Seven Steps to Creating an Accessible PowerPoint Slideshow

DEPARTMENT OF **REHABILITATION**
Employment, Independence & Equality

Disability Access Services

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REHABILITATION
Employment, Independence & Equality

About Disability Access Services

Centralized Resource and Information on Disability Access

Disability Access Services provides technical assistance and informational guidance to promote the civil rights and equality for persons with disabilities in the following areas:

Employment
Reasonable Accommodation
Physical Access of built environments
Access to private sector goods and services
Digital Access of electronic and information technology
Access to government programs, services, and activities

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Promoting an Accessible Future through Education and Information

Seven Steps to Creating an Accessible PowerPoint Document

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Alternative Formats

In accordance with ADA requirements, this document can be made available in Braille or large print as a reasonable accommodation for an individual with a disability. To request a copy of alternative formats, please contact Disability Access Services.

Equal Opportunity Employer/Program

A Note About Hyperlinks in This Document

All links in this document have been created with meaningful text. The Uniform Resource Locator (URL) is also published to be available as a resource for those persons who print the document. The URL addresses that are spelled out in the document are not active links to avoid the confusion of presenting duplicate links.

Introduction

It is estimated that up to 4% of the population relies on some sort of Assistive Technology to access electronic documents and Web pages. Assistive Technology includes; Screen Reading software, Refreshable Braille displays, and Screen Magnifiers. In the United States alone that equals 12.5 million people. If electronic documents are not created with accessibility issues in mind, they become very difficult if not impossible to read or navigate for this large number of people.

Accessibility to electronic documents is a right that is protected by both Federal and State law. Creating accessible electronic documents is important to ensure access to persons with disabilities and the company or agency is protected against legal action. Additionally, it is just good business, when a very large segment of the population can equally participate and take advantage of the products or services that the company or agency provides.

Accessible PowerPoint Slideshows

The steps outlined in this paper will show how to make PowerPoint presentations more accessible if they are to be distributed electronically. It is often recommended, however, that a more accessible way of distributing PowerPoint slideshows is by exporting them into either Portable Document Format (PDF) or HyperText Markup Language (HTML). Both of these other formats can be made to be more accessible for persons using assistive technologies, and they are smaller file sizes for downloading. Instructions on how to export to these file formats is provided later in this document.

Usability of PowerPoint

PowerPoint can be an effective tool to use during live demonstrations, presentations or webinars, but is not the best file format to use when taking into consideration both accessibility and usability issues. When preparing a presentation, first consider developing a lengthier and more complete Word file to most effectively convey the information. Then from that document develop a PowerPoint slideshow highlighting 'bullet' points and an outline of the ideas in the live presentation.

Step One: Establish the Slide Layout

PowerPoint contains a collection of pre-set accessible slide layouts. In order to ensure that the slideshow is maximally accessible use these pre-set templates when constructing the slideshow. The correct slide layout is probably the most significant step that can be taken to ensure that the slideshow will be accessible.

To use a pre-set slide layout, in the **Home** tab, choose **New Slide**, then pick one of the layouts that makes sense for that slide.
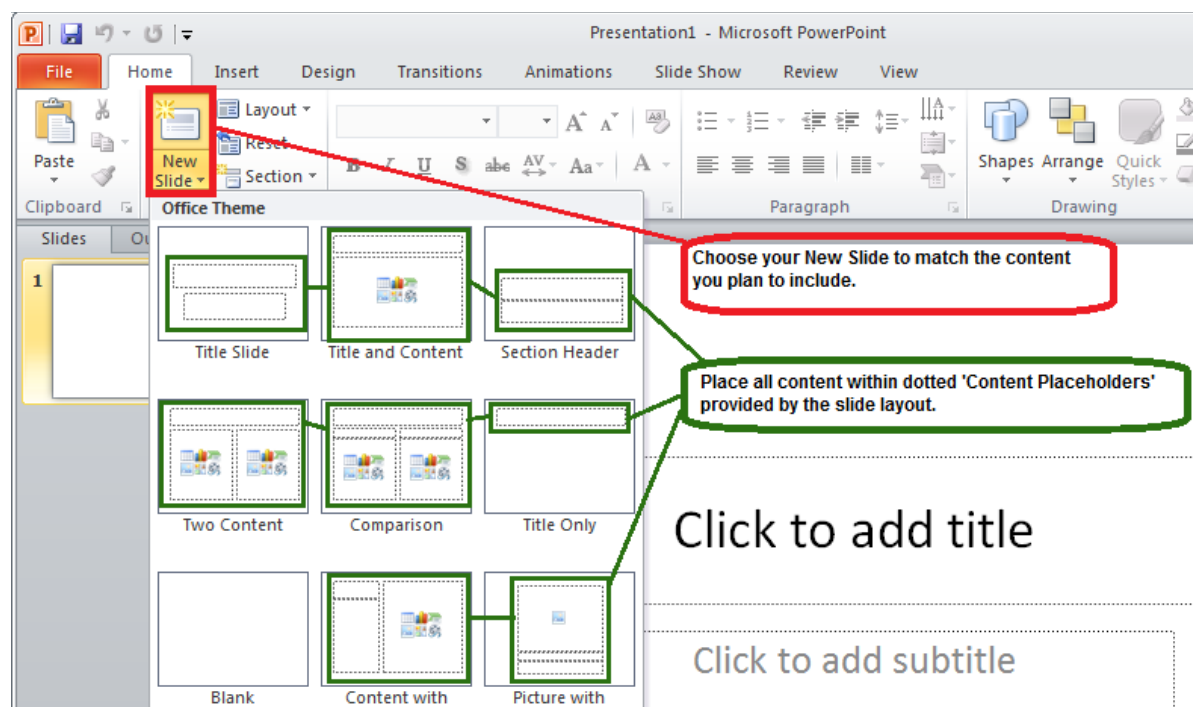

Figure 1: New Slide Layout Options

Use of Text Boxes

Refrain from adding Text Boxes to slides. The best way to handle the need for another area of text on a slide is to either choose a different layout with additional Content Placeholders, or simply add additional Content Placeholders. Adding another Content Placeholder takes more effort than adding a Text Box, but it helps you avoid accessibility problems.

Accessibility problems caused by Text Boxes include:
- Text Boxes are read by a screen reader, but if there is more than one, they may be read in the incorrect order.
- Text placed in Text Boxes will not appear in the Outline view which complicates converting PowerPoint to HTML.

Adding More Content Placeholders

If more Content Placeholders are needed new ones can be added to any slide layout. Although it is more work than adding Text Boxes, it will avoid the accessibility problems associated with Text Boxes. The reading order of the slide will be controlled, and all of the text on the slide will appear in the Outline view. If text does not appear in the Outline view, it may cause problems if the file is converted to an HTML format for posting to the web.

To add more Content Placeholders to a slide layout follow these steps:
1. On the View tab, in the Master Layout group, click on Slide Master
2. Click the layout to which the Content Placeholder is to be added
3. In the Master Layout Group, click Insert Placeholder
4. Choose the type of Content Placeholder needed
5. Choose a location on the slide, and position the new Placeholder
6. In Edit Master Group, Rename the layout
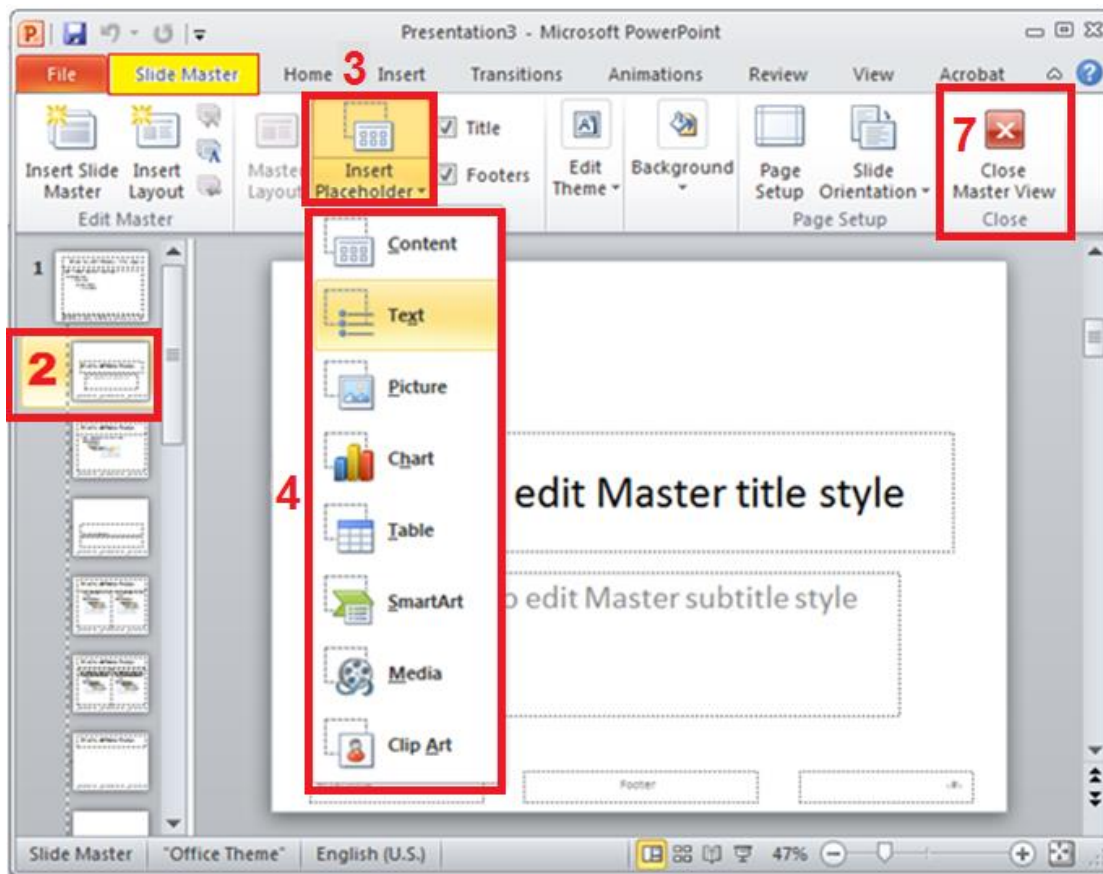7. In the Slide Master tab, Click on Close Master View

Figure 2: Adding Additional Content Placeholders

Step Two: Other Slide Design Considerations

Slide Design

Use the built-in designs offered in PowerPoint, however please know that not all of these design options have 'accessible' color contrast or other design elements. Please ensure that whatever design is chosen meets all the design considerations discussed in this section.

To access these design choices, go to the **Design** tab, and scroll through the options. The number of choices may be expanded by using the drop down menu highlighted below. From the Design tab menu, color selection and font choices can also be controlled.
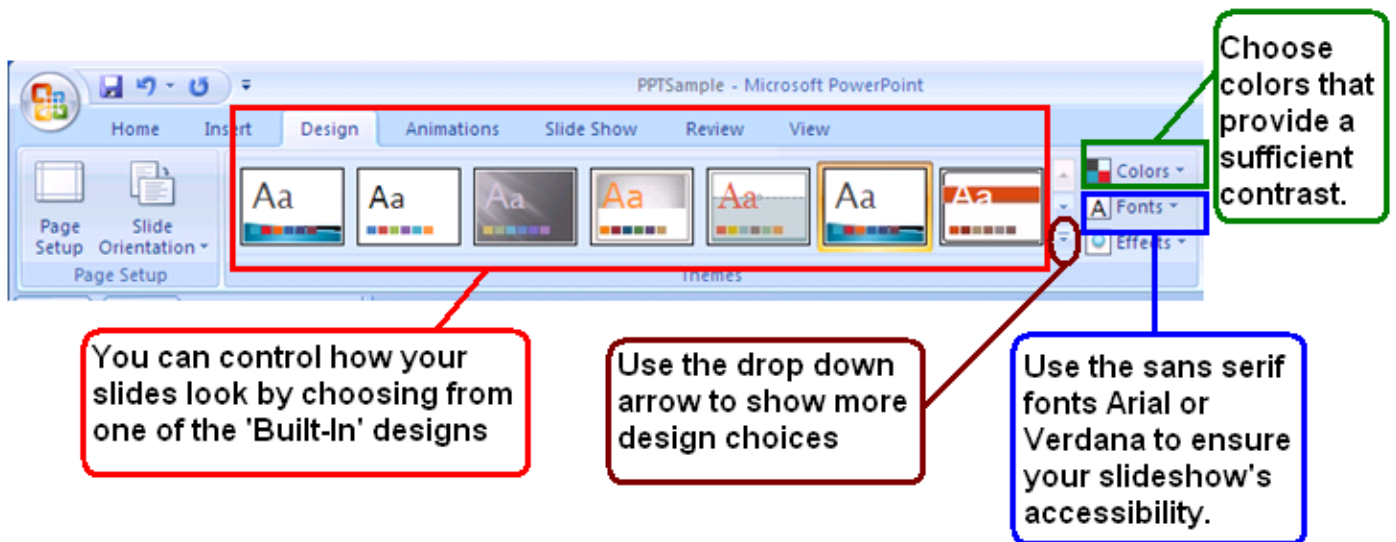

Figure 3: Slide Design option menu ribbon.

If navigating via the Keyboard, go to the Design tab - Alt, G.

From there:

      H will access the drop down menu for more slide design choices.

      TC to choose color schemes.

      TF to choose Fonts.

      TE gives options for Effects.

Fonts and Font Size

Because they are the easiest to read, only use Sans Serif fonts, such as Arial and Verdana.

Since a PowerPoint presentation will most likely be projected onto a large screen consider how far the audience will be from the screen and choose a font size accordingly. The minimum font size for a PowerPoint presentation should be 24 points.

Use of Color and Contrast

Do not use color as the only way to convey content.

Provide sufficient color contrast on all of the slides. To ensure the contrast used is sufficient, refer to the free tools provided on the References page.

Animations and Transitions

Avoid animation and automatic slide transitions since they:
- Can be distracting,
- Can cause screen readers to re-read slides,
- Can read parts of the slide out of order, and/or
- May not give users enough time to read slide content.

Data Tables

In PowerPoint, rows and columns can be styled so they appear as data tables, but one cannot add content in a way that will be identified by a screen reader. If the slideshow contains more than the simplest tables, consider saving the presentation to PDF and adding the additional accessibility information in Adobe Acrobat Pro.

Embedded Multimedia

If a video is embedded in the PowerPoint slideshow, ensure that it is captioned, and that the player controls are accessible.

If an audio only file is embedded, ensure a transcript is included.

Step Three: Use Slide and Outline Views

On the left hand side of a PowerPoint screen are two tabs: Slides and Outline. The Slides tab will display thumbnails of all of the slides with the design elements that have been added.
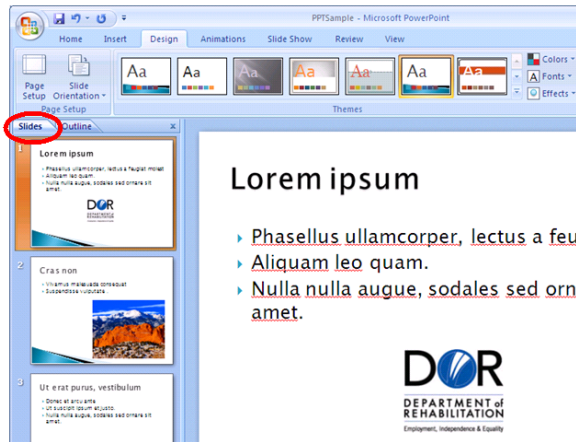

Figure 4: Slides view of presentation.

To ensure that the Title and body text are identified correctly in each slide, choose the Outline view. In this view the text and the order in which it will be read by a screen reader can be seen. Text can also be changed directly in the Outline view. Notice that tables, graphics and pictures will not show in Outline view. Any text not in Content Placeholders (text placed in text boxes) or in the 'notes' section will not appear in the Outline view. Text in text boxes will be read by screen readers, but not always in the correct order. Text in 'notes' can be read if requested, but will not be automatically read by a screen reader.
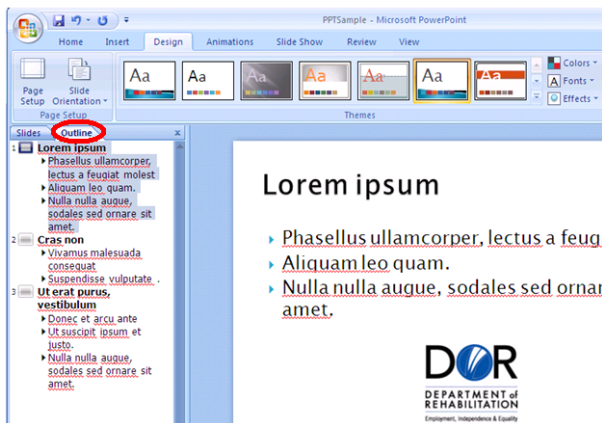

Figure 5: Outline view showing only text

Step Four: Add Alternative Text

Images in the slideshow that provide context, must be given a text alternative (Alt Text). Images that are simply present for decoration, are redundant or add no value to the presentation do not need Alt Text.
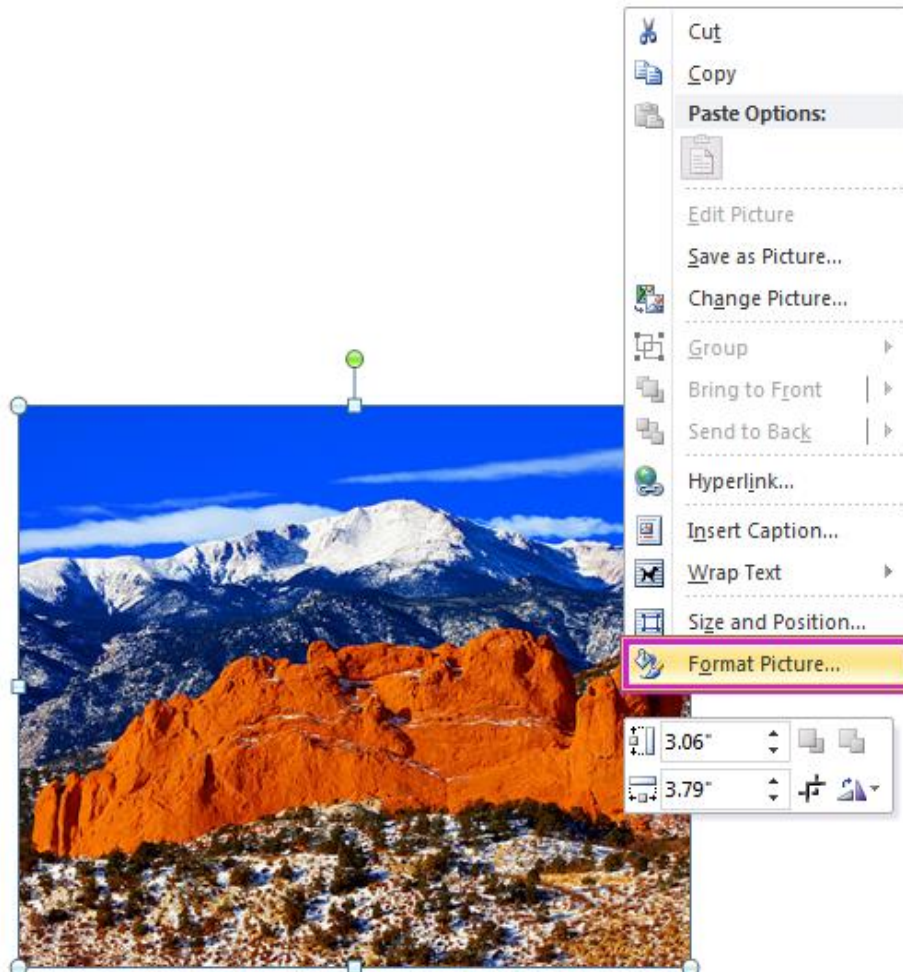

Figure 6: Menu appears after Right Clicking on image.

To add, modify or delete alternative text ('Alt text') in PowerPoint 2007; **Right Click** (or, Shift + F10) on the image, click **Size and Position**, choose the **Alt Text** tab. In PowerPoint 2010; **Right Click** (or, Shift + F10) on the image, click **Format Picture**, choose the **Alt Text** option.

Step Five: Use Meaningful Hyperlink Text

Hyperlink text should provide a clear description of the link destination, rather than providing either the Uniform Resource Locator (URL) or simply words such as, 'Click Here'.

To add a hyperlink to a slideshow:

a) Highlight the text in the document for the **hyperlink**.
b) Right Click (Shift+F10) and select **Hyperlink**, a dialog box will open. (Keyboard shortcut - Alt, N, I)
c) In the **Text to Display** box, type in the name or phrase that briefly describes the link destination. Since text has already been highlighted, this box will already be filled.
d) Then choose to enter a URL, a location within the same document, an email address, or even link to another document.
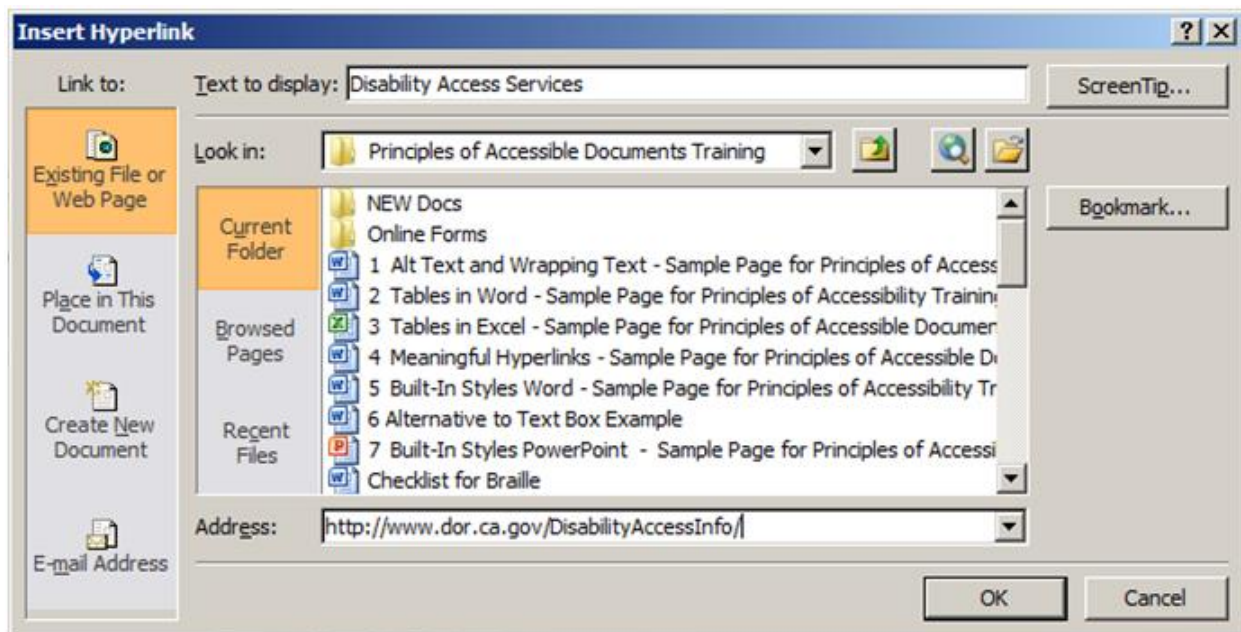e) If choosing a URL, type it into the **Address box**. Click OK.

Figure 7: Insert Hyperlink menu

Step Six: Convert PowerPoint to Other Formats

As stated in the Introduction, PowerPoint is a good format for live presentations, but it is not the best format for distributing content on the web. PowerPoint files can be large, and users must either have Microsoft Office or a special plug-in in order to view them. The slides by themselves usually do not offer a complete summary of the information conveyed. If PowerPoint files are distributed or posted on the web it is recommended that they be converted to either HTML or PDF.

Convert to PDF

To save the accessible functionality of the PowerPoint document that has been created, it can be saved as a PDF.

To **Save As** a PDF, choose the **Save As** option, than choose PDF as the file type (By Keyboard; Alt, F, A). Click on the **Options** button, and ensure both boxes in the 'Include non-printing information' section are checked. Click OK to close the **Options** box and then click Save. All the accessibility that was built into the PowerPoint slideshow (such as Alt Text, Hyperlinks, reading order) will be saved in the PDF file.
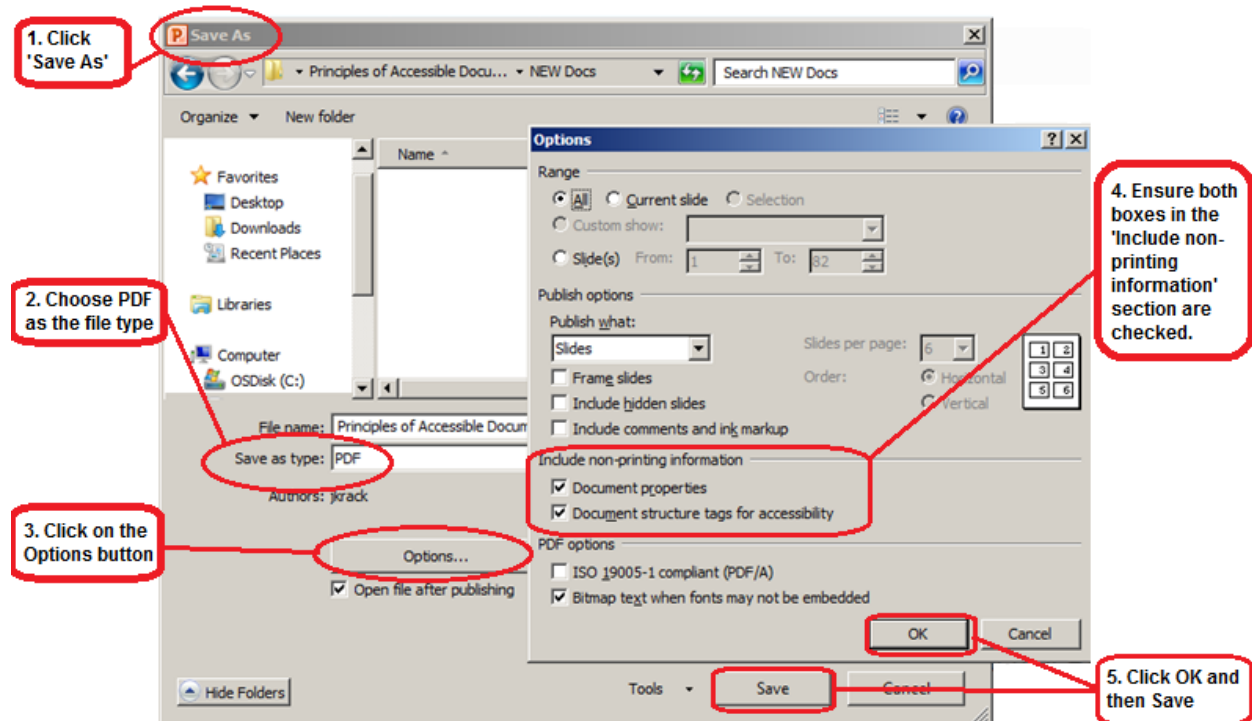

Figure 8: Saving as PDF procedures.

Create HTML slides or outline

Some versions of PowerPoint have a **Save As Web Page** option. This will NOT create accessible HTML content.

For anyone skilled in HTML and Cascading Style Sheets (CSS), consider creating slides in HTML.

To create an HTML version:

1. Select and copy the contents of the Outline panel (remember text in Text Boxes will not be in the Outline panel, nor will anything from your Notes section)
2. Paste it into an HTML editor such as Dreamweaver
3. Clean up the content
4. Add additional information to the outline, such as images
5. Create 'next' and 'previous' buttons and make sure the links are accurate

Step Seven: Check Accessibility

Perform a test of the document's accessibility prior to distributing it either via email or by posting it to the internet. Use a screen reader such as JAWS, NVDA, WindowEyes, etc. Preferably, develop an Accessibility Testing team of persons experienced at using Assistive Technologies.

Microsoft PowerPoint 2010 also has a built-in accessibility feature. However, do not rely on 'machine' testing alone to test for accessibility.

To access the Accessibility Checker in Microsoft PowerPoint 2010: In the **File** tab, click on **Info**, **Check for Issues**, and then **Check Accessibility**.

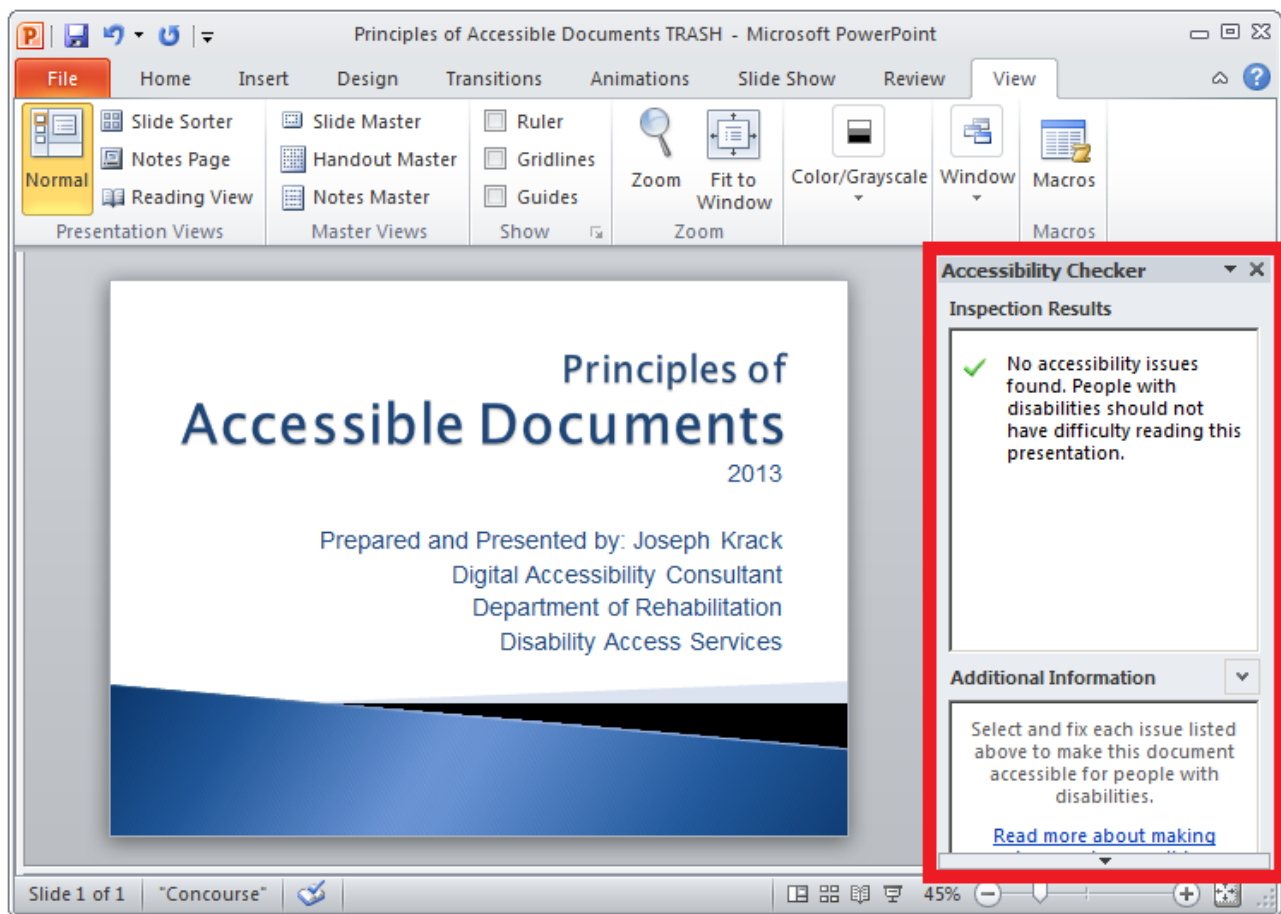If navigating by Keyboard - Alt, F, I, I

Figure 9: Accessibility Checker pane in PowerPoint 2010.

References/More Resources

[PowerPoint Accessibility](http://webaim.org/techniques/powerpoint/)
http://webaim.org/techniques/powerpoint/

[Creating Accessible PowerPoint Presentations](http://office.microsoft.com/en-us/powerpoint-help/creating-accessible-powerpoint-presentations-HA102013555.aspx)
http://office.microsoft.com/en-us/powerpoint-help/creating-accessible-powerpoint-presentations-HA102013555.aspx

[Color Contrast Analyser:](http://www.paciellogroup.com/resources/contrastAnalyser)
http://www.paciellogroup.com/resources/contrastAnalyser

[Colour Contrast Analyser](http://www.visionaustralia.org/business-and-professionals/digital-access/resources/tools-to-download/colour-contrast-analyser-2-2-for-web-pages)
http://www.visionaustralia.org/business-and-professionals/digital-access/resources/tools-to-download/colour-contrast-analyser-2-2-for-web-pages

To Find a [Color Code Number](http://www.2createawebsite.com/build/hex-colors.html):
http://www.2createawebsite.com/build/hex-colors.html

To Check the [Level of Contrast](http://www.paciellogroup.com/resources/contrastAnalyser):
http://www.paciellogroup.com/resources/contrastAnalyser

For more information and technical assistance
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