

Accessibility for eLearning Toolkit

OBJECTIVE OF THE TOOLKIT

This toolkit provides suggestions, links, and resources to consider when planning and developing your eLearning course.

BACKGROUND

Section 508 of the Rehabilitation Act of 1973 (as amended in 1998) requires all Federal Electronic and Information Technology (EIT) developed, maintained, procured, and used after June 21, 2001 to be accessible to federal employees and members of the public with disabilities.

For more information about Section 508, please refer to the following site:

<https://www.section508.gov/manage/laws-and-policies>

WHY IS 508, OR WEB ACCESSIBILITY IMPORTANT TO MONARCH MEDIA, AND WHAT CLIENTS ARE AFFECTED?

Web accessibility, and levels of 508 compliance means making websites, content, applications, and LMS/CMS platforms usable to people of all abilities and disabilities.

In addition to being the law, web accessibility allows users to perceive, understand, navigate, interact with, and contribute to web-based materials. Compliance helps individuals with and without disabilities to fully engage with the solutions that we help produce.

For more information about what Web Accessibility is, and who is affected, please review the following site:

<https://www.w3.org/WAI/fundamentals/accessibility-intro/#what>

HOW MONARCH MEDIA ADDRESSES 508 COMPLIANCE

Section 508 is the law, however, techniques for building compliant web solutions and content can be complicated, with guidelines and compliance requirements

ever-changing. To address this Monarch Media chooses to follow WCAG guidelines to the best of our ability, with the following understandings:

- The development standards (WCAG) can be vague and in some cases aspirational
- The development guidelines and standards are not law
- Compliance depends upon choices concerning content, systems and functionality that may not be in Monarch Media's control

Given these complexities Monarch Media has adopted the following policies to adhere to WCAG standards while providing excellent service:

1. Monarch Media will adhere to best practices in web and content development, and will adhere to compliance specifications agreed to with the client, with the understanding that certified compliance with the law would require third party verification.
2. Monarch will deliver to the compliance specifications provided by, and agreed to with the client.
3. Monarch will go through an accessibility checklist with you to specify your project needs.
4. Monarch will fix any work that does not meet client-provided specifications at the time of delivery.
5. When requested in the proposal, Monarch will provide reports to the client for compliance tests that we've performed.
6. Monarch will connect the client with 3rd party compliance support if certification of compliance is required, and may support the 3rd party compliance review for the client if requested.

LEVELS OF COMPLIANCE

WCAG 2.0 guidelines are categorized into three levels of conformance in order to meet the needs of different groups and different situations: A (lowest), AA (mid range), and AAA (highest). Conformance at higher levels indicates conformance at lower levels.

MONARCH'S 508 COMPLIANCE QUICK REFERENCE TABLE:



508 Compliance Quick Reference

Principles	Guidelines	Level A	Level AA	Level AAA
1. Perceivable	1.1 Text Alternatives	1.1.1		
	1.2 Time-based Media	1.2.1 - 1.2.3	1.2.4 - 1.2.5	1.2.6 - 1.2.9
	1.3 Adaptable	1.3.1 - 1.3.3	1.3.4 - 1.3.5	1.3.6
	1.4 Distinguishable	1.4.1 - 1.4.2	1.4.3 - 1.4.5, 1.4.10 - 1.4.13	1.4.6 - 1.4.9
2. Operable	2.1 Keyboard Accessible	2.1.1 - 2.1.2, 2.1.4		2.1.3
	2.2 Enough Time	2.2.1 - 2.2.2		2.2.3 - 2.2.6
	2.3 Seizures and Physical Reactions	2.3.1		2.3.2 - 2.3.3
	2.4 Navigable	2.4.1 - 2.4.4	2.4.5 - 2.4.7	2.4.8 - 2.4.10
	2.5 Input Modalities	2.5.1 - 2.5.4		2.5.5 - 2.5.6
3. Understandable	3.1 Readable	3.1.1	3.1.2	3.1.3 - 3.1.6
	3.2 Predictable	3.2.1 - 3.2.2	3.2.3 - 3.2.4	3.2.5
	3.3 Input Assistance	3.3.1 - 3.3.2	3.3.3 - 3.3.4	3.3.5 - 3.3.6
3. Robust	4.1 Compatible	4.1.1 - 4.1.2	4.1.3	

Source: <https://www.w3.org/WAI/WCAG21/quickref/>

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W3C Quick Reference Site:

<https://www.w3.org/WAI/WCAG21/quickref/>

TYPES OF ASSISTIVE TECHNOLOGY

Assistive technology is any device, software, or equipment that helps people work around their challenges. Some examples of assistive technology are text-to-speech and word prediction. Assistive technology includes low-tech tools, too, like pencil grips. Here are some common web assistive technologies that may be relevant to a project:

- **Screen Readers:** A screen reader is a software application that attempts to identify and interpret what is being displayed on the screen, then re-presented to the user with text-to-speech, sound icons, or a Braille output device. Example tools:
 - JAWS
 - Window-Eyes
 - Microsoft Narrator

- Voice-over (Apple)
- **Screen Magnifiers:** A screen magnifier is a software application that enlarges screen content for visually impaired individuals.
- **Alternative Input Devices:** Some people may not be able to use conventional input devices, such as a mouse, keyboard, trackpad or touch screen. For this reason software uses generic input APIs to permit use for highly specialized devices that may be unheard of at the time of the software's development. Example API Features and Alternative Input Devices:
 - Keyboard shortcuts
 - Mouse gestures
 - On-screen software keyboards
 - Switches
 - Joysticks
 - Trackballs

TOOLS TO TEST FOR ACCESSIBILITY

Accessibility testing must be viewed as a process that combines automated software tools with human judgment. No tool exists that you can run against a web site (or web page) that will assert that it is accessible and/or complies with the Section 508 provisions or the Web Content Accessibility Guidelines. For this reason we treat compliance requirements as specifications agreed to with the client, not compliance with the law. Any compliance certification needs to be handled with 3rd party support.

Monarch Media will perform compliance tests provided by the client to verify whether we have adhered to the specifications we've agreed to. If the client is unable to supply tests or checklists to verify Monarch Media's work for compliance, we can provide test recommendations.

WC3 has provided a list of available tools to test WCAG compliance for various needs:
<https://www.w3.org/WAI/ER/tools/>

eLEARNING ACCESSIBILITY CHECKLIST:

Monarch Media follows best practices in web and content development. These best practices cover most accessibility needs, and are sufficient for most of our clients. However there may be cases where additional levels of compliance adherence are needed. Additional compliance levels can affect the pricing and scope of the work that needs to be completed. The checklist below can help determine whether additional scope may be required for a project:

Monarch Media Project Accessibility Plan				
Project Name		Yes	No	
Accessibility Goals	Does this project need to meet specific 508 standards?	<input type="checkbox"/>	<input type="checkbox"/>	
	If yes, which one? (WCAG 2.0 A, AA, AAA, or other?)			
	If no, it's still advisable to plan for accessibility. Below are our minimum recommended baselines. Please adjust based on your project plans.			
eLearning Accessibility Requirements		Yes	No	N/A
Navigation	Keyboard accessibility - Navigate/interact with the keyboard alone: Link/Button – Reach with Tab, activate with Enter/Spacebar • Radio button/Checkbox - Reach with Tab, activate with Spacebar (arrow key navigation within a set of radio buttons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Keyboard focus - Learners must be able to identify which item is in focus • Only interactive items must receive the keyboard focus (blocks of text must not) • Focus must be indicated by a visible border around links, colour change in buttons • Unless new content is added to the page, the keyboard focus must not move unexpectedly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consistent navigation • Buttons should be sufficiently differentiated from non-interactive content (e.g. colour/shape) • Next/Back buttons must appear in the same location, with the same appearance & label (visible and Alt) on each page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audio/Video	Videos with speakers or narrators need to have clear audio with no background noises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	File sizes meet the activity's goals without restricting users' ability to download files onto computers with lower bandwidths.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Written transcripts given with all audio files.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	File lengths meet the activity's goals without the inclusion of unnecessary information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	A mechanism is provided to stop, pause, mute, or adjust volume for audio that automatically plays on a page for more than 3 seconds.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	All videos include synchronized captions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Images	Text and images of text have a contrast ratio of at least 4.5:1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Image files are optimized for efficient loading.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	When possible, no animated or blinking images, text or cursors are used, which can cause seizures for some people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Animated images are limited to those that contribute to the learning experience by supporting the course content.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alt texts/long descriptions are attached to all images.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Links	Text provided for all links, avoiding the phrase "click here."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Text descriptions given for all links.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Text	Sans serif fonts chosen for easy readability, and for dyslexic readers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Text and images of text have a contrast ratio of at least 4.5:1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Extremely bright colors are avoided as background colors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	All text appears in a font size of at least 12 pt with preference of one font style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ALL CAPS, bold and italics are used sparingly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Ensure content is readable, and scalable to 200%.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Underlined words are avoided—readers often mistake them for navigation links.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESOURCES AND QUICK LINKS

United States Access Board:

<http://access-board.gov/>

Section508.gov:

<http://www.section508.gov/>

<https://www.section508.gov/manage/laws-and-policies>

W3C:

<http://www.w3.org/>

Web Accessibility Initiative:

<http://www.w3.org/WAI/>

Introduction to Web Accessibility:

<https://www.w3.org/WAI/fundamentals/accessibility-intro/#what>

W3C Quick Reference Site:

<https://www.w3.org/WAI/WCAG21/quickref/>

Web Accessibility Evaluation Tools:

<https://www.w3.org/WAI/ER/tools/>

Monarch's 508 Compliance Quick Reference Table:

<http://bit.ly/3l1w1Xx>