

# Buildah

Basic howto for building a container image with Buildah.

This example set will build the GNU hello application on a Fedora image. To follow along, download the hello source from here: <http://mirrors.kernel.org/gnu/hello/>

Start with a base image.

```
buildah from fedora:latest
```

Get a list of buildah containers

```
buildah containers
```

CONTAINER ID	BUILDER	IMAGE ID	IMAGE NAME	CONTAINER NAME
4df293490fa6	*	b81e86a2cb9a		ubi8-working-container
52a1835eea0d	*	2ef880c78ce8		2ef880c78ce8df33284cb56ab10
e3cc371f1df4	*	750037c05cfe	registry.fedoraproject.org/fe...	fedora-working-container

Set a container variable. (Reduces typing, great for scripting)

```
container=fedora-working-container
```

Copy the source to the container

```
buildah copy $container hello-2.14.tar.gz /tmp/
```

Install required packages into the container, then clear the package cache.

```
buildah run $container dnf install -y gzip tar gcc make automake  
buildah run $container dnf clean all
```

Untar the source to /opt

```
buildah run $container tar zxvf /tmp/hello-2.12.tar.gz -C /opt
```

Set the working directory

```
buildah config --workingdir /opt/hello-2.12 $container
```

Build the software as required.

```
buildah run $container ./configure
buildah run $container autoconf
buildah run $container make
buildah run $container cp hello /usr/local/bin
```

Check the build and that the binary is in the correct location.

```
buildah run $container hello --version
```

## Add an ENTRYPOINT

```
buildah config --entrypoint /usr/local/bin/hello $container
```

Commit the build container to an image.

```
buildah commit --format docker $container hello:latest
```

```
Getting image source signatures
Copying blob c550c8e0f355 skipped: already exists
Copying blob c15d843d546e done
Copying config 3d1cc0ca89 done
Writing manifest to image destination
Storing signatures
3d1cc0ca8946cfe2000a47ee4c33133e23abc4c05dc4f959fbb0a383f2c2175c
```

Run the image.

podman run hello

## Remove the build directory

```
buildah rm $container
```

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