IES ADA Overview Updated

ADA Overview 2.0 (WCAG 2.2 Update)

ADA web compliance is built on a foundation of simple, user-centric principles. The Americans with Disabilities Act (ADA) mandates that all public-facing websites must be accessible to everyone, regardless of disability. While the ADA doesn't provide specific technical standards, the Web Content Accessibility Guidelines (WCAG) 2.2 Level AA are the recognized standard for achieving compliance.

The Foundation: The Four Principles of WCAG (POUR)

To be accessible, a website must adhere to these four principles:

- **Perceivable:** Users must be able to perceive the information and interface. Content should not rely on a single sense; for example, images must have text descriptions.
- **Operable:** Users must be able to operate the interface and navigate the site. This includes keyboard-only navigation and ensuring interactive elements are easy to target.
- **Understandable:** Information and UI operation must be clear. This requires consistent language, predictable patterns, and reducing repetitive data entry.
- **Robust:** Content must be compatible with a wide range of user agents and assistive technologies. Note: Requirement 4.1.1 (Parsing) has been removed in WCAG 2.2 as modern browsers now handle this automatically.

A Practical Checklist for ADA Web Compliance

1. Content and Structure

- **Provide Text Alternatives:** All non-text content (images, icons, buttons) must have descriptive "alt text" in HTML.
- **Use Proper Headings:** Use a logical hierarchy (H1, H2, H3) for navigation via screen readers. Do not use headings for visual styling.
- **Clear and Readable Text:** Ensure a contrast ratio of at least 4.5:1 for standard text. Do not rely on color alone to convey information.

- **Provide Transcripts and Captions:** Provide text transcripts for audio and synchronized captions for video.
- **Target Size (Minimum):** Ensure interactive targets are at least 24x24 CSS pixels or have sufficient spacing to prevent accidental activation.

2. Navigation and Interaction

- **Keyboard Accessibility:** All functions must be operable using only a keyboard (tab, enter, spacebar).
- **Visible Focus Indicator:** Navigation must show a visible outline on the current element. Under WCAG 2.2, this indicator must have a 3:1 contrast ratio and cannot be entirely hidden by "sticky" headers or footers.
- **Consistent Navigation:** Keep menus and footers in the same placement and order across the site.
- **"Skip to Main Content" Links:** Provide a link at the top of the page to allow keyboard users to bypass repetitive navigation.
- **Dragging Movements:** Any action requiring dragging (like a slider) must also be functional via a single pointer gesture, such as a tap or click.

3. Forms and Data Input

- **Clear Labels:** All form fields must have explicit, visible labels for screen reader clarity.
- **Helpful Error Messages:** Provide descriptive messages that guide users on how to correct mistakes.
- **Redundant Entry:** Do not ask users to re-enter information they have already provided in the same process; allow for auto-population or selection.
- **Accessible Authentication:** Avoid "cognitive function tests" (like puzzles or memorization) for logins. Use email links, biometrics, or support password managers instead.

How to Check for ADA Web Compliance

A comprehensive audit requires both automated and manual testing.

- **Automated Tools:** Use tools like WAVE to scan for missing alt text or low contrast.

- **Manual Testing:**
    - Navigate the entire site using only a keyboard.
    - Test with a screen reader to experience the site as a user with low vision would.
    - Verify that focus indicators are never obscured by other page elements.
    - Check that all dragging functions have a click-based alternative.
- **User Testing:** Gather feedback from users with different disabilities to identify real-world barriers.

Other Resources

Color Contrast Analyzer - https://vispero.com/lp/color-contrast-checker/

Screen Readers

NVDA - https://www.nvaccess.org/download/

A widely used and free screen reader tool available for Windows (8.1 and over)

OS Default Screen Readers

- **Windows - Narrator**
- **MacOS - VoiceOver**
- **iOS - Screen Speak**
- **Android – TalkBack**

Browser Based Accessibility Scanners

WAVE- https://wave.webaim.org/

Commonly used as a free browser extension to scan your website page by page. Available for Chrome, Firefox, and Edge

Other resources

https://www.w3.org/WAI/test-evaluate/tools/list/ - List of other available accessibility tools

Further Reading

Learn fundamentals of designing for Accessibility https://www.w3.org/WAI/fundamentals/

Checklist for various elements that need accessibility on a website.
https://dequeuniversity.com/checklists/web/

Tips and information on how to make PDFs complaint and some other articles on other topics of interest -https://www.section508.gov/create/pdfs/

Tips and information on how to make PDFs complaint-
https://accessibility.huit.harvard.edu/pdf

Tips on good Alt Text - https://accessibility.huit.harvard.edu/describe-content-images