

HP Operations Orchestration

For the Windows and Linux Operating Systems

Software Version: 10.10

REST Wizard Guide

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Software Release Date: May 2014



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Introduction

Purpose of the REST Wizard Integration

This integration enables administrators to create HP Operations Orchestration (OO) flows based on URL to Resource Listing or local API Definitions files.

The REST Wizard supports the Swagger format for RESTful web service. Swagger is a specification and a complete framework implementation for describing, producing, consuming and visualizing RESTful web services. Swagger is JSON based. The main goal of Swagger is to enable client and documentation systems to update at the same pace as the server. The documentation of methods, parameters and models are tightly integrated into the server code, allowing APIs to always stay in sync.

To learn how to create OO flows, see the *Studio Guide* in the documentation set for the current OO release.

This document explains how this integration has been implemented, and how the integration's operations and flows communicate between OO and RESTful web services.

Audience

This guide is intended for system administrators who establish and maintain the implementation of the integration between RESTful web services and HP OO. This guide assumes that you have administrative access to both systems.

Supported Versions

Content Pack	Operations Orchestration Version	REST Wizard Version
Base	10.x	10.10.00

Supported Languages

This release supports the following languages:

- en - English
- fr - French
- de - German
- ja - Japanese

- es - Spanish
- zh_CN - Simplified Chinese

Getting Started with the REST Wizard

Installing the REST Wizard

The wizard is installed if Studio is selected from the Operations Orchestration installer. The REST Wizard is located under <OOInstallPath>\studio\tools.

REST Wizard Logs

The logs are located in the <OOInstallPath>\studio\tools\logs\rest-wizard.log file.

Uninstall the REST Wizard

The wizard is uninstalled when Studio is uninstalled.

REST Wizard System Requirements

The following are the minimum software requirements for systems running REST Wizard for HP Operations Orchestration:

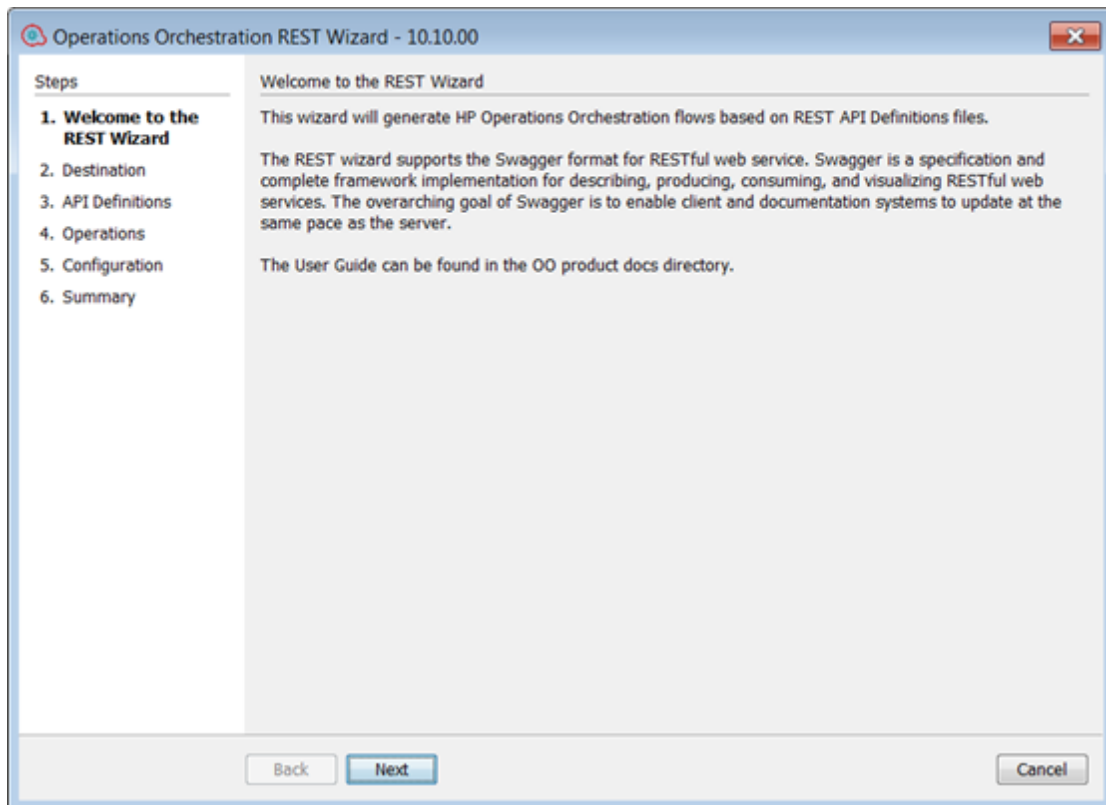
- The environment must have Java SE Runtime Environment 7 (also known as JRE) installed (for running the wizards).

REST Wizard Steps

To start the wizard, execute the **rest-wizard.bat** file. The REST Wizard contains a small number of steps. This section describes the steps that you have to perform.

Step1. Welcome Page

Start the REST Wizard to open the Welcome page.

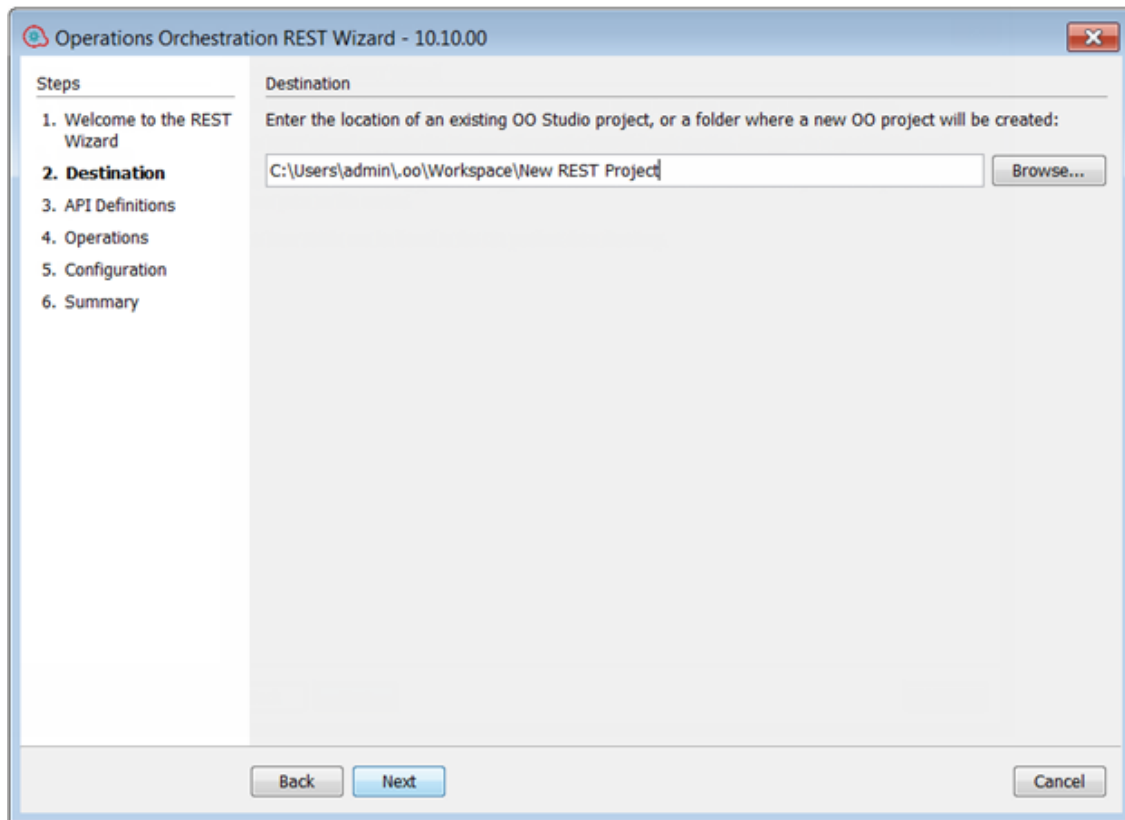


Click **Next** to open the Destination page.

Step 2. Destination

In this step, you select the location of an existing studio project or a folder where the new project will be created.

Enter or select a location of a Studio project for the flows you want to create and then click **Next**.



Step 3. API Definitions

Enter the Base URL to the Swagger Resource Listing or click on **Browse** to select one or many files that contain REST API Definitions in a Swagger format. After that, the **Next** button will be enabled.

If the Base URL is protected by basic authentication, specify the **Username** and **Password** in the Authentication section.

If the HTTP request to the Base URL is done through a proxy, check the **Use proxy connection** from the Proxy section. The proxy fields will be enabled for typing the proxy settings.

Operations Orchestration REST Wizard - 10.10.00

Steps

1. Welcome to the REST Wizard
2. Destination
- 3. API Definitions**
4. Operations
5. Configuration
6. Summary

API Definitions

URL to the Swagger Resource Listing (api-docs.json), or select API Definitions local files:
(e.g. http://corporateWebSite.com/api/api-docs)

Authentication

Username:

Password:

Proxy

☐ Use proxy connection

Proxy host:

Proxy port:

Proxy username:

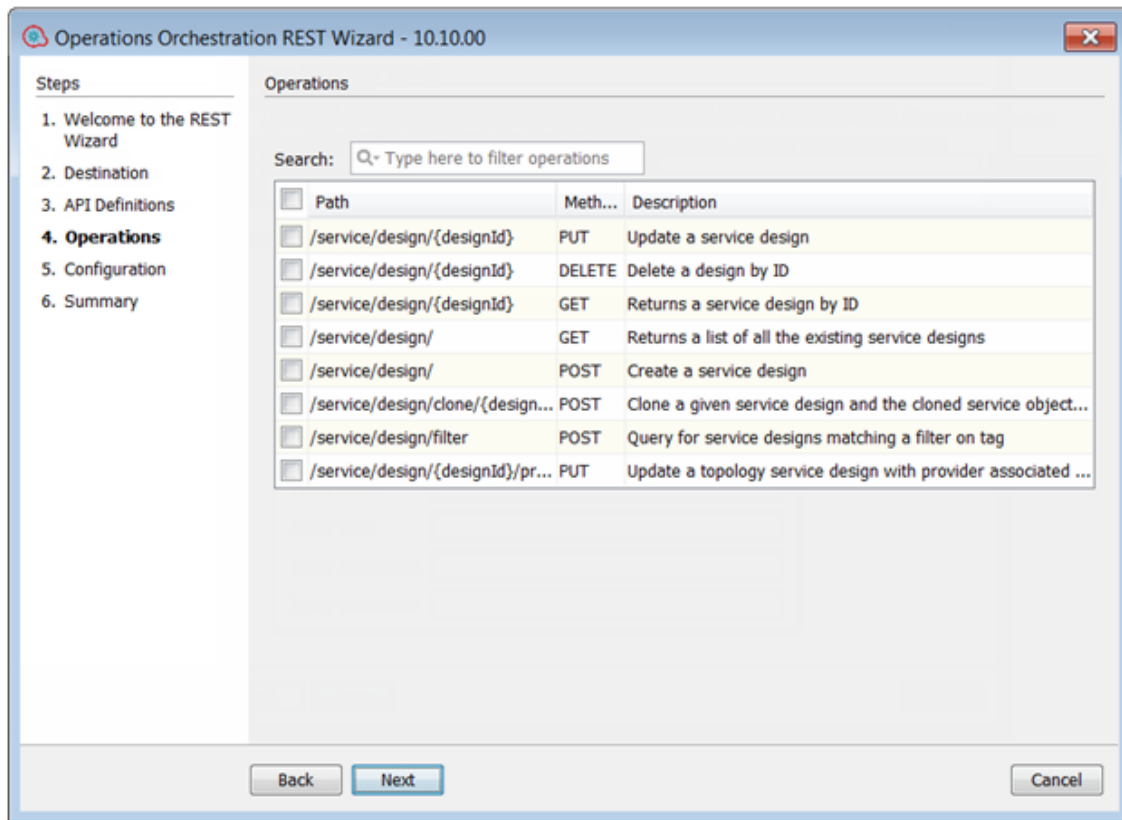
Proxy password:

Step 4. Operations

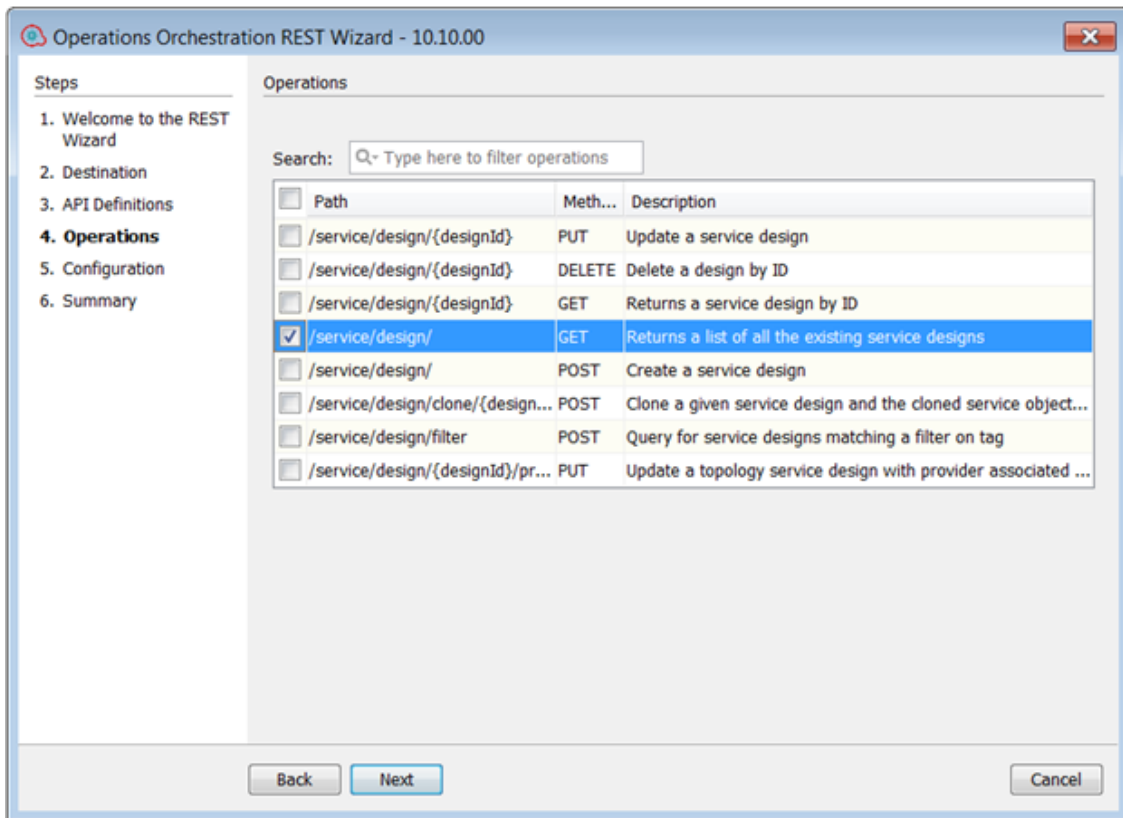
On this page, all the resources discovered in the previous page, will be displayed: the resource path, the HTTP method available for the resource and a brief description of the resource.

For the selected resources, the OO flows will be generated and will contain an operation that will perform a HTTP request based on the HTTP method available for each resource.

If text is provided in the top Search field, the resources table is filtered by this text.



Select one or more resources and click **Next**.



Step 5. Configuration

All the values provided in this step will be used as inputs for the generated flows and operations.

In the Authentication section, if the Username and Password will be provided, a new System Account will be generated under New REST Project\Configuration\System Accounts folder and the username and password inputs of generated flows will reference this System Account.

If "Use proxy connection" is checked and a Proxy host value is provided, a new System Property with Proxy_Host suffix will be created under New REST Project\Configuration\System Properties folder. If the port is provided, a new System Property with Proxy_Port suffix will be created. For the Proxy username and Proxy password pair will be generated a new System Account with the Proxy suffix, following the same rule as for the Username and Password from Authentication section. If "Use proxy connection" is checked and no proxy settings will be provided or the check is unselected, the proxy inputs from generated flows will be empty constants.

If the "Enable weak security over SSL" or "Enable cookie tracking" is checked, the "trustAllRoots", "useCookies" input respectively, from the generated HTTP operation will be set to "true". Otherwise, these inputs will be false.

If the "Suppress user prompts" is checked, the not required operations parameters discovered from the API Definitions document will be generated as flows inputs set to use constants with empty values. Otherwise, these flows inputs will be marked as prompts.

Check the “Overwrite the flow if already exists” if the new generated flow should overwrite an existing flow from the same location specified in ["Step 2. Destination" on page 7](#).

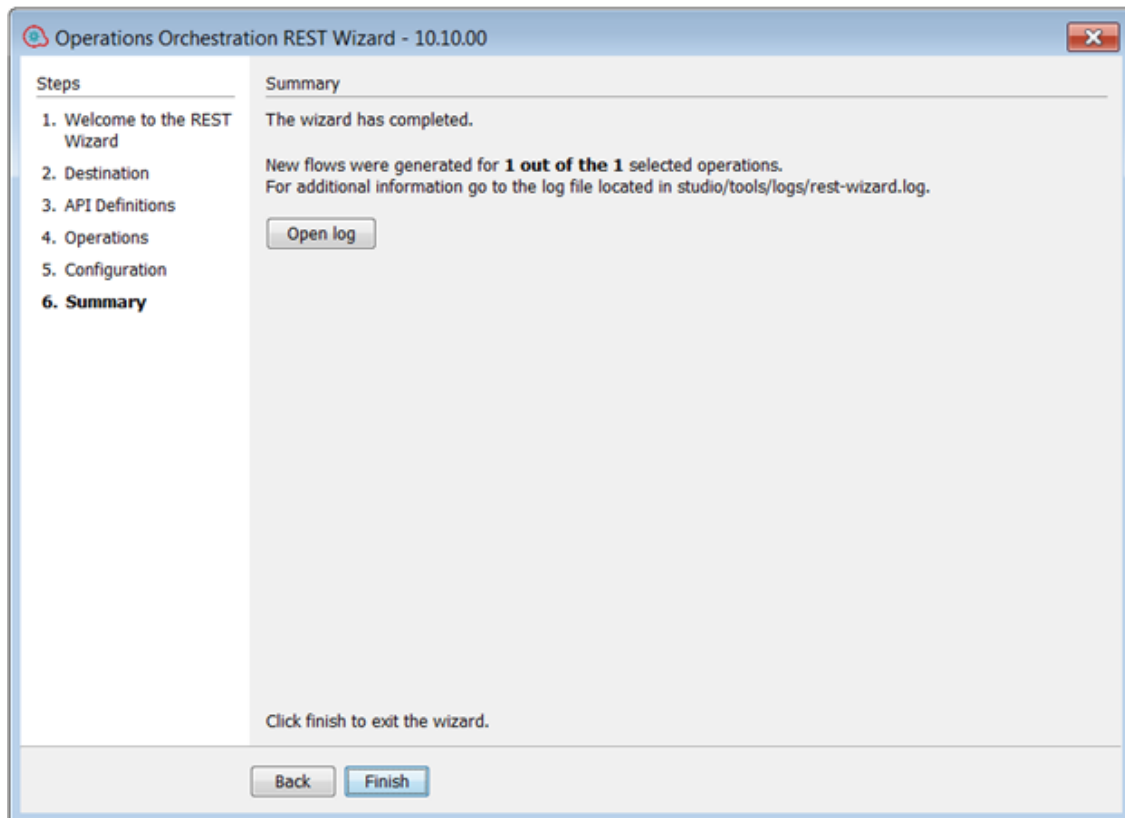
The screenshot shows the 'Configuration' step of the 'Operations Orchestration REST Wizard - 10.10.00'. On the left, a 'Steps' sidebar lists: 1. Welcome to the REST Wizard, 2. Destination, 3. API Definitions, 4. Operations, 5. Configuration (highlighted), and 6. Summary. The main area is titled 'Configuration' and contains a descriptive text: 'This step is optional as it allows common inputs to be populated for each flow that is generated. If these values will be common across all flows the REST Wizard will populate them in the operation inputs.' Below this, there are three sections: 'Authentication' with fields for 'Username:', 'Password:', and 'Authentication type:' (set to 'Anonymous'); 'Proxy' with a checkbox 'Use proxy connection' and fields for 'Proxy host:', 'Proxy port:', 'Proxy username:', and 'Proxy password:'. At the bottom, there are fields for 'Content Type HTTP Header (contentType):' (set to 'application/json'), 'Character set (characterSet):' (set to 'UTF-8'), and 'Connection timeout in milliseconds or 0 for no timeout:'. Below these are four checkboxes: 'Enable weak security over SSL (trustAllRoots)' (unchecked), 'Enable cookie tracking (useCookies)' (checked), 'Suppress user prompts (optional inputs will not prompt the user for values)' (checked), and 'Overwrite the flow if already exists' (unchecked). At the bottom of the window are 'Back', 'Next', and 'Cancel' buttons.

Click **Next** for the Summary page.

Step 6. Summary

This step contains information about the successfully generated flows number from the selected number of resources.

For more information about the flows generation, click **Open log** to view the log files.

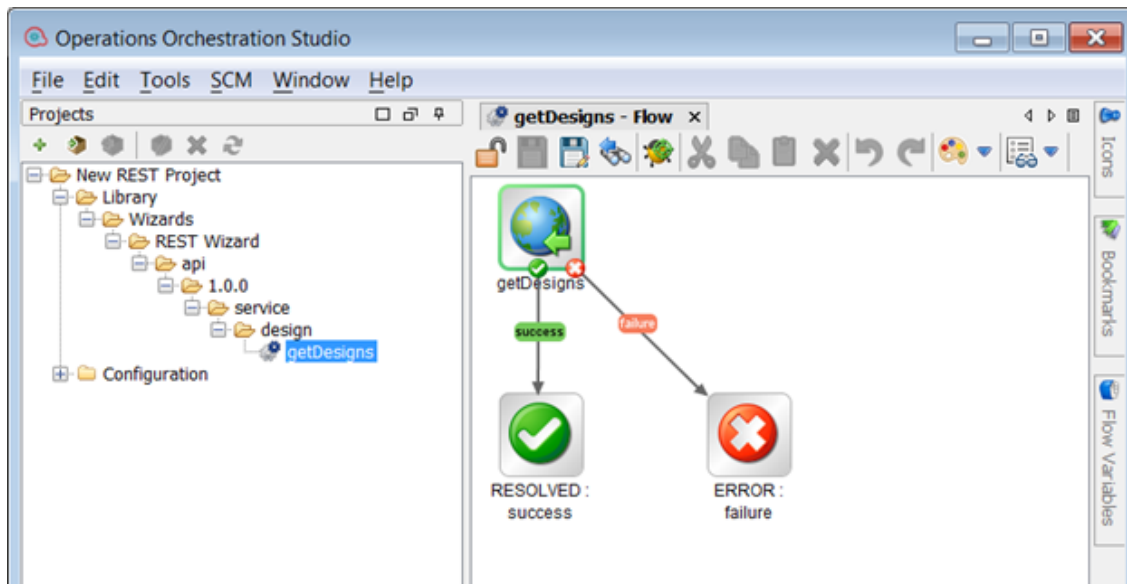


Importing the Generated Flows into OO Studio

Before importing the generated flows into OO Studio, import the project generated by the wizard in OO Studio. See the “Managing Projects” in the *Studio Guide* to see how to import a project.

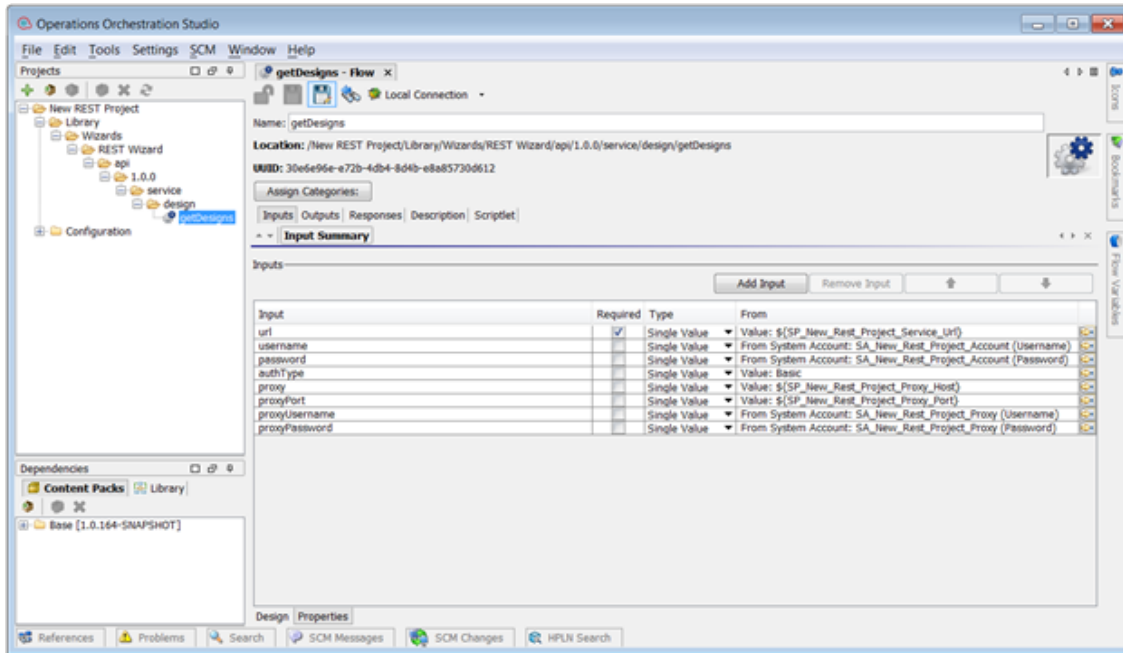
Generated Flows

The REST Wizard generates a flow with the name specified in the Destination step of the wizard. If a project with the same name already exists, the new flow is added to it.



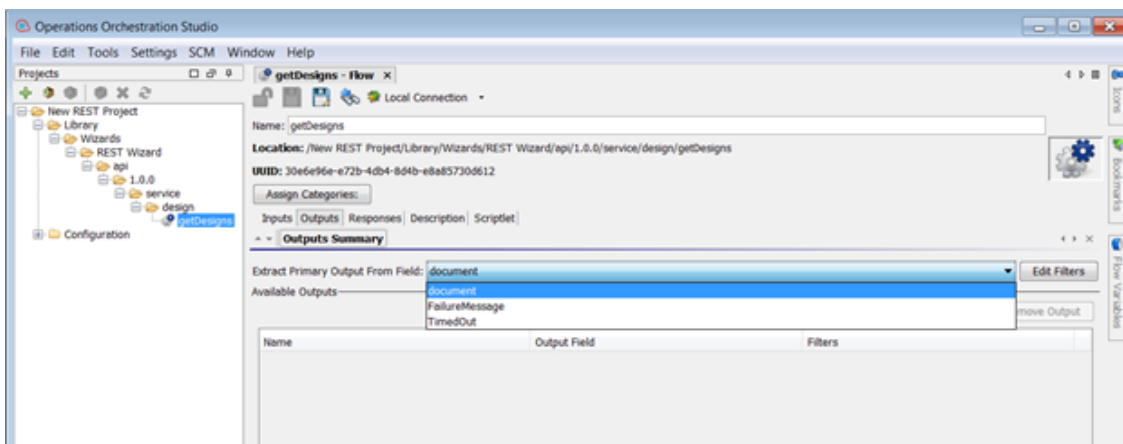
Inputs

Each flow has the following inputs which are common to the REST operation:



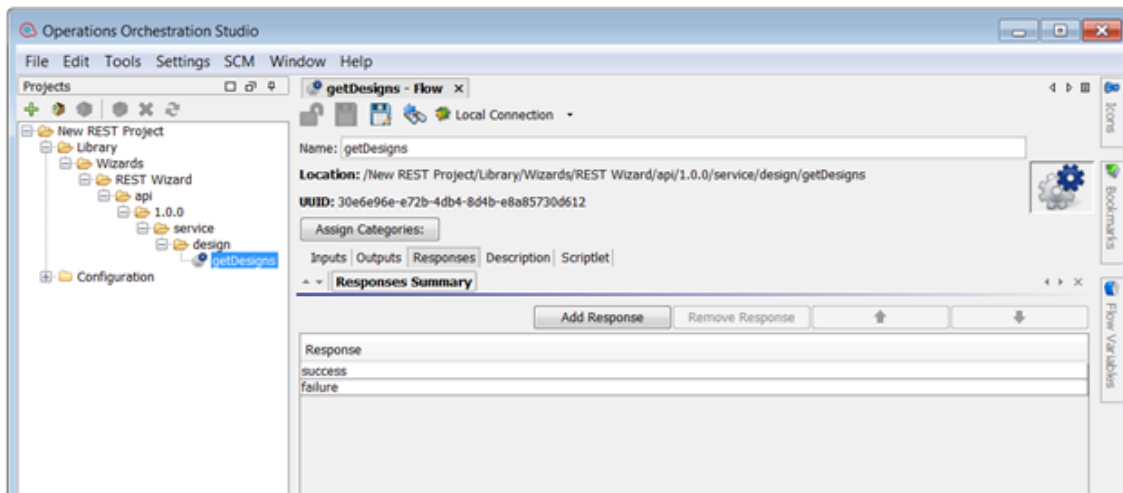
Outputs

On the Outputs tab, the flow primary result is **document**. All OO flows have the **FailureMessage** and **TimedOut** outputs.



Responses

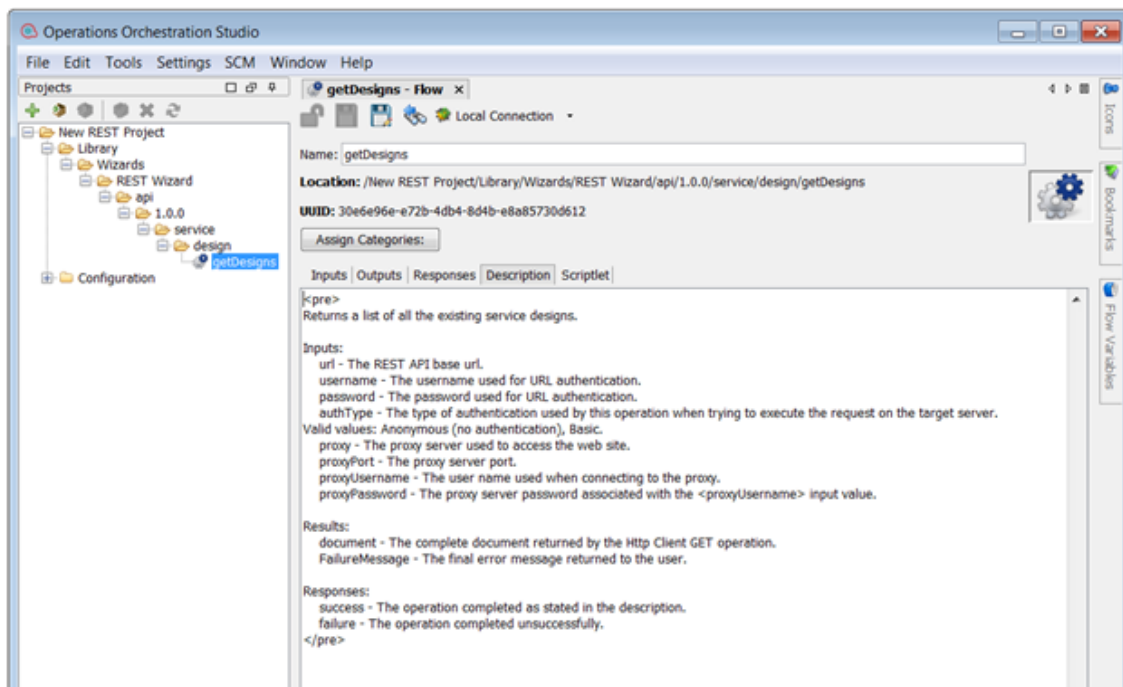
The success and failure responses of the flows are the same as the REST operations.



Descriptions

The description of each generated flow contains the following items:

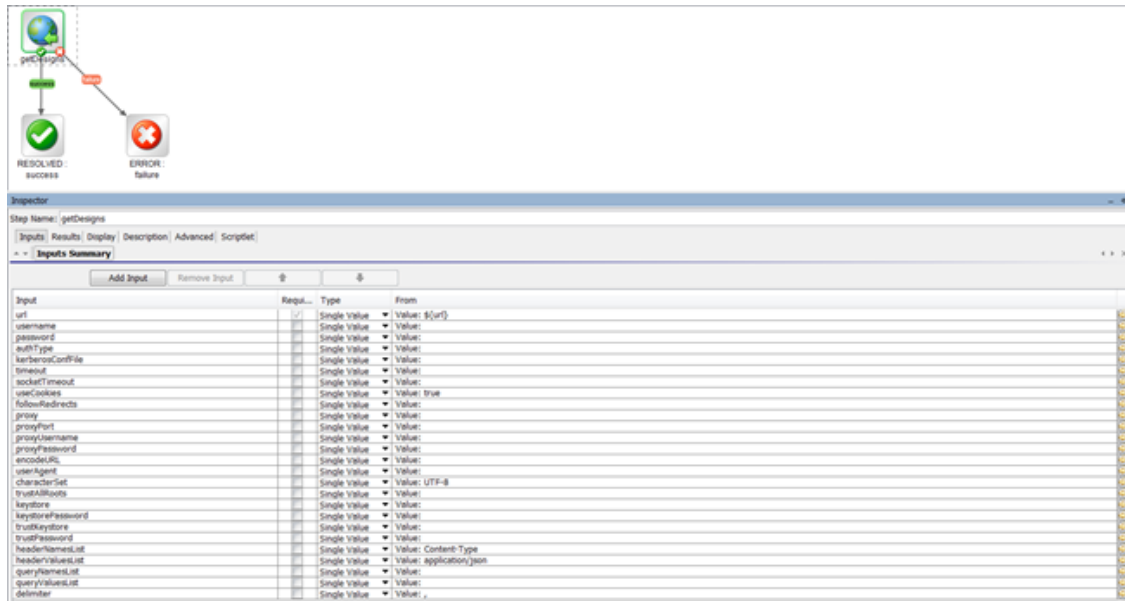
- The description of the flow
- The description of the flow inputs
- The description of the results
- The description of the responses



REST Operation

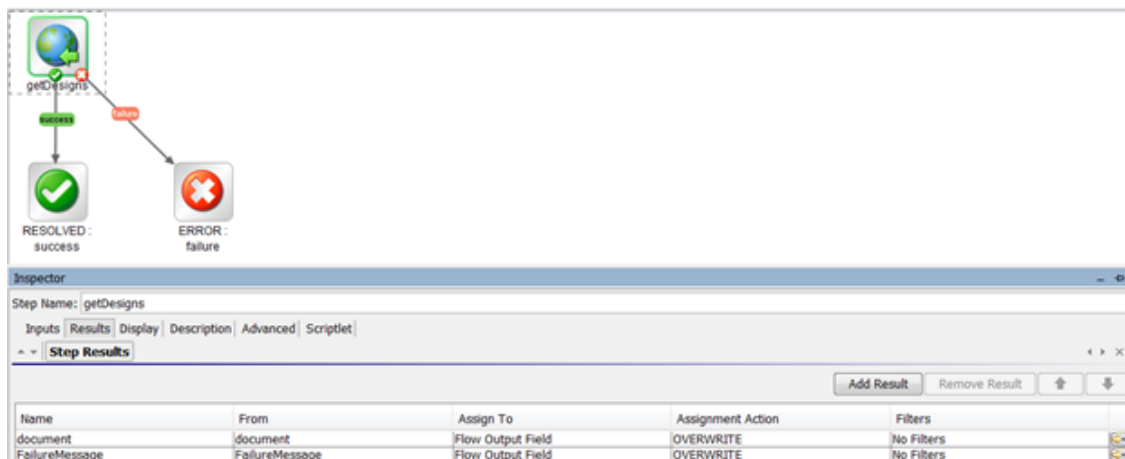
This operation is used to execute a HTTP request on a target host, either local or remote.

Operation Inputs



Input	Required	Type	From
url	✓	Single Value	Value: \${url}
username		Single Value	Value:
password		Single Value	Value:
authType		Single Value	Value:
headerContentType		Single Value	Value:
timeout		Single Value	Value:
socketTimeout		Single Value	Value:
useCookies		Single Value	Value: true
followRedirects		Single Value	Value:
proxy		Single Value	Value:
proxyPort		Single Value	Value:
proxyUsername		Single Value	Value:
proxyPassword		Single Value	Value:
encoding		Single Value	Value:
userAgent		Single Value	Value:
characterSet		Single Value	Value: UTF-8
trustAllHosts		Single Value	Value:
keyStore		Single Value	Value:
keyStorePassword		Single Value	Value:
trustKeyStore		Single Value	Value:
trustStorePassword		Single Value	Value:
headerNamesList		Single Value	Value: Content-Type
headerValuesList		Single Value	Value: application/json
queryParamsList		Single Value	Value:
queryValuesList		Single Value	Value:
delimiter		Single Value	Value:

Operation Results



Name	From	Assign To	Assignment Action	Filters
document	document	Flow Output Field	OVERWRITE	No Filters
FailureMessage	FailureMessage	Flow Output Field	OVERWRITE	No Filters

Troubleshooting

Troubleshooting Overview

This section provides troubleshooting procedures and tools that you can use to solve problems you may encounter while using this integration.

Authentication failed

Possible reasons are:

- The user credentials to connect on the target host are not correct.
- The user does not have permission to connect on the target host.

Unable to locate resource

Possible reasons are:

- Invalid URL to Swagger Resource Listing or API Definitions local files.
- The connection to a Swagger Resource Listing URL must be done through a proxy.
- The URL to the resource is invalid based on the provided JSON document.

