



Preparing Your Web Experience for Accessibility

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There are millions of Internet users who experience a disability that affects how they use the Web. Deaf and hard of hearing, visually impaired, limited movement; these are some examples of disability that affect how a person can interact online.

Accessibility is the process of designing your website so that people who experience these disabilities can visit your website and find the same information as easily as someone who doesn't have a disability.

Government, banking, and higher education Institutions are required by law to ensure their web experiences are accessible. But accessible design should be important for any company with a Web or mobile presence. That said, some companies don't do it because they believe it's costly in terms of design and development.

Accessibility is a growing requirement, and it's not going to go away, so it's critical for every organization to understand what they can do to ensure their web experiences supports direct access for persons with disabilities as well as supports assistive technology (e.g. screen readers, magnifiers, tactile keyboards).

And, it's also important to understand that accessibility isn't a one time set up. It's something you have to monitor and adapt on an on-going basis as your website evolves and technology changes.

"Doing a project to make something accessible is a good start. What it really takes to succeed with accessibility in the long run is making accessibility and inclusion part of the culture of an organization. If accessibility doesn't get built into everything, then an organization is likely to find themselves in exactly the same position down the road: all kinds of accessibility issues that could have been prevented."

—Derek Featherstone, team leader at Simply Accessible

This guide is not intended as an all-inclusive guide to accessibility. We provide a look at the industry standards and some of the basic accessibility standards you can follow, as well as a few advanced capabilities.

Ingeniux has extensive experience developing accessible web experiences. We have built accessibility capabilities into Ingeniux CMS so that you can make your web and mobile experiences accessible to everyone. We'll show you some of those capabilities and give you a few tips on getting started with your accessibility strategy.

Snapshot of Accessibility Industry Standards

There are two primary accessibility standards today. From the W3C there are the Web Content Accessibility Guidelines (WCAG), and from the US federal government, there is Section 508 of the Workforce Rehabilitation Act.

Section 508 is the current accessibility standard of legal compliance for US governments and higher education institutions. It describes how to structure your HTML, including tables, how to deal with content from external sources (such as audio, video, and other multimedia) and it describes presentation and behavior guidelines.

WCAG is a technology agnostic set of guidelines for ensuring your web content is accessible. It includes twelve guidelines under four key principles:

1. Perceivable – Text alternatives for non-text content, dealing with multimedia, creating content that is easy to see and hear
2. Operable – Ensure all interactions can be done via keyboard, allow adequate time to read and use content and help visitors navigate and find content easily
3. Understandable – Make text readable and understandable, ensure text operates in predictable ways
4. Robust – can support current and future tools designed to support accessibility

Both standards have quite a bit in common. In fact, the latest version of Section 508 currently under review includes a reference to the WCAG guidelines.

For more information on each guideline:

- [Section 508.gov](https://www.section508.gov)
- [Web Content Accessibility Guidelines \(WCAG\)](https://www.w3.org/WAI/standards-guidelines/wcag/)

Web Accessibility Basics

It can be overwhelming for an organization to tackle a full accessibility plan out of the gate. Instead of getting overextended, focus on implementing bite-sized chunks of accessibility. Sometimes starting with smaller changes makes the move to accessibility easier. Once you have some

basics in place, continue to implement more capabilities as you improve the web experience.

The following table provides some basic accessibility standards you should consider implementing in your first chunk of work.

Accessibility Feature	What you can do
Keyboard Shortcuts	Enable keyboard access to all web pages and elements on a web page
	Ensure the seamless movement between text and controls on the web page, using the Tab or UP/DOWN arrows on keyboard
Text Alternatives	Include text for all controls and input fields (valid entry in the Name meta tag)
	For all images, videos, audio include text description with the ALT tag
	Offer text-based alternatives for audio and video, use captioning and/or sign-language with videos
	Provide the ability to resize text on a web page
	Ensure all titles, headings and links are descriptive of the topic or purpose

Accessibility Feature	What you can do
Logical heading structures	Use consistent navigation across web pages
	Provide headings and subheadings to organize content and enable the skipping of content blocks (sections of content)
Forms	Offer keyboard shortcut for all input fields and controls in a form.
	Provide clear labeling and support the ability to move from form elements
	When using CAPTCHA, provide alternative types of sensory perception
Misc	Text is resizable
	Color is not used as the sole conveyor of identifying content or functionality
	Tables are used to present data, rows, and columns are clearly

Advanced Accessibility Considerations

Mobile

Mobile websites and apps do not have their own set of accessibility guidelines; these are covered under the W3C WCAG web standard. But it is important to understand how you can apply that standard properly to mobile experiences.

WCAG 2.0 applies to mobile websites and mobile applications, including native and hybrid apps, but there are slight variations in how the guidelines might be met. For example, responsive design enables you to adjust the screen layout for the smaller screen size on a mobile device, and this enables you to display text and buttons in a size that doesn't necessarily require zooming or magnification. You could also choose to limit images if text works just as well and takes up less room.

The WCAG also offers suggestions related to touch size and spacing as well as supporting

alternatives to touchscreen gestures. The guidelines recommend that touch targets are at least 9mm high x 9mm wide and there is a small inactive space around each target.

A few other recommendations:

- Place important content before the scroll line to limit the amount of scrolling necessary
- Provide a clear indication of actionable elements like buttons. Examples include rounded corners for buttons, common icons that visually represent what an element is, and standard locations for common elements such as navigation and location of buttons.

Needless to say, there's a lot to think about when designing an accessible mobile experience, so make sure you include the time to look at your mobile website or app and see how it supports mobile accessibility guidelines.

Infographics

Did you know you could create an accessible infographic? Well, you can, if you stop thinking that an infographic is just an image, and start thinking about it as a mixture of HTML and CSS for visual styling. When you create an infographic using HTML and CSS, screen readers can read it, search engines can index it, and you give readers the ability to cut and paste content for sharing or quoting.

If you can't create your infographics with HTML and CSS, then make sure you use the long text alternative to describe the content within the infographic as it supports descriptions that are longer than one to two sentences.

Three Steps to Implement and Support Accessibility with Ingeniux

You've decided it's time your website was more accessible. But where do you start? We recommend you follow this simple three-step guide to implement and support an accessible website.

1. Find out how your site scores now.
2. Develop and implement a plan to address page-level and site-level errors.
3. Adopt a strategy to stay ahead of requirements.

Find out how your site scores now

Sometimes we develop websites that are partially accessibility by nature of your development standards. For example, your development standards may indicate that you always fill out the ALT tag on an image.

If you already have a website, there are page-level tools you can use to test your website's compliance with standards

including AChecker and Wave (powered by WebAIM). If you are building a new website, you can use these tools to check your pages as you create them.

The Ingeniux team uses AChecker to validate CMS templates for accessibility (AChecker can validate against Section 508, WCAG 1.0 and WCAG 2.0 - Levels A, AA, AAA), BITV 1.0 (Level 2).

Develop and implement a plan to address page-level and site level errors

If you are building new web pages and templates, run the accessibility validator as you develop the page, making the necessary changes to ensure it adheres to the accessibility guidelines you want to follow. If you are validating an existing website, consider validating and modifying in sections of web pages if your site is large. Validate each page, making a list of the changes to make, then implement the changes as part of an accessibility project outlining sections of the website to modify in each sprint.

Accessibility changes are made by one of three people: a content author/editor, a designer or a developer. Ensure you plan identifies not only the change to make but

the person who needs to make the change. Set up a review and approval process for each web page, and also for the complete project or sprint.

Remember that it's unlikely you will make all the changes required to meet complete compliance in one sitting (unless you are a government agency or a higher education Institution, in which case full compliance isn't an option). So even though you may have an extensive list of all guidelines to implement for each web page as you run it through the validator, you will likely select a certain set of guidelines to implement per project or sprint. This process will continue until you have implemented all the guidelines to meet full compliance.

There are a few more things Ingeniux does to support accessibility.

Ingeniux provides a few other features that support accessibility automatically. For instance, you can set up rules that ensure metadata is always completed and supports accessibility, such as always requiring the ALT tag for an image.

Ingeniux CMS implements TinyMCE as the authoring text editor. TinyMCE supports accessibility following the WAI-ARIA specification, which makes it compatible with screen readers such as JAWS and

NVDA. TinyMCE also supports robust table creation enabling you to create accessible tables.

Adopt a strategy to stay ahead of requirements

When you have an existing website that you want to make more accessible, you know you're going to apply the necessary changes in phases to make the transition happen smoothly, and likely faster. But once you have full compliance, that doesn't mean you are finished.

On-going monitoring and maintenance are required to ensure that as your website evolves, it continues to support the accessibility guidelines you adopted. Here are a few suggestions to ensure your website and web content always meets your accessibility guidelines:

- If you perform regular site audits, include an accessibility report in the audit.
- At a minimum, adopt a bi-annual or annual accessibility audit. The number of web page your site has and the frequency at which you modify

templates will indicate how often you need to do this audit.

- Offer accessibility training to authors, designers, and developers, so they clearly understand what they need to do and why it's so important.
- Include an Accessibility section on your Intranet that links your accessibility guidelines (whether you adopt an industry standard directly or create your own set of guidelines), outlines the content creation process and approval workflow for implementing accessibility guidelines and the development and design guidelines to implement.
- Read regularly about accessibility to keep up to date on guidelines, new technologies you need to support and new technologies or tactics you can adopt.

Ingeniux has extensive experience helping organizations implement accessible web experiences. As part of the Site Audit Ingeniux performs during an Ingeniux CMS implementation project, we can conduct an accessibility audit and provide a series of short-term and long-term steps you can take to get and stay compliant.

About Ingeniux

Ingeniux is the leading provider of web content management and digital experience software. We enable organizations to orchestrate the entire customer experience from acquisition through to sales to support and service, across any device, application, or website.

We build content management software with an unparalleled focus on the content itself. The Ingeniux CMS is designed to manage and deliver modern websites, customer support portals, online communities, and other customer touchpoints.

We believe in intelligent “structured” content. We design our software to enable content reuse, enable true mobile and multi-channel content delivery, and insightful content discovery. Our unique content-as-a-service capabilities deliver content into web and mobile applications, and other key channels.

Ingeniux software is available as a fully managed software service or an on-premise application. Ingeniux delivers unparalleled service and support to customers worldwide.

To learn more, visit us at <http://www.ingeniux.com>.

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