

# mkdir – create a directory

```
greys@MacBook-Pro:~ $  
greys@MacBook-Pro:~ $ mkdir newdir  
greys@MacBook-Pro:~ $ ls -ald newdir  
drwxr-xr-x 2 greys staff 64 5 Jun 12:08 newdir  
greys@MacBook-Pro:~ $
```

`mkdir` command is one of the [basic Unix commands](#) which allows you to create new directories.

## Basic mkdir usage

In its simplest form, `mkdir` takes one or more directory names as command line parameters.

Creating only one directory:

```
bash-2.05b$ mkdir /tmp/newdir
```

Creating a few directories at a time:

```
bash-2.05b$ mkdir /tmp/newdir2 /tmp/newdir3
```

It's very easy to verify that these commands have been successful, but getting the list of directories matching the `newdir` mask in `/tmp`:

```
bash-2.05b$ ls -d /tmp/newdir*
```

```
/tmp/newdir /tmp/newdir2 /tmp/newdir3
```

## Troubleshooting mkdir errors

Sometimes you get the [mkdir cannot create directory error](#), usually that's because specified directory exists or some element of path is missing or restricts you with file/directory permissions.

## mkdir and non-existent parent directories

Sometimes you want to create a whole branch of directories tree, with a number of (initially empty) branched directories.

For example, if you decided to create a `/tmp/mydir/newdir`, and there is no `/tmp/mydir` directory present in `/tmp`, you will get an error:

```
bash-2.05b$ mkdir /tmp/mydir/newdir
```

```
mkdir: cannot create directory `/tmp/mydir/newdir': No such file or directory
```

The reason you get an error is because `/tmp/mydir` directory does not exist, so your request to create a `newdir` subdirectory in `/tmp/mydir` is invalid. The normal approach would be to create `/tmp/mydir` first, and then issue the same command again:

```
bash-2.05b$ mkdir /tmp/mydir
```

```
bash-2.05b$ mkdir /tmp/mydir/newdir
```

However, there is a special command line option in `mkdir` for taking care of non-existent parent directories like this: it's `-p` parameter.

Here is the full example of using it, first you see that without the `-p` you would get an error, and then we verify that the `/tmp/mynewdir` parent directory was created as part of the `mkdir -p` command line:

```
bash-2.05b$ mkdir /tmp/mynewdir/newdir
```

```
mkdir: cannot create directory `/tmp/mynewdir/newdir': No such file or directory
```

```
bash-2.05b$ mkdir -p /tmp/mynewdir/newdir
```

```
bash-2.05b$ ls -d /tmp/mynewdir/
```

```
/tmp/mynewdir/
```

```
bash-2.05b$ ls -d /tmp/mynewdir/newdir/
```

```
/tmp/mynewdir/newdir/
```

## See Also

- [Basic Unix commands](#)
- [Remove directory with rmdir](#)
- [Remove files and directories with rm](#)
- [Using md5deep for Comparing Directories in Unix](#)
- [How to Find Directories Larger Than 1GB in Linux](#)
- [How To Change Ownership of Files and Directories in Unix](#)