Difftastic Structural diff tool

CONCEPTS

difftastic compares syntax trees, not lines: reformatting and re-wrapping show up as no change, and moved code stays aligned.

Two inputs files, dirs, stdin
↓ detect language
Parse tree-sitter syntax tree
↓ graph search
Structural diff nodes added / removed
↓ too big or parse error
Line diff fallback or plain text

If a file cannot be parsed, is over the byte or graph limit, or has no known language, difft falls back to a line-based diff.

difft is a viewer, not a patch tool: its output cannot be applied with patch or git apply.

BASICS

difft *<old> <new>*
Diff two files

difft *<dir1> <dir2>*
Diff two directories recursively

difft - *<file>*
Read one side from stdin

difft *<conflicted-file>*
Diff the two sides of conflict markers

difft --help
List every option

difft --version
Print installed version

difft --list-languages
Show languages and extensions

difft --skip-unchanged *<d1> <d2>*
Show only files that differ

difft --sort-paths *<d1> <d2>*
Sort directory output by path

difft --exit-code *<a> <b>*
Exit 1 when there are changes

difft --check-only *<a> <b>*
Only report whether they differ

DISPLAY

difft --display side-by-side *<a> <b>*
Two columns (default)

difft --display side-by-side-show-both *<a> <b>*
Two columns even for pure adds

difft --display inline *<a> <b>*
Single column, diff style

difft --display json *<a> <b>*
Machine-readable output

difft --context *<n> <a> <b>*
Lines of context around changes

difft --width *<cols> <a> <b>*
Force the wrapping width

difft --color always *<a> <b>*
Force colour (also never / auto)

difft --background light *<a> <b>*
Colours for a light terminal

difft --syntax-highlight off *<a> <b>*
Plain colours, no highlighting

Use --color always when piping into a pager: less -R keeps the colours.

LANGUAGES AND LIMITS

difft --override *'<glob>:<lang>' <a> <b>*
Force a language by file glob

difft --override '*.conf:text' *<a> <b>*
Treat matching files as text

difft --ignore-comments *<a> <b>*
Ignore comment changes

GIT

git -c diff.external=difft diff
Use difft for one command

git config --global diff.external difft
Use difft for every git diff

GIT (cont.)

git show --ext-diff *<commit>*
Show a commit with difft

git log -p --ext-diff
History with structural diffs

git diff --no-ext-diff
Back to the normal diff

git diff --ext-diff --staged
Staged changes with difft

git difftool -t difftastic
Run via difftool

git config --global difftool.prompt false
No prompt per file

git config --global diff.tool difftastic
Make difftastic the difftool

diff.external is preferred over difftool: git passes it extra information such as renames and mode changes. Git 2.43.1 and older can crash on mode changes; use difftool there.

CONFIGURATION

DFT_BACKGROUND=light
Environment form of --background

DFT_DISPLAY=inline
Default display mode

DFT_CONTEXT=*<n>*
Default context lines

DFT_COLOR=always
Default colour policy

Every option has a DFT_<NAME> environment variable, which is the way to set defaults when a VCS invokes difft for you.

RECIPES

Git aliases

```
[alias]
    dft = -c diff.external=difft diff
    dl  = -c diff.external=difft log -p --ext-diff
    ds  = -c diff.external=difft show --ext-diff
```