

Quantum 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 types 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.

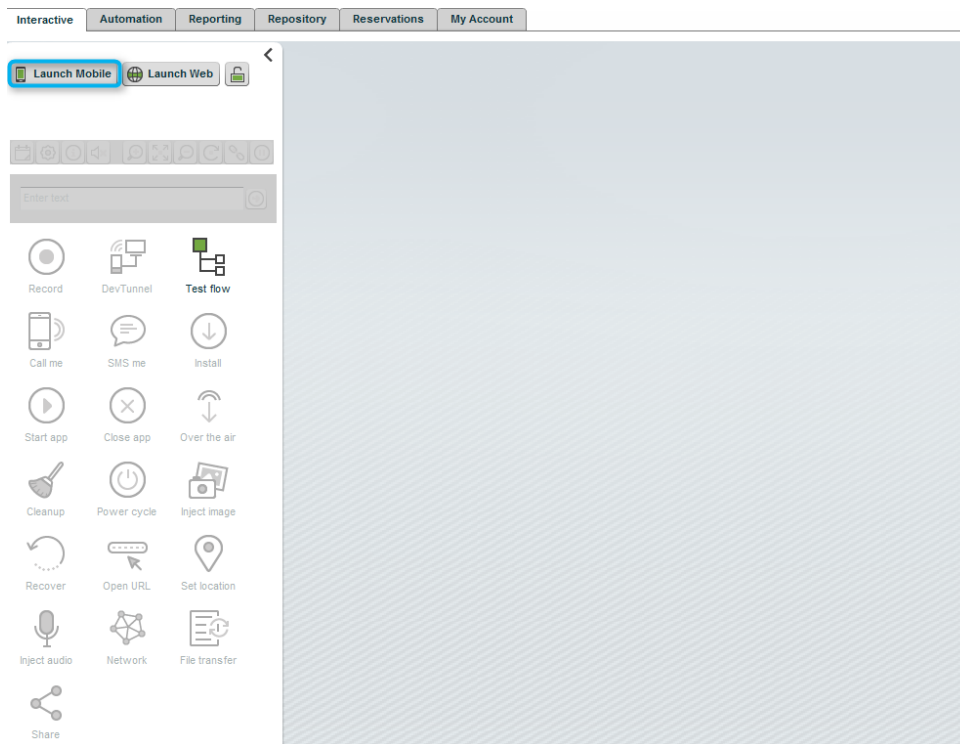
this needs to be filled once by the team manager for the entire team

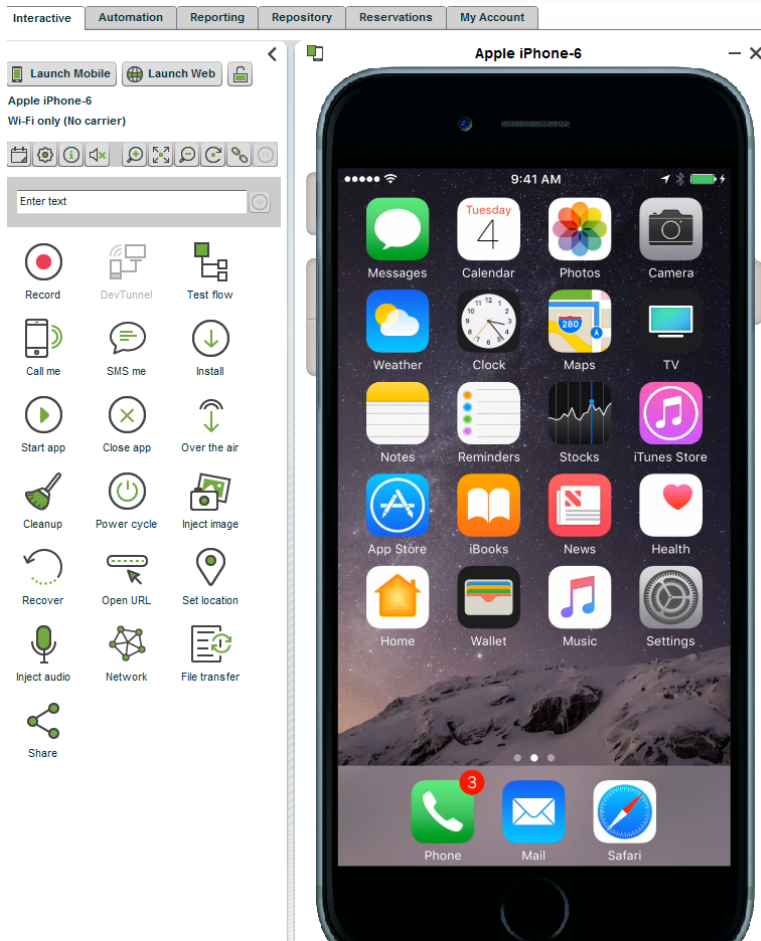
#	Topic	Knowledge Level	Customer Comments
	Introduction to Perfecto		
	Environment Setup Troubleshooting		
	Object Recognition – this module teaches objects from the ground up. Check the items your team already knows:		

	<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		
	Quantum Components: <ul style="list-style-type: none"> • Git • Maven • TestNG • Cucumber 		

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.





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.

```

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.

6. Quantum – Maven & Plugins

We will now setup the Quantum framework.

There is a lot of info online - <https://github.com/Project-Quantum/Quantum-Starter-Kit>

For the setup, all you need is to follow the below instructions:

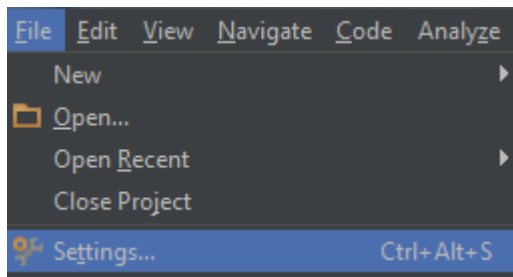
- Download & install Maven - <https://maven.apache.org/>

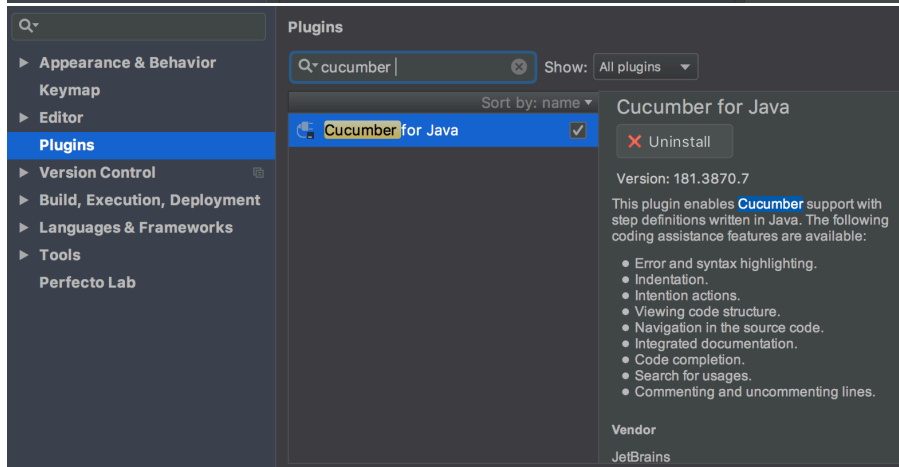
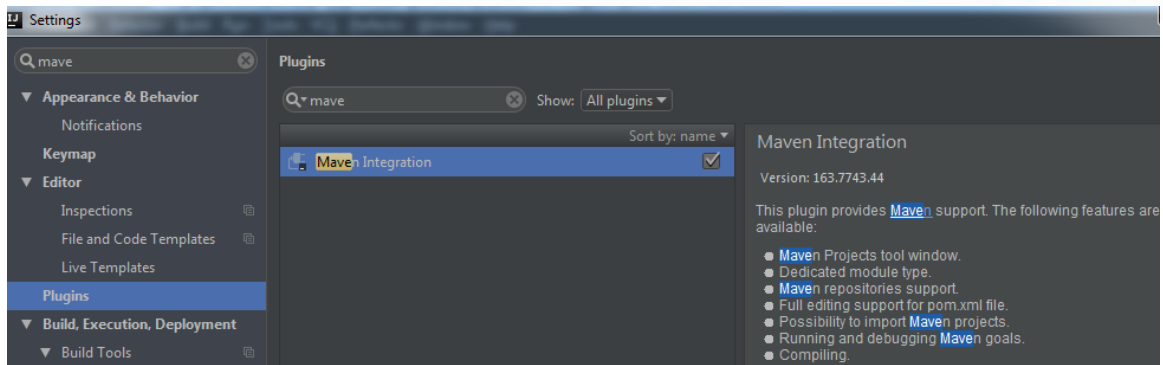
IntelliJ Users

Install the plugins

- [Maven Plugin for IDEA](#)
- [Cucumber Plugin \(Community version only\)](#)

To access the plugins dialog click on *file->settings* and then select *plugins*.





Eclipse Users

1. Maven Plugin - <http://marketplace.eclipse.org/content/m2e-connector-maven-dependency-plugin>
2. TestNG Plugin - <https://marketplace.eclipse.org/content/testng-eclipse>
3. QAF Cucumber Plugin.- <https://marketplace.eclipse.org/content/qaf-bdd-editors>

These plugins are all part of the Eclipse marketplace and can simply be dragged into eclipse for the installation window to pop up.

7. Quantum Setup

1. Go to <https://github.com/Project-Quantum/Quantum-Starter-Kit/> and click on clone or download, then download the zip file.

Clone or download ▾

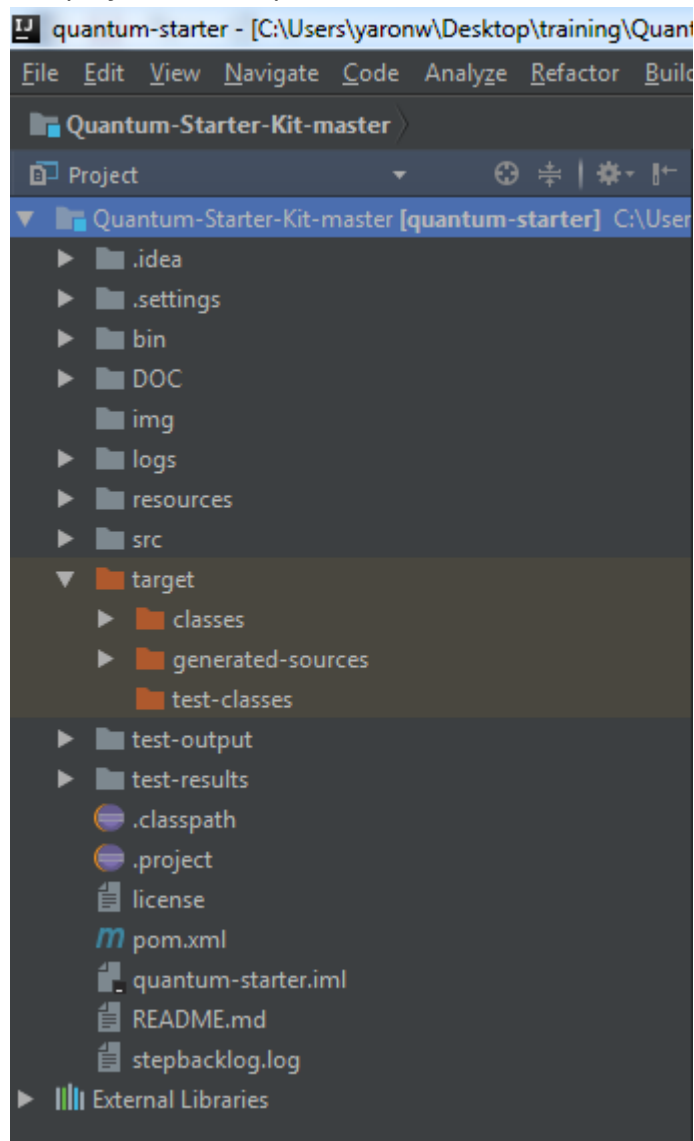
Git users can clone.

2. Open the project as a maven project. Users familiar with Maven can do this and skip to the next session. If you are new to maven, below is step by step instructions for each IDE.

IntelliJ

1. Go to the directory where you saved the project and right click the pom.xml file.
2. Select open with IntelliJ.

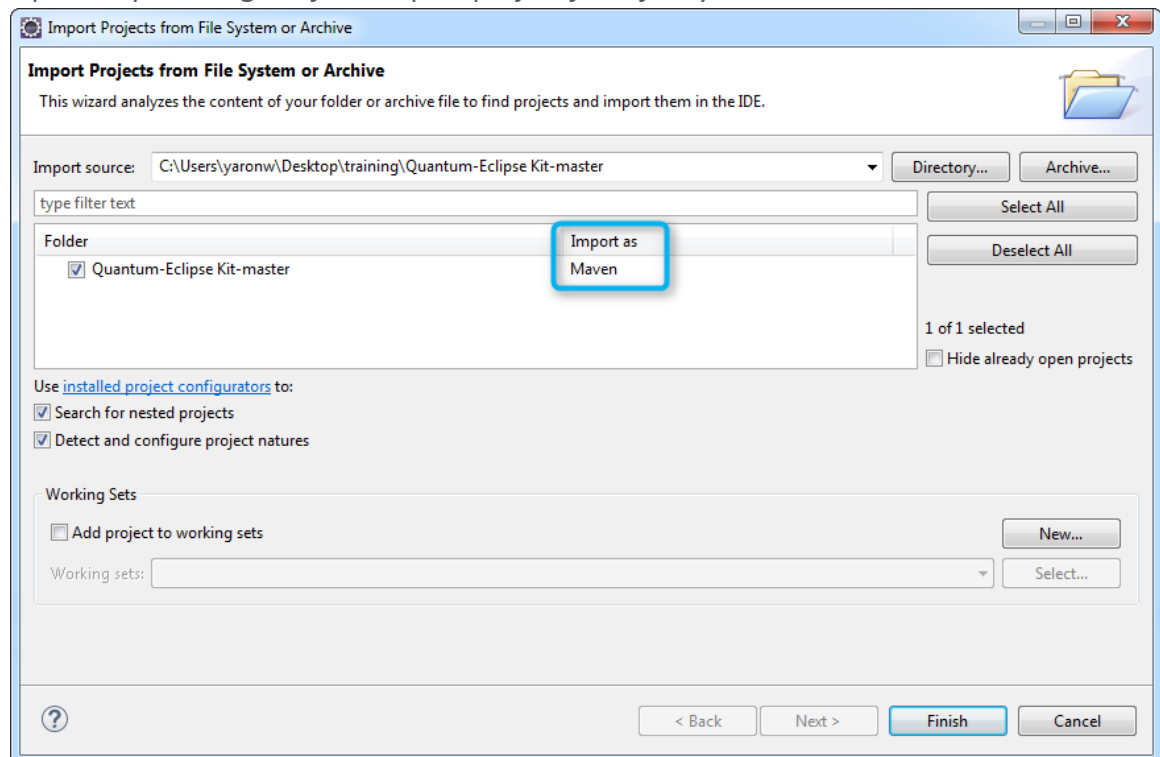
3. The project is now open in IntelliJ



4. Validate that the project is defined as a Maven project – right click the project name at the top, then select *Maven->reimport*
IntelliJ will reimport and notify if success.
If the Maven option does not appear, validate the Maven installation, the plugins and restart IntelliJ.

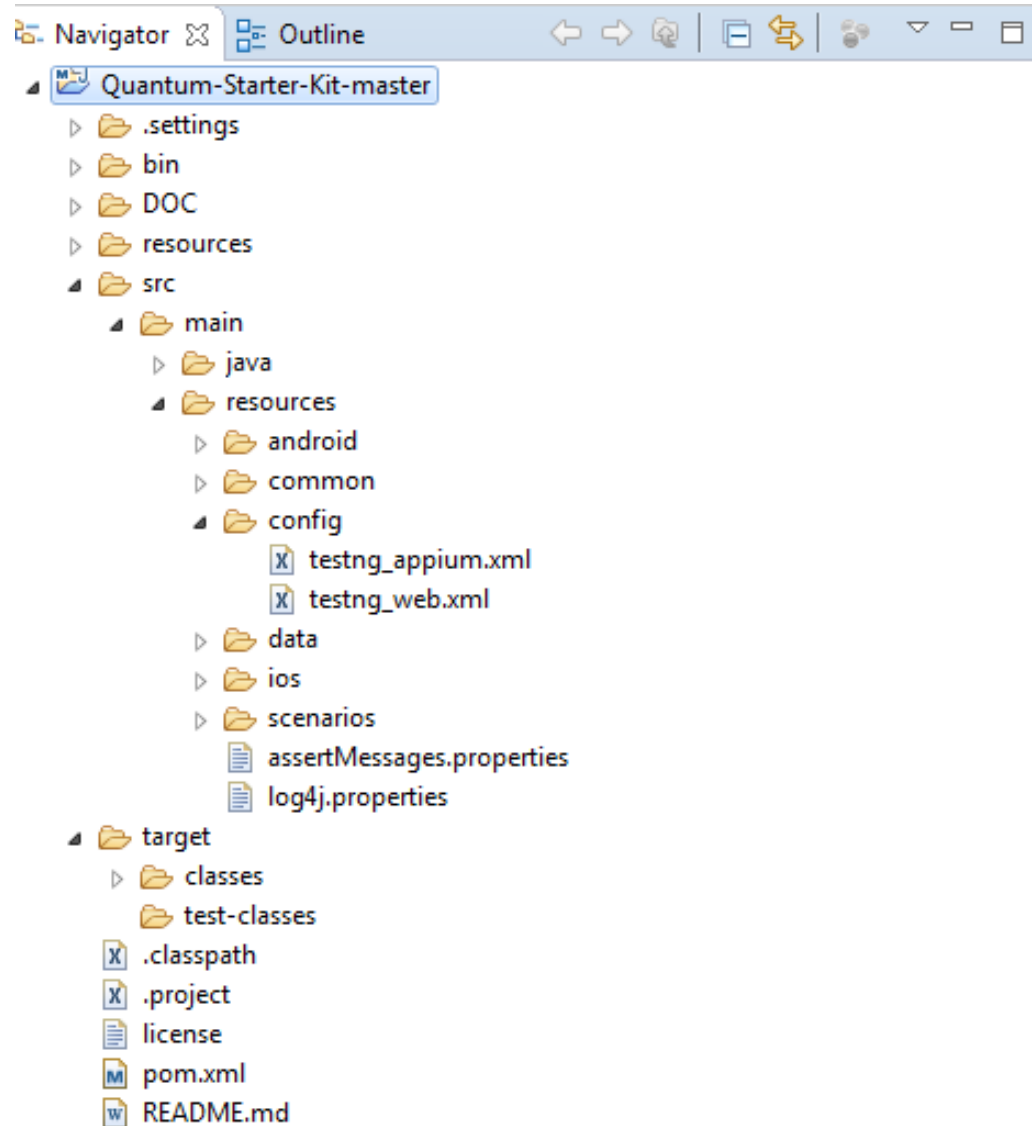
Eclipse

1. Open Eclipse and go to *file->Import project from file system*



2. Verify the project is verified as Maven. If it is not, ensure you have Maven and all the plugins installed and restart Eclipse before trying again.
3. Click Finish

4. You can now see all the files in the navigator



8. Running Test Script

Our project is ready. All we have left is to quickly run a sample test to validate our environment has everything it needs.

1. Open the application.properties file under the resources folder.

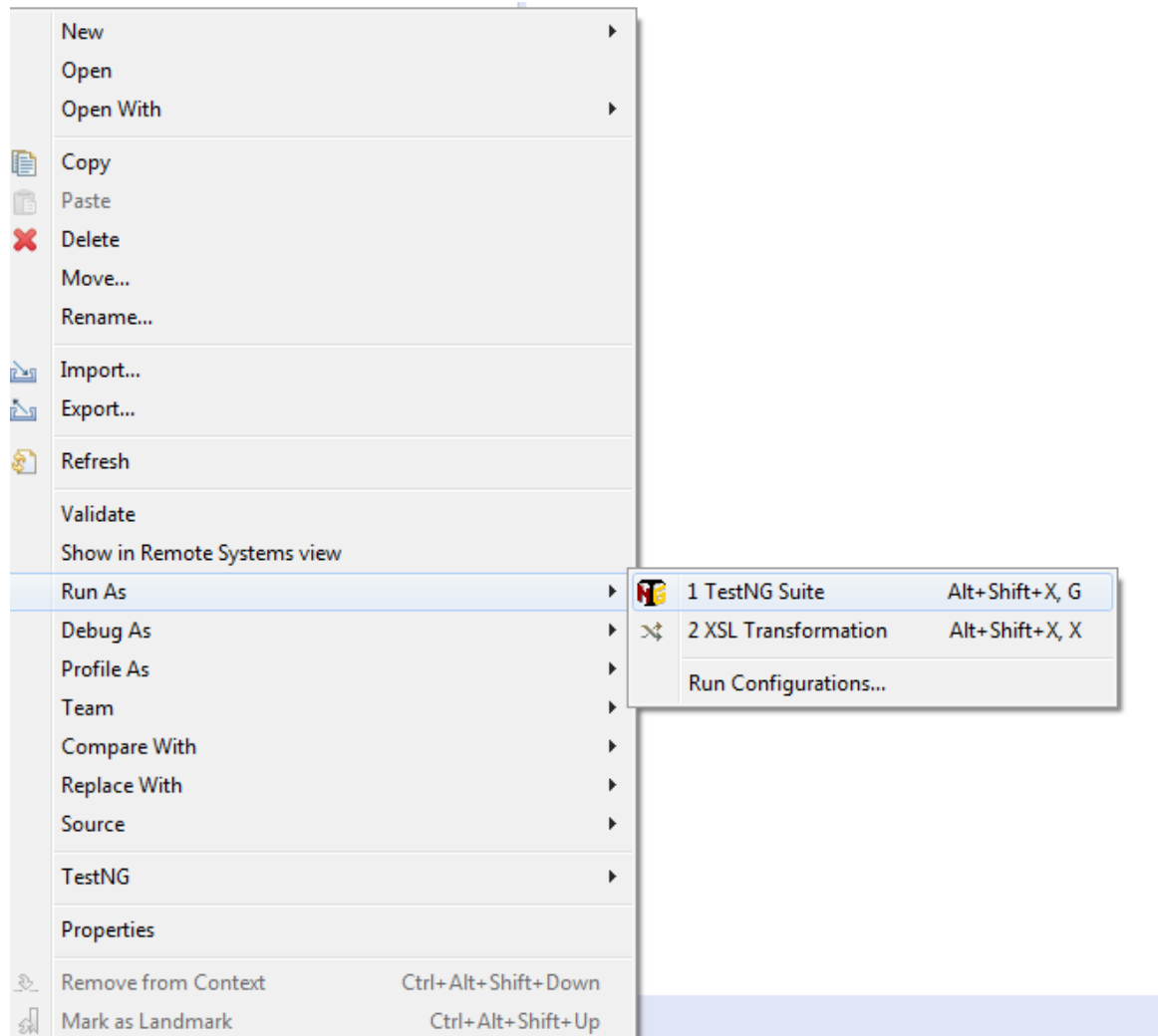
Use the security token property to set your token.

To generate the token -

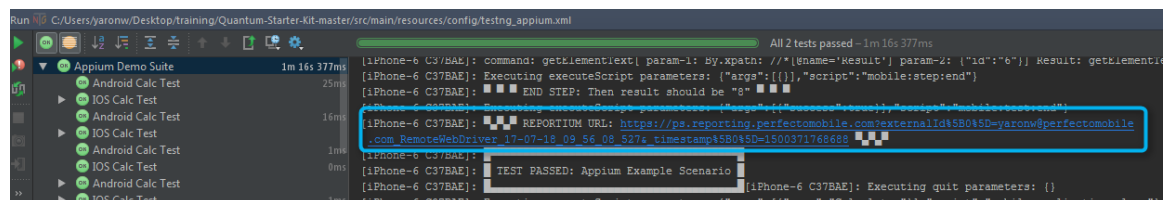
<https://developers.perfectomobile.com/display/PD/Generate+security+tokens>

```
perfecto.capabilities.securityToken=Mytoken
```

2. Go to the `testng_appium.xml` file located in `src/main/resources/config`
3. Right click the file and select run or run as TestNG Suite



4. In the console you will see that the script is running.
5. At the end of the execution, there will be a URL for the report in the console log



6. Open the report.

The screenshot displays the Appium Test Runner interface. At the top, a status bar indicates the test scenario is 'Appium Example Scenario' with a green checkmark and the word 'PASSED'. It also shows the start time as 'Jul 18, 2017 12:56:14', duration as '28s 72ms', and the device as 'Apple iPhone-6'.

The main interface is divided into two panels. The left panel, titled 'Test Flow', shows a sequence of steps in a vertical timeline:

- 12:56:15: Start application (green checkmark)
- 12:56:16: And I am using an AppiumDri... (0 command)
- 12:56:16: When add "3" to "5" (2 commands)
- 12:56:16: Application.Element.Find (green checkmark)

The 'Application.Element.Find' step is expanded, showing the following details:

- Time:** Duration: 4s 160ms
- Parameters:**
 - Device ID: C37BAE1934AE7DD0AE335...
 - Element identifier: 3
 - By: Name
 - Timeout: 0
 - Automation framework: Appium
 - Output format: Detailed
 - Use cache: Use
- Result Data:**

The right panel, titled 'Visual', shows a visual representation of the test. It includes a camera icon and a video player. Below the video player, it shows the step 'When add "3" to "5" | Application.Element.Find' with a green checkmark. To the right of the video player is a screenshot of an iPhone screen displaying a calculator app with the number '3' on the screen.

That's it! Your Quantum framework is setup and ready to go.

9. 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.

10. Troubleshooting

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

Resources

1. Developer site with guides - <http://developers.perfectomobile.com/>
2. Quantum guide - <https://github.com/Project-Quantum/Quantum-Starter-Kit>

Common issues

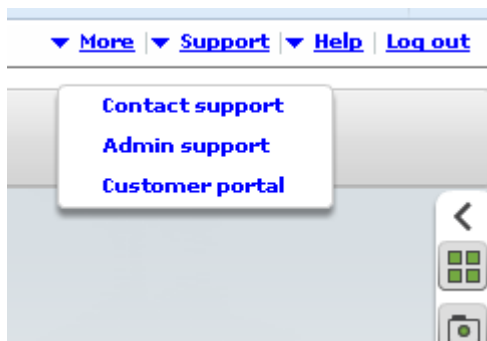
1. Proxy – in some organization access to the Internet is via a proxy. To configure - <https://developers.perfectomobile.com/display/TT/Using+Java+RemoteWebDriver+with+proxy>
2. Network Requirements - Perfecto requires Internet connection of 250 kbps of bandwidth per device with low latency and network 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/>