



UNIVERSITY  
OF WYOMING

# Web Accessibility Guidelines





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## ALT TEXT

Alternative text (alt text) provides textual equivalents for non-text content in web pages. Alt attributes can be applied to media, applets, or other non-text web content, but is primarily used for images.

### Why are alt tags important?


Alt text serves several functions:

- It is read by screen readers in place of images, allowing the content of images, media, applets and other non-text content to be accessible to those with visual or certain cognitive disabilities.
- Alt text will be displayed in a browser if the image file is not loaded or if a user has chosen not to view images.
- It provides semantic meaning and description to images which can be read by search engines.

## WRITING ALT TEXT

Alt text must appear on all images and must convey the content of an image. Generic descriptions such as "A person smiling" or references to colors such as "The blue sky" should be avoided as these descriptions do not give screen reader users important information. Also, be sure to write alt text using complete sentences and punctuation.

Image (Required Width: 690px - Recommended Height 690px)

 Choose File

ALT Text \*

## HOW TO ADD ALT TEXT

The image above shows a dialog box for inputting images into the university's CMS websites. Alternate Text fields, such as the one above, must have alternative text added to the input field that will be applied to the image when the web page is published.

Alternative text should be limited to 100 characters.

### QUICK TIP!

- Logos should contain the name of the organization the logo represents. Adding the word "logo" in the alternative text is not necessary.
- Alternative text should not be the same as titles or as other alternative text on the page.
- When updating images on a page, ensure that the alternative text reflects the new image. Inaccurate alt text is misleading for screen reader users.

## TITLE ATTRIBUTES

Title attributes are used to provide advisory information and can be added to many different elements on a web page.



### Why are title attributes important?

Titles must be added to iframe elements to identify the content of the iframe for assistive technology users. Iframe element titles should be meaningful and convey what the frame contains.

## TITLE ATTRIBUTES IN THE CMS

Title fields in the CMS typically refer to the asset name. The title attributes for CMS links are generated from the text that is entered at asset creation. Those names will appear in the left had navigation and breadcrumbs.

For users embedding iframe elements, the title attribute tag should be added to the element using the HTML editor, as seen below.

The screenshot shows a CMS interface with a checked 'Advanced editor' toggle. Below it are icons for settings, zoom, code view, and help. The code editor shows two lines of HTML: line 1 is `<iframe title="w3 schools homepage" src="https://www.w3s` and line 2 is `>`. The `title="w3 schools homepage"` part of the first line is circled in orange.

Users should be mindful **when creating titles** to not repeat titles on a page or have titles that are the same as alternative text as this can be annoying and confusing to screen reader users.



- Title attribute text is often ignored by screen readers. Never place important information in a title attribute.
- If it is not possible to make a hyper-links text descriptive enough for a user to know where the link will take them, a title attribute can be added to supplement that information.

# HEADING 1

Headings in websites allow visual users to quickly scan a web page and find desired content and serve to break up large blocks of text into more manageable chunks. Like a visual user, visitors who visit your site are able to quickly navigate through a page using the heading tags in the page.

## HEADING 1 TEXT

### Why is a heading 1 necessary?

Heading 1 text is the largest headline option available. Assistive technology utilizes the heading 1 text as the starting point for reading content when tabbing through a web page.

Heading 1 text must appear as the first line in the main content of every page and should contain the most important information on the page. Heading 1 must be used only once per page.

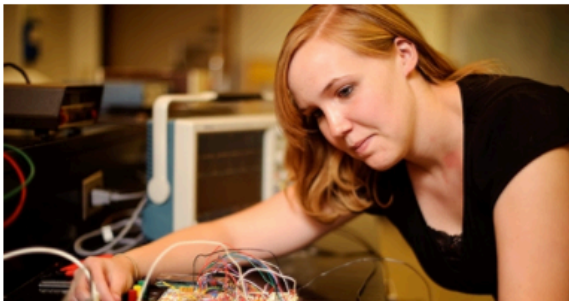
An example of proper use of heading tags in the CMS is shown below. When creating content in the CMS, make sure the first line of text in the main content section is a heading 1. The first heading should be a single line of text, and state clearly what the user will be reading about in the paragraphs that follows (the content of the first paragraph should be the most important information on the web page).

## A RISE TO PROMINENCE

Now is the time to be part of the University of Wyoming College of Engineering and Applied Science. After a significant investment from Wyoming state government in 2012, the Tier-1 Engineering Initiative was created to elevate the college to new heights of excellence in education, research and service. The initiative focuses on the following strategic goals:

- Excellence in Undergraduate Education
- World-Class Research and Graduate Education
- Productive Economic Development
- K-14 STEM Education

Read more about the [Tier-1 Engineering Initiative](#) and what it means for our future.



### UNDERGRADUATE ENGINEERING SCHOLARS PROGRAM

Outstanding students interested in being mentored in top-level research receive \$6,000 of annual funding to help cover the cost of tuition, room and board.

[Apply Today!](#)

## SUB HEADINGS

Sub headings are also used for navigation by assistive technology. When creating content for your CMS website, always break up text into paragraphs with subheadings (heading 2, heading 3, etc.) throughout the page.

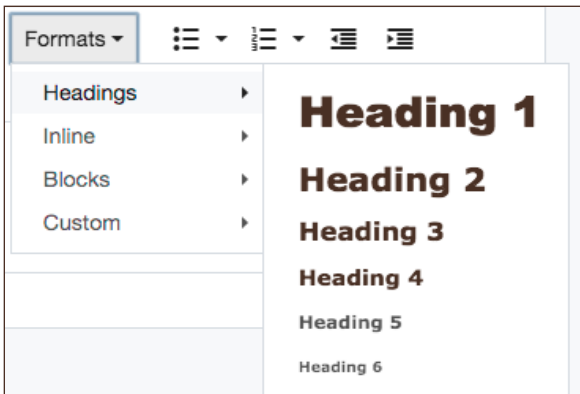
Subheadings need to follow a logical order, meaning headings go from a heading 1 to a heading 2, then a heading 3, and so on. Skipping a heading level (going from a heading 2 to a heading 4 should be avoided.)

### Why do headings need to be in logical order?

When a user is viewing a website using assistive technology, the software will start with a heading 1, then follow a logical order for navigating the headings (i.e. it will take the user to the heading 1 text first, then through all the heading 2 text, then the heading 3 text, etc.)

An example structure would be:

```
<H1>
  <H2>
    <H3>
      <h4>
    <H2>
  <H2>
```



### ADDING HEADINGS IN THE CMS

Headings can be added throughout the format dropdown in the What You See Is What You Get (WYSIWYG) editor.

The dropdown box with all available heading options is shown left.

#### QUICK TIP!

- It is perfectly acceptable to have multiple heading 2, heading 3, heading 4, heading 5 and heading 6 as long as they go in logical order. Only one heading 1 is allowed per page.
- Headings should be used as often as possible to break up large blocks of text. Breaking up text makes the content easier for users to scan and find the information they want.
- If possible, all headings should fit on a single line of text when viewing your page.



## TEXT IN IMAGES

Text placed in images with photo editing software poses particular problems for accessibility. Text in the images can not be interpreted by a screen reader, which prevents screen reader users from gaining the same information the image presents. Also, some users need larger fonts to be able to read text, the text enlargement tools utilized by users cannot affect text that is embedded in images.

The university's CMS templates are optimized to address this issue. Any headlines, important information and calls to action must be placed in the text fields provided. **Images should never have text built into the image.**



### Why can't I have text in my header images?

The purpose of Section 508 accessibility guidelines is to provide equal access to all users regardless of individual needs. Embedding text in images prevents certain users from obtaining the same information and experience on your site.

#### QUICK TIP!

- **Be sure to use high quality imagery for your header! This is the first element that a user sees when coming to the homepage for your college or department. High quality, professional images can be accessed through the University of Wyoming Photo Database at: <https://www.uwyo.edu/uprphotos/> (Login Required)**

## IFRAME CONTENT

Iframe objects allow web developers to embed elements into a web page such as social media feeds, content from other websites and much more. To visual users embedded content looks like a cohesive part of the web page, however, these elements can be confusing for screen reader and keyboard users.

Assistive technology users can navigate iframe elements, but the screen readers need a title attribute added to all iframe objects in order for a user to understand that there is an iframe object and what the iframe element contains.

When using iframes, be aware that the content inside the frame must be accessible.

### EXAMPLE

#### How is an iframe title added?

Adding titles to an iframe element must be done using the HTML panel in the CMS. To add the title attribute add a `title=""` element with descriptive text. A simple example would be:

```
<iframe src="embedContent.htm" title="Description">
```



## EMBEDDING CODE

Cascade allows site authors to embed content into their page giving them the flexibility to expand the functionality of their pages. Embed code is similar to iframes in that it allows content to be added to the page from an external source. However, instead of creating a window on the page, embed code allows resources to be loaded natively in the page.

Just as with the iframe, any embedded code, must be accessible.

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## USE OF LISTS

The University of Wyoming's CMS easily allows a user to add an ordered and unordered list into the main content of their website. Screen readers alert the user of the type of list that is displayed, allowing the user to know if the information is in a specific order or not. For this reason, make sure the ordered list is only used when the information needs to be in a specific order.

---

## COLORS AND CONTRAST

Some users have difficulty seeing low contrasting colors on a website. This can include text and background colors being too similar in color to each other. High contrast should be considered when choosing colors for any website element.

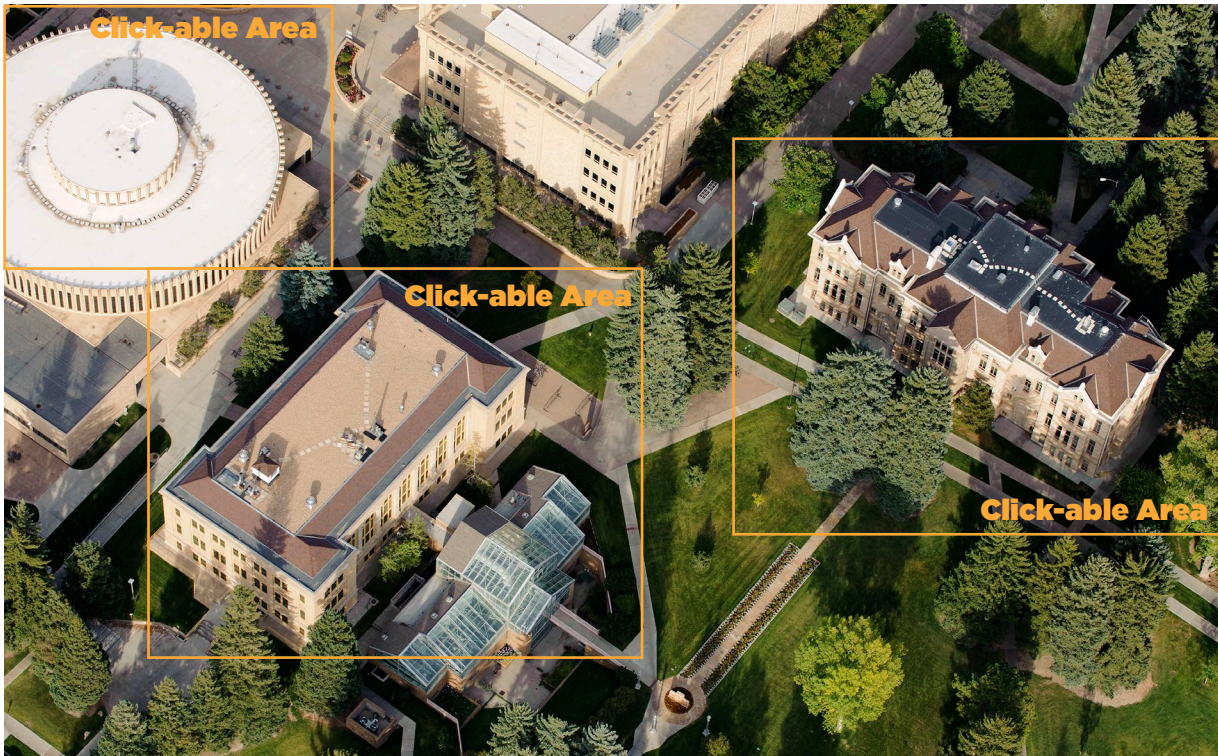


- To test your color combinations for compliance check out the WebAIM website color checker: <http://webaim.org/resources/contrastchecker/>
- As long as the color combinations pass all the WebAIM checker tests for Level AA, your colors are safe to use under Section 508 guidelines for accessibility.

## USE OF IMAGE MAPS

Image maps allow a single image to have various areas act as links to multiple pages. Each area of the image map is a "Hotspot" or click-able region that links to relevant content of what is displayed in the image.

Image maps, like all other images, must have alternative text added to the coding. The main image of map must have an alt attribute that explains the overall image that is presented. Each area or "Hotspot" of the image map must have an alt attribute that explains the function of the link.



### EXAMPLE

```

<map name="campusmap">
  <area shape="rect" coords="" href="link.htm" alt="Old Main homepage">
  <area shape="rect" coords="" href="link.htm" alt="Classroom building information">
  <area shape="rect" coords="" href="link.htm" alt="Aven Nelson building information">
</map>
```

Notice in the example code above that the image source alternative text explains briefly the content of the image, and the alternative text in the area code defines the content of the click-able areas link.

## USE OF TABLES

Tables are elements on website that should only be used to show tabular data. In order for tables to be accessible for all users, a table element must include table heading cells. Keep in mind, tables are not mobile responsive and will not work correctly on a mobile device.

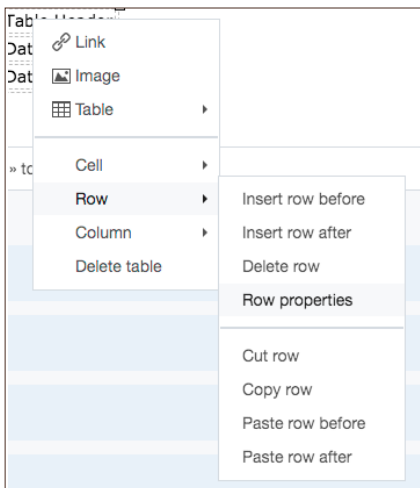
### Why do I need table headings?

Visual users find tables convenient as they can scan the content of a table and make associations between the tables data with its appropriate row and/or column headers. Someone that cannot see the table cannot make these visual associations, so table header attributes compensate by allowing a screen reader to audibly identify these associations for the user.

### Adding table headers in the CMS

Table Header	Table Header
Data Cell	Data Cell

After the table has been created, add your text and then select the row that you would like to change to table header cells.



Right clicking your selection will bring up the context menu. Place your cursor over Row, then click Row Properties in the context menu. A dialog box will pop up.

In the "Row Type," select "Header" from the drop down. Hit OK at the bottom of the dialog box to save the changes to your table row.

#### QUICK TIP!

- Tables should only be used for tabular data, never for layout of content.
- If your table has a footer row, that row should have the Table Foot property applied to it following the same method describe above.



## VIDEO AND AUDIO TRANSCRIPTS

Video and audio transcripts provide a text based version of the audio presented in multi-media formats. Transcripts for video and audio allow users who have hearing difficulties to understand information presented in a video or audio clip.



### How do I include video captioning?

Video clips typically utilize synchronized captions that appear on the video itself to display the caption. YouTube provides captioning abilities for any video uploaded to their site. Instructions for uploading caption files for YouTube is provided below.

<https://support.google.com/youtube/answer/2734796?hl=en>



### How do I include video and audio transcripts?

Transcripts provide text based documents for video and audio presentations which provides users with equivalent information for the video or audio clip. Transcripts can be added to multi-media elements by linking to an accessible PDF document or a web page that contains the transcript information.



#### QUICK TIP!

- Transcript links should be visible to all users, providing a link underneath the video or audio player on your page is an efficient means of including transcripts.
- Video Transcripts can contain extra details and descriptions of the content to supplement what would have originally been shown visually in the video.

## LINKS

Hyper-links are one of the most basic elements of a website, and need to be considered when making a web site accessible.

When creating links, the text in the link should include context of where the link goes. "Click Here" or "More" link text is not useful to a screen reader user. Text that includes the word link, such as "link to...", are redundant to screen reader users since screen reader software informs the user when a link is present.

Raw urls should also be avoided (i.e. <https://www.uwyo.edu/web>). Screen readers will read the url in it's entirety. This is especially frustrating when reading long urls.

### EXAMPLE

Best practice for link text is to simply state the link destination such as "Institutional Marketing Homepage" or "ADA Policy PDF."

Calls to actions in links are acceptable when used appropriately. An example would be a link that reads "Apply today!" which links to a web page containing an application.

## PLUG-INS, APPLICATIONS, AND APPLETS

If a page requires an applet, plug-in or any other application to be properly viewed, a link must be provided to where a user can download the needed application.

When links are provided on a website that link to PDF documents, a link to download Acrobat Reader should be provided at least once on the page containing the PDF links. Authors should also indicate that a file will be downloaded if that link is clicked. This can be done by placing (pdf) inside the hyperlink.

### QUICK TIP!

- **Best practice for links to PDF documents is to state PDF in the link text. This will inform a screen reader user that the link opens a PDF document rather than linking to a web page.**  
**For example:** [View Our Newsletter \(pdf\)](#)

## SKIP NAVIGATION

Web sites often contain navigation bars containing numerous links at the top of the web page. To relieve the inconvenience of tabbing through the navigation every time a screen reader user visits a page within a site, a skip navigation link is provided that bypasses the main navigation of the page. Skip navigation is typically an unseen element that only screen readers will interact with.



### Do CMS users need a skip navigation?

CMS web authors do not need to worry about adding skip navigation. The CMS templates have this asset built into the templates and is automatically applied to all new web pages created through the CMS.

### How to create skip navigation for non-CMS websites:

A skip navigation element consists of a <div> element that is floated via CSS off the top or left side of the web page. Using CSS elements to hide the <div> element (such as "display: none;") are not acceptable as they will hide the element from screen readers as well.

#### EXAMPLE

##### CSS

```
.skipnav {
    position: absolute; /*removes the div from the stacking order*/
    left: -400px; /*moves the div off screen to the left.*/
    top: -400px /*moves the div off the top of the screen.*/
}
```

##### HTML

```
<body>
<div class="skipnav">
    <a href="#maincontent">Skip to main content</a>
</div>
<nav id="main_navigation"></nav>
<div id="maincontent">
<h1>First Heading on page</h1>
<p>First paragraph</p>
```



## PDF FILES

PDFs have a large variety of ways to be accessible, but the most common means is through tagging the PDF before exporting with heading elements, alternative text and titles.

PDF accessibility tags are hidden textual structures of a PDF document that are audibly spoken to screen reader users. To find out how to make tagged and accessible PDFs, navigate to the links provided below (Links are clickable).

### Accessible PDFs from Word and Adobe Acrobat

The link below will send you to the CMS Support Page where you can find numerous resources on how to create accessible PDF's as well as converting a Word document into an accessible PDF.

<http://www.uwyo.edu/web/accessibility/accessible-documents.html>

### InDesign CS6

InDesign CS6 provides the ability to create accessible documents in the software before exporting PDF document. InDesign offers a variety of accessibility tools such as tagged headers for navigation and alternative text for images.

<https://www.adobe.com/content/dam/acom/en/products/indesign/pdfs/creating-accessible-pdf-documentw-with-adobe-indesign-cs6-v3.pdf>

### Additional Resources

Creating Accessible Microsoft Power Point Presentations:

<http://office.microsoft.com/en-us/powerpoint-help/creating-accessible-powerpoint-presentations-HA102013555.aspx?CTT=5&origin=HA102478227>

Creating Accessible Microsoft Excel Sheets:

<https://support.office.com/en-us/article/make-your-excel-spreadsheets-accessible-6cc05fc5-1314-48b5-8eb3-683e49b3e593>

WAVE Accessibility Checker:

<http://wave.webaim.org/>

Screen Readers:

<http://webaim.org/projects/screenreadersurvey5/#used>