

Virtual Seismological Debian 6 x86_64 Machine

install Virtualbox for you pc/laptop

download here [Oracle VirtualBox](#)

install basic server system

```
root/password => sismologia/sismologia
user/password => sismologo/sismologo
```

install GuestAdditions

```
sudo apt-get install dkms gcc
```

press **HOST+D** or VirtualMachine menu → Devices → Install Guest Additions

```
cd /media/VirtualBoxGuestAdditions
./VBoxLinuxAdditions.run
reboot
```

done, your screen can be bigger...

TauP

Download <http://www.seis.sc.edu/TauP/> last release → <http://www.seis.sc.edu/downloads/TauP/TauP-2.0.tgz>

Extract file into install dir:

```
# tar -xvzf TauP-2.0.tgz
# mv TauP-2.0 /opt
```

Add your TauP to PATH in your /etc/profile:

```
export TAUP_HOME=/opt/TauP-2.0
export PATH=$PATH:$TAUP_HOME/bin
```

To run TauP one need to install Java: e.g: apt-get install sun-java6-jre

SeisGram2K

Download [SeisGram2K60.jar](#) and

[sg2kdefaults](#)

see install instructions: http://alomax.free.fr/seisgram/ver60/SeisGram2K_install.html

see also [seisgram2k](#)

if can download a previous version from <ftp://trovador.iag.usp.br/tecnico/SeisGram2K53.pt-BR.jar>

Extract file into install dir:

```
# mkdir /opt/seisgram2k
# mv _downloaded_file /opt/seisgram2k
```

Create a shortcut

```
# touch /opt/seisgram2k/seisgram
# chmod +x /opt/seisgram2k/seisgram
# vim /opt/seisgram2k/seisgram
```

add this content:

```
#!/bin/bash
SG_HOME=/opt/seisgram2k
JAR=$SG_HOME/SeisGram2K60.jar
java -Xmx64m -classpath $JAR net.alomax.seisgram2k.SeisGram2K $*
```

Add it to PATH in your /etc/profile:

```
export SEISGRAM_HOME=/opt/seisgram2k
export PATH=$PATH:$SEISGRAM_HOME
```

SOD

download

```
# wget http://www.seis.sc.edu/downloads/sod/3.0.0/sod-3.0.0.tgz
```

unpack

```
# tar -xvzf sod-3.0.0.tgz
# mv /sod-3.0.0 /opt/
```

add it to your path

```
export SOD_HOME=/opt/sod-3.0.0
export PATH=$PATH:$SOD_HOME/bin
```

more info: [SOD](#)

rdSeed

Download <http://www.iris.edu/pub/programs/rdseedv5.3.1.tar.gz>

```
# tar -xvzf rdseedv5.1.tar.gz
# cd rdseedv5.1
# make
# mkdir /opt/local/bin
# mv rdseed /opt/local/bin
```

Add it to PATH in your /etc/profile:

```
export PATH=$PATH:/opt/local/bin
```

miniSEED tools

For each tool Download source from [IRIS](#)

```
# tar -xvzf _file_
# cd _dir_
# make
# mv _binary_ /opt/local/bin
```

Add it to PATH in your /etc/profile:

```
export PATH=$PATH:/opt/local/bin
```

PASSCAL software

download latest version

```
# wget
http://www.passcal.nmt.edu/ftp/software/passsoft/linux/x86_64/PASSOFT-LATEST.
x86_64.tar.bz2
```

unzip

```
# bunzip2 PASSOFT-LATEST.x86_64.tar.bz2
```

untar

```
# tar -xvf PASSOFT-LATEST.x86_64.tar
```

deploy

```
# mv passcal /opt/passcal
```

add these lines to /etc/profile to setup your environment

```
# passcal
export PASSOFT=/opt/passcal
export PASSCAL=/opt/passcal
export PATH=${PATH}:${PASSCAL}/bin:${PASSCAL}/other/bin
export MANPATH=${PASSCAL}/man:${MANPATH}
```

SAC

follow [sac_101](#)

PQL II

browse your version [here](#) or

download directly

```
# wget
http://www.passcal.nmt.edu/ftp/software/pql/linux/x86_64/PQL-2010-246.x86_64
.rpm
```

you will need convert the packet of .rpm to .deb, for this you need install the alien packet to convert:

```
# apt-get install alien
# alien --to-deb -k PQL-2010-246.x86_64.rpm
```

install it

```
# dpkg -i pql_2010-246_amd64.deb
```

SeisAn

see [reference](#)

browse software and manuals [here](#)

make install dir

```
# mkdir /opt/seisan-9.0.1; cd !$
```

download directly

```
# wget  
ftp://ftp.geo.uib.no/pub/seismo/SOFTWARE/SEISAN_9.0.1/seisan_v9.0.1_linux_64  
bit.tar.gz
```

extract

```
# tar -xvzf seisan_v9.0.1_linux_64bit.tar.gz
```

modify SEISAN_TOP directory in **COM/SEISAN.bash**

```
export SEISAN_TOP="/opt/seisan-9.0.1"
```

add it to /etc/profile

```
export SEISAN_HOME="/opt/seisan-9.0.1"  
source ${SEISAN_HOME}/COM/SEISAN.bash
```

if you need compile other tools follow [Jim Tang](#)

PDCC

download code

```
# wget http://www.iris.edu/pub/programs/pdcc/pdcc-3.7.1.zip  
# unzip /pdcc-3.7.1.zip  
# mv PDCC-3.7.1 pdcc-3.7.1  
# mv pdcc-3.7.1 /opt
```

create shortcut

```
# cd /opt/pdcc  
# touch pdcc  
# chmod +x pdcc  
# vim pdcc
```

put there these lines

```
#!/bin/bash  
OLD_DIR=`pwd`  
PDCC_HOME="/opt/pdcc-3.7.1"  
cd $PDCC_HOME  
java -Xmx256m -jar ./run_pdcc.jar
```

```
cd $OLD_DIR
```

export to path in /etc/profile

```
export PATH=$PATH:/opt/pdcc-3.7.1
```

RFNT Codes

raw reference [Charles Ammon](#)

download

```
# wget http://eqseis.geosc.psu.edu/%7ecammon/Archives/RftnCodes.tar.gz
```

unpack

```
# tar -xvzf RftnCodes.tar.gz
```

change sacio lib reference in **build.it.csh**

```
setenv SACLIB /opt/sac/lib/libsacio.a
```

ensure if you had gcc-g77 compatibility

```
# apt-get install ratfor
```

make

```
# mv Rftn.Codes.Export Rftn.Codes
# cd Rftn.Codes
# csh build.it.csh
```

add it to PATH in your /etc/profile

```
# rftn codes
export RFTN_HOME="/opt/Rftn.Codes"
export PATH=$PATH:$RFTN_HOME/bin
```

GMT

install

```
# apt-get install gmt
```

if you need gmtdefaults there a example for version 3 [her](#)

add it to PATH in your `/etc/profile`

```
# GMT Config
export PATH=$PATH:/usr/lib/gmt/bin
```

Hermann, Programs 3.30

check if you have `ncurses-dev`:

```
# apt-get install ncurses-dev
```

note: until now this is the only dependences that we didn't had.

download

```
# wget http://www.eas.slu.edu/eqc/eqc_cps/Download/NP330.Jan-14-2012.tgz
```

unpack

```
# tar -xvzf NP330.Jan-14-2012.tgz
```

put it where you want

```
# mv PROGRAMS.330 /opt
```

run Setup to your arch

```
# cd /opt/PROGRAMS.330
# ./Setup LINUX6440
```

make it (I've got 132 programs)

```
# ./C
```

add it to your PATH

```
export P330_HOME=/opt/PROGRAMS.330
export PATH=$PATH:$P330_HOME/bin
```

please note that some program can be exist in more than one location, then check version of program that you're using e.g.

- `/opt/local/bin/rdseed (v5.1)`
- `/opt/PROGRAMS.330/bin/rdseed (v5.0)`

more [info](#)

see also [changeset](#)

BRbFast

follow [brbfast](#)

focmec

download packet

```
# wget ftp://trovador.iag.usp.br/pub/software/focmec.tar
# tar -xvzf focmec.tar
# mv focmec/ /opt
# cd focmec/src
```

set fortran compiler on **build_package** file...

run it

```
# ./build_package
```

share it on PATH

```
export FM_HOME=/opt/focmec
export PATH=$PATH:$FM_HOME/bin
```

SU - Seismic Unix

download and unpack

```
# wget ftp://ftp.cwp.mines.edu/pub/cwpcodes/cwp_su_all_43R1.tgz
# tar -xvzf cwp_su_all_43R1.tgz
# mkdir /opt/su
# mv src /opt/su
```

set CWPROOT envvar

```
# export CWPROOT=/opt/su
```

choose your Makefile.config

```
# mv $CWPROOT/src/configs/Makefile.config.ARCH $CWPROOT/src
```

make

```
# make install
# make finstall
```

```
# make utils
# make sinstall
```

install motif development

```
# apt-get install libgl1-mesa-dev libmotif-dev freeglut3 libxi-dev
```

make X app

```
# make xinstall
# make xminstall
# make mglinstall
```

share it on PATH

```
# export CWPROOT=/opt/su
# export PATH=$PATH:$CWPROOT/bin
```

more [info](#)

HYP071

download

```
# wget ftp://trovador.iag.usp.br/pub/software/HYP071.tar
```

make

```
# make -f makefile
# make -f makefile3
# f77 -o wadati wadati.f
```

path

```
# export PATH=$PATH:/opt/local/HYP071
```

hypoDD

download & unpack

```
# wget http://www.ldeo.columbia.edu/~felixw/HYPODD/HYPODD_1.3.tar.gz
# tar -xvzf HYPODD_1.3.tar.gz
```

```
# mv HYPODD /opt
```

```
# cd src && make
```

move binaries to bin

```
# mv hista2ddsta/hista2ddsta /opt/local/bin/  
# mv hypoDD/hypoDD /opt/local/bin/  
# mv ncsn2pha/ncsn2pha /opt/local/bin/  
# mv ph2dt/ph2dt /opt/local/bin/
```

obspy

follow [ObsPy intallation Debian](#)

some data converters

see <http://www.iris.edu/pub/programs/converters/>

download

```
# wget _url_file_.tar.gz  
# tar -zxvf _file_.tar.gz  
# cd _file_ && make
```

move binarie to /opt/local/bin

```
# mv _binarie_ /opt/local/bin
```

— *Marlon Pirchner and Jackson Calhau* 2012/02/03 20:03

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