

Fundamentals of PowerPoint Accessibility

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Accessible PowerPoint Files?!

Yep! Accessibility guidelines apply to presentations, not just websites. Make sure that everyone in your audience can acquire the same information, engage in the same interactions, and enjoy equally awesome experiences, learn the fundamentals of accessible slide design, including using preset layouts, readable fonts, descriptive links, and alternative text.

Who are you designing for?

Before you start creating a presentation, it's important to know who you're designing for. According to the World Health Organization, about 15% of the world's population is estimated to be living with some form of disability and everyone is likely to experience some form of disability at some point in their lives.

That includes you.

Design for your future self.

What kind of disabilities could your current or future self experience?

- Tremors
- Crappy internet connections or hardware
- Cataracts
- Exceedingly noisy environments
- Broken arms
- Hangovers
- Screen glare
- ADHD
- Eriine Syndrome
- Sleep deprivation

Yes. Hangovers.

While it's true that not everyone who is disabled experiences issues with digital design, it's also true that not everyone who experiences accessibility issues with digital design are disabled.

You're biased.

We need to be acutely aware of our own disadvantages as the writer or designer of these presentations.

Unconscious Bias

Based purely on what normal is for each of us. Some examples include:

- **Mouse bias** for those who always use a mouse and don't need to navigate with a keyboard.
- **Color bias** for those who aren't colorblind.
- **Technology bias** for those living in an area with access to high-speed internet

Design for S.C.H.I.T.

Sight-related Impairments

Impairments including but not limited to:

- Blindness
- Colorblindness
- Cataract
- Aging eyes
- Screen glare

Design considerations:

- Is the normal font size at least 16px?
- Are the fonts legible and readable?
- Is the color contrast between text, link text, and background high enough?
- Is the color contrast on all parts of the presentation high enough?

Cognitive-related Impairments

Impairments including but not limited to:

- ADHD
- Language barriers
- Hasn't slept well
- Distracted by kids
- Dyslexia
- Irlen Syndrome
- Advanced-age

Design considerations:

- Is content written in simple, clear language?
- Is link text descriptive and does it contain context?
- Avoid pure black on pure white (Eriline).
- Don't center large blocks of text.
- Is there enough white space in our text?
- Are you supporting screen readers by using the master slide layouts appropriately?

Hearing-related Impairments

Impairments including but not limited to:

- Deaf
- Hard of hearing
- Noisy environment
- Noisy children

Design considerations:

- Is there captioning on all video and audio content?
- Are there transcripts of all video and audio content?

Interaction-related Impairments

Impairments including but not limited to:

- Muscular dystrophy
- Parkinson's disease
- Tremors
- Arthritis
- Advanced age
- Broken arm

Design considerations:

- Can you navigate the presentation well using only a keyboard?
- Are the movements required to interact with the presentation overly complex?

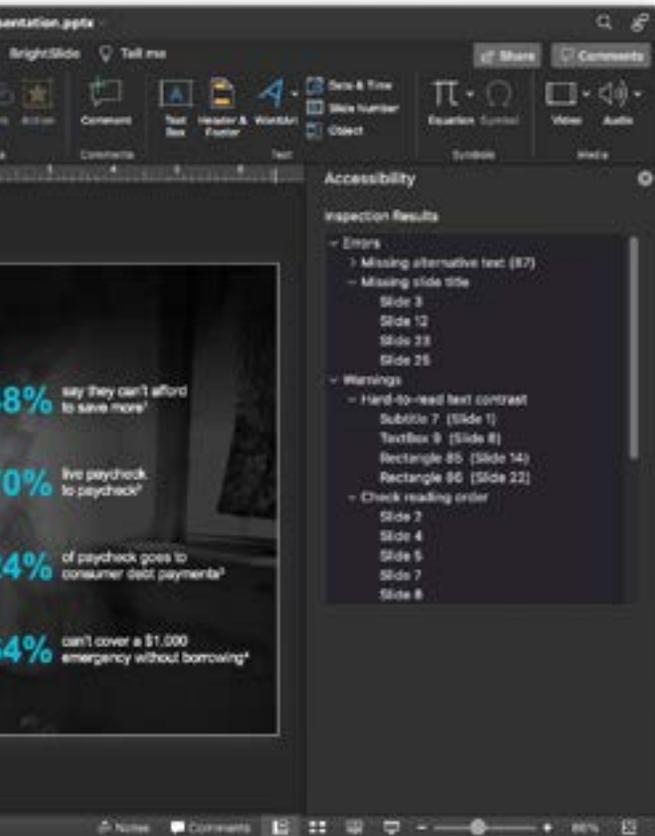
Technological-related Impairments

Impairments including but not limited to:

- Hardware quality
- Software version
- Internet connectivity

Design considerations:

- Are you building the presentation in a way that will work across all platforms and versions of PPT?
- Are you presenting virtually with an animation or video heavy presentation?



Accessibility Checker

PowerPoint has a built-in tool that helps you track accessibility issues as you're creating your presentation. It works like live preflight in InDesign and it's checking for:

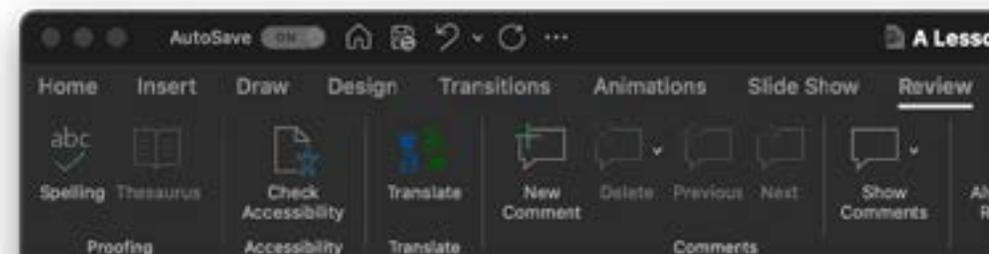
- Alt text for
 - Pictures
 - SmartArt
 - Graphics
 - Shapes
 - Groups
- Charts
- Embedded objects
- Ink
- Video
- Slide content is read by a screen reader in the order you intend
- The color contrast between text and background colors is high enough
- Every slide has a unique title (sometimes this is intentional and there's a workaround to maintain accessibility—see tip on right.)
- Table structure is simple and uses table headers

But when we're talking about making sure something you create is accessible, **no quick checker or automated tool is going to catch everything, nor is it going to suggest ways to elegantly design a fix.**

Tip: If you don't want to have a title placeholder on a slide, drag it off of the slide to the pasteboard. Put an appropriate title in there for the screenreader to pick up on.



Accessing the Accessibility Checker
Review Tab > Check Accessibility



Color

Indicator of Meaning

Let's start with color. First thing we need to remember is that **color can't be used as the only indicator of meaning.**

When you're presenting a large, nicely designed statistic and want to indicate that a number is bad, you can't just use red. Instead, try adding a down arrow or even a sad face.



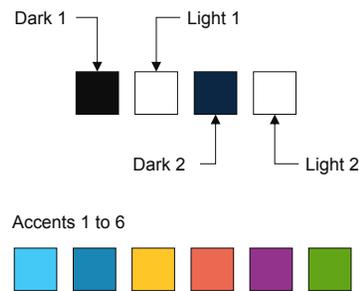
When adding links into a slide, make sure they're not just a different color, **add an underline to your link formatting.** (And while we're talking about underlines, only ever use underlines for links. It's a design pattern that is so ingrained into people's brains, that they'll think your emphasis underline is actually a link. And they'll try to interact with it.)

Creating Accessible Color Themes

These tips will help you whether you're assessing an existing color theme or creating your own.

But first, let's review how color themes work.

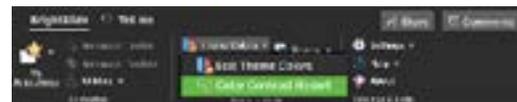
In PPT, you can program in a total of 12 colors into a theme—4 total dark and light colors, and text colors, 6 accent colors, and two link colors (active and visited).



The dark and light colors are default background and text colors. The accent colors in the top row are the colors that determine the colors of carts, tables, and smart art in the order in which the color chips appear. So it's important that these accents, when directly next to each other, are distinguishable from its neighbor.

Evaluating Existing Colors

The fastest way to evaluate a color theme that is already in use in your file, download [BrightSlide](#) from BrightCarbon.



BrightSlide Tab > Theme Colors > Color Contrast Report

Creating and Testing Accessible Color Themes from Brand Guidelines

1. Create a list of hex codes of all colors in your brand.
2. Go to Eight Shapes Color Contrast Grid.
3. Copy and paste HEX code list into the text area on the right-hand side of the page, overwriting colors that are prepopulated.
4. Make sure to include black (000000) and white (ffffff) as colors in that list.
5. Take note of all combinations that have any of these indicators on them:



6. Primary brand colors typically work well as Dark 1 and Dark 2. If not, try out dark grays here.
7. Select 6 colors as candidates for accent colors. Create squares in PPT for each of these colors.
8. Rearrange order and test slide in Grayscale mode or use screenshots in [Coblis online](#). (Grayscale mode: Windows only, View > Grayscale)
9. When you have a combination where all chips are distinguishable from each of their neighbors, set them as your accent colors.

Color (cont.)

Once you have the color theme programmed in, create a slide for yourself with a list of color combinations that pass those color contrast standards.

At any font size



ONLY if text is 18pts or larger or 14pts+ AND bold



Text

How text is treated can really affect the understanding of the content by those with cognitive-, sight-, and even hearing-related impairments.

First, make sure your text is legible and readable. Legibility is the appearance of fonts or text. Readability is a measure of how difficult a paragraph is to read and understand.

Legibility of your content in PowerPoint can be controlled in a few different ways.

Pick a safe font. Not all fonts work in PowerPoint everywhere. Safe fonts play nicely across all operating systems and versions of PPT. Read more about safe fonts in [this amazing book about building PPT templates](#). Much of it applies to single presentations, too. (More resources at the end of this file.

If a font isn't present on another machine, font substitution will occur and can look something like this:



As for readable text, make sure you're **using simple language**. Avoid too many acronyms or corporate speak.

- Avoid too many acronyms
- Use simple language instead of corporate speak
- Use whitespace wisely.

Format your content in a way that eases our audience's cognitive load by way of a **good use of white space**.

- Font-size
- Kerning
- Line-height
- Line length
- Column gutters
- Cell padding
- Tab stops
- Indents

And always remember that **if everything is important, nothing is**. If you look at a slide and thing that it's just. Too. Much. Think of those living with ADHD who are trying to understand what your takeaways are.

You might also be picking up on the fact that many fixes to accessibility issues are also just best design practices.

Alt Text

Anything that is visual, that isn't live text, and that conveys meaningful information needs to have alt text. If an icon, shape, or other visual piece isn't conveying important information, you can mark them as decorative.

How to add Alt Text

1. Right-click on the object
2. Choose "edit alt text"
3. Enter in descriptive alt text
4. Or mark as decorative

Items that might need alt text:

- images
- icons
- charts
- tables
- video
- embedded objects

Examples of Good Alt Text:



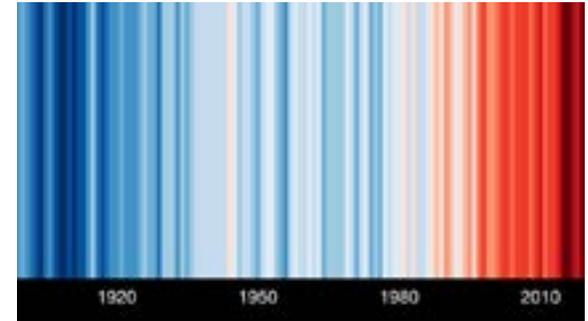
Okay: "Pancakes"

This alt text is only "okay" because it's not very descriptive. Yes, this is an image of a stack of pancakes. But, there's more to be said about this image.

Good: "Stack of blueberry pancakes with powdered sugar"

This alt text is a better alternative because it is far more descriptive of what's in the image. This isn't just a stack of "pancakes" (as the first alt text example demonstrated); it's a stack of blueberry pancakes with a dusting of powdered sugar!

Good data viz alt text



"Colored stripes of chronologically ordered temperatures where they increase in red to show the warming global temperature."

Screen Readers

There are two panes in PPT where you can adjust the tab or reading order of screen readers: the reading order pane and the selection pane.

By default, a screen reader will read the slide title first, followed by other content in elements defined in the slide layout. Then it will read any additional content on the slide in the order it was added to the slide.

Screen readers will read the content on your slides starting with the bottom layer and ending on the top.

Accessing the Selection Pane

Home Tab > Arrange Drop Down > Selection Pane

To reorder the objects on your slides, simply click and drag items in the selection pane.

Screen readers WILL read:

- Live text on the slide
- Live text off of the slide

Screen readers WON'T read:

- Text on a master slide that isn't a result of a placeholder.
- Off-slide instructions that sit on the slide master
- Text in images
- Anything marked as decorative

If you have text on a slide master that is in a text box and not a result of putting text in a placeholder, the screen reader is not going to pick up on it.

Resources

- [WCAG 2.1 Standards](#)
- [WebAIM Guide to Accessible PPT Files](#)
- [Safe Fonts by Julie Terberg](#)
- [Speaking the Language of Disability](#)
- [Colorblindness Testing Tool \(Coblis\)](#)
- [BrightSlide from BrightCarbon](#)
- [NVDA Free Screenreader for Windows](#)
- [How to use a screenreader on a Mac](#)
- [Eight Shapes Color Contrast Checker](#)

Bonus

One File.
Three Functions.
Present Accessibly.

In this quick tip, you'll learn how to make your presentation include the following in one PowerPoint file:

- On screen presenter support slides
- Talking points for the speaker to see while on stage
- Printed handout

On screen slides

This one is pretty self-explanatory. However, one thing to note is that, if a presentation does have a leave-behind, this file structure will allow for much cleaner slides for those presenters who are afraid to do so.

Speaker Notes and the Notes Page

This is where it starts to get tricky. Anything that you put in your speaker notes under the slide automatically populates on the notes page. However, if you delete what shows up on the notes page, thinking you're just clearing it to make room for handout information, you lose all of your speaker notes.

Conversely, if you add your handout information to the body text box on the notes page, that will show up in plain text format in your speaker notes.

To solve for this, we will move some things around on the Notes Master. Instead of deleting the body text box, put it on the pasteboard. Make sure you add a short brightly colored warning to neither move nor

delete that box. Then, exit out of the Notes Master.

At that point, you can customize your leave-behind information on the notes pages. Is it completely fool-proof? No, but with a little training, you can have a very elegant looking 3 in 1 deck.

