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Rocky Enterprise Linux 9.2 Manual Pages on command 'podman-volume-create.1'

\$ man podman-volume-create.1

podman-volume-create(1)() podman-volume-create(1)()

NAME

podman-volume-create - Create a new volume

SYNOPSIS

podman volume create [options]

DESCRIPTION

Creates an empty volume and prepares it to be used by containers. The volume can be created with a specific name, if a name is not given a random name is generated. You can add metadata to the volume by using the --label flag and driver options can be set using the --opt flag.

OPTIONS

--driver=driver

Specify the volume driver name (default local). Setting this to a value other than local Podman attempts to create the volume using a volume plugin with the given name. Such plugins must be defined in the volume_plugins section of the containers.conf(5) configuration file.

--help

Print usage statement

--label=label, -l

Set metadata for a volume (e.g., --label mykey=value).

--opt=option, -o

Set driver specific options. For the default driver, local, this allows a volume to be configured to mount a filesystem on the host. For the local driver the following options

are supported: type, device, and o. The type option sets the type of the filesystem to be mounted, and is equivalent to the -t flag to mount(8). The device option sets the device to be mounted, and is equivalent to the device argument to mount(8).

The o option sets options for the mount, and is equivalent to the -o flag to mount(8) with these exceptions:

? The o option supports uid and gid options to set the UID and GID of the created volume that are not normally supported by mount(8).

? The o option supports the size option to set the maximum size of the created volume and the inodes option to set the maximum number of inodes for the volume. Currently these flags are only supported on "xfs" file system mounted with the prjquota flag described in the xfs_quota(8) man page.

? Using volume options other than the UID/GID options with the local driver requires root privileges.

When not using the local driver, the given options are passed directly to the volume plugin. In this case, supported options are dictated by the plugin in question, not Podman.

EXAMPLES

```
$ podman volume create myvol
```

```
$ podman volume create
```

```
$ podman volume create --label foo=bar myvol
```

```
# podman volume create --opt device=tmpfs --opt type=tmpfs --opt o=nodev,noexec myvol
```

```
# podman volume create --opt device=tmpfs --opt type=tmpfs --opt o=uid=1000,gid=1000 testvol
```

QUOTAS

podman volume create uses XFS project quota controls for controlling the size and the number of inodes of builtin volumes. The directory used to store the volumes must be an XFS file system and be mounted with the pquota option.

Example /etc/fstab entry:

```
/dev/podman/podman-var /var xfs defaults,x-systemd.device-timeout=0,pquota 1 2
```

Podman generates project ids for each builtin volume, but these project ids need to be unique for the XFS file system. These project ids by default are generated randomly, with a potential for overlap with other quotas on the same file system.

The xfs_quota tool can be used to assign a project id to the storage driver directory,

e.g.:

```
echo 100000:/var/lib/containers/storage/overlay >> /etc/projects
echo 200000:/var/lib/containers/storage/volumes >> /etc/projects
echo storage:100000 >> /etc/projid
echo volumes:200000 >> /etc/projid
xfs_quota -x -c 'project -s storage volumes' /<xfs mount point>
```

In the example above we are configuring the overlay storage driver for newly created containers as well as volumes to use project ids with a start offset. All containers will be assigned larger project ids (e.g. ≥ 100000). All volume assigned project ids larger project ids starting with 200000. This prevents xfs_quota management conflicts with containers/storage.

SEE ALSO

podman-volume(1), mount(8), containers.conf(5), xfs_quota(8), xfs_quota(8), projects(5), projid(5)

HISTORY

January 2020, updated with information on volume plugins by Matthew Heon mheon@redhat.com
November 2018, Originally compiled by Urvashi Mohnani umohnani@redhat.com

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