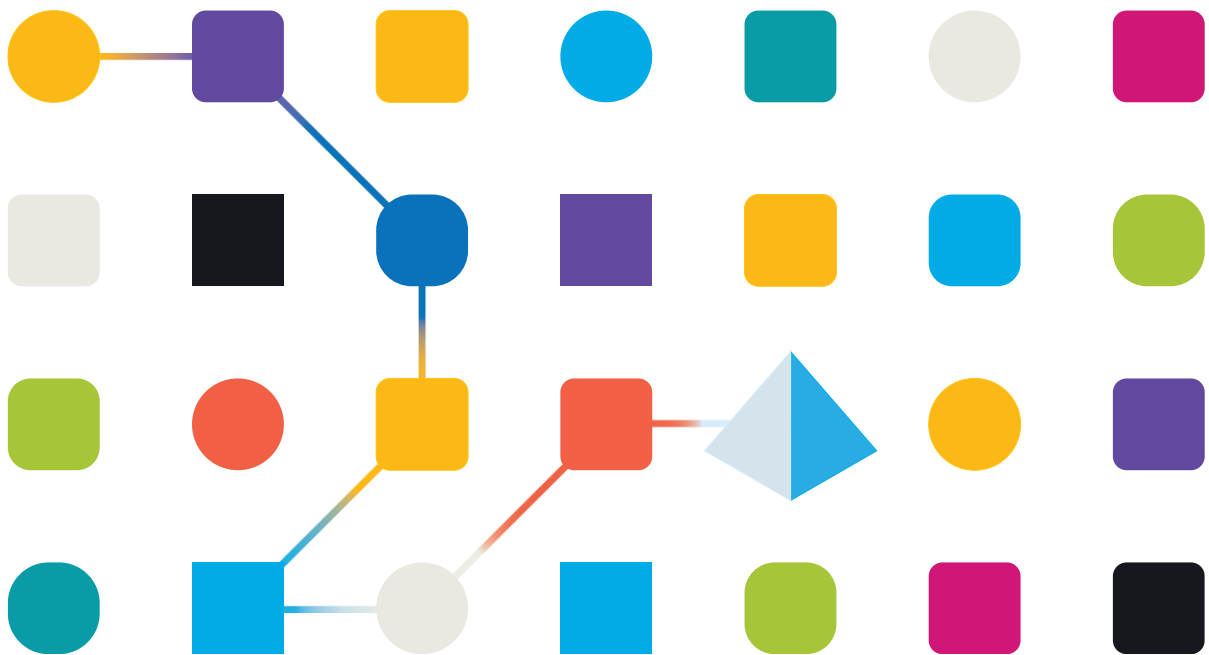


Blue Prism SOAP Macro v1.0.0

User Guide

Document Revision 1.0



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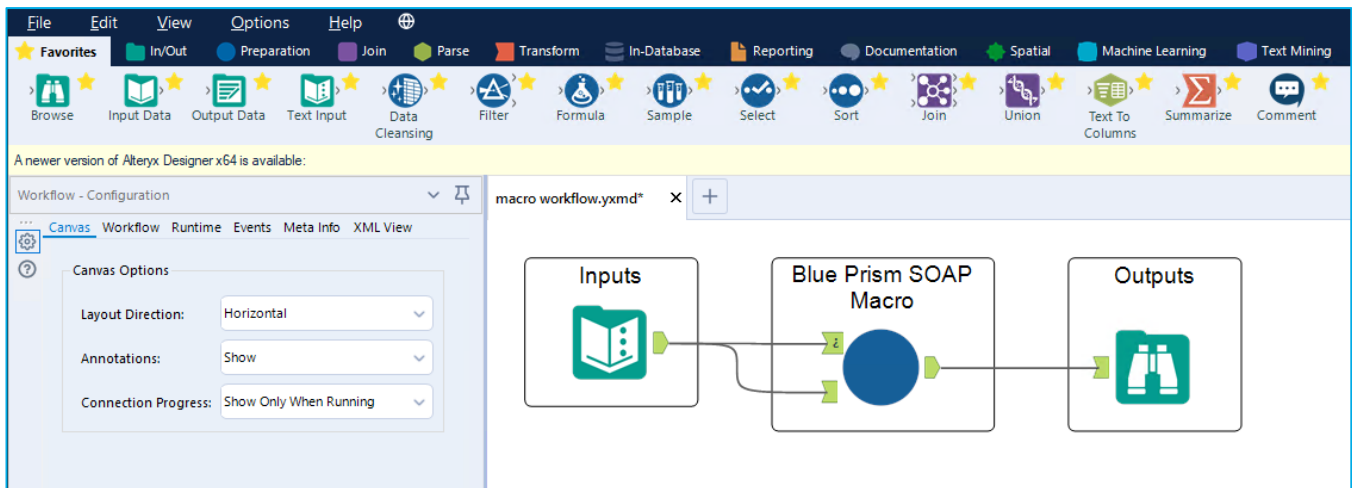
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Overview

The Blue Prism SOAP (Simple Object Access Protocol) Macro is a component designed to be dropped into Alteryx workflows and is used to remotely invoke Blue Prism processes. The macro is compatible with Blue Prism version 6 and later. This document describes the necessary configuration in Blue Prism to enable this functionality as well as the usage of the macro itself.

The macro can be dropped into any Alteryx workflow. The macro is designed to communicate with Blue Prism via SOAP calls and will accept various inputs such as Blue Prism environment details and process names in order to remotely invoke Blue Prism processes. The below image depicts how the macro exists in an Alteryx workflow.



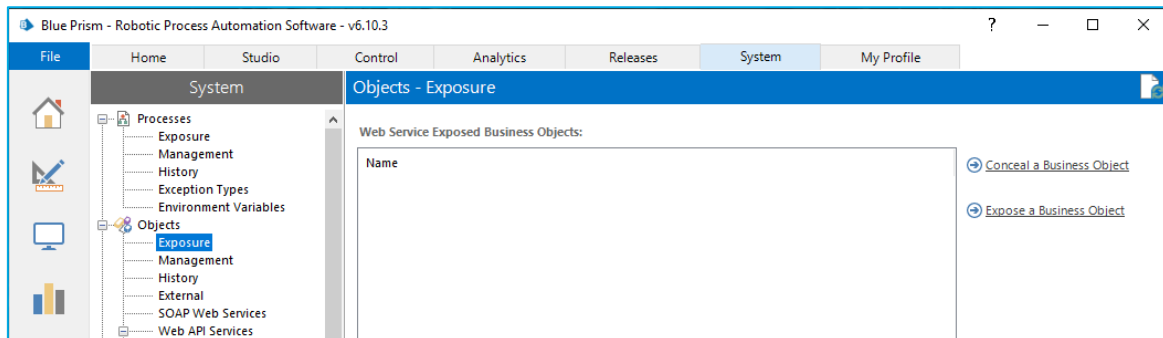
Blue Prism Configuration

Because the macro communicates with Blue Prism via SOAP calls, it is therefore necessary to configure Blue Prism so that a standard SOAP endpoint is exposed for the macro to communicate with.

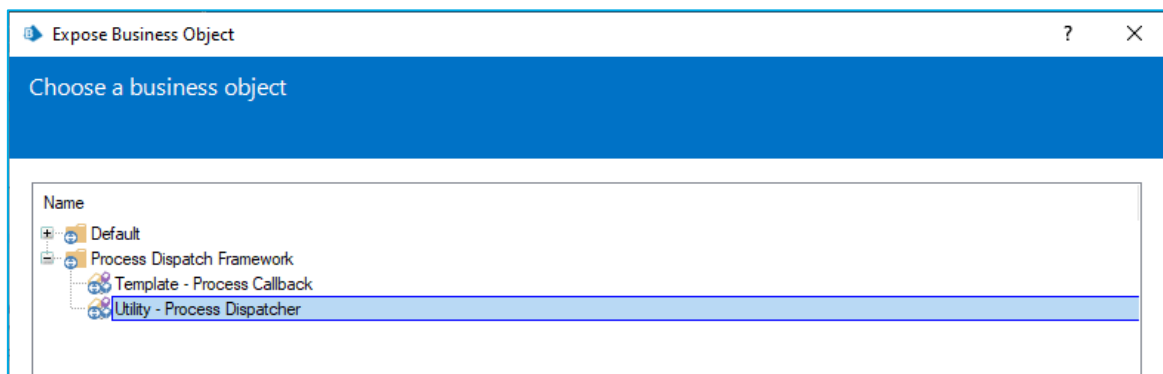
To achieve this, the **Process Dispatch Framework** will be used. This is a freely available Blue Prism object that can invoke other Blue Prism processes. The Process Dispatch Framework will be exposed within Blue Prism as a SOAP endpoint. This grants the ability to have a single SOAP endpoint that can be used to invoke any Blue Prism process. It is this SOAP endpoint with which the macro will communicate.

Process Dispatch Framework Configuration

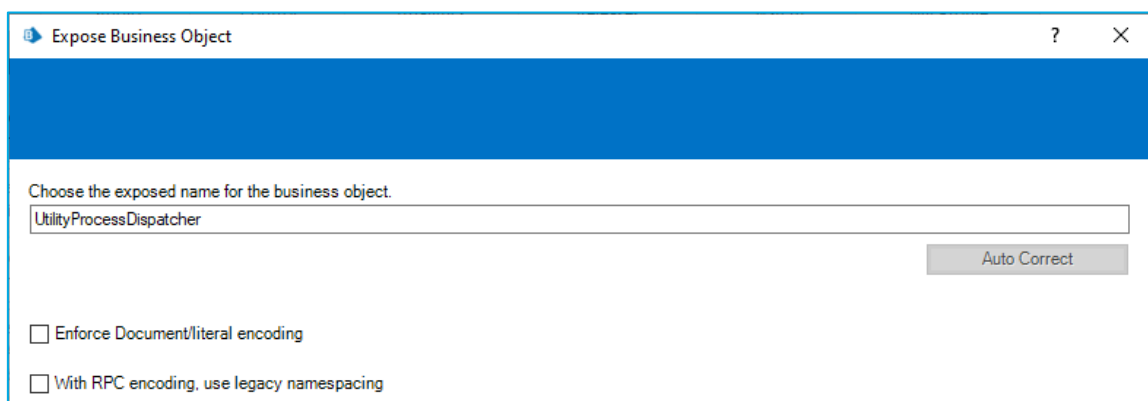
1. Download the [Process Dispatch Framework](#) from the Digital Exchange.
2. Unzip the downloaded file.
3. Sign into your Blue Prism interactive client and navigate to **File > Import > Release/Skill**
4. Locate the *.bprelease* file from the unzipped file in step 2 and select it for the import. Follow the wizard to complete the import process.
5. When complete, navigate to **System > Objects > Exposure** and select **Expose a Business Object**



6. Select **Utility – Process Dispatcher** from the **Process Dispatch Framework** folder and click **Next**



7. Leave the default name, **UtilityProcessDispatcher**, leave all boxes unchecked and click **Finish** to expose the component as a SOAP endpoint.



At this point, the Process Dispatch Framework is now exposed as a SOAP endpoint (when Blue Prism is running) and will be available to be called by the macro.

Network Configuration

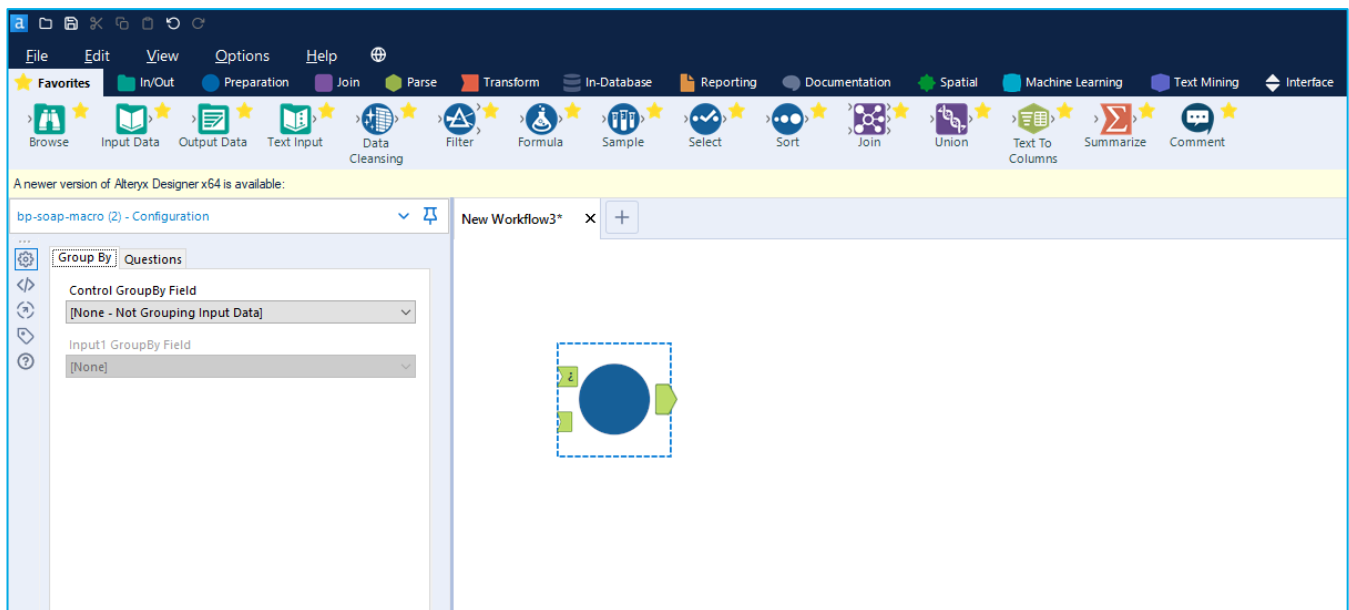
Because the macro communicates via SOAP, it may be necessary to configure both the Blue Prism and Alteryx environments so that the two have network connectivity if they are not already connected.

As a general default, Blue Prism SOAP calls are received on Port 8181. This means the Blue Prism environment needs its security and firewall policies configured such that communication on Port 8181 is open.

Alteryx Configuration

With Blue Prism and its Process Dispatch Framework in place, and with the Alteryx and Blue Prism environments connected over the network, the macro can now be retrieved and added to the Alteryx Designer environment.

1. Download the Blue Prism SOAP Macro from the [Alteryx Community Gallery](#).
2. Open Alteryx Designer and create a new workflow.
3. Right-click the canvas and select **Insert > Macro > Browse...**
4. Locate and select the macro downloaded in step 1.
5. The macro will appear in the canvas and will be ready for usage.



The next section outlines the usage of the macro from this point onwards including an understanding of the macro's inputs and outputs.

Macro Usage

Inputs

The macro is expecting several input values in order to execute Blue Prism processes. The macro will expect to read these values from incoming rows of tabular data that are fed into the macro. The below table describes the input values that will need to be provided.

Name	Required	Description	Example
Order	Yes	The order in which the process should be executed, starting with 1. Only relevant if multiple rows of data are fed into the macro (meaning multiple processes should be invoked sequentially).	1
URL	Yes	The Blue Prism SOAP URL endpoint for the Process Dispatch Framework. The default pattern is: http:<blue-prism-hostname>:8181/ws/UtilityProcessDispatcher <blue-prism-hostname> is the host where Blue Prism is located (ex. blueprism.company.com) If a port other than 8181 is used, that needs to be substituted. If a name other than "UtilityProcessDispatcher" was configured in step 7 (see Blue Prism Configuration), that custom string should be replaced here instead.	<i>http://blueprism.company.com:8181/ws/UtilityProcessDispatcher</i>
Username	Yes	The Blue Prism username that will authorize the SOAP request	<i>BluePrismAdmin</i>
Password	Yes	The password associated with the above Blue Prism username	<i>Password</i>
Process Name	Yes	The name of the process to invoke	<i>HR System – Onboard Process</i>
Blue Prism Credential Name	No	The name of the credential in Blue Prism that contains a Blue Prism username/password that has the ability to run the target process. Only required if [Use SSO] is False.	<i>DigitalWorker01</i>
Use SSO	No	A Boolean value to indicate if the target process should be executed within a single-sign-on environment. Default value: False	<i>False</i>
Process Parameters	No	A set of XML input parameters. If the target process requires input values, they will need to be packaged in an XML format for this string. The Process Dispatch Framework documentation downloaded in step 1 (see Blue Prism Configuration) describes this structure in more detail.	<pre><inputs> <input name='Loop Count' type='Number' value=5> </inputs></pre>
Callback Info	No	Any string that will be tied to the request for audit/track/log purposes within Blue Prism. This value is not processed or validated.	<i>abcdef1234</i>
Resource Pool Name	No	The name of the Digital Worker pool in which the target process should be executed. If no value is specified, the default pool will be used.	<i>PriorityWorkerPool</i>

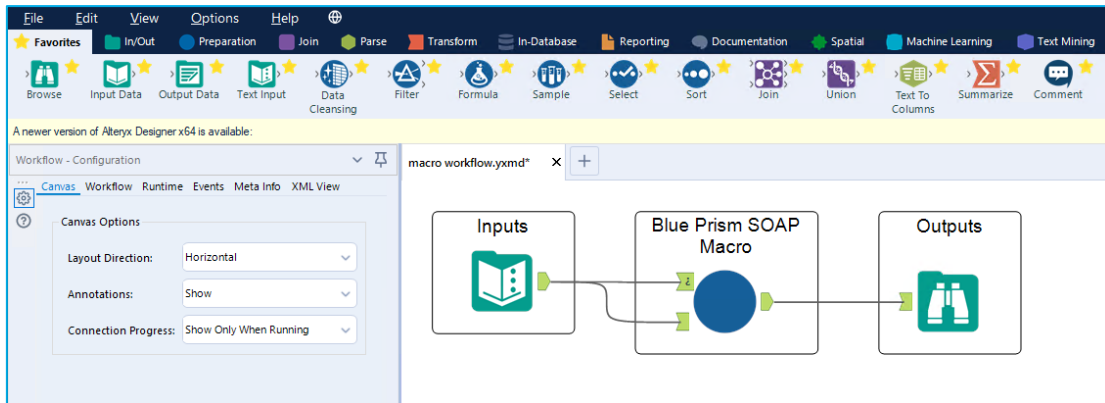
Outputs

Blue Prism will return output values to the macro that can be used to guide the logic of the Alteryx workflow after the macro finishes.

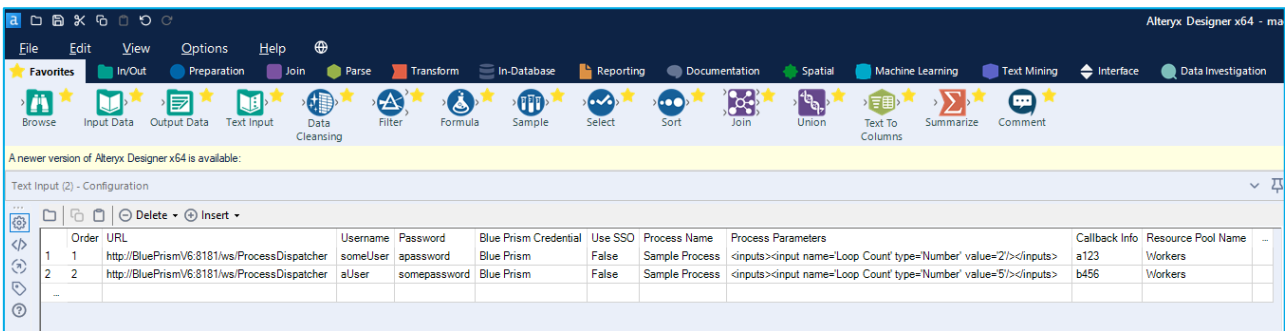
Name	Description
Success	A flag indicating if the process was successfully started.
Session ID	The unique identifier of the process session instance.
Output	The raw output of the process invocation. This may contain error information, but otherwise will contain the Session ID and the name of the Runtime Resource that runs the process.

Workflow Example

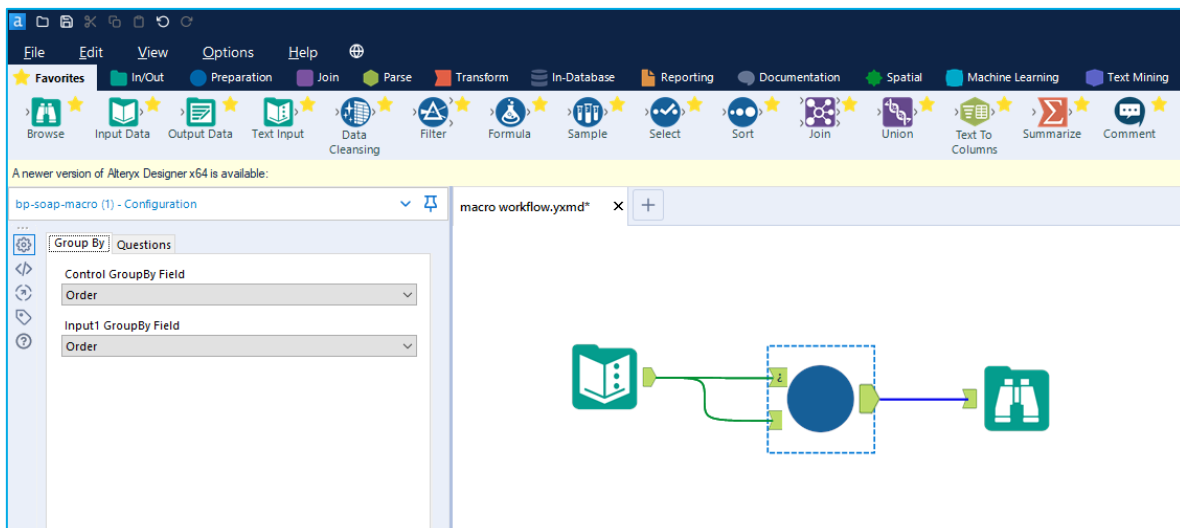
The below image depicts an example implementation of the macro in an Alteryx workflow. The input values will be assembled using a Text Input tool. The Text Input tool will feed these input values into the macro which will invoke two Blue Prism processes. Finally, a Browse tool is used to view the macro's output values.



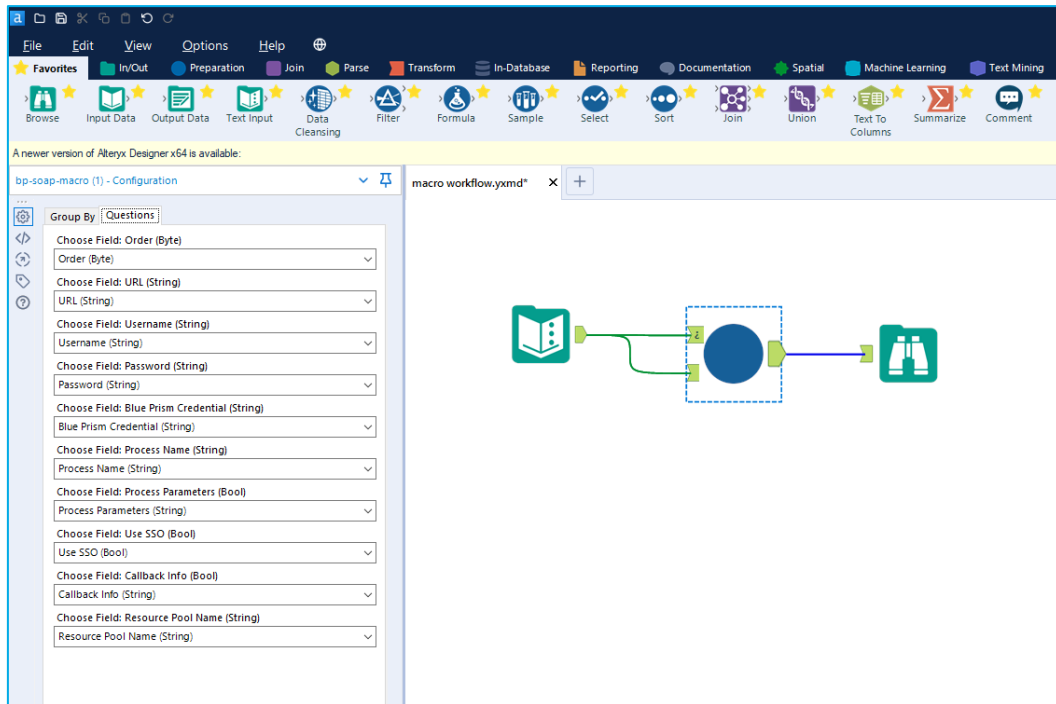
The Text Input tool can be selected and then the following data rows are created manually. Note there are two rows of data meaning two Blue Prism processes will be invoked by the macro. The order is determined by the **Order** column.



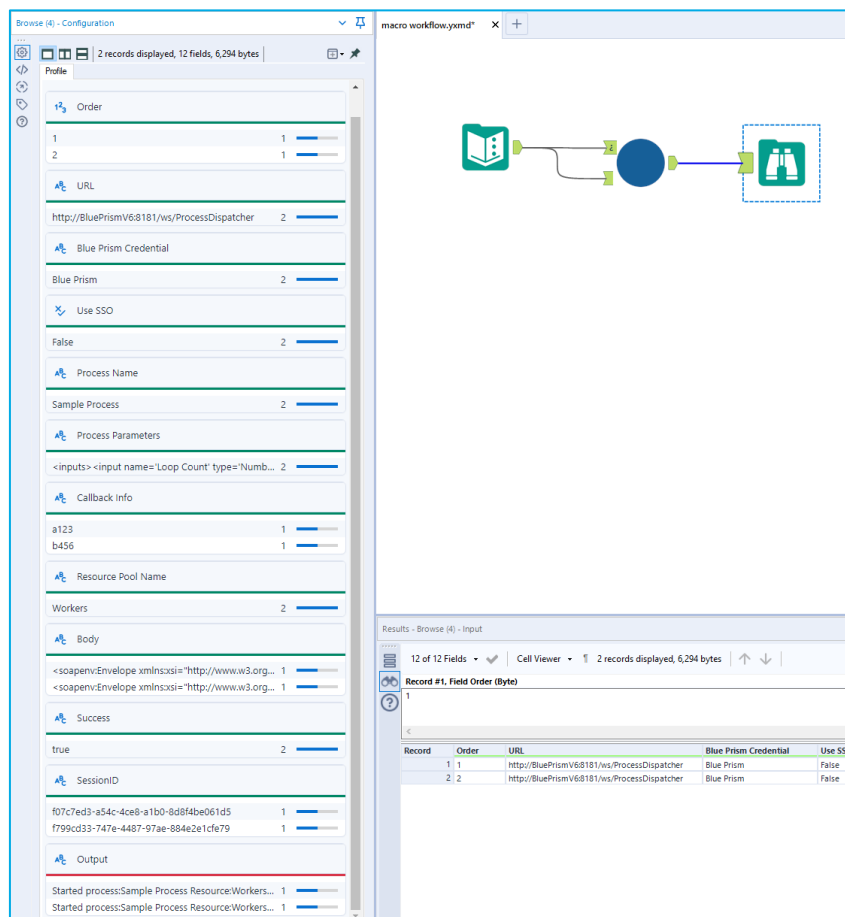
Selecting the Macro will open its interface for mapping the input fields that were created in the Text Input tool. The **Group By** tab controls shall be set to **Order** for both.



The Questions tab shall be set so that the fields defined in the Text Input tool are mapped to the correct macro inputs.



The Browse Tool requires no configuration, so the workflow can be executed. When complete, clicking on the Browse Tool will display the macro's outputs. In the below image, the Success, Session ID, and Output values are returned from Blue Prism via the macro.



In Blue Prism, viewing the Control Room will show evidence that the processes were successfully invoked via the Alteryx workflow.

The screenshot displays the Blue Prism Control Room interface. The top navigation bar includes 'File', 'Home', 'Studio', 'Control', 'Analytics', 'Releases', 'System', and 'My Profile'. The 'Control' tab is active, showing 'Sessions - Control currently running sessions'. The interface is divided into several sections:

- Available Processes:** A list of processes including 'Default' and 'Process Dispatch Framework'.
- Resources:** A list of resources including 'Default'.
- Environment:** A section with filters for 'Sample Process', 'All', 'All', 'All', 'Today', and 'All'. It includes links for 'Start Selected Sessions', 'Stop Selected Sessions', and 'Show Session Variables'.
- Table of Sessions:** A table with columns for ID, Process, Resource, User, Status, Start Time, and End Time. Two rows are shown, both with a status of 'Completed'.

ID	Process	Resource	User	Status	Start Time	End Time
47	Sample Process	BluePrismV6Work	admin	Completed	3/2/2022 9:48:58 PM	3/2/2022 9:48:59 PM
46	Sample Process	BluePrismV6Work	admin	Completed	3/2/2022 9:48:51 PM	3/2/2022 9:48:52 PM

The bottom status bar shows: 'Sign Out Previous: 3/2/2022 8:24 PM, Current: 3/2/2022 9:39 PM, User: 'admin', Connection: 'Server Connection', Connected To: 'BluePrismV6'

Support

This asset is provided free-of-charge by Blue Prism. Blue Prism does not provide formal support of this asset. Please direct any questions you have, related to this asset, to the Digital Exchange Community page:

<https://community.blueprism.com/communities/community-home?CommunityKey=1e516cfe-4d1f-4de9-a9eb-58d15bf38c81>