

# Linking files

## General information

**Command:** `ln`

**Description:** Use `ln` to create a link to an existing file or directory. For example, you can generate a link to a file in our project data directory into your own data directory keeping better track of what kind of data you used for a particular analysis. If you use soft links now extra disk space will be used.

**Usage:** `ln [OPTION] <sourcefile> /path/to/newdir/newname`

**Common options:**

1. `-s` # generates a soft link
2. `-f` # generates the link even if it already exists

**Action:** Links the file specified by `<sourcefile>` to the new file `newname` in the directory `/path/to/newdir`

**Acts on:** files and directories

## Examples

### Hard links

```
ln ~/.bashrc ./mybashrc.txt
```

**Action:** Generates a copy of your `.bashrc` file in the current working directory and names it `mybashrc.txt`.

**Note:** Linking files can help you (re-)organizing your data. However, each linked file has the same size as the original file.

**Caution:** If you modify the file contents of `mybashrc.txt`, you also modify the file contents of `~/.bashrc`. This is the main difference to a copy of the file that has been generated with `cp`.

### Soft links

```
ln -s ~/.bashrc ./mybashrc.txt
```

**Action:** Generates a file that points to your `.bashrc` file in the current working directory. The pointer is named `mybashrc.txt`.

**Note:** Soft links help you to (re-)organize your data without multiplying the amount of data stored on

your disk.

**Caution:** If you modify the file contents of mybashrc.txt, you of course modify the file contents of ~/.bashrc. Remember, they both point to the same data.

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