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

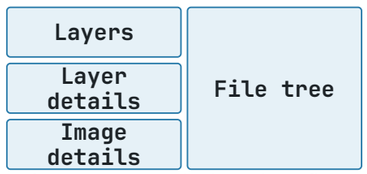
`Ctrl` + `L`
Show current layer only

`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
```