

# Introduction

Adobe Acrobat Professional is used to create PDF documents. If properly authored, PDF documents can be as easy to navigate as a web page. This site provides guidance for anyone in the production of accessible PDFs and in particular, it provides guidance for keyboard only users and for users of the JAWS screen reader. The Acrobat Pro UI is a visually rich application but it is possible to use it effectively even if you can't see it.

## Concepts

Acrobat Pro does not work like a word processing program. Ordinarily, documents are created in a program other than Acrobat and then the PDF is generated from the source document. Text editing and structural markup is done in the source document. This gives the best chance at producing an accessible PDF. Even when a source document is perfectly structured, some touch up and remediation is usually required in Acrobat Pro.

[Part 2: Creating the Word source document](#)

## Creating a PDF from a Word 2010 document

### Creating the source document

The most important aspect of creating an accessible PDF is the creation of the source document, in this case, Word 2010. We will create a Word 2010 document containing elements typically found in PDF documents.

- Headings
- Paragraphs
- An unordered list
- An ordered list
- A nested list
- A table
- An image

### Headings

Headings must be created using Word styles. The Styles pane can be deployed with the keystroke, CTRL+Shift+s. When deployed, the focus moves to the Styles pane. You can type the first few letters of the style you wish to set, then press DownArrow. If you type head and press DownArrow you'll probably land on Heading 1. Further presses of the DownArrow will reveal other heading levels.

Headings should be nested, meaning that level 2 headings should be beneath level 1 headings. Level 3 headings should be beneath level 2 headings etc.

You can set level 1 through 3 headings with the keystrokes, Alt+CTRL+1 through 3. In order to set levels 4 through 6, it is necessary to use the styles pane.

## *Paragraphs*

Paragraphs should use “Normal” text. Begin a new paragraph by pressing the Enter key once. Do not use multiple presses of the Enter key between paragraphs or any other elements in the document. This creates empty paragraph, <P>, tags when published to PDF.

## *List*

These are simply bulleted lists. You can begin a list by selecting the list bullet style in the Styles pane. It’s much easier to begin a bulleted list by pressing CTRL+Shift+I. Don’t press Tab or space or anything else. Just begin typing the first item. When you’re done, press Enter and a new bullet will be created for you. All you have to do is type the second item and hit Enter. Continue in this manner until all of the items in the list have been added.

Turning off the list is tricky because of a JAWS bug. Press Enter three times. Pressing UpArrow after pressing Enter three times will place you right on the last list item. Press DownArrow and you’ll be on the blank line where you can continue with your document composition. Another JAWS bug causes JAWS to report that the style is still a bulleted list but it’s not. You’ve been returned to the normal style.

## *Tables*

You can insert tables into your source document from the Insert ribbon. It’s easier to use the legacy Word keystrokes though. Press Alt+A>I>T. This lands you in a dialog where you can specify how many rows and columns you want your table to have. Use only uniform tables.

## *Pictures or graphics*

If your document has images, photographs, or graphics, you’ll need to provide alternative text for these items. Use the tools on the Insert ribbon to place images in your document. Alt+n will move focus to the Insert ribbon. Press Tab to move to the lower ribbon. The Insert picture item is the fifth item on the Insert ribbon. Press Spacebar to press the button. You’ll land in a dialog in which you can navigate to the picture you want to insert. When you press Enter, the image will land in your document.

To provide alt text for images, press CTRL+Shift+o to bring up a list of objects in the document. Arrow to the one you want to provide alt text for and hit Enter. The object is selected. Press the ApplicationsKey or Shift+F10 to bring up the context menu. UpArrow to the Format Picture item and hit Enter. Focus will be on the Close button. Tab once to get to a list of properties. Then press A twice and you’ll land on Alt text. Press Tab twice to move focus to the Description field and type the Alt text. When done, press Tab to move to the Close button and Spacebar to press the button.

## **Publishing the word 2010 document to PDF**

Open the included Word document, “Department of Veterans Affairs.” Press the Alt key to move focus to the upper ribbon. Press RightArrow until you locate the Acrobat tab. Press Tab and you’ll land on the Creat PDF button. Press the Spacebar. You will be asked to give the PDF a name and the name offered will be the same as the Word document but with a PDF extention. Press Enter to accept the file name. The document will be opened in Acrobat Pro.

## Working in Acrobat Pro

When the document opens in Acrobat Pro, it's likely that the document pane will be the only thing showing and focus will be in the document. Acrobat uses panes to display the various tools. You can move from pane to pane with F6.

The Tools pane is displayed on the right hand side of the screen. To deploy the Tools pane, navigate to View > Tools and choose any item in the Tools submenu. The Navigation pane is displayed on the left hand side of the screen. You can select the specific Navigation pane to be displayed by Navigating to View > Show/Hide > Navigation panes and press Enter when focused on the Navigation pane you wish to deploy.

- Note: You can close the Navigation pane with F4.

Ensure focus is in the document pane by pressing F6 until JAWS says Document. If you read the document with JAWS or look at the tags tree, you'll notice that Acrobat has moved the picture, which it calls a Figure, from where it belongs and placed it at the top of the document. Visually, however, the picture is where it's supposed to be. Editing and moving tags around does not effect the way the document looks. Tags are for accessibility only.

JAWS should announce list entry and list exit but in versions of JAWS earlier than V 16, list entry is omitted.

When working in Acrobat, most of your work will be done in the tags tree.

To show the Tags Tree in the Navigation Pane navigate to View > Show/Hide > Navigation Panes > Tags. When the Tags Tree displays your focus will be on the top item in the tree, Tags, and it will be closed. The tags tree works like any other tree view. RightArrow opens the item, LeftArrow closes the item. Up and Down arrows move up and down the tree. When you change levels in the tree, JAWS will advise you of this and speak the new level.

Go ahead and open the tags. Pressing DownArrow lands on a closed <Sect> tag. Open it and move all the way to the bottom of the tree by repeatedly pressing DownArrow. If you're familiar with the document you'll recognize the various tags. Some of the tags are abbreviated but it's easy to guess what they are. They're all closed but you can at least get an idea of the tag structure.

### Tidying up the tags tree

Sometimes empty tags are found when publishing from Word to PDF. If you examine the tags tree you'll find that the first <P> tag is empty. It's okay to delete empty tags but first you need to artifact the content of the empty tag. Open the first <P> tag and arrow down to its contents. JAWS will say "blank." Press the Applications key or Shift+F6 to simulate a right click. Arrow up to "Change tag to artifact" and press Enter.

Press F6 and focus will move back to the tags tree and land on the, now empty, <P> tag. Only when a tag is empty can it be safely deleted. Right Click, arrow down to Delete tag and hit Enter.

There's no "Undo" in Acrobat. Therefore you should save often. If you're confident that you've correctly artifacted the empty tag content and then deleted the empty tag, go ahead and press CTRL+s to save the document.

### Moving tags

Next, let's get the pictures back to their proper places. When you save a document, the tags tree closes. Focus will be at the top of the tree, Tags will be open but <Sect> will not. Go ahead and open it up. Press DownArrow to focus on the first <Figure> tag. If you like, you can open the tag, move down to the contents and see what's there. Pretty meaningless, right? Right click, up arrow to Properties and hit Enter. Tab to the Alt text field and that will let you know what the picture is. Move back up to the <Figure> tag, right click, arrow down to Cut and hit Enter.

There are two ways to paste a tag. There's Paste and there's Paste child. Paste places the tag you're pasting below the tag you're focused on when the paste is performed. The tag gets pasted at the same level as the one you're focused on. That's what we want to do with the tag we just cut. We want to place this <Figure> just after the <H1>, Department of Veterans Affairs. With focus on the <H1> tag, right click, arrow down to Paste and hit Enter.

Follow the same procedure with the other <Figure> tag. You'll want to be focused on the <H2> tag, "Seals of the Military Branches," when you paste the second <Figure> tag. If you go look at the document pane now, press F6 twice to get there, you'll see that it doesn't look like the figures got moved. Save the document and close it with CTRL+F4. Then open it up again. The best way to do that is to pull down the File menu and arrow up to the number 1 file. It should be the document you were last working on. Hit Enter and the document will open. As the document begins to read, you'll notice that the graphics are no longer at the top.

### Tagging lists

Press F6 to move back to the tags tree. Open the tags and open the <Sect> tag. Continue down the tree until you find the first <L>, or list. To achieve the highest level of accessibility lists need to contain four elements,

- An <L> tag
- One or more <LI>, list item tags nested beneath the <L> tag
- An <LBL>, label, tag
- An <LBody>, list body, tag

The <LBL> and <LBody> tags should be siblings of each other and nested beneath the <LI> tag.

Open the <L> tag. Open the <LI> tag that's beneath it. The <LI> tag contains only the <LBody> tag so we'll have to add the <LBL> tag. Open the <LBody> tag to make sure which list item you're looking at. It should be the first <LI>, Veterans Health Administration. Note that the bullet is in the <LBody> tag along with the text of the item. With focus on that list item, activate the Context menu and hit Enter when focused

on the New tag item. A list will appear. Note: don't use first letter navigation, it doesn't work. Arrow down to Label and hit Enter. An <LBL> tag is added to the tags tree but it's in the wrong place. It needs to be nested just beneath the <LI> tag. Arrow down to the <LBL> tag, activate the context menu and hit Enter on Cut. Arrow up to the <LI> tag, activate the Context menu and choose Paste child. Now you have an empty <LBL> tag so you need to move the bullet before "Veterans Health Administration" into that <LBL> tag. With focus on the <LBL> tag, press F6 twice to move to the document pane. Locate the line containing "• Veterans Health Administration." Focus should be on the bullet. Press Shift+RightArrow twice. The first time you do this there might be an uncomfortably long pause. You want to select both the bullet and the space after it.

Once you've done this, Press F6 to move back to the Tags tree. Focus should still be on the <LBL> tag. Activate the context menu, arrow down to "Create tag from selection and hit Enter. It took the bullet out of the <LBody> tag and nested it beneath the <LBL> tag. You have now created a perfect list item. It should look and sound like this when red with JAWS:

- 3, <LI> open
- 4, <LBL> open
- 5, •
- 4, <LBody> open
- 5, Veterans Health Administration

Follow the same procedure for the rest of the list. Note, when you begin creating tags from selection, the Tools pane may open up on the right side of the screen. If it is open, the first press of the F6, after you've selected the bullet and the space, will be, Content editing. Just press F6 again to get back to the Tags tree.

### Tagging a table

The only thing left to do is the table. First, get an idea of the table structure by moving to the document pane and then moving to the table. You'll see that it's a table containing two columns and six rows. Further examination of the table reveals that the cells in the top row need to serve as the column headers.

Moving back to the Tags tree, you can see that there are six <TR>, or table row tags beneath the <Table> tag. Position yourself on the first <TR> and open it up. Nested beneath it is a <TD>, or table data tag. Opening that up reveals a <P> tag which contains the table data.

You need to change the two <TD>, table data, tags to <TH>, table header tags. UpArrow until you're focused on the <TD> just below the first <TR> tag. Activate the context menu and UpArrow to Properties. Press Enter. You'll land in the menu of tags. Press DownArrow until you locate Table header cell. Press Shift+Tab to move to Close and press the Spacebar. Follow this procedure for the other table data cell in the first <TR>, or table row.

### Setting the Properties for the document

Activate the File menu and up arrow to Properties. There's no telling where you'll land in the Properties dialog. Locate the Description tab and move into it. The first item is Title. Type in the title of the

document. Tab to the Author field and enter an appropriate name. It can be your name or the name of your office, depending on the nature of the document. Press CTRL+Tab until you locate the Initial view tab. Within that tab, locate the Show dropdown box. Press DownArrow to select Title instead of file name. Press CTRL+Tab until you locate the Advanced tab. In that tab, ensure that the language has been set to English.

### **Using the Accessibility Checker**

You're done with the Tags tree now and you can close it with F4 if you like. Press F6 to see if the content editing pane is showing. If it is, you'll probably land on the Content editing item. If it's not showing, pull down the view menu, arrow down to Tools and expand it. Arrow down to Accessibility and hit Enter. The Tools pane will appear. Use F6 to move to it. Once there, press DownArrow until you locate the Accessibility item. If it's not open, expand it. Now move down to the item called Full check and hit Enter. A dialog opens with a boatload of choices. Just press Shift+Tab until you reach the item, Start checking. This opens another pane. You'll need to navigate to it by pressing F6.

You'll land in another tree. Move down the tree, expanding items as you go. Apart from the items that require manual testing everything should pass.

## **Resources**

This is a Word 2010 document created with styles for optimal conversion to PDF: [Department of Veterans Affairs](#)

This document is the original Word document published to PDF using the Acrobat tab on the ribbon of MS Word: [Original PDF, Department of Veterans Affairs](#)

This is the remediated version of the original PDF: [Properly tagged Department of Veterans Affairs PDF](#)

PDF of this content for reference: [Using Acrobat Pro with JAWS](#)