List of Checkpoints for User Agent Accessibility Guidelines 1.0

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Abstract

This document is an appendix to "User Agent Accessibility Guidelines 1.0" *[UAAG10]* . It provides a list of all checkpoints from the User Agent Accessibility Guidelines 1.0, organized by concept, as a checklist for user agent developers. Please refer to the Guidelines document for introductory information, information about related documents, a glossary of terms, and more.

This list may be used to review a tool or set of tools for accessibility. For each checkpoint, indicate whether the checkpoint has been satisfied, has not been satisfied, or is not applicable.

A tabular version of the list of checkpoints is also available (e.g., for printing).

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.

This document is an appendix to a Working Draft. It is a draft document and may be updated, replaced or obsoleted by other documents at any time. It is inappropriate to use W3C Working Drafts as reference material or to cite them as other than "work in progress". This is work in progress and does not imply

endorsement by, or the consensus of, W3C Members.

Please send comments about this document to the public mailing list w3c-wai-ua@w3.org; public archives are available.

This document has been produced as part of the Web Accessibility Initiative. WAI Accessibility Guidelines are produced as part of the WAI Technical Activity. The goal of the WAI User Agent Accessibility Guidelines Working Group is discussed in the Working Group charter.

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

Priorities

Each checkpoint in this document is assigned a priority that indicates its importance for users with disabilities.

[Priority 1]
: This checkpoint **must** be satisfied by user agents, otherwise one or more groups of users with disabilities will find it impossible to access the Web. Satisfying this checkpoint is a basic requirement for enabling some people to access the Web.

[Priority 2]
: This checkpoint **should** be satisfied by user agents, otherwise one or more groups of users with disabilities will find it difficult to access the Web. Satisfying this checkpoint will remove significant barriers to Web access for some people.

[Priority 3]
: This checkpoint **may** be satisfied by user agents to make it easier for one or more groups of users with disabilities to access information. Satisfying this checkpoint will improve access to the Web for some people.

Priority 1 checkpoints

For Content Accessibility (Priority 1)

- Checkpoint 2.1 Make all content available through the user interface. (Techniques for 2.1)
- Checkpoint 2.2 For a presentation that requires user input within a specified time interval, allow the user to configure the user agent to pause the presentation automatically and await user input before proceeding. (Techniques for 2.2)
- Checkpoint 2.3 Provide easy access to each equivalent and each equivalency target through at least one of the following mechanisms: (1) allowing configuration to render the equivalent instead of the equivalency target; (2) allowing configuration to render the equivalent in addition to the equivalency target; (3) allowing the user to select the equivalency target and then inspect its

equivalents; (4) providing a direct link to the equivalent in content, just before or after the equivalency target in document order. (Techniques for 2.3)

- Checkpoint 2.4 Allow the user to specify that text transcripts, collated text transcripts, captions, and auditory descriptions be rendered at the same time as the associated audio and visual tracks. (Techniques for 2.4)
- Checkpoint 2.5 Respect author-specified synchronization cues during rendering. (Techniques for 2.5)
- Checkpoint 3.1 Allow the user to configure the user agent not to render background images. In this configuration, provide an option to alert the user when a background image is available but has not been rendered. (Techniques for 3.1)
- Checkpoint 3.2 Allow the user to configure the user agent not to render audio, video, or animated images except on explicit request from the user. In this configuration, provide an option to render a substitute placeholder in context for each unrendered source of audio, video, or animated image. When placeholders are rendered, allow the user to activate each placeholder individually and replace it with the original author-supplied content. (Techniques for 3.2)
- Checkpoint 3.3 Allow the user to configure the user agent to render animated or blinking text as motionless text. (Techniques for 3.3)
- Checkpoint 3.4 Allow the user to configure the user agent to render blinking images as motionless images. (Techniques for 3.4)
- Checkpoint 3.5 Allow the user to configure the user agent not to execute scripts or applets. In this configuration, provide an option to alert the user when scripts or applets are available. (Techniques for 3.5)
- Checkpoint 4.1 Allow the user to configure and control the reference size of rendered text with an option to override author-specified and user agent default sizes of rendered text. Make available the range of system font sizes. (Techniques for 4.1)
- Checkpoint 4.2 Allow the user to configure the font family of all rendered text, with an option to override author-specified, and user agent default, font families. Allow the user to select from among the range of system font families. (Techniques for 4.2)
- Checkpoint 4.3 Allow the user to configure the foreground and background color of all text, with an option to override foreground and background colors specified by the author or user agent defaults. Allow the user to select from among the range of system colors. (Techniques for 4.3)
- Checkpoint 4.4 Allow the user to slow the presentation rate of audio, video and animations that are not recognized as style. For a visual track, provide at least one setting between 40% and 60% of the original speed. For a prerecorded audio track including audio-only presentations, provide at least one setting between 75% and 80% of the original speed. When the user agent allows the user to slow the visual track of a synchronized multimedia presentation to between 100% and 80% of its original speed, synchronize the visual and audio tracks. Below 80%, the user agent is not required to render the audio track. (Techniques for 4.4)

- Checkpoint 4.5 Allow the user to stop, pause, resume, fast advance, and fast reverse audio, video, and animations that last three or more seconds at their default playback rate and that are not recognized as style. (Techniques for 4.5)
- Checkpoint 4.6 For graphical viewports, allow the user to position text transcripts, collated text transcripts, and captions in the viewport. Allow the user to choose from among the same range of positions available to the author (e.g., the range of positions allowed by the markup or style language). (Techniques for 4.6)
- Checkpoint 4.9 Allow the user to configure and control the global audio volume. The user must be able to choose zero volume (i.e., silent). (Techniques for 4.9)
- Checkpoint 4.10 Allow the user to control independently the volumes of distinct audio sources synchronized to play simultaneously. (Techniques for 4.10)
- Checkpoint 4.11 Allow the user to configure and control synthesized speech playback rate according to the full range offered by the speech synthesizer. (Techniques for 4.11)
- Checkpoint 4.12 Allow the user to control synthesized speech volume independent of other sources of audio. (Techniques for 4.12)
- Checkpoint 6.1 Implement the accessibility features of all implemented specifications (markup languages, style sheet languages, metadata languages, graphics formats, etc.). The accessibility features of a specification are those identified as such and those that satisfy *all* of the requirements of the "Web Content Accessibility Guidelines 1.0" *[WCAG10]* . (Techniques for 6.1)
- Checkpoint 8.1 Make available to the user the author-specified purpose of each table and the author-specified relationships among the table cells and headers. (Techniques for 8.1)

For User Interface (Priority 1)

- Checkpoint 1.4 Ensure that the user can interact with all active elements in a device-independent manner. (Techniques for 1.4)
- Checkpoint 1.5 Ensure that every message (e.g., prompt, alert, notification, etc.) that is a non-text element and is part of the user agent user interface has a text equivalent. (Techniques for 1.5)
- Checkpoint 4.14 For user agents that support style sheets, allow the user to select from (and apply) available author and user style sheets or to ignore them. (Techniques for 4.14)
- Checkpoint 4.15 Allow the user to configure how the selection is highlighted (e.g., foreground and background color, voice pitch, etc.). For graphical viewports, offer at least three rendering options, including colors and fonts. Allow the user to select from among the range of system colors and fonts. (Techniques for 4.15)
- Checkpoint 4.16 Allow the user to configure how the content focus is highlighted (e.g., foreground and background color, voice pitch, etc.). For graphical viewports, offer at least three rendering options, including colors and fonts, and allow the user to select from among the range of system colors and fonts. The default focus highlight mechanism must be different from the default selection

highlight mechanism. (Techniques for 4.16)

- Checkpoint 7.1 Allow the user to navigate among all viewports (including frames). (Techniques for 7.1)
- Checkpoint 7.2 Associate a point of regard with each state in a viewport's browsing history and when the user returns to a state in the history, restore the associated point of regard. (Techniques for 7.2)
- Checkpoint 7.3 Allow the user to navigate all active elements. If the author has not specified a navigation order, allow at least forward sequential navigation of elements, in document order. (Techniques for 7.3)
- Checkpoint 8.6 Implement selection, content focus, and user interface focus mechanisms. Implement them according to system conventions (per checkpoint 5.8). (Techniques for 8.6)
- Checkpoint 8.7 Provide a mechanism for highlighting the current viewport, selection, and content focus. (Techniques for 8.7)
- Checkpoint 9.1 Provide information to the user about current user preferences for input configurations (e.g., keyboard or voice bindings). (Techniques for 9.1)
- Checkpoint 9.2 Ensure that default input configurations do not interfere with operating system accessibility conventions. (Techniques for 9.2)

For Communication (Priority 1)

- Checkpoint 1.1 Ensure that the user may operate the user agent fully with keyboard input alone, pointing device input alone, and voice input alone. (Techniques for 1.1)
- Checkpoint 1.2 Implement the standard accessibility APIs of the operating system and supported programming languages. Where these APIs do not enable the user agent to satisfy the requirements of this document, use the standard input and output APIs of the operating system and supported programming languages. (Techniques for 1.2)
- Checkpoint 1.3 Implement the operating system's standard APIs for the keyboard. (Techniques for 1.3)
- Checkpoint 5.1 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. (Techniques for 5.1)
- Checkpoint 5.2 If the user can modify HTML and XML content through the user interface, provide the same functionality programmatically 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. (Techniques for 5.2)
- Checkpoint 5.3 For markup languages other than HTML and XML, provide programmatic access to content using standard APIs (e.g., platform-independent APIs and standard APIs for the operating system).

(Techniques for 5.3)

- Checkpoint 5.4 Provide programmatic read and write access to user agent user interface controls using standard APIs (e.g., platform-independent APIs such as the W3C DOM; standard APIs defined for a specific operating system; and conventions for programming languages, plug-ins, virtual machine environments, etc.) (Techniques for 5.4)
- Checkpoint 5.5 Using standard APIs, provide programmatic alert of changes to content and user interface controls (including selection, content focus, and user interface focus). (Techniques for 5.5)

For Accessible Documentation (Priority 1)

- Checkpoint 10.1 Ensure that at least one version of the product documentation conforms to at least Level Double-A of the Web Content Accessibility Guidelines 1.0 *[WCAG10]* . (Techniques for 10.1)
- Checkpoint 10.2 Document all user agent features that promote accessibility. (Techniques for 10.2)
- Checkpoint 10.3 Document the default input configuration (e.g., default keyboard bindings). (Techniques for 10.3)

Priority 2 checkpoints

For Content Accessibility (Priority 2)

- Checkpoint 2.6 For non-text content that has no recognized text equivalent, allow configuration to generate repair text. If the non-text content is included by URI reference, base the repair text on the URI reference and content type of the Web resource. Otherwise, base the repair text on the name of the element that includes the non-text content. (Techniques for 2.6)
- Checkpoint 3.6 Allow configuration so that an author-specified "client-side redirect" (i.e., one initiated by the user agent, not the server) does not change content except on explicit user request. Allow the user to access the new content manually (e.g., by following a link). (Techniques for 3.6)
- Checkpoint 3.7 Allow configuration so that author-specified content refreshes do not change content except on explicit user request. Allow the user to request the new content manually (e.g., by activating a button or following a link). Alert the user, according to the schedule specified by the author, whenever fresh content is available (to be obtained on explicit user request). (Techniques for 3.7)
- Checkpoint 3.8 Allow the user to configure the user agent not to render images. (Techniques for 3.8)
- Checkpoint 4.7 Allow the user to slow the presentation rate of audio, video and animations not covered by checkpoint 4.4. The same speed percentage requirements of checkpoint 4.4 apply. (Techniques for 4.7)
- Checkpoint 4.8 Allow the user to stop, pause, resume, fast advance, and fast reverse audio, video, and animations not covered by checkpoint 4.5.

(Techniques for 4.8)

- Checkpoint 4.13 Allow the user to configure synthesized voice gender, pitch, pitch range, stress, richness, speech dictionary, and handling of spelling, punctuation, and number processing according to the full range of values offered by the speech synthesizer. (Techniques for 4.13)
- Checkpoint 6.2 Use and conform to W3C Recommendations when they are available and appropriate for a task. (Techniques for 6.2)
- Checkpoint 8.2 Render recently visited links in a distinct style and allow the user to configure this style. For graphical viewports, offer at least three rendering options, including colors and fonts. Allow the user to select from among the range of system colors and fonts. (Techniques for 8.2)
- Checkpoint 8.3 Render in a distinct style those links that have been marked up to indicate that following them will involve a fee and allow the user to configure this style. For graphical viewports, offer at least three rendering options, including colors and fonts. Allow the user to select from among the range of system colors and fonts. (Techniques for 8.3)
- Checkpoint 8.4 Make available to the user an "outline" view of content, composed of labels for important structural elements (e.g., heading text, table titles, form titles, etc.). For discussion about what constitutes the set of important structural elements, please refer to checkpoint 7.6. (Techniques for 8.4)

For User Interface (Priority 2)

- Checkpoint 4.17 Allow the user to configure whether the current focus moves automatically to a viewport that opens without an explicit request from the user. (Techniques for 4.17)
- Checkpoint 4.18 Ensure that when a viewport’s selection or content focus changes, it is in the viewport after the change. (Techniques for 4.18)
- Checkpoint 4.19 Allow the user to configure the user agent to only open viewports on explicit user request. In this configuration, instead of opening a viewport automatically, alert the user and allow the user to open it manually. Allow the user to close viewports. (Techniques for 4.19)
- Checkpoint 4.20 For graphical user interfaces, allow the user to configure the user agent so that the viewport with the current focus remains "on top" of all other viewports. In this configuration, when a viewport opens without explicit user request, alert the user. (Techniques for 4.20)
- Checkpoint 5.8 Follow operating system conventions that benefit accessibility. In particular, follow conventions for user interface design, keyboard configuration, product installation, and documentation. (Techniques for 5.8)
- Checkpoint 7.4 Allow the user to choose to navigate only active elements. If the author has not specified a navigation order, allow at least forward and reverse sequential navigation of active elements, in document order. (Techniques for 7.4)
- Checkpoint 7.5 Allow the user to search for a string of characters from the document character set in text content that has been rendered. The search must encompass all text within the viewport, both inside and outside the point of

regard. Allow the user to start a search forward in document order from any selected or focused location in content. When there is a match, allow the user to search for the next instance of the text from the location of the match. When there is a match, move the point of regard so that the matched text is in the viewport. Alert the user when there is no match. Provide a case-insensitive search option for text in scripts (i.e., writing systems) where case is significant. (Techniques for 7.5)

- Checkpoint 7.6 Allow the user to navigate efficiently to and among important structural elements identified by the author. Allow forward and backward sequential navigation to important structural elements. (Techniques for 7.6)
- Checkpoint 8.8 Provide a mechanism for highlighting and identifying active elements. (Techniques for 8.8)
- Checkpoint 8.9 Allow configuration so the user is prompted to confirm any form submission not caused by explicit user request to activate a form submit control. (Techniques for 8.9)
- Checkpoint 9.3 Provide information to the user about current author-specified input configurations (e.g., keyboard bindings specified in HTML documents with the "accesskey" attribute). (Techniques for 9.3)
- Checkpoint 9.4 Allow the user to change the default input configuration as follows: Allow the user to override any binding that is part of the user agent default input configuration (checkpoint 9.8). The user agent is not required to allow the user to override standard bindings for the operating system (e.g., for access to help). For any binding in the default keyboard configuration, allow the user to override it with a binding of a single key alone or with modifier keys. (Techniques for 9.4)
- Checkpoint 9.5 Allow the user to assign a single-key binding to at least a majority of the functionalities available in the default keyboard configuration (refer to checkpoint 9.8). (Techniques for 9.5)
- Checkpoint 9.6 Follow operating system conventions to indicate the input configuration. (Techniques for 9.6)
- Checkpoint 9.7 For the configuration requirements of this document, allow the user to save user preferences in at least one user profile. Allow users to select from among available profiles or no profile (i.e., the user agent default settings). (Techniques for 9.7)
- Checkpoint 9.8 Ensure that the default input configuration includes bindings for the following functionalities required by other checkpoints in this document: move focus to next active element; move focus to previous active element; activate focused link; search for text; search again for same text; next history state (forward); previous history state (back); increase size of rendered text; decrease size of rendered text; increase global volume; decrease global volume; (each of) stop, pause, resume, fast advance, and fast reverse selected audio, video, and animation. If the user agent supports the following functionalities, the default input configuration must also include bindings for them: enter URI for new resource; add to favorites (i.e., bookmarked resources); view favorites; stop loading resource; reload resource; refresh rendering; forward one viewport; back one viewport; next line; previous line. (Techniques

for 9.8)

For Communication (Priority 2)

- Checkpoint 5.6 Ensure that programmatic exchanges proceed in a timely manner. (Techniques for 5.6)

For Accessible Documentation (Priority 2)

- Checkpoint 10.4 In a dedicated section of the documentation, describe all features of the user agent that promote accessibility. (Techniques for 10.4)
- Checkpoint 10.5 In each software release, document all changes that affect accessibility. (Techniques for 10.5)

Priority 3 checkpoints

For Content Accessibility (Priority 3)

- Checkpoint 2.7 Allow configuration so that when the author has specified an empty text equivalent for non-text content, the user agent generates no repair text or generates repair text as required by checkpoint 2.6. (Techniques for 2.7)
- Checkpoint 2.8 Allow the user to configure the user agent not to render content in unsupported natural languages. Indicate to the user in context that author-supplied content has not been rendered. (Techniques for 2.8)
- Checkpoint 8.5 To help the user decide whether to traverse a link, make available the following information about it: link content, link title, whether the link is internal to the local resource, whether the user has traversed the link recently, whether traversing it may involve a fee, and information about the type, size, and natural language of linked Web resources. The user agent is not required to compute or make available information that requires retrieval of linked Web resources. (Techniques for 8.5)

For User Interface (Priority 3)

- Checkpoint 7.7 Allow the user to configure and control the set of important elements required by checkpoint 7.6 and checkpoint 8.4. Allow the user to include and exclude element types in the set of elements. (Techniques for 7.7)
- Checkpoint 8.10 Indicate the relative position of the viewport in rendered content (e.g., the proportion of an audio or video clip that has been played, the proportion of a Web page that has been viewed, etc.). (Techniques for 8.10)
- Checkpoint 9.9 For graphical user interfaces, allow the user to configure the position of controls on tool bars of the user agent user interface, to select or remove controls for the user interface from a predefined set, and to restore the default user interface. (Techniques for 9.9)

For Communication (Priority 3)

- Checkpoint 5.7 For user agents that implement Cascading Style Sheets (CSS), provide programmatic access to those style sheets by conforming to the CSS module of the W3C Document Object Model (DOM) Level 2 Style Specification *[DOM2STYLE]* and exporting the interfaces it defines. (Techniques for 5.7)

References

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

[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

[DOM2STYLE]
"Document Object Model (DOM) Level 2 Style Specification", V. Apparao, P. Le Hégaret, C. Wilson, eds., 13 November 2000. This W3C Recommendation is http://www.w3.org/TR/2000/REC-DOM-Level-2-Style-20001113.

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

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"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.