

ACCESSIBILITY TESTING 101

The background of the slide features a series of flowing, translucent ribbons in vibrant colors: red, orange, yellow, green, and blue. These ribbons curve and swirl across the frame, creating a sense of dynamic movement. The central area of the slide is a solid black rectangle, which provides a high-contrast backdrop for the white text.



AGENDA

- What is Accessibility?
- Why make things Accessible?
- How do we decide what is Accessible?
- Building Accessibility Test Plans
 - Example Test Plans
- Tools & Resources

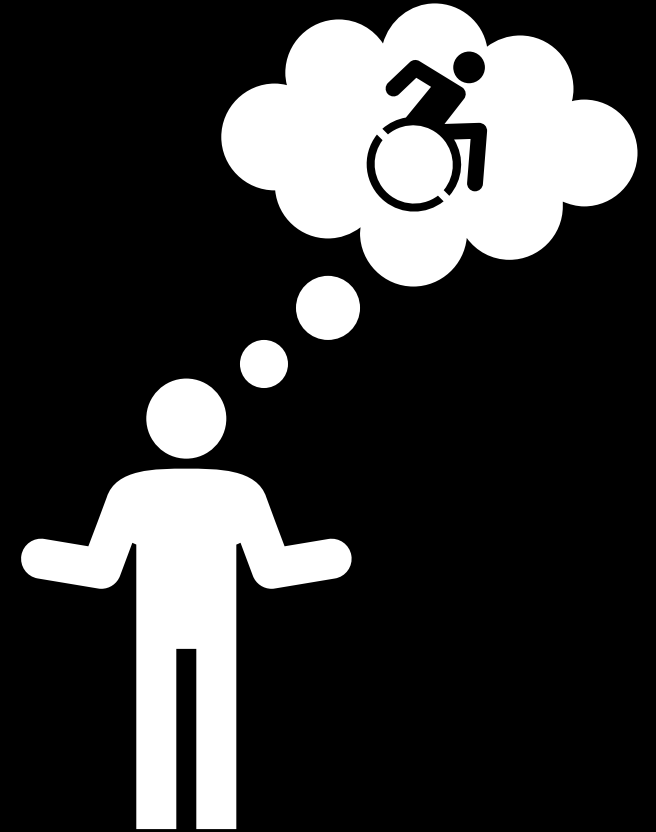
WHAT IS ACCESSIBILITY?

Accessibility

Disability

Assistive Technology

A11y



WHAT IS ACCESSIBILITY - CONTINUED

Types	Time	Visibility
Hearing Vision Mobility Comprehension	Temporary Situational Permanent	Visible Invisible

WHY MAKE THINGS ACCESSIBLE?

By creating an experience where people can all access the same information and services, we help people:

- make more informed choices for themselves and their communities
- Feel more welcome (employee/customer retention)
- Encourage diversity in our communities and workplaces
- Be more innovative
- Don't miss out on the market
 - [A Hidden Market: The Purchasing Power of Working-Age Adults With Disabilities | American Institutes for Research \(air.org\)](#)

HOW DO WE DECIDE WHAT IS ACCESSIBLE?

- **Experience**
- **User Feedback**
- **Guidelines**
 - Web Content Accessibility Guidelines (WCAG)
 - Authoring Tools Accessibility Guidelines (ATAG)
 - User Agent Accessibility Guidelines (UAAG)
 - Accessible Rich Internet Applications (ARIA)
 - Accessible Electronic Documents Community of Practice (AED COP)
- **Regulations**
 - Americans with Disabilities Act (ADA)
 - Section 508 of the Rehabilitation Act of 1973
 - Accessibility for Ontarians Act (AODA)
 - Learn more at: [Web Accessibility Laws & Policies](#) | [Web Accessibility Initiative \(WAI\)](#) | [W3C](#)

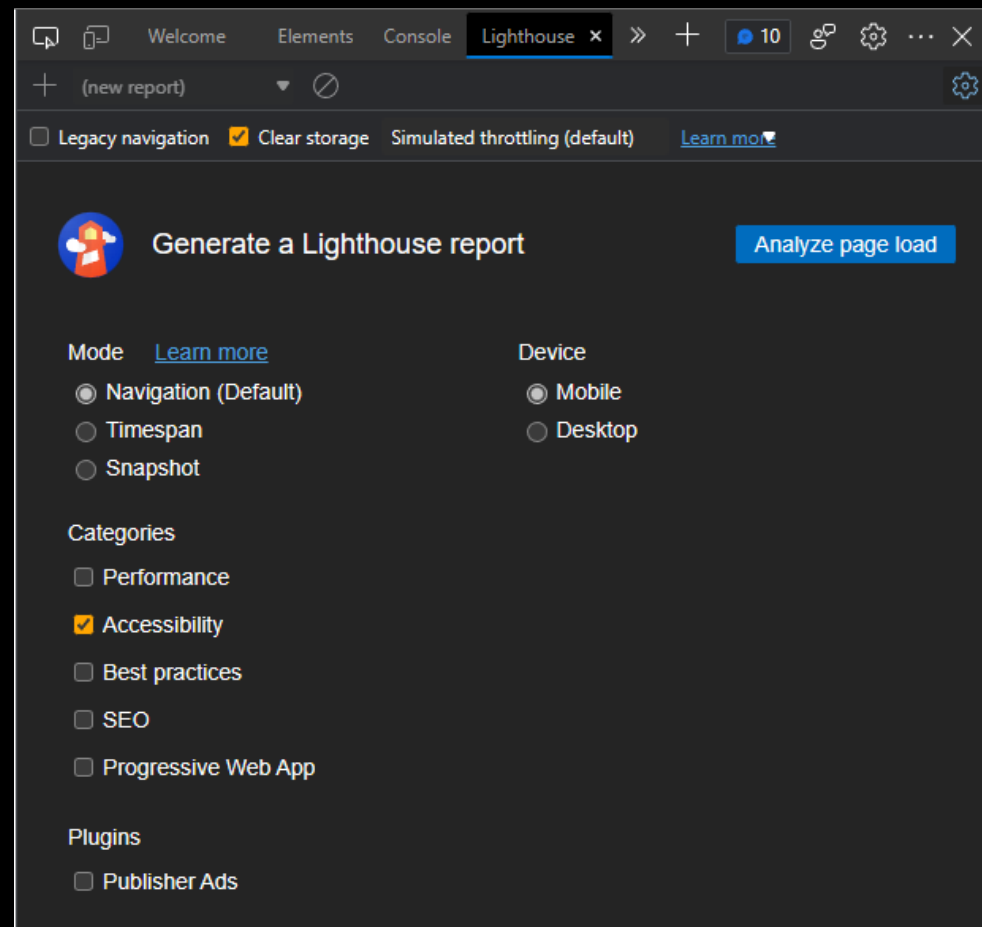
BUILDING ACCESSIBILITY TEST PLANS

- Shift left
- Manual and Automated
- Nothing without us
- Screen reader and Keyboard accessible
- Usually based around WCAG Guidelines
- Customize test methods for different environments:
 - Desktop, Mobile, Mobile Web, Native App
 - Chrome, Firefox, Edge, or other browsers
- **Example Test Methods/Plans:**
 - **VGAR** – Visa Global Accessibility Requirements
 - **Section 508 ICT Testing Baseline for Web** - This Baseline identifies the minimum requirements of any test process used to determine conformance of web content with the Revised Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d)



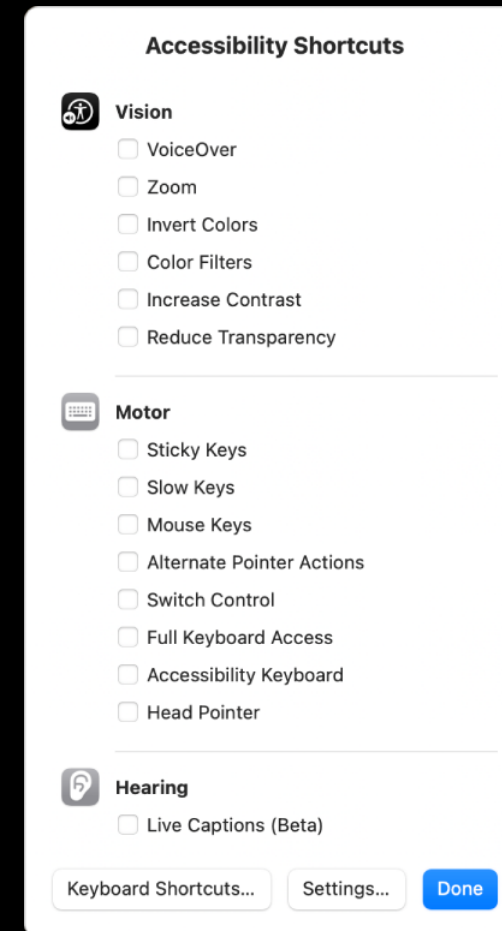
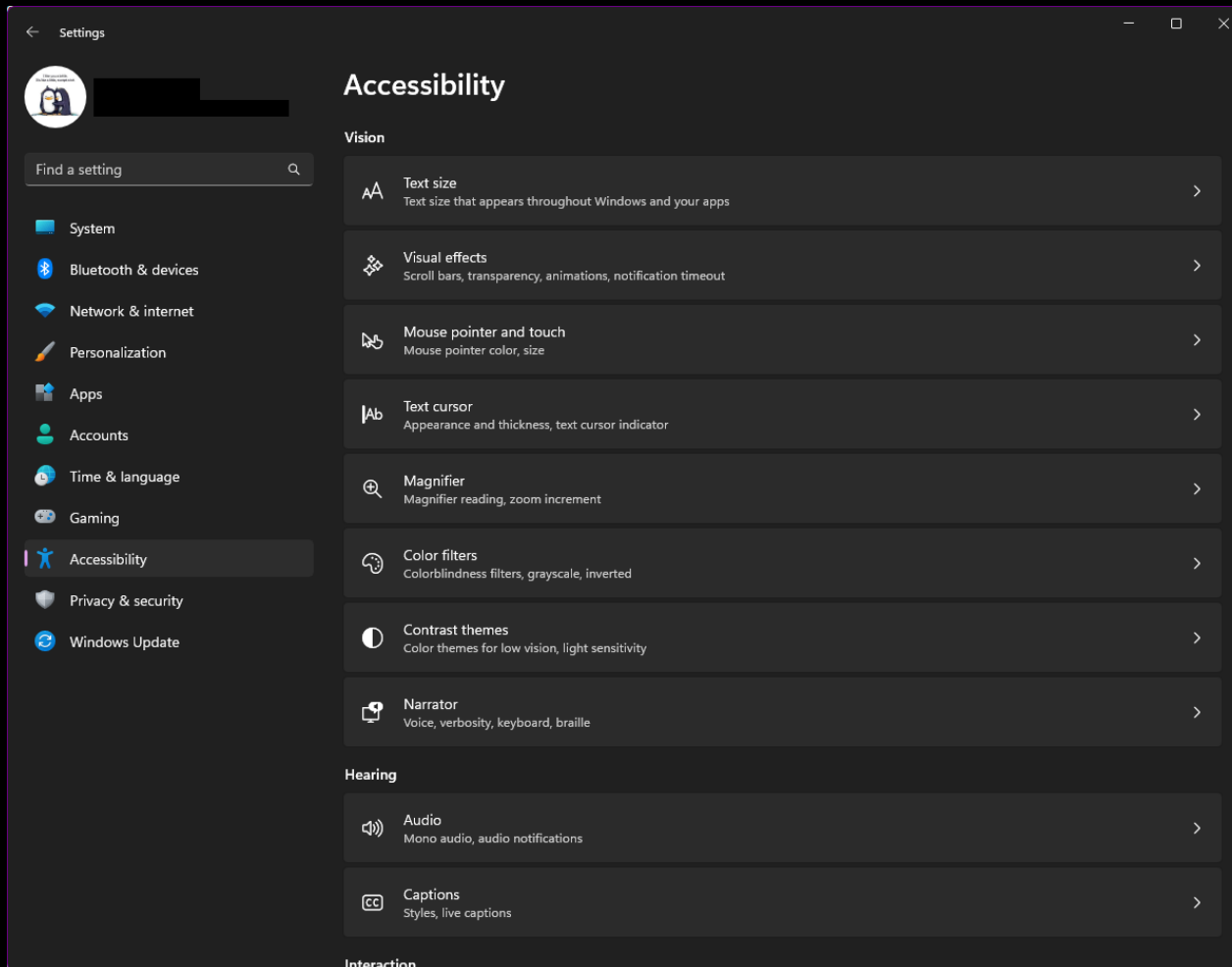
TOOLS AND RESOURCES

BUILT-IN TO BROWSERS



TOOLS AND RESOURCES

BUILT-IN TO OPERATING SYSTEM



TOOLS AND RESOURCES

CCA BY TPGI

Colour Contrast Analyser (CCA)

Colour Contrast Analyser (CCA) Edit View Development

Foreground colour

HEX

Background colour (white)

HEX

▼ Sample preview

example text showing contrast

WCAG 2.1 results Contrast ratio 1.2:1

▼ 1.4.3 Contrast (Minimum) (AA)

Text (including images of text) has a contrast ratio of at least 4.5:1 for "regular", sized text and at least 3:1 for large scale text (at least 18pt / 24px, or bold and at least 14pt / 18.5px), unless the text is purely decorative.

✗ Fail (regular text) ✗ Fail (large text)

▶ 1.4.6 Contrast (Enhanced) (AAA)

✗ Fail (regular text) ✗ Fail (large text)

▶ 1.4.11 Non-text Contrast (AA)

✗ Fail (UI components and graphical objects)

Colour Contrast Analyser (CCA)

Colour Contrast Analyser (CCA) Edit View Development

Foreground colour (black)

HEX

Background colour (white)

HEX

RGB HSL HSV

☐ Synchronize colour values

Red 255

Green 255

Blue 255

▶ Sample preview

WCAG 2.1 results Contrast ratio 21:1

▶ 1.4.3 Contrast (Minimum) (AA)

✓ Pass (regular text) ✓ Pass (large text)

▶ 1.4.6 Contrast (Enhanced) (AAA)



✓ Pass (regular text) ✓ Pass (large text)

▶ 1.4.11 Non-text Contrast (AA)

✓ Pass (UI components and graphical objects)


TOOLS AND RESOURCES

MICROSOFT ACCESSIBILITY INSIGHTS




Watch 3-minute video introduction


Launch pad

**FastPass**

Run three tests to find the most common accessibility issues in less than 5 minutes.

**Assessment**

Walk through a guided process for assessing accessibility compliance.

**Ad hoc tools**

Get quick access to visualizations that help you identify accessibility issues.

Version 2.38.1 | Powered by [axe-core](#) 4.6.3

Accessibility Insights for Web

Assessment

Target page: Facebook

Overview
0% Completed

- Automated checks
- Keyboard
- Focus
- Landmarks
- Headings
- Repetitive content
- Links
- Native widgets
- Custom widgets
- Timed events
- Errors / status
- Page navigation
- Parsing
- Images
- Language
- Sensory
- Adaptable content

Overview

This page contains a summary that indicates the progress of your assessment. An assessment is a manual experience in which you navigate through a set of tests that cover all WCAG 2.1 AA success criteria. Each test has one or more requirements that can be:

- Automated
- Assisted
- Manual

Where possible, Accessibility Insights for Web "assists" the test process by generating a list of instances to evaluate and highlighting them on the screen. Accessibility Insights for Web also allows you to manually record failure instances.

Summary

0%

100%

0%

Test details

Automated checks	57
Keyboard	○○○○○○
Focus	○○○○○
Landmarks	○○○
Headings	○○○
Repetitive content	○○○
Links	○○○

Accessibility Insights for Web

FastPass

Target page: Facebook

1 Automated checks

- Tab stops
- Needs review

There are iframes in the target page. To have complete results, [give Accessibility Insights additional permissions](#); this will trigger a rescan of the test. [Learn more here.](#)

Automated checks Step 1 of 3

Automated checks can detect some common accessibility problems such as missing or invalid properties. But most accessibility problems can only be discovered through manual testing. The best way to evaluate web accessibility compliance is to complete an [assessment](#).

Failed instances 9

> Expand all Visual helper ☒

> **aria-hidden-focus** 3: Ensures aria-hidden elements are not focusable nor contain focusable elements

> **aria-required-children** 1: Ensures elements with an ARIA role that require child roles contain them

> **svg-img-alt** 5: Ensures <svg> elements with an img, graphics-document or graphics-symbol role have an accessible text

TOOLS AND RESOURCES

BROWSER EXTENSIONS & WEB APPS

The following apply to the entire page:

Summary

Errors: 0

Contrast Errors: 0

Alerts: 2

Features: 13

Structural Elements: 12

ARIA: 21

View details

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

h1 Welcome to CorgiDev!

h2 New Blog!

I created a new blog page to share my thoughts called "CorgiDev Thoughts." Check it out using the Blog link in the top navigation, or using the following link: [Blog page](#).

h2 New shop!

I created a Redbubble shop with my CorgiDev logo. It's a neat gear. Check out the [Shop](#) link at the top of each page.

axe-core 4.7.0 Sign up / Sign in

Unlock all extension features. Try for free, no payment required!

Let's get started

You're **one click away** from scanning your site with the most widely used and **trusted accessibility tool in the world**.

Scan ALL of my page

Scan PART of my page

OR

Start an Intelligent Guided Test

Select an IGT, we'll scan your entire page, and then you can start testing! [Learn more about IGTs!](#)

Table

Keyboard

Modal Dialog


Interactive Elements

Structure

Images

TOOLS AND RESOURCES

BROWSER EXTENSIONS & WEB APPS



Markup Validation Service

Check the markup (HTML, XHTML, ...) of Web documents

Validate by URI

Validate by File Upload

Validate by Direct Input


Validate by URI

Validate a document online:

Address:

[► More Options](#)



This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).




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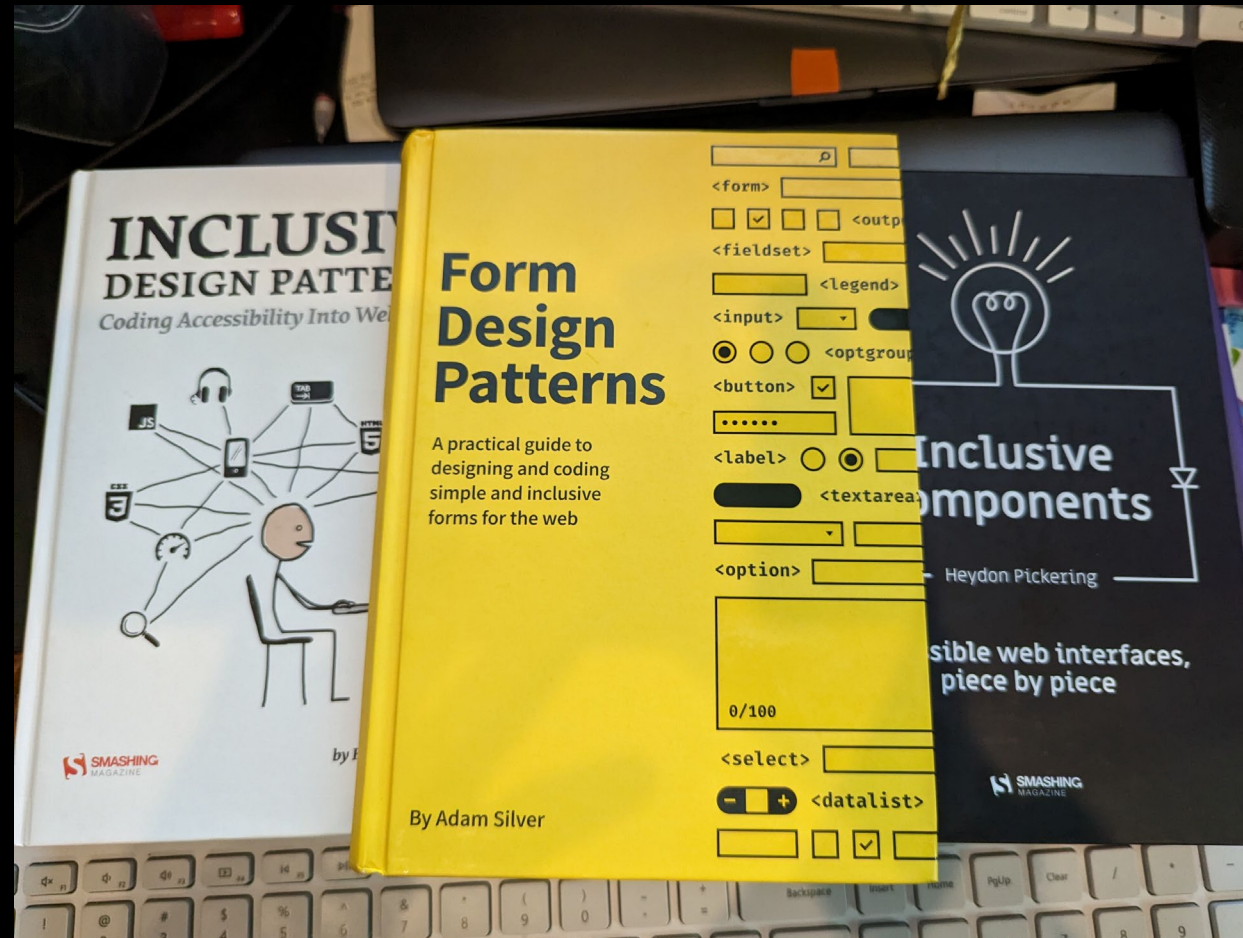
TOOLS AND RESOURCES

BOOKMARKLETS

- Find Landmarks on Web Page with A11Y Bookmarklet | HolisticA11Y
- Forms Bookmarklet for Accessibility Testing (pauljadam.com)
- ARIA Bookmarklet for Accessibility Testing (pauljadam.com)
- Text spacing bookmarklet - Bookmarklets (dylanb.github.io)
- Assorted Accessibility Bookmarklets for Landmarks, Headings, and more: Accessibility Bookmarklets (accessibility-bookmarklets.org)
- ANDI - Accessibility Testing Tool - Install (ssa.gov)

TOOLS AND RESOURCES

BOOKS (PHYSICAL AND EBOOK)



TOOLS AND RESOURCES

ADDITIONAL RESOURCES

- **Accessibility Insights** – Accessibility testing tool made by Microsoft
 - Has browser extension and desktop application versions
 - Also have the option to include the automated tests in CI/CD
 - DON'T depend on automated tests
- **NVDA** – free, open-sourced screen reader
 - View keyboard shortcuts on at the Deque article entitled: **NVDA Keyboard Shortcuts**.
- **Narrator** – screen reader built-in to Windows.
 - View keyboard shortcuts for Narrator in the Deque article entitled **Narrator Keyboard Shortcuts**.
- **VoiceOver** – is a built screen reader found on iOS and MacOS devices.
- **TalkBack** – is a built screen reader found on iOS and MacOS devices.
- **Microsoft Accessibility** on Twitter at **@MSFTEnable** and at on the **Microsoft Accessibility page**.
- **Microsoft Accessibility Fundamentals course**
- **ANDI** – Bookmark applet developed by the Social Security Administration to aid in Accessibility testing.
- **Accessibility - Erissa Duvall (corgidev.com)**

THANK YOU!

- <https://corgidev.com>
- <https://github.com/CorgiDev/A11y-Materials> - Under Presentations/2023 Presentations

