

# HP OO-Shell Integration

For the Windows operating system

Software Version: OO 10.x

## Shell Wizard Guide

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# Chapter 1

## Introduction

This chapter includes:

- Purpose of the Shell Wizard Integration
- Audience
- Supported Versions

### Purpose of the Shell Wizard Integration

This integration enables administrators to create HP Operations Orchestration (OO) flows that are integrated with Shell.

The Shell Wizard helps to create a set of pre-defined commands that represent a workflow or procedure. The wizard includes a recorder technology that creates steps in a flow from the commands that are used in the wizard's Shell window.

To learn how to create OO flows, see *Studio Guide to Authoring Operations Orchestration Flows* 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 Shell.

### Audience

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

### Supported Versions

<b>Content Pack</b>	<b>Operations Orchestration Version</b>	<b>Shell Wizard Versions</b>
Base Content Pack	10.x	10.x

# Chapter 2

## Getting Started with the Shell Wizard Integration

This chapter includes:

- Install the Shell Wizard
- Configure Logging Settings
- Uninstall the Shell Wizard
- Shell Wizard Requirements
- Shell Wizard Enhancements from 9.x

### Install the Shell Wizard

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

### Configure Logging Settings

The configure logging settings are no longer supported in the 10.x wizard.

### Uninstall the Shell Wizard

The wizard is uninstalled when Studio is uninstalled.

### Shell Wizard Requirements

#### System Requirements

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

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

#### Target Host

- The machine must have SSH or Telnet protocol enabled.

### Shell Wizard Enhancements from 9.x

- The wizard now has the version (10.x) displayed in the title.
- The wizard now appears in the taskbar and can be closed, minimized or brought to the front.



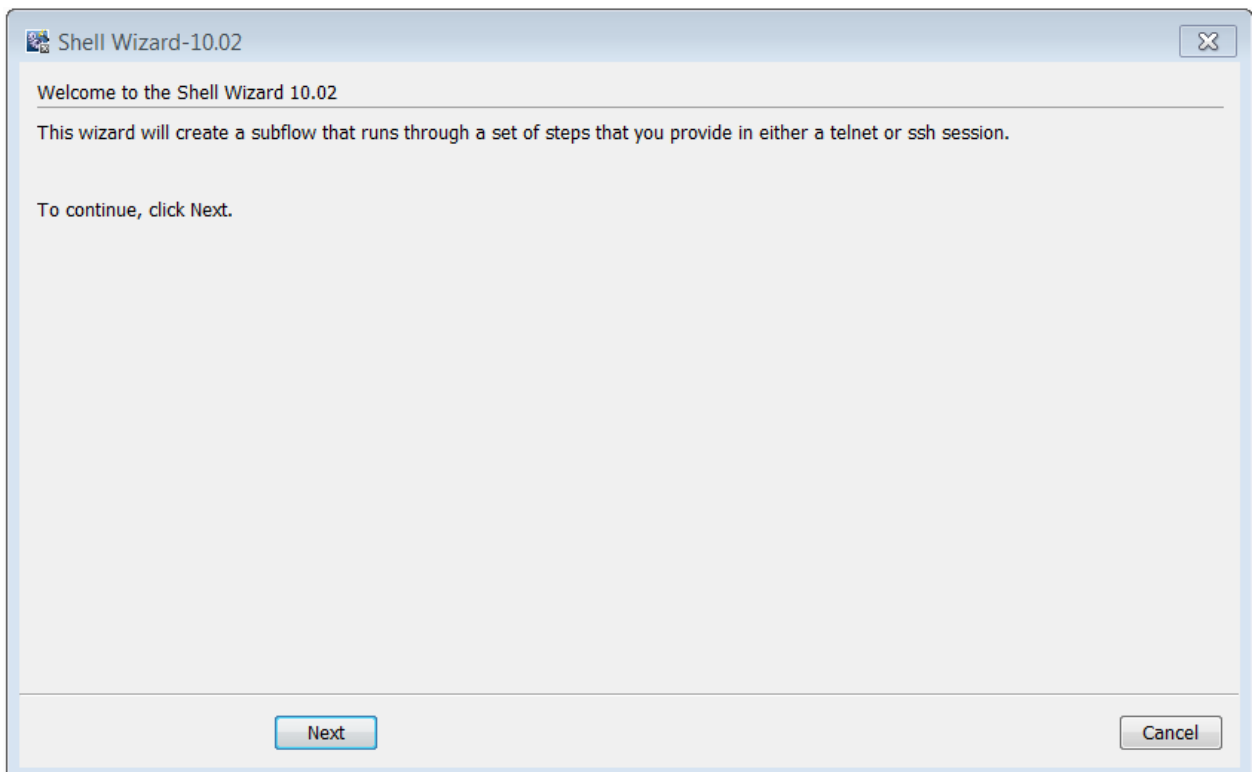
## Chapter 3

# Shell Wizard Steps

To start the wizard, execute the shell-wizard.bat file. The Shell Wizard contains only a few steps. This section describes the steps that you have to perform.

### Step 1. Welcome page

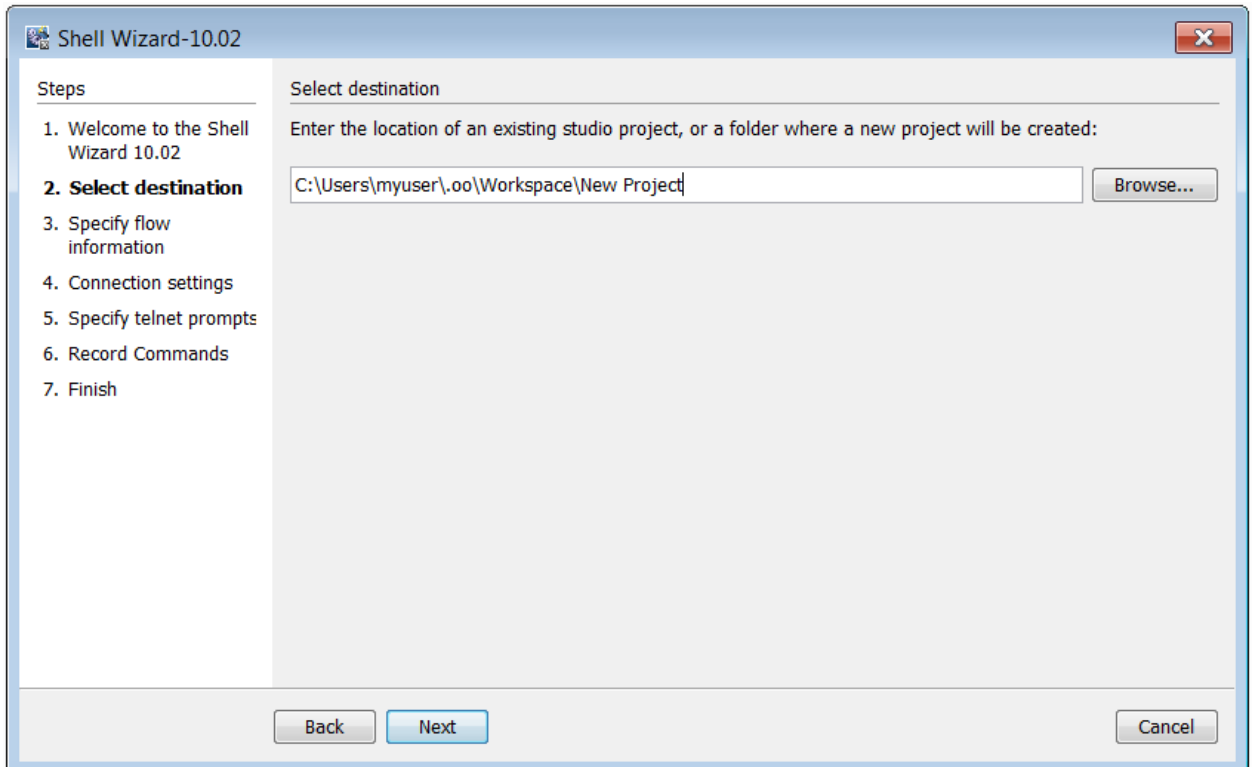
Start the Shell Wizard to open the Welcome page. Click Next to open the Select Destination page.



### Step 2. Select destination

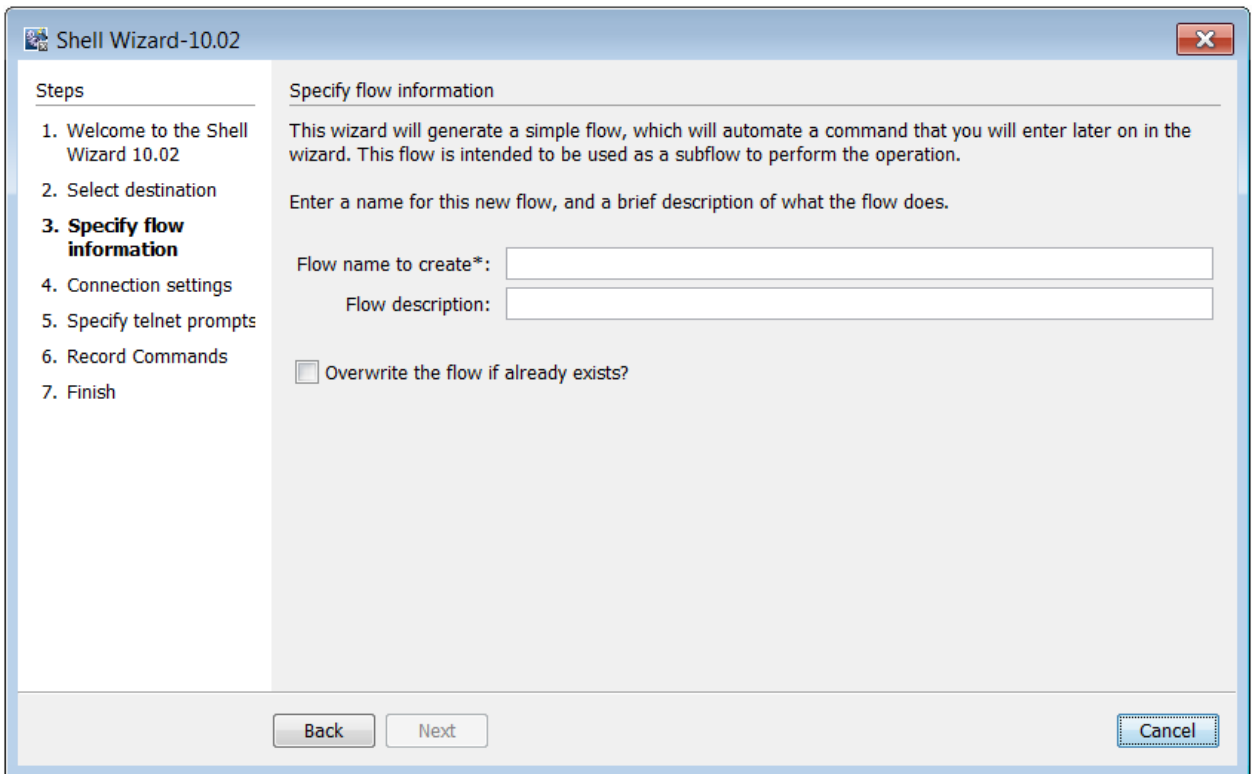
Here you need to select the location of an existing studio project, or a folder where the new project will be created.

Enter or select a location of a Studio project for the flows you want to create, and then click Next to open the Specify flow information page.



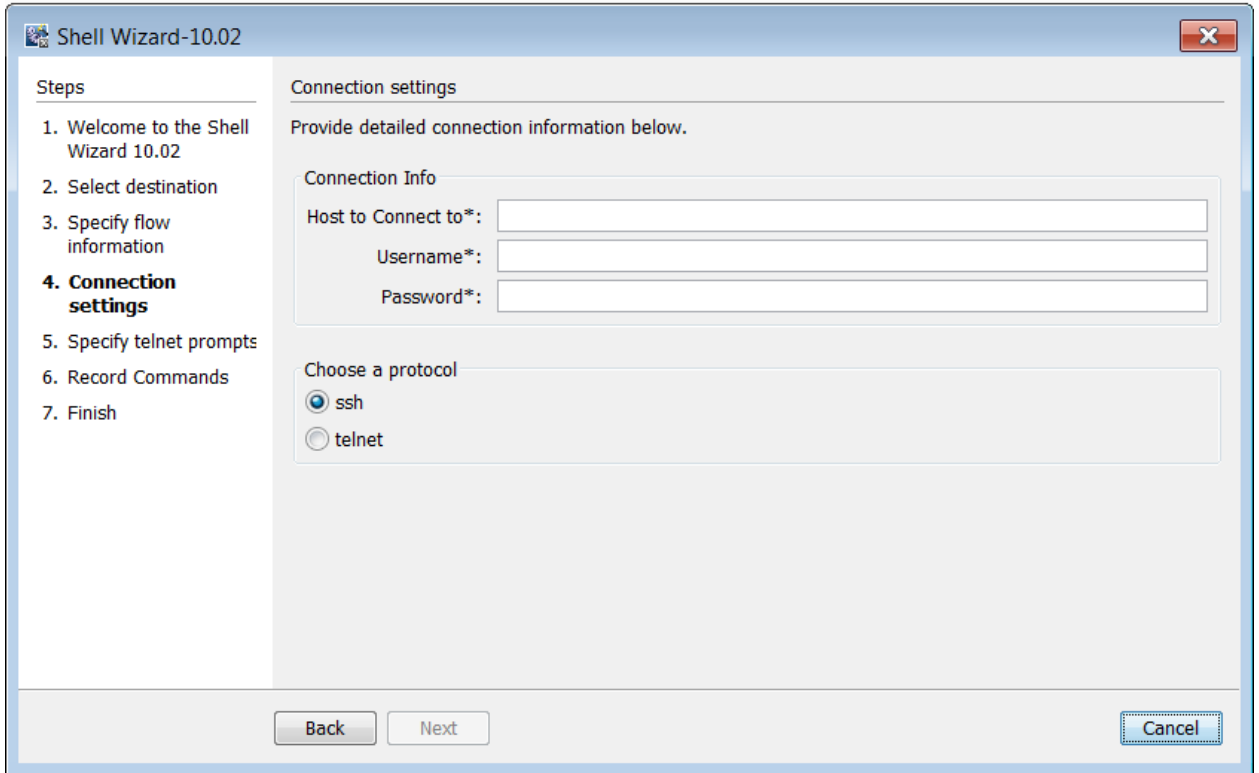
### Step 3. Specify flow information

Enter the flow name and flow description. If you want to overwrite the flow, check the option with the same name available in this window. Click Next to open the Connections Settings page.



## Step 4. Connection settings

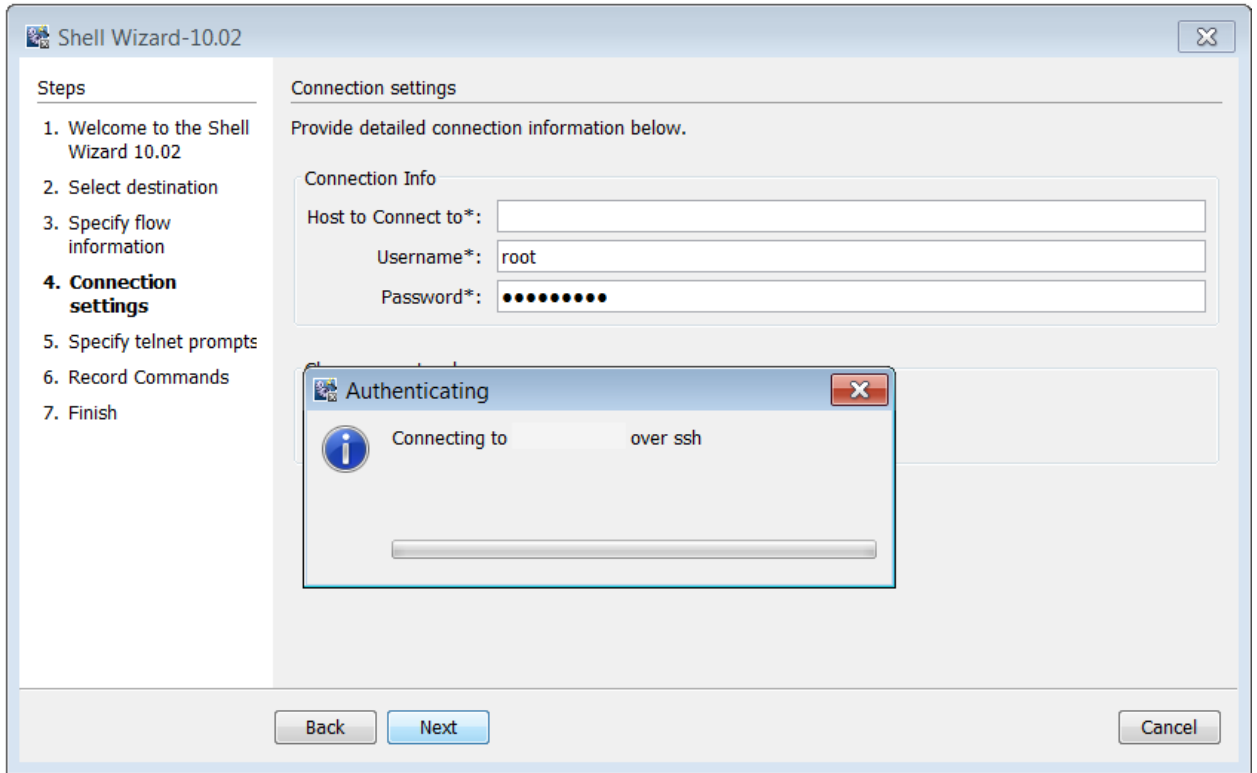
Enter the connection settings inputs.



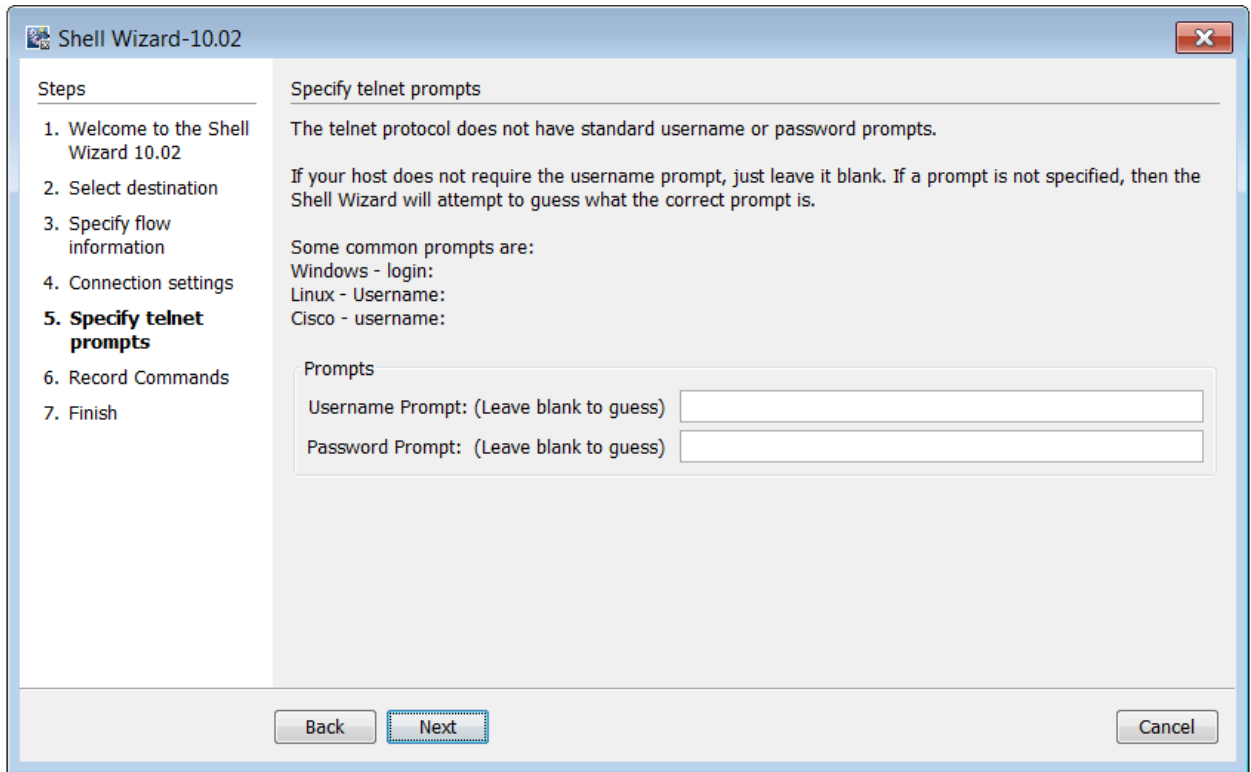
If the chosen protocol is SSH, the Record Commands page will open.

If the chosen protocol is Telnet, the Specify telnet prompts page will open.

1. If the chosen protocol is SSH, the Authenticating window opens until the connection is established.

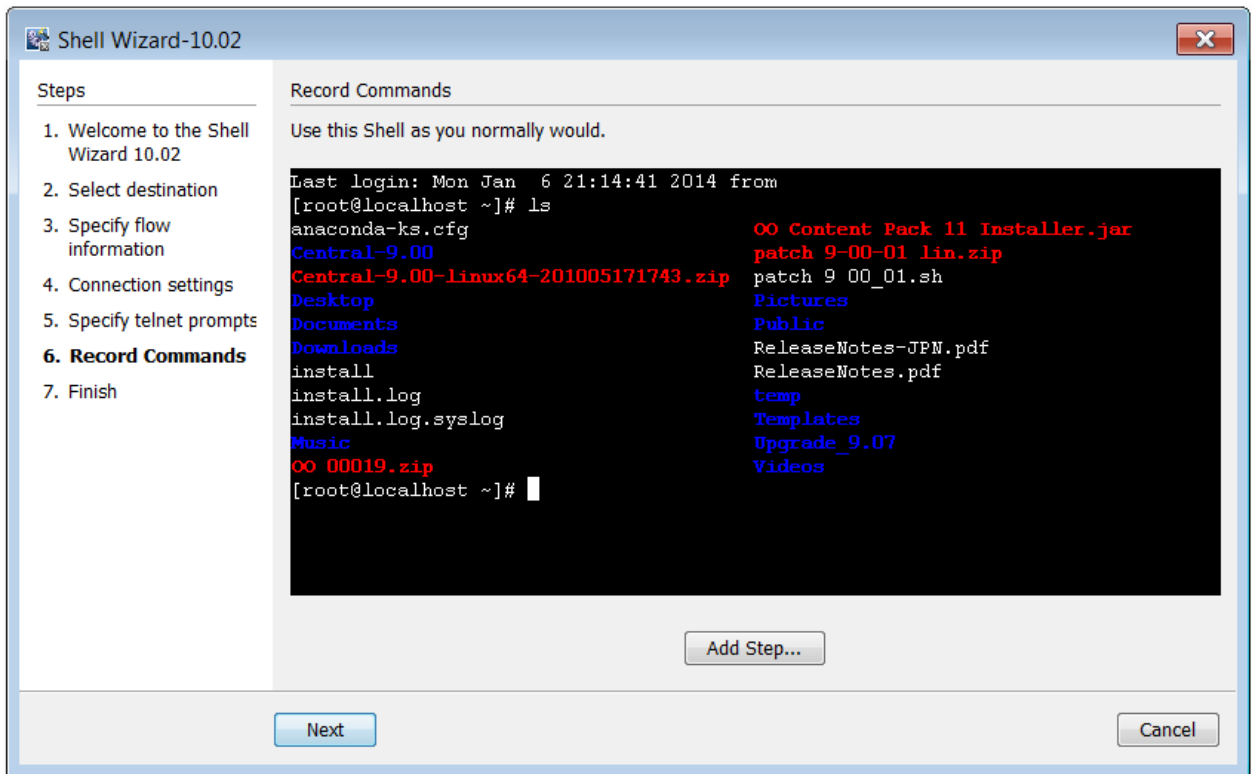


2. If the Telnet protocol was chosen, the Specify Telnet prompts page is displayed. Click Next to open the connection. The Authenticating window opens until the connection is established.

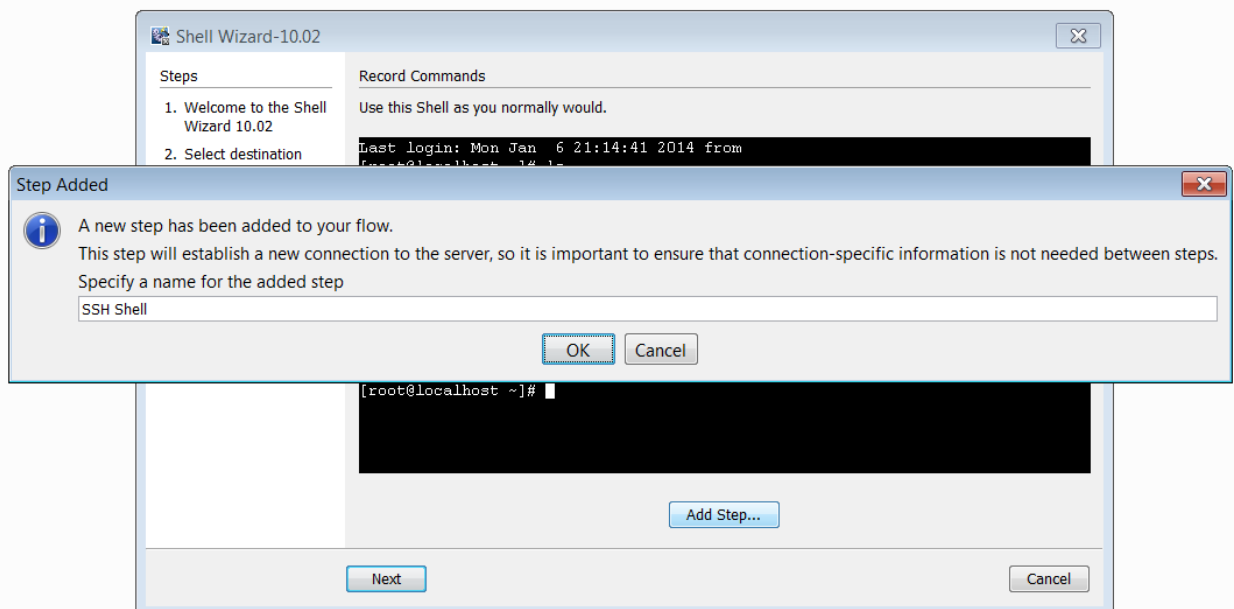


## Step 5. Record Commands

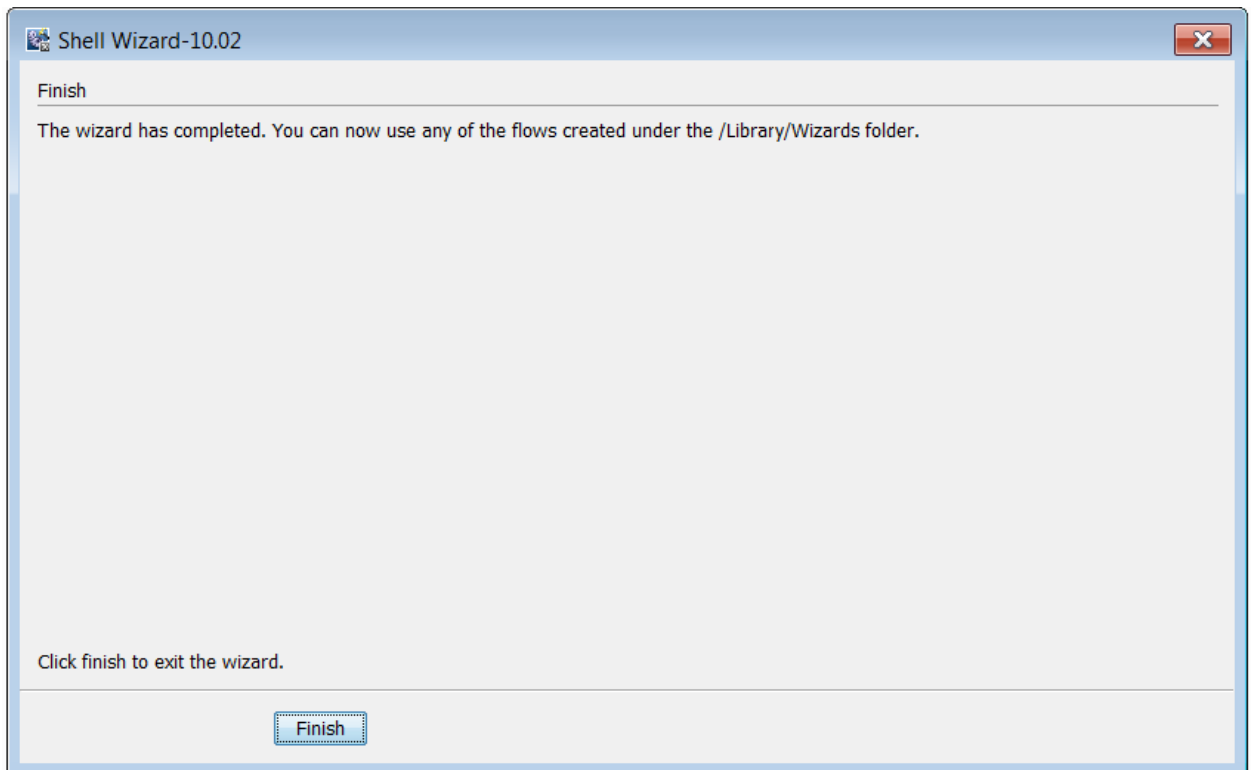
The commands written in this screen will be recorded and executed as a step in the generated flow. Click Next to go to the Finish page.



If the Add Step button is clicked, the Step Added window will be displayed for a new connection to the server as a new step of the flow.



## Step 6. Finish





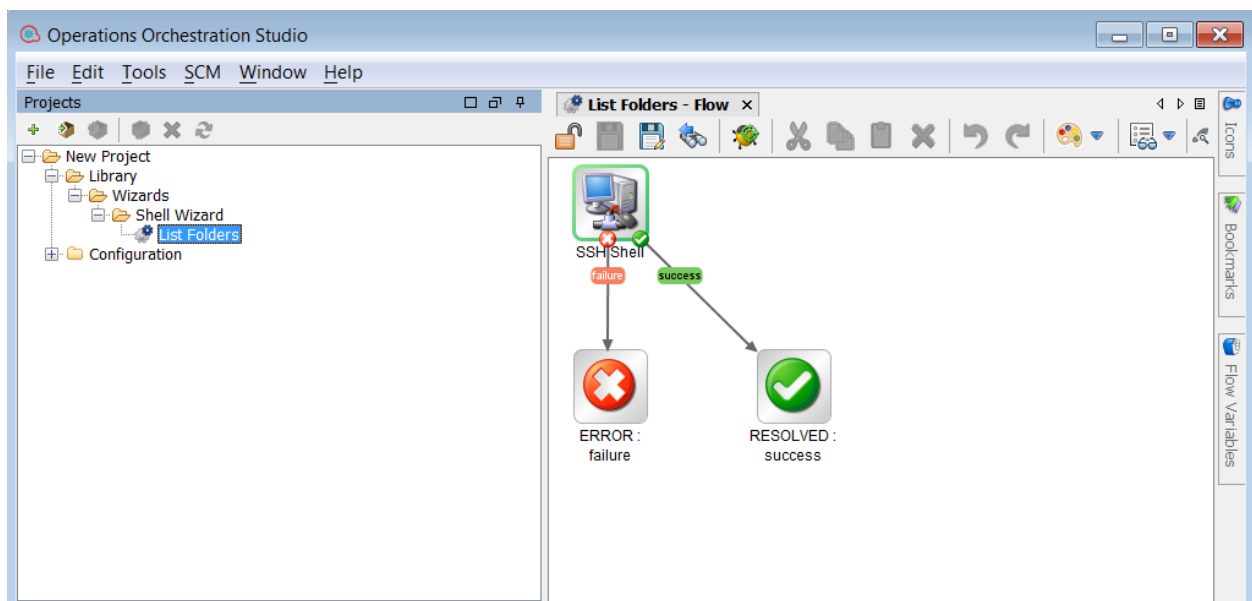
# Chapter 4

## Import the Generated Flows into OO Studio

Import the project generated by the wizard in OO Studio. See the section “Managing Projects” in the Studio Guide to see how to import a project.

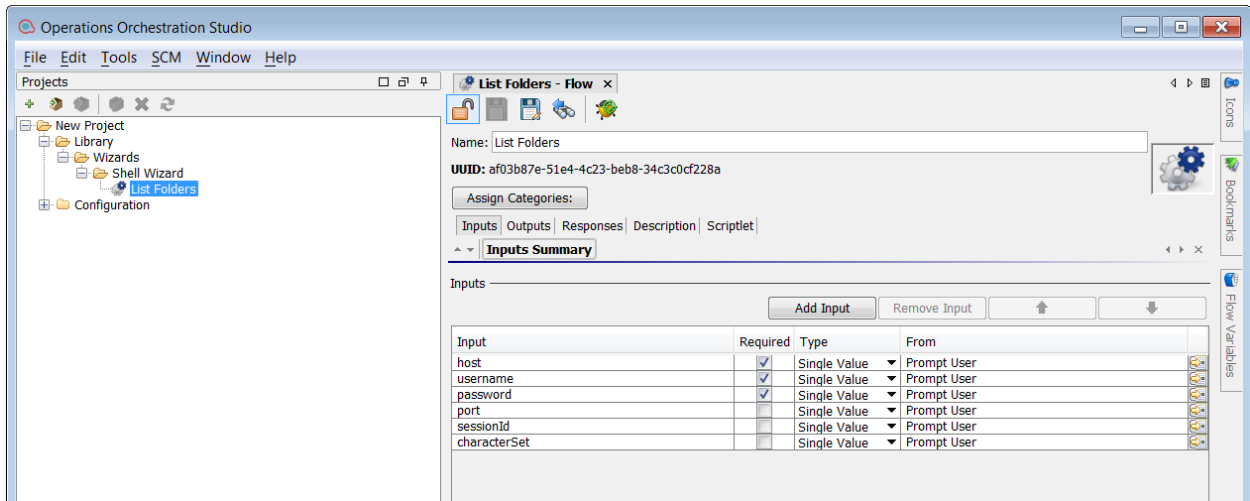
### Generated Flows

The Shell Wizard generates a flow with the name specified in the step Specify step information of the wizard. If a project with the same name already exists, the new flow will be added to.



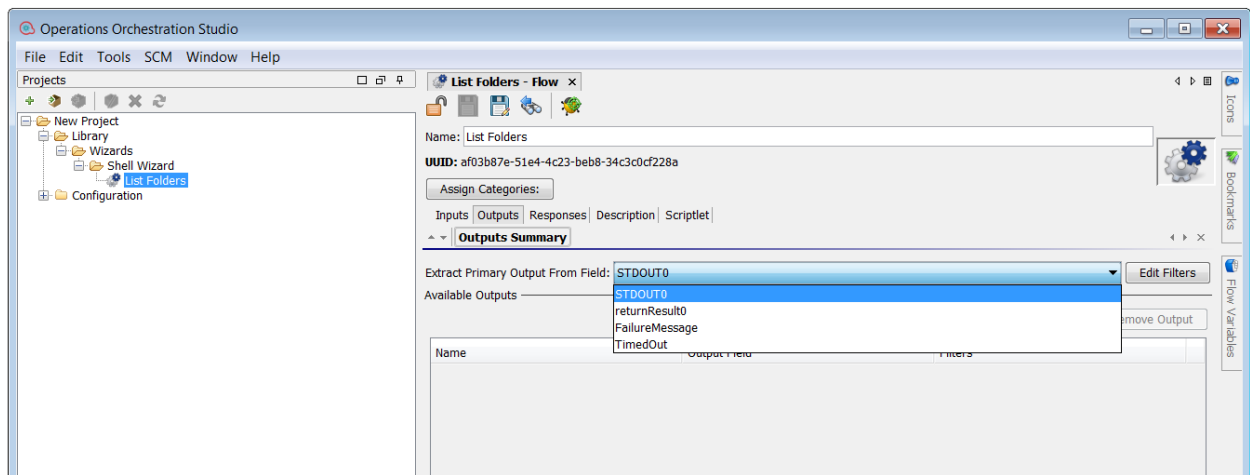
### Inputs

Each flow has the following inputs which are commons to the Shell operation:



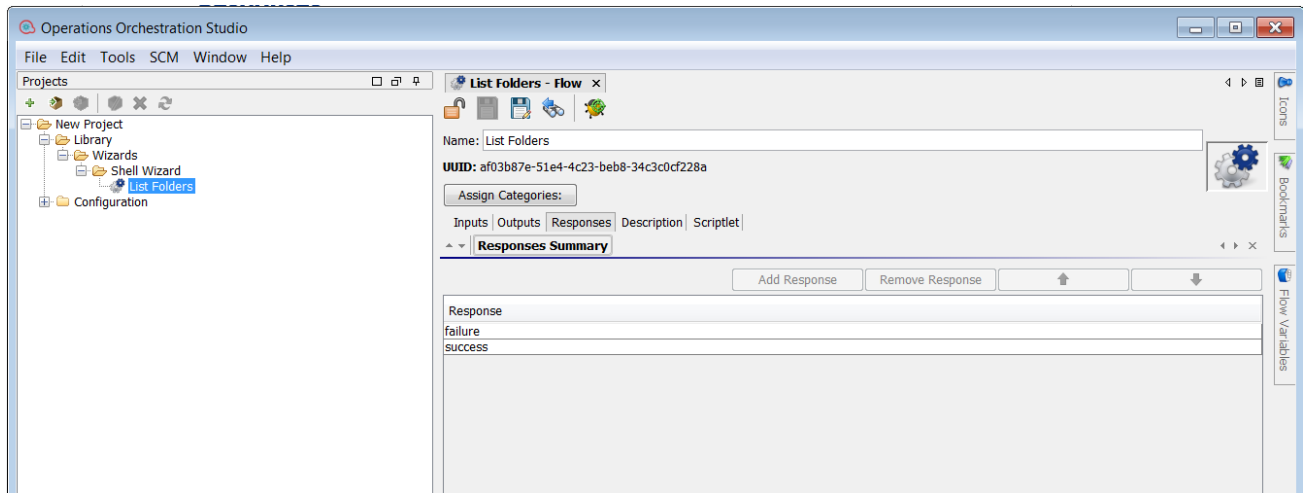
## Outputs

On the Outputs tab, the flow primary result is stdout in addition to the returnResult result. All OO flows have the FailureMessage and TimedOut outputs. All generated flows have the returnResult output (which is the generic operation's result), and stdout result.



## Responses

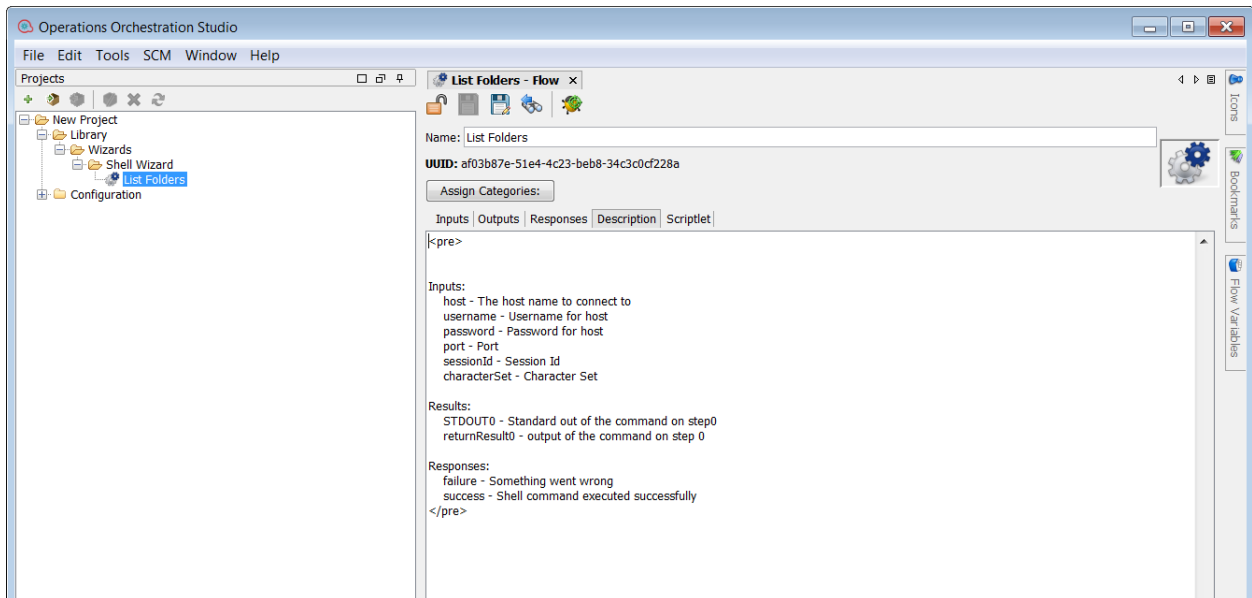
The success and failure responses of the flows are the same as in the Shell operations.



## Descriptions

The description of each generated flow contains the following items:

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



## Shell Operation

The operation is used to execute a Shell script on a target host, either local or remote.

# Operation inputs

The diagram shows an 'SSH Shell' step in a workflow. It has two outgoing paths: a 'failure' path leading to an 'ERROR : failure' state (represented by a red 'X' icon) and a 'success' path leading to a 'RESOLVED : success' state (represented by a green checkmark icon).

**Inspector**  
 Step Name: SSH Shell  
 Inputs Results Display Description Advanced Scriptlet

**Inputs Summary**

Input	Required	Type	From
host	<input checked="" type="checkbox"/>	Single Value	Value:
port	<input type="checkbox"/>	Single Value	Value:
command	<input checked="" type="checkbox"/>	Single Value	Value: expectEndsWith #send ls
username	<input checked="" type="checkbox"/>	Single Value	Value:
password	<input checked="" type="checkbox"/>	Single Value	Value:
newlineCharacters	<input type="checkbox"/>	Single Value	Value:
characterDelay	<input type="checkbox"/>	Single Value	Value:
characterSet	<input type="checkbox"/>	Single Value	Value:
privateKeyFile	<input type="checkbox"/>	Single Value	Value:
timeout	<input type="checkbox"/>	Single Value	Value:
sessionId	<input type="checkbox"/>	Single Value	Value:

# Operation results

The diagram is identical to the one above, showing the 'SSH Shell' step with 'failure' and 'success' paths leading to 'ERROR : failure' and 'RESOLVED : success' states respectively.

**Inspector**  
 Step Name: SSH Shell  
 Inputs Results Display Description Advanced Scriptlet

**Step Results**

Name	From	Assign To	Assignment Action	Filters
STDOUT0	STDOUT	Flow Output Field	OVERWRITE	No Filters
returnResult0	returnResult	Flow Output Field	OVERWRITE	No Filters

# Chapter 5

## Troubleshooting

This chapter includes:

Troubleshooting Overview  
Could not connect to the host  
Error Messages

### Troubleshooting Overview

This section provides troubleshooting procedures and tools that you can use to solve problems you may encounter while using this integration. It also includes a list of the error messages you may receive while using the integration and offers descriptions and possible fixes for the errors.

### Could not connect to the host

The possible reasons are:

- The user credentials are not correct.
- Telnet protocol is not enabled on the machine.
- The user does not have permission to execute Shell scripts on the target host. Make sure the user has admin rights for executing the file.
- Authentication problems (most common). Refer to *Running a PowerShell Script on a Remote Host*.

### Error Messages

This section lists the error messages you may receive while using this integration. Each error message includes possible causes and fixes for the error.

```
java.net.ConnectException: Connection refused: connect
```

This error occurs when SSH or Telnet protocol are not supported on the machine.