**GEANT4 Installation Guide (Linux)**

**Note:** Versions and folder names might be slightly different in your case

1. First of all, download geant4 setup from cern geant4 website <https://geant4.web.cern.ch/support/download>. For linux, download the .tar version
2. From the same link, also download the data files.
3. Create new folder named “geant4” in home directory, and extract the downloaded Geant4 setup in it.
4. Create new folder named “data” in home directory, and extract the downloaded data files in it.
5. Download the latest version of CLHEP, a class library for high energy physics. <https://proj-clhep.web.cern.ch/proj-clhep/clhep23.html>
6. Create new folder named “CLHEP” in home directory, and extract the downloaded CLHEP setup in it.
7. Open the terminal
8. Enter the command sudo apt-get install build-essential
9. Enter the command sudo apt-get install apt-file
10. Enter the command sudo apt-get install synaptic
11. Open the synaptic package manager and install the following necessary software packages:

gcc

g++

autoconf

automake

automake1.11

tcl8.6-dev

tk8.6-dev

libglu1-mesa-dev

libgl1-mesa-dev

libxt-dev

libxmu-dev

libglew-dev

libglw1-mesa-dev

build-essential

gfortran

inventor-dev

libxaw7-dev

freeglut3-dev

libxerces-c2-dev

libxmltok1-dev

libqt4-opengl-dev

libxi-dev

libclutter-gtk-1.0-0

openjdk-7-jdk

cmake

libxmlrpc-core-c3-dev

tclxml

libexpat1-dev

libgtk2.0-dev

libxpm-dev

x11proto-gl-dev

x11proto-input-dev

1. Open the terminal and navigate to (version) > CLHEP, in the CLHEP folder
2. Enter the command ./bootstrap
3. Enter the command ./configure --prefix /u/ey/perl/CLHEP
4. Enter the command make
5. Enter the command sudo make install
6. Exit the terminal
7. In the geant4 folder, create a new folder named “geant4-build”
8. Open the terminal and navigate to geant4-build folder
9. Enter the command cmake -DCMAKE\_INSTALL\_PREFIX=~/geant4/geant4.10.00.p03-install -DGEANT4\_USE\_GDML=ON -DGEANT4\_USE\_OPENGL\_X11=ON -DGEANT4\_USE\_RAYTRACER\_X11=ON -DGEANT4\_USE\_SYSTEM\_CLHEP=ON -DCLHEP\_INCLUDE\_DIR=/u/ey/perl/CLHEP/include/ -DCLHEP\_LIBRARY=/u/ey/perl/CLHEP/lib/libCLHEP.so -DGEANT4\_INSTALL\_EXAMPLES=ON ~/geant4/geant4.10.00.p03
10. Enter the command make -j 2
11. Enter the command make install
12. Copy the “data” folder from home directory, and paste it in geant4 > geant4-install > share > geant4 folder
13. You can also see the examples in the same folder (geant4 > geant4-install > share > geant4)
14. Congratulations! Geant4 has been installed. Now you can easily execute the examples