

# Pyforge Installation Guide

## Pyforge setup:

Pyforge is a python-based functional testing framework used by IG QA. It is also very useful in quickly configuring an environment representing a particular use-case.

## Install HomeBrew:

### install HomeBrew

```
15:10:05 2 $ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
==> This script will install:
```

If this error occurs, sadly you will have to install xcode (1hr?), open and accept licence:

### install HomeBrew error

```
: No such update
No updates are available.
==> /usr/bin/sudo /bin/rm -f /tmp/.com.apple.dt.CommandLineTools.installondemand.in-progress
==> /usr/bin/sudo /usr/bin/xcode-select --switch /Library/Developer/CommandLineTools
xcode-select: error: invalid developer directory '/Library/Developer/CommandLineTools'
Failed during: /usr/bin/sudo /usr/bin/xcode-select --switch /Library/Developer/CommandLineTools
```

You will then need to reinstall after xcode licence acceptance

### HomeBrew reinstall

```
15:37:23 16 $ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
...
==> Installation successful!

==> Homebrew has enabled anonymous aggregate user behaviour analytics.
Read the analytics documentation (and how to opt-out) here:
  https://docs.brew.sh/Analytics.html

==> Next steps:
- Run `brew help` to get started
- Further documentation:
  https://docs.brew.sh
```

## Install python

### install python

```
15:40:24 18 $ brew install python
...
Pip and setuptools have been installed. To update them
  pip2 install --upgrade pip setuptools

You can install Python packages with
  pip2 install <package>

They will install into the site-package directory
  /usr/local/lib/python2.7/site-packages

See: https://docs.brew.sh/Homebrew-and-Python.html
==> Summary
?? /usr/local/Cellar/python/2.7.14: 6,344 files, 87.5MB, built in 2 minutes 20 seconds
```

Update bash

## configure .bash\_profile

```
# update .bash_profile
15:43:03 19 $ vi ~/.bash_profile
15:44:48 20 $ source ~/.bash_profile
15:44:53 21 $ which python
/usr/local/opt/python/libexec/bin/python
15:45:00 22 $ which pip
/usr/local/opt/python/libexec/bin/pip
```

## Set-up Pyforge

### setup pyforge

```
15:45:28 24 $ cd ~/dev/pyforge/
15:45:31 25 $ ls
PyBot                configure.py         run-pybot.py
README.md            docs                run-rebot.py
archives             lib                 scripts
cleanup.py          requirements        sonar-project.properties
config              results

# configure and see archiving
15:45:32 26 $ ./configure.py
15:46:04 26 $ ls archives/
[empty]
15:46:30 29 $ ./configure.py
*****
                        configure.py
*****

-----
Checking if pip is installed...
-----
pip (9.0.1) is correctly installed

-----
Checking if unzip is installed...
-----
unzip is correctly installed

-----
Checking if gcc is installed...
-----
gcc is correctly installed

-----
Installing requirements...
-----
pip install --no-cache-dir --upgrade --user -r "/Users/wayne.morrison/dev/pyforge/requirements/PyForge.txt"
All requirements in PyForge.txt have been installed.

-----
Installing selenium drivers...
-----

-----
Selenium driver : chromedriver installation
-----
chromedriver is correctly installed

-----
Selenium driver : geckodriver installation
-----
geckodriver is correctly installed

-----
Generating config/config.cfg...
-----
Generate config file "/Users/wayne.morrison/dev/pyforge/config/config.cfg"
Cannot find fqdn in 'waynemorrisons-MacBook-Pro.local', reverting to 'localhost'
```

Confirm localhosts has entries as expected for products

## Prior hosts configuration

```
15:49:22 30 $ cat /etc/hosts
##
# Host Database
#
# localhost is used to configure the loopback interface
# when the system is booting. Do not change this entry.
##
127.0.0.1        localhost          waynemorrisons-MacBook-Pro
255.255.255.255 broadcasthost
::1            localhost          waynemorrisons-MacBook-Pro
```

Change to:

## test hosts

```
##
# Host Database
#
# localhost is used to configure the loopback interface
# when the system is booting. Do not change this entry.
##
127.0.0.1        localhost          waynemorrisons-MacBook-Pro          waynemorrisons-MacBook-Pro.local
openam.example.com openig.example.com opendj.example.com app.example.com openidm.example.com sp.example.com
sp1.example.com sp2.example.com
255.255.255.255 broadcasthost
::1            localhost          waynemorrisons-MacBook-Pro          waynemorrisons-MacBook-Pro.local
```

Configure config/config.cfg for your host names and product versions

## Run Pyforge tests

Run functional tests sample with run-pybot.py:

## Test Pyforge install

```
15:55:49 38 $ ./run-pybot.py -s Sample.Basic ig
*****
run-pybot.py
*****
cmd: run-pybot.py -s Sample.Basic ig

While the tests are running you may tail the debug log at:
/Users/wayne.morrison/dev/pyforge/results/20170926-155641/debug.txt

=====
OpenIG
=====
OpenIG.Functional :: Functional Tests Root
=====
OpenIG.Functional.Sample
=====
OpenIG.Functional.Sample.Basic
=====
Missing_Config | PASS |
-----
Wrong_Config | PASS |
-----
Pure_Proxy_Config | PASS |
-----
OpenIG.Functional.Sample.Basic | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
OpenIG.Functional.Sample | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
Products Full Version
OpenDJ: 5.5.0-SNAPSHOT 8c159b9cf44
OpenIG: 5.5.0-SNAPSHOT 8a9898b5688
OpenIG.Functional :: Functional Tests Root | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
OpenIG | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
Debug: /Users/wayne.morrison/dev/pyforge/results/20170926-155641/debug.txt
Output: /Users/wayne.morrison/dev/pyforge/results/20170926-155641/output.xml
Log: /Users/wayne.morrison/dev/pyforge/results/20170926-155641/log.html
Report: /Users/wayne.morrison/dev/pyforge/results/20170926-155641/report.html

# check results/latest for logs etc
16:02:01 40 $ ls results/
20170926-155641 data latest
16:02:05 41 $ ls results/latest
Sample config debug.txt log.html output.xml report.
html tmp
```

Run a long-lived manual test (to install products ready to configure):

## Running a Pyforge test

```
# running a manual test - long-lived
#
# - ManualTest configured to run ig and am only
# - failures may occur if port taken (or pybot version still running)

09:47:25 58 $ ./cleanup.py -f
...
09:47:45 59 $ ./run-pybot.py -s ManualTest -n ig

# Check debug.log for errors.
```

## Docs

- [Pyforge - getting started](#)
- [Pyforge - running remotely](#)
- [Pyforge - Grenoble performance lab](#)