Summary of User Agent Accessibility Guidelines 1.0

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Abstract

This informative appendix summarizes the principal goals and structure of "User Agent Accessibility Guidelines 1.0" *[UAAG10]* .

Status of this document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. The latest status of this document series is maintained at the W3C.

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Please send comments about this document, including suggestions for additional techniques, to the public mailing list w3c-wai-ua@w3.org; public archives are available.

This document is part of a series of accessibility documents published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C). WAI Accessibility Guidelines are produced as part of the WAI Technical Activity. The goals of the User Agent Accessibility Guidelines Working Group are described in the

charter.

A list of current W3C Recommendations and other technical documents can be found at the W3C Web site.

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Introduction

The goal of "User Agent Accessibility Guidelines 1.0" (UAAG 1.0) is to explain to software developers how to improve the accessibility of mainstream browsers and multimedia players so that people with visual, hearing, cognitive, and physical disabilities will have improved access to the World Wide Web. The heart of the document is a set of requirements that, if satisfied, will lower barriers to accessibility. These requirements have been identified and prioritized by the User Agent Accessibility Guidelines Working Group (UAWG). This document is the result of consensus-building within this W3C Working Group, whose participants include software developers, users with disabilities, and international experts in the field of accessibility technologies. This document has received substantial review within the Web community and by other W3C Working Groups.

UAAG 1.0 is the third of a trilogy of accessibility guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium. These three documents were designed to complement one another and present a consistent model for Web accessibility in which responsibilities for addressing the needs of users with disabilities are shared (and distributed among) authors, software developers, and specification writers. The other two documents are:

- "The Web Content Accessibility Guidelines 1.0" *[WCAG10]* , which explains to authors how to create accessible Web content.
- "The Authoring Tool Accessibility Guidelines 1.0" *[ATAG10]* , which explains to developers how to design authoring tools that are accessible to authors with disabilities, and that produce accessible Web content (i.e., content that conforms to WCAG 1.0).

UAAG 1.0 explains the responsibilities of user agents in meeting the needs of users with disabilities. A user agent that conforms to these guidelines will enable access through its own user interface and through other internal facilities, including its ability to communicate with other technologies (especially assistive technologies). UAAG 1.0 is not aimed at developers of assistive technologies (e.g., screen magnifiers, screen readers, speech recognition software, alternative keyboards, braille devices, etc.), although these technologies will be essential to ensuring Web access for some users with disabilities.

Checkpoints and Guidelines

The heart of UAAG 1.0 are nearly ninety "checkpoints", each of which includes one or more requirements. The checkpoints are ranked according to their importance to accessibility (priority 1 for most important, then priority 2 and 3). The document also includes an introduction, a glossary, and a number of useful references.

Here are a few examples of checkpoints:

- Checkpoint 1.1 Ensure that the user can operate the user agent fully through keyboard input alone. [Priority 1]
- Checkpoint 4.3 Allow global configuration of the foreground and background color of all rendered text, with an option to override foreground and background colors specified by the author or user agent defaults. Allow the user to choose from among the full range of colors supported by the operating environment. [Priority 1]
- Checkpoint 6.1 Provide programmatic read access to HTML and XML content by conforming to the following modules of the W3C Document Object Model DOM Level 2 Core Specification *[DOM2CORE]* and exporting the interfaces they define: (1) the Core module for HTML; (2) the Core and XML modules for XML. [Priority 1]
- Checkpoint 7.1 Follow operating environment conventions that benefit accessibility when implementing the selection, content focus, and user interface focus. [Priority 1]

Checkpoints are organized into twelve "guidelines". Each guideline expresses a general principle of accessible design. Here are a few examples of guidelines:

- Guideline 1: Support input and output device-independence. Because people with disabilities may not be able to use certain input (e.g., pointing device) or output modes (e.g., visual, audio), the user agent must be operable through a number of different input and output modes. Keyboard input and text output enable device-independence in today's operating environments, so UAAG 1.0 emphasizes support for these modes.
- Guideline 4: Ensure user control of rendering. Ultimately, the user must have final control over the rendering and behavior of both the content and the user interface. While it is important to preserve the author's intentions as much as possible, without final user control, some content may not be usable at all by some users with disabilities.
- Guideline 6: Implement standard application programming interfaces. UAAG 1.0 models a user agent as a group of software modules that work together to retrieve Web content, render it, and allow interactivity with it. Users with disabilities may require additional modules (e.g., to offer specialized input or output mechanisms), and the modules must all interoperate. For this reason, UAAG 1.0 includes requirements for communication through standard application programming interfaces (APIs).
- Guideline 7: Observe operating environment conventions. Following conventions improves predictability for both users and developers of assistive technologies.

Please note that the *requirements* of UAAG 1.0 are the checkpoints, not the guidelines.

Techniques

The checkpoints of UAAG 1.0 are almost all independent of specific markup languages and operating systems. A separate document entitled "Techniques for User Agent Accessibility Guidelines 1.0" *[UAAG10-TECHS]* provides detailed implementation information to help developers understand how to satisfy the checkpoints for a particular specification (e.g., the Hypertext Markup Language (HTML) or Scalable Vector Graphics (SVG) in a particular operating environment. The Techniques document includes references to other accessibility resources (such as platform-specific software accessibility guidelines), examples, and suggestions for approaches that may be part of satisfying the requirements of UAAG 1.0. Techniques for User Agent Accessibility Guidelines 1.0 is expected to be updated more frequently than User Agent Accessibility Guidelines 1.0 in order to keep up with changing technologies and the advent of new Web technologies.

Conformance to UAAG 1.0

Conformance to UAAG 1.0 means that a user agent has satisfied some set of the document's requirements. Conformance is expected to be a strong indicator (but not a guarantee) of the accessibility of a user agent.

The conformance model of UAAG 1.0 has been designed to allow different types of user agents with different input and output capabilities to conform. At the same time, the model is designed so that:

- people reading claims can determine whether a conforming user agent is likely to meet their accessibility needs, and
- people can compare claims about different user agents with relative ease.

For instance, user agents with the following capabilities might both conform:

- one user agent supports several audio, image, and video formats, and keyboard input.
- another user agent does not support video output, but supports synthesized speech output instead, and is entirely operable through keyboard and voice input.

UAAG 1.0 includes requirements for conformance *claims*, e.g., version information about the software components that together satisfy the checkpoints, information about the platforms on which they run, information about which markup languages are implemented as part of conformance, which requirements the user agent does not satisfy, and more.

UAAG 1.0 includes a checklist of all the checkpoints (formatted as either a table or a list) to help people evaluate user agents for conformance.

References

For the latest version of any W3C specification please consult the list of W3C Technical Reports at http://www.w3.org/TR.

Normative references

[DOM2CORE]
"Document Object Model (DOM) Level 2 Core Specification", A. Le Hors, P. Le Hégaret, L. Wood, G. Nicol, J. Robie, M. Champion, S. Byrne, eds., 13 November 2000. This W3C Recommendation is http://www.w3.org/TR/2000/REC-DOM-Level-2-Core-20001113/.

[UAAG10]
"User Agent Accessibility Guidelines 1.0", I. Jacobs, J. Gunderson, E. Hansen, eds. The latest draft of the guidelines is available at http://www.w3.org/WAI/UA/UAAG10/.

[WCAG10]
"Web Content Accessibility Guidelines 1.0", W. Chisholm, G. Vanderheiden, and I. Jacobs, eds., 5 May 1999. This W3C Recommendation is http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990505/.

Informative references

[ATAG10]
"Authoring Tool Accessibility Guidelines 1.0", J. Treviranus, C. McCathieNevile, I. Jacobs, and J. Richards, eds., 3 February 2000. This W3C Recommendation is http://www.w3.org/TR/2000/REC-ATAG10-20000203/.

[UAAG10-TECHS]
"Techniques for User Agent Accessibility Guidelines 1.0", I. Jacobs, J. Gunderson, E. Hansen, eds. The latest draft of the techniques document is available at http://www.w3.org/WAI/UA/UAAG10-TECHS/.