BrowserStack Automate Jenkins Plugin

This plugin allows you to integrate your Selenium tests in Jenkins with BrowserStack Automate.

Features

1. Set up and tear down BrowserStack Local for testing internal, dev or staging environments
2. Embed BrowserStack Automate Report in your Jenkins job results

Prerequisites

1. Minimum Jenkins version supported is 1.509
2. For viewing the BrowserStack Automate Report in your Jenkins job results, JUnit plugin must be installed

Installation

1. Download the BrowserStack Automate plugin
2. Go to Manage Jenkins > Manage Plugins
3. Click on the Advanced tab and in the Upload Plugin section, select and upload the plugin .hpi file
4. Once installed, please restart Jenkins for plugin installation to complete

Configuring tests

This step is required for viewing the BrowserStack Automate Report in your Jenkins job results. Currently, JUnit and TestNG maven based projects are supported. Add the following dependencies to your POM.xml file:

```
<dependency>
  <groupId>com.browserstack</groupId>
  <artifactId>automate-maven-plugin</artifactId>
  <version>0.2-SNAPSHOT</version>
</dependency>
<dependency>
  <groupId>org.aspectj</groupId>
  <artifactId>aspectjrt</artifactId>
  <version>1.7.4</version>
</dependency>
```

Add the following repositories to your POM.xml file:

```
<repositories>
 <repository>
  <id>sonatype-nexus-snapshots</id>
  <url>https://oss.sonatype.org/content/repositories/snapshots</url>
 </repository>
</repositories>

<pluginRepositories>
 <pluginRepository>
```

```
  <id>sonatype-nexus-snapshots</id>
   <url>https://oss.sonatype.org/content/repositories/snapshots</url>
 </pluginRepository>
</pluginRepositories>
```

Add the following plugin to your POM.xml file:

```
<build>
  <plugins>
   <plugin>
    <groupId>com.browserstack</groupId>
    <artifactId>automate-maven-plugin</artifactId>
    <version>0.2-SNAPSHOT</version>
    <executions>
     <execution>
      <goals>
       <goal>test-compile</goal>
      </goals>
     </execution>
    </executions>
   </plugin>
  </plugins>
</build>
```

Following environment variables are set by this plugin:
BROWSERSTACK_USER
BROWSERSTACK_ACCESSKEY
BROWSERSTACK_LOCAL
BROWSERSTACK_LOCAL_IDENTIFIER

You can use these environment variables to set DesiredCapabilities in your test. For e.g:

```
String username = System.getenv("BROWSERSTACK_USER");
String accessKey = System.getenv("BROWSERSTACK_ACCESSKEY");
String browserstackLocal = System.getenv("BROWSERSTACK_LOCAL");
String browserstackLocalIdentifier = System.getenv("BROWSERSTACK_LOCAL_IDENTIFIER");

DesiredCapabilities capabilities = new DesiredCapabilities();
capabilities.setCapability("os", "Windows");
capabilities.setCapability("browser", "chrome");
capabilities.setCapability("browserstack.local", browserstackLocal);
capabilities.setCapability("browserstack.localIdentifier", browserstackLocalIdentifier);
driver = new RemoteWebDriver(new URL("https://" + username + ":" + accessKey +
"@hub.browserstack.com/wd/hub"), capabilities);
```

Please see this example for more details.

Configuring Jenkins

Global Configuration

1. Go to Manage Jenkins > Configure System

2. In the BrowserStack Automate section set your BrowserStack username and access key. You can get these from your BrowserStack settings page
3. Save your changes

Job Configuration

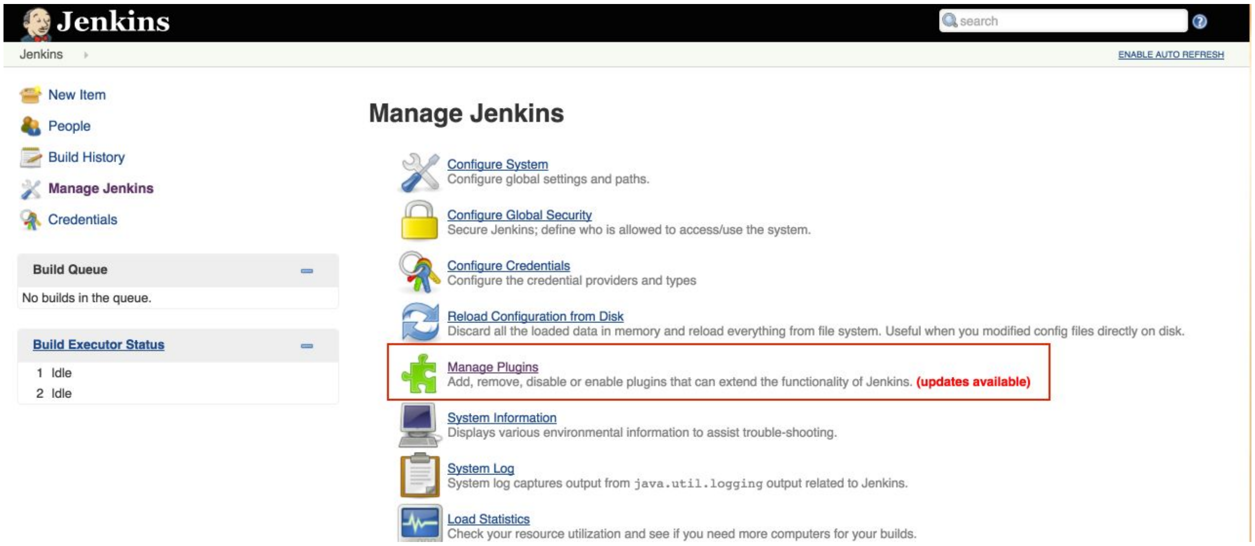
1. Create a new Jenkins job or configure an existing one
2. In the Build Environment section, select BrowserStack Automate
3. Select the credentials. By default, credentials set in Global Settings will be selected. You can override them if required
4. Select BrowserStack Local for testing staging/internal/dev/restricted environments on BrowserStack. You can also set the following options:
    1. BrowserStack Local Path - Alternate location to download and run the BrowserStack Local binary file
    2. BrowserStack Local Options - You can see the entire list of command line options here
5. In Post-build Actions section, select Publish JUnit test result report
6. Set the path for your report XMLs and select Embed BrowserStack Automate Report
7. Build your Jenkins job and in test results navigate to the testcase to view it's embedded BrowserStack Automate report
8. Save your changes

Limitations

1. *BrowserStack Automate Report* can only be embedded into your Jenkins job's results for JUnit and TestNG based projects
2. *BrowserStack Local* in Master-Slave setup is not currently supported

Screenshots

Installation Steps



No builds in the queue.

1 Idle
2 Idle

Manage Jenkins

Configure System
Configure global settings and paths.

Configure Global Security
Secure Jenkins; define who is allowed to access/use the system.

Configure Credentials
Configure the credential providers and types

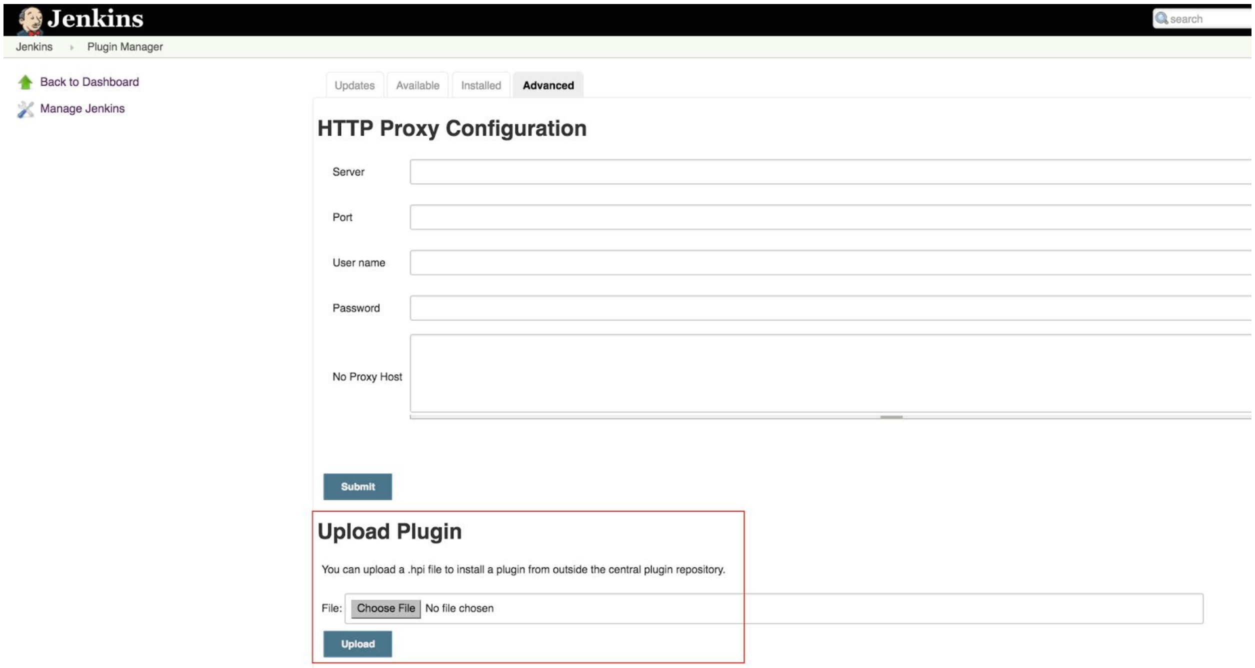
Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file system. Useful when you modified config files directly on disk.

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality of Jenkins. **(updates available)**

System Information
Displays various environmental information to assist trouble-shooting.

System Log
System log captures output from `java.util.logging` output related to Jenkins.

Load Statistics
Check your resource utilization and see if you need more computers for your builds.



HTTP Proxy Configuration

Server

Port

User name

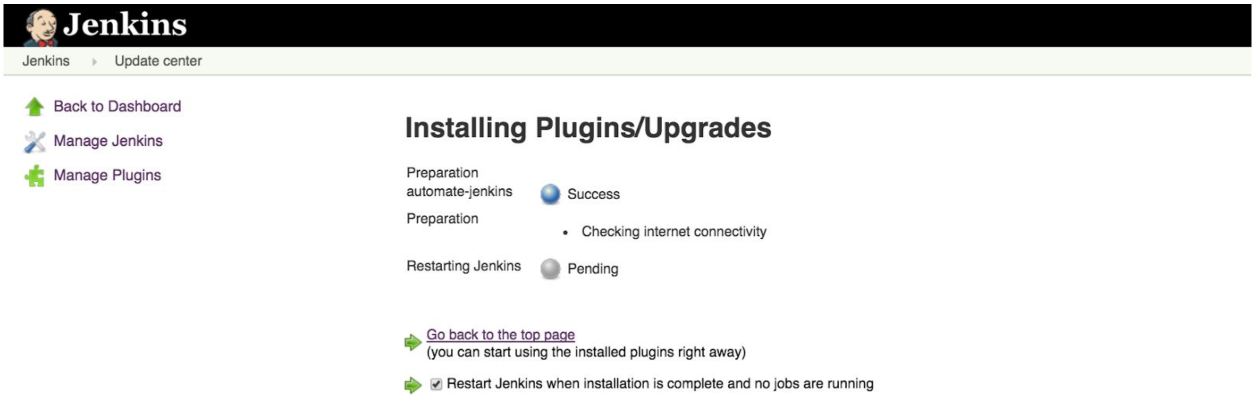
Password

No Proxy Host

Upload Plugin

You can upload a .hpi file to install a plugin from outside the central plugin repository.

File: No file chosen



Installing Plugins/Upgrades

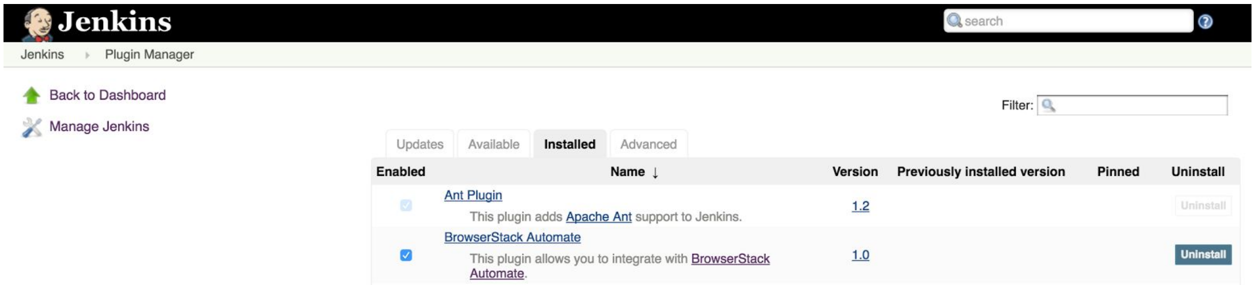
Preparation
automate-jenkins ● Success

Preparation
- Checking internet connectivity

Restarting Jenkins ○ Pending

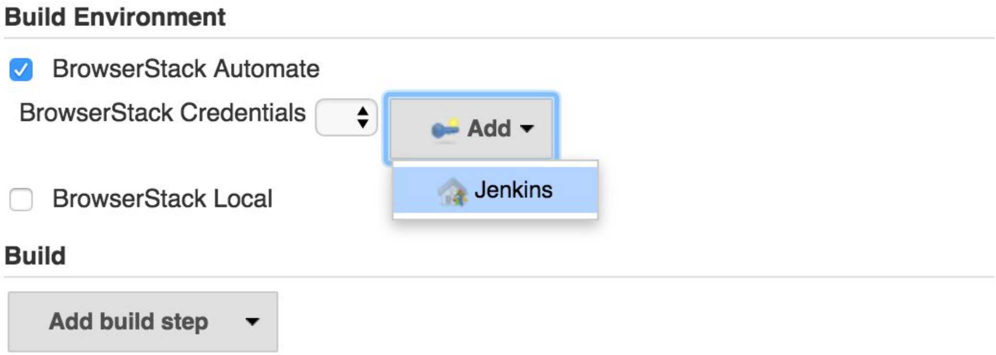
Go back to the top page
(you can start using the installed plugins right away)

☑ Restart Jenkins when installation is complete and no jobs are running



Enabled	Name ↓	Version	Previously installed version	Pinned	Uninstall
☑	Ant Plugin This plugin adds Apache Ant support to Jenkins.	1.2			Uninstall
☑	BrowserStack Automate This plugin allows you to integrate with BrowserStack Automate.	1.0			Uninstall

Job Configuration



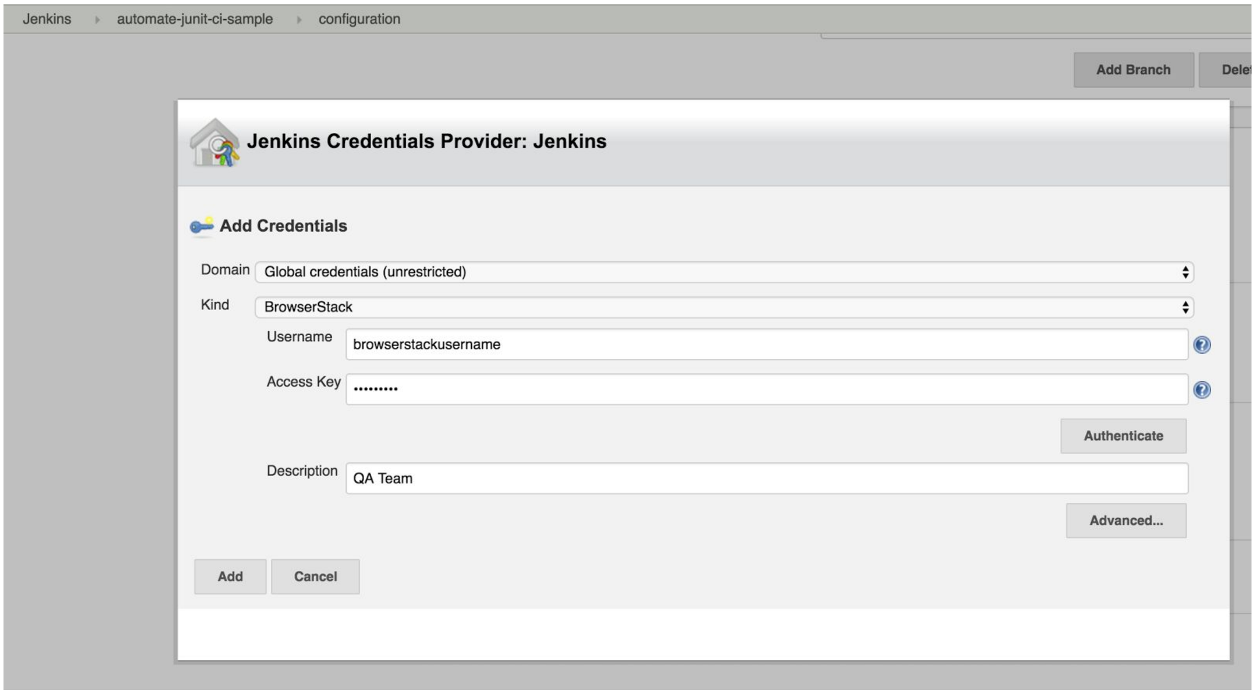
Build Environment

☑ BrowserStack Automate

BrowserStack Credentials

□ BrowserStack Local

Build



Jenkins Credentials Provider: Jenkins

Add Credentials

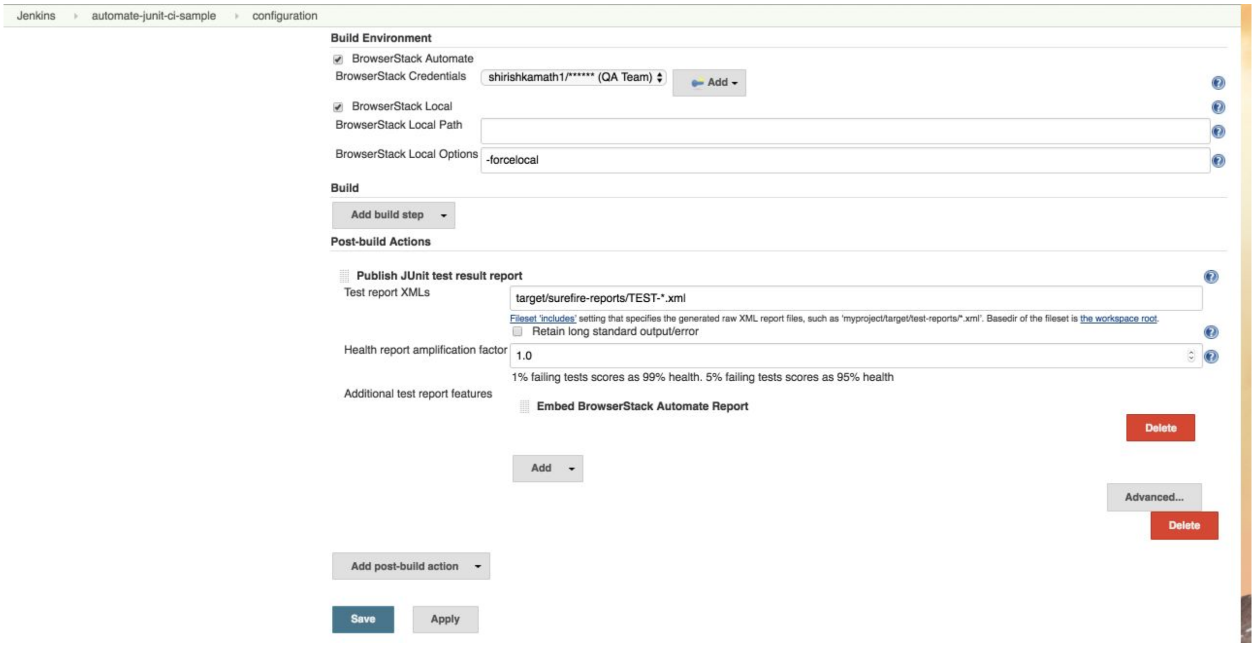
Domain: Global credentials (unrestricted)

Kind: BrowserStack

Username: browserstackusername

Access Key: •••••••••

Description: QA Team



Build Environment

☑ BrowserStack Automate

BrowserStack Credentials: shirishkamath1/****** (QA Team)

☑ BrowserStack Local

BrowserStack Local Path:

BrowserStack Local Options: -forcelocal

Build

Post-build Actions

Publish JUnit test result report

Test report XMLs: target/surefire-reports/TEST-*.xml

Fileset 'includes' setting that specifies the generated raw XML report files, such as 'myproject/target/test-reports/*.xml'. Basedir of the fileset is the workspace root.

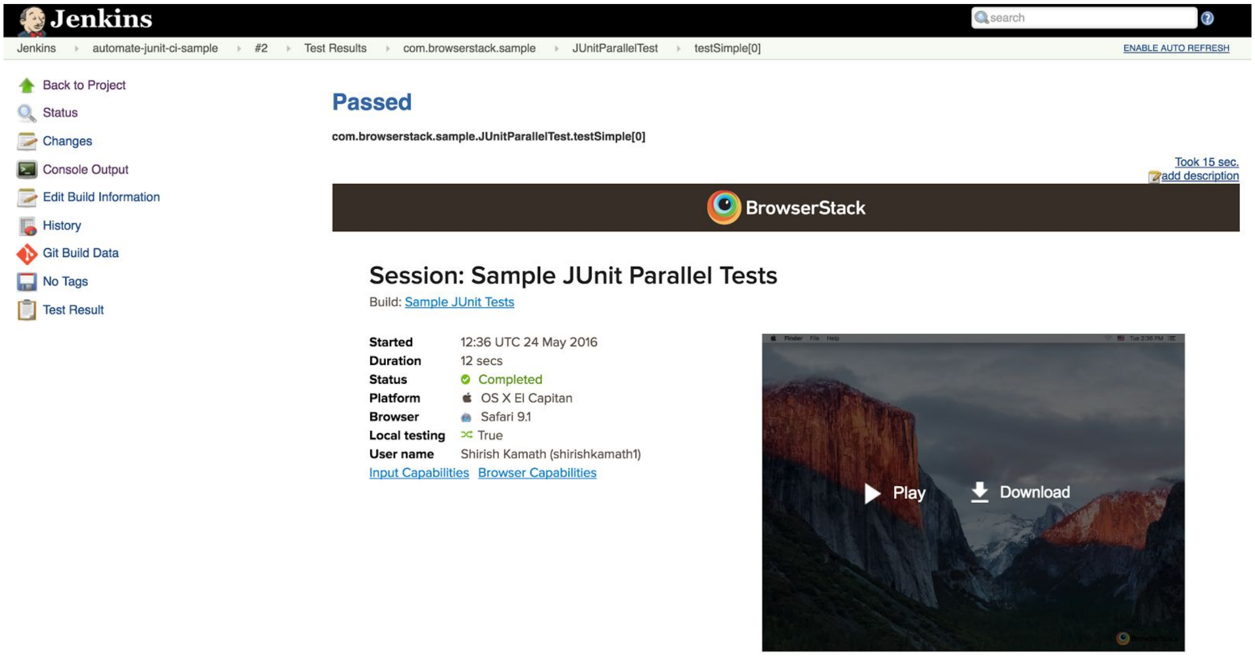
□ Retain long standard output/error

Health report amplification factor: 1.0

1% failing tests scores as 99% health. 5% failing tests scores as 95% health

Additional test report features: **Embed BrowserStack Automate Report**

BrowserStack Automate Report



Passed

com.browserstack.sample.JUnitParallelTest.testSimple[0]

Took 15 sec.
add description

Session: Sample JUnit Parallel Tests

Build: Sample JUnit Tests

Started 12:36 UTC 24 May 2016
Duration 12 secs
Status Completed
Platform OS X El Capitan
Browser Safari 9.1
Local testing True
User name Shirish Kamath (shirishkamath1)

Input Capabilities Browser Capabilities