

POLYVERIFICATION SUITE SETUP AND CONFIGURATION

This document contains the information of Setup and Installation process for PolyVerification suite in Linux/Unix. We have modified some of the open source packages which are added in repository.

System Requirements:

- CPU: at least 8 core CPU
- GPU: Nvidia GTX 1080 (8GB memory) or higher
- OS: Ubuntu 18.04 and above 64-bit
- Python 3.8

Below are list of component and dependencies need to be installed for before start the PolyVerif suite.

- ✓ AutowareAuto
- ✓ Lgsvl_msgs
- ✓ Ros2-lgsvl-bridge
- ✓ PolyVerif repository
 - PythonAPI
 - Scenic SDL
 - OSSDC-SIM-v1_1-Linux
 - Avp_demo
 - Perception Validation Node
 - Control Validation Node
 - Test_Cases
 - PolyVerif Suite

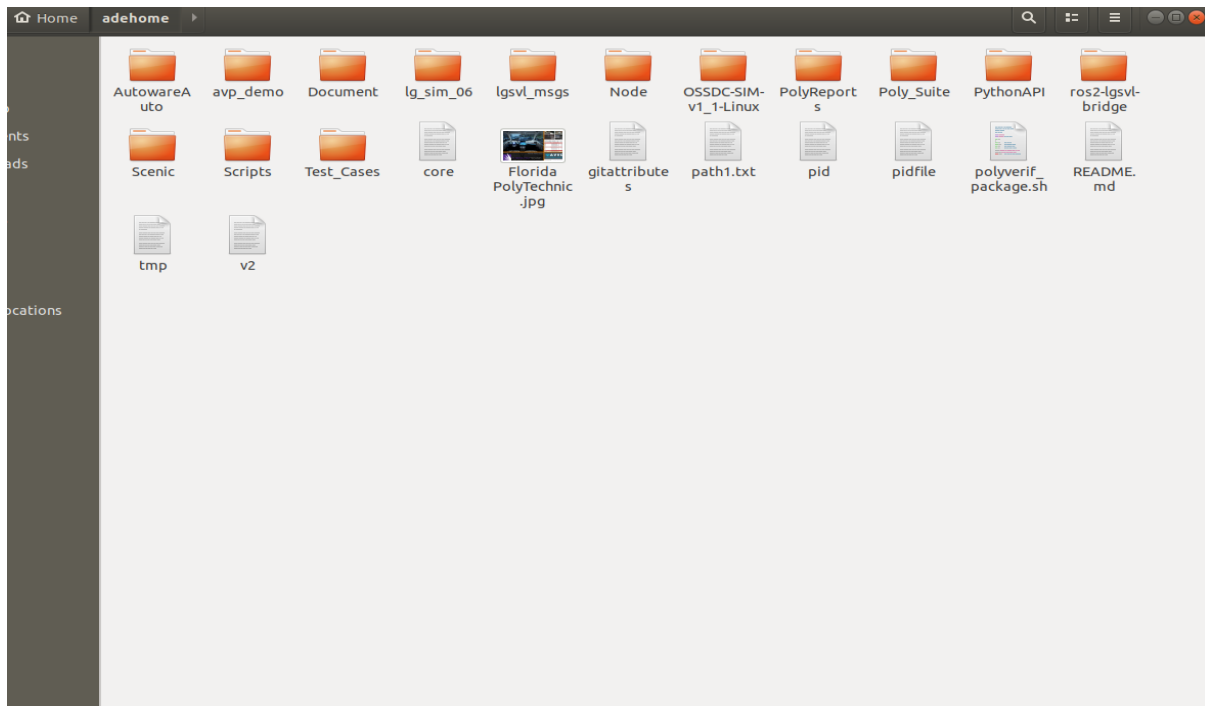
Above package and module need to be install and configured in the same sequence

And directory structure should look like this –

- **adehome**
 - **AutowareAuto**
 - **lgsvl_msgs**
 - **ros2-lgsvl-bridge**
 - **OSSDC-SIM-v1_1-Linux**
 - **PythonAPI**
 - **Scenic**
 - **Avp_demo**

- Node
 - Node_Perception_Validation
 - Node_Control_Validation
 - Node_Localization_Validation
 - Node_Path_Planner_Validation
- Test_Cases
- PolyReports
- Poly_Suite

Below is the screenshot of the mention structure –



1. Dependencies install in Ubuntu-

Python3.8 –

```
$ sudo apt update
$ sudo apt install software-properties-common
$ sudo add-apt-repository ppa:deadsnakes/ppa
```

When prompted press Enter to continue

```
$ sudo apt install python3.8
```

Verify that the installation was successful by typing:

```
$ python3.8 --version
```

Watchdog –

```
$ sudo apt update
$ pip install watchdog
```

Pandas –

```
$ sudo apt update
$ pip install pandas
```

2. Setup Docker

For docker installation please refer **Docker_Installation.txt**

*Please find **Docker_Installation.txt** in Documents directory.*

<https://github.com/MaheshM99/PolyVerif/tree/PolyVerif-OSSDC-SIM>

3. PolyVerif setup:

For PolyVerif setup we need to run **Polyverif-Setup.sh** script. It will automatically setup and installed all packages and nodes of PolyVerif suite.

Note: We need to give execute permission to Polyverif-Setup script. For that run below command in directory where we downloaded Polyverif-Setup.sh script.

```
$ sed -i 's/\r$//' Polyverif-Setup.sh

$ sudo chmod +x Polyverif-Setup.sh
```

*Please find **Polyverif-Setup.sh** in script directory.*

<https://github.com/MaheshM99/PolyVerif/tree/PolyVerif-OSSDC-SIM>