

```
Jamess-MacBook-Pro:~ jamesbowen$ cd geant4-v11.0.0-build/
Jamess-MacBook-Pro:geant4-v11.0.0-build jamesbowen$ cd source
Jamess-MacBook-Pro:source jamesbowen$ cmake -DCMAKE_INSTALL_PREFIX=/
opt/geant4 -DGEANT4_USE_OPENGL_X11=ON /Users/jamesbowen/geant4-v11.0.0
-- Checking C++ feature CXXSTDLIB_FILESYSTEM_NATIVE - Success
-- Pre-configuring dataset G4NDL (4.6)
-- Pre-configuring dataset G4EMLOW (8.0)
-- Pre-configuring dataset PhotonEvaporation (5.7)
-- Pre-configuring dataset RadioactiveDecay (5.6)
-- Pre-configuring dataset G4PARTICLEXS (4.0)
-- Pre-configuring dataset G4PII (1.3)
-- Pre-configuring dataset RealSurface (2.2)
-- Pre-configuring dataset G4SAIDDATA (2.0)
-- Pre-configuring dataset G4ABLA (3.1)
-- Pre-configuring dataset G4INCL (1.0)
-- Pre-configuring dataset G4ENSDFSTATE (2.3)
```

**\*WARNING\***

Geant4 has been pre-configured to look for datasets  
in the directory:

/opt/geant4/share/Geant4-11.0.0/data

but the following datasets are NOT present on disk at  
that location:

G4NDL (4.6)  
G4EMLOW (8.0)  
PhotonEvaporation (5.7)  
RadioactiveDecay (5.6)  
G4PARTICLEXS (4.0)  
G4PII (1.3)  
RealSurface (2.2)  
G4SAIDDATA (2.0)  
G4ABLA (3.1)  
G4INCL (1.0)  
G4ENSDFSTATE (2.3)

If you want to have these datasets installed automatically  
simply re-run cmake and set the GEANT4\_INSTALL\_DATA  
variable to ON. This will configure the build to download  
and install these datasets for you. For example, on the  
command line, do:

```
cmake -DGEANT4_INSTALL_DATA=ON <otherargs>
```

The variable can also be toggled in ccmake or cmake-gui.  
If you're running on a Windows system, this is the best  
solution as CMake will unpack the datasets for you  
without any further software being required

Alternatively, you can install these datasets manually now or after you have installed Geant4. To do this, download the following files:

```
https://cern.ch/geant4-data/datasets/G4NDL.4.6.tar.gz
https://cern.ch/geant4-data/datasets/G4EMLOW.8.0.tar.gz
https://cern.ch/geant4-data/datasets/
G4PhotonEvaporation.5.7.tar.gz
https://cern.ch/geant4-data/datasets/G4RadioactiveDecay.5.6.tar.gz
https://cern.ch/geant4-data/datasets/G4PARTICLEXS.4.0.tar.gz
https://cern.ch/geant4-data/datasets/G4PII.1.3.tar.gz
https://cern.ch/geant4-data/datasets/G4RealSurface.2.2.tar.gz
https://cern.ch/geant4-data/datasets/G4SAIDDATA.2.0.tar.gz
https://cern.ch/geant4-data/datasets/G4ABLA.3.1.tar.gz
https://cern.ch/geant4-data/datasets/G4INCL.1.0.tar.gz
https://cern.ch/geant4-data/datasets/G4ENSDFSTATE.2.3.tar.gz
```

and unpack them under the directory:

```
/opt/geant4/share/Geant4-11.0.0/data
```

As we supply the datasets packed in gzipped tar files, you will need the 'tar' utility to unpack them.

Nota bene: Missing datasets will not affect or break compilation and installation of the Geant4 libraries.

```
-- The following Geant4 features are enabled:
CMAKE_CXX_STANDARD: Compiling against C++ Standard '17'
GEANT4_BUILD_MULTITHREADED: Build multithread enabled libraries
GEANT4_BUILD_TLS_MODEL: Building with TLS model 'initial-exec'
GEANT4_USE_SYSTEM_EXPAT: Using system EXPAT library
GEANT4_USE_OPENGL_X11: Build Geant4 OpenGL driver with X11 support

-- Configuring done
-- Generating done
-- Build files have been written to: /Users/jamesbowen/geant4-v11.0.0-
build/source
Jamess-MacBook-Pro:source jamesbowen$ cd ..
Jamess-MacBook-Pro:geant4-v11.0.0-build jamesbowen$ cmake
-DCMAKE_INSTALL_PREFIX=/Users/jamesbowen/geant4-v11.0.0-install /
Users/jamesbowen/geant4-v11.0.0
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```
-- Pre-configuring dataset RealSurface (2.2)
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https://cern.ch/geant4-data/datasets/G4RadioactiveDecay.5.6.tar.gz
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https://cern.ch/geant4-data/datasets/G4PII.1.3.tar.gz
```

<https://cern.ch/geant4-data/datasets/G4RealSurface.2.2.tar.gz>  
<https://cern.ch/geant4-data/datasets/G4SAIDDATA.2.0.tar.gz>  
<https://cern.ch/geant4-data/datasets/G4ABLA.3.1.tar.gz>  
<https://cern.ch/geant4-data/datasets/G4INCL.1.0.tar.gz>  
<https://cern.ch/geant4-data/datasets/G4ENSDFSTATE.2.3.tar.gz>

and unpack them under the directory:

```
/Users/jamesbowen/geant4-v11.0.0-install/share/Geant4-11.0.0/data
```

As we supply the datasets packed in gzipped tar files, you will need the 'tar' utility to unpack them.

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GEANT4\_BUILD\_TLS\_MODEL: Building with TLS model 'initial-exec'  
GEANT4\_USE\_SYSTEM\_EXPAT: Using system EXPAT library

-- Configuring done

-- Generating done

-- Build files have been written to: /Users/jamesbowen/geant4-v11.0.0-build

```
Jamess-MacBook-Pro:geant4-v11.0.0-build jamesbowen$ make -j4
```

**Consolidate compiler generated dependencies of target G4tools**

[ 0%] Built target G4tools

**Consolidate compiler generated dependencies of target ptl-shared**

**Consolidate compiler generated dependencies of target G4zlib**

[ 0%] Built target ptl-shared

[ 0%] Built target G4zlib

**Consolidate compiler generated dependencies of target G4clhep**

[ 3%] Built target G4clhep

**Consolidate compiler generated dependencies of target G4global**

[ 4%] Built target G4global

**Consolidate compiler generated dependencies of target G4intercoms**

[ 5%] Built target G4intercoms

**Consolidate compiler generated dependencies of target G4graphics\_reps**

[ 6%] Built target G4graphics\_reps

**Consolidate compiler generated dependencies of target G4materials**

[ 8%] Built target G4materials

**Consolidate compiler generated dependencies of target G4interfaces**

[ 8%] Built target G4interfaces

**Consolidate compiler generated dependencies of target G4analysis**

[ 10%] Built target G4analysis

**Consolidate compiler generated dependencies of target G4particles**

[ 17%] Built target G4particles

Consolidate compiler generated dependencies of target G4geometry  
[ 26%] Built target G4geometry  
Consolidate compiler generated dependencies of target G4track  
[ 27%] Built target G4track  
Consolidate compiler generated dependencies of target G4digits\_hits  
[ 30%] Built target G4digits\_hits  
Consolidate compiler generated dependencies of target G4processes  
[ 85%] Built target G4processes  
Consolidate compiler generated dependencies of target G4parmodels  
[ 85%] Built target G4parmodels  
Consolidate compiler generated dependencies of target G4tracking  
[ 86%] Built target G4tracking  
Consolidate compiler generated dependencies of target G4event  
[ 87%] Built target G4event  
Consolidate compiler generated dependencies of target G4run  
[ 88%] Built target G4run  
Consolidate compiler generated dependencies of target  
G4error\_propagation  
[ 88%] Built target G4error\_propagation  
Consolidate compiler generated dependencies of target G4readout  
[ 88%] Built target G4readout  
Consolidate compiler generated dependencies of target G4tasking  
[ 88%] Built target G4tasking  
Consolidate compiler generated dependencies of target G4modeling  
Consolidate compiler generated dependencies of target G4persistency  
[ 89%] Built target G4modeling  
[ 91%] Built target G4persistency  
Consolidate compiler generated dependencies of target G4vis\_management  
[ 92%] Built target G4vis\_management  
Consolidate compiler generated dependencies of target G4FR  
[ 92%] Built target G4FR  
Consolidate compiler generated dependencies of target G4visHepRep  
[ 92%] Built target G4visHepRep  
Consolidate compiler generated dependencies of target G4Tree  
[ 92%] Built target G4Tree  
Consolidate compiler generated dependencies of target G4VRML  
[ 92%] Built target G4VRML  
Consolidate compiler generated dependencies of target G4RayTracer  
Consolidate compiler generated dependencies of target G4GMocren  
[ 93%] Built target G4RayTracer  
[ 93%] Built target G4GMocren  
Consolidate compiler generated dependencies of target G4physicslists  
[100%] Built target G4physicslists  
Jamess-MacBook-Pro:geant4-v11.0.0-build jamesbowen\$ make install  
[ 0%] Built target ptl-shared  
[ 0%] Built target G4zlib  
[ 0%] Built target G4tools  
[ 3%] Built target G4clhep  
[ 4%] Built target G4global  
[ 5%] Built target G4intercoms

```
[ 7%] Built target G4analysis
[ 8%] Built target G4graphics_reps
[ 10%] Built target G4materials
[ 19%] Built target G4geometry
[ 26%] Built target G4particles
[ 27%] Built target G4track
[ 30%] Built target G4digits_hits
[ 85%] Built target G4processes
[ 86%] Built target G4tracking
[ 87%] Built target G4event
[ 88%] Built target G4run
[ 88%] Built target G4error_propagation
[ 88%] Built target G4interfaces
[ 88%] Built target G4parmodels
[ 90%] Built target G4persistency
[ 96%] Built target G4physicslists
[ 96%] Built target G4readout
[ 96%] Built target G4tasking
[ 97%] Built target G4modeling
[ 98%] Built target G4vis_management
[ 98%] Built target G4FR
[ 98%] Built target G4visHepRep
[100%] Built target G4RayTracer
[100%] Built target G4Tree
[100%] Built target G4VRML
[100%] Built target G4GMocren
```

### Install the project...

```
-- Install configuration: "Release"
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4analysis.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4digits_hits.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4error_propagation.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4event.dylib
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libG4intercoms.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4interfaces.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4materials.dylib
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/
libG4parmodels.dylib
```

```
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/  
libG4particles.dylib  
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/  
libG4persistence.dylib  
-- Installing: /Users/jamesbowen/geant4-v11.0.0-install/lib/  
libG4physicslists.dylib  
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libG4modeling.dylib  
Jamess-MacBook-Pro:geant4-v11.0.0-build jamesbowen$ cd ~
```