

# Installation of visualization tools in Ubuntu-20.04

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If you have recently installed Ubuntu20.04 and you want to install various visualization tools. Follow the procedure mentioned below.

# Update your Ubuntu-20.04 operating system

\$ sudo apt-get update

# Install some more required packages before installing DFT visualization tools.

\$ sudo apt-get install make

\$ sudo apt-get install cmake

\$ sudo apt-get install m4

\$ sudo apt-get install gcc

\$ sudo apt-get install g++

\$ sudo apt-get install gfortran

Now you can install required visualization tools using single command.

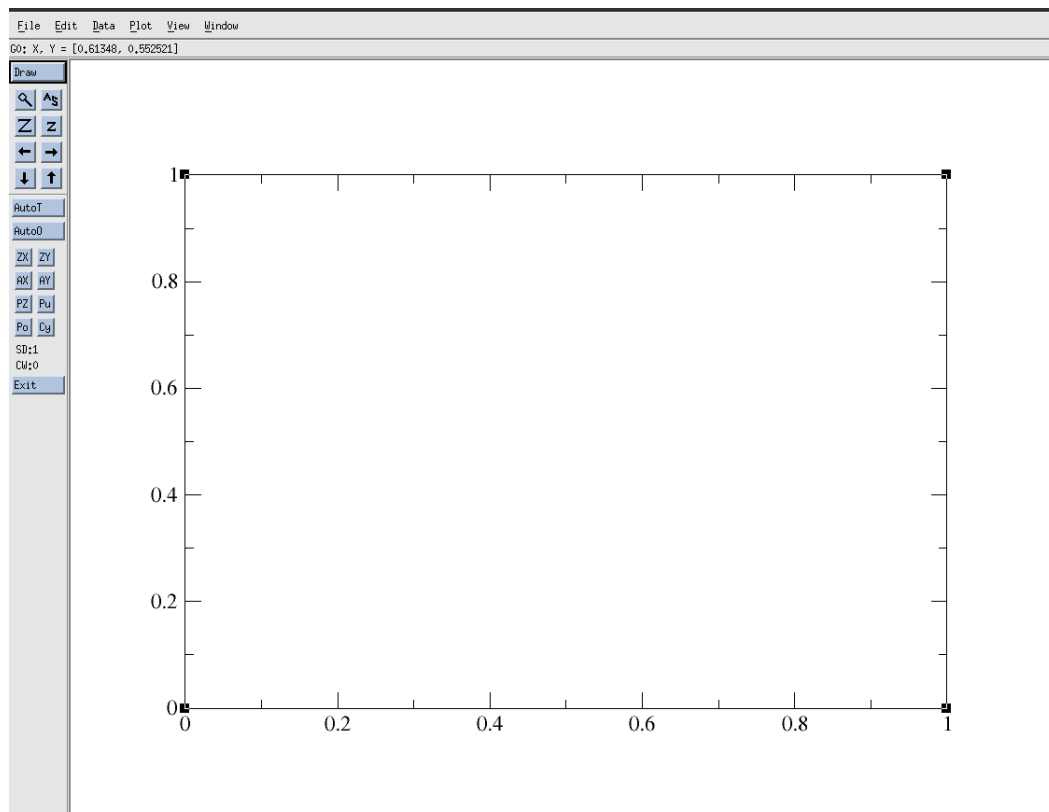
(1) Install Xmgrace (<https://plasma-gate.weizmann.ac.il/Grace/>): a plotting tool

\$ sudo apt-get install grace

Check whether xmgrace is installed or not using command :

\$ xmgrace

You will get :



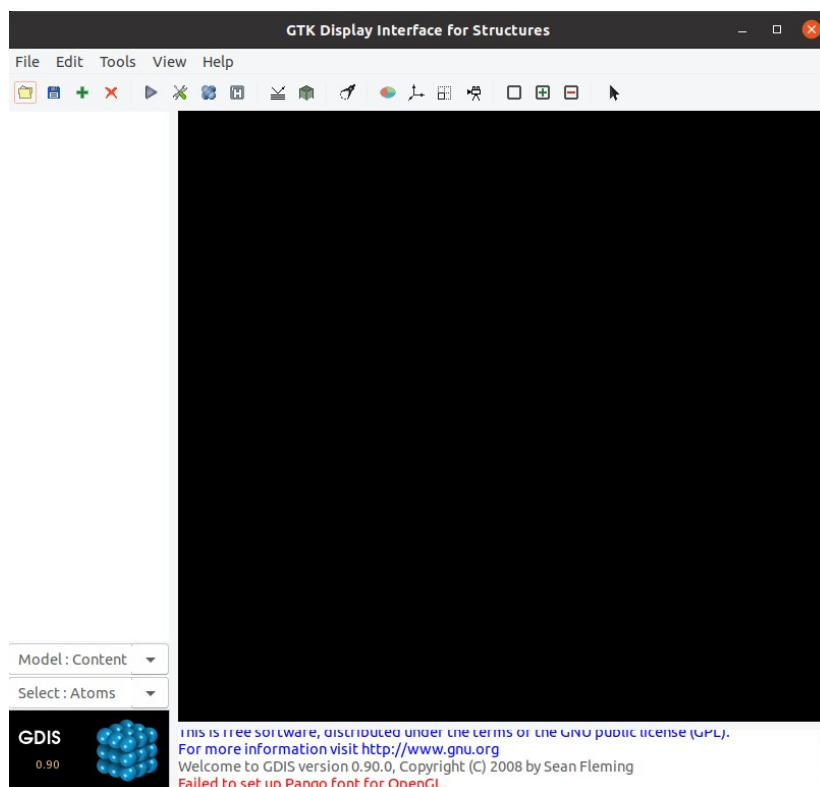
## (2) Install gdis (<http://gdis.seul.org/> )

`$ sudo apt-get install gdis`

Check whether gdis is installed or not using command :

`$ gdis`

You will get :



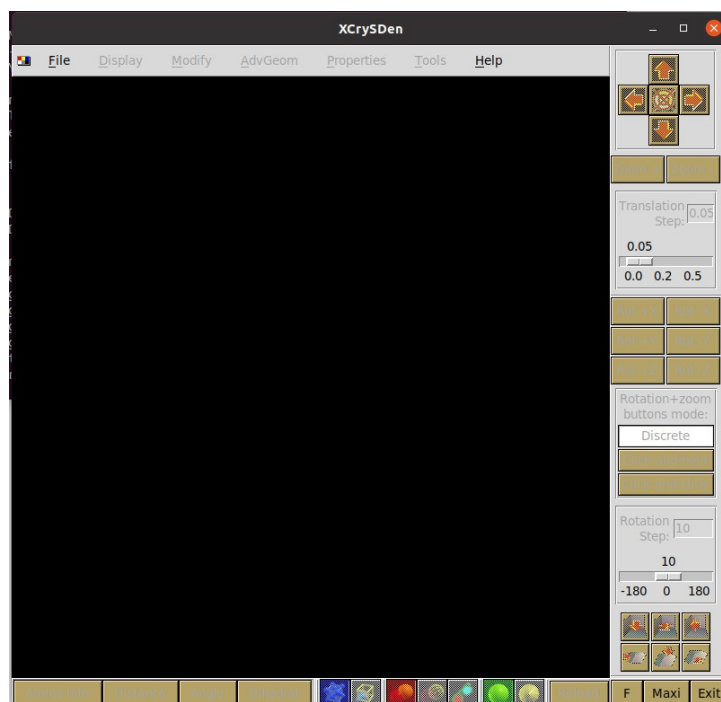
## (3) Install Xcrysden (<http://www.xcrysden.org/> )

`$ sudo apt-get install xcrysden`

Check whether xcrysden is installed or not using command :

`$ xcrysden`

You will get :



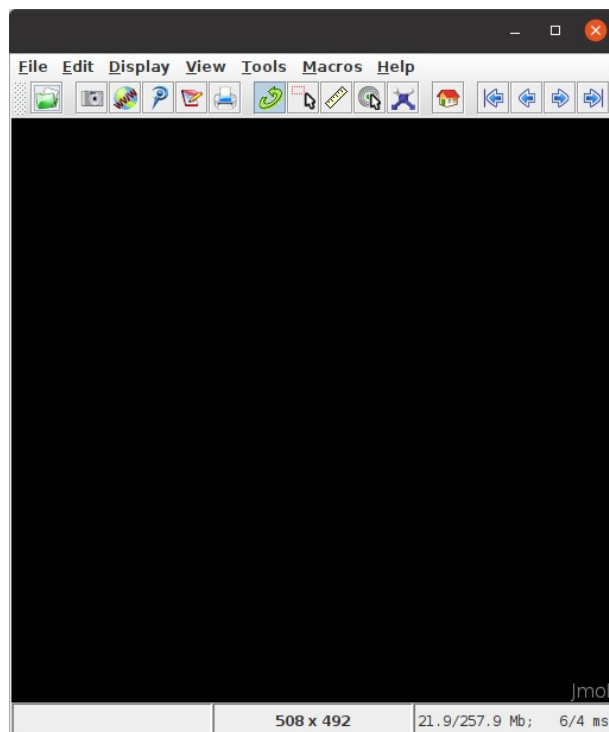
#### (4) Install Jmol (<https://jmol.sourceforge.net/> )

`$ sudo apt-get install jmol`

Check whether jmol is installed or not using command :

`$ jmol`

You will get :



#### (5) Install Molden (<https://www.theochem.ru.nl/molden/> )

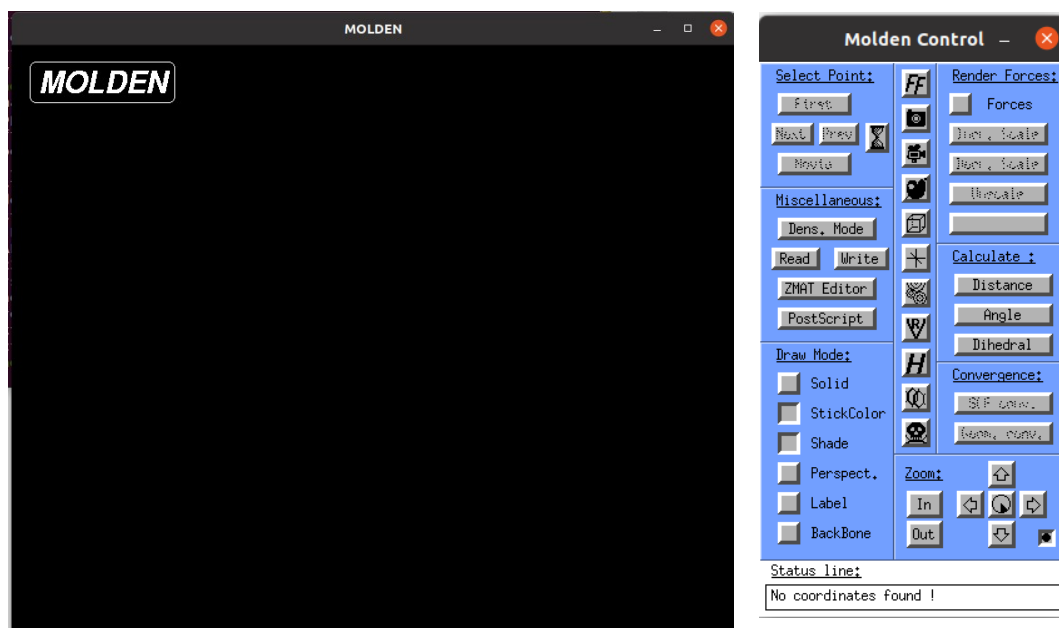
`$ sudo apt install snapd`

`$ sudo snap install molden`

Check whether Molden is installed or not using command :

`$ molden`

You will get :



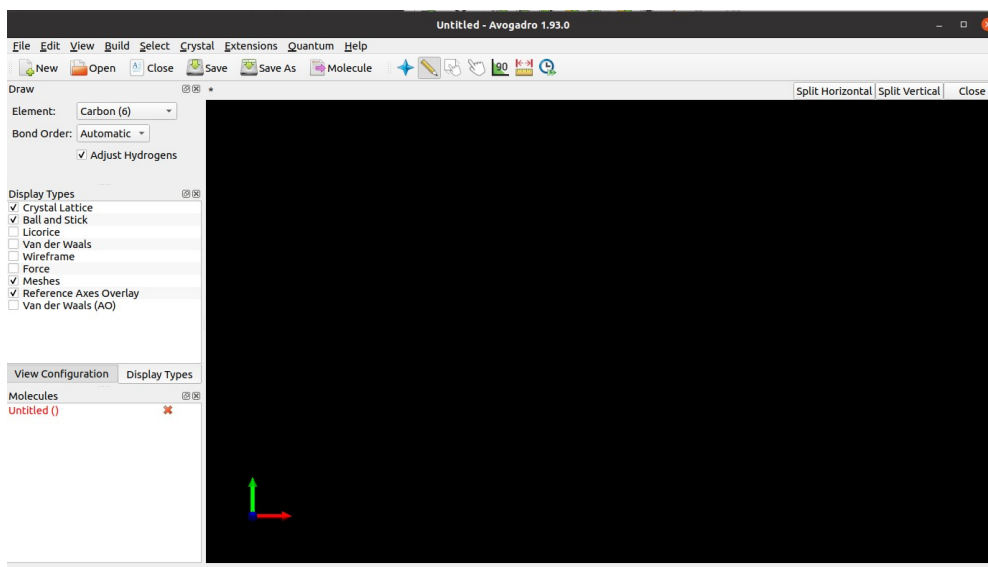
## (6) Install Avogadro2 (<https://avogadro.cc/> )

**\$ sudo apt-install avogadro2**

Check whether avogadro2 is installed or not using command :

**\$ avogadro2**

You will get :



## (6 ) Install VESTA (<https://jp-minerals.org/vesta/en/> )

In order to install VESTA in ubuntu20.04 please follow the given commands in sequence.

Open the VESTA software link <https://jp-minerals.org/vesta/en/download.html> and download \*.rpm file for linux. The latest version is **vesta-3.5.8-1.x86\_64.rpm** Now install this **vesta-3.5.8-1.x86\_64.rpm** file using following commands :

**# Add the Universe Repository**

**\$ sudo add-apt-repository universe**

**# Update apt-get**

**\$ sudo apt-get update**

Install Alien package

**\$ sudo apt-get install alien**

Convert .rpm package to .deb

**\$ sudo alien vesta-3.5.8-1.x86\_64.rpm**

This command will give a `vesta_3.5.8-2_amd64.deb` file. Install this Converted Package

```
$ sudo dpkg -i vesta_3.5.8-2_amd64.deb
```

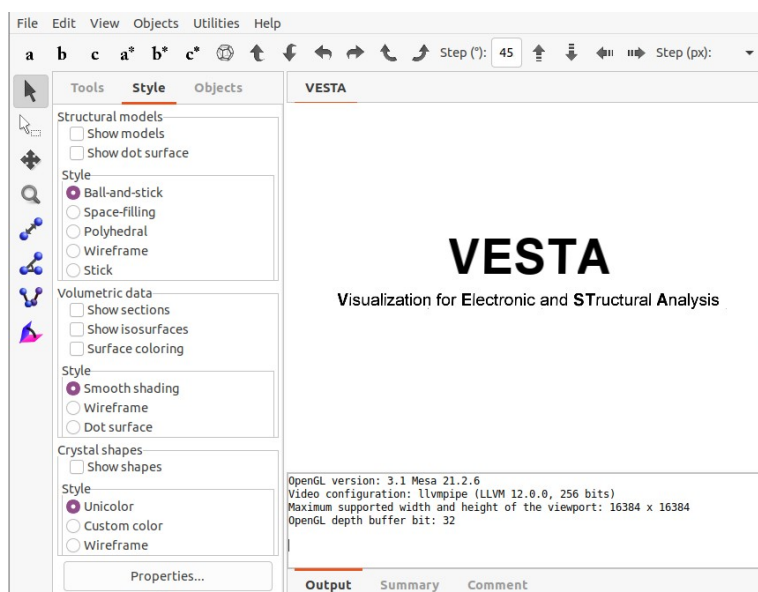
One can also use rpm file directly to install in ubuntu using the command

```
$ sudo alien -i vesta-3.5.8-1.x86_64.rpm
```

Now VESTA is ready to use VESTA. Now open the VESTA using the command

```
$ VESTA
```

you will get :



(7) Install wine (<https://utho.com/docs/tutorial/how-to-install-wine-on-ubuntu-20-04/> )

If you want to use some window based software in your linux operating system you should have wine software in your ubuntu20.04. Which can be easily installed using command

```
$ sudo apt install wine64
```

Now you can enjoy learning visualization tools to get your DFT based results.

Thanking You.

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