Social Security Administration

Section 508
Accessibility of Electronic and Information Technology for People with Disabilities

www.socialsecurity.gov

SSA Guide to Accessible PDF Documents

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Introduction

What is PDF?   Portable Document Format (PDF) was developed by Adobe for the distribution of electronic documents in a format that preserves the exact layout, font attributes, and formatting of the document from which it was created, ensuring that the electronic version of a document retains the exact look of the source material.

Tagged PDF   Accessible PDF documents use tags to indicate the structural elements of the document's content, such as which page elements are headings, graphics, paragraphs, tables and so on, and how these elements relate to each other.
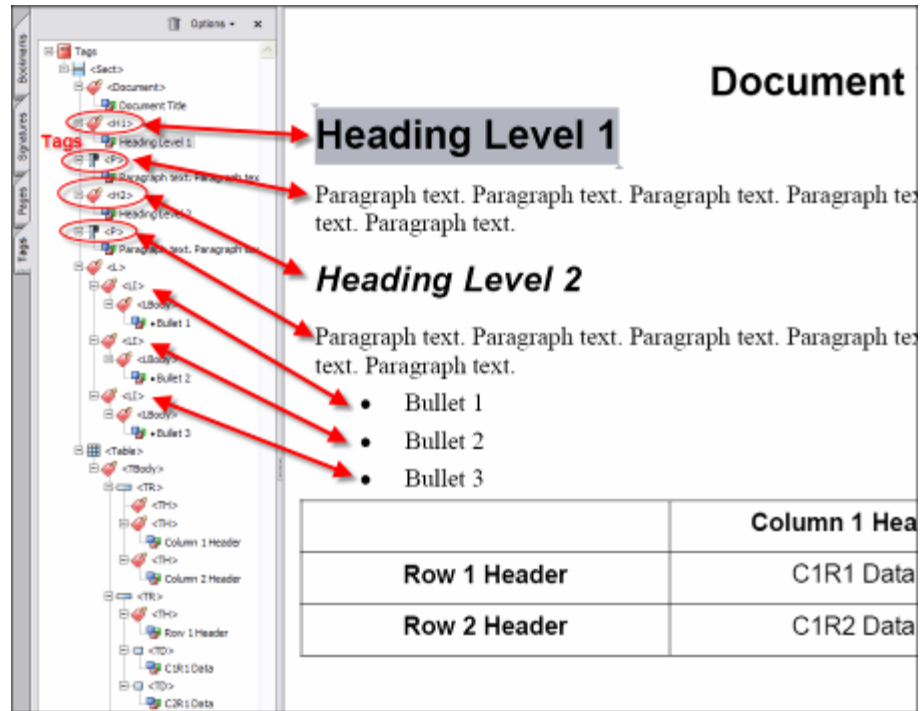
A properly tagged PDF will also integrate with a range of assistive technologies including Braille devices and screen readers.

Design with Accessibility in Mind   Much of the work in creating an accessible PDF document happens in the creation of the document itself, not in the conversion to PDF. The key is to design the document in its source application, such as Microsoft Word, using techniques designed to enhance the accessibility of the final PDF document.

Word Checklist

All or most of the responses to these checklist items should be "Yes" or "N/A" (not applicable) prior to converting a document to PDF. If a "No" response is used, the item will need to be repaired in the PDF document.

	Yes/No
1. The latest version of Microsoft Word was used.	
2. System fonts were used.	
3. Hyphenation was used properly (i.e., no hard hyphens).	
4. Color is not the sole means of conveying information.	
5. Contrast is sufficient.	
6. Text and images are visually separated (i.e., elements have not been overlapped, such as text over a background color or image).	
7. Watermarks have not been used.	
8. Foreground and background color combinations provide sufficient contrast when viewed using various high-contrast color combinations.	
9. Black or dark colors have been used for body text.	
10. Reverse text has not been used (i.e., light text on a dark background).	
11. Complex images have been grouped.	
12. Images which convey information have meaningful alternate text applied.	
13. Images which do not convey information have a carriage return as alternate text.	
14. Images are "in line" with text.	
15. Text boxes have not been used.	
16. Animations have not been used, or if they have, there is a way to disable them.	
17. A text description has been provided which describes embedded elements.	
18. Styles, formatting, and structural elements have been used effectively to provide structure to the document.	
19. Accurate and effective navigational features, such as hyperlinks, tables of contents, and indexes, have been included as appropriate, using Microsoft Word's built-in features.	
20. Tables have been created properly and simply.	
21. A text description has been provided within the content which describes complex tables, their structure, and contents.	
22. Columns have been created properly.	
23. Headers and footers have been created properly.	
24. Document properties have been set (at a minimum, title and author).	
25. The document has been spell-checked.	
26. The document has been proofread.	
27. All links have been verified for accuracy.	
28. A final Save As was performed prior to PDF conversion.	
29. The file was converted using the accessible.joboptions file.	

Acrobat Checklist

All or most of the responses to these checklist items should be "Yes" or "N/A" (not applicable). If a "No" response is used, the item should be addressed in an alternate fashion which renders the document accessible.

	Yes/No
1. Bookmarks link to the appropriate destination.	
2. Bookmarks are nested properly.	
3. Bookmarks are labeled properly.	
4. All comments have been deleted.	
5. Document language has been defined.	
6. Foreign words or phrases have language definitions.	
7. Tab order is logical.	
8. There are no character mapping problems; or a workaround, such as alt text or artifacts, has been applied.	
9. All elements are contained within the tag tree.	
10. Read order is logical.	
11. Reflow is logical.	
12. Alternate text is used appropriately.	
13. Elements which should be ignored by a screen reader have been marked as artifacts.	
14. Empty tags have been deleted.	
15. Tables are marked up properly, using TH for column and row headings; or a workaround, such as descriptive text, has been applied.	
16. Hyperlinks are active.	
17. Hyperlinks link to the appropriate destination.	
18. Hyperlink text is descriptive of its destination.	
19. The initial view has been set to open the Bookmarks tab.	
20. The user's magnification settings have not been overridden, unless there is a strong reason to do so.	
21. All text is readable in each of Acrobat's high-contrast color combinations.	
22. Abbreviations have alternate text applied, if necessary.	
23. Information conveyed solely with color is available in another way, such as alternate text.	
24. Adequate structure has been applied to the document.	
25. The Accessibility Full Check returns no warnings.	
26. A screen reader has been used to validate that the document makes sense when read aloud.	
27. The file has been optimized using the accessible.optimize file.	

Step 1:
Creating an Accessible Document in Microsoft Word

Use the Latest Version of Microsoft Word

Why It's Important	Each newer release of Word has greater accessibility features and functionality, and will convert to a more accessible PDF.
Techniques	*Use the latest release of Microsoft Word, rather than an older version, to create/modify Word documents.* *Open old Word documents in the latest release of Microsoft Word and resave them prior to beginning the accessible workflow.* **Note**: Save the document at the end of each step and append a different version number to the end of the filename. Word will sometimes crash which can cause the document to become corrupted or recent edits to be lost.

Use System Fonts

Why It's Important System fonts are those fonts installed by default with the Windows operating system. By using only these fonts, documents allow for the reliable extraction of textual content for assistive technology.

Techniques *Use easy-to-read system fonts when creating/modifying documents.* **Note**: This is no guarantee that a character is going to be accessible to a screen reader. There are many characters within a system font that cannot be read by assistive technology. Ultimately, the final test is to determine if the character is read properly by a screen reader. If it cannot be read, consider an alternate method of achieving the same effect, such as using a graphic with alternative text, instead.

Do Not Use Hyphenation

Why It's Important

A word that has been hyphenated using the automatic hyphenation feature will often be mispronounced by a screen reader. For example, "photo-graphy" with a hyphen will likely be mispronounced as "fO-tə-graf-E," (photo graph E) rather than correctly pronounced as "fə-tä-grə-fE" (fa tog ruhh fee). This could be confusing for users of screen readers.

Also, if the document is repurposed to another format, the hard hyphen will travel along, creating a word like "photo-graphy" which is not a word that should be separated by a hyphen.

Techniques

Do not insert hard hyphens (using the dash/hyphen key) and line breaks to force end-of-line hyphenation, and delete them if they've been used.
*If hyphenation is desired, allow words to be hyphenated by the application.*

To turn off the automatic hyphenation feature, be sure Microsoft Word's hyphenation preferences is not set to automatically hyphenate the document.

1. **Select Tools** > **Language** > **Hyphenation…**
   The **Hyphenation** dialog box opens.
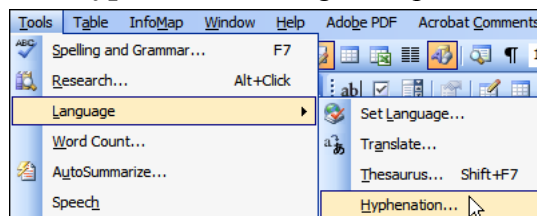
2. Uncheck the check box for **Automatically hyphenate document** if it is not already checked.
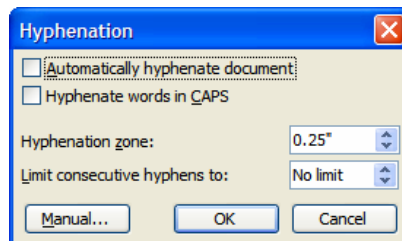
3. Set the other hyphenation preferences as appropriate.
4. Select **OK**.

Use Color Wisely

Why It's Important

Using color to emphasize or call attention to certain elements may help make documents easier to read for many people. However, when color is used as the only way to convey information, meaning can be lost to those with visual disabilities.

For example, if completed items in a table are indicated by a green **X** and incomplete items shown as a red **X**, they may look identical to someone who is color blind, and they will sound the same to someone using a screen reader.

Example:

Task Completion

The following table shows those tasks which have been completed (**X**) and those which have not (**X**):

Task	Due Date	Completed
Task 1	January 3, 2006	**X**
Task 2	February 9, 2006	**X**
Task 3	March 4, 2006	**X**

Techniques

Only use color as an enhancement, not as the sole means of conveying information.
Provide an alternative to color for distinguishing the items. For example, use a green "**Y**" and a red "**N**" instead of different-colored checkmarks.

Example:

Task Completion

The following table shows those tasks which have been completed (**Y**) and those which have not (**N**):

Task	Due Date	Completed
Task 1	January 3, 2006	**Y**
Task 2	February 9, 2006	**N**
Task 3	March 4, 2006	**Y**

Techniques

If images are used, provide appropriate alternative text so they can be read by a screen reader.

Example:

Task Completion

The following table shows those tasks which have been completed
(✔) and those which have not (✘):

Task	Due Date	Completed
Task 1	January 3, 2006	✔
Task 2	February 9, 2006	✘
Task 3	March 4, 2006	✔

Ensure Contrast is Sufficient

Why It's Important

Good contrast improves accessibility by making elements easier to read and distinguish.

Some users may use various contrast color schemes to increase the legibility of a document by heightening screen contrast with alternative color combinations. Text over background color or images may be impossible to read after a high-contrast color scheme is applied.

Reverse text (i.e., light text on a dark background: **Reverse Text**) is discouraged because results can be unexpected.

Techniques

Visually separate text and images:
- do not overlap elements, such as text over a background color, pattern, or image, and
- avoid the use of watermarks.

Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having a color impairment or when viewed on a black and white screen.
Use black or dark colors for text.
Do not use reverse text (i.e., light text on a dark background).

Add Alternate Text to Non-Text Elements

Why It's Important

The alternate text for an image provides replacement information that can be read by assistive technology for those users unable to see the image, so they can make sense of the document.

Alternate text should succinctly convey *in words* the same information that is communicated by the non-text element. It should represent the meaning, function, or purpose of the image, not its appearance.

A *non-text element* is anything present on the page which is not represented by a font character that can be interpreted reliably by assistive technology.

An *artifact* is any content that is unimportant or possibly even distracting to the user accessing the document. They are non-informational images and should be marked as artifacts so that they are not vocalized by the screen reader.
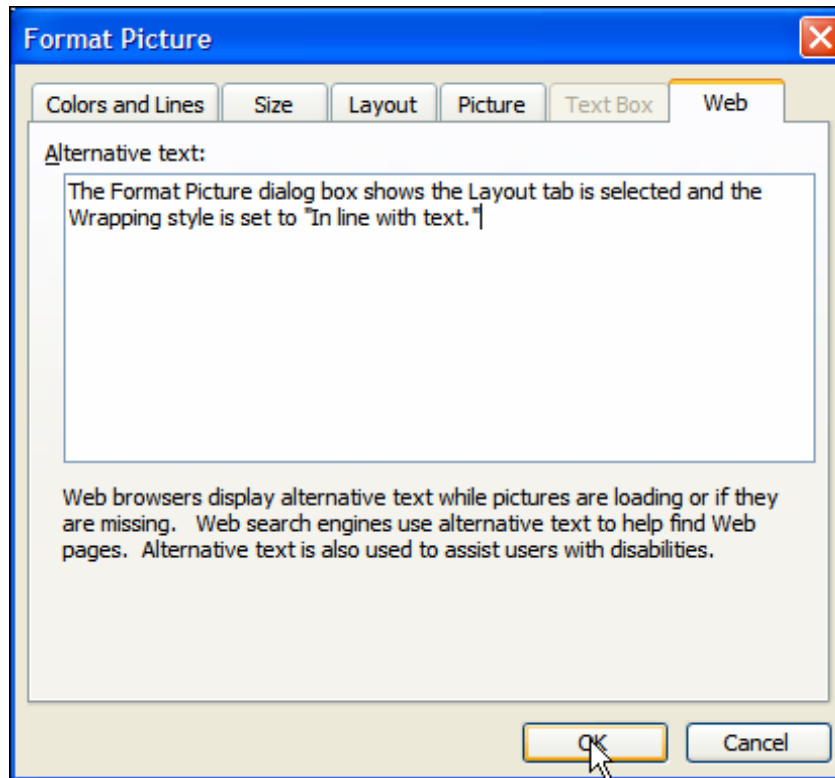
Techniques

Ensure all non-text elements have alternative text if they convey information important to understanding the content or context of the document.
If an image conveys no information (i.e., it is decorative or redundant to the text), enter a carriage return using the Enter key as the alternate text.
To provide a text alternative for an image:

1. Select **Format > Picture**.
    The **Format Picture** dialog opens.
2. Select the **Web Tab**.
3. Add the appropriate alternative text in the space provided.
4. Select **OK**.

The Format Picture dialog box shows the Layout tab is selected and the Wrapping style is set to "In line with text."

Create Columns Properly

Why It's Important

Columns should be read line by line down the left column, then line by line down the right column, rather than reading each line straight across the two columns.

Using the Columns toolbar button to create multiple columns provides structural information about how to structure the tags that represent lines of text in the columns so that they are interpreted correctly by assistive technology.

Techniques

Create columns properly by using **Format** > **Columns** or the Insert Columns icon.

Do not use tabs, spaces, text boxes, borderless tables, or other "tricks" to create the look of columns in a document.

Create Tables Properly and Simply

**Why It's
Important**

A table's structure needs to be simple so that it makes sense when read by a screen reader, left to right, row by row. The more complex a table becomes, the more difficult it is to understand when read by assistive technology.

Techniques

Use the "Insert Table" or "Draw Table" feature to create tables.
Use tables only for displaying structured data.
Simplify tables as much as possible.
- Avoid nesting tables (putting one table inside another).
- Avoid merging/splitting cells. Use a distinctive cell for each data entry.
- Do not use tabs, spaces, dashes, dots, or other "tricks" to create the look of a table in a document.

If a complex table is used, provide a description of the table structure and its contents within the content of the document.
If this is not possible, some tagging will be necessary in the PDF document (see *Adding & Improving Accessibility Features in Acrobat* later in this document).

Create Headers and Footers Properly

Why It's Important

Inserting headers and footers properly provides structural information about how to structure the tags that represent headers and footers. In this case, PDFMaker will know to convert them to artifacts so that they will be ignored by a screen reader.

Techniques

Create headers and footers properly.
Choose **View > Header and Footer** from the menu. The **Header and Footer** toolbar opens. (Note: This toolbar is only available while the cursor is within a header or footer.)
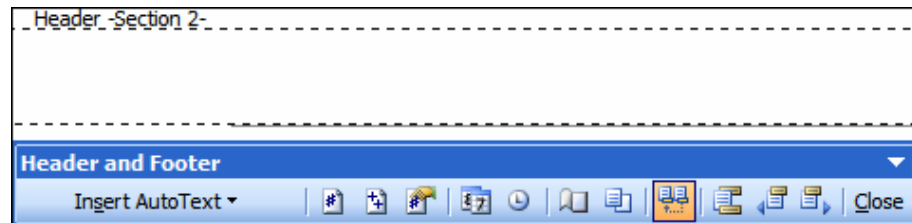
Group Complex Images

Why It's Important

By grouping a composite image into a single image, alternate text can then be applied to this single image.

This grouping "passes through" to the PDF as a single figure element, with alternate text, rather than as several separate figure elements, some of them possibly missing alternate text.
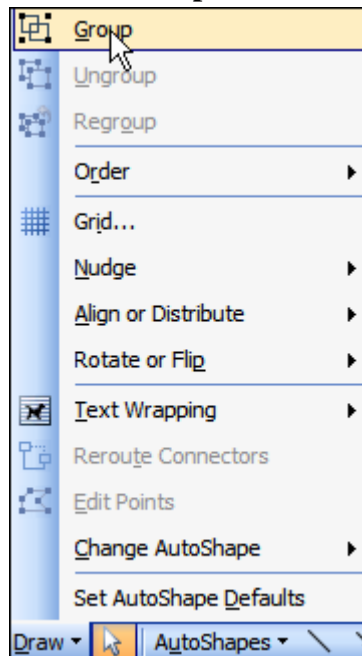
Techniques

Use the Group command to group complex images into a single image and then add alternate text to the single image.
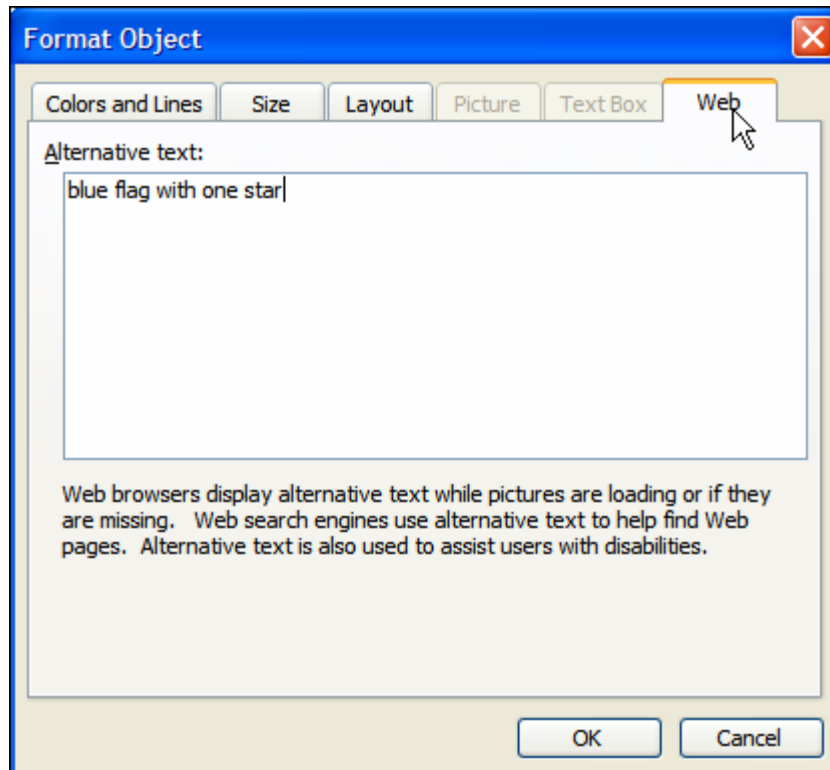
1. Select the images which need to be grouped.
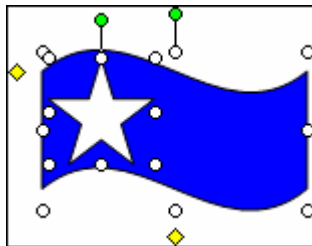
2. **Draw** > **Group** from the Drawing toolbar.

3. Apply the appropriate alternative text to this single grouped image.
   a. Select **Format** > **Picture**.
   b. The **Format Picture** dialog opens.
   c. Select the **Web** tab.
   d. Add the appropriate alternative text in the space

provided.
e.   Select **OK**.

Format Object

Colors and Lines | Size | Layout | Picture | Text Box | Web

Alternative text:

blue flag with one star

Web browsers display alternative text while pictures are loading or if they are missing.   Web search engines use alternative text to help find Web pages. Alternative text is also used to assist users with disabilities.

OK   Cancel

Ensure Images are "In Line"

Why It's Important   If an image "floats" on a page, it may visually appear where intended; however, it is outside the structure of the document and will not be positioned reliably within the tag tree after PDF conversion.

Techniques   *Ensure images are inserted "In line with text", rather than as a floating image (Square, Tight, Behind text, or In front of text).*

1. Select an image.
2. Select **Format > Picture** from the menubar.
3. The **Format Picture** dialog opens.
4. Select the **Layout** tab.
5. Select "**In line with text**" as the Wrapping style.
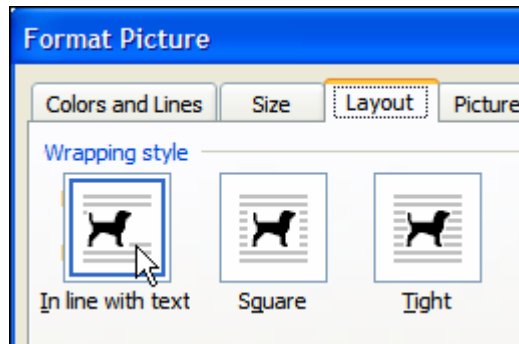
Do Not Use Text Boxes

Why It's Important

Text boxes are containers for text that can be positioned on a page and sized. They are inserted using **Insert > Text Box**, or by selecting the Text Box icon on the Drawing toolbar.

Text boxes are extremely unreliable in transferring information to a PDF file. Reading order and alternate text are not preserved during the conversion process.

The two examples which follow are both text boxes. The first has a border and the second does not.
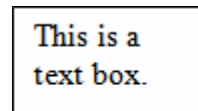
This is a text box.

This is a text box without a border.

When selected, they look like this:

This is a text box.

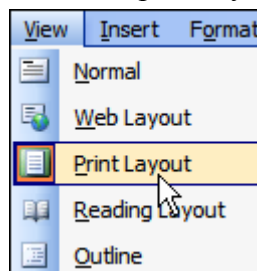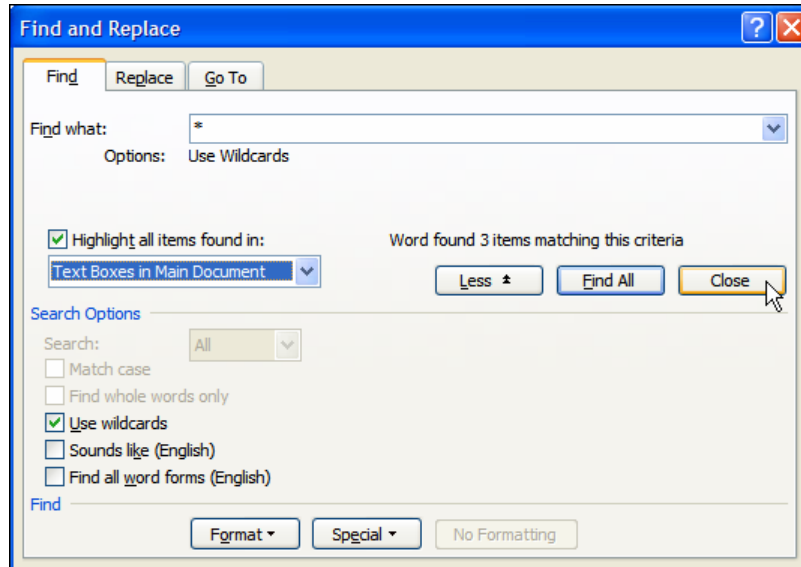This is a text box without a border.
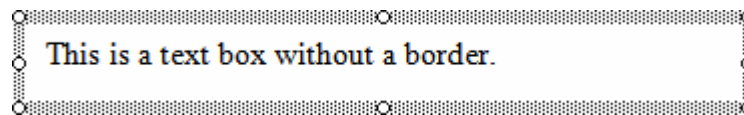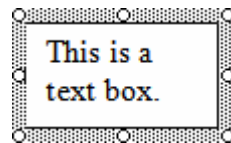
Techniques

Do not use text boxes.
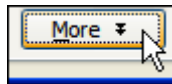To find and delete text boxes within a document:

1. Switch to print layout view (**View > Print Layout**).

2. Select **Edit > Find**.
3. Select the **Find** tab.

4. Select the **Highlight all items found in:** checkbox.

5. Select **Text Boxes in Main Document** from the dropdown menu.

6. Select the **More** button to open the lower half of the dialog box.


7. Select the **Use wildcards** checkbox under Search Options.

8. Enter an asterisk (*) in the **Find what:** text field.

9. Select **Find All**.
   Everything within all text boxes within the document will be highlighted and the Find tab will report the number of items found (e.g. Microsoft Word found 3 items matching this criteria.). Scroll through the document to see the highlighted text boxes.

10. Select **Close**.
   The highlighted text boxes will look like this:
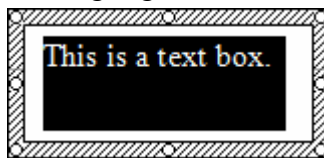
11. Select each text box and delete it after copy/pasting its content as needed. (To select a text box, move the pointer over the border of the text box until the pointer becomes a four-headed arrow, and then select the border.)

The Find feature may need to be used iteratively to find each text box,

until all are gone.

If a document has no more text boxes, the option will not appear in the **Highlight all items found in:** dropdown menu.
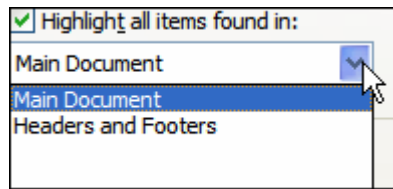
Use Styles, Formatting, and Structural Elements

Why It's Important

A style is a set of formatting characteristics applied to text, tables, and lists in a document to quickly change their appearance. Styles also impose a relational structure (hierarchy) on a document by assigning outline levels to paragraphs.

Structural elements provide information about the organization and hierarchy of a document's content. This is an important way of conveying meaning and significance. Screen readers are able to read specific structural elements at the discretion of the user, which allows a user to "skim" through a document, reading only the headings.

Navigational aids, such as tables of contents and indexes can be automatically generated from structural elements, such as headings and styles.

Structural elements, such as titles, headings, subheadings, lists, columns, tables, and hyperlinks, are carried over to the PDF during conversion. They retain many of their characteristics and are the basis for creating an accurate tag tree structure in the PDF document.

The tag tree, in turn, controls the read order and reflow of information on a page, and how the document is interpreted by assistive technology, such as screen readers.

Techniques

Use Microsoft Word's "Styles and Formatting" features to provide structure to documents.
Create titles, headings, subheadings, paragraphs, characters, bulleted/numbered lists, headers/footers, tables, columns, tables of contents, indexes, bookmarks, and hyperlinks, using Microsoft Word's built-in features.
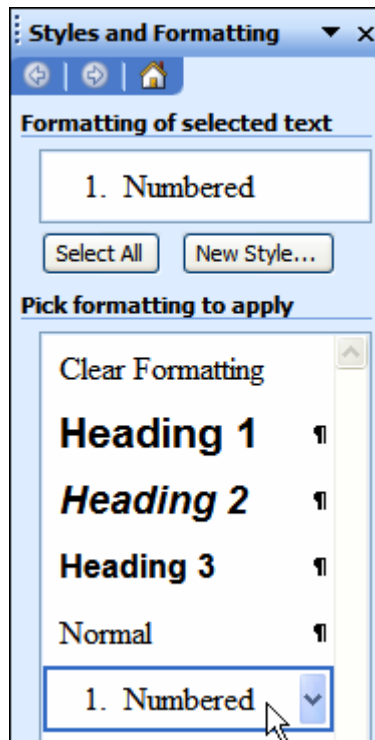
1. To open the Styles and Formatting panel, select **Format > Styles and Formatting**, or click the Styles and Formatting icon on the formatting toolbar.
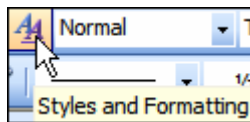
2. The **Styles and Formatting** pane opens.
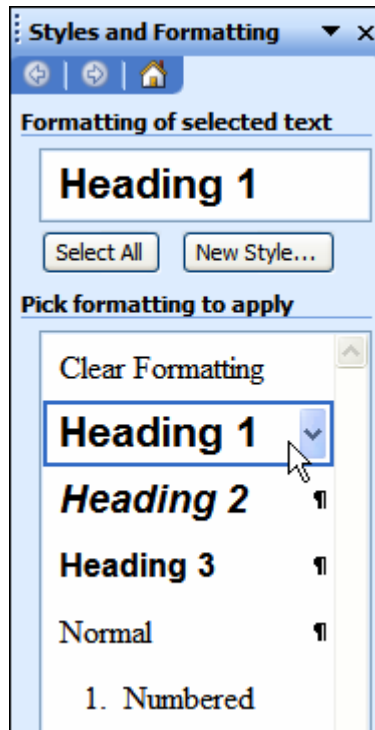
3. Use the automatic list feature to create bulleted and numbered lists.

Create Navigational Aids

Why It's Important

Navigational aids, such as indexes, links, and tables of contents help assistive technology users to more easily navigate to specific areas within a document without having to listen to it in its entirety.

Since assistive technology has the ability to skip through a document by links, without reading the surrounding content (i.e., out of context), the text of the link should tell the user about what they are going to find if they click the link.

If links are active, they will "pass through" as active links to the PDF document.

Additionally, bookmarks in the PDF can be automatically generated during conversion to PDF by using headings and styles (that the author selects) to create a hierarchical navigational system within the PDF.

Techniques

Include accurate and effective navigational features, such as hyperlinks, tables of contents, and indexes, as appropriate, using Microsoft Word's built-in features.

Ensure that all hyperlinks are descriptive of their destination: Do not use "Click here" or just the URL to describe a hyperlink. Use descriptive text as the link, such as:

Visit the online Usability Center on the SSA intranet.

Ensure all navigational aids, such as links, are active and accurate.

Notes

"Screen tips" applied to hyperlinks do not pass through to the PDF.

Hyperlinks should appear on a single line. Links which break across two or more lines can cause problems with the way the link is read by a screen reader.

Keep It Simple

Why It's Important	Complex or inconsistent visual displays or word choices can make documents difficult to understand—especially to someone with a disability.
Techniques	*Keep page layout simple. Do not create complex layouts.* *Avoid animated text, where the text or images around the text move.* *Avoid the use of animated images and multimedia in documents.* *If embedded elements are used, provide a text description of the element within the context of the document.*

Set Document Properties

Why It's Important
Document properties are information about the document (metadata) that is set in the document properties dialog box within Microsoft Word. This information is then "passed through" to the PDF during conversion.

Most search engines use the title of a document to describe the document in their search results list. If a PDF file does not have a title, the file name appears in the results list instead. A file's title is not necessarily the same as its filename.

A natural language document title, such as "Application for Benefits," when read aloud by a screen reader, is much more comprehensible than a shortened form such as "BeneApp," or no title at all. Without a title, a screen reader will likely read the filename aloud. This could be as uninformative as "appl_ben_version4.pdf".

Setting other document properties, such as subject, category, and keywords, is also useful for returning high-quality search results.

In addition, setting the author of the document is extremely helpful in tracking down the originator of the document. This may be necessary when it is time to update the document, or for dealing with document issues, such as security settings, certifications, and signatures.

Techniques
Set document properties in Microsoft Word.
1. Select **File > Properties**.
2. The **Document Properties** dialog box opens.
3. Select the **Summary** tab if it is not already selected.
4. Fill in the appropriate document information, such as title, author, and keywords.
5. Press **OK**.

How To Create Accessible PDF Documents Using ...

General | **Summary** | Statistics | Contents | Custom

Title: How to Create Accessible PDF Documents Using M

Subject: PDF Accessibility

Author: Angy Brooks

Manager: Robert C. Baker

Company: Social Security Administration

Category:

Keywords: PDF, accessibility, accessible, conversion, conver:

Comments:

Hyperlink base:

Template: infomappro.dot

☐ Save preview picture

OK   Cancel

Proofread

Why It's Important

If a PDF document is created from an inaccurate Microsoft Word document, edits will need to be made in both the Word document and the PDF document when errors are discovered later in the workflow. Otherwise, there is a risk of re-introducing the same errors the next time a PDF is generated from the Word document.

Alternately, once errors have been discovered, the PDF could be regenerated, but this would cause any edits to the PDF document to be lost.

Either scenario is time-consuming and confusing and can introduce further errors.

Techniques

Proofread the document:
- Ensure that spelling and grammar are correct by using Microsoft Word's spelling and grammar checker to check the entire document.
- Proofread the document for errors that the automated spelling and grammar checker may not have found and then update the document accordingly.
- Have someone other than the document author proofread the document for errors that may have been missed in the earlier steps and then update the document accordingly.

Update all application-generated references, such as table of contents and indexes.
*Resave the document.*

Step 2:
Converting to an Accessible PDF Document
From Microsoft Word

Conversion Settings

Why It's Important

By setting the PDF conversion settings appropriately and using the "Convert to Adobe PDF" feature, many accessibility features can be included in the PDF output document that would not otherwise be included by printing or distilling to PDF.

When Acrobat Professional 7 is installed, the Adobe PDFMaker Macro will become available in Microsoft Office applications. This creates a new menu item on the menubar called "Adobe PDF."

File   Edit   View   Insert   Format   Tools   Table   InfoMap   Window   Help   Adobe PDF
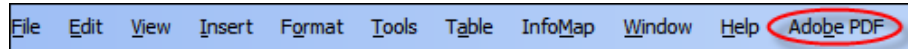
Techniques

Download the file provided at the following location:
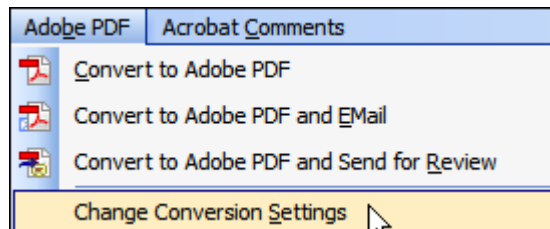
[http://www.xxx.xxx/accessible.joboption]

Save the accessible.joboptions file to the Acrobat Distiller Settings folder, usually located here:

C:\Program Files\adobe\Acrobat 7.0\Distillr\Settings

Note: Use the joboptions file provided until the Conversion Settings interface has been mastered.

Select **Adobe PDF** > **Change Conversion Settings** from the menubar.

Adobe PDF | Acrobat Comments
- Convert to Adobe PDF
- Convert to Adobe PDF and EMail
- Convert to Adobe PDF and Send for Review
- Change Conversion Settings

The **Adobe PDFMaker** dialog opens.

Unless there is a strong reason to do otherwise, use the settings which follow.

Note

A **Help** button is available at the bottom of the dialog box which provides context-sensitive help for the currently active tab.

Settings Tab

In the **Adobe PDFMaker** dialog, select the **Settings** tab and use the following settings:

Under **PDFMaker Settings**, select the accessible.joboptions file from the **Conversion Settings** dropdown list.

Note: This file should be located in C:\Program Files\adobe\Acrobat 7.0\Distillr\Settings, unless it was saved elsewhere. If saved elsewhere, navigate to and select the appropriate file.

Under **PDFMaker Settings** use the following settings:

- Check: View Adobe PDF result
- Check: Prompt for Adobe PDF file name
- Check: Convert Document Information

Under **Application Settings**, check the following check boxes:

- Uncheck: Attach source file to Adobe PDF
- Check: Add bookmarks to Adobe PDF
- Check: Add links to Adobe PDF
- Check: Enable accessible and reflow with Tagged PDF
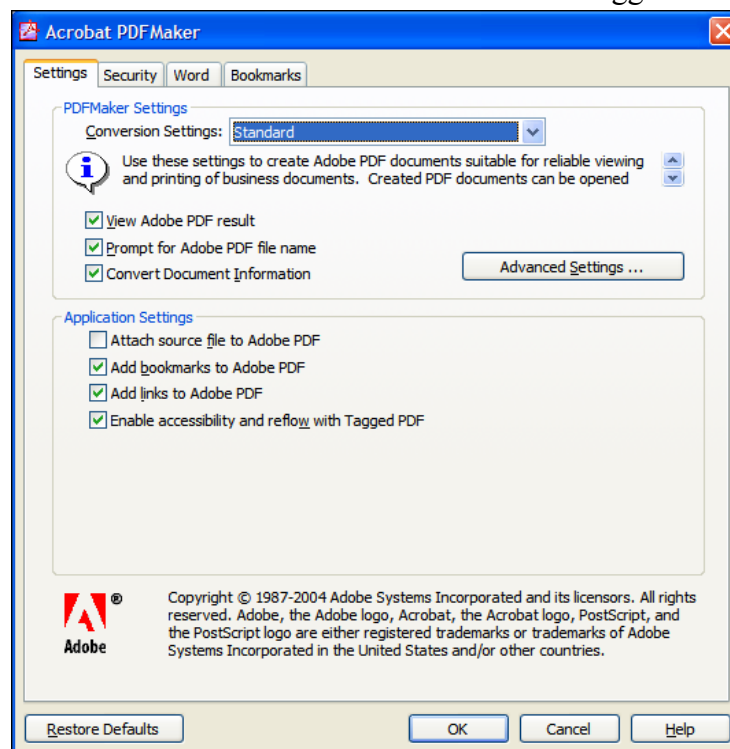
Security Tab   In the **Adobe PDFMaker** dialog, select the **Security** tab and use the
following settings:

- Uncheck: Require a password to open the document
- Uncheck: Use a password to restrict printing and editing of the
 document and its security settings
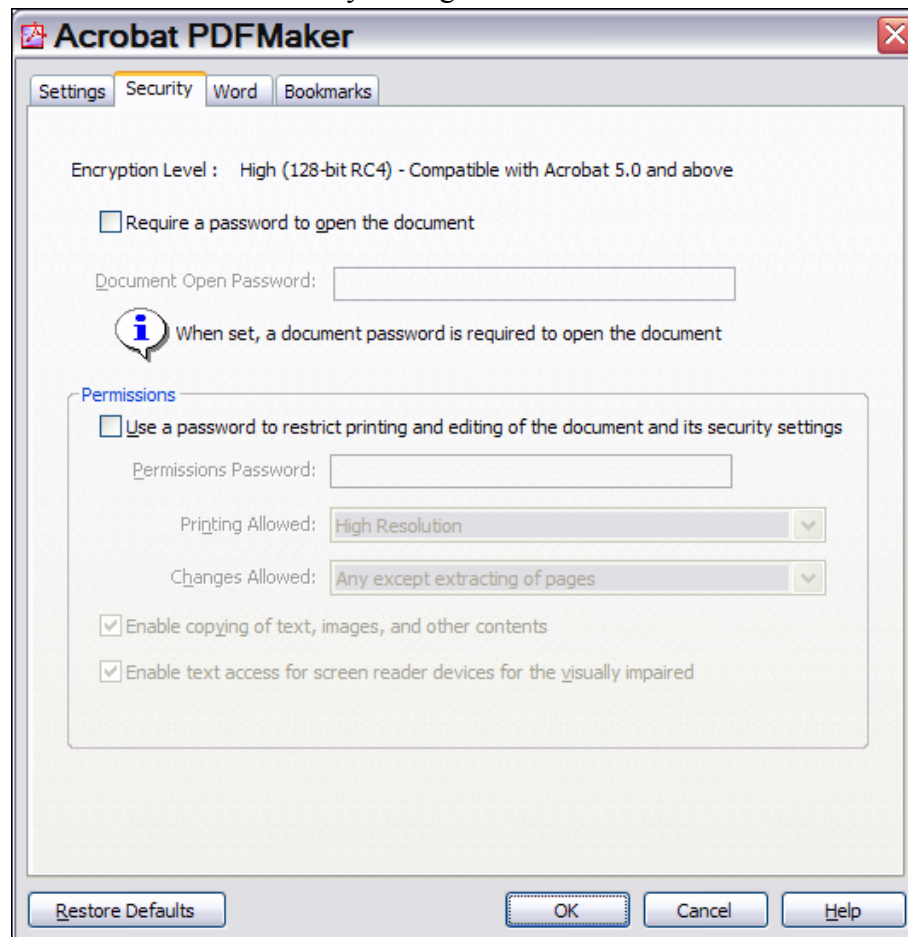
If security settings are used, ensure that "Enable text access for screen
reader devices for the visually impaired" is checked.

**Word Tab**   In the **Adobe PDFMaker** dialog, select the **Word** tab and use the following settings:

- Uncheck: Convert displayed comments to notes in PDF
- Check: Convert cross-references and table of contents to links
- Check: Convert footnote and endnote links
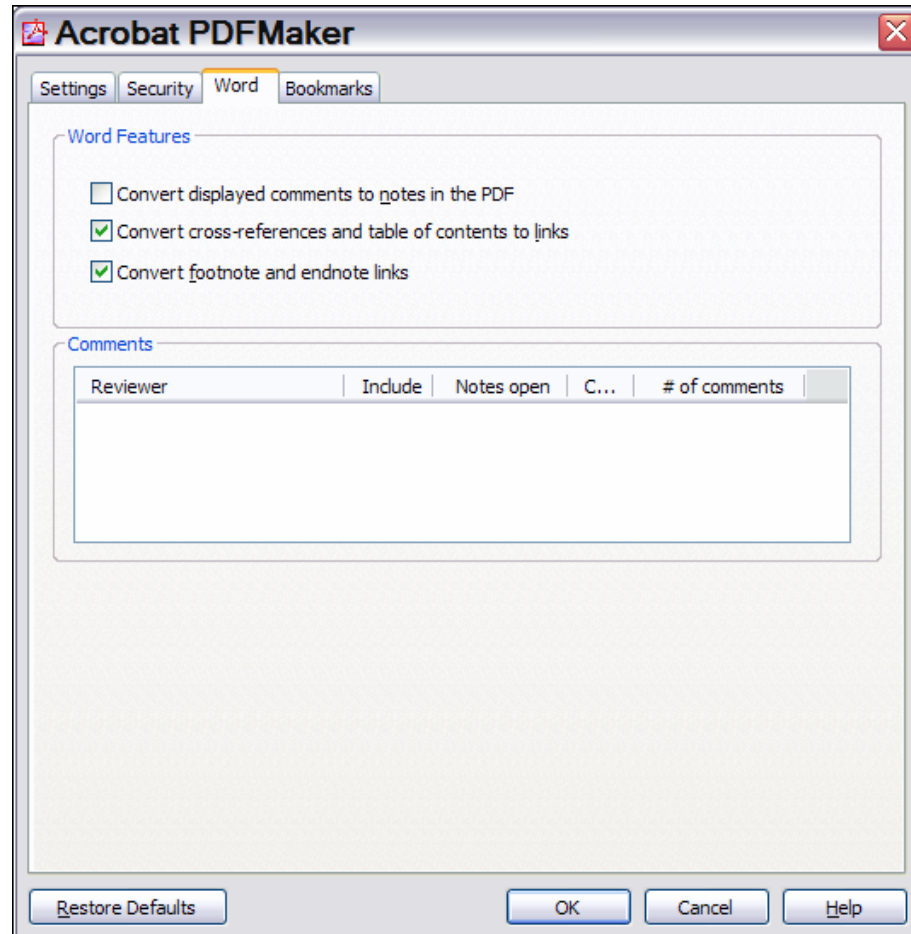
Bookmarks Tab

In the **Adobe PDFMaker** dialog, select the **Bookmarks** tab and use the following settings:

- Check: Convert Word Headings to Bookmarks
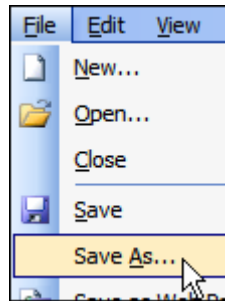- Uncheck: Convert Word Styles to Bookmarks
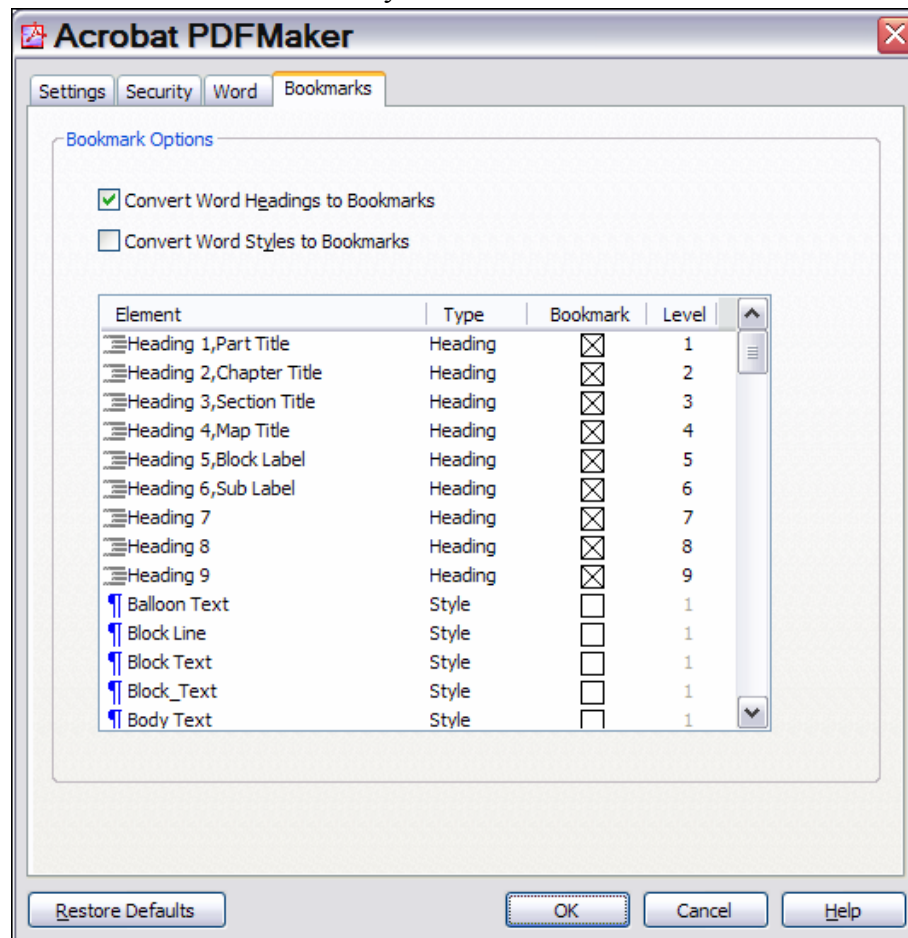
Convert to PDF

**Why It's
Important**

Unlike printing to Adobe PDF, *converting* to PDF creates tagged
Adobe PDF files that preserve hyperlinks, styles, bookmarks, and the
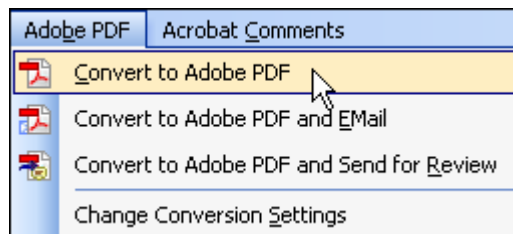structure of tables present in the source document.

Techniques

*Perform a final Save As in Word to ensure the file is as small as
possible.*

*Use "Convert to PDF" to create PDF documents from Microsoft
Word, not Print or Distill.*
*If the PDF conversion settings are set properly (see next subject),
select **Adobe PDF > Convert to Adobe PDF** from the menubar.

*If the PDF conversion settings are not set properly, set them prior to
using **Convert to Adobe PDF** (see next subject).

Step 3:
Testing, Repairing, Adding & Improving Accessibility Features in Acrobat

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Introduction   Many of the tools and techniques discussed next are described in detail in the Complete Acrobat Help file, which can be accessed by pressing the F1 key while Acrobat is open and active.

To learn how to use Acrobat's:	Read this section:
TouchUp Reading Order Tool	*Editing the Structure of Tagged Adobe PDF Documents*
Tags Tab	*Advanced Tools for Correcting Tagging Errors*
Bookmarks Tab	*Adding Navigability to Adobe PDF Documents*
Read Out Loud Feature	*Customizing Adobe Acrobat for Accessibility > Using Read Out Loud feature*

Note   Whenever an issue is encountered within the PDF document, instruction have been given to correct the problem within Acrobat. However, it is at all times recommended that changes be made in the original Word document (if possible) and that it then be converted again to PDF.

Save the PDF file frequently, appending different version numbers to the filename. Some Acrobat tools do not include an Undo command, and Acrobat will sometimes crash. (An occasional **Save As** will reduce file size.)

Manage Bookmarks

Test

Review the bookmarks and determine if the bookmarks:

- link to the appropriate destination,
- are nested properly, and
- are labeled correctly.

Note

If Word's styles and Adobe PDFMaker's bookmarks feature were used properly, the PDF bookmarks should be correct. If they are not, they can be corrected in Word, or they can be modified in the Bookmarks tab within Acrobat.

If bookmarks are modified in the Bookmarks tab within Acrobat, those same modifications will need to be re-applied every time the document is converted from Word. It is recommended that bookmarks be corrected in Word.

Techniques

To modify bookmarks in Acrobat:
1. Open the **Bookmarks** tab by selecting **View** > **Navigation Tabs** > **Bookmarks** from the menubar.
2. Drag bookmarks to where they belong, create/delete bookmarks and/or apply formatting using the **Options** menu.

(See *Adding Navigability to Adobe PDF Documents > Using Bookmarks* in the Complete Acrobat Help file (F1) for more detailed instructions.)
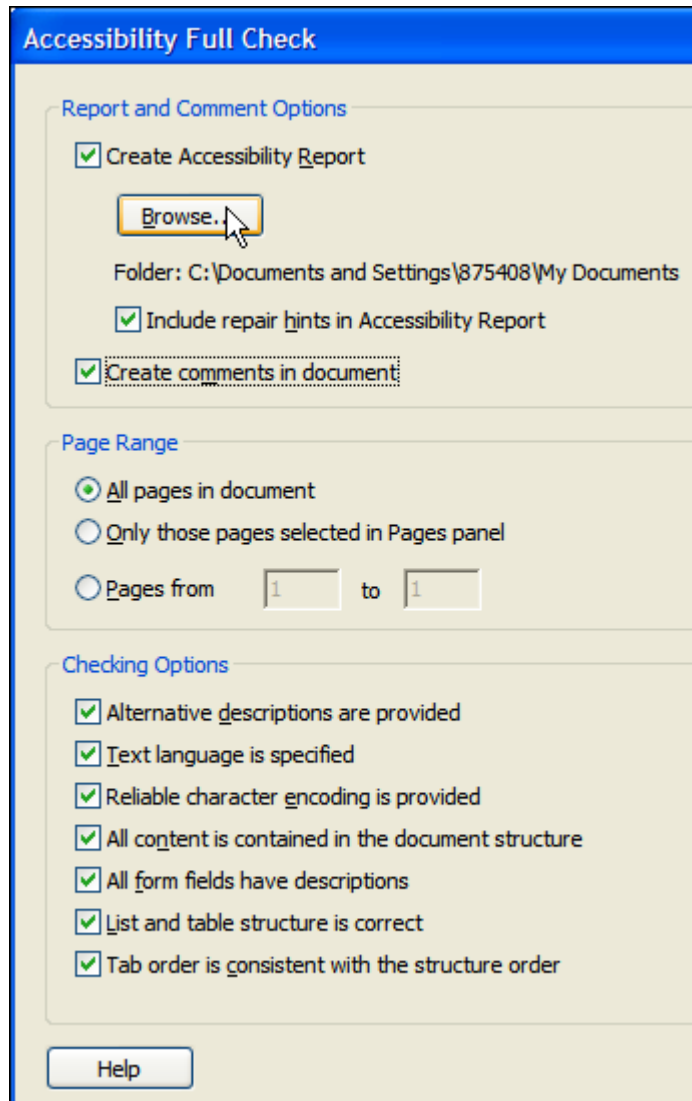
Run the Accessibility Full Check

Test

Run the Accessibility Full Check to find specific accessibility issues which may need attention.

Techniques

Check the accessibility of a PDF document using Full Check:
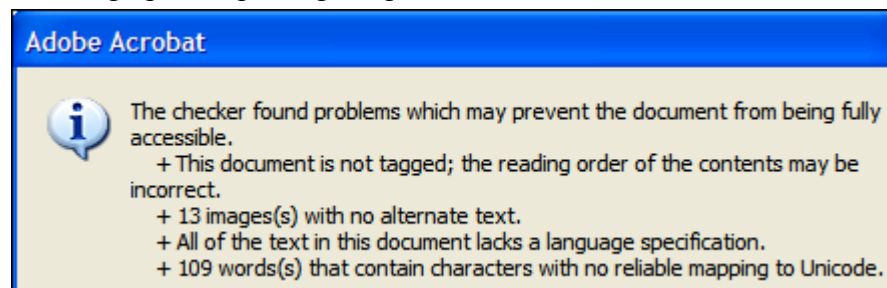
1. Choose **Advanced** > **Accessibility** > **Full Check**.
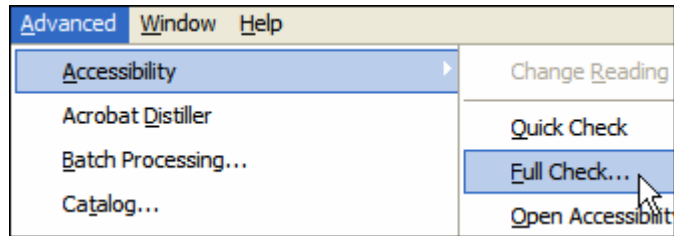
2. Select **Create Accessibility Report**, and then click **Browse** to save a copy to the desired location.

Accessibility Full Check

Report and Comment Options

☑ Create Accessibility Report

[Browse.]

Folder: C:\Documents and Settings\875408\My Documents

☑ Include repair hints in Accessibility Report

☑ Create comments in document

Page Range

◉ All pages in document

○ Only those pages selected in Pages panel

○ Pages from [1] to [1]

Checking Options

☑ Alternative descriptions are provided

☑ Text language is specified

☑ Reliable character encoding is provided

☑ All content is contained in the document structure

☑ All form fields have descriptions

☑ List and table structure is correct

☑ Tab order is consistent with the structure order

[Help]

3. Specify the pages to be included in the accessibility check.
4. To view the report as comments in the PDF document, select **Create Comments In Document**.
5. Select all of the checkboxes for the desired **Checking Options**.
6. Click **Start Checking**.

A dialog opens reporting the problems found in the document.

Adobe Acrobat

The checker found problems which may prevent the document from being fully accessible.

\+ This document is not tagged; the reading order of the contents may be incorrect.

\+ 13 images(s) with no alternate text.

\+ All of the text in this document lacks a language specification.

\+ 109 words(s) that contain characters with no reliable mapping to Unicode.

Note the problems found and dismiss the dialog by selecting **OK**.

A report opens in the How To window with a list of problems and links to specific areas of the document.

Comments and highlights within the document indicate potential problems.
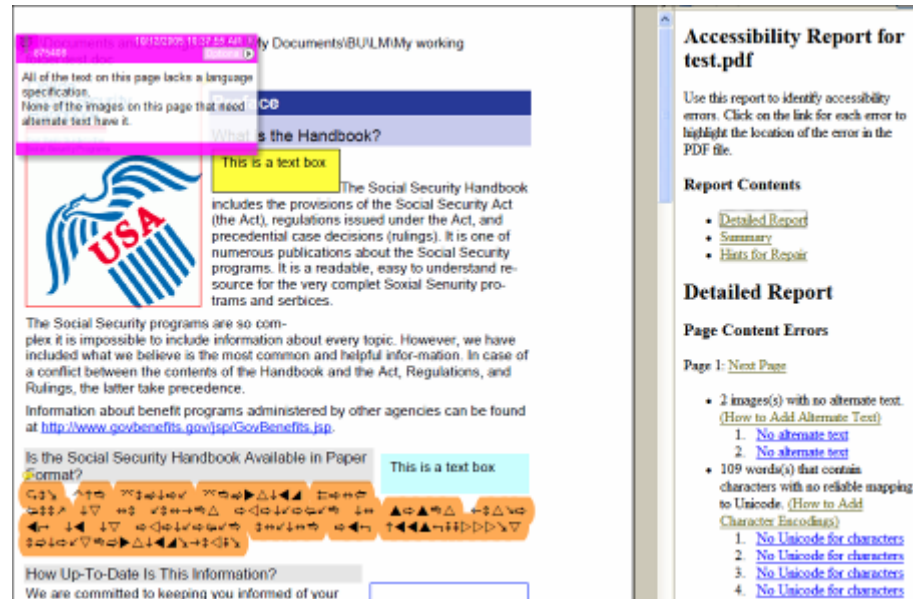
To view and highlight problem individually, open the **Comment** tab and select individual comments within the **Comments** pane. The corresponding element in the document will be highlighted.
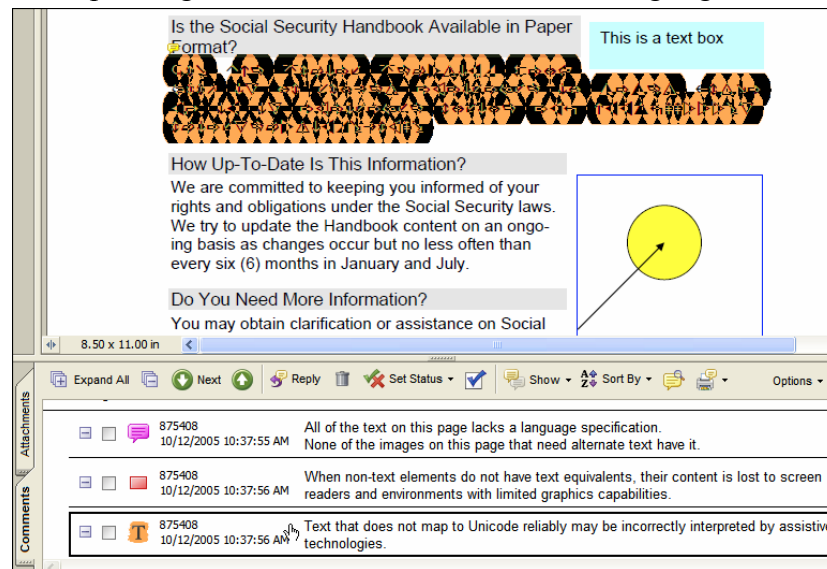
After addressing each problem noted by a comment, delete the comment (otherwise it will appear as an untagged element the next time the Full Check is run).

To delete a comment, select the comment to be deleted within the **Comments** tab, and then press **Delete**.

Address the Problems Reported by the Accessibility Full Check

Warnings   After running the Accessibility Full Check, a dialog opens reporting the problems found in the document.

For each problem reported, see the topics noted to eliminate the problem.

Accessibility Full Check Message	See Topic
All of the text in this document lacks a language specification.	Define the Language(s) Used
[Number of] elements that are not contained within the structure tree.	Adding Elements to the Tag Tree
[Number of] pages with tab order that may be inconsistent with the structure order.	Set the Tab Order of Pages
[Number of] images and/or Figure elements with no alternate text.	Alternate Text and Artifacts
[Number of] words that contain characters with no reliable mapping to Unicode.	Character Mappings

Define the Language(s) Used

Test   Ensure the Default Document Language is set to the appropriate language.

Listen to the document using a screen reader. Are all non-English words pronounced correctly? If they are not, the language property for individual words and phrases may need to be set so that the proper pronunciation dictionary is used. (In theory, screen readers should change the pronunciation dictionary in order to pronounce words according to the language in which they are written. This is not always the case with today's screen readers.)

Note   The document and text language properties can only be applied within Acrobat. If changes are made in the source document, these properties will need to be set again after conversion.

**Techniques**   *Set the default document language.*
1. From the menubar, select **File** > **Document Properties** > **Advanced** tab > **Reading Options** > **Language**
2. Select **English US** from the dropdown list.
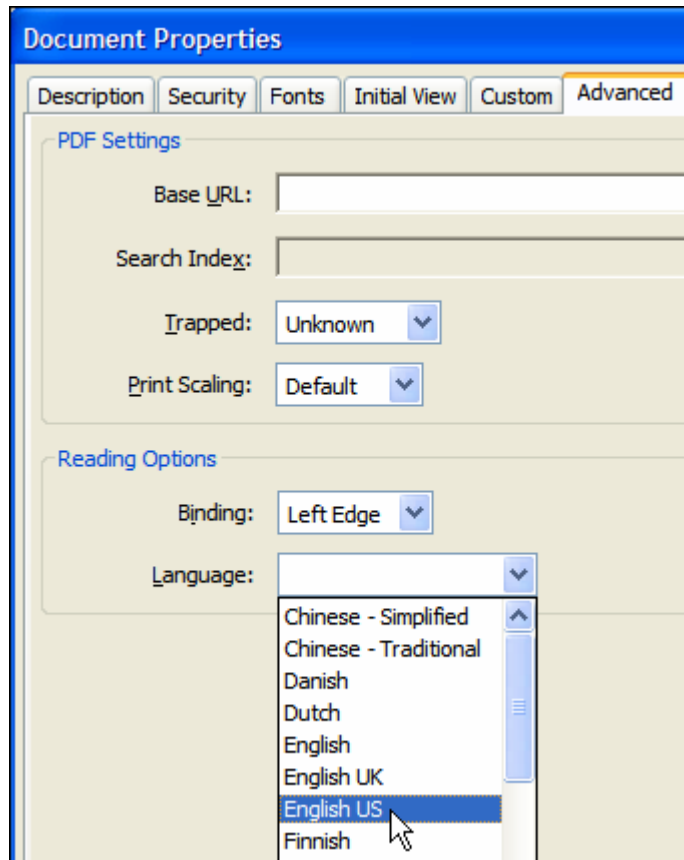
3. Select **OK**.

Set the language for portions of the text that use a different language from the document's default language.

1. Open the **Tags** tab by selecting **Navigation Tabs** > **Tags** from the menubar.
2. In the **Tags** tab, expand the tag tree as needed to see the elements.
3. Select the appropriate text element, and choose **Properties** from the **Options** menu.
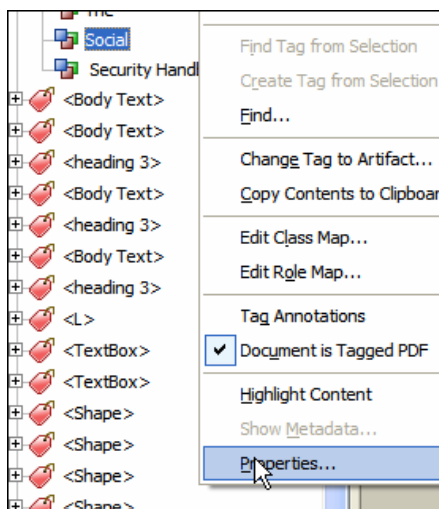
4. In the **TouchUp Properties** dialog box, select the **Tag** tab.

5. Select a language from the **Language** dropdown list menu.
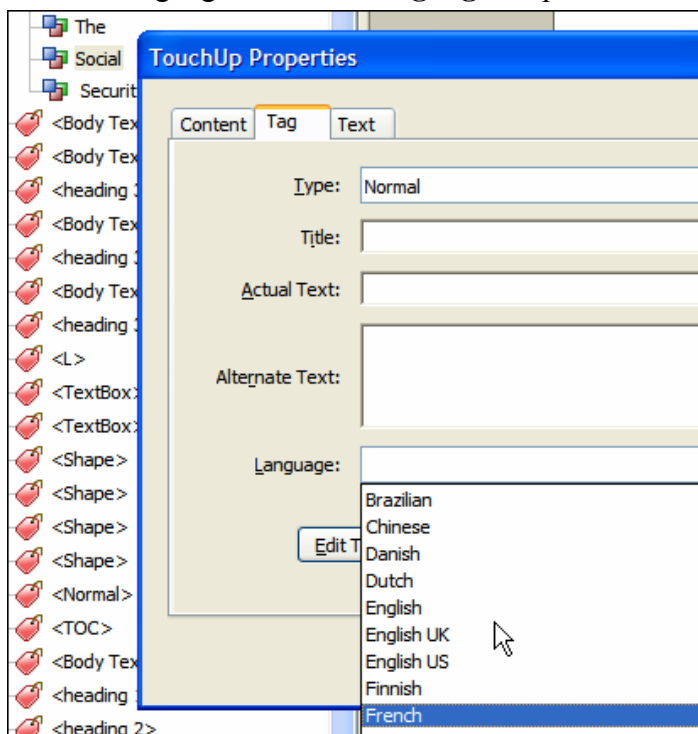
6. Select **Close**.

Note: The language specified for an element also applies to all elements nested under it in the logical structure tree.

(See *Editing the Structure of Tagged Adobe PDF Documents* and *Advanced Tools for Correcting Tagging Errors* in the Complete Acrobat Help file (F1) for more detailed instructions.)

Identify and Correct Reading Order Problems

Test To determine if a document has a logical read order, it will be necessary to listen to it using a screen reader, outputting it to an alternate file format, viewing it with the TouchUp Reading Order tool, and/or reflowing it.

Techniques *Check read order using any or all of the following techniques:*
- Listen to the document using a screen reader.
- Output the document to a text file and read it.
- Reflow the document.
- View the document using the TouchUp Reading Order tool.

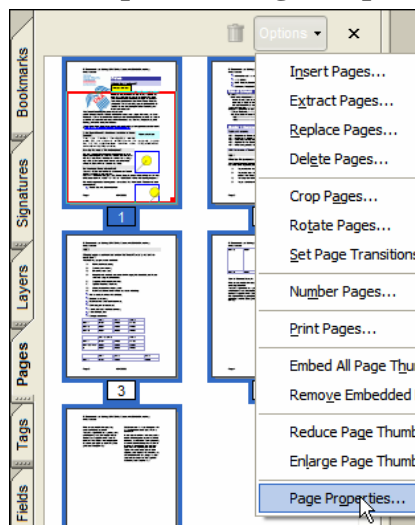*Repair read order problems using the Tags tab or the TouchUp Reading Order tool.*

(See *Editing the Structure of Tagged Adobe PDF Documents* and *Advanced Tools for Correcting Tagging Errors* in the Complete Acrobat Help file (F1) for more detailed instructions.)

Add Elements to the Tag Tree

Test   Determine if there are element in the document which are not
                    represented within the logical structure tree.

Techniques   *Add elements to the tag tree using the Tags tab or the TouchUp
                    Reading Order tool.*
                    (See *Editing the Structure of Tagged Adobe PDF Documents* and
                    Advanced Tools for Correcting Tagging Errors in the Complete
                    Acrobat Help file (F1) for more detailed instructions.)

Set the Tab Order of Pages

Test   Listen to the document using a screen reader to determine if the document content is read in an order that makes sense.

Note   The tab order often, but not always, passes through from the Word document. Explicitly setting the default tab order of all pages ensures that the tab order of pages is in a logical order.

Techniques   *Set the tab order of all pages.*
1. Open the **Pages** tab by selecting **Navigation Tabs** > **Pages** from the menubar.
2. In the **Pages** tab, select all pages
3. Select **Options** > **Page Properties** > **Tab Order** tab.

4. Select the radio button for **Use Document Structure**.
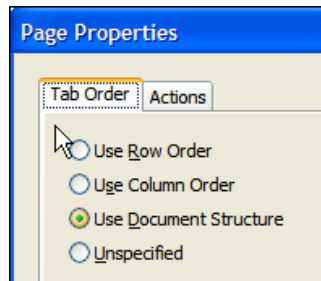
Use Reflow to Find Problems

Test   Reflow the document. If the tagged PDF document does not reflow properly, the content order of the PDF file may contain inconsistencies, or the tagging process itself may be the cause.

Techniques   *Reflow the document*:
View > **Reflow**.

C:\Documents and Settings\875408\My Documents\BU\LM\My working folder\test.doc

Online
Social Security
Handbook

Your Basic Guide to the
Social Security Programs

What is the Handbook?
The Social Security Handboincludes the provisions of the Social Security Act (the Act), regulations issued under the

Repair problems using the Tags tab or the TouchUp Reading Order tool.
(See *Editing the Structure of Tagged Adobe PDF Documents* and *Advanced Tools for Correcting Tagging Errors* in the Complete Acrobat Help file (F1) for more detailed instructions.)

Review Alternate Text

Test

Ensure that alternate text makes sense within the context of the document when using a screen reader.
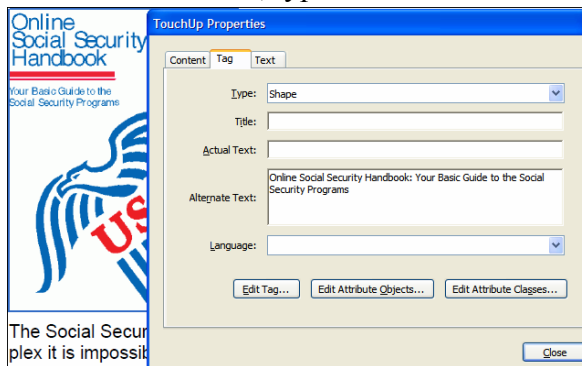
Techniques

Return to the Word document and add alternate text to all elements which require it.
Alternately, to *add alternate text* within Acrobat:

1. Choose **View** > **Navigation Tabs** > **Tags**.
2. Expand the logical structure tree to find and select the **<Figure>** tag element for the image.
3. Choose **Highlight Content** from the **Options** menu on the **Tags** tab to see a highlighted area in the document that corresponds to the tag.
4. Choose **Properties** from the **Options** menu on the **Tags** tab.
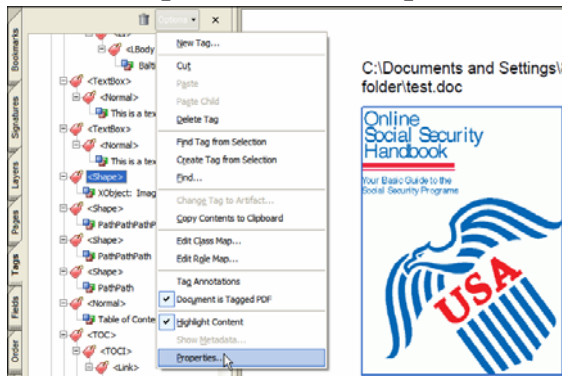
5. In the **TouchUp Properties** dialog box, click the **Tag** tab.
6. For **Alternate Text**, type text that describes the figure.

Change Tags to Artifacts

Test Ensure that elements which should not be read aloud by the screen reader are not. To hide an element from the screen reader, it should be marked as an artifact.

Techniques *Return to the Word document and use a carriage return as the alternate text for all elements which require it.*
Alternately, to *change an element to an artifact* within Acrobat:

1. In the **Tags** tab, expand the section of the logical structure that needs to be changed.
2. Select an element.
3. Choose **Change Tag to Artifact** from the **Options** menu.
4. If an empty container tag is left behind, delete it.
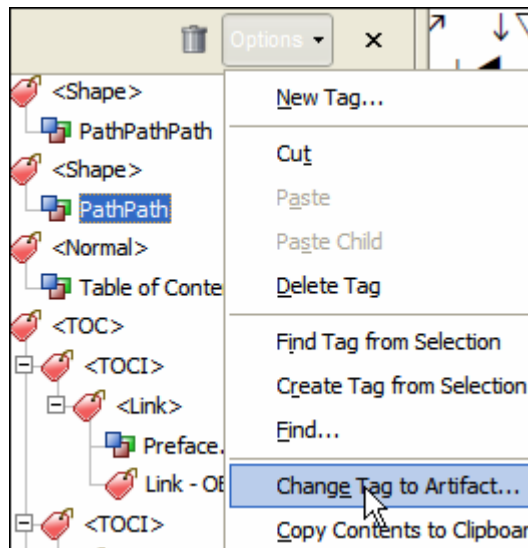
Correct Character Mappings

Test
The Accessibility Full Check is the best indicator of character mapping issues.

Techniques
Return to the Word document and use only characters which do not cause a character mapping error in Acrobat.
Alternately, treat these elements as images and add alternate text, or if the character is decorative (such as a bullet), change it to an artifact.
Keep in mind that "correcting" the problem in this way will affect the extractability of text content, which may have repercussions if the document needs to be repurposed.

Fix Table Tags

Test	Review the table tags to determine whether columns, rows, and cells have been correctly identified.

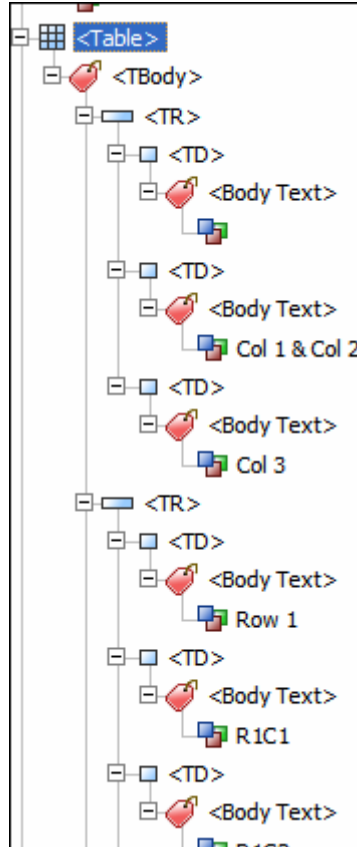|	
Note	Tables that lack well-defined borders and rules are often tagged incorrectly or contain adjacent page elements. Poorly tagged tables can be corrected by selecting and redefining them or by splitting combined cells by creating a tag for each cell.
	Tables pose a special challenge for screen readers because they present textual or numerical data to be easily referenced visually. Content within table cells can be complex and might contain lists, paragraphs of text, form fields, or another table.

Techniques	To check table elements:
	In the Tags tab, expand the tags root to view a table tag.

1. Select the table tag <Table> and verify that it contains one of the following elements:

- Table Rows <TR>, each of which contains a Table Header <TH> or Table Data <TD> cells.
- <THead>, <TBody>, and <TFoot> sections, each of which contains Table Rows. (The table rows contain <TH> cells, <TD> cells, or both.)
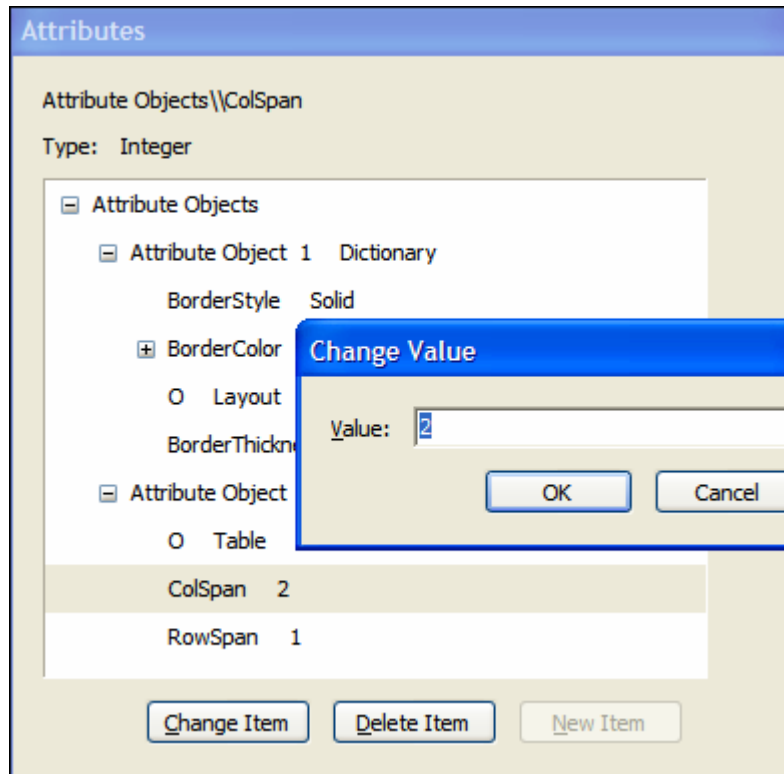
2. Do one or more of the following:

- If the tag for the table does not contain these elements but rows, columns, and cells appear in the table in the document pane, use the TouchUp Reading Order tool to select and define the table or individual cells.
- If the table contains rows that span across two or more columns, set ColSpan and RowSpan attributes for these rows in the tag structure.
- Re-create the table in the authoring application, and then convert it to a tagged PDF document.

To set ColSpan and RowSpan attributes:

1. In the **Tags** tab, select a <TD> or <TH> element.
2. Choose **Properties** from the **Options** menu.
3. In the **TouchUp Properties** dialog box, click the **Tags** tab, and then click **Edit Attribute Objects**.
4. Select **Attribute Objects**, and then click New Item to create a new Attribute Object Dictionary.
5. Expand the new dictionary, select the **O** Layout attribute, and then click **Change Item**.

6. Change the **Layout** value to **Table**.

7. Select the **Attribute Object Dictionary**, and click **New Item**.

8. In the A**dd Key And Value** dialog box, type **ColSpan** or **RowSpan** in the **Key** box; enter the number of columns or rows spanned in the Value box; choose Integer from the **Value Type** pop-up menu; and click **OK**.

9. Close the **TouchUp Properties** dialog box.

Check Hyperlinks

Test   Review the all document hyperlinks and determine if links are:

- accurate,
- active, and
- descriptive or their destination.

Techniques   *Review all links, and effect repairs in the original Word document.*
If there is an issue with a very long link that simply cannot be made short enough to fit on a single line, use the following technique to make it a single link in Acrobat:
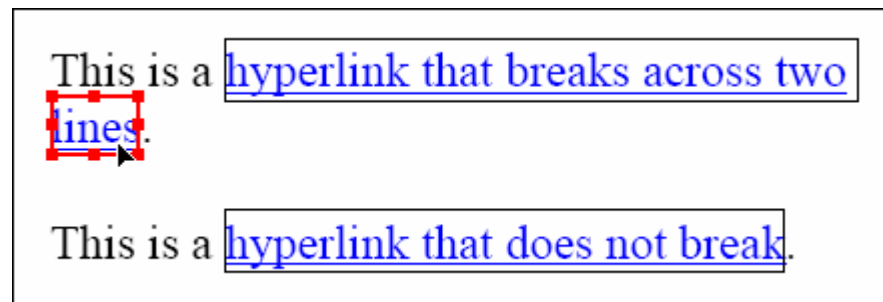
Open the Advanced Editing toolbar:

View > **Toolbars** > **Advanced Editing**

Select the link tool:
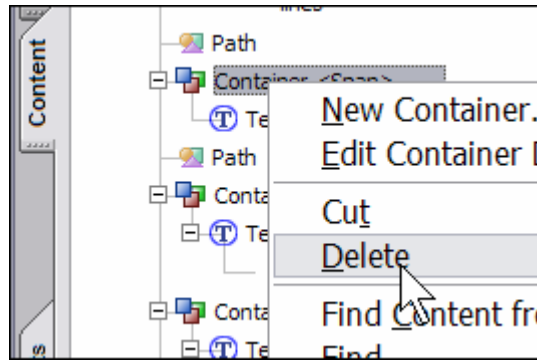

Links are highlighted:

Select the link box of the second part of the link and delete it.

Open the Content tab, find the second part of the desired link text, and move the text so that it is below the first part of the link text within the same container.
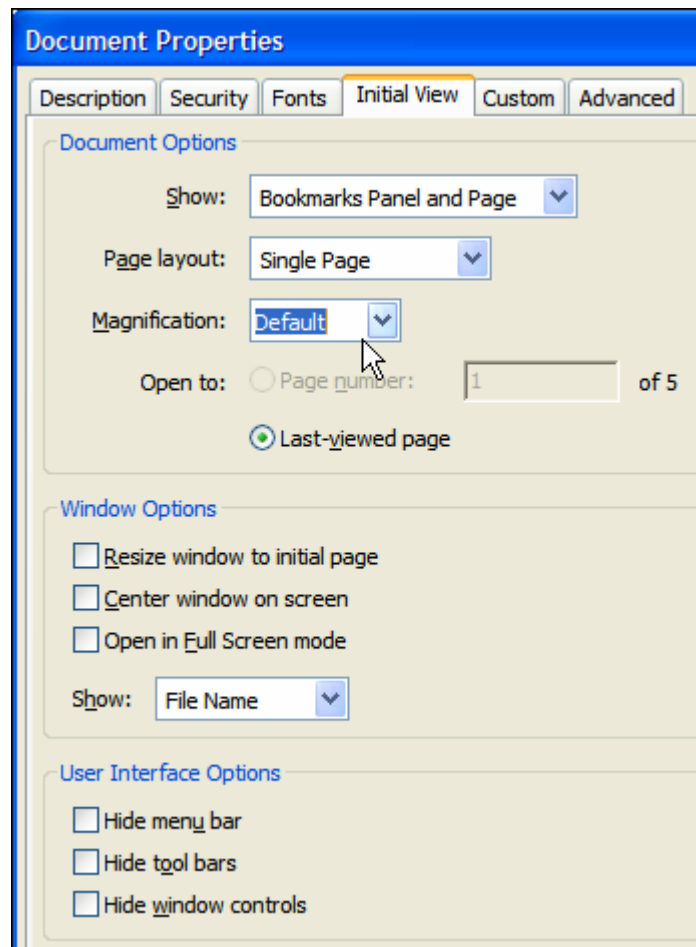
Delete the empty container element left behind.

Set Initial View Preferences

Test   Open the document to determine if the initial view is as desired.

Techniques   Set the desired initial view properties.

Select **File** > **Document Properties** > **Initial View** tab.

Set the **Document Options** > **Show** dropdown list to **Bookmarks Panel and Page**.

Leave the magnification set to default unless there is a strong reason to override the user's preferences. Also, leave the Window and User Interface Options unchecked, unless there is a strong reason to override the user's preferences.
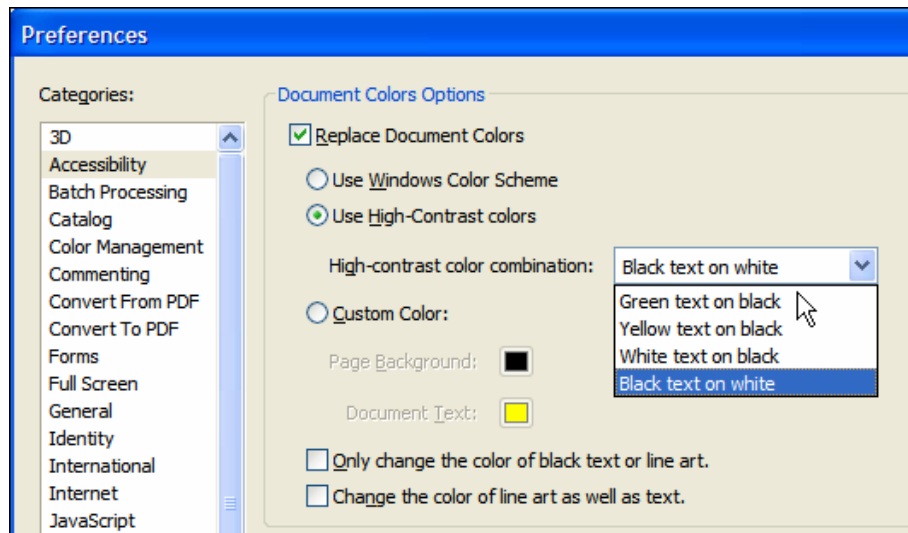
View Using High-Contrast Color Combinations

Test   Determine if all text is still readable when the document is viewed using each of Acrobat's 4 high contrast color combinations.
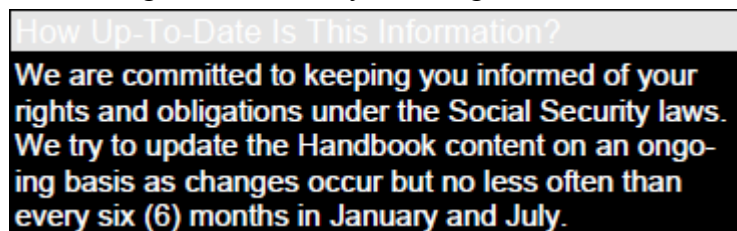
Techniques   View the document using Acrobat's various high contrast modes.

Edit > **Preferences** > **Accessibility**

Select various High-contrast color combinations and review the document.

The follwing example illustrates why background color should not be used with text. When viewed using high-contrast black text on white, the heading becomes nearly indistinguishable.

Expand Abbreviations

Test When a screen reader is used, determine if the meaning of abbreviations is clear.

Techniques To add alternate text for an abbreviated term:

1. In the **Tags** tab, locate the abbreviated term by doing one of the following:

- Expand the tag tree as needed to see the elements that contain the abbreviation.
- Use the **TouchUp Text** tool or the **Select** tool to select the abbreviation in the document, and then choose **Find Tag From Selection** from the **Options** menu to locate the text in the tag tree.

2. Select the tag for that element, and choose **Properties** from the Options menu.
    Note: If the abbreviation includes additional text, cut the additional text and place it in a new <Span> child tag within the same <Span> parent tag.

3. In the **TouchUp Properties** dialog box, select the **Tag** tab.

4. For **Alternate Text**, type the unabbreviated version of the term.

5. Click **Close**.

Check Color

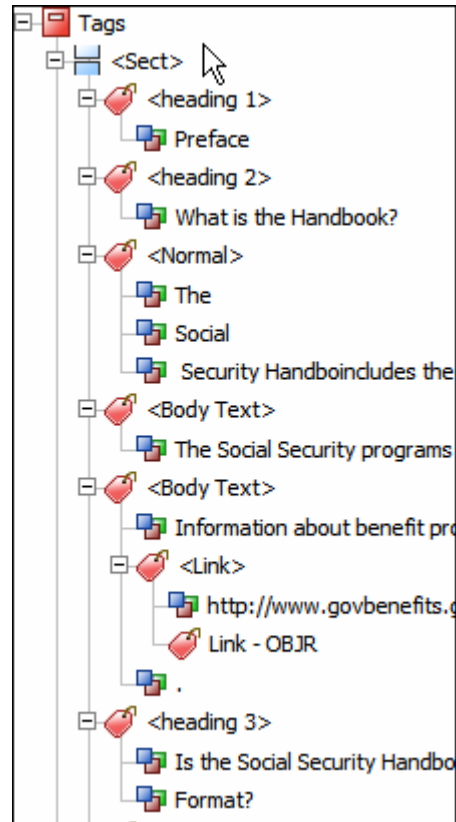|	
Test	Is color used to convey information that is not otherwise available? When viewed in high contrast mode, can the document still be read visually?
Techniques	*Return to the Word document to correct color problems.*

Review Structure

Test　　　　Determine if structural elements, such as H1, H2, LI, P, TABLE, etc. have been used have been used adequately.

Techniques　　*Repair rstructure problems using the Tags tab or the TouchUp Reading Order tool.*
(See *Editing the Structure of Tagged Adobe PDF Documents* and *Advanced Tools for Correcting Tagging Errors* in the Complete Acrobat Help file (F1) for more detailed instructions.)
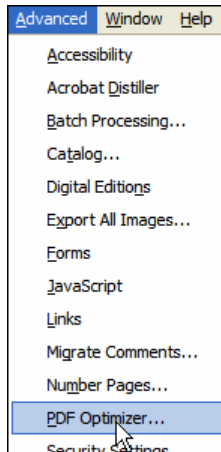
Step 4:
Optimizing File Size in Acrobat

Why It's Important

Reducing the size of Adobe PDF files improves their performance—particularly when they're being accessed on the web.
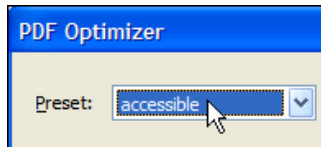

Techniques

Use PDF Optimize to optimize the PDF file:

1. ***Download the accessible.optimize file provided*** at the following location:
   [http://www.xxx.xxx/accessible.optimize]

2. ***Save the accessible.optimize file to the Acrobat PDF Optimizer folder***, usually located here:
   C:\Documents and Settings\your PIN\Application Data\Adobe\Acrobat\7.0\Preferences\PDF Optimizer
   Note: Use the optimizer file provided until the PDF Optimizer interface has been mastered.

3. Select **Advanced** > **PDF Optimizer** from the menubar.

4. The **PDF Optimizer** dialog opens.

5. Select **accessible** from the **Preset** dropdown list.

6. Select **OK**.

Save the file using a new filename.