dive Explore image layers

START HERE

dive › *<image>*
Analyze an image

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

Tab
Switch layers / file tree

Ctrl + **C**
Quit

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

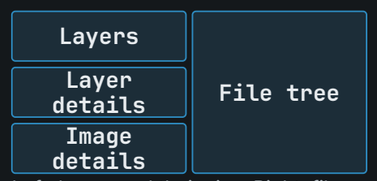
Ctrl + **L**
Show current layer only

Ctrl + **F**
Filter files

Space
Fold a directory

CONCEPTS

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



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.

RUN DIVE (cont.)

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

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)

MOVE AROUND (cont.)

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

FILE TREE (cont.)

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

CI MODE (cont.)

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.

CONFIG (cont.)

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
```