



Web Accessibility Analytics and Open Source Tools for Inspecting and Auditing Web Resources for Accessibility

The Session begins at 1:00 pm CST
We will be testing audio quality periodically

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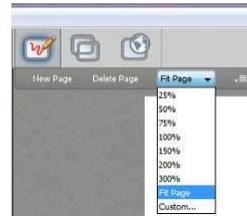
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Web Accessibility Analytics and Open Source Tools for Inspecting and Auditing Web Resources for Accessibility

By Jon Gunderson University of Illinois

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Slides Available for Download

Slides at:

<http://presentations.cita.illinois.edu/2014-04-29-webcon/>

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Overview

- ▶ W3C Standards for Web Accessibility
- ▶ OAA Rulesets
- ▶ Getting Started
- ▶ AInspector Sidebar
- ▶ FAE 2.0 Testing Server
- ▶ Next Steps

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Web Content Accessibility Guidelines 2.0

W3C Recommendation

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W3C

Web Content Accessibility Guidelines (WCAG) 2.0

W3C Recommendation 11 December 2008

This version:
<http://www.w3.org/TR/2008/REC-WCAG20-20081211/>

Latest version:
<http://www.w3.org/TR/WCAG20/>

Previous version:
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Accessible Rich Internet Applications (ARIA) 1.0

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Accessible Rich Internet Applications (WAI-ARIA) 1.0

W3C Recommendation 20 March 2014

This version:
<http://www.w3.org/TR/2014/REC-wai-aria-20140320/>

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<http://www.w3.org/TR/wai-aria/>

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Lisa Seeman, UB Access

Please check the [errata](#) for any errors or issues reported since publication.

This document is also available as a [single page version](#).

W3C Recommendation

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HTML 5

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Accessible Rich Internet Applications (WAI-ARIA) 1.0

W3C Recommendation 20 March 2014

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W3C Recommendation

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HTML 5: main element

4.4.14 The main element

Categories:

- Flow content.
- Palpable content.

Contexts in which this element can be used:

- Where flow content is expected, but with no article, aside, footer, header or nav element ancestors.

Content model:

- Flow content.

Content attributes:

- Global attributes

Tag omission in text/html:

- Neither tag is omissible

Allowed ARIA role attribute values:

- main role (default – do not set) or presentation.

Allowed ARIA state and property attributes:

- Global aria-* attributes
- Any aria-* attributes applicable to the allowed roles.

DOM interface:

- Uses HTMLElement

The main element represents the main content of the body of a document or application. The main content area consists of content that is directly related to or expands upon the central topic of a document or central functionality of an application.

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OpenAjax Evaluation Library Rulesets

[OAA Ruleset: WCAG + HTML5 + ARIA by Rule Category](#)

Ruleset: WCAG + HTML5 + ARIA by Rule Category

Ruleset View Options

Rule Categories

WCAG 2.0 Guidelines

About Options

Overview

Rulesets

Usage Statistics

Concepts and Terms

Disclaimer

Version History

Contact

Ruleset Title

WCAG 2.0 Level A and AA requirements using semantics and accessibility features HTML5 and ARIA 1.0

Version

0.9.4 Beta

Author

OpenAjax Accessibility Working Group

Description

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Getting Started: Conceptual Foundation

Basic Concepts

Rule

A low-level accessibility compliance requirement with numerous components, the most basic of which are a definition, an evaluation function, and result messages. When a rule is evaluated, it is assigned a rule result value.

Target resources

The set of HTML elements to which a particular rule applies. These include familiar elements such as `div`, `img` and `input`, as well as a pseudo-element designated as `page`, which is a placeholder for the document element. When a rule is evaluated, each of its target resources is assigned an element result value.

Ruleset

A set of rules that embodies specific standards compliance goals. Each rule within a ruleset is designated as either required or recommended, according to its relationship to the compliance goals of the ruleset.

Evaluation

The application of all evaluation functions of all rules in the selected ruleset to their corresponding target resources in a web page, and the subsequent collection of all evaluation results and messages, at both the rule and element levels, into a dataset.

Rule result

The aggregate result of a rule evaluation with respect to its target resources (all of its target elements and/or the entire page).

Element result

The result of a rule evaluation with respect to one of its target elements.

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Basic Concepts – Objects

Basic Concepts – Objects

Rule

- Definition
- Evaluate function
- Result messages
- Techniques
- Other properties

Target Resources

`<div> <input> ...`
HTML elements or page

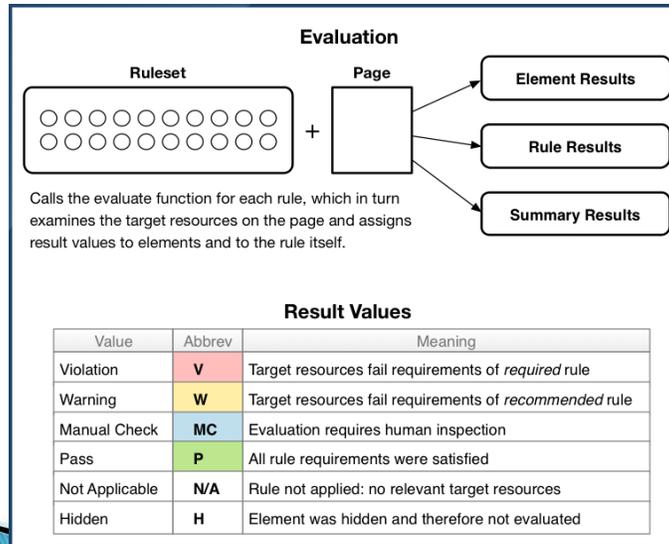
Ruleset



Each rule in a particular ruleset is designated as either **required** or **recommended**.

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Basic Concepts – Actions



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Demonstration: AInspector Sidebar for Firefox

[Get latest version of AInspector Sidebar from IT Access Website](#)

- ▶ Update your version of Firefox to the latest version to ensure compatibility
- ▶ Analyzing current web page DOM for accessibility features
- ▶ Organizes rules by Rule Categories and WCAG Guidelines
- ▶ Map rules to WCAG 2.0 Single A and AA requirements
- ▶ Highlighting element information

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Accessible Web Coding Practices

Accessible Web Coding Practices

Accessible Web Coding Practices (*Prototype*)
A project of the Open Accessibility Alliance and OpenAjax Accessibility Task Force

Home Rules Examples Markup Tools About

Home

Welcome to the Accessible Coding Practice Resources

The accessible coding practices resources provides tools, rules, techniques and examples to help web developers understand how to make their websites more accessible to people with disabilities. The resources of the website are developed through the work of the Open Accessibility Alliance and the Open Ajax Accessibility Task Force.

Rulesets

- A collection of rules that support accessibility and the implementation of W3C WCAG 2.0 requirements
- Rulesets contain both required and recommended rules
- Ruleset differ in the rules and rules that are required based on the accessibility goals and skills of the developers

Rules

- Rules are used to test the accessibility features of a website
- Rules identify the coding techniques that can used to satisfy the rule requirements

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ARIA Resources

- ▶ [ARIA Specifications](#)
- ▶ [ARIA 1.0 Authoring Practices](#)
- ▶ [Landmark Example: DRES Website](#)
- ▶ [Widget Examples](#)
- ▶ [Dojo Toolkit Accessibility Support](#)
- ▶ [jQuery UI widgets that are accessible using ARIA](#)
- ▶ [jQuery UI Accessible demos](#)

Next Steps

- ▶ Finish rules for WCAG 2.0 evaluation (10–12 more rules)
- ▶ Testing validity of rules
- ▶ Improving the rule messaging and references
- ▶ User testing
- ▶ Coding Practices: Design principles, resources and examples for each rule
- ▶ FAE Auditor (new tool): Campus wide evaluation of web resources

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Feature Prioritization

AInspector Sidebar Features

- ▶ HTML Reports of evaluation results
- ▶ Delayed, timed or event triggered re-evaluations of web page
- ▶ Provide Manual Checking views
- ▶ Additional accessibility information in highlighted elements

FAE 2.0 Features

- ▶ Shibboleth authentication support
- ▶ Rule rating and commenting within FAE 2.0
- ▶ Analyzing password protected websites
- ▶ Report annotation

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- ▶ Pramod Joshi, AITS Software developer for fae-util
- ▶ Jeff Heckel, AITS Software developer for fae-util

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You Can Help

Open source and community development to meet the accessibility needs of developers and designers

- ▶ Providing feedback on rules
- ▶ Editing rule messaging
- ▶ Identifying useful support resources that you use
- ▶ Developing supporting documentation and tutorials
- ▶ Developing coding practice examples
- ▶ Contributing to coding of tools

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Questions and Comments

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Thank you for participating!

NEXT SESSION IS JULY 24, 2014

High Quality Apps for Accessibility

The session today was recorded
and will be archived at

[HTTP://ADA-AUDIO.ORG/ARCHIVES/ACCESSIBLETECH/](http://ada-audio.org/archives/accessibletech/)

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