Creating Accessible PDF

- Please note: This webinar is being recorded and the materials will be available at www.DisabilitySmallBusiness.org on the Past Events page within 1-2 weeks.

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What we will Cover Today:

- Common PDF usage

- PDFs Advantages and disadvantages

- Use Tools to check PDF accessibility

- Create Workflow and learn how to approach the process of making PDFs accessible

- Making a PDF accessible

What is an accessible pdf, and why does it matter?

An accessible PDF is a document that is universally easy to use and meets established accessibility standards. It enables most people to view, read, or interact with your document. Since your audience may include people whose vision, hearing, mobility, or cognition is impaired, it's important that your document be easy to use with assistive technology like:

- Screen readers

- Text-to-speech programs

- Braille displays

The more accessible your PDF is, for example, the easier it is to hear on a mobile device. Or view with a screen magnifier. Or fill out without a keyboard. Actually, this increased ease of use benefits everyone in your audience, regardless of their various abilities. So let's dive in further: what is PDF accessibility, and how can you apply it in your next document?

Why is PDF accessibility so important?

- Unlike a sighted user who physically views and reads the contents of a PDF document, a user with vision impairment or other disabilities, such as color blindness, hearing loss, or certain cognitive challenges, relies on tools such as a screen reader to access PDFs.

- If a PDF is not made accessible, a screen reader does not read it as it should be read, preventing the user from fully accessing the information contained in the PDF document.

- ***Your goal is to make your PDF accessible to as many people as possible.***

Common PDF usage

PDF can give us more versatility than plain word documents, they can hold some interactive capabilities and have an overall better image presentation.

So it is common for PDFs to be:

- Technical documents and manuals

- Reports, especially with complex layouts, graphs, charts, etc.

- Forms meant for print or online delivery

- Scanners and other hardware that output PDF

- Print and design industry

- Large and/or complex documents published on websites

Most common PDF accessibility barriers

- A lack of ability to navigate the documents to find what was needed;

- Incomprehensible tables;

- Text not ordered correctly, or not spaced properly between words so everything is read as an unintelligible jumble;

- No alt text for images, charts, and graphs;

- Inability to interact with fillable forms; and

- Scanned documents that have no content and must be OCR'd resulting in inaccuracies and the document having no structure at all.

PDFs Advantages and disadvantages

Advantage:

1. PDFs are designed to be structured in such a way that allows remediation from a structural level without the excessive need to make visual changes.

2. The ease of modification for navigation within the PDF.

3. If the source document you have is accessible, then making the resulting PDF accessible is much easier.

Disadvantage:

1. Security can be a negative from an accessibility point of view, a secured PDF might interfere with screen readers and automated testers.

2. PDFs can be composed solely of images, but an image is still an image and still requires alt text.

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2. PDFs can be composed solely of images, but an image is still an image and still requires alt text. This can be difficult when we are working with scans from a textbook.

Making a PDF accessible

We will go over some important steps for you to consider.

Use Tools to check PDF Accessibility

Use Tools to check PDF accessibility (automated, manual, and assistive technology)

You can start with an accessible base program like inDesign, CommonLook office, etc.

Always review the document with a screen reader (JAWS or NVDA)

There is an automated accessibility checker on Acrobat Pro, as a big note it tests against WCAG 2.0, a standard that could be considered outdated but PDF was added to WCAG on 2.0.

https://www.w3.org/TR/WCAG20-TECHS/pdf

AxesPDF tests for WCAG 2.0

CommonLook tests for WCAG 2.0

Check accessibility of PDFs (Acrobat Pro)

A good way to check the accessibility of a document is to use tools that your readers will use. Even if you do not have access to those tools, Adobe Acrobat provides an automated way to check the accessibility of a PDF file. The Full Check/Accessibility Check feature in Acrobat checks a PDF for many of the characteristics of accessible PDFs. You can choose which accessibility problems to look for and how you want the results reported.

- Autotag Document
- Autotag Form Fields
- Reading Options
- Accessibility Check
- Accessibility Report
- Identify Form Fields
- Set Alternate Text
- Setup Assistant
- Reading Order

1. Choose **Tools** > **Accessibility**.

2. The Accessibility toolset is displayed in the secondary toolbar.

3. In the secondary toolbar, click **Full Check/Accessibility Check**.

4. The Accessibility Checker Options dialog box is displayed.

5. In the **Report Options** section, select options for how you want to view the results. You can save the results as an HTML file on your system, or attach the results file to the document itself.

6. Select a page range if you prefer to check individual pages of a document.

Note:

When you have a large document, running a full check/accessibility check one page at a time can be more efficient.

1. Select one or more of the **Checking Options**.

2. Click **Start Checking**. The results are displayed in the Accessibility Checker panel on the left, which also has helpful links and hints for repairing issues. If you created a report in step 2, the results are available in the selected folder.

3. Because the Full Check/Accessibility Check feature cannot distinguish between essential and nonessential content types, some issues it reports don't affect readability. It's a good idea to review all issues to determine which ones require correction.

The report displays one of the following statuses for each rule check:

● **Passed:** The item is accessible.

● **Skipped By User:** Rule was not checked because it wasn't selected in the Accessibility Checker Options dialog box.

● **Needs Manual Check:** The Full Check/Accessibility Check feature couldn't check the item automatically. Verify the item manually.

● **Failed:** The item didn't pass the accessibility check.

It's worth mentioning that you will need acrobat pro in order to run the accessibility check

Create Workflow and learn how to approach the process of making PDFs accessible


Accessibility

Open
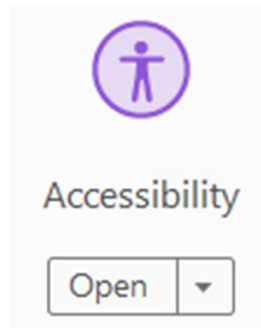
We are going to go over some steps that you will need to take in order to make a pdf accessible.

Make sure you use your drafting program to the maximum of its capacity InDesign and word both have tagging systems, using them will help when the file is converted or exported into a PDF. Once you have a PDF you go through it using assistive technologies this will give you an idea of what you have to correct.

Then you evaluate the PDF using an automated tool again I prefer CommonLook but it's just an example here this is the step where we fix all the content issues we might find, so if something wasn't tagged correctly or if something doesn't have alt text we add it here. We make sure we did a good job with our assistive technologies by going back to correct if there is something we got wrong.

Workflow Example
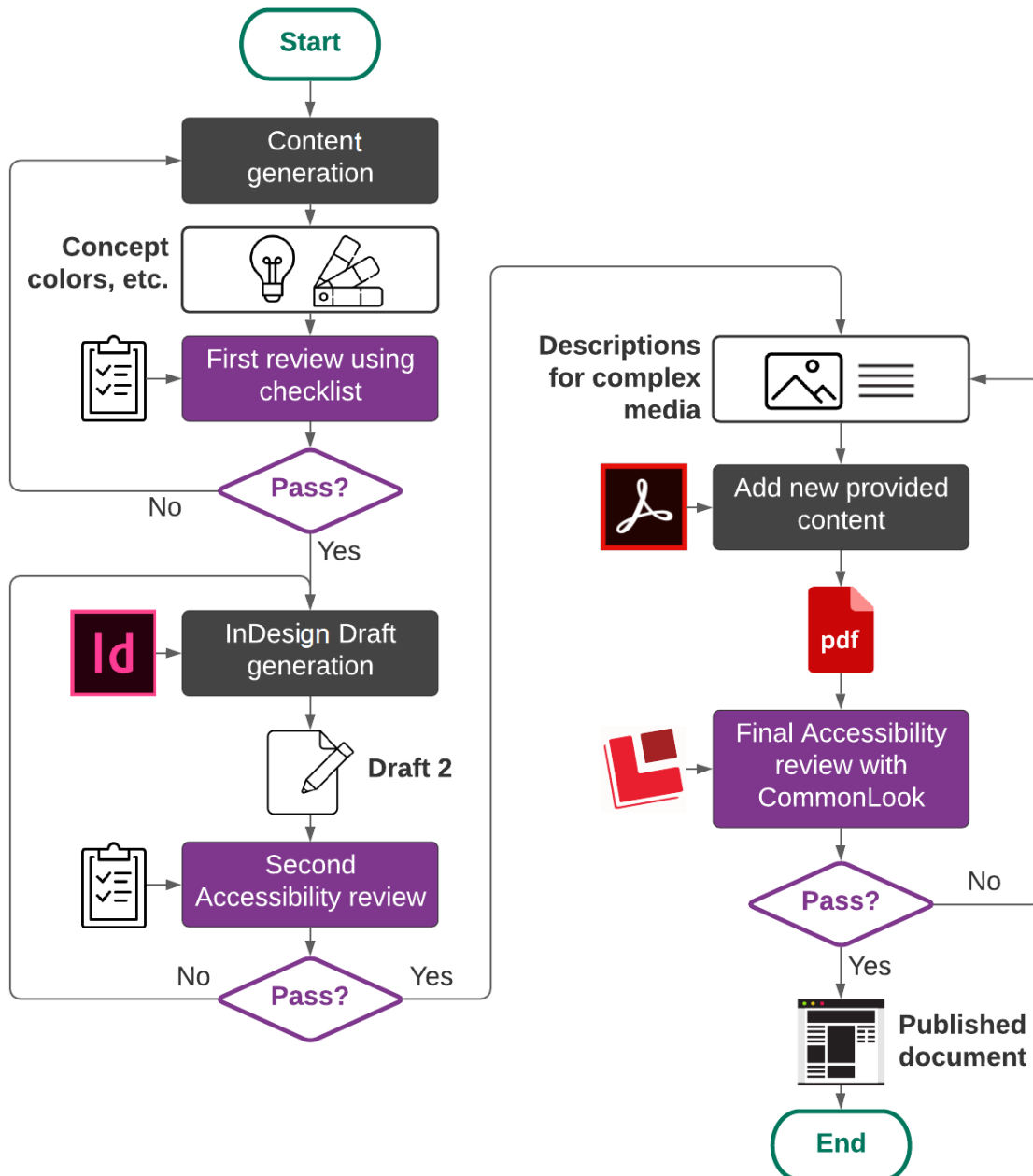
1. Make sure you use your drafting program to the maximum of it-s capacity InDesign and word both have tagging systems, using them will help when the file is converted or exported into a PDF.
2. Once you have a PDF you go through it using assistive technologies this will give you an idea of what you have to correct.
3. Then you evaluate the PDF using an automated tool again I prefer CommonLook but it's just an example here this is the step where we fix all

the content issues we might find, so if something wasn't tagged correctly or if something doesn't have alt text we add it here.
4. We make sure we did a good job with our assistive technologies going back to correct if there is something we got wrong
5. We add our metadata.
6. Then we finally publish or share the PDF

Exported PDF

You can make a PDF accessible from the start by ensuring that the file is accessible in the authoring software (word, InDesign, etc.) any authoring software by Microsoft and by adobe will have a basic accessibility check option. Our recommendation is to use the basic tools as best as you can always reading carefully and only when the content passes those checks to export into a pdf.

These checks function great for very simple pdfs, complex pdfs that contain several charts tables, forms, etc. might need a second look for confirmation.

There are also services that remediate pdf documents, we at results one offer this service, some documents just have a lot of complex content and if you do not feel secure with the basic check you can approach a professional to remediate the document for you.

OCR or Optical Character Recognition

Can recognize scanned text and convert it to the actual text, however, this is not a perfect fix you will need to read the results in order to ensure that it is correct.
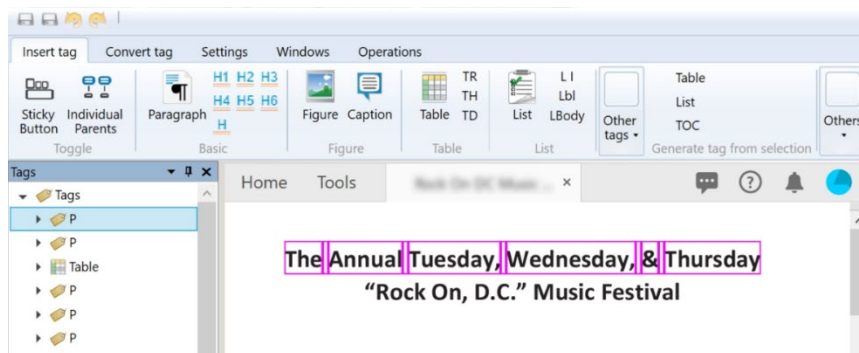
The resulting text will be searchable, selectable, and assistive technologies will be able to read it. OCR still needs to be tagged in order to be accessible.

DOCUMENT SCAN → **SCANNED IMAGE FILE** → **OCR (Optical Character Recognition)** → **TEXT DOCUMENT**
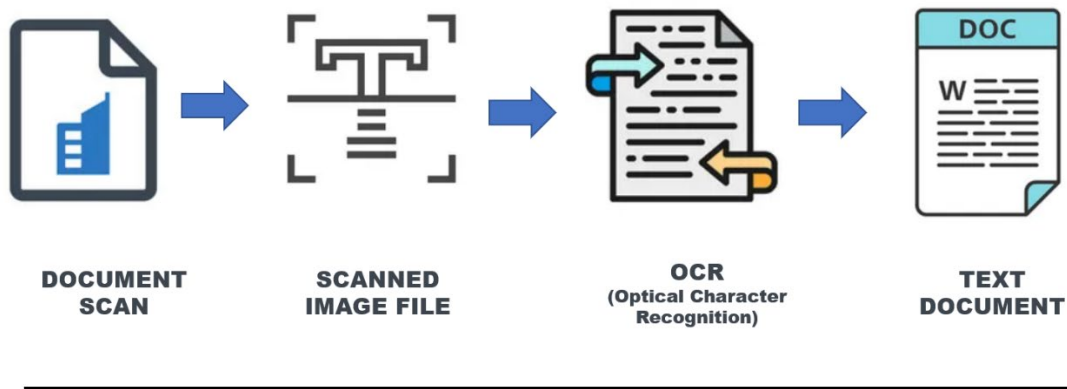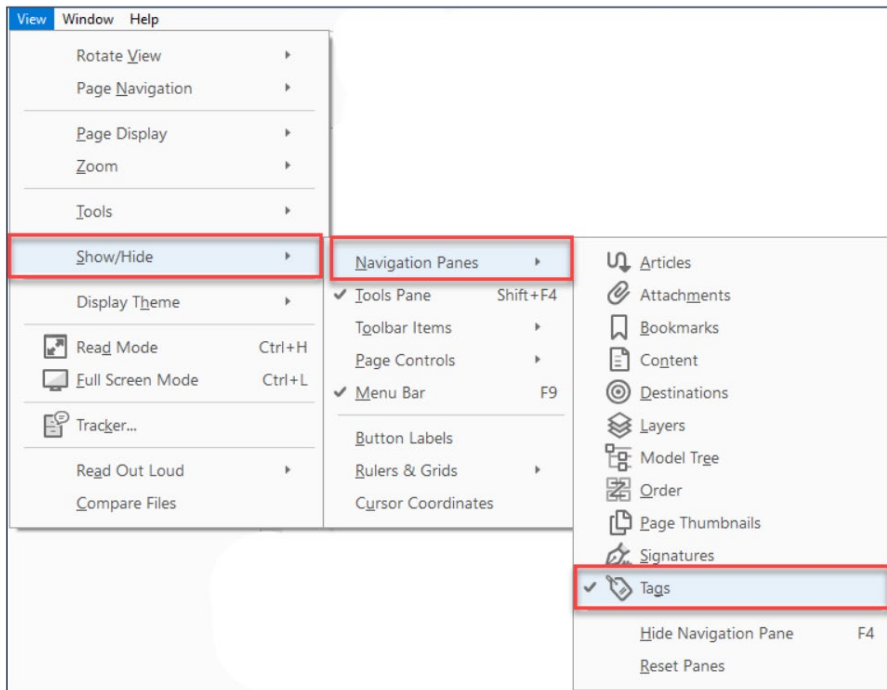
Set the correct reading order with Tags

Tags can be created by automation, again they are not always right, more and more issues with automated tagging occur when the document is more complex.

Tagging a document will create a 'tag tree', representing its structure and components, this tag tree is what is mostly perceived by screen readers. A PDF MUST be tagged in order to be considered Accessible.

Tags can be edited using the tag panel (Choose View > Show/Hide > Navigation Panels > Content).

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RESULTS ONE

How to edit tags

Tags can be edited using the tag panel (Choose View > Show/Hide > Navigation Panels > Content).

Tagging Tables

Tables need to be reviewed all the time while tagging to ensure the reading order is correct.

1. Open the "Reading Order" tool in the right-hand Accessibility menu.

2. Find the incorrectly tagged table within the document.

3. Select all elements that should be included in the table.

4. Right-click on selection and select "Tag as Table".

Disability Category	Participants	Ballots Completed	Ballots Incomplete/ Terminated	Accuracy	Time to complete
d	5	1	4	34.5%, n=1	199 sec, n=1
Vision	5	2	3	98.3% n=2 (97.7%, n=3)	716 sec, n=3 (1934 sec, n=2)
terity	5	4	1	98.3%, n=4	72.1 sec, n=4
bility	3	3	0	95.4%, n=3	416 sec, n=3

In each Table there should be "<Table>" tag, which once expanded will show:

- "<TR>" for Table Rows

- "<TH>" for Table Header cells and should only be in the first TR of the Table.

- "<TD>" for Table Data cells

- Cells that span two or more rows or columns should use the RowSpan or ColSpan attribute.

- For tables that contain blank cells, you may need to add empty TD cells so that each row or column has the same number of cells.
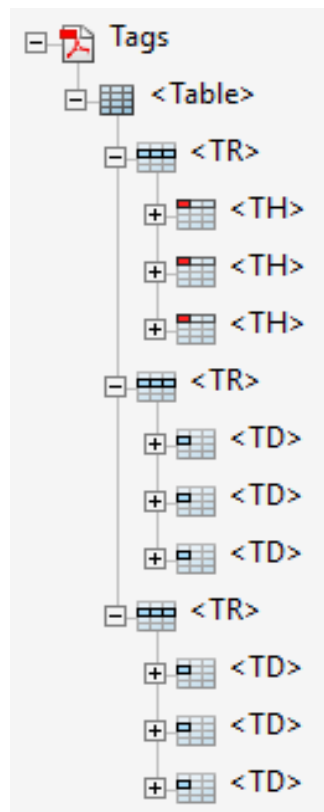
Tagging Tables Example

- **Table <table>**

  - **Table header row <TR>**

    - **Table header cell <TH>**

    - **Table header cell <TH>**

    - **Table header cell <TH>**

  - Table row <TR>

- - **Table data cell <TD>**

    - **Table data cell <TD>**

    - **Table data cell <TD>**

  - Table row <TR>

    - **Table data cell <TD>**

    - **Table data cell <TD>**

    - **Table data cell <TD>**
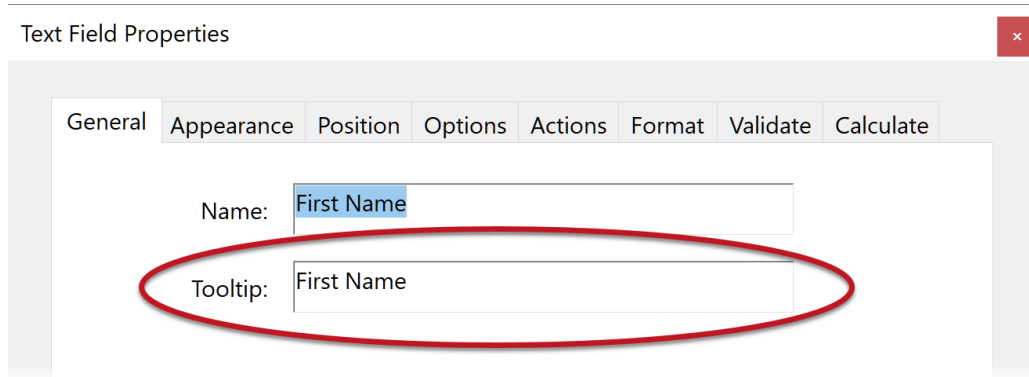
- Table
  - Table Header Row
    - Table Header Cell
    - Table Header Cell
    - Table Header Cell
  - Table Row
    - Table Data Cell
    - Table Data Cell
    - Table Data Cell
  - Table Row
    - Table Data Cell
    - Table Data Cell
    - Table Data Cell

Tagging Forms

When Acrobat adds form fields automatically, it also automatically adds a Name and Tooltip to each field based on text near the field. You should review each Tooltip. If you added the fields manually, the Tooltip will be blank.

With the Prepare Form tool group open, right-click a form field and choose Properties.
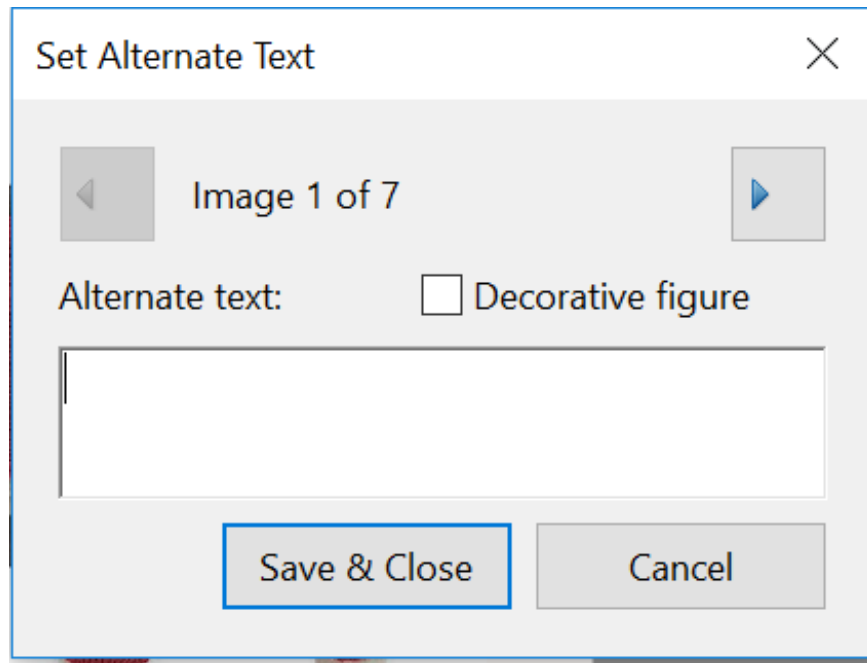

Make sure the text in the Tooltip conveys all the information a screen reader needs to correctly complete the field, and correct it if it does not.

You must make sure forms are tagged and are still functional after being tagged, make sure that they are in the correct order in the tag tree.

Make sure instructions are clear and do not rely on any visual input to complete, input like color and directions using right or left are not acceptable.
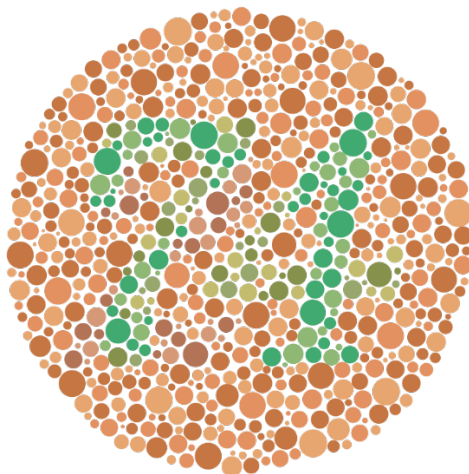
Set Alt-Text

We've spoken about how to write alt text before but in PDFs, it's important to consider that complex images like charts might need a description instead of alt-text, additionally always make sure the alt is accurate. Any decorative images should not have alt text and should be removed from the tag tree.
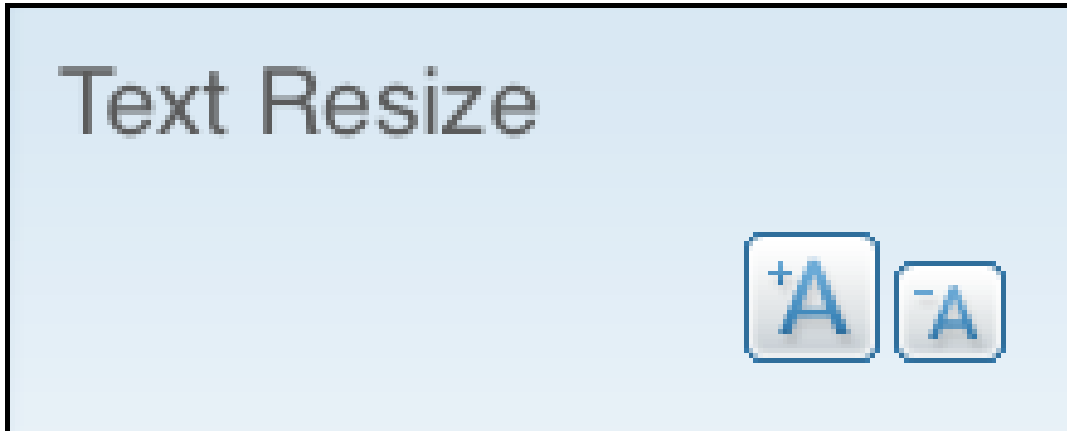

Color and contrast

Color and contrast rules still apply so 4.5:1 contrast ratio is the acceptable one for regular text and 3:1 for larger text. Color and contrast rules apply to all elements.
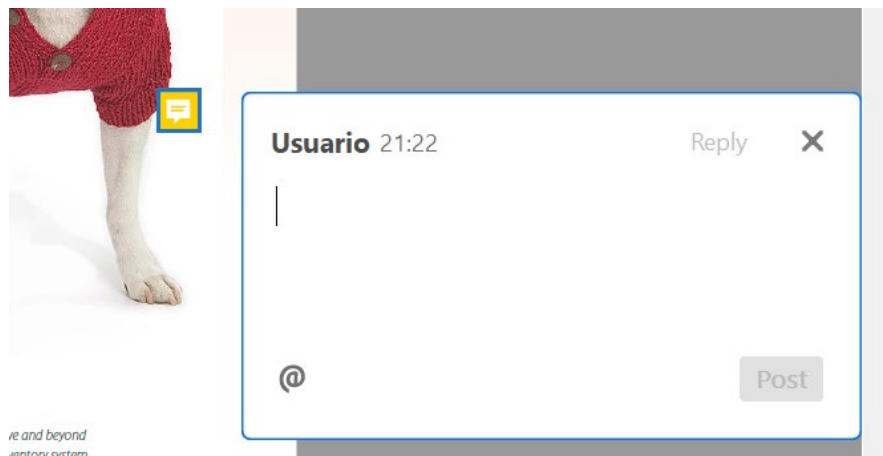
Text resize

Any text must be resizable up to 200%, regular text size is considered from 12pts minimum and large text is 18 pts.
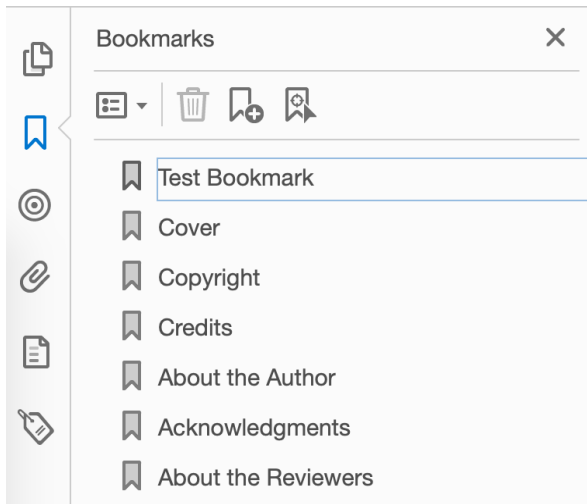

Remove notes

An accessible PDF cannot have notes left from previous reviews or embedded speaker notes.

Screen readers can understand them but it is common for them to cause a keyboard trap or be ignored. They do not belong in the tag tree.
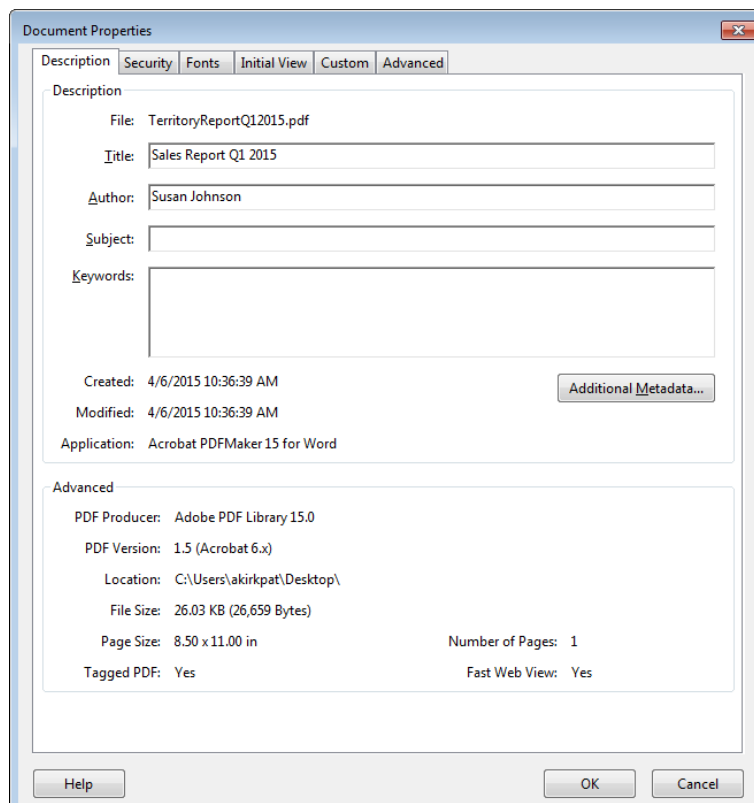
Set the bookmarks

Add bookmarks as a penultimate step. If your tag tree was made correctly automated bookmarks should be accurate.

Always review them to make sure everything is covered. You can edit them. There must be bookmarks for any document over 9 pages.

Set Metadata

- Title, Author, Subject, Keywords, and Language.

Documents over 5 pages must include a page number, Metadata will help with the SEO. Adobe Acrobat and go to File > Properties > Description.

What's next?

Send One (1) PDF to kalfonsodc@resultsonellc.com for a FREE automated audit

Once the Automated Audit is conducted; we will send you a link to schedule your thirty-minute consultation.

We will review your results from the automated audit;

- Discuss next steps for the manual audit;

- Address any questions you might have;

Upcoming Events

Funding Your Business

Presented by Griffin-Hammis Associates

Wednesday, June 21, 2:00 – 3:30PM EST

Creating Accessible Emails

Presented by Result One

Wednesday, July 12, 2:00 – 3:00PM EST

Net Earning from Self-Employment and SSDI/ Medicare

Presented by Griffin-Hammis Associates

Wednesday, July 19, 2:00 – 3:30PM EST

NDI Small Business Hub

- Are you an aspiring entrepreneur or existing business owner with a disability wanting help to START, BUILD and GROW your business? Visit www.disabilitysmallbusiness.org or email rchavez@ndi-inc.org

- Want to join a dynamic learning community focused on key financial health topics for business, such as budgeting, managing cash flow, risk management, insurance, taxes, building credit, and loan and grant

applications? Apply at
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or email cbolas@ndi-inc.org for more information.

- Visit our Streaming TV channel for informational and motivational content for disability owned small businesses at www.DisabilityOwned.com

- Access training, mentoring, business coaching, and grant opportunities through our new partnership with Verizon Small Business Digital Ready! Register here: Small Business Training | About Verizon

- Want to "Stay In The Know" about NDI's small business hub? Join our mailing list!

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