



A Deep Dive into Microsoft Accessibility Insights for Web

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About Me

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Content

- Intro to Accessibility
- Microsoft Accessibility Insights
 - FastPass
 - Quick Assess
 - Assessment
 - Ad hoc tools
- Outro



Intro to Accessibility

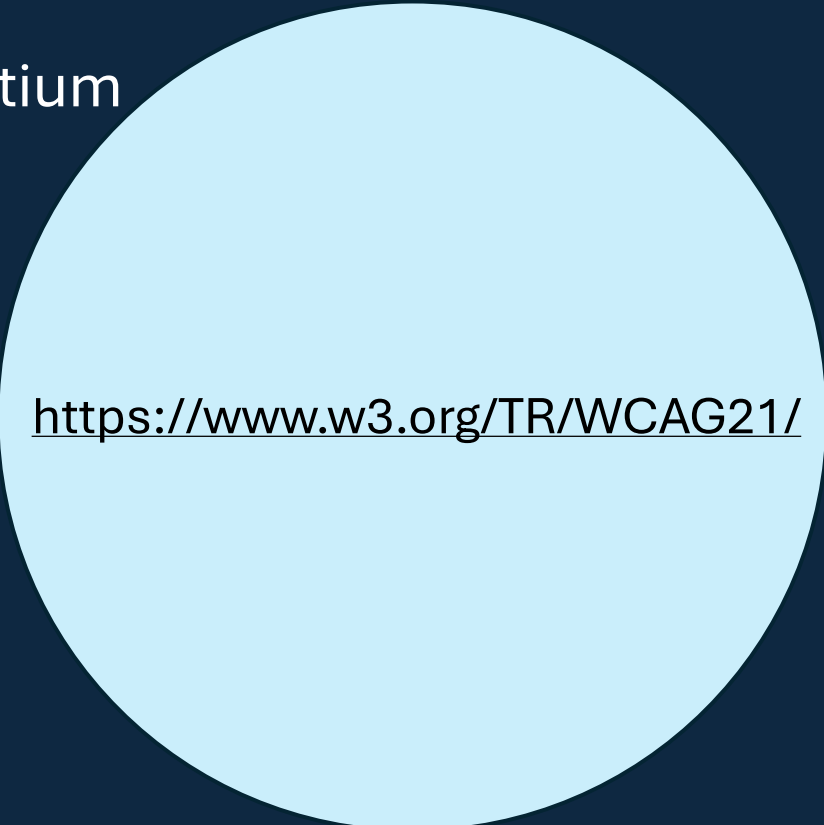


Accessible Websites: What & Why

- Websites accessible for all people
- All people = including people with disabilities
- All People can access:
 - The website
 - The content
 - The information
 - The (in-person) booked services
- There shouldn't been a gap
- The disability gap
- Human right
- (Soon) Required by Law
 - European Disability Act
- Build for your future self
 - & Broader Family

WCAG

- Web Accessibility Initiative – World Wide Web Consortium
- Web Content Accessibility Guidelines
- Official & Used requirements
- 3 Levels
 - A
 - AA
 - AAA
- Latest version 2.2 (5 October 2023)
 - 13 Guidelines
 - 26 Success Criteria
- WCAG 2.1 (Current Microsoft Accessibility Insights)
 - 13 Guidelines
 - 17 Success Criteria



<https://www.w3.org/TR/WCAG21/>

POUR

- 1. Perceivable
 - “Can everyone get to the content?”
 - “Can everyone take the pen & the paper on the table?”
- 2. Operable
 - “Can everyone perform actions on the website?”
 - “Can everyone use the pen to write on the paper?”
- 3. Understandable
 - “Can everyone understand what the content on the website means?”
 - “Can everyone understand what is expected to write on the paper?”
- 4. Robust
 - “Is the website robust? Does it perform as expected?”
 - “Is the pen OK, is the paper clean?”

WCAG Structure

- 1. Perceivable (Topic)
- 1.1 Text-Alternatives (Criteria)
 - “Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.”
- 1.1.1 Non-Text-Content (Criterion)
 - “All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, **except** for the situations listed below.”



Microsoft Accessibility Insights



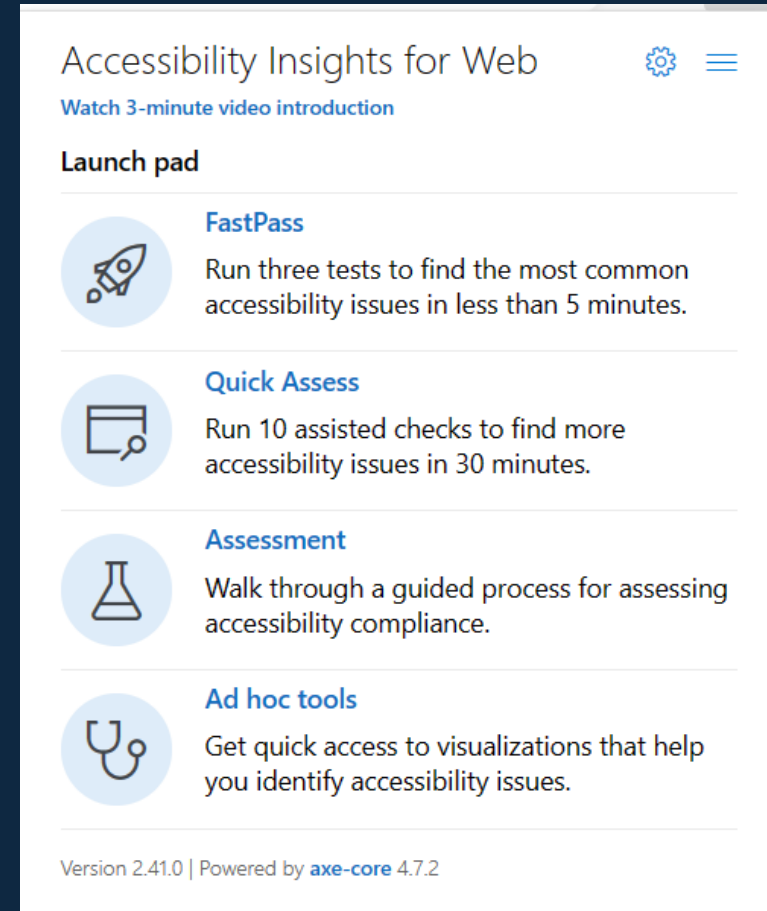
What is Microsoft Accessibility Insights

- Browser Plugin
- Checks against WCAG 2.1 (Talk date: November 30th, 2023)
- Open Source
- Helps building & validating websites for Accessibility
- <https://accessibilityinsights.io>
- <https://github.com/microsoft/accessibility-insights-web>
- Under the hood: Axe-Core



Introducing the Plugin

- FastPass
 - “Common issues”
- Quick Assess
 - “Dedicated assisted checks”
- Assessment
 - “Full Assessments”
- Ad hoc tools
 - “Visual helpers to find & solve accessibility issues”






Automated Tests vs Manual Tests

- Automatic: check against HTML
- Manual:
 - Tests needs to be done by human
 - Step-by-step guide
 - Checkboxes
 - Pass
 - Fail

Parts of a Test with Issues

- Path
- Snippet
- Related paths
- How to fix

Path	.nav__search__text
Snippet	Search
Related paths	<ul style="list-style-type: none">• .header__nav__top_bg
How to fix	<p>Fix the following:</p> <ul style="list-style-type: none">• Element has insufficient color contrast of 3.93 (foreground color: ■ #9e1461, background color: ■ #f3a0cf, font size: 12.0pt (16px), font weight: normal). Expected contrast ratio of 4.5:1<ul style="list-style-type: none">• Use foreground color: ■ #8e1257 and the original background color: ■ #f3a0cf to meet a contrast ratio of 4.52:1• Or use background color: ■ #ffb0e3 and the original foreground color: ■ #9e1461 to meet a contrast ratio of 4.61:1.
<div> Highlight visible</div> <div> File issue  Copy failure details</div>	

Guided Manual Tests

- Description
- Visual helpers
- Explanation (How to test)
- Instances
- Why it matters
- Helpful resources
- Pass/Fail Checkbox

[Target page: Winter Glow | Visit Bruges](#)[Export result](#)[Move to assessment](#)[Start over](#)

Keyboard navigation

Users must be able to *navigate* to all interactive interface components using a keyboard.

Visual helper ☐ Off

✓ **How to test**

The visual helper for this requirement records elements in the target page that receive the input focus.

1. Use the keyboard to navigate through all the interactive interface components in the target page.
 - a. Use **Tab** and **Shift+Tab** to navigate between widgets both forwards and backwards.
 - b. Use the arrow keys to navigate between the focusable elements within a composite widget.
2. If a "keyboard trap" prevents the focus from leaving a widget:
 - a. Use your mouse to move the focus to the next widget.
 - b. Resume testing.
3. If you encounter any trigger component that reveals hidden content:
 - a. Activate the trigger.
 - b. Navigate through the revealed content.
 - c. Close the revealed content.
 - d. Resume navigating the page.
4. Verify that you can navigate to all interactive components using the keyboard.
5. Record your results:
 - a. If you find any failures, select **Fail**, then add them as failure instances.
 - b. Otherwise, select **Pass**.

☐ Pass ☐ Fail

Why it matters

Users must be able to navigate to all interactive interface components using a keyboard. Users can't access a web app's functionality if they can't access its interactive interface components. Many people, including those who are blind or who have low vision or hand tremors, rely on a keyboard (or keyboard alternate) to access those components.

Helpful resources

[Info and examples](#)

Issue Options

- File Issue
 - GitHub
 - Azure Boards
- Copy Issue Details
- Move to Assessment

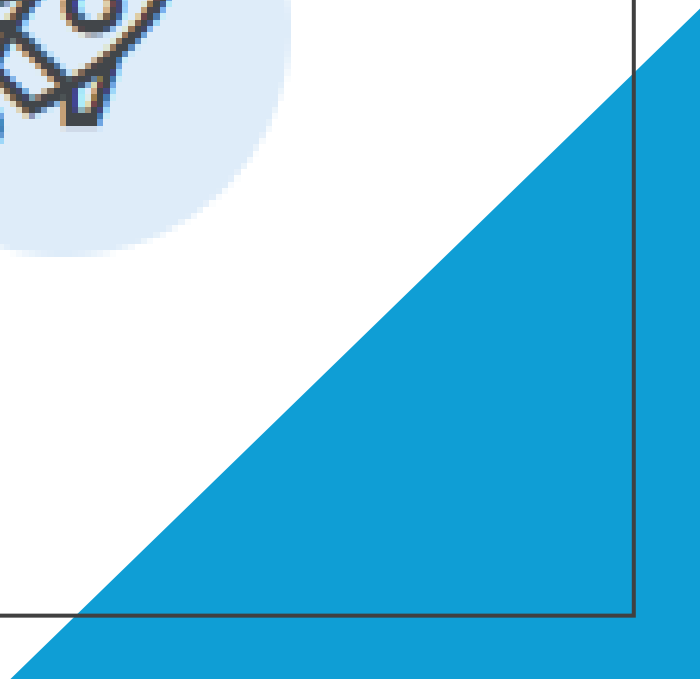
Test options

- Export Result
 - HTML
 - CodePen
- Start Over

DEMO TIME



FastPass



What, Why, How & When

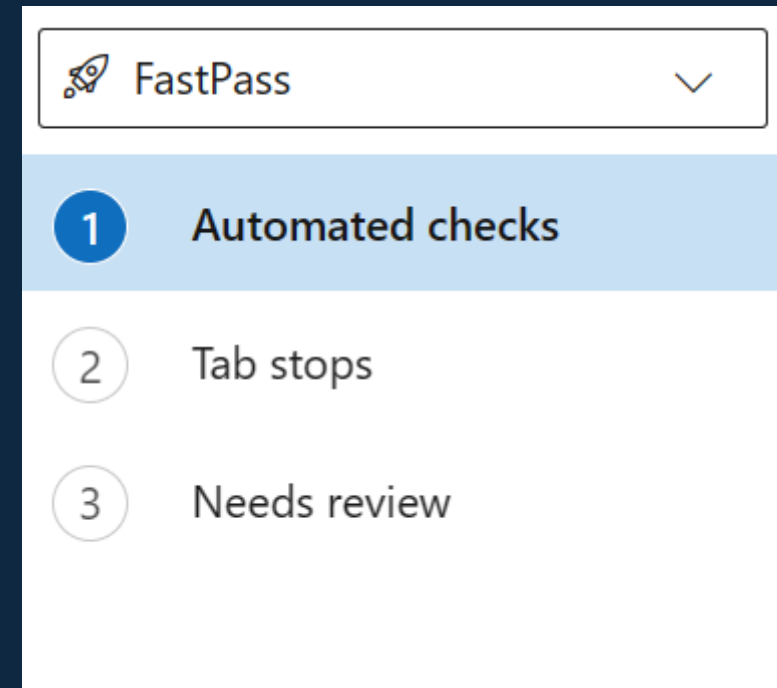
Three tests

Most common

< 5 min.

Page Updates

Minor changes



Automated Tests

- Automated against HTML/CSS/ JS
- Ex:
 - Color-Contrast
 - Alt-Texts
 - Viewport Errors
 - Wrong links (name, text blocks, buttons,...)

Tab stops

- Guided manual test
- Navigate through the screen keyboard-only

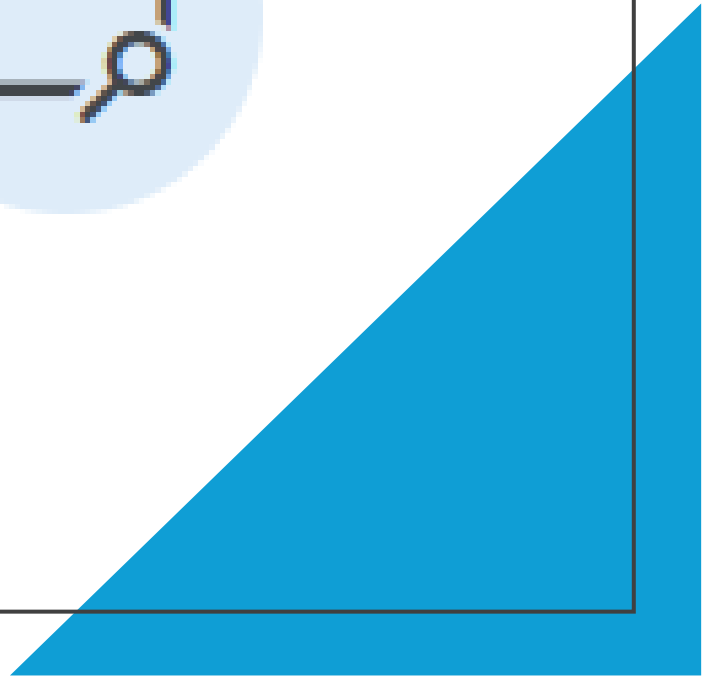
Needs review

- Automated test that **CAN BE** an Accessibility Issue
- Requires human testing

DEMO TIME



Quick Assess



What, Why, How & When

- Validate if preview Errors are Fixed
- Validate customer feedback about accessibility complains

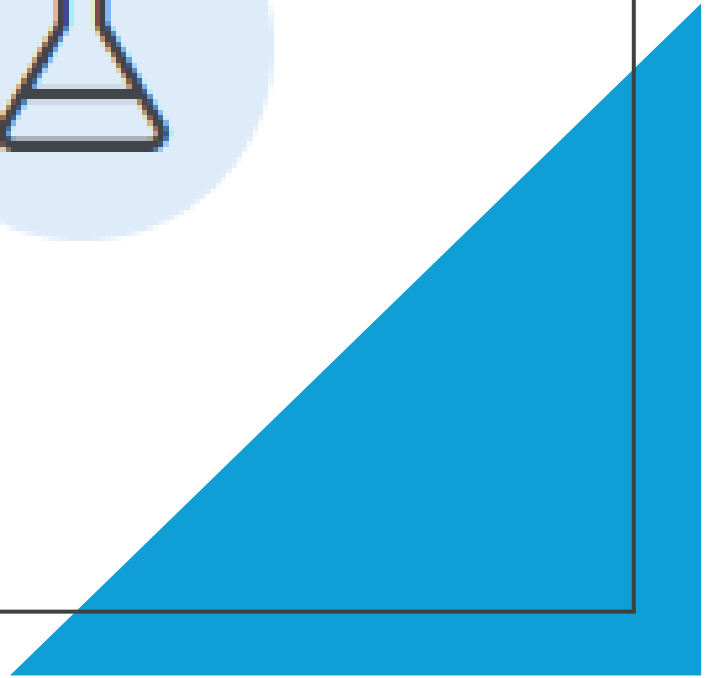
Selection of Assesses

- Automated checks
- Keyboard navigation
- **Link purpose**
- **Image function**
- Focus order
- UI components
- No missing headings
- Heading level
- Bypass blocks
- Instructions
- Reflow

DEMO TIME



Assessment



What, Why, How & When

- Prove your website fully complies to WCAG
- Export Report of Acknowledge
- Protect against Lawsuits, complains, strikes,...
- Needed for each page

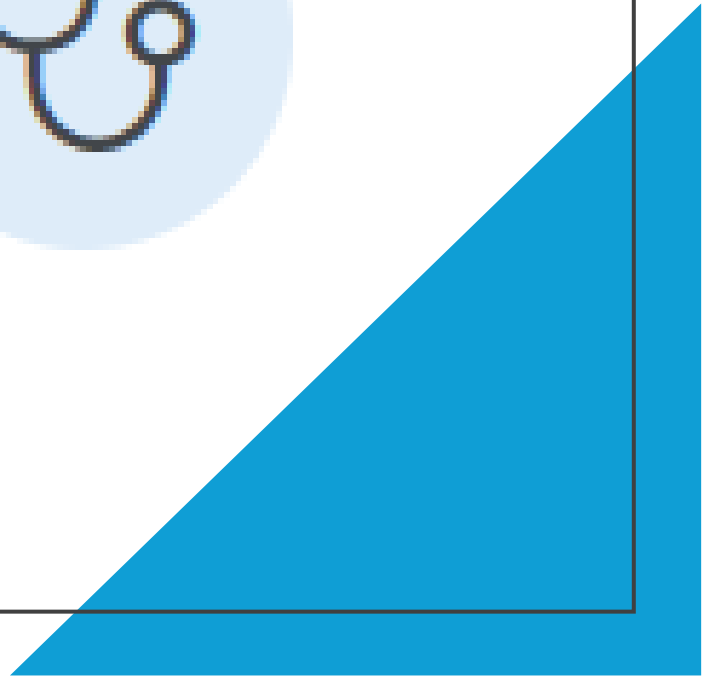
Selection of Assesses

- Automated tests
- Keyboard (6)
- Focus (1)
- Landmarks (3)
- Headings (3)
- Repetitive Content (4)
- Links (3)
- Native Items (5)
- Custom Widgets (6)
- Timed Events (4)
- Errors/ Status (4)
- Page Navigation (3)
- Parsing (1)
- Images (4)
- Language (3)
- Sensory (4)
- Adaptive Content (7)
- Audio/ Video (2)
- Multimedia (5)
- Live Multimedia (1)
- Sequence (3)
- Semantics (8)
- Pointer/ Motion (5)
- Contrast (3)
- Cognitive (2)

DEMO TIME



Ad hoc tools



What, Why, How & When

- Debug inaccessible cases
- Check if issues are fixed
- Learn about and test resolutions
 - Ex, color, headings, tab stops...

Selection of Assesses

- Automated checks
- Color
- Headings
- Accessible names
- Landmarks
- Tab stops
- Needs review

DEMO TIME





Outro - Recap

Thanks // Q&A

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