# List of Checkpoints for User Agent Accessibility Guidelines 1.0

## 3 October 2002

This version:
http://www.w3.org/WAI/UA/WD-UAAG10-20021003/uaag10-chklist
This document is an appendix to:
http://www.w3.org/WAI/UA/WD-UAAG10-20021003/
Latest version of User Agent Accessibility Guidelines 1.0:
http://www.w3.org/WAI/UA/UAAG10/
Editors:
Ian Jacobs, W3C
Jon Gunderson, University of Illinois at Urbana-Champaign
Eric Hansen, Educational Testing Service

This document is also available in these non-normative formats: plain text, PostScript, Black/white PostScript, PDF.

Copyright © 1999 - 2002 W3C® (MIT, INRIA, Keio), All Rights Reserved. W3C liability, trademark, document use and software licensing rules apply.

---

## 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 not an independent W3C Working Draft but rather an appendix to "User Agent Accessibility Guidelines 1.0" *[UAAG10]* . 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). 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 (P1)
: If the user agent does not satisfy this checkpoint, 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 (P2)
: If the user agent does not satisfy this checkpoint, 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 (P3)
: If the user agent satisfies this checkpoint, one or more groups of users with disabilities will find it easier to access the Web.

# Priority 1 checkpoints

**Note:** To reduce the length of this document, some normative information about checkpoints does not appear in the checklist below. Please refer to the Guidelines document for additional information on normative inclusions and exclusions, and for information about sufficient techniques.

- 1.1 Full keyboard access. (P1)
  1. Ensure that the user can operate through keyboard input alone any user agent functionality available through the user interface.

  For both content and user agent.
- 1.2 Activate event handlers. (P1)

1. Allow the user to activate, through keyboard input alone, all input device event handlers that are explicitly associated with the element designated by the content focus.
2. In order to satisfy provision one of this checkpoint, the user must be able to activate as a group all event handlers of the same input device event type.

Conformance profile labels: Events.

- 1.3 Provide text messages. (P1)
  1. Ensure that every message (e.g., prompt, alert, or notification) that is a non-text element and is part of the user agent user interface has a text equivalent.
- 2.1 Render content according to specification. (P1)
  1. Render content according to format specification (e.g., for a markup language or style sheet language).
- 2.2 Provide text view. (P1)
  1. For content authored in text formats, provide a view of the text source.
- 2.3 Render conditional content. (P1)
  1. Allow configuration to provide access to each piece of unrendered conditional content "C".
  2. When a specification does not explain how to provide access to this content, do so as follows:
     - If C is a summary, title, alternative, description, or expansion of another piece of content D, provide access through at least one of the following mechanisms:
       - (1a) render C in place of D;
       - (2a) render C in addition to D;
       - (3a) provide access to C by allowing the user to query D. In this case, the user agent must also alert the user, on a per-element basis, to the existence of C (so that the user knows to query D);
       - (4a) allow the user to follow a link to C from the context of D.
     - Otherwise, provide access to C through at least one of the following mechanisms:
       - (1b) render a placeholder for C, and allow the user to view the original author-supplied content associated with each placeholder;
       - (2b) provide access to C by query (e.g., allow the user to query an element for its attributes). In this case, the user agent must also alert the user, on a per-element basis, to the existence of C;
       - (3b) allow the user to follow a link in context to C.

  For all content.
- 2.4 Allow time-independent interaction. (P1)
  1. For rendered content where user input is only possible within a finite time interval controlled by the user agent, allow configuration to provide a view where user interaction is time-independent.
- 2.5 Make captions, transcripts, audio descriptions available. (P1)
  1. Allow configuration or control to render text transcripts, collated text transcripts, captions, and audio descriptions in content at the same time as

the associated audio tracks and visual tracks.

For all content. Conformance profile labels: Video, Audio.

- 2.6 Respect synchronization cues. (P1)
  1. Respect synchronization cues (e.g., in markup) during rendering.

  Conformance profile labels: Video, Audio.
- 3.1 Toggle background images. (P1)
  1. Allow configuration not to render background image content.

  Conformance profile labels: Image.
- 3.2 Toggle audio, video, animated images. (P1)
  1. Allow configuration not to render audio, video, or animated image content, except on explicit user request.

  Conformance profile labels: Animation, Video, Audio.
- 3.3 Toggle animated or blinking text. (P1)
  1. Allow configuration to render animated or blinking text content as motionless, unblinking text. Blinking text is text whose visual rendering alternates between visible and invisible, at any rate of change.

  Conformance profile labels: VisualText.
- 3.4 Toggle scripts. (P1)
  1. Allow configuration not to execute any executable content (e.g., scripts and applets).
- 3.5 Toggle automatic content retrieval. (P1)
  1. Allow configuration so that the user agent only retrieves content on explicit user request.
- 4.1 Configure text scale. (P1)
  1. Allow global configuration of the scale of visually rendered text content. Preserve distinctions in the size of rendered text as the user increases or decreases the scale.
  2. As part of satisfying provision one of this checkpoint, provide a configuration option to override rendered text sizes specified by the author or user agent defaults.
  3. As part of satisfying provision one of this checkpoint, offer a range of text sizes to the user that includes at least:
     - the range offered by the conventional utility available in the operating environment that allows users to choose the text size (e.g., the font size), *or*
     - if no such utility is available, the range of text sizes supported by the conventional APIs of the operating environment for drawing text.

  Conformance profile labels: VisualText.
- 4.2 Configure font family. (P1)
  1. Allow global configuration of the font family of all visually rendered text content.
  2. As part of satisfying provision one of this checkpoint, provide a configuration option to override font families specified by the author or by user agent defaults.
  3. As part of satisfying provision one of this checkpoint, offer a range of font

families to the user that includes at least:
    - the range offered by the conventional utility available in the operating environment that allows users to choose the font family, *or*
    - if no such utility is available, the range of font families supported by the conventional APIs of the operating environment for drawing text.

  Conformance profile labels: VisualText.
- 4.3 Configure text colors. (P1)
  1. Allow global configuration of the foreground and background color of all visually rendered text content.
  2. As part of satisfying provision one of this checkpoint, provide a configuration option to override foreground and background colors specified by the author or user agent defaults.
  3. As part of satisfying provision one of this checkpoint, offer a range of colors to the user that includes at least:
     - the range offered by the conventional utility available in the operating environment that allows users to choose colors, *or*
     - if no such utility is available, the range of colors supported by the conventional APIs of the operating environment for specifying colors.

  Conformance profile labels: VisualText.
- 4.4 Slow multimedia. (P1)
  1. Allow the user to slow the presentation rate of rendered audio and animation content (including video and animated images).
  2. As part of satisfying provision one of this checkpoint, for a visual track, provide at least one setting between 40% and 60% of the original speed.
  3. As part of satisfying provision one of this checkpoint, for a prerecorded audio track including audio-only presentations, provide at least one setting between 75% and 80% of the original speed.
  4. 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 (per checkpoint 2.6). Below 80%, the user agent is not required to render the audio track.

  Conformance profile labels: Animation, Audio.
- 4.5 Start, stop, pause, and navigate multimedia. (P1)
  1. Allow the user to stop, pause, and resume rendered audio and animation content (including video and animated images) that last three or more seconds at their default playback rate.
  2. Allow the user to navigate efficiently within audio and animations (including video and animated images) that last three or more seconds at their default playback rate.

  Conformance profile labels: Animation, Audio.
- 4.6 Do not obscure captions. (P1)
  1. For graphical viewports, allow configuration so that captions synchronized with a visual track in content are not obscured by it.
- 4.7 Global volume control. (P1)
  1. Allow global configuration of the volume of all rendered audio, with an

option to override audio volumes specified by the author or user agent defaults.
2. As part of satisfying provision one of this checkpoint, allow the user to choose zero volume (i.e., silent).

For both content and user agent. Conformance profile labels: Audio.

- 4.8 Independent volume control. (P1)
  1. Allow independent control of the volumes of rendered audio content synchronized to play simultaneously.

  Conformance profile labels: Audio.
- 4.9 Configure synthesized speech rate. (P1)
  1. Allow configuration of the synthesized speech rate, according to the full range offered by the speech synthesizer.

  Conformance profile labels: Speech.
- 4.10 Configure synthesized speech volume. (P1)
  1. Allow control of the synthesized speech volume, independent of other sources of audio.

  Conformance profile labels: Speech.
- 4.11 Configure synthesized speech characteristics. (P1)
  1. Allow configuration of synthesized speech characteristics according to the full range of values offered by the speech synthesizer.

  Conformance profile labels: Speech.
- 4.14 Choose style sheets. (P1)
  1. Allow the user to choose from and apply alternative author style sheets (such as linked style sheets).
  2. Allow the user to choose from and apply at least one user style sheet.
  3. Allow the user to turn off (i.e., ignore) author and user style sheets.
- 6.1 Programmatic access to HTML/XML infoset. (P1)
  1. Provide programmatic read access to XML content by making available **all** of the information items defined by the W3C XML Infoset *[INFOSET]* .
  2. Provide programmatic read access to HTML content by making available all of the following information items defined by the W3C XML Infoset *[INFOSET]* :
     - Document Information item: children, document element, base URI, charset
     - Element Information items: element-type name, children, attributes, parent
     - Attribute Information items: attribute-type name, normalized value, specified, attribute type, references, owner element
     - Character Information items: character code, parent element
     - Comment Information items: content, parent
  3. If the user can modify the state or value of a piece of HTML or XML content through the user interface (e.g., by checking a box or editing a text area), allow programmatic read access to the current state or value, and allow the same degree of write access programmatically as is available through the user interface.

- 6.2 DOM access to HTML/XML content. (P1)
  1. Provide access to the content required in checkpoint 6.1 by conforming to the following modules of the W3C Document Object Model (DOM) Level 2 Core Specification *[DOM2CORE]* and exporting bindings for the interfaces they define:
     - for HTML: the Core module.
     - for XML: the Core and XML modules.
  2. As part of satisfying provision one of this checkpoint,
     - Export the normative bindings specified in the DOM Level 2 Core Specification *[DOM2CORE]* (namely, for Java *[JAVA]* and ECMAScript *[ECMASCRIPT]* operating environments).
     - For other environments, the bindings exported to satisfy provision one of this checkpoint (e.g., C++ bindings) must be publicly documented.
- 6.3 Programmatic access to non-HTML/XML content. (P1)
  1. For content other than HTML and XML, provide structured programmatic read access to content.
  2. If the user can modify the state or value of a piece of non-HTML/XML content through the user interface (e.g., by checking a box or editing a text area), allow programmatic read access to the current state or value, and allow the same degree of write access programmatically as is available through the user interface.
  3. As part of satisfying provision one of this checkpoint, implement at least one API according to this **API cascade**:
     - The API is defined by a W3C Recommendation, **or** the API is publicly documented and designed to enable interoperability with assistive technologies.
     - If no such API is available, or if available APIs do not enable the user agent to satisfy the requirements,
       - implement at least one publicly documented API to satisfy the requirements, *and*
       - follow operating environment conventions for the use of input and output APIs.
- 6.4 Programmatic access to information about rendered content. (P1)
  1. For graphical user agents, make available bounding dimensions and coordinates of rendered graphical objects. Coordinates must be relative to the point of origin in the graphical environment (e.g., with respect to the desktop), not the viewport.
  2. For graphical user agents, provide access to the following information about each piece of rendered text: font family, font size, and foreground and background colors.
  3. As part of satisfying provisions one and two of this checkpoint, implement at least one API according to the API cascade described in provision two of checkpoint 6.3.
- 6.5 Programmatic operation of user agent user interface. (P1)
  1. Provide programmatic read access to user agent user interface controls,

selection, content focus, and user interface focus.
2. If the user can modify the state or value of a user agent user interface control (e.g., by checking a box or editing a text area), allow programmatic read access to the current state or value, and allow the same degree of write access programmatically as is available through the user interface.
3. As part of satisfying provisions one and two of this checkpoint, implement at least one API according to the API cascade described in provision two of checkpoint 6.3.

For user agent features.

- 6.6 Programmatic notification of changes. (P1)
  1. Provide programmatic notification of changes to content, states and values of content, user agent user interface controls, selection, content focus, and user interface focus.
  2. As part of satisfying provision one of this checkpoint, implement at least one API according to the API cascade of provision two of checkpoint 6.3.

  For both content and user agent. Conformance profile labels: Selection.
- 6.7 Conventional keyboard APIs. (P1)
  1. Implement APIs for the keyboard as follows:
     - Follow operating environment conventions.
     - If no conventions exist, implement publicly documented APIs.
- 6.8 API character encodings. (P1)
  1. For an API implemented to satisfy requirements of this document, support the character encodings required for that API.

  For both content and user agent.
- 7.1 Respect focus and selection conventions. (P1)
  1. Follow operating environment conventions that benefit accessibility when implementing the selection, content focus, and user interface focus.

  Conformance profile labels: Selection.
- 7.2 Respect input configuration conventions. (P1)
  1. Ensure that default input configurations of the user agent do not interfere with operating environment accessibility conventions (e.g., for keyboard accessibility).

  For user agent features.
- 8.1 Implement accessibility features. (P1)
  1. Implement the accessibility features of specifications (e.g., markup languages, style sheet languages, metadata languages, and graphics formats).

  For all content.
- 9.1 Provide content focus. (P1)
  1. Provide at least one content focus for each viewport (including frames) where enabled elements are part of the rendered content.
  2. Allow the user to make the content focus of each viewport the current focus.
- 9.2 Provide user interface focus. (P1)
  1. Provide a user interface focus.

- 9.3 Move content focus. (P1)
  1. Allow the user to move the content focus to any enabled element in the viewport.
  2. Allow configuration so that the content focus of a viewport only changes on explicit user request.
  3. If the author has not specified a navigation order, allow at least forward sequential navigation, in document order, to each element in the set established by provision one of this checkpoint.
- 9.4 Restore viewport state history. (P1)
  1. For user agents that implement a viewport history mechanism, for each state in a viewport's browsing history, maintain information about the point of regard, content focus, and selection.
  2. When the user returns to any state in the viewport history (e.g., via the "back button"), restore the saved values for the point of regard, content focus, and selection.

  Conformance profile labels: Selection.
- 10.1 Associate table cells and headers. (P1)
  1. For graphical user agents that render tables, for each table cell, allow the user to view associated header information.
- 10.2 Highlight selection, content focus, enabled elements, visited links. (P1)
  1. Allow global configuration to highlight the following four classes of information in each viewport: the selection, content focus, enabled elements, and recently visited links.
  2. For graphical user interfaces, as part of satisfying provision one of this checkpoint, allow at least one configuration where the highlight mechanisms for the four classes of information:
     - differ from each other, *and*
     - do not rely on rendered text foreground and background colors alone.
  3. For graphical user interfaces, as part of satisfying provision one of this checkpoint, if a highlight mechanism involves text size, font family, rendered text foreground and background colors, or text decorations, offer at least the following range of values:
     - for text size, the range required by provision three of checkpoint 4.1.
     - for font family, the range required by provision three of checkpoint 4.2.
     - for text foreground and background colors and decorations, the range offered by the conventional utility available in the operating environment for users to choose rendered text colors or decorations (e.g., the standard font and color dialog box resources supported by the operating system). If no such utility is available, the range supported by the conventional APIs of the operating environment for specifying text colors or drawing text.
  4. Highlight enabled elements according to the granularity specified in the format. For example, an HTML user agent rendering a PNG image as part of a client-side image map is only required to highlight the image as a whole, not each enabled region. An SVG user agent rendering an SVG

image with embedded graphical links is required to highlight each (enabled) link that may be rendered independently according to the SVG specification.

Conformance profile labels: Selection.

- 10.6 Highlight current viewport. (P1)
  1. Highlight the viewport with the current focus (including any frame that takes current focus).
  2. For graphical viewports, as part of satisfying provision one of this checkpoint, provide at least one highlight mechanism that does not rely on rendered text foreground and background colors alone (e.g., use a thick outline).
  3. If the techniques used to satisfy provision one of this checkpoint involve rendered text size, font family, rendered text foreground and background colors, or text decorations, allow global configuration and offer same ranges of values required by provision three of checkpoint 10.2.
- 11.1 Current user input configuration. (P1)
  1. Provide information to the user about current user preferences for input configurations.

  For user agent features.
- 12.1 Provide accessible documentation. (P1)
  1. Ensure that at least one version of the user agent documentation conforms to at least level Double-A of the Web Content Accessibility Guidelines 1.0 *[WCAG10]* .

  For user agent features.
- 12.2 Document accessibility features. (P1)
  1. Document all user agent features that benefit accessibility.

  For user agent features.
- 12.3 Document default bindings. (P1)
  1. Document the default user agent input configuration (e.g., the default keyboard bindings).

  For user agent features.

## Priority 2 checkpoints

- 2.7 Repair missing content. (P2)
  1. 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.

  For all content.
- 3.6 Toggle images. (P2)
  1. Allow configuration not to render image content.

  Conformance profile labels: Image.
- 4.12 Specific synthesized speech characteristics. (P2)
  1. Allow configuration of synthesized speech pitch. Pitch refers to the average frequency of the speaking voice.

2. Allow configuration of synthesized speech pitch range. Pitch range specifies a variation in average frequency.
3. Allow configuration of synthesized speech stress. Stress refers to the height of "local peaks" in the intonation contour of the voice.
4. Allow configuration of synthesized speech richness. Richness refers to the richness or brightness of the voice.

Conformance profile labels: Speech.

- 4.13 Configure synthesized speech features. (P2)
  1. Provide support for user-defined extensions to the synthesized speech dictionary.
  2. Provide support for spell-out: where text is spelled one character at a time, or according to language-dependent pronunciation rules.
  3. Allow at least two configurations for speaking numerals: one where numerals are spoken as individual digits, and one where full numbers are spoken.
  4. Allow at least two configurations for speaking punctuation: one where punctuation is spoken literally, and one where punctuation is rendered as natural pauses.

  Conformance profile labels: Speech.
- 5.1 No automatic content focus change. (P2)
  1. Allow configuration so that if a viewport opens without explicit user request, neither its content focus nor its user interface focus automatically becomes the current focus.
- 5.2 Keep viewport on top. (P2)
  1. For graphical user interfaces, allow configuration so that the viewport with the current focus remains "on top" of all other viewports with which it overlaps.
- 5.3 Manual viewport open only. (P2)
  1. Allow configuration so that viewports only open on explicit user request.
  2. When configured per provision one of this checkpoint, instead of opening a viewport automatically, alert the user and allow the user to open it with an explicit request (e.g., by confirming a prompt or following a link generated by the user agent).
  3. Allow the user to close viewports.
- 5.4 Selection and focus in viewport. (P2)
  1. Ensure that when a viewport’s selection or content focus changes, it is at least partially in the viewport after the change.

  Conformance profile labels: Selection.
- 5.5 Confirm form submission. (P2)
  1. Allow configuration to prompt the user to confirm (or cancel) any form submission.
- 6.9 DOM access to CSS style sheets. (P2)
  1. For user agents that implement Cascading Style Sheets (CSS), provide programmatic access to style sheets by conforming to the CSS module of the W3C Document Object Model (DOM) Level 2 Style Specification

*[DOM2STYLE]* and exporting bindings for the interfaces it defines.
2. As part of satisfying provision one of this checkpoint:
    - Export the normative bindings specified in the CSS module of the DOM Level 2 Style Specification *[DOM2STYLE]* (namely, for Java *[JAVA]* and ECMAScript *[ECMASCRIPT]* operating environments).
    - For other environments, the bindings exported to satisfy provision one of this checkpoint must be publicly documented.

- 6.10 Timely exchanges through APIs. (P2)
    1. For APIs implemented to satisfy the requirements of this document, ensure that programmatic exchanges proceed in a timely manner.

  For both content and user agent.
- 7.3 Respect operating environment conventions. (P2)
    1. Follow operating environment conventions that benefit accessibility. In particular, follow conventions that benefit accessibility for user interface design, keyboard configuration, product installation, and documentation.

  For user agent features.
- 7.4 Provide input configuration indications. (P2)
    1. Follow operating environment conventions to indicate the input configuration.

  For user agent features.
- 8.2 Conform to specifications. (P2)
    1. Use and conform to either
        - W3C Recommendations when they are available and appropriate for a task, *or*
        - non-W3C specifications that enable the creation of content that conforms at level A or better to the Web Content Accessibility Guidelines 1.0 *[WCAG10]* .

  For all content.
- 9.5 No events on focus change. (P2)
    1. Allow configuration so that moving the content focus to or from an enabled element does not automatically activate any explicitly associated event handlers of any event type.

  Conformance profile labels: Events.
- 9.6 Show event handlers. (P2)
    1. For the element with content focus, make available the list of input device event types for which there are event handlers explicitly associated with the element.

  Conformance profile labels: Events.
- 9.7 Move content focus in reverse. (P2)
    1. Extend the functionality required in provision three of checkpoint 9.3 by allowing the same sequential navigation in reverse document order.
    2. As part of satisfying provision one of this checkpoint, the user agent must not include disabled elements in the navigation order.
- 9.8 Provide text search. (P2)
    1. Allow the user to search within rendered text content for a sequence of

characters from the document character set.
2. Allow the user to start a forward search (in document order) from any selected or focused location in content.
3. When there is a match, do both of the following:
   - move the viewport so that the matched text content is within it, *and*
   - allow the user to search for the next instance of the text from the location of the match.
4. Alert the user when there is no match or after the last match in content (i.e., prior to starting the search over from the beginning of content).
5. Provide a case-insensitive search option for text in scripts (i.e., writing systems) where case is significant.

For all rendered content.

- 9.9 Allow structured navigation. (P2)
  1. Allow the user to navigate efficiently to and among important structural elements in rendered content.
  2. As part of satisfying provision one of this checkpoint, allow forward and backward sequential navigation.
- 10.3 Single highlight configuration. (P2)
  1. Extend the functionality required by provision two of checkpoint 10.2 by allowing configuration through a single setting.

  Conformance profile labels: Selection.
- 10.4 Provide outline view. (P2)
  1. Make available to the user an "outline" view of rendered content, composed of labels for important structural elements (e.g., heading text, table titles, form titles, and other labels that are part of the content).
- 11.2 Current author input configuration. (P2)
  1. Provide a centralized view of the current author-specified input configuration.

  For all content.
- 11.3 Allow override of bindings. (P2)
  1. Allow the user to override any binding that is part of the user agent default input configuration.

  For user agent features.
- 11.4 Single-key access. (P2)
  1. Allow the user to override any binding in the user agent default keyboard configuration with a binding to either a key plus modifier keys or to a single key.
  2. For each functionality in the set required by checkpoint 11.5, allow the user to configure a single-key binding. A single-key binding is one where a single key press performs the task, with zero modifier keys.

  For user agent features.
- 11.5 Default input configuration. (P2)
  1. Ensure that the user agent default input configuration includes bindings for the following functionalities required by other checkpoints in this document:
     - move content focus to the next enabled element in document order,

and move content focus to the previous enabled element in document order (checkpoints 9.3 and 9.7);
    - activate the link designed by the content focus (checkpoints 1.1 and 9.1);
    - search for text, search again for same text (checkpoint 9.8);
    - increase the scale of rendered text, and decrease the scale of rendered text (checkpoint 4.1);
    - increase global volume, and decrease global volume (checkpoint 4.7);
    - stop, pause, resume, and navigate efficiently selected audio and animations, including video and animated images (checkpoint 4.5).
  2. If the user agent supports the following functionalities, the default input configuration must also include bindings for them:
    - next history state (forward), and previous history state (back);
    - enter URI for a new resource;
    - add a URI to favorites (i.e., bookmarked resources);
    - view favorites;
    - reload a resource;
    - interrupt a request to load or reload a resource;
    - for graphical viewports: navigation forward and backward through rendered content by approximately the height of the viewport;
    - for user agents that render content in lines of (at least) text: move point of regard to next line, and previous line.

  For user agent features.
- 11.6 User profiles. (P2)
  1. For the configuration requirements of this document, allow the user to save user preferences in at least one user profile.
  2. Allow the user to choose from among available user agent default profiles, profiles created by the same user, and no profile (i.e., the user agent default settings).

  For user agent features.
- 12.4 Document changes between versions. (P2)
  1. Document changes from the previous version of the user agent to features that benefit accessibility, including features of the user interface.

  For user agent features.
- 12.5 Provide dedicated accessibility section. (P2)
  1. Provide a centralized view of all features of the user agent that benefit accessibility, in a dedicated section of the documentation.

  For user agent features.

## Priority 3 checkpoints

- 2.8 No repair text. (P3)
  1. Allow at least two configurations for when the user agent recognizes that conditional content required by the format specification is present but empty

content:
  - generate no repair text, *or*
  - generate repair as described in checkpoint 2.7.

For all content.

- 2.9 Render conditional content automatically. (P3)
  1. Allow configuration to render all conditional content automatically.
  2. As part of satisfying provision one of this checkpoint, provide access according to specification, or where unspecified, by applying one of the techniques 1a, 2a, or 1b defined in checkpoint 2.3.

  For all content.
- 2.10 Don't render text in unsupported writing systems. (P3)
  1. For graphical user agents, allow configuration not to render text in unsupported scripts (i.e., writing systems) when that text would otherwise be rendered.
  2. When configured per provision one of this checkpoint, indicate to the user in context that author-supplied content has not been rendered due to lack of support for a writing system.
- 9.10 Configure important elements. (P3)
  1. Allow configuration of the set of important elements and attributes identified for checkpoints 9.9 and 10.4.
  2. As part of satisfying provision one of this checkpoint, allow the user to include and exclude element types in the set.
- 10.5 Provide link information. (P3)
  1. To help the user decide whether to traverse a link in content, make available the following information about it:
     - link element content,
     - link title,
     - whether the link is internal to the resource (e.g., the link is to a target in the same Web page),
     - whether the user has traversed the link recently, *and*
     - information about the type, size, and natural language of linked Web resources.
- 10.7 Indicate viewport position. (P3)
  1. Indicate the viewport's position relative to rendered content (e.g., the proportion of an audio or video clip that has been played, and the proportion of a Web page that has been viewed).
- 11.7 Tool bar configuration. (P3)
  1. For graphical user agent user interfaces with tool bars, allow the user to configure the position of user agent user interface controls on those tool bars.
  2. Offer a predefined set of controls that may be added to or removed from tool bars.
  3. Allow the user to restore the default tool bar configuration.

  For user agent features.

# 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/.

**[ECMASCRIPT]**
*"ECMAScript Language Specification"*, European Computer Manufacturers Association, December 1999. This specification is available at http://www.ecma.ch/ecma1/STAND/ECMA-262.HTM.

**[INFOSET]**
*"XML Information Set"*, J. Cowan and R. Tobin, eds., 24 October 2001. This W3C Recommendation is http://www.w3.org/TR/2001/REC-xml-infoset-20011024/.

**[JAVA]**
*"The Java Language Specification"*, Sun Microsystems Inc., J. Gosling, B. Joy, and G. Steele, September 1996. The specification is available at http://java.sun.com/docs/books/jls.

**[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/.