

Accessibility **Matters**

Accessible content is:



Usable

Anyone can understand it.



Versatile

Easy to update.



Convertible

Can be adapted to other formats.



Legal

Reduce your risk!

Learn more

mn.gov/mnit/accessibility



**MINNESOTA
IT SERVICES**

OFFICE OF ACCESSIBILITY

People experience the world in different ways.

As state employees, it's our responsibility to ensure the content we create is usable by all Minnesota citizens, including those who rely on assistive technology in their daily lives. By following best practices for creating accessible documents, websites and apps, we ensure our content is usable, versatile, convertible, and legally compliant.

Accessible content is good for everyone

- It loads better and faster on mobile devices.
- Captioning allows individuals to watch video without disturbing co-workers.
- Navigating content without a mouse may be easier.
- Printing graphs in black and white helps those who are colorblind and saves money.



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Keyboard Shortcuts

Try to perform your regular job for 15 minutes using only your keyboard. The shortcuts below will help get you started.

Windows Keyboard Shortcuts

TAB	Advance to next link or field on a web page
SHIFT + TAB	Previous link or field
Up and Down Arrow keys	Move through list
Spacebar	Select/unselect check boxes and radio boxes
ALT+TAB	Move between open apps (Hold down ALT key, tap TAB key to cycle through options)
CTRL + SHIFT+ Arrow Keys	Select text
CTRL + W or CTRL + F4	Close window
ALT+F4	Close application
ALT	Hot-key mode to view ribbon key commands
CTRL + S	Save
CTRL + A	Select all
CTRL + Z	Undo
CTRL + C	Copy
CTRL + X	Cut
CTRL + V	Paste
CTRL + P	Print
Windows Key	Start menu
SHIFT + F10 or Menu Key	(Between Window and Ctrl key) Activates “right click” menu



Outlook Keyboard Shortcuts

CTRL + 1	Mail
CTRL + 2	Calendar
CTRL + 3	People
F6	Move between panes
Arrow Keys	Move up and down within a pane
CTRL + N	New email
ALT + S	Send
CTRL + R	Reply
CTRL + Shift + R	Reply all
CTRL + D or Del key	Delete
CTRL + Shift + V	Move to a folder
CTRL + Y	Go to a different folder

What is the “No Mouse Challenge?”

The challenge is trying to perform your regular job for 15 minutes using only your keyboard – the mouse is off-limits.

What is the takeaway?

If a document, application or system cannot support mouseless operation, it will not support assistive technology or accessibility tools.

Learn more via this MNIT shortcut:

bit.ly/no_mouse_challenge



Microsoft Outlook[®]

Accessibility Quick Card

Follow these best practices to help ensure your emails are accessible. For more information on Outlook email accessibility, especially signatures, visit mn.gov/mnit/accessibility

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- **Use HTML format when possible**

Avoid using Rich Text Format (RTF) as it may not be compatible with other email programs. Check this via File – Options – Mail (Alt, F, O, tab to Mail).

- **Fonts and font size are important**

Choose sans serif fonts of at least 12-point size for greater readability. Calibri, Arial, Helvetica, Tahoma or Verdana are good font options.

- **Add alt text to images and objects**

All graphics (photos, images, logos, charts, screen shots) require alt text or captions. Adding alt text to a screen shot? If it shows the steps to complete a task, be sure to describe the steps and the keyboard shortcuts in the alt text.

- **Adding attachments**

Dragging a document into the body of an email or appointment invitation is not accessible for all versions of Outlook. For emails, use “Attach File” in the ribbon (Alt, H, AF). For appointments, send a separate email with attachments.

- **Use styles**

When writing longer emails, use built-in formatting styles such as lists and headings.

- **Name your hyperlinks appropriately**

Use meaningful text for hyperlinks. It is acceptable to display the URL for your email address in your signature. Ensure that hyperlinks go to accessible sites. If a link is to a video, the video needs to have captions. If the hyperlink is to a PDF, the PDF needs to be accessible.

- **Avoid using repeated blank characters**

Extra spaces, tabs and empty paragraphs can cause screen readers to repeatedly say the word “blank.” Instead, use styles with formatting and indenting to create white space. Set up your formatting preferences in a new email, then under “Change Styles,” select “Set as Default” (Alt, O, G, D).

- **Check your color contrast**

Background for emails should be white. Custom backgrounds can cause security issues and load slower on mobile devices. They also may prevent people from being able to read the image’s alternative (alt) text if they do not accept the automatic downloading of images (e.g. mobile). Font styles also need good color contrast.

- **Use plain language**

Put key information up front. Use bulleted lists to segment supporting points. Write using active voice: subject of the sentence performs the action.

- **Signatures must be accessible too**

Do not use tables to format signatures. Contact information should be in real text, not in a graphic. And, ensure your logo has alternative text.





Microsoft Word[®]

Accessibility Quick Card

Follow these best practices to help ensure your documents are accessible. For more information on Word[®] document accessibility, visit mn.gov/mnit/accessibility

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- **Use document styles**

Use heading and paragraph styles to structure the document.

- **Add alt text to images and objects**

This includes pictures, clip art, charts, shapes, SmartArt graphics and embedded objects. Use clear, concise terms. For example, “Person in wheelchair on ramp” may suffice rather than “Smiling woman in wheelchair posing on ramp.”

- **Use short titles in headings**

Keep headings short (fewer than 20 words or one line long). This makes it easy for readers to quickly navigate your document.

- **Name your hyperlinks appropriately**

Your link should contain meaningful text that reflects the link destination or subject, rather than simply saying “click here.”

- **Use simple table structure**

Avoid using nested tables, merged or split cells, or blank cells for formatting.

- **Set column header rows in tables**

Clear column headings provide context and assist navigation of the table contents. Bookmarks are also a useful tool.

- **Avoid using repeated blank characters**

Extra spaces, tabs and empty paragraphs can cause people using screen readers to repeatedly hear the word “blank.” Instead, use styles with formatting and indenting to create white space.

- **Avoid using floating objects**

Place objects in-line with text for easy navigation.

- **Avoid watermarks**

Watermarks and other background images may be hidden or confusing to people with vision or cognitive disabilities. Instead of using a watermark to identify a document as a “draft” or “confidential,” include the text in the document title or heading.

- **Fill in document properties**

In advanced document properties, enter title, subject, and author.

- **Use the Accessibility Checker**

This built-in tool will tell you about some possible accessibility issues in your document and give suggestions on how to correct them.





Microsoft PowerPoint®

Accessibility Quick Card

Follow these best practices to help ensure your presentations are accessible. For more information on PowerPoint® accessibility, visit mn.gov/mnit/accessibility

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- **Add alt text to images and objects**

This includes pictures, clip art, charts, shapes, SmartArt graphics and embedded objects. Use clear, concise terms. For example, “Person in wheelchair on ramp” may suffice rather than “Smiling woman in wheelchair posing on ramp.”

- **Use simple (not complex) tables**

These are easier for all to read, including people using screen readers and people sitting at the back of the room. Avoid using nested tables, merged or split cells, or blank cells for formatting

- **Ensure each slide has a unique title**

Slide titles are used for navigation and selection by people who are not able to view the slide.

- **Check slide reading order**

People who cannot view the slide will hear slide text, shapes and content read back in a specific order. Items in the selection pane read from the bottom up.

- **Name your hyperlinks appropriately**

Your link should contain meaningful text that reflects the link destination or subject, rather than simply saying “click here.”

- **Include captions and audio descriptions**

If you use audio or video components, ensure that all audio is captioned and any visuals are audio-described.

- **Use color carefully**

High contrast color schemes and texture variations in graphs improve readability. Test your designs by printing in black & white.

- **Fill in document properties**

In advanced document properties, enter title, subject, and author.

- **Use content placeholders, not text boxes**

To check if you have done this correctly, open View – Outline View. All text (except tables and alt text) should display in this pane. This ensures all readers have access to the text in your slides.

- **Notes may not be read**

Some users of assistive technology cannot easily access your notes from your presentation. Consider adding them into a slide or sharing them in another format.

- **Sharing accessible presentations**

When sharing electronically with your audience or on the web, consider converting to an accessible PDF.



Microsoft Excel[®]

Accessibility Quick Card

Follow these best practices to help ensure your workbooks are accessible. For more information on Excel[®] accessibility, visit mn.gov/mnit/accessibility

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- **Give all sheet tabs unique names**

Sheet names should provide information about what is found on the worksheet, making it easier to navigate through a workbook. Remove blank sheets.

- **Enter title in first row and column**

You may merge cells to center the title.

- **Include table data with any data visuals**

When displaying charts or graphs within Excel, locate it directly below the data table.

- **Specify row and column headings.**

Check Table Tools to ensure proper row and column elements are marked.

- **Use color carefully**

High contrast color schemes and texture variations in graphs improve readability. Test your designs by printing in black & white.

- **Hide Unused Rows and Columns**

This prevents screen reader users and keyboard navigators from wandering off into blank cells.

- **Use text to identify author and agency**

Do not use the logo alone to identify the source.

- **Name your hyperlinks appropriately**

Your link should contain meaningful text that reflects the link destination or subject, rather than simply saying “click here.”

- **Use alignment tools for layout and to create white space**

Don't use blank rows/columns for spacing. Manage your layout by resizing rows and columns, and using the alignment tools to move content (top, bottom, left, right) as needed.

- **Avoid blank data cells**

Cells should not be left blank. If the cell really has no data, then you can add “This cell intentionally left blank” or “No data.”

- **Mark end of worksheet**

Type “end of worksheet” in the row immediately following the last row.

- **Structure content for better readability**

Add structure by defining the title region, providing data range names, and hiding unused rows and columns.

- **Fill in document properties**

In advanced document properties, enter title, subject, and author.



Social Media

Accessibility Quick Card

Follow these best practices to help ensure your social media content is as accessible as it can be.

For more information on social media accessibility, visit mn.gov/mnit/accessibility

Profile Tips

Social media pages often use preset colors and format. Account for these when you design your campaigns. Also, you may only be able to test results after publishing.

- **Don't use text in banner art images**

Outside of your organizational name, assistive technologies do not recognize text in your banner photo. Only use text in text fields.

- **Use high resolution images**

Images should be easy to see no matter how big they are viewed.

- **Use text colors that can easily be seen**

When possible, choose good contrast between text and background. Validate your colors with contrast checkers such as webaim.org/resources/contrastchecker

- **Point of contact**

List a point of contact for business profiles to address questions.

Posting Tips

- **Add alt text to images**

When this is not possible, describe image in clear, concise terms as part of the post. This includes pictures, clip art, tables and charts.

- **Place hyperlinks toward the end of the post**

Let people read your message before providing the link. Consider adding [PIC], [VIDEO], [AUDIO], or [PDF] before hyperlinks to help the reader know where they are going.

- **Put extra hashtags after hyperlinks**

Hashtags can be complicated for those using assistive technology. One or two is ok in the main body; otherwise, post them at the end.

- **Use CamelCase for hashtags**

Capitalizing the first letter in each word helps people decipher the hashtag.

- **Multimedia needs to be seen and heard**

Any video you create or link to needs to have captioning. Podcasts must have transcripts. When writing a script, describe key visuals.

- **Use plain language**

Clear content will engage more readers. Avoid acronyms.



Adobe Acrobat Pro[®]

Accessibility Quick Card

It's always best to start with an accessible source document (e.g., Word). Then use the Acrobat Pro tab to create the PDF. For more information, visit

mn.gov/mnit/accessibility

- **Use the Accessibility Checker**

This built-in tool will tell you about possible issues in your document and give suggestions on how to correct them.

- **Convert scanned text**

Make sure the document contains real text (scanned documents often render text as unreadable). If it does not, recreate the PDF file using the source document or convert it to include true text.

- **Set the document language**

Setting the document language in a PDF enables some screen readers to switch to the appropriate language.

- **Check alt text**

Make sure informative and concise alt text descriptions exist for all non-text elements.

- **Use color carefully**

Make sure to use good color contrast, such as 4.5:1 ratio of text to background, to ensure readability. Use texture in graphs to highlight points of interest.

- **Check for tags**

Tags enable assistive technologies to read and interact with PDF documents. Headings (H1), paragraphs (P), and figures are examples of tag types. Check the tags pane to ensure there are tags, and if not, add them.

- **Check the reading order**

“Walk the tag tree.” Review the order of the tags in the Tags Pane to ensure the correct reading order.

- **Check for *proper* tag use**

Use the Tags pane to check whether tagged elements are properly sequenced and applied. For example, is a first-level heading tagged as an H1 and not an H3? Are lists, tables and images tagged appropriately? Do the tags match the text? Rearrange or rename tags as needed.

- **Artifacts**

Artifacts are elements that are ignored by a screen reader, such as a background texture that does not contain important text. You can change an element to or from an artifact using the tag tree menu or the Touch Up Reading Order (TURO) tool.

- **Check form fields and buttons**

If the PDF is intended to be an interactive document, add meaningful labels to the fillable form fields and buttons. Set the tab order for the form fields, provide instructions, ensure proper keyboard focus, and ensure any error handling is accessible.



Adobe InDesign®

Accessibility Quick Card

It's always best to use accessibility best practices as you build your document in InDesign, then use Acrobat Pro for any remaining work. For more information, visit mn.gov/mnit/accessibility

- **Use Paragraph Styles**

Paragraph Styles create the tag structure for the text of your PDF.

- **Use Character Styles**

Use Character Styles for each unique set of font attributes within a document. Changing attributes with the font panel can create unwanted Span Tags in your document.

- **Create Layers**

Using a minimum of 3 layers (background, images, text) helps organize your content and makes it easier to artifact decorative images.

- **Reading Order:
Use Layers & Articles Panels**

Both the Articles Panel and the Layers Panel affect reading order. Items in each Layers Panel layer read from the bottom up. Items in the Articles Panel read from the top down. Add both text and images to your Articles Panel for proper reading order.

- **Check alt text**

Make sure informative and concise alt text descriptions exist for all non-text elements that are not purely decorative. Decorative images should be artifacted.

- **Flatten images**

This enables only one alt text for the entire image, and keeps all elements of your image together as you define your document's reading order.

- **Check Role Map in Acrobat Pro**

InDesign enables designers to create meaningful style names, but Acrobat may assign different roles. Check Role Map to confirm heading structure is correct.

- **Use the Accessibility Checker in Acrobat Pro**

This built-in tool will tell you about possible issues in your document and give suggestions on how to correct them. Be sure to walk the tag tree as well.