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 For all format specifications that the user agent implements, make content available through the rendering processes described by those specifications. (Techniques for 2.1)
- Checkpoint 2.2 For all text formats that the user agent implements, provide a view of the text source. (Techniques for 2.2)
- Checkpoint 2.3 Allow configuration so that, for each piece of unrendered conditional content "C" the user agent alerts the user to the existence of the content and provides access to it. Provide access to this content according to format specifications or where unspecified, as follows. If C has a close relationship (e.g., C is a summary, title, alternative, description, expansion, etc.) with another piece of rendered content D, do at least one of the following: (1)

render C in place of D, (2) render C in addition to D, (3) provide access C by querying D, or (4) allow the user to follow a link to C from the context of D. Otherwise, do at least one of the following: (1) render a placeholder for C that may be replaced by C, (2) provide access to C by query (e.g., allow the user to query an element for its attributes), or (3) allow the user to follow link in context to C. (Techniques for 2.3)

- Checkpoint 2.4 For content that requires user input within a time interval controlled by the user agent, allow configuration to make the time interval "infinite" (i.e., pause automatically at the beginning of each time interval where user input is required, and resume automatically after the user has explicitly completed input). (Techniques for 2.4)
- Checkpoint 2.5 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 tracks and visual tracks. (Techniques for 2.5)
  Labels: Video, Audio
- Checkpoint 2.6 Respect synchronization cues during rendering. (Techniques for 2.6)
  Labels: Video, Audio
- 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)
  Labels: Image
- 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 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)
  Labels: Image, Video, Audio
- Checkpoint 3.3 Allow the user to configure the user agent to render animated or blinking text as motionless, unblinking text. (Techniques for 3.3)
  Labels: VisualText
- Checkpoint 3.4 Allow the user to configure the user agent not to execute any executable content (e.g., scripts and applets). In this configuration, provide an option to alert the user when executable content is available (but has not been executed). (Techniques for 3.4)
  Labels: Image
- Checkpoint 3.5 Allow configuration so that client-side content refreshes (i.e., those initiated by the user agent, not the server) do not change content except on explicit user request. Allow the user to request the new content on demand (e.g., by following a link or confirming a prompt). 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 3.5)
- Checkpoint 4.1 Allow the user to configure globally and control the reference size of rendered text, with an option to override reference sizes specified by the

author or user agent defaults. Allow the user to choose from among the full range of font sizes supported by the operating environment. (Techniques for 4.1)
Labels: VisualText

- Checkpoint 4.2 Allow the user to configure globally the font family of all rendered text, with an option to override font families specified by the author or user agent defaults. Allow the user to choose from among the full range of font families supported by the operating environment. (Techniques for 4.2)
  Labels: VisualText
- Checkpoint 4.3 Allow the user to configure globally 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. (Techniques for 4.3)
  Labels: ColorText
- Checkpoint 4.4 Allow the user to slow the presentation rate of audio, video and animations. 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. The user agent is not required to satisfy this checkpoint for audio, video and animations whose recognized role is to create a purely stylistic effect. (Techniques for 4.4)
  Labels: Animation, Video, Audio
- 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. The user agent is not required to satisfy this checkpoint for audio, video and animations whose recognized role is to create a purely stylistic effect. (Techniques for 4.5)
  Labels: Animation, Video, Audio
- 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)
  Labels: Animation, Video, Audio
- Checkpoint 4.9 Allow the user to configure globally and control the volume of all audio, with an option to override audio volumes specified by the author or user agent defaults. The user must be able to choose zero volume (i.e., silent). (Techniques for 4.9)
  Labels: Audio
- Checkpoint 4.10 Allow the user to control independently the volumes of distinct audio sources synchronized to play simultaneously. (Techniques for 4.10)
  Labels: Audio

- 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)
  Labels: Speech
- Checkpoint 4.12 Allow the user to control synthesized speech volume independent of other sources of audio. (Techniques for 4.12)
  Labels: Speech
- 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 purpose of each table and the relationships among the table cells and headers. (Techniques for 8.1)

For User Interface (Priority 1)

- Checkpoint 1.2 Ensure that the user can interact with all active elements through keyboard input alone, and pointing device input alone, and voice input alone. (Techniques for 1.2)
- Checkpoint 1.3 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 1.3)
- Checkpoint 4.14 For user agents that support style sheets, allow the user to choose from (and apply) available author and user style sheets or to ignore them. (Techniques for 4.14)
- Checkpoint 5.11 Follow operating environment conventions that benefit accessibility when implementing the selection, content focus, and user interface focus. (Techniques for 5.11)
- Checkpoint 5.12 Ensure that default input configurations do not interfere with operating environment accessibility conventions. (Techniques for 5.12)
- 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 8.2 Ensure that all of the default highlight styles for the selection, content focus, active elements, recently visited links, and fee links (1) do not rely on color alone, and (2) differ from each other, and not by color alone. (Techniques for 8.2)
- Checkpoint 8.6 Provide a mechanism for highlighting the selection and content focus, and allow the user to configure the highlight styles. The highlight

mechanism must not rely on color alone. For graphical viewports, if the highlight mechanism involves colors or text decorations, allow the user to choose from among the full range of colors or text decorations supported by the operating environment. (Techniques for 8.6)
- Checkpoint 8.7 Provide a mechanism for highlighting the current viewport. For graphical viewports, the default highlight mechanism must not rely on color alone. (Techniques for 8.7)
- Checkpoint 9.1 Provide information to the user about current user preferences for input configurations. (Techniques for 9.1)

For Communication (Priority 1)

- Checkpoint 1.1 Ensure that the user can operate the user agent fully through keyboard input alone, and pointing device input alone, and voice input alone. (Techniques for 1.1)
- 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 environment). (Techniques for 5.3)
- Checkpoint 5.4 Provide programmatic read and write access to user agent user interface controls. (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)
- Checkpoint 5.6 Implement standard accessibility APIs (e.g., of the operating environment). 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 environment. (Techniques for 5.6)
- Checkpoint 5.7 Implement the operating environment's standard APIs for the keyboard. (Techniques for 5.7)
- Checkpoint 5.8 For an API implemented to satisfy requirements of this document, support the character encodings required for that API. (Techniques for 5.8)

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 benefit accessibility. (Techniques for 10.2)
- Checkpoint 10.3 Document the default input configuration (e.g., the default keyboard bindings). (Techniques for 10.3)

Priority 2 checkpoints

For Content Accessibility (Priority 2)

- Checkpoint 2.7 Allow configuration to generate repair text when the user agent recognizes that the author has failed to provide conditional content that was required by the format specification. If the missing conditional content is included by URI reference, base the repair text on the URI reference and content type. Otherwise, base the repair text on element type information. (Techniques for 2.7)
- Checkpoint 3.6 Allow configuration so that a "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 on demand (e.g., by following a link or confirming a prompt). The user agent is not required to provide these functionalities for client-side redirects that occur instantaneously (i.e., when there is no delay before the new content is retrieved). (Techniques for 3.6)
- Checkpoint 3.7 Allow the user to configure the user agent not to render images. In this configuration, provide an option to render a placeholder in context for each unrendered image. When placeholders are rendered, allow the user to activate each placeholder individually and replace it with the original author-supplied content. (Techniques for 3.7)
- 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)
  Labels: Animation, Video, Audio
- 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)
  Labels: Speech
- Checkpoint 6.2 Use and conform to either (1) W3C Recommendations when

they are available and appropriate for a task, or (2) non-W3C specifications that enable the creation of content that conforms to the Web Content Accessibility Guidelines 1.0 *[WCAG10]* at any conformance level. (Techniques for 6.2)

- Checkpoint 8.3 Provide a mechanism for highlighting all active elements, recently visited links, and fee links, and allow the user to configure the highlight styles. The highlight mechanism must not rely on color alone. For graphical viewports, if the highlight mechanism involves colors, fonts, or text decorations, allow the user to choose from among the full range of colors, fonts, or text decorations supported by the operating environment. For an image map, the user agent must highlight the image map as a whole and should allow configuration to highlight each active region. (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.). (Techniques for 8.4)

For User Interface (Priority 2)

- Checkpoint 4.15 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 4.15)
- Checkpoint 4.16 Ensure that when a viewport's selection or content focus changes, it is in the viewport after the change. (Techniques for 4.16)
- Checkpoint 4.17 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 with which it overlaps. (Techniques for 4.17)
- Checkpoint 4.18 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 on demand (e.g., by following a link or confirming a prompt). Allow the user to close viewports. If a viewport (e.g., a frame set) contains other viewports, these requirements only apply to the outermost container viewport. (Techniques for 4.18)
- Checkpoint 5.13 Follow operating environment conventions that benefit accessibility. In particular, follow conventions that benefit accessibility for user interface design, keyboard configuration, product installation, and documentation. (Techniques for 5.13)
- Checkpoint 5.14 Follow operating environment conventions to indicate the input configuration. (Techniques for 5.14)
- 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 within rendered text content for a sequence of characters from the document character set. Allow the user to start a forward search (in document order) from any selected or focused location in content. When there is a match (1) move the viewport so that the matched text

content is within it, and (2) allow the user to search for the next instance of the text from the location of the match. Alert the user when there is no match. If the search wraps back to the beginning of content, alert the user prior to wrapping. 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. Allow forward and backward sequential navigation to important structural elements. (Techniques for 7.6)
- Checkpoint 8.8 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 8.8)
- Checkpoint 8.9 Allow configuration so the user is prompted to confirm any payment resulting from activation of a fee link. (Techniques for 8.9)
- Checkpoint 9.2 Provide a centralized view of the current author-specified input configuration bindings. (Techniques for 9.2)
- Checkpoint 9.3 Allow the user to override any binding that is part of the user agent default input configuration. Allow the user to override any binding in the default keyboard configuration with a binding of a single key and (possibly zero) modifier keys. Allow the user to assign a single key binding (with zero modifier keys) to at least a majority of the functionalities available in the default keyboard configuration. The user agent is not required to allow the user to override standard bindings for the operating environment (e.g., for access to help). (Techniques for 9.3)
- Checkpoint 9.4 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 9.4)
- Checkpoint 9.5 For the configuration requirements of this document, allow the user to save user preferences in at least one user profile. Allow users to choose from among available profiles or no profile (i.e., the user agent default settings). (Techniques for 9.5)

For Communication (Priority 2)

- Checkpoint 5.9 Ensure that programmatic exchanges proceed in a timely manner. (Techniques for 5.9)
- Checkpoint 5.10 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 5.10)

For Accessible Documentation (Priority 2)

- Checkpoint 10.4 In a dedicated section of the documentation, describe all features of the user agent that benefit 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 2.8 Allow configuration so that when the author has intentionally provided empty conditional content, the user agent generates no repair text or generates repair text as required by checkpoint 2.7. (Techniques for 2.8)
- Checkpoint 2.9 Allow the user to configure the user agent to create the conditions under which conditional content is rendered. (Techniques for 2.9)
- Checkpoint 2.10 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 2.10)
- 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 4.19 Allow configuration so the user is prompted to confirm any viewport that closes without explicit user request. (Techniques for 4.19)
- 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 9.6 For graphical user interfaces, allow the user to configure the position of controls on tool bars of the user agent user interface, to add or remove controls for the user interface from a predefined set, and to restore the default user interface. (Techniques for 9.6)

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", 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/.