# InstantAtlas | Web Accessibility | Overview

This document outlines how InstantAtlas **reports**, **dashboards** and **websites** (**products**) meet the <u>Web Content Accessibility Guidelines (WCAG)</u>. It should be read in conjunction with the relevant documentation available for WCAG (<a href="https://www.w3.org/WAI/standards-guidelines/">https://www.w3.org/WAI/standards-guidelines/</a>) – a good place to start is with the FAQ.

In all sections below the phrase *InstantAtlas products* means *reports* and *websites*, unless specified otherwise. An InstantAtlas website may itself contain reports as well as embedded InstantAtlas **apps** – typically *Data Explorer* and/or *Map Explorer*.

#### Overview

InstantAtlas products are designed to meet **Level AA** of the **WCAG 2.1 guidelines**. This involves the use of a variety of techniques, many of which are described in the <u>How to meet WCAG</u> document online. In contrast with earlier versions of the WCAG guidelines it is not practical to provide a simple yes/no or pass/fail for each guideline, therefore each <u>Principle</u> (<u>Perceivable</u>, <u>Operable</u>, <u>Understandable</u>, <u>Robust</u>) set by the WCAG is addressed in the following sections:

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All of the sections in this document should be read alongside the <u>Understanding WCAG</u> document available online (<a href="https://www.w3.org/WAI/WCAG21/Understanding/">https://www.w3.org/WAI/WCAG21/Understanding/</a>) which describes in detail the purpose and success criteria for each section.

We evaluate the products using a variety of tools (examples include <a href="http://wave.webaim.org/">https://wave.webaim.org/</a> and <a href="https://www.deque.com/axe/">https://www.deque.com/axe/</a>) but it is also worth noting this statement (from <a href="https://www.w3.org/WAI/fundamentals/accessibility-intro/">https://www.w3.org/WAI/fundamentals/accessibility-intro/</a>):

There are evaluation tools that help with evaluation. However, no tool alone can determine if a site meets accessibility guidelines. Knowledgeable human evaluation is required to determine if a site is accessible.

(As an example of the above, <a href="https://www.w3.org/WAI/fundamentals/accessibility-intro/#examples">https://www.w3.org/WAI/fundamentals/accessibility-intro/#examples</a> generates at least 2 errors in the <a href="https://www.w3.org/WAI/fundamentals/accessibility-intro/#examples">Walfundamentals/accessibility-intro/#examples</a>

It should be noted that although we make our best efforts to address each of the guidelines most of the InstantAtlas products can be altered by our customers to meet their own needs (customers here should be considered content authors and/or website managers) and in this situation care must be taken, especially with the <u>Understandable</u> principle, to preserve WCAG conformance. These changes/edits can be made either via InstantAtlas Apps (Data Catalog, Report Builder+) or via the WordPress admin interface used to manage the InstantAtlas hosted websites.

Other InstantAtlas Apps (<u>Data Catalog</u>, <u>Report Builder+</u>) are also designed with accessibility in mind but have not been tested or assessed in depth since they are not "public facing" web apps – they are designed with a specific audience (and technology – browsers on a desktop/laptop computer) in mind. If your organisation has a specific need for testing or conformance of these apps please contact <u>support@instantatlas.com</u>.

# Principle 1 - Perceivable

- Provide text alternatives for non-text content.
- Provide captions and other alternatives for multimedia.
- Create content that can be presented in different ways, including by assistive technologies, without losing meaning.
- Make it easier for users to see and hear content.

## Guideline 1.1 – Text Alternatives

"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 (Level A)

"All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, ..."

All images in InstantAtlas websites and reports have suitable "alt" attributes by default. However, this is another guideline that content authors must consider, especially when designing **reports** using *Report Builder*.

#### Guideline 1.2 – Time-based Media

"Provide alternatives for time-based media."

No InstantAtlas product ships with time-based media, so this guideline is not applicable, nor is it discussed further here.

## Guideline 1.3 – Adaptable

"Create content that can be presented in different ways (for example simpler layout) without losing information or structure."

## 1.3.1 Info and Relationships (Level A)

"Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text."

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this guideline is also something that content authors must consider.

## 1.3.2 Meaningful Sequence (Level A)

"When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined."

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this guideline is also something that content authors must consider.

#### 1.3.3 Sensory Characteristics (Level A)

"Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound."

https://www.w3.org/WAI/WCAG21/Understanding/sensory-characteristics

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this is another guideline that content authors must consider (especially when writing text with links to other parts of the user interface, or other pages).

## 1.3.4 Orientation (Level AA)

"Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential."

All InstantAtlas products are designed to be adaptable/responsive to changes in orientation.

## 1.3.5 Identify Input Purpose (Level AA)

"The purpose of each input field collecting information about the user can be programmatically determined..."

Not applicable

#### Guideline 1.4 – Distinguishable

"Make it easier for users to see and hear content including separating foreground from background."

## 1.4.1 Use of Color (Level A)

"Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element."

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this is another guideline that content authors must consider.

#### 1.4.2 Audio Control (Level A)

"If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level."

Not applicable.

#### 1.4.3 Contrast (Minimum) (Level AA)

"The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, ..."

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this guideline is directly influenced by the use of corporate colours within the website(s) and is also something that content authors must consider, especially when designing **reports** with text, boxes, charts or similar using *Report Builder*.

#### 1.4.4 Resize text (Level AA)

"Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality."

All InstantAtlas products use standard HTML markup and CSS to allow the reading/viewing technology (e.g. web browser) to resize the text. However, this is another guideline that content authors must consider, especially when designing **reports** with text boxes or similar using *Report Builder*.

#### 1.4.5 Images of Text (Level AA)

"If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text"

Text is always used in InstantAtlas products in preference to images, except in special cases like embedded charts (images) that contain titles and labels. Reports designed by the InstantAtlas team try to work around this by embedding chart images inside text boxes that provide context and description of the chart. However, this is another guideline that content authors must consider, especially when designing **reports** with text boxes or similar using *Report Builder*.

#### 1.4.10 Reflow (Level AA)

"Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:

Vertical scrolling content at a width equivalent to 320 CSS pixels;

Horizontal scrolling content at a height equivalent to 256 CSS pixels;

Except for parts of the content which require two-dimensional layout for usage or meaning."

https://www.w3.org/WAI/WCAG21/Understanding/reflow.html

Reports and websites designed by the InstantAtlas team work towards this guideline – making use of CSS and related technologies to ensure that textual content (and where appropriate, images and charts) can be viewed without scrolling when the viewport is resized. However, this is another guideline that content authors must consider when writing text and when incorporating images into the site.

## 1.4.11 Non-text Contrast (Level AA)

"The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s)"

Reports and websites designed by the InstantAtlas team always work towards this guideline. However, this is another guideline that content authors must consider.

## 1.4.12 Text Spacing (Level AA)

"In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property"

Not applicable

## 1.4.13 Content on Hover or Focus (Level AA)

"Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden"

Reports and websites designed by the InstantAtlas team make minimal use of items such as drop-down menus to improve accessibility and where they are used CSS and related technologies make appropriate use of :hover, :focus etc. to ensure that drop-down menus can be controlled by keyboard interaction and are readable at different zoom levels.

# Principle 2 - Operable

- Make all functionality available from a keyboard.
- Give users enough time to read and use content.
- Do not use content that causes seizures or physical reactions.
- Help users navigate and find content.
- Make it easier to use inputs other than keyboard.

## Guideline 2.1 – Keyboard Accessible

"Make all functionality available from a keyboard."

All InstantAtlas products use standard HTML markup and support user interaction via both pointers (mouse and, in mobile devices, hand) and the keyboard.

## 2.1.1 Keyboard (Level A)

"All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes"

See above and 2.1.4 below. Note: there are a number of *advanced* tools which are available in InstantAtlas sites where keyboard interaction is more difficult (Data Explorer, Map Explorer and Custom Area Reporter). For these specific tools the InstantAtlas team are actively working on improving this interaction.

## 2.1.2 No Keyboard Trap (Level A)

"If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away."

Not applicable – all interactive elements can be accessed and moved away from using the keyboard.

## 2.1.4 Character Key Shortcuts (Level A)

"If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters..."

No InstantAtlas product or app uses character key shortcuts in this way.

## Guideline 2.2 – Enough Time

"Provide users enough time to read and use content."

None of the InstantAtlas products impose a time limit on user interaction, so this guideline is not applicable nor discussed further.

## Guideline 2.3 – Seizures and Physical Reactions

"Do not design content in a way that is known to cause seizures or physical reactions."

None of the standard InstantAtlas products uses time-based or animated media where flashing could occur, except in special circumstances detailed below.

#### 2.3.1 Three Flashes or Below Threshold (Level A)

"Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds."

There are 2 circumstances where a "screen flash" could occur in InstantAtlas products – when reloading page content (websites and reports) and when animating a time series in the Map Explorer component. In both of these cases any flash effect will occur far less than 3 times per second.

## Guideline 2.4 – Navigable

"Provide ways to help users navigate, find content, and determine where they are."

#### 2.4.1 Bypass Blocks (Level A)

"A mechanism is available to bypass blocks of content that are repeated on multiple Web pages."

All InstantAtlas websites provide a **Skip to content** link as the first focusable element in the page. This bypasses the navigation and header sections to give focus to the main content.

## 2.4.2 Page Titled (Level A)

"Web pages have titles that describe topic or purpose."

All InstantAtlas products come with suitable page titles "out of the box". However, this can be overridden by the final content author or website manager so care is required.

## 2.4.3 Focus Order (Level A)

"If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability."

As above, all InstantAtlas products meet this guideline but it can be influenced by page and/or content redesign.

## 2.4.4 Link Purpose (In Context) (Level A)

"The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general."

All links in InstantAtlas products contain descriptive text. However, this is another guideline that content authors must consider.

## 2.4.5 Multiple Ways (Level AA)

"More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process."

InstantAtlas websites all support navigation via menus, hyperlinks between pages, search and sitemaps.

## 2.4.6 Headings and Labels (Level AA)

"Headings and labels describe topic or purpose."

All standard InstantAtlas outputs (reports, initial Wordpress pages) use headings (H1, H2, ... H6) consistently and appropriately and all form elements in pages are correctly described with a <label>. However, InstantAtlas outputs can all be customized by the site manager/page author(s) who need to take care to also structure content appropriately.

#### 2.4.7 Focus Visible (Level AA)

"Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible."

The default CSS for InstantAtlas websites provides a suitable "focus painted" selector for links. However, this is another guideline that content authors must consider (if changing the default stylesheet).

# Principle 3 - Understandable

- Make text readable and understandable.
- Make content appear and operate in predictable ways.
- Help users avoid and correct mistakes.

#### Guideline 3.1 – Readable

"Make text content readable and understandable."

This guideline applies to all InstantAtlas products but is the one that is most influenced by changes made by (non-InstantAtlas) **content authors** or **website managers**. Although all InstantAtlas products will meet this guideline "out of the box" any author/editor of the content must take care to address this guideline.

## 3.1.1 Language of Page (Level A)

"The default human language of each Web page can be programmatically determined."

All InstantAtlas products use the "lang" attribute on the root HTML element to allow the language of the page to be determined.

#### 3.1.2 Language of Parts (Level AA)

"The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text."

This guideline only applies to InstantAtlas **reports** produced using the **Report Builder** app or to WordPress pages produced by (non-InstantAtlas) content authors. In reports it is possible to add pages/sections that are not in the default language of the report – in this case the "lang" attribute can be set by the author on the relevant page/section via the Report Builder interface.

#### Guideline 3.2 – Predictable

"Make Web pages appear and operate in predictable ways."

#### 3.2.1 On Focus (Level A)

"When any component receives focus, it does not initiate a change of context."

This is rather a technical guideline, described in depth at

https://www.w3.org/WAI/WCAG21/Techniques/general/G107.html. All InstantAtlas products (and apps) use standard web technologies for user interaction and require specific user actions (submit, click etc.) before changing context.

## 3.2.2 On Input (Level A)

"Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component."

This guideline can be paraphrased as "do not open a new window or tab without telling me when I change or click something in the page". All InstantAtlas products either provide an "opens in new window" description and icon or a description/label describing the result of a user action. However, this is another guideline that content authors must consider.

#### 3.2.3 Consistent Navigation (Level AA)

"Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user."

This guideline applies mainly to InstantAtlas **websites** and **apps**. InstantAtlas websites use standard WordPress functionality to provide a consistent navigation and menu system throughout the sites. However, this is another guideline that content authors must consider.

## 3.2.4 Consistent Identification (Level AA)

"Components that have the same functionality within a set of Web pages are identified consistently."

As above - InstantAtlas websites use standard WordPress functionality to provide a consistent navigation and menu system throughout the sites.

## Guideline 3.3 – Input Assistance

"Help users avoid and correct mistakes."

This guideline does not apply to most InstantAtlas products which are generally **view only**. Specific examples where it does apply are noted below.

## 3.3.1 Error Identification (Level A)

"If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text."

This guideline only applies to the **Search** functionality in InstantAtlas **websites**. Here there is no "input error" – all search terms are valid (apart from those excluded for security/XSS reasons). If no results are returned that is shown clearly in the results page.

#### 3.3.2 Labels or Instructions (Level A)

"Labels or instructions are provided when content requires user input."

Again this only really applies in InstantAtlas **websites** in the **Search** function and when selecting embedded **reports**. In both cases labels are clearly provided for interface controls, following HTML best practice.

## 3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)

"For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses..."

Not applicable

# Principle 4 - Robust

## • Maximize compatibility with current and future user tools.

# Guideline 4.1 – Compatible

## 4.1.1 Parsing (Level A)

"In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features."

All InstantAtlas products use the latest <u>HTML specification</u>, <u>HTML5</u>. At the time of creation all InstantAtlas products will meet all relevant validation for HTML5 (and CSS). **However**, this is subject to any changes made by content authors.

## 4.1.2 Name, Role, Value (Level A)

"For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies."

All InstantAtlas products use HTML5 according to specification – which means that they meet this guideline because <u>"This success criterion is primarily for Web authors who develop or script their own user interface components. For example, standard HTML controls already meet this success criterion when used according to specification."</u>

# 4.1.3 Status Messages (Level AA)

"In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus."

N/A – none of the standard InstantAtlas outputs provide functionality where status messages are required.