

# Challenges in Section 508 compliance for PDF files



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# Accessibility is a Big Deal

- The fundamental technical intent of the goal delineated in Section 508 is that the public's information should be presentable in a highly structured fashion to facilitate ease of use. This is a worthy goal with or even without Section 508.
- The real implementation question is: What is your agency's Accessibility Standard? Like OCR, 97% accessible is easy, 99.995% is orders of magnitude more difficult to achieve.



# Procurement Implications

- Contractors delivering EIT products and services must meet “... applicable technical provisions from the Access Board’s standards ...” as identified by the contracting agency.
- The Access Boards’ standard for accessibility in PDF files means that the tagging features of PDFMaker or Acrobat 5.0 are required in order to make all but the simplest of PDF files properly accessible.
- Text-only versions are the “...method of last resort”.  
[36 CFR 1194.22(k)]



# Aphorisms for Accessible Authoring

- Full accessibility is a function of adherence to a number of strict, relatively sophisticated rules governing the authoring and typesetting of documents.
- Full accessibility is easy IF you start at or very near the beginning of the document life cycle!
- Adding or assuring accessibility *after* PDF creation should be avoided or minimized at all costs!
- Many commonly used design elements are inherently inaccessible. So ... be more creative, not less!



# Designing for Accessibility

- Simply layouts whenever possible.
- Reinvent design elements that just don't work in a screen reader.
- Acquire *alternate text* for the images UP FRONT.
- Watch for font incompatibility problems - font reliability is very important for accessibility. Stick to Base 14 and Type 1 fonts and use Distiller 5.0.
- Test your creations with a common screen reader such as JAWS or Window Eyes before release!



# MSOffice to Accessible PDF

## **REQUIRED:**

- Extensive Office skills, including table, character, paragraph and document level formatting & strong familiarity with Styles.
- Total consistency in the application of styles.
- Attention to detail: sloppy = inaccessible.
- Perhaps 5% of today's Word users have the necessary skills. (My staff thinks <2%).

## To be **AVOIDED...**

- The use of shading to convey meaning
- Cells that span other cells in a table
- Incorrect use of hard and soft line breaks (!) in cells.
- Specific, consistent application of gridlines
- Ungrouped illustration segments
- Overlapping elements
- Many other sins await!



# The "Make Accessible" Plugin Blues

## **Make Accessible plugin Adobe Acrobat 5.0**

- Complex tables are VERY difficult, no, make that HOPELESS.
- Some tables and sidebars treated as Figures or Images - and must be Tagged from scratch.
- Watch the soft and hard line breaks in cells!
- Tables need gridlines around ALL cells - or else!

## **Tag PDF Agent Adobe Capture 3.0x**

- Simple tables are OK; you'll be hand-tagging complex ones
- Zone to identify text and image areas. If read order could be defined during zoning, it would be a huge plus!
- Actual or Alt. text cannot be added to images in Capture.



# The Tags Palette “Version 1.0”

- All but the simplest of document layouts require extensive correction with the Tags Palette.
- Tables are especially difficult!
- And a note from the trenches...

*“It’s often easier to create tags manually rather than correcting the errors created by the plug-ins. BOTH methods are extremely time-consuming and finicky due to the many little steps involved, the lack of keyboard shortcuts and the overall crankiness of the interface.”*



# The Accessibility Checker ... ... doesn't!

- A "pass" from the Accessibility Checker (AC) does not mean compliance with Section 508!
- The essential requirement of Section 508 for PDF files - correct reading order - cannot be checked with the AC at all!
- Many AC "errors" belong to non-content, and should be properly tagged as artifacts.
- Reflow and Tags are NOT the same thing!
- The Accessibility Checker will not, repeat, not locate most accessibility errors. Tags must still be checked (joy!) using the Tags Palette.



# The Toolbox for Accessible PDF

- Adobe PDFMaker for MS Office 2000
- Adobe PageMaker 7.0
- Adobe Acrobat 5.0:
  - The Make Accessible plugin and Tags Interface
- Adobe Acrobat Capture 3.0x:
  - The Tag Adobe PDF Agent
- Screen Readers:
  - Window Eyes ([www.gwmicro.com](http://www.gwmicro.com))
  - JAWS ([www.freedomscientific.com](http://www.freedomscientific.com))
  - HAL ([www.dolphinuk.co.uk](http://www.dolphinuk.co.uk))
  - Acrobat support for MSAA

# Making Existing PDFs Accessible: Today's Harsh Reality

- **1st choice** - Forget the PDF, start with the original Word, Excel, PP or PM file, fix the formatting, Styles, QC and PDFMaker it! Still need alt. Text, though.
- **2nd choice** - Extract the content from the PDF, create a new Word, Excel, PP or PM "source file." Or, scan the page, zone, OCR, correct text and simplify the document. No kidding. Still need alt. Text.
- **3rd choice** - Run the Make Accessible plugin, then correct the reading order, add missing alt text for images, check and correct (or create) bookmarks, etc, etc, etc, etc. Simple documents may be OK.
- **...and don't forget alt. text!**



# Industry Steps Up

- **Adobe Systems**
  - Accessible PDF and HTML technologies
- **Microsoft**
  - Windows *Accessibility Options* & MSAA
- **Screen Readers**
  - Devices for reading accessible files
- **Other Products & Services**
  - Re-authoring and retrofitting accessibility features



# Resources

- **Adobe Systems**
  - <http://access.adobe.com/acrobatmain.html>
  - Especially: Advanced Techniques for Creating Accessible Adobe PDF Files  
<http://www.adobe.com/products/acrobat/pdfs/CreateAccessibleAdvanced.pdf>
- **Web Accessibility Initiative (WAI)**
  - <http://www.w3.org/WAI/>
- **Web Accessibility in Mind**
  - <http://www.webaim.org/>
- **The Horse's Mouth**
  - <http://www.section508.gov>

