

Selenium & Appium Java Online Training Preparations

Introduction

Your Perfecto training is coming up soon. This quick guide will get you connected and ready to start. Please complete all the steps and inform your manager that you are all setup 2 days before the training date. If you encounter any problem contact your trainer for assistance.

The training sessions begin with an assumption that all attendees have a working environment.

Training Knowledge Check

Java skills

Java knowledge is mandatory for our training; we require that some of the team is comfortable with Java.

Provide a list of the training participants to your Perfecto customer support manager who will mail them a short quiz designed to test their Java skills.

If the skills required are unavailable we can provide guidance and discuss how to get your team ramped up to work with Perfecto.

Training Agenda

Different organizations have teams with many type of skills. This short checklist aims to understand what your team knows so we can focus on the most appropriate content.

Below is the training agenda. Some of it is unique to Perfecto and mandatory. Some of it highlights general knowledge that may be familiar to some teams

Fill in the table below and mark the skill level of the team for each item on a scale of 1-5 with 1 being unfamiliar and 5 an expert level.

this needs to be filled once by the team manager for the entire team

#	Topic	Knowledge Level	Customer Comments
	Introduction to Perfecto		
	Environment Setup Troubleshooting		

Object Recognition –this module teaches objects from the ground up. Check the items your team already knows:		
<ul style="list-style-type: none"> • XML – structure, nodes, attributes. • XPath – introduction and concept. • Advanced XPath – contain statement, logic, XPath 2.0 		
Objects Continued		
<ul style="list-style-type: none"> • Automation contexts –Native, Web & Hybrid • Perfecto’s Object Spy 		
Using Selenium capabilities to leverage Perfecto.		
Visual Analysis		
Advanced Objects		
<ul style="list-style-type: none"> • Selenium methods for finding objects • XPath tips • Object Frameworks 		
Selenium waits –implied, implicit, fluent		
Perfecto’s Reporting application		

1: Lab Credentials & Logins

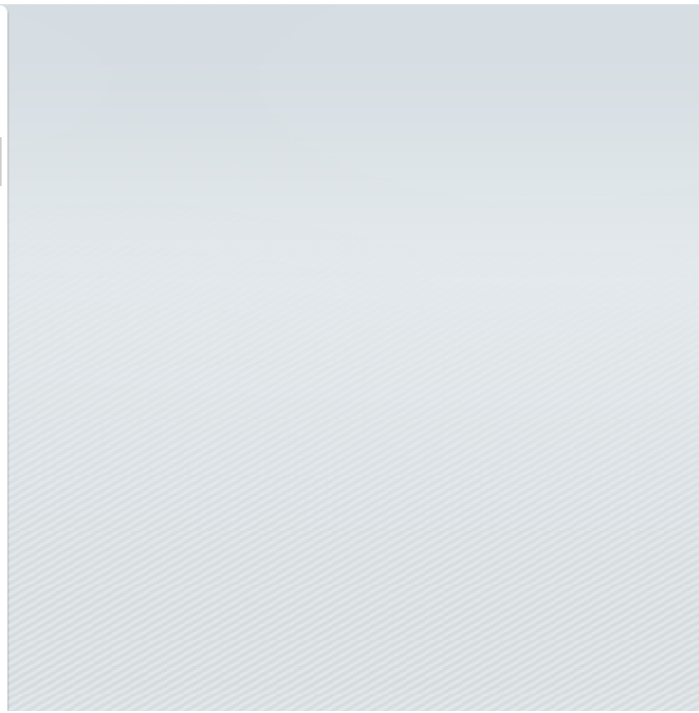
1. Contact your system administrator and request a username for Perfecto.
2. You will receive a username, password and the URL of your Perfecto Lab.
3. Open a browser and navigate to the URL.
4. You may need to install Flash - <https://get.adobe.com/flashplayer/>
5. After you login, click on the launch mobile and then select a device.
6. If this step fails, contact your system administrator or customer success manager.

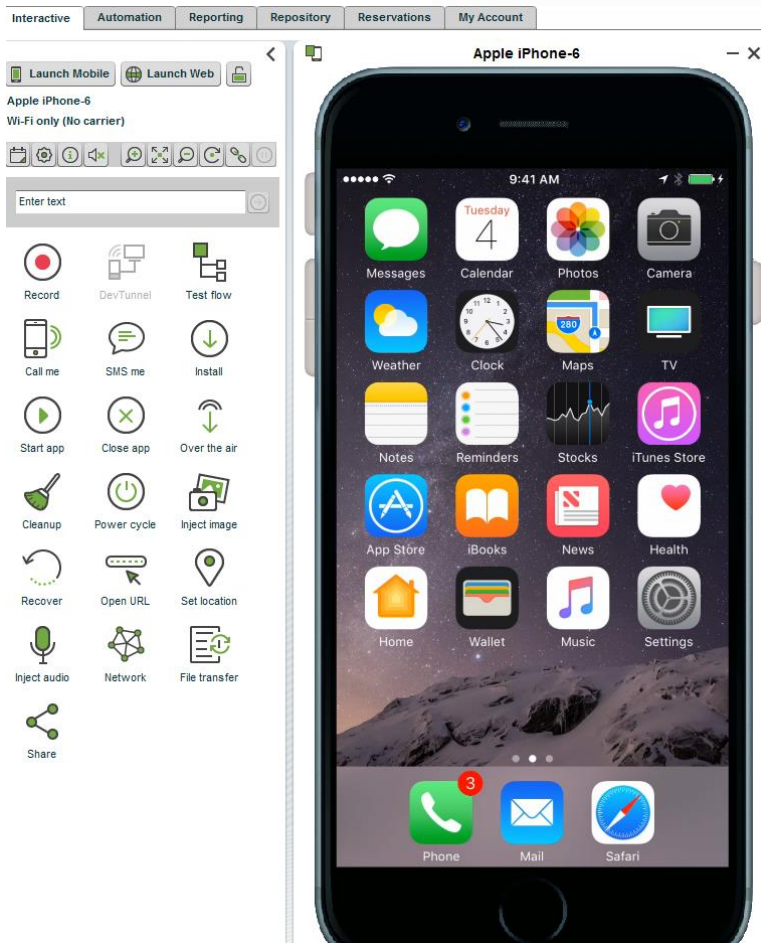
Launch Mobile Launch Web



Enter text

- Record
- DevTunnel
- Test flow
- Call me
- SMS me
- Install
- Start app
- Close app
- Over the air
- Cleanup
- Power cycle
- Inject image
- Recover
- Open URL
- Set location
- Inject audio
- Network
- File transfer
- Share





Congratulations!

Your Perfecto user is working, Flash is installed and you are ready for the next step.

2. Java

Java JRE & JDK must be installed on your workstation. If you are unsure if it is installed, open command line and type `java -version`.

If you see something similar to the below, you're good to go.

If not, download from <https://java.com/en/download/> and follow the online instructions until you can see Java working from the command line.

```
Windows Command Processor
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\System32>java -version
java version "1.8.0_131"
Java(TM) SE Runtime Environment (build 1.8.0_131-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.131-b11, mixed mode)
```

3. Java IDE

Writing tests with Perfecto is done by writing Selenium/Appium code in an IDE.

We'll cover all of that in the training.

For now, all you need is to select an IDE and set it up.

Perfecto supports the two major IDE's in the Market, Eclipse & IntelliJIDEA.

Both offer the same functionality. We recommend IntelliJIDEA but you can choose the IDE you prefer.

1. Select the IDE you prefer and follow the instructions in the document per IDE.



4. IntelliJ IDEA

1. Follow these instructions to download and install - <http://developers.perfectomobile.com/display/PD/IntelliJ+IDEA>
2. Open IntelliJ and validate it opens with no errors.

5. Eclipse

1. Download Eclipse from <https://www.eclipse.org/downloads/>
2. Download the Perfecto Eclipse plugin - <http://developers.perfectomobile.com/display/PD/Eclipse>
3. Open Eclipse and validate it opens with no errors.

Troubleshooting guide - <https://community.perfectomobile.com/series/18679-perfecto-lab-eclipse-plugin-setup-configuration>

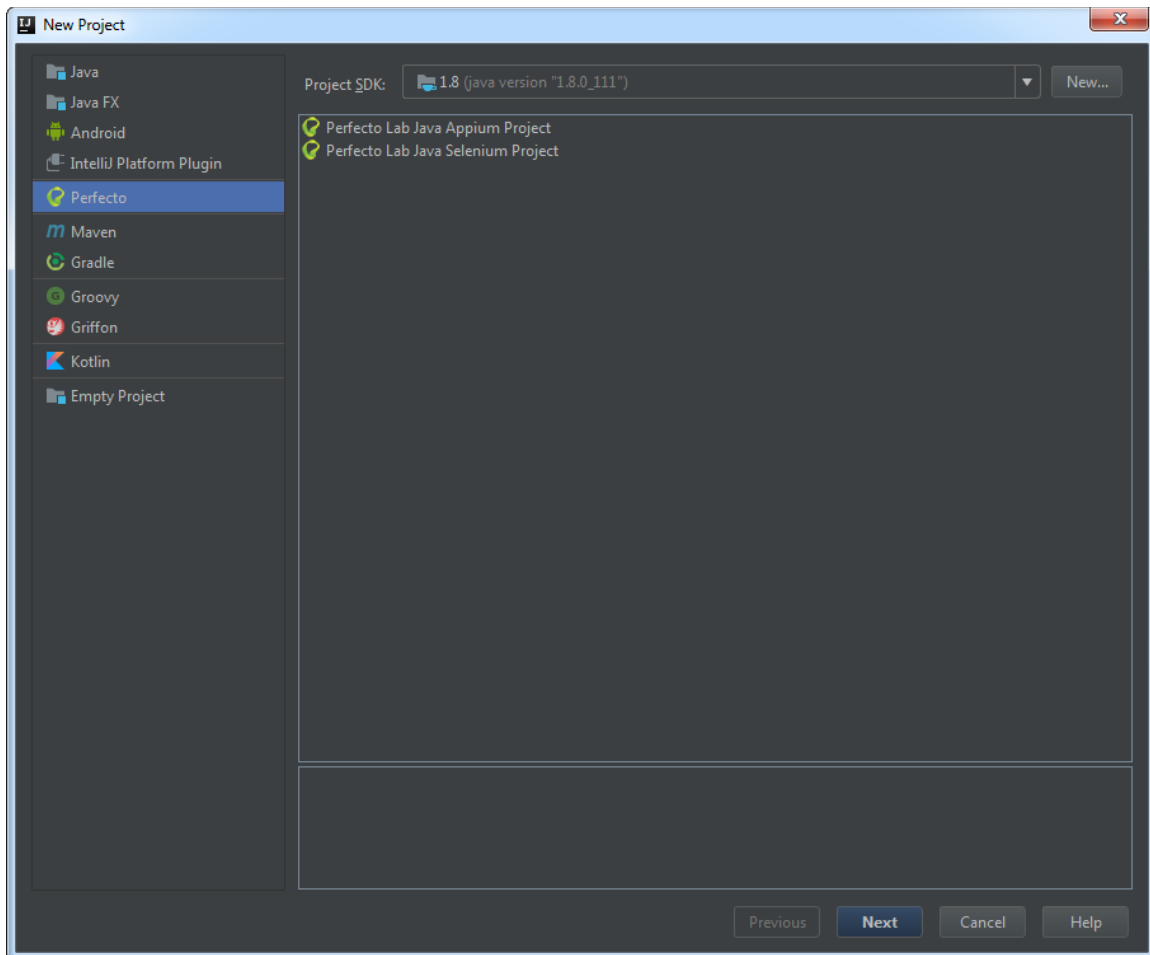
6. Running my first Test

We are now going to run a short test to make sure everything on your workstation is working properly. Don't worry if some or all of the below doesn't make sense. We'll be covering all of this in-depth in the training.

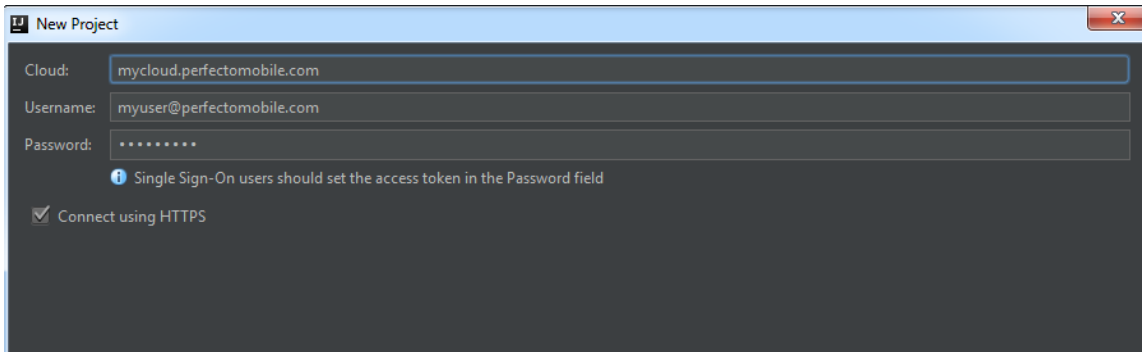
We'll start with a section on creating a new project per IDE, and then write and execute a short test.

7. First IntelliJ Project

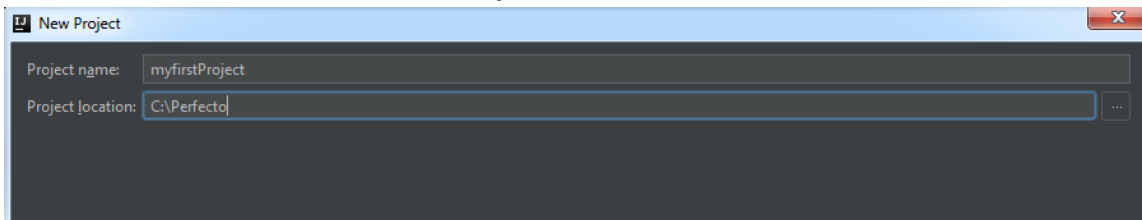
1. Create a new Project *File->New->Project* and select *Perfecto Lab Selenium Project*



2. Enter the username, password & Perfecto URL you used in step 1

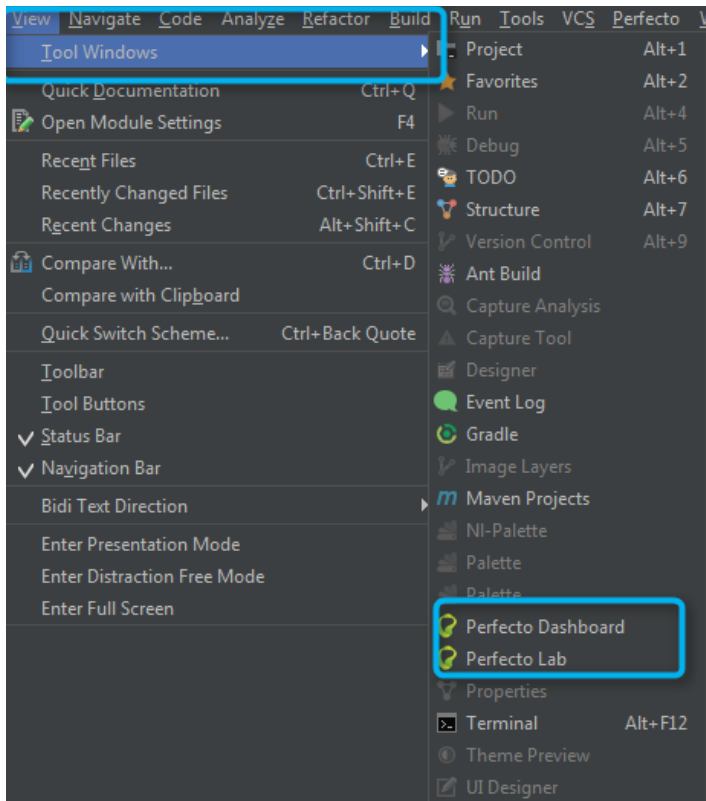


3. Select a name and location for the Project



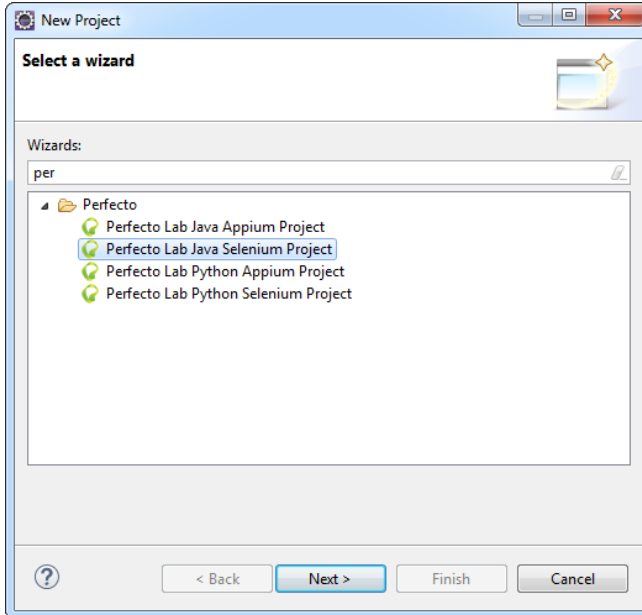
You now have an open project.

To view the Perfecto plugin interface, click on *view->Tool windows->Perfecto Lab*

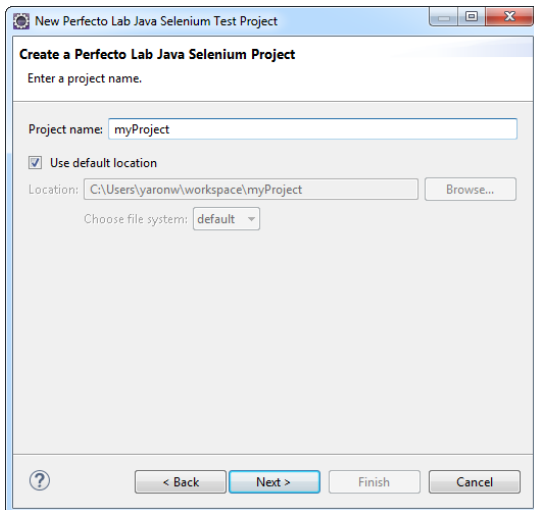


8. First Eclipse Project

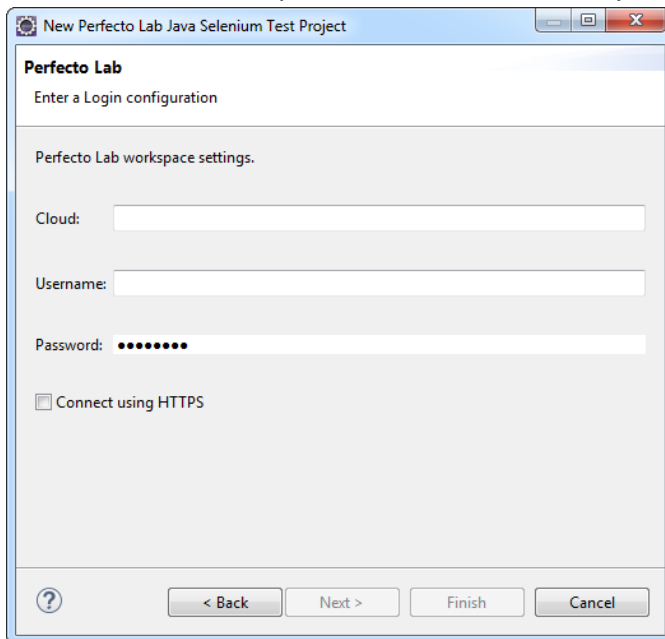
1. Create a new Project *File->New->Project* and select *Perfecto Lab Selenium Project*



2. Select a name for the project



3. Enter the username, password & Perfecto URL you used in step 1



9. Running My First Test

Open *RemoteWebDriverTest.java* and make the following changes:

1. Enter your username, password and Perfecto URL in the below lines:

```
String host = "myHost.perfectomobile.com";
capabilities.setCapability("user", "Enter your username?");
capabilities.setCapability("password", "Enter Password?");
```

2. Specify the device to use in the test (in this case, any Android or iOS device)

Add the line

```
capabilities.setCapability("platformName", "Android|iOS");
```

Place it as in the below screenshot and then comment out the *deviceName* capability.

```
//TODO: Change your device ID
//capabilities.setCapability("deviceName", "12345");
capabilities.setCapability("platformName", "Android|iOS");
```

3. Go to the *//write new code* and inside the try statement paste in:

```
reportiumClient.stepStart("Step 01");
driver.get("wikipedia.org");
Map<String, Object> params1 = new HashMap<>();
params1.put("content", "The free encyclopedia");
params1.put("timeout", "30");
Object result1 = driver.executeScript("mobile:checkpoint:text", params1);
```

This code goes to Wikipedia and then waits for the text “Wikipedia” to appear on the screen.

4. Print out the execution report URL

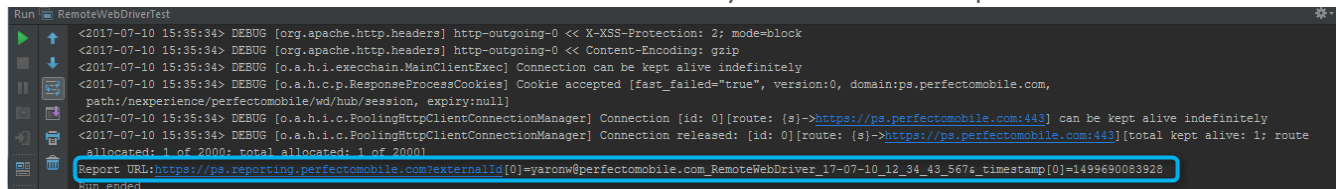
Under the line

```
String reportURL = reportiumClient.getReportUrl();
```

Add

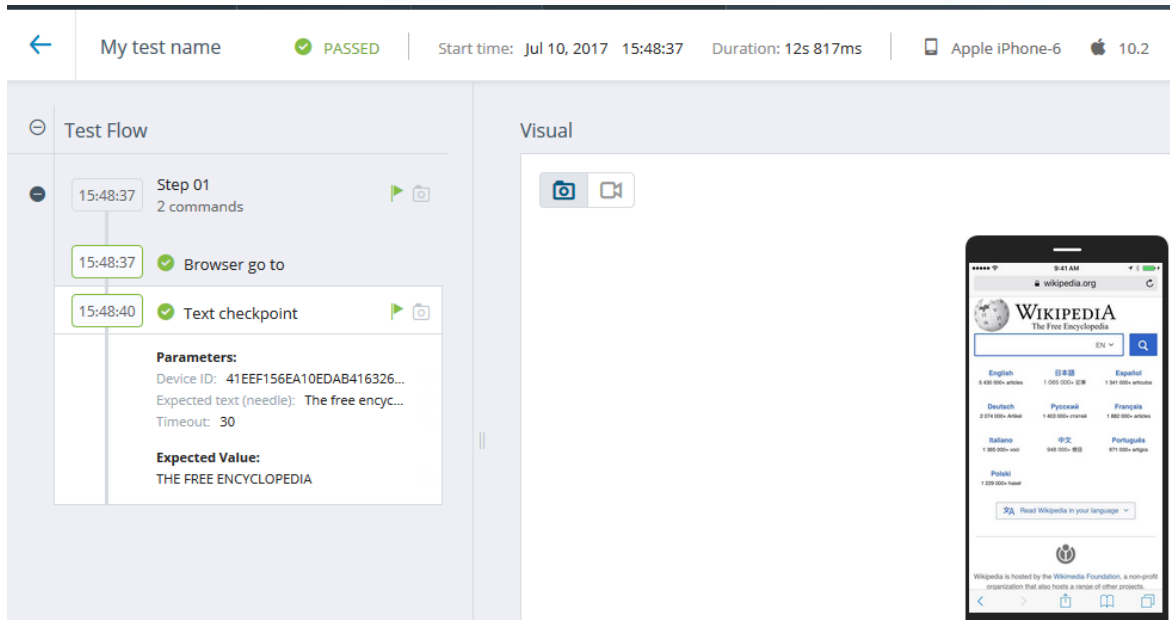
```
System.out.println("Report URL:" + reportURL);
```

5. Save the file and run it. In the execution console you should see a report URL where



The screenshot shows the execution console of an IDE. The console displays several debug messages from the Selenium WebDriver and ReportiumClient. The final line of the console output is a report URL, which is highlighted with a blue selection box. The report URL is: `Report URL:https://ps.reporting.perfectomobile.com?externalId[0]=yaronw@perfectomobile.com_RemoteWebDriver_17-07-10_12_34_43_567a_timestamp[0]=1499690083928`. The console also shows the message "Run ended" at the bottom.

you can view the report of the test.



10. XPath

Selenium & Appium scripts work with objects that are identified with an XPath expression. We'll cover this extensively in the training. Right now, all we need to do is ensure you have the Chrome browser which provides built in support for XPath.

You are now all setup with a working environment! We look forward to meeting you in the training.

11. Troubleshooting

There are several issues that could happen as you setup your environment, below are resources and info on common issues.

Resources - Developer site with guides - <http://developers.perfectomobile.com/>

Common issues

1. Proxy – in some organization access to the Internet is via a proxy. To configure - <https://developers.perfectomobile.com/display/TT/Using+Java+RemoteWebDriver+with+proxy>

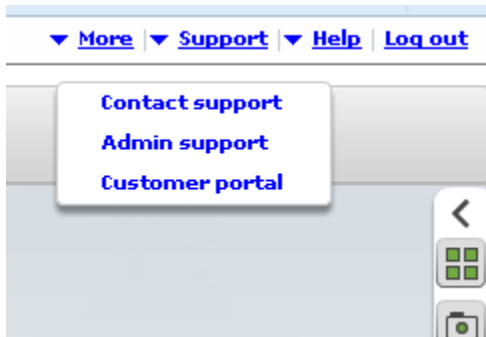
2. Network Requirements - Perfecto requires Internet connection of 250 kbps of bandwidth per device with low latency and network connectivity over TCP ports 1935 (RTMP), 80 (HTTP), and 443 (HTTPS).

Getting Help

If you encounter an issue you cannot solve, follow these instructions:

1. For issues relating to Perfecto credentials & permissions contact your system administrator or customer success manager.
2. For Java installation issues – contact your IT department.
3. For other issues open a case. In the case specify the following:
 - a. Your Trainer’s name and date of training
 - b. Details of the problem encountered.
 - c. Which steps in this guide succeeded and the step # of the problem.

Cases are opened online from the Perfecto application or in the below link.



<https://support.perfecto.io/>