

Adobe MAX — The Creativity Conference

Learning the Fundamentals of PDF Accessibility Step by Step

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About this document

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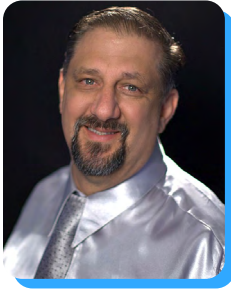
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Instructor



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Dax Castro is an award-winning, Adobe-Certified PDF Accessibility Trainer and certified Accessible Document Specialist (ADS) with more than two decades of experience in the marketing and communications industry. In between providing accessibility training to companies worldwide, he and Chad Chelius host a weekly accessibility podcast www.Chaxchat.com and [PDF Accessibility Facebook group](#). Dax's training style focuses on fundamentals in a clear and simple way that is both engaging and informational. Whether you're a seasoned professional or new to accessibility, you can always count on learning something new from Dax.



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Introduction

This handout is meant to help explain the benefits of Adobe Acrobat and the accessibility tools and features within the program that will help you create more accessible content.

What Is Digital Accessibility?

Digital accessibility is the process of making digital products (websites, mobile apps and other digital tools and technologies) accessible to everyone... providing all users access to the same information, regardless of the impairments they may have or the method they may use.

Accessibility Barriers

- Font
- Language
- Colorblindness
- Color Contrast
- Color as a Differentiator
- Structural Relationships
- Text as Images
- Formulas
- Tables
- Images

International (WCAG-based) Accessibility Standards

- Argentina
- Australia*
- Bolivia
- Brazil
- Canada*
- Brazil
- Chile
- China
- Columbia
- Ecuador
- EU
- France
- Germany
- Hong Kong
- India
- Ireland
- Israel
- Italy
- Japan
- Netherlands
- New Zealand
- Norway*
- Peru
- Republic of Korea
- Spain
- United Kingdom
- Uruguay
- USA
- Venezuela

*Enforce digital content compliance for commercial and government websites.

The Acrobat Workspace

Adobe Acrobat has three basic views and four areas to access tools and commands. Understanding what is in each of these areas will help you develop the best workflow for your situation.

The Four Interface Areas

1. The Text Menu

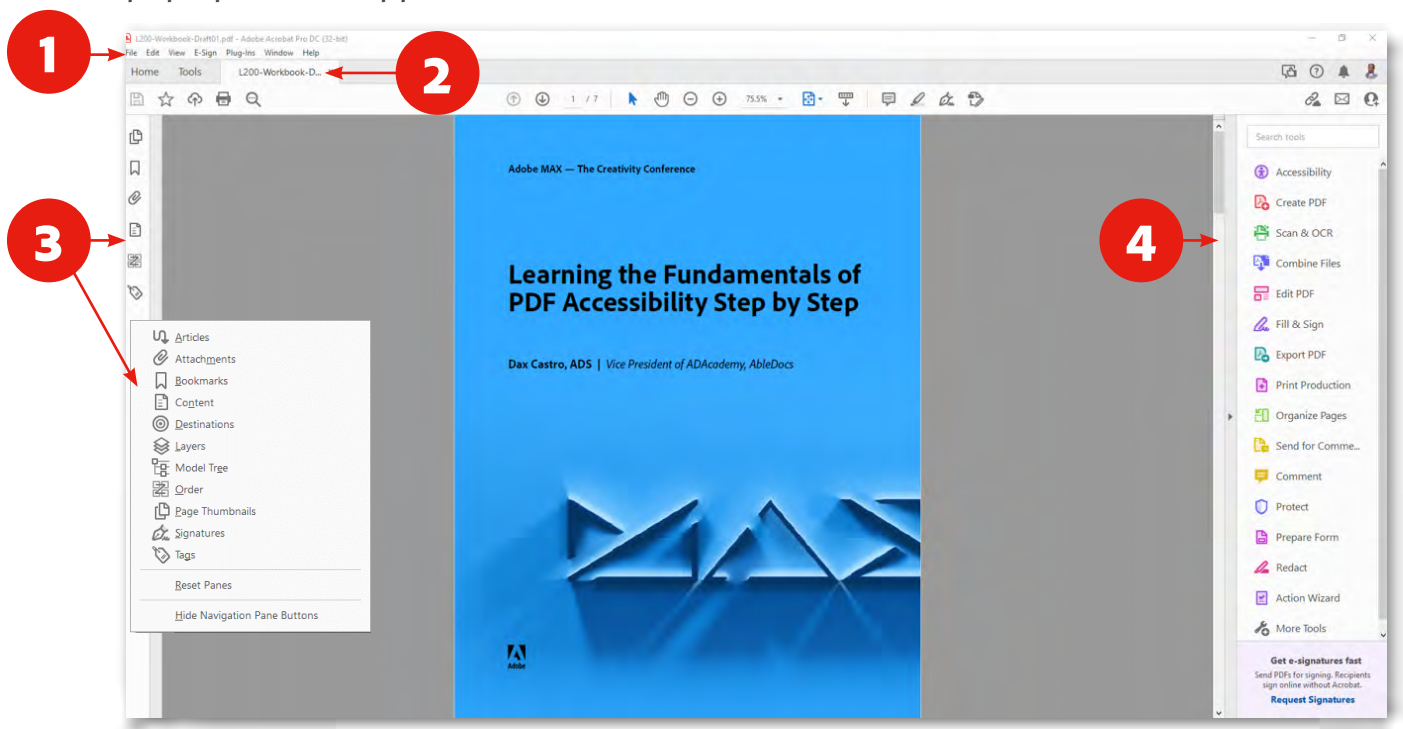
The text menu at the top of the screen allows you to access every tool and command through a series of drop-down menus. Acrobat allows keyboard and mouse-driven access to these commands.

2. The View Tabs

These consist of the **Home**, **Tools** and **Document** tabs. They allow you to switch between interface modes and provide quick access to recent documents, tools and your document(s).

3. The Panes Panel

These are the elements to the extreme left of the screen. You may have more or less tools in this panel. You can add tools by right clicking in the open area under the last tool and selecting the desired tool to add from the pop up list that appears.



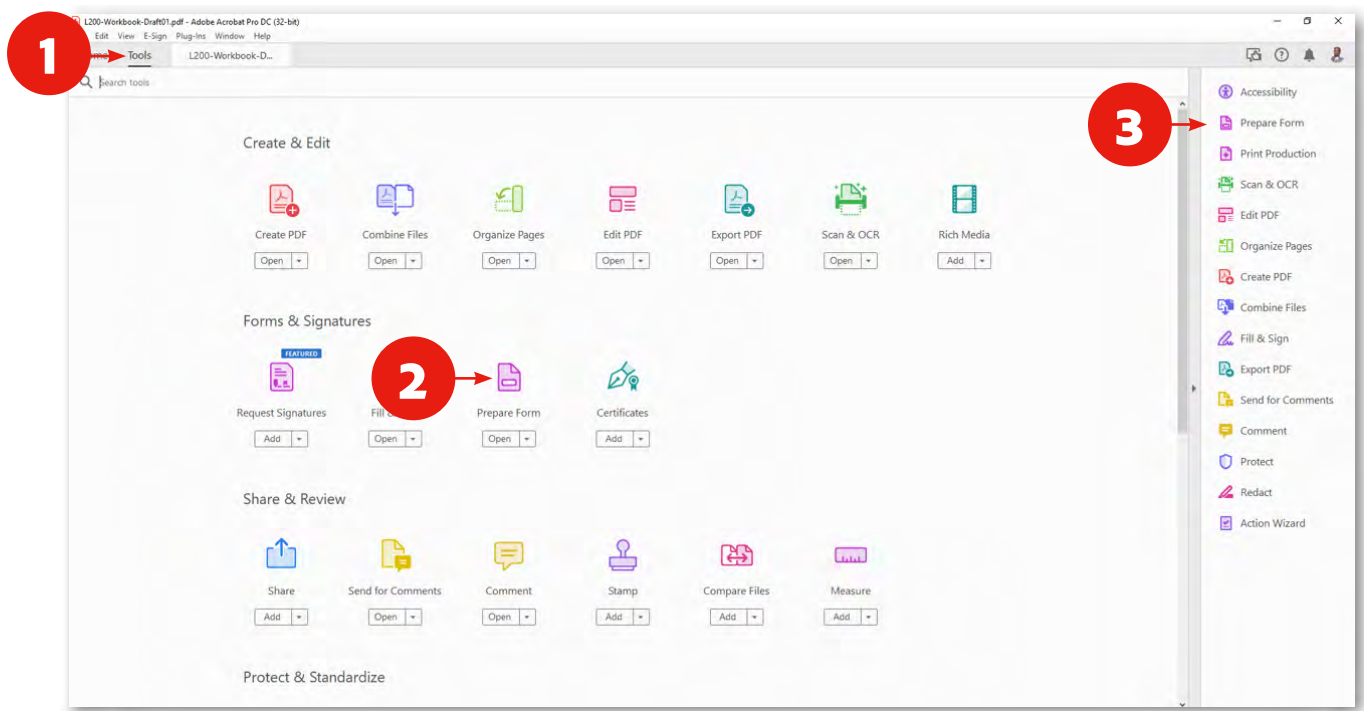
4. The Tools Panel

The Tools Panel (3) is located on the extreme right edge of the Acrobat window and houses all of the common tool shortcuts you will need when editing your PDF documents. You can add to these quick tools by selecting the **Tools Tab** (1) and dragging items (2) into the **Tools Panel** (3). To reorder the quick tools you will need to switch to or be in the **Tools** view by selecting **Tools Tab** (1) to the left of the **Home Tab** first.

Click on a tool in the **Tools Panel** to activate it or to access the tool set for that category.

Accessibility Note: The tools you will use most in accessibility testing and remediation will be:

- Accessibility Tool
- Print Production Tool
- Prepare Forms
- Organize Pages
- Scan & OCR



The Three Acrobat Views

There are three basic views in Adobe Acrobat. These views are the **Home**, **Tools** and **Document** view. Each of these views can be accessed by select the desired tab located just under the text menu at the top of the screen.

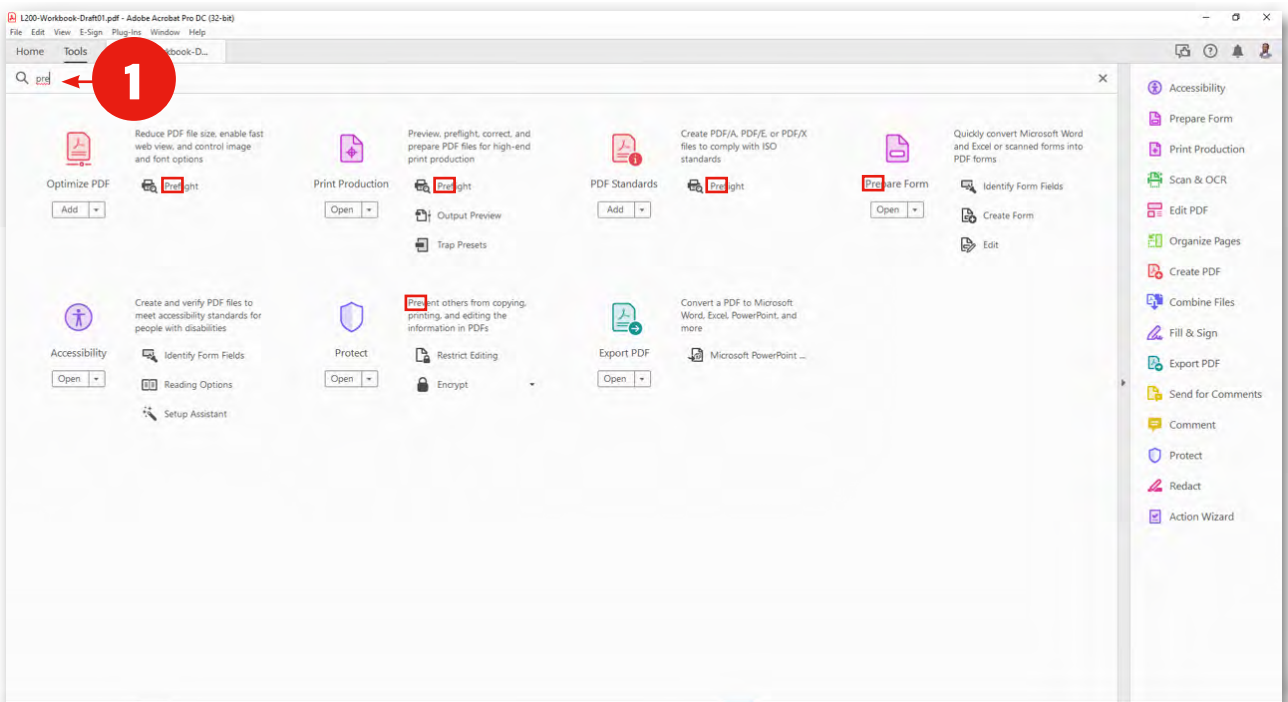
Home

The **Home** view shows your recent documents with various location filters, as well as, several shortcuts for **Combine Files**, **Request Signatures**, **Share**, **Export PDF**, **Send for Comments**, **Protect** and **Edit PDF**.

Tools

The **Tools Tab** opens a menu in the main document window allowing you to open, remove or add shortcuts to the Tools Panel by dragging them to the right and letting go in the **Tools Panel**.

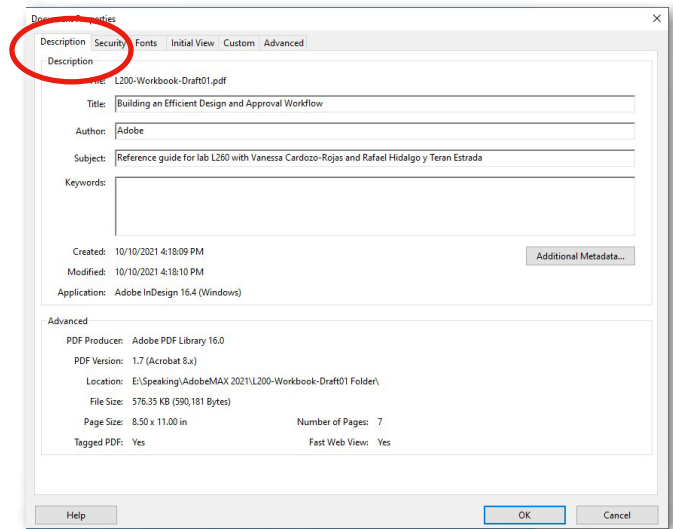
Pro Tip: The **Search Bar** (1) is just under these three tabs. You can use it to search for partial matches to quickly find tools when you cannot remember what menu or area they are in.



File Properties Basics

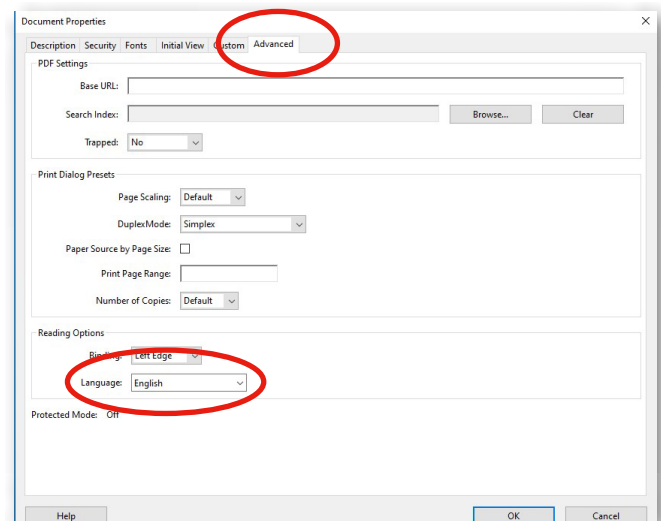
Title

The title is an important feature because when a document is open assistive technology like a screen reader announces the document title or the file name if no title is present. This can present a confusing user experience if your filename does not contain a meaningful description of the document. A document with the file name 20101001_A302_Formfinal_99.pdf does not supply enough information for the user to know what the document is.



Language

The document language is set from the **Advanced Tab**. The language of the document is almost always set automatically. But there are many cases where multiple authors from different countries are collaborating on a document using different base languages. So it is always a good idea to double check to ensure the proper base language is selected.



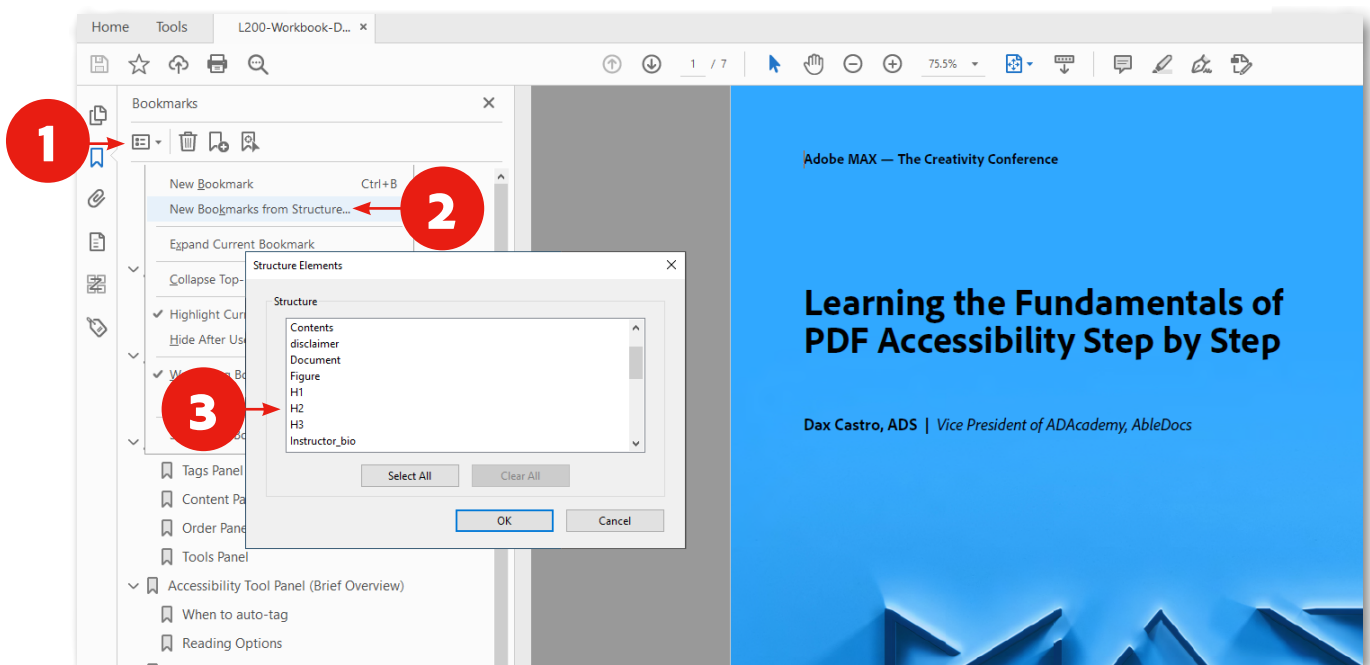
This selection directs the end-users screen reader to voice the text in the appropriate language. However it is worth noting that if the end user does not have the corresponding language pack installed, the text will not be voiced in that language automatically.

Accessibility Note: The shortcut to open the **Document Properties Panel** is Ctrl/Cmd + D. There are other properties like author, subject, key words, etc. that can be set. These can help search engines find and properly list your document but they are not necessary for accessibility.


Bookmarks

Auto-generate via Headings

When your document already contains heading structures that have been built with accessibility in mind, the easiest way to generate bookmarks is by auto-generating them using **New Bookmarks From Structure** (2). This command is found in the **Bookmarks Options** drop-down (1). When your document uses Heading Levels Adobe Acrobat will generate bookmarks based on the depth you choose (3). It is recommended that no more than 3 levels deep are selected. You will need to properly nest them once generated. Bookmarks created from Adobe InDesign will already be nested when you use Automatic Table of Contents.



Manually create

To manually create bookmarks you will highlight the text on the page you wish to enter as a bookmark and then click the  icon to create a single bookmark from the selected text. The text you selected will appear in the bookmarks bar and be linked to that location.

Tool Panels you need to know

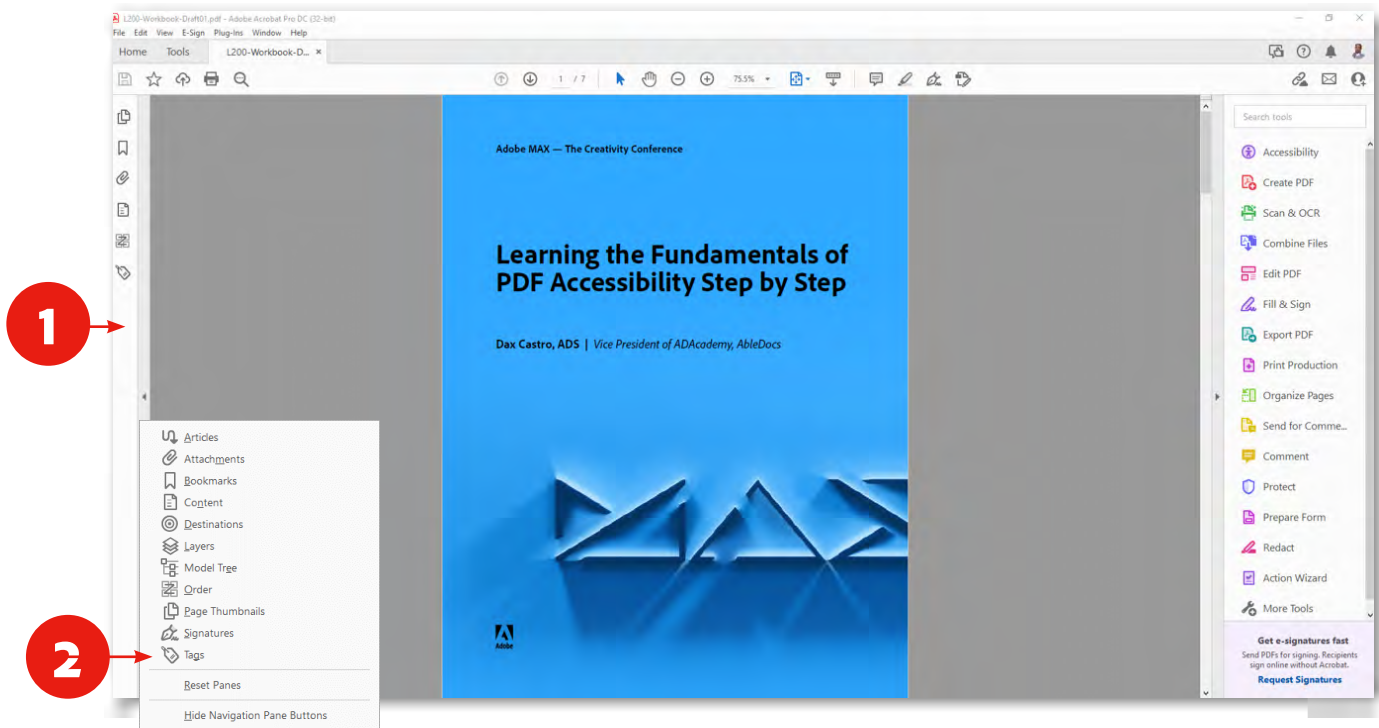
Tags Panel

What are tags?

Tags are the specific structural markers that help identify content in a PDF document for assistive technology like screen readers, braille devices and other devices. These tags represent the visual elements on the page to provide a richer user experience that goes beyond simply voicing the text on the page.

Activating the Tags Pane

The tags pane icon is not visible by default. To activate it you will need to right click in the blank area below your existing tools on the left side of the screen (1). Then you will choose **Tags** (2) from the **Panes Options** window. You may also want to activate the **Content** pane and the **Order** pane as you will likely be referencing them while remediating your documents.



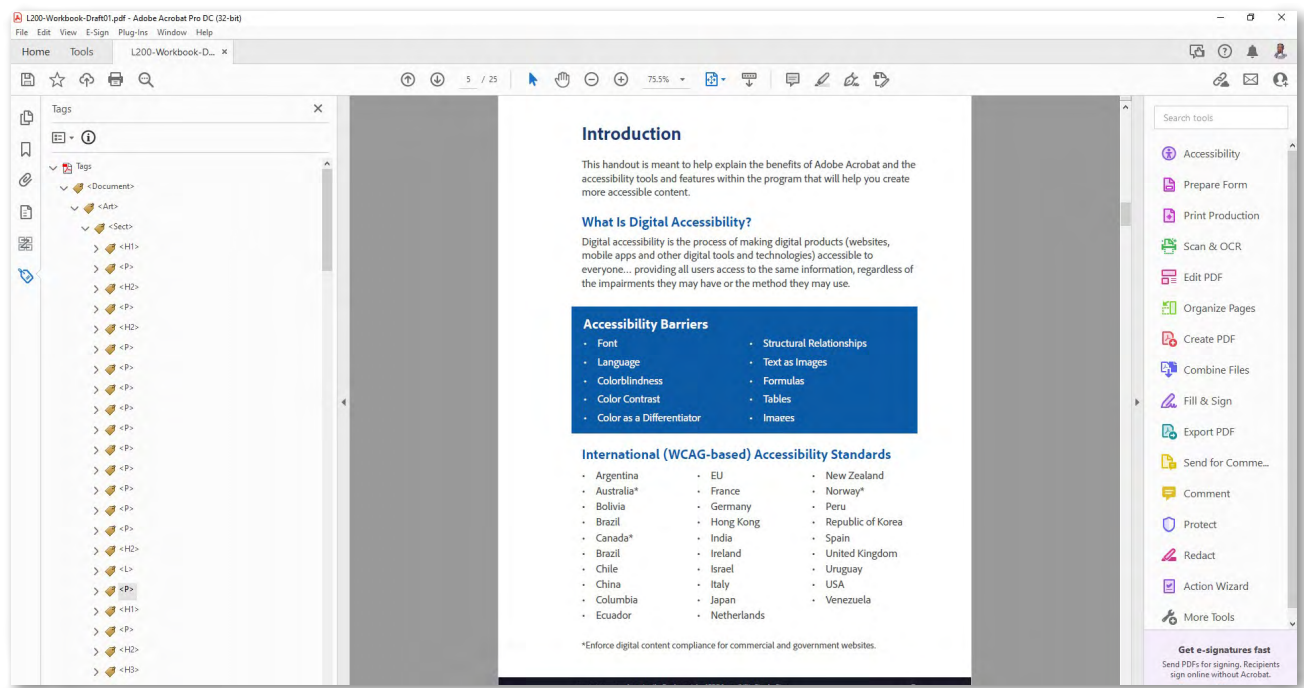
Tags you need to know

Below are the majority of the tags that you will encounter when making your documents accessible. This list is meant to provide you with a basic overview. There are many rules about how these tags can be used and the properties that can be applied to them. Start small. Learn the basic tags and what they mean. The more you do the work the more familiar you will become with the tags.

Structural Elements

Structural elements are containers that hold additional content. While no screen reader voices these items, they do serve an important purpose. These containers exist at the block level to logically group page content.

- **<Document>** Document: Every document should start with a this tag.
- **<Part>** Part: Sub-divides a large document into smaller elements.
- **<Art>** Article: Identifies an article within a document or part.
- **<Sect>** Section: Signifies the sections of a document, part or article.
- **<Div>** Division: Provide metadata properties and/or attributes
- **** Span: container for **ActualText**, white-space characters or other metadata
- **<TOC>** Table of Contents: Container signifying a list of **TOC** Index elements
- **<TOCI>** Table of Contents Item: Single content entry with reference links or page numbers. This will always be nested inside a **<TOC>**.
- **<NonStruct>** Nonstructural Element that has no grouping significance related to content. Think of it as a generic grouping element.



Block-Level Elements

These elements exist as parent elements inside the **Container** tags. Table <Table> and List <L> tags are also block-level but have been grouped for clarity in this list. **Table**, **List** and **Paragraph** tags hold inline elements.

- <H> Heading: Outdated Structure type. **This should not be use, ever.**
- <H1> Heading 1: Can be used as many times as needed as long as you are consistent.
- <H2> Heading Level 2: Should always be preceded by <H1>
- <H3>Heading Level 3: Should always be preceded by <H2>
- <H4>Heading Level 4: Should always be preceded by <H3>
- <H5>Heading Level 5: Should always be preceded by <H4>
- <H6>Heading Level 6: Should always be preceded by <H5>
- <P> Paragraph: Basic Paragraph
- <BlockQuote> Block Quote: Block-level quote from existing text.

Table Elements

Table tags define the structure of a table. The <Table> is the **Parent** tag and all other tags are nested inside it. The table can be divided into regions for the header, body and footer, but it is not mandatory. However if you use the **Thead** or **TBody** you must use both together.

- <Table> Table: Signifies a Table Object
- <Thead> Table Header: Signifies the Heading section of a table (not always be present)
- <TBody> Table Body: Signifies the Body section of a table (not always be present)
- <TFoot> Table Footer: Signifies the Footer section of a table (not always be present)
- <TR> Table Row: Specifies a table row.
- <TH> Table Header Cell: Specifies a Heading Cell in a table row or column
- <TD>Table Data Cell: Specifies a Data Cell in a table row or column

Dax Castro's Accessibility Level of Effort Guideline Matrix

This matrix will help you answer the most complex question in accessibility: "How long will it take?" While this is not an exact science, the more items your document shares with a specific column, the more likely your document will align with the associated pages per minute estimate. The time frame assumes a competent remediator with 1 to 2 years experience.

| Elements | Basic Document | Intermediate Document | Advanced Document | Worst-Case Scenario |
|------------------|--|--|--|--|
| Text percentage | Mostly text | Large Sections of Text | Mix of text, charts, graphs, figures | Combination of multiple documents. Some parts with tags, other sections untagged |
| Headings | Simple Headings in order | Logical headings with minor corrections | Complex headings, multiple sections, chapters and appendices | No heading structure |
| Styles | Proper styles used | Some adjustment needed | Inconsistent heading structure | No styles or all paragraph tags |
| Figures | None or Simple Figures with alt-text already supplied | Some alt-text. Most figures meet contrast | No alt-text. Multiple figures fail contrast | No alt-text. Multiple figures fail contrast |
| Tables | Simple tables. No merge cells | Simple tables with some merge cells that do not require rework | Tables that span multiple pages with many complex formats and merged headings throughout the table structure | Scanned tables or incomplete table structures |
| Infographics | None or simple infographics with alt-text already supplied | Simple infographics mostly meet color contrast and most have | Complex infographics requiring structural modifications or addition of labels etcetera to meet compliance. | Complex infographic that fail color contrast, the use of color and need major rework |
| Maps | None or simple maps with alt-text already supplied | Simple maps without Alt-text | Maps without color | Complex maps with non-compliant symbology |
| Scanned Content | None | Scanned example forms requiring alt-text only | Scanned letters requiring OCR, proofing and tagging | Scanned reports including tables, graphics, letters, text and other complex material requiring OCR, proofing and tagging |
| Source Available | Yes/No | Yes | No | No |
| Pages Per Hour | 50 | 25 | 10 | 1 |

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Label and List Elements

List elements can be ordered or unordered lists. The **<L>** is the **Parent** tag and all other tags are nested inside it. At minimum the list must contain a **<L>**, **** and an **<Lbody>**.

- **<L>** List: List of items. Can be numbered or bulleted.
- **** List Item: Container for the content pair **<Lbl>****<Lbody>**
- **<Lbl>** Label: Optional item that holds the bullet or number
- **<Lbody>** List Item Body: Mandatory item holding the contents of the item and may contain the bullet as well.

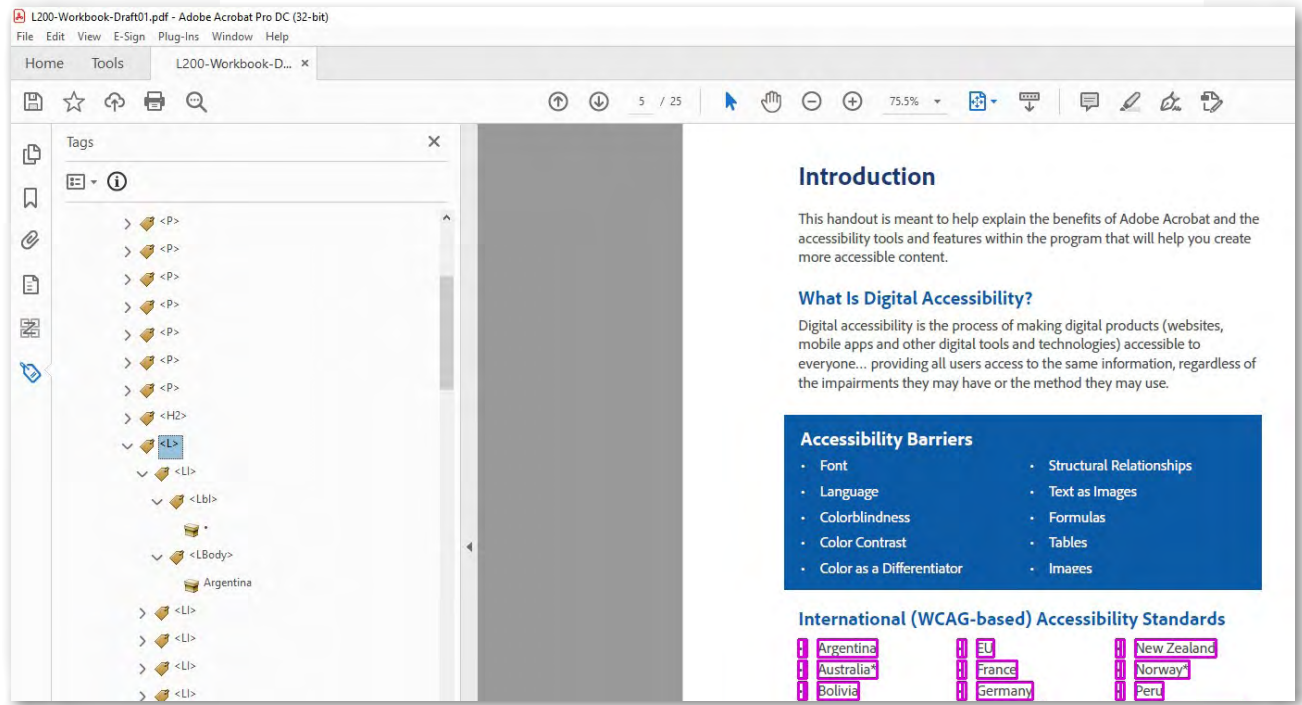
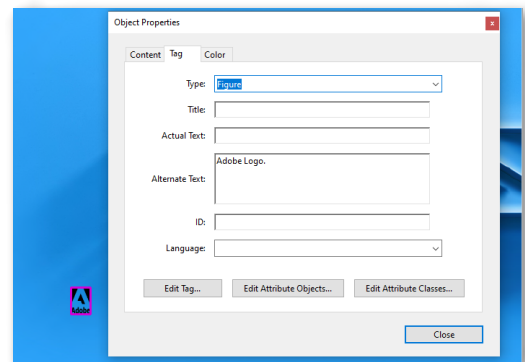


Illustration Elements

These tags will always require alternate text or actual text properties depending on their use. Descriptive text should be limited to a couple of sentences that describe the main purpose or text within the element.

- **<Figure>** Figure: Anything that is graphical in nature. (photo, chart, graph, infographic)
- **<Form>** Form: Signifies Form content containing the **form - OBJR** element
- **<Formula>** Formula: Contains a mathematical formula
- **<Caption>** Caption: A brief portion of text describing a table or figure.



Inline-Level Elements

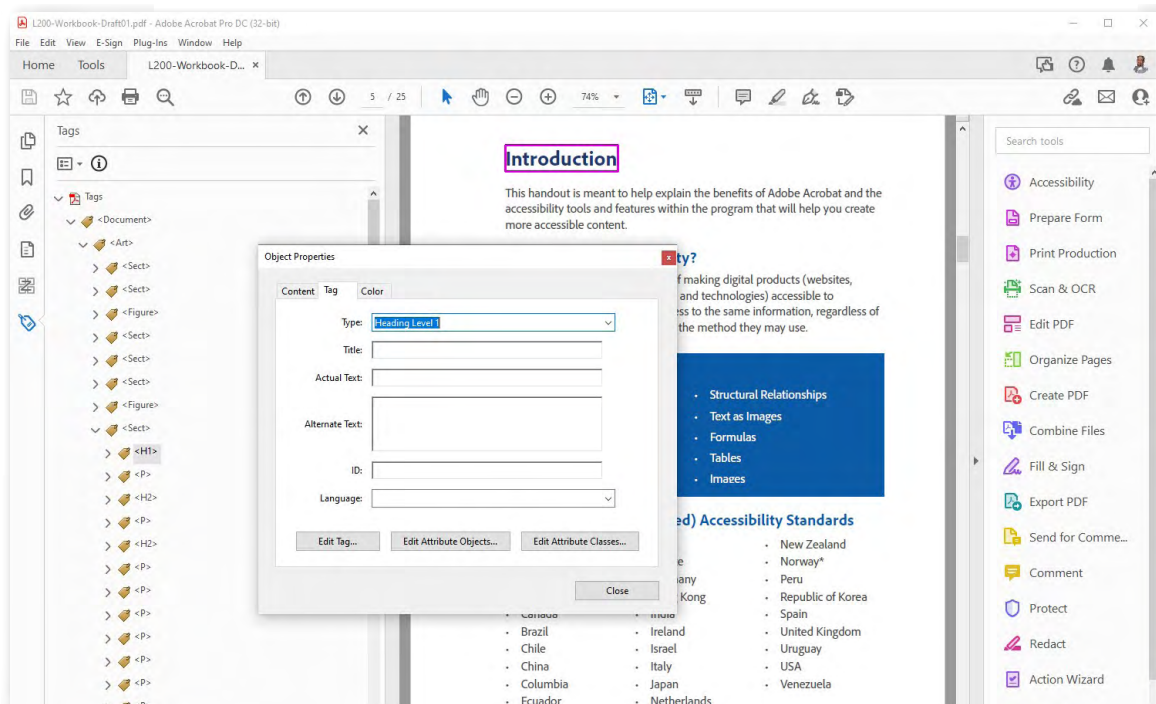
- **<Link>** Link: Hyperlink tag containing the **Link - OBJR**
- **<Note>** Note: Footnote/endnote element. Should be accompanied by **<Lbl>**
- **<Reference>** Reference: Internal reference element. Should be accompanied by **<Lbl>**
- **<Annot>** Annotation: Typically holds comments or other output.
- **<BibEntry>** Bib. Entry: Bibliography entry content
- **<Quote>** Quote: Inline version of the **BlockQuote** element.
- **** Span: container for **ActualText**, white-space characters or other metadata
- **<Index <Index>** A sequence of entries containing identifying text accompanied by a reference element that points out the occurrence of specified text.

*Tag definition source: ISO 32000-1:2008, ISO 14289-1 and Tagged PDF Best Practice Guide.

Tag properties

Each of the tags above can have custom properties applied to them. The properties differ based on what the tag controls, but all tags start with the basic **Properties** panel. You access this panel by right clicking on any tag and selecting **Properties**.

- **Title:** Used for internal reference only. Not read by assistive technology.
- **ActualText:** When you want to completely replace an object or existing text with something else. Use with caution. To someone using assistive technology the original text or object is completely replaced with the phrase you enter here. They will have no indication you have replaced the original content.
- **Alternate Text:** This is a description of the existing element. This can be used to describe a logo, figure, chart, graph or infographic. While not perfectly semantic it can also be used to describe a link destination. However this info really belongs in the Content Key. See the **Preflight Fix-up** section for additional info.



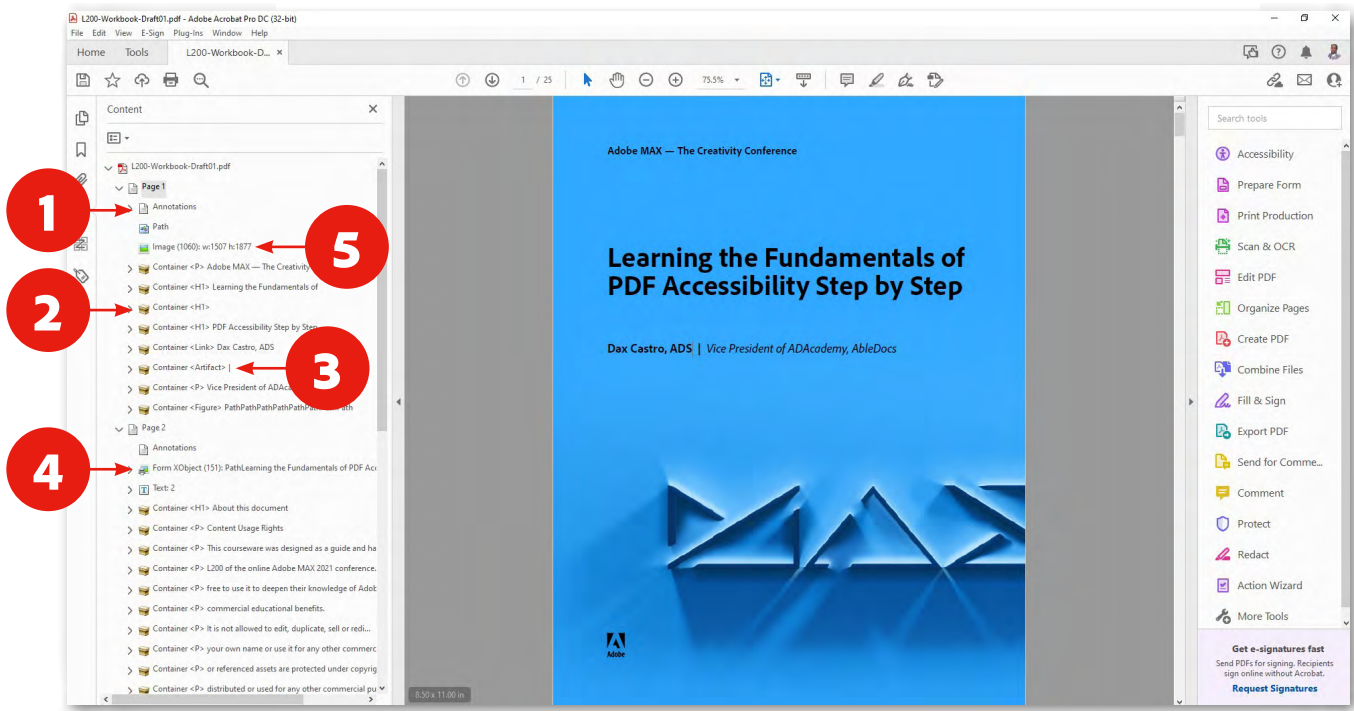
Content Panel

The Content Panel is separated by page. Each page has a drop-down that holds the content elements within that page. This can include Artifacts (hidden) elements from the tags tree as well as other interactive elements and content.

Items in the **Content Panel** are arranged bottom to top. Meaning, items nearest the **Page 1** marker are in the **back** of the document. Items at the bottom of the **Page 1** content list are in the **front** or **on top** of the other elements in the list. This matters when you are adjusting the **Read Order** and something goes “missing.” Typically this happens because the missing element was re-ordered behind the other elements. Just drag the missing/hidden element to the bottom of the list to make it reappear.

What you find in the Content Panel

1. **Annotations:** These are the list of **Link-OBJS** on that page.
2. **Containers:** Each element is listed with its **Parent** container
3. **Artifacts:** Decorative elements to be hidden from the screen reader.
4. **Form XObjects:** Repeating elements typically created on Master pages. These objects only get stored once in a PDF but referenced multiple times. Consider **Form XObjects** as mini-PDF files embedded inside the main PDF document
5. **Untagged Content:** Content that is not in the **Tags Tree** nor has not been tagged as an **Artifact** will appear without the word **Container** before it.



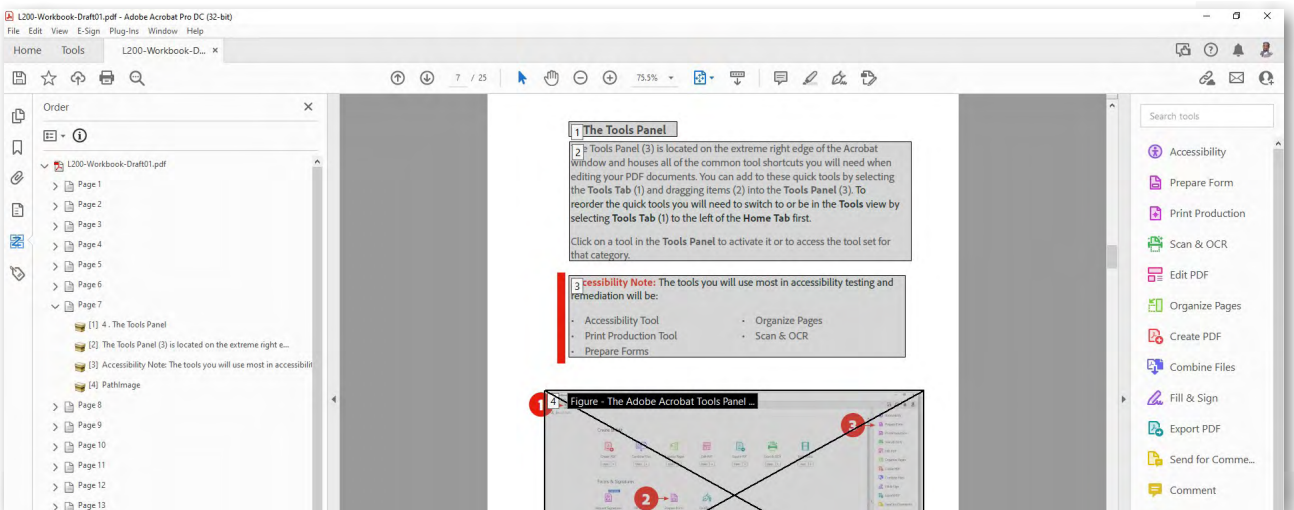
Order Panel

The **Order Panel** is similar to the **Content Panel**. It displays the **Construction Order** of the document. This can be different than the **Tag Order**. Numbers are displayed on each element that indicates the **Construction Order**. This is not to be confused with the order in which assistive technology will read the document. Conforming assistive technology is required to use the **Tag Order** to voice the content. However, there are older assistive technology that still read the **Order Panel** (like Adobe's Read Aloud) that are not actually considered conforming assistive technology. They are designated as "Text to Speech" Tools and still rely on the outdated use of the Order Panel to voice the flow of the text.

Tag Order or Read Order? What does all this mean?

If you want your document to be as bullet-proof conforming as possible for new and old assistive technology, you should set the **Construction Order** as well as the **Tag Order**. This is in keeping with [WCAG 2.1 Guideline 4.1 Compatible](#): "Maximize compatibility with current and future user agents, including assistive technologies." It is also supported by [Success Criterion 1.3.2: Meaningful Sequence](#): "a correct reading sequence can be programmatically determined."

Accessibility Warning: It is recommended that you use the **Content Panel** to arrange the **Order**, not the **Order Panel**. If you have modified your **Tags Panel** to be 100% correct and clean before setting the **Order Panel**, the current version of Adobe Acrobat can and will rearrange your **Tags** by combining tags and containers. So either start with the **Order Panel** and then fix your **Tags** or use the **Content Panel** to adjust your **Order**.

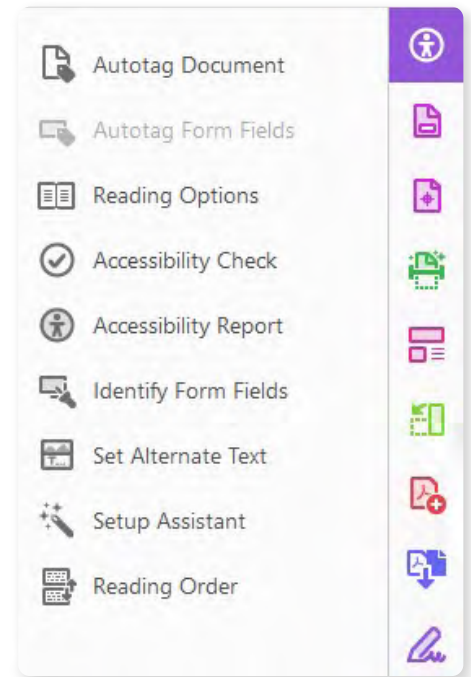




Accessibility Tool Panel (Brief Overview)

Autotag Document

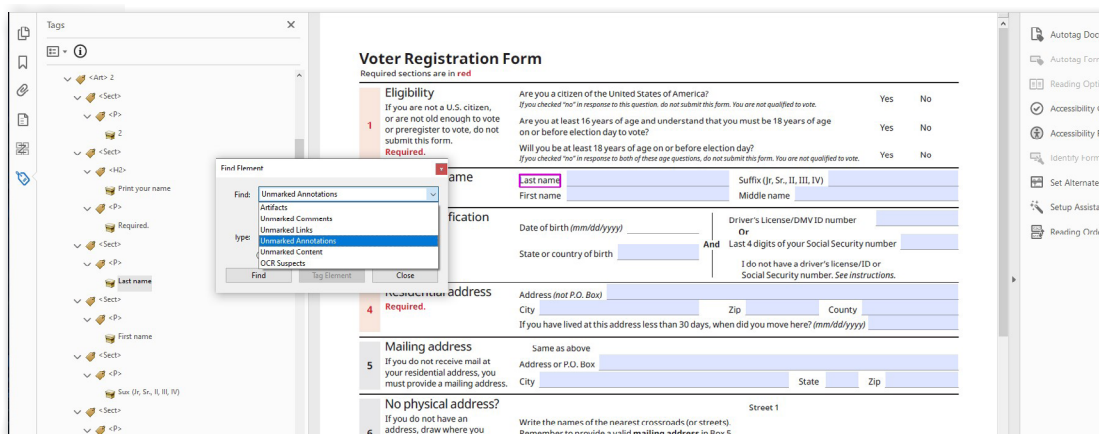
While there are some cases where Autotag is viable, you should never autotag a document that already contains accessibility tags. Autotag can work well for simple documents that do not contain scanned content, tables or other complex elements. If you receive a document that contains no tags, you can try the autotag feature and make the judgment to keep it or manually tag it based on the accuracy of the results.



AutoTag Form Fields

This feature is supposed to add the correct tags from your previously created form elements. It is suggested that you use **Prepare Form** instead. However, this method will simply create the **Form Objects** but you will still need to allow the Tags Tree to detect each **Form OBJR** and add it to the **Tags Tree**. You can access the **Find** tool by right clicking on any tag and from the context menu choosing **Find > Unmarked Annotations**. Once the **Form OBJRs** have been detected they will need to be moved into the correct reading order as well. It is an arduous process for sure.

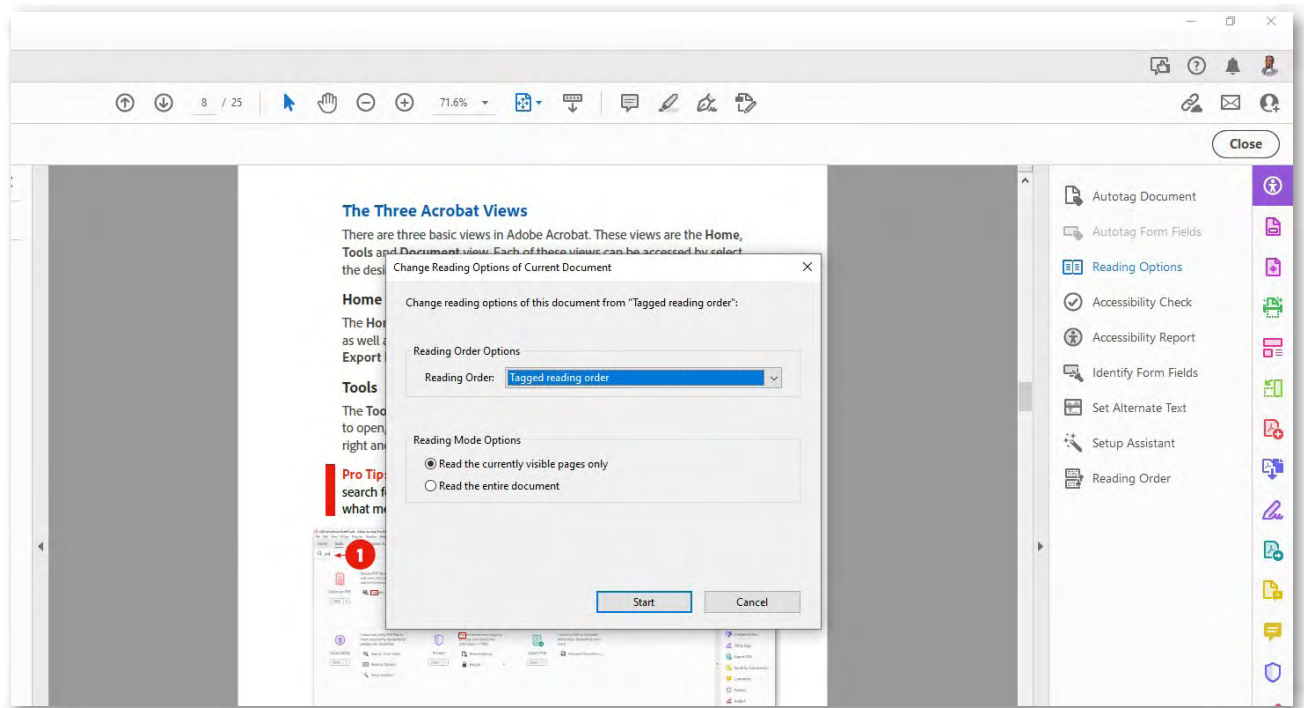
Forms Note: It is always best to create your forms in Adobe InDesign where you can export them with tags and in the correct reading order. Neither the **Autotag** nor the **Prepare Form > auto detect form fields** provide a single-click solution.



Reading Options

When using assistive technology you can set two options for how many pages to pre-load into the screen reader. When a document is more than 50 pages Acrobat will sometimes set this to **Read Currently Visible Page Only** to prevent overloading the readers computer. You will know when this happens because the document will seem to only identify the headings or other elements on the current page. The shortcut to access this menu item is **Ctrl/Cmd + Shift + 5**.

Reading Note: You should not change the **Reading Order** drop-down. **Tagged Reading Order** is always the best choice for a tagged document.



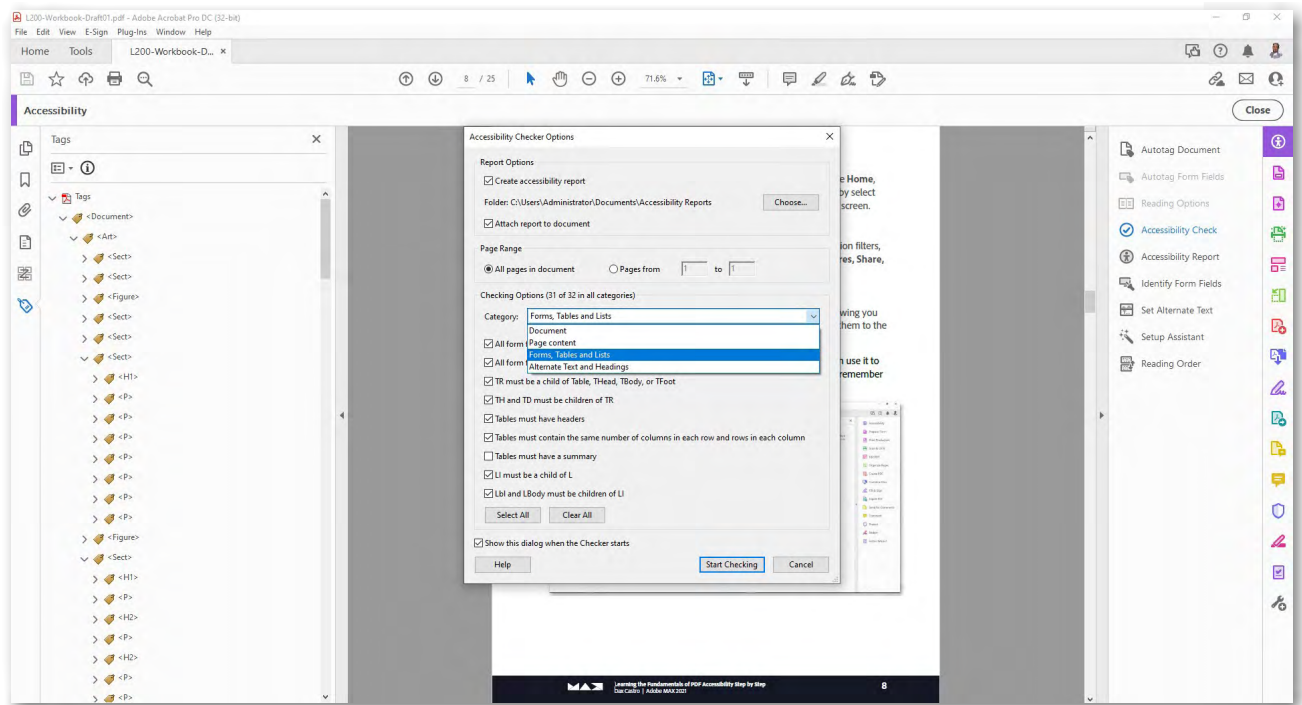
Accessibility Checker

What are we checking for?

The Accessibility Checker criteria are divided into four main categories. In each one of these categories you can see the elements it is checking for. It is recommended that you keep these settings as is. If your local laws exclude some of these criteria you can choose to uncheck any element to skip them. The only element unchecked by default is **Table Summaries**. While these can be useful, they are **not required by the Web Content Accessibility Guidelines**.

- Document
- Page Content
- Forms, Tables and Lists
- Alternate Text and Headings

Compliance Warning: It is worth noting that the Acrobat Checker (or any automated checker for that matter) is **only a first step** in verifying a document conforms to accessibility standards. It is only through a series of manual and automated checks can a document be properly evaluated for accessibility.



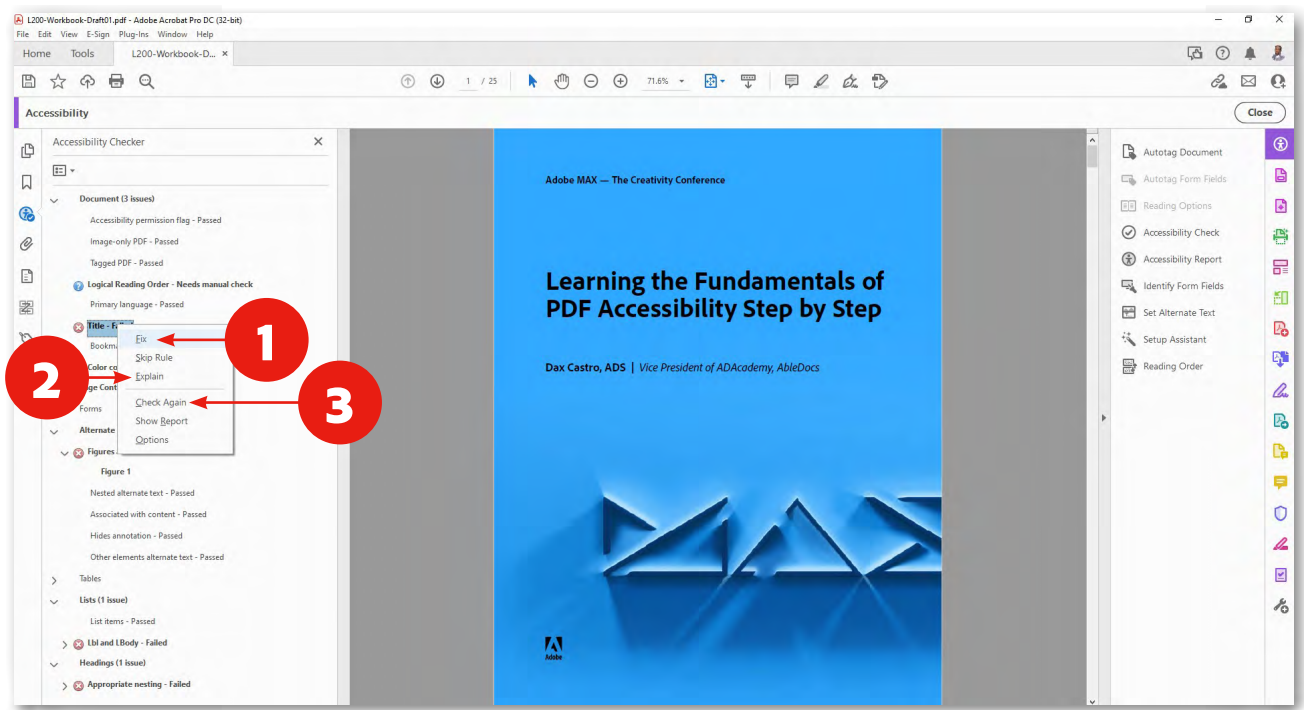
Running the checker

By default the accessibility report is saved to your local computer and can be attached to the current PDF document by checking the **Attach Report to Document** checkbox.

Once you have selected the options you wish (typically you should leave everything in their default settings) you can click **Start Checking**. The Checker will review your document and the report will appear on the left in the Tools Pane. You will see a red X for the items that failed and a link to the elements that require attention.

Fixing the Errors

For many errors you can right click on the element and choose **Fix** (1) to bring up additional options for fixing the error. You can also choose **Explain** (2) to load a brief explanation of why the element has failed. Once you have cleared the error you can return to the report and right click on the error and choose **Check Again** (3).



Clearing the 5 most Common Errors

1. Missing Title

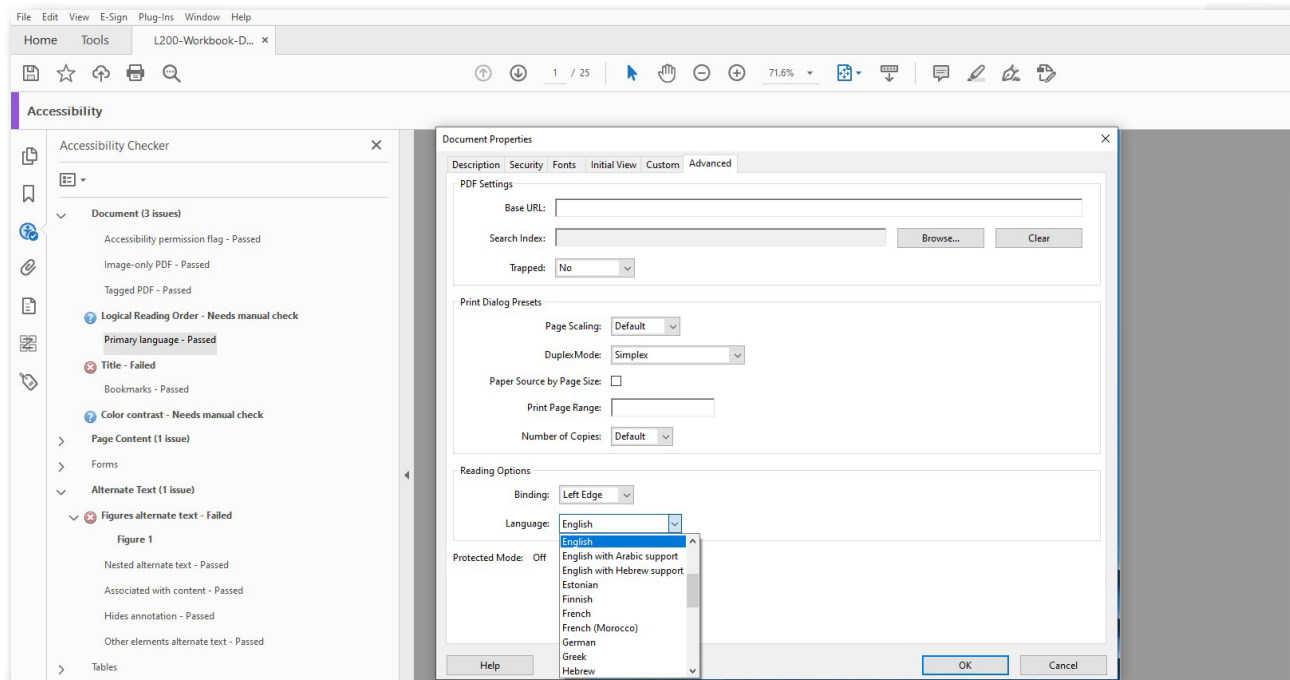
Often Acrobat will not recognize when a title already exists and it will report it as a failure. Simply right click on the Title error and choose Fix. Acrobat will automatically recognize the title does exist and clear the error.

If the **Title** does not exist a **Properties Panel** will open up to allow you to add the **Title** quickly. Alternatively you can go to **File > Properties** and enter it there as well as the other meta data for the document.

2. Missing Language

Go to **File > Properties > Advanced** and select the appropriate base language for the document from the **Language** drop-down. If the base language does not exist in the drop-down you can look up the two letter code from the [ISO 639-1 Language Code List](#).

Language Note: Remember that the end user must have the proper language pack installed on their machine in order for the screen reader to voice it correctly.



3. Missing Alt-text

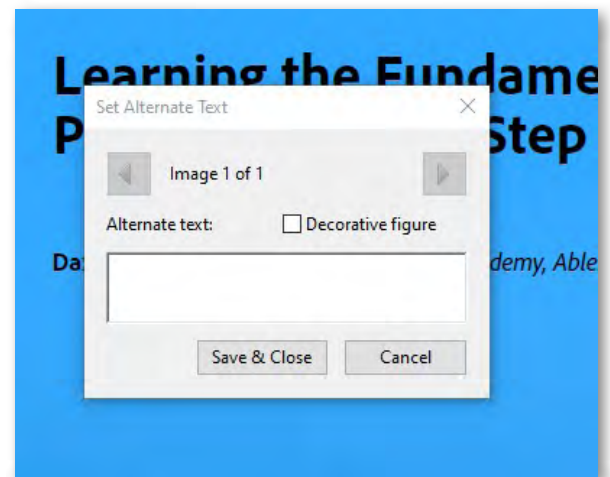
All figures must have a text description that provides context to the reader and describes the meaningful information intended for the reader. This description should be no more than 250 characters on average. It should be concise and contain only the information needed to describe the image, figure, chart or graph. Before adding Alt-text ask yourself if the image is decorative or meaningful. If it is purely decorative or abstract in nature then you should mark the image as an Artifact (hidden).

This error can be fixed in two methods.

Method 1

1. Right click on the first **Figure Error** in the report and select **Fix**.

2. Acrobat will automatically navigate to the appropriate page and allow you to enter a description or mark it as a **Decorative Figure**.



3. Once you have entered a description click the **Right Arrow** at the top of the dialog box to cycle through to the next image.

4. When finished click the **Save & Close** button.

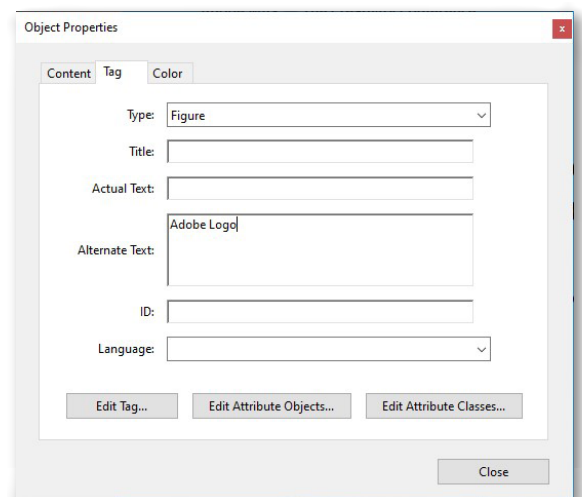
Method 2

1. Right click on the **Figure 1** and select **Show in Tags Panel**. This will navigate you to the appropriate **<Figure>** tag.

2. Right click on the tag and choose **Properties**. Then enter the **Alternate Text** in the correct box.

3. Click **Close** when finished.

4. Now go back to the Figure error in the report and click **Check Again**.



Accessibility Note: Remember that Alt-Text cannot be paused. So keep your descriptions meaningful but brief.

4. Heading Structure

This error is due to skipping numbers in your Headings. Heading levels must be logical and cannot skip over numbers. For example, you cannot go from **Heading Level 1** to **Heading Level 3**. To fix this error:

1. Right click on the **Element 1** and select **Show in Tags Panel**.

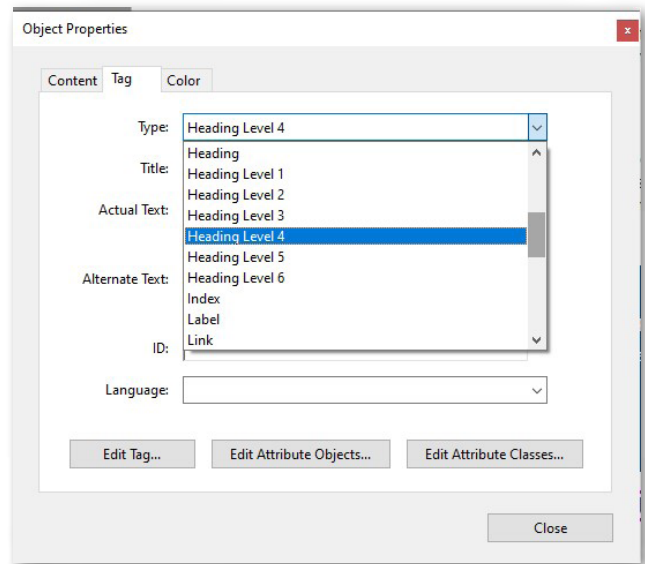
2. Look for the previous **Heading Level** to identify the next logical number.

3. Right click on the offending Heading Level and choose **Properties**.

4. In the **Type** drop-down you can start typing or scroll until you find the appropriate heading level.

5. Choose it and click **Close**.

6. Now go back to the Figure error in the report and click **Check Again**.



5. Table Irregularity

Most of the table irregularity issues are due to merged cells not having the appropriate **Column Span** or **Row Span** properties set. The main goal is to make sure your table is a perfect rectangle with the same number of columns and rows.

Visual Representation

| | | | |
|-------|----|----|----|
| North | 12 | 10 | 6 |
| | 14 | 15 | 12 |
| South | 16 | 9 | 8 |
| | 13 | 14 | 10 |

Tagged Representation

| | | | | |
|----|---------|---------|---------|---------|
| TH | P North | TD P 12 | TD P 10 | TD P 6 |
| TD | P 14 | TD P 15 | TD P 12 | |
| TH | P South | TD P 16 | TD P 9 | TD P 8 |
| | | TD P 13 | TD P 14 | TD P 10 |

In the example you can clearly see the missing cell. This is because the **Row Span** property for the **Heading Cell** for **North** is incorrect and should be a value of 2 not 1.

Table Cell Properties

Type

Header Cell Scope: None

Data Cell

Attributes

Row Span: 1

Column Span: 1

ID:

Associated Header Cell IDs:

OK Cancel

6. Now go back to the Figure error in the report and click Check Again.

5. Table Irregularity

Most of the table irregularity issues are due to merged cells not having the appropriate **Column Span** or **Row Span** properties set. The main goal is to make sure your table is a perfect rectangle with the same number of columns and rows.

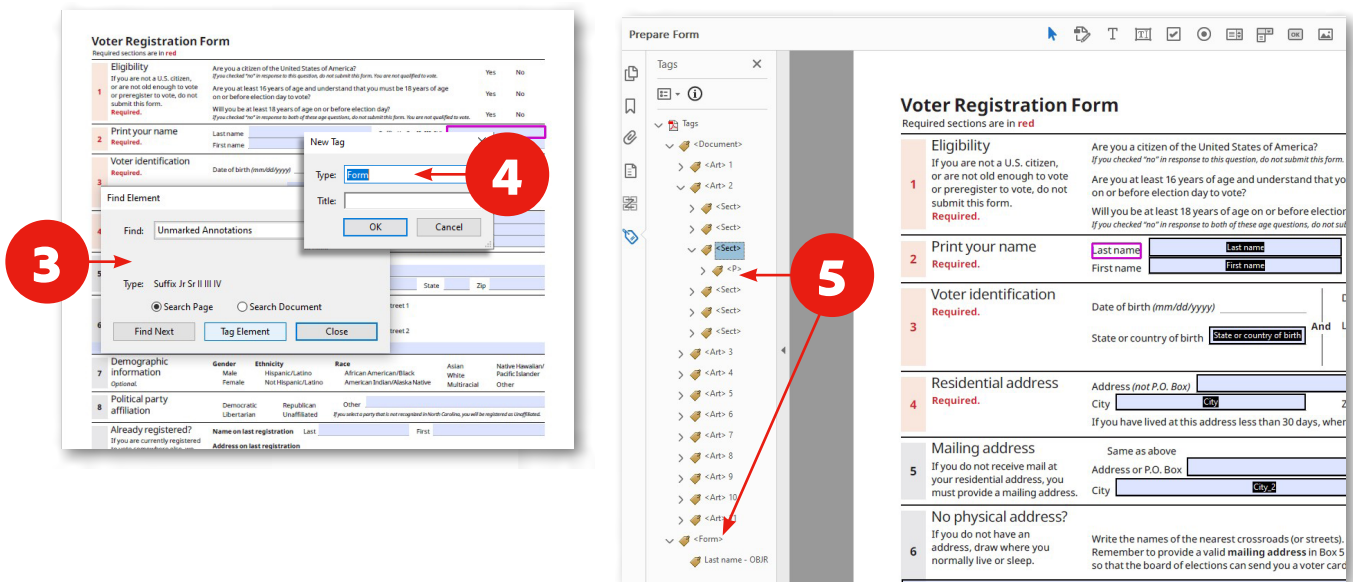
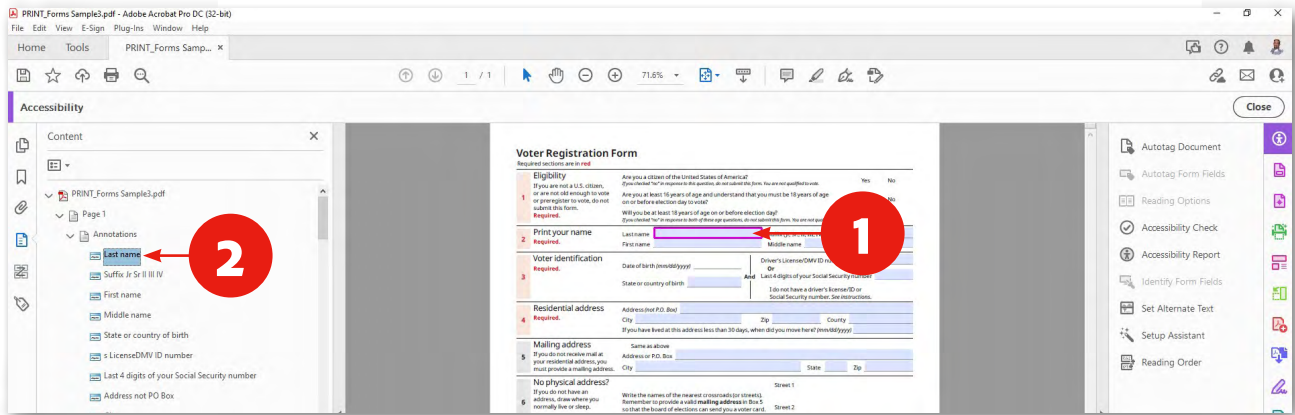
| | | | | | | |
|----|----|----|----|----|----|----|
| TH | TD | 12 | TD | 10 | TD | 6 |
| TD | TD | 14 | TD | 15 | TD | 12 |
| TH | TD | 16 | TD | 9 | TD | 8 |
| TD | TD | 13 | TD | 14 | TD | 10 |

Learning the Fundamentals of PDF Accessibility Step by Step 25

Other Accessibility Tools

Auto-Identify Form Fields

Auto-Identify Form Fields works just like the tool in **Prepare Forms**. It simply creates the **form fields** (1) and the **annotations** (2) but does not add them to the **Tags Tree**. This must be done manually by using **Find > Unmarked Annotation** (3). Once added to the **Tags Tree** (4), they must each be repositioned to reflect the proper reading order (5).



Forms Note: It is always best to create your forms in Adobe InDesign where you can export them with tags and in the correct reading order. Neither the **Autotag** nor the **Prepare Form > auto detect form fields** provide a single-click solution.

Set Alternate Text

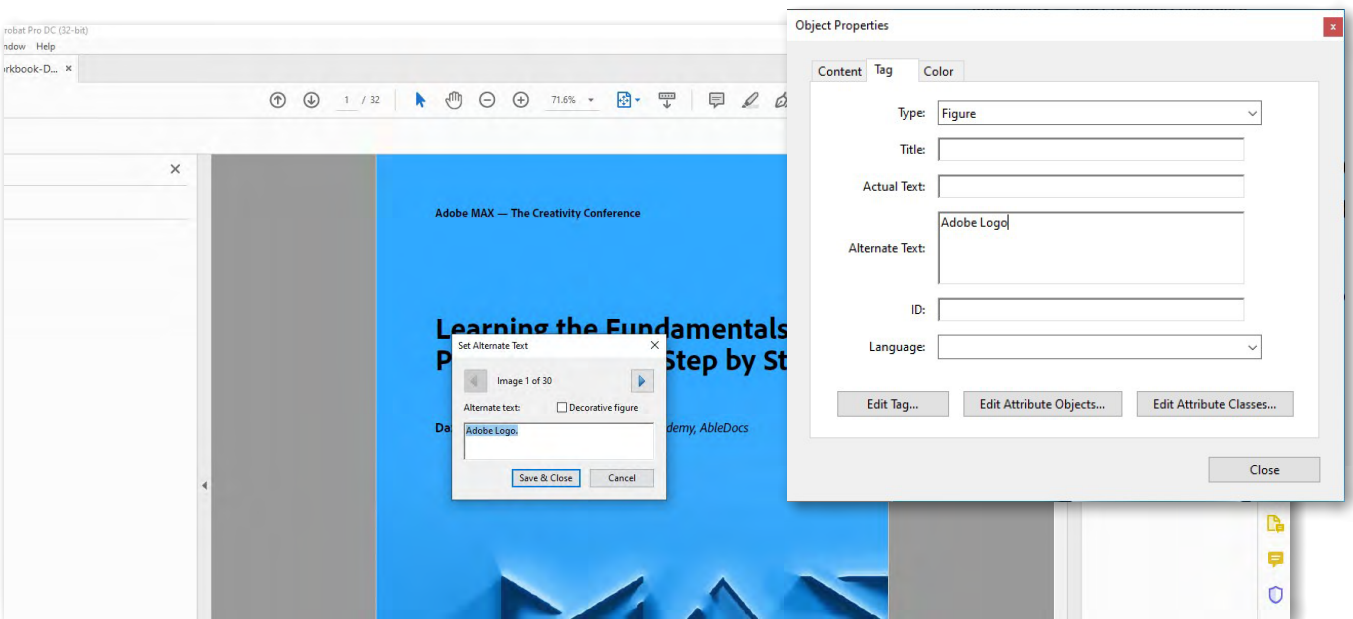
Set Alternate-Text is very similar to the **Fix** command from the **Accessibility Report**. The only difference is that this tool cycles through all the images in your document to allow you to verify they do or do not have alt-text applied. This is a convenient way to double-check your work without having to hunt down **<Figure>** tags in the **Tags Tree**.

1. Select **Set Alternate-Text**.

2. Acrobat will automatically cycle through each image and display any existing alt-text or display a blank field to allow you to enter a description or mark it as a **Decorative Figure**.

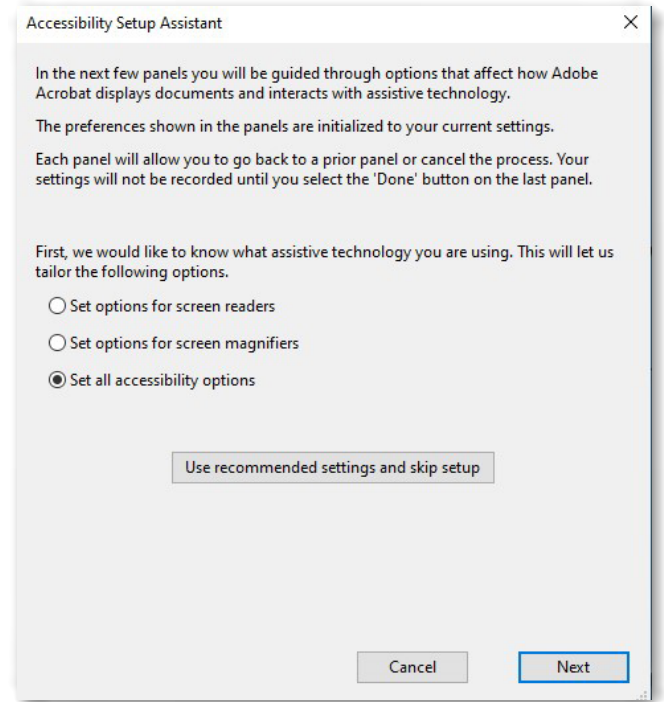
3. Once you have entered a description click the **Right Arrow** at the top of the dialog box to cycle through to the next image.

4. When finished click the **Save & Close** button.



Accessibility Setup Assistant

This is one of those boxes that you really should just leave as default. If you are using a screen reader or screen magnifier yourself you can adjust properties within these menu items. However for 90% of the cases, you will want to leave this as **Use Recommended Settings and Skip Setup**.



Reading Order Panel

Which Assistive Technology uses this panel?

Before Tags were implemented the Order Panel was how assistive technology read the content in the document. This practice has since been phased out but there are still technologies like TextHelp Read & Write and several other programs that still rely on this panel.

Why it may be important to set this?

If you are trying to meet the highest level of compatibility with all assistive technology, you will want to ensure the Reading Order is set to match the Tags Tree. However, as previously explained, if you start rearranging these elements in the Order Panel, your tags will very likely move, combine or otherwise change. So if you have already edited your tags tree it is highly recommended that you use the Content Panel rather than the Order Panel to restructure the Reading Order.

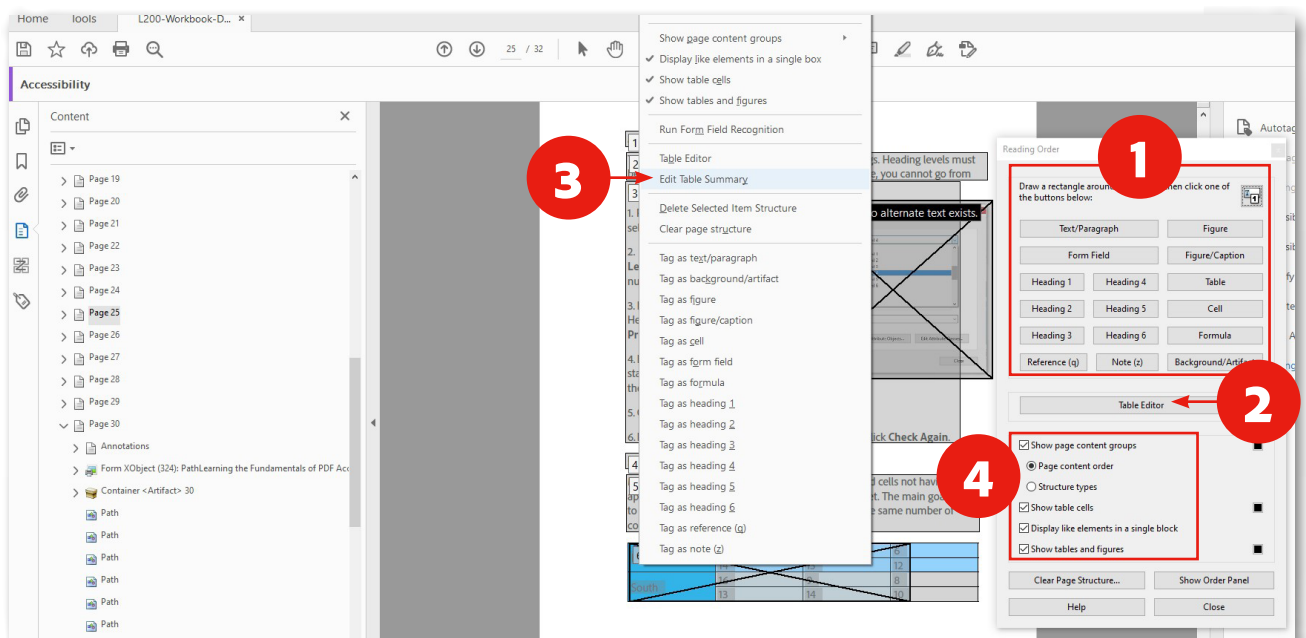
Reading Order Panel Explained

1. **Tagging Tools:** Draw a box around any element on the page and then Click the appropriate button to tag that element. Your tag will appear in the next logical order below your currently selected element in the Tags Tree, Order Panel or Content Panel.

2. **Table Editor Tool:** Allows you to edit table properties for header and data cells. When you click on the table the **Reading Order Panel** will disappear. You can select it from the **Tools Panel** to reactivate it.

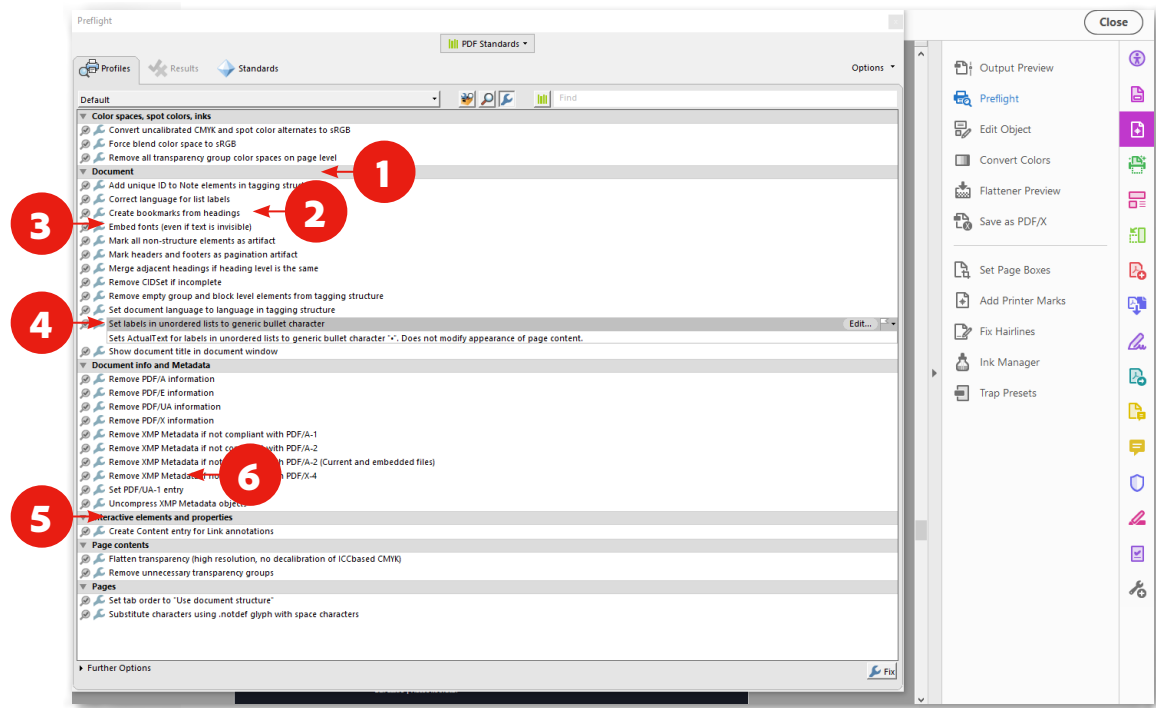
3. **Table Summaries:** These can only be edited by selecting your table, right clicking and choosing **Edit Table Summary**.

4. **Visual Options:** These options allow you to group and ungroup similar items in the Reading Order view as well as show or hide tables, table cells and figures.



Preflight Panel

Basic fixes you should know



You can access the **Preflight Panel** from the **Print Production Tool**. The **Preflight Panel** is a hidden gem of accessibility quick fixes for your documents. These are just my top 5 (plus one extra) but all of them are valuable and can save tons of time as you learn to remediate documents. They are divided into 6 categories. Take the time to see what they do.

1. **Add Note IDs:** This fix adds a unique identifier for each Note in a document. This is a requirement that all notes are individually identified.
2. **Embed Fonts:** Does exactly what you expect. Ensures the fonts associated with the document are properly embedded for accurate display on any computer.
3. **Artifact all non-structural elements:** PDF/UA says that all elements must have a tag or be marked as Artifacts. No elements can just exist in the Content Panel without designation. This fix sets things like table borders, underlines and other decorative elements as Artifacts.

4. **Setting Standard Bullet voicing:** Many people are unaware that not all bullets are voiced the same. Some are not even recognized by screen readers. This fix ensures that all bullet icons regardless of type are voiced as “Bullet” to ensure a consistent user experience.

5. **Create Content Entry for Link Annotations:** The Web Content Accessibility Guidelines [Success Criteria 2.4.4 Link Purpose](#) state that “the purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context.” In other words, links need descriptions. Most people do not know how to set the value in the **Content Key**, so they simply add alt-text. This fix up sets the value of the link in the **Content Key** per PDF/UA-1 guidelines.

6. **Set the PDF/UA Identifier:** Adds a marker to the document signifying that the document is attempting to meet PDF/UA standards.

What is PDF/UA?

ISO Standard 14289: PDF for Universal Access - (PDF/UA) while WCAG provides basic principles to follow without addressing the technical aspect of the tags tree or the underlying document structure, PDF/UA advocates for the standardization of the content structure within the PDF files and the technology capabilities available to the end user (including assistive technologies).

Benefits of PDF/UA

Clear technical requirements

Clearly defined and well-documented requirements that serve as orientation for developers, implementers, service providers and procurers.

Guaranteed compatibility

Relevant software, hardware and digital documents can work together as effectively as possible – provided they comply with the standard.

Basis for defined machine checks

108 machine verified success criteria defined in the so-called Matterhorn Protocol are a good basis for reliable validation of accessible PDF documents.

Best possible user experience

PDF/UA compliant documents deliver the best possible user experience of PDFs for people with disabilities and users of mobile devices.

Complementary to WCAG

Missing link between PDF specification and the global requirements for accessible digital content as described in WCAG (Web Content Accessibility Guidelines) of W3C.

Fully addresses the PDF format

Bringing the principles of WCAG into the world of PDF and setting PDF-specific rules.

Content prepared for mobile view and re-use

Future-proof presentation of content with rich semantics and machine-readability and advanced adaptability options, such as mobile view.

Product and company independent

As a global and independent product standard, PDF/UA guarantees comparable checking results and reliable requirements on which end-users should focus when choosing software.

Globally accepted and implemented

Initially published in 2012, PDF/UA is now an accepted and widely used part of the digital accessibility and PDF ecosystem and referenced in legislation.

Focus on technical accessibility

WCAG already covers all content and layout-related aspects of digital accessibility. PDF/UA, therefore, focuses on the technical aspects.

Equal access to content for everyone

Every document is usable, readable and accessible for all users - no matter what disability they may have.

Source:

[PDF UA Foundation Website](#)

Useful WCAG/A Links

Current Version of WCAG 2.1

<https://www.w3.org/TR/WCAG21>

How to Meet WCAG (Quick Reference)

<https://www.w3.org/WAI/WCAG21/quickref>

PDF Techniques for WCAG 2.1

<https://www.w3.org/WAI/WCAG21/Techniques>

Web Accessibility Laws & Policies

<https://www.w3.org/WAI/policies>

How People with Disabilities Use the Web

<https://www.w3.org/WAI/people-use-web>

International Association of Accessibility Professionals

<https://www.accessibilityassociation.org/>

PDF/UA Standards & Manuals

PDF 1.7 (ISO 32000-1)

<https://www.iso.org/standard/51502.html>

PDF/UA-1 (ISO 14289-1)

<https://www.iso.org/standard/64599.html>

Matterhorn Protocol 1.1 PDF/UA Conformance Testing

<https://www.pdfa.org/resource/the-matterhorn-protocol>

Useful Accessibility Tools

Color Contrast Analyzer

<https://www.tpgi.com/color-contrast-checker>

Contrast Grid

<https://contrast-grid.eightshapes.com/>

PAC 2021 Accessibility Checker

<https://pdfua.foundation/en/pdf-accessibility-checker-pac>

Colorblind Simulation (Windows)

<https://www.microsoft.com/en-us/p/coloursimulations/9nblggh4385h>

Daltonizer (MAC)

<https://apps.apple.com/us/app/sim-daltonism/id693112260>

Callus PDF Go (Structure Checker)

<https://www.callussoftware.com/en/products/pdfgohtml>

InDesign Accessibility Scripts: Alt-text, Color Contrast and Tables

[Accessibilityscripts.com](https://accessibilityscripts.com)

Made to Tag InDesign Script for Accessible Tables

<https://www.axaio.com/doku.php/en:products:madetotag>

Axes PDF Quickfix

<https://www.axes4.com/en/products-services/axespdf>



Summary

Start with the basics

Accessibility takes time to wrap your head around. There are so many facets to understand. Realize that some accessibility now is better than none. Your skills will grow and the accessibility and usability of the documents you create will improve. Like I always say, it is about Awareness, Knowledge and Implementation.

Get familiar with the tools

Take the time to learn new things from videos, conferences, labs and peers. There is a lot of information out there and there are a lot of tools within Adobe Acrobat and via plugins and 3rd-party tools as well. But, if you do not understand the basics of accessibility, all the tools in the world will not produce an accessible document. Accessibility will always rely on automated and manual checks that require human evaluation.

Get involved in the A11y Community

1. Join the PDF Accessibility Facebook group
2. Get certified as an Accessible Document Specialist
3. Join a local accessibility Meetup in your area
4. Look for others on social media following #a11y
5. Reach out to your local Society for the Blind

Still have questions?

Reach out to me and I will be happy to answer them:

dcastro@abledocs.com