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# ACCESSIBILITY AND FORMS

**4Point**



## INTRODUCTION

Throughout the world, governments at all levels have recognized the importance of providing an open and accessible environment for all citizens. Over the past few years this move to broader accessibility has expanded into the online content that businesses use to communicate and interact with their customers. Almost all jurisdictions around the world have mandated deadlines for businesses to add accessibility features to all of their web-based content.

The guidelines for accessibility are clear and often provide significant benefits for non-disabled users. But implementing these requirements can be difficult, time-consuming and sometimes impossible using the current technologies used by organizations.

This is especially true when it comes to online forms and data capture technologies used today. Many organizations still ask users to fill out PDF based forms that were originally created 15 years ago in Word and have never been updated. They are not compliant today and making them compliant will require re-building them entirely.

For these organizations the requirement to add accessibility to all of their online content is an opportunity to re-think how they use forms, how they gather information from their users and customers and to implement a comprehensive and powerful architecture that allows them to comply now and in the future. This new architecture will also help the organization eliminate manual activities, link front and back end systems more effectively and reduce operation costs – all while improving customer experiences and customer satisfaction.

## REGULATIONS

Every country and most states and provinces have enacted legislations to require organizations to implement changes that will allow persons with disabilities to fully participate in all aspects of society. A significant portion of the regulations focus on the physical aspects of buildings and how these need to be adjusted to properly accommodate a wide range of disabilities.

Over time these regulations have expanded to include the requirement that online content be made accessible to all persons. The regulations usually define the same objectives as the Web Content Accessibility Guidelines (WCAG) as developed by the World Wide Web Consortium (W3C) and in many cases reference the WCAG standard directly.

Recently many jurisdictions in Canada and the United States established specific deadlines for the implementation of web content accessibility for public organizations. This followed the mandating and enforcement of web content accessibility standards within federal state and local agencies. These deadlines are forcing many organizations to examine all their published content to determine if it is in compliance.



# STANDARDS

The primary standards that are used as the reference points for web accessibility are the Web Content Accessibility Guidelines (WCAG) which are published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C).

WCAG defines a series of requirements and success criteria that allow organizations to modify their web content to make it accessible to people with many different disabilities.

The current approved standard is WCAG 2.1 which expanded on WCAG 2.0 to add criteria for mobile devices. Many organizations started their accessibility projects using WCAG 2.0 and 2.1 is an extension of 2.0 and fully backward compatible, meaning that any work done to comply with WCAG 2.0 is still fully valid.

WCAG defines four key principles that should be used to plan out the changes required to make your web content accessible:

- Perceivable
- Operable
- Understandable
- Robust

**Perceivable** describes the need for content to be seen and used by people with different disabilities. For example, non-text content, such as images, should provide a text-based description that allows screen readers to tell a visually impaired person what the image is. For many organizations they feel that they have complied with this requirement when they added “alt-text” to their images. But many have failed to understand the real need when they used generic alternative text such as “image” to describe a picture on a web site. Effective information that meets the Perceivable principle provides a description of what the image is about such as “A three-layer cake, with chocolate frosting and strawberries on top. A cup of coffee sits beside the cake”.

**Operable** describes the requirement that the web site and the content can all be navigated and used effectively for a person who might not have the ability to operate a keyboard or a mouse effectively. This includes things like providing enough time for users to navigate the site or select the “purchase” button using non-traditional input devices. This principle also describes the need to make it easier for users to find content and navigate to the information they need.

**Understandable** describes the need to make the content clear, readable and understandable. It also describes how the web site should behave in predictable ways. This helps users avoid errors and makes it easier for them to correct errors.

Finally, the **Robust** principle describes how the organization should build accessibility into their processes so that future changes are immediately accessible and they do not need to re-do development or content every time they add new features to the web site.

In addition to the principles, the WCAG also defines compliance levels for the standard. The WCAG defines three compliance levels: A, AA and AAA. Some examples of the differences are:

- **LEVEL A**
  - Provide text alternatives for non-text (i.e. images) content
  - Provide pre-recorded captions for videos
  - Provide audio controls to stop or pause the audio
- **LEVEL AA**
  - Provide live captions for live audio content
  - Allow content to be resized without assistive technology with no loss of function
  - Headings and labels describe the topic or purpose
- **LEVEL AAA**
  - Provide sign language interpretation for audio content
  - Images of text are not used except for decoration
  - A user's session can expire and they can re-start from their last point after re-authentication

## FORMS IN YOUR ORGANIZATION

Organizations are often surprised by the number, complexity and pervasiveness of forms in their organizations. When they start to do an audit and assessment of what needs to be changed to comply with the accessibility regulations in their jurisdictions, they often realize that the primary customer facing web-based content are forms and documents that are generated for the users from back end systems.

While not all forms fall under the regulations, many of the most used customer facing documents, data gathering tools and approval methods are all covered and must be made compliant. But this can be a tremendous challenge. Forms can exist in many formats each of which requires a separate process and effort to make accessible. For example:

- Is the form used in a "print, fill and send" style?
- Is the PDF form used for "fill, print and send"?
- Is the PDF form used for "fill and submit"?

- Do you provide multiple formats (e.g. HTML and PDF and Paper) for a single form?
- Is the form used for a physical “wet” signature?
- Is the form assembled using back end data?
- Is the form assembled from multiple “sub-forms” based on the data?

In addition to the different styles and uses for the forms and documents, organizations face the challenge of how these documents and PDF forms were created. Often the original “source” for the forms was not a forms design tool or web content tool, but was rather a generic tool such as Word or Excel. These generic tools have very little capability to add in accessibility features which requires the organization to convert the formats into something that can allow them to add accessibility features to meet the regulations.

In other cases, the forms were originally developed as part of the software and require significant re-coding and even new development in order to make them compliant. This is often the case when older, back-end systems have had new web-based front ends created. The front ends solved the problem of web-based presentation of the information, but usually lack any accessibility features and so require significant development efforts in order to become compliant.

## MAKING FORMS ACCESSIBLE

Often organizations that need to make their forms accessible will simply take the forms that they think are required under the regulations and manually make the required changes. This is often a difficult and time-consuming process because the original source of the forms (e.g. Word) do not support the required functionality or they no longer have the original source and have to re-create the form from scratch in a new format, perhaps one that still does not support all the required accessibility functionality.

The other problem with this “brute force” method is that it does not address future forms and documents. It violates the principle of Robustness as described by the WCAG. Each new form will need to be built, from scratch, by hand in order to be compliant. For organizations with hundreds or thousands of forms this can be a daunting and almost impossible task.

The other difficulty with this approach is that it does not take advantage of the technology available today that is designed and built to address this precise problem. The tools exist that allow organizations to implement a modular, component based forms architecture that allows non-developers to build and maintain forms. And every form built is automatically accessible and compliant.



# MAKING FORMS ACCESSIBLE

Organizations that have successfully implemented the accessibility guidelines in their organizations have addressed the issue of customer facing forms using a clear process:

1. Perform a detailed audit of all internal and external methods that:
  - Ask users for information (data capture)
  - Present information online to users from internal systems (e.g. not static content)
  - Produce printed documents or information specific to a user
2. Prioritize all of the forms identified in Step #1 by their importance to the customer and the organization
3. Identify the sources for all of the forms found in Step #1 by their type (e.g. Word, code, form designer)
4. Define a single architecture and format for use across all forms in the organization
5. Identify all forms that can be converted to the new architecture and those that cannot
6. Review all high priority forms that can be converted to the new architecture for common form objects
7. Create all of the high priority common objects (e.g. address blocks and legal disclaimers) in the form architecture
8. Using the common form objects, create/convert all the priority forms to the new architecture
9. Convert the forms that cannot use the new architecture as appropriate

# MAKING FORMS ACCESSIBLE

Accessibility is good business. Not only because it allows your organization to do business with a wider range of customers, but because it provides multiple improvements in your custom experience for all users and all consumers of your web content.

By removing or reducing the number of paper-based documents you require from your customers, and by moving more of the transactions online, you will improve the experience for all users. And moving to a more online based process for all your transactions will substantially reduce your operating costs. And a comprehensive, modern form architecture allows you to eliminate or reduce manual processing and data re-keying. By linking the accessible, web-based forms with your back-end systems you can transform how you operate and make all of your customers happier.



# LINKS AND REFERENCES

## COUNTRY AND REGION EXAMPLES: