

# Installation of HOL & HOL Light in Linux

Prepared by

**Adnan Rashid**

**PhD Candidate & RA, SAVe Lab**

**Last Update: November 7, 2017**

**Note:** If you have any queries regarding installation, please do write me at [adnan.rashid@seecs.edu.pk](mailto:adnan.rashid@seecs.edu.pk)

## Installation of HOL

Following are the steps for error free installation of HOL in Linux.

- 1- Make sure that the GCC compiler is properly installed, if not then open the terminal and use the following command.

```
sudo apt-get update
```

```
sudo apt-get install build-essential
```

- 2- Download the PolyML 5.5.0 ([polyml.5.5.tar.gz](http://polyml.5.5.tar.gz)).

Untar the package into any directory of your choice.

- 3- Open the terminal and enter into the package directory using cd command. e.g.

```
adnan@ubuntu:~ cd /Downloads/polyml.5.5$
```

- 4- In the PolyML directory, type the following commands one by one;

```
./configure --prefix=/usr
```

```
make
```

```
sudo make install
```

- 5- Download HOL Kananaskis 8 ([kananaskis-8.tar.gz](http://kananaskis-8.tar.gz)).

Untar and enter into the HOL package directory using cd command. e.g.

```
adnan@ubuntu:~/Downloads/hol-kananaskis-8$
```

- 6- Type the following command in terminal,

```
poly < tools/smart-configure.sml
```

Wait for configuration to complete.

7- Type the following command in terminal,

**bin/build**

The installation of HOL begins if the above procedure is followed correctly, and after some time, it will complete the installation.

8- Install the Emacs by using the following command in the terminal.

**sudo apt-get install emacs**

After completion of Emacs installation, open emacs, and change the directory from HOME to HOL by using cd command. e.g.

**adnan@ubuntu:~/Downloads/hol-kananaskis-8\$**

Type the command

**bin/hol**

Now you can start interacting with the HOL session.

## Installation of HOL LIGHT

Open the terminal and run the following commands step by step that will download, compile and install HOL LIGHT, including compatible versions of OCaml and Camlp5.

1- Make the directory for installation of HOL LIGHT by using following command.

**mkdir hol-light-workbench**

2- Enter into HOL LIGHT directory by using following command.

**cd hol-light-workbench**

3- Download the script that will download, compile and install HOL LIGHT, by using the following command.

**wget <https://bitbucket.org/akrauss/hol-light-workbench/raw/tip/setup>**

4- Go to HOL Light folder and edit the downloaded setup file as:

Replace [svn checkout http://hol-light.googlecode.com/svn/trunk/hol-light](http://hol-light.googlecode.com/svn/trunk/hol-light) at line 50 with [svn checkout https://github.com/jrh13/hol-light](https://github.com/jrh13/hol-light)

5- Run the following command after Step 3.

```
chmod 755 setup
```

6- Run the script by using the following command.

```
./setup
```

This will complete the OCaml, Camlp5 & HOL-LIGHT installation.

7- Now run following command to adjust paths.

```
. setpaths
```

Now, you can run HOL Light as follows:

```
cd hol-light
```

```
ocaml
```

```
# #use "hol.ml";;
```