



6.5 User Guide

Blue Prism and Power Platform Integration

Document Revision 1.0



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Introduction

This document outlines the integration and configuration of Blue Prism and the Microsoft Power Platform which includes Power BI, Microsoft Flow and PowerApps.

Power Platform allows business users to standardize and automate processes in their organization through the creation of BPFs that can include 3rd party applications. This is extremely powerful, but somewhat limited in scope as it can only be done in a cost effective “no code” fashion in environments where all applications offer existing connectors within the Power Platform or public APIs.

This document assumes a general understanding of Blue Prism Processes as well as Microsoft Flow.

Details on the Power Platform can be found here: <https://powerplatform.microsoft.com>

Requirements include:

- Blue Prism Software
- Microsoft Flow account
- Microsoft Azure account and ability to publish Azure functions from Visual Studio

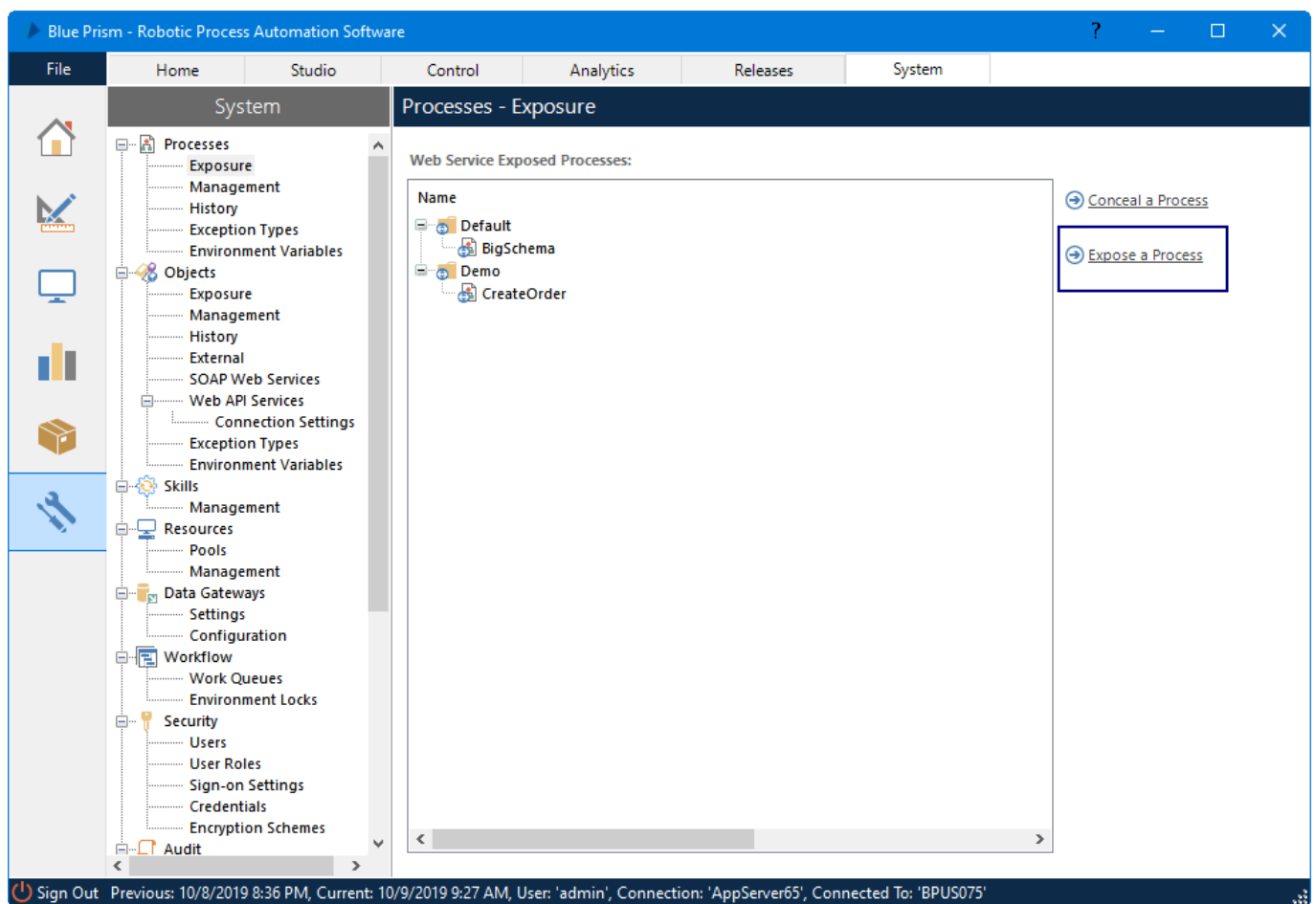
Flow to Blue Prism Integration

Components of the Solution

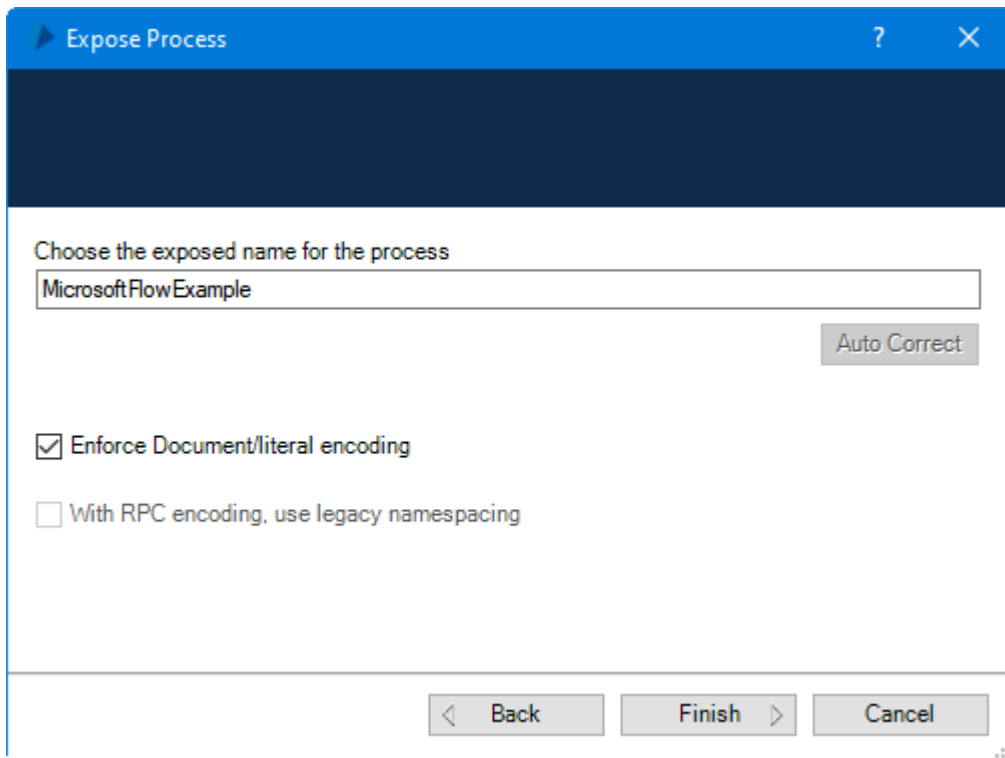
- Blue Prism Process exposed as SOAP Web Service
- Azure Function for REST Services
- Blue Prism Custom Connector
- Microsoft Flow Business Process

Blue Prism process exposed as SOAP Web Service

Expose the Blue Prism process as a SOAP Web Service.



Make sure that you specify Document/literal encoding.



The 'Expose Process' dialog box has a blue title bar with a question mark and a close button. The main area is white with a dark blue header. It contains a text input field with 'MicrosoftFlowExample', an 'Auto Correct' button, and two checkboxes: 'Enforce Document/literal encoding' (checked) and 'With RPC encoding, use legacy namespacing' (unchecked). At the bottom are 'Back', 'Finish', and 'Cancel' buttons.

Expose Process

Choose the exposed name for the process

MicrosoftFlowExample

Auto Correct

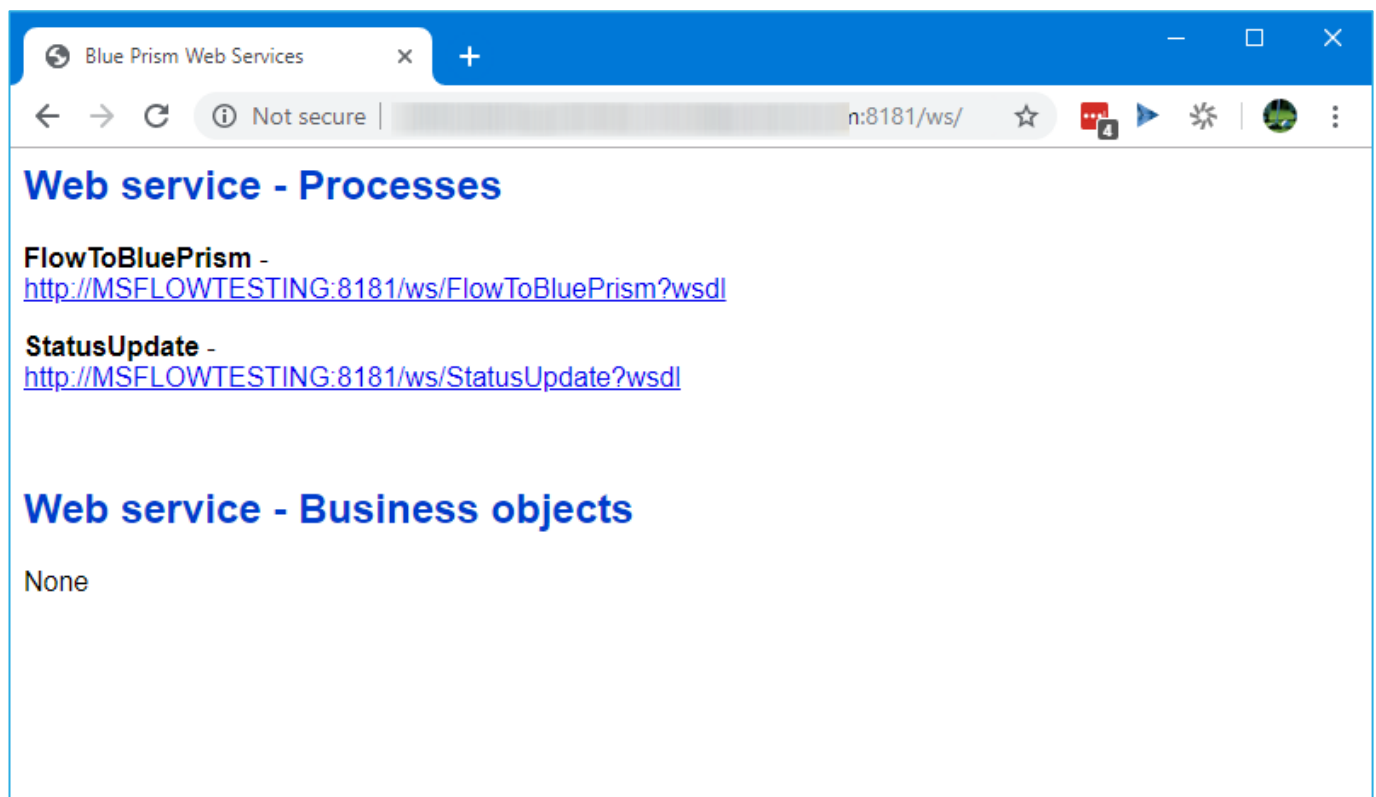
☒ Enforce Document/literal encoding

☐ With RPC encoding, use legacy namespacing

Back Finish Cancel

You can test to make sure the SOAP service is available by using the URL in a browser window:

`http://<<machinename>>:<<resource agent port>>/ws/`



A browser window titled 'Blue Prism Web Services' shows a 'Not secure' connection to 'n:8181/ws/'. The page content includes a heading 'Web service - Processes' followed by two entries: 'FlowToBluePrism' with URL 'http://MSFLOWTESTING:8181/ws/FlowToBluePrism?wsdl' and 'StatusUpdate' with URL 'http://MSFLOWTESTING:8181/ws/StatusUpdate?wsdl'. Below this is a heading 'Web service - Business objects' with the value 'None'.

Blue Prism Web Services

Not secure | n:8181/ws/

Web service - Processes

FlowToBluePrism -
<http://MSFLOWTESTING:8181/ws/FlowToBluePrism?wsdl>

StatusUpdate -
<http://MSFLOWTESTING:8181/ws/StatusUpdate?wsdl>

Web service - Business objects

None

Azure Function for REST Services

The Azure Function is provided as a Visual Studio project here:

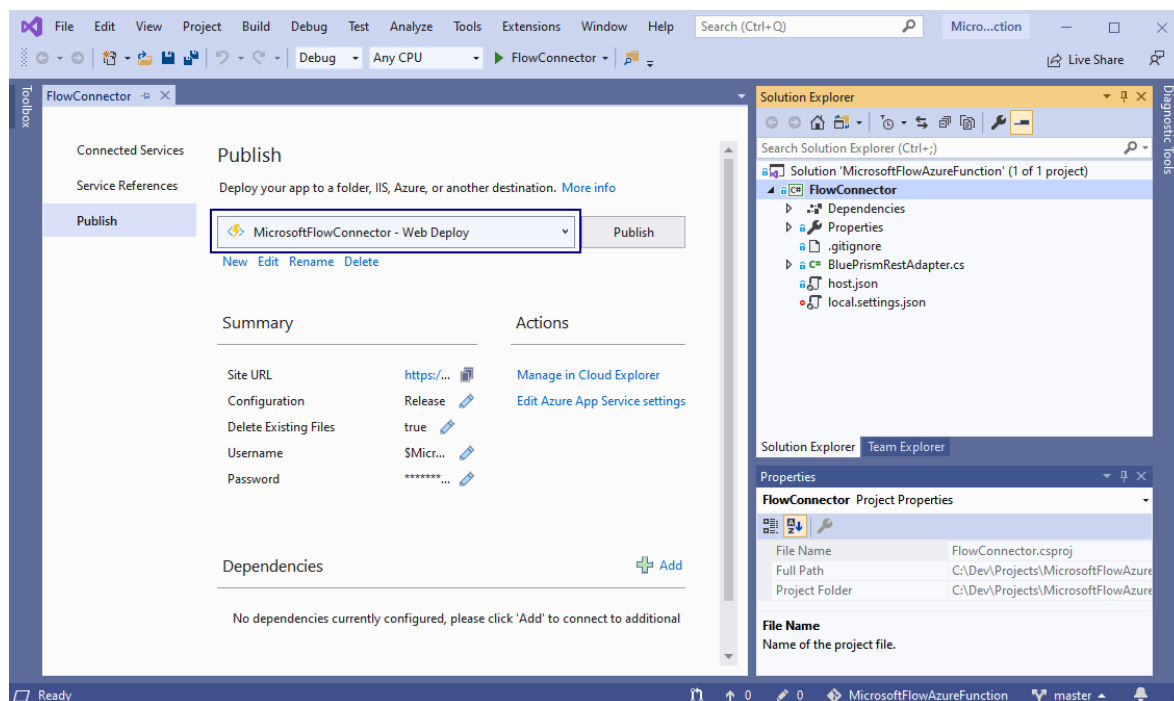
<https://github.com/blue-prism/MicrosoftFlowAzureFunction>

In depth tutorials on loading projects from GitHub repos can be found here:

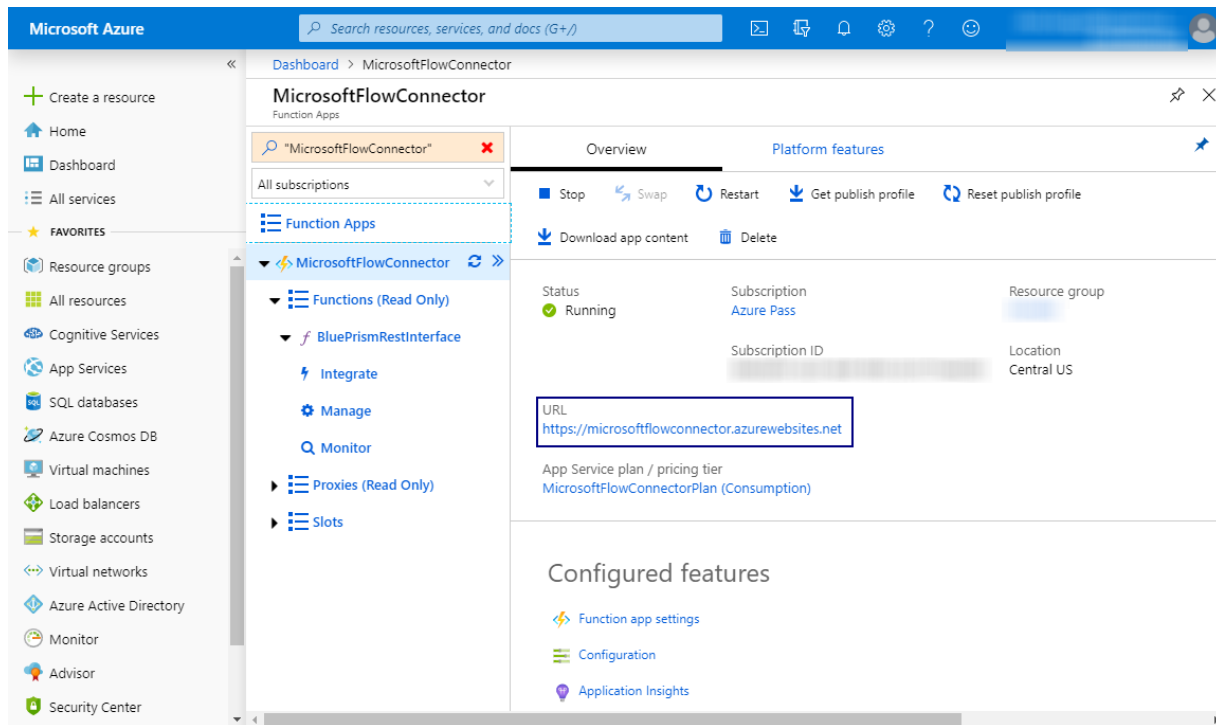
<https://docs.microsoft.com/en-us/visualstudio/get-started/tutorial-open-project-from-repo?view=vs-2019>

Open the solution in Visual Studio and publish the Azure Function. You will need to specify your own Azure Function name. In depth tutorials on publishing to Azure from Visual Studio can be found here:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-create-your-first-function-visual-studio>

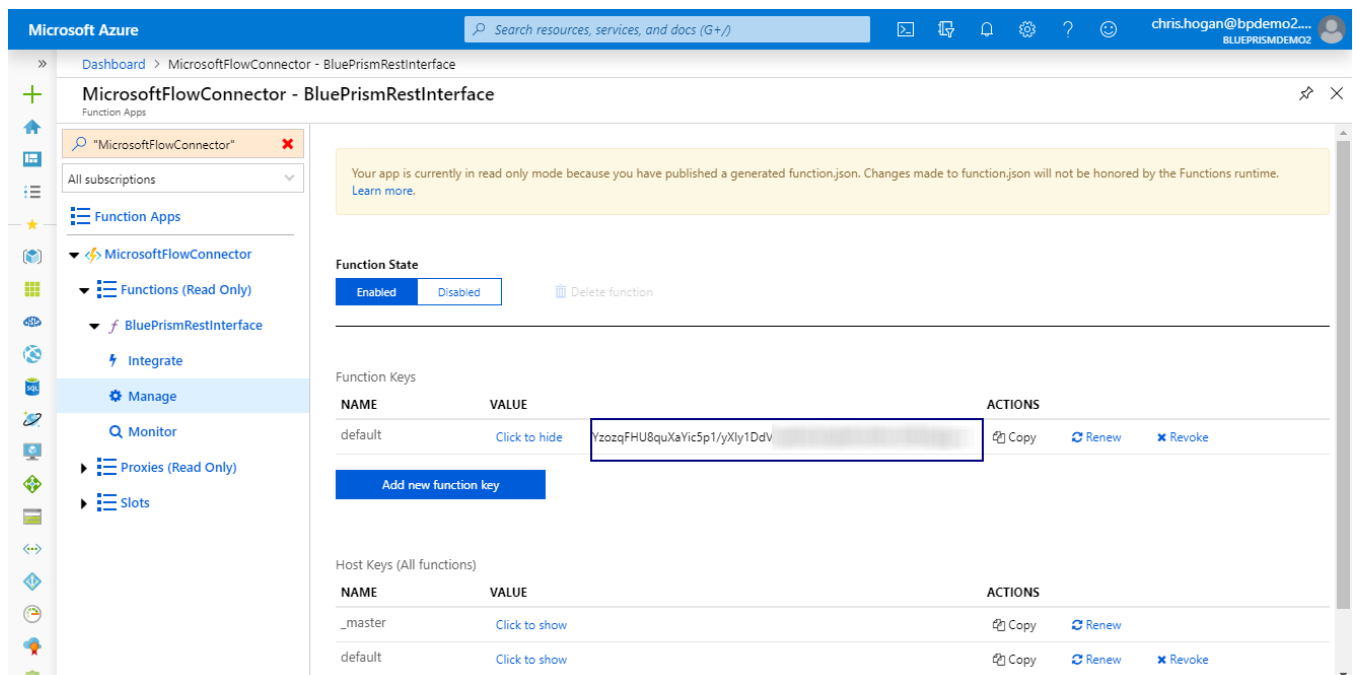


Once published to Azure, make note of the URL



The screenshot shows the Microsoft Azure portal interface. On the left is the navigation pane with options like 'Create a resource', 'Home', 'Dashboard', 'All services', and 'FAVORITES'. The main area displays the 'MicrosoftFlowConnector' Function App. The 'Overview' tab is selected, showing the app's status as 'Running', subscription as 'Azure Pass', and location as 'Central US'. A URL is highlighted: `https://microsoftflowconnector.azurewebsites.net`. Below this, the 'Configured features' section lists 'Function app settings', 'Configuration', and 'Application Insights'.

Also make note of the Function Key



The screenshot shows the 'Function Keys' section for the 'MicrosoftFlowConnector - BluePrismRestInterface' Function App. A yellow warning banner at the top states: 'Your app is currently in read only mode because you have published a generated function.json. Changes made to function.json will not be honored by the Functions runtime. [Learn more.](#)'. The 'Function State' is 'Enabled'. Below, the 'Function Keys' table is shown:

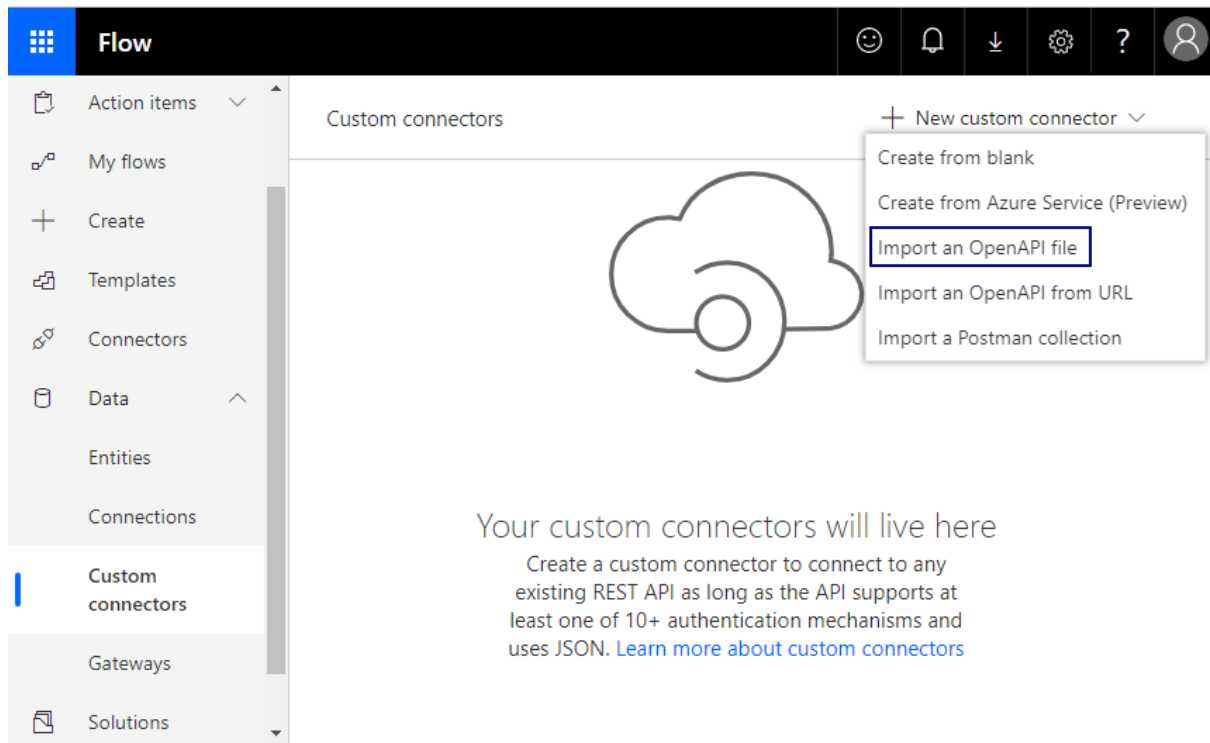
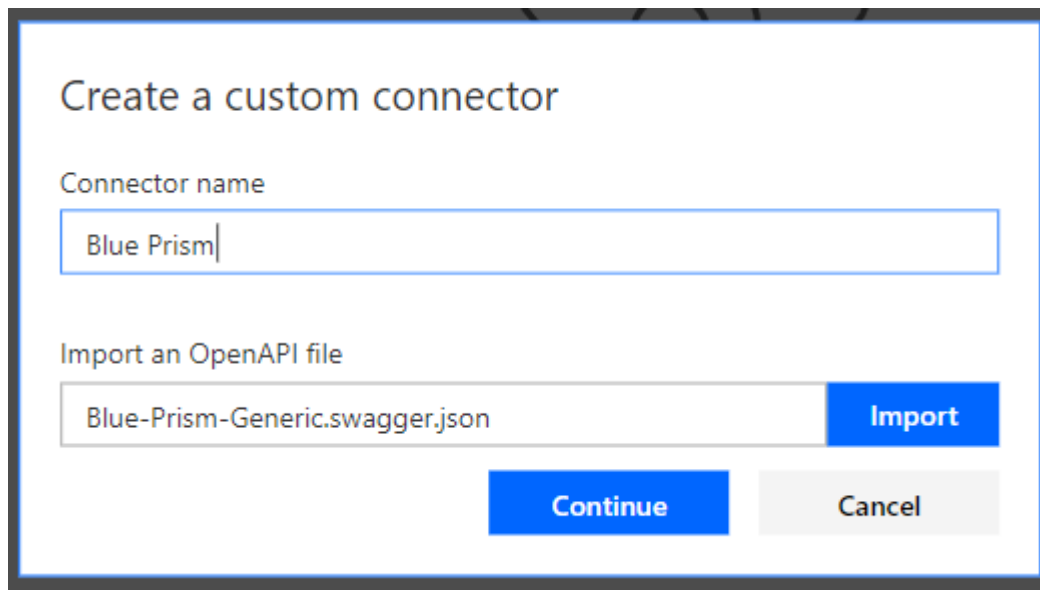
NAME	VALUE	ACTIONS
default	Click to hide YzoqFHU8quXaYic5p1/yXly1DdV	Copy Renew Revoke

Below the table is a button 'Add new function key'. Further down, the 'Host Keys (All functions)' section is visible:

NAME	VALUE	ACTIONS
_master	Click to show	Copy Renew
default	Click to show	Copy Renew Revoke

Blue Prism Custom Connector

Import the Blue-Prism-Generic.swagger.json connector definition from The Digital Exchange into Microsoft Flow

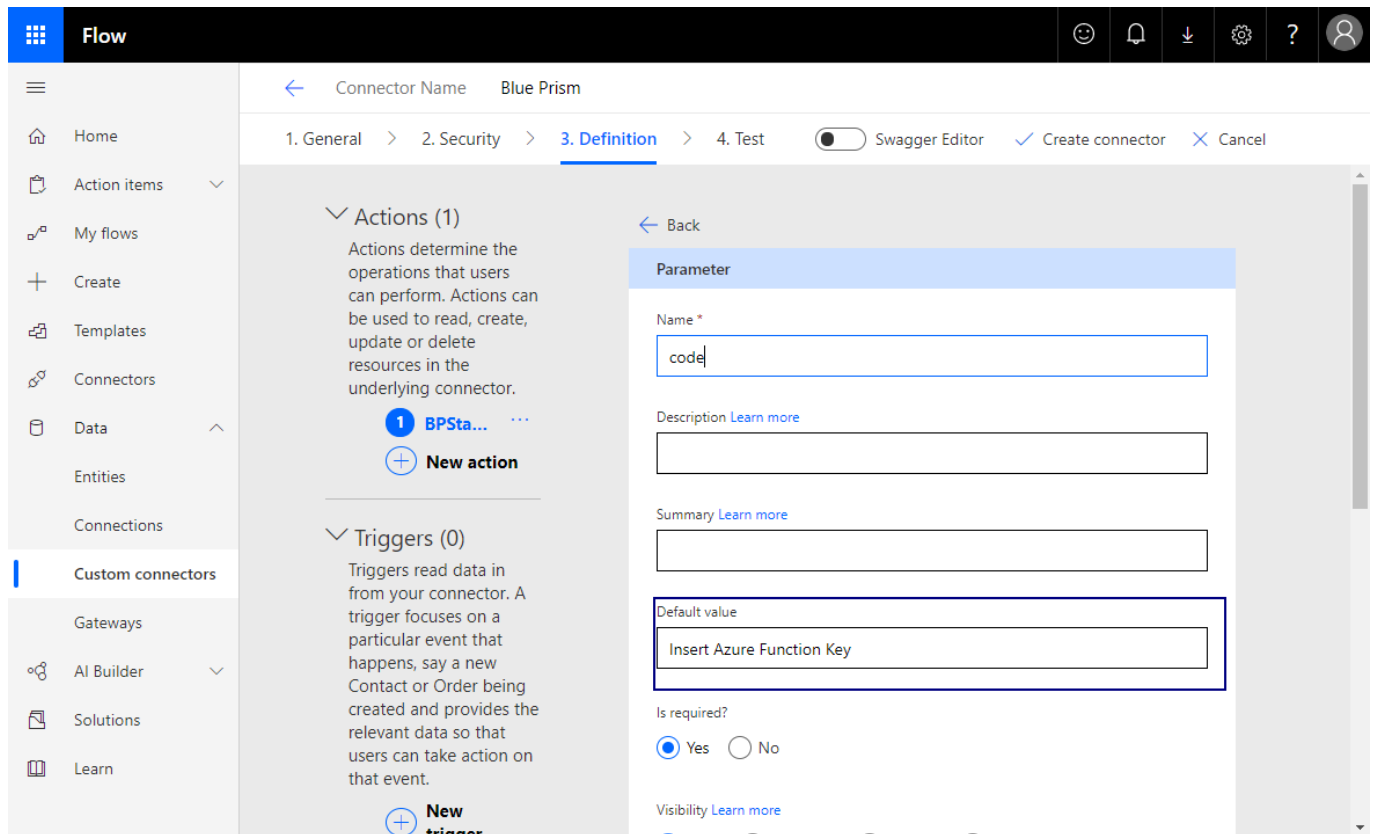



The screenshot shows a 'Create a custom connector' dialog box. It has a title bar and a main content area. The 'Connector name' field is filled with 'Blue Prism'. Below it, the 'Import an OpenAPI file' section has a text field containing 'Blue-Prism-Generic.swagger.json' and a blue 'Import' button. At the bottom of the dialog are two buttons: a blue 'Continue' button and a grey 'Cancel' button.

Add a custom icon if preferred, and specify the host from the Azure Function:

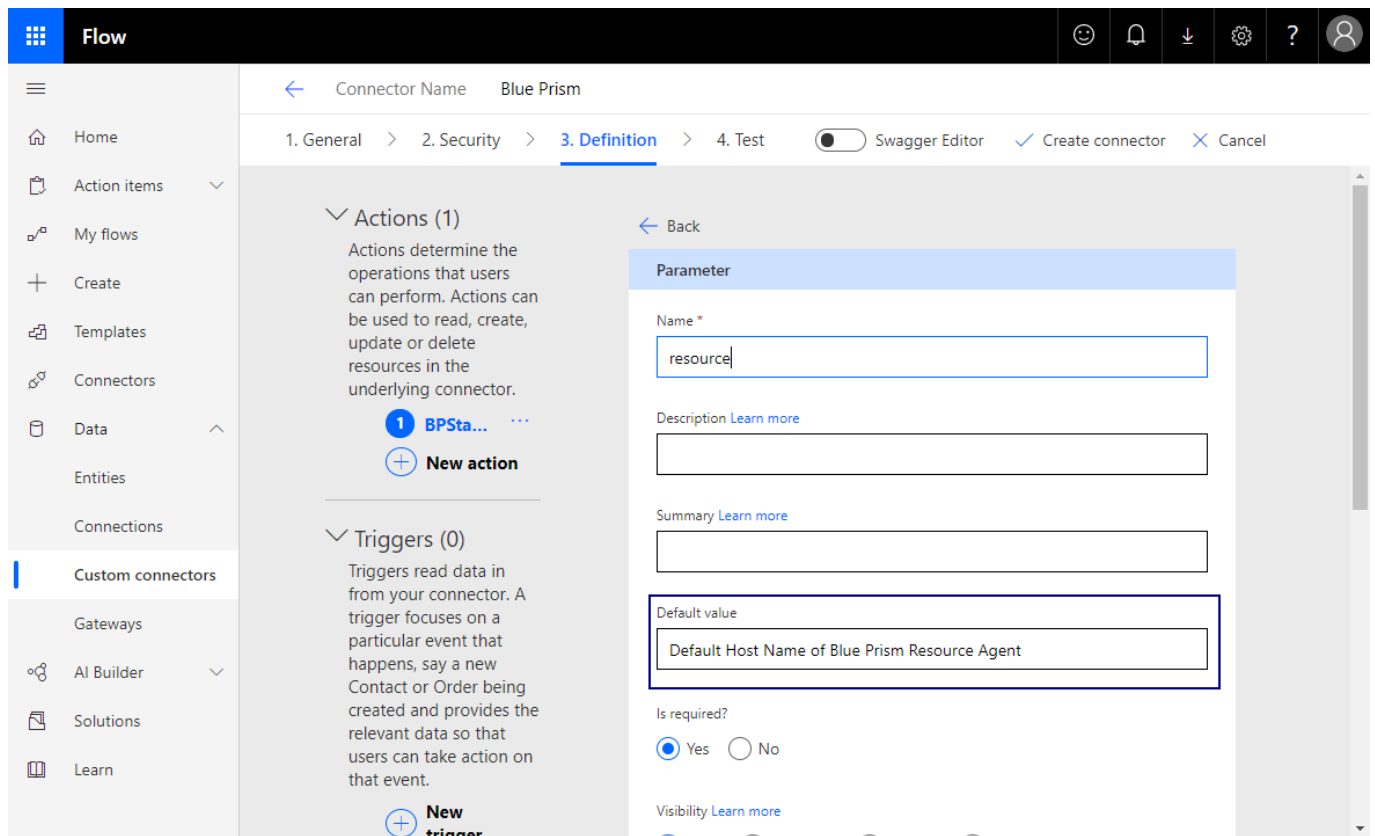
On definition tab, edit code and provide the Azure Function Key:

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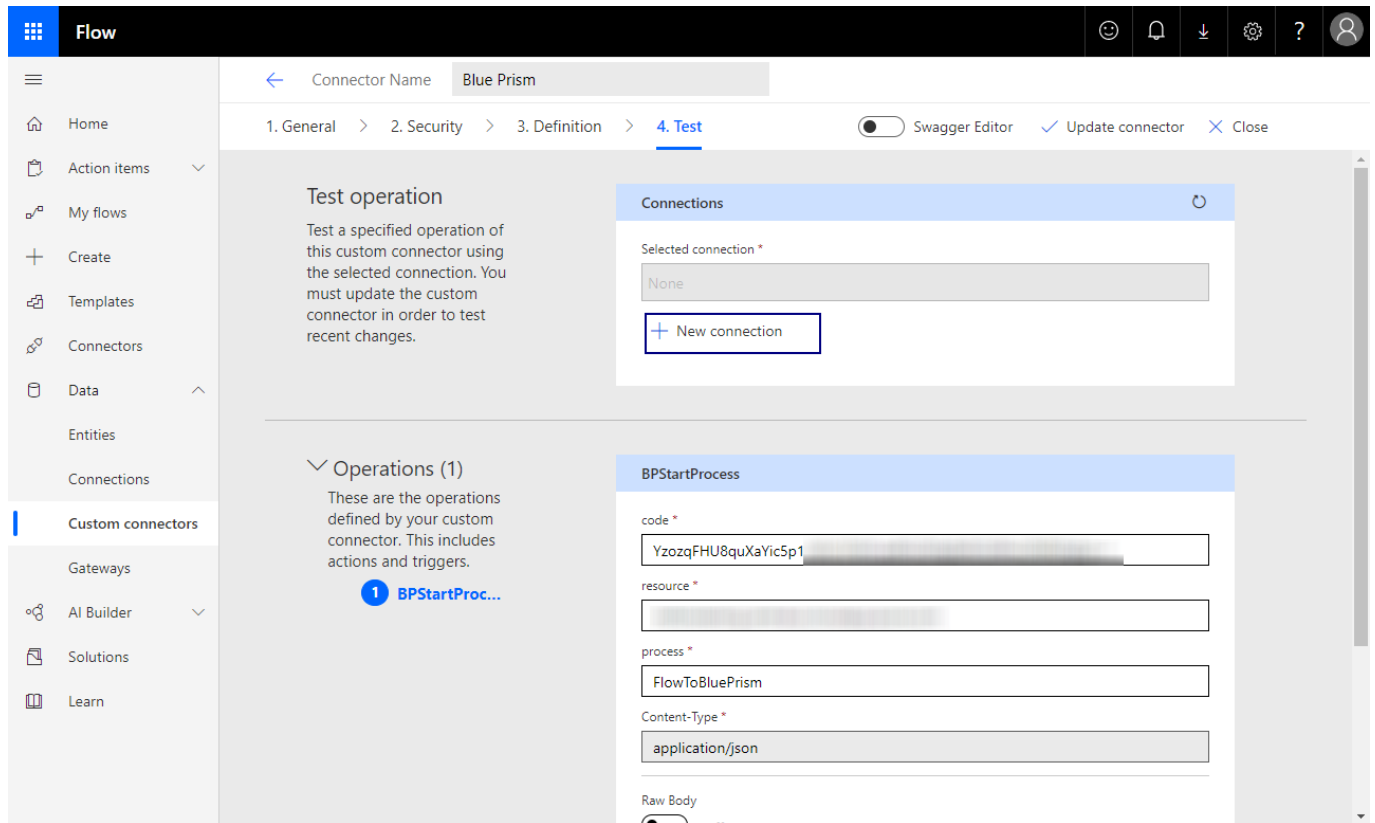
The screenshot shows the 'Definition' tab of the 'Blue Prism' connector configuration. The left sidebar contains navigation options: Home, Action items, My flows, Create, Templates, Connectors, Data, Entities, Connections, Custom connectors, Gateways, AI Builder, Solutions, and Learn. The main area is divided into 'Actions (1)' and 'Triggers (0)'. The 'Actions' section has a description: 'Actions determine the operations that users can perform. Actions can be used to read, create, update or delete resources in the underlying connector.' It includes a 'New action' button. The 'Triggers' section has a description: 'Triggers read data in from your connector. A trigger focuses on a particular event that happens, say a new Contact or Order being created and provides the relevant data so that users can take action on that event.' It includes a 'New trigger' button. The right panel shows the 'Parameter' configuration for a parameter named 'code'. It includes fields for 'Name *', 'Description', 'Summary', and 'Default value'. The 'Default value' field is highlighted with a red box and contains the text 'Insert Azure Function Key'. Below the 'Default value' field are radio buttons for 'Is required?' (Yes is selected) and 'Visibility' (Learn more).

You can also provide the default values for the Resource Agent Host, and Process Name to invoke. These can also be specified later when using the connector in a Flow.



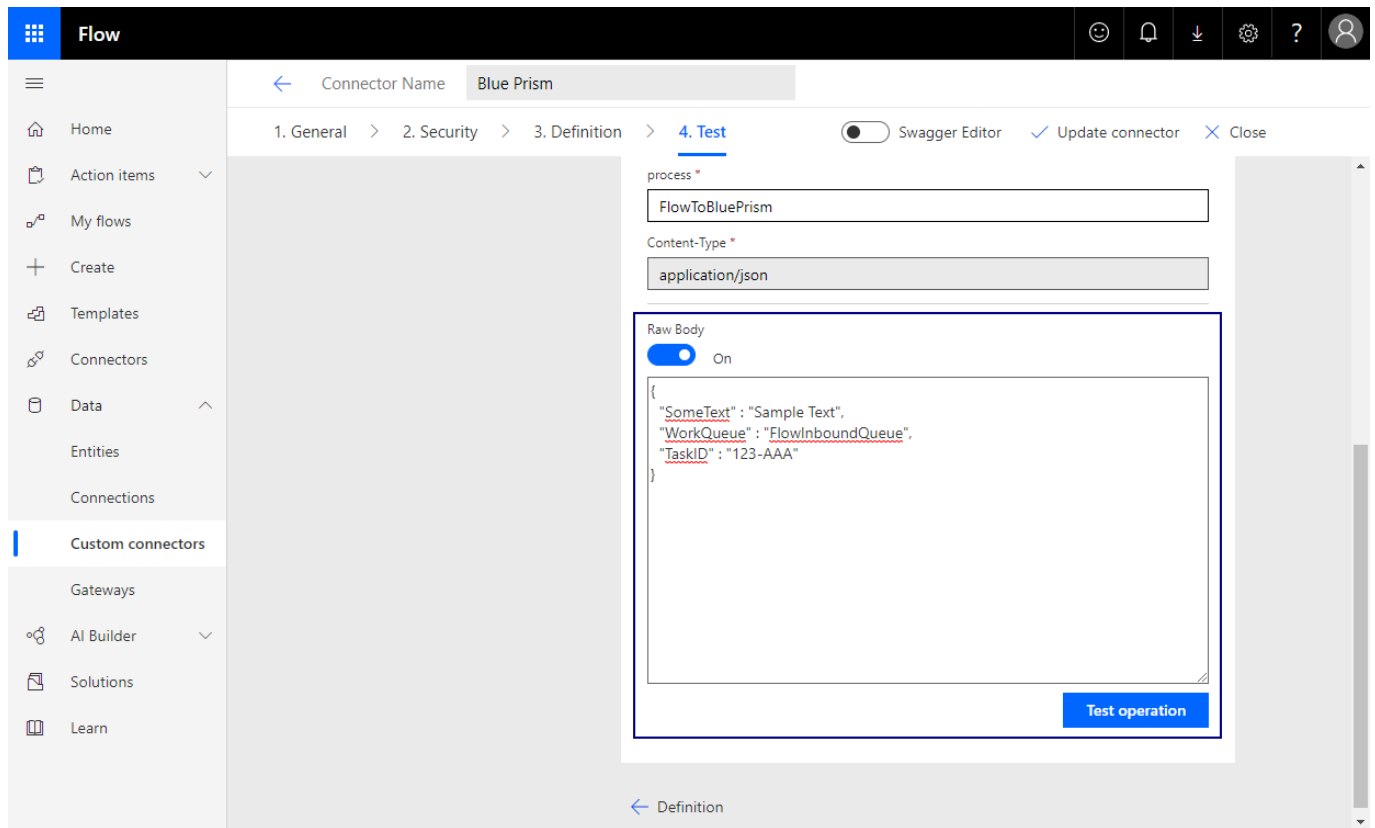
The screenshot shows the 'Definition' tab of the 'Blue Prism' connector configuration. The left sidebar contains navigation options: Home, Action items, My flows, Create, Templates, Connectors, Data, Entities, Connections, Custom connectors, Gateways, AI Builder, Solutions, and Learn. The main area is divided into 'Actions (1)' and 'Triggers (0)'. The 'Actions' section has a description: 'Actions determine the operations that users can perform. Actions can be used to read, create, update or delete resources in the underlying connector.' It includes a 'New action' button. The 'Triggers' section has a description: 'Triggers read data in from your connector. A trigger focuses on a particular event that happens, say a new Contact or Order being created and provides the relevant data so that users can take action on that event.' It includes a 'New trigger' button. The right panel shows the 'Parameter' configuration for a parameter named 'resource'. It includes fields for 'Name *', 'Description', 'Summary', and 'Default value'. The 'Default value' field is highlighted with a red box and contains the text 'Default Host Name of Blue Prism Resource Agent'. Below the 'Default value' field are radio buttons for 'Is required?' (Yes is selected) and 'Visibility' (Learn more).

You can test the connector by creating a connection with the credentials that Blue Prism needs

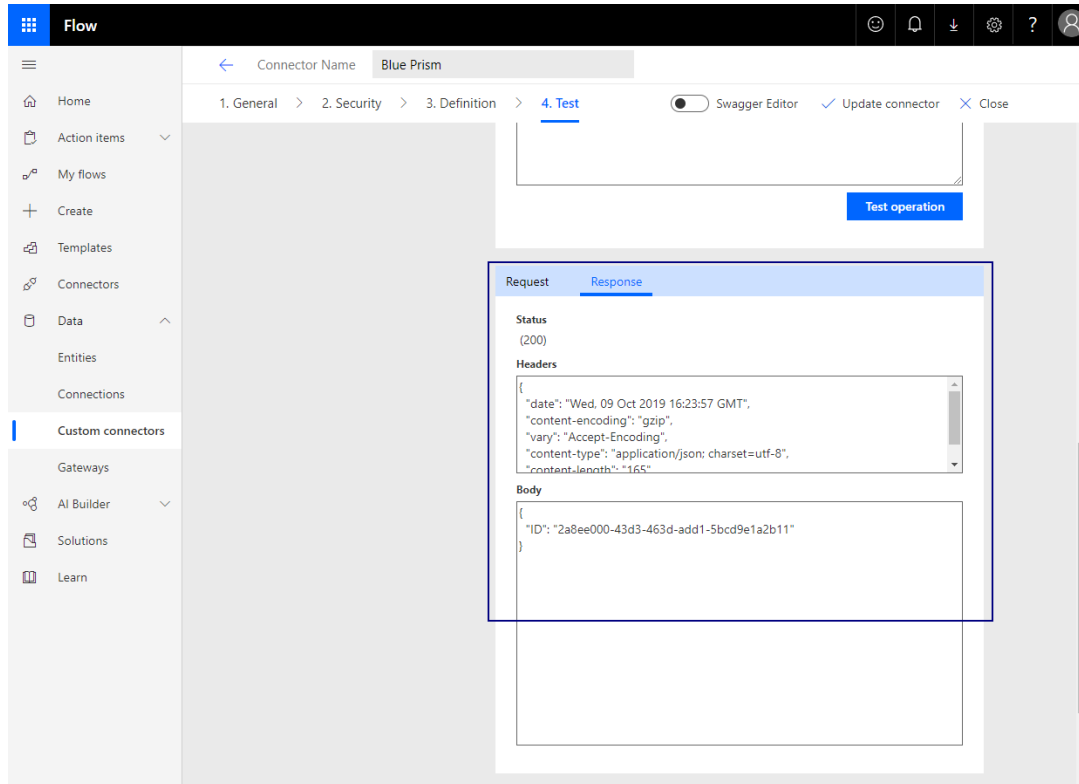


The screenshot shows the 'Flow' application interface. The left sidebar contains navigation options: Home, Action items, My flows, Create, Templates, Connectors, Data, Entities, Connections, Custom connectors, Gateways, AI Builder, Solutions, and Learn. The main area is titled 'Connector Name: Blue Prism' and has tabs for 1. General, 2. Security, 3. Definition, and 4. Test (selected). The 'Test operation' section on the left explains that users can test a specified operation using a selected connection. The 'Connections' panel on the right shows a 'Selected connection' dropdown set to 'None' and a '+ New connection' button. Below this, the 'Operations (1)' section lists 'BPStartProcess'. The configuration for 'BPStartProcess' includes fields for 'code' (YzoqFHU8quXaYicSp1), 'resource', 'process' (FlowToBluePrism), and 'Content-Type' (application/json). A 'Raw Body' section is also visible at the bottom.

Finally, provide the JSON payload of Data Item names and values that your Blue Prism Process has defined as input parameters.

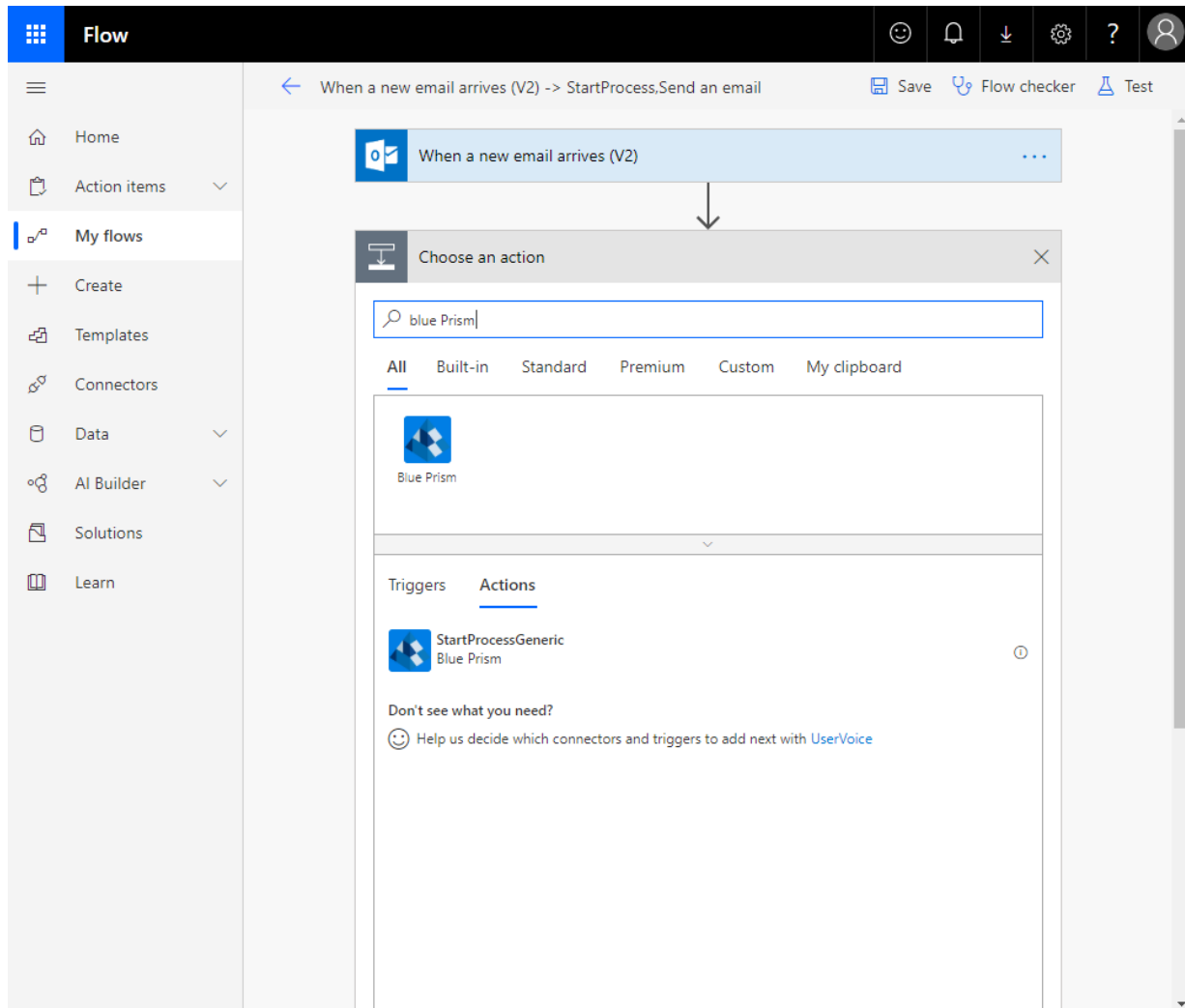


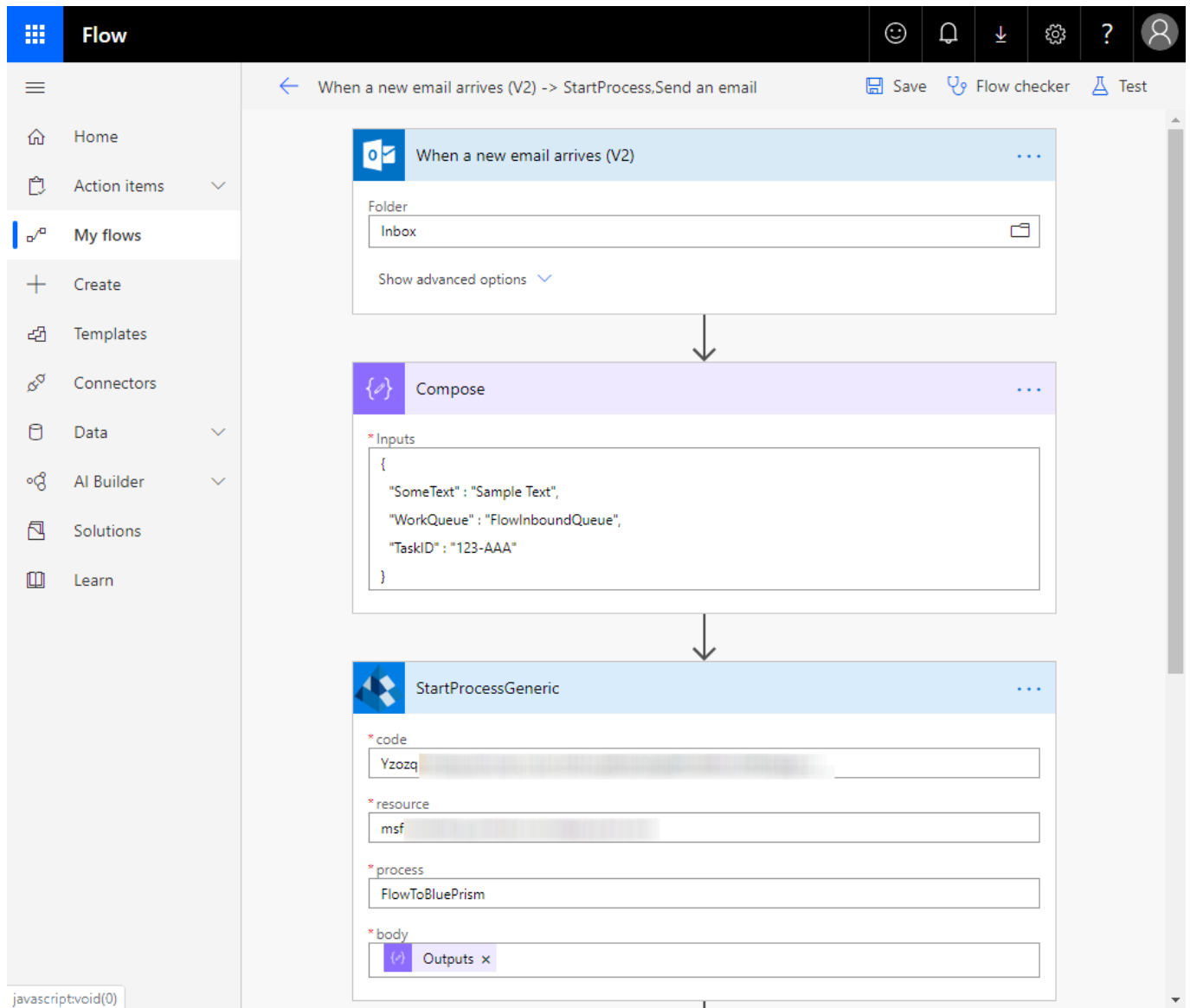
Upon completion, you will see the response that corresponds to the output of your Blue Prism Process



Microsoft Flow Business Process

You can now create a new Flow Business Process, or add the Blue Prism Connector to an existing one





The screenshot displays the Blue Prism Flow Designer interface. The flow is titled "When a new email arrives (V2) -> StartProcess, Send an email". The flow steps are as follows:

- When a new email arrives (V2)**: Trigger step with the folder set to "Inbox".
- Compose**: Action step with the following input JSON payload:


```
{
  "SomeText": "Sample Text",
  "WorkQueue": "FlowInboundQueue",
  "TaskID": "123-AAA"
}
```
- StartProcessGeneric**: Action step with the following configuration:
 - code**: Yzoq
 - resource**: msf
 - process**: FlowToBluePrism
 - body**: Outputs

With the generic connector, you are responsible for constructing the input JSON payload as well as reading the JSON response from the service.