Katalon Studio For Automated Testing

Sesi 7

Jenkins & Command Line Execution

INTEGRATION JENKINS

Katalon Studio is a powerful automation toolset for web and mobile app testing. It is a free yet feature-packed solution that can be applied to overcome common challenges such as wait-time, pop-up, and iframe in web UI test automation.

Katalon Studio brings more intelligence to the entire test automation process testers can now test better, test faster and launch high-quality software through this user-friendly, versatile solution.

INTEGRATION JENKINS => LOCAL

Prerequisites :

1. Katalon Studio Should be installed in your machine.
2. Create Demo project in Katalon Studio.
3. Jenkins should be installed in your machine

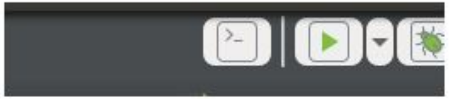
Here is the tool that we are gonna use.

1. Build CMD option: It will generate the CMD command to execute your Katalon project.
2. Katalon Studio plugin: This plugin is for Jenkins to create katalon studio build.

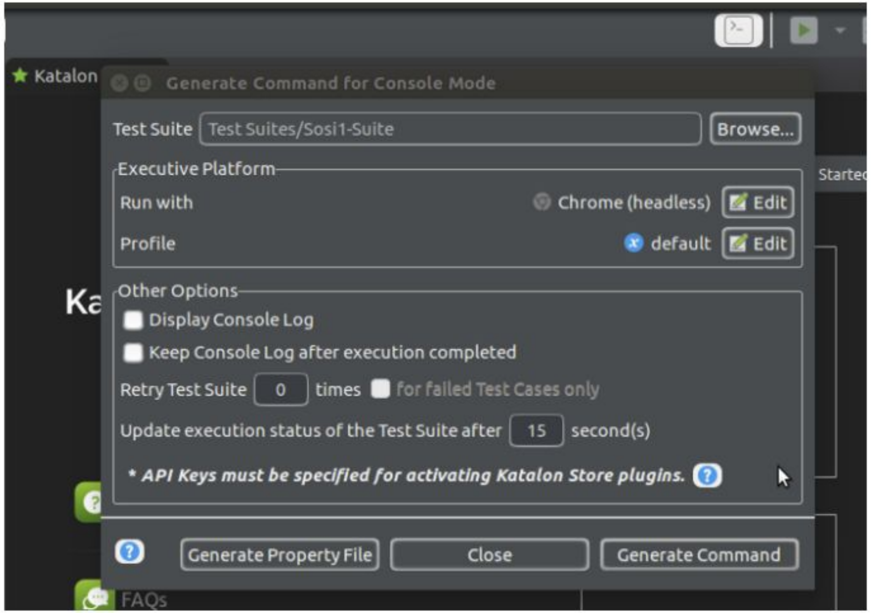
INTEGRATION JENKINS WITH KATALON

1. Generate Build execution command for or project.

So for build execution command, we need to Click on **Build CMD.**



It will open **Build CMD** modal in which you need to select the following things.



Generate Command for Console Mode

Test Suite: Test Suites/Sosi1-Suite

Executive Platform

Run with: Chrome (headless)

Profile: default

Other Options

□ Display Console Log

□ Keep Console Log after execution completed

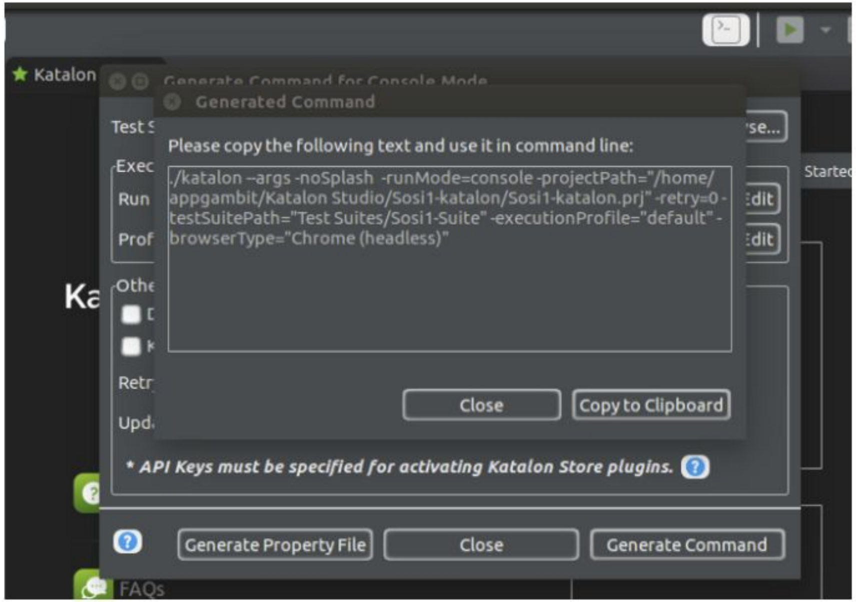
Retry Test Suite 0 times □ for failed Test Cases only

Update execution status of the Test Suite after 15 second(s)

** API Keys must be specified for activating Katalon Store plugins.*

INTEGRATION JENKINS WITH KATALON

1. Select your test suite.
2. Select the Browser that you need to execute your test suite.
3. Select the profile if you are working with multiple profiles.
4. If you need to see console logs or create a log file for your script execution then you need to select Display Console Log and Keep console log after execution completed checkbox.
5. Now click on the Generate Command button and it will display generated command for your script.
6. Copy generated command.



Please copy the following text and use it in command line:

```
./katalon --args -noSplash  -runMode=console -projectPath="/home/appgambit/Katalon Studio/Sosi1-katalon/Sosi1-katalon.prj" -retry=0 -testSuitePath="Test Suites/Sosi1-Suite" -executionProfile="default" -browserType="Chrome (headless)"
```

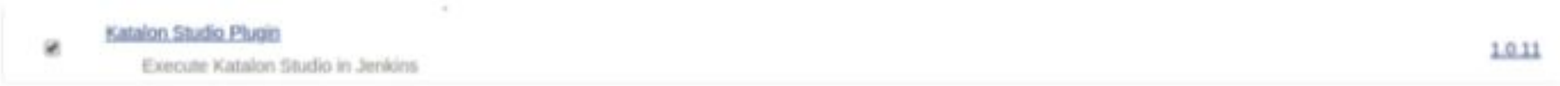
* API Keys must be specified for activating Katalon Store plugins.

INTEGRATION JENKINS WITH KATALON

Now we move to our Jenkins Lets integrate our Katalon test suite with Jenkins build.
There is two way to integrate Katalon Studio with Jenkins.
1. Using Katalon Studio plugin
2. Using Execute Windows batch command/Execute shell
First, we check how to integrate Katalon Studio with Katalon Studio plugin On Jenkins.

1. Now we gonna install Katalon Studio plugin

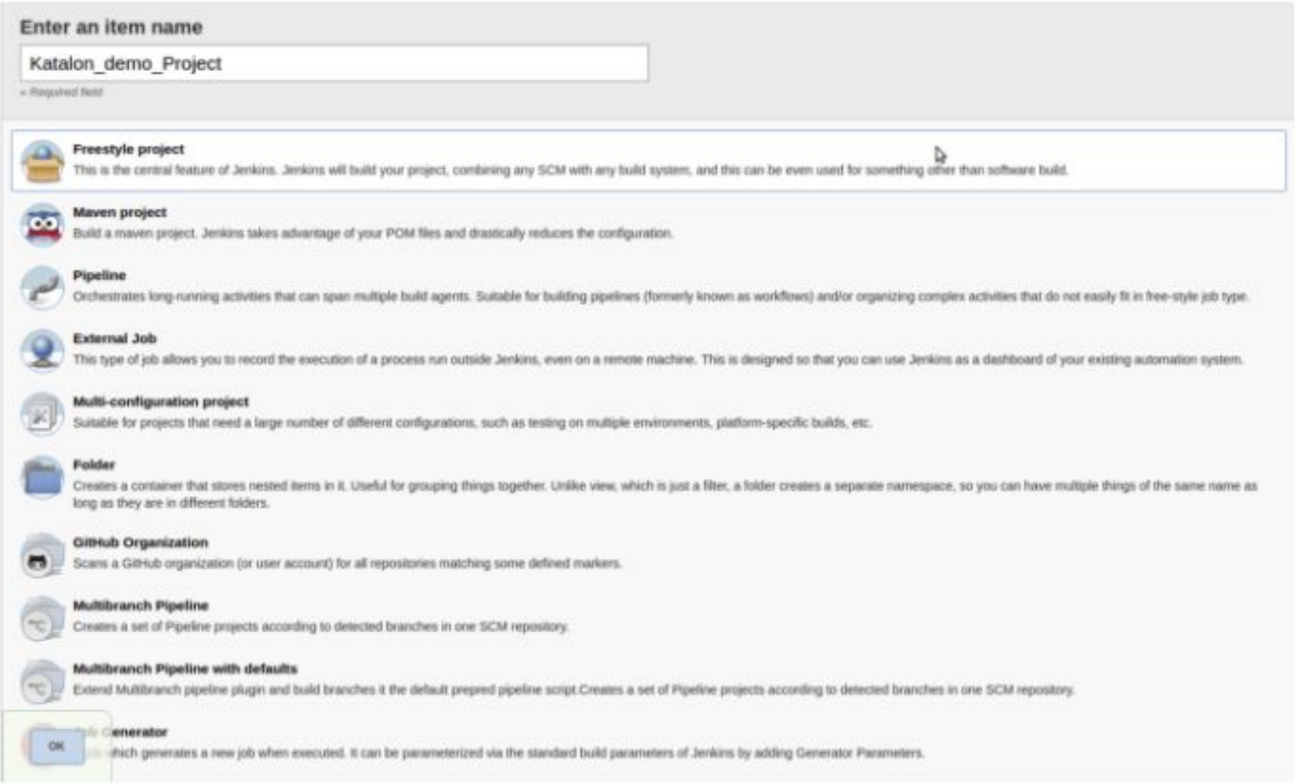
Go to Manage Jenkins -> Manage Plugins -> Available and search for Katalon Studio plugin and install it:



☑ Katalon Studio Plugin
Execute Katalon Studio in Jenkins
1.0.11

INTEGRATION JENKINS WITH KATALON

2. Create a New Freestyle project for **Katalon integration**.



Enter an item name

Katalon_demo_Project

» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

External Job
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

GitHub Organization
Scans a GitHub organization (or user account) for all repositories matching some defined markers.

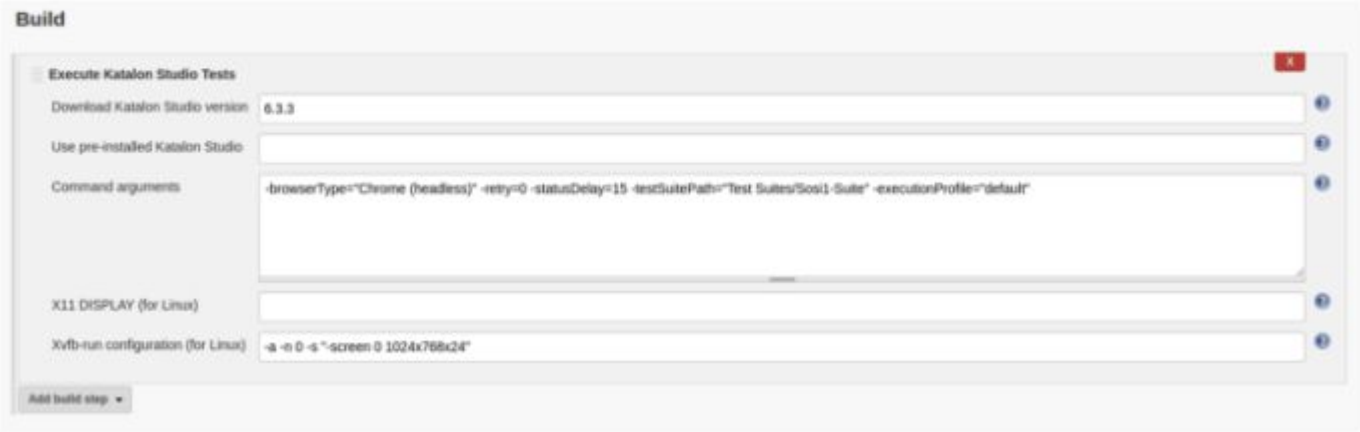
Multibranch Pipeline
Creates a set of Pipeline projects according to detected branches in one SCM repository.

Multibranch Pipeline with defaults
Extend Multibranch pipeline plugin and build branches it the default prepred pipeline script.Creates a set of Pipeline projects according to detected branches in one SCM repository.

Job Generator
[illegible] which generates a new job when executed. It can be parameterized via the standard build parameters of Jenkins by adding Generator Parameters.

INTEGRATION JENKINS WITH KATALON

3. Once we install **Katalon Studio plugin** It will display **Execute Katalon Studio test** option in the **Build section.**



Build

Execute Katalon Studio Tests

Download Katalon Studio version: 6.3.3

Use pre-installed Katalon Studio:

Command arguments: -browserType="Chrome (headless)" -retry=0 -statusDelay=15 -testSuitePath="Test Suites/Sosi1-Suite" -executionProfile="default"

X11 DISPLAY (for Linux):

Xvfb-run configuration (for Linux): -a -n 0 -s "-screen 0 1024x768x24"

Now, Select Katalon Studio version here we are using the latest version of Katalon Studio 6.3.3 Or user needs to user pre-installed Katalon studio add the valid path of Katalon Studio.
After that, you need to add Command arguments like :

```
-browserType="Chrome (headless)" -retry=0 -statusDelay=15 -
testSuitePath="Test Suites/Sosi1-Suite" -executionProfile="default"
```

INTEGRATION JENKINS WITH KATALON

At the and of this we need to specify Xvfb-run configuration (for Linux) mean add your browser screen resolution as we added here :

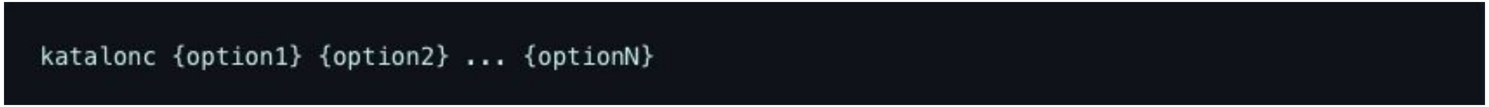
Xvfb-run configuration (for Linux):-a -n 0 -s “-screen 0 1024x768x24”

Now, we are able to run Katalon script on Jenkins using Katalon Studio plugin.

COMMAND LINE EXECUTION

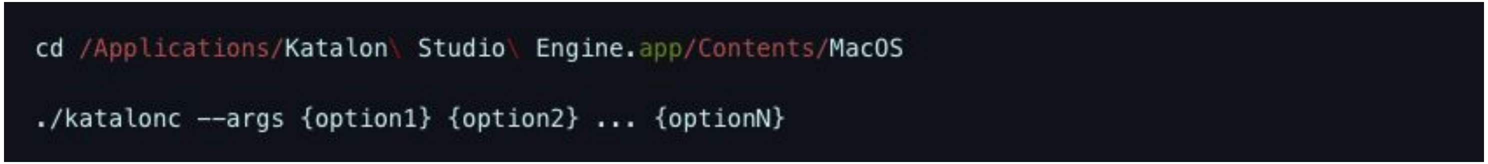
Execute Katalon Studio in console mode

1. Open the command prompt and navigate to the folder of your Katalon Studio build: katalonc.exe (Windows), Applications folder (Mac OS), or katalonc (Linux) file.
2. Enter the following syntax to execute automation test:
   Windows



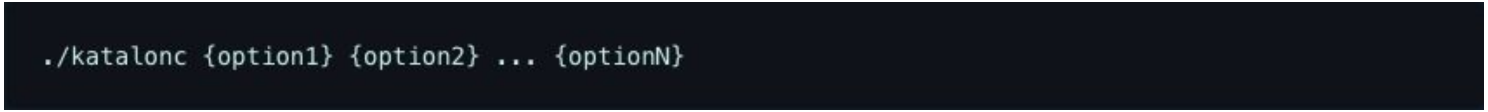
```
katalonc {option1} {option2} ... {optionN}
```

macOS



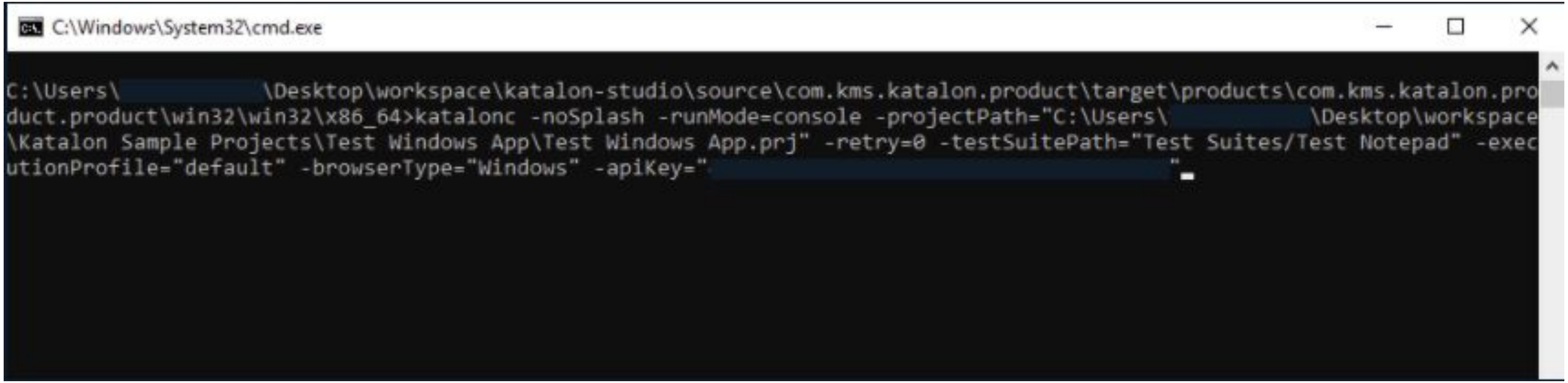
```
cd /Applications/Katalon\ Studio\ Engine.app/Contents/MacOS

./katalonc --args {option1} {option2} ... {optionN}
```

Linux



```
./katalonc {option1} {option2} ... {optionN}
```

COMMAND LINE EXECUTION



```
C:\Users\[redacted]\Desktop\workspace\katalon-studio\source\com.kms.katalon.product\target\products\com.kms.katalon.pro
duct.product\win32\win32\x86_64>katalonc -noSplash -runMode=console -projectPath="C:\Users\[redacted]\Desktop\workspace
\Katalon Sample Projects\Test Windows App\Test Windows App.prj" -retry=0 -testSuitePath="Test Suites/Test Notepad" -exec
utionProfile="default" -browserType="Windows" -apiKey="[redacted]"
```

1. Press Enter to start execution.
2. Exit Code

   Below is the list of exit codes after console mode execution:
   - 0: the execution passed with no failed or error test case.
   - 1: the execution has failed test cases.
   - 2: the execution has error test cases.
   - 3: the execution has failed test cases and error test cases.
   - 4: the execution cannot start because of invalid arguments.