

ROOT 安装教程

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make 安装方法

1. 必须安装的软件包

```
sudo apt-get install git dpkg-dev cmake g++ gcc binutils libx11-dev libxpm-dev libxft
```

2. 选择安装的软件包

```
sudo apt-get install gfortran libssl-dev libpcre3-dev xlibmesa-glu-dev libglew1.5-dev  
libmysqlclient-dev libfftw3-dev libcfitsio-dev graphviz-dev libavahi-com  
libldap2-dev python-dev libxml2-dev libkrb5-dev libgs10-dev libqt4-dev  
// 安装Optional packages // libcfitsio-dev可能出错，则改为libcfitsio3-dev
```

3. 下载需要的ROOT版本 <<https://root.cern.ch/releases>>

解压到指定文件夹，比如：[/home/gfh16/Packages/root/](#)

4. `./configure` ##在[/home/gfh16/Packages/root/](#) 下打开终端 (或者 `./configure --all` ### 安装更多的功能)

5. `make -j4` ### jn 根据自己的电脑情况而定 ### 这一步可能需要等很长时间

6. 配置环境变量：`source /home/gfh16/Packages/root/bin/thisroot.sh` 添加到 `.bashrc`文件中

7. 安装成功

cmake 安装方法

1. 必须安装的软件包

```
sudo apt-get install git dpkg-dev cmake g++ gcc binutils libx11-dev libxpm-dev libxft
```

2. 选择安装的软件包

```
sudo apt-get install gfortran libssl-dev libpcre3-dev xlibmesa-glu-dev libglew1.5-dev  
libmysqlclient-dev libfftw3-dev libcfitsio-dev graphviz-dev libavahi-comp  
libldap2-dev python-dev libxml2-dev libkrb5-dev libgs10-dev libqt4-dev  
// 安装Optional packages // libcfitsio-dev可能出错, 则改为libcfitsio3-dev
```

3. 下载需要的ROOT版本: <https://root.cern.ch/releases>

需要注意几个问题:

- (1) root 版本有source版本(源代码)、binary版本。一定要下载source版
- (2) ubuntu18.04, ubuntu16.04, ubuntu14.04 对root版本要求不一样, 要选择配套的root版本

4. 如下载: root_v6.18.00.source.tar.gz

解压: `tar zxvf root_v6.18.00.source.tar.gz`

解压后自动生成文件: root_v6.18.00.source

5. 在root_v6.18.00.source所在的路径新建文件夹, 用来安装root; 进入新建文件夹:

```
mkdir root_install  
cd root_install
```

6. `cmake ../root_v6.18.00.source/`

7. `cmake --build . -- -jN` // N is the number of available cores

8. 设置环境变量: `source /home/sea/Packages/root6.18/root_install/bin/thisroot.sh`

附录: 配置环境变量

```

#!/bin/bash
#export cadmesh_DIR=/home/nuclearresearch/MyPrograms/CADMesh/install/lib/cmake/cadmesh-.
#export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/home/nuclearresearch/MyPrograms/CADMesh/install

#for root setting
#!/bin/bash
#export ROOTSYS=$PACKAGES_PATH/root
source /home/sea/Packages/root6.18/root_install/bin/thisroot.sh

#####
##for xerces-c-3.1.1
#export XERCESC_LIBRARY=/usr/local/lib
#export XERCESC_INCLUDE_DIR=/usr/local/include/xercesc
#export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/lib

#####
##for Geant4.9.6.p03
#export Geant4_9_6_path=/home/gfh16/Packages/Geant4/geant4.9.6.p03-install
#source $Geant4_9_6_path/bin/geant4.sh
#source $Geant4_9_6_path/share/Geant4-9.6.3/geant4make/geant4make.sh

####for data
#export G4ABLA3=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4ABLA3.0
#export G4EMLOW=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4EMLOW6.50
#export G4ENSDFSTATE=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4ENSDFSTATE2.1
#export G4NDL=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4NDL4.5
#export G4PII=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4PII1.3
#export G4NEUTRONXS=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4NEUTRONXS1.4
#export G4SAIDDATA=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4SAIDDAT1.1
#export G4TENDL=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4TENDL1.3
#export PhotonEvaporation=/home/gfh16/Geant4/geant4.9.6.p03-install/data/G4PhotonEvapor
#export RadioactiveDecay=/home/gfh16/Geant4/geant4.9.6.p03-install/data/RadioactiveDeca
#export RealSurface=/home/gfh16/Geant4/geant4.9.6.p03-install/data/RealSurface1.0

##for Geant4.9.6.p03// for /home/gfh16/Geant4
#export Geant4_9_6_path=/home/gfh16/Packages/geant4/geant4.9.6.p03-install
#source $Geant4_9_6_path/bin/geant4.sh
#source $Geant4_9_6_path/share/Geant4-9.6.3/geant4make/geant4make.sh

##for Geant4.9.6.p03// for /home/gfh16/Geant4
#export Geant4_9_6_path=/home/gfh16/Packages/GEANT4/geant4.10.03.p01-install
#source $Geant4_9_6_path/bin/geant4.sh
#source $Geant4_9_6_path/share/Geant4-10.3.1/geant4make/geant4make.sh

```