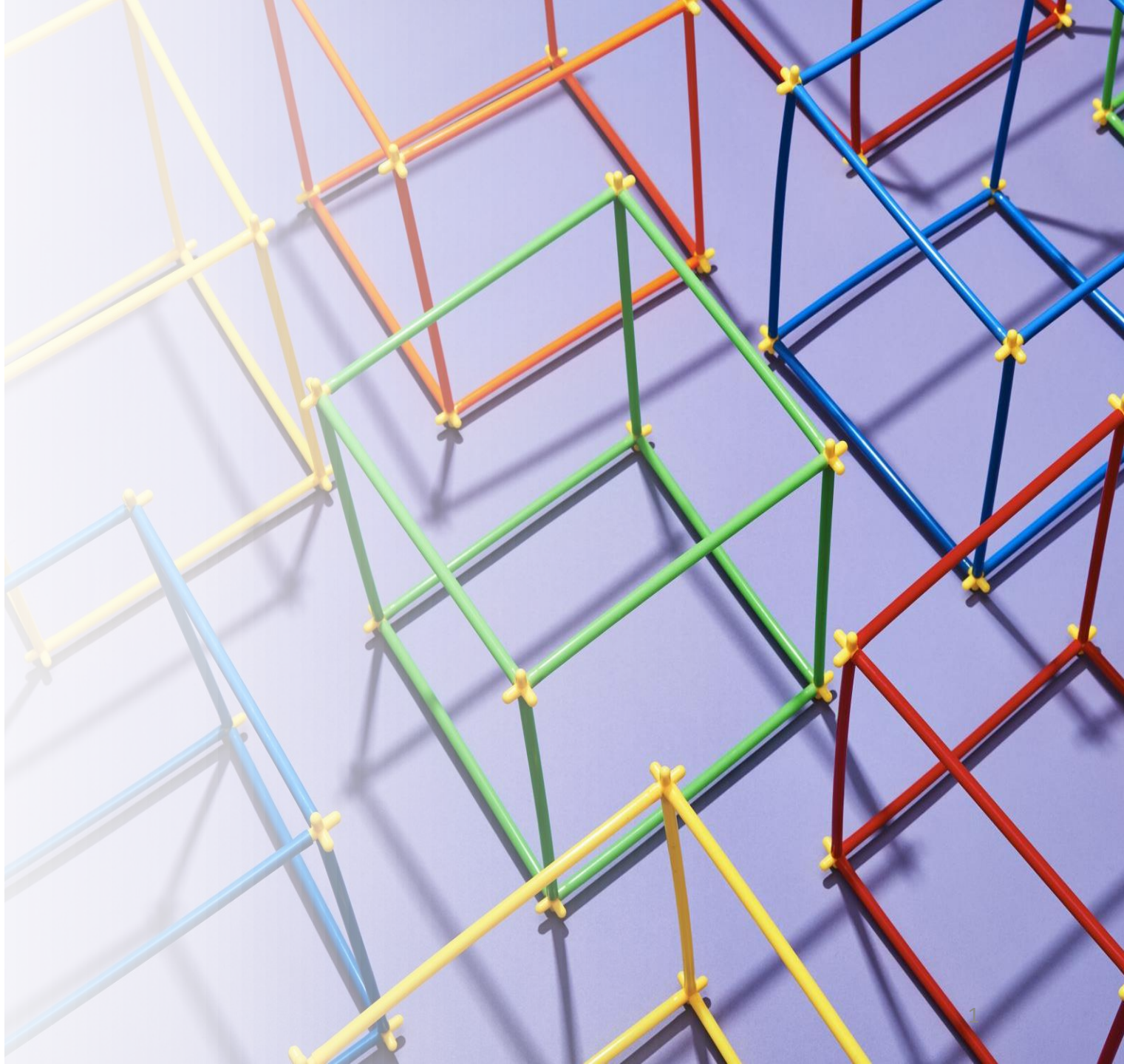
Adobe PDF Accessibility and Remediation

Prepared by

Technology Crest Corporation



Agenda

- Introduction to PDF Accessibility and Disability Types
- PDF Overview
- Adobe Setup and Navigation Pane Buttons
- PDF Remediation - Getting started
- Key Remediation tasks, Reading Order Panel tool
- PDF Meta Data, Tags naming conventions
- Bookmarks, Order, Tab Order, Tables, Links
- PDF Security Settings and Accessibility Testing
- Questions and Open session

Introduction to PDF Accessibility

- Centers for Disease Control and Prevention estimates 27% adults in the USA have some type of disability[1].
- Physical Access (to buildings, elevators, public facilities, transportation, shopping malls and restrooms) is just one aspect of accessibility
- ADA Compliance is mandatory (public and private entities)
- CA, FL and NY contribute to >50% of ADA Lawsuits filed
- CA State laws allow plaintiffs to add monetary claims for damages to requests for injunctive relief in lawsuits filed under the ADA

Source: 1 http://dhds.cdc.gov 05/15/2023

Disability Types

Vision

Auditory

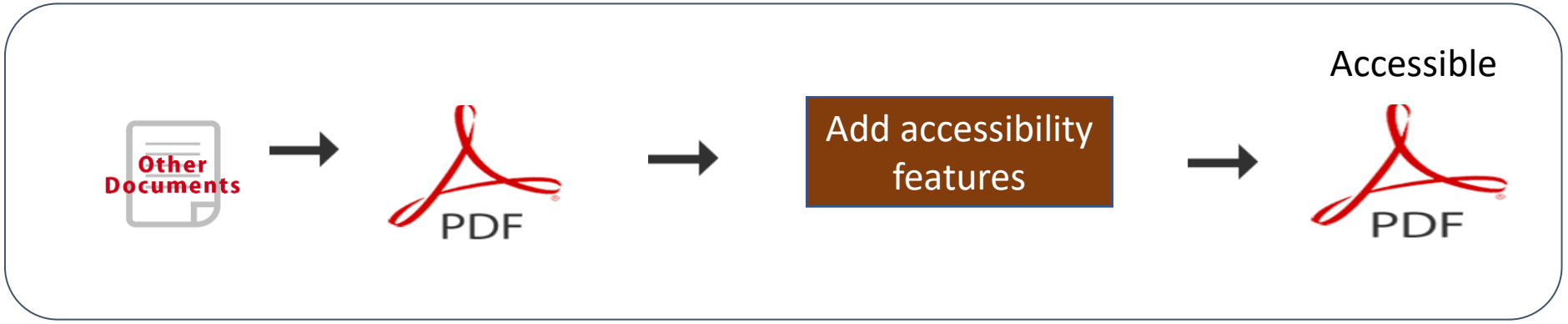
Motor/Physical

Cognitive

Seizure

Portable Document Format (PDF) - Overview

- PDF is the end format not the authoring tool
- Automatically generated PDFs are not Accessible
- PDF documents need to be remediated to make them accessible
- PDF remediation is the process of adding accessibility features to a document

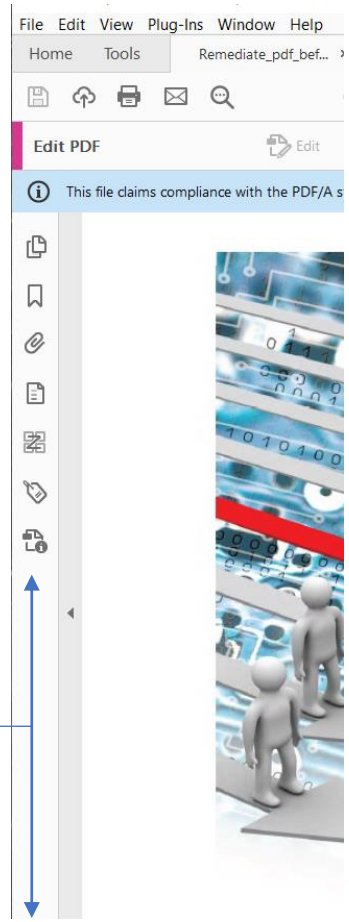


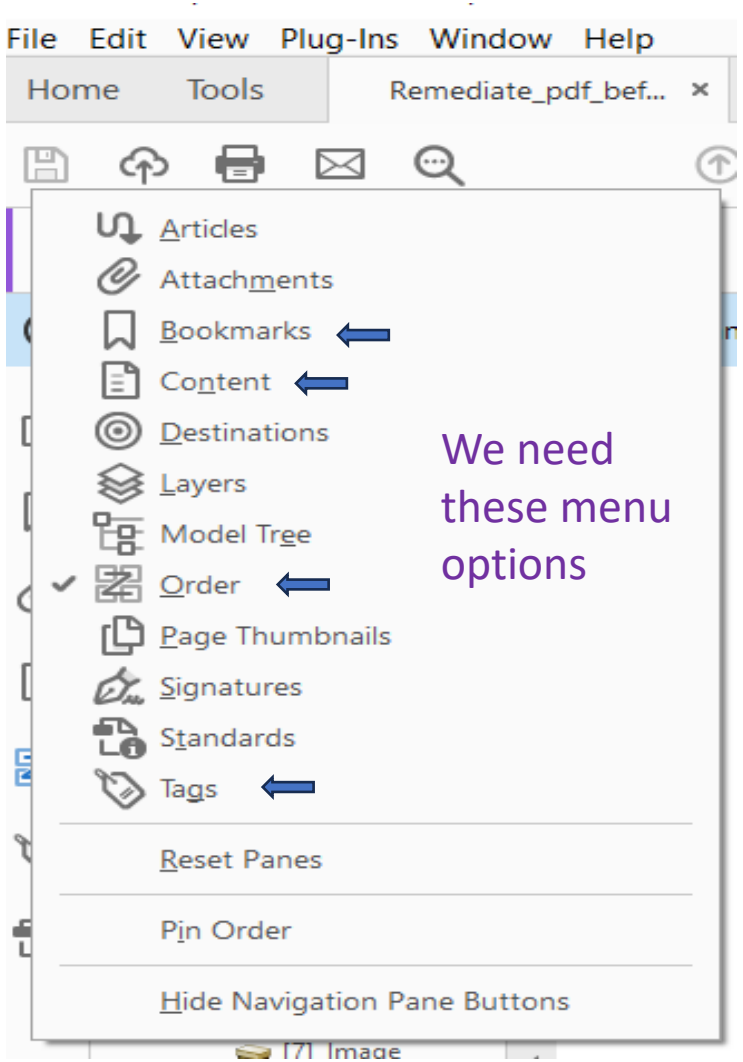
Adobe set up and Adding navigation pane buttons

1. One time setting

2. Right click on panes and add navigation buttons

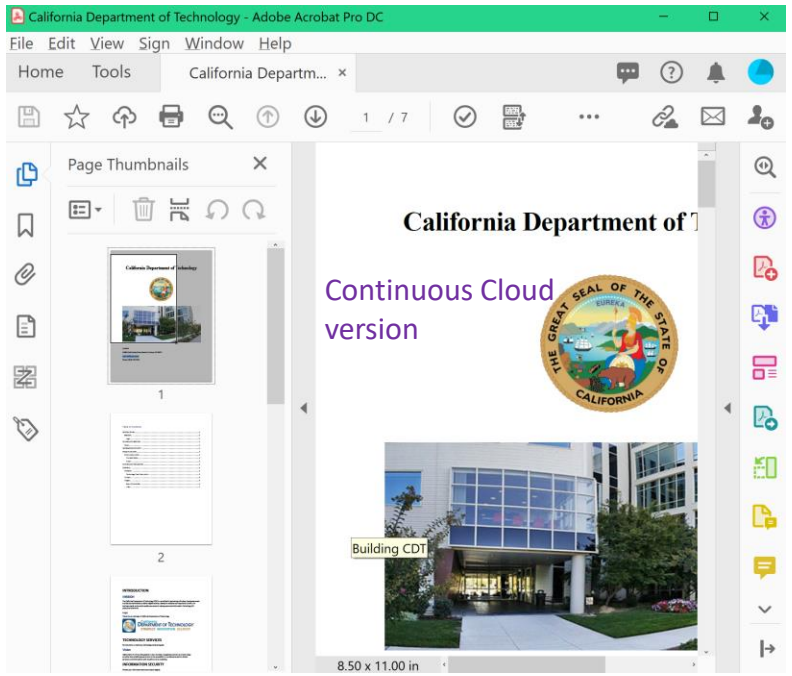
3. Right click anywhere on the blank area

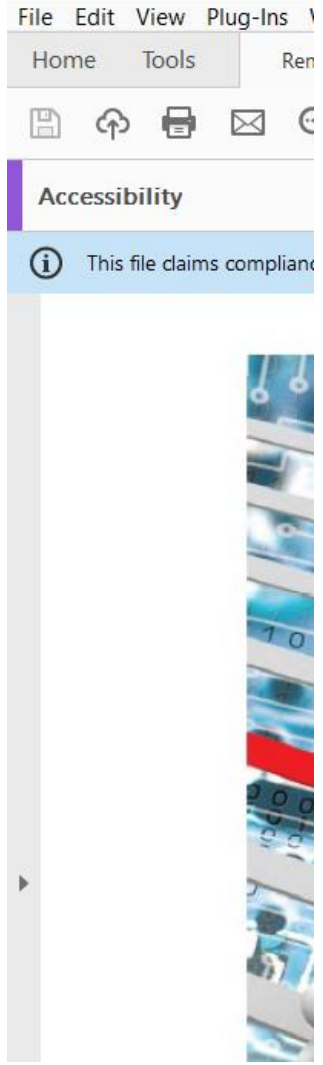




PDF Remediation: Getting started

1. Setup Adobe Pro on your system
2. Accessibility tools and Navigation items
3. May be displayed differently due to versions of Adobe Pro
4. Open a PDF document with Adobe Pro
5. Click on File -> Menu -> Tools -> Accessibility

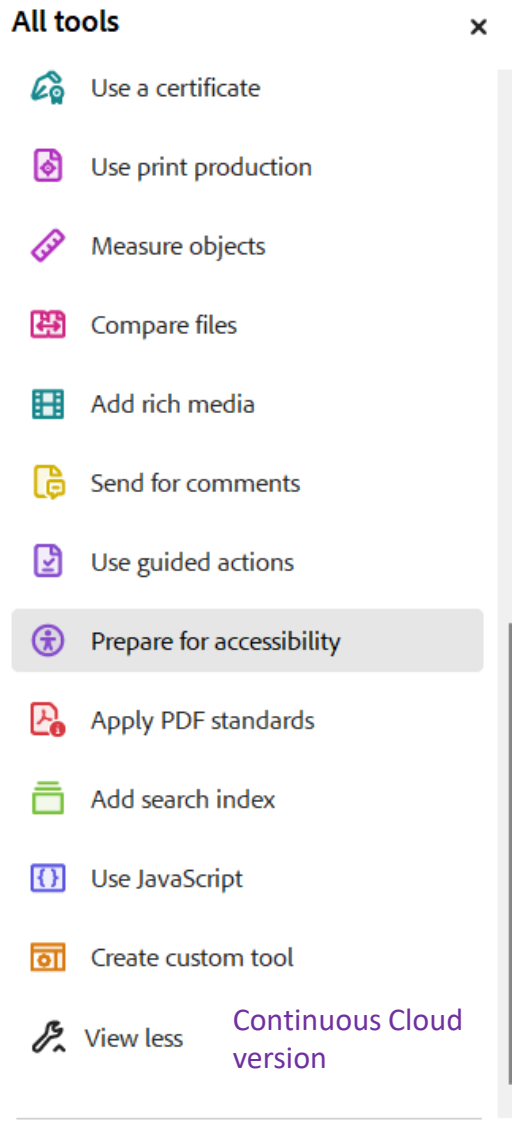




NOTE: Varies based on versions of Adobe PRO DC

Getting Started: Open PDF

- Adobe Pro DC continuous release version
- Open a “PDF” Document with Adobe Acrobat Pro DC
- Open the File
- Check for Menu
- All Tools
- Prepare for Accessibility



Remediating an Untagged PDF

- Check if you can access the source document – applies to complex docs
- Saves time to fix accessibility items in the word doc than fixing them in the PDF
- Auto tag document, helps with 70% of your remediation effort
- Remaining needs manual fix (depends upon the document structure)
- Manual fix option can be used when your doc is very old, has approval signatures, important notations, and for scanned contents that appear not so clear

Key Remediation Tasks

Reading order and color contrast items – needs a manual check

Tables – simple and complex types (used for data and to provide structure to a content)

Figures – provide alt text or tag them as artifacts

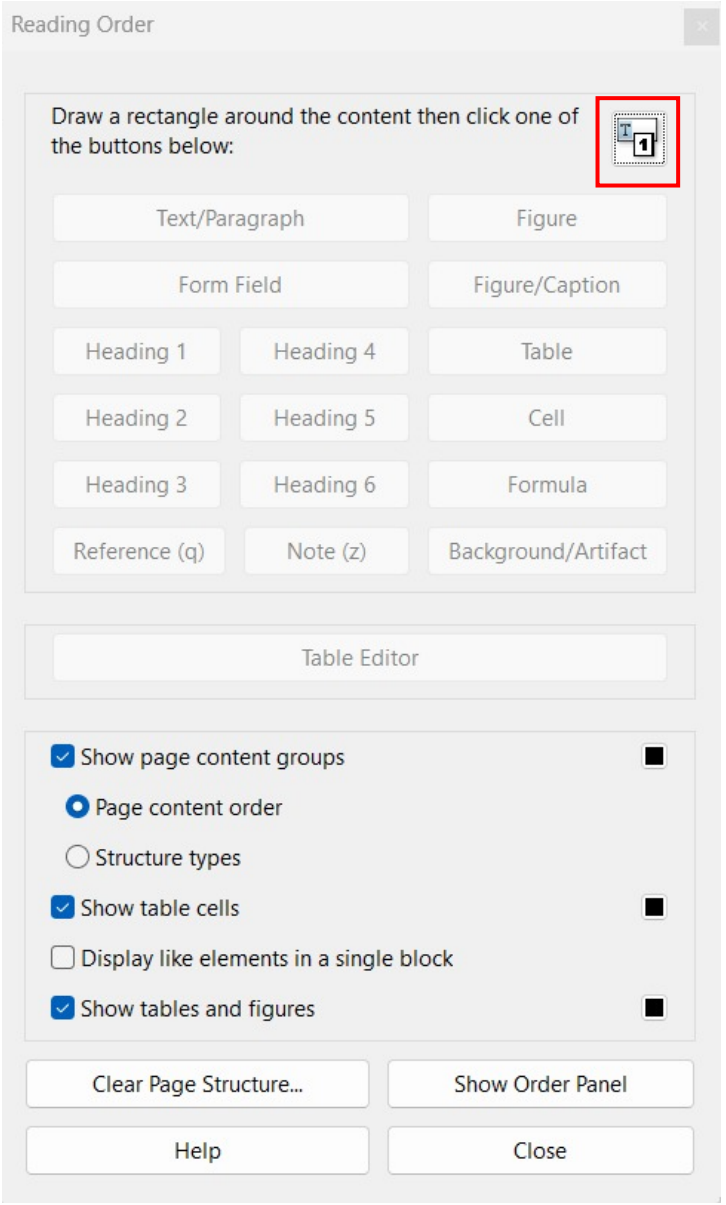
Lists – ordered (when numbered) or unordered (bullet points) types

Hyperlinks – check if the links are working

Extract scanned pages and tag them separately (using OCR)

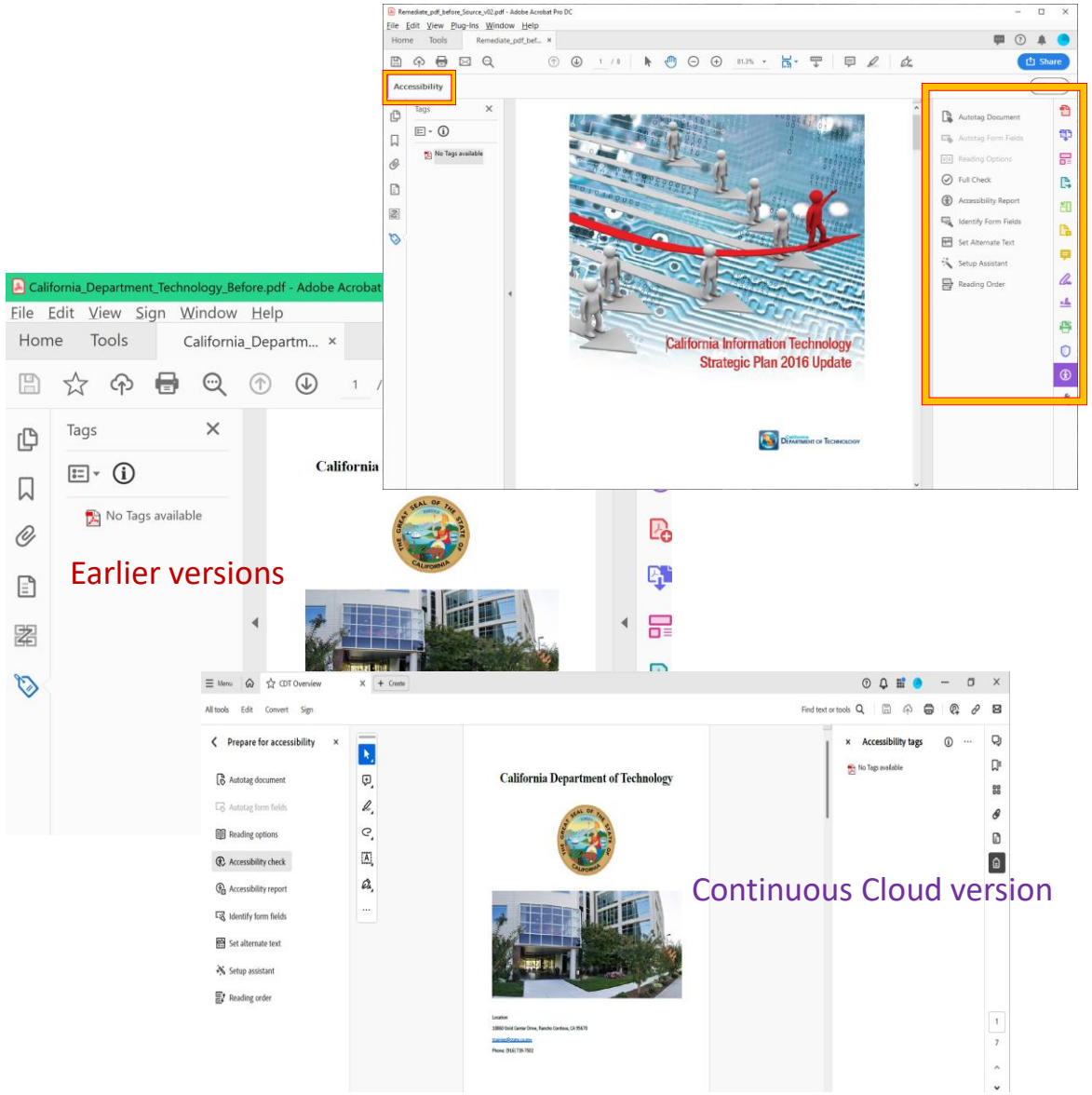
Reading Order panel

- Pick tag elements as shown on the touch up reading order panel
- Show page content groups
  - Page content order
  - Structure types
- Show table cells
- Display like elements in a single block
- Show tables and figures
- Clear page structure
- Show order panel



Untagged PDF

- No tags available indicates that the document in not accessible and not ADA compliant.
- Screen readers and Assistive Technologies may not be able to access untagged PDF contents.
- The cloud version shows the tags in the Right side and the Adobe Pro DC version shows in the left side



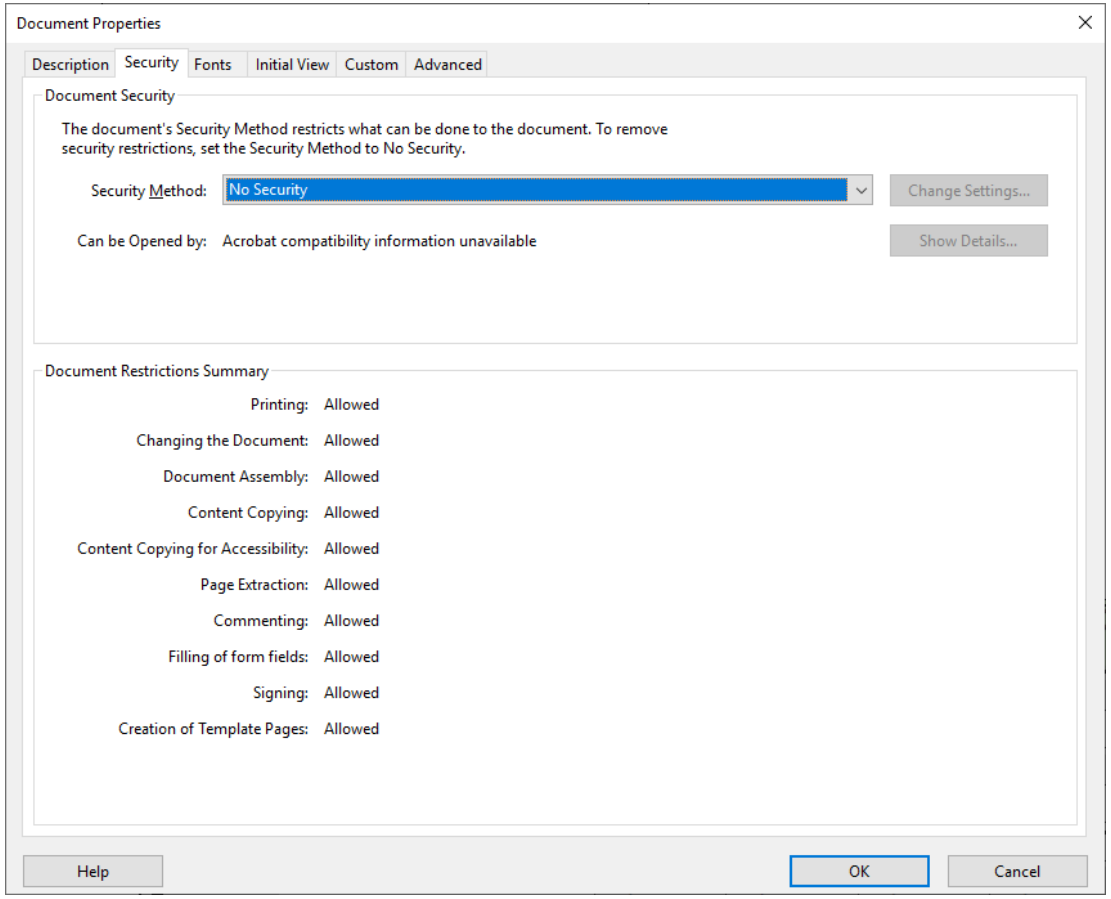
NOTE: Varies based on versions of Adobe PRO DC

PDF – Meta Data

PDF metadata provides additional information about a document like :

- Description tab
  - (Title)
  - Do not change the Author name
  - If there's none OK to leave it blank
- Initial view tab
  - Window Options -> Show -> Document title
- Advanced tab
  - Reading Options -> Select Language

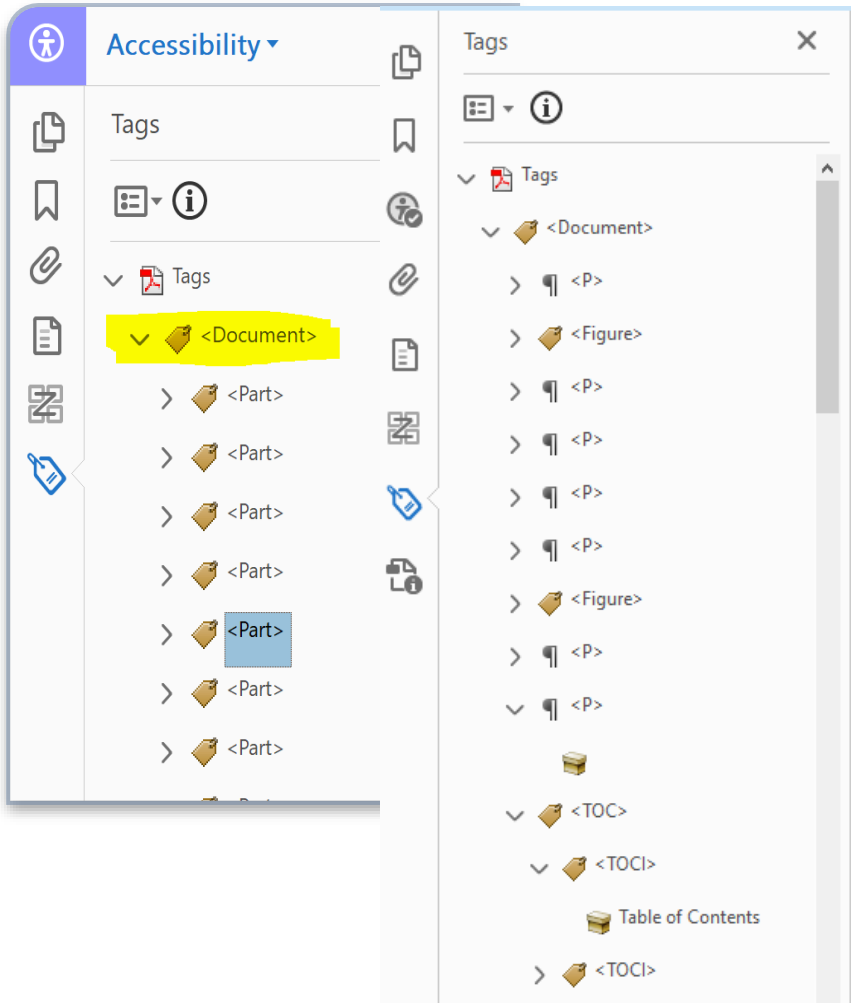
Description -> Look for history and the tool used to create the PDF



Tags – Naming Conventions

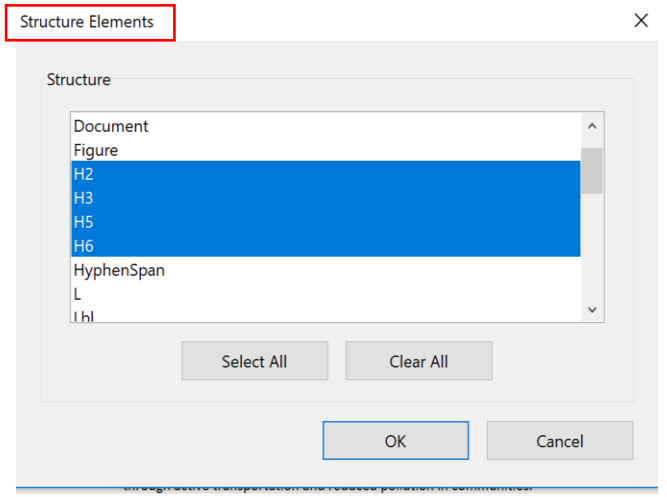
Container Tags - To group a set of tags together.

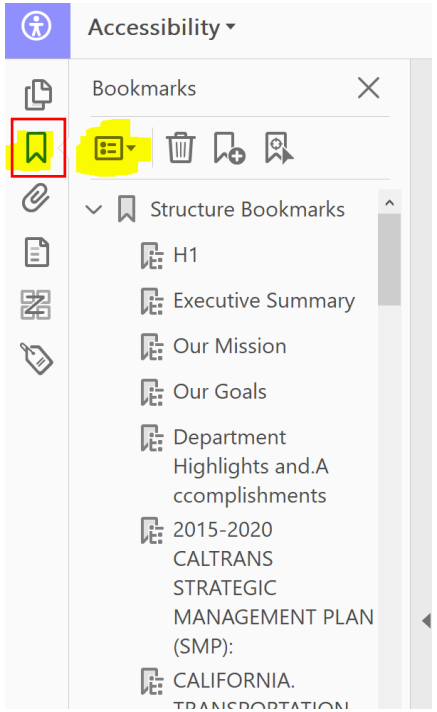
- **Document** - <Document> -> Root tag used to encompass all tags in the tag structure
- **Part** - <Part> tag used to encompass tags belonging to a page
- **Div** – <Division> tag used to group related content
- **Sect** - <Section> tag used to encompass related content tags in a Part
- **Span** - <Span> tag used for additional purposes
- **Paragraph** - <P> tag used for a block of text
- **List** – <L>, <LI>, <Lbl>, <LBody> used for link tags
- **Table** - <Table>,<TR>, <TH>, <TD> used for table tags
- **Link** - <Link>, <Link-OBJR> Link tags used for hyperlinks
- **Headings** – <H1>,<H2>,<H3> …. used for heading levels
- **Table of Content** - <TOC>, <TOCI>
- Do not delete tags that have content



Bookmarks

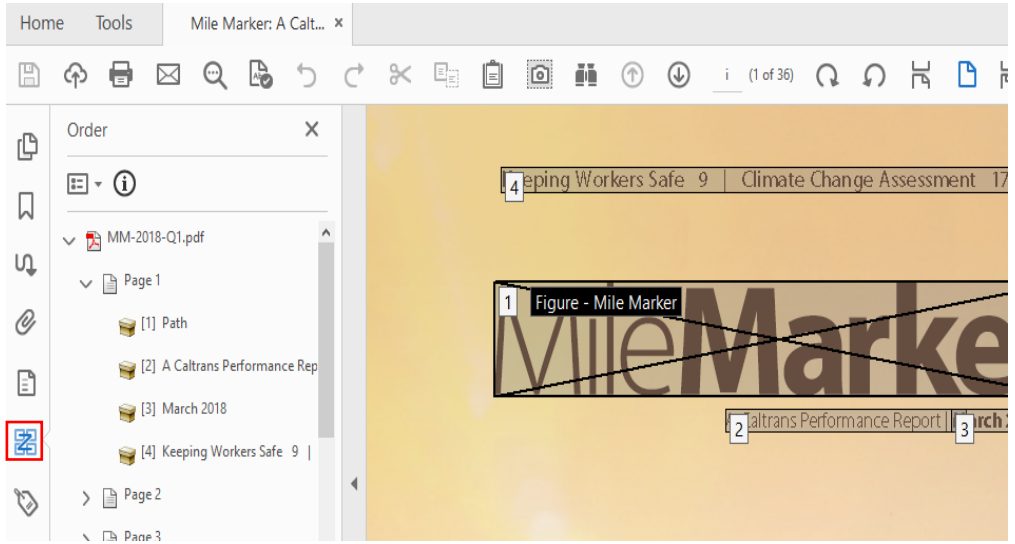
- Click on the bookmark icon, from the navigation panel
- Then click on the options dropdown and select “New bookmarks from structure”
- Select all headings in bookmarks options (H1 to H6)
- That will generate bookmarks for the whole document.

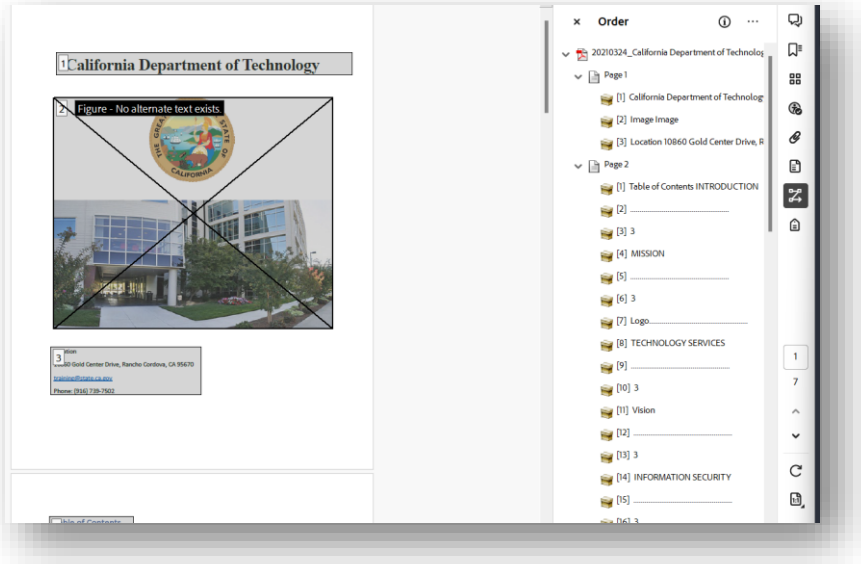




Order

- ‘Z’ looking icon helps review the page contents order
- Text to speech content is read by the assistive technologies as shown on the ‘Order’
- Update or reorder the page content on each page to follow a logical sequence
- Reading order should match with the tags tree order
- Screenshot items 1, 2, and 3 should come before 4.

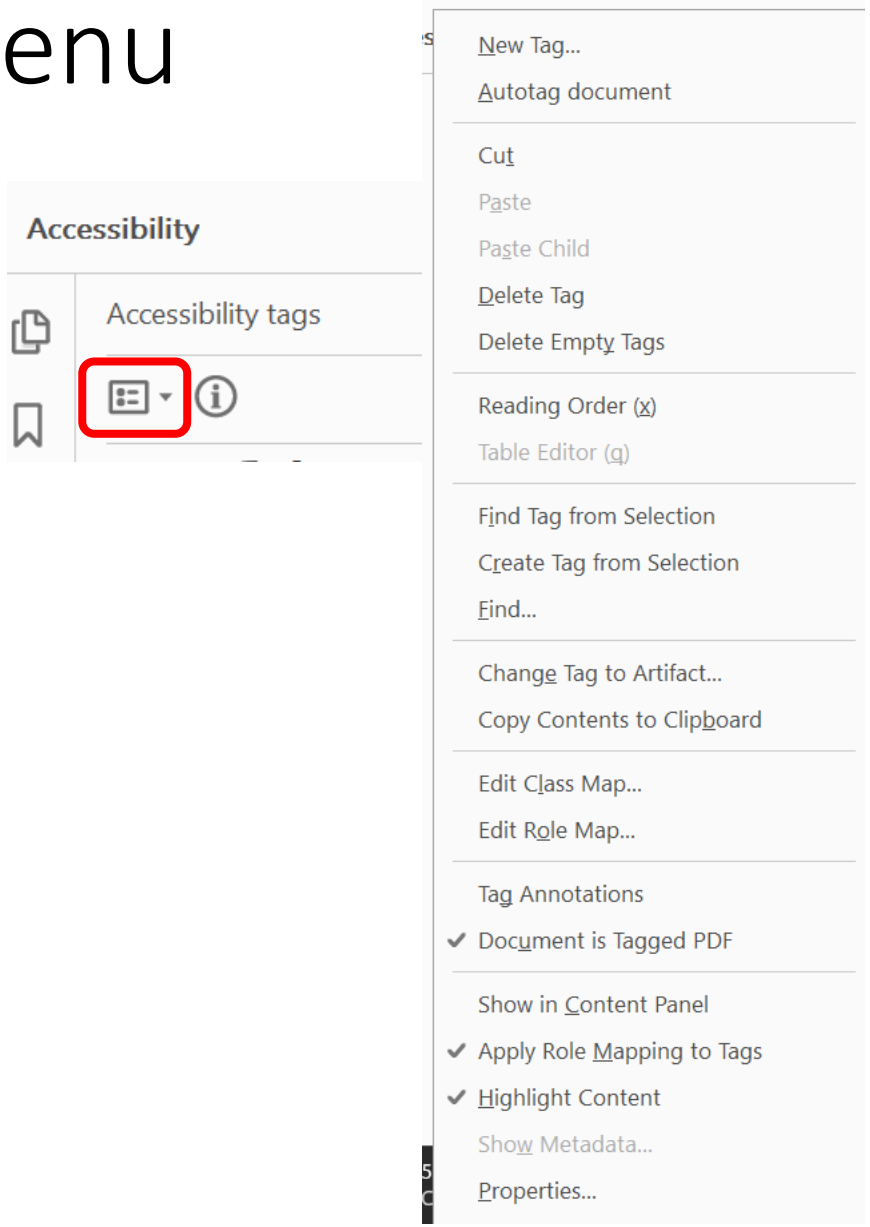




Continuous Cloud Version

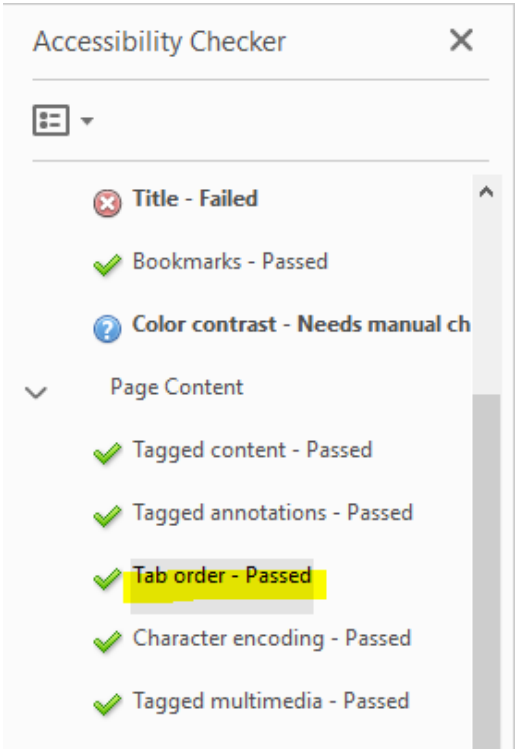
Accessibility Tags – Options Menu

- Tags helps us identify contents displayed on the page
- Variety of tasks can be performed using the options menu
- New Tag is one of the most common
- Run delete empty tags after Auto Tagging
- Caution – do not delete tags that have content in it.



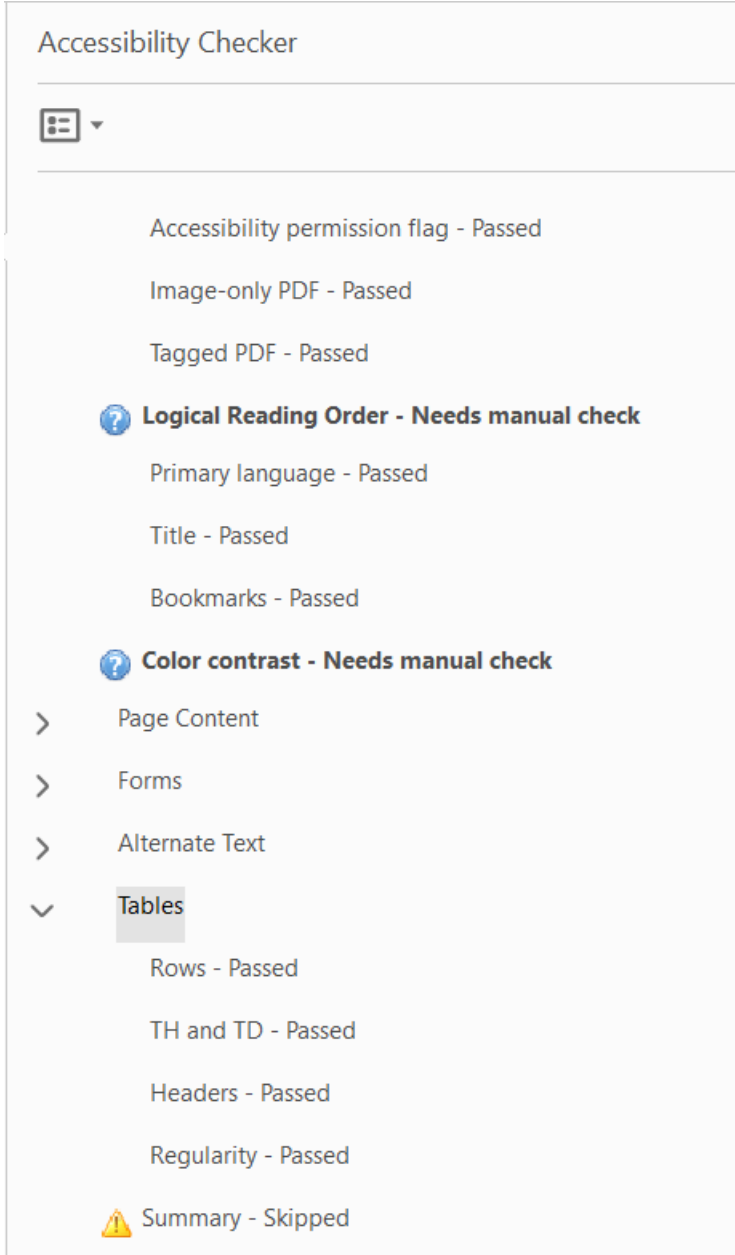
Tab Order

- Used for page navigation
- Mostly an automatic fix
- When you tab through the elements, make sure content is tab abled and it matches the reading order
- This can be an automatic fix in Adobe Acrobat (if not fixed, right click and select “Fix”)



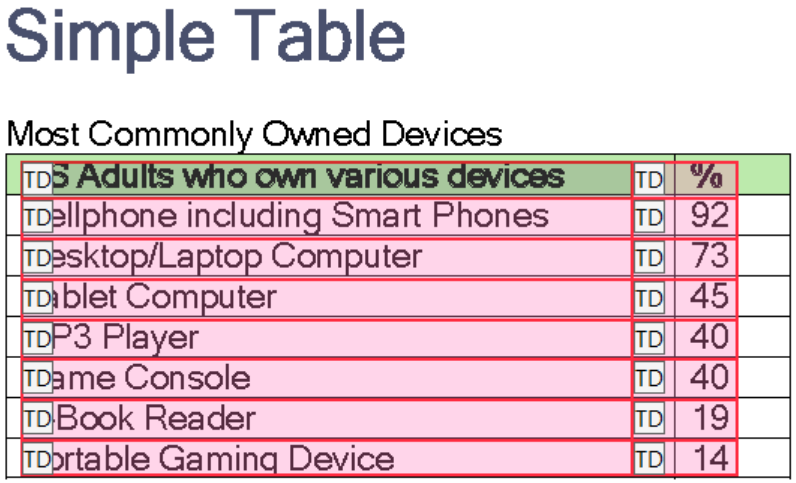
Tables

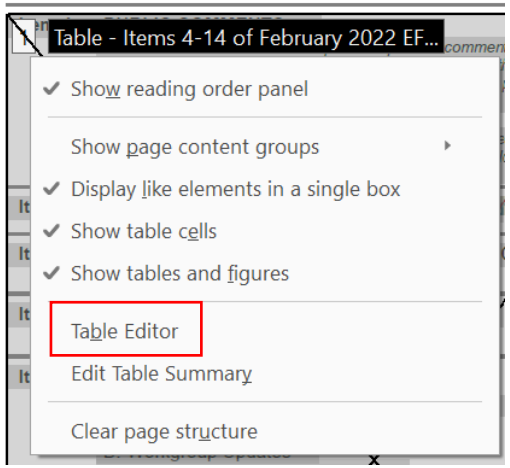
- Regularity failed- Most common issue (TR,TH tags may be missing)
- Accessibility checker report for tables may not be accurate so a screen reader might be required
- Tables are often complex hence needs manual check, table tags for additional details (scope and span)
- Table Summary is Optional

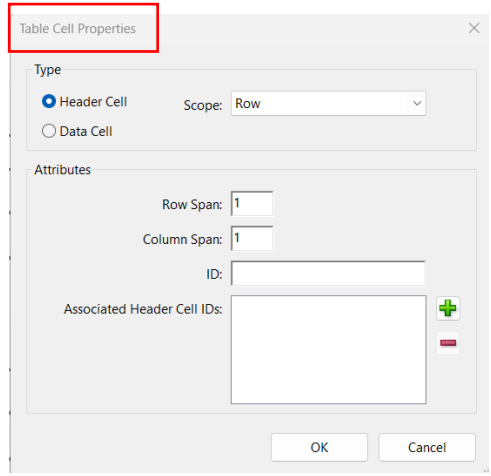


Tables – Rows and Columns

- Look for merged and split cells in a table
- Define the type and attributes for rows and columns (TH, TR, TD)
- Insert ‘THead’ and ‘TBody’ tags for tables that has no data
- Using touch up reading order panel, click on the Table Header ->table cell properties ->set scope and span for a row or column as desired

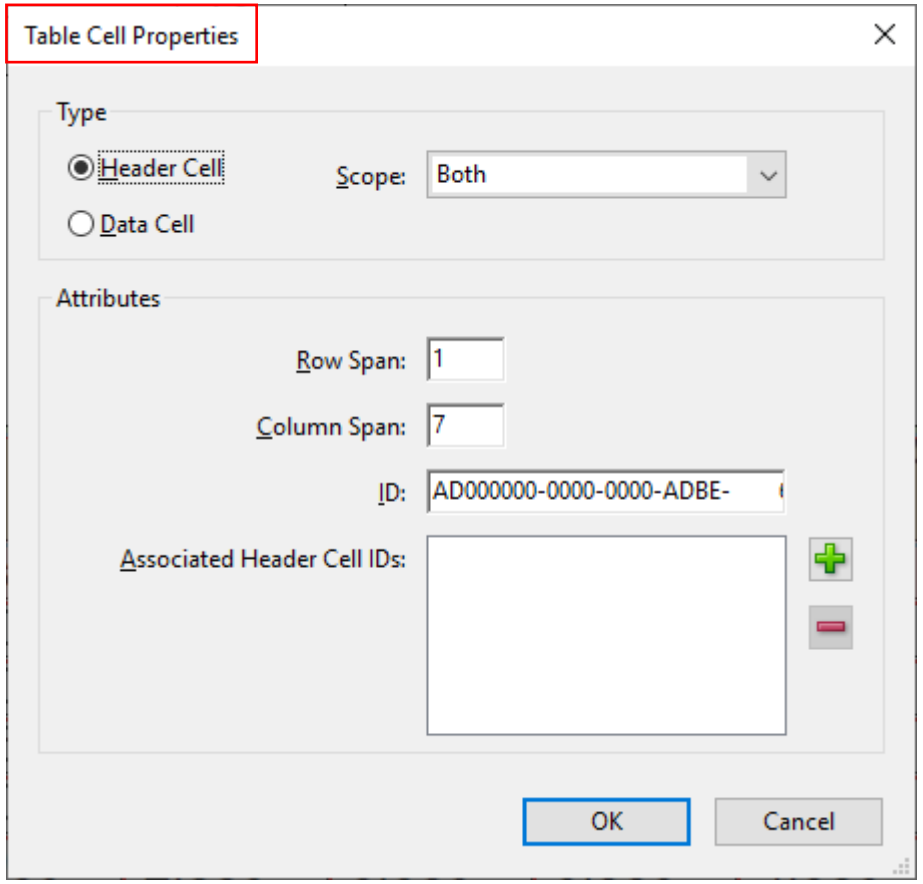






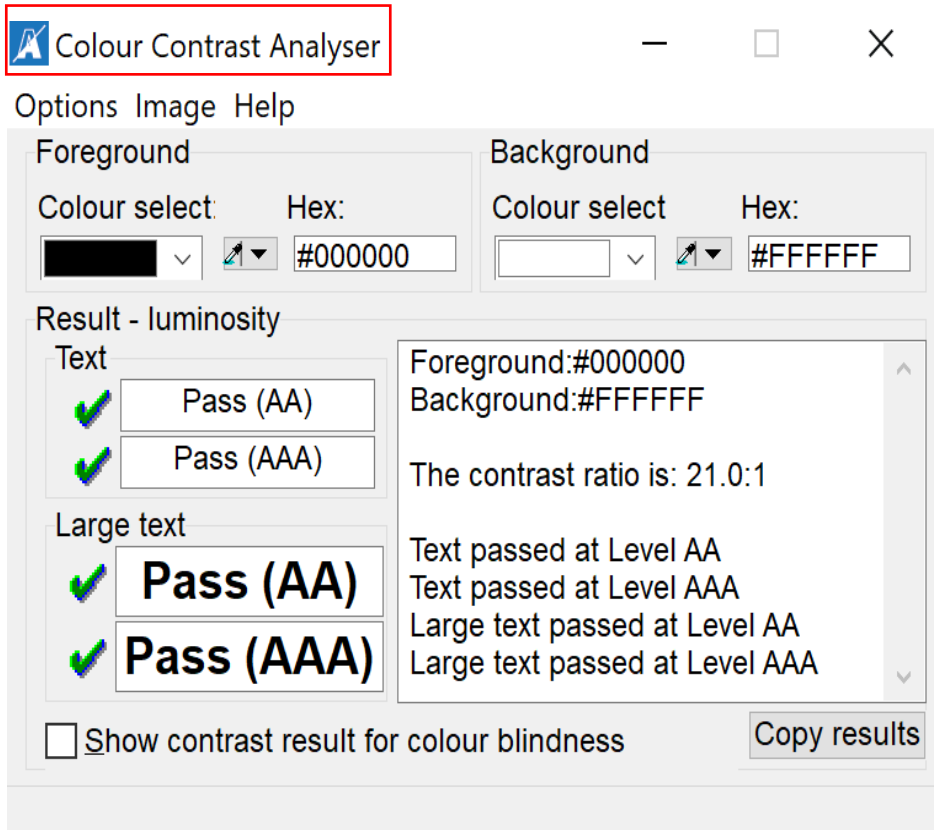
Tables – Screen Reader

- Data Tables
- Ensure the table headers are properly tagged with scope and column/row spans.
- As you navigate right and left do you hear the different column headers with NVDDA/JAWS?
- As you navigate up or down the table, do you hear the different row headers?



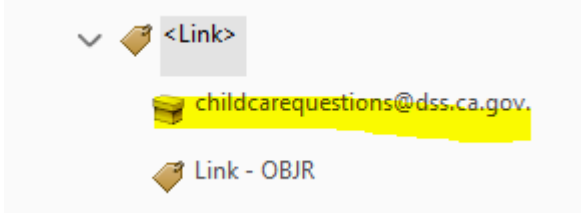
Color Contrast – Manual check

- Use Color Contrast Analyser tool
- Check for text and numbers when shown in color
- Contrast ratio between your text and background is at least 4.5:1
- Use a light background and dark text or vice versa



Links

- Links must be associated with content, or they will not be screen reader accessible

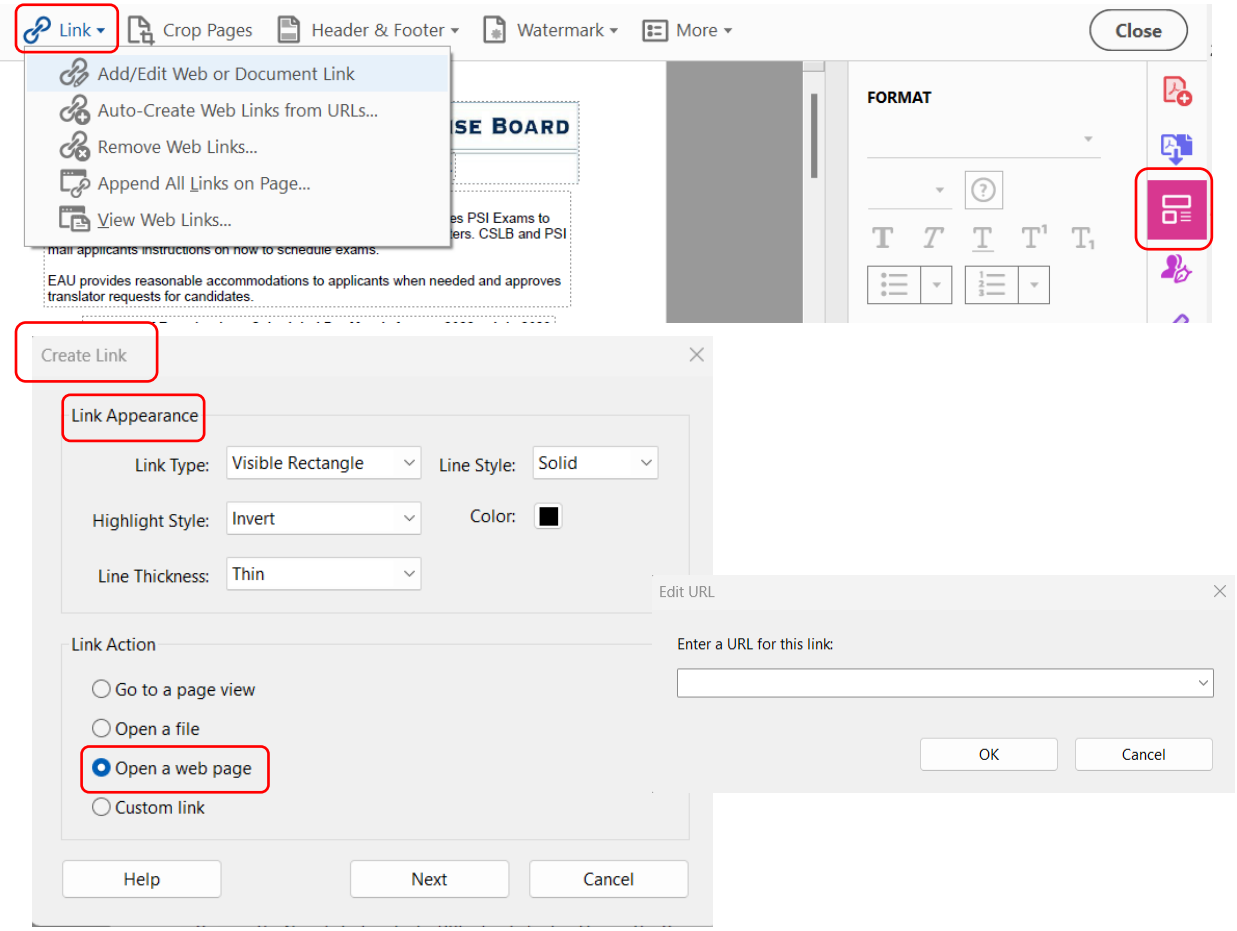


- Tab to all links and ensure they are both keyboard and screen reader accessible.

- Links must have proper URL structure good practices:
  - www.cdt.ca.gov
  - mailto: govt@tcrest.com

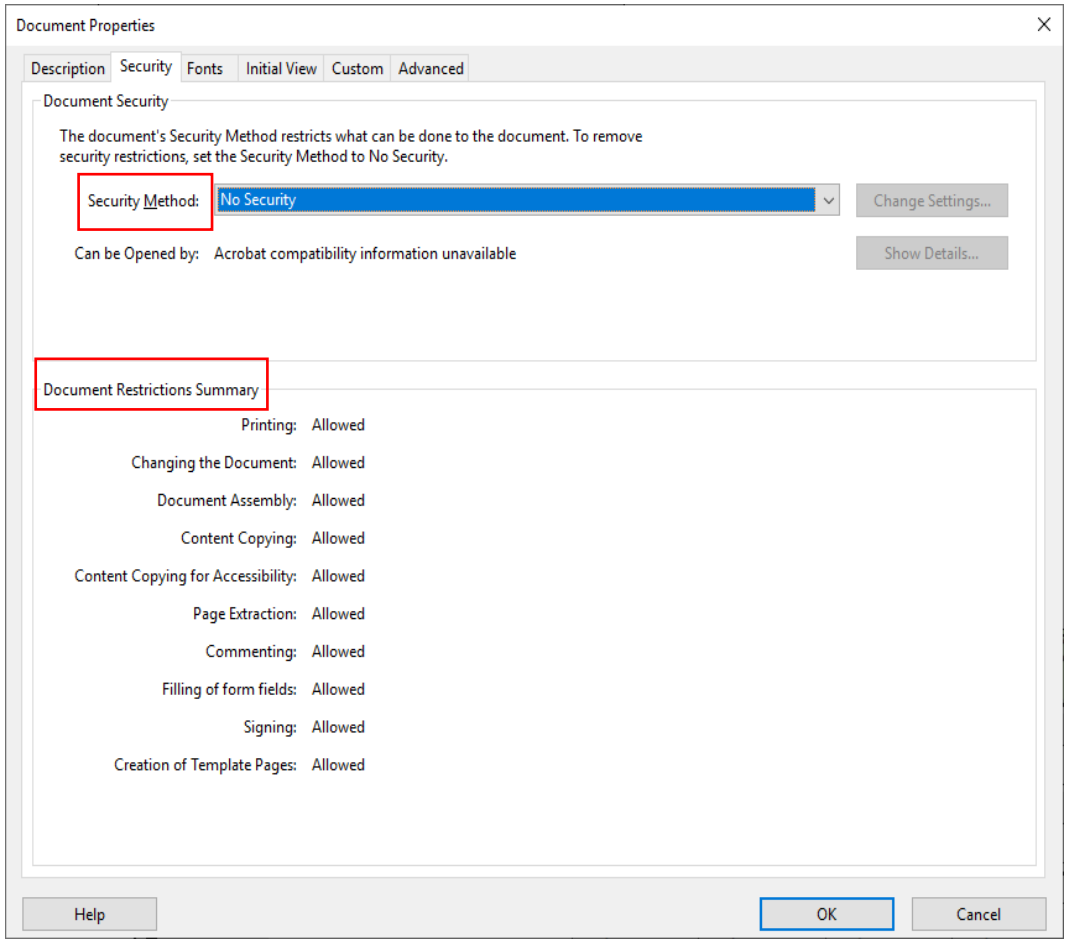
Create link

- Open Edit PDF from the navigation panel
- Select Link tool and the menu item
- Draw a rectangle around the text
- Create link window pops up
- Select and fill in details -> Link action -> Open a webpage -> Next -> Edit URL -> Enter a URL -> Close edit PDF window and save PDF
- When the PDF is opened the link and the contents are automatically updated



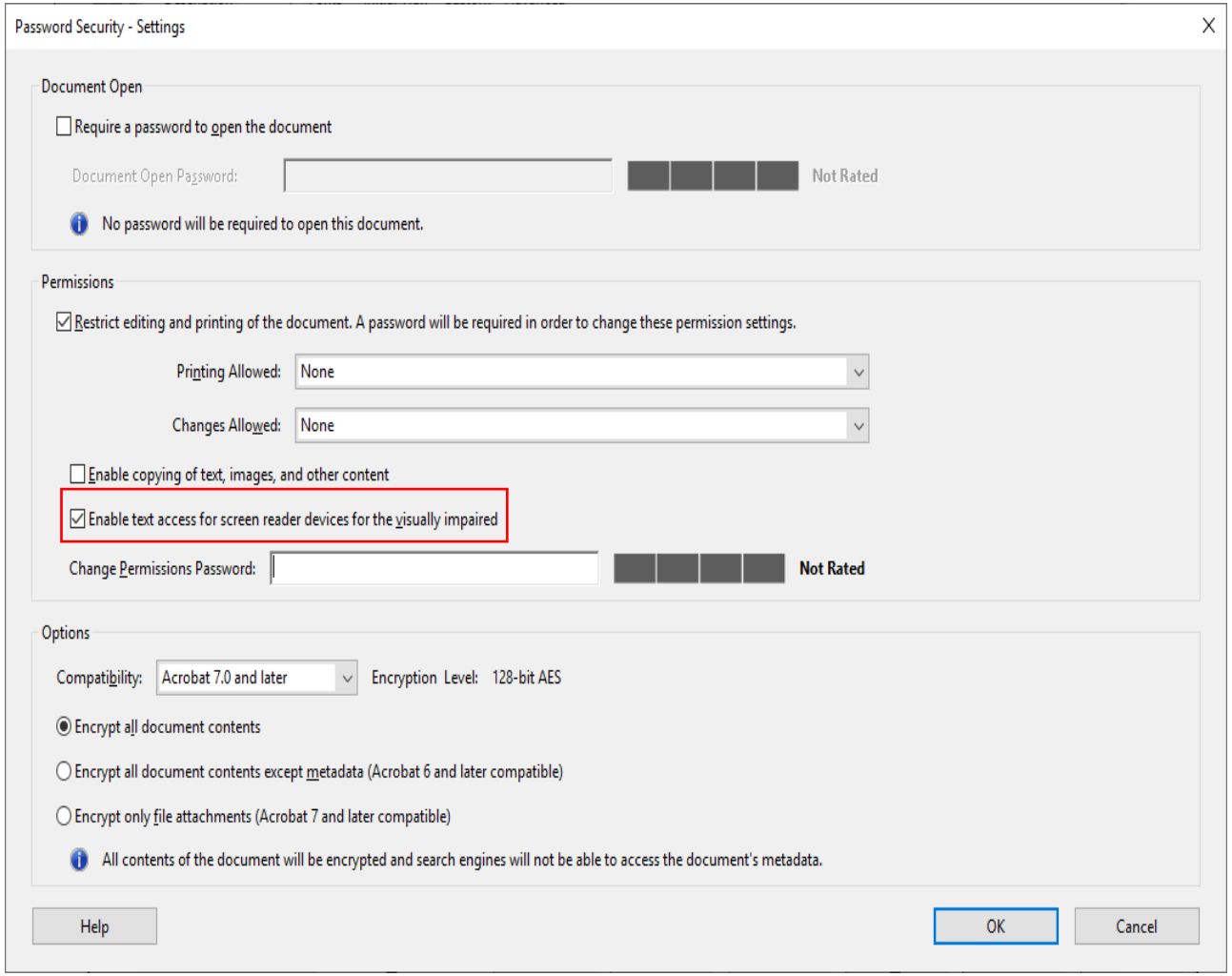
PDF – Security Settings

- From the main Menu Choose File > Properties
- Ensure Security is Set Properly
- If document has security applied ensure that the check box to enable screen reader access is checked



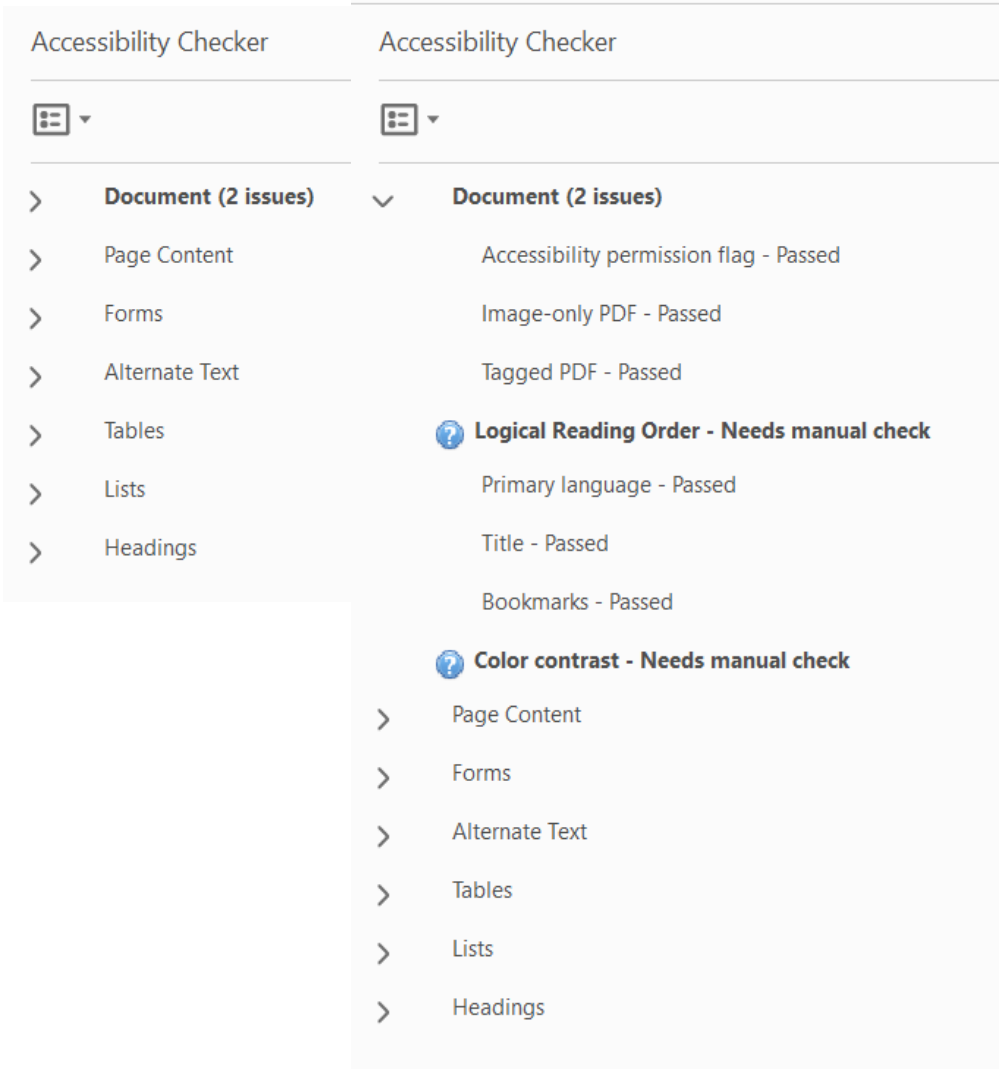
PDF – Security Settings cont.

- When fillable form fields are present, ensure “Changes Allowed” set correctly.
- PDFs posted on the public facing websites usually do not have confidential info.



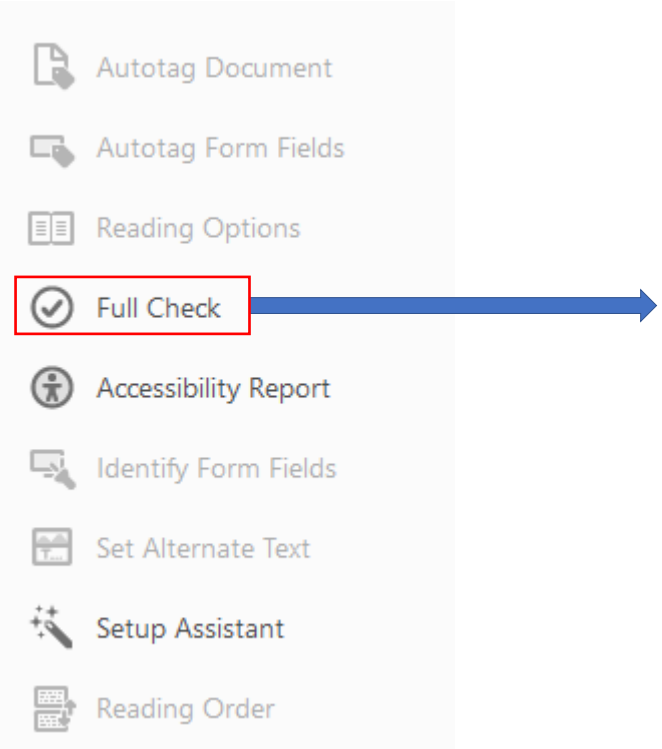
Accessibility Testing

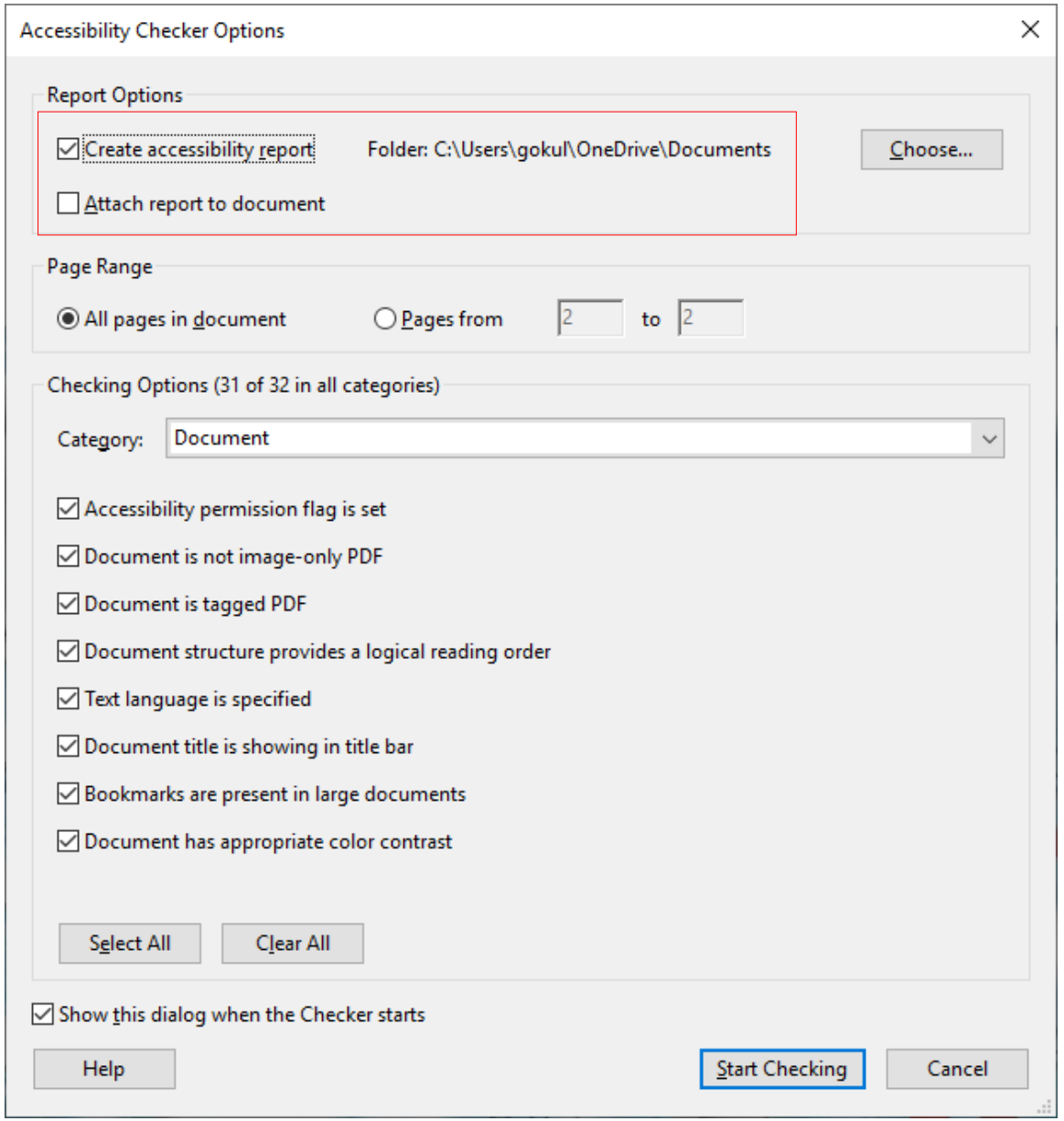
- Solve all the issues
- Fix all errors to get an Adobe Pass
- Manual testing required for
  - Logical Reading Order
  - Color contrast



Testing – Full Check

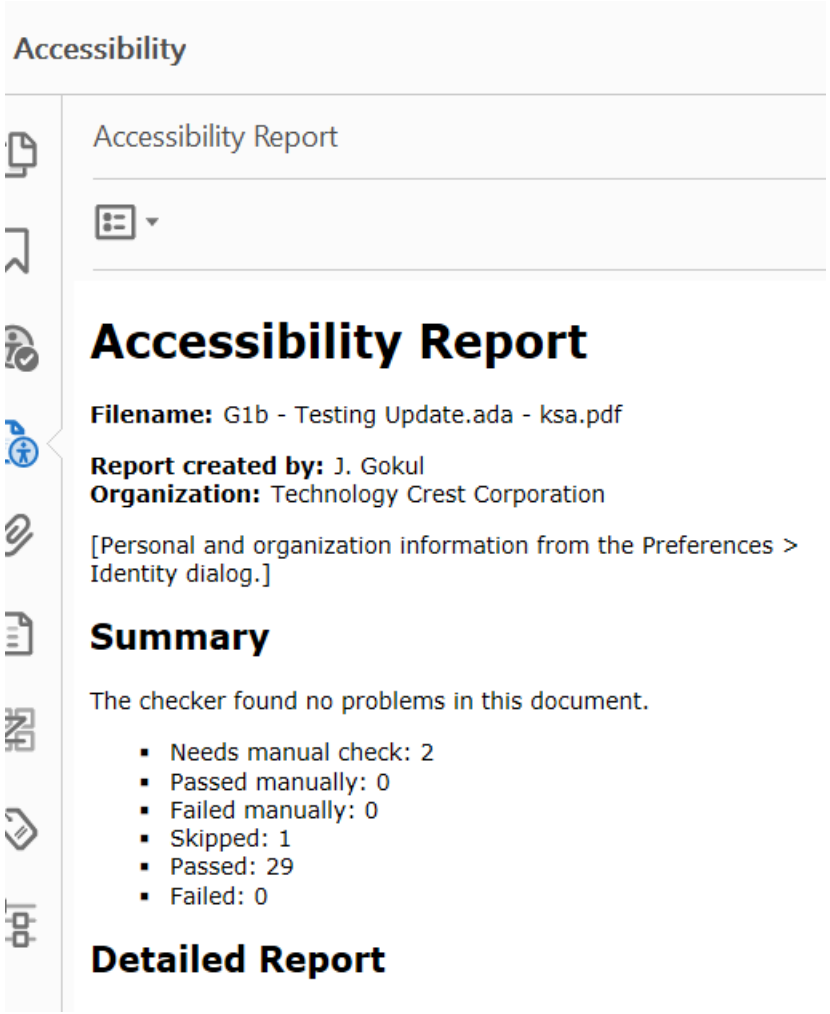
- Run the Accessibility Full Check and Correct Errors





Accessibility Report

- After fixing accessibility issues review Accessibility Report
- Provides a summary and detailed report
- Accessibility report can be run anytime to get an idea on the level of effort



Screen Readers

- Listen to the Screen Reader when testing document contents
- JAWS: Licensed tool
- Usage Tips: Refer to http://webaim.org/resources/shortcuts/jaws
- NVDA: Open-source tool
- Usage Tips: Refer to http://webaim.org/resources/shortcuts/nvda
- Alt text Resources http://diagramcenter.org/table-of-contents-2.html
- Help: https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html

Thank you

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