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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'podman-container-restore.1' command

$ man podman-container-restore.1

podman-container-restore(1) General Commands Manualpodman-container-restore(1)

NAME

podman-container-restore - Restores one or more containers from a checkpoint

SYNOPSIS

podman container restore [options] name [...]

DESCRIPTION

podman container restore restores a container from a container check? point or checkpoint image. The container IDs, image IDs or names are used as input.

OPTIONS

--all, -a

Restore all checkpointed containers.

The default is false.

IMPORTANT: This OPTION does not need a container name or ID as input argument.

--file-locks

Restore a container with file locks. This option is required to restore file locks from a checkpoint image. If the checkpoint image does not contain file locks, this option is ignored. Defaults to not restoring file locks.

The default is false.

--ignore-rootfs

If a container is restored from a checkpoint tar.gz file it is possible that it also contains all root file-system changes. With --ignore-rootfs it is possible to explicitly disable applying these root file-system changes to the restored container.

The default is false.

IMPORTANT: This OPTION is only available in combination with --import, -i.

--ignore-static-ip

If the container was started with --ip the restored container also tries to use that IP address and restore fails if that IP address is already in use. This can happen, if a container is restored multiple times from an exported checkpoint with --name, -n.

Using --ignore-static-ip tells Podman to ignore the IP address if it was configured with --ip during container creation.

The default is false.

--ignore-static-mac

If the container was started with --mac-address the restored container also tries to use that MAC address and restore fails if that MAC ad? dress is already in use. This can happen, if a container is restored multiple times from an exported checkpoint with --name, -n.

Using --ignore-static-mac tells Podman to ignore the MAC address if it was configured with --mac-address during container creation.

The default is false.

--ignore-volumes

This option must be used in combination with the --import, -i option.

When restoring containers from a checkpoint tar.gz file with this op? tion, the content of associated volumes will not be restored.

The default is false.

--import, -i=file

Import a checkpoint tar.gz file, which was exported by Podman. This can be used to import a checkpointed container from another host.

IMPORTANT: This OPTION does not need a container name or ID as input argument.

During the import of a checkpoint file Podman will select the same con? tainer runtime which was used during checkpointing. This is especially important if a specific (non-default) container runtime was specified during container creation. Podman will also abort the restore if the container runtime specified during restore does not much the container runtime used for container creation.

--import-previous=file

Import a pre-checkpoint tar.gz file which was exported by Podman. This option must be used with -i or --import. It only works on runc 1.0-rc3 or higher. IMPORTANT: This OPTION is not supported on the remote client, including Mac and Windows (excluding WSL2) machines.

--keep, -k

Keep all temporary log and statistics files created by CRIU during checkpointing as well as restoring. These files are not deleted if restoring fails for further debugging. If restoring succeeds these files are theoretically not needed, but if these files are needed Pod? man can keep the files for further analysis. This includes the check? point directory with all files created during checkpointing. The size required by the checkpoint directory is roughly the same as the amount of memory required by the processes in the checkpointed container. Without the --keep, -k option the checkpoint will be consumed and can? not be used again.

The default is false.

--latest, -l

Instead of providing the container ID or name, use the last created container. If other tools than Podman are used to run containers such as CRI-O, the last started container could be from either tool.

The default is false.

IMPORTANT: This OPTION is not available with the remote Podman client, including Mac and Windows (excluding WSL2) machines. This OPTION does not need a container name or ID as input argument.

--name, -n=name

If a container is restored from a checkpoint tar.gz file it is possible

to rename it with --name, -n. This way it is possible to restore a con? tainer from a checkpoint multiple times with different names.

If the --name, -n option is used, Podman will not attempt to assign the same IP address to the container it was using before checkpointing as each IP address can only be used once and the restored container will have another IP address. This also means that --name, -n cannot be used in combination with --tcp-established.

IMPORTANT: This OPTION is only available for a checkpoint image or in combination with --import, -i.

--pod=name

Restore a container into the pod name. The destination pod for this re? store has to have the same namespaces shared as the pod this container was checkpointed from (see **podman pod create --share.

IMPORTANT: This OPTION is only available for a checkpoint image or in combination with --import, -i.

This option requires at least CRIU 3.16.

--print-stats

Print out statistics about restoring the container(s). The output is rendered in a JSON array and contains information about how much time different restore operations required. Many of the restore statistics are created by CRIU and just passed through to Podman. The following information is provided in the JSON array:

? podman_restore_duration: Overall time (in microseconds) needed to restore all checkpoints.

? runtime_restore_duration: Time (in microseconds) the container runtime needed to restore the checkpoint.

? forking_time: Time (in microseconds) CRIU needed to create (fork) all processes in the restored container (measured by CRIU).

? restore_time: Time (in microseconds) CRIU needed to restore all processes in the container (measured by CRIU).

? pages_restored: Number of memory pages restored (measured by CRIU).

The default is false.

--publish, -p=port

Replaces the ports that the container publishes, as configured during the initial container start, with a new set of port forwarding rules.

For more details please see podman run --publish.

--tcp-established

Restore a container with established TCP connections. If the checkpoint image contains established TCP connections, this option is required during restore. If the checkpoint image does not contain established TCP connections this option is ignored. Defaults to not restoring con? tainers with established TCP connections.

The default is false.

EXAMPLE

Restores the container "mywebserver".

```
# podman container restore mywebserver
```

Import a checkpoint file and a pre-checkpoint file.

```
# podman container restore --import-previous pre-checkpoint.tar.gz --import checkpoint.tar.gz
```

Start the container "mywebserver". Make a checkpoint of the container and export it. Restore the container with other port ranges from the exported file.

```
$ podman run --rm -p 2345:80 -d webserver
# podman container checkpoint -l --export=dump.tar
# podman container restore -p 5432:8080 --import=dump.tar
```

Start a container with the name "foobar-1". Create a checkpoint image "foobar-checkpoint". Restore the container from the checkpoint image with a different name.

```
# podman run --name foobar-1 -d webserver
# podman container checkpoint --create-image foobar-checkpoint foobar-1
# podman inspect foobar-checkpoint
# podman container restore --name foobar-2 foobar-checkpoint
# podman container restore --name foobar-3 foobar-checkpoint
```

SEE ALSO

podman(1), podman-container-checkpoint(1), podman-run(1), podman-pod-

create(1), criu(8)

HISTORY

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