

Ubuntu18.04 LTS 安装 GMT 4.5.18

1. 下载 gmt 软件包及其依赖包

netcdf-c-4.8.1.tar.gz

地址一: <https://github.com/Unidata/netcdf-c/releases/tag/v4.8.1>

地址二: <https://downloads.unidata.ucar.edu/netcdf/>

gmt-4.5.18-src.tar.bz2

地址一: <http://mirrors.ustc.edu.cn/gmt/>

地址二: <https://blog.seisman.info/install-gmt4-under-linux/#%E5%AE%89%E8%A3%85-gmt>

gshhg-gmt-2.3.7.tar.gz

地址一: <https://blog.seisman.info/install-gmt4-under-linux/#%E5%AE%89%E8%A3%85-gmt>

2. 将安装包复制到/usr/local

```
sudo cp -rf gmt-4.5.18-src.tar.bz2 gshhg-gmt-2.3.7.tar.gz netcdf-c-4.8.1.tar.gz /usr/local/
```

3. 在/usr/local/安装 netcdf

```
sudo apt install m4
```

```
cd /usr/local/
```

```
sudo tar -zxvf netcdf-c-4.8.1.tar.gz
```

```
sudo mv netcdf-c-4.8.1 NETCDF
```

```
cd NETCDF
```

```
sudo ./configure --disable-netcdf-4
```

```
sudo make
```

```
sudo make install
```

安装成功后会出现类似下图信息:

```
+-----+
| Congratulations! You have successfully installed netCDF! |
|                                                         |
| You can use script "nc-config" to find out the relevant  |
| compiler options to build your application. Enter      |
|                                                         |
| nc-config --help                                       |
|                                                         |
| for additional information.                             |
|                                                         |
| CAUTION:                                               |
|                                                         |
| If you have not already run "make check", then we strongly |
| recommend you do so. It does not take very long.      |
|                                                         |
| Before using netCDF to store important data, test your  |
| build with "make check".                               |
|                                                         |
| NetCDF is tested nightly on many platforms at Unidata  |
| but your platform is probably different in some ways.  |
|                                                         |
| If any tests fail, please see the netCDF web site:     |
| https://www.unidata.ucar.edu/software/netcdf/          |
|                                                         |
| NetCDF is developed and maintained at the Unidata Program |
| Center. Unidata provides a broad array of data and software |
| tools for use in geoscience education and research.   |
| https://www.unidata.ucar.edu                           |
|                                                         |
+-----+
make[3]: Leaving directory '/usr/local/NETCDF'
make[2]: Leaving directory '/usr/local/NETCDF'
make[1]: Leaving directory '/usr/local/NETCDF'
yji@jianlong: /usr/local/NETCDF$
```

4. 安装 GMT

```
sudo apt-get install xorg-dev
cd ../
sudo tar -jxvf gmt-4.5.18-src.tar.bz2
sudo mv gmt-4.5.18 GMT
cd GMT
sudo ./configure --enable-netcdf=/usr/local/NETCDF
sudo make
sudo make install
```

5. 安装 gshhg-gmt-2.3.7.tar.gz

```
cd ../
sudo mv gshhg-gmt-2.3.7.tar.gz /usr/local/GMT/
cd GMT
sudo tar -xvf gshhg-gmt-2.3.7.tar.gz
```

6. 设置环境变量

在终端打开环境变量文件：

```
vi ~/.bashrc
```

在文件末尾添加：

```
export NETCDFHOME=/usr/local/NETCDF
export GMTHOME=/usr/local/GMT
export PATH=$PATH:$NETCDFHOME:$GMTHOME/bin
```

在终端输入使得环境变量生效的命令：

```
source ~/.bashrc
```

7. 测试安装是否成功

新建终端输入：

```
psbasemap -JM7 -R117/126/18/26 -BNEWsf2a3g2:xx:/f3a3g2:y::test: -P -V -K >Test.ps
```

如果提示以下信息，则成功，否则重新按照上述流程按照。

```
psbasemap: Constructing basemap
```

通过 evince 查看图片 Test.ps，如果没 ps 软件，可通过如下命令安装：

```
sudo apt install evince
```

TIPS:

1. 其他安装教程可参考：

<https://blog.seisman.info/install-gmt4-under-linux/#%E5%AE%89%E8%A3%85-gmt>

2. Centos 系统安装步骤基本一样，除了第 4 步可能碰到：

如果提示错误缺少：X11/Xaw/Scrollbar.h

```
yum search Xaw  安装 search 到的几个软件
//注意这是 32 位系统的，对于 64 位系统 根据 search 出的可下载的文件！
yum install Xaw3d-devel.i686 libXaw-devel.i686 Xaw3d.i686 libXaw.i686 xfig-
plain.i686
//这是 64 位系统的
yum install Xaw3d-devel.i686 Xaw3d-devel.x86_64 libXaw-devel.i686 libXaw-
devel.x86_64 Xaw3d.i686 Xaw3d.x86_64 libXaw.i686 libXaw.x86_64 xfig-plain.x86_64
```

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