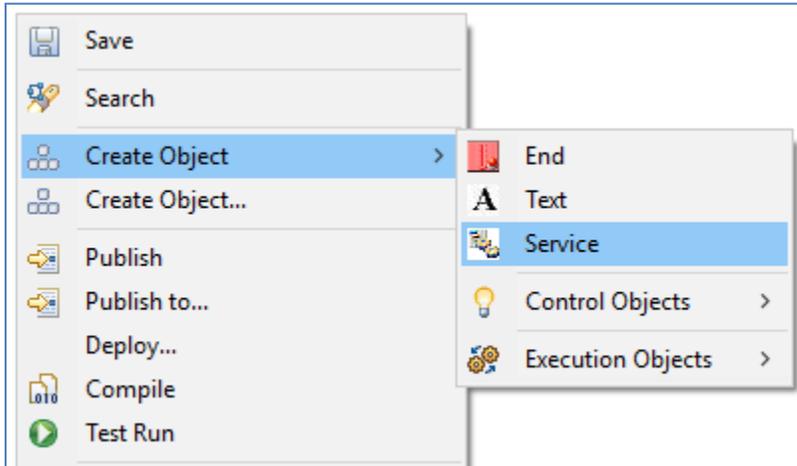


2. In the Name field, type *Partner\_A* and then click *Finish*.

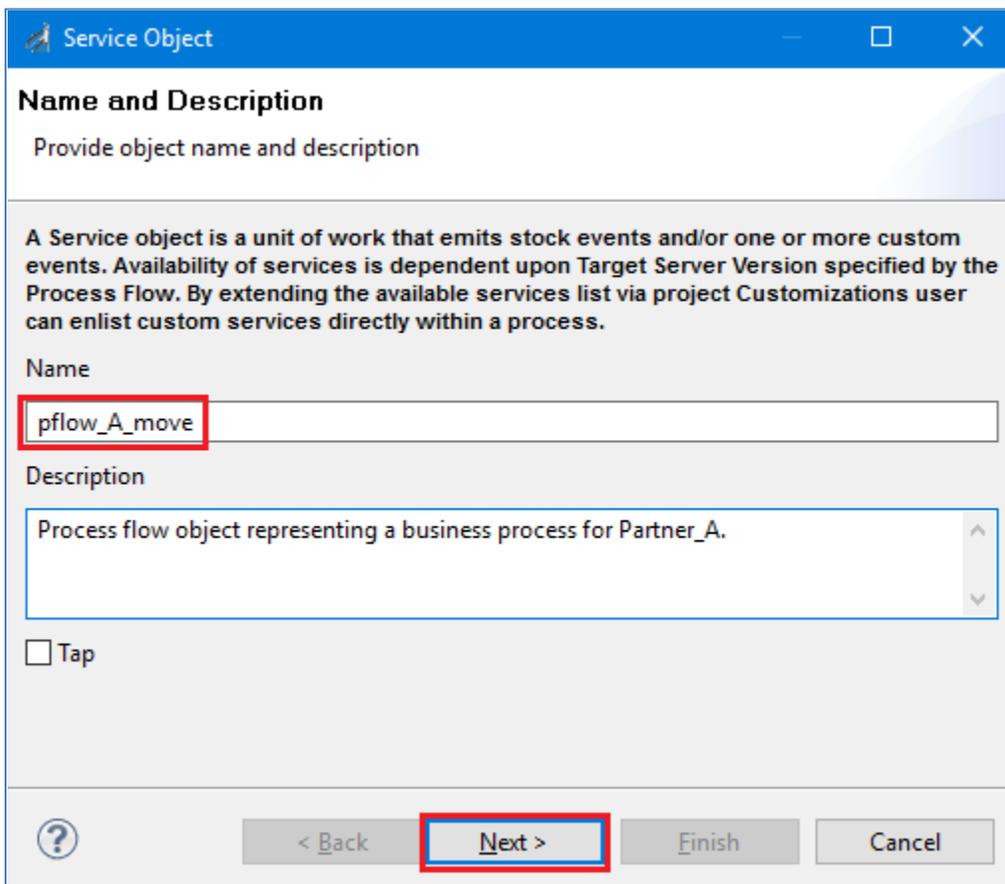
The new process flow (*Partner\_A*) opens in the workspace area as a new tab, as shown in the following image.



3. Right-click anywhere within the process flow workspace area, select *Create Object* and then click *Service* from the context menu, as shown in the following image.

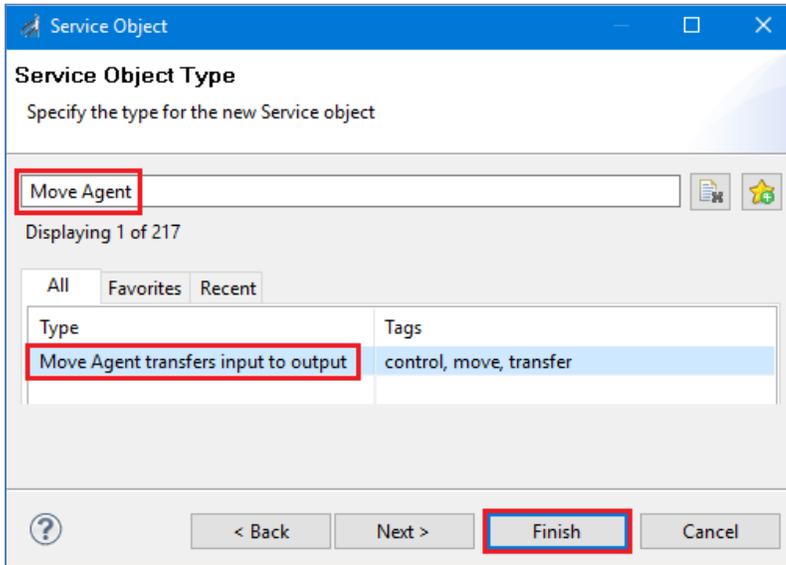


The Service Object dialog opens, as shown in the following image.

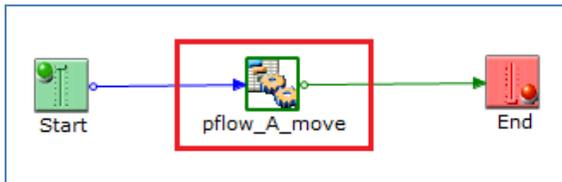


4. In the Name field, type *pflow\_A\_move* and then click *Next*.

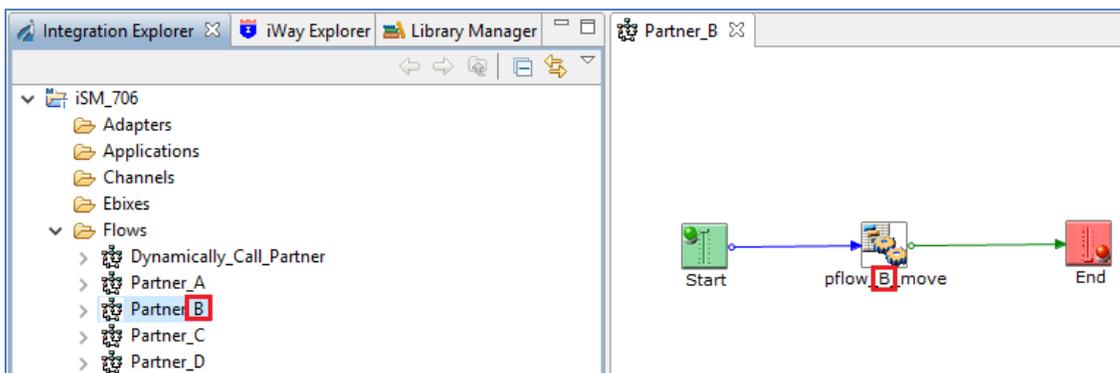
The Service Object Type pane opens, as shown in the following image.



5. In the filter field, type *Move Agent*, select *Move Agent* under Type, and then click *Finish*.
6. Drag the new Service object (*pflow\_A\_move*) onto the line between the existing Start and Stop objects, as shown in the following image.



7. Repeat steps 1 to 6 changing A to B and C to D.

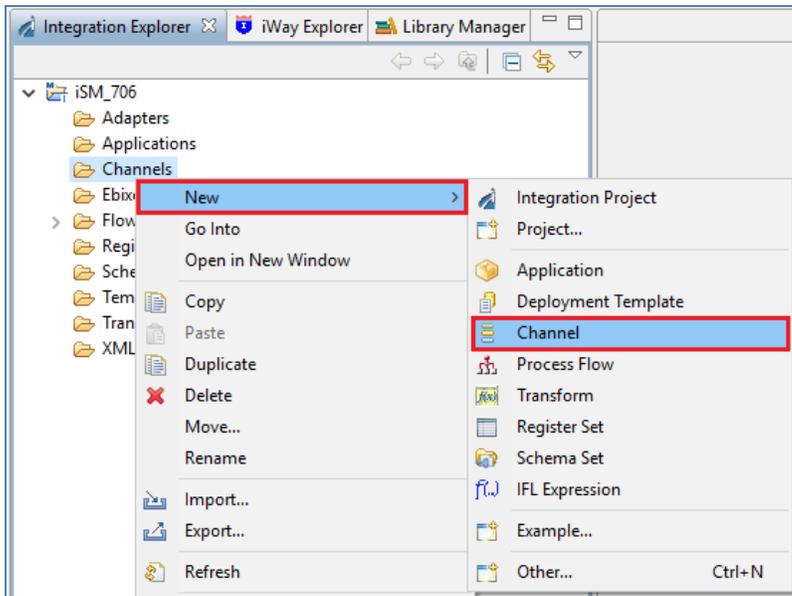


**Note:** You can also copy the Partner\_A process flow and paste it back to the Flows folder, rename and edit accordingly to create the three remaining partner process flows (Partner\_B, Partner\_C, and Partner\_D).

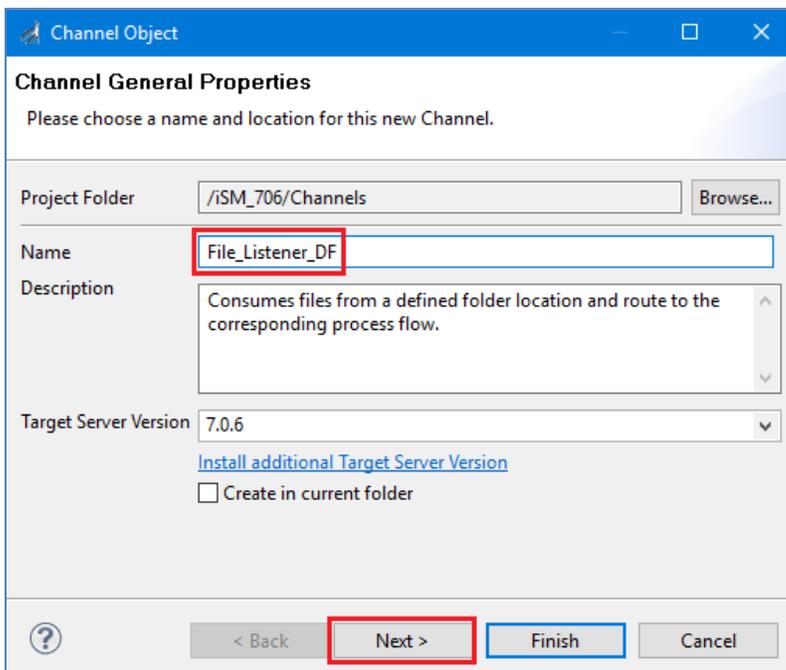
8. Click the *Save* icon on the iIT menu bar or press *Ctrl+S*.

## Configuring an Inbound Channel

1. Within the same Integration Project, create a new channel by right-clicking the *Channels* folder, selecting *New*, and then clicking *Channel* from the context menu, as shown in the following image.



The Channel Object dialog opens, as shown in the following image.

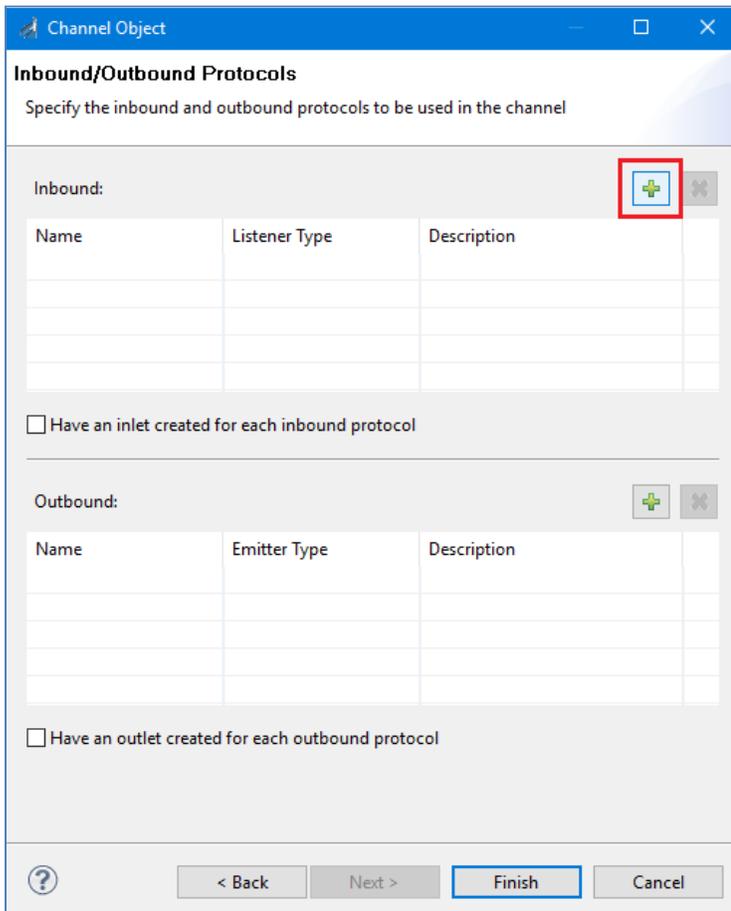


2. In the Name field, type *File\_Listener\_DF*.

You can also specify a description for this channel, which is optional.

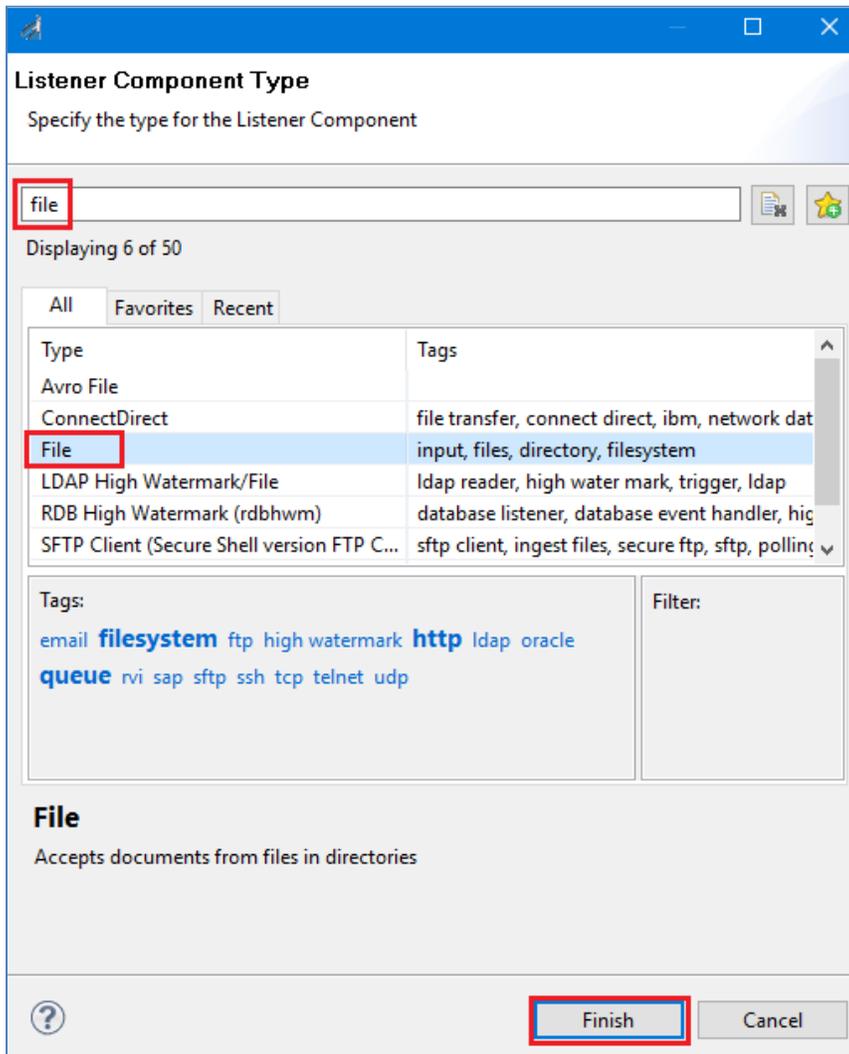
3. Click *Next*.

The Inbound/Outbound Protocols pane opens, as shown in the following image.



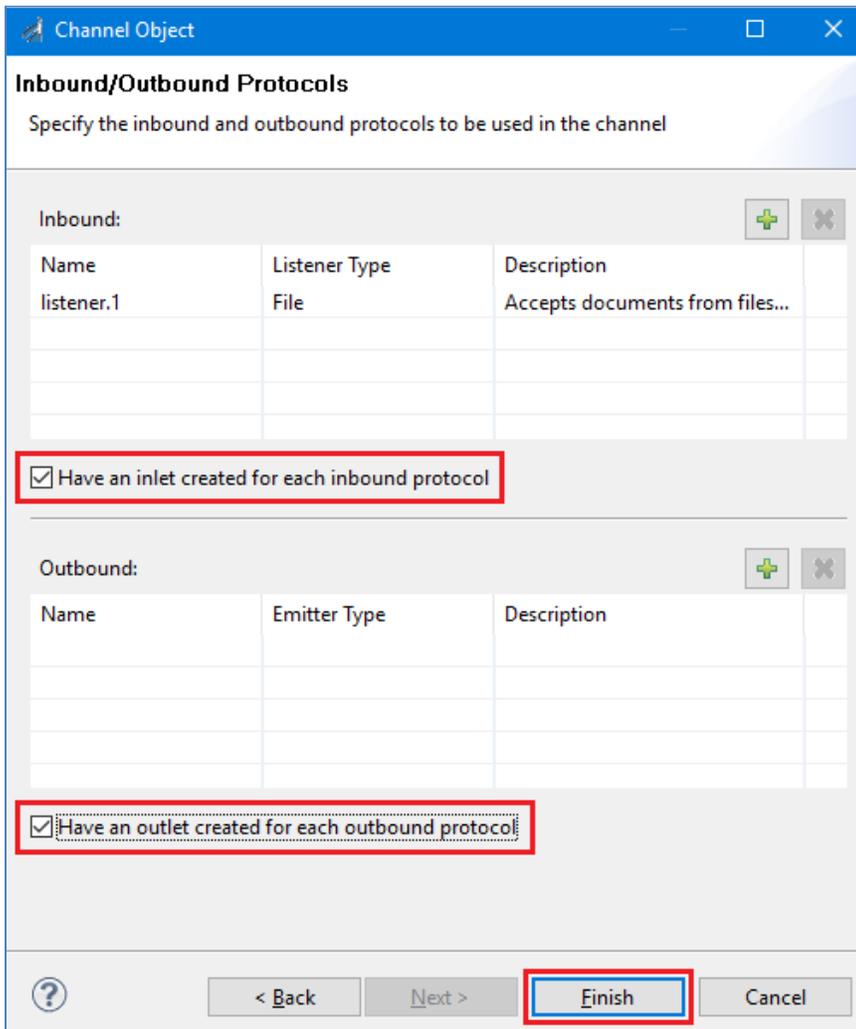
4. Click on the green plus (+) icon to add an inbound protocol.

The Listener Component Type pane opens, as shown in the following image.



5. In the filter field, type *file*, select *File* under Type, and then click *Finish*.

You are returned to the Inbound/Outbound Protocols pane opens, as shown in the following image.

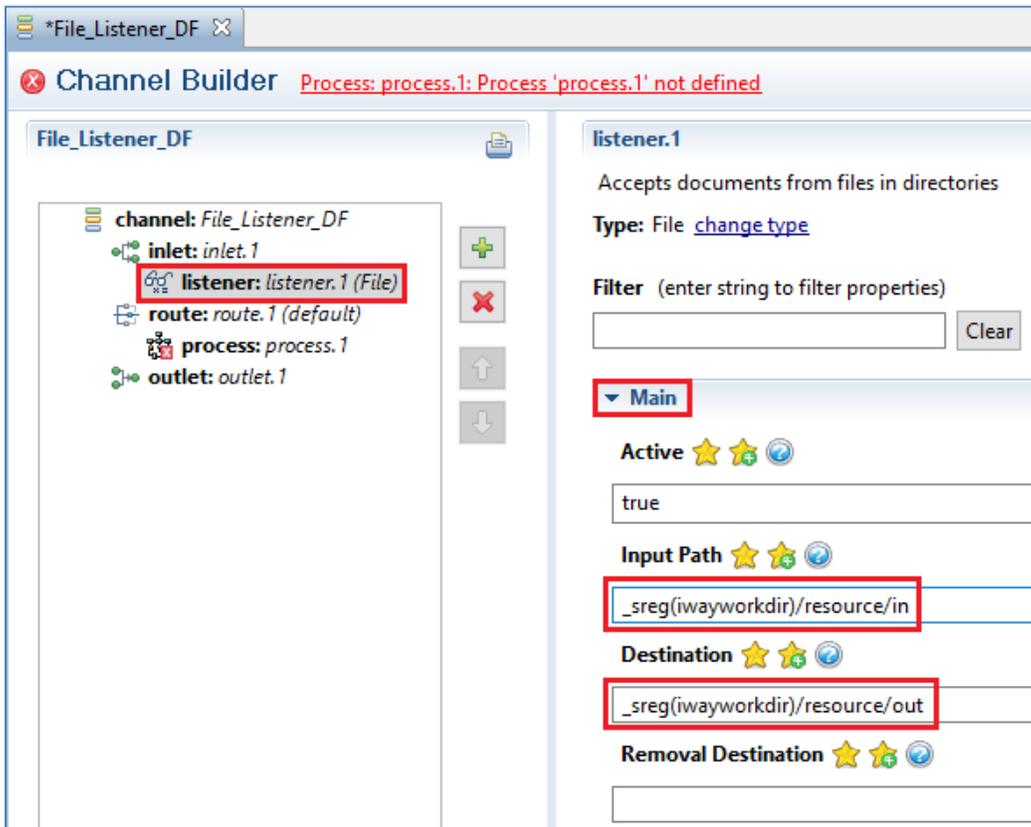


6. Select the following options:

- *Have an inlet created for each inbound protocol.*
- *Have an outlet created for each outbound protocol.*

7. Click *Finish*.

The Channel Builder opens, as shown in the following image.



8. In the left pane under inlet, select *listener:listener.1*, on the right pane, expand *Main*, and then add the following values:

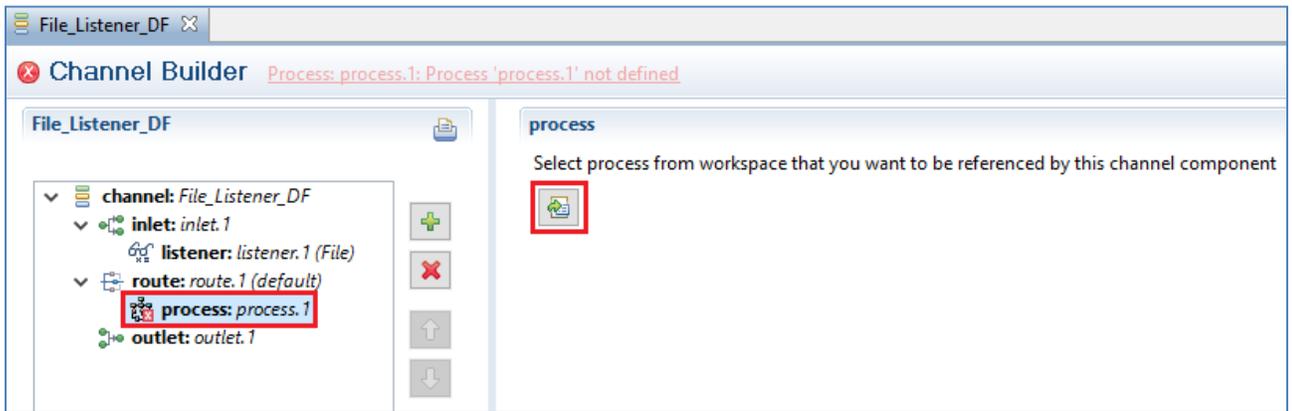
In the Input Path field, type:

```
_sreg(iwayworkdir)/resource/in
```

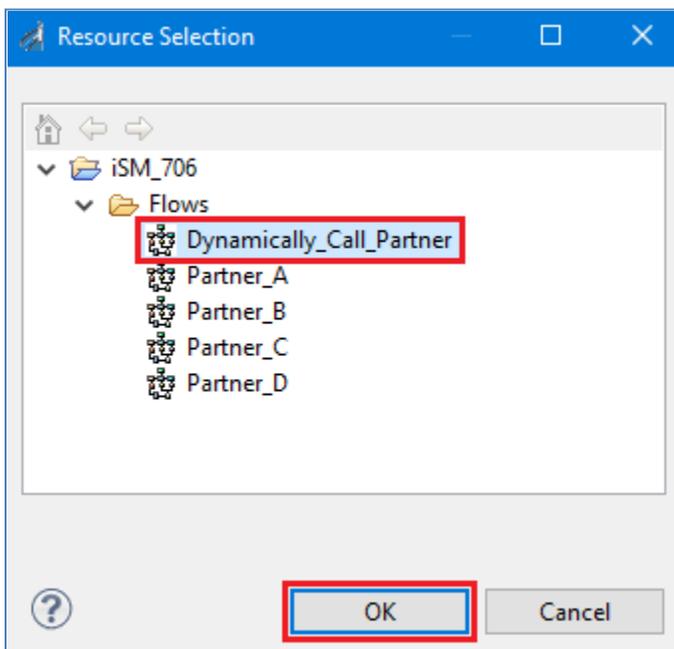
In the Destination field, type:

```
_sreg(iwayworkdir)/resource/out
```

9. Click the *Save* icon on the iIT menu bar or press *Ctrl+S*.
10. In the left pane under route, select *process:process.1*, and then in the right pane click the *Add process flow* icon, as shown in the following image.



The Resource Selection dialog opens, as shown in the following image.

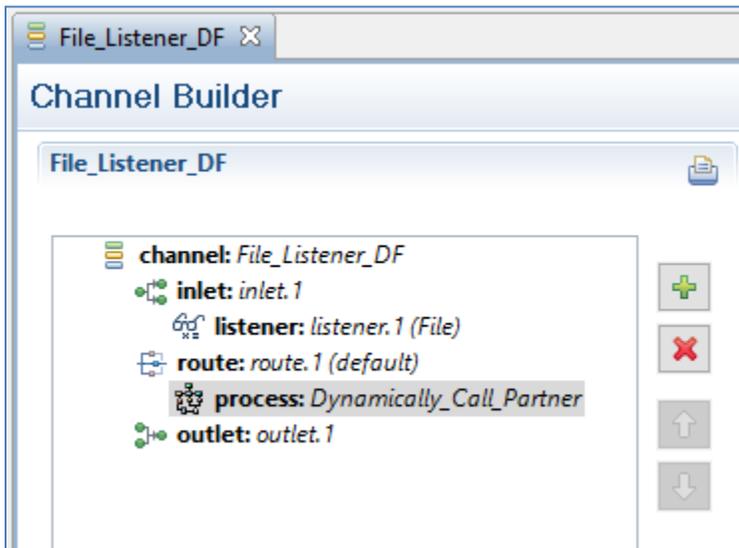


11. Expand the Integration Project folder you are working in, the *Flows* folder, and select the *Dynamically\_Call\_Partner* process flow.
12. Click *OK*.

You are returned to the Channel Builder.

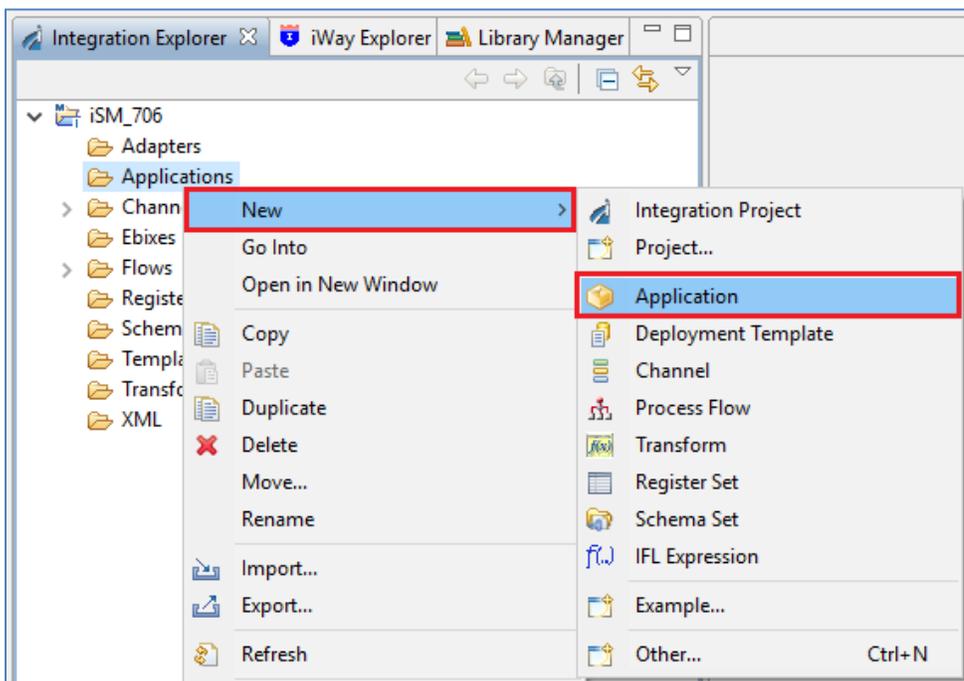
13. Click the *Save* icon on the iIT menu bar or press *Ctrl+S*.

The completed channel should now show no errors, as shown in the following image.

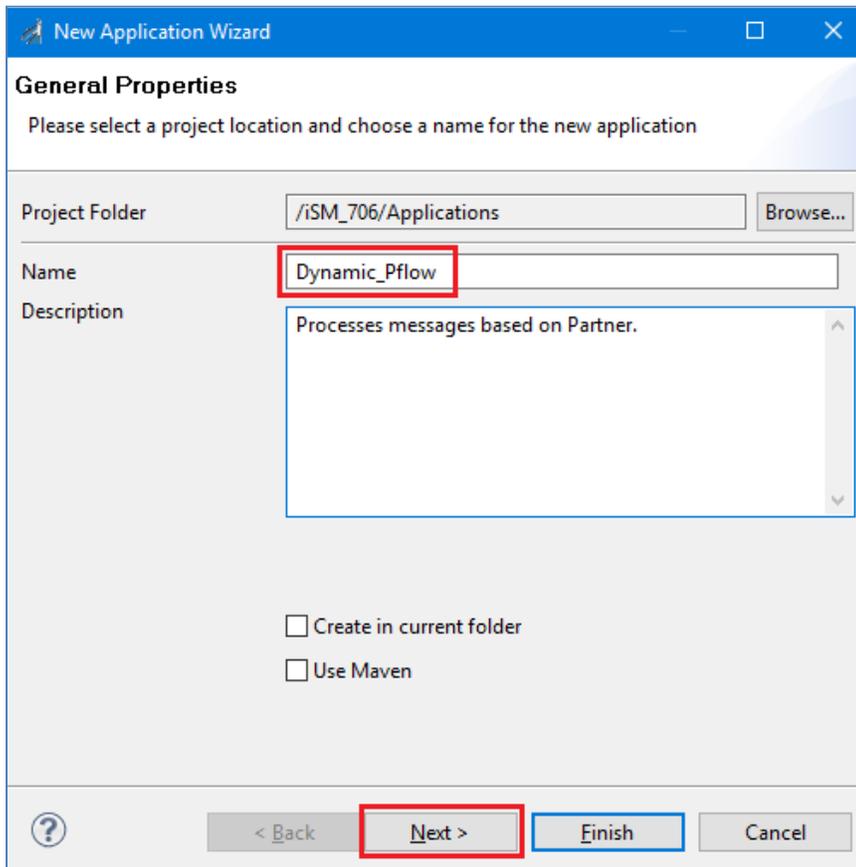


### Configuring the iWay Integration Application

1. Within the same Integration Project, create a new iWay Integration Application (iIA) by right-clicking the *Applications* folder, selecting *New*, and then clicking *Application* from the context menu, as shown in the following image.



The New Application Wizard dialog opens, as shown in the following image.

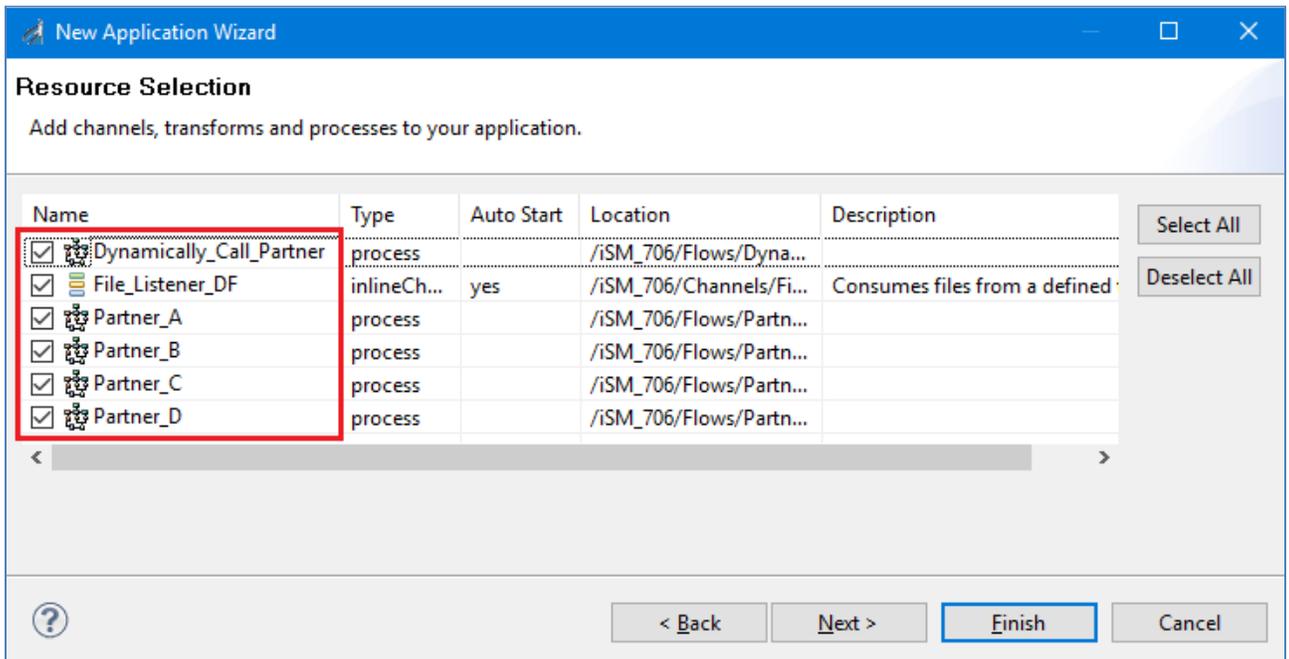


2. In the Name field, type *Dynamic\_Pflow*.

You can also specify a description for this application, which is optional.

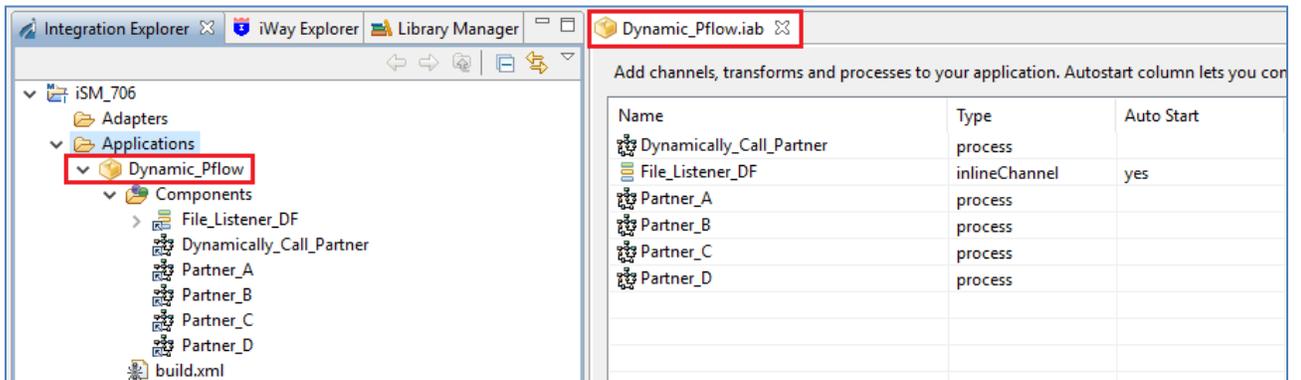
3. Click *Next*.

The Resource Selection pane opens, as shown in the following image.



4. Select the check boxes for all of the components that you previously created and then click *Finish*.

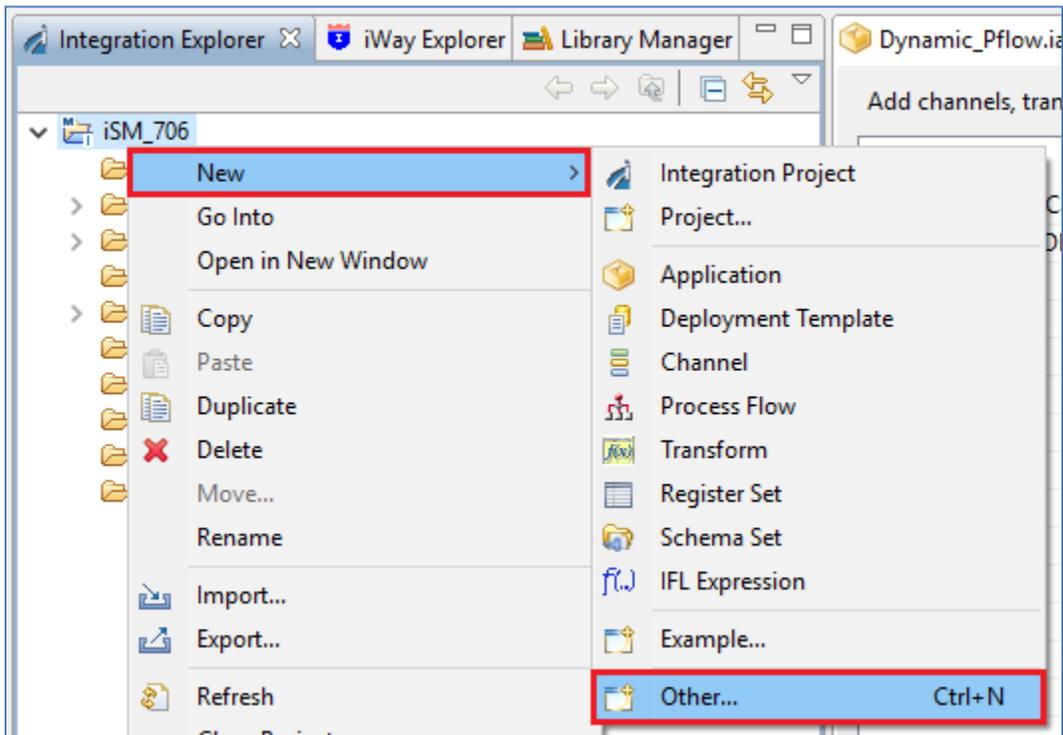
The new process flow (Dynamic\_Pflow) opens in the workspace area as a new tab, as shown in the following image.



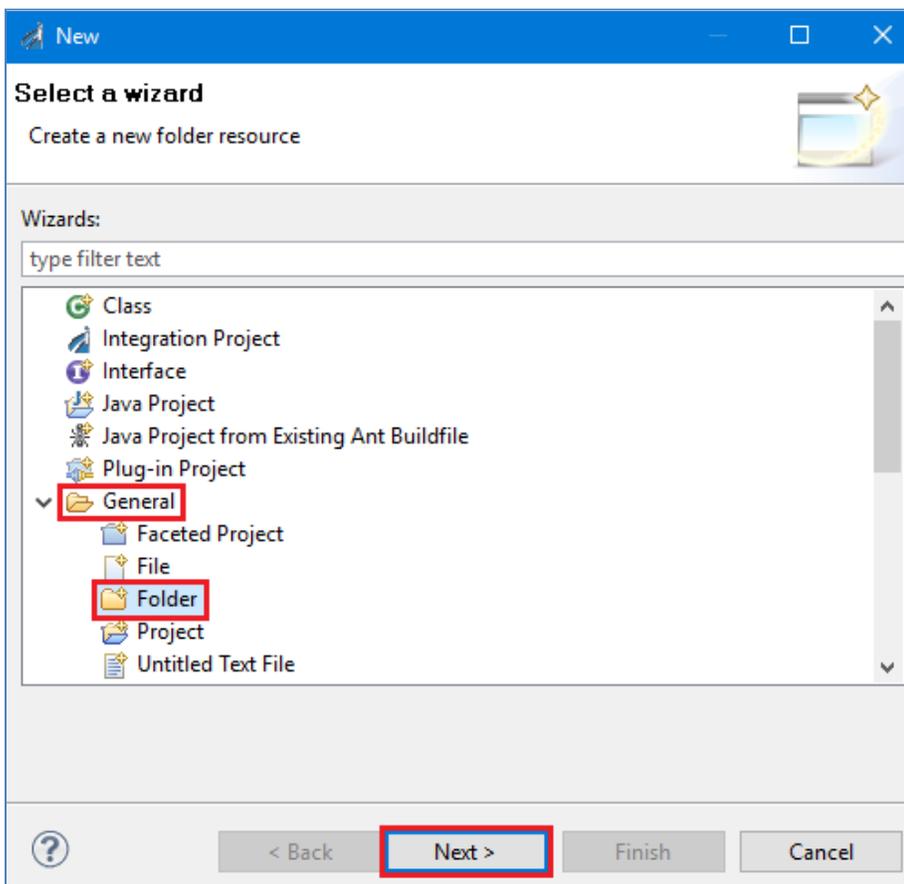
5. Create any folders that you require to be added to your application.

**Note:** This step is optional, meaning you can use any folder you require in or out of the application working directory. These folders are just being used for simplicity and demonstration purposes.

6. Right-click the Integration Project node you are working with, select *New*, and then click *Other* from the context menu, as shown in the following image.

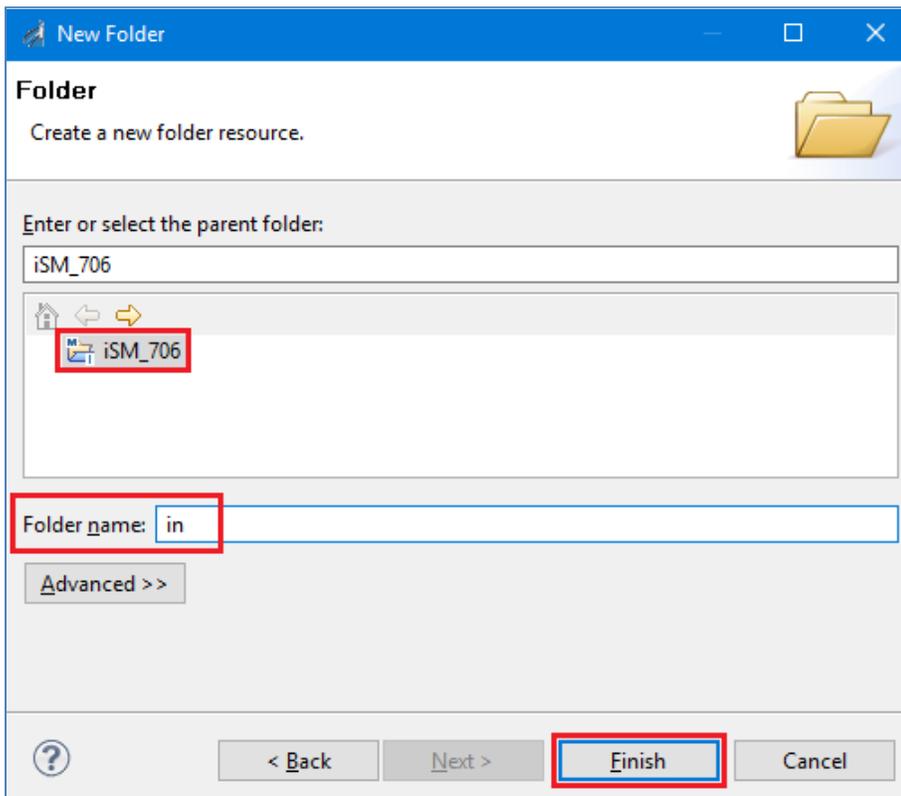


The New dialog opens, as shown in the following image.



7. Expand the *General* folder, select *Folder*, and then click *Next*.

The New Folder dialog opens, as shown in the following image.



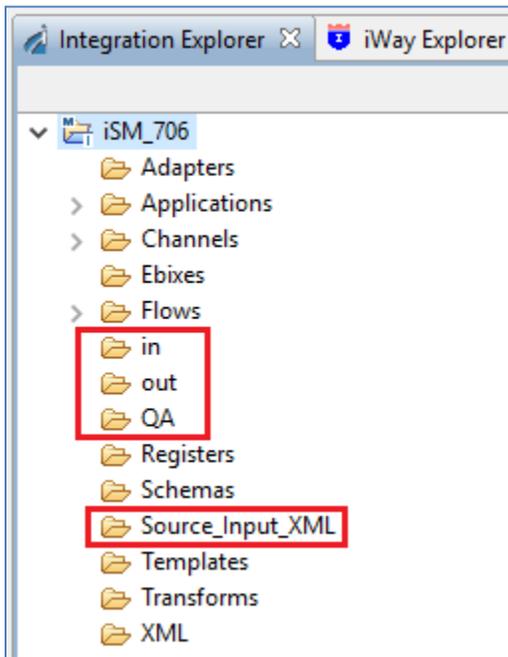
8. Select the Integration Project for which you want to create the new folder under, and then in the Folder name field, type *in*.
9. Click *Finish*.

The new folder (for example, *in*) is now added to your Integration Project.

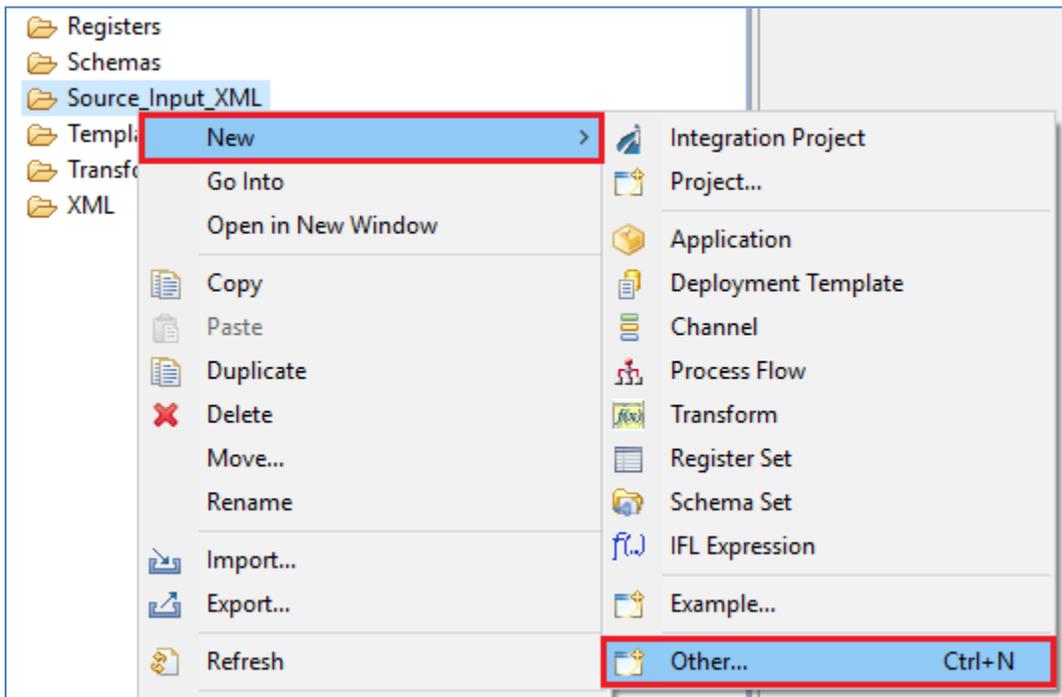
10. Repeat steps 6 to 9 to create the following additional folders:

- Out
- QA
- Source\_Input\_XML

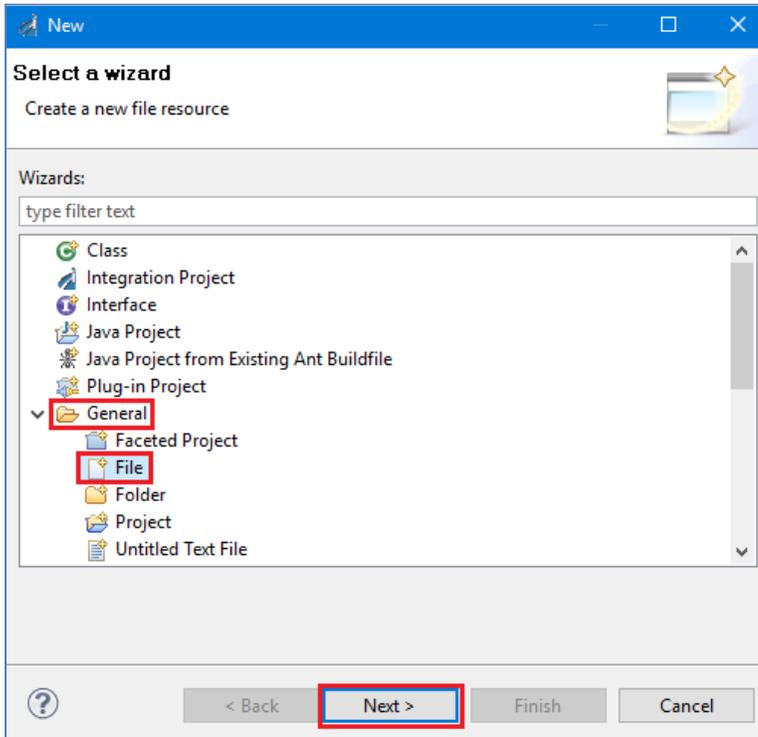
The folder structure for your Integration Project should now appear as shown in the following image.



11. Right-click the *Source\_Input\_XML* folder select *New*, and then click *Other* from the context menu, as shown in the following image.

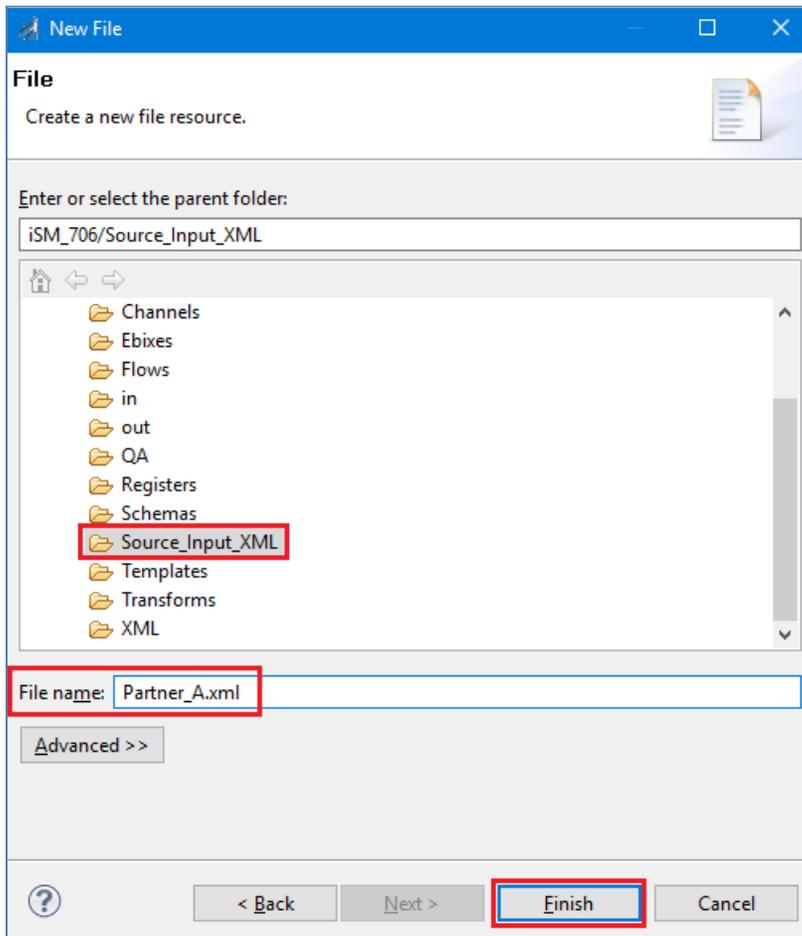


The New dialog opens, as shown in the following image.



12. Expand the *General* folder, select *File*, and then click *Next*.

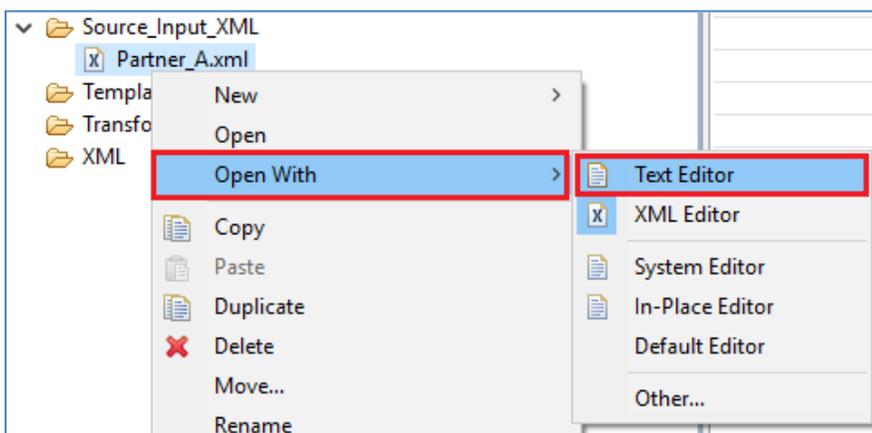
The New File dialog opens, as shown in the following image.



13. In the File name field type *Partner\_A.xml* and then click *Finish*.

A new file (*Partner\_A.xml*), which is empty, is created and added to the *Source\_Input\_XML* folder in your Integration Project.

14. Right-click the *Partner\_A.xml* file, select *Open With*, and then click *Text Editor* from the context menu, as shown in the following image.

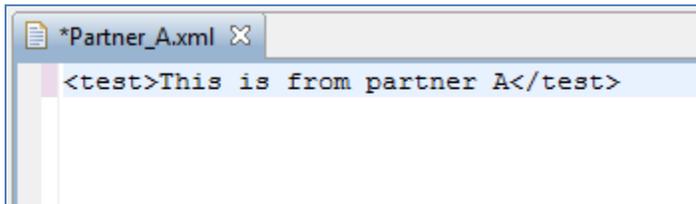


The *Partner\_A.xml* file opens as a new tab in the workspace area.

15. Copy and paste the following XML content into the opened file:

```
<test>This is from partner A</test>
```

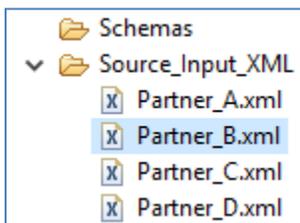
For example:



16. Save and close the *Partner\_A.xml* file.
17. Repeat steps 11 through 16, creating the new XML file and content, but renaming A to B, C, and then to D.

**Note:** You can also copy the *Partner\_A.xml* file and paste it back to the *Source\_Input\_XML* folder, rename and edit accordingly to create the three remaining XML file (*Partner\_B.xml*, *Partner\_C.xml*, and *Partner\_D.xml*).

The *Source\_Input\_XML* folder should now contain four XML files, as shown in the following image.



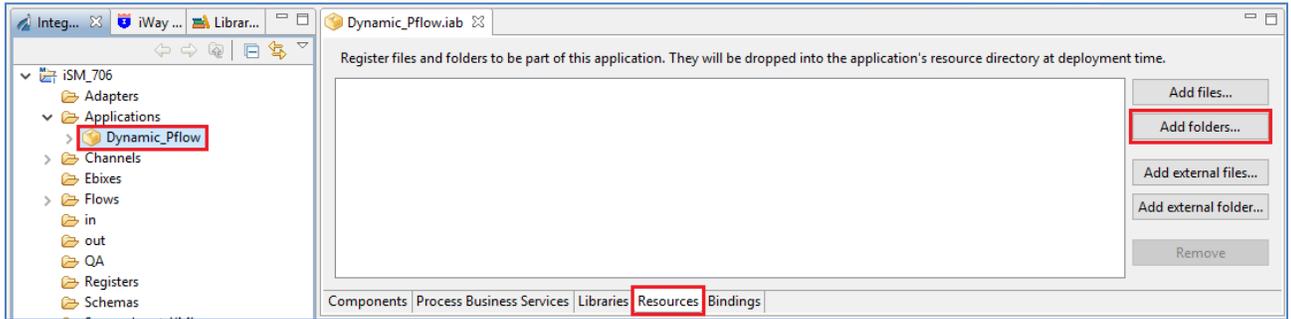
The content of the four XML files is summarized as follows:

- Partner\_A.xml: <test>This is from partner A</test>
- Partner\_B.xml: <test>This is from partner B</test>
- Partner\_C.xml: <test>This is from partner C</test>
- Partner\_D.xml: <test>This is from partner D</test>

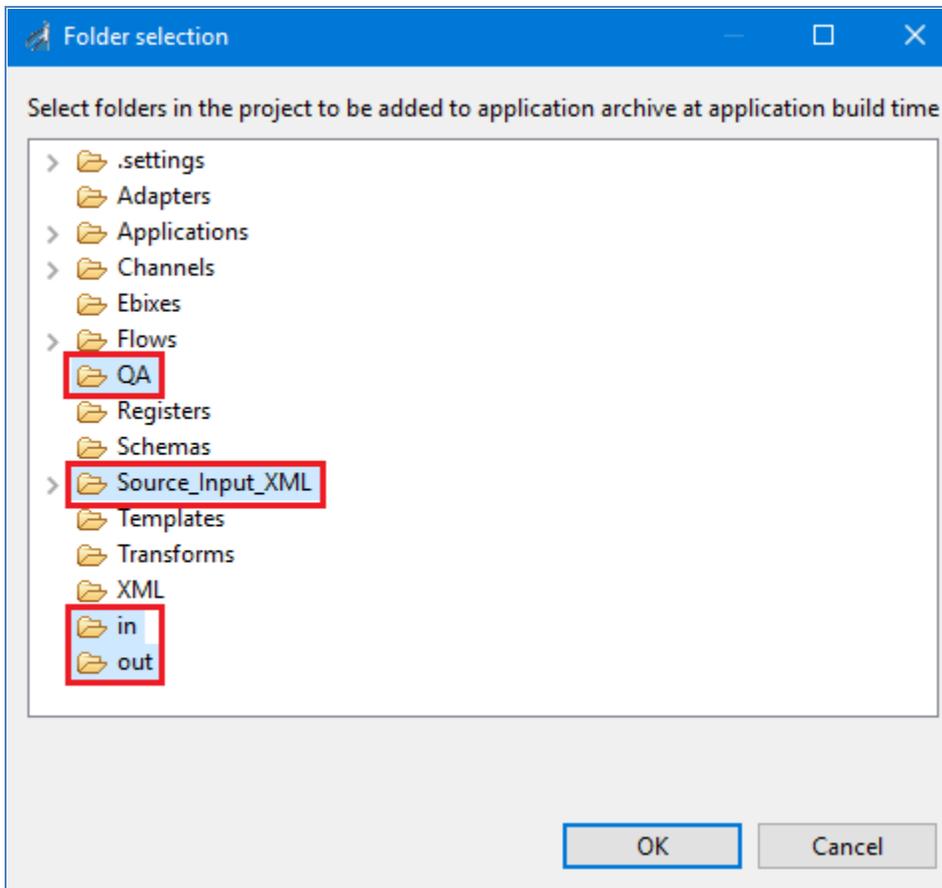
18. Expand the *Applications* folder in the left pane and double-click the *Dynamic\_Pflow* application node.

The *Dynamic\_Pflow* application opens as a new tab in the workspace area.

19. Click the Resources tab and then click the *Add folders* button, as shown in the following image.

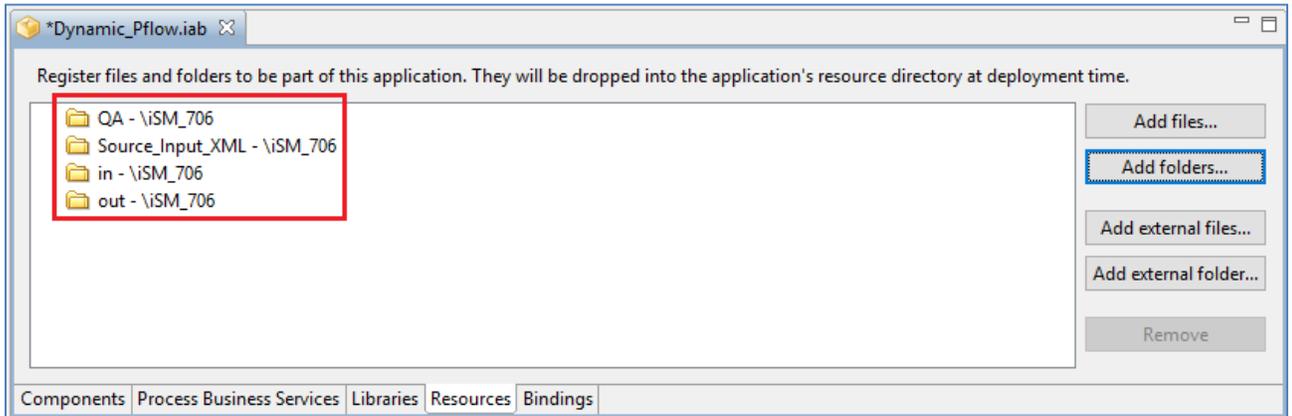


The Folder selection dialog opens, as shown in the following image.



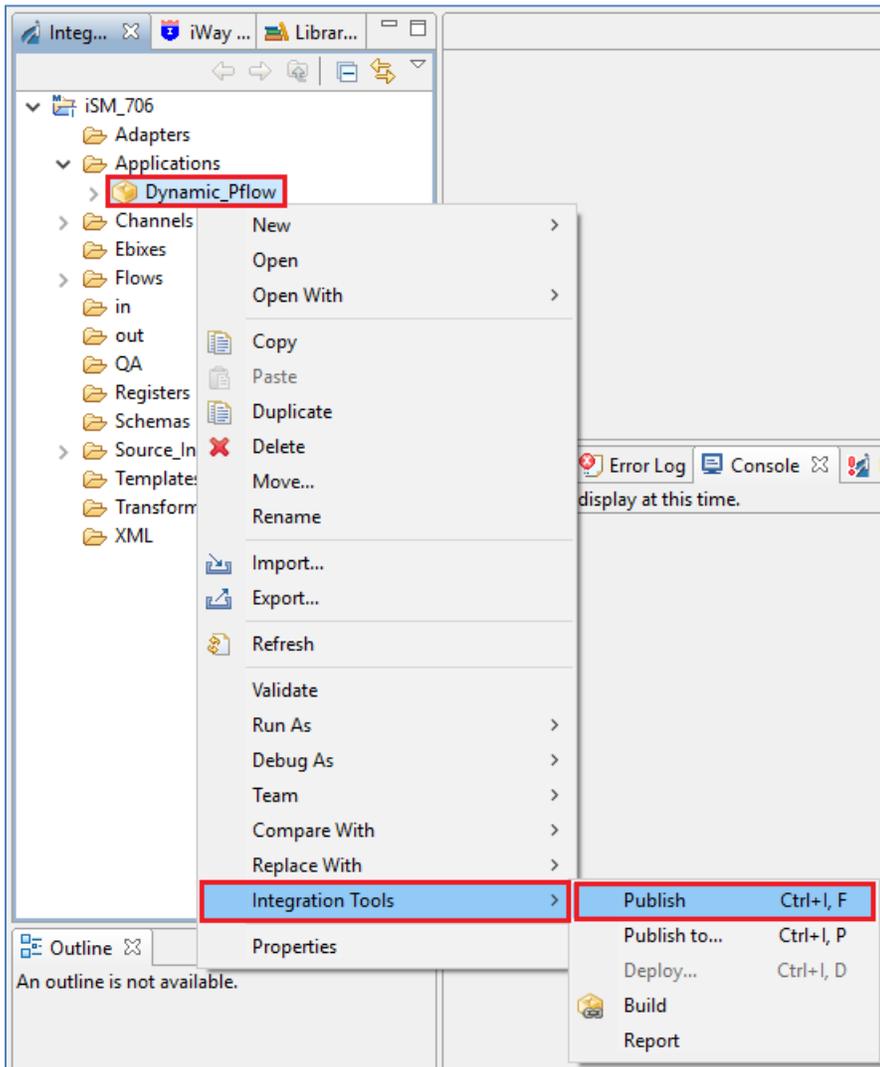
20. Select all of the new folders that you created (*QA*, *Source\_Input\_XML*, *in*, and *out*) and then click *OK*.

The Resources tab of the opened application (*Dynamic\_Pflow*) is refreshed with the new folder structure, as shown in the following image.

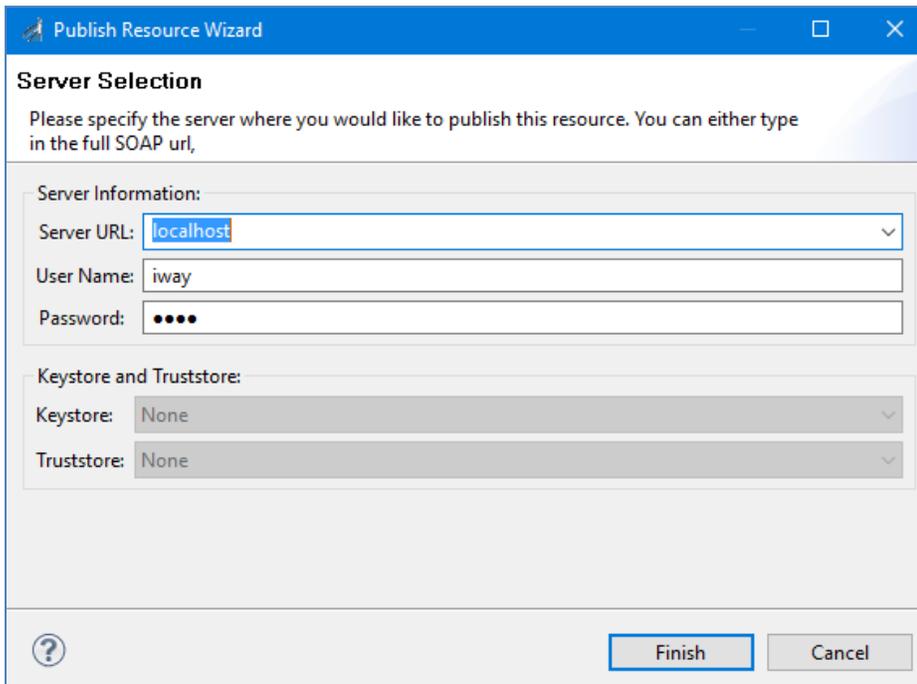


21. Click the *Save* icon on the iIT menu bar or press *Ctrl+S*.

22. Right-click the *Dynamic\_Pflow* application in the left pane, select *Integration Tools*, and then click *Publish* from the context menu, as shown in the following image.

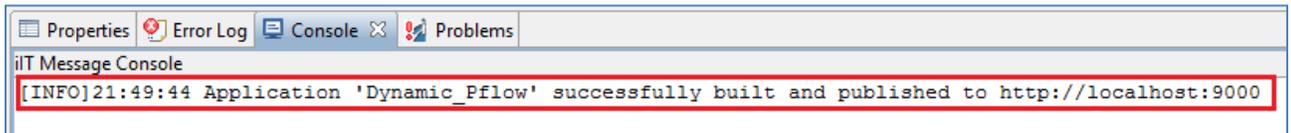


The Publish Resource Wizard dialog opens, as shown in the following image.

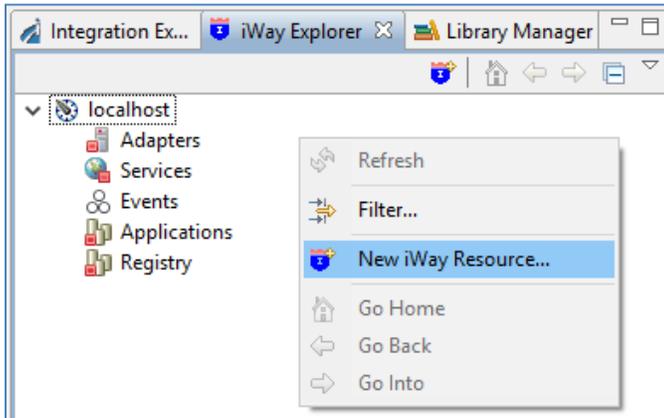


23. Specify your server information (your iSM instance) and click *Finish*.

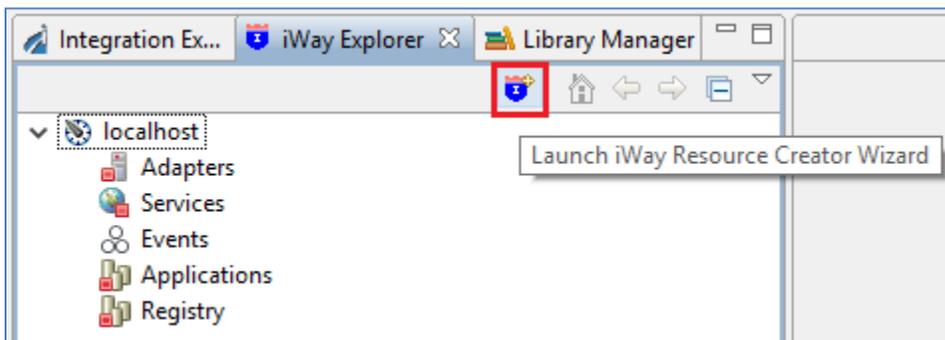
After the publish process has completed, you should see the following type of success message in the Console tab of iIT, as shown in the following image.



**Note:** You will need to have already created an iWay Resource connection using the iWay Explorer tab within iIT. To create this, right-click anywhere in the iWay Explorer palette and select *New iWay Resource* from the context menu, as shown in the following image.



You can also click the *Launch iWay Resource Creator Wizard* icon, as shown in the following image.

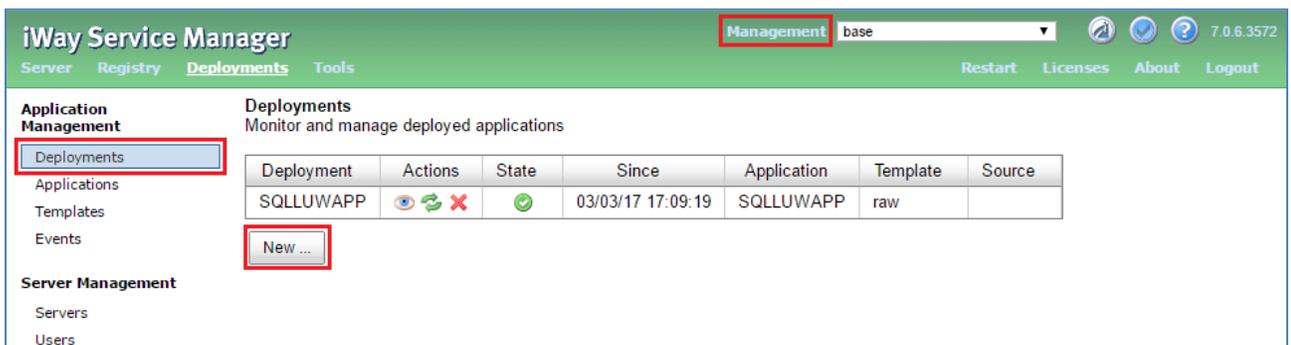


### Deploying and Testing the iWay Integration Application

1. Open the iSM Administration Console by typing the following URL in the address bar of your browser:

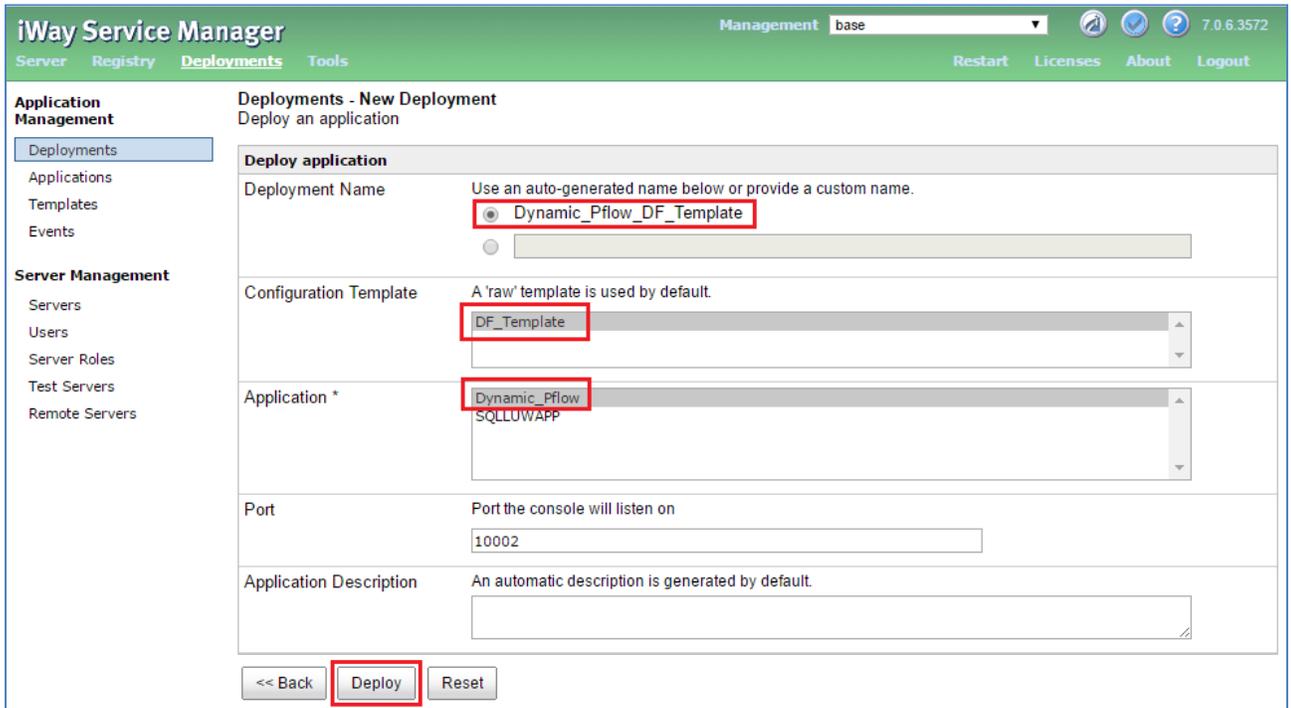
<http://hostname:9999/ism>

2. At the top of the console, click the *Management* link, then click *Deployments* under the Application Management section in the left pane, as shown in the following image.



3. Click *New* at the bottom of the Deployments page.

The Deployments – New Deployment page opens, as shown in the following image.



Notice the deployment name that is used (*Dynamic\_Pflow\_DF\_Template*).

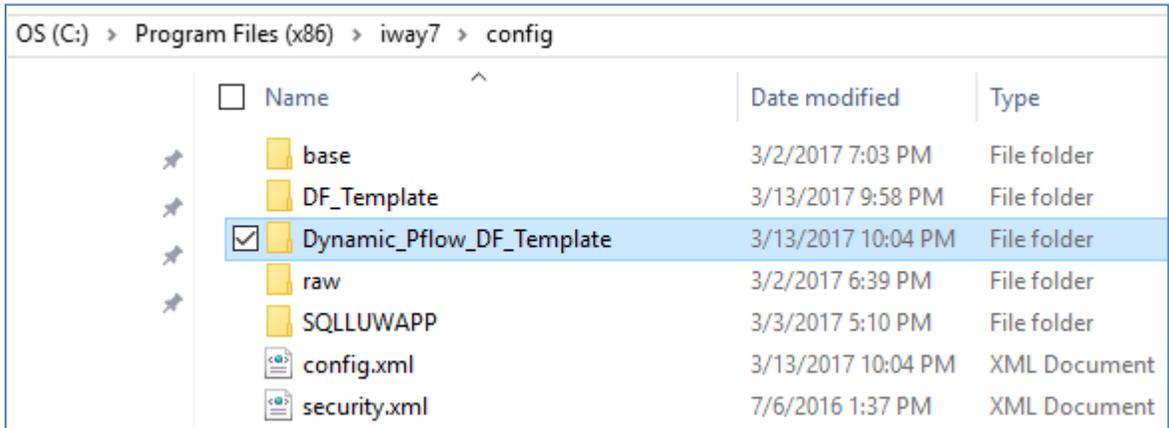
4. Select the configuration template you wish to use, the *Dynamic\_Pflow* application (iIA you created and published using iIT), and then click *Deploy*.

You are returned to the Deployments page where your deployment (*Dynamic\_Pflow\_DF\_Template*) is now listed, as shown in the following image.

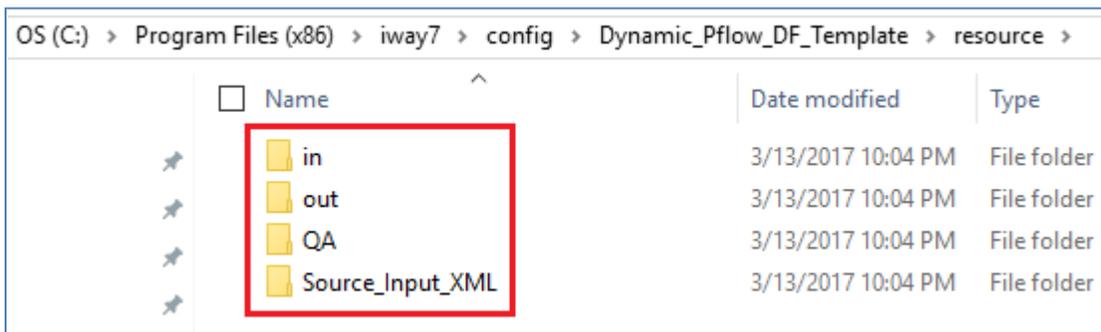
Deployments						
Monitor and manage deployed applications						
Deployment	Actions	State	Since	Application	Template	Source
Dynamic_Pflow_DF_Template			03/13/17 22:04:36	Dynamic_Pflow	DF_Template	
SQLLUWAPP			03/03/17 17:09:19	SQLLUWAPP	raw	

New ...

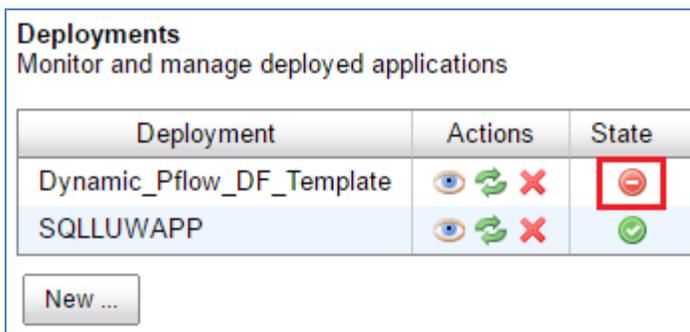
5. Check your `<iway_home>\config` folder to see if your application was created, as shown in the following image.



Also check the `\resource` subfolder to confirm that the application folders you created are listed, as shown in the following image.



- Return to the iSM Administration Console and click *Deployments* under the Application Management section in the left pane.
- Click the red icon in the State column to start your application, as shown in the following image.



**Note:** The application startup may take a few seconds.

The red icon in the State column changes to a green icon with a check mark, which indicates that your application has started, as shown in the following image.

**Deployments**  
Monitor and manage deployed applications

Deployment	Actions	State
Dynamic_Pflow_DF_Template		
SQLLUWAPP		

New ...

- To test the application, go to your application folder path (`\resource\Source_Input_XML`), and copy all four XML files, as shown in the following image.

OS (C:) > Program Files (x86) > iway7 > config > Dynamic\_Pflow\_DF\_Template > resource > Source\_Input\_XML

Name	Date modified	Type	Size
<input checked="" type="checkbox"/> Partner_A.xml	3/13/2017 10:04 PM	XML Document	1 KB
<input checked="" type="checkbox"/> Partner_B.xml	3/13/2017 10:04 PM	XML Document	1 KB
<input checked="" type="checkbox"/> Partner_C.xml	3/13/2017 10:04 PM	XML Document	1 KB
<input checked="" type="checkbox"/> Partner_D.xml	3/13/2017 10:04 PM	XML Document	1 KB

- Paste all four XML files into the `\resource\in` folder, where they will be automatically picked up by the File listener in your channel.
- To confirm your test, open the `\resource\QA` folder.

You should see a QA file (XML format) for each partner confirming that a specific process flow was used, as shown in the following image.

OS (C:) > Program Files (x86) > iway7 > config > Dynamic\_Pflow\_DF\_Template > resource > QA

Name	Date modified	Type
<input checked="" type="checkbox"/> QAPartner_A.xml_1.xml	3/13/2017 10:25 PM	XML Document
<input checked="" type="checkbox"/> QAPartner_B.xml_1.xml	3/13/2017 10:25 PM	XML Document
<input checked="" type="checkbox"/> QAPartner_C.xml_1.xml	3/13/2017 10:25 PM	XML Document
<input checked="" type="checkbox"/> QAPartner_D.xml_1.xml	3/13/2017 10:25 PM	XML Document