Playwright Browser test runner

CONCEPTS

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

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

> 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

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

npx playwright test --list
List tests without running

DEBUGGING

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

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

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

npx playwright test --trace retain-on-failure
Keep traces only for failures

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

REPORTS AND OUTPUT (cont.)

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
```

Reuse a login

```
# log in once and save the state
npx playwright codegen --save-storage=auth.json <url>
# later sessions start logged in
npx playwright codegen --load-storage=auth.json <url>
```