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What is Skopeo?

- Skopeo is a tool for managing and distributing container images

- The first tool of the *github.com/containers* family

- Used in many non-Docker pipelines to push images (e.g. Open Build Service)

- Developed at *github.com/containers/skopeo*

  - *github.com/containers/image*   for image management

  - *github.com/containers/storage* for local storage (overlay, btrfs, vfs, etc.)

Skopeo - born by the desire to inspect remote images

```
$ skopeo inspect docker://fedora:latest
{
    "Name": "docker.io/library/fedora",
    "Digest": "sha256:9c78c69f748953ba8fdb6eb9982e1abefe281d9b931a13f251eb8aec988353de",
    "RepoTags": [...],
    "Created": "2019-06-10T23:20:17.083110434Z",

    ...
    "Architecture": "amd64",
    "Os": "linux",
    "Layers": [
        "sha256:8f6ac7ed4a91c9630083524efcef2f59f27404320bfee44397f544c252ad4bd4"
    ]
}
```
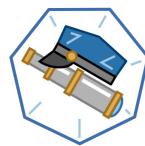
Skopeo Copy - supported transports

- Containers-storage
  - Local container storage (e.g., overlay or btrfs)
- Directory
  - Non-standardized format to "explode" an image to a specified path
- Docker
  - Image on a registry (e.g., docker.io/library/fedora:latest)
  - Archive in the docker-save(1) format
  - From a local docker-daemon
- OCI
  - As specified by the OCI image spec
  - Can also be compressed as a tar(1) archive
- OSTree

Skopeo ABC

- The different transports give a lot of flexibility

    - Works rootless where possible (docker-daemon transport usually requires root)

- Non-opinionated way of managing images

    - Copy, inspect and delete

- A podman pull fedora:latest is actually a ...

    - $ skopeo copy docker://docker.io/library/fedora:latest containers-storage:fedora:latest

    - Note: all tools share the same libraries (i.e., containers/image and containers/storage)

- Easy to integrate into toolchains

    - $ skopeo inspect docker://docker.io/fedora:rawhide | jq '.Digest'

      "sha256:905b4846938c8aef94f52f3e41a11398ae5b40f5855fb0e40ed9c157e721d7f8"
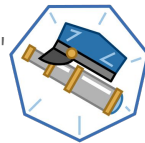
Skopeo Resources

- Upstream development and community
  - github.com/containers/skopeo
  - No dedicated IRC channel
    - #podman on Freenode

- Available on *most* Linux distributions
  - Red Hat Enterprise Linux, Fedora
  - openSUSE, Manjaro, Gentoo
  - Archlinux, Ubuntu, Debian (soon)