

Document Accessibility

Creating 508 Standards Compliant PDFs

Introduction

Section 508 of the Rehabilitation Act requires that federal agencies' electronic and information technology be accessible to people with disabilities. Towson University is committed to aligning documentation to the same standards set for the Federal Government. In this self-help document, you will learn how to take an existing document (Word, Excel, Publisher, etc.) and make it compliant. You will then learn how to run the document through a compliance check to see if it meets the standards of Section 508.

Process Summary
Introduction
Tools Needed
Document Creation
Saving As PDF
Running the Compliance Checker

Tools Needed

For a document to meet compliance, you will need the following:

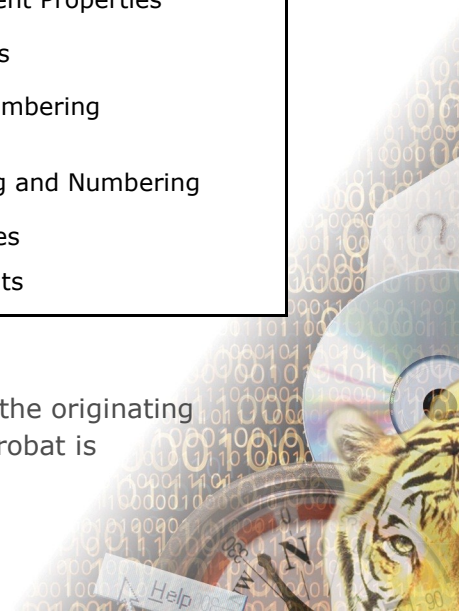
- The document created in Word, Excel, Publisher, etc. In this example, we will use a document created in Microsoft Word 2010.
- A full version of Adobe Acrobat Professional. Access to Adobe Acrobat Professional is available via the Virtual Workspace.

Document Creation

A fully compliant document has the following attributes:

Required	Recommended
1. Alternative Text on Images	1. Completed Document Properties
2. Style Elements (Heading 1, etc.)	2. Fully Qualified URLs
3. Header Rows on Tables	3. Automatic Page Numbering
4. Form Fields	4. Automatic Bulleting and Numbering
	5. Automatic Footnotes
	6. Recommended Fonts

Each attribute must be composed and made compliant in the originating program before being converted to PDF format. Adobe Acrobat is used to check compliance, not used to make a document compliant.



Alternative Text

Each non-text element (such as an image on the page) must have alternate text describing what the element is to a screen reader.

- ★ For this and all examples used in this document, Microsoft Word 2010 is being used. Menu commands may be different for other software programs.

Figure 1



1. Add the image as you would normally (Fig 1).
2. **Right-click** on the image to activate the pop-up menu (Fig 2).
3. Select **Format Picture** from the menu (Fig 2, 1). The **Format Picture** dialog box will appear (Fig 3).
4. Select the **Alt Text** tab (Fig 3, 1) and type appropriate text into the **Title** and **Alternative text** boxes (Fig 3, 2). This text should describe the image so a screen reader can identify it.
5. Click **Close** (Fig 3, 3).

Figure 2

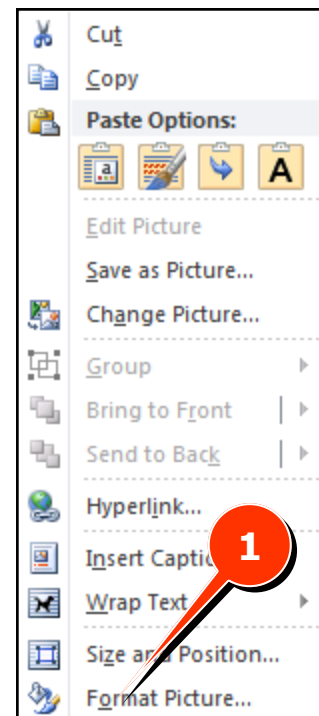
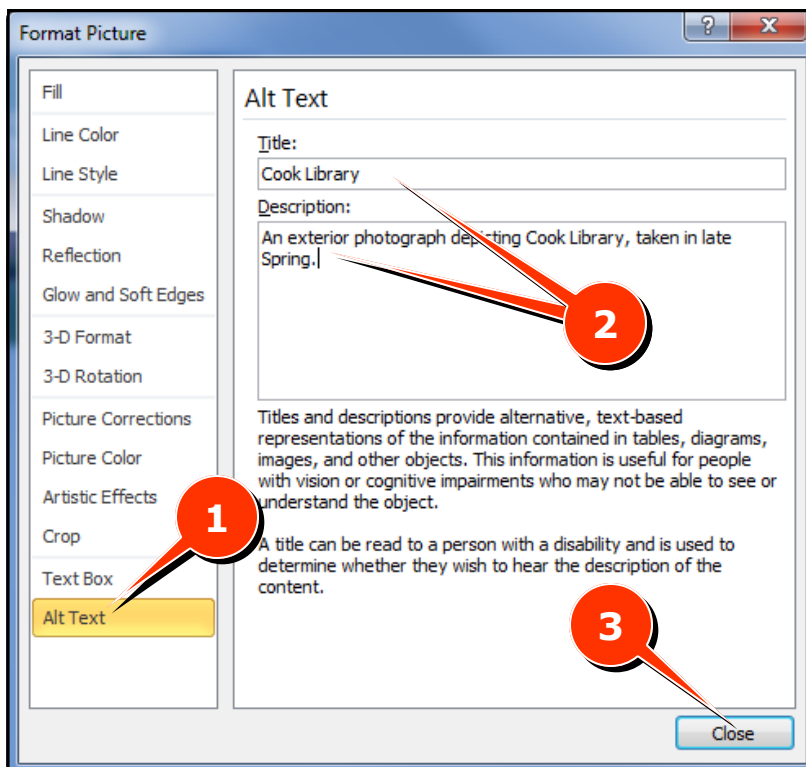


Figure 3

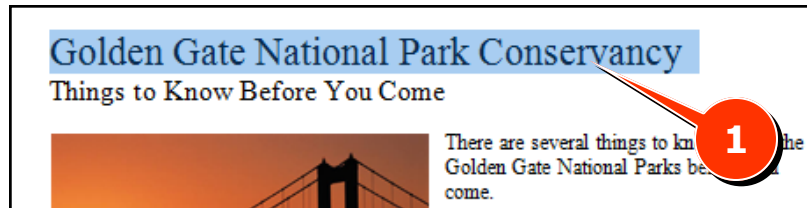


Style Elements

Each heading, sub-heading or title used in the document must be created using **Style Elements**. This creates a document structure which helps screen readers read text.

1. Type the heading as you normally would and then highlight the text (Fig 4, 1) .
2. Select a **Style** from the **Styles** dropdown button (Fig 5, 1) on the **Home** tab.

Figure 4

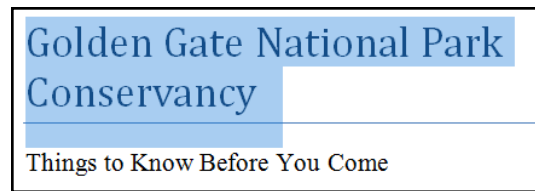


3. The new style will be applied to the highlighted text (Fig 6).

Figure 5



Figure 6



Header Rows on Tables

Each table created must have the header row (first row in the table) clearly defined so that screen reader software will read the table in a manner that is understandable to the end user.

1. Create the table as you would normally and select the table by clicking it (Fig 7). The best way to select a table is to click the four way cursor in the top left-hand corner of the table (Fig 8, 1).

Figure 7

Park Headquarters and Information Center	(415) 561-4700
Alcatraz	(415) 561-4900
Muir Woods	(415) 331-2596
Marin Headlands	(415) 331-1540
Presidio	(415) 561-4323
Crissy Field	(415) 561-7761 or 561-3040
Fort Point	(415) 561-1693 or 561-1373

Figure 8



2. Select a **Table Format** from the **Table Formats** group on the **Design** contextual tab (Fig 9, 1).
3. From the **Table Style Options** group, place a check mark in the **Header Row** box (Fig 10, 1).

Figure 9

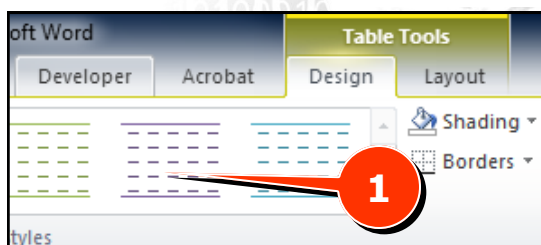
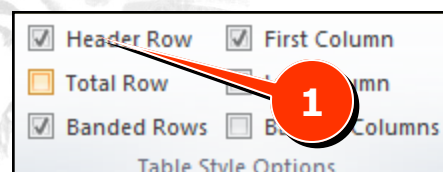


Figure 10



Forms

According to Section 508 Guidelines, when electronic forms are designed to be completed online, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

Forms are typically created in Word or Adobe and to be compliant, they must have tooltips associated with a field. Tooltips are best created within the originating document, but can also be added to the completed PDF.

Word Forms

1. Open the form in Word as your normally would.
2. Highlight the field you want to use as a form field (Fig 11, 1).
3. Select the **Rich Text Content Control** button (Fig 12, 1). A properly tagged field will be added to the document (Fig 13, 1). Repeat the process for each remaining field.

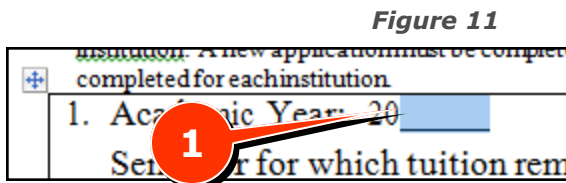


Figure 11

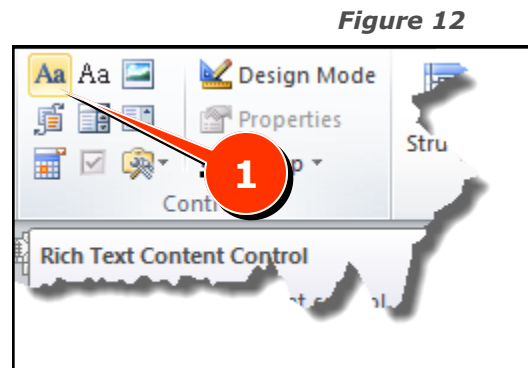


Figure 12

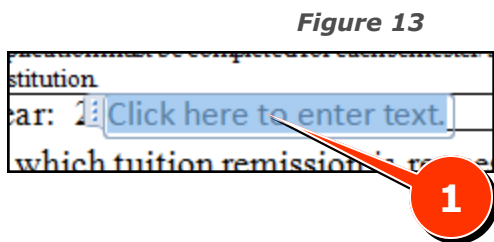


Figure 13

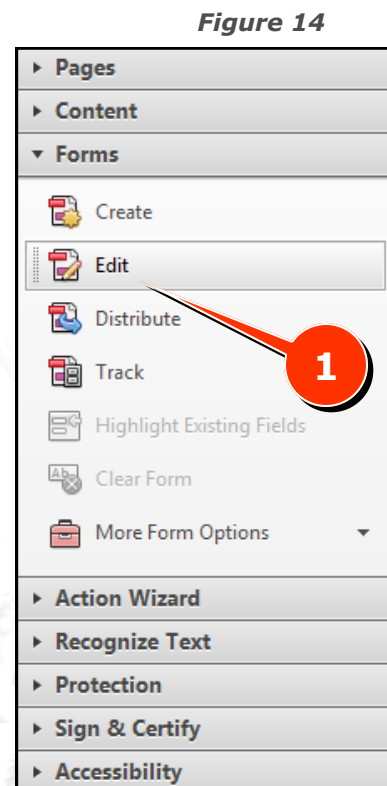


Figure 14

Adobe Acrobat (Preferred)

1. Open the form in Adobe Acrobat Professional as you would normally.
2. Select Edit from the Forms Sub Menu on the right of the document (Fig 14, 1).
3. Depending on the form, Adobe will ask to detect form fields for you. Click Yes (Fig 15, 1). Adobe Acrobat will tag and label each form field that it detects.

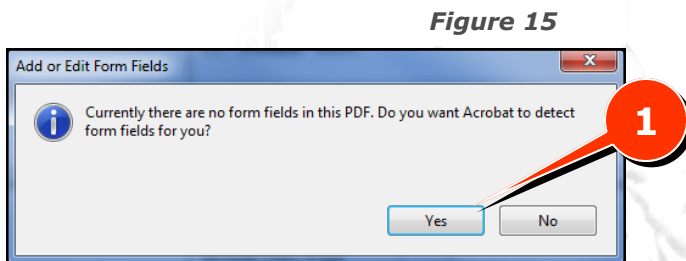


Figure 15

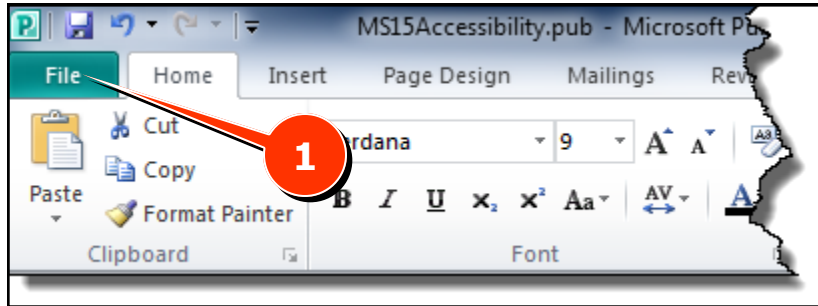
★ This document is not a substitute for form creation. For more comprehensive instructions on how to create a form using Word or Adobe, please contact OTS Training for specialized assistance.

Completed Document Properties

Each document created must have completed document properties. The location of the **Document Properties** in each software package is the same.

1. Once the document has been created, click the **File** tab on the **Ribbon** to reveal the **Backstage View** (Fig 16, 1).

Figure 16



2. Click the **Info** menu item in the left-hand fixed panel (Fig 17, 1). This will reveal contextual panels to the right (Fig 18).

Figure 17

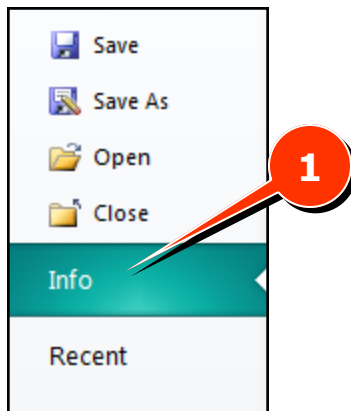
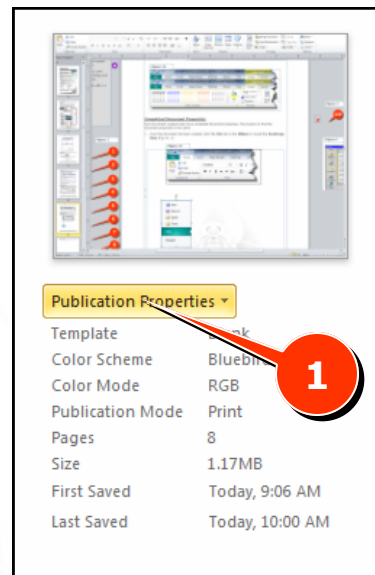
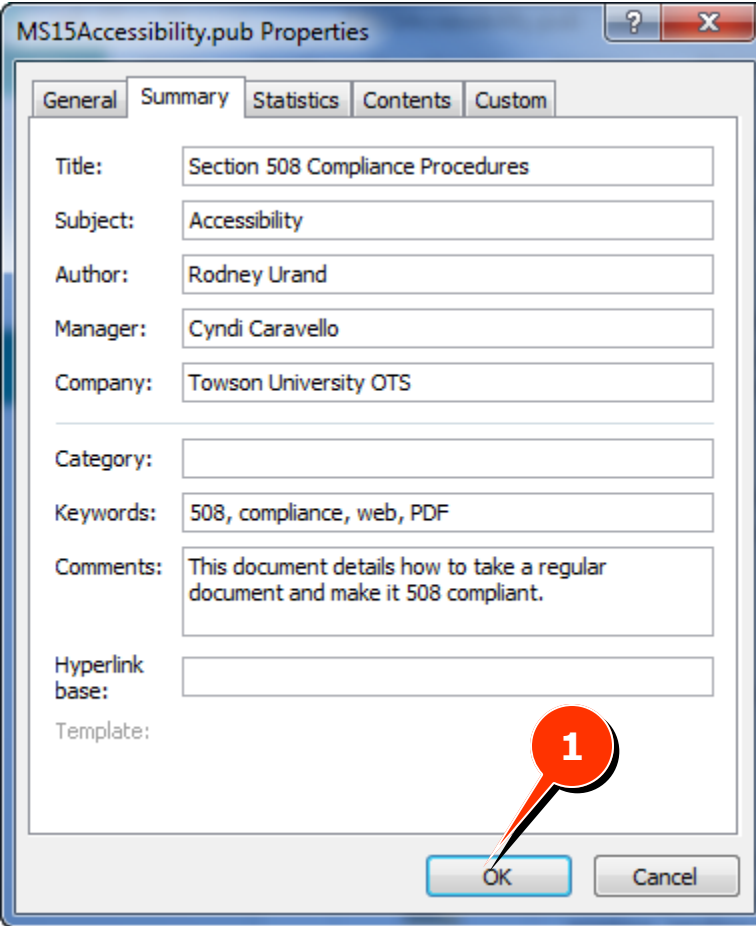


Figure 18



3. Click the **Publication Properties** button to access the properties for this publication (Fig 18, 1). The **Properties** dialog box will appear (Fig 19).

Figure 19



The screenshot shows a Windows-style dialog box titled "MS15Accessibility.pub Properties". It has a tabbed interface with "General", "Summary", "Statistics", "Contents", and "Custom" tabs. The "General" tab is active. The fields are filled with the following information:

- Title: Section 508 Compliance Procedures
- Subject: Accessibility
- Author: Rodney Urand
- Manager: Cyndi Caravello
- Company: Towson University OTS
- Category: (empty)
- Keywords: 508, compliance, web, PDF
- Comments: This document details how to take a regular document and make it 508 compliant.
- Hyperlink base: (empty)
- Template: (empty)

At the bottom of the dialog, there are "OK" and "Cancel" buttons. A red callout bubble with the number "1" points to the "OK" button.

4. Fill each box with as many details as possible. Note that keywords are helpful if you will be publishing this document online as they will be picked up by search engines.
5. Click **OK** to close the dialog box (Fig 19, 1). You will return to **Backstage View**.

Fully qualified URLs

A hyperlink should be fully qualified (written out completely with a description) for it to meet the 508 Standard.

1. Type the website address as you would normally and then highlight the text (Fig 20).
2. Click **Hyperlink** from the **Links** group from the **Insert** tab on the ribbon (Fig 21, 1). The **Insert Hyperlink** dialog box will appear (Fig 22).

Figure 20

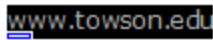
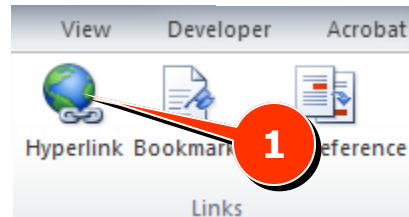
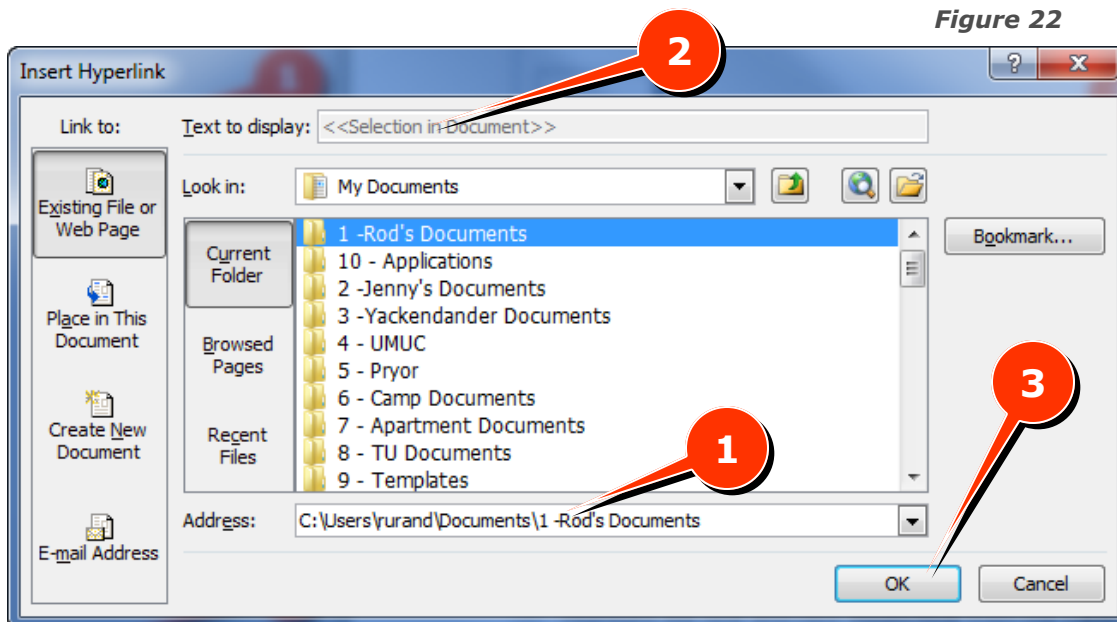


Figure 21



3. In the address bar (Fig 22, 1), type the full address of the website, including the prefix. For example, **www.towson.edu** will become **http://www.towson.edu/**.

Figure 22

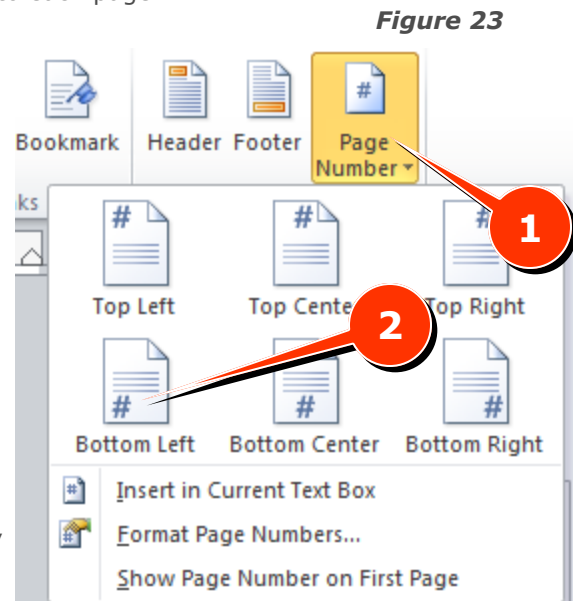
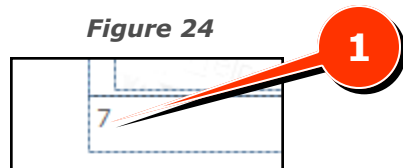


4. In the **Text to Display** box, type a description for the hyperlink (Fig 22, 2).
5. Click **OK** to close the window and accept the hyperlink (Fig 22, 3).

Automatic Page Numbering

For a document to be fully compliant with section 508, page numbers must be created automatically, not inserted manually.

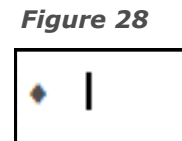
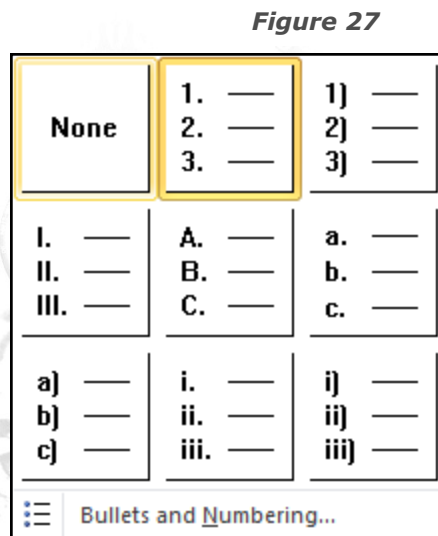
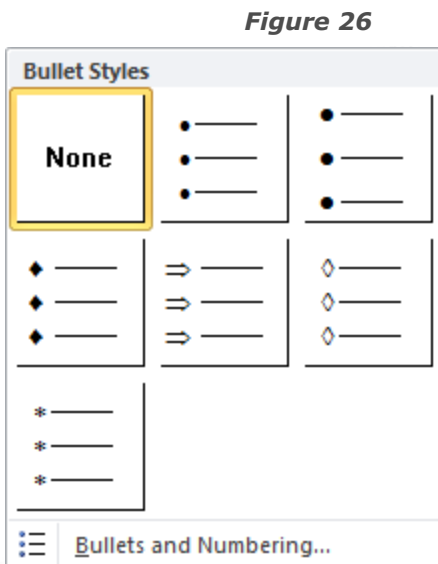
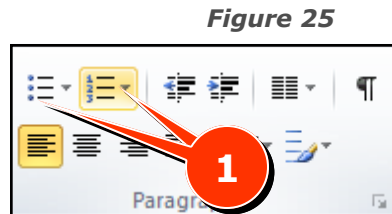
1. From the **Insert** tab, select the drop-down arrow next to **Page Number** in the **Header and Footer** group (Fig 23, 1).
2. Click the button for the corresponding location for which you want the page number to appear (Fig 23, 2).
3. The page number will be automatically inserted into each page of the publication or document (Fig 24, 1).



Automatic Bullets and Numbering

For a document to be fully compliant with section 508, bullets and numbers must be created automatically, not inserted manually.

1. From the **Home** tab, click the **Bullets** or **Numbering** icons in the **Paragraph** group (Fig 25, 1).
2. If you are selecting a **bullet**, choose a **bullet** style from the drop-down list (Fig 26).
3. If you are selecting a **number**, choose a **number** style from the drop-down list (Fig 27).
4. The bullet or number will appear in the text (Fig 28).

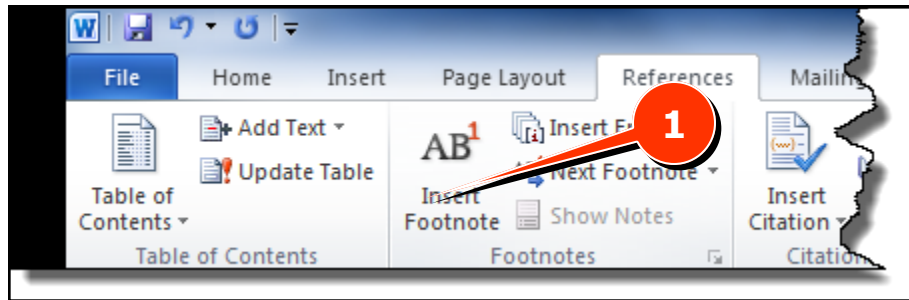


Automatic Footnotes

When creating a footnote, using automatic footnotes instead of typing them in manually will make a document 508 compliant. At the time of this publication, MS Publisher has no built in feature to create automatic footnotes, so the example used will be in MS Word.

1. At the place in the text where the footnote is to appear, click **Insert Footnote** from the **Footnotes** group on the **References** tab (Fig 29, 1).

Figure 29



2. The footnote number will be added next to the text (Fig 30) and the cursor will be placed at the bottom of the page.

Figure 30

air country"¹

Figure 31

¹ Originally a typing drill, quoted text extracted from Wikipedia

3. Type the footnote text (Fig 31, 1) next to the footnote number. When finished, click back on the paragraph and continue typing.

Recommended Fonts

Not all fonts are compatible with screen readers. Section 508 of the Rehabilitation Act does not specifically state which fonts are required. However, as a general rule, fonts that are easily readable and available on all platforms (Mac, PC, Linux etc.) are suitable. Arial, Times New Roman, Helvetica and Calibri are examples of fonts that meet this criteria.

Saving as PDF

Using the built-in tool found in Microsoft Office, you can save a document as a PDF.

1. With the document open, click the **Save and Send** menu option from the **File** tab (Fig 32, 1).
2. Click **Create PDF/XPS Document** from the **File Types** group (Fig 33, 1). The PDF contextual panel will appear (Fig 33).
3. Select the **Create PDF/XPS** button (Fig 33, 1).
4. The **Publish as PDF or XPS** dialog box will open. Give the new PDF publication a name (Fig 35, 1) and click **Publish** (Fig 35, 2) to convert the document to a PDF.
5. The newly created PDF will open in Adobe Acrobat Reader (if installed).


 If you will be checking this document with Acrobat Professional, save the document to your H: drive so you can access it through the Virtual Workspace.

Figure 32

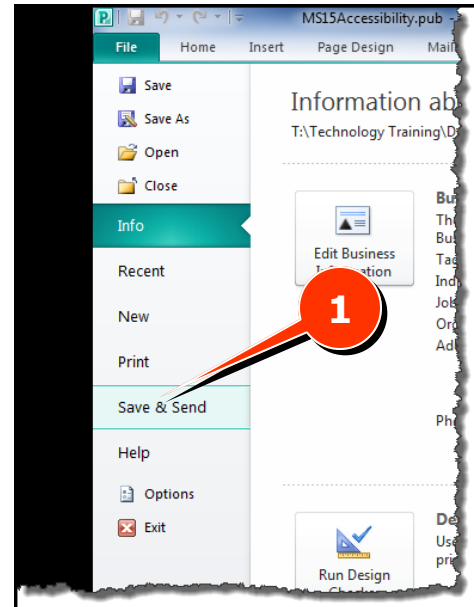


Figure 33

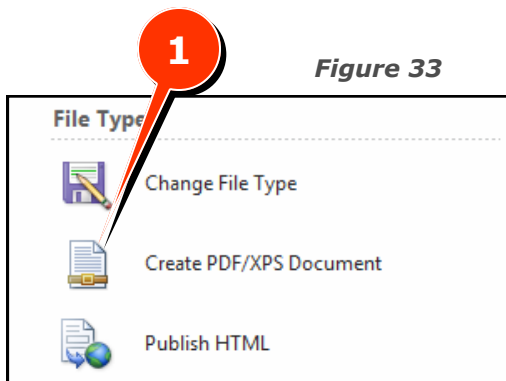


Figure 34

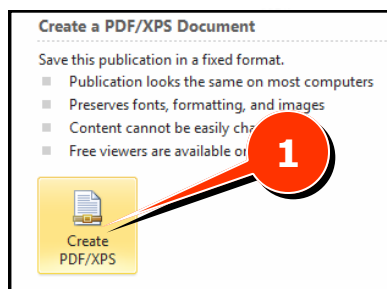
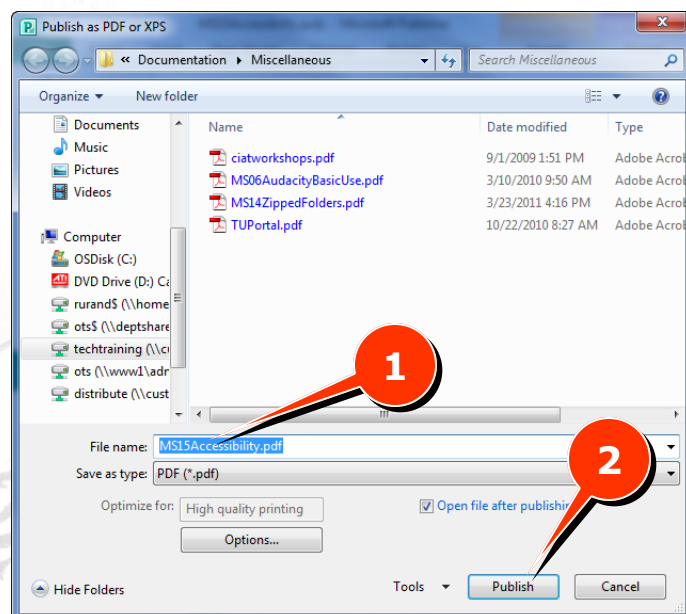



Figure 35



Running the Compliance Checker

Even though steps may have been taken to make a document compliant, the only test is to check the document against a compliance checker. Currently the full version of Adobe Acrobat is considered the industry standard for checking PDF compliance.

 You must have a full working copy of Adobe Acrobat to perform the following steps. The compliance checker is not available in Adobe Acrobat Reader.

1. If it is not already open, open the newly created PDF with Adobe Acrobat.
2. Select **Full Check** from the **Accessibility** sub-menu located on the **Tools** menu (Fig 36, 1). If it is not an available menu option, select the **Show or Hide Panels** icon (Fig 36, 1) and select **Accessibility** from the available options (Fig 37, 1).
3. The Accessibility Full Check dialog box will appear (Fig 38).
4. Under the **Checking Options** drop-down box, select **Section 508 Web-based intranet and internet information and applications (1194.22)** (Fig 38, 1).
5. Click the **Start Checking** button (Fig 39, 2).

Figure 36

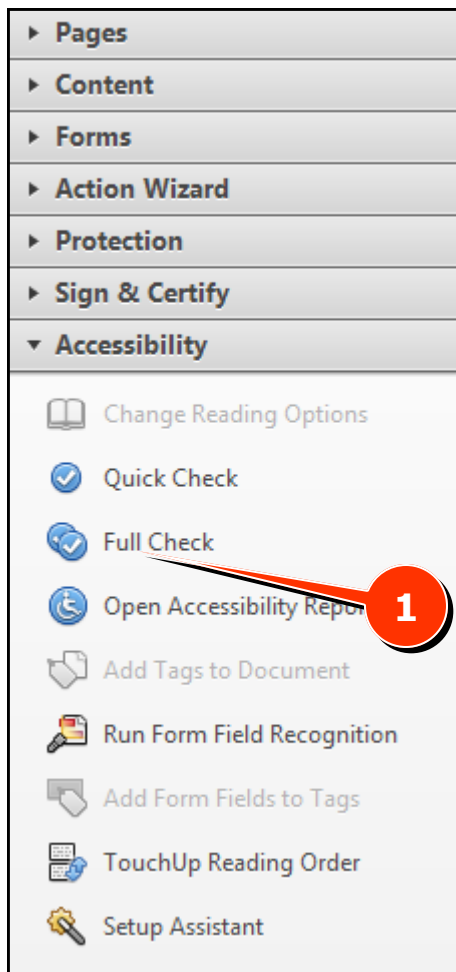
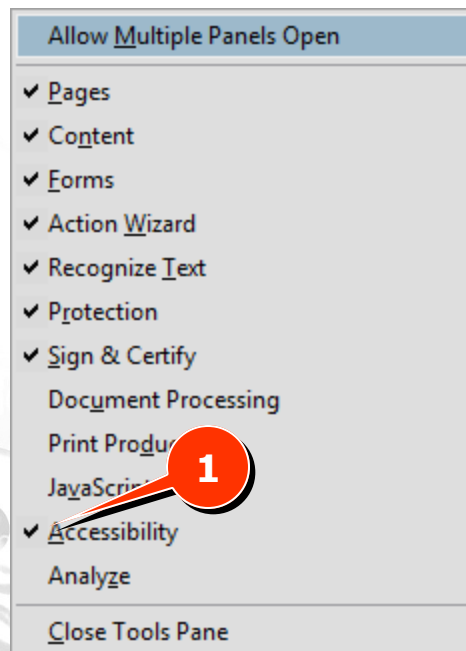


Figure 37

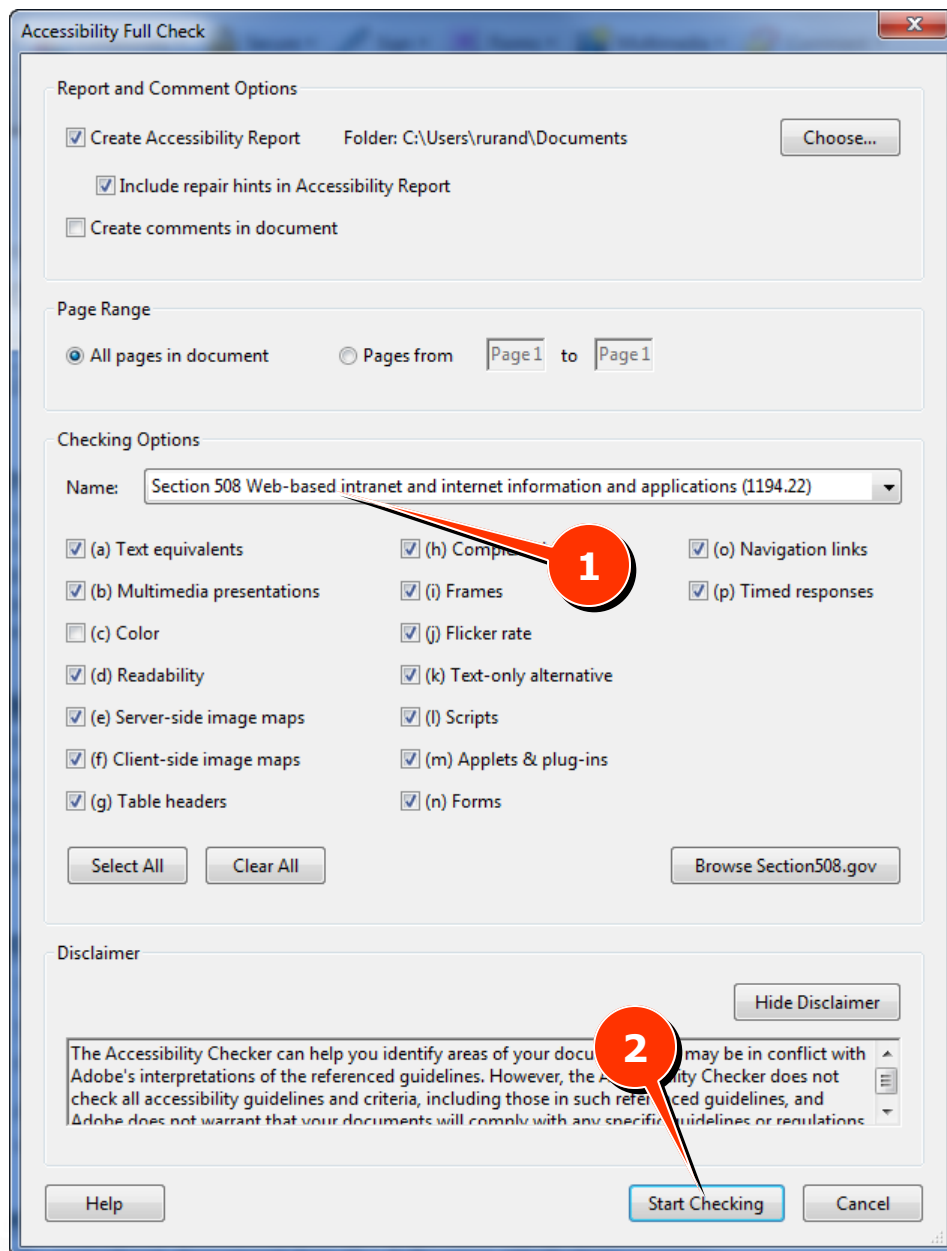


Figure 38



6. **Adobe Acrobat** will run a full compliance check on the publication. If there are any compliance problems, a dialog window will appear indicating that the checker has found problems which may prevent the document from being fully accessible (Fig 40). If that is the case, click the **OK** button to reveal the Accessibility Report (Fig 40, 1).
7. The Accessibility Report will appear in the left-hand panel of Adobe Acrobat. The report has several sections. Navigate to the **Detailed Report** section of the report to view the discrepancies (Fig 41, 1).
8. Each discrepancy listed will hyperlink to the place on the document and detail what is preventing full compliance. Click the hyperlink to see the discrepancy (Fig 41, 2).

Figure 39



9. Repair the discrepancy either using Adobe Acrobat or returning to the original application and making the changes. Be sure to complete the steps until you are able to meet compliance.
10. When complete, your document will now be fully compliant.

Figure 40

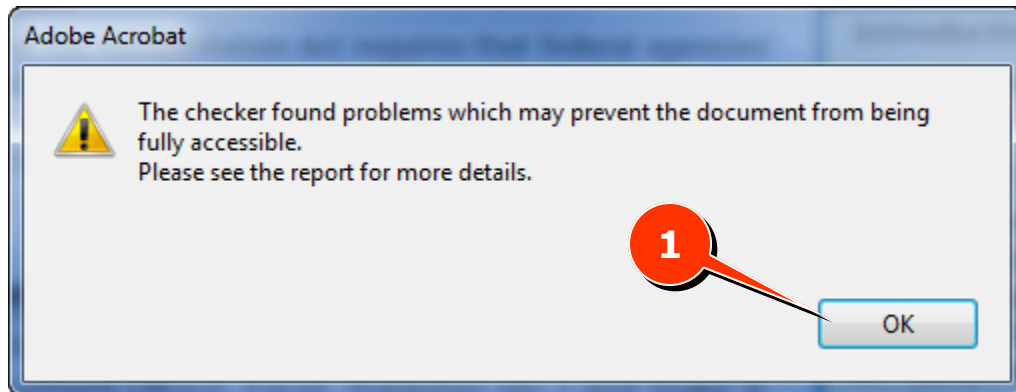


Figure 41

