



Download, Setup and Running the Selenium code example for AT&T

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Test Scenario

This code sample is to show the automation script entering text into editor when creating an entry for a blog.

Scenario:

- 1) Load the URL and the blogs component.
- 2) Log into Connections with a valid username/password combination.
- 3) Create a blog.
- 4) Create an entry and enter text into the text editor and then save the entry.

For typing in the editor we use native keypress to enter the text and we have a custom method for entering the text.

How to setup, install and run Selenium testcases with Eclipse

Download Instructions

Project code is included as part of the package – see the folder called Code

Eclipse IDE for Java Developers, Indigo SR1 can be downloaded from here: [Eclipse Indigo Download](#)

Ensure that this is the Indigo SR1 version (I am assuming win32 environment, windows – if different please check the main downloads page for the version that suits your environment).

Selenium can be downloaded from here: [Selenium Server Download](#)

Selenium Server (formerly the Selenium RC Server)

The Selenium Server is needed in order to run either Selenium RC style scripts or Remote Selenium Webdriver ones. The 2.x server is a drop-in replacement for the old Selenium RC server and is designed to be backwards compatible with your existing infrastructure.

Download version [2.11.0](#)

The selenium server is updated roughly once a month so the version number might be different that this screenshot.

Setup Instructions

There should be 3 folders that were extracted with this demo - Code, Documentation and License.

Next we need to setup Eclipse. You downloaded the application earlier – extract the contents to a location on your hard drive ([c:\eclipse](#) is recommended but it can be any location).

Please ensure that JAVA is installed on your machine before completing the following steps:

1) Go to start/run and type cmd and the enter. When the window opens then type java -version. If Java is installed then a message will appear similar to this:

java version "1.6.0_29"

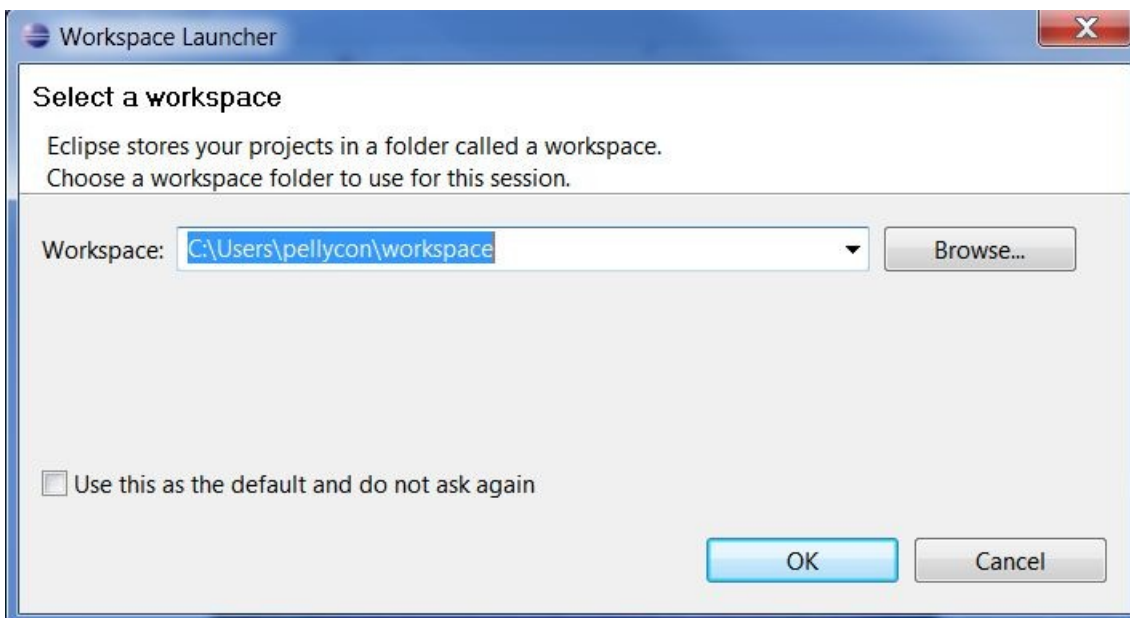
Java(TM) SE Runtime Environment (build 1.6.0_29-b11)

Java HotSpot(TM) Client VM (build 20.4-b02, mixed mode, sharing)

If Java is not install check with IT Admin to find where you can get an approved version of java.

Java 6 is the current version that we use but this code example should work fine on Java 7.

Double click on eclipse.exe and the application will launch, you will be asked to create a workspace:



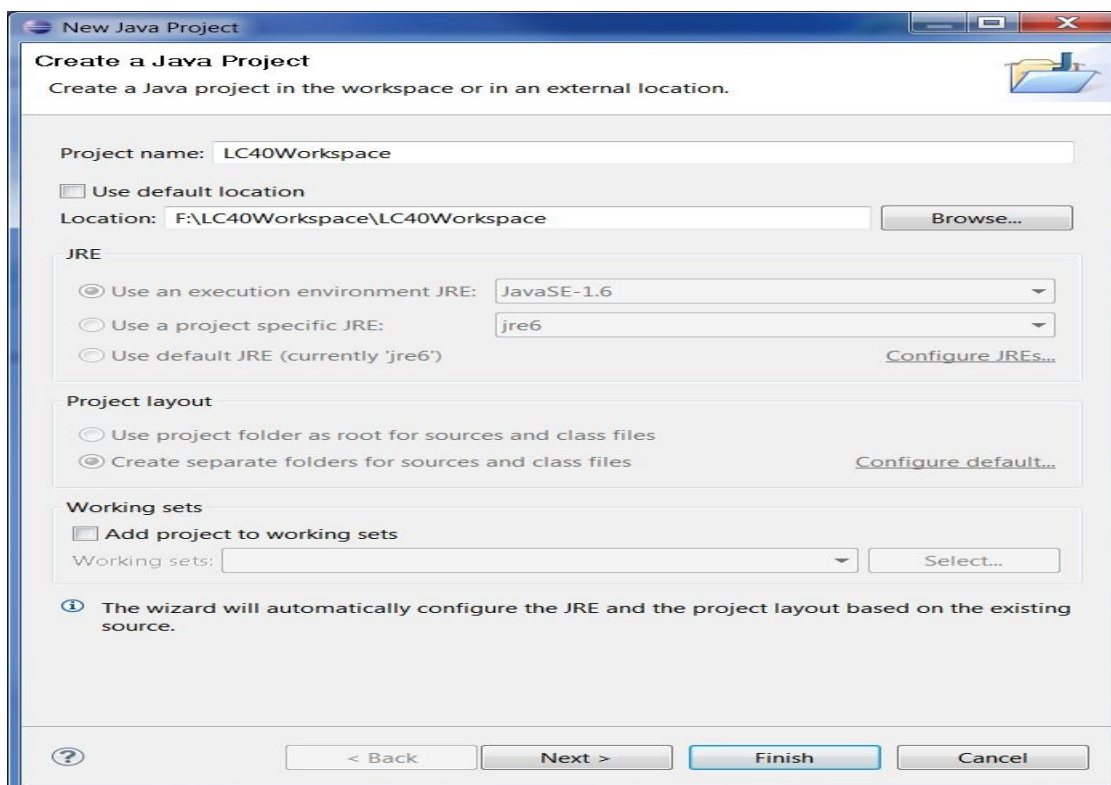
You can choose the default option or choose a location of your choosing. Click OK when done.

When running Eclipse for the first time you are greeted with a Welcome screen – please close this.

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Next, you will create a Java Project. From the File menu choose New/Java Project.

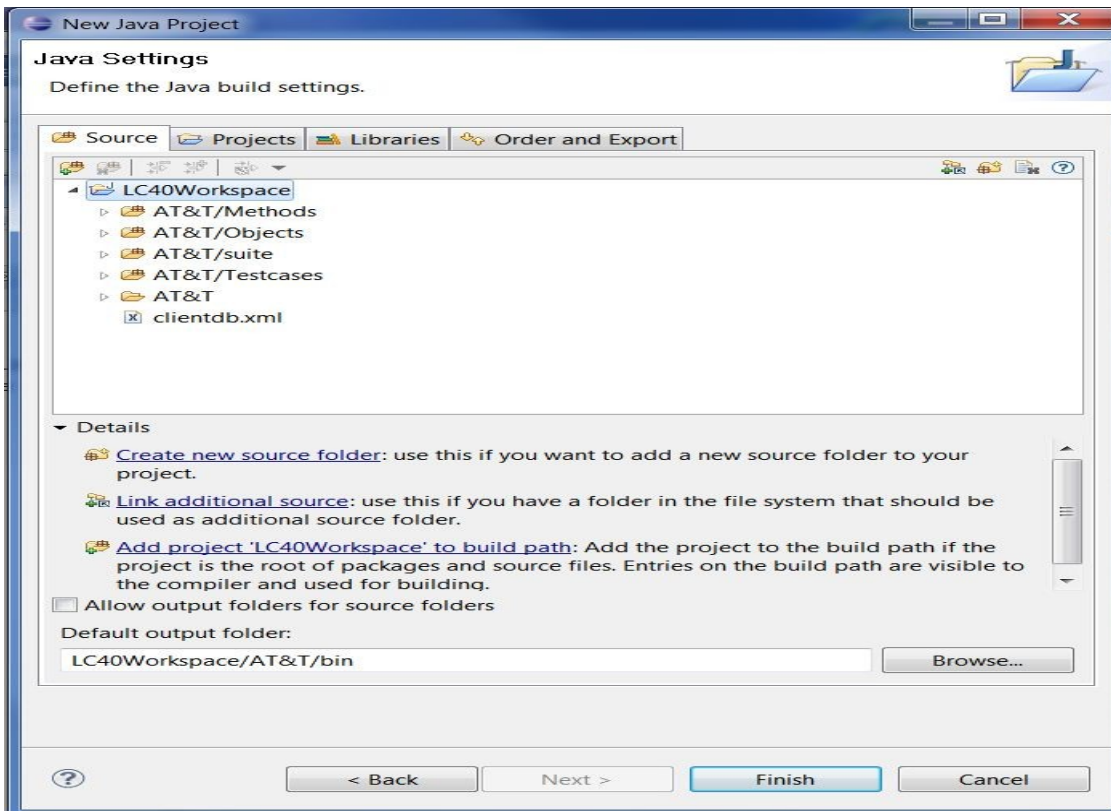


Uncheck Use default location and then using the Browse button go to the location that you

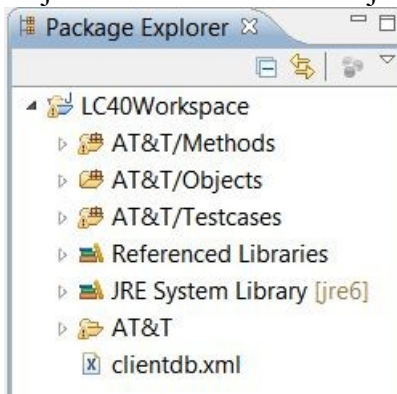
How to setup, install and run Selenium testcases with Eclipse

downloaded the project code to. Sample location used in screenshot. Use the default JRE (if you had to install JAVA earlier then you can select this using the Use project specific JRE option) and click

Next.



The different source folders are shown so you can click finish and the Project will be created. Project is loaded into the Project Explorer.



Eclipse is now setup. Next step is to get the selenium server running.

Setup of Selenium

Create a folder on C:\ drive called SeleniumServer. Inside this folder create another folder called Screenshots. The screenshots that are captured during test execution are stored there.

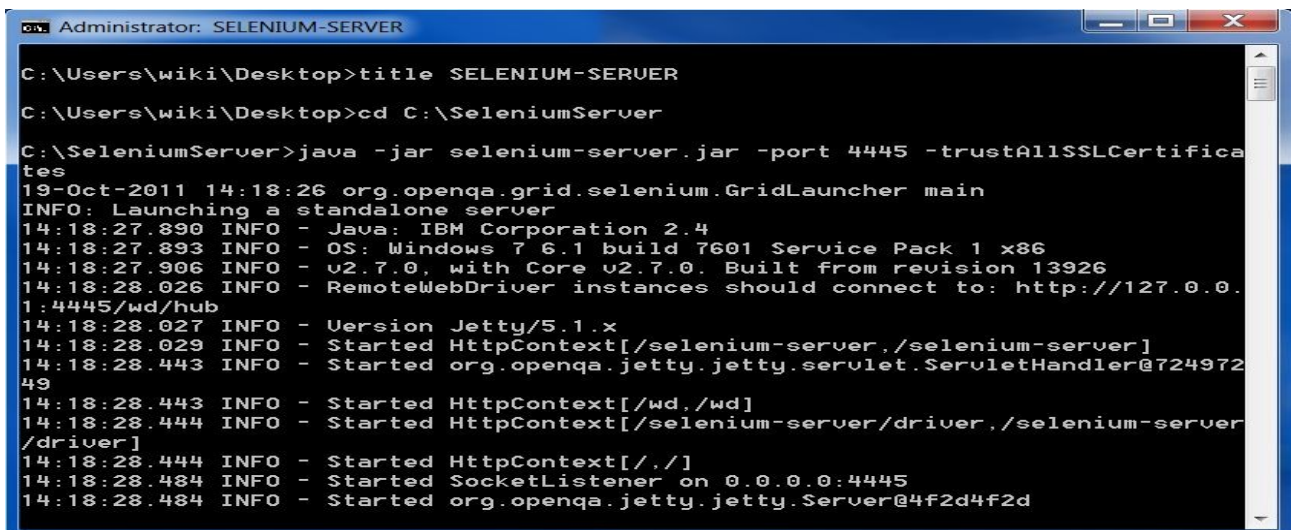
The selenium server jar that you downloaded earlier should be copied to C:\SeleniumServer and rename it to selenium-server.jar

Create a batch File to run the Selenium Server:

Open Notepad and copy and paste the following lines into the editor:

```
title SELENIUM-SERVER
cd C:\SeleniumServer
java -jar selenium-server.jar -port 4445 -trustAllSSLCertificates
```

SaveAs SeleniumServer.bat (should save as a batch file). Save to your desktop. Double click the batch file and Selenium Server should start up.



```
Administrator: SELENIUM-SERVER

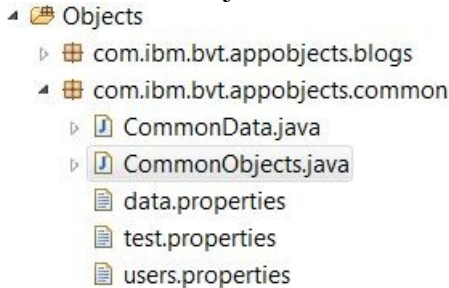
C:\Users\wiki\Desktop>title SELENIUM-SERVER
C:\Users\wiki\Desktop>cd C:\SeleniumServer
C:\SeleniumServer>java -jar selenium-server.jar -port 4445 -trustAllSSLCertificates
19-Oct-2011 14:18:26 org.openqa.grid.selenium.GridLauncher main
INFO: Launching a standalone server
14:18:27.890 INFO - Java: IBM Corporation 2.4
14:18:27.893 INFO - OS: Windows 7 6.1 build 7601 Service Pack 1 x86
14:18:27.906 INFO - v2.7.0, with Core v2.7.0. Built from revision 13926
14:18:28.026 INFO - RemoteWebDriver instances should connect to: http://127.0.0.
1:4445/wd/hub
14:18:28.027 INFO - Version Jetty/5.1.x
14:18:28.029 INFO - Started HttpContext[/selenium-server./selenium-server]
14:18:28.443 INFO - Started org.openqa.jetty.jetty.servlet.ServletHandler@724972
49
14:18:28.443 INFO - Started HttpContext[/wd./wd]
14:18:28.444 INFO - Started HttpContext[/selenium-server/driver./selenium-server
/driver]
14:18:28.444 INFO - Started HttpContext[/./]
14:18:28.484 INFO - Started SocketListener on 0.0.0.0:4445
14:18:28.484 INFO - Started org.openqa.jetty.jetty.Server@4f2d4f2d
```

If the dos box flashes and then closes then most likely you have not copied over the selenium-server.jar or renamed it. Another possible reason is that JAVA is still not installed on your system or there is no JAVA_HOME in the environmental variables. Otherwise, you should see output similar to the screenshot.

Configuration

How to change the URL/Port/Component/Browser: test.properties

To make changes to the URL/Component/Browser then you need to open the test.properties which is stored in the Objects source folder



Double click on the test.properties to open.

```
# URL of target web application to test. E.g. http://localhost:9080
test_url=http://localhost:9080

# Enter the server which the Selenium tests will run against
test_server=localhost

# Enter the port number that your Selenium Server is running e.g. 4445
test_port=4445

# Enter the name of the component that you want to test
test_component_blogs=blogs/roller-ui/homepage?lang=en
test_component_wikis=wikis/home?lang=en

# To run against FF use *chrome/firefox
# To run against IE use *iehta/iexplore
test_browser=*iexplore
```

If you are not testing on http://localhost:9080/ then you would need to change the test_url and

test_url=http://localhost:9080

test_component_blogs=blogs/roller-ui/homepage?lang=en

The component name might need to be changed to reflect your environment

The test_server is the location where the selenium server is located - if you are running Selenium Server on the same machine machine then use localhost. If you are running on a remote machine either give the domain name or IP address to that machine:

test_server=1.1.1.1 (mock ip address)

test_server=conor.mul.ie.ibm.com (mock domain address)

The test_port can be changed to whatever you like but if you do this then you will need to change the SeleniumServer.bat that you created earlier:

```
title SELENIUM-SERVER
cd C:\SeleniumServer
```

How to setup, install and run Selenium testcases with Eclipse

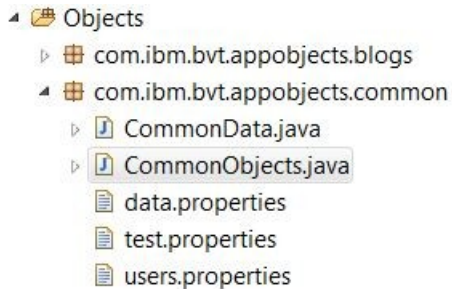
```
java -jar selenium-server.jar -port 4445 -trustAllSSLCertificates
```

You would need to change the -port 4445 to whatever is in the test.properties.

The last config item is test_browser, this can be changed to Firefox or Internet Explorer as desired. See the Syntax in the test.properties. You are now finished with the test.properties.

Where are the Users stored:

Provided for this demo code will be a user.properties stored in the Object source folder.



In IBM we connect to different LDAP's for users but I am providing an empty Username/Password for AT&T to populate with their users and passwords

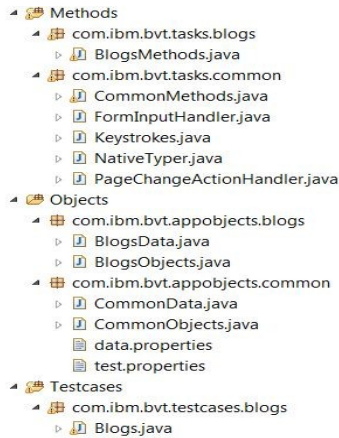
```
#List of users
test_user=conor

#Password
test_user_password=helloworld
```

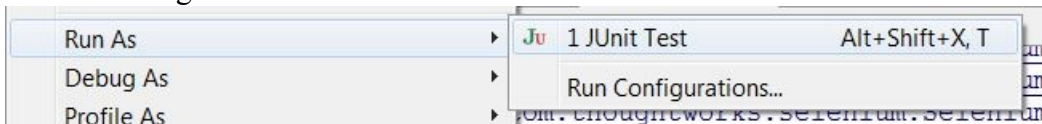
Ensure that you enter a valid username and password or login will fail. Username/Password shown are as an example. When you have entered your usernames and passwords then save the file.

How to run the Selenium testcases

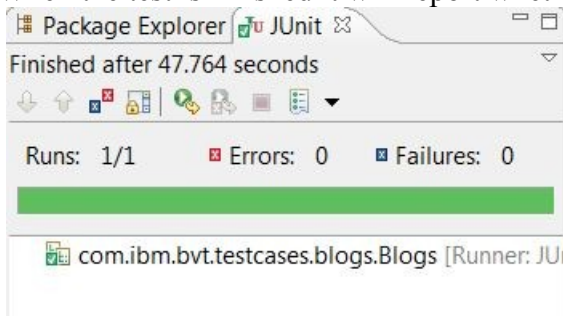
Expand the Testcase source folder:



Currently there is only 1 test class here – Blogs.java. Double click on this class to open it. To run the testcase right click and then choose Run As/JUnit.



The test will run against the server/port/component/browser that you defined in test.properties. When the test is finished it will report whether it passed or failed.



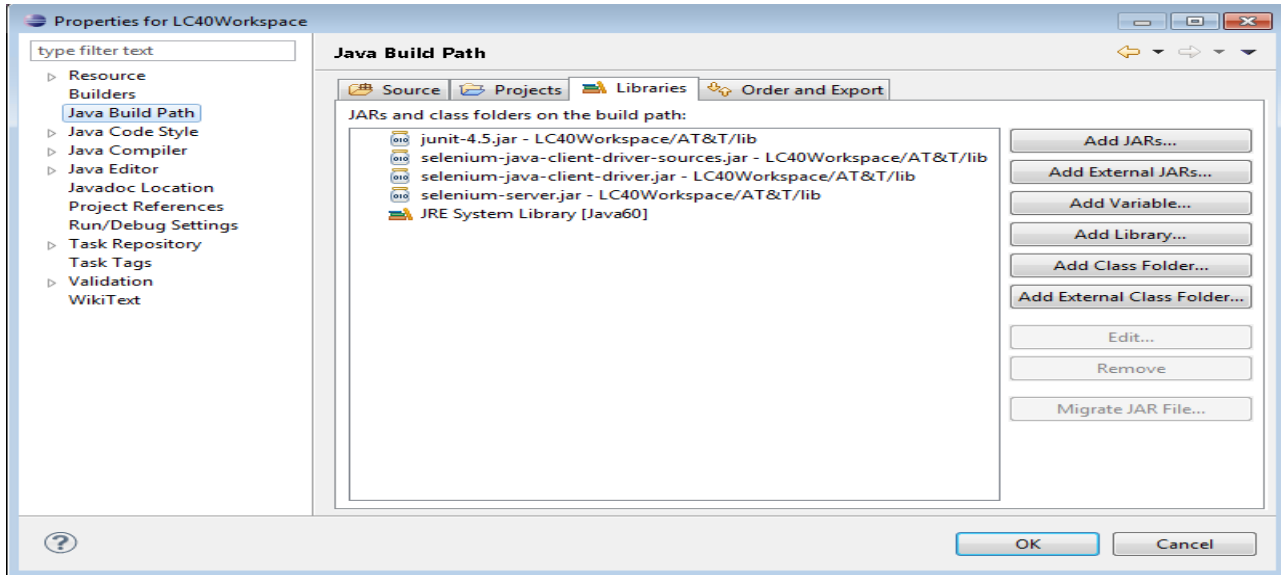
Known Issues:

If you run the tests with firefox set as the test_browser everything will run fine the first time. However, if you try to run the same test again then there will be errors, but if you run again it will pass. This is a bug in the latest version of Selenium/Junit.

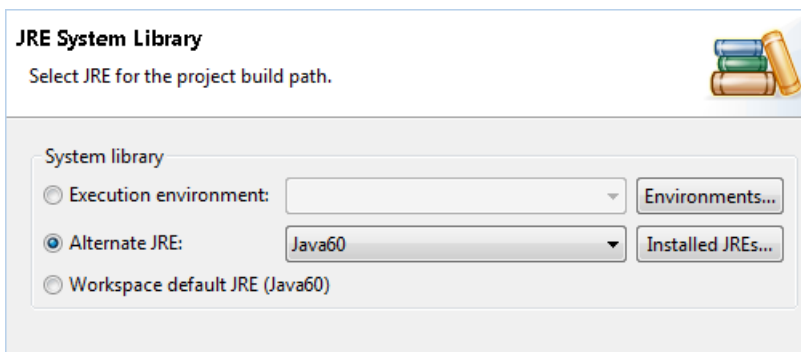
Workaround: kill the SeleniumServer instance after each test run and restart or just run the tests twice. This is not an issue with IE.

TroubleShooting

The most likely problem that you will encounter is that there is a problem with Java.



Earlier in this document there was a section on installing Java. The most likely problem is that there are a number of versions of Java installed. Click Project/Properties and then choose Java Build Path and choose Libraries. In the screenshot Java60 is installed and this would be the correct version. If you have a version earlier than this then click Edit.



Select Alternate JRE and then click the Installed JREs... button. This will then show the different versions of Java that are installed on your machine – please select Java60 or above.

Browser issues:

IE:

Disable popup blocker in IE settings

Disable Protected Mode in IE settings

FF should work without any changes to be made in the settings. If this is not the case then check how you started the selenium-server.bat – is -trustAllSSLCertificates included? If it is not then include and restart the selenium server.

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Other possible problems:

Can not connect to the Selenium service when trying to run the testcase? Check the port number in the selenium server batch file that you created earlier and then check the port number in the test.properties. These should match – if they do not then change them to match. You will need to restart your selenium server for the change to be effective.