508: QUICK TIPS FOR YOUR DOCUMENTS

MORE ON SECTION 508

► *Complete USG regulations on Section 508 for federal departments and agencies can be found at:*

http://www.section508.gov.

► *USAID guidance on the implementation of Section 508 can be found in the following documents:*

http://www.usaid.gov/policy/ads/300/302mak.pdf

http://www.usaid.gov/policy/ads/500/501mad.pdf

http://www.usaid.gov/info_technology/xweb/toolkit/federal_regs.html#508

SOURCES

► *This document draws from work done by the U.S. Department of Health and Human Services:*

http://www.hhs.gov/web/policies/pdfaccessibility/step2.html

► *This document also contains content from Microsoft's Office Online accessibility training:*

http://office.microsoft.com/training/training.aspx?AssetID=RC063800961033&CTT=1&Origin=EC790000701033&QueryID=Mia5xW6ym0&Query=accessibility&Scope=RC

► *This document contains content from the USAID ADS document:*

http://www.usaid.gov/policy/ads/500/501mad.pdf

SECTION 508

In 1998, Congress amended the Rehabilitation Act to require Federal agencies to make their electronic and information technology accessible to people with disabilities. Section 508 was enacted to eliminate barriers in information technology for people with disabilities. The law applies to all federal agencies when they develop, procure, maintain, or use electronic and information technology. Under Section 508, agencies must give disabled employees and members of the public access to information that is comparable to the access available to others.

PURPOSE AND DISCLAIMER

This document assumes that you are creating files to represent standard printed publications in Microsoft Word and PowerPoint, and that you will be handing those files off to someone who knows how to create a Section 508-compliant PDF file that will be used for electronic distribution of the publication. If your original files are created using the methods described in this document, a Section 508-compliant PDF file of your entire document can be created in a matter of minutes by someone experienced in the technical implementation of Section 508, using a properly configured full-installation version of Adobe Acrobat *Professional*. If none of these methods are used, the time required to make your document Section 508-compliant will be measured in hours or even days depending upon its length.

This document is not provided as official USAID guidance, nor is it intended to be a complete guide to Section 508 compliance. If your document contains rich media, such as audio, video, animation, or interactive navigation features, additional requirements will apply that are not covered within this document. While this document will illuminate many aspects involved in the creation of a Section 508-compliant PDF file, it does not cover the technical instruction required to create the PDF file or configure Microsoft Office and Adobe Acrobat Professional software to properly pass data necessary for compliance.

This document will show you how to embed structural tags, alternative text descriptions of graphic elements, and document properties in Microsoft Word and PowerPoint.

STRUCTURAL TAGS

Structural tags are unseen labels for the type and structure of content in your document (i.e. headings, paragraph text, lists, tables, graphics, footnotes, etc, as well as their order and hierarchy). Structural tags allow people with disabilities to navigate your document through the use of assistive technologies.

ASSISTIVE TECHNOLOGY

► People with disabilities use a variety of technologies, many of which depend upon structural tags to function properly.

People with impaired vision may use assistive technology to enlarge an area of the screen, increase font size, change document colors, increase contrast, or even provide an audible or tactile Braille description of the contents and controls that would be displayed on a computer screen.

People who are mobility impaired may navigate the screen by means other than a mouse or keyboard. Some may only use a keyboard with Tab-key or arrow-key based navigation. Some may only use a mouse or joystick with a virtual software-based keyboard. Some even employ physical input methods such as eye movement tracking, or an oral sip-and-puff system controlled by breathing through a tube.

STYLES & TAGS

► If you have ever used Word's automated Table of Contents function, you have seen one use of structural tags in action – Word scans all of the tags in the document, identifies the heading hierarchy and the location of headings, and compiles the table.

► When a PDF file is made in an environment where Word and Acrobat are properly configured, the heading tags will also be used to automatically create a hierarchy of bookmarks in your PDF file – in essence, a hyperlinked table of contents.

► The use of Word style elements will also allow for easy global formatting of your document to comply with USAID branding and graphics standards.

Structural tags are automatically transferred into PDF files when Microsoft Office and a full installation of Adobe Acrobat Professional are properly configured to pass this data.

DOCUMENT TEXT IN MICROSOFT WORD

Using the Style elements to format your document text in Word will create the structural tags for your textual content.
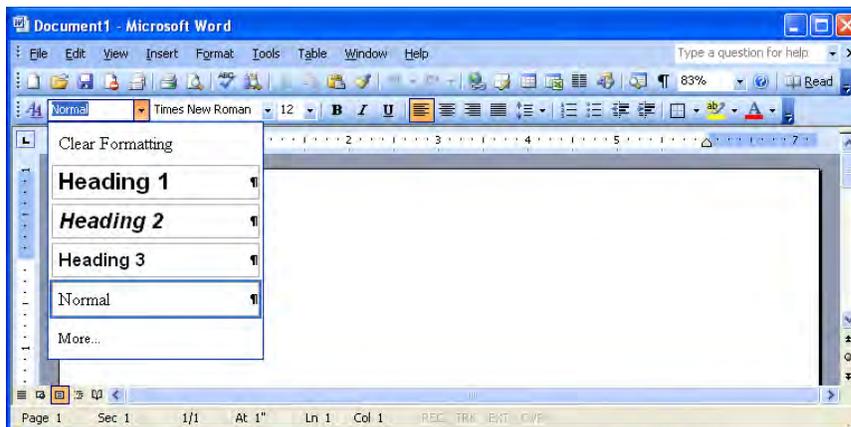
Graphic of Formatting toolbar in Word displaying format style choices from a drop-down menu.

Use Word's style elements to create headings:

1. Highlight the text you wish to format.

2. On the Formatting toolbar, use the drop-down menu to access the formatting style you wish to use.

3. Select the style. The highlighted text will change to the chosen format.

Use Heading 1 for the document's title, Heading 2 for the document's main section headings, Heading 3 for subsection headings, etc. Use Normal for regular paragraph text. Heading styles should only be used for hierarchical content headings. Use other styles to format non-heading content so that content does not become incorrectly "tagged."

LISTS IN MICROSOFT WORD

Use Word's Bullet and Numbering preformatted list styles to correctly embed structural tags for lists:
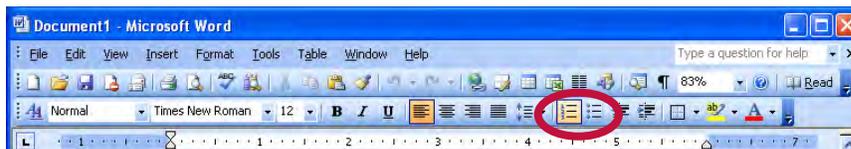
Graphic of Formatting toolbar in Word highlighting the Bullets and Numbering buttons.

1. Select the items to which you wish to add numbering or bullets. (Each item should be on its own line, i.e., in its own paragraph.)

2. Click the Numbering or Bullets buttons in the Formatting toolbar. The highlighted text will change to the chosen format.

TABLES & TECHNOLOGY

► *Screen readers and Braille displays read tables row-by-row across the columns. The TAB order also goes through the table in this way.*

Consider the following simple table:

Attribute	Cat	Monkey	Snake
Fur	Yes	Yes	No
Legs	4	2	0

A screen reader will read out the information in this table as: attribute, cat, monkey, snake, fur, yes, yes, no, legs, 4, 2, 0. While this provides all of the information, it is not very helpful. Organize your table structure so that it makes sense when read from left-to-right, row-by-row.

Consider the following revised table:

| Animal	Fur/No Fur	Number of Legs
Cat	Fur	4 Legs
Monkey	Fur	2 Legs
Snake	No Fur	0 Legs

A screen reader will read the information in the more useful way: animal, fur/no fur, number of legs, cat, fur, 4 legs, monkey, fur, 2 legs, snake, no fur, 0 legs.

► ***Step 8*** *(right) will tag the cells in your header rows as column headings in a Microsoft Word table. Assistive technology can use that designation to bind that information to each of the cells falling below it.*

A screen reader could now read our revised table (above) in this way: animal, cat, fur/no fur, fur, number of legs, 4 legs, animal, monkey, fur/no fur, fur, number of legs, 2 legs, animal, snake, fur/no fur, no fur, number of legs, 0 legs.

TABLES IN MICROSOFT WORD

Use Word's Insert Table function to embed structural tags for a simple table:
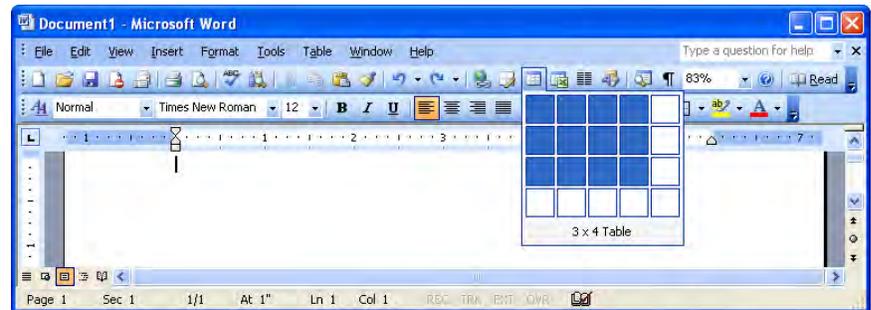
Graphic of Insert Table function in Word displaying its drop-down tab for selecting row and column dimensions.

1. Move your blinking text insertion cursor to the place in your document where you wish to insert your table.

2. Click the Insert Table button in the Standard toolbar.
A drop-down tab will appear.

3. Click and drag a highlighted area in the drop-down tab to select the number of rows and columns you require. (More rows and columns can be added later, if necessary, using the Insert Row/Column functions.)

4. Release, and an empty table with the requested dimensions appears in your document where you placed your blinking cursor.

5. Populate the cells in your table.

6. Highlight the header rows of your table.

7. Right-click the highlighted area and select Table Properties from the pop-up menu.

8. In the Table Properties dialog window, select the Row tab and check "Repeat as header row at the top of each page."
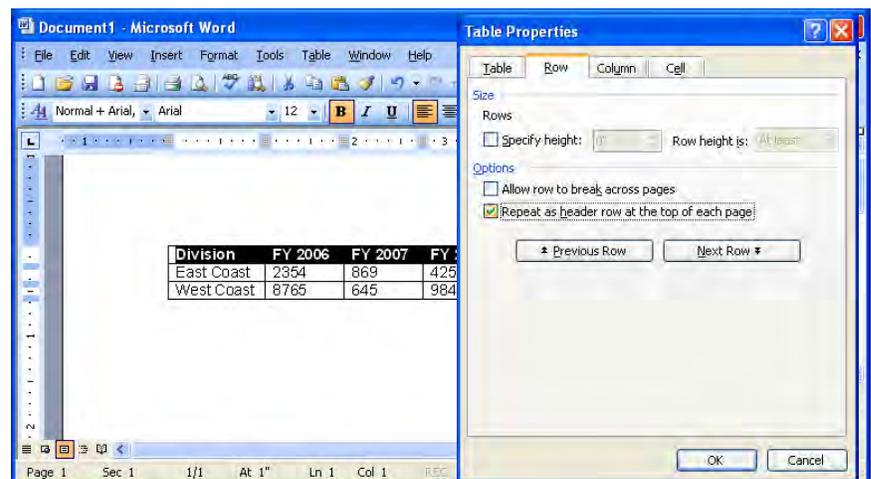
Graphic of highlighted table heading row and the Table Properties dialog window in Word displaying the Row tab and the selected row header option.

508 INCREASES USABILITY

► *Making a document Section 508 compliant doesn't just help the disabled – it adds new features we can all use:*

The free Adobe Acrobat Reader can not only display PDF files – it can read 508-compliant files aloud, providing all of the information you would receive by viewing the document. You could listen to a report while eating lunch or while relaxing on the plane on your return trip from a mission!

The structural tags of a 508-compliant document can turn into a hyperlinked table of contents in a PDF file (viewable in the Bookmarks panel of Adobe Acrobat Reader), allowing you to easily skip to a particular section in a long report.

508-compliance provides ways to view and navigate documents in ways independent of the original file or intent, allowing for the creation of software that would let you access the document specially formatted for your phone or other mobile device.

There's really no limit to the ways we all may soon be interacting with 508-compliant documents!

DOCUMENT TEXT, LISTS AND TABLES IN MICROSOFT POWERPOINT

Using the placeholders in PowerPoint's Slide Layouts will create the structural tags for your text and lists.

1. Click the New Slide icon in the Formatting toolbar. The Slide Layout selection pane should appear on the right side of the screen.

2. Scroll through the pane of layout thumbnails until you find the layout containing the number and type of placeholders you need.
(You can rearrange them on the slide, if necessary.)

3. Click the layout thumbnail to apply that layout to the current slide or, to insert a new slide using this layout:

   a. Hover over the thumbnail until the downward arrow button appears

   b. Click the button and select Insert New Slide.

The Outline tab will show the text and lists (and their order and hierarchy) that will automatically receive structural tags. Text on your slide that does not appear in the Outline may not receive proper tags.
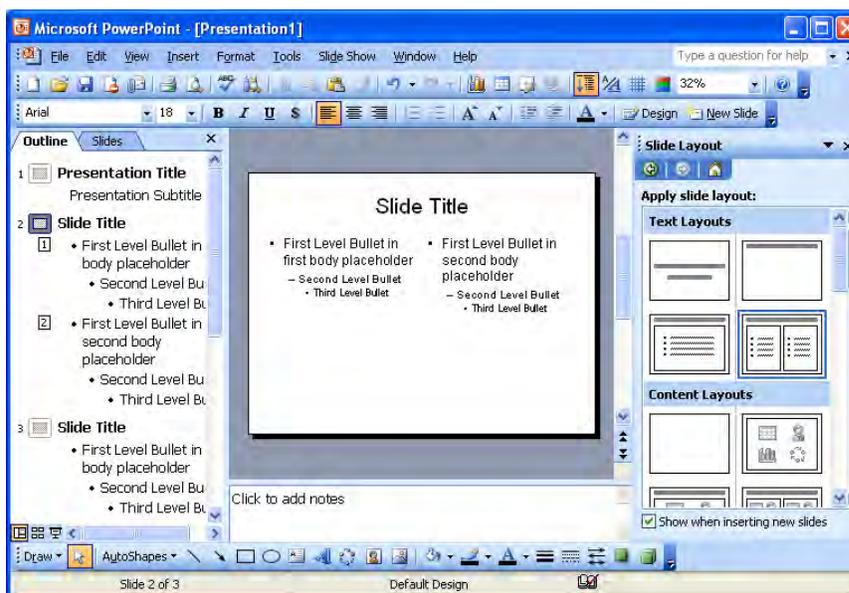
Graphic of workspace in PowerPoint displaying the content Outline tab, Slide layout area, and Slide Layout selection pane.

Creating your tables in a PowerPoint Slide Layout placeholder should create the appropriate structure tags even though the content does not appear in the Outline view. Follow the instructions above to select an appropriate layout. For additional guidance, see the first point in the **Tables & Technology** sidebar in the **Tables in Microsoft Word** section of this document. (The second point only applies to Word).

CHARTS, DIAGRAMS, IMAGES AND OTHER GRAPHICS IN MICROSOFT WORD AND POWERPOINT

Graphic elements will not be properly tagged to the extent that the content can be conveyed by the tags alone. They will simply be identified as "shape" or "figure." This is where the next part of Section 508 compliance becomes important – alternative text.

508 MAKES BETTER DOCUMENTS

► *Since all graphic elements must have alternative text, we may find ourselves encouraged to limit the use of graphic elements that don't meaningfully contribute to the content of our documents. Clean, uncluttered, and focused documents should always be our goal.*

DON'T SKIP ALTERNATIVE TEXT

► *Electronic documents without alternative text for graphic elements cannot be distributed to the public, posted on the Internet or distributed to internal agency audiences.*

As the author, you are best equipped to provide concise descriptions highlighting the relevant points illustrated in a graphic element.

Leaving this step to someone else risks conveying the wrong point as well as a huge increase in labor as the person tries to figure out the intended point and an appropriate description.

DON'T PRINT TO PDF!

► *While the Adobe PDF printer driver is excellent for creating document proofs, IT ACTUALLY REMOVES ALL OF THE 508 FEATURES we cover in this document. Therefore, it cannot be used to create your final PDF file for distribution.*

When your document is final, and you have added the Section 508 features described in this document, provide your files to someone knowledgeable in the technical requirements of Section 508 to create your final PDF file using properly configured versions of Microsoft Office and the full version of Adobe Acrobat Professional.

ALTERNATIVE TEXT DESCRIPTIONS

The content and meaning of graphic elements cannot be described by structural tags alone. For these elements, we need to ensure that an alternative text description gets embedded in the element's structural tag. When assistive technologies find alternate text within a tag, that text is provided to the user. **Alternative text must contain all of the relevant information a non-disabled person would get from examining the graphic element.** Graphic elements that require an alternative text description include charts, photos, diagrams, clip art, icons, etc. **A text equivalent must be provided for every non-text element.**

The alternative text descriptions you will create in Microsoft Word and PowerPoint will be automatically transferred into PDF files when Microsoft Office and a full installation of Adobe Acrobat Professional are properly configured to pass this data.

EMBEDDING ALTERNATIVE TEXT FOR GRAPHIC ELEMENTS IN MICROSOFT WORD AND POWERPOINT

The process for embedding alternative text in Microsoft Word and PowerPoint is the same:

1. Make sure all of the objects associated with the graphic (eg. multiple shapes and labels comprising a single diagram) are grouped together:

   a. Select or highlight all of the objects.

   b. Right-click on the selected objects. A pop-up menu appears.

   c. Hover over the Grouping item. A sub-menu appears.

   d. Select Group. Now you have a single graphic.

2. Right-click on the graphic. A pop-up menu appears.

3. Select Format Object/Picture/Image/(etc). A dialog window appears.

4. Select the Web tab. (Labeled Alt Text in newer versions.)

5. Type the complete description of the graphic in the area provided.
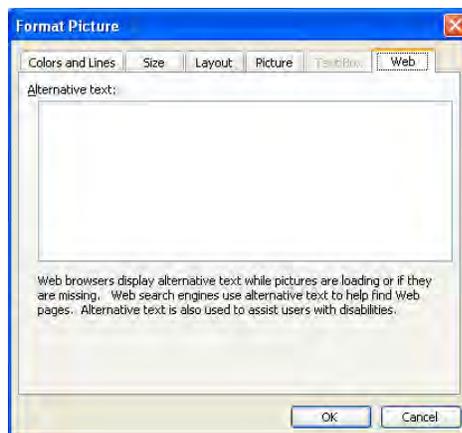
Graphic of the Format [Graphic] dialog window in Microsoft Word and PowerPoint.

508 CAN DRIVE WEB TRAFFIC

► *Adding document metadata doesn't just help the disabled find your document. When the document is posted on a Web site, search engines catalog the information for use in search inquiries, allowing for more focused search results. The title and subject can be displayed to the user in their search results and this logical summary information will make the user more likely to open your document. This creates a virtuous circle because your relevance ranking for the words in the user's search string increases when your document is opened as the result of a search – moving you higher in the list of search results when those words are used.*

This publication was produced for review by the United States Agency for International Development.

It was prepared by Rick Thibault under contract to AED and in consultation with EGAT/ESP/GCC.

The author's views expressed in this publication do not necessarily reflect the views or official guidance of the United States Agency for International Development or the United States Government.

This document attempts to provide a baseline understanding of Section 508 compliance as it applies to the most commonly produced documents.

Last revised: June 16, 2008.

DOCUMENT PROPERTIES

Document properties, also called "metadata," help people using assistive technologies to locate your documents as well as some basic information about your document. These properties will be automatically transferred into PDF files when Microsoft Office and a full installation of Adobe Acrobat Professional are properly configured to pass this data.

The properties you need to specify are:

- **Title** – eg. "508: Quick Tips For Your Documents"

- **Subject** – This should be a short sentence or phrase, eg. "Section 508 compliance tips for electronic documents."

- **Author** – This can be a person's name (eg. Rick Thibault) or an organization (eg. USAID/EGAT/ESP/GCC). All documents to be hosted on a USAID Web site should use a USAID contact, eg. "Duane Muller (EGAT/ESP/GCC)."

- **Keywords** – This should be a comma-separated list of relevant words someone might type into a search engine if they were looking for your document, eg. "Section 508, compliance, Microsoft Word, PowerPoint."

EMBEDDING DOCUMENT PROPERTIES IN MICROSOFT WORD AND POWERPOINT

The process for embedding document properties in Microsoft Word and PowerPoint is the same:

1. In the File menu, select Properties. The Properties dialog window appears. If you don't see Properties in the File menu, click on the downward arrows at the bottom of the menu to expand all of the options.

2. Select the Summary tab.

3. Enter the relevant information for Title, Subject, Author and Keywords.
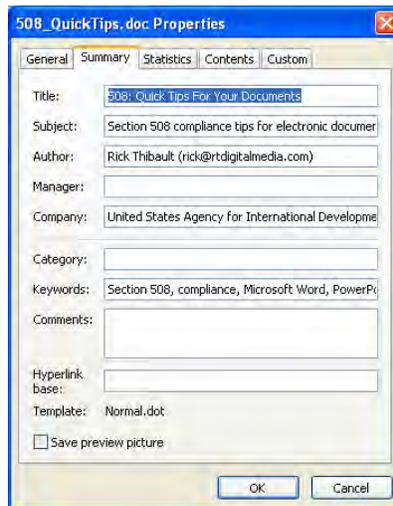
Graphic of the Properties dialog window in Microsoft Word and PowerPoint.