entr Run on file change

CONCEPTS

entr reads the file list from stdin, so it only watches what you pipe in. It never searches directories on its own.

File list ls, find, git ls-files
↓ stdin
entr watches those files
↓ change
Utility run or restart
↓ exit
Wait for the next change

Events that arrive while the command runs are merged into one by default, so saving twice mid-build gives one rerun. Add -a to react to all of them.

The list is read once at start, so new files are not noticed. With -d, entr exits with status 2 when a directory gains or loses an entry; wrap it in a loop to restart.

RUNNING

`<list> | entr <cmd> [args]`
Run a command whenever a listed file changes

`entr -r <cmd>`
Keep it running; restart on change

`entr -c <cmd>`
Clear the screen before each run

`entr -p <cmd>`
Postpone: skip the first run

`entr -s '<shell string>'`
Run a string through $SHELL (pipes, &&)

`entr -cc <cmd>`
Clear screen and scrollback

`entr -z <cmd>`
Exit after the command finishes

`entr -rz <cmd>`
Restart on change, exit when it dies

`entr -n <cmd>`
Non-interactive: leave the TTY alone

RUNNING (cont.)

`entr -a <cmd>`
React to events during the run too

`entr -x <cmd>`
Custom exit messages via an awk script

`SHELL=<shell> entr -s ...`
Choose the shell for -s (default / bin/sh)

FEEDING THE LIST

`ls | entr <cmd>`
Watch the files in this directory

`ls *.py | entr <cmd>`
Watch files matching a glob

`find . -name '*.go' | entr <cmd>`
Watch a tree by pattern

`git ls-files | entr <cmd>`
Watch tracked files only

`fd -e rs | entr <cmd>`
Use fd for the list

`echo <file> | entr <cmd>`
Watch exactly one file

`find src tests | entr <cmd>`
Watch several directories

`git ls-files -co --exclude-standard | entr <cmd>`
Tracked and new unignored files

`find . -type f -not -path './.git/*' | entr <cmd>`
Skip a directory

`ls -d src src/*.rb | entr <cmd>`
List the directory too (for -d)

CHANGED FILE AND DIRECTORIES

`/_`
Placeholder: path of the file that changed

`entr <cmd> /_`
Pass the changed file as an argument

`entr -s 'echo $0'`
In -s mode the changed file is $0

CHANGED FILE AND DIRECTORIES (cont.)

`entr -d <cmd>`
Watch parent dirs; exit 2 on new entry

`entr -dd <cmd>`
Also notice new directory entries

`while sleep 1; do <list> | entr -d <cmd>; done`
Rescan the list after a new file

KEYS AND ENVIRONMENT

`Space`
Run the command now

`q / Ctrl+C`
Quit entr

`ENTR_RESTART_SIGNAL=<sig>`
Signal for -r restart (HUP INT QUIT TERM USR1 USR2)

`EV_TRACE=1`
Print file system events for debugging

`ENTR_STATUS_SCRIPT=<path>`
awk script used with -x

`PAGER`
Defaults to cat so output does not wait for keys

`echo $?`
0 after SIGINT, 1 on error, 2 on dir change

`entr -z <cmd>; echo $?`
Exit status: child's, or 128+signal

RECIPES

Rebuild and test, trimmed output

```
find src tests | entr -c -s 'make
&& make test | head -n 20'
```

Reload a server, pick up new files

```
while sleep 0.5; do
  git ls-files | entr -d -r ./
server
done
```

Rerun SQL on update

```
echo my.sql | entr -cp psql -f /_
```

Test only the saved file

```
ls tests/*.py | entr -c pytest /_
```