



UI Testing using Robot and Selenium2Library

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Agenda

- Introduction
- Getting Started
- About Selenium2Library
- User Interface for the ODL Controller
- Basic Test Suite
- Discussion Time
- Conclusion



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Introduction



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Scope / Objective

The goal of this project is to create test suites using Robot and Selenium for testing the DLUX, web interface for the ODL controller and an interface for YANGUI.

The test suites will ensure the working of the DLUX service and the YANGUI modules.

Mentors

- Carol Sanders
- Luis Gomez



Getting Started



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Getting Started

- Installing and Running ODL Controller
- Installing features and Playing around with ODL
- Troubleshooting

- Installing Mininet and Playing around with Mininet

- Installing Robot Framework and Playing around with RIDE
- Becoming Familiar with the Robot code



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Getting Started

- Running the already present test suites to become familiar with the robot framework and testing
- Selenium2Library, how to use appropriate keywords.
- Writing test suites for testing the UI features.



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About Selenium2Library

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Selenium2Library

- Selenium2Library is a web testing library for Robot Framework.
- It uses the Selenium 2 (WebDriver) libraries internally to control a web browser.
- Selenium2Library runs tests in a real browser instance. It should work in most modern browsers and can be used with both Python and Jython interpreters.
- <http://rtomac.github.io/robotframework-selenium2library/doc/Selenium2Library.html>



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Installing latest Selenium2Library from source

- `wget https://pypi.python.org/packages/source/r/robotframework-selenium2library/robotframework-selenium2library-1.7.1.tar.gz`
- `tar -xvf robotframework-selenium2library-1.7.1.tar.gz`
- `cd robotframework-selenium2library-1.7.1`
- `python setup.py install`





User Interface for ODL



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User Interface for ODL

- GUI opens at: <http://localhost:8181/index.html>
- Features related to GUI:
 - odl-dlux-core -> basic GUI including topology application
 - odl-dlux-node -> node inventory application
 - odl-dlux-yangui -> YangUI application to browse Yang RESTCONF interface
 - odl-dlux-yangvisualizer -> YangVisualizer application to browse yang models
- Most applications in OpenDaylight bring odl-dlux-core if started with -ui :
 - Example: `feature:install odl-l2switch-switch-ui`



OpenDaylight Dlux x

localhost:8181/index.html#/topology

Apps Chrome

OPEN DAYLIGHT Topology

Topology

- Nodes
- Yang UI
- Yang Visualizer

Controls

Reload

```
graph TD; H1[host:56:24:77:4b:64:0d] --- OF2[openflow:2]; H2[host:a2:b1:e0:52:6b:d9] --- OF2; OF2 --- OF1[openflow:1]; OF1 --- OF3[openflow:3]; H3[host:5e:1b:04:05:0c:34] --- OF3; H4[host:5a:d2:f3:bc:f6:a7] --- OF3;
```



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Basic Test Suite



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Basic test suite

- This test suite is written to test the showing up of the DLUX service on a specified URL i.e., <http://localhost:8181/index.html> and the user is able to login properly with admin/admin.
- After login, the user is able to view the topology page with the specified URL, say <http://localhost:8181/index.html#/topology>





Discussion Time !!



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Discussion with the community

- Priority features you would like to test
- Test suites you are looking forward to see running in CI before the release of Beryllium



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Thank You



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