

## HOW TO INSTALL OSSIM & OSSIM PLUGINS & DATE IN A BLANK UBUNTU 16.04 OS

1) Download synaptic as package manager:

```
sudo apt-get install synaptic
```

2) From synaptic package manager install:

- cmake

- git

3) From Git download OSSIM core code. Create a folder wherever you want, this will be your OSSIM\_DEV\_HOME folder. Here:

```
git clone https://github.com/ossimlabs/ossim
```

4) Put in your .bashrc file OSSIM environmental variables

5) In OSSIM\_DEV\_HOME/ossim/scripts run

```
build.sh
```

6) In OSSIM\_DEV\_HOME

```
git clone https://github.com/ossimlabs/ossim-plugins
```

7) In OSSIM\_DEV\_HOME/ossim/cmake/scripts/ossim-cmake-config.sh

turn on the plugins you need. For DATE are:

gdal                   geopdf

cnes                   hdf5

opencv                potrace

sqlite                web

8) Install libraries

hdf5: sudo apt-get install qt5-default libvtk6-dev

gdal: compile from source code

9) In OSSIM\_DEV\_HOME/ossim/scripts run

```
build.sh
```

10) If everything went good, in ossim-plugins

```
git clone https://github.com/martidi/opencv\_dsm
```

11) In OSSIM\_DEV\_HOME/ossim-plugins/CmakeLists.txt at line 87 add:

```
add_subdirectory(opencv_dsm)
```

12) In OSSIM\_DEV\_HOME/ossim/scripts run

```
build.sh
```

13) In build folder

```
sudo make install
```

14) In OSSIM\_DEV\_HOME create

data → for elevation

preferences → for preference file

folders

15) In order to test DATE plug-in, please create a “results” folder, containing:

- DSM
- ortho\_images
- temp\_elevation

folders

16) Put a .txt file in the “build” folder, containing the list of the images to be used and the pairs to be considered, as in the following example:

3 %number of images to be used

0 absolute\_path\_to\_image\_1

1 absolute\_path\_to\_image\_2

2 absolute\_path\_to\_image\_3

3 %number of pairs to be processed

0 1

1 2

0 2

0 1

1 2

0 2

17) From the “build” folder, run DATE:

```
./bin/ossim-dsm-app input_images.txt absolute_path_to_results_folder DSM_name  
--cut-bbox-ll lat_min lon_min lat_max lon_max --meters xx --nsteps xx --projection utm
```