



Accessibility of Multimedia

→ Definition and Applicability

The government requirement for Information and Communications Technology (ICT) to support accessibility for citizens and federal employees includes multimedia content. The accessibility community encompasses disabilities such as blind/low vision, deaf/hearing impairment, cognitive challenges, or having a prosthesis.

Multimedia encompasses content that is played through a media player and displays content such as text, audio, video, images, and animation. Of these, this technical guide is focusing on two major dynamic elements—video and audio. The multimedia referred to in this guidance, measured in the HHS checklist for Time-Based Media worksheet, is time-based and synchronized. [Web Content Accessibility Guidelines \(WCAG\) 2.0](#) defines multimedia as “audio or video synchronized with another format for presenting information and/or with time-based interactive components.” Characteristics that can apply to either pre-recorded or live media discussed in this guidance include:

- Video-only
- Audio-only
- Video and audio combined
- Audio and/or video combined with interaction

The breakdown below clarifies key components of each type of media covered in the HHS accessibility compliance checklists.

→ Requirements

Elements can be found on the Time-Based Media worksheet of each checklist and in the content specific Results worksheet of the checklist.

Requirement	HHS ID(s) / Checklist(s)
Audio description or detailed transcript must be available for non-live audio-only media. The transcript must include all relevant visual and auditory clues, so it is represented in its entirety.	3B / Time-Based Media
A text transcript or audio description is provided for non-live, video-only content (e.g., video that has no audio track).	3C / Time-Based Media
Synchronized captions are provided for non-live audio (YouTube videos, etc.)	3D / Time-Based Media
See Note in 3G regarding this item.	3E / Time-Based Media
Synchronized captions are provided for all live multimedia that contain audio (audio-only broadcasts, web casts, video conferences, animations, etc.)	3F / Time-Based Media



Requirement	HHS ID(s) / Checklist(s)
Non-live/combined audio and video content must provide audio descriptions for visual content not available in the default audio. NOTE: HHS requires a minimum conformance level of WCAG AA; therefore, an audio description track is required. A text transcript alone is <u>not</u> sufficient.	3G / Time-Based Media
Verify keyboard navigation and descriptive naming for all media player controls are accessible.	6A, 6B, 6C, 6D, 6E / Web Apps Checklist
The media player must provide user controls for closed captions (CC) and audio descriptions (AD) at the same menu level as volume and program selections.	14F, 14G / Web Apps Checklist

➔ Recommendations for Creating Accessible Multimedia

It is important to plan and design media content in line with accessibility standards.

Multimedia Design

When choosing the best multimedia design, it is important to select the option that accurately conveys the desired message to the audience. Consider each intent of the following presentation formats below.

Non-Live Video Only

To ensure **non-live/video only** media is conformant (e.g., a silent movie from 1926):

- A text or audio transcript must be accessible to ensure the message conveyed in the video accurately describes the actions that occur in the video.

Non-Live Audio Only

To ensure **non-live/audio only** media is conformant (e.g., a traditional podcast):

- A descriptive text transcript must include all relevant sound effects and auditory clues as indicators, so that the audio is represented in its entirety.

Non-live Video and Audio Combined

To ensure **non-live/combined video and audio** media is conformant (e.g., the HHS YouTube Channel):

- Synchronized captions display a textual representation of dialogue and auditory cues so that an individual can read and understand the content otherwise heard in the video. Captioning should also include non-speech elements that describe auditory cues or sound effects. An example of a sound effect is, “The front doorbell is ringing.”
 - Captions can be one of two types, open or closed. Open captions are those that cannot be turned off by a user and are visible for the duration of the media. Closed captions are those that can be turned on or off through a user control.



Important: Even when open captions are used, the player must provide a control for closed captions (though closed captions would not be used in the media).

- Audio description is required for the video portion of the media content. Actions, text, and other meaningful visual content must be provided within the natural dialogue or in a separate audio track so that users who are non-visual can understand all content within the media. An example of an action is, “John is swinging a bat.”

Live Video and Audio Combined

To ensure **live/combined video and audio** media is conformant (e.g., broadcast news, video conferences, web casts, streaming):

- Synchronized captions displaying the auditory information of the media must be provided for all live combined video and audio content.

Media Best Practices:

- Ensure ahead of time that the material visually presented is conformant:
 - A sufficient color contrast ratio of 4.5:1 is required at HHS regardless of font size. Color contrast is comparing the background (or page color) to the foreground (or text) color. Desktop tools such as the [Color Contrast Checker](#) make it easy to test color contrast. If installing a tool is not possible, review the [HHS & OS Accessibility Resources](#) to learn another way to check contrast ratios.
 - Provide patterns and/or textual labels on graphics (such as charts and maps) that depict multiple elements. Patterns and text labels, in addition to the use of color, assist users in understanding the definition or boundaries of a specific element.
 - Avoid the use of animations and transitions. Content that flashes or moves quickly can induce seizures in certain individuals. Also, assistive technology may struggle with conveying newly displayed content.
 - Meaningful on-screen text is presented in a user-friendly font style and at a sufficient font size relative to the other content.
- When writing a script, consider all actions and content that need to be described.
 - Ensure the narration contains descriptive key words. For example, if demonstrating a movement (e.g., a television anchor pointing to a state on the map) make sure to say, “The television anchor is pointing at Washington state.” versus “this area of the northwest.”
 - Ensure the names and titles of speakers are audibly announced in addition to being shown on-screen.
- For live events, provide real-time captions or enlist the assistance of a sign language interpreter.
- If planning a virtual meeting or webinar, research and understand the pros and cons related to accessibility of the platform selected (Zoom, WebEx, Teams, etc.).
 - Ensure the tools that will be utilized are accessible (e.g., a whiteboard is not accessible to users who are blind or have a physical disability).
- If recorded content is going to be posted after a live audio event (e.g., on the HHS YouTube Channel or in another format), test it prior to posting to ensure it is accessible with correct captions (spelling and synchronization).