Tips and Tricks concerning Linux

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Often used Commands

rsync

`rsync [OPTIONS] SOURCE(S) DESTINATION`

Option	What is does
-a	-r (recursive) and preserves symbolic links, owners and mods.
-v	shows all steps that are being done
-P	–progress (shows progress while transfer) and –partial (resume transfer after cancellation)
–delete	deletes files that are on destination but no longer on source
-n	dry run, same as '-dry-run'

diff

`diff -qr dir1 dir2`

Options: -r, recursively compare subdirectories -q, report only when different

Installation of specific programs

MATLAB

- Installation:

  Matlab downloads into `/tmp` directory. This directory is limited in size. Therefore the download may fail or halt due to no more space being available, although there's plenty of space on the disk.

  The following forum post gives the solution to the problem:

If the installer doesn't honor the `TMP` or `TMPDIR` environment variables, as @thrig pointed out in their answer, and the `/tmp` partition / ramdisk by itself is too small, then simply mount something else on it:

```
mkdir "$HOME/matlabdl"
```

```
mount --bind -o nonempty "$HOME/matlabdl" /tmp
```

Contrary to a normal mount, a `--bind` mount takes an existing directory and mounts it at a different place, i.e. instead of downloading into the ramdisk that normally is at `/tmp` the download actually goes into `$HOME/matlabdl` in this case. `-o nonempty` makes sure that the mount takes place even if `/tmp` is not empty, as would normally be required.

After the installation completes, unmount /tmp again:

```
umount /tmp
```

This will make the ramdisk visible again. In case some process is still using your overridden /tmp, look for which one it is with tools like `lsof`.

- Adding toolboxes after installation:

  Run normal installer again and check the wanted boxes.