Karlen Communications
The Basics of Tagged PDF

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Introduction

With many people finding their way into the field of PDF remediation to ensure that PDF documents are optimized for accessibility for those of us with disabilities, it is time to update my step-by-step information on how to do this, what to do and why we are making PDF documents accessible.

> **Note:** If you are using adaptive technology to test documents, make sure you start the adaptive technology BEFORE you start the application. If you already have an application like Adobe Acrobat open, then try to launch the adaptive technology such as a screen reader or Text-to-Speech tool, there might be disruptions in the adaptive technology in reading the document and accessing tools. When adaptive technology starts first, all scripts that work with the application can be initialized and activated providing optimal access to the application..

Where to Start

PDF or Portable Document Format can come from any application. It can be an Office document converted to PDF, desktop published documents converted to PDF, scanned documents converted to PDF or even websites converted to PDF.

The challenge has always been how to make sure that PDF documents, which are by nature images of content, accessible to those of us with disabilities.

In the early 2000's Adobe introduced the ability to add XML based Tags to a PDF document to optimize accessibility. As time has gone by, the tagging abilities in Acrobat and the conversion tools used by word processing, presentation, spreadsheet, desktop publishing and other applications has improved. We also now have an ISO (International Standards Organization) PDF/UA (Universal Accessibility) standard to provide technical specifications for what an accessible PDF document is.

As a community of people who access PDF using adaptive technology and those remediating PDF to optimize accessibility, we are constantly providing feedback on how to improve access and make the process of remediating PDF easier and faster (more cost effective). PDF/UA will help with this as it is advocated for and adopted as the definition of what an accessible PDF document is.

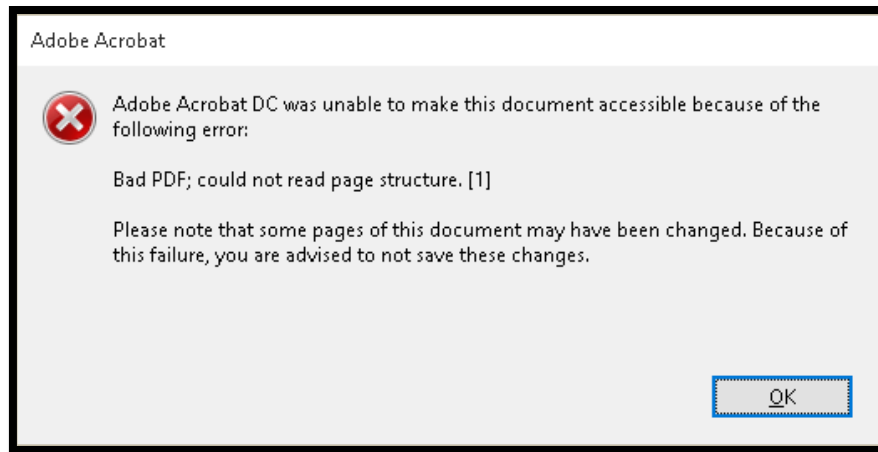You know you're in trouble when you get the "Bad PDF" message!

Figure 1 "Bad PDF" dialog when Acrobat can't do anything with it!

Models of PDF Remediation

For a long time, the only model we could find was that of the "lone remediation professional" sitting in their cubicle focused on ensuring that an department's or organization's PDF documents were accessible.

There was no real place (other than my book which is a shameless plug) to find out what can go wrong, how to fix it and what are some of the techniques to save time.

Now, we have emerging models of companies such as NetCentric CommonLook, Accessibil-IT and the Crawford Group remediating large volumes of PDF to optimize accessibility with dedicated staff and proprietary tools.

The "new model" is a blended one where an organization can use its own staff to remediate smaller simpler documents and let the companies who specialize in remediation with their proprietary tools handle the complex larger volume of documents.

Realistically, the people in their cubicles can't make PDF based bills, statements and other dynamically produced PDF accessible in a timely manner. Most are overwhelmed with just the daily number of smaller less complex PDF.

PDF/UA (Universal Accessibility)

There is also the problem of knowing where to go to learn how to optimize PDF documents for accessibility and how to standardize the approach to PDF accessibility within an organization.

Often we find that each department has its own idea of what an accessible PDF document is. The result is that the people accessing PDF documents do not have a consistent experience from document to document even within the same organization.

PDF/UA has been an ISO standard since 2012. We are now working on version 2 of the standard and soon to start version 3.

PDF/UA is made up of three components:

1. The PDF document itself must meet PDF/UA technical specifications of accessibility.

2. The PDF reader/viewer must meet the PDF/UA technical specification for what an "accessible" reader/viewer is.

3. Adaptive technology must meet the PDF/UA technical specifications for being able to access the accessibility of both the PDF document and the PDF reader/viewer.

All three pieces work together. If the document meets PDF/UA specifications but the reader/viewer that someone is trying to read the PDF document in is not PDF/UA compliant, the document is not accessible.

If the PDF reader/viewer and adaptive technology are working together (are PDF/UA compliant) but the document is not, the document is not accessible.

Although PDF/UA is a technical specification for developers, those of us who use adaptive technology and various devices to read or try to read PDF documents, can advocate for PDF/UA compliance in plain English.

Simply put, a PDF document has to:

- Have Tags.

- Tags must be appropriate for the content.

- Tags must be in a logical reading order.

- There must be headings when appropriate and Headings cannot skip levels (for example having a Heading 1 followed by a Heading 3).

- Tables must be structurally sound and use table header Tags when necessary.

- Images must have Alt Text unless they are decorative, in which case they are Artifacts.

- Links should have Alt Text.

- The document must have a core language.

- If the document is multilingual, the appropriate language attribute must be used for that content.

- The Tab Order for links and form controls must be correct

These are the basics and items we, as users of adaptive technology trying to access PDF content can state and advocate for. The technical specifications provide the roadmap for document conversion processes, document authors, reader/viewer developers and adaptive technology developers.

We "finally" have a standard so that when we are asked the question "what do you mean by an accessible PDF document" we can say "PDF/UA compliant."

General Compliance Issues

The first thing to consider when thinking of compliance, is that of the accessibility full check tool in acrobat Professional. This is a mechanical tool and no substitute for a review and "sign-off" from a document author or remediation professional. An accessibility full check can point out potential problem areas, but these items might not be. A good example of this is when images are used as links. Would a clean full check be providing alt text for the image or ensuring that a link is created and given alt text in effect demoting the image itself to a "background" role in the document?

The second "compliance" issue is getting caught in being "specific adaptive technology compliant." In most cases the baseline for this is a version of the JAWS screen reader. The problem with promoting something as "JAWS compliant" is that each iteration of the adaptive technology adds mew new capabilities for accessing PDF. Will the disclaimer be upgraded with each version release of the adaptive technology? Another problem is that not all adaptive technologies have the same capabilities when it comes to accessing digital content including PDF. The implication of this approach is that everyone reading the tagged PDF content will have to have exactly that version of Adobe Reader and that version of the adaptive technology and, in extreme cases, even settings for both might be specified. This takes the "right" of the "end user" to control how they view and interact with the content. It also puts those who can't afford to upgrade their adaptive technology at an extreme disadvantage.

A third item to consider is what parts of a document will be required to be tagged. As a person using a screen reader, there is nothing worse than having my thought process or comprehension interrupted by the identification of decorative elements or sidebar quotes plunked into a Tags Tree at the point at which they appear on the page. This is not how we access the content visually, yet "purists" believe that all pieces of content should be tagged/identified to the end-user at the point at which they appear on the page no matter how intrusive or disruptive they might be to the person reading the document..

Other issues include ensuring that if a document has multiple languages or a specific language that all parts of that document reflect that language. For example, not having a document in French with graphics that have English text.

Another item to consider is the amount of information contained in a figure's alt text. If adaptive technology has to buffer a lot of information "at once" it could result in a crash of the application or the adaptive technology, or that some of the alt text is not read. This means a complex image that takes up an entire page should be given concise Alt Text or broken down into smaller figures.

The majority of the accessibility issues in a document can be identified and repaired or designed more effectively in the native application before it gets to the tagging process.

Hierarchy of Tasks

Before we begin digging ourselves into what might appear to be a bottomless pit…tagging PDF documents, we need to look at two things. One is a hierarchy of tasks when working with PDF documents and the other is the basics of an accessible PDF document.

The hierarchy of tasks are the series of questions we mentally go through each time we look at a PDF document that needs to be made more accessible.

- Is it a scanned document?

  - If yes, then perform Text Recognition or OCR (Optical Character Recognition).

- Does it have form fields?

  - If yes, then add the Form fields/controls using Acrobat.

- Does it have hyperlinks

  - If yes, then add the links using the Create Links from URL's tool or the Links Tool.

- Does the PDF have multimedia?

  - If yes, then add the multimedia.

  - It is YOUR responsibility to ensure that any multimedia added to a PDF document meets accessibility standards and/or guidelines for the specific multimedia format. This can include captioning and video description.

ONLY AFTER you've gone through the hierarchy of tasks you TAG the document by using the Add Tags to Document tool!

Of course this can result in more questions and more tasks. If it is a scanned document, OCR will need to be performed on the document. If there are form fields, they need to be added first. – Before the document is tagged. If there are links in the document, they need to be added before the document can be tagged.

The basics of a tagged PDF document include:

- The document has Tags.

- Tags must be appropriate for the content.

- Tags must be in a logical reading order.

- There must be headings when appropriate and Headings cannot skip levels (for example having a Heading 1 followed by a Heading 3).

- Tables must be structurally sound and use table header Tags when necessary.

- Images must have Alt Text unless they are decorative, in which case they are Artifacts.

- Links should have Alt Text.

- The document must have a core language.

- If the document is multilingual, the appropriate language attribute must be used for that content.

- The Tab Order for links and form controls must be correct

Every attempt to create a logical document structure and reading order in the native application should be made. When the document is tagged as PDF, it is these structures that will be used to create the tags.

> **Note:** If you are using adaptive technology, you may get a message when you open an untagged PDF asking if you want Adobe Acrobat to create "virtual" or "pretend" Tags that only exist for as long as the document is open. As a remediation professional, say no. I've found that sometimes allowing these virtual Tags to be "created" interferes with the ability to Tag the document correctly. Also note that the creation of these virtual Tags does not mean the document is "accessible."

Adobe Acrobat Pro DC

Adobe Acrobat Pro DC is the current version of Adobe Acrobat Professional. The user interface has changed significantly since Acrobat Pro XI and there are still problems for those of us who use the keyboard.

The first difference in the application is that it is now a subscription for one year.

The second difference is that you must sign in so you can use Adobe Acrobat Pro DC.

Once you sign in, the user interface is different. The first thing you see is a list of recently opened PDF documents.
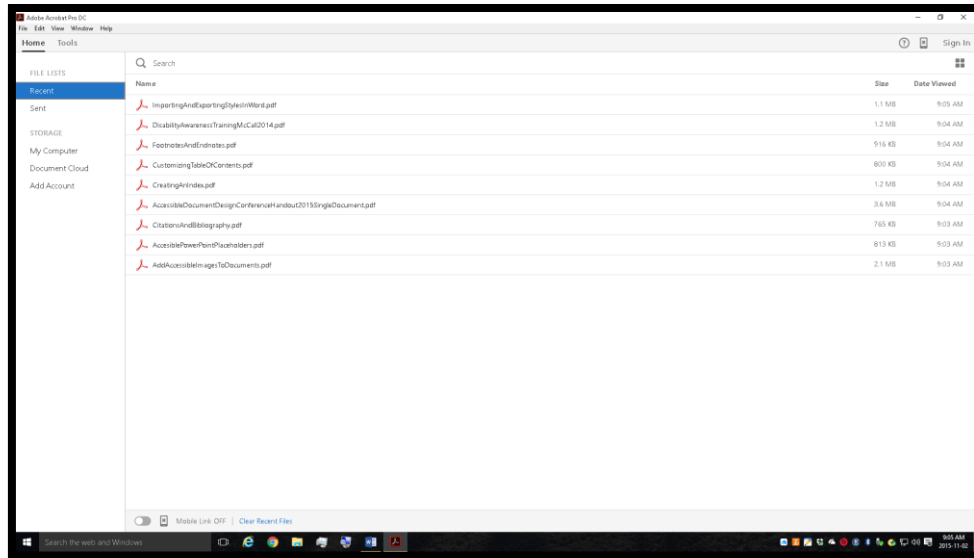
Figure 2 Acrobat Pro DC list of recent documents.

There is a Menu Bar that has some options but not all you may be used to. The Menu Bar items are File, Edit, View, Window and Help. Everything else is done through the user interface.

Just under the Menu Bar is a sort of Toolbar with two or three items, depending on whether you have a document open or not.

If there is no document open, you will only see Home and Tools. If you do have a document open, the title of the document (if you've added it) will be displayed and there will be a sort of sub-toolbar for working with that document.
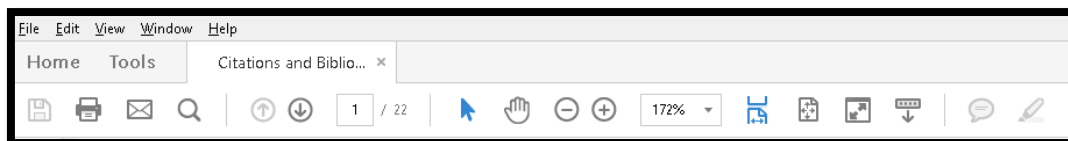
Figure 3 Menu Bar area of Acrobat Pro DC.

To use the keyboard to get to the area of tools for the document, press Alt to put focus on the File item, then press Ctrl + Tab to move to the first item in the Toolbar for the document. Use the Left and Right Arrows to move along the Toolbar. When you get to the edit box to move to a page, press Tab to continue along the Toolbar.

If you have no document open, you are on the Home option by default. The Home area shows you the locations you can look in for documents and a list of recent documents.
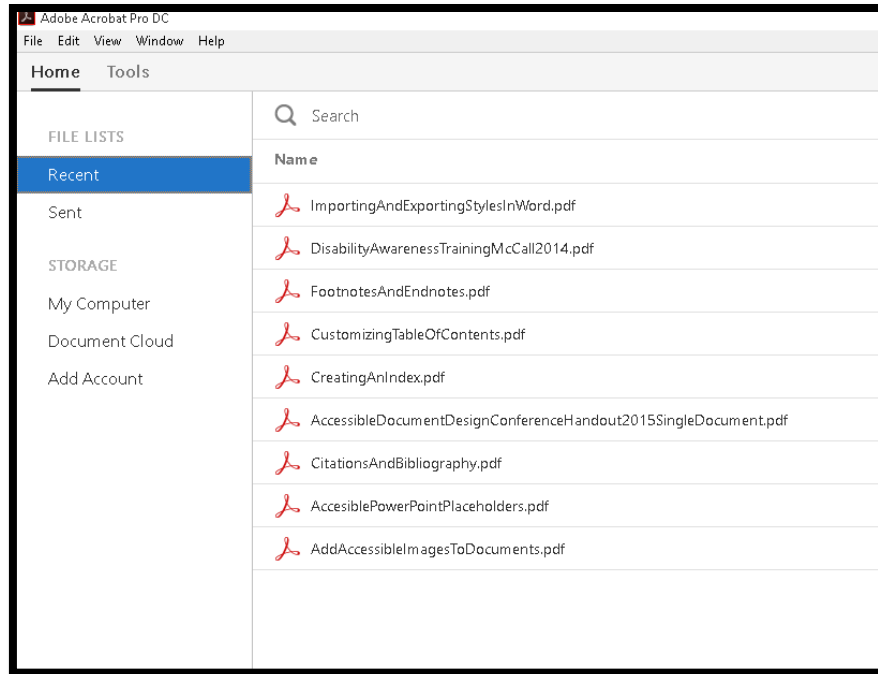
Figure 4 Closer look at list of locations and recent documents.

The first thing to do is to make sure that the Tags, Order and content Panels are visible in the Navigation Pane which is located on the left of the document.

The keyboard command to show or hide the Navigation Pane is F4.

To add the Tags, Order and Content Panels to the Navigation Pane, press Alt + V for View, N for Navigation Pane then:

- G for Tags.

- Letter O for Order.

- N for Content.

As you add each one, they will be placed in the Navigation Pane.
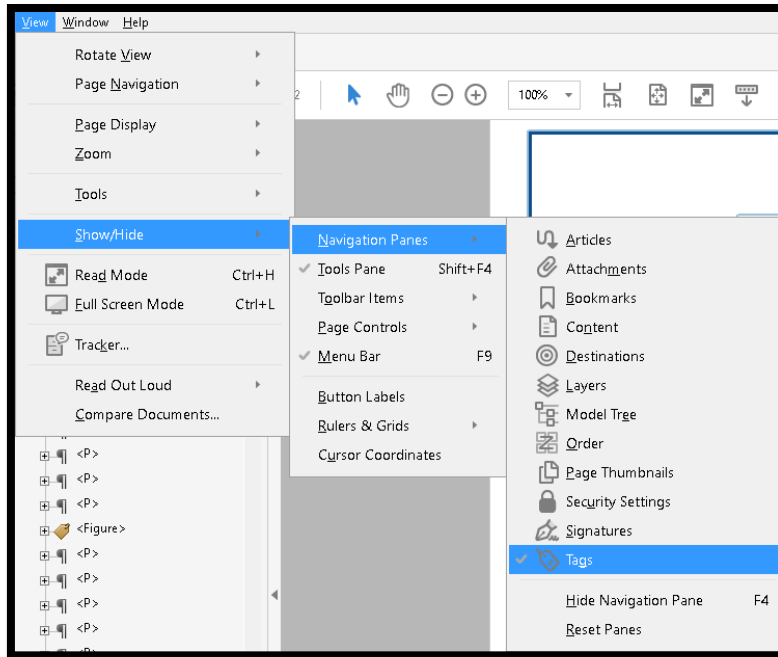
Figure 5 View Ribbon with Navigation Pane options.

The Navigation Panel includes the Bookmarks, Pages and Attachments. When you add Tags to a document, this is where the Add Tags Report and the Accessibility Full Check Report will appear.
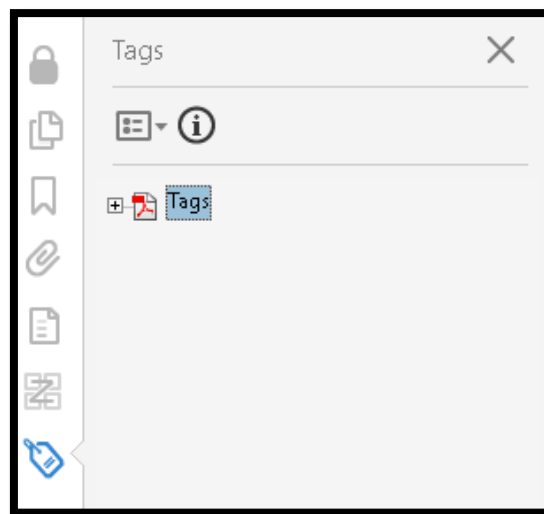

Figure 6 Navigation Pane.

On the other side of the document is the Tools/Tasks Panel. I've seen it called either in the Adobe documentation. It is sort of like the File/Backstage area of Microsoft Office…it can be referred to as either.

The tools in the Tools/Task Pane can be Accessibility, Action Wizard, Edit PDF, ,Send and Sign or Organize Pages.

These items can also be added or removed using the Manage Tools option from the Edit Menu. The ability to add or remove items from the Tools/Tasks Pane is not easily done using the keyboard. Currently I can add an item in the Manage Tools area but not remove it. In order to remove an item using the keyboard, I have to find it in the Tools/Task pane, right click on it or press the AppKey and then remove it.

I am also finding it difficult to use the keyboard to move the items in the Tools/Task Pane so that they are organized in a way that I can access them quickly. There is no first character navigation in the Tools/Task Pane and since I primarily work with the Accessibility Tools, I want those at the top of the list of tools..
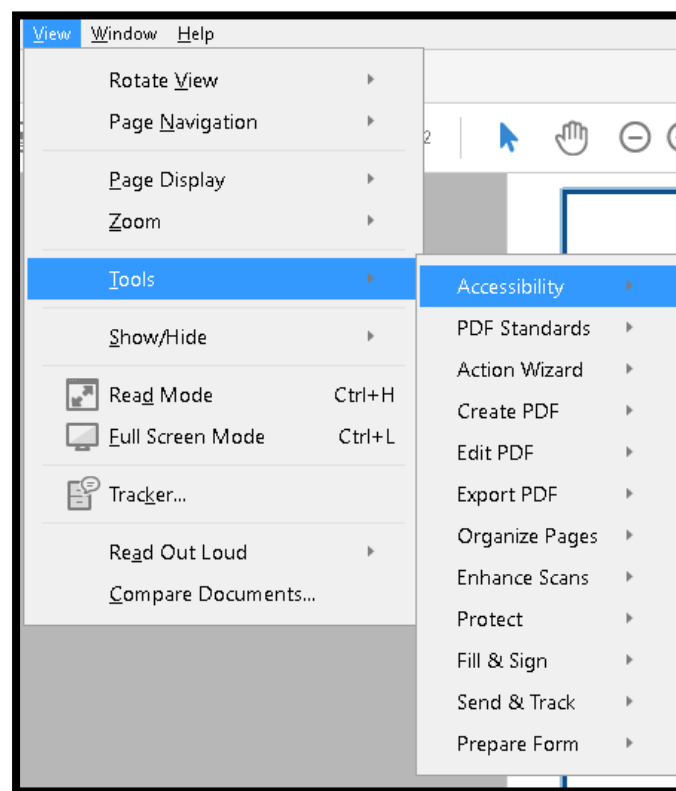

Figure 7 View Menu showing tools that can be put in the Tools/Task pane.

The following image shows the Tools/Task Pane after I've reorganized the tools so that I can work with them more effectively.
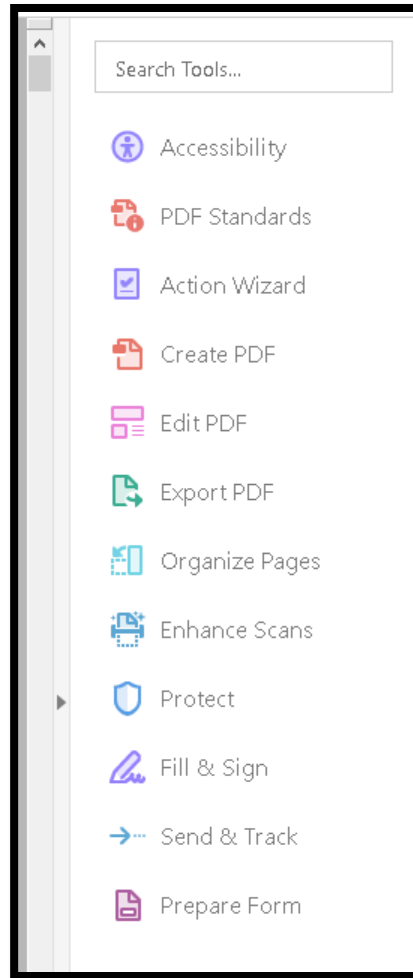
Figure 8 Tools in my Tools/Task Pane.

As you click on or open each set of tools, the list of tools expands under them and the tools are identified as being open just above the Navigation Panel.
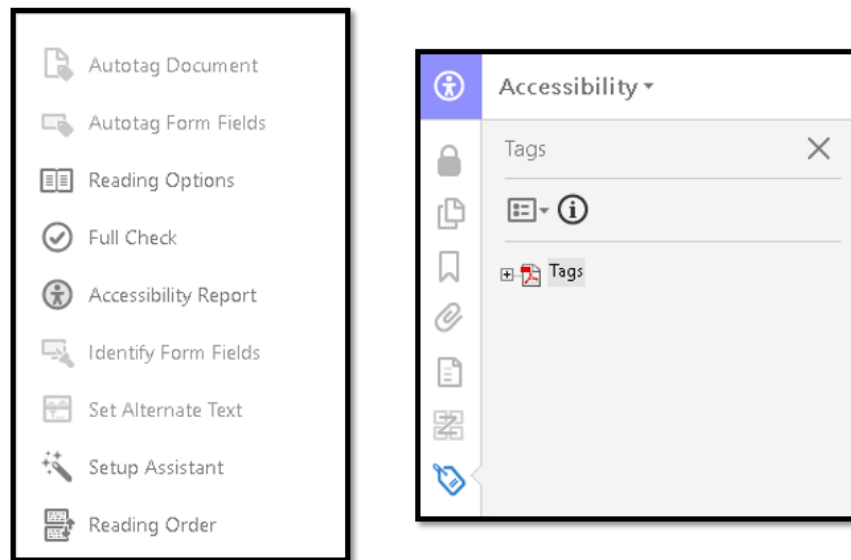
Figure 9 Accessibility tools expanded in Tools/Task Pane and showing just above the Navigation Panel.

It is also worth noticing that Adobe Acrobat has joined the number of applications with poor contrast, light text and yet another contributor to computer-based visual fatigue.

Tools for Remediating PDF in Acrobat

There are several foundational tools available in Acrobat Pro DC that we can use to make repairs on what can best be described as "ICKY" documents. This section of the handout gives you an idea of what is available and how to use it.

Action Wizard

The Action Wizard has its own category of tools in the Tools/Task Pane.

If you don't have it in your Tools/Task Pane already, you can use the Search Tools function to find it.

From the document, press F6 to move into the Tools/Task Pane. You will land in the Search edit box. Type the tool you are looking for, in this case the Action Wizard.

The Action Wizard can be added to your list of tools in the Tools/Task pane by pressing Alt + V for View, T for Tools and then using the Down Arrow to find Action Wizard. There is no shortcut key for the tools. Once you land on Action Wizard, press the Right Arrow and press Enter on Open. The Action Wizard will be added to your list of tools. The list of tools is not alphabetical and there is no first character navigation. It will be faster to use the mouse when using the tools.
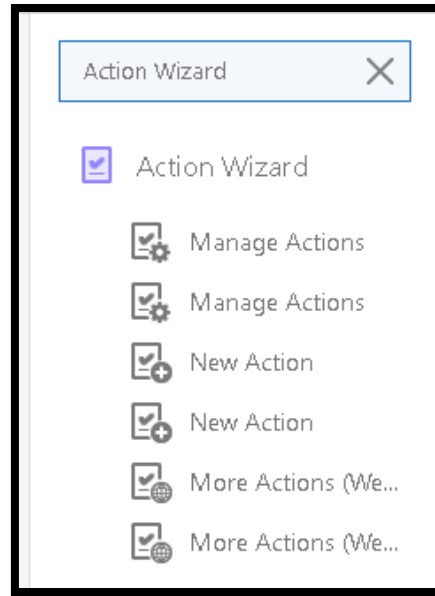
Figure 10 Action Wizard and its tools found after search.

The Action Wizard has several tools associated with it. You can use the tools either from the Tools/Task Pane or through a Toolbar that opens when you open the Action Wizard tools. This option is available for all tools.
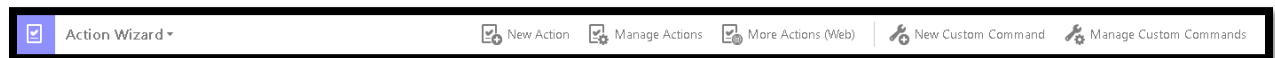

Figure 11 Action Wizard Toolbar.

I can't find a way to access the tools from this type of Toolbar using the keyboard. It is entirely mouse driven.

The first tool in the Action Wizard is "Make Accessible." Choosing this option will guide you through the process of taking what might be a scanned document that may or may not have fillable form controls and making it accessible.

The following image shows the step-by-step process you are guided through in working with the Action Wizard to optimize a PDF document for accessibility.

You may still need to make some repairs and you will always need to review the document manually, even if you use this Wizard.
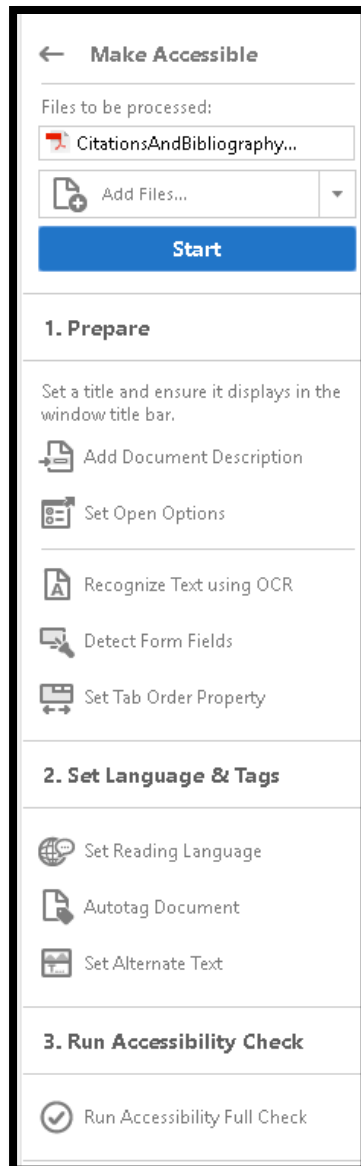
Figure 12 Start of the Make Accessible process through the Action Wizard.

I've talked about Tags but what are they and how to they help optimize a PDF document for accessibility?

Tags Panel/Tags Tree

What are tags and how do they work?

If we think of Corel WordPerfect or HTML for web pages, we have an idea of what tags are. PDF tags are XML based. Tags define the role of content in a document. For example there are heading tags, paragraph tags, list tags, figure tags, and table tags. Each of these contributes to the readability and structure of a document whether it is tagged PDF or other file formats.
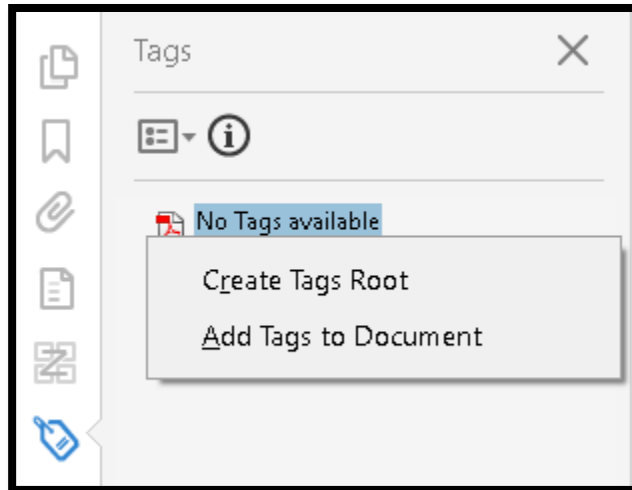
Figure 13 Add Tags to untagged document from Tags Panel.

The first step in looking at the Tags of a PDF document is to add them if there are none.

The fastest way is to go to the Navigation panel, Tags tab, Tags Tree and when you see "No Tags Available" press the AppKey or right mouse button and choose Add Tags to Document.

You can choose Add Tags Root but that will just put the "Tags" root in the Tags Tree not any other Tags for content. This is what you would choose if you were going to manually add EVERY Tag to the document.

When you choose Add Tags to Document, the Tags are added and an Add Tags Report opens in the Navigation panel. We'll cover the Add Tags Report later in this tutorial.

For now, we just want to take a look at a Tags Tree so we can begin to familiarize ourselves with what Tags are and how the Tags Tree is structured.

Yu can also use the "Autotag Document tool in the Accessibility Tools in the Tools/Task Pane to the right of the document area.
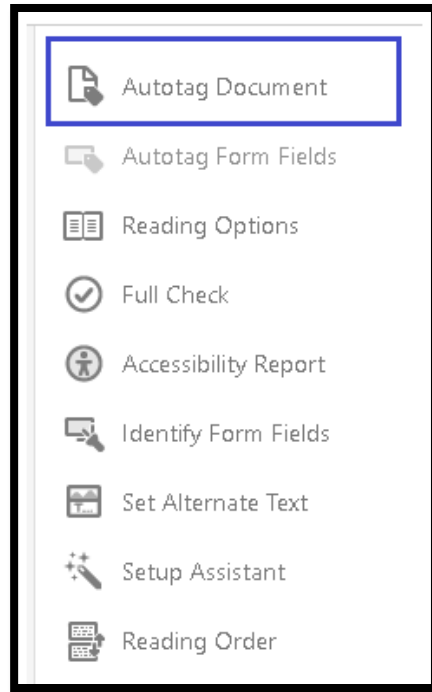
Either way will Tag the document.

Figure 14 Autotag document from Accessibility Tools/Task Pane.

Tags have a hierarchy of parents and children. The "Tags" root is the base of the family tree. From there, tags can branch out much the same way our folders do on a hard drive.
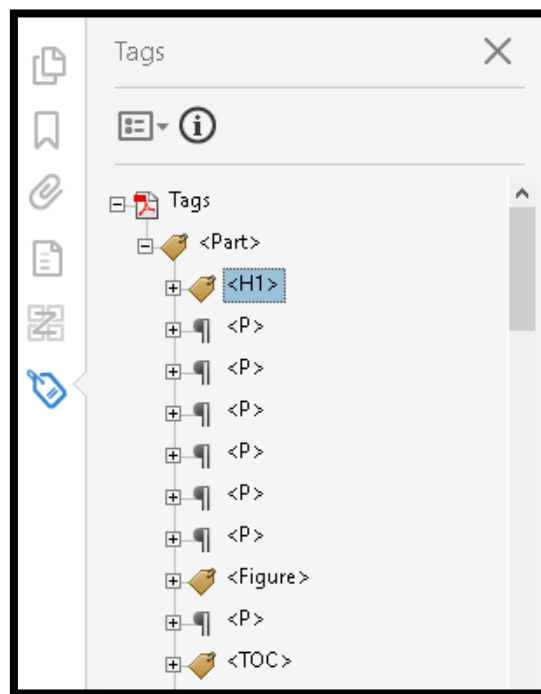

Figure 15 Sample Tags Tree in Tags Panel.

If content is essential to the understanding of the concepts and ideas in a document, then it must have a Tag. If content is decorative or, as in the case of page headers and footers, is a non-printing element, it is tagged or identified as being an Artifact. Adaptive technology doesn't see Artifacts and therefore Artifacts are not read.
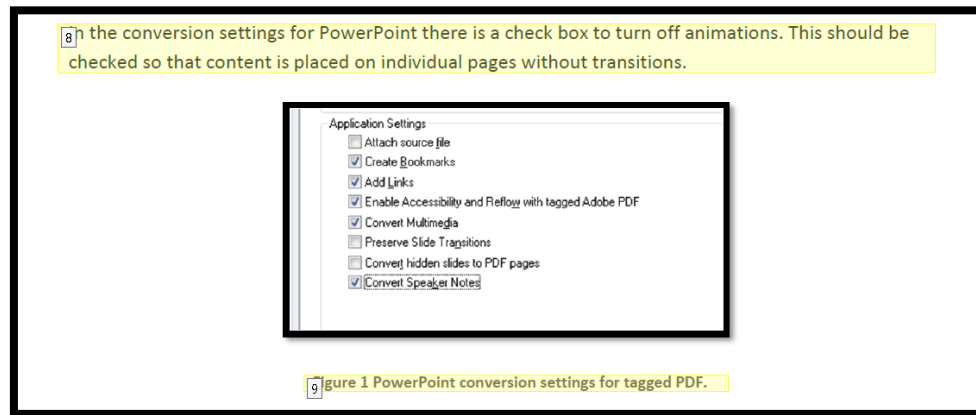

Figure 16 Example of text that is tagged and an image that is tagged as an Artifact.

The preceding image is an example of an image that has been tagged as an Artifact. In PDF documents coming from Word 2007 or 2010, there was a bug that put all of the <Figure> Tags at the top of the Tags Tree. This was not a logical reading order because someone using a screen reader or Text-to-Speech tool would have to read all of the images before getting to any of the other content including the cover page and Table of Contents.

In a document with many images, the best way to save time and still provide access to the images was to use the Caption feature in Word to put a Caption with each image that was not a decorative image. You could then simply make all images Artifacts which took less time than trying to drag the images to their rightful place in the Tags Tree (logical reading order). People using adaptive technology would b able to access the Caption text and know that there was an image and what that image was.

Typically I duplicated the Alt Text and the Caption text in my Word documents and I still do this just to provide another layer of accessibility to a description of images should the PDF document be printed.

Tags provide the structure of the document and identify what role specific pieces of content play in the document. Looking at the preceding image, there is a paragraph before the Artifact and a paragraph after the Artifact. Lists have List structure Tags, Tables have Table structure Tags, Links have Link Structure Tags and Headings have Heading structure Tags.

Tags are displayed in the Tags Tree in the Tags Panel.

As you use the Arrow keys to move through the Tags Tree, the corresponding content is highlighted in the document. This is turned on by default and it is one of your "best friends" in working with PDF documents.
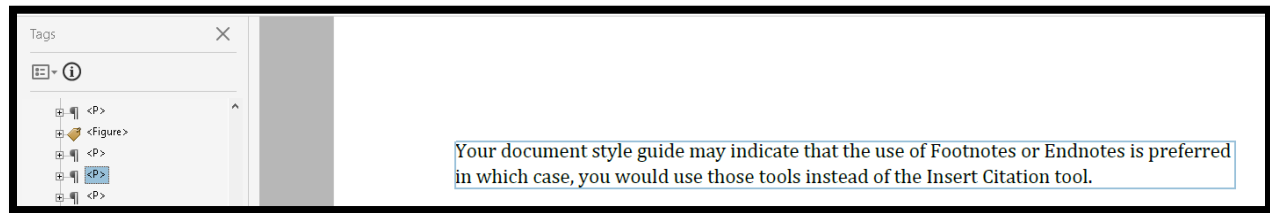

Figure 17 Tags Tree and document showing Highlight Content.

To use the keyboard to get to the Navigation panel and the Tags Panel, from the document, press Shift + F6 until you hear that you are on one of the Navigation panel tabs. If this is the first time since opening a document that you've done this, you will most likely land on the Pages tab.

Press The Down Arrow until you hear the tab you want, for example, Content, Order or Tags.

Press Tab to move into the contents of the panel. You can then use the Left, Right, Up or Down Arrows to move through the various types of items.

You can press the AppKey on any Tag to display the options for working with that Tag.

There is an Options button just above the Tags Tree that has other tools for working with a Tag and we'll look at them later in this tutorial.

Tag Annotations

If you are working with links or form controls (fields) you'll need to turn on Tag Annotations in the Tags Tree.

Tag Annotations will let you see the entire Tag including the "OBJR" or object identifiers for links and form controls.

If you need to remediate links you need this turned on.

Likewise if you are working with fillable forms and have added the form controls then tagged the document which is the correct process, you will need Tag Annotations turned on so you can ensure that all of the <Form> Tag is there. This is especially true if you find a form control that is not working.

If you do find a form control not working, return to the Forms mode to fix it. Do not fix it in the Tags Tree.
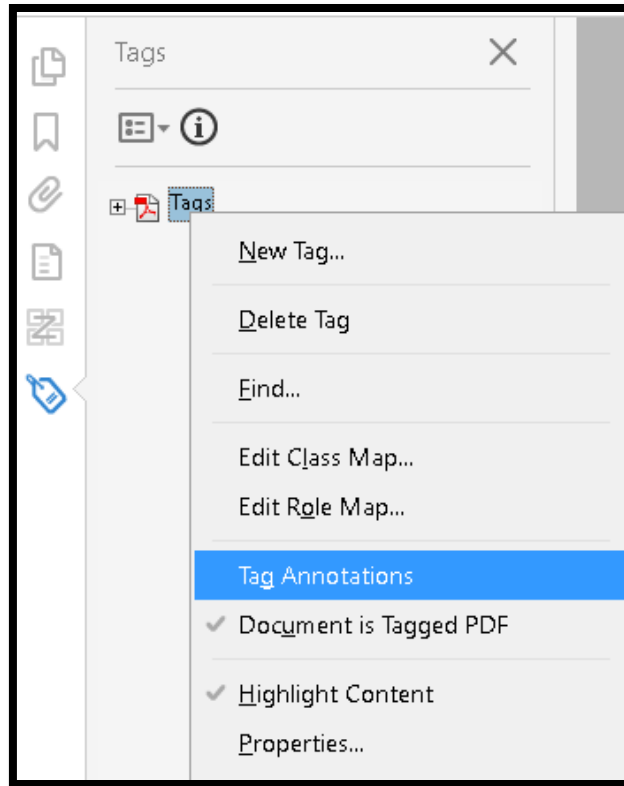
Figure 18 Context menu for Tags showing Tag Annotations option.

Order Panel

The Order Panel icon is usually placed just above the Tags icon in the Navigation Panel. As with the Tags Panel, you need to add it by going to the View Menu, Show/Hide, Navigation Panel and choosing Order. The keyboard command is Alt + V, S, Right Arrow on Navigation

The Order Panel provides a global or satellite view of the document. You can easily see what is tagged and what is not. You can use the TouchUp Reading Order Panel to make repairs here. For example, you can select parts of the page and use the TouchUp Reading Order Panel to identify the selected content as text, headings, a figure, a table or background (Artifact).
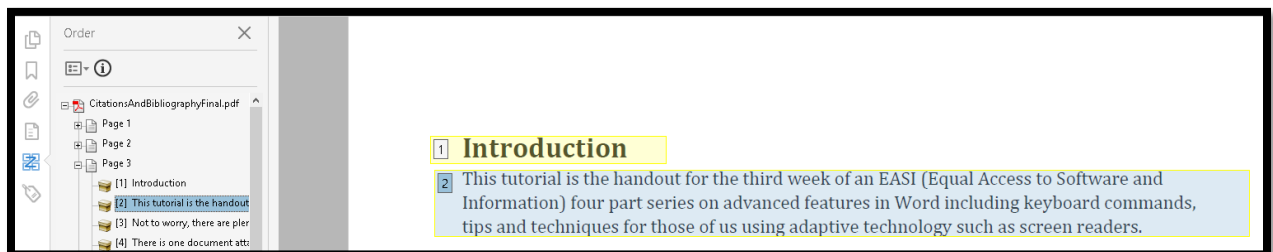

Figure 19 Order Panel showing content in document highlighted.

The information in the Order Panel corresponds to the information in the document. For example, the first paragraph is number 2 or the second piece of content on the page in the logical reading order. This is correct. You can see this in both the Order Panel and the document.

I have the colours adjusted so that I can see the different types of content easily. By default, everything is gray.

I chose yellow for text in the document. I also chose not to group or lump all content with the same role or Tag into one block so that I can see the individual paragraphs which makes editing out blank lines a lot easier if I need to.

To make these changes, you need to open the TouchUp Reading Order Panel . To do this, right click anywhere in the Order panel and choose Show TouchUp Reading Order Panel.
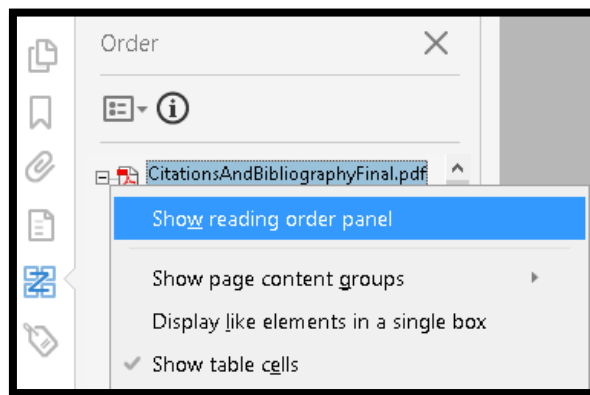

Figure 20 Show TouchUp Reading Order Panel in the Order tab.

When the TouchUp Reading Order Panel open, it floats over the document. You may want to use Ctrl + Minus on the Numpad to make the document a bit smaller so you can drag the TouchUp Reading Order Panel to one side. You may also want to close the Navigation Panel by pressing F4. To make the document in the document area larger, press ctrl + Plus on the Numpad.

You can open the TouchUp Reading Order Panel from the accessibility tools in the Tools/Task pane to the right of the document.

The first part of the TouchUp Reading Order Panel contains the buttons for when you select content and want to assign it a role or Tag in the PDF document.

The bottom part of the TouchUp Reading Order Panel has the options for how content is viewed when you are either in the Order Panel or have opened the TouchUp Reading Order Panel.
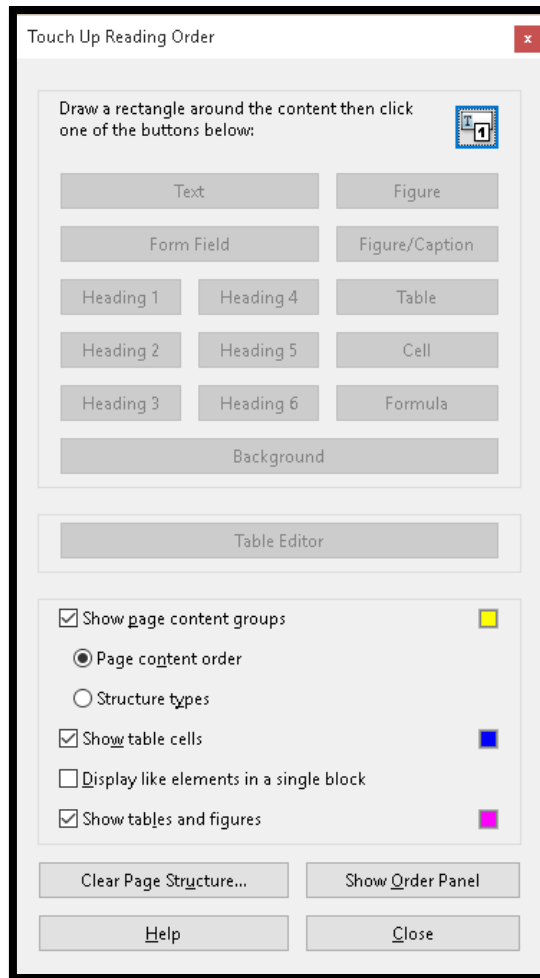
Figure 21 TouchUp Reading Order Panel with no content selected in document.

If there is no content selected in the document, none of the buttons in the TouchUp Reading Order Panel are available.

Let's take a closer look at the options for viewing documents in the Order Panel or with the TouchUp Reading Order Panel open.

Press Alt + G to "Show page content groups." This setting has two radio buttons associated with it and it is checked by default.

The two radio buttons are for Page content order" which is the default or "Structure type"" which will show the Tag identifier instead of the number. For example instead of seeing 1 you would see H1 if the content were a Heading 1.

Press Tab to move to the colour picker for this option. As I say, the default is black which may show up as gray in the document. Choose a colour you can easily see and distinguish from other content on the page. I chose bright yellow.

Press Alt + W to "Show table text" which is checked by default. Press Tab to move to the colour picker for this setting. Again, the default is black. I chose bright blue.

Press Alt + D for "Display elements in a single block" which is checked by default and I've unchecked it so I can see the specific paragraphs and other page elements isolated from each other. There is no colour picker for this setting.

Press L to "Show tables and figures" which is checked by default. Press Tab to move to the colour picker for this setting. The default is black. I chose bright magenta to help me isolate this type of content while in the Order Panel or TouchUp Reading Order Panel.

There is a button to remove all "Clear page Structure," one for Help, another for "Show Order Panel" and an OK button.

Making Repairs using the TouchUp Reading Order Tool

Let's take a look at how to make basic repairs using the Order Panel and the TouchUp Reading Order Panel.

The document I'm using as the example was created using Word and before I added the space beneath the title of the document, there were several pressings of the Enter key to create space. Although adaptive technology won't get stuck on these blank lines, removing them tidies up the PDF document and can reduce the file size.

In the Order Panel I select the first blank line. This is represented by a number with nothing next to it. I have several of these in a row.

I can hold down the Shift key and use the Down Arrow to select all blank lines that are grouped together as demonstrated in the following image.

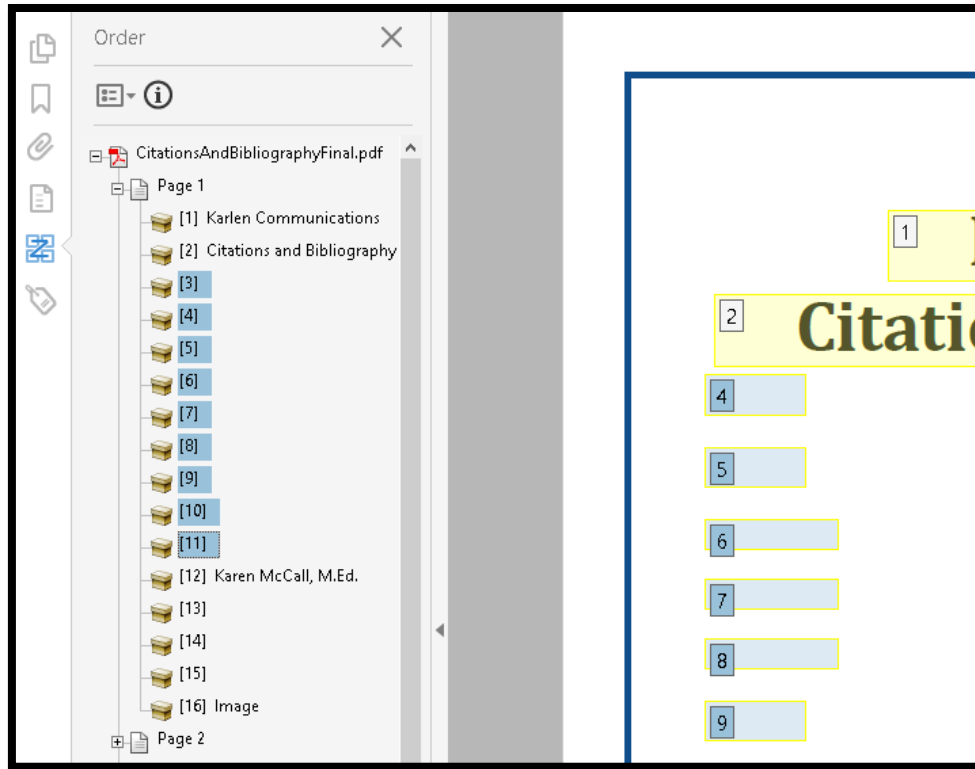If you just have one blank line, select it and continue with the next set of instructions.

Figure 22 Several blank lines selected in the Order Panel.

With the blank lines selected, press the AppKey or the right mouse button and Choose "Tag as Background" which will make the blank lines Artifacts.
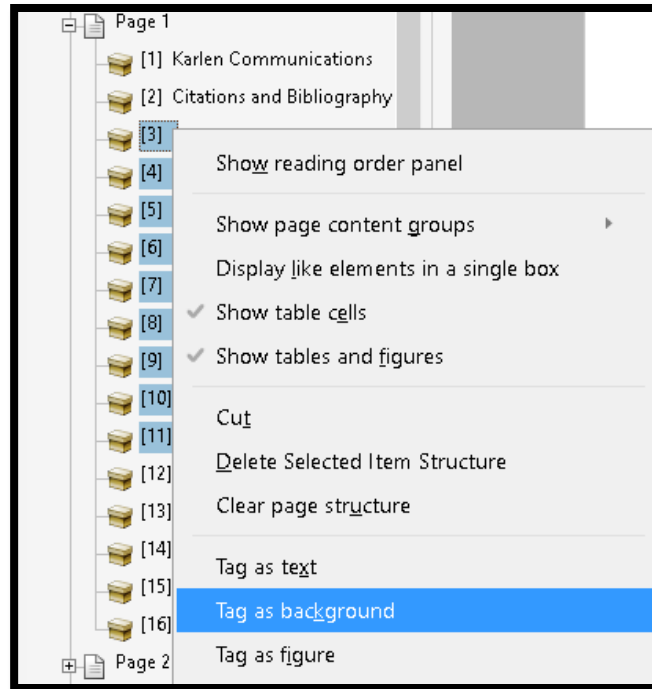
Figure 23 Context menu in Order Pane to Tag blank lines as Artifacts/Background.

The Tags for the blank lines are removed from the Tags Tree at the same time and in the content Panel, the blank lines are no longer paragraphs but are now Artifacts.
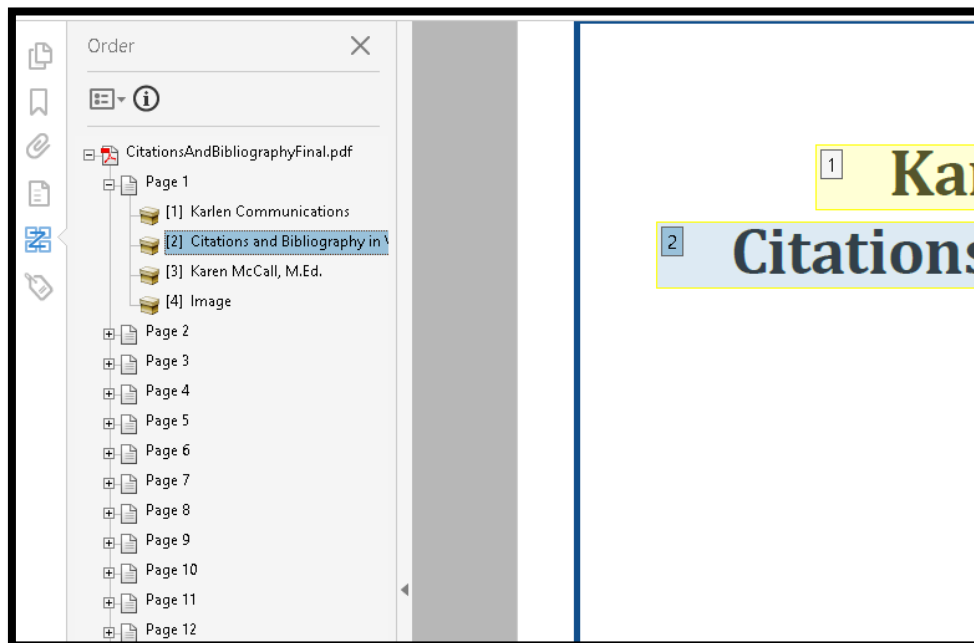

Figure 24 Order Panel and document showing blank lines removed/made Artifacts.

The TouchUp Reading Order Panel can be used to rearrange content. In the example we used for reassigning blank lines as Artifacts or background, the image is identified as number 4 and the text of the author's name is number 3.

Logically looking at the page, the image comes before the author's name.

Using the mouse, you can select the image in the Order Panel and drag it up one position so it is now number 3 and the author's name is number 4 which is how it appears on the page.
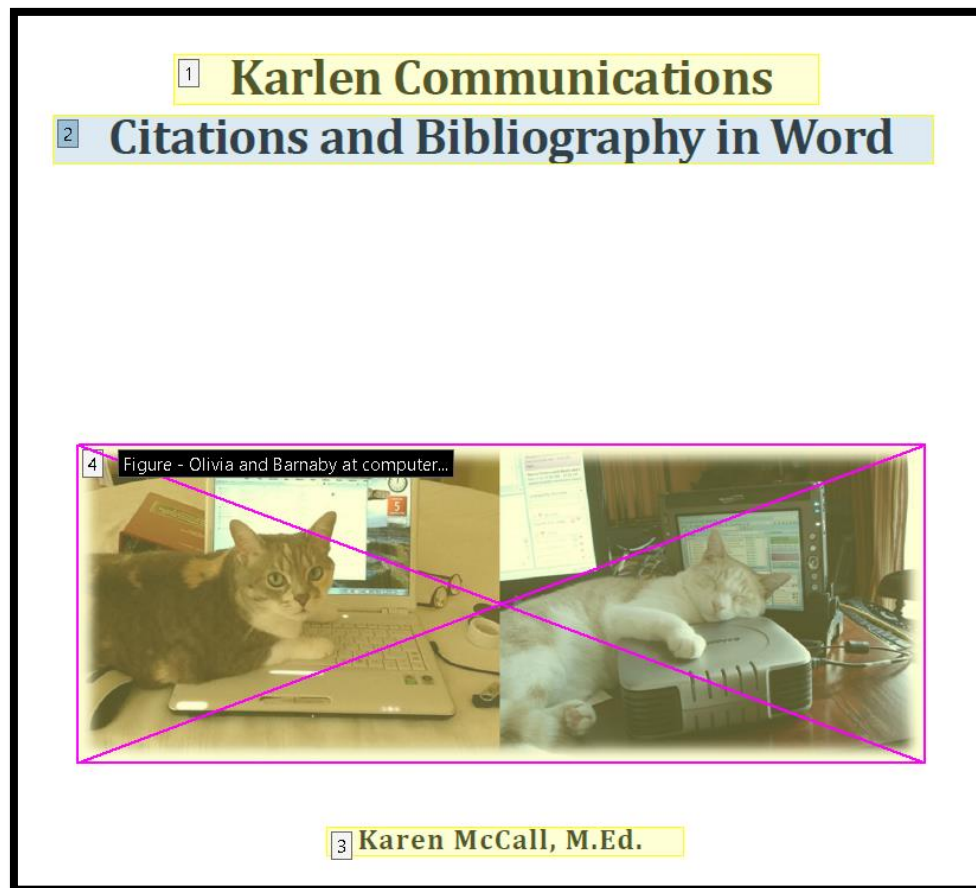

Figure 25 page in document without logical reading order.

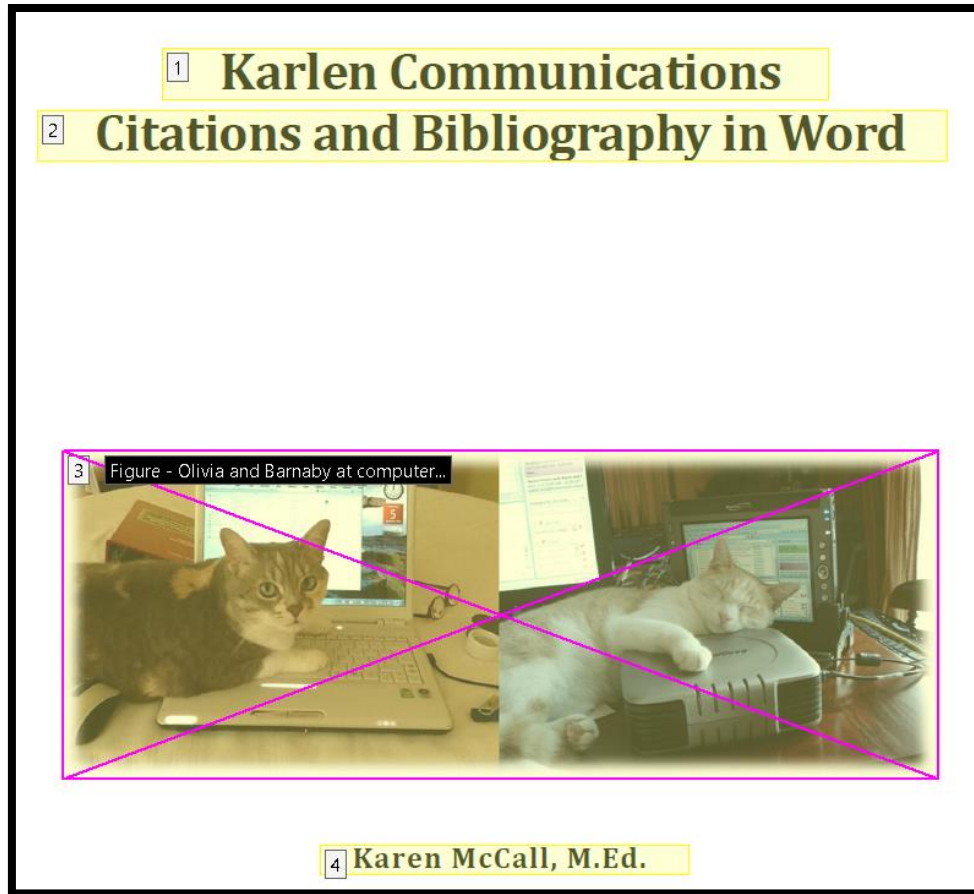Once the content has been rearranged, the numbering or logical reading order is corrected.

Figure 26 Corrected reading order on page.

If you look at the Order Panel, you will be able to see the change in logical reading order as well.
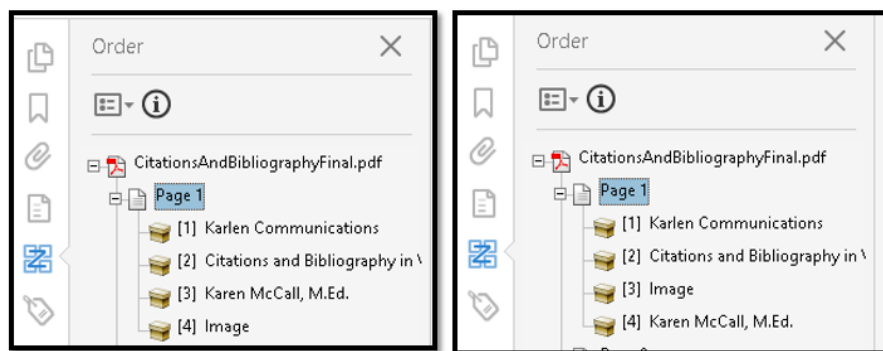

Figure 27 Before and after Order Panel of the first page of a document.

If you open the Order Panel and discover that content is not tagged when it should have been, you can use the TouchUp Reading Order Panel to add the content.

Identify the content that is missing. You will be able to easily recognize it because it is not shaded using one of the colours you've chosen in the TouchUp Reading Order Panel. This is where having access to the Order Panel alone provides a fast way of identifying content not tagged.

In the following example, a paragraph of text has not been tagged or has been mistakenly tagged as an Artifact.
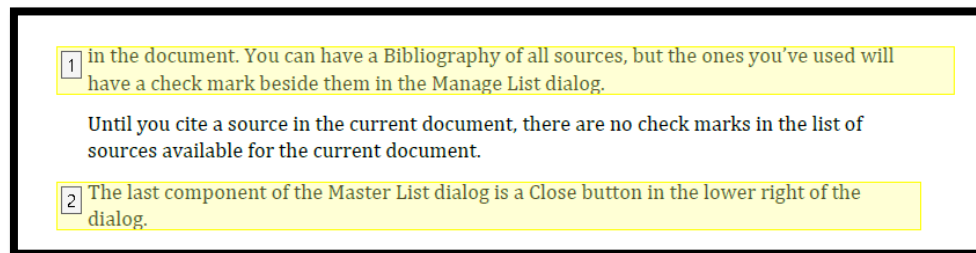

Figure 28 Document with paragraph not tagged.

The first thing to do is to open the TouchUp Reading Order Panel.

Move it to one side of the document so that you can see all of the text in the paragraph that needs to be tagged.

If you notice, your cursor is now a crosshair. Position the cursor by the upper left corner of the text and drag it to the lower right corner.
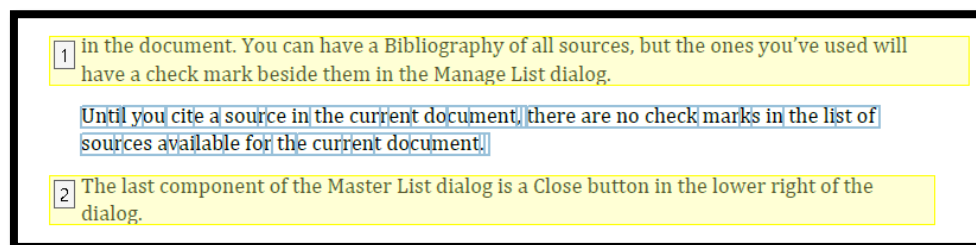

Figure 29 Untagged paragraph selected using the TouchUp Reading Order Panel.

Don't worry that the words or letters have blue highlight around them. This is normal. Visually check to make sure that all the words or characters, including punctuation in the selected paragraph are highlighted.

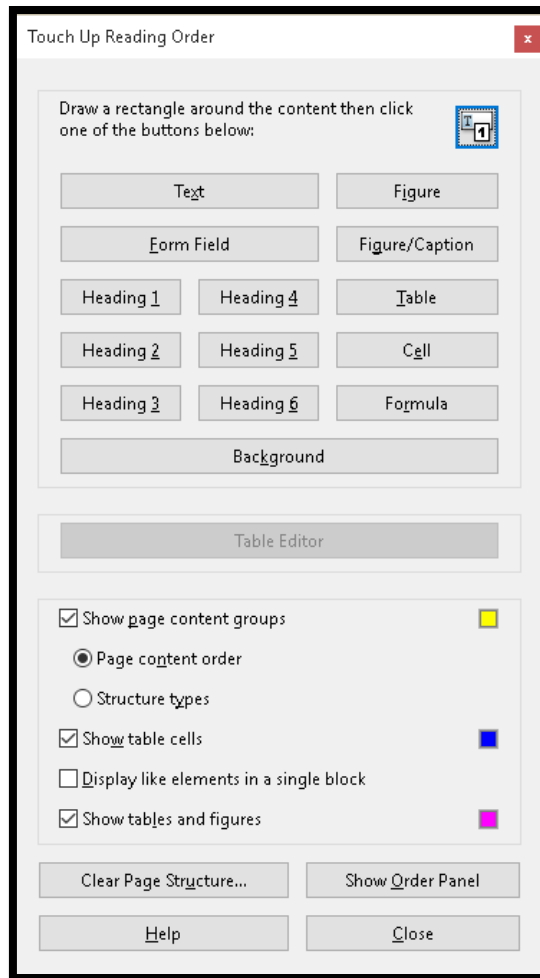The buttons on the TouchUp Reading Order Panel are now visible/available.

Figure 30 TouchUp Reading Order Panel with buttons available.

The paragraph is text so activate the Text button.

The paragraph is not only tagged as text but it is assigned a number in the logical reading order of the page. Correctly, it is the second piece of content that someone will read on this page.
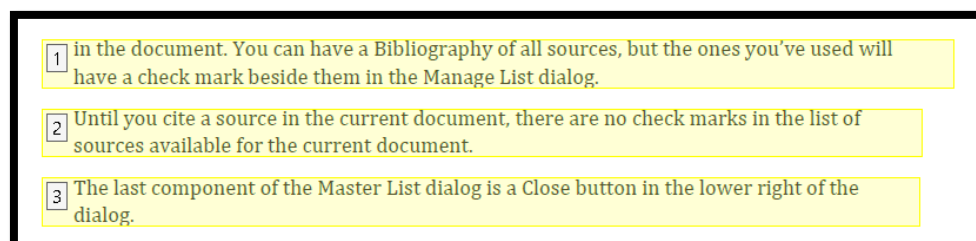

Figure 31 Untagged paragraph on a page repaired and tagged using the TouchUp Reading Order Panel.

Content Panel

The Content Panel is where you can see every piece of the page and document that is going to be sent to the printer. In other words, every piece of "stuff" on the page is represented in the Content Panel.

The items in the Content Panel may or may not be in the same logical reading order as they are in the Tags Tree.

The Containers in the Content Panel are usually arranged in the order in which they are sent to the printer. This is also the order you'll get when you choose "Raw print stream" as a way of reading a document with adaptive technology (The default is to infer the reading order from the document.)
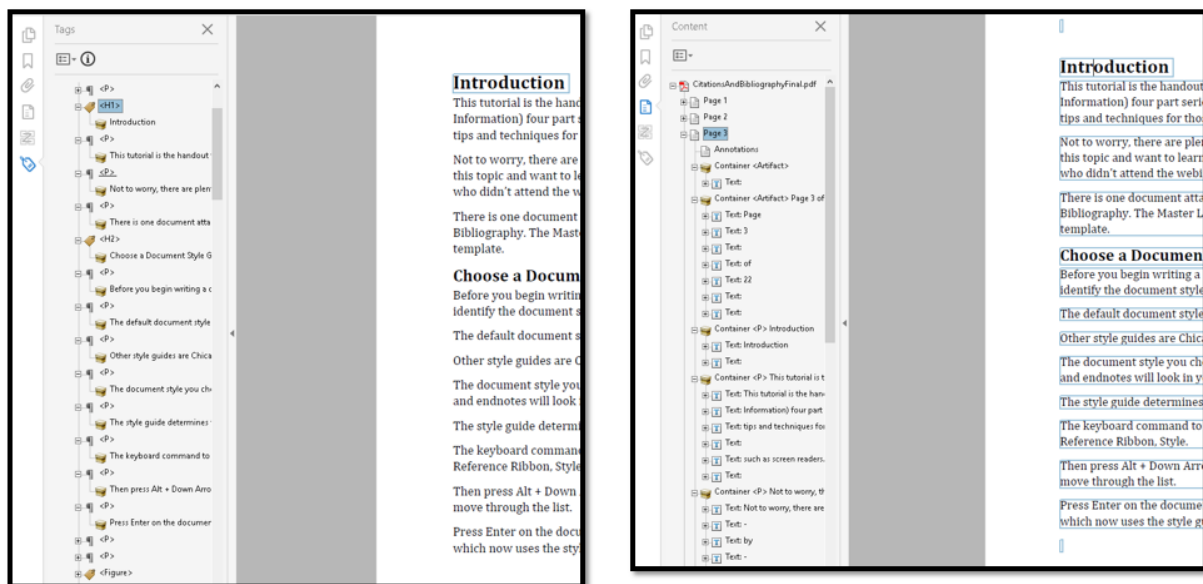

Figure 32 View of a page in the Tags Tree (L) and the Content Panel (R).

As illustrated in the preceding image, there appears to be a lot more detail and breakdown of exactly how the "Tag" content is identified in the Content Panel.

Taking a closer look at the image of the Content Panel, if you think back to the Order Panel and selecting the paragraph to be tagged and how both characters and words were highlighted, we see the consolidated results in the Tags Tree and the representation of those characters and words in the Content Panel.
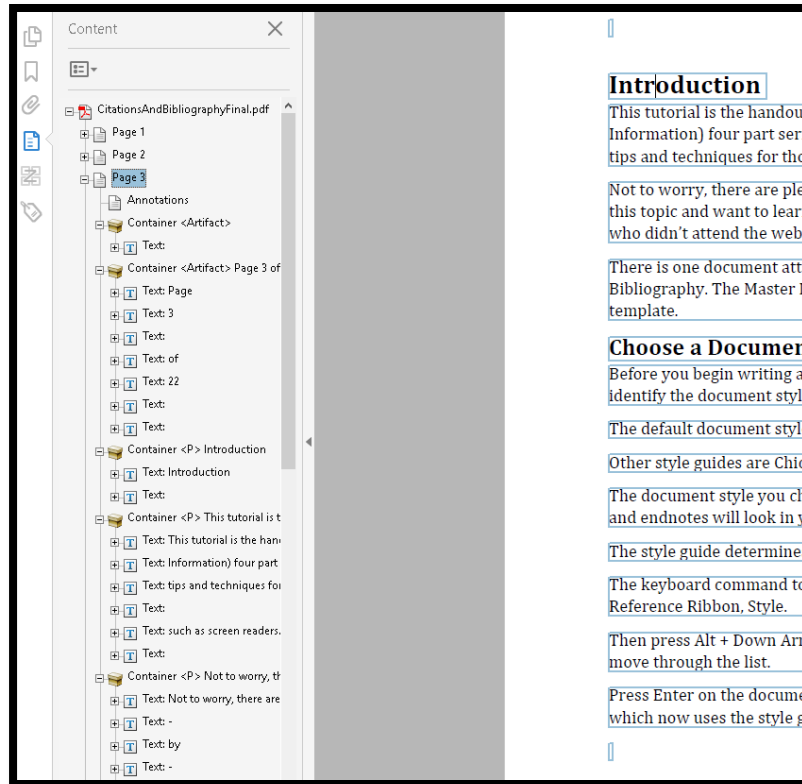
Figure 33 Close-up of page content in the Content Panel.

Most of the remediation of a PDF document occurs in the Tags Tree. The second place you'll work in is the Order Panel and you should rarely have to work in the Content Panel.

There are some tools in the Content Panel, however, that you'll use a lot when working in the Content Panel.

If you activate the Content Panels Options button or press the AppKey (right mouse click) on anything in the Content Panel, one of the options is to Find Container from Selection. The keyboard command in the context men is C.

This let's you select content on the page and then find the Container in the Content Panel so you can take a closer look at its contents.
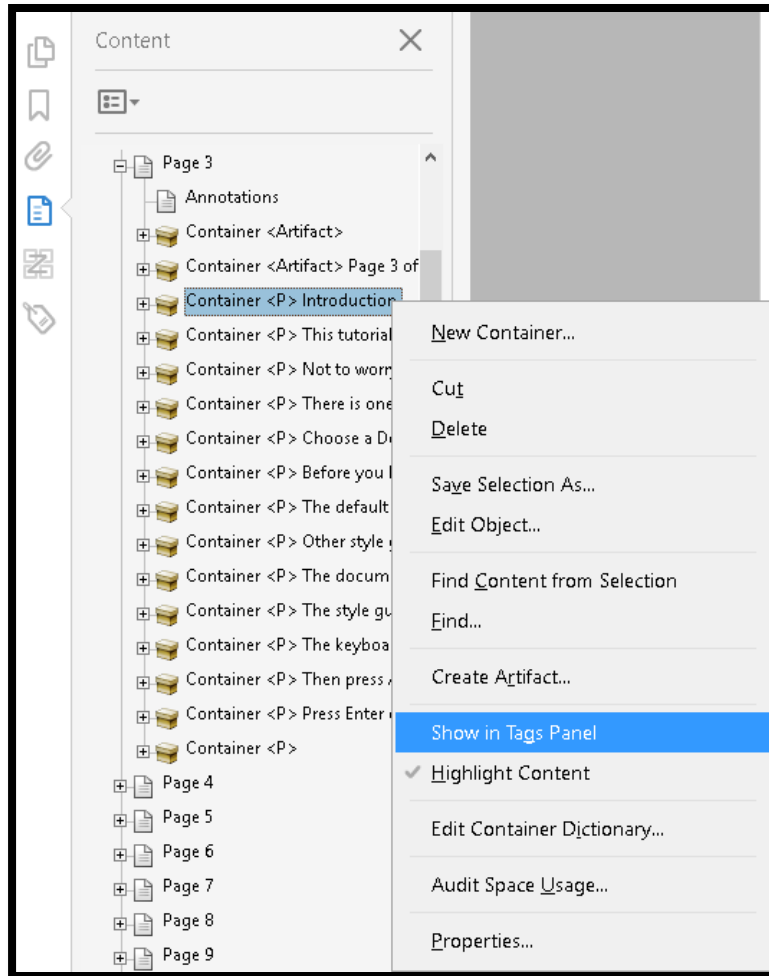
Figure 34 Content Panel context menu with "Show in Tags Tree" selected.

The next helpful tool is the Find tool which let's you find untagged content. However, if you've designated something as an Artifact, it will show up as untagged content.

This tool also let's you find Artifacts, unmarked links and annotations in documents with links and form controls.
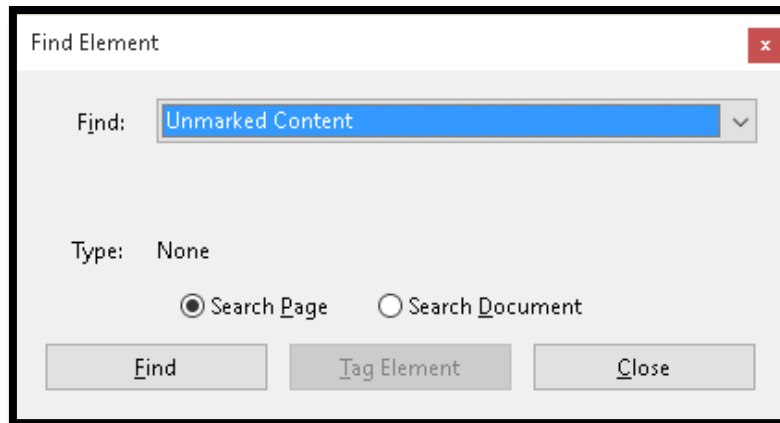
Figure 35 Find dialog from the Content Panel.

You can search the current page or the entire document. Once you've found all instances of what you were searching for, another dialog opens saying the Find is complete.

Figure 36 Notification from Find dialog that the search for an item is complete.

While it might seem that the Edit Object option in the context menu might let you work in the Content Panel as you would in the Tags Tree, if you try to change a <P> Tag to an <H1> Tag, you will get a warning dialog that says you can only do this in an untagged document.

The <P> Tag I did this on was tagged correctly in the Tags Tree but in the Content Panel it is identified as a paragraph container. This is true. It is a container of text.
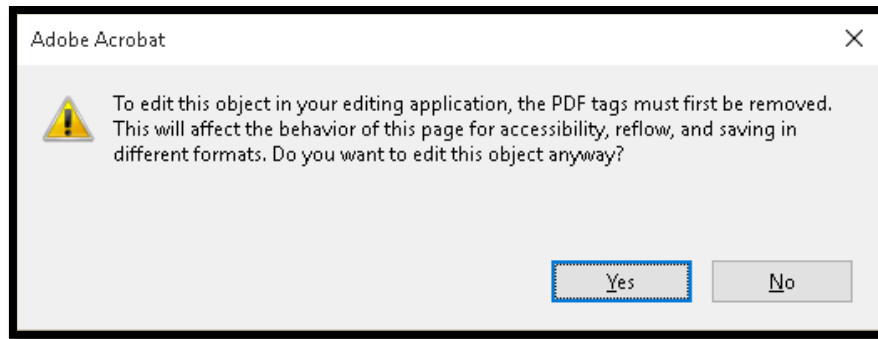
Figure 37 Warning dialog in Content Panel.

The Options button or context menu in the Content Panel can help you create Artifacts when the Order Panel or TouchUp Reading Order Panel doesn't let you.

The Properties option let's you reassign a Tag identifier. For example, in in the sample document used for this tutorial, the word "Introduction" was correctly tagged as <H1> in the Tags Tree but is a <P> Tag in the Content Panel. In the greater scheme of things, it is the Tags Tree that needs to be correct because adaptive technology goes down the Tags Tree to provide information to someone reading the PDF document.

However, if you are working in the Content Panel because you can't edit a Tag in either the Tags Panel or Order Panel, you can select a Container, press the AppKey or right mouse button (or click the Options button) and choose Properties.

When the Properties dialog opens, focus is on the General tab and in the Content Tag list. Using Alt + Down Arrow you can open the list and in the case of our example, change a paragraph to a Heading 1 by choosing that Tag from the list.
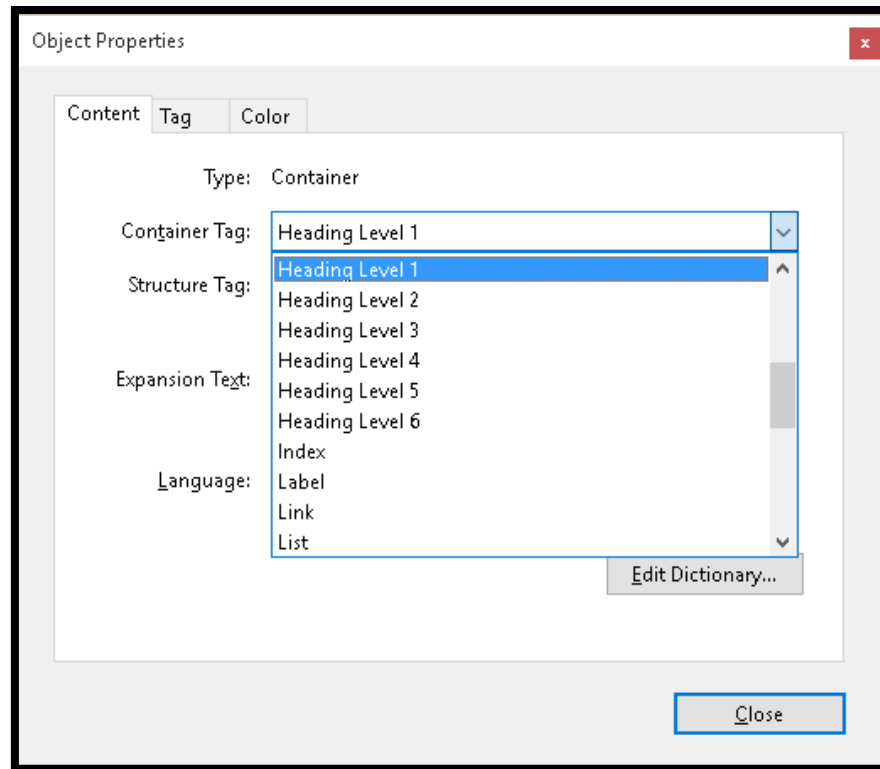
Figure 38 Properties dialog for a Container in the Content Panel.

If you press Ctrl + Tab you will find the Properties dialog you might be used to seeing in the Tags Tree.
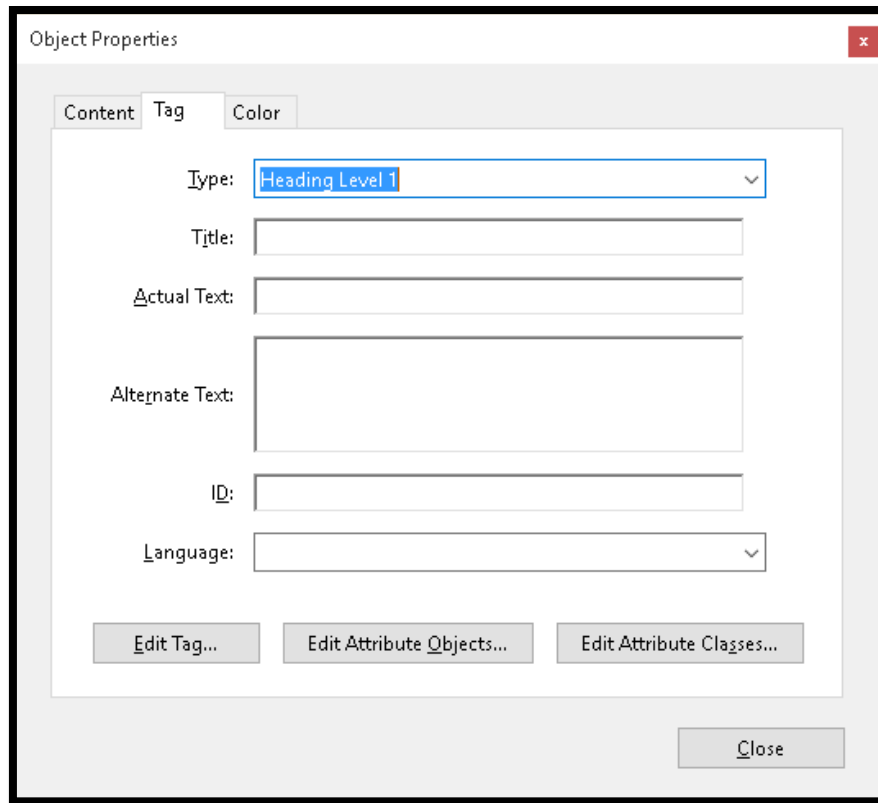
Figure 39 Tag tab in the Properties dialog.

Try to do most of the document remediation's in the Tags Tree, then the Order Panel and as a sort of last resort, the Content Panel. I suggest this only because it takes a bit of getting used to working in the Content Panel and you may need to work your way through understanding Tags and their relationship to content and adaptive technology before diving into the Content Panel.

Role Map

Sometimes you'll see a document that has what might be called unusual Tags. For example, PDF coming from older versions of Word using an older version of Acrobat might produce a <Normal> Tag. This is the Word Style used for the Normal paragraph and its role in the PDF is as a paragraph.

The following image is of a Word document converted to tagged PDF in Acrobat 8 or 9. If you convert the same document using Acrobat pro DC, you will get a <P> Tag instead of a <Normal> Tag.

You'll also see these types of Tags when working from documents that were created in desktop published applications such as Adobe InDesign
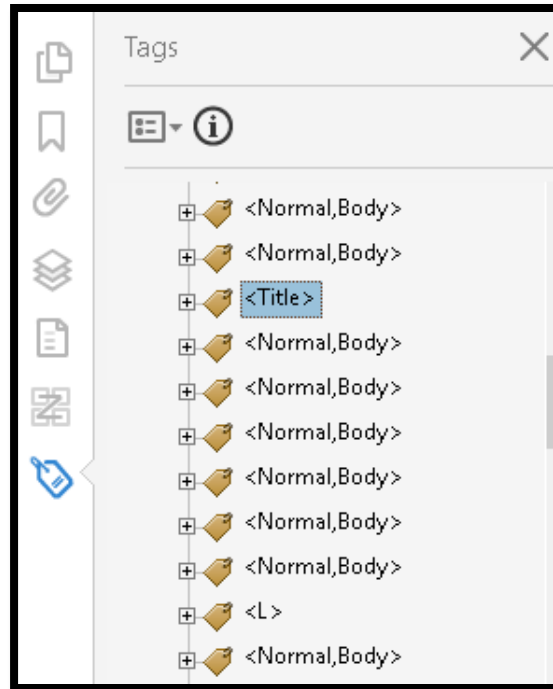
Figure 40 Tags Tree showing a <Normal, Body> Tag.

In the example above, the <Title>is a Word Style. The <Normal, Body> Tag represents the normal paragraph style in Word.

We can verify that the Tags have their correct role in the document by looking at the Role Map.

Select any Tag in the Tags Tree and press the AppKey or right mouse button. You can click on the Options button in the Tags Panel as another way of getting the context menu.
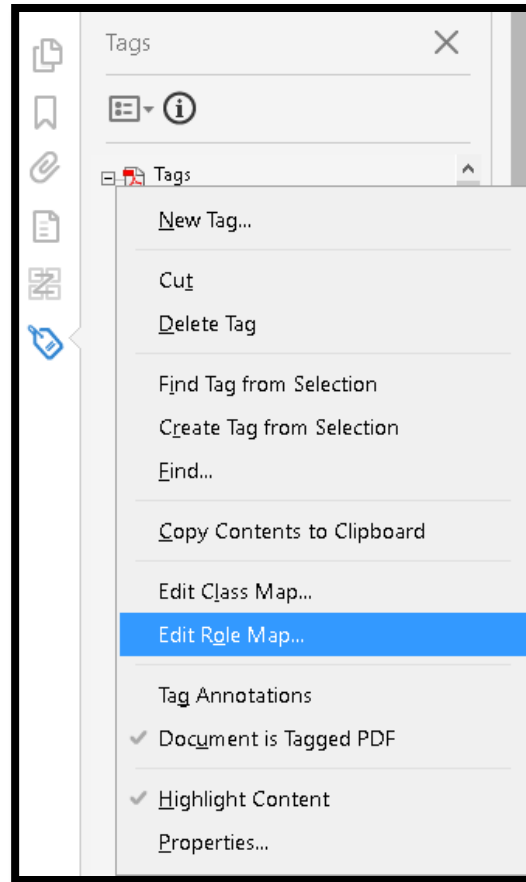
Choose Edit Role Map.

Figure 41 Edit Role Map option in the Tags Tree context menu.

When The Edit Role Map dialog opens, focus is in the Document Roles
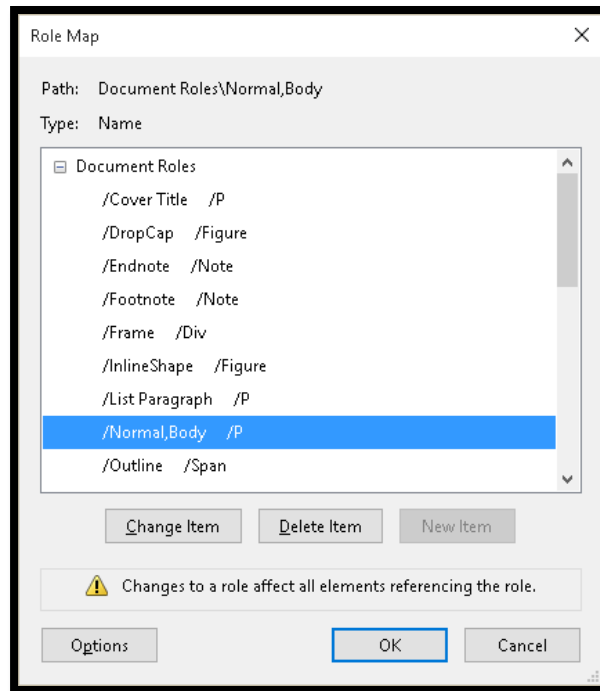
Figure 42 Role Map dialog showing <Normal, Body>Tag mapped to <P> Tag.

In the case of the <Normal, Body> Tag, it has been correctly mapped to the <P> or paragraph Tag. This means that the content within those Tags is going to be identified by adaptive technology as paragraphs.

However, when we move to the <Title> Tag, we find that it too has been designated as a <P> or paragraph Tag. It should be an <H1>. This was my fault in creating the document many years ago and not understanding how to make the Title Style a Heading. In Word 2013 and 2016, when you use the Title Style, it is a Heading 1 by default.

But how can we change the <Title> Tag to have the role of a Heading in the PDF document.

In the Role Map dialog, select the Title Tag.

Press Alt + C to activate the Change Item button.

In the Change Value dialog, delete the P and type in H1.

Tab to the OK button and press Enter.

The Title Tag now has the role of a Heading 1 in the current PDF document.

Figure 43 Change Value dialog with the new role of H1 entered.

Once you are returned to the Role Map dialog, the Title Tag is now designated an H1 whenever it appears in the Tags Tree.
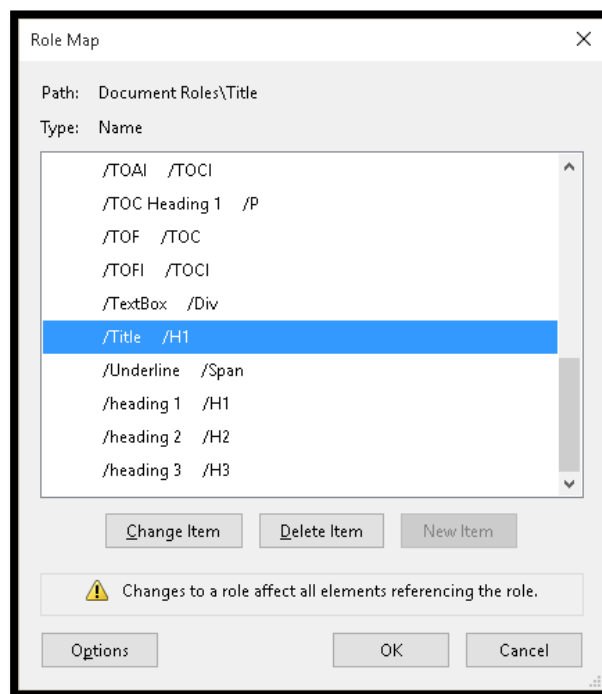

Figure 44 Role Map dialog showing the Title Tag is now designated as an H1.

You can confirm this using the JAWS screen reader by saving the document, reopening it and pressing JawsKey + F6 to get a list of Headings.
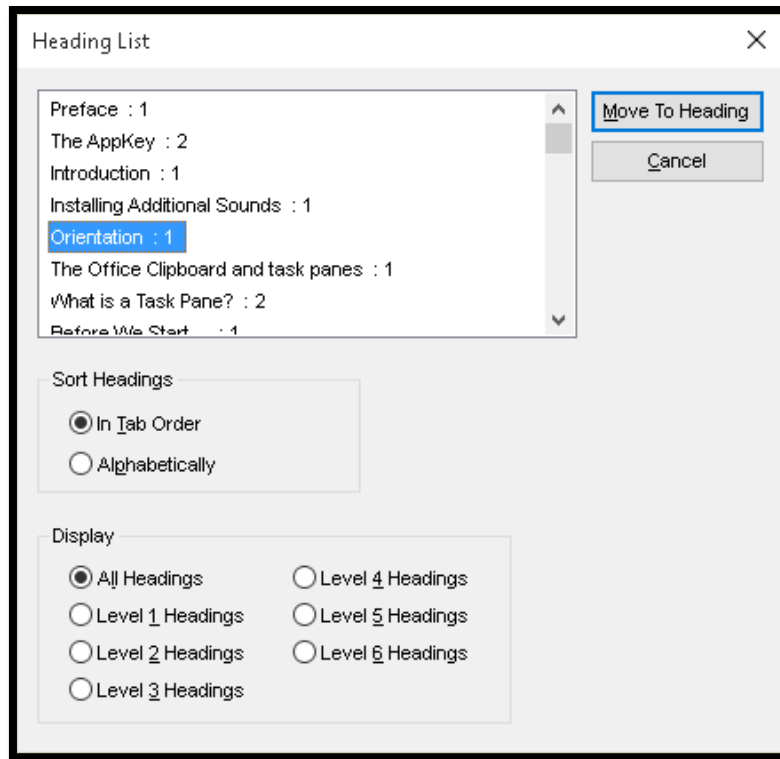
Figure 45 List of Headings in JAWS showing the newly mapped Heading 1.

The preceding image shows the word "Orientation" as a Heading 1. This is the <Title> Tag I selected in the Tags Tree to remap from a paragraph to a Heading.

When you reassign Tags as Headings, make sure you add them to the Bookmarks in the PDF document and place them in their logical Bookmark order.

F2

If you are in the Tags Tree and find content that has been tagged but the Tag is not the right one, you can press F2 to get into Edit mode and delete the part of the Tag that is wrong and type in the correct Tag.

The example used here is one that will move the document toward PDF/UA compliance. Tags is the root and the next Tag as illustrated in the following image, is <Part>. It should be <Document>.

1. Select the Tag <Part>.

2. Press F2. F2 is the Function key to the immediate left of the Escape key in the upper left of the keyboard.

3. The Tag is now in Edit mode.

4. Press the Left Arrow until you are to the left of the >.

5. Press Delete to remove the letters for the word Part.

6. Type the word Document.

7. Press Enter.

The Tag is now compliant in that the Tags begin with a <Document> Tag.

You can use this technique for any Tag. For example, you can change a <P> Tag to a <H1> Tag.
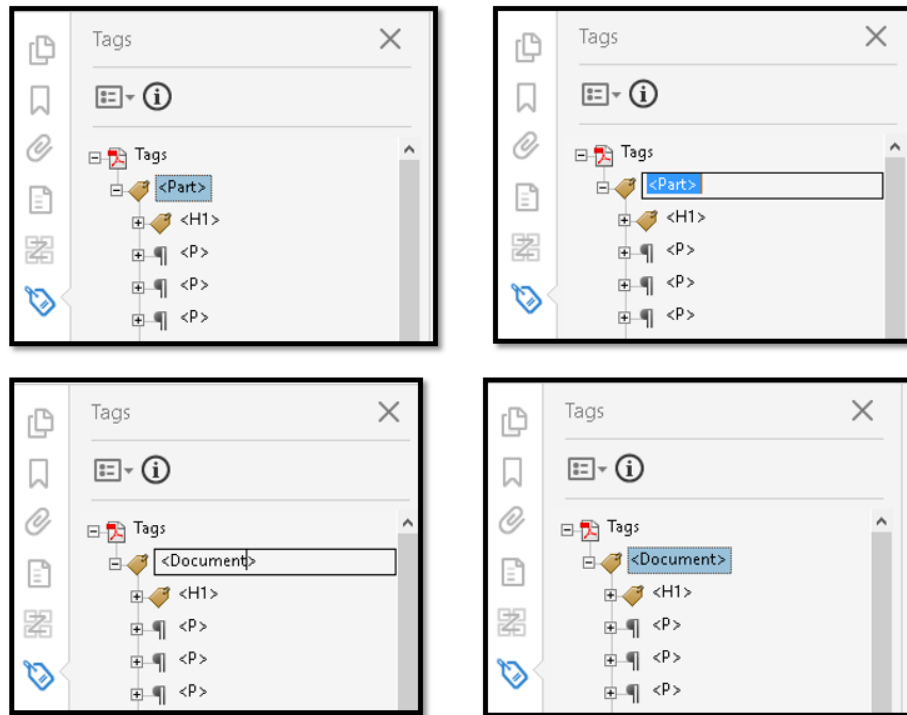

Figure 46 Steps to use F2 to edit a Tag.

Once you press Enter after typing in the correct Tag, that is the role that adaptive technology will see and that is the role that the Tag content has in the document.

You may need to save the document and/or close the document then open it again to hear the change if you are using adaptive technology. This is normal.

Alt Text on Images

Every image in a document that assists understanding of the content should be provided with Alt Text. Alt text should be concise and meaningful. Any images used in documents should be supported in surrounding content or support surrounding content. Decorative images do not need Alt Text and should be "tagged" as Artifacts.

To add Alt text to an image in Adobe Acrobat Pro DC:

Select the <Figure> Tag. Do not select the content nested under the Tag, for example PathpathPath.

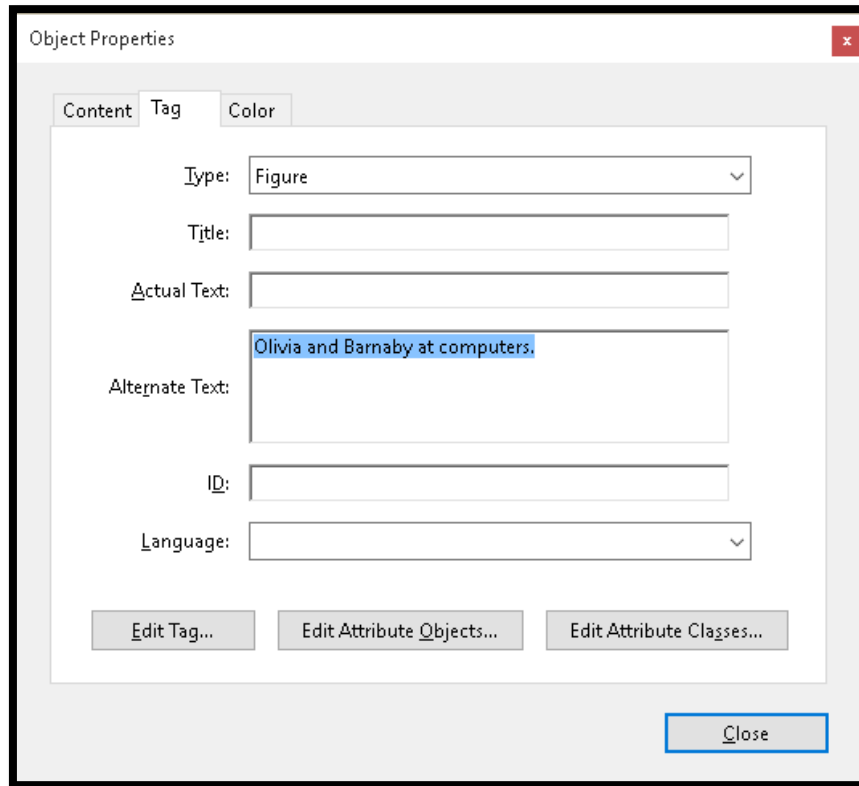Press the AppKey or right mouse click and choose properties from the context menu.

Figure 47 Properties dialog for a <Figure> Tag.

For an image, you only need Alternate Text. You do not need Actual Text. By default, the adaptive technology looks for the Alternate Text and if it isn't there, will look for Actual Text.

Actual Text is used when part of the PDF document is a picture of text. Sometimes you'll see this in PDF documents coming from desktop publishing applications where Illustrator text has been created and plunked into a document.

You'll also see this in documents where the author hasn't had the correct font set or the font set used is not complete. For example, if the word is Introduction and the font used in the source document doesn't have a "d," "t," or "n" a drawing of those letters is used. Visually the word looks like "Introduction" but when you try to Tag it or read it using adaptive technology, those letters are missing from the word.

In that case, select the Tag that has the letters that do exist and press the AppKey or right mouse click. Choose Properties and in the Actual Text edit box, type the entire word Introduction. Tab to the OK button and press Enter.

Now when adaptive technology such as screen readers or Text-to-Speech tools come across that Tag, the word Introduction will be read as a complete word instead of a mangle of a word with characters missing.

Sometimes you'll see the letters in the Tag but when you attempt to read the content using a screen reader, the word is mangled because characters are missing.

The difference between Alternate Text and Actual Text is in how the adaptive technology handles it. Actual Text is read more fluently…as text would be in a document. Alternate Text has a slightly different feel to it when you are reading it using a screen reader or Text-to-Speech.

If you are working with a multilingual document and the <Figure> Tag is not in a <Part> Tag with the language change; in other words it is isolated from other content with a different language attribute, you can assign a language attribute for this figure in the Properties dialog.

Before you perform an Accessibility Full Check, you might want to run the "Set Alternate Text" tool from the Accessibility tools in the Tools/Task Pane. Once started, this tool will go through your document and find any figures without Alt Text. It gives you the opportunity to add the Alt Text if it finds a figure without it.
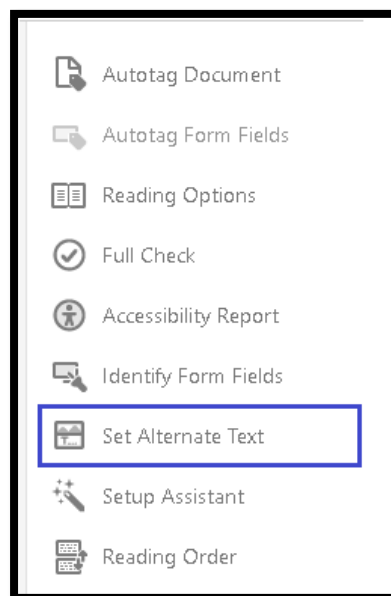

Figure 48 Set Alternate Text tool from Accessibility Tools/Task pane.

The Set Alternate Text dialog has buttons to move to the previous or next image, an indicator that you are on X of Y number of images in the document, the ability to make the image an Artifact which is the "Decorative image" check box, the edit area where you can type in the Alt Text for the figure and a Save and Close button as well as a Cancel button.
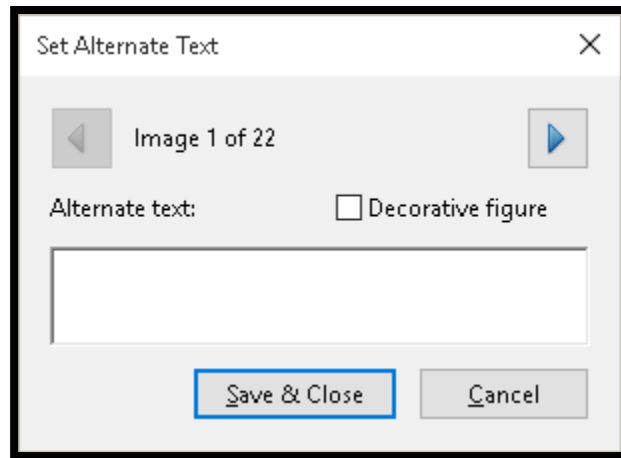
Figure 49 Set Alternate Text dialog.

One of the mistakes I usually make in using this is thinking that the button is to let me move to the next image rather than Save and close. Once you add the Alt Text, you use the Arrow buttons to move to the next image without Alt Text.

Note: If the filename is in the Alt Text field, the tool thinks this is Alt Text and will not flag the image for proper Alt Text.

Alt Text for Links

It is important to create contextual links in documents rather than plunking the long URL's into the document in the middle of text. By creating more accessible links the overall accessibility of the document is improved. Consider which you would like to try navigating through:
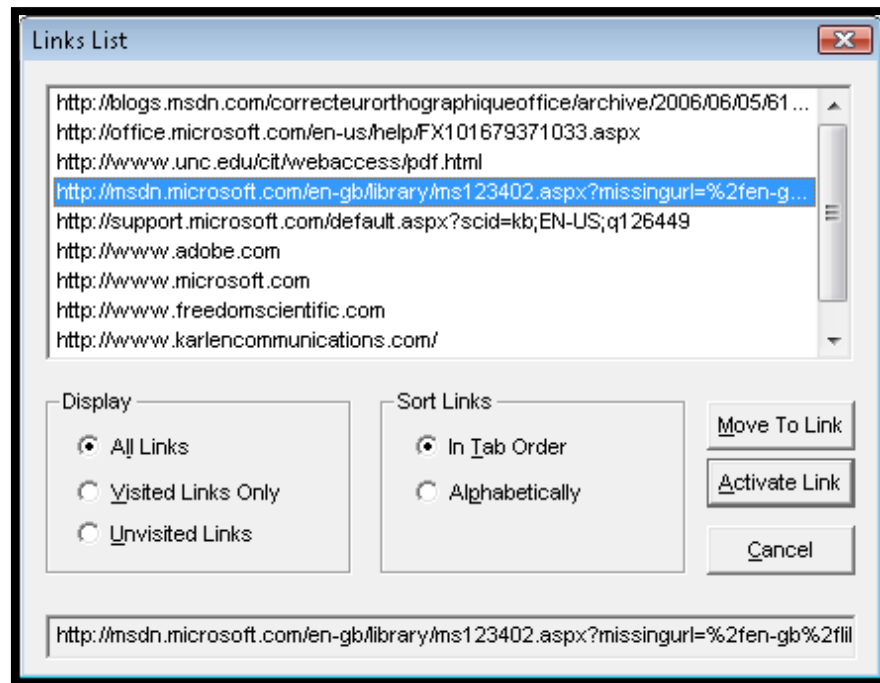

Figure 50 A List of inaccessible links from a Word document using the JAWS screen reader.

Where would this fourth link take you and what would you expect to find there? Would you listen to the entire URL before knowing what the filename is? What if the filename is file-01.html – where would that take you?

Now, look at links created to be more accessible. The person reading this document has a clear idea of where they are going and what they can expect if they follow a link.
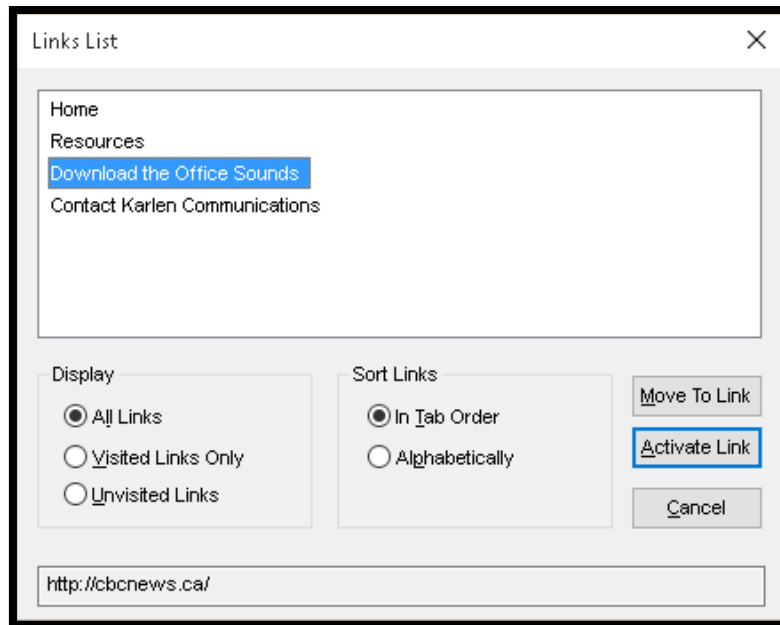
Figure 51 JAWS screen reader list of contextual links..

If you look closely at this document, a solution is demonstrated if the document will be printed out, or if the document author wants to include the URL itself for clarification. I use Footnotes and Endnotes to provide the long URL's and use contextual links within the text of the document.

The following image shows a mixture of contextual and long URL's in a document. People can still use first character navigation to quickly find the link they want but the long URL is also there in case they print off the document and need to refer to it.
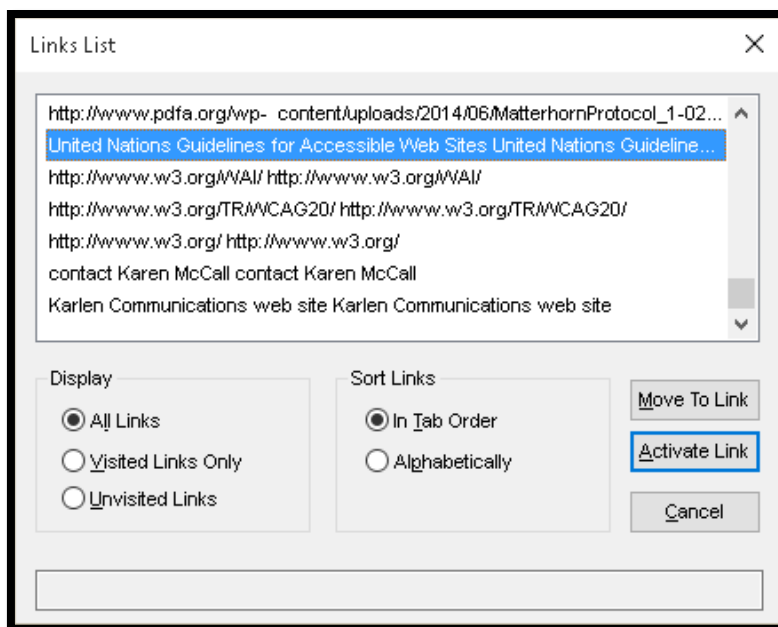
Figure 52 List of links from the JAWS screen reader showing a mix of contextual and long web addresses.

Remember not to start links with "Go to…" or "Select this link to…" as it prevents the use of first character navigation through the links. "click here" or "here" or "click" aren't helpful when attempting to determine where a link will take you.

Cut, Copy and paste

While working in the Tags Tree, you can use copy and paste to make the remediation work faster. For example, if you notice that in a <Table> structure, the <TH> or Table Header Tags are missing for columns and rows, you can copy the Tag while in edit mode (F2) and paste it in other areas of the table structure.

Select a Tag, for example <TD>. You want it to be a <TH> Tag.

Press F2 which will put you in edit mode and highlight the entire Tag, <TD>.

Press the End key and then go back and delete the D and replace it with an H.

You now have a <TH>Tag.

Select the <TH> Tag, press F2 and press Ctrl + C to Copy it.

Move to the next <TD> Tag you want to make a <TH> Tag and press F2.

Press Delete to remove all parts of the <TD> Tag and then press Ctrl + V to Paste the <TH> Tag.

Press Enter to confirm your action and the <TD> Tag is now a <TH> Tag.

I find that using Copy and paste for Tags that need a lot of replacing (tables and lists) does save time and keyboarding stress.

You can also use Cut, Copy and paste to move Content around the Tags Tree, Order Panel and Content Panel.

Language

Even if your native application, for example Word, identifies a language for the document, most of the time, the language settings are regional or localized. This means the language attribute will be something like Eng-CA or Eng-US for Canadian English or US English respectively.

The ideal is to have just plain English (or French or Spanish or any other language).

Why?

By saying that the document is Canadian English, if there are changes in pronunciation from US English, British English, Australian English or any other dialect of English, we force the person reading the PDF document to hear the content in a version of English they are not familiar with. The synthesizers we use when we use screen readers or text-to-Speech are ones we use for specific reasons. We either like the way the words are pronounced or we can hear the subtle pronunciations of words and phrases.

Our ears and minds get used to understanding content based on the voice we use to hear content.

By forcing us to use a different pronunciation, for example, listening to US pronunciation when we use an Australian synthesized voice, means that it takes us longer to understand the content and be able to hear the various pronunciations in a meaningful way.

By using just "English" as the language, it allows us to use whatever English based synthesized voice we are used to when reading PDF documents.

Press Ctrl + D to open the Document Properties dialog, press Ctrl + Tab to move to the Advanced tab and then press Alt + L to move to the Language edit box. Type in the language you need, Tab to the OK button and press Enter.
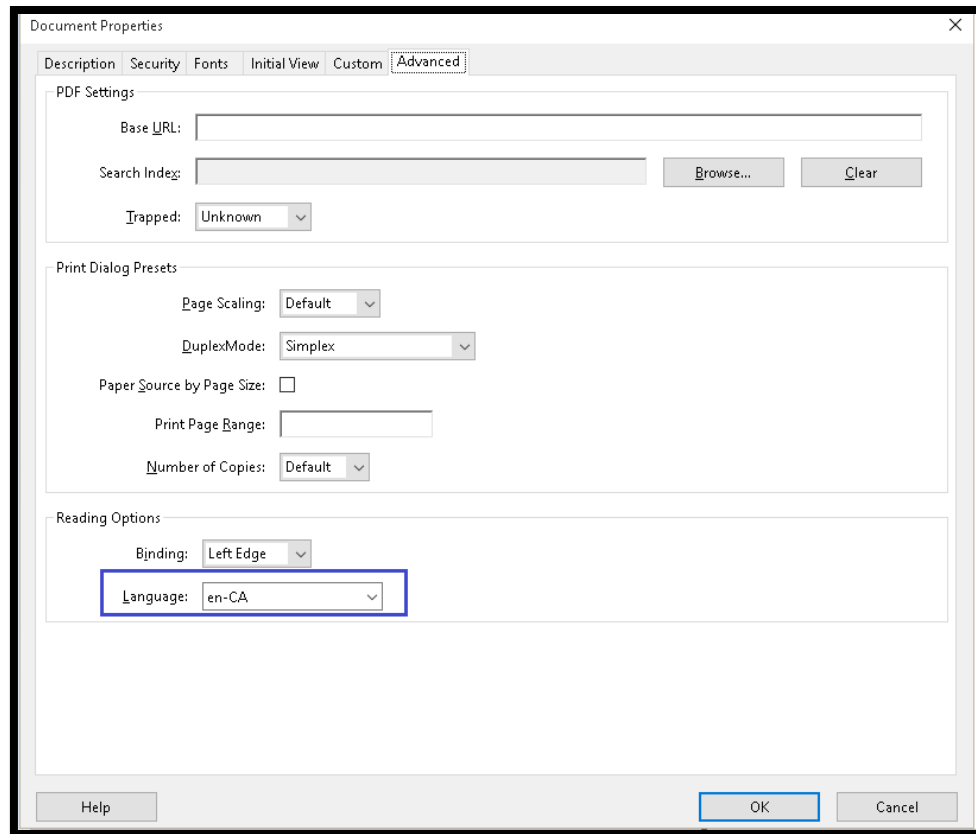
Figure 53 PDF Document Properties dialog Advanced tab showing Language edit box.

The preceding image shows the Language attribute as being "eng-ca" or Canadian English.

The following image shows the Language repaired to be just "English" to allow people reading the PDF document to use their regular voices and pronunciation when reading a PDF document.
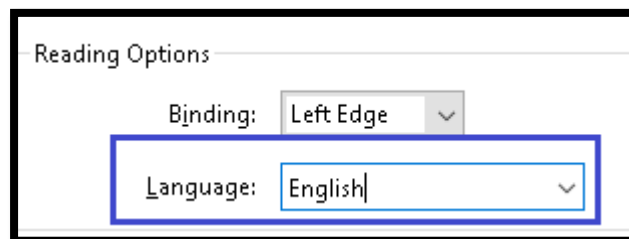

Figure 54 Plain English language attribute.

If you have a multilingual document where some text is in one language and some text is in another, you can ensure that the correct pronunciations are used when someone comes across the change in language.
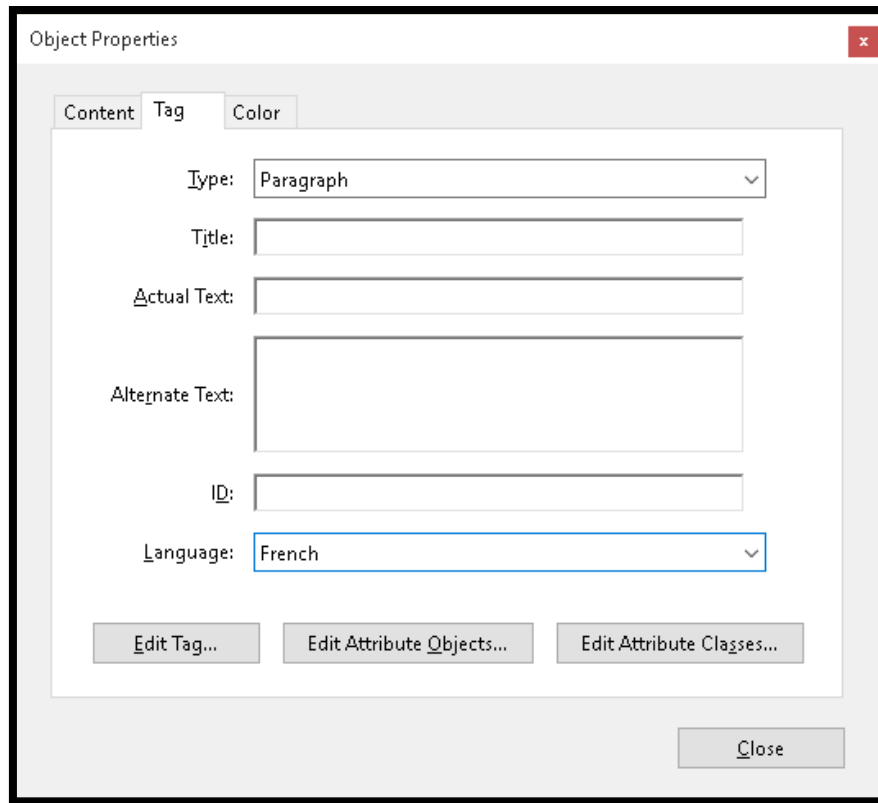
Figure 55 Language attribute for a Tag.

For example, if a <P> or paragraph is in French and the rest of the document is in English, select the <P> Tag for the French text and press the AppKey or right mouse click.

Press the Up Arrow to get to Properties (Properties is the last item in the context menu so pressing the Up Arrow moves you right to it.). Press Enter to open the Tag Properties dialog.

Press Alt + L to move to the Language attribute and type in the correct language for the Tag, in our example, French.

Press Alt + C to Close the Tag Properties dialog and now the language for that one Tag is French.

To hear the changes in synthesizer voices, save the document, close the document and reopen it again. If you don't have a screen reader or Text-to-Speech tool running, exit Acrobat and launch it again. Adaptive technology always works better when it knows what it is working with. By starting the adaptive technology first, you ensure that ALL scripts and tools for that application are available.

Find Tag From Selection

This tool is one o of your "best friend" tools. It lets you select content in the document and then move directly to the corresponding Tag in the Tags Tree.

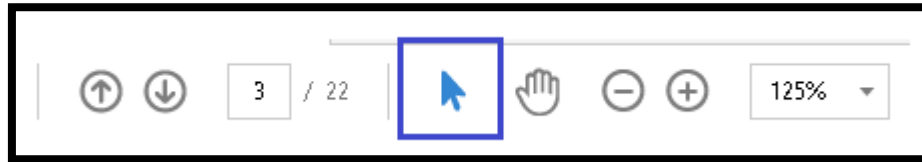To find a specific tag, use the Select Text tool to select text.

Figure 56 Select and Zoom toolbar with the Select Text tool active [far left].

Activate the Options button in the Tags Panel and choose Find Tag from Selection.
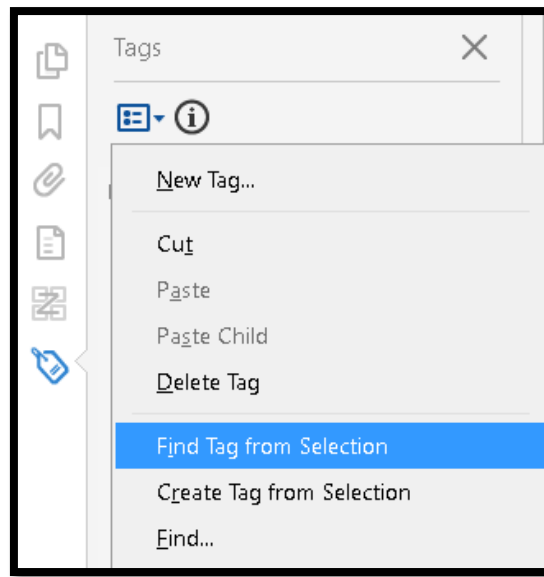

Figure 57 Options context menu from the Tags Panel showing Find Tag from Selection.

In the Tags Tree, the corresponding Tag will be expanded to reveal its contents. This is how you will locate it in the Tags Tree. Depending on where you are in the Tags Tree you may have to scroll down until you see the expanded Tag.

This tool is useful when you want to check the syntax of a Link Tag. For links, you want to select text just before or just after the link because trying to select the link itself will inevitably activate it.

Create Tag from Selection

While in the Tags Tree, if you notice content that hasn't quite been tagged correctly you can add the content to the Tags Tree by first creating the new Tag.

I recommend this because it builds adds the Tag close to where you want it in the Tags Tree. Although you can select content and create the Tag itself during the process, the Tag might be placed at the end of the Tags Tree instead of where you need it.

Here is the process I work with.

I locate the content I want in a new Tag.

In the Tags Tree, I might select text just above it and use the Find Tag from Selection tool. I then expand the Tag to reveal its contents.

I select the contents of the Tag and press the AppKey to open the context menu and choose New Tag.
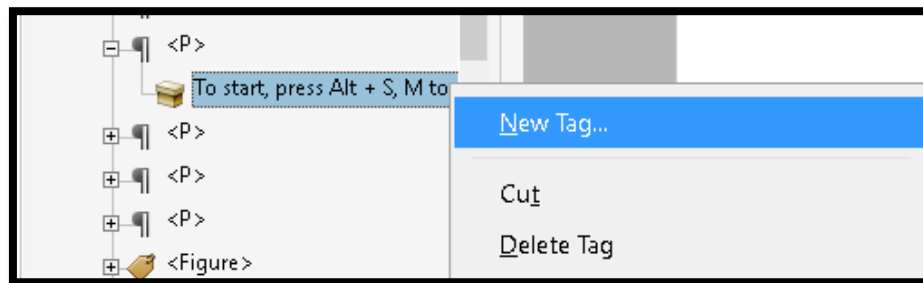

Figure 58 Creating a New Tag nested under existing content.

Once the new <P> Tag has been inserted, I can either drag it out of the existing Tag now or when I've finished creating the Tag from selection.
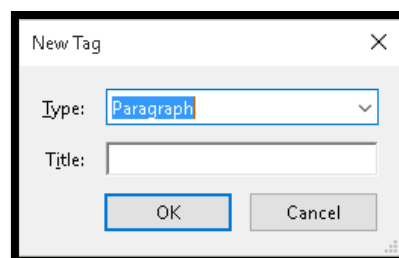

Figure 59 New Tag dialog showing Paragraph Tag to be created.

The next step is to put focus on that empty <P> Tag, go to the document and select the content you want in the <P> Tag.

In the Tags Tree, press the AppKey or right mouse button on the empty <P> Tag and choose Create Tag from Selection.
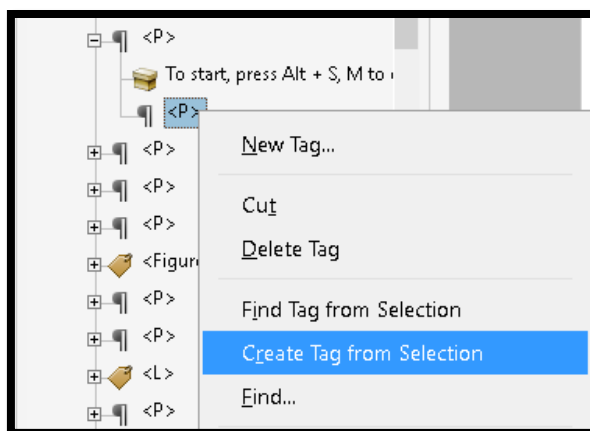
Figure 60 Create Tag from Selection and empty Tag in the Tags Panel.

Once the content has been added to the <P> Tag, move it outside of the Tag it is in if you haven't done so already. Make sure you place it in its logical reading order in the Tags Tree.

Using this technique gives me more control over where the new Tag is placed. I don't have to go through the Tags Tree looking for it.

Reflow [Ctrl + 4]

One of the tools available to document authors is the ability to reflow content on a page to demonstrate a logical reading order. Pressing Ctrl + 4 from the number row will flow any content except tables and form controls into what might be a more readable view of the content.

If there is a table in the document, the content will Reflow except any tables.

If there are form controls in the document (it is a fillable form), the document will not Reflow and you will get a dialog stating that the document can't be Reflowed because it contains form Controls.
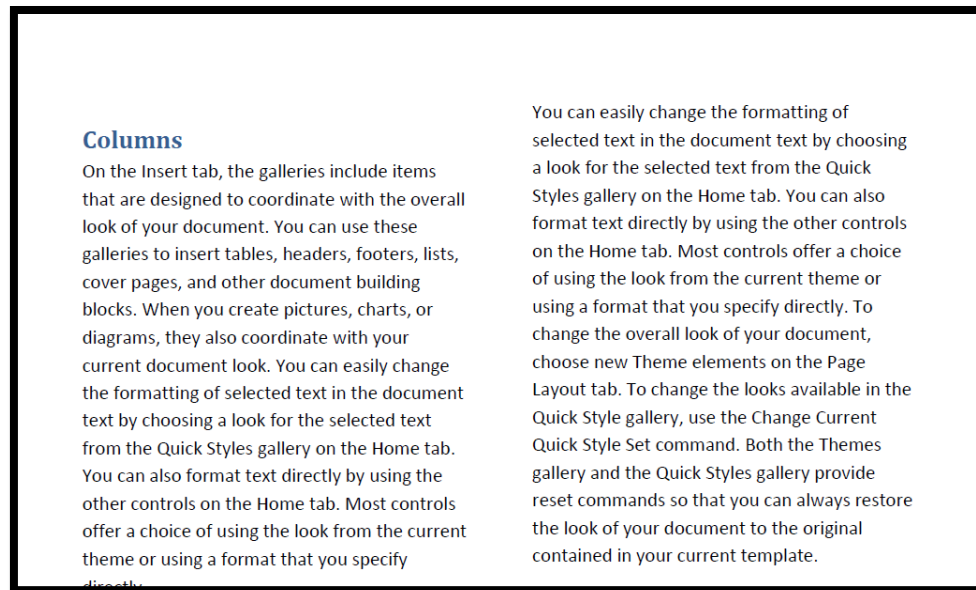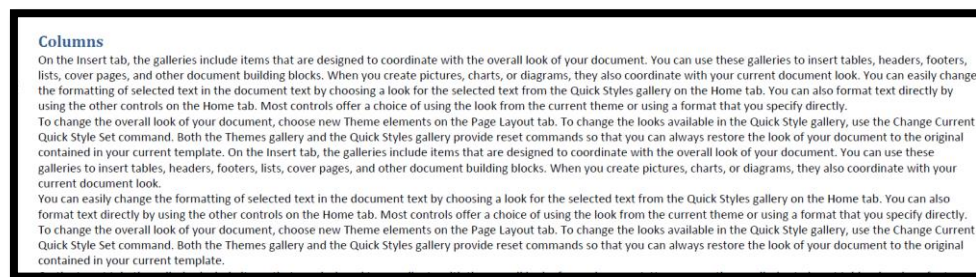
Figure 61 Text in a document before Reflow.

Figure 62 Document view after Reflow has been turned on.

In working through this section of the tutorial, I think there is a bug in Adobe Acrobat Pro DC and most likely in Adobe Reader DC. In the document I was using, there is a table that spans two pages. When Reflow was turned on, the part of the table on one page was reflowed while the part of the table on the second page was not.
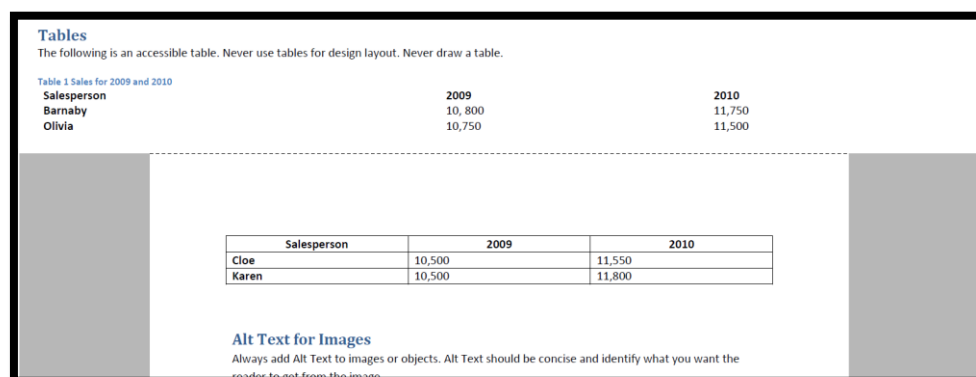

Figure 63 Reflow of part of a table in a PDF document.

The following image shows the table as it is in the document. I added some blank lines just before it in the original Word document so that the table would span two pages. Normally this would not be done.

Tables
The following is an accessible table. Never use tables for design layout. Never draw a table.

Table 1 Sales for 2009 and 2010

Salesperson	2009	2010
Barnaby	10, 800	11,750
Olivia	10,750	11,500

Salesperson	2009	2010
Cloe	10,500	11,550
Karen	10,500	11,800

Figure 64 Original table spanning two pages in PDF document before Reflow.

There is another change in Adobe Acrobat Pro DC and I would also guess in Adobe Reader. The keyboard command Ctrl + 4 from the number row used to turn Reflow on or off. It no longer does this.

To turn reflow off, press Ctrl + number 1 from the number row to view Actual Size.
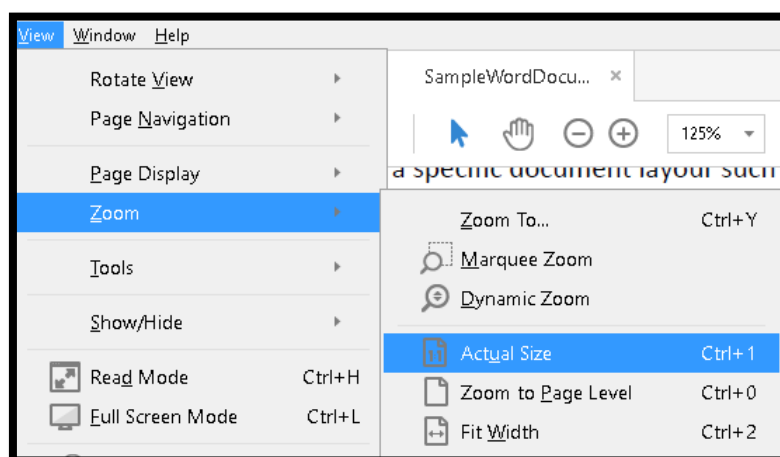

Figure 65 Using the View menu to return to Actual Size view of the document after Reflow.

Read Out Loud

We've been asking for years…well ever since Read Out Loud was included in Adobe Acrobat and Reader…to have it removed. The intent on the part of Adobe in adding it was similar to the origins of Narrator in the Windows operating system. It was included to give people an idea of what it was like to experience a PDF document if you were using adaptive technology that produced audio output, for example a screen reader or Text-to-Speech tool.

It was NEVER designed to be a primary tool for accessing PDF nor was it EVER designed to be used as a testing tool for PDF document accessibility!

While Narrator has evolved and is evolving into a full feature screen reader, Read Out Loud has remained a "sample technology." It has not advanced in any way in accessing PDF content.

My advice is to forget it is there!

If you want to test PDF documents, use NVDA which is a free screen reader and has made advancements in accessing PDF documents.

If you have JAWS or another paid for screen reader, use that.

Do not use Read Out Loud for anything!

It can only read a page or the full document. It cannot tell you where Headings, tables, lists, or any other structure are. You cannot read a character, word, sentence, line or paragraph using it…it is all or nothing.

Just say NO to Read Out Loud!

Save As Accessible Text

The ability to save a document as accessible text is sometimes used to verify the reading order of a document. It is more useful for people with disabilities who want to read the document outside of Acrobat or Reader. It takes time to save the document then go through it and validate it against the version in Acrobat. Depending on the timeframe of the task, this tool might be useful.
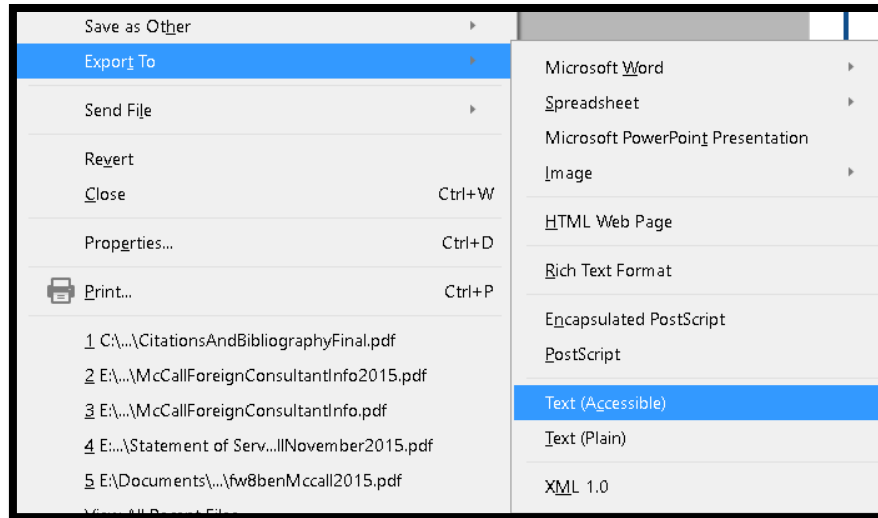
Figure 66 Export as Accessible Text file.

Add Tags Report.

When tags are added to a document a report on problem areas found during the tagging process is generated in Acrobat.

If you create a tagged PDF document from an application that has its own conversion tools, such as Microsoft Office or Adobe InDesign, you will not get an Add Tags Report. The tagged PDF document will open in Acrobat and you can begin the Quality Assurance process to see if any remediation is necessary.

The tools to add Tags to an untagged PDF document are provided earlier in this tutorial. If you are starting with an untagged PDF, go through the Hierarchy of Tasks until you get to the Add Tags to Document. The Action Wizard, Make Accessible will guide you through the same Hierarchy of Tasks.

The following image picks up the process after Tags have been added to an untagged PDF document and the Add Tags Report has been generated.
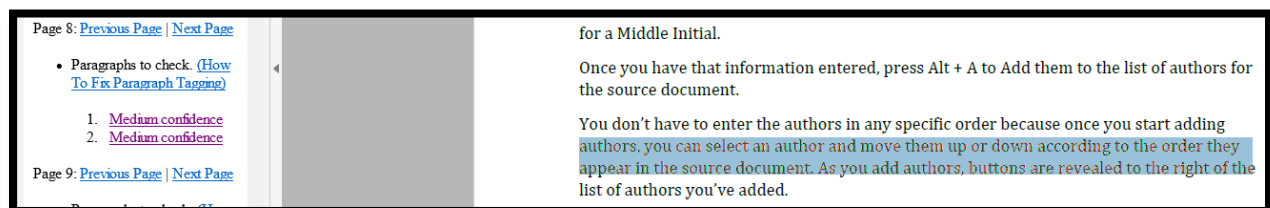

Figure 67 Sample content flagged in Add Tags Report.

When the Add Tags Report is generated, an icon for it is added in the Navigation panel, usually just under the Bookmarks tab and before the Attachments tab. The Add Tags Report is open and ready to work with.

The Add Tags Report contains information on whether Acrobat has low, medium or high confidence in what has been tagged. By clicking on or navigating to a link in the Add Tags Report and pressing Enter, you are moved to the problem area in the document and it is highlighted.

Here is where the Find Tag from Selection comes in handy.

Once the text is highlighted in the document from the Add Tags Report, switch to the Tags Panel/Tags Tree, use the Select Text tool to select a part of the content in question and in the Tags Panel, Options, choose Find Tag from Selection.

The Tag for that piece of content is expanded and you can see if it is correct, if all of the necessary content is tagged or if you need to make a repair.

Switch back to the Add Tags Report to move to and examine the next issue the Add Tags Report found.

Once you have worked with enough PDF documents, you may not want to review all items in the Add Tags Report. You may just start on repairs based on your knowledge of what can be problematic or you may want to skim the results and then start working on remediation's.

I find that having worked on tagged PDF for over 10 years, that I immediately go to the Tags Tree and start working my way down it which lets me perform most of my Quality Assurance while doing any remediation.

I can check that all content that needs to be tagged is, that the Tags for the content are correct and that the Tags are in a logical reading order.

This saves time and combines tasks to make PDF remediation more cost effective for those of us working in departments where we are the only accessible PDF resources/remediation professionals that exist within the organization.
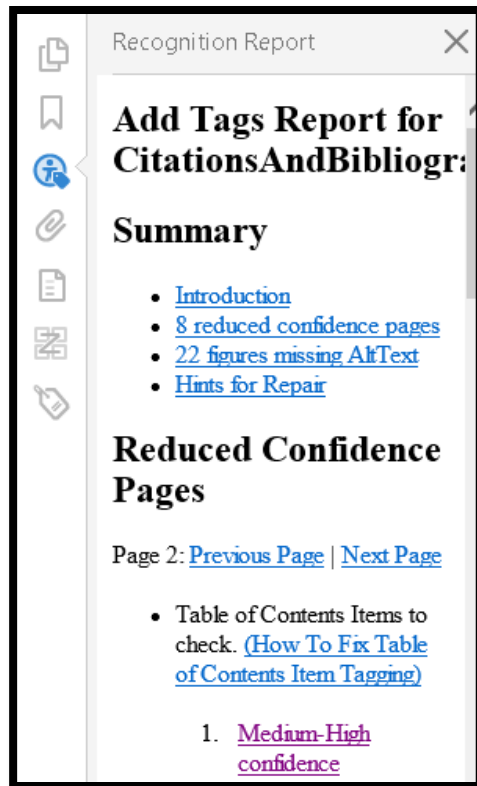
Figure 68 Add Tags Report in Navigation pane.

Use the Add Tags Report as a starting point to examine problem areas in the document. Then move to the Tags and Order Panels to begin making necessary repairs.

For example, one strategy might be to move to the Order Panel and quickly review the document to see if there are large pieces of content not tagged before moving to the Tags Tree. The other technique is the one I used and previously mentioned of starting work directly in the Tags Tree.

Accessibility Full Check

Once repairs have been made to a document, it is wise to perform an Accessibility Full Check. This will identify any outstanding issues in the document.

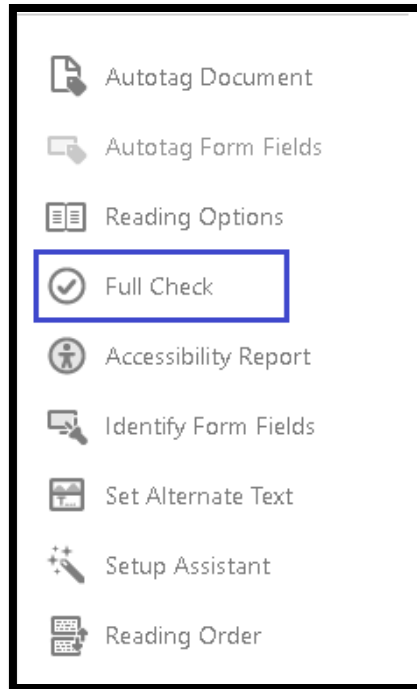The Full Check is found in the Accessibility Tools in the Tools/Task Pane.

Figure 69 Accessibility Full Check in the Accessibility Tools in the Tools/Task pane.

When you activate the Full Check tool, a dialog opens with settings you can change to customize how the Full Check Report will be conducted.

The first settings identify that you want the Full Check Report and where it will be placed. As well as seeing it in the Navigation Panel just after the Bookmarks and before the Attachments tabs, you can access it as a web page from the location it is saved to.

The next check box is to let you attach the Full Check Report to the PDF document. This is not checked by default.

The middle section of the Accessibility Full Check dialog lets you choose whether to perform the check on the entire document or a specific page range.

The last section of the Accessibility Full check dialog lets you choose what elements of the PDF document are going to be checked. The default is to check the document or everything.
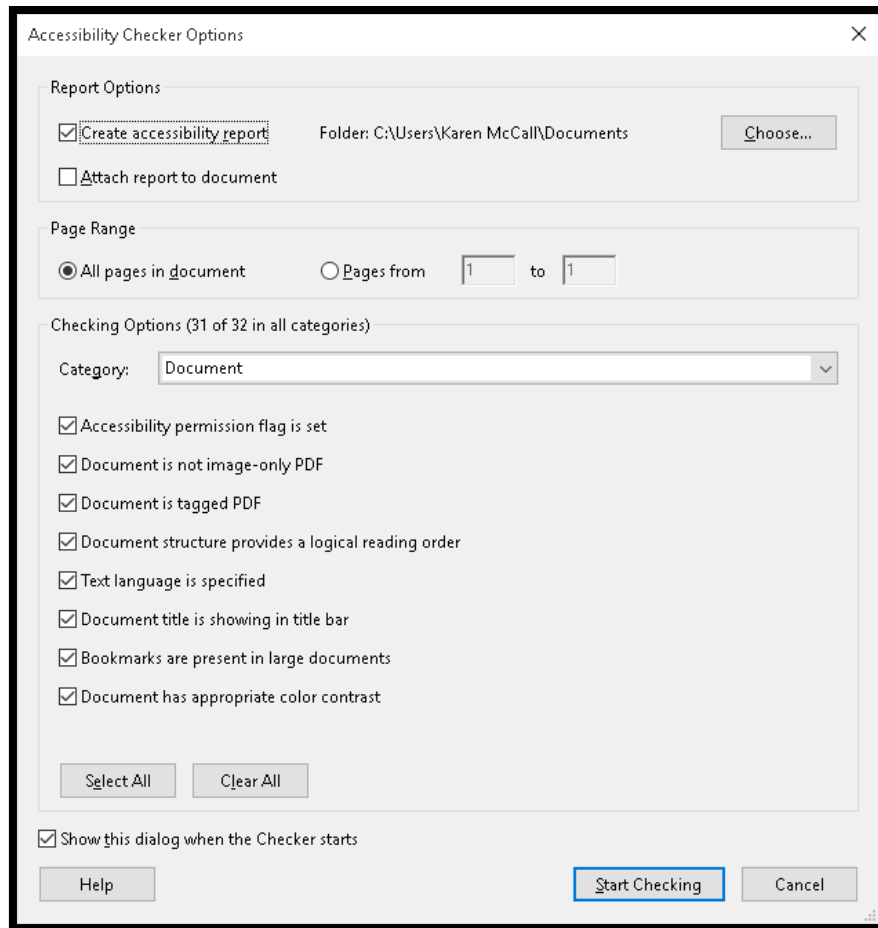
Figure 70 Accessibility Full Check dialog showing document checking options.

There are three other choices: Page Content, Forms, Tables and List sand Alternate Text and Headings.

The following image shows the options for Page Content.

If you check Page Content, some of the options are to check that all content is tagged, that all Annotations are tagged, that the Tab Order is consistent with the structure order and that there are no inaccessible scripts.
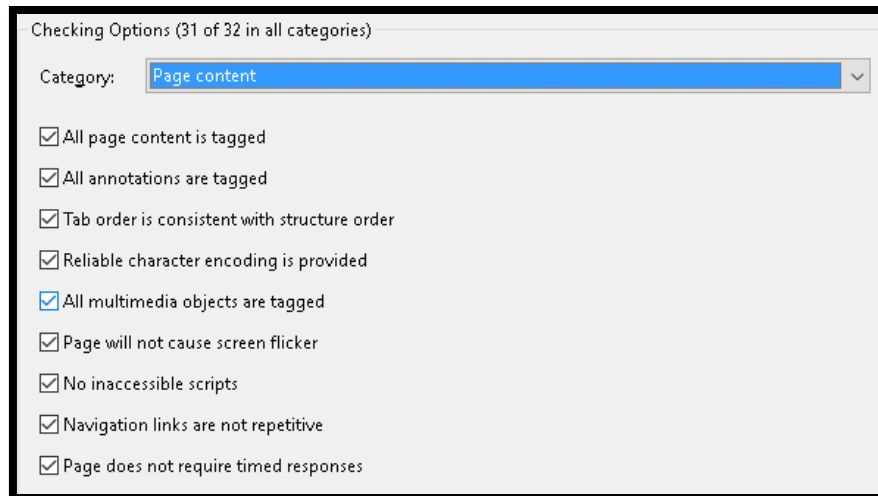
Figure 71 Accessibility Full Check options for Page Content.

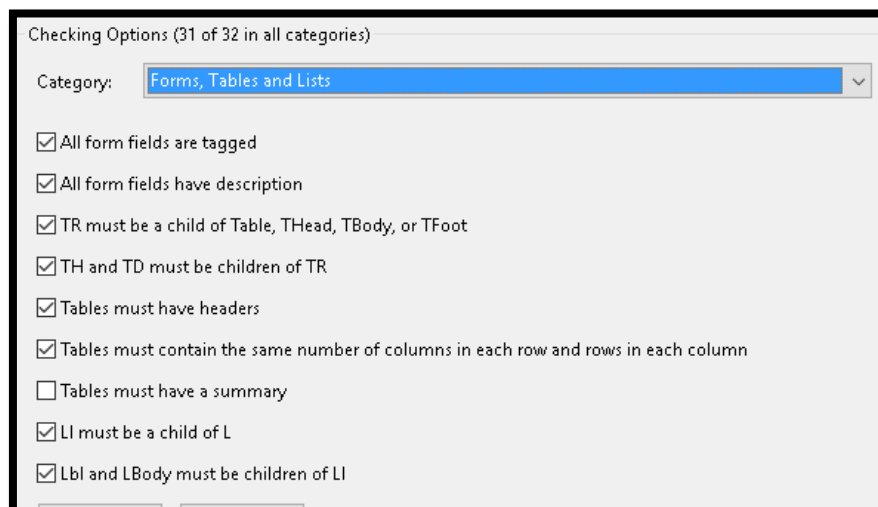The next option is to check Forms, Tables and Links. When you choose this option, the settings change.

Figure 72 Accessibility Full Check options for Forms, Tables and Lists.

If you choose to check Forms, Tables and Lists, some of the options are that all form fields are tagged, all form fields have descriptions, TR must be a child of Table, TBody, THead or TFoot and that LI must be a child of L.
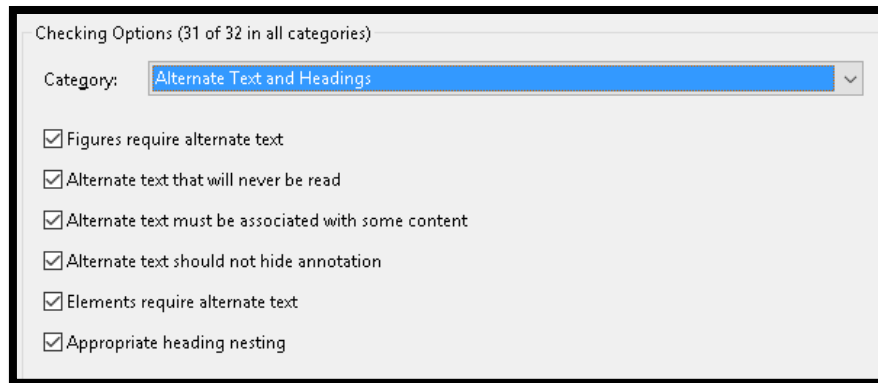
Figure 73 Accessibility Full Check options for Alternate Text and Headings.

If you choose Alternative Text and Headings, the options change again to include: figures require alternative text, alternate text must be associated with some content and appropriate Heading nesting.

The accessibility Full Check Report opens in the Navigation Panel and you can begin to go through the items it found.

> **Note:** I probably should have mentioned this before, but before you start the Accessibility Full Check, go to the Document Properties dialog (Ctrl + D) and check the language and document title. These are two things that regularly get flagged. Then go to the Pages tab in the Navigation Panel and check the Tab Order for all pages. You can do this by pressing Ctrl + A to select all Pages and then use the AppKey or right mouse button to open the context menu and choose Properties. Make sure the Tab Order is from the document structure. Doing this will save time when the Accessibility Full Check is done.

No matter which type of Accessibility Full Check you perform, there is still a need for a manual check of some items. For example, you must manually review the logical reading order and colour contrast. Although there is not much you can do if the document author has used poor contrast except suggest that they receive training on accessible document design.

For logical reading order and colour contrast, select those items in the Accessibility Full Check Report and press the AppKey or right mouse button and choose Pass. They are now "fixed."

In the sample document I used for the Accessibility Full Check, there were several images with no Alt Text.
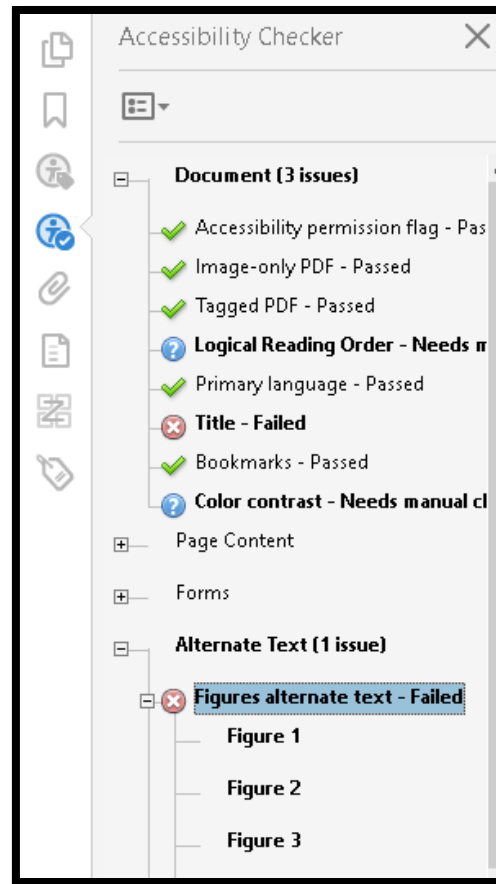
Figure 74 Accessibility Full Check Report in Navigation panel.

I expanded the Alternative Text item in the Accessibility Full Check report. Notice that it tells you how many images have no Alt Text.

I can select a figure in the list and click on it to go directly to that figure to take a look at the problem.

I can then press the AppKey on the figure in the Accessibility Full Check Report and choose Fix.
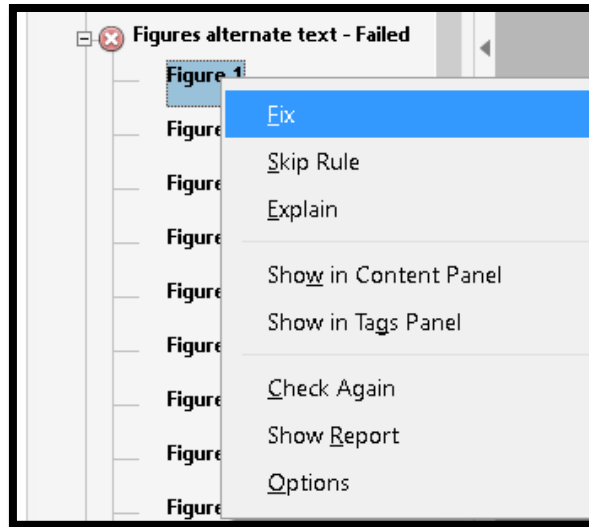
Figure 75 Figure with no Alt Text and context menu to fix it in the Accessibility Full Check Report.

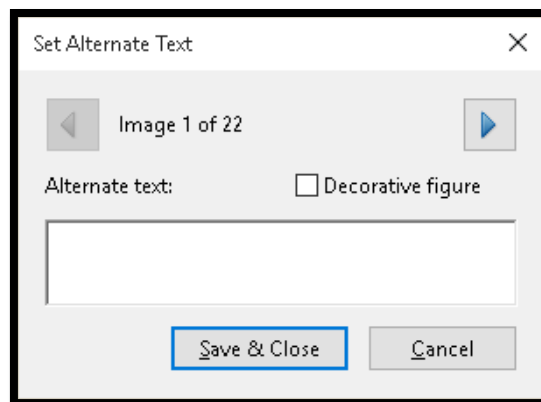This opens the Set Alternative Text dialog and I can add the Alt Text for the image.

Figure 76 Set Alternate Text dialog.

When you have made the necessary repairs, perform the Accessibility Full Check again. Repeat the process as necessary to comply with your organizational policy on accessible PDF.

You can perform an Accessibility Full Check at any time during the remediation process. You don't have to wait until the end. I often perform the Accessibility Full Check after remediating a particularly difficult piece of content to ensure that I haven't broken anything in the process.

Bookmarks

One of the key elements of an accessible PDF document is the existence of Bookmarks. The Bookmarks can be generated from many native applications such as Microsoft Word. In Word, they are based on the Headings used in the source document. Another good reason to use correct Heading structure in your Word documents!

If you are working with a PDF document that doesn't have Bookmarks, you can add them.

Select the text you want to be the Bookmark.

Press the AppKey or right mouse button and chose Add Bookmark. The keyboard command is Ctrl + B.
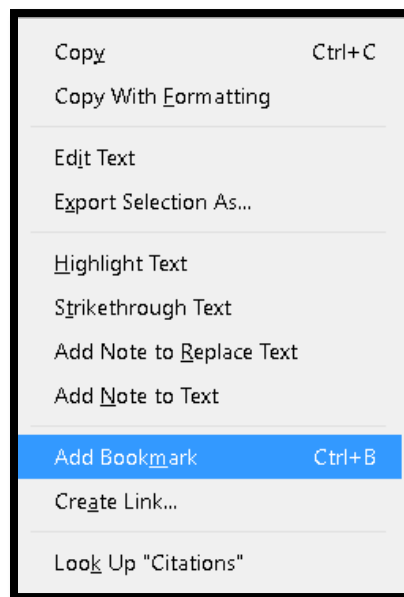

Figure 77 Add Bookmark in context menu.

Depending on where your focus was in the Bookmarks Panel, you may have to drag Bookmarks around to a logical order.

Bookmarks should be nested just as they would be in a Word document. For example, Heading 2 is nested under Heading 1 and Heading 3 is nested under Heading 2.

The following image demonstrates how Bookmarks reveal and support the logical structure of the PDF content.
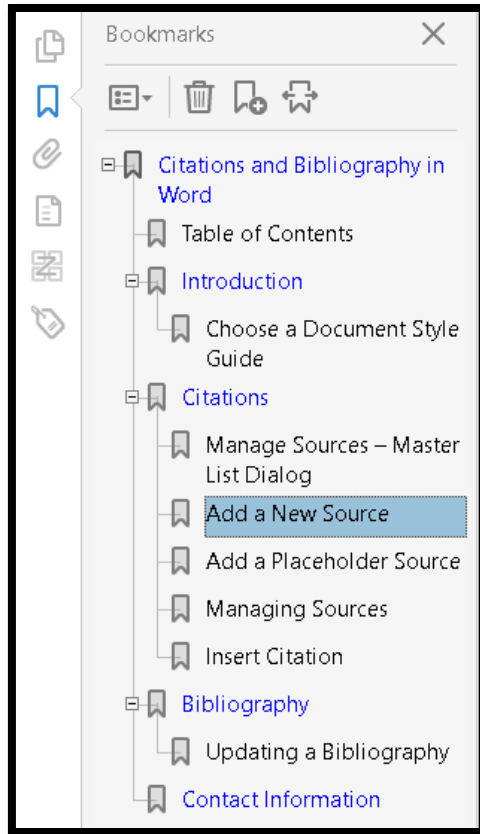
Figure 78 Bookmarks in a PDF document.

One of the tools available for Bookmarks is the ability to make levels of bookmarks a different colour so they are even easier to navigate.

I recommend only making the first level or Heading 1 Bookmarks a different colour. This lets people locate things like chapter titles and quickly see what content is under them or move to the chapter title quickly.

To make a Bookmark a different colour:

1. Select the Bookmark in the Bookmarks Panel in the Navigation Panel.
2. Press the AppKey or right mouse button and choose Properties.
3. Change the colour of the Bookmark.
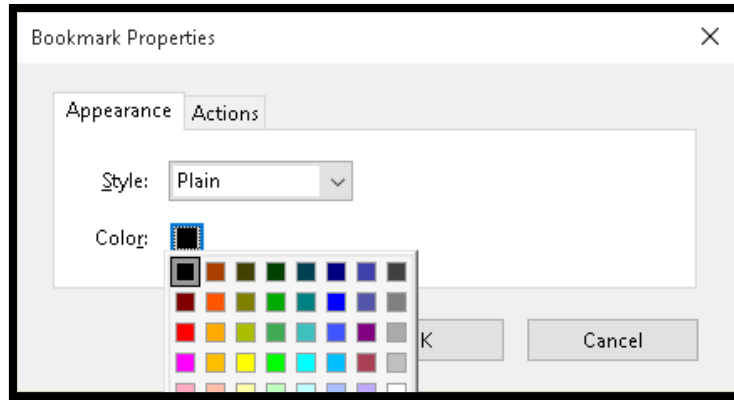4. Tab to and activate the Close button.

Figure 79 Bookmark Properties dialog showing colour palette.

Contact Information

You can contact Karen McCall with any questions about this how to booklet or any suggestions for others. Visit the Karlen Communications web site for more how to booklets!

Appendix A: Tag Samples

The following are samples of the most commonly used Tags at a basic tagging level.

The <P> Tag is used for a paragraph. All parts of a single paragraph must be under this Tag. Each paragraph must have its own <P> Tag.

<P>

> Video provides a powerful way to help you prove your point. When you click Online Video, you can paste in the embed code for the video you want to add. You can also type a keyword to search online for the video that best fits your document.
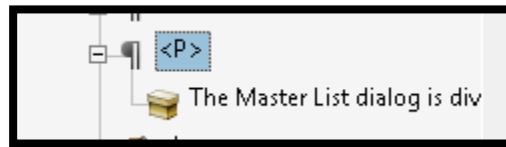
Figure 80 Sample paragraph Tag.

A Heading Tag identifies content as a navigational point in the document. Headings must be sequential going from H1 to H2 to H3 or Heading 1 to Heading 2 to Heading 3. From a Heading 3 you can go back out to a Heading 2 or a Heading 1 but you must not skip headings. For example tagging from an H1 to an H3 without an H2.

Headings are reflected in Bookmarks and there should be the same Bookmarks as there are Headings.

Headings must not be used for complete paragraphs!

<H1>

> Chapter One

Figure 81 Sample heading Tag.

Lists have a parent <L> and have child <LI> Tags. A <LI> or List Item Tag can have an Llabel Tag for a bullet or number and a <LBody> Tag for the content. As long as there is the parent <L> Tag and the child <LI> Tags for each item in the list, this is currently compliant.

<L>

      <LI>

            Bullet point 1

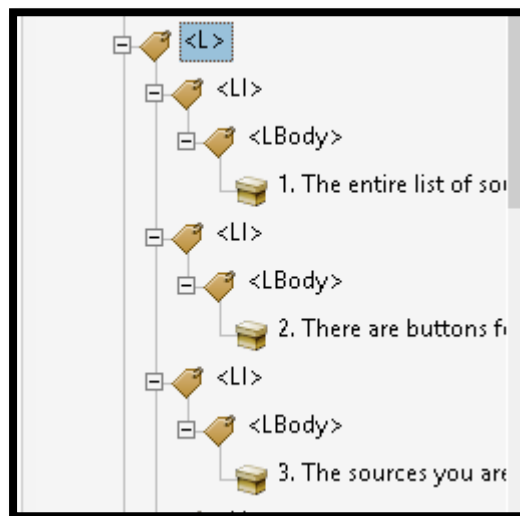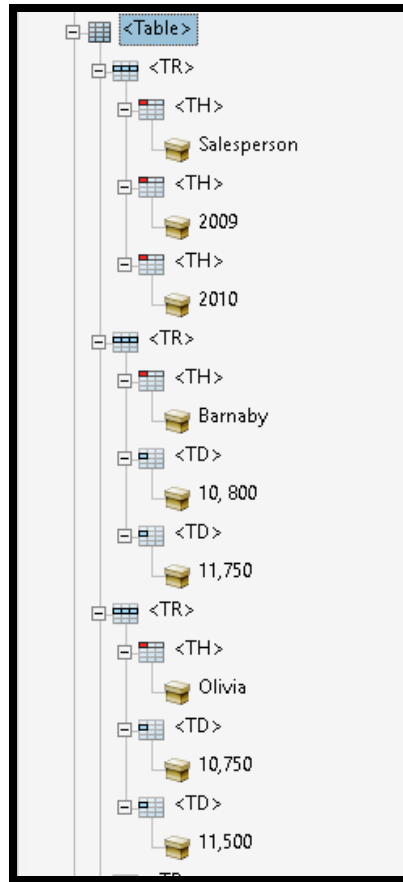   <LI>

            bullet point 2

Figure 82 Sample list Tags.

Tables have a specific structure as well. There is a parent <Table> Tag with a child <TR> or Table Row Tag for each row in the table. The <TR> Tag has either <TH> or Table Header Tags for column and row titles or a <TD> or Table Data cell for data in a table.

The following table has 3 columns and 3 rows.

<Table>

        <TR>

                <TH>

                        Column title

                <TH>

                        Column title

                <TH>

                        Column title

        <TR>

                <TH>

                        Row title

                <TD>

                        Data information

                <TD>

                        Data information.

        <TR>

                <TH>

                        Row title

                <TD>

                        Data information

                <TD>

                        Data information.

The <figure> Tag is used for images. Sometimes you might see <Shape> or <Formula. All of these are figures requiring Alt Text.

<Figure>>

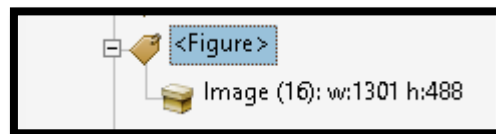　　　　PathPathPathPath

Figure 83 Sample figure Tag.

The preceding image shows another way that the figure can be identified within the <Figure>Tag: "image followed by the dimensions."