delta Better git diffs

START HERE

`git diff`
Diff, now highlighted

`n / N`
Next / previous file in pager

`git log -p`
History with patches

`delta --show-themes`
Preview themes

`git show <commit>`
One commit, highlighted

`delta --show-config`
See active settings

`delta <a> <b>`
Compare two files

`git -c delta.side-by-side=true diff`
Side-by-side once

git diff / log / show unified diff → **`core.pager`** → **delta** syntax + word diff → **`features`** → **Styled output** numbers, side-by-side → **`if long`** → **less** scroll, n and N

CONCEPTS

delta is a pager for git, diff and grep output. It does not run diffs itself: git pipes into it once core.pager = delta is set.

Options live in [delta] of ~/.gitconfig. Command-line flags override them. Named groups ([delta "name"]) are switched on with features.

SETUP

`git config --global core.pager delta`
Send git output through delta

`git config --global interactive.diffFilter "delta --color-only"`
Colour git add -p

`git config --global delta.navigate true`
Enable n / N jumping

`git config --global delta.dark true`
Force dark colours (or light)

`git config --global merge.conflictStyle zdiff3`
Show merge base in conflicts

`git config --global delta.line-numbers true`
Show old and new line numbers

`git config --global delta.side-by-side true`
Always side-by-side

`git config --global diff.colorMoved default`
Detect moved code blocks

`delta --version`
Print installed version

`delta --show-config`
Show every active option

`delta --no-gitconfig`
Ignore gitconfig settings

`delta --config <file>`
Read settings from another file

VIEWING DIFFS

`git diff`
Unstaged changes

`git diff --staged`
Staged changes

`git log -p`
Commits with patches

`git show <commit>`
One commit

VIEWING DIFFS (cont.)

`delta <a> <b>`
Compare two files, no repo needed

`diff -u <a> <b> | delta`
Highlight any unified diff

`delta <(sort <a>) <(sort <b>)`
Compare processed input

`-s / --side-by-side`
Two panels

`-n / --line-numbers`
Number columns

`--navigate`
Enable n / N

`--keep-plus-minus-markers`
Keep + and - prefixes

`--relative-paths`
Paths relative to cwd

`--tabs <n>`
Spaces per tab (default 8)

`--max-line-length <n>`
Truncate long lines (default 3000)

`--width <n>`
Width of decorations; variable fits text

`--paging auto|always|never`
When to start the pager

`--pager <cmd>`
Use another pager

`n / N`
Next / previous file (pager)
Also stops at commit boundaries in git log -p. Needs navigate on.

SIDE-BY-SIDE

`--wrap-max-lines <n>`
Cap wrapped lines per row

`--wrap-right-percent <n>`
Share of width for right side wraps

`--wrap-left-symbol <s>`
Marker for wrapped left text

`DELTA_FEATURES=+side-by-side`
Toggle on for this shell

`DELTA_FEATURES=+`
Switch the toggle off again

`git -c delta.features=side-by-side diff`
Side-by-side for one run

`line-numbers-left-format = ""`
Drop left number column

SIDE-BY-SIDE (cont.)

`line-numbers-right-format = "│ "`
Keep a divider only

Keep side-by-side and line-numbers out of the main [delta] section if you want to toggle them with DELTA_FEATURES.

COLOURS AND THEMES

`delta --show-themes`
Preview delta themes on a diff

`delta --list-syntax-themes`
List syntax themes

`delta --show-syntax-themes`
Preview syntax themes

`--syntax-theme <name>`
Pick syntax colours (none = off)
Defaults to BAT_THEME if that is set.

`--dark / --light`
Defaults for terminal background

`features = <theme>`
Activate a named theme

`--minus-style <style>`
Style of removed lines

`--plus-style <style>`
Style of added lines

`--file-style <style>`
Style of file header

`--hunk-header-style <style>`
Style of hunk header

`minus-style = red bold ul "#ffeeee"`
Style: colour, attributes, background

`map-styles = bold purple ⇒ syntax magenta`
Restyle git's moved-line colours

`features = my-theme zebra-dark`
Moved lines with faint background

`--true-color auto|always|never`
24-bit colour output

`delta --list-languages`
Supported languages

`--diff-so-fancy`
Emulate diff-so-fancy look

`--diff-highlight`
Emulate diff-highlight look

COLOURS AND THEMES (cont.)

Themes are features: they set colours and decorations, not layout. Add side-by-side or navigate separately.

BEYOND DIFFS

`rg --json -C 2 <pattern> | delta`
Highlight ripgrep results

`git grep -p <pattern>`
Grep with function context

`[pager] blame = delta`
Use delta for git blame

`--hyperlinks`
Clickable hashes and paths

`hyperlinks-file-link-format = "vscode://file/{path}:{line}"`
Open editor at the line

`--color-only`
Colour lines, keep structure

Merge conflicts need merge.conflictStyle = zdiff3: delta then shows two diffs, base to ours and base to theirs.

RECIPES

Starter gitconfig

```
[core]
    pager = delta
[interactive]
    diffFilter = delta --color-only
[delta]
    navigate = true
    line-numbers = true
[merge]
    conflictStyle = zdiff3
```

Toggle side-by-side from the shell

```
export DELTA_FEATURES=+side-by-side
git diff
# back to normal
export DELTA_FEATURES=+
```

Named feature and alias

```
[delta "decorations"]
    file-style = bold yellow ul
[delta]
    features = decorations
[alias]
    diff-sbs = -c delta.side-by-side=true diff
```

Compare without a repo

```
delta old.conf new.conf
diff -u a.txt b.txt | delta
rg --json -C 2 TODO | delta
```