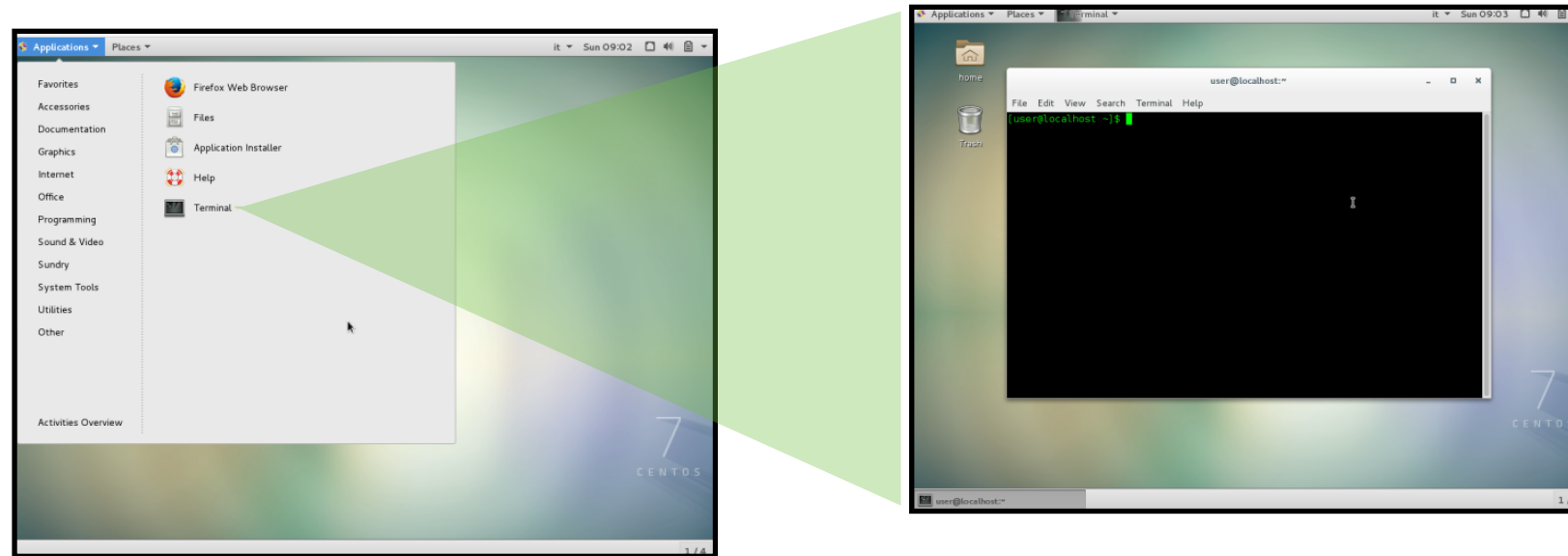


Geant4 Installation

Geant4 Installation

Open the terminal



Choose the path of your installation

```
$ cd Desktop
```

Create a new directory and enter

```
$ mkdir Geant4
```

Geant4 Installation

Download the code



Geant 4

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Geant4 is a toolkit for the simulation of the passage of particles through matter. Its areas of application include high energy, nuclear and accelerator physics, as well as studies in medical and space science. The two main reference papers for Geant4 are published in *Nuclear Instruments and Methods in Physics Research A* 506 (2003) 250-303, and *IEEE Transactions on Nuclear Science* 53 No. 1 (2006) 270-278.

Applications
A sampling of applications, technology transfer and other uses of Geant4

User Support
Getting started, guides and information for users and developers

Publications
Validation of Geant4, results from experiments and publications

Collaboration
Who we are: collaborating institutions, members, organization and legal information

News

- 30 June 2016 - Release 10.3 BETA is available from the [Beta download](#) area.
- 29 June 2016 - Patch-02 to release 10.2 is available from the [Download](#) area.
- 9 March 2016 - 2016 planned developments.
- 17 February 2016 -

Events

- 4th International Geant4 School, Belgrade (Serbia), 23-28 October 2016.
- Geant4 tutorial, IFIN-HH Bucharest (Romania), 14-18 November 2016.
- AHEAD Background Workshop, at Institute for Space Astrophysics and Planetology, Roma (Italy), 28-30 November 2016.
- Geant4 tutorial (lectures in Japanese language), Sendai (Japan), 29 November - 1 December 2016.
- Short advanced Geant4 tutorial, at KISTI, Deajeong (Korea), 9-10 December 2016.
- 12th Geant4 Space Users Workshop, Guildford (UK), 10-12 April 2017.
- Geant4 User Workshop, Sage Hotel, Wollongong (Australia), 20-22 September 2017.
- 22nd Geant4 Collaboration Meeting, UOW Campus, Wollongong (Australia), 25-29 September 2017.

[Past events](#)

Geant 4

Home > User Support > Download

Geant4 Software Download

Geant4 10.2
first released 4 December 2015 (patch-02, released 17 June 2016)

The Geant4 source code is freely available. See the [licence conditions](#).

Please read the [Release Notes](#) before downloading or using this release. The patch below contains bug fixes to release 10.2, we suggest you to download and apply the latest patch for release 10.2 (see the additional notes for [patch-01](#) and [patch-02](#))). or download the complete source with the patch applied; in any case, it is required to apply a full rebuild of the libraries.

Source files

Please choose the archive best suited to your system and archiving tool:

[Download](#) GNU or Linux tar format, compressed using gzip (30.7Mb, 32237542 bytes)
After downloading, gunzip, then unpack using [GNU tar](#).

[Download](#) ZIP format (43.8Mb, 45967919 bytes)
After downloading, unpack using e.g. WinZip.

Data files (*)

For specific, optional physics processes some of the following files are required. The file format is compatible with Unix, GNU, and Windows utilities.

[Download](#) G4NDL4.5, Neutron data files [with](#) thermal cross-sections - version 4.5 (402.2Mb, 421710294 bytes)

[Download](#) G4EMLOW6.48, data files for low energy electromagnetic processes - version 6.48 (24.2Mb, 25371256 bytes) **NEW**

[Download](#) G4PhotonEvaporation3.2, data files for photon evaporation - version 3.2 (8.9Mb, 9300395 bytes) **NEW**

[Download](#) G4RadioactiveDecay4.3.2, data files for radioactive decay hadronic processes - version 4.3.2 (1018.2kb, 1042638 bytes) **NEW**

<https://geant4.web.cern.ch/geant4/>

Extract the file

```
$ cd Downloads  
$ tar -xzf geant4.10.02.p02.tar.gz
```

Geant4 Installation

Choose the path of your installation

```
$ cd Desktop
```

Create a new directory

```
$ mkdir Geant4  
$ cd Geant4
```

Copy the source code in the new directory

```
$ cd /home/user/Downloads  
$ cp -r geant4.10.02.p02 /home/user/Desktop/Geant4
```

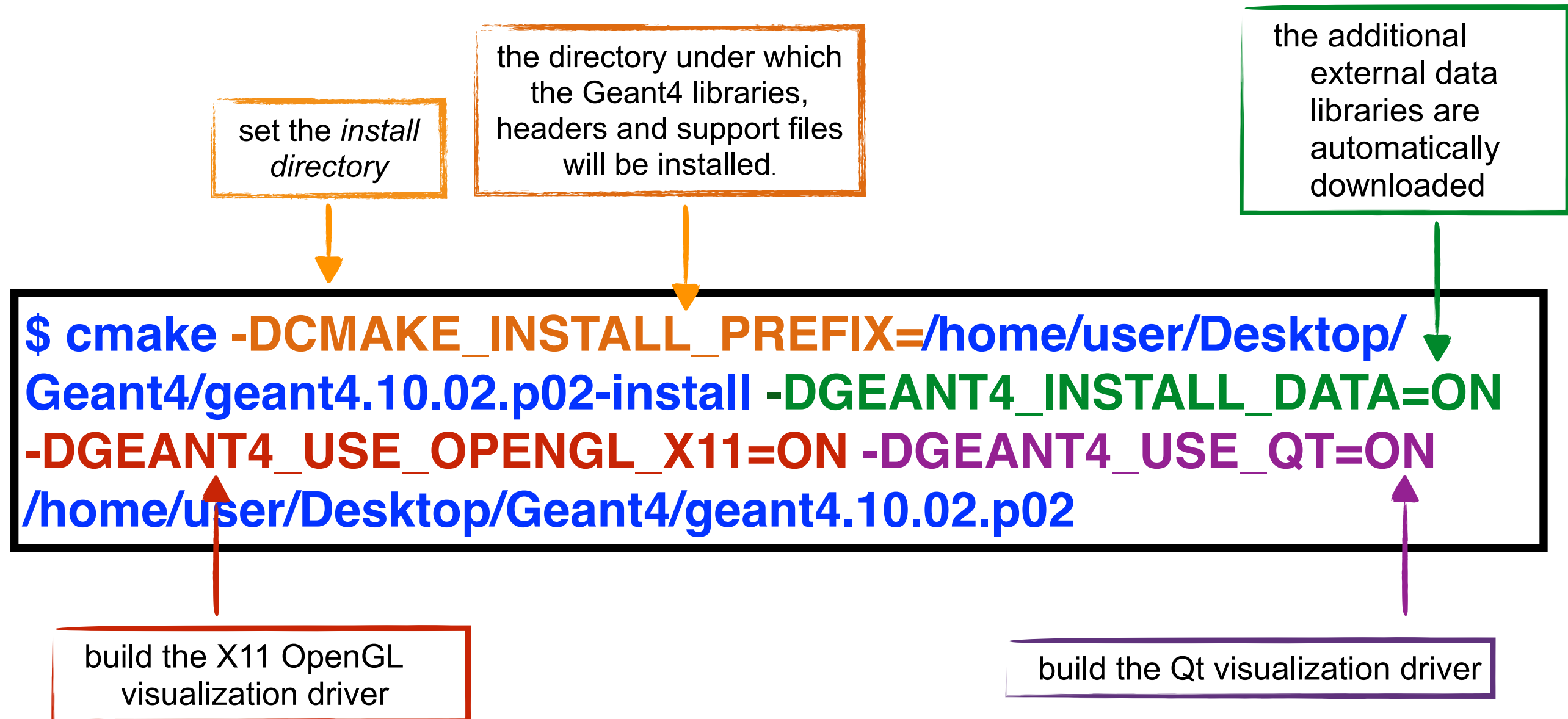
Geant4 Installation

Create the folder build

```
$ cd /home/user/Desktop/Geant4  
$ ls  
$ mkdir geant4.10.02.p02-build  
$ cd geant4.10.02.p02-build
```

```
$ cmake -DCMAKE_INSTALL_PREFIX=/home/user/Desktop/Geant4/  
geant4.10.02.p02-install -DGEANT4_INSTALL_DATA=ON  
-DGEANT4_USE_OPENGL_X11=ON -DGEANT4_USE_QT=ON /  
home/user/Desktop/Geant4/geant4.10.02.p02
```

Geant4 Installation



Geant4 Installation

Start the Geant4 installation

```
$ make -jN  
$ make install
```

and wait....

```
[ 0%] Built target G4EMLOW  
[ 0%] Built target G4NDL  
[ 1%] [ 1%] Built target G4NEUTRONXS  
[ 1%] [ 1%] [ 1%] Built target RealSurface  
[ 2%] Built target RadioactiveDecay  
Built target G4PII  
Built target PhotonEvaporation  
Built target G4SAIADATA  
Built target G4zlib  
[ 4%] Built target G4global  
make[2]: *** Pas de règle pour fabriquer la cible « /usr/lib/x86_64-linux-gnu/libGL.so », nécessaire pour « outputs/library/Linux-g++/libG4gl2ps  
.so ». Arrêt.  
make[1]: *** [source/visualization/externals/gl2ps/CMakeFiles/G4gl2ps.dir/all] Erreur 2  
make[1]: *** Attente des tâches non terminées....  
Scanning dependencies of target G4intercoms  
[ 4%] [ 4%] [ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIalliasList.cc.o  
[ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWith3Vector.cc.o  
[ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWith3VectorAndUnit.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIbatch.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithABool.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithADoubleAndUnit.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithADouble.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithAString.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithoutParameter.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithAnInteger.cc.o  
[ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcommand.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcommandTree.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcontrolMessenger.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UImanager.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIDirectory.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UImessenger.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIparameter.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UISession.cc.o  
/home/beilla/Software/geant4/geant4.9.6.p03/source/intercoms/src/G4UIcontrolMessenger.cc: In member function 'virtual void G4UIcontrolMessenger:  
:SetNewValue(G4UIcommand*, G4String)':  
/home/beilla/Software/geant4/geant4.9.6.p03/source/intercoms/src/G4UIcontrolMessenger.cc:328:21: warning: ignoring return value of 'int system(c  
onst char*)', declared with attribute warn_unused_result [-Wunused-result]  
    system(newValue);  
    ^  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UnitsMessenger.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4VGlobalFastSimulationManager.cc.o  
[ 5%] [ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4GenericMessenger.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4AnyType.cc.o  
Linking CXX shared library ../..outputs/library/Linux-g++/libG4intercoms.so
```

■ ■ ■ ■

Geant4 Installation

Start the Geant4 installation

```
$ make -jN  
$ make install
```

and wait....

```
[ 0%] Built target G4EMLOW  
[ 0%] Built target G4NDL  
[ 1%] [ 1%] Built target G4NEUTRONXS  
[ 1%] [ 1%] [ 1%] Built target RealSurface  
[ 2%] Built target RadioactiveDecay  
Built target G4PIL  
Built target PhotonEvaporation  
Built target G4SAIDDATA  
Built target G4zlib  
[ 4%] Built target G4global  
make[2]: *** Pas de règle pour fabriquer la cible « /usr/lib/x86_64-linux-gnu/libGL.so », nécessaire pour « outputs/library/Linux-g++/libG4gl2ps  
.so ». Arrêt.  
make[1]: *** [source/visualization/externals/gl2ps/CMakeFiles/G4gl2ps.dir/all] Erreur 2  
make[1]: *** Attente des tâches non terminées....  
Scanning dependencies of target G4intercoms  
[ 4%] [ 4%] [ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIAliasList.cc.o  
[ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWith3Vector.cc.o  
[ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWith3VectorAndUnit.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIbatch.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithABool.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithADoubleAndUnit.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithADouble.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithAString.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithoutParameter.cc.o  
[ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcmdWithAnInteger.cc.o  
[ 4%] [ 4%] [ 4%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcommand.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcommandTree.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIcontrolMessenger.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UImanager.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIDirectory.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UImessage.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UIparameter.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UISession.cc.o  
/home/beilla/Software/geant4/geant4.9.6.p03/source/intercoms/src/G4UIcontrolMessenger.cc: In member function 'virtual void G4UIcontrolMessenger:  
:SetNewValue(G4UIcommand*, G4String)':  
/home/beilla/Software/geant4/geant4.9.6.p03/source/intercoms/src/G4UIcontrolMessenger.cc:328:21: warning: ignoring return value of 'int system(c  
onst char*)', declared with attribute warn_unused_result [-Wunused-result]  
    system(newValue);  
    ^  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4UnitsMessenger.cc.o  
[ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4VGlobalFastSimulationManager.cc.o  
[ 5%] [ 5%] Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4GenericMessenger.cc.o  
Building CXX object source/intercoms/CMakeFiles/G4intercoms.dir/src/G4AnyType.cc.o  
Linking CXX shared library ../..outputs/library/Linux-g++/libG4intercoms.so
```

■ ■ ■ ■



*each time you open a new shell remember to source the **geant4.sh** script before executing an application !!!*

**Okay
that's all.**

Geant4 Installation

- 1) Choose the path of your installation → Create a new directory
- 2) Copy the source code in the new directory

```
$ cd /home/user/Downloads  
$ cp -r geant4.10.02.p02 /home/user/Desktop/Geant4
```

- 3) Create the folder build

```
$ cd /home/user/Desktop/Geant4  
$ mkdir geant4.10.02.p02-build  
$ cd geant4.10.02.p02-build
```



```
$ cmake -DCMAKE_INSTALL_PREFIX=/home/user/Desktop/Geant4/  
geant4.10.02.p02-install -DGEANT4_INSTALL_DATA=ON  
-DGEANT4_USE_OPENGL_X11=ON -DGEANT4_USE_QT=ON /  
home/user/Desktop/Geant4/geant4.10.02.p02
```