

Installing SeisComP3



sysop User

- SeisComP3 is typically run under a non-personal shared unix user account, 'sysop'. Create this user on your system.
- For example, as the 'root' user:
 - # adduser sysop
 - # passwd sysop
 - For this class we'll use 'sysop' as the password for the user sysop but you should use a stronger password on your own system.
- Give the user super-user capabilities, used for the installation, in Ubuntu this should do it:
 - # usermod -aG sudo sysop
- At this point, log out of your system, and log back in as the user sysop.

Acquire a License Key

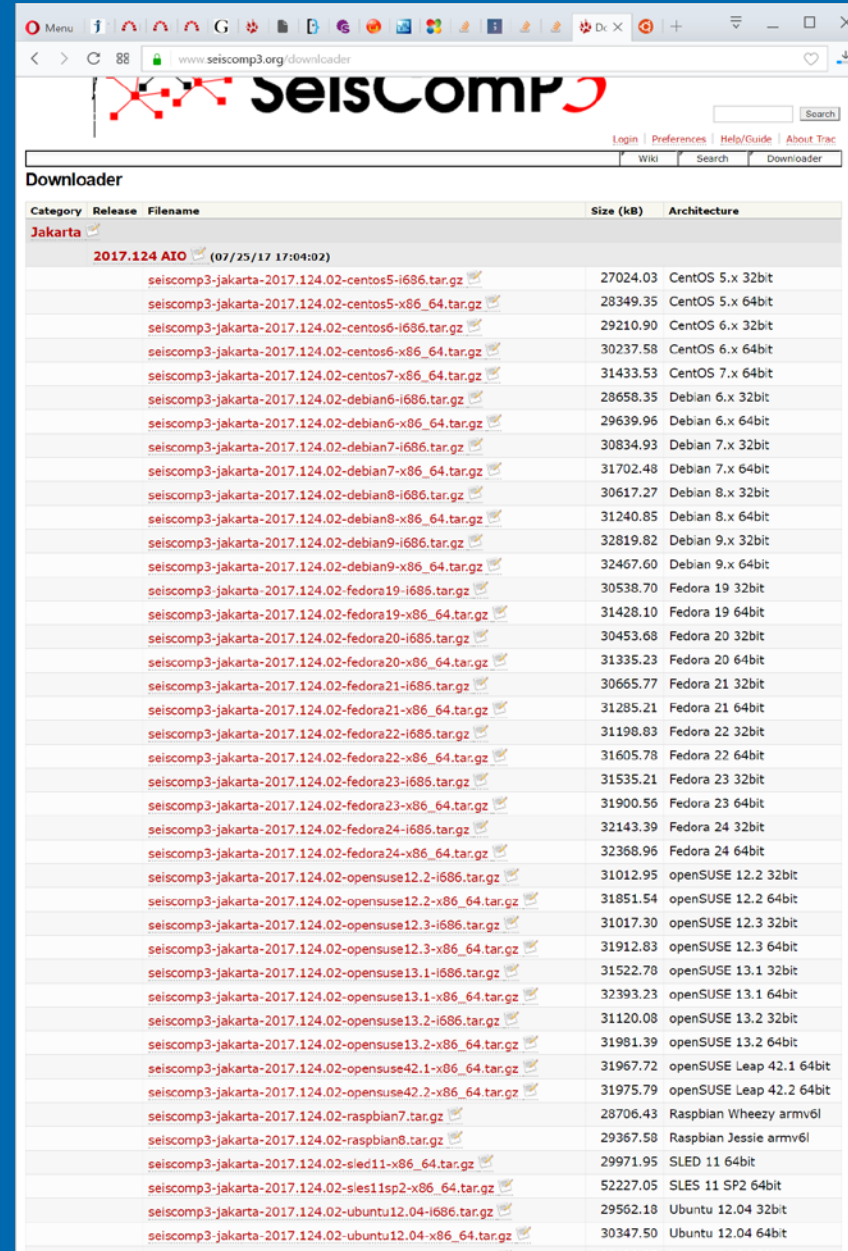
- First you need to visit
- <https://www.seiscomp3.org/wiki/license>

- The SeisComP Licenses
- The text of the SeisComP licenses can be downloaded as PDF from GFZ.
- Please fill in the required fields in the PDF document, print it out, have it signed by a representative of your institution and send a scan of the signed document to us by e-mail to geofon@gfz-potsdam.de
- Upon our acceptance of the license agreement we will send you the key files required to run those programs covered by the SeisComP Binary License. In order to learn more about the user community, we would appreciate if you could briefly describe how you learned about SeisComP and the intended use.

Download SeisComP3

- Next find out if your server is 64 bit (x86_64) or 32 bit (i686), find out what your flavor of Linux is, and go download the appropriate SeisComP3 compiled version from here. Install the latest – Jakarta 2017:

<https://www.seiscomp3.org/wiki/download>



Category	Release	Filename	Size (kB)	Architecture
Jakarta	2017.124 AIO	(01/25/17 17:04:02)		
		seiscomp3-jakarta-2017.124.02-centos5-i686.tar.gz	27024.03	CentOS 5.x 32bit
		seiscomp3-jakarta-2017.124.02-centos5-x86_64.tar.gz	28349.35	CentOS 5.x 64bit
		seiscomp3-jakarta-2017.124.02-centos6-i686.tar.gz	29210.90	CentOS 6.x 32bit
		seiscomp3-jakarta-2017.124.02-centos6-x86_64.tar.gz	30237.58	CentOS 6.x 64bit
		seiscomp3-jakarta-2017.124.02-centos7-x86_64.tar.gz	31433.53	CentOS 7.x 64bit
		seiscomp3-jakarta-2017.124.02-debian6-i686.tar.gz	28658.35	Debian 6.x 32bit
		seiscomp3-jakarta-2017.124.02-debian6-x86_64.tar.gz	29639.96	Debian 6.x 64bit
		seiscomp3-jakarta-2017.124.02-debian7-i686.tar.gz	30834.93	Debian 7.x 32bit
		seiscomp3-jakarta-2017.124.02-debian7-x86_64.tar.gz	31702.48	Debian 7.x 64bit
		seiscomp3-jakarta-2017.124.02-debian8-i686.tar.gz	30617.27	Debian 8.x 32bit
		seiscomp3-jakarta-2017.124.02-debian8-x86_64.tar.gz	31240.85	Debian 8.x 64bit
		seiscomp3-jakarta-2017.124.02-debian9-i686.tar.gz	32819.82	Debian 9.x 32bit
		seiscomp3-jakarta-2017.124.02-debian9-x86_64.tar.gz	32467.60	Debian 9.x 64bit
		seiscomp3-jakarta-2017.124.02-fedora19-i686.tar.gz	30538.70	Fedora 19 32bit
		seiscomp3-jakarta-2017.124.02-fedora19-x86_64.tar.gz	31428.10	Fedora 19 64bit
		seiscomp3-jakarta-2017.124.02-fedora20-i686.tar.gz	30453.68	Fedora 20 32bit
		seiscomp3-jakarta-2017.124.02-fedora20-x86_64.tar.gz	31335.23	Fedora 20 64bit
		seiscomp3-jakarta-2017.124.02-fedora21-i686.tar.gz	30665.77	Fedora 21 32bit
		seiscomp3-jakarta-2017.124.02-fedora21-x86_64.tar.gz	31285.21	Fedora 21 64bit
		seiscomp3-jakarta-2017.124.02-fedora22-i686.tar.gz	31198.03	Fedora 22 32bit
		seiscomp3-jakarta-2017.124.02-fedora22-x86_64.tar.gz	31605.78	Fedora 22 64bit
		seiscomp3-jakarta-2017.124.02-fedora23-i686.tar.gz	31535.21	Fedora 23 32bit
		seiscomp3-jakarta-2017.124.02-fedora23-x86_64.tar.gz	31900.56	Fedora 23 64bit
		seiscomp3-jakarta-2017.124.02-fedora24-i686.tar.gz	32143.39	Fedora 24 32bit
		seiscomp3-jakarta-2017.124.02-fedora24-x86_64.tar.gz	32368.96	Fedora 24 64bit
		seiscomp3-jakarta-2017.124.02-opensuse12.2-i686.tar.gz	31012.95	openSUSE 12.2 32bit
		seiscomp3-jakarta-2017.124.02-opensuse12.2-x86_64.tar.gz	31851.54	openSUSE 12.2 64bit
		seiscomp3-jakarta-2017.124.02-opensuse12.3-i686.tar.gz	31017.30	openSUSE 12.3 32bit
		seiscomp3-jakarta-2017.124.02-opensuse12.3-x86_64.tar.gz	31912.83	openSUSE 12.3 64bit
		seiscomp3-jakarta-2017.124.02-opensuse13.1-i686.tar.gz	31522.70	openSUSE 13.1 32bit
		seiscomp3-jakarta-2017.124.02-opensuse13.1-x86_64.tar.gz	32393.23	openSUSE 13.1 64bit
		seiscomp3-jakarta-2017.124.02-opensuse13.2-i686.tar.gz	31120.08	openSUSE 13.2 32bit
		seiscomp3-jakarta-2017.124.02-opensuse13.2-x86_64.tar.gz	31981.39	openSUSE 13.2 64bit
		seiscomp3-jakarta-2017.124.02-opensuse42.1-x86_64.tar.gz	31967.72	openSUSE Leap 42.1 64bit
		seiscomp3-jakarta-2017.124.02-opensuse42.2-x86_64.tar.gz	31975.79	openSUSE Leap 42.2 64bit
		seiscomp3-jakarta-2017.124.02-raspbian7.tar.gz	28706.43	Raspbian Wheezy armv6l
		seiscomp3-jakarta-2017.124.02-raspbian8.tar.gz	29367.50	Raspbian Jessie armv6l
		seiscomp3-jakarta-2017.124.02-sles11-x86_64.tar.gz	29971.95	SLES 11 64bit
		seiscomp3-jakarta-2017.124.02-sles11sp2-x86_64.tar.gz	52227.05	SLES 11 SP2 64bit
		seiscomp3-jakarta-2017.124.02-ubuntu12.04-i686.tar.gz	29562.18	Ubuntu 12.04 32bit
		seiscomp3-jakarta-2017.124.02-ubuntu12.04-x86_64.tar.gz	30347.50	Ubuntu 12.04 64bit

Download SeisComP3

The screenshot shows a web browser window with the URL <https://www.seiscomp3.org/downloader>. The page displays a list of download links for SeisComP3, organized into sections. The '2015.300' section is highlighted, and the 'Maps' section is also visible. The footer includes the Trac logo and search results for 'map'.

File Name	Size	OS/Architecture
arclinkfetch-2014.066.tar.gz	56.77	Any
arclinkfetch_2014.066_all.deb	56.15	Debian and Ubuntu (32, 64 bits)
2015.300 (10/27/15 20:50:09)		
arclinkfetch-2015.300-0.Fedora.noarch.rpm	52.55	Fedora, CentOS (32, 64 bits)
arclinkfetch-2015.300-0.Suse.noarch.rpm	52.56	OpenSuse, Mandriva (32 & 64 bits)
arclinkfetch-2015.300.tar.gz	57.10	Any
arclinkfetch_2015.300_all.deb	56.38	Debian and Ubuntu (32, 64 bits)
Maps		
All (07/27/10 13:38:39)		
seiscomp3-seattle-maps.tar.gz	538065.26	
seiscomp3-zurich-maps.tar.gz	538068.16	
Metadata		
GE network (11/04/10 07:17:46)		
seiscomp3-metadata-GE-2010.307.tar.gz	114.60	

trac
POWERED

Powered by Trac 0.11.7
By Edgewall Software.

Visit the Trac open source project at
<http://trac.edgewall.org/>

map ^ v Highlight All Match Case 1 of 3 matches

Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

- You'll also want to download the maps. The maps for Seattle work with Jakarta. (Scroll down to the bottom of the page.)
- Get the documentation while you're at it. The docs for the 2016 version of Jakarta appear to be the latest.

Unpack your download

➤ For example

```
$ cd ~
```

```
$ tar xf Downloads/seiscomp3-jakarta-  
2017.124.02-ubuntu14.04-i686.tar.gz
```

This should create a directory called `seiscomp3` in `sysop`'s home directory. Now do the maps:

```
$ tar xf Downloads/seiscomp3-seattle-  
maps.tar.gz
```

```
$ tar xf ~/Downloads/seiscomp3-jakarta-  
2016.333-doc.tar.gz
```



Dependencies

Install dependencies for your system. You can do this via:

```
$ ~/seiscomp3/bin/seiscomp install-deps base  
mysql-server gui
```

You may need to enter your password, and the assumption is your user has 'sudo' privileges.

Respond with 'y' if asked if you want to continue.

Set the MySQL root password to something you'll remember.
(On the virtual machine for the course, the password is 'sysop')



Alternate Method Dependencies

If the seiscamp install-deps didn't work for your system, you'll need to do this as the root user, or you'll need to use 'sudo' to act as root. For example

```
sysop@ubuntu14: ~/seiscamp3/share/deps/ubuntu/14.04
root@ubuntu14: ~/Downloads x sysop@ubuntu14: ~/seiscamp3/share/deps/u...
sysop@ubuntu14:~$ find seiscamp3/ -name deps
seiscamp3/share/deps
sysop@ubuntu14:~$ ls seiscamp3/share/deps
centos  debian  sles  ubuntu
sysop@ubuntu14:~$ ls seiscamp3/share/deps/ubuntu/
10.04  11.10  12.04  14.04  16.04  8.04
sysop@ubuntu14:~$ ls seiscamp3/share/deps/ubuntu/14.04/
install-base.sh  install-mysql-server.sh
install-gui.sh    install-postgresql-server.sh
sysop@ubuntu14:~$ chmod +x seiscamp3/share/deps/ubuntu/14.04/*sh
sysop@ubuntu14:~$ cd seiscamp3/share/deps/ubuntu/14.04/
sysop@ubuntu14:~/seiscamp3/share/deps/ubuntu/14.04$ sudo ./install-base.sh
```

Respond with 'y' when asked if you want to continue.

Alternate Method Dependencies

Now install the gui dependencies

```
$ sudo ./install-gui.sh
```

Continue to install database dependencies.

```
sudo ./install-mysql-server.sh
```

Set the MySQL root password to something you'll remember.
(On the virtual machine for the course, the password is
'sysop')



MySQL

The official installation guide suggests making some optional changes for MySQL/MariaDB

<https://docs.gempa.de/seiscomp3/current/base/installation.html>

For better performance with a MySQL database, append the following parameters to the MySQL config file

```
innodb_buffer_pool_size = 64M  
innodb_flush_log_at_trx_commit = 2
```

For example on Ubuntu 14:

```
$ sudo gedit /etc/mysql/my.cnf
```



Initial Configuration

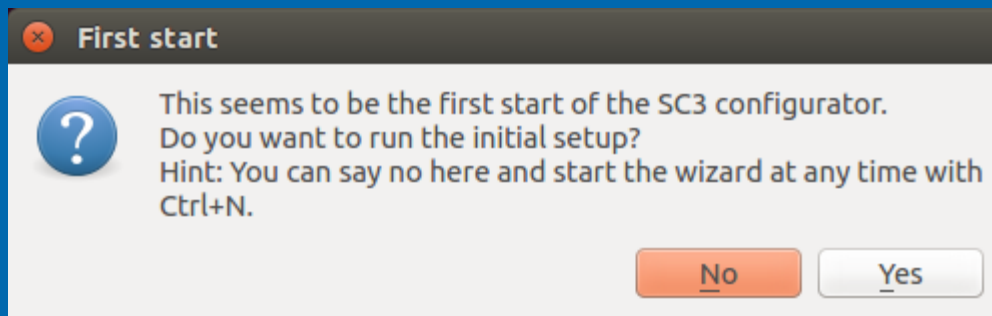
- The sconfig tool has a graphical user interface, and a Wizard which will help you with your configuration the first time you run sconfig. You might run sconfig like:
- ```
$ ~sysop/seicomp3/bin/seiscomp exec sconfig
```
- But, don't do that, follow the instructions on the next informational page to do it as a single command.

# Environment Tweak

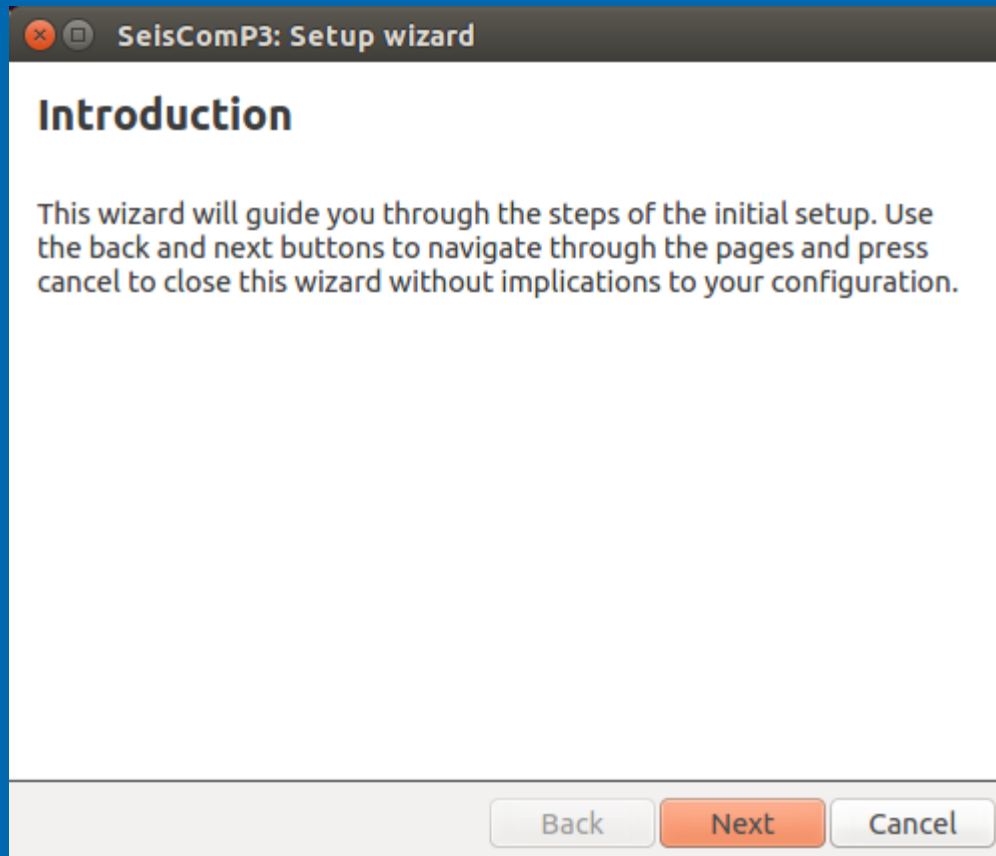


# Environment Tweak

- `$ ~sysop/seiscomp3/bin/seiscomp print env>>`  
`~/ .bashrc`
- `$ source ~/ .bashrc`
- Now launch `scconfig` just by typing its name in any directory:
- `$ scconfig`
- You should see the following, click YES:



# scconfig Configurator

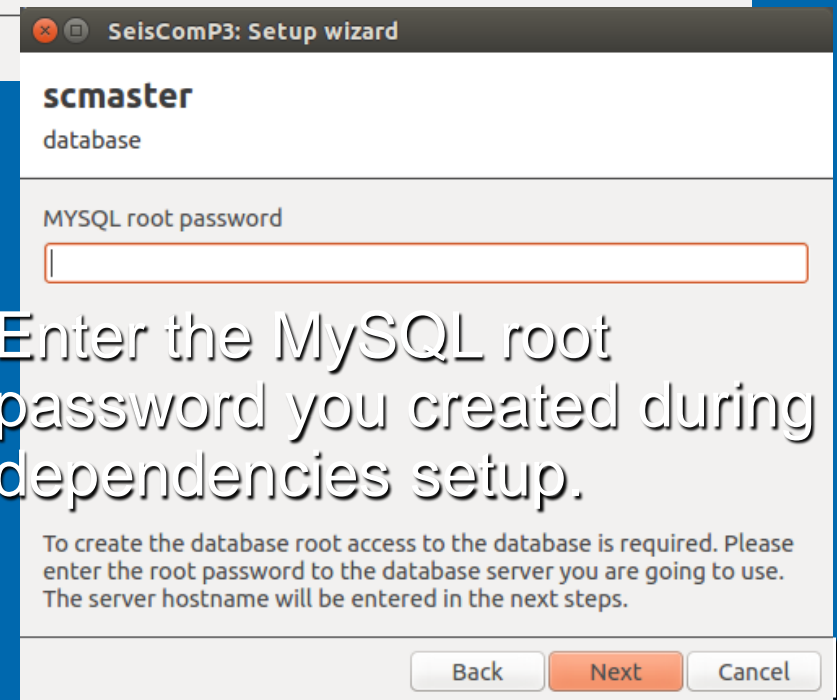
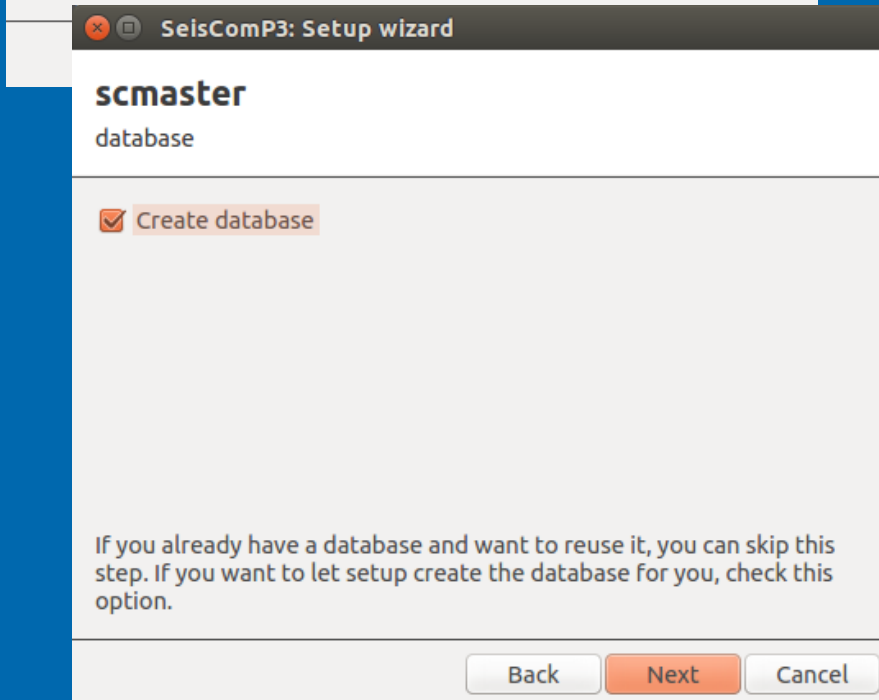
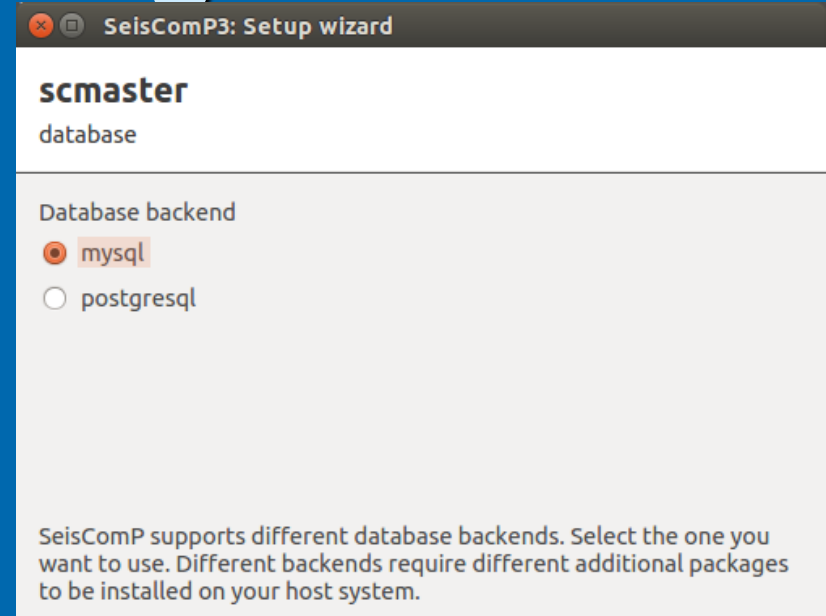


- Enter your organization name for
- Agency ID
- Datacenter ID  
and
- Organisation String

For example "ISTI"  
And YES, enable  
Database storage



# scconfig Configurator



# scconfig Configurator

SeisComP3: Setup wizard

**scmaster**  
database

Drop existing database

When a database with the same name exists already, should it be destroyed and recreated? If you say no here, an error will be raised if the database to be created already exists.

Back Next Cancel

SeisComP3: Setup wizard

**scmaster**  
database

Database name

Database name to use. If you want to avoid conflicts with existing databases or if you have multiple installations change the default name. If you are unsure, keep the default.

Back Next Cancel





# scconfig Configurator

SeisComP3: Setup wizard

**scmaster**  
database

Database hostname

The hostname of the computer running the database server. In most cases it is this computer (localhost). This hostname is private and not published to any client connection to this computer.

Back Next Cancel



# scconfig Configurator

SeisComP3: Setup wizard

**scmaster**  
database

Database read-write user

The database username for read-write access to the database. This account will not be visible to clients connecting to your system unless read-only and read-write accounts are not separated.

Back Next Cancel

SeisComP3: Setup wizard

**scmaster**  
database

Database read-write password

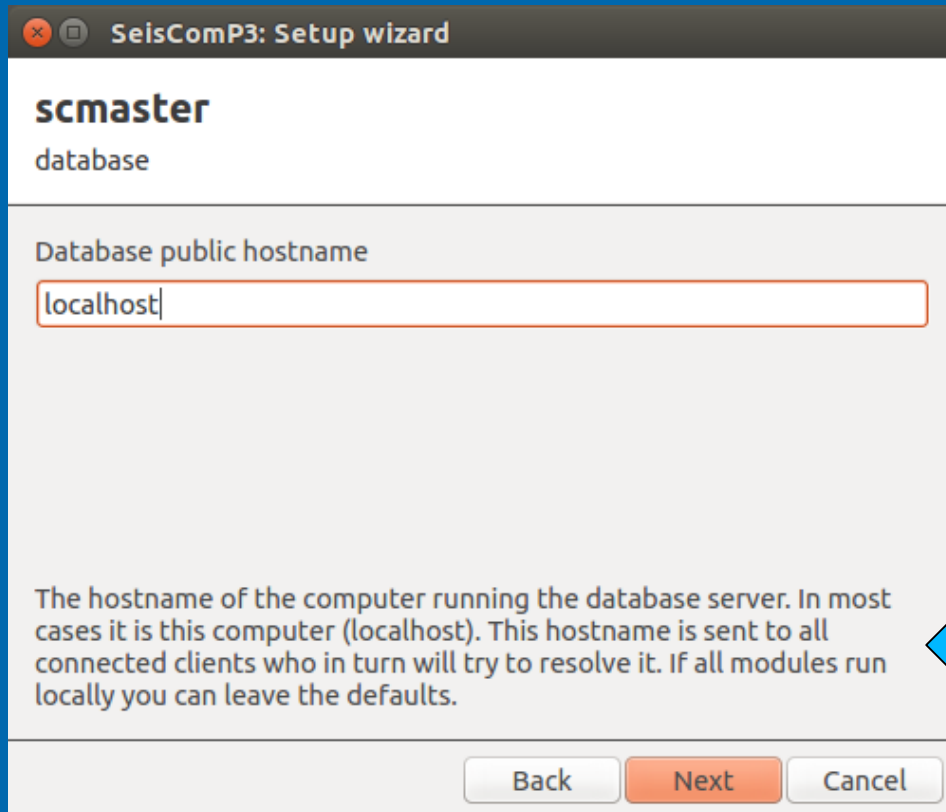
The database user password for read-write access to the database. This account will not be visible to clients connecting to your system unless read-only and read-write accounts are not separated.

Back Next Cancel

**Note these passwords and usernames are different than your unix login and password.**



# scconfig Configurator



SeisComP3: Setup wizard

**scmaster**  
database

Database public hostname

The hostname of the computer running the database server. In most cases it is this computer (localhost). This hostname is sent to all connected clients who in turn will try to resolve it. If all modules run locally you can leave the defaults.

Back Next Cancel

Read the note here.

If you're installing a server, and other people at your organization will connect to the server with GUIs or other modules, this must be an address that they can get to. For example

**192.168.1.100** for an internal network IP.

For a standalone system 'localhost' is OK

# scconfig Configurator

SeisComP3: Setup wizard

**scmaster**  
database

---

Database read-only user

The database user that will have read-only access to the database. This account will be visible to all clients connecting to your system.

Back Next Cancel

SeisComP3: Setup wizard

**scmaster**  
database

---

Database read-only password

The database user password for read-only access to the database. This password will be visible to all clients connecting to your system.

Next Cancel

SeisComP3: Setup wizard

**Finished**

All setup questions have been answered. You can now go back again to correct settings or press 'Finish' to create the configuration.

Back Finish Cancel

For different levels of security, you can set a different username/password here for the more public read-only access.



# FDSN WS

The FDSN web service is built-in to SeisComP3. But it has a prerequisite before you can enable and run it: python-dateutil. Open a shell and sudo execute these 3 commands:

```
sudo apt-get install python-setuptools
```

```
sudo easy_install pip
```

```
sudo pip install python-dateutil
```

