watchexec Run on file change

START HERE

watchexec *<cmd>*
Run on any change

watchexec -c *<cmd>*
Clear screen first

watchexec -e py pytest
Only Python files

watchexec -p *<cmd>*
Wait for first change

watchexec -r -- *<server>*
Restart on change

watchexec -i "*.log" *<cmd>*
Ignore files

watchexec -w src *<cmd>*
Watch one folder

watchexec -n *<cmd>*
Run without a shell

File event save, create, delete → *debounce* → **Filters** paths, ignores, -e, -f → *pass* → **Command** start or restart → *exit* → **Wait** for next change

CONCEPTS

Put -- before your command so its own flags are not read by watchexec.

By default it watches the current directory recursively and honours .gitignore and .ignore, so build output folders are usually skipped already.

The default shell is $SHELL (sh if unset); with -n the command is split on spaces, so no pipes, globs or redirects.

RUNNING

watchexec *<cmd>* **[args]**
Run a command whenever files change

watchexec -- *<cmd>* **--flag**
Stop option parsing before the command

watchexec -p *<cmd>*
Postpone: skip the initial run

watchexec -r *<cmd>*
Restart the command on change

watchexec -c *<cmd>*
Clear the screen before each run

watchexec -n *<cmd>*
No shell: run the program directly

watchexec --shell *<shell>* *<cmd>*
Choose the shell, e.g. bash or zsh

watchexec -E *<KEY=VALUE>* *<cmd>*
Set an env var for the command only

watchexec --workdir *<dir>* *<cmd>*
Run the command in another directory

watchexec -I *<cmd>*
Interactive: r restart, s stop, p pause, q quit

watchexec --exit-on-error *<cmd>*
Quit when the command fails

watchexec --timeout *<time>* *<cmd>*
Stop a run that takes too long

RUNNING (cont.)

watchexec --delay-run *<time>* *<cmd>*
Sleep before each run

watchexec --timings *<cmd>*
Print how long each run took

watchexec -q *<cmd>*
Hide watchexec's own start/stop messages

watchexec -N *<cmd>*
Desktop notification when the run starts or ends

watchexec --bell *<cmd>*
Ring the terminal bell when done

WHAT TO WATCH

-w *<path>*
Watch a file or directory (repeatable)

-W *<dir>*
Watch a directory without recursion

-e *<ext,ext>*
Only react to these extensions
Give them without dots: -e rs,toml

-f *<glob>*
Only react to paths matching a pattern

-i *<glob>*
Ignore paths matching a pattern

--ignore-file *<path>*
Load ignore patterns from a file

--filter-file *<path>*
Load filter patterns from a file

-F *<file>*
Read watch paths from a file (- for stdin)

--no-vcs-ignore
Watch files that .gitignore excludes

--no-default-ignore
Also watch .git, swap files, .DS_Store

--no-discover-ignore
Skip loading every ignore file

--ignore-nothing
Ignore no files, not even defaults

--project-origin *<dir>*
Override the detected project root

WHAT TO WATCH (cont.)

--fs-events *<list>*
Filter by event: create, remove, rename, modify, access

--no-meta
Skip metadata-only events

-j *<expr>*
Filter events with a jaq program

BUSY AND SIGNALS

-o *<mode>*
If busy: do-nothing, queue, restart or signal

-r
Same as -o restart

-s *<signal>*
Send a signal to the running command on change

--stop-signal *<signal>*
Signal used to stop it (default SIGTERM)

--stop-timeout *<time>*
Grace time before a force kill (default 10s)

--map-signal *<in:out>*
Translate a received signal to another

--wrap-process *<mode>*
auto, group, session or none

--stdin-quit
Exit when stdin closes

DEBOUNCE AND POLLING

-d *<time>*
Wait for quiet before acting (default 50ms)

--poll [interval]
Poll instead of OS events (network drives)

--no-follow-symlinks
Do not follow directory symlinks

CHANGED PATHS

--emit-events-to *<mode>*
none, environment, stdio, file, json-stdio, json-file

--emit-events-to=json-stdio
Send events as JSON lines on stdin

CHANGED PATHS (cont.)

--emit-events-to=environment
Set WATCHEXEC_*_PATH variables (deprecated)
Variables: WATCHEXEC_COMMON_PATH plus _CREATED_, _REMOVED_, _RENAMED_, _WRITTEN_, _META_CHANGED_ and _OTHERWISE_CHANGED_PATH

--print-events
Print the events that triggered a run

--only-emit-events
Emit events only; run no command

SETUP AND DEBUG

watchexec --completions *<shell>*
Print shell completions

watchexec --manual
Show the full manual

watchexec -v / -vvvv
More diagnostic logging

WATCHEXEC_LOG=*<level>*
Set log level (beats -v)

--log-file [path]
Write JSON logs to a file

--color *<mode>*
auto, always or never (NO_COLOR works too)

watchexec @*<argfile>*
Load arguments from a file, one per line

watchexec -V
Show the version

RECIPES

Run tests on Rust changes

```
watchexec -c -e rs,toml -- cargo test
```

Dev server with restart

```
watchexec -r -e py,html -- python manage.py runserver --noreload
```

Rebuild assets, skip output

```
watchexec -w src -i "dist/**" -e js,css -- npm run build
```

Debounced build, then notify

```
watchexec -d 500 -N -p -e md -- make site
```