

# Accessibility Tests

Jason Schindler recommends using Axe (<https://www.deque.com/axe/>) and Wave (<https://wave.webaim.org/>) for accessibility testing.

These tools can identify different issues, so it is recommended to use both.

axe is a free version. "axe PRO" is an enterprise version of axe that identifies even more issues. It is currently in beta and no pricing information is available yet.

WAVE is a free tool. Pope Tech (<https://pope.tech/>) is an enterprise-level accessibility tool built on WAVE. Pricing is available at <https://pope.tech/pricing>. The base price of \$150/month covers testing up to 1000 unique pages per month.

Jason also recommended another tool for making accessibility tests part of the build process. See <https://www.deque.com/tools/>.

## Axe

Browse <https://www.deque.com/axe/>.

Click the "Download axe" button.

Click the "Add to Chrome" button.

Browse the web site to be tested.

Open the browser devtools.

Click the axe tab.

Click the "Analyze" button.

Click each issue identified in the left nav. to see a detailed description on the right.

To navigate between multiple instances of the same issue type, click the < and > buttons in the upper-right.

To see the rendered element associated with the issue, click "Highlight".

To see the DOM element associated with the issue, click "Inspect Node".

Fix the issues.

For a list of the rules axe checks, browse <https://dequeuniversity.com/rules/axe/3.4>.

## WAVE

Browse <https://wave.webaim.org/>.

Click the link "[WAVE Firefox and Chrome extensions](#)".

Click the link for the desired browser extension. For example, "WAVE Chrome Extension at the Google Web Store".

Click the "Add to Chrome" button.

Click the WAVE icon to the right of the browser address bar.

An accessibility report will open on the left side of the page.

Click the "View details >" button.

WAVE reports both issues and the good things it finds (such as having alt text for images).

Click an icon for an issue to scroll to it on the page.

Click the info icon (an "i" in a circle) to see detail about an issue.

## Worldspace Attest

Attest is a commercial tool from the company deque who is the maker of the open source tool axe. It improves on axe by adding customized rulesets and advanced reporting.

It provides two primary benefits.

The first benefit is that it can be used as an interactive, browser-based replacement for axe. It has all the features of axe and adds more accessibility checks.

The second benefit is that it can be used in a CI setting to perform accessibility checks in a headless mode.

Axe and Attest can both be integrated with Cypress tests, which of course can be run by Jenkins. For details, see the blog post at <https://www.deque.com/blog/how-to-test-for-accessibility-with-cypress/>. The accessibility tests just need to navigate to each page to be tested, establish the application state to be tested, and invoke an Attest function to trigger evaluation of the accessibility of the current page.

Reports can be generated in HTML, JSON, and XML.

The build can be configured so that it fails if Attest identifies any issues.

Attest does not currently have built-in support for specifying specific issues to be ignored. However deque is confident they can help use achieve this in a way that only requires us to identify issues at specific CSS selectors that should be ignored.

Attest has an annual fee of 21K and a startup fee of 5K. The startup fee includes help with configuring use of the tool.

This table shows the features that Attest adds over axe.

| axe vs. WorldSpace Attest              |     |                   |
|--|-----|-------------------|
| Feature                                | axe | WorldSpace Attest |
| Automated tests                        | ✓   | ✓                 |
| Zero errors                            | ✓   | ✓                 |
| Lightweight, fast and self-contained   | ✓   | ✓                 |
| Works in all modern browsers           | ✓   | ✓                 |
| Secure                                 | ✓   | ✓                 |
| Support for package management         | ✓   | ✓                 |
| Enhanced manual testing features       |     | ✓                 |
| Reporting support                      |     | ✓                 |
| Exports/imports with WorldSpace Comply |     | ✓                 |
| custom rules and policy settings       |     | ✓                 |
| Technical support                      |     | ✓                 |
| Support for older versions             |     | ✓                 |
| Additional Java APIs                   |     | ✓                 |
| Dashboard Capability                   |     | ✓                 |
| Control axe-core Version               |     | ✓                 |

## Other Tools From Deque

The Deque company offers additional tools for accessibility testing that perhaps should be considered in the future. These are described below.

### WorldSpace Assure

Worldspace Assure is a guided manual accessibility testing tool that allows QA teams and manual testers to test for full coverage of the Web Content Accessibility Guidelines (WCAG) 2.0 or 2.1 Levels A and AA without needing to become accessibility experts. This is the same tool that Deque experts use in their assessment work. It allows customers to do their own comprehensive, accurate, and efficient accessibility testing.

Base pricing: \$22,000 (up to 10 seats) + \$5,000 startup service

### WorldSpace Comply

Worldspace Comply is an automated testing tool for performing enterprise-level accessibility audits. It is designed to meet the compliance needs of organizations with large, dynamic websites and applications. It provides advanced reporting, monitoring, and management of accessibility issues against industry standards or customized guidelines.

Base Pricing: \$17,000 (up to 25,000 pages) + \$8,000 startup service