

## **ParaView installation with Superquadrics plugin on Xubuntu 16.04.3 LTS (Oracle VM VirtualBox)**

### **0.- Get gcc-6 (Not needed anymore)**

```
$ sudo add-apt-repository ppa:ubuntu-toolchain-r/test
$ sudo apt update
# sudo apt upgrade
$ sudo apt install gcc-6
```

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### **1.- Get cmake-3.10 (<https://github.com/ruslo/hunter/issues/328#issuecomment-198672048>)**

```
$ sudo apt remove cmake # removes: cmake cmake-curses-gui cmake-qt-gui
$ sudo apt remove curl # unnecessary if curl not installed
```

```
$ sudo apt install zlib1g zlib1g-dev libssl-dev
```

Download curl: <https://curl.haxx.se/download.html>

```
$ wget https://curl.haxx.se/download/curl-7.56.1.tar.bz2
```

```
$ tar xf curl-7.56.1.tar.bz2
```

```
$ mkdir curl-7.56.1
```

```
$ cd curl-7.56.1
```

```
$ ./configure --with-ssl && make && sudo make install
```

```
$ curl --version # check
```

```
$ sudo apt install qt5-default
```

```
# apt install libncurses5-dev (ccmake command will also be created)
```

Download cmake: <https://cmake.org/download>

```
$ wget https://cmake.org/files/v3.10/cmake-3.10.0.tar.gz
```

```
$ tar xf cmake-3.10.0.tar.gz
```

```
$ cd cmake-3.10.0
```

```
$ ./bootstrap --qt-gui --system-curl && make && sudo make install
```

### **2.- Get ParaView-SuperBuild**

```
$ apt install git pkg-config (needed to make paraview)
```

```
$ mkdir ParaViewSuperBuild
```

```
$ cd ParaViewSuperBuild
```

```
$ git clone --recursive https://gitlab.kitware.com/paraview/paraview-superbuild.git Source
```

```
$ cd Source
```

```
$ git fetch origin
```

```
$ git checkout v5.4.1
```

```
$ git submodule update
```

```
$ cd ../
```

```
$ mkdir Build
```

```
$ cd Build
```

```
$ cmake-gui ../Source
```

- Do Configure
- Select ENABLE > ENABLE\_qt5
- Do Generate

```
$ make && sudo make install # or keep track of compilation times with: $ time make -j4 && sudo time make install
```

```
$ paraview & # check
```

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### **3.- Build SuperquadricTensorGlyph**

Chechout sourcefile folder SuperquadricTensorGlyph

```
$ nano ~/ParaViewSuperBuild/Build/superbuild/paraview/build/ParaViewConfig.cmake
```

- Turn all Qt “ON” instances “OFF” (3 instances)

```
$ cd SuperquadricTensorGlyph
```

```
$ mkdir Build
```

```
$ cd Build
$ cmake-gui ../
  • Do Configure
  • Redirect ParaView_DIR to
    ~/ParaViewSuperBuild/Build/superbuild/paraview/build
  • Do Configure (until no entries marked in red)
  • Do Generate
$ make
```

#### **4.- Load plugin and apply**

In ParaView, go to Tools > Manage Plugins... Do Load New and select  
~/SuperquadricTensorGlyph/Build/libSuperquadricTensorGlyphFilter.so Click "OK"  
Then the filter should appear on the Local plugins list, click on it and select Auto Load, then  
close. When opening a \*.vtu file with superquadric features, do Apply then go to Filters >  
Tensor Analysis > Superquadric Tensor Glyphs. Finally, do Apply again.