Creating Accessible PDF from MS Word 2003

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Required Software.

- Acrobat 6.0 Professional or higher with Accessibility Checker.

- Create document using MS Word 2000 or later.

Designing with Accessibility in Mind.

Converting your Word document to an accessible PDF version will take less time and result in a more fully accessible product if you take the time to design (or update) your original document to include accessible mark-up. If you omit this information, you will need to spend more time in Adobe Acrobat after the conversion to clean-up the document.

What Accessibility Features Should My Document Have?

As you create your document in Microsoft Word, you'll be bettered prepared to convert to PDF if you use the following features:

- Use Word's "`Styles and Formatting`" to identify headers, paragraphs, lists, and other structural elements. Create your own styles to add special formatting, rather than using the formatting toolbar.

- Include alternative text for all images.

- If you intend on using a multi-columned layout, use the Format: Columns feature in Word. Do not create "virtual" columns using tabs, spaces, or tables.

- Create tables using either Word's Table > Insert Table or Table > Draw Table menu items to create a proper table. Do no "nest" data tables by putting one table inside another. Use a distinctive cell for each data entry.

- Place header and footer information (e.g., page numbers, notes, citations) in header and footer windows/areas rather than manually spacing to the top or bottom of the page.

- For long documents, include a Table of Contents or other document guide with in-document links (bookmarks or anchors) that jump to specific sections of the text.

HOW TO: Use Styles in Word.

Using styles properly creates a document structure with headings, paragraphs, table data, and lists. Styles also insure a consistent look for each of these elements (e.g. all paragraph text looks the same, all heading 2 looks the same, all table data looks the same). When converted to PDF, the structure of the document is maintained.

New to using styles in Microsoft Office? The WAC recommends you spend a little time to walkthrough Microsoft's online tutorial in how to use styles. This self-paced

tutorial includes video and audio assistance and takes about 40-50 minutes to complete. Get started at: **http://office.microsoft.com/training/training.aspx?AssetID=RC011039261033**.

Open the "Styles and Formatting" Task Pane.

From the FORMAT menu, choose "Styles and Formatting" or use the button on your toolbar to toggle the pane on and off.
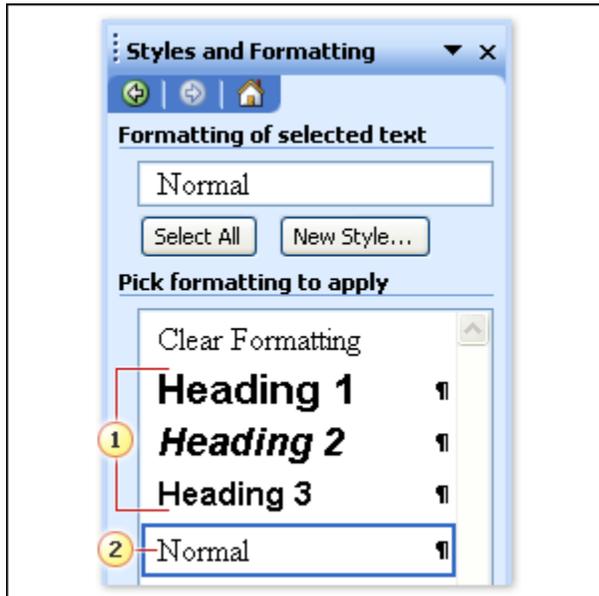
The typical style list for a new, blank document in the **Styles and Formatting** task pane.

1 Three heading styles.

2 The default paragraph style, called Normal.

There are two types of styles: paragraph and character. Paragraph styles are used to define and format blocks of text grouped between carriage returns [ENTER]. Character styles format individual letters, words, or groups of words.

When you format your text using the Formatting toolbar, you are applying character formatting, even when you select entire paragraphs. Character formatting means that initially, all text on the page is assigned as "Normal" paragraphs. As you highlight and format your document, a particular set of formatting instructions is added to the Normal definition. When the document is converted to PDF, all text is converted as one long paragraph with a myriad of style codes to manage each specific formatting change. These formatting instructions are often misinterpreted or interpreted differently throughout the document. Using styles properly insures structure is maintained.

Apply an Existing Style.

To apply an existing style to your document:

1. Put your cursor anywhere within the paragraph you want to style.

2. Click on the style name in the "Styles and Formatting" pane or use the drop-down box on the formatting toolbar:

View a Style Definition.

You can easily view the features of a current style definition holding your mouse over the definition in the "Styles and Formatting" pane:

Modify an Existing Style.

1. In the "Styles and Formatting" pane, click on the drop-down menu that appears to the right of the style definition.

2. Choose "Modify"

3. The "Modify Style" dialogue box appears (pictured right). This dialog shows you the current formatting applied with this style and allows you to make minor changes.

4. For more advanced options, click on the "Format" menu at the bottom-left of the "Modify Style" dialog box and select the area you want to modify (pictured below).
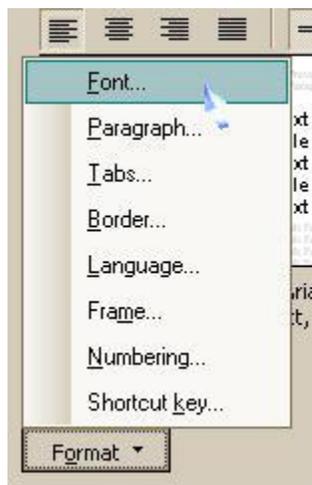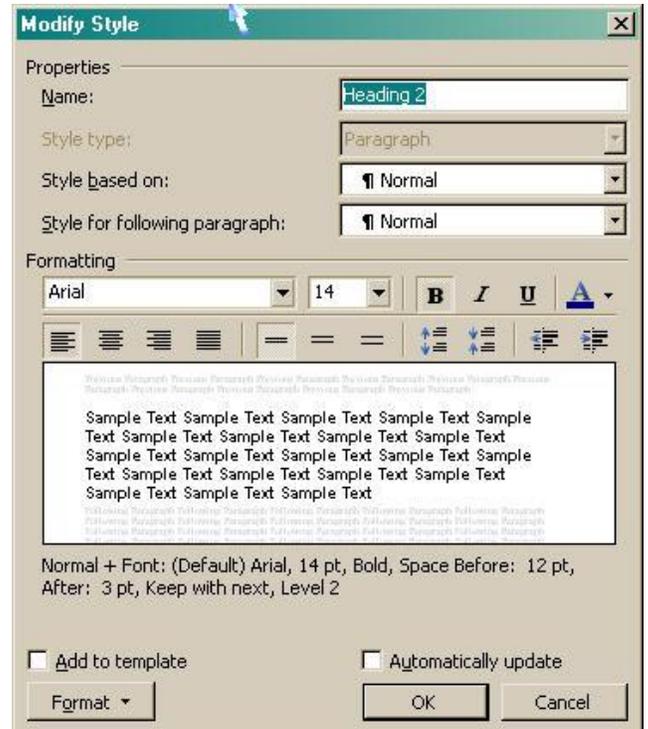
Modify an Existing Style: Quick Method.

You can also modify an existing style quickly using the style update feature:

1. Select some text that has the style you want to modify.

2. Make changes to the style using the formatting toolbar.

3. From the menu in the "Styles and Formatting" pane, choose "Update to Match Selection." All text using that style will now reflect your changes.

In the "Modify Style" dialog box, check the "Automatically update" box to have Word automatically update your style definition whenever you change the formatting in your document.

Create a New Custom Style.

You can create a custom style by clicking on the "New Style" button in the "Styles and Formatting" pane. Be sure to base your new style on either a paragraph or heading to insure it is included in the document structure.

HOW TO: Add Alternative Text to Images.

You should seriously evaluate the information that a visual is conveying. Is the information already present in the text? Is the visual simply providing color and images that are not essential to the message conveyed by the document? The alternate text that you tie to a visual should not repeat the caption.

If you get in the habit of adding your alternate text each time you insert an image, it will be easier than trying to add descriptions later when you are ready to convert the file. Alternative text will be stored for conversion to both PDF and HTML.

1. Right click on the image and choose "Format Picture" or click on the "Format Picture" button on the "Picture" toolbar (pictured above-right).

2. Click on the "Web" tab and enter your text in the "Alternative text" box (pictured below-right).
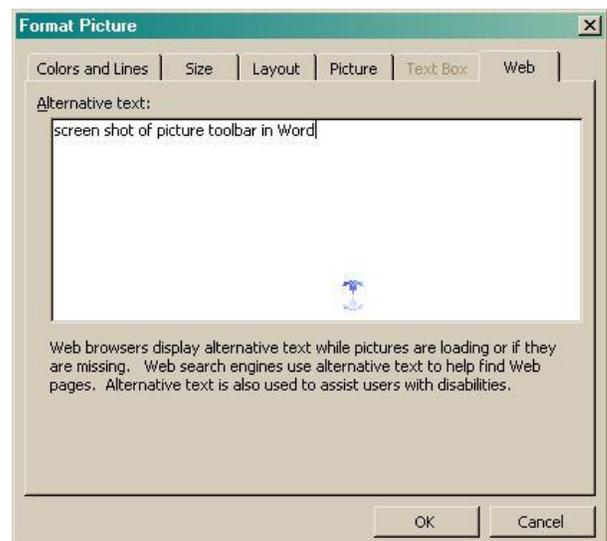
HOW TO: Insert/Create Tables.

Do not use tabs, spaces, dashes, dots, or other "tricks" to create the look of a table in your document. Instead, use the `Draw Table` or `Insert Table` tools. If you are creating several tables, you may want to use the "Tables and Borders" toolbar (pictured below).

For DATA TABLES: Regardless of how you insert or format your table, Acrobat does not import table header definitions. For any document with data tables, you must manually add these definitions using the `TAGS` palette in Acrobat 6.0 Professional (or above). And you will need to re-add them each time you reconvert from the original Word version to PDF.

Tables -- Best Practices:

1. Use the Insert tables feature, not tabs, to create tables.

2. Keep tables as simple as possible. Avoid nesting tables or merging cells.

3. Provide a description of the table structure.

Preparing LINKS for Conversion.

Although links work after conversion, screen readers may not be able to distinguish link text from other text. Therefore, you may want to provide textual cues to the presence of a link, either by citing the URL itself (recommended) or by using some variation on "click here."

Example Link Not Accessible.

Use our **online form** to register for the workshop.

Example Link Accessible.

Use our **online form (www.wac.ohio-state.edu/register)** to register for the workshop.

HOW TO: Create a Table of Contents.

Since PDF files offer only limited navigation options in most cases (by paragraph or by page), including both a Table of Contents and bookmarks to all the major sections of your document will add a much-needed method of moving through content, especially for assistive technology users. The WAC recommends using Word's automated features to add a Table of Contents to longer documents before conversion.

1. After completing all the content and formatting using the appropriate "Heading" styles, place your cursor at the top of your document where you want the Table of Contents to appear.

2. From the `INSERT` menu, choose `REFERENCE` and "`Index and Tables`."

3. Select the "`Table of Contents`" tag and change the settings to match your preferences. Suggestion: limit hierarchy to 3 levels of headings.

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THE OHIO STATE UNIVERSITY **WWW.OSU.EDU**
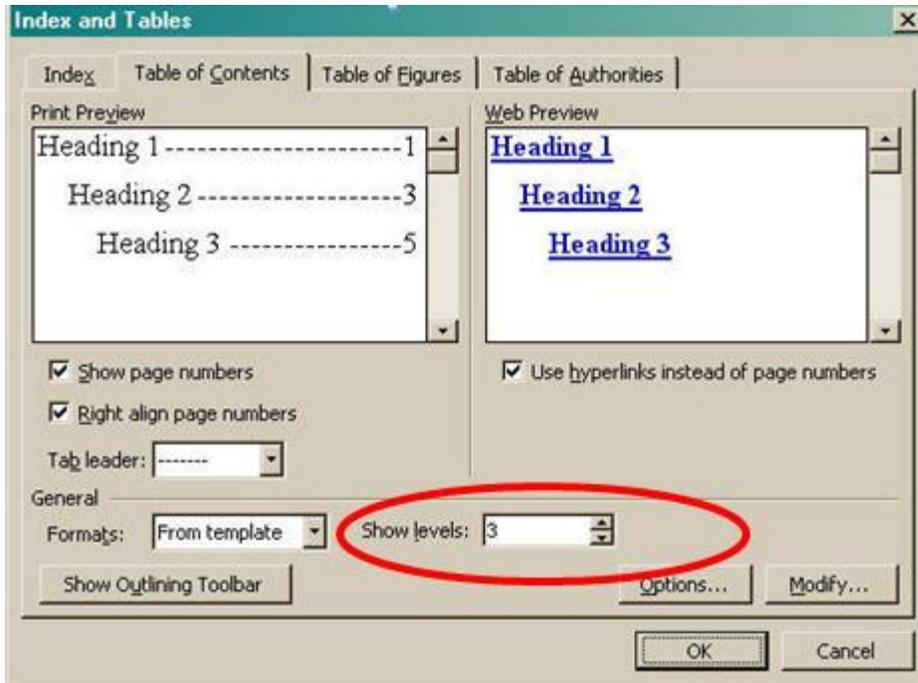
Pictured right: Table of Contents dialog with settings limiting hierarchy to 3 heading levels.

Updating Your Table of Contents

If your document changes and you add headings or rearrange content, you can update your Table of Contents in your Word document at any time.

1. Right-click on the TOC and choose "Update Field."

2. If you have added content or headings, select "Update entire table."

3. If you have only re-arranged content, select "Update page numbers only."

Hints for Better Conversion.

Most of your content will convert to an accessible mark-up in PDF. However, some elements require special consideration. Here are a few tips to help you create a PDF-ready document:

1. Use the automatic list feature to create bulleted and numbered lists.

2. Fix graphic locations by using online "Inline" layout.

3. Avoid watermarks, or place them within the header or footer of the document and not in the main content area.

4. Avoid text boxes, especially those that "float" in the document.

5. Use characters from the keyboard rather than characters from a specialized font. For example, don't use ⇢ where > will do.

Converting Your Document to PDF.

There are two primary methods for converting documents to PDF: printing to the PDF distiller or using the conversion add-in installed by Acrobat. Using the "Print to PDF" method, creates an "untagged" PDF that is not at all accessible to screen reader users. You must add tags to the document in Acrobat. If you use the plug-in tool within Microsoft, your document will be fully tagged and needs only to be checked for consistency and accuracy.

Using the Acrobat Plug-in.

Because the Acrobat plug-in automates adding tags to your PDF, this is the best and most reliable method of creating an accessible PDF from Word. Before you convert, you'll need to setup your conversion settings using the "Adobe PDF" menu in Word.

1. In the "`Adobe PDF`" menu, choose "`Change conversion settings.`"

2. The "`Acrobat PDFMaker`" dialog box appears.

Note: you'll most likely only have to change these settings once. Word remembers your last settings. You'll only have to change the settings again when you want different conversion options.

Standard Settings

The Acrobat PDFMaker dialog box default view is the "Settings" tab. Advanced users can create custom sets of conversion settings, save them, and then use them in a variety of programs (besides Word). To select your custom conversion settings, select the setting name under the drop-down box next to "Conversion Settings." For our purposes, we are going to use the "Standard" setting that comes with Acrobat and modify the options for use only in Word.

Under the "Settings" tab, insure that the following three options are checked:

1. "Add links to Adobe PDF" – insures your links get converted to active, clickable links in your PDF.

2. "Add bookmarks to Adobe PDF" – insures there is a navigation structure to your document. This is especially important for long documents. [See Bookmark Settings below].

3. "Enable accessibility and reflow with Tagged PDF" – tells the converter to automatically add tags to your PDF, so the result is readable with a screen reader.
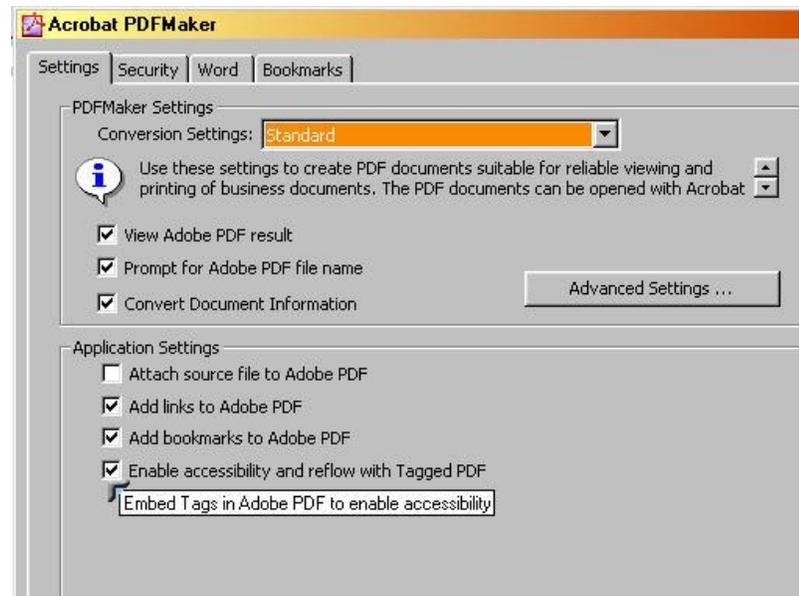
Security Settings

You can set a variety of security settings on your document to prevent printing, copying and pasting, changes, or even unauthorized access. If you do decide to add security settings, you must remember to check the box "`Enable text access for screen reader devices for the visually impaired`." Otherwise, your document will appear as a large blank file to screen reader users.

Security and Older Versions of Acrobat: If you have an earlier version of Acrobat, you will not be able to add security features to your document without also locking out the document to screen readers.

Pictured right is an example of a document with the following security settings:

1. Require a password to restrict printing and editing.

2. Restrict changes to filling out of forms and adding electronic signatures.

3. Disallow copying and pasting of text, images, or other content.

4. Allow screen reader access to all content.
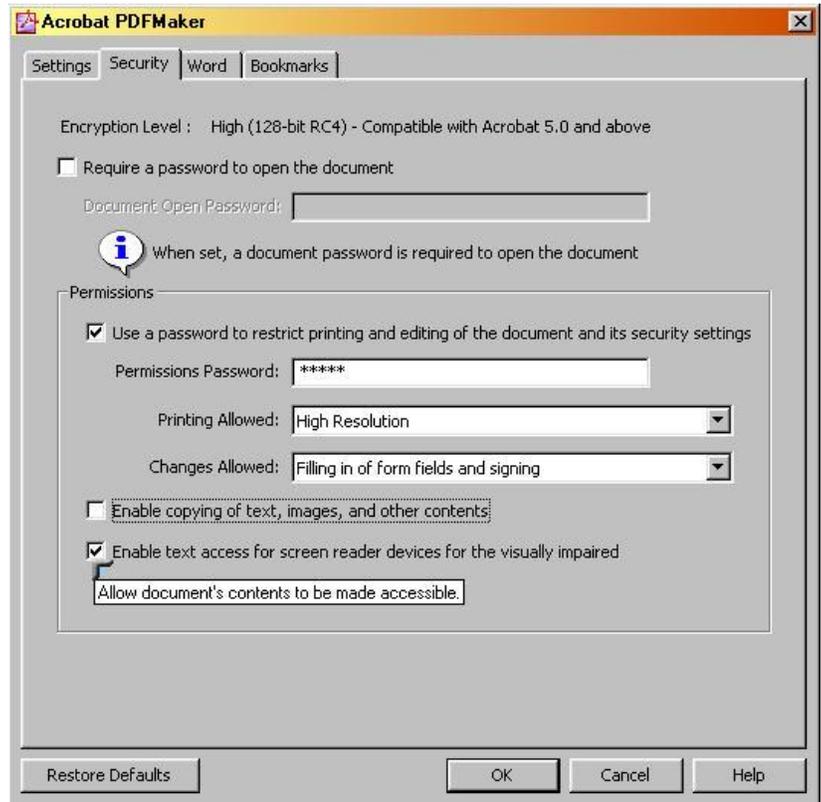
Word Settings

If you are sharing this document with many contributors and are using the comments and track changes features, you may want to limit which elements of these comments and notes go into your final PDF version. For longer documents, you'll want to include easy navigation between table of contents, indexes, footnotes, and endnotes. This tab allows you to add comments (as notes), convert linked text boxes to article threads, convert table of contents to links, and convert footnotes and endnotes to links. For most documents, you'll want to leave the default of having all options checked.

Table of Contents: The WAC recommends using Word's automated features to add a Table of Contents to longer documents before conversion [see Create a Table of Contents above]. These settings will insure that TOC creates working links in the PDF document as well.

Bookmark Settings

Creating useful bookmarks in your document adds a helpful feature for most users and a highly desirable feature for users of assistive technology. Since PDF files offer only limited navigation options in most cases (by paragraph or by page), including bookmarks to all the

major sections of your document will add a much-needed method of moving through content.

As with your Table of Contents [see above], you can select the level of headings that get converted into bookmarks. You can also allow your custom styles to become bookmarks. This is especially useful if you have created custom title, header, or footer styles.
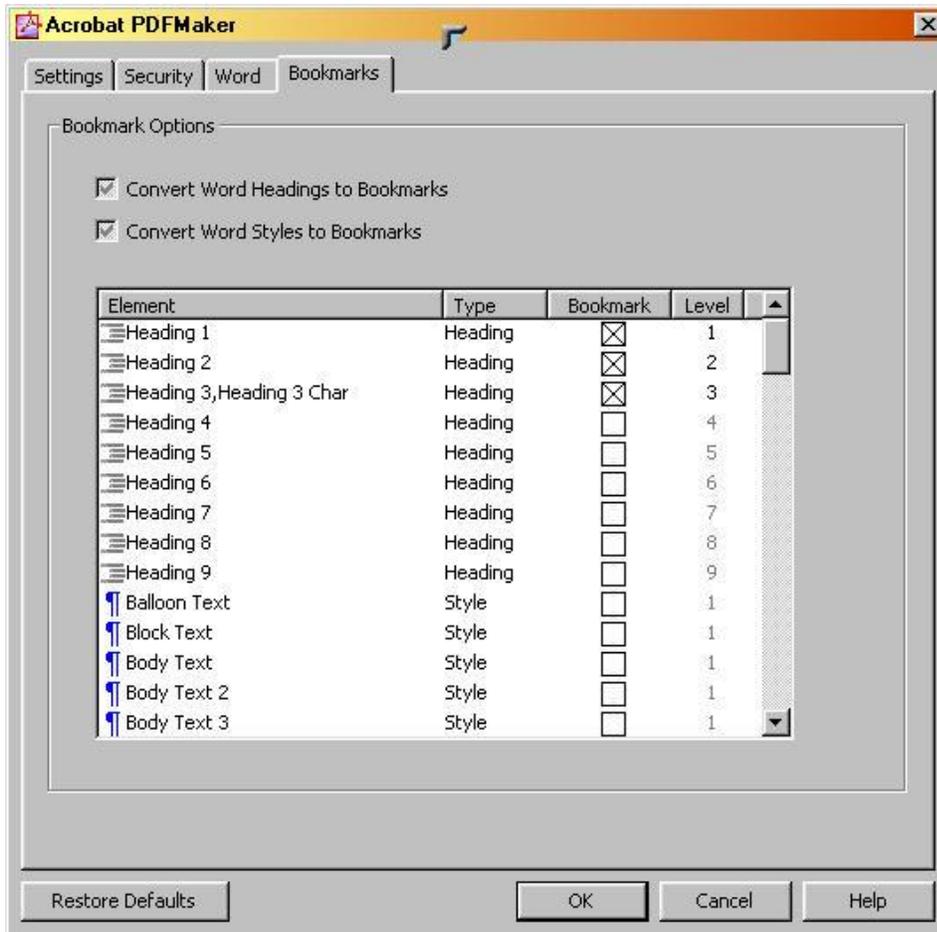
In the example pictured above, we have limited our bookmarks to Heading 1, 2, and 3. If you could scroll down the window, you would also notice that our custom style "Title" is also designed to be a bookmark. You can select which styles will be converted into bookmarks by checking or unchecking the box under "Bookmark."

Converting Your Document Using PDFMaker.

Once you have reviewed your conversion settings, you are ready to convert your document to PDF using the Adobe PDFMaker plug-in.

1. Begin by saving a copy of your Word document (Adobe will prompt you to do this if you forget).

2. From the ADOBE PDF menu, select "Convert to Adobe PDF" or use the quick button on the PDFMaker toolbar .

   3. You will be prompted to name your new PDF and select a save location.

Using "Print to PDF."

As we explained above [see "Using the Acrobat Plug-in"], you must use the Acrobat PDFMaker tool within Word to automatically create a tagged (accessible) PDF document. If you choose to create your documents using the PRINT method, you will need to add tags to your PDF using Adobe Acrobat Professional (6.0 or above). While there are some features in Acrobat that assist you in adding tags post-production (discussed below), this is not a reliable method for creating tags and should be avoided when possible. Adding tags to the PDF will require extensive mark-up and editing in the Tags palette. In addition, all changes will be lost (must be repeated) if the Word document is converted again later using the PRINT method.

Converting Your Document Using "Print to PDF."

1. Begin by saving a copy of your Word document.

2. From FILE menu, choose "Print".

3. Change your selected printer to "Adobe PDF." To access the conversion settings, click on the "Properties" button in the Print dialog.
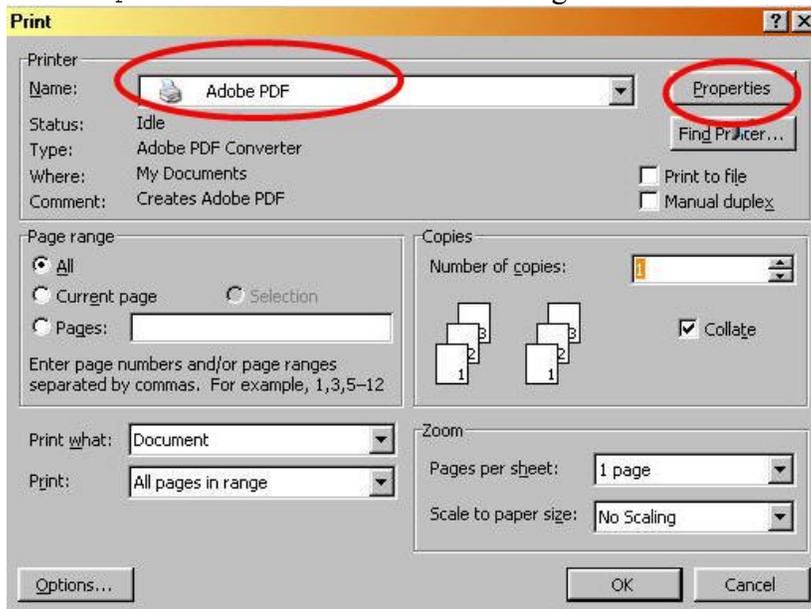
4. You will be prompted to name your new PDF and select a save location.

5. Open your PDF in Acrobat Professional and add necessary tags.

Resources

To get more practice with creating accessible PDF from Word, the WAC recommends these online tutorials and help files:

1. **Adobe Acrobat Accessibility Techniques (WebAIM)** – Covers: considerations for different types of disabilities, what developers must do to make an accessible document, and general conclusions about the accessibility of PDF documents.
   Go to: **http://www.webaim.org/techniques/acrobat/**.

2. **Create an accessible office document (Microsoft Online Tutorial)** – Covers: Understand different types of physical disability; Appreciate how a document can be inaccessible to some people because of a disability; and Create documents that are more accessible by: Using a proper font size; Adding text that describes a graphic; Changing screen colors; Positioning hyperlinks wisely; and Knowing what to do with animated text.
   Go to: **http://office.microsoft.com/training/training.aspx?AssetID=RC063800961033**.

3. **Format your document with styles (Microsoft Online Tutorial)** – Covers: Understand what styles are and how they relate to formatting; Use styles to reduce keystrokes and format text consistently; Apply and modify styles, create new ones, and apply your style changes to other documents; and Get tips to help you control styles.
   Go to: **http://office.microsoft.com/training/training.aspx?AssetID=RC011039261033**.