



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'containers-transport.5' command

\$ man containers-transport.5

CONTAINERS-TRANSPORTS(5) Man CONTAINERS-TRANSPORTS(5)

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NAME

containers-transport - description of supported transports for copying
and storing container images

DESCRIPTION

Tools which use the containers/image library, including skopeo(1),
buildah(1), podman(1), all share a common syntax for referring to con-
tainer images in various locations. The general form of the syntax is
transport:details, where details are dependent on the specified trans-
port, which are documented below.

The semantics of the image names ultimately depend on the environment
where they are evaluated. For example: if evaluated on a remote server,
image names might refer to paths on that server; relative paths are
relative to the current directory of the image consumer.

containers-storage:[[storage-specifier]][image-id|docker-reference[@image-
id]]

An image located in a local containers storage. The format of docker-
reference is described in detail in the docker transport.

The storage-specifier allows for referencing storage locations on the
file system and has the format [[driver@]root[+run-root][:options]]
where the optional driver refers to the storage driver (e.g., overlay
or btrfs) and where root is an absolute path to the storage's root di-

rectory. The optional run-root can be used to specify the run directory of the storage where all temporary writable content is stored. The optional options are a comma-separated list of driver-specific options. Please refer to containers-storage.conf(5) for further information on the drivers and supported options.

dir:path

An existing local directory path storing the manifest, layer tarballs and signatures as individual files. This is a non-standardized format, primarily useful for debugging or noninvasive container inspection.

docker://docker-reference

An image in a registry implementing the "Docker Registry HTTP API V2". By default, uses the authorization state in `$XDG_RUNTIME_DIR/containers/auth.json`, which is set using `podman-login(1)`. If the authorization state is not found there, `$HOME/.docker/config.json` is checked, which is set using `docker-login(1)`. The `containers-registries.conf(5)` further allows for configuring various settings of a registry.

Note that a docker-reference has the following format: `name[:tag]@digest`. While the docker transport does not support both a tag and a digest at the same time some formats like containers-storage do. Digests can also be used in an image destination as long as the manifest matches the provided digest. The digest of images can be explored with `skopeo-inspect(1)`. If name does not contain a slash, it is treated as `docker.io/library/name`. Otherwise, the component before the first slash is checked if it is recognized as a `hostname[:port]` (i.e., it contains either a `.` or a `:`, or the component is exactly `localhost`). If the first component of name is not recognized as a `hostname[:port]`, name is treated as `docker.io/name`.

docker-archive:path[:{docker-reference}@source-index]

An image is stored in the `docker-save(1)` formatted file. docker-reference must not contain a digest. Alternatively, for reading archives, @source-index is a zero-based index in archive manifest (to access untagged images). If neither docker-reference nor @_source_index is specified when reading an archive, the archive must contain exactly one

image.

It is further possible to copy data to stdin by specifying `docker-archive:/dev/stdin` but note that the used file must be seekable.

`docker-daemon:docker-reference|algo:digest`

An image stored in the docker daemon's internal storage. The image must be specified as a `docker-reference` or in an alternative `algo:digest` format when being used as an image source. The `algo:digest` refers to the image ID reported by `docker-inspect(1)`.

`oci:path[:reference]`

An image compliant with the "Open Container Image Layout Specification" at `path`. Using a reference is optional and allows for storing multiple images at the same path.

`oci-archive:path[:reference]`

An image compliant with the "Open Container Image Layout Specification" stored as a `tar(1)` archive at `path`.

`ostree:docker-reference[@/absolute/repo/path]`

An image in the local `ostree(1)` repository. `/absolute/repo/path` defaults to `/ostree/repo`.

Examples

The following examples demonstrate how some of the containers transports can be used. The examples use `skopeo-copy(1)` for copying container images.

Copying an image from one registry to another:

```
$ skopeo copy docker://docker.io/library/alpine:latest docker://localhost:5000/alpine:latest
```

Copying an image from a running Docker daemon to a directory in the OCI layout:

```
$ mkdir alpine-oci
```

```
$ skopeo copy docker-daemon:alpine:latest oci:alpine-oci
```

```
$ tree alpine-oci
```

```
test-oci/
```

```
??? blobs
```

```
??? ??? sha256
```

```
??? ??? 83ef92b73cf4595aa7fe214ec6747228283d585f373d8f6bc08d66bebab531b7
```

??? 9a6259e911dcd0a53535a25a9760ad8f2eded3528e0ad5604c4488624795cecc

??? ff8df268d29ccbe81cdf0a173076dcfbbea4bb2b6df1dd26766a73cb7b4ae6f7

??? index.json

??? oci-layout

2 directories, 5 files

Copying an image from a registry to the local storage:

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

SEE ALSO

[docker-login\(1\)](#), [docker-save\(1\)](#), [ostree\(1\)](#), [podman-login\(1\)](#), [skopeo-copy\(1\)](#), [skopeo-inspect\(1\)](#), [tar\(1\)](#), [container-registries.conf\(5\)](#), [containers-storage.conf\(5\)](#)

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