Using rsync

`rsync` is a program for comparing directories and copying files as a result. It can be useful for synchronization. Because it compares first before copying things, it is much much faster that copying if you have two similar directory structures to start with.

Examples

Local update

`rsync -av /path/to/source/ /different/path/to/destination`

This copies the entire contents of `path/to/source` into `different/path/to/destination`, including subdirectories, including timestamps and permissions. This is different from

`rsync -av /path/to/source /different/path/to/destination`

(note missing trailing slash) which creates a new subdirectory `/different/path/to/destination/source`

### include acls and extended permissions

Many of our linux volumes now include access control lists (ACLs). To make sure everything is copied:

`rsync -avAX /path/to/source /different/path/to/destination`

-A specifies that ACLs are to be copied, -X specifies that extended attributes are to be copied.

### v for verbose

`-v` makes it `verbose` so you see a list of the files being copied.

Local update making exact copy

`rsync -av --delete /path/to/source/ /different/path/to/destination`

By default, don’t delete

`--delete` is necessary to get rid of files or directories in `destination` that were not in `source`.

Copying over a network with ssh

`rsync -av -e ssh /path/to/source/ username@otherbox.brandeis.edu:/different/path/to/destination`

This copies the entire contents of `path/to/source` into `different/path/to/destination on otherbox.brandeis.edu`, authenticating as `username`.

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