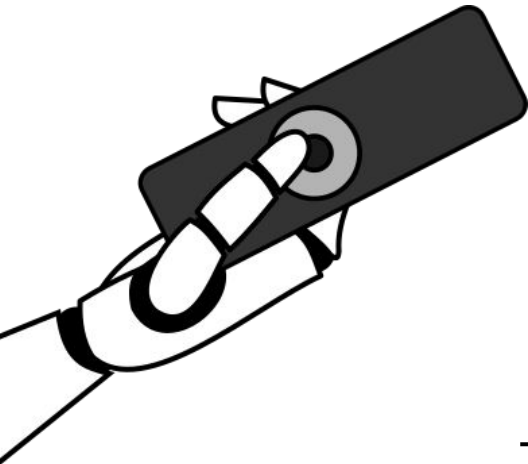

How we build using ostree

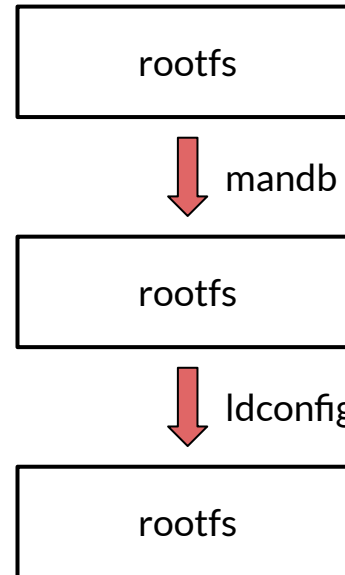
William Manley - stb-tester.com



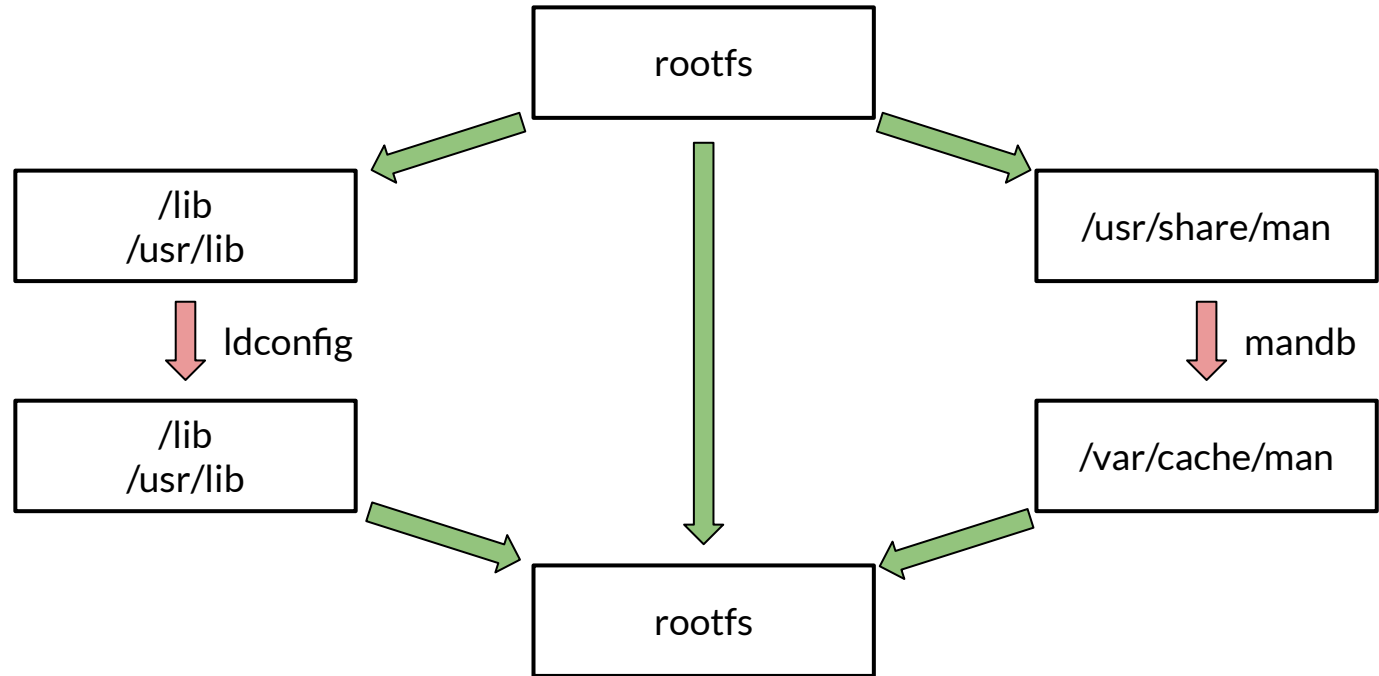
ostree

- Written mostly by Colin Walters @cgwalters
- Implements a Merkle Tree for storing files and directories - as described yesterday in Eric Burnett's talk. This is similar to the implementation in buildbox-casd mentioned yesterday.
- Can be thought of like git, but suitable for filesystem images. It stores file ownership, permissions, xattrs
- Much like git there is the concept of refs - an ability to name a given object other than by SHA.
- Also has other features for deployment and distribution of filesystem images, but not relevant for this talk.

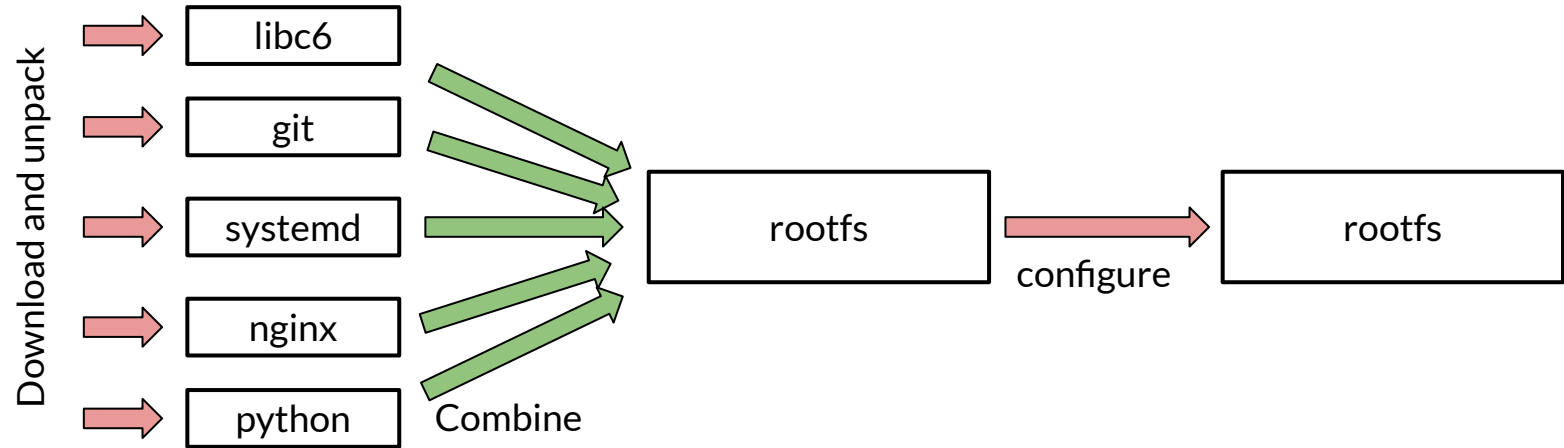




“Operating on metadata”



apt2ostree



Integrating ostree with ninja

- An ostree ref is just a file under refs/
- If a build step doesn't affect the SHA of the ref the mtime of the ref is left unchanged
- In combination with ninja's restat=true option this allows the build graph to be pruned.

Integrating ostree with ninja

- We name the refs after a hash of the build step and the names of the input files.
- Don't need to worry about name clashes
- Makes it easy to build for different platforms within a single build system

<https://github.com/ostreedev/ostree/>

<https://github.com/stb-tester/apt2ostree>