# dive Explore image layers

**START HERE**

**dive** › *<image>*
Analyze an image

**Ctrl** + **F**
Filter files

**Tab**
Switch layers / file tree

**Space**
Fold a directory

**Up** / **Down**
Pick a layer or file

**dive** › **build** › **-t** › *<tag>* › **.**
Build, then analyze

**Ctrl** + **L**
Show current layer only

**Ctrl** + **C**
Quit

## CONCEPTS

Left pane lists the image layers, right pane the file tree at the selected layer. Tab moves the focus between them.

| Layers | File tree |
|---|---|
| Layer details | |
| Image details | |

Left: layers and their size. Right: files, coloured by change.

Tree colours: green added, red removed, yellow modified, plain unchanged.

dive reads the image from a container engine or an archive; pick one with --source. Keys below are the defaults and can be remapped in the config.

## RUN DIVE

**dive** *<image>*
Analyze a local image

**dive build -t** *<tag>* **.**
Build with docker, then analyze
*Takes the same arguments as docker build.*

**dive --source** *<engine>* *<image>*
Choose the image source
*docker (default), podman or docker-archive.*

**dive** *<engine>*://*<image>*
Same, as a URL-style prefix

**dive docker-archive://** *<file.tar>*
Analyze a saved image tarball

**dive --ci-config** *<file>* *<image>*
Use another .dive-ci file

## RUN DIVE (cont.)

**dive --ignore-errors** *<image>*
Carry on after archive parse errors

**dive --version**
Show the version

**CI=true dive** *<image>*
Skip the UI, exit code gives pass or fail

## MOVE AROUND

**Tab**
Switch between layers and file tree

**Up** / **Down**
Move selection (also K / J)

**Left** / **Right**
Move left / right (also H / L)

**PageUp** / **PageDown**
Scroll a page (also U / D)

**Ctrl** + **C** / **Q** Quit

## LAYERS

**Ctrl** + **L**
Show changes of the selected layer only
*The default; the tree then shows what this layer alone did.*

**Ctrl** + **A**
Layers: aggregate / tree: show added files
*Aggregate compares the image up to the selected layer with the base. In the file tree the same key toggles added files.*

The image details panel shows the total size, wasted space and an efficiency score.

## FILE TREE

**Space**
Collapse or expand a directory

**Ctrl** + **Space**
Collapse or expand all directories

**Ctrl** + **F** Filter files by path
*Esc closes the filter.*

**Esc** Close the file filter

**Ctrl** + **R**
Toggle removed files

**Ctrl** + **M**
Toggle modified files

**Ctrl** + **U**
Toggle unmodified files
*Hide these to see only what a layer changed.*

**Ctrl** + **B**
Toggle file attributes (mode, owner, size)

## CI MODE

Put rules in .dive-ci at the repo root; exit code is non-zero when a rule fails.

**lowestEfficiency: 0.95**
Fail below this efficiency ratio

**highestWastedBytes: 20MB**
Fail at or above this wasted size

**highestUserWastedPercent: 0.20**
Fail at or above this wasted share

highestUserWastedPercent ignores the base image layer when computing the share.

## CONFIG

Config is read from $XDG_CONFIG_HOME/dive/, ~/.config/dive/ or ~/.dive.yaml.

**~/.config/dive/dive.yaml**

```
container-engine: podman
diff:
  hide: [unmodified]
filetree:
  collapse-dir: true
  pane-width: 0.4
keybinding:
  quit: ctrl+c, q
```

Remappable actions have names such as toggle-view, filter-files, page-up and toggle-unmodified-files; several keys are separated by commas.

DOCKER_HOST points dive at a non-default engine socket (Colima and similar).

## RECIPES

**Find what bloats an image**

```
dive <image>
# Ctrl+L on a big layer
# Ctrl+U to hide unchanged files
# Ctrl+F to filter by path
```

**Gate a build in CI**

```
cat > .dive-ci <<'EOF'
rules:
  lowestEfficiency: 0.95
  highestWastedBytes: 20MB
EOF
CI=true dive <image>
```

**Analyze a podman image**

```
dive --source podman <image>
# make it the default in the config file:
# container-engine: podman
```

**Inspect an image without a daemon**

```
docker save <image> -o image.tar
dive docker-archive://image.tar
```