Hands-on Lab 2.4:
Testing the Orchestration

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Objectives

In this lab you test the pipeline to ensure that the orchestration you created in the previous three labs works correctly.

Prerequisites

Before you begin this lab, you should have completed Lab2.3 – Configuring the Pipeline.

Time

You should be able to complete this lab in 30 minutes.

Exercise 1: Testing the Orchestration

In this exercise you run a pipeline instance to make sure that it works correctly.

Task 1: Open the Trey Research Solution

In this task you open the Trey Research solution.

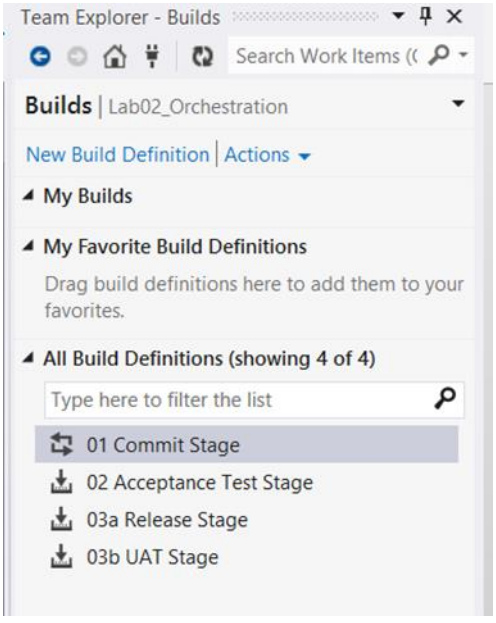
1. Navigate to **Lab02_Orcestration\Source\TreyResearch**.
2. Open the **TreyResearch.sln** file.

Task 2: Run the Commit Stage

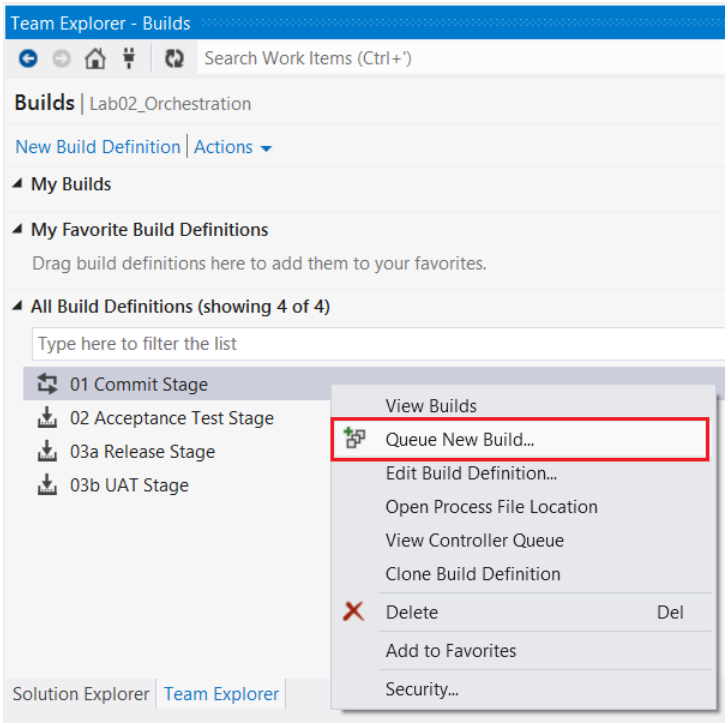
Although the pipeline is normally triggered by a check-in, you can also trigger it manually by queuing the associated build definition. When the pipeline runs, the commit stage receives a new name that is the same as the name of this instance of the pipeline.

> Note: In Build Explorer, make sure that the **Only show builds requested by me** option is **not** selected. If it is selected, you won't be able to see the results for the automatically triggered acceptance test stage.

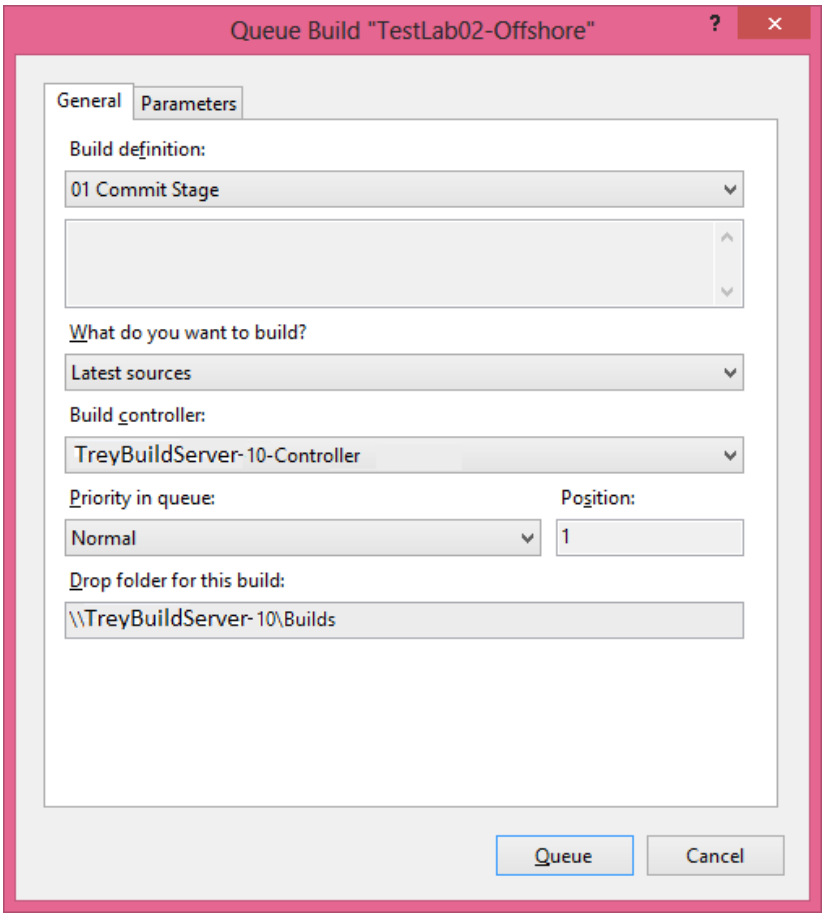
1. In Team Explorer, click the **Builds** tab.



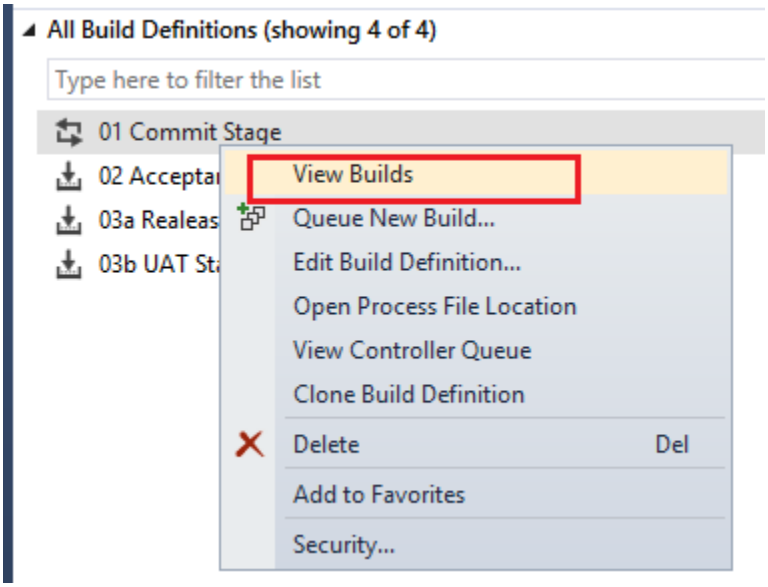
2. Right-click **01 Commit Stage** and select **Queue New Build**.



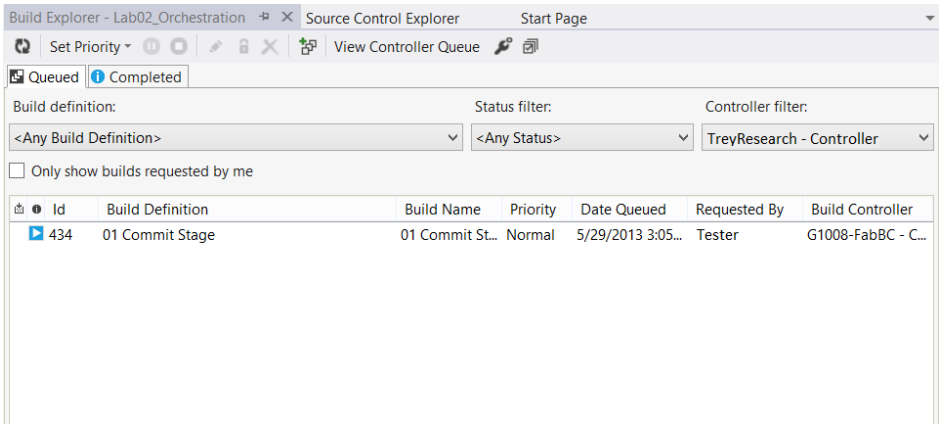
3. The **Queue Build** dialog box opens.
4. Leave the defaults. Click **Queue** to start a new build. The settings you see were defined in the build definition you created in the previous lab.



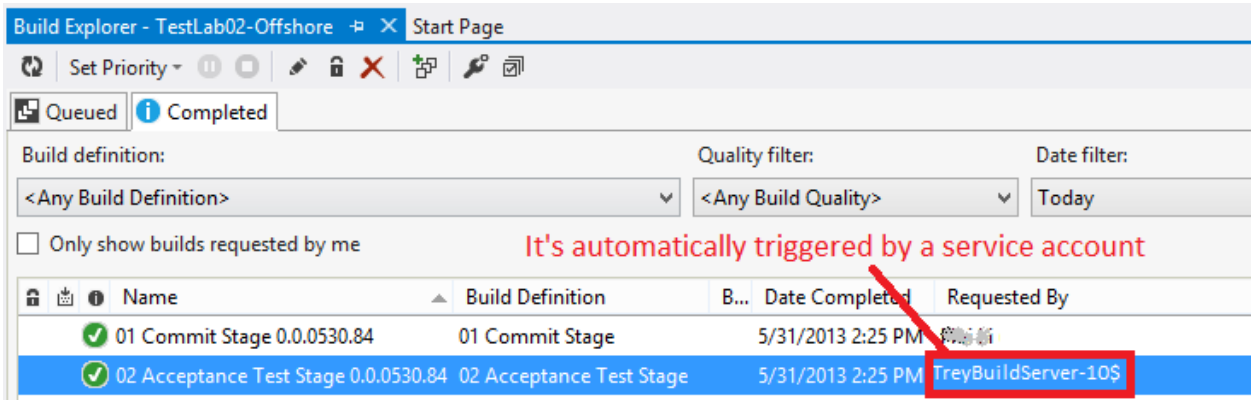
5. In Team Explorer, right-click **01 Commit Stage** and select **View Builds**.



6. When **Build Explorer** launches, you should see that **01 Commit Stage** is in the build queue.



7. If the commit stage completes successfully, the next stage, 02 Acceptance Test Stage, is triggered automatically. The following screenshot shows the results when both stages complete successfully.

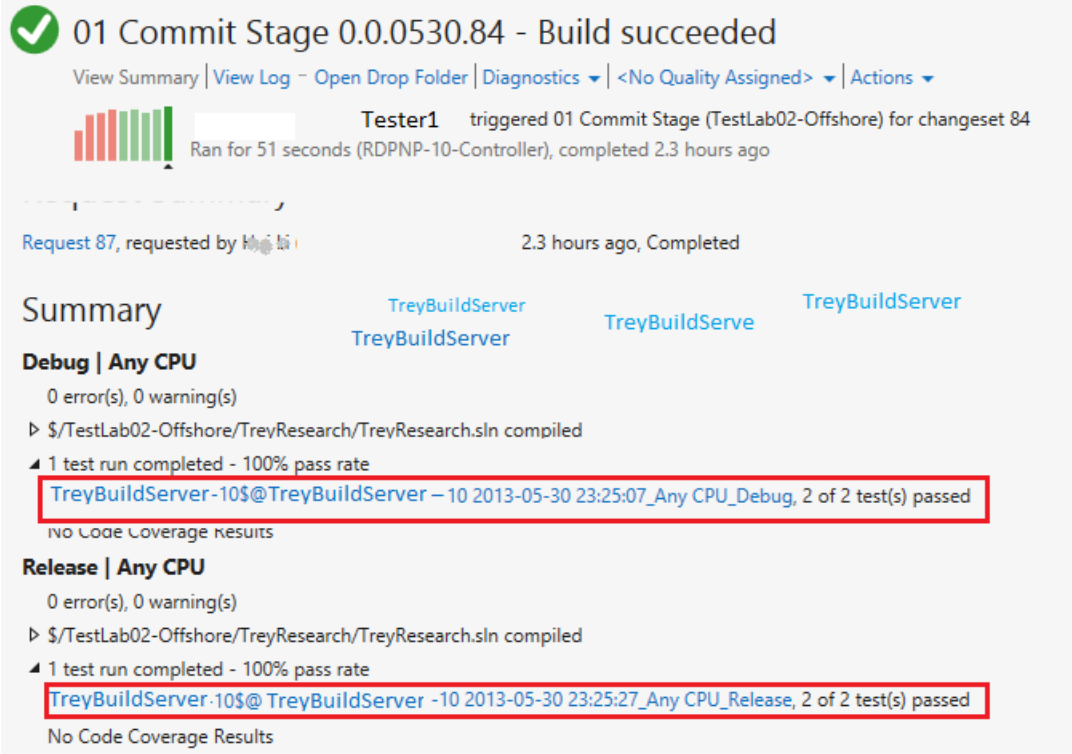


Task 3: Validate the Steps in the Commit Stage

In this task you validate that all the steps in the commit stage ran successfully.

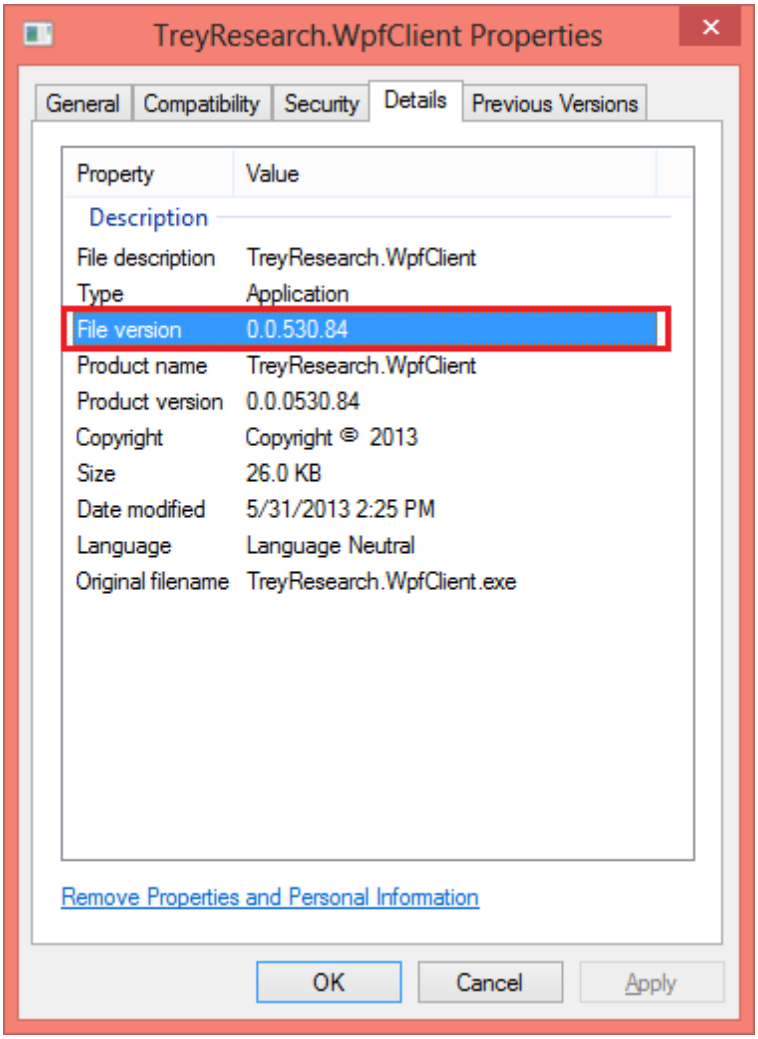
1. Validate that all the unit tests passed. Select the **01 Commit Stage 0.0.0530.84** build in Build Explorer. The **Build Details** view opens and shows a summary of what occurred during the build.

> **Note:** Your version number will be different from the one used in this lab.



2. Validate that the code analysis was performed. Click **View Log**. The amount of information retained in the build log depends on the logging verbosity value. If it is **Normal**, the log shows some code analysis warnings at the end of the build log. The warning IDs will start with "CA." (You can use the **Logging Verbosity** build process parameter to manage the verbosity of the information that is logged and stored.)

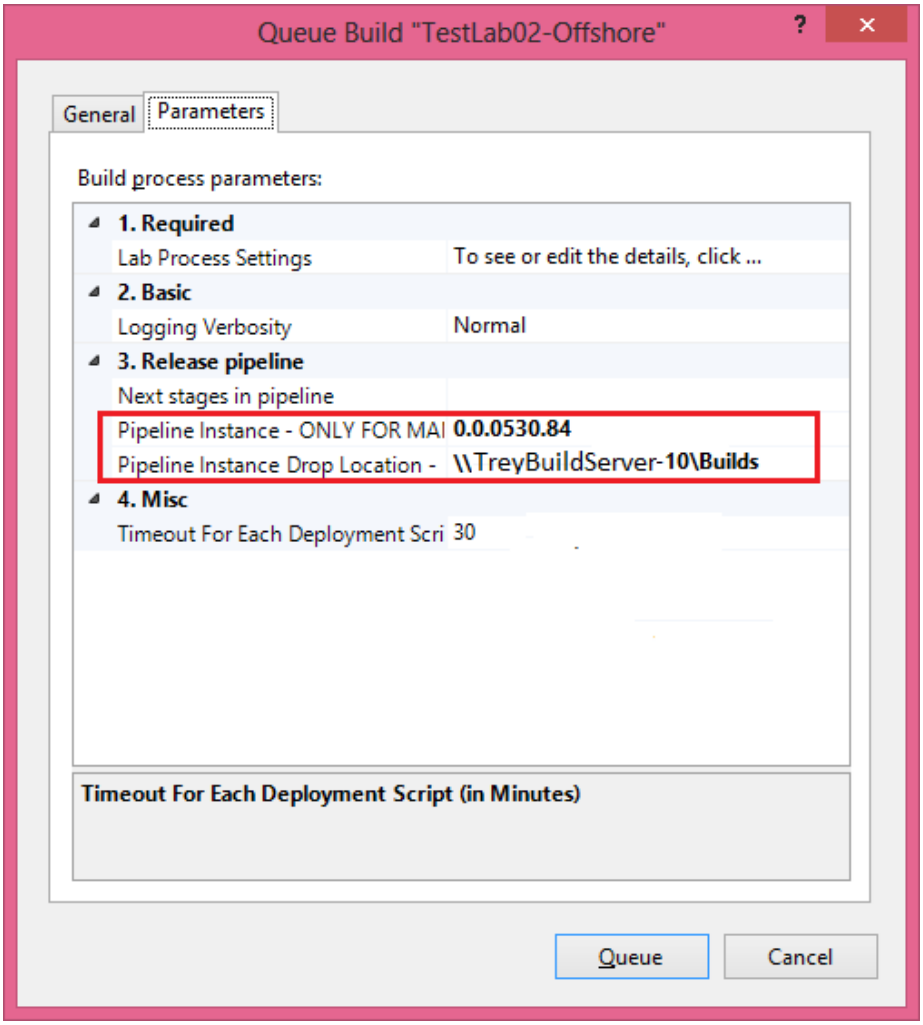
3. Validate that the file version number for the generated assemblies in the drop location is the same as the name of the pipeline instance. To do this find the file named **TreyReserach.WpfClient.exe** in the build location. (An example of a build location is \\BUILD_SERVER\Builds\01 Commit Stage\ 01 Commit Stage 0.0.0530.84\Release.) Right-click on the file and examine its properties. Its file version should match the name of the pipeline instance, which is also the name of the commit stage. In the following screenshot, the file version of **TreyResearch.WpfClient.exe** matches the name of the commit stage.



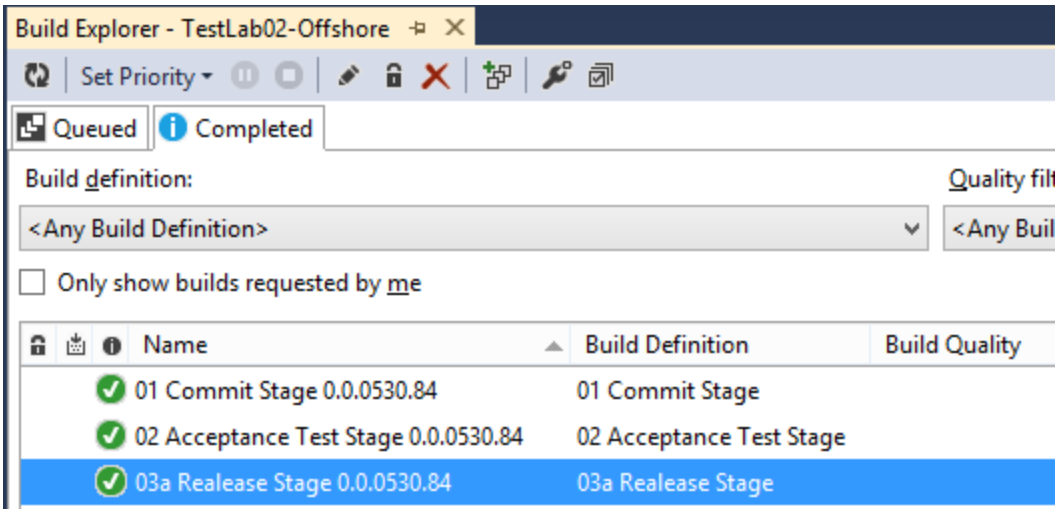
Task 4: Run the Manually Triggered Stages

In this task you run the manually triggered release and UAT stages.

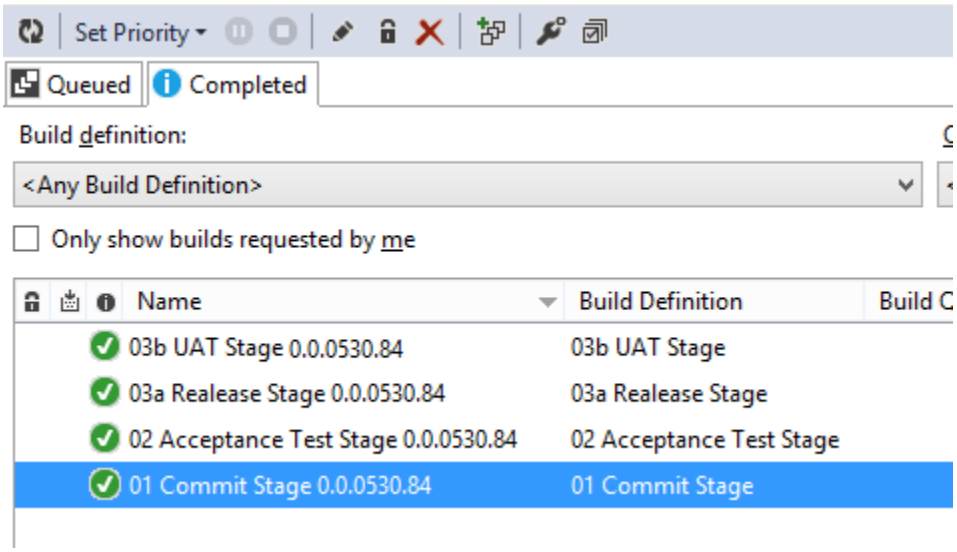
1. In Team Explorer, under the **Builds** tab, queue a build for **03a Release Stage**.
2. Select **Queue New Build**.
3. The **Queue Build** dialog box opens.
4. Select the **Parameters** tab. Specify the value for the pipeline instance, which is the same as the number that was assigned to the commit stage. You should also specify the drop location. In the following screenshot, the pipeline instance is named 0.0.0530.84 and the pipeline instance drop location is \\TreyBuildServer-10\Builds\01 Commit Stage 0.0.0530.84.



5. Click **Queue** to start the build.
6. Go to Build Explorer to verify that the **03a Release Stage** built successfully. This might take several minutes.



7. Repeat steps 1 through 6 for 03b UAT Stage.
8. You have completed running this instance of the pipeline. The following screenshot shows the results of a successful run.



Summary

In this lab you triggered an instance of the pipeline by queuing the build manually. You verified that the steps within the commit stage completed successfully. The commit stage triggers the acceptance test stage automatically.

You next ran the two manual stages. To do this you needed to supply the parameters for the pipeline instance name and the pipeline instance drop location.

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