



## UAAG 2.0 Reference

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# Mobile Accessibility Examples from UAAG 2.0 Reference

This page lists mobile examples from [UAAG 2.0 Reference: Explanations, Examples, and Resources for User Agent Accessibility Guidelines 2.0](#). It includes the guidelines, success criteria, and intent to provide context for the mobile examples. For background, see the [UAAG Overview](#).

These examples show how web browsers that follow UAAG benefit people with disabilities using the Web on mobile devices.

Browser support is just one aspect of mobile accessibility. W3C WAI's broader work related to mobile accessibility is introduced in [Mobile Accessibility](#).

### [PRINCIPLE 1: Perceivable](#)

- [Guideline 1.1: Alternative content](#)
- [Guideline 1.2: Missing content](#)
- [Guideline 1.3: Highlighting](#)
- [Guideline 1.4: Text configuration](#)
- [Guideline 1.5: Volume configuration](#)
- [Guideline 1.6: Synthesized speech configuration](#)
- [Guideline 1.7: User style sheet configuration](#)
- [Guideline 1.8: Orientation in viewports](#)
- [Guideline 1.9: Alternative views](#)
- [Guideline 1.10: Element Information](#)

### [PRINCIPLE 2. Operable](#)

- [Guideline 2.1: Keyboard access](#)
- [Guideline 2.2: Sequential navigation](#)
- [Guideline 2.3: Direct navigation and activation](#)
- [Guideline 2.4: Text Search](#)
- [Guideline 2.5: Structural navigation](#)
- [Guideline 2.6: Event handlers](#)
- [Guideline 2.7: Preference settings](#)
- [Guideline 2.8: Graphical controls](#)
- [Guideline 2.9: Time-independent interaction](#)
- [Guideline 2.10: Flashing](#)
- [Guideline 2.11: Time-based media](#)
- [Guideline 2.12: Other Input Devices](#)

### [PRINCIPLE 3: Understandable](#)

- [Guideline 3.1: Mistakes](#)

[Guideline 3.2: Documentation](#)

[Guideline 3.3: Predictable](#)

[PRINCIPLE 4. Programmatic access](#)

[Guideline 4.1: Assistive technology](#)

[PRINCIPLE 5: Specifications and conventions](#)

[Guideline 5.1: Follow specifications](#)

Appendix A: [Glossary](#)

Appendix C: [References](#)

## PRINCIPLE 1 – Ensure that the user interface and rendered content are perceivable

### Guideline 1.1 – Provide access to alternative content [[Guideline 1.1](#)]

#### 1.1.2 Indicate Unrendered Alternative Content:

The user can specify that indicators be displayed along with rendered content when [recognized](#) unrendered [alternative content](#) is present. (Level A)

#### Mobile Examples for Success Criterion 1.1.2:

- Brin is deaf. The video player she is using has a button displayed beneath the playing video that indicates that captions are available. She clicks the button to toggle the captions on so she can understand the video. On her mobile phone, Brin touches a video, which displays the controls including the “display caption” control.

#### 1.1.3 Replace Non-Text Content:

The user can request a placeholder that incorporates [recognized](#) text alternative content instead of recognized non-text content, until explicit user request to render the non-text content. (Level A)

#### Mobile Examples for Success Criterion 1.1.3:

- Ben has low vision and needs to use a very large font size to be able to read text. On his mobile device, enlarging the page makes any images so large that they use up too much screen space and require excessive scrolling. He sets a preference to render all images as text (if available) and to reflow the page so that the text flows smoothly with no space for the missing images.
- Betty is a low vision user and has difficulty reading text on her mobile device when it is displayed over a background image. Using her user-defined style sheet, she can disable all background images

from being rendered in her browser.

#### 1.1.4 Provide Configurable Alternative Content Defaults:

The user can specify which type(s) of [alternative content](#) to render by default for each type of non-text content, including time based media. (Level AA)

##### Mobile Examples for Success Criterion 1.1.4:

- Ben has low vision and keeps his mobile phone browser “zoomed” so he can read the text. Because images can become pixelated when enlarged, he prefers the alternative text. In the mobile settings dialog box, he chooses to always display the alternative (“fallback”) content for images and to reflow the page without a placeholder for the image. This saves screen space and reduces the amount of scrolling he has to do.

#### 1.1.5 Facilitate Clear Display of Alternative Content for Time-based Media:

For [recognized](#) on-screen alternative content for time-based media (e.g. captions, sign language video), the following are all true: (Level AA)

- Don’t obscure controls: Displaying time-based media alternatives doesn’t [obscure](#) recognized controls for the primary time-based media.
- Don’t obscure primary media: The user can specify that displaying time-based media alternatives doesn’t obscure the primary time-based media.
- Use configurable text: The user can configure recognized text within time-based media alternatives (e.g. captions) in conformance with [1.4.1](#).
- Note: Depending on the screen area available, the display of the primary time-based media may need to be reduced in size to meet this requirement.

##### Mobile Examples for Success Criterion 1.1.5:

- Jaime is deaf and prefers to always display captions on her mobile phone. She has set her global settings on the phone to turn on closed captions. All videos displayed on the phone will automatically display captions.
- Ben has low vision that becomes worse throughout the day as he becomes more tired. He keeps a floating control on his mobile phone that allows one touch access to his configuration so that he can change the font size. The floating control can be easily moved around the screen so it is not in the way of other controls, and it becomes translucent after it is idle for a few seconds.

### 1.1.6 Allow Resize and Reposition of Time-based Media

#### Alternatives:

The user can configure [recognized](#) alternative content for time-based media (e.g. captions, sign language video) as follows: (Level AAA)

- **Resize:** The user can resize alternative content for time-based media up to the size of the user agent's [viewport](#).
- **Reposition:** The user can reposition alternative content for time-based media to two or more of the following: above, below, to the right, to the left, and overlapping the primary time-based media.
- **Note 1:** Depending on the screen area available, the display of the primary time-based media may need to be reduced in size or hidden to meet this requirement.
- **Note 2:** Implementation may involve displaying alternative content for time-based media in a separate viewport, but this is not required.

#### Mobile Examples for Success Criterion 1.1.6:

- Raymond has one functioning hand. He positions captions so that they're not covered by the hand he's using to hold his tablet.
- Tom is deaf. When Tom watches narrow-aspect video on a wide-aspect screen or in landscape mode on his mobile device, he moves the window displaying sign language interpretation to the side, allowing the primary video to take up the entire height of the screen without the interpretation getting in the way.

## Guideline 1.2 – Repair missing content [[Guideline 1.2](#)]

## Guideline 1.3 – Provide highlighting for selection, keyboard focus, enabled elements, visited links [[Guideline 1.2](#)]

### 1.3.1 Highlighted Items:

The user can specify that the following classes be [highlighted](#) so that each is uniquely distinguished: (Level A)

- Selection
- [Active keyboard focus](#) (indicated by focus cursors and/or text cursors)
- Recognized enabled input elements (distinguished from disabled elements)
- Recently visited links
- Found search results

#### Mobile Examples for Success Criterion 1.3.1:

- George has limited hand use and uses custom gestures on his mobile phone. He wants a visible focus indicator to know what element on the page has focus so when gestures are used on the mobile phone, he will know what element will be activated.
- Brin is deaf. The video player she is using has a button displayed beneath the playing video that indicates that captions are available. She clicks the button to toggle the captions on so she can understand the video. On her mobile phone, Brin touches a video, which displays the controls including the "display caption" control.

## Guideline 1.4 – Provide text configuration [[Guideline 1.4](#)]

### 1.4.1 Basic text formatting (Globally):

The user can [globally](#) set all of the following characteristics of visually [rendered text](#) content: (Level A)

- Text scale with preserved size distinctions (e.g. keeping headings proportional to main font)
- Text color and background color, choosing from all platform color options
- Font family, choosing from all installed fonts
- Line spacing, choosing from a range with at least three values

#### Mobile Examples for Success Criterion 1.4.1:

- Ben has low vision. In the mobile settings dialog box, he chooses a large text for font size. All applications on the mobile phone display text in large font.
- Sebeeya has low vision. She finds text easiest to read at 16 pt Palatino and chooses to have her browser display body text in the 16 pt Palatino font. She needs the headlines to scale proportionally (e.g. 24 pt) in order to preserve headline prominence.

## Guideline 1.5 – Provide volume configuration [[Guideline 1.5](#)]

## Guideline 1.6 – Provide synthesized speech configuration [[Guideline 1.6](#)]

### 1.6.1 Speech Rate, Volume, and Voice:

If synthesized speech is produced, the user can specify the following: (Level A)

- Speech rate
- Speech volume (independently of other sources of [audio](#))
- Voice, when more than one voice is available

### 1.6.2 Speech Pitch and Range:

If synthesized speech is produced, the user can specify the following if offered by the speech synthesizer: (Level AA)

- Pitch (average frequency of the speaking voice)
- Pitch range (variation in average frequency)
- Note: Because the technical implementations of text to speech engines vary (e.g. formant-based synthesis, concatenative synthesis), a specific engine may not support varying pitch or pitch range. A user agent should expose the availability of pitch and pitch range control if the currently selected or installed text to speech engine offers this capability.

#### 1.6.3 Advanced Speech Characteristics:

If synthesized speech is produced, the user can adjust all of the speech characteristics provided by the speech synthesizer. (Level AAA)

Mobile Examples for Success Criteria 1.6.1, 1.6.2, and 1.6.3:

- Jamie is blind. He uses a mobile-based web browser to read a web page. He presses a key to increase the rate at which the information is read back. He also uses a mobile browser in a noisy environments such as a crowded subway. With a key press, Jamie quickly increases the volume.

#### 1.6.5 Synthesized Speech Language:

If synthesized speech is produced and more than one language is available, the user can change the language. (Level AA)

Mobile Examples for Success Criterion 1.6.5:

- Hosea is blind. He speaks Spanish but his instructors only speak English. Hosea keeps a floating control on his mobile device that allows one-touch access to his configuration so he can quickly change the language the speech synthesizer reads. He is reading class-related material on the internet in Spanish, but must refer to an explanatory reference link in English. Because the reference link isn't properly coded with a language attribute, his speech synthesizer doesn't recognize the language change. Hosea uses the floating control to quickly switch to English for the reference, then back to Spanish when he returns to the main article he was reading.

## Guideline 1.7 – Enable configuration of user stylesheets [\[Guideline 1.7\]](#)

#### 1.7.1 Support User Stylesheets:

If the user agent supports a mechanism for author [stylesheets](#), the user agent also provides a mechanism for user stylesheets.

(Level A)

#### 1.7.2 Apply User Stylesheets:

If [user stylesheets](#) are supported, then the user can enable or disable user stylesheets for: (Level A)

- All pages on specified websites, or
- All pages

#### 1.7.3 Disable Author Stylesheets:

If the user agent supports a mechanism for author [stylesheets](#), the user can disable the use of [author stylesheets](#) on the current page. (Level A)

Mobile Examples for Success Criteria 1.7.1, 1.7.2, and 1.7.3:

- Lee has low vision and finds text easiest to read on her mobile device when it is presented in yellow on a black background. She has configured her browser to override the author stylesheets to always display text in her browser using this color scheme.
- Mattias has attention deficit hyperactivity disorder (ADHD) and finds text easiest to read if text is highlighted in blue as it is being read out loud on his desktop or mobile device. Both the highlight and text color are configurable and override the author stylesheets so text is readable and has sufficient color contrast.

#### 1.7.4 Save Copies of Stylesheets:

The user can save copies of the stylesheets referenced by the current page. This allows the user to edit and load the copies as user [stylesheets](#). (Level AA)

Mobile Examples for Success Criterion 1.7.4:

- Tanya has low vision. She browses to a new website on her mobile phone and finds that the site is not optimized for mobile devices. She alters the stylesheet to provide better layout and larger fonts. The custom settings for the stylesheet are saved and applied when she returns.

## Guideline 1.8 – Help users to orient within, and control, windows and viewports [[Guideline 1.8](#)]

#### 1.8.2 Move Viewport to Selection and Focus:

When a viewport's [selection](#) or [input focus](#) changes, the [viewport](#)'s content moves as necessary to ensure that the new selection or input focus location is at least partially in the visible portion of the viewport. (Level A)

Mobile Examples for Success Criterion 1.8.2:

- Taja typically views web content on her mobile phone at a high level of zoom. This can frequently position elements outside the viewport, requiring scrolling. When moving between focusable elements, the user agent viewport automatically scrolls to the element currently in focus.

#### 1.8.3 Provide Viewport Scrollbars:

When the [rendered content](#) extends beyond the viewport dimensions, users can have graphical viewports include scrollbars, [overriding](#) any values specified by the author. (Level A)

#### Mobile Examples for Success Criterion 1.8.3:

- Terry has memory issues. She configures her mobile computer so that scrollbars are always on so she can instantly see where she is in a document.

#### 1.8.4 Indicate Viewport Position:

The user can determine the viewport's position relative to the full extent of the [rendered content](#). (Level A)

#### Mobile Examples for Success Criterion 1.8.4:

- Ally has cognitive issues that make it difficult to orient. When looking at a map on her mobile device, she must frequently zoom in to view her current location or destination and zoom out to put the location into the context of the large map.

#### 1.8.5 Allow Zoom:

The user can rescale content within top-level graphical viewports as follows: (Level A)

- Zoom in: to 500% or more of the default size
- Zoom out: to 10% or less of the default size, so the content fits within the height or width of the viewport

#### Mobile Examples for Success Criterion 1.8.5: