Section 508 Training
Section 508 of the Rehabilitation Act

Office of Information Management Technology

• Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d) applies when Federal Agencies develop, procure, maintain or use Information and Communication Technology (ICT)

• Section 508 requires ICT to be accessible to individuals with and without disabilities.
Examples of ICT

- Computers, Software, Firmware and Peripherals
- Telecommunication Products (telephones and faxes)
- Information Kiosks and Transaction Machines
- Office Equipment (copiers, fax machines, and calculators)
- Video equipment and multimedia products distributed on DVDs, CDs, video tapes or internet
- Network Services
- Support Services
- Websites, E-mail, and Groupware
- Social Media (Facebook, Twitter, etc.)
Hierarchy of Section 508 Authority

Office of Information Management Technology

- **Law**
  - Section 508 of the Rehabilitation Act (as Amended), 29 U.S.C. § 794d

- **Accessibility Standards**
  - U.S. Access Board to create and update ICT Accessibility Standards for Section 508

- **The Federal Acquisition Regulation (FAR)**
  - Law mandates Section 508 Standards clause be included in, and therefore ENFORCED through, the FAR

- **Department/Agency Policy**
  - 375 DM 8, Section 508 Program and Responsibilities

- **Accessibility Resources**
  - Accessibility standards and guidance provided by Indian Affairs.
Accessibility is Important

Some people with disabilities have no other way of interacting with people, accessing information, starting a career, getting an education, or contributing to society, other than through the web, ICT and Assistive Technology (AT).

The Census Bureau reports that 56.7 million Americans have a disability; that is about 20% of the total population. 59% of those age 21 to 64 who reported a disability are unemployed.

Approximately 9% of DOI’s workforce is disabled.
Assistive Technology Access

• Assistive Technology (AT) such as screen readers enable individuals with disabilities to access information.

• There are three methods that can be used to make it easier for AT to access information within a document:
  • Optimizing a PDF
  • Using Optical Character Recognition (OCR)
  • Adobe Accessibility Checker
Optimizing a PDF

- Optimizing PDFs ensure maximum efficiency by saving space by removing embedded fonts, compressing images, and removing items from the file that are no longer needed.
- Click Tools > Optimize PDF.
Optimizing a PDF

- Click on Advanced Optimization.
- Make sure that Images and Fonts are checked. Click OK.
Optical Character Recognition (OCR) is used for AT to successfully read fonts from scanned PDFs or unrecognizable text.

- Also enables editing of scanned documents.
- Click Edit PDF.
Click an area of text in one of the text boxes. The Format (or Font) is displayed.
• If the Format (Font) displays with an asterisk * then Adobe has converted the text to a “machine” font and it must be changed.

• In this case, the *Courier New-2628 font needs to be changed to “Courier New”.
• The Format (Font) has now been changed to “Courier New”.

DEPARTMENT of the INTERIOR

news release

BUREAU OF INDIAN AFFAIRS
For Release to PA August 22, 2009

Henderson 343-9431

Ground is being broken for a new Indian vocational-technical school at Albuquerque, N.M., the Department of the Interior’s Bureau of Indian Affairs announced today.
• The Adobe Accessibility Checker is used to check Section 508 compliance in PDF files.
• Click Tools > Accessibility.
• Click Full Check.
Adobe Accessibility Checker

- Select one of the Checking Categories to run the checker.
  - Document – for files mostly containing text
  - Page content – for files mostly containing images or maps
  - Forms, Tables and Lists

![Accessibility Checker Options](image)
Requirements for Accessible PDFs

Office of Information Management Technology

• Document Properties
  1. Assistive Technology (AT) Access
  2. Descriptive Filename
  3. Document Language

• Structure Tags
  1. Tags
  2. Decorative Content
  3. Headers, Footers, and Watermarks
  4. Headings
  5. Lists
  6. Section Language

• Objects
  1. Images – Alternate Text
  2. Data Tables

• Color
  1. Color and Other Sensory Characteristics
  2. Color Contrast

• Miscellaneous
  1. Audio, Video and Multimedia
  2. Flashing Objects
  3. Alternative Accessible Version
Descriptive Filenames

• A descriptive filename identifies the document or its purpose and helps everyone locate, open and switch between documents.

• Use a filename such as “budget_justifications_2019” or “FY_2019_Budget_Justifications” instead of “untitled budget info 011596_copy4”.

• Use underscores ( _ ) instead of spaces. Easier for screen readers to interpret spaces.
• Screen readers use the language setting in document properties to provide the appropriate pronunciation for the document. Right-click “Primary language – Failed” and click “Fix”. Then select “English” and click OK.
Structure Tags

- Screen readers rely on tags to interpret document structure such as headings, paragraphs, tables, etc.

- All meaningful text and objects must correspond to a tag and the order of tags must correspond to the visual order.
Structure Tags – Decorative Content

- Decorative content should be set to **Artifact**.
- Screen readers can skip over ornamental images and redundant text tagged as Background.
• Information in headers, footers or watermarks must correspond to a tag at or near the start of the related information or a screen reader will skip over it.
• Headings break up content and make finding information easier. Assistive Technology like screen readers cannot infer meaning from visual headings created with bold or underline.
  • Visual headings must correspond with a heading tag, and
  • Heading tags must match the visual outline.
  • Headings created in Word will convert into Adobe if they were created using Headings in Styles
• The **Appropriate nesting** rule checks nested headings such as H2, H3, H4, H5 tags. When this check fails, headings are not nested properly.

• To fix this issue, find any H3, H4, or H5 tags in the Tags Panel and delete them. (Only H2 placed properly in the document should exist.)
Structure Tags - Lists

• Screen readers cannot infer meaning from symbols and indents. List tags create a structure that screen readers can identify.
Structure Tags - Lists

- The *List items* check reports whether each List Item (LI) is a child of List (L). When this rule check fails, the structure of this list is incorrect.

- Lists must have the following structure:
  - A List element must contain List Item Elements. And, List Item Elements can only contain Label Elements and List Item Body Elements.
Structure Tags - Lists

• To fix the list structure:
  1. Find the list in the Accessibility Checker panel by right-clicking (Windows) or Ctrl-clicking (Mac OS) the failed element and choosing Show In Tags Panel.
  2. Create elements, change the types of elements, or rearrange existing elements by dragging.
Objects - Images

• Screen readers cannot infer meaning from images and other objects (pictures, images of text, charts, diagrams, shapes, etc.). Meaningful images must be accompanied by text that describes the purpose or function of the image.
Images – Alternate Text

• Click the Reading Order option on the right-hand side.
• Draw a rectangle around the image and click Figure in the Reading Order tool.
Images – Alternate Text

• Right click on the image, drag down to Edit Alternate Text, and enter text in the pop-up dialogue box.
If you encounter a *Figures alternate text* issue, make sure that images in the document either have an alternate text or are marked as artifacts.
In data tables, header cells are required to describe the data. For Assistive Technology to interpret this information:

1. Data tables must correspond to a table tag `<Table>`.  
2. Header cells must be identified with table header cell tags `<TH>`.  
3. Complex data tables must have data cells `<TD>` associated with header cells.
Example – Inaccessible Table

- This table has not been tagged as a table.
- Header cells and data cells have not been identified.

<table>
<thead>
<tr>
<th>Wildland Fires</th>
<th>New</th>
<th>Out</th>
<th>Active</th>
<th>Npr</th>
<th>YTD Fires</th>
<th>YTD Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Fire Service (AFS)</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>27</td>
<td>358.3</td>
</tr>
<tr>
<td>GAD (Galena Zone)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>153.0</td>
</tr>
<tr>
<td>MID (Military)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>22</td>
<td>172.3</td>
</tr>
<tr>
<td>TAD (Tanana Zone)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3.0</td>
</tr>
<tr>
<td>UYD (Upper Yukon Zone)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Alaska Interagency Coordination Center Situation Report Tuesday - 05/17/2016
Tagging Tables

To tag a table, Use the Reading Order tool to draw a rectangle around the table and click Table.
Place the cursor over the table number and click, the table number should turn blue. You may now open the Table Editor in the Reading Order tool.
To view header cell and data cell labels, right click on a data cell and select Table Editor Options.

<table>
<thead>
<tr>
<th>RADIUS (R) (in feet)</th>
<th>TAPER</th>
<th>LENGTH (L) (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>76</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>76-100</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Greater than 100</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>
Table Cells

- Under Label Option, check Show cell type
Evaluating Simple Tables

- All table header cells should be labeled `<TH>`.
- All table data cells should be labeled `<TD>`.
- This simple table is accessible.

<table>
<thead>
<tr>
<th>RADIUS (R) (in feet)</th>
<th>TAPER LENGTH (T) (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD less than 70</td>
<td>TD</td>
</tr>
<tr>
<td>TD-85</td>
<td>TD</td>
</tr>
<tr>
<td>TD-100</td>
<td>TD</td>
</tr>
<tr>
<td>TD-100 or greater</td>
<td>TD</td>
</tr>
</tbody>
</table>

In complex tables, data cells must be associated with header cells.
Indian Affairs, through the Office of Information Management Technology is working with various offices to convert documents to fully accessible web pages. This effort ensures content is Section 508 compliant while also ensuring easier search capability and mobile responsiveness.
• Federal agencies have the goal to produce on accessible document for everyone. However, there may be times when this is not feasible. In cases where a document cannot be made accessible for everyone, an accessible alternative version is acceptable.
Additional Resources

• Indian Affairs Web Standards
• IA Accessibility Guide
• Create Accessible Documents in Adobe Acrobat Pro

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