- Integrations
- Supported languages

-
- Getting Started
- Running and debugging tests

On this page

Running and debugging tests

Introduction

With Playwright you can run a single test, a set of tests or all tests. Tests can be run on one browser or multiple browsers by using the `--project` flag. Tests are run in parallel by default and are run in a headless manner, meaning no browser window will be opened while running the tests and results will be seen in the terminal. However, you can run tests in headed mode by using the `--headed` CLI argument, or you can run your tests in UI mode by using the `--ui` flag. See a full trace of your tests complete with watch mode, time travel debugging and more.

You will learn

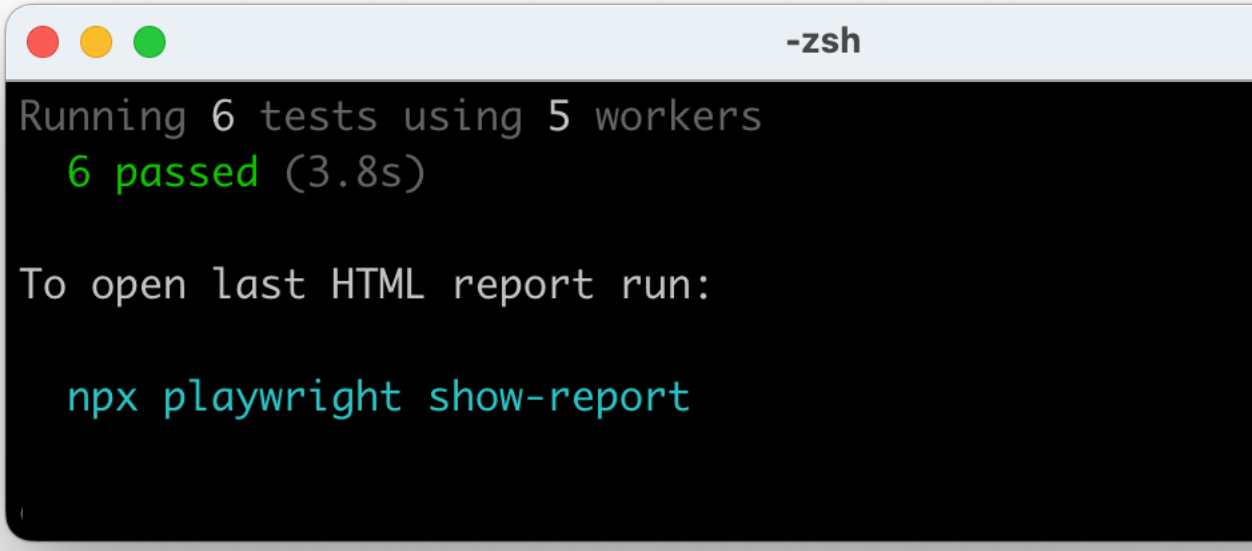
- How to run tests from the command line
- How to debug tests
- How to open the HTML test reporter

Running tests

Command line

You can run your tests with the `playwright test` command. This will run your tests on all browsers as configured in the `playwright.config` file. Tests run in headless mode by default meaning no browser window will be opened while running the tests and results will be seen in the terminal.

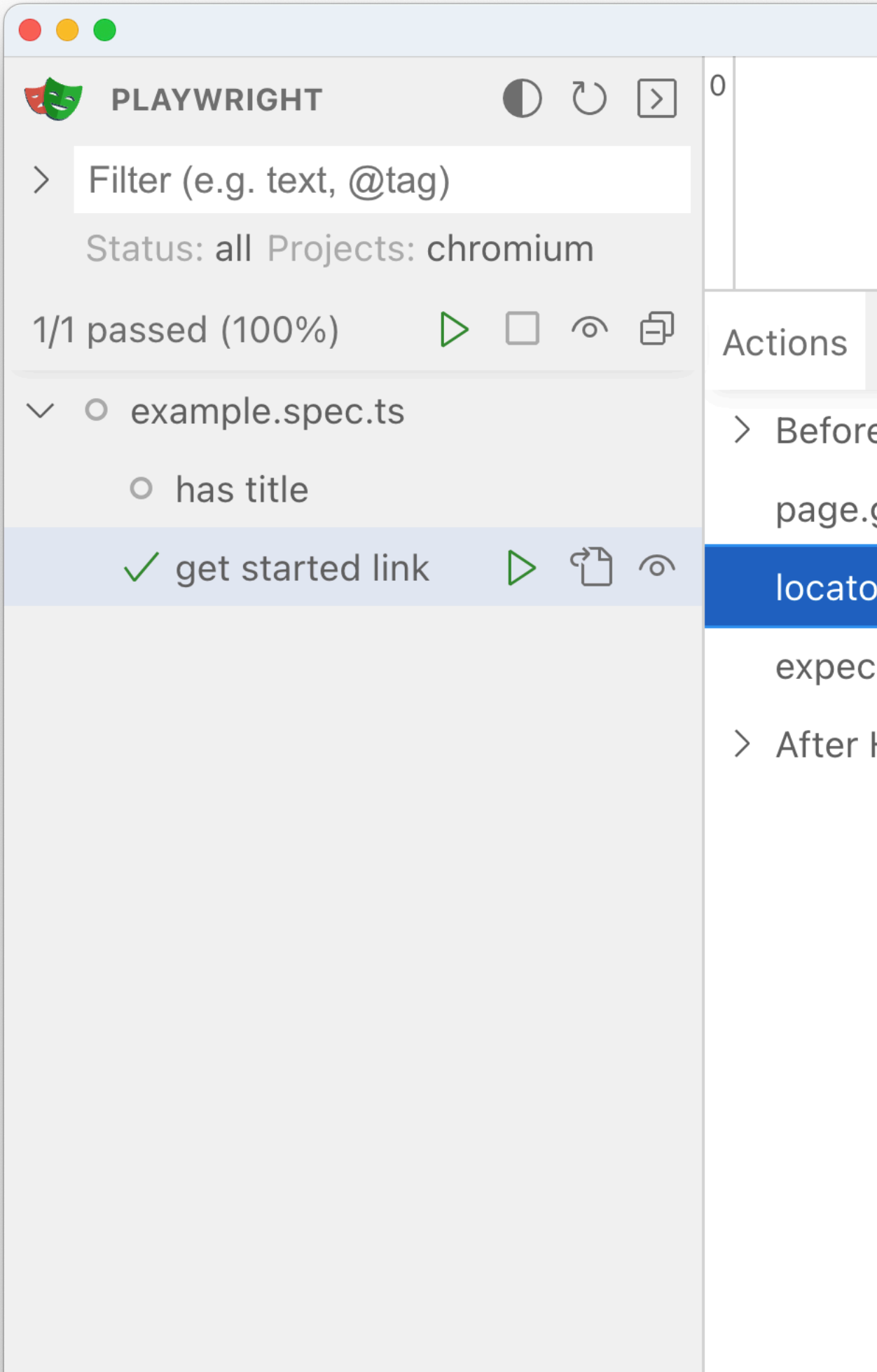
```
npx playwright test
```



Run tests in UI mode

We highly recommend running your tests with UI Mode for a better developer experience where you can easily walk through each step of the test and visually see what was happening before, during and after each step. UI mode also comes with many other features such as the locator picker, watch mode and more.

```
npx playwright test --ui
```


PLAYWRIGHT
Filter (e.g. text, @tag)
Status: all Projects: chromium
1/1 passed (100%)
example.spec.ts
has title
get started link
Actions
Before
page.g
locato
expec
After

Check out or detailed guide on UI Mode to learn more about it's features.

Run tests in headed mode

To run your tests in headed mode, use the `--headed` flag. This will give you the ability to visually see how Playwright interacts with the website.

```
npx playwright test --headed
```

Run tests on different browsers

To specify which browser you would like to run your tests on, use the `--project` flag followed by the name of the browser.

```
npx playwright test --project webkit
```

To specify multiple browsers to run your tests on, use the `--project` flag multiple times followed by the name of each browser.

```
npx playwright test --project webkit --project firefox
```

Run specific tests

To run a single test file, pass in the name of the test file that you want to run.

```
npx playwright test landing-page.spec.ts
```

To run a set of test files from different directories, pass in the names of the directories that you want to run the tests in.

```
npx playwright test tests/todo-page/ tests/landing-page/
```

To run files that have `landing` or `login` in the file name, simply pass in these keywords to the CLI.

```
npx playwright test landing login
```

To run a test with a specific title, use the `-g` flag followed by the title of the test.

```
npx playwright test -g "add a todo item"
```

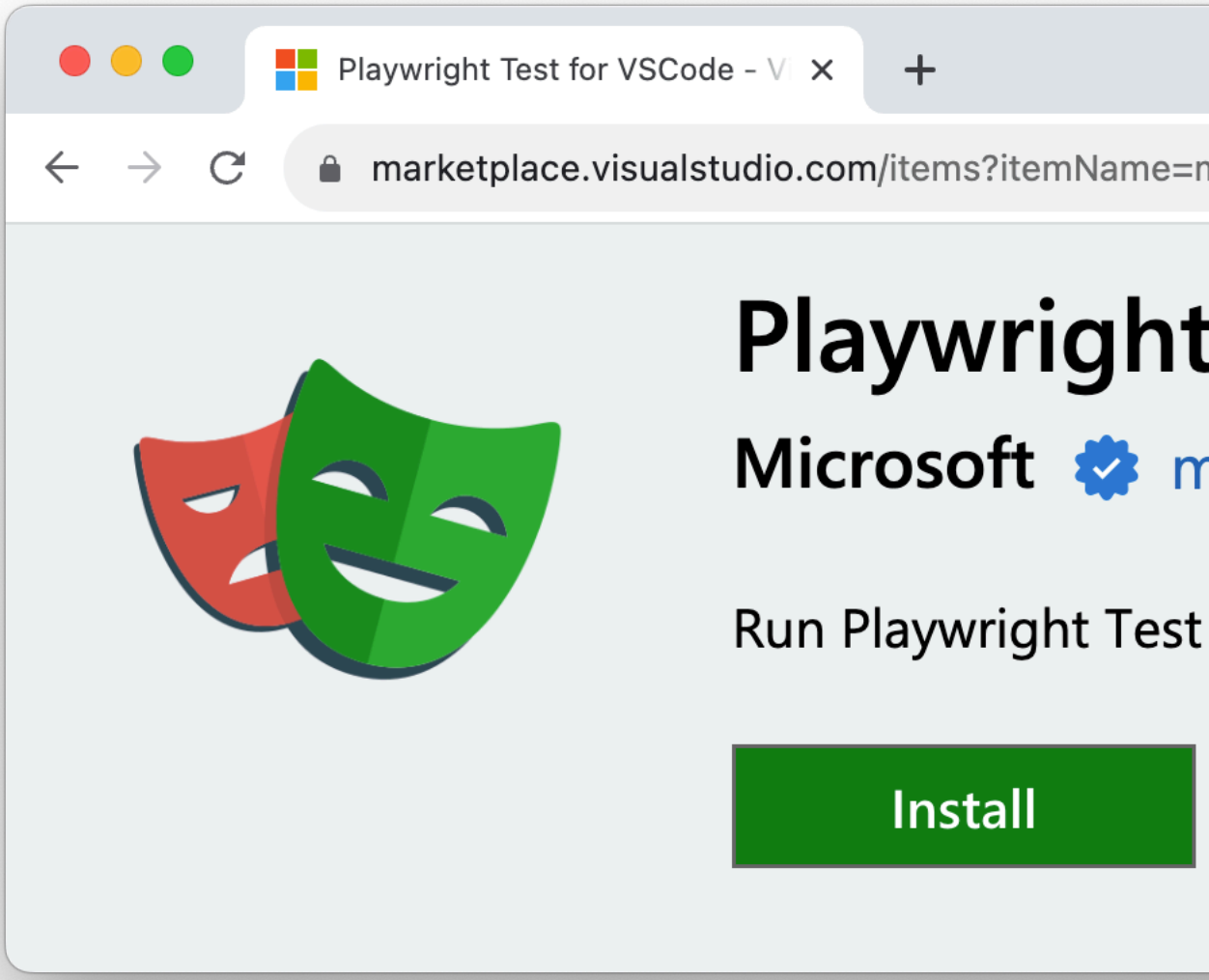
Run last failed tests

To run only the tests that failed in the last test run, first run your tests and then run them again with the `--last-failed` flag.

```
npx playwright test --last-failed
```

Run tests in VS Code

Tests can be run right from VS Code using the VS Code extension. Once installed you can simply click the green triangle next to the test you want to run or run all tests from the testing sidebar. Check out our Getting Started with VS Code guide for more details.



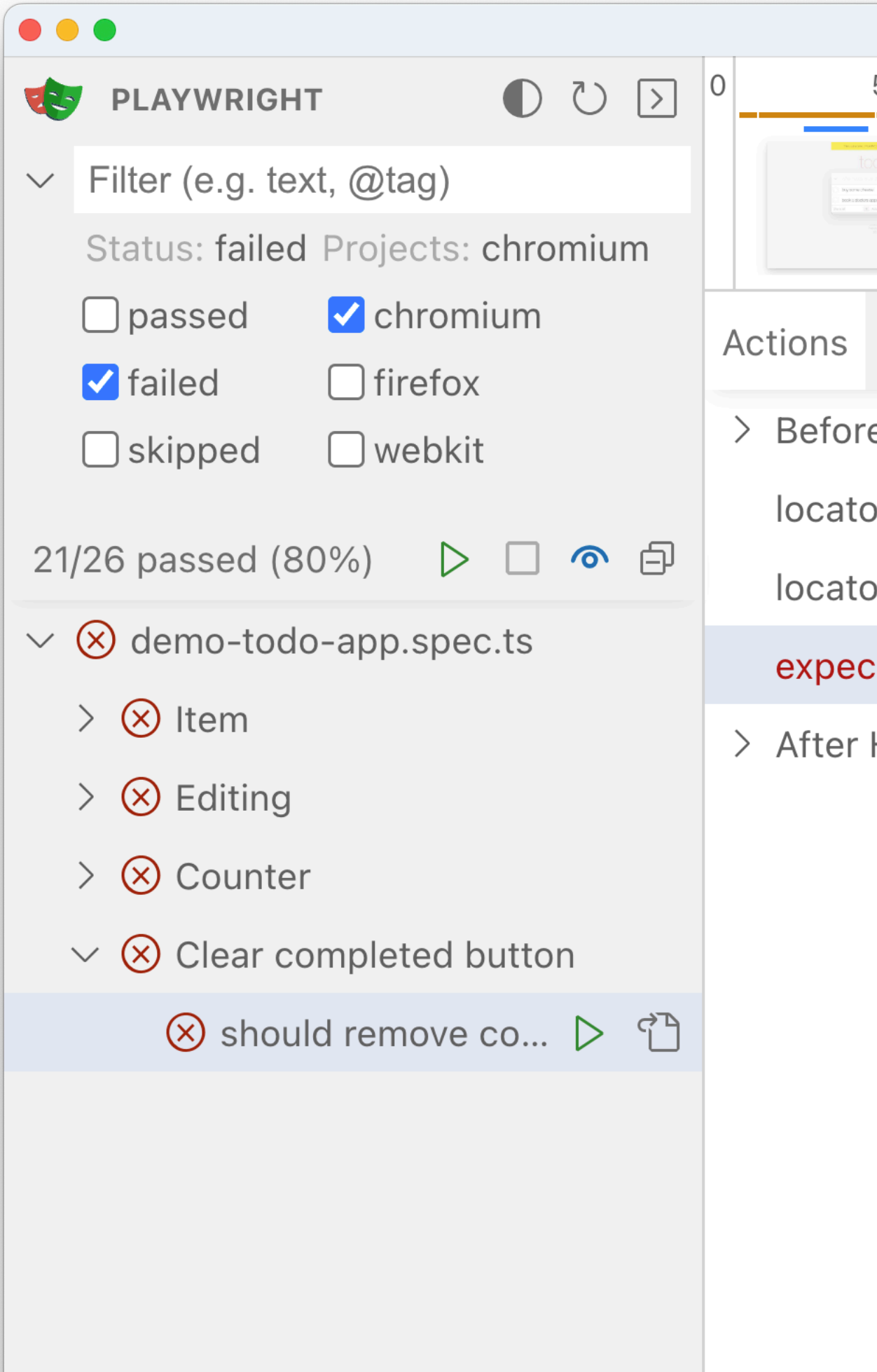
Debugging tests

Since Playwright runs in Node.js, you can debug it with your debugger of choice e.g. using `console.log` or inside your IDE or directly in VS Code with the VS Code Extension. Playwright comes with UI Mode, where you can easily walk through each step of the test, see logs, errors, network requests, inspect the DOM snapshot and more. You can also use the Playwright Inspector, which allows you to step through Playwright API calls, see their debug logs and explore locators.

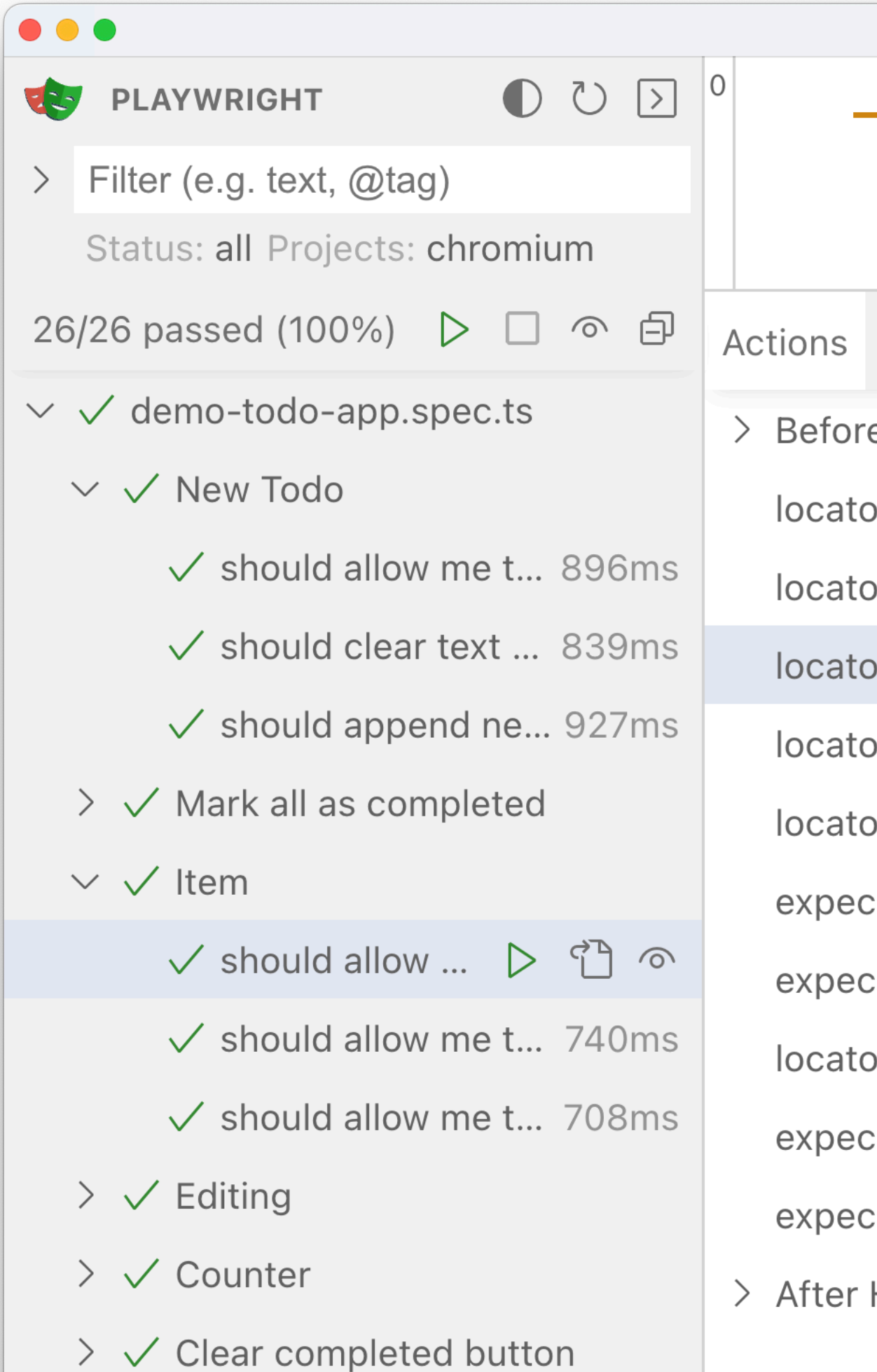
Debug tests in UI mode

We highly recommend debugging your tests with UI Mode for a better developer experience where you can easily walk through each step of the test and visually see what was happening before, during and after each step. UI mode also comes with many other features such as the locator picker, watch mode and more.

```
npx playwright test --ui
```


PLAYWRIGHT
Filter (e.g. text, @tag)
Status: failed Projects: chromium
passed
chromium
failed
firefox
skipped
webkit
21/26 passed (80%)
demo-todo-app.spec.ts
Item
Editing
Counter
Clear completed button
should remove co...
Actions
Before
locato
locato
expec
After

While debugging you can use the Pick Locator button to select an element on the page and see the locator that Playwright would use to find that element. You can also edit the locator in the locator playground and see it highlighting live on the Browser window. Use the Copy Locator button to copy the locator to your clipboard and then paste it into you test.

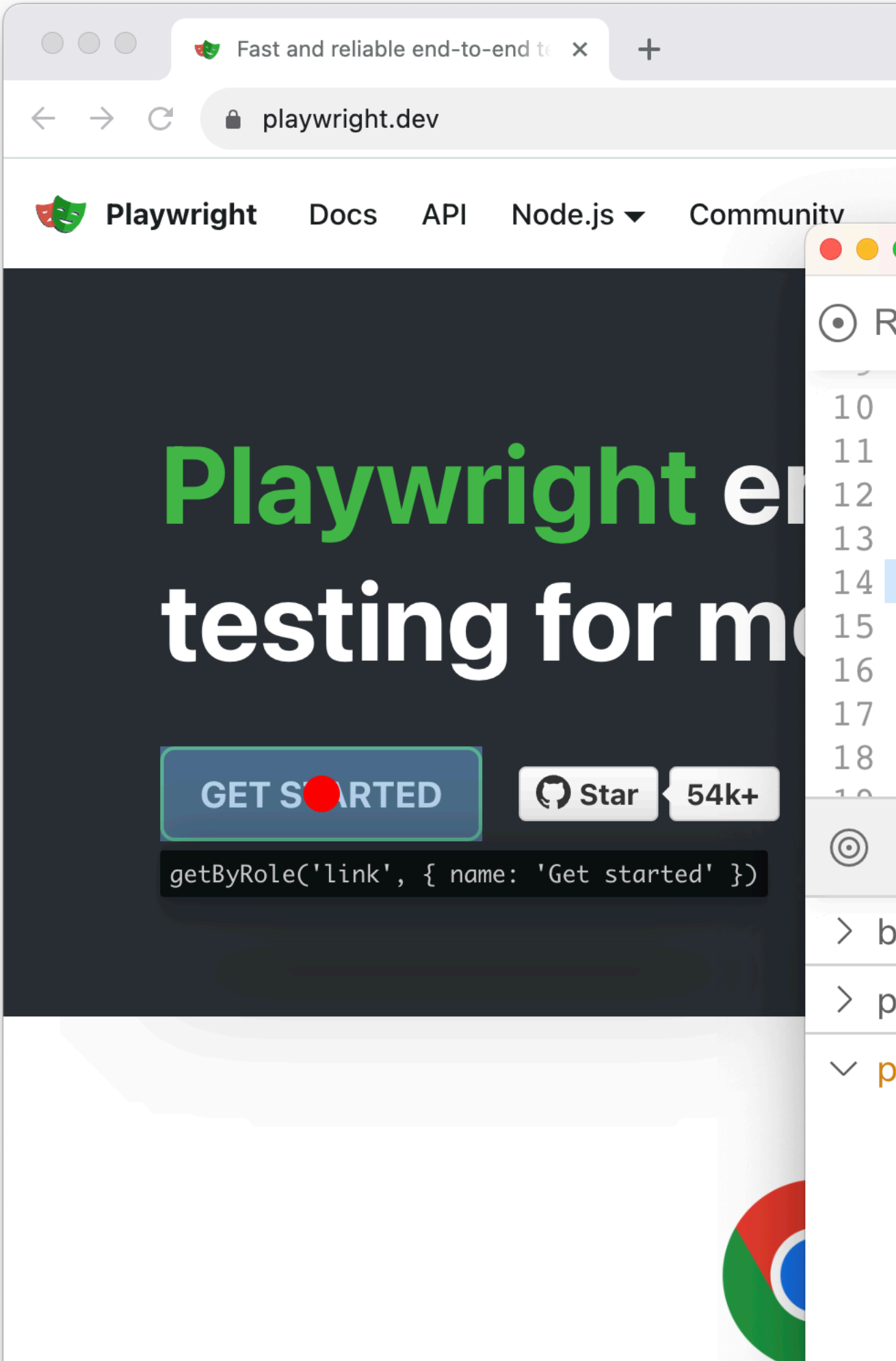

PLAYWRIGHT
Filter (e.g. text, @tag)
Status: all Projects: chromium
26/26 passed (100%)
demo-todo-app.spec.ts
New Todo
should allow me t... 896ms
should clear text ... 839ms
should append ne... 927ms
Mark all as completed
Item
should allow ...
should allow me t... 740ms
should allow me t... 708ms
Editing
Counter
Clear completed button
Actions
Before
locato
locato
locato
locato
locato
expec
expec
locato
expec
expec
After

Check out our detailed guide on UI Mode to learn more about it's features.

Debug tests with the Playwright Inspector

To debug all tests, run the Playwright test command followed by the `--debug` flag.

```
npx playwright test --debug
```


Fast and reliable end-to-end t
playwright.dev
Playwright
Docs
API
Node.js
Community
Playwright
testing for
GET STARTED
Star
54k+
getByRole('link', { name: 'Get started' })

This command will open up a Browser window as well as the Playwright Inspector. You can use the step over button at the top of the inspector to step through your test. Or, press the play button to run your test from start to finish. Once the test has finished, the browser window will close.

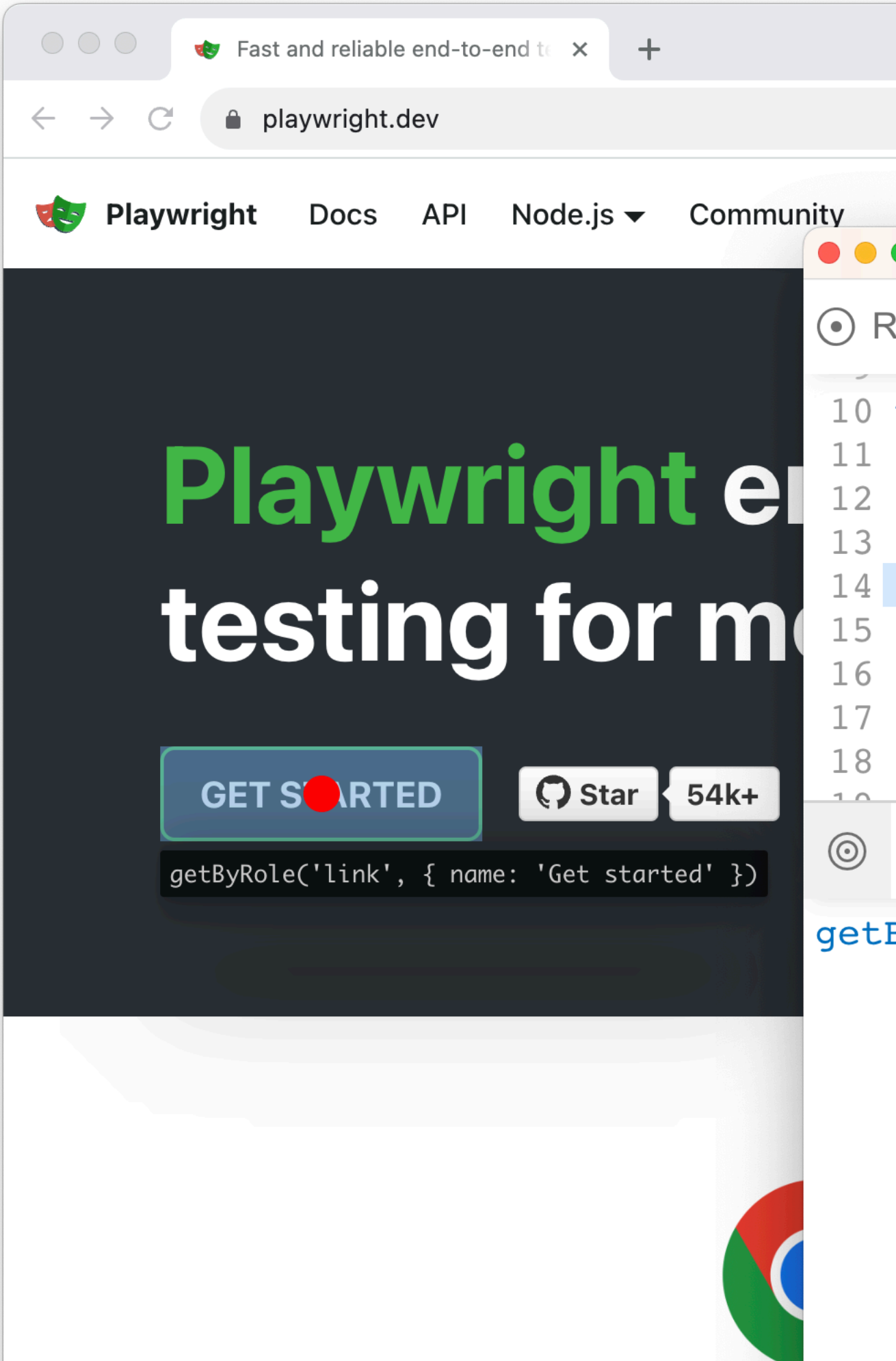
To debug one test file, run the Playwright test command with the name of the test file that you want to debug followed by the `--debug` flag.

```
npx playwright test example.spec.ts --debug
```

To debug a specific test from the line number where the `test(..` is defined, add a colon followed by the line number at the end of the test file name, followed by the `--debug` flag.

```
npx playwright test example.spec.ts:10 --debug
```

While debugging you can use the Pick Locator button to select an element on the page and see the locator that Playwright would use to find that element. You can also edit the locator and see it highlighting live on the Browser window. Use the Copy Locator button to copy the locator to your clipboard and then paste it into your test.

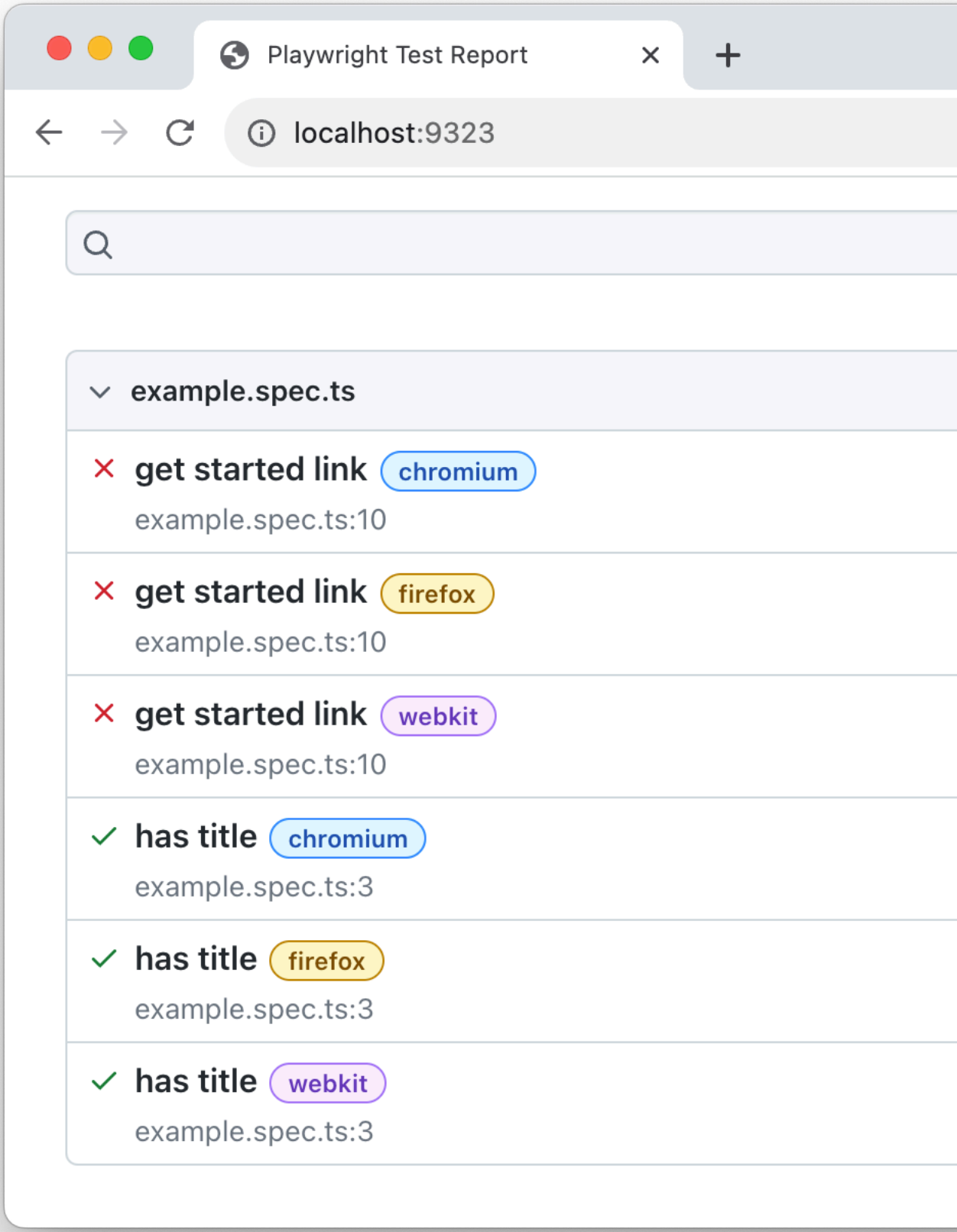

Fast and reliable end-to-end t
playwright.dev
Playwright
Docs
API
Node.js
Community
Playwright e
testing for m
GET STARTED
Star
54k+
getByRole('link', { name: 'Get started' })
10
11
12
13
14
15
16
17
18

Check out our debugging guide to learn more about debugging with the VS Code debugger, UI Mode and the Playwright Inspector as well as debugging with Browser Developer tools.

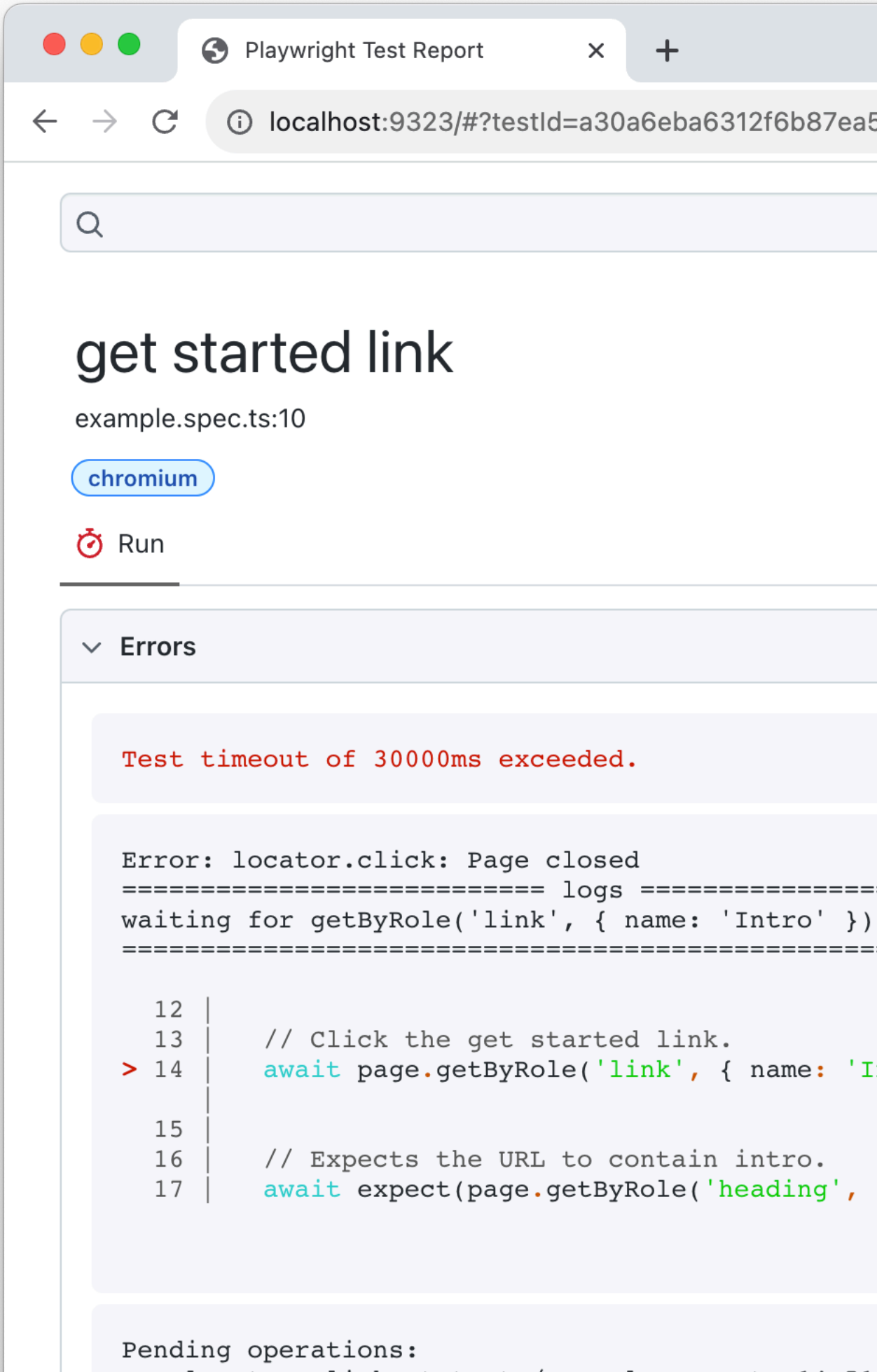
Test reports

The HTML Reporter shows you a full report of your tests allowing you to filter the report by browsers, passed tests, failed tests, skipped tests and flaky tests. By default, the HTML report is opened automatically if some of the tests failed, otherwise you can open it with the following command.

```
npx playwright show-report
```


Playwright Test Report
localhost:9323
example.spec.ts
get started link
chromium
example.spec.ts:10
get started link
firefox
example.spec.ts:10
get started link
webkit
example.spec.ts:10
has title
chromium
example.spec.ts:3
has title
firefox
example.spec.ts:3
has title
webkit
example.spec.ts:3

You can filter and search for tests as well as click on each test to see the tests errors and explore each step of the test.


Playwright Test Report
localhost:9323/#?testId=a30a6eba6312f6b87ea5
get started link
example.spec.ts:10
chromium
Run
Errors
Test timeout of 30000ms exceeded.
Error: locator.click: Page closed
logs
waiting for getByRole('link', { name: 'Intro' })
12 |
13 | // Click the get started link.
> 14 | await page.getByRole('link', { name: 'I
15 |
16 | // Expects the URL to contain intro.
17 | await expect(page.getByRole('heading',
Pending operations:

What's next

- Generate tests with Codegen
- See a trace of your tests
- Explore all the features of UI Mode
- Run your tests on CI with GitHub Actions

Previous
Generating tests

Next
Trace viewer

- Ambassadors