Playwright Browser test runner

Config projects, browsers → `test` → **Workers** parallel files → `reporter` → **Report** HTML, traces → `show-trace` → **Trace viewer** timeline, DOM

CONCEPTS

Test filters are regexes on the file path, so "login" runs every file with login in its path.

Each project in the config is one browser or device setup. Select it with --project.

By default the config records a trace only on the first retry. Use --trace on to force it locally.

SETUP

npm init playwright@latest
Scaffold config, example tests and CI file

npx playwright install
Install the default browsers

npx playwright install --with-deps
Install browsers and system libraries

npx playwright install *<browser>*
Install one browser (chromium, firefox, webkit)

npx playwright clear-cache
Clear build and test caches

RUNNING TESTS

npx playwright test
Run every test headless

npx playwright test *<file>*
Run files matching a path regex

npx playwright test *<file>*:*<line>*
Run the test at a line

npx playwright test -g "*<title>*"
Run tests whose title matches

npx playwright test --project=*<name>*
Run one project (browser)

npx playwright test --headed
Show the browser window

npx playwright test --last-failed
Re-run only the failures

DEBUGGING

npx playwright test --ui
Interactive UI mode with time travel

npx playwright test --debug
Run with the Inspector, headed, 1 worker

DEBUGGING (cont.)

npx playwright test --trace on
Record a trace for every test

npx playwright show-trace *<trace.zip>*
Open a trace in the viewer

PARALLELISM AND CI

npx playwright test --workers *<N>*
Number of workers or a percent of cores

npx playwright test --workers=1
Run serially in one worker

npx playwright test --fully-parallel
Run tests of one file in parallel too

npx playwright test --retries *<N>*
Retry failed tests N times

npx playwright test --shard *<n>*/*<total>*
Run one slice, e.g. 2/4

npx playwright test --forbid-only
Fail if test.only is left in

npx playwright merge-reports *<dir>*
Merge sharded blob reports

REPORTS AND OUTPUT

npx playwright show-report
Open the last HTML report

npx playwright show-report *<dir>*
Open a report folder or zip

npx playwright test --reporter *<name>*
Choose reporters: list, line, dot, html, json, junit

npx playwright test --reporter=html,list
Combine reporters, comma separated

npx playwright test --output *<dir>*
Folder for artifacts (test-results)

SNAPSHOTS

npx playwright test -u
Update snapshots that changed

npx playwright test -u all
Rewrite every snapshot

npx playwright test --update-snapshots missing
Only write absent snapshots

CODEGEN

npx playwright codegen *<url>*
Record actions into test code

npx playwright codegen -o *<file>*
Save the generated script

npx playwright codegen --target *<lang>*
Pick the language, e.g. python

npx playwright codegen -b *<browser>*
Record in firefox or webkit

npx playwright codegen --device "*<name>***"**
Emulate a device

npx playwright codegen --save-storage *<file>*
Save logged-in state

npx playwright codegen --load-storage *<file>*
Start from saved state

RECIPES

Debug one failing test

```
# run the test at line 42 with the Inspector
npx playwright test tests/login.spec.ts:42 --debug
```