fd Fast file finder

Walk tree current dir → `skip hidden + ignored` → **Match name** regex, smart case → `-e -t -S filters` → **Filter** type, size, age → `-x / -X` → **Print or run** parallel

CONCEPTS

fd searches names, not contents, and skips hidden files and anything in .gitignore by default. .gitignore is only honored inside a git repo. If a file you know exists is missing, try fd -u. Debian/Ubuntu install the binary as fdfind.

Smart case: an all-lowercase pattern ignores case, any capital makes it case-sensitive. Force it with -s or -i.

SEARCHING

`fd`
List everything below the current directory

`fd <pattern>`
Names matching a regex

`fd <pattern> <dir> [<dir>]`
Search in given directories

`fd -g '<glob>'`
Match with a glob pattern

`fd -p '<regex>'`
Match against the full path

`fd -s <pattern>`
Force case-sensitive

SEARCHING (cont.)

`fd -i <pattern>`
Force case-insensitive

`fd -F <string>`
Treat pattern as a literal string

`fd --and <pattern> <pattern>`
Name must match both patterns

FILTERS

`fd -e <ext>`
Only this extension

`fd -e <ext> <pattern>`
Extension plus name pattern

`fd -t f`
Regular files only

`fd -t d`
Directories only

`fd -t l`
Symlinks only

`fd -t x`
Executable files only

`fd -t e`
Empty files or directories

`fd -d <n> <pattern>`
Limit search depth

`fd -S +<size>`
Files larger than size, e.g. +10M

FILTERS (cont.)

`fd --changed-within <dur>`
Modified recently, e.g. 2d or 1h

`fd --changed-before <dur>`
Modified before a date or longer ago than a duration

`fd -E '<glob>'`
Exclude matching paths

`fd -L`
Follow symlinks

HIDDEN AND IGNORED

`fd -H <pattern>`
Include hidden files

`fd -I <pattern>`
Do not respect ignore files

`fd -u <pattern>`
Unrestricted: same as -HI

`~/.config/fd/ignore`
Global ignore file (gitignore syntax)

`.fdignore`
Per-project ignore file, fd only

OUTPUT

`fd -a <pattern>`
Print absolute paths

OUTPUT (cont.)

`fd -l <pattern>`
Detailed listing, like ls -l

`fd -0 <pattern>`
NUL-separated output

`fd -c never <pattern>`
Turn colors off

RUNNING COMMANDS

`fd -e <ext> -x <cmd>`
Run cmd once per result, in parallel

`fd -e <ext> -X <cmd>`
Run cmd once with all results

`fd -x <cmd> {}`
Placeholder: full path

`fd -x <cmd> {/}`
Placeholder: file name

`fd -x <cmd> {.}`
Placeholder: path without extension

`fd -x <cmd> {//}`
Placeholder: parent directory

`fd -x <cmd> {/.}`
Placeholder: name without extension

`fd -j <n> -x <cmd>`
Set number of parallel jobs

RUNNING COMMANDS (cont.)

Without a placeholder, {} is appended automatically. Quote the whole command if it holds pipes or redirects, e.g. -x sh -c '...'.

FD VS FIND

Equivalents

find ...	fd ...
`-iname '*foo*'`	`fd foo`
`-name '*.md'`	`fd -e md`
`-type f`	`fd -t f`
`-mtime -2`	`--changed-within 2d`
`-exec c {} \;`	`fd -x c`
`-exec c {} +`	`fd -X c`

fd is faster and has saner defaults, but find still wins for complex boolean tests like -perm, -newer and -prune. fd -u is the fair comparison to find.

RECIPES

Convert all PNGs to WebP

```
fd -e png -x magick {} {.}.webp
```

Grep only some file types

```
fd -e cpp -e h -X rg 'std::cout'
```