Best Practices for PDFs with Adobe Acrobat

Adding Tags to a PDF document

To add tags to the documents go to the top menu in Adobe Acrobat and select Advanced/Accessibility/Add Tags to Document. Adobe Acrobat will add tags during conversion, but for documents that have no tags follow the steps mentioned. A PDF file must be tagged in order to provide accessibility. When creating a document, it is best to create a tagged PDF rather than going back and adding tags after the file has been created.

Adding tags to the document will allow the document creator the ability to add alternate text to images; check table structure and correct if needed; and change the reading order of the document if needed.

This document is a guide to some basic practices for making PDFs accessible. A link is provided below these remediation tips for an Adobe accessibility manual which will aid in correcting the reading order of these files. This manual can be used as a guide in creating accessible PDF documents and forms and should be used to learn all of the accessibility features available in Acrobat.

Adding Alternate Text to Images

Alternate text tags can be added to a tagged document by selecting View/Navigation Tabs/Tags from the top menu in Adobe Acrobat. The images can be found in the tag tree by selecting a tag, right clicking and selecting "Highlight Content". Look through the "figure" tags to find the appropriate image.

When the figure tag is found for the image to add alternate text to, right click on the tag and select "Properties". In the tab item "Tags" there is an area for alternate text. This is where to add alternate text for images.

Additional guidance can be found in the Adobe accessibility manual.

Concerning PDF Accessibility

In order for a document to be made accessible the document creator must learn the concepts and techniques involved to achieve PDF compliance in Adobe Acrobat, or find other software designed for PDF accessibility and learn to use it. It takes some time and study to solidly learn accessibility techniques for PDF. Without learning these techniques first-hand a document creator will sometimes not be able to fix or produce compliant documents themselves. The document creator should try to design documents with compliance in mind. If the document is not formatted properly before conversion; after it is produced the document creator will have to go back in to the structure of the document to make fixes. See the notes for MS Word conversions on the last page.

It is important to design documents that will convert to accessible PDF. However, the creator may still have to add alt tags to images; check the structure of tables and check the reading order of the document. A correct reading order is important because if it is off the screen reader will not render the text correctly. Refer to the Adobe accessibility manual for these techniques.

PDF Data Table

The tag structure of a table does not need to be changed if it is designed and converted properly. However, the design of a grid (a uniform table) works best for tables and compliance. Any table with spanning column headers will likely have to be fixed after conversion. Empty cells in tables cause compliance problems and are best avoided by having data or some other filler in each cell. For empty cells insert text such as N/A or a dash; or even white text which will fade into the background – these methods will solve the problem caused by empty cells.

In data tables, <TH> table header cells defined at the top of the table will ensure that the table has row and header identification. The best design for a compliant table is a uniform table with an equal number of column header cells and rows of table data cells beneath them.

PDF tables have a structure similar to HTML. In the top row of the table are the table header cells. Below is a demonstration table in which the elements of a table structure will be defined. The elements of a table are simple with a grid design.

<TH> San Antonio (Table Header Cell)	**<TH>** Houston	**<TH>** Dallas	**<TH>** Abilene
<TD> 60K (Table Data Cell)	**<TD>** 50K	**<TD>** 70K	**<TD>** 45K
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>
<TD>	<TD>	<TD>	<TD>

The top row contains the table header cells which must have <TH> tags to be designated as table header cells. The header cells and their text define the column.

The next rows are table data cells which are all <TD> tags. The data cells define the data which is associated with the column.

A screen reader will associate the header cell with the appropriate data cell below it. Therefore a user will hear "Houston; 50K", "Dallas; 70K", etc. In this way a screen reader user is able to read a table in the same manner a sighted person would, by associating the table data cells with the table header cells that represent them.

In order to be accessible, tables must be designed as the one above with an equal number of rows and columns. Elaborate designs in the tag structure with multiple headers spanning multiple columns do not work with screen readers.

Tables with multiple rows of column headers in documents that have already been produced can be made compliant, but this will require the document creator to master the tag structure of a PDF table first because this is an advanced task.

All data tables must have structure so they can provide row and header identification. This is not a requirement for display tables which do not have table header cells and can be read in a linear fashion.

Additional guidance can be found in the Adobe accessibility manual.

Scans

A scanned document is not a compliant document. It is an image with no "alt" text. The document must be recreated as a PDF file with text elements and images. The only way to make a scanned document compliant is to recreate it as an actual document and convert it to a tagged PDF file.

Options:

Here are the options for providing a Section 508 compliant solution for PDF documents.

- Provide an accessible HTML alternative.
- Provide an accessible Microsoft Word alternative.
- Fix the existing PDF documents using the Adobe 7 accessibility guide and resources available online. This requires learning the Adobe tag structure.
- Buy a software product or plug in made for Adobe PDF remediation.
- Reconstruct the PDF documents with compliance in mind.

Even if a document is "Tagged PDF", the creator has to go in manually and add alternate text descriptions and check tables and the reading order for compliance. This requires the document creator to learn and use the practices used for making a compliant PDF file.

An easier way to provide a compliant PDF document is to learn methods for constructing a document that will be mostly compliant before it is converted to PDF, in this way it will cut out the work re-organizing tables and the reading order.

Providing accessible HTML and Word will require employees who have, or can learn, the IT skills required to create accessible HTML and Word files. In HTML and Word there are protocols for constructing accessible tables. HTML and Word are not naturally compliant; they must be designed to be compliant.

Existing PDF files can be fixed using Adobe Acrobat, or using third-party software designed for PDF remediation.

A copy of the Adobe Accessibility User Guide for Adobe Acrobat can be found here: http://www.adobe.com/accessibility/products/acrobat/pdf/A9-pdf-accesibility-overview.pdf

Notes for a MS Word to PDF Conversion

Adding "alt" text descriptions to images in MS Word:

To add alt text in a Word document before conversion to Adobe PDF, right click on the image and select "Format Picture". Select the "Web" tab and add alternate text for the image. After conversion this "alt" text for the document should provide the "alt" text for the PDF after conversion.

MS Word Tables

An attachment will be sent with this document that will provide the document creator with a method to assign "table headers" to MS Word tables before conversion. This is an easy step, and one that should be completed before conversion to PDF.

Always use the "Table" tab in the MS Word menu when creating tables. When creating data tables; always create a "uniform" table. "A uniform" table looks like a grid.

Above is an example of a "uniform" table.

Captions for tables should be separate, not part of the table structure. The reason for this is that tables with captions in the structure will not provide row and header identification.

It is recommended that these practices be used in Word before conversion to PDF because if these actions are not taken the document creator will then have to manipulate table structure and add alternate text to images using the "Tag Tree" in Adobe Acrobat.

Layouts

Just as a note, elaborate layouts with multiple columns and layered images can be made compliant, but layouts like this may require more effort to make compliant after conversion. Whenever possible, keep the layout as simple as possible.

Consult the Adobe Acrobat documentation that is linked to in this document as a guide for creating accessible PDFs.