

General Linux

[Add Sudoers in Linux](#)

The sudo privilege allows you to act with root privileges temporarily without becoming root. To use sudo, the user must be added to the sudoers file.

log in as root:

```
___ #su
```

```
___ #cd /etc
```

```
___ #nano sudoers
```

Under #User privilege specification add the user blow the root privilege:

```
___ <username> ALL=(ALL:ALL) ALL
```

```
___ Cntrl X to save and exit.
```

[CMake](#)

"What is CMake?"

As CMake would put it:

Welcome to **CMake**, the cross-platform, open-source build system. CMake is a family of tools designed to build, test and package software. CMake is used to control the software compilation process using simple platform and compiler independent configuration files. CMake generates native makefiles and workspaces that can be used in the compiler environment of your choice.

CMake was created by Kitware in response to the need for a powerful, cross-platform build environment for open-source projects such as [ITK](#) [1] and [VTK](#) [2]. In addition to leading the development of this popular tool, Kitware also offers commercial [consulting](#) [3], [support](#) [4] and [training](#) [5] to help your organization effectively use CMake and the entire Kitware quality software process.

<http://www.cmake.org/> [6]

GSS CMake

Greensea uses the gss_cmake package to maintain a standard use of cmake. The following page will outline the steps necessary to setup and use gss_cmake. [GSS CMake](#) [7]

CMake Boost Example

```
1:2:3:4:5: find_package( Boost 1.52.0 COMPONENTS date
              _time filesystem system )if(Boost_FOUND)
              include_directories(${Boost_INCLUDE_DIRS})
              target_link_libraries(${project_name} ${
```

```
Boost_LIBRARIES})endif()
```

[How Do I Compress a File?](#)

To compress an entire directory software enter the command with your tar file name as follows:

```
$ tar cjvf software.tar.bz2 software
```

Un-compressing files:

Regardless of the file extension, the command is the same. For example: To un-compress a file titled *software.tar.gz* (note the extensions):

```
$ tar zxvf software.tar.gz
```

To un-compress a file titled *software.tar.bz2* (note the extensions):

```
$ tar jxvf software.tar.gz
```

[Un-Compress a Tar File](#)

Regardless of the file extension, the command is the same to un-compress a tar file. For example: To un-compress a file titled *software.tar.gz* (note the extensions):

```
$ tar zxvf software.tar.gz
```

To un-compress a file titled *software.tar.bz2* (note the extensions):

```
$ tar jxvf software.tar.gz
```

[Useful Linux Commands](#)

The Linux command line uses a multitude of keyboard commands at the prompt. Common commands used are 'ls', 'pwd', 'cp' and 'mv'. This section will cover the basic information for these commands. A detailed description can be viewed on the Linux 'man page' To find more details about a Linux command type the man command followed by the command you wish to use on the command line.

For example entering:

```
man ls
```

Will give you the man page for the 'ls' command.

Command	Action	Example
ls	The list command. This command will list the items in the current working directory	ls/home -this will list the contents of your home directory

or a specified directory.

cd	This command will move you from directory to directory.	cd -This command by itself will bring you to your home directory. To move up a directory, use cd .. and for a specific directory add its name as an argument: cd MyDirectory
pwd	Print Working Directory. This command prints to the console screen the name of the directory the user is currently in.	pwd -This command can be used as is without any arguments
cp	The copy command. This command copies files or directories.	cp myfile.txt MyDirectory -This example makes a copy of <i>myfile</i> and places it in <i>MyDirectory</i>
mv	The move command. This command is used to either RENAME a file, or to move a file to a new directory.	mv oldfile newfile - This example will rename <i>oldfile</i> to the name <i>newfile</i> mv oldfile MyDirectory -This command relocates <i>oldfile</i> to <i>MyDirectory</i> and preserves the filename.
mkdir	The make directory command will make a directory.	mkdir My Directory -This example makes a directory (folder) called <i>MyDirectory</i> in the current working directory.
scp	The secure copy command.	scp myfile /path/to/dir makes a secure copy of <i>myfile</i> in the <i>dir</i> path specified.

[Take Ownership of a Port on a Linux Machine](#)

With a [Linux](#) [8] machine, you need root or sudo privileges.

Open a command line and cd to the /dev folder. In here are a whole bunch of ttyxx ports. You can take ownership of all of them, if need be, by using the command:

```
$sudo chown <user> tty*
```

or select a specific port instead of using the *. You will have to take ownership again if you close the port.

Source URL: <http://localhost:8888/kb2017/general-linux>

Links

- [1] <http://itk.org/>
- [2] <http://vtk.org/>
- [3] <http://cmake.org/cmake/help/consulting.html>
- [4] <http://cmake.org/cmake/help/support.html>
- [5] <http://cmake.org/cmake/help/training.html>
- [6] <http://www.cmake.org/>
- [7] <https://greenseainc.fogbugz.com/default.asp?W130>
- [8] <http://greenseainc.com/kb/lexicon/1#linux>