

GitHub Runner Configuration for Testing

GitHub Runner agent is responsible for executing the automation test scripts and generating reports. During the execution these scripts establish connection with TEST environment, run the automation tests and generate the reports.

Automation Testing

Setting up the agent

1. Install python 3.11.4 on agent. Installer for Windows platform can be downloaded from [Python Release Python 3.11.4 | Python.org](#)

All Automation scripts are currently running on python 3.11.4

2. Install pip

pip is automatically installed if Python was downloaded from [python.org](#). It can be checked with ensurepip module of python.

```
python -m ensurepip
```

This invocation will install `pip` if it is not already installed, but otherwise does nothing. To ensure the installed version of `pip` is at least as recent as the one available in `ensurepip`, pass the `--upgrade` option:

3. Install Microsoft Edge webdriver

WebDriver allows to automate Microsoft Edge by simulating user interaction.

Follow instructions under section *Download Microsoft Edge WebDriver* at [Use WebDriver to automate Microsoft Edge - Microsoft Edge Developer documentation | Microsoft Learn](#)

4. Add webdriver location to PATH on windows.

5. Install selenium package for python.

Use `pip` to install the selenium package

```
pip install selenium
```

Refer for details [Installation — Selenium Python Bindings 2 documentation \(selenium-python.readthedocs.io\)](#)

6. Install pyshadow package for python.

Shadow DOM components can't be directly identified with selenium tools.

pyshadow is used to navigate Shadow DOM elements in Thingworx.

```
pip install pyshadow
```

7. Install pytest-html-reporter package for python using pip command as above for other python packages.

pytest-html-reported package is used to generate a static html report based on pytest framework.

TIP: To avoid ssl error while using pip use `--trusted-host` param, for eg:

`pip install --trusted-host pypi.org --trusted-host pypi.python.org --trusted-host files.pythonhosted.org pyshadow`

REST API Testing

Installing Newman:

- a. Set registry using command: `npm config set registry http://registry.npmjs.org/`
- b. Install Newman globally using npm: `npm install -g newman`
- c. Check version of newman: `newman -v`
- d. Install newman html report: `npm install -g newman-htmlextra`