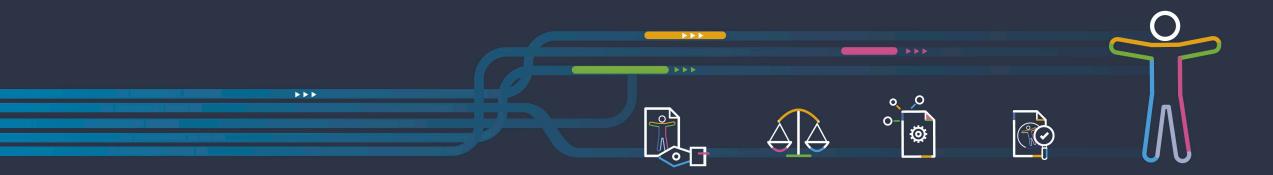
ACCESSIBLE PUBLISHING

CHECKING ACCESSIBILITY OF PDF FILES



Maria Jerez

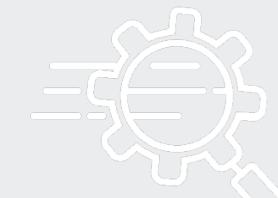




Accessible publishing webinars



- Introduction to accessibility
- Checking accessibility of PDF files
- Creating accessible publications with Word
- Using Eurolook templates to create accessible publications
- Creating accessible PDF from InDesign
- Creating accessible presentations with Power Point
- Writing effective alternative texts
- Accessibility do's and don'ts in social media



Contents



- Checking the accessibility of a PDF file
- Checking the colour contrast
- Screen readers
 - NVDA



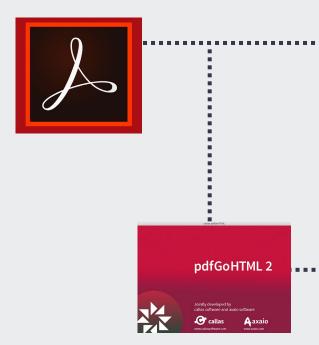
1

Checking the accessibility of a PDF file



Tools to check a PDF





Adobe Acrobat Pro (Windows and macOS)

- Metadata
- Alternative texts
- Tags panel
- Order panel
- Accessibility checker

Plug-in Callas pdfGoHTML 2 (Windows and macOS)

- Screen reader preview with tags
- Can check tags reading order and alt text



PDF Accessibility Checker (PAC 2024) (Windows)

- PDF/UA and WGAG standards compliance
- Screen reader preview with tags (similar to Callas pdfGoHTML 2)

Characteristics of accessible PDFs



- Basic requirements
- Metadata
- Navigation
- Text
- Figures
- Structure
- Reading order
- Colour contrast



Basic requirements



- Document is tagged.
- No encryption / No password protection.
 - Except if specially configured for reader devices.
- Initial view: Bookmarks panel and page.
- Magnification: Fit page.
- Document title displayed in the PDF title bar.
- PDF compliant with PDF/UA standard.



Metadata



- Title
- Author
 - Usually the name of institution, agency or DG.
- Primary language of the publication
 - A PDF document can only have one primary language.
- Subject and keywords



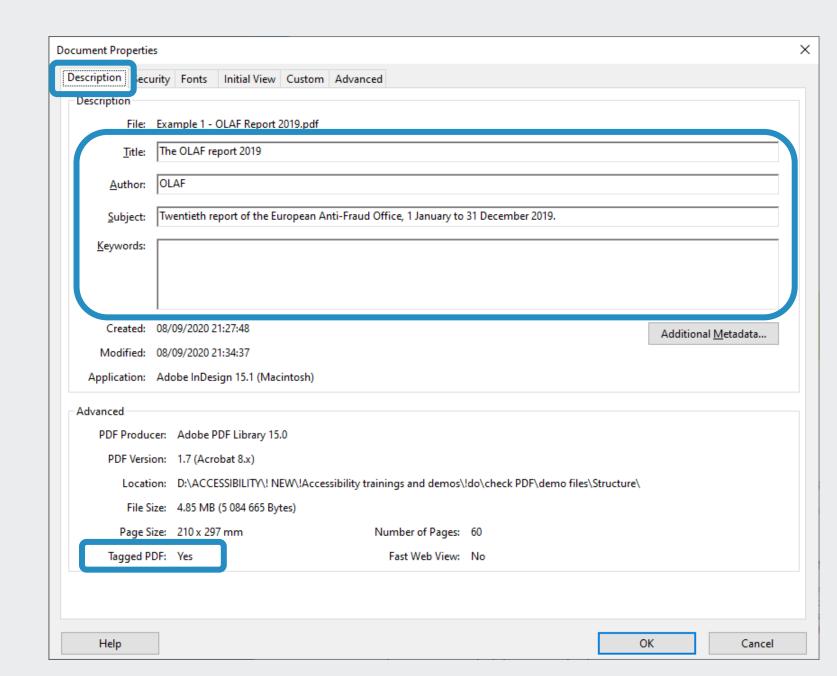
Properties: Description tab

Metadata

- Title
- Author
- Subject
- Keywords

Basic requirements

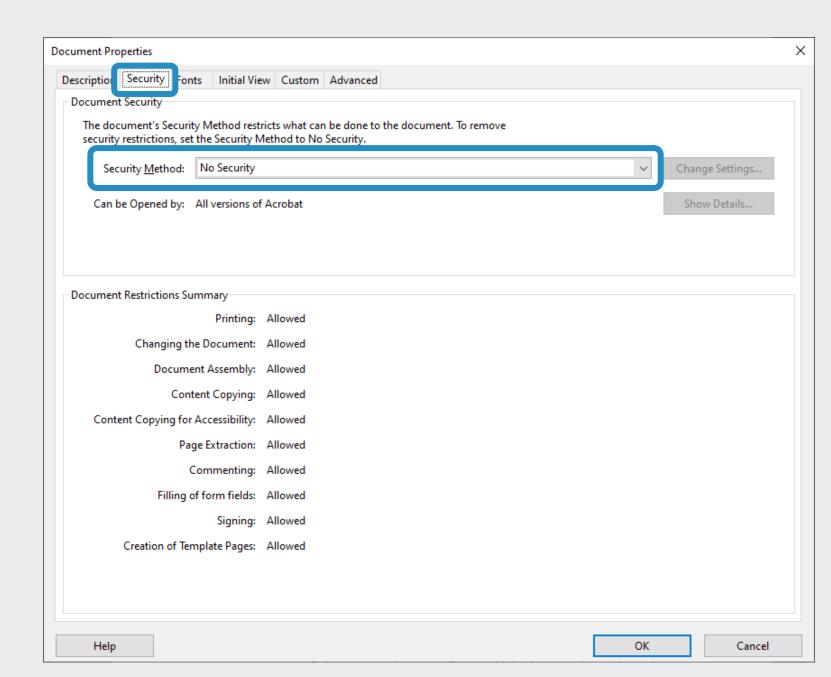
Tagged PDF



Properties: Security tab

Basic requirements

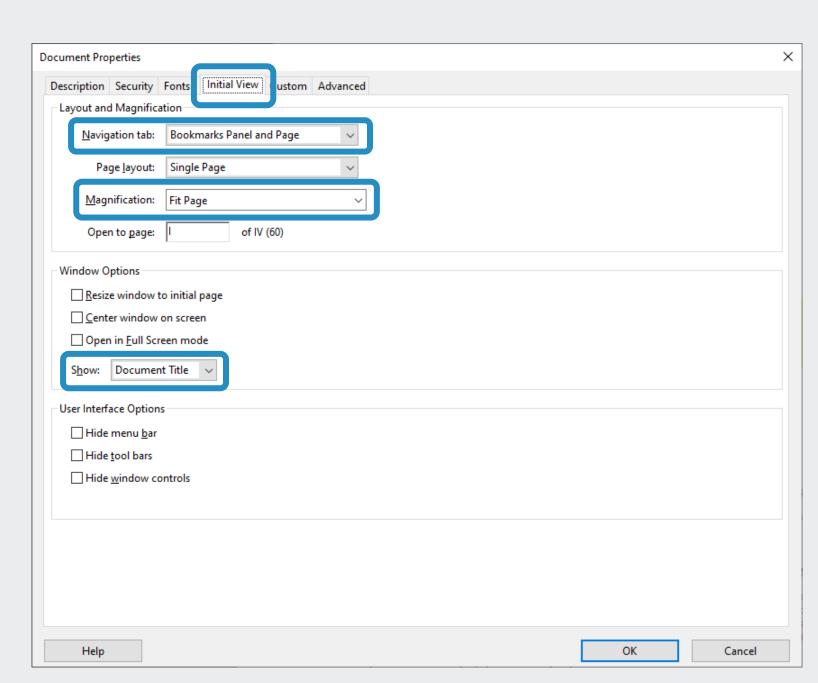
- No encryption
- No password protection



Properties: Initial View tab

Basic requirements

- Navigation tab:
 Bookmarks panel and page
- Magnification: Fit page
- Show: Document title



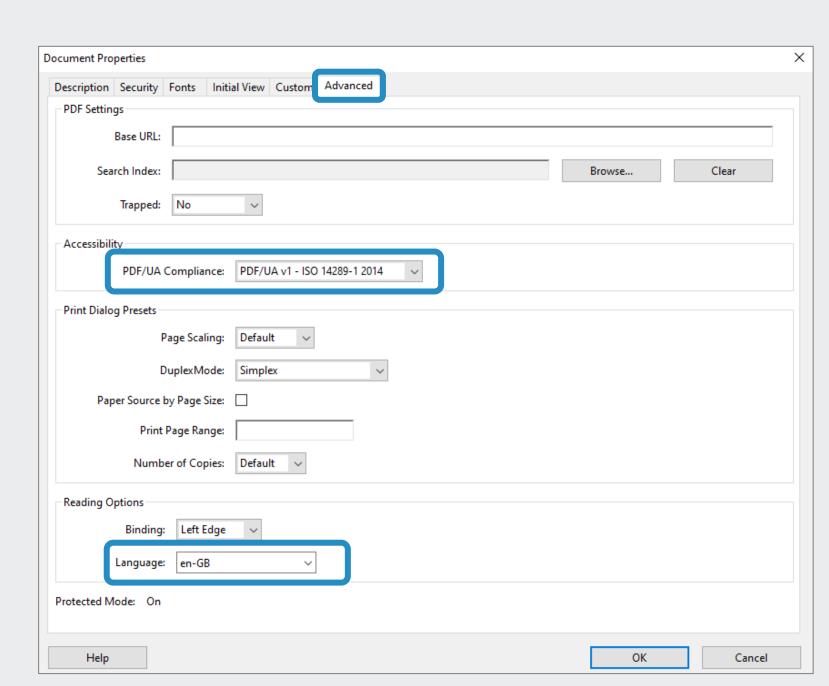
Properties: Advanced tab

Basic requirement

• PDF/UA compliance.

Metadata

 Primary language of the publication



Navigation



- Table of contents
 - Represents the structure of the publication and have links to the content.
- Bookmarks
 - Represent the structure of the publication and have links to the content.
- Internal crosslinks
 - Index, list of tables, list of figures...
- External hyperlinks
 - Applied to a meaningful text describing the link.
 - Not just to the web address.
 - Not "link to", "click here" or "more information".



- Text ≠ image
 - Selectable and can be copied as text in a text editor.
 - No text converted to image, except:
 - Part of a decorative element.
 - Part of a graph with an alternative text.
- Font size
 - -Font size is readable.
 - -Recommended minimum size

Body text: Arial 12 pt.

Footnotes: Arial 9 pt.

- Other recommendations
 - Sans-serif fonts.
 - Avoid cursive and fantasy fonts.
 - Limit the number of fonts to a maximum of 2 or 3.

Images



Meaningful images and charts

- Need an alternative text.

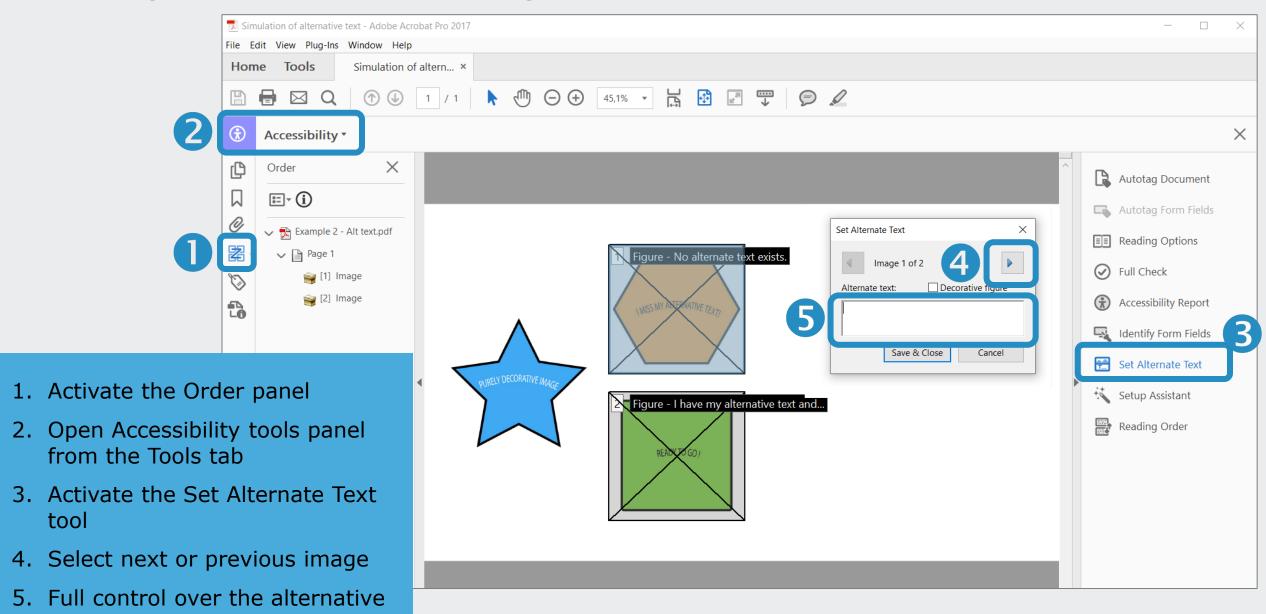
Artifacts

– Decorative images excluded from the reading order.



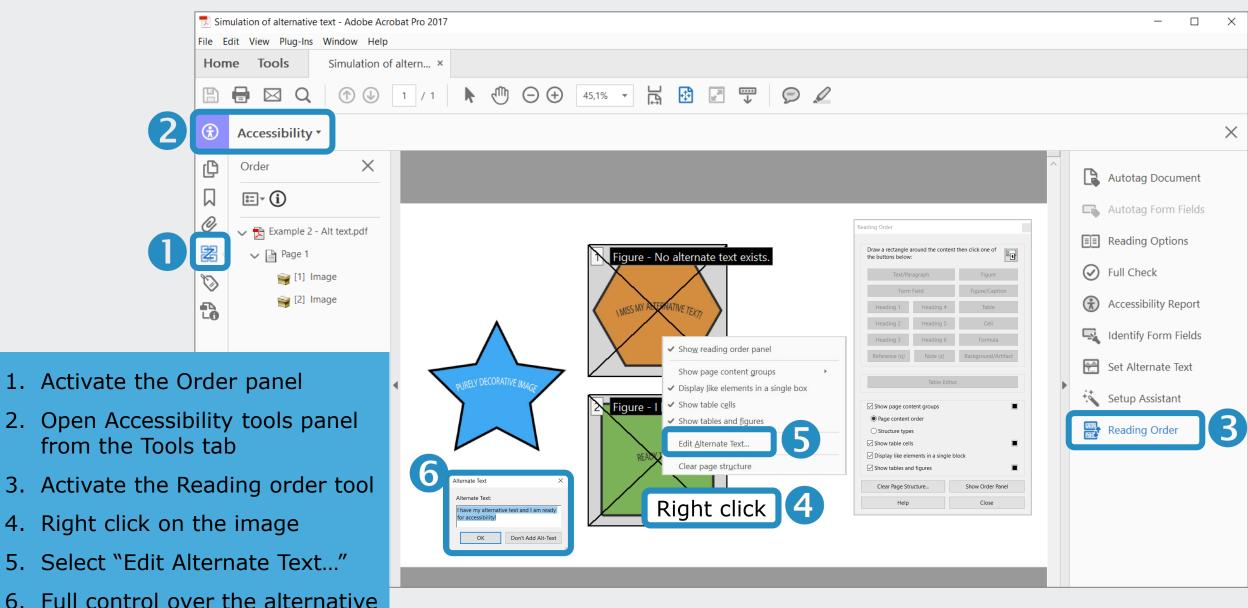
Checking alternative text for images

text



Checking alternative text for images (2)

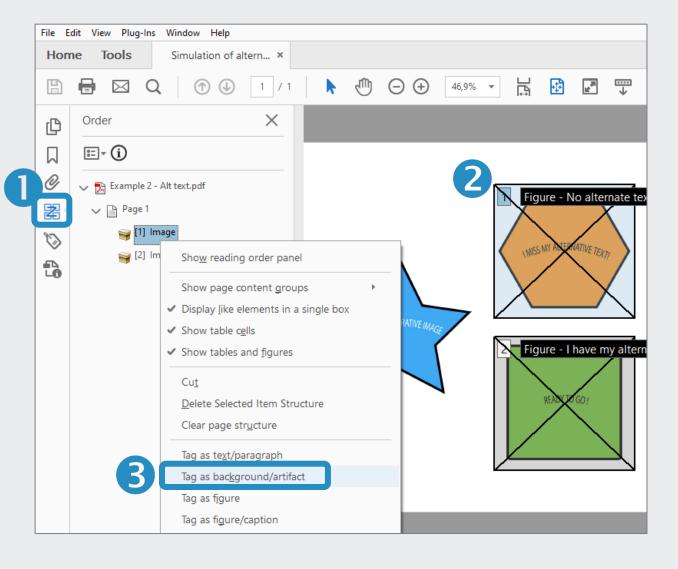
text

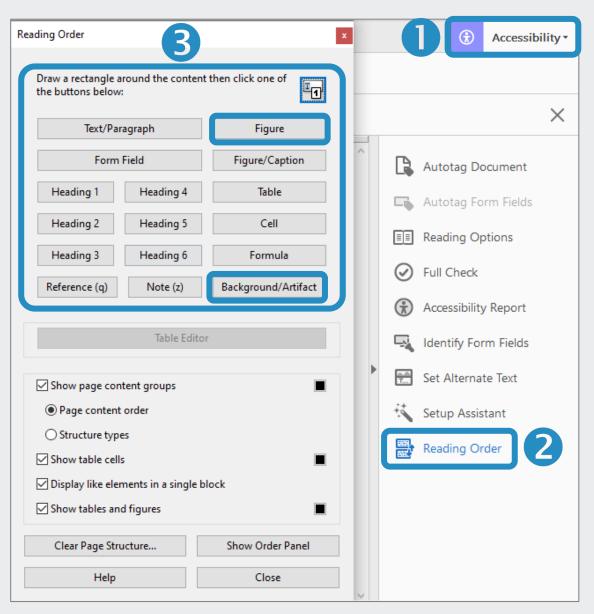


Tagging an image as an artifact

Option 2

Option 1

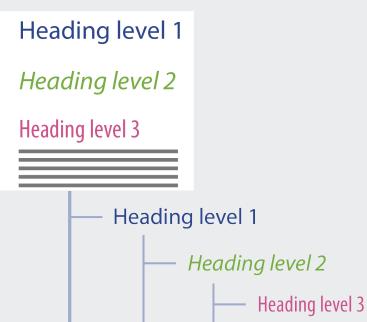




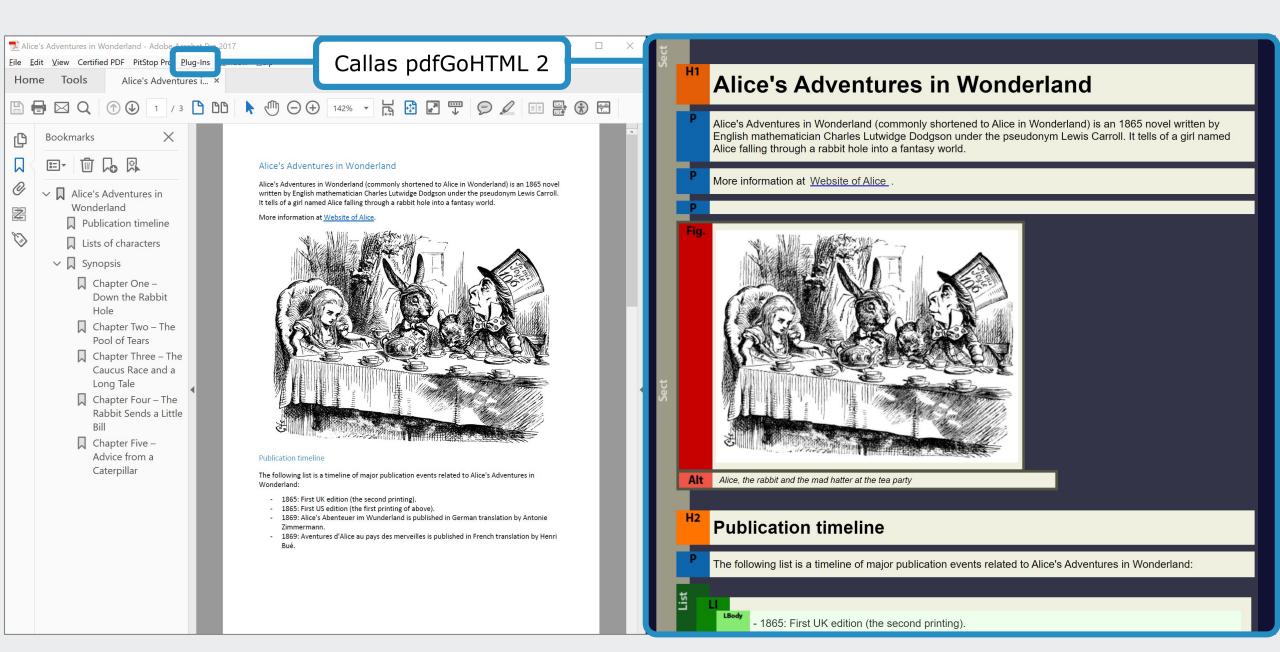
Structure



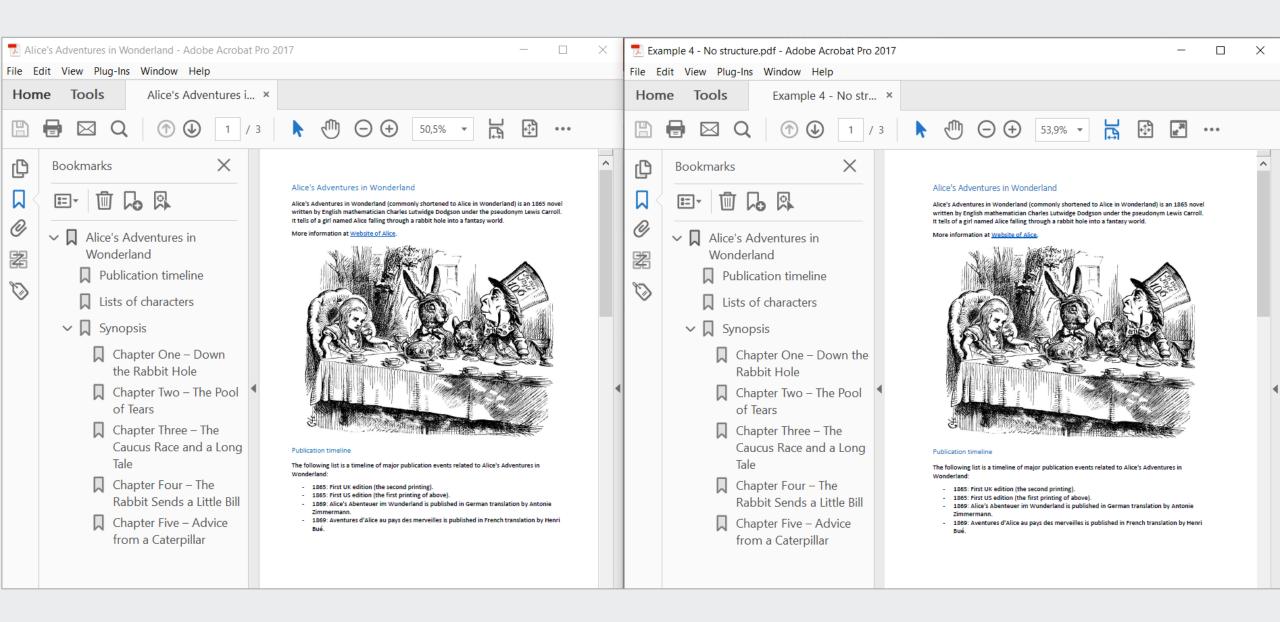
- Headings
 - Tagged as headings.
 - They are properly nested.
- Lists
 - Tagged with list tags.
 - The nesting of list items represent the list structure.
- Tables
 - Tagged as tables.
 - With a header row.
 - Not used for the layout purposes.



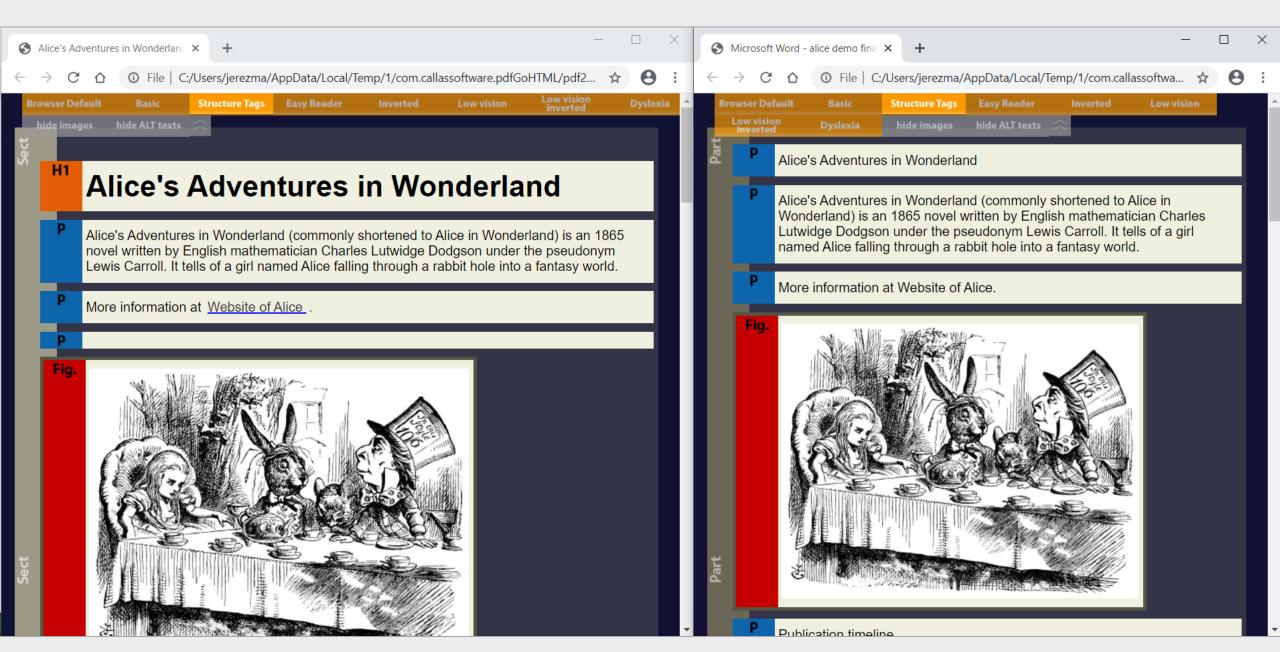
Checking the structure with Callas pdfGoHTML 2



Structure versus no structure: Acrobat Pro



Structure versus no structure: Callas pdfGoHTML 2



Reading order









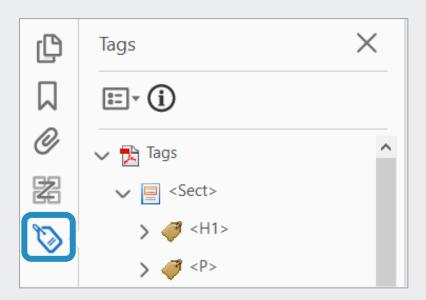


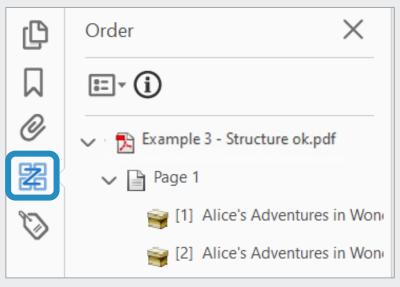
Reading order (2)



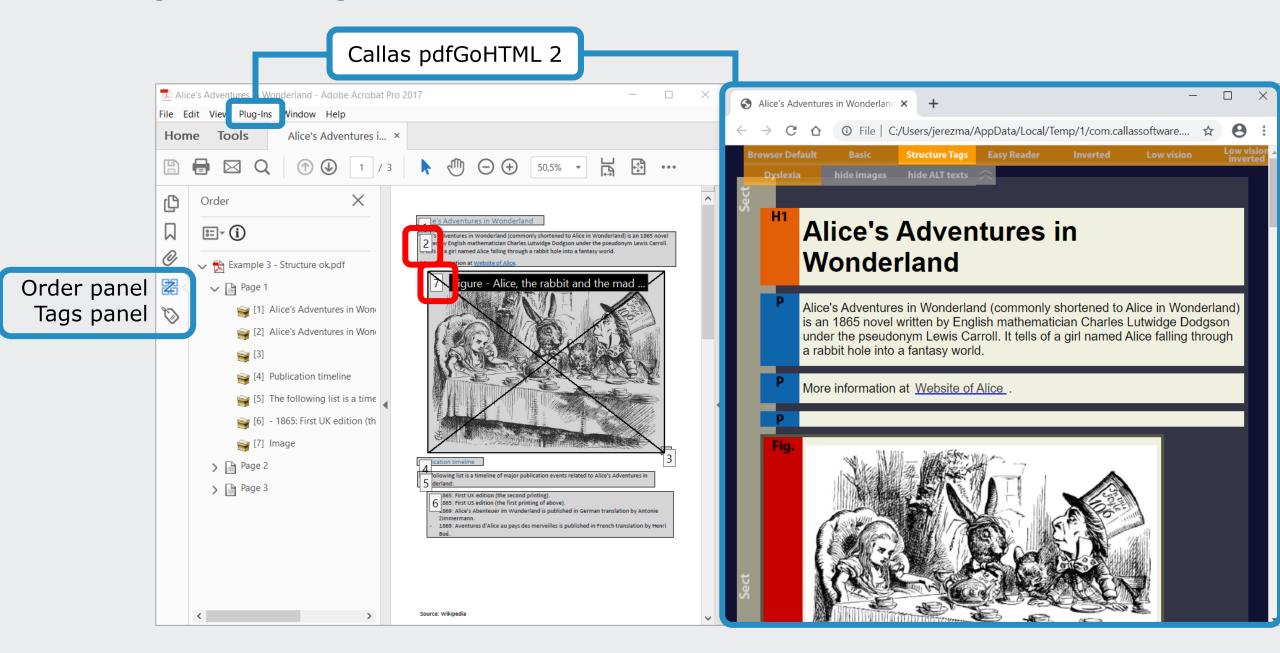
- Tags reading order
 - The order of the tags in this panel corresponds with the logical reading sequence.
- Layer reading order
 - The order of the elements in this panel represents the logical reading sequence.

- Other reading orders
 - Top to bottom.
 - Left to right.



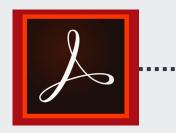


Checking the reading order



Automatic accessibility checkers





Adobe Acrobat Pro Accessibility Checker





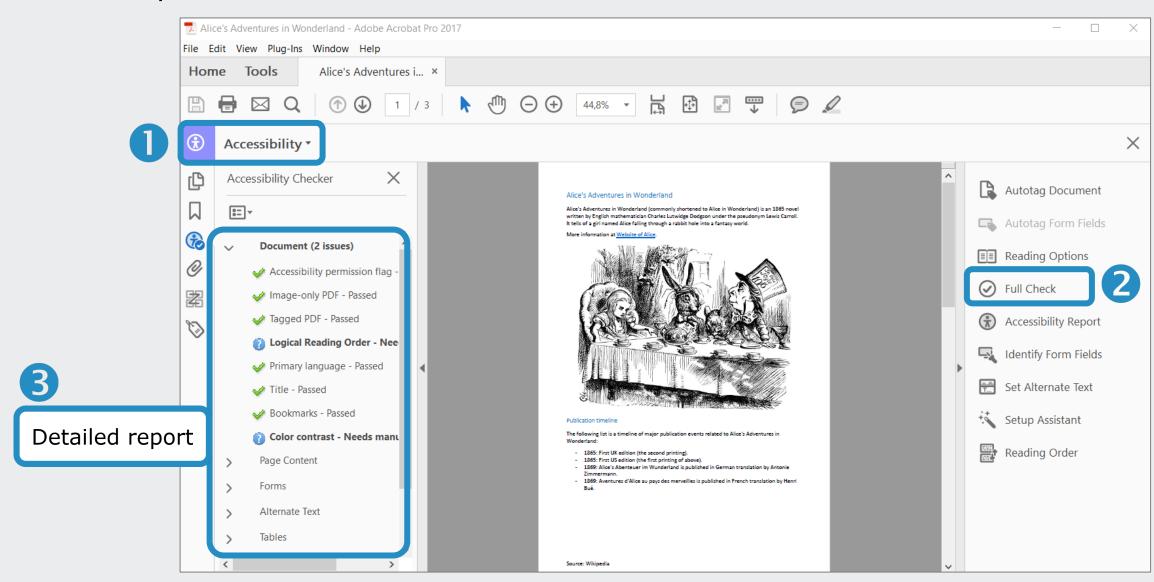
PDF Accessibility Checker (PAC 2024)



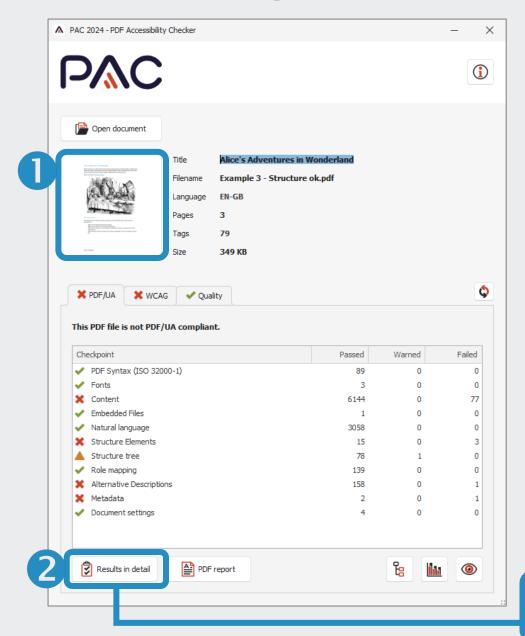
Both are needed!!

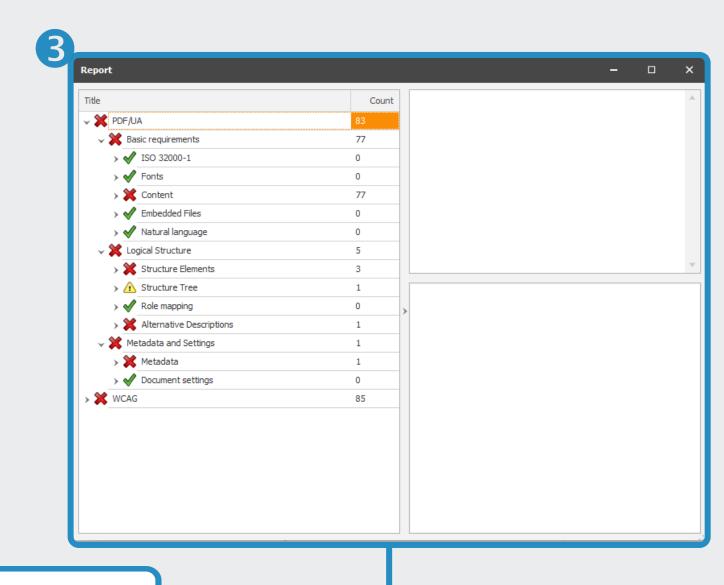
Accessibility Checker of Acrobat Pro

Accessibility Tools Panel > Full Check



PDF Accessibility Checker 2024

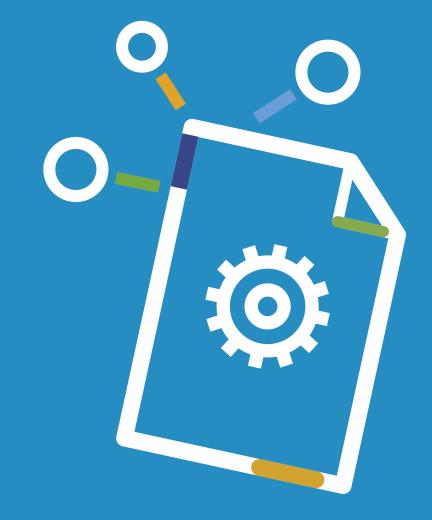




Detailed report

2

Checking the colour contrast



Colour contrast



- Text contrast ratio 4.5 : 1 (WCAG AA)
 - Contrast for regular text against the background.
- Text contrast ratio 3: 1 (WCAG AA)
 - Contrast for large text against the background.
 - Large text is a text that is larger than 18 pt or larger than 14 pt if bold.
- Non-text contrast ratio 3: 1 (WCAG AA)
 - Contrast of graphical objects against adjacent colours.

Tools to check the colour contrast





Colour Contrast Analyser (Windows and MacOS)



WebAIM Contrast Checker (online)



Adobe Color (online)

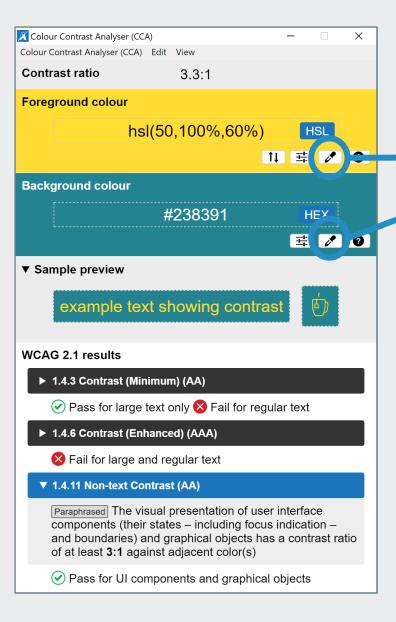


GIMP (Windows and macOS)



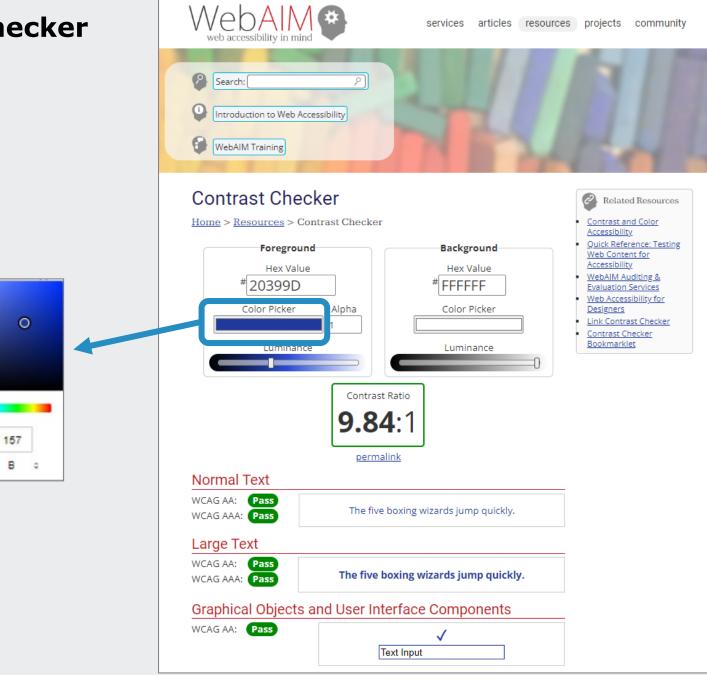
Coblis — Color Blindness Simulator (online)

Colour Contrast Analyser

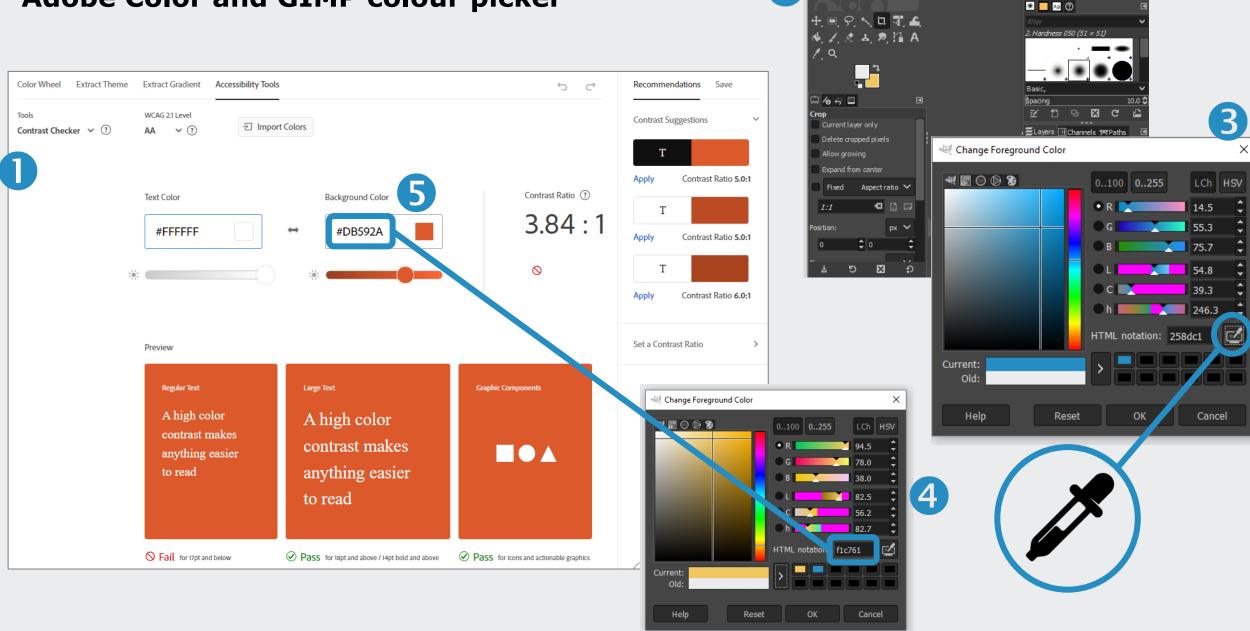




WebAIM Contrast Checker



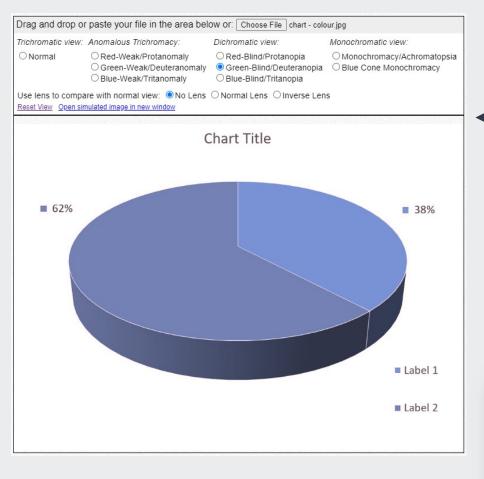
Adobe Color and GIMP colour picker

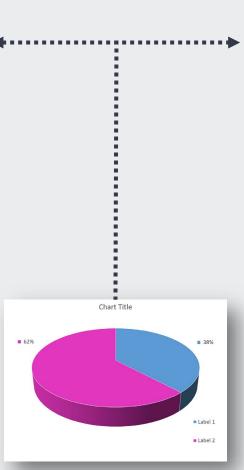


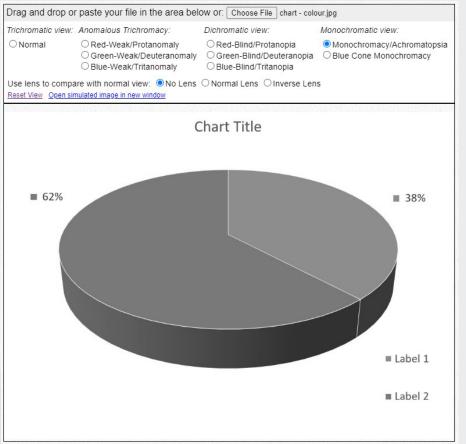
■ GNU Image Manipulation Program

File Edit Select View Image Layer Colors Tools Filters Windows Help

Color Blindness Simulator



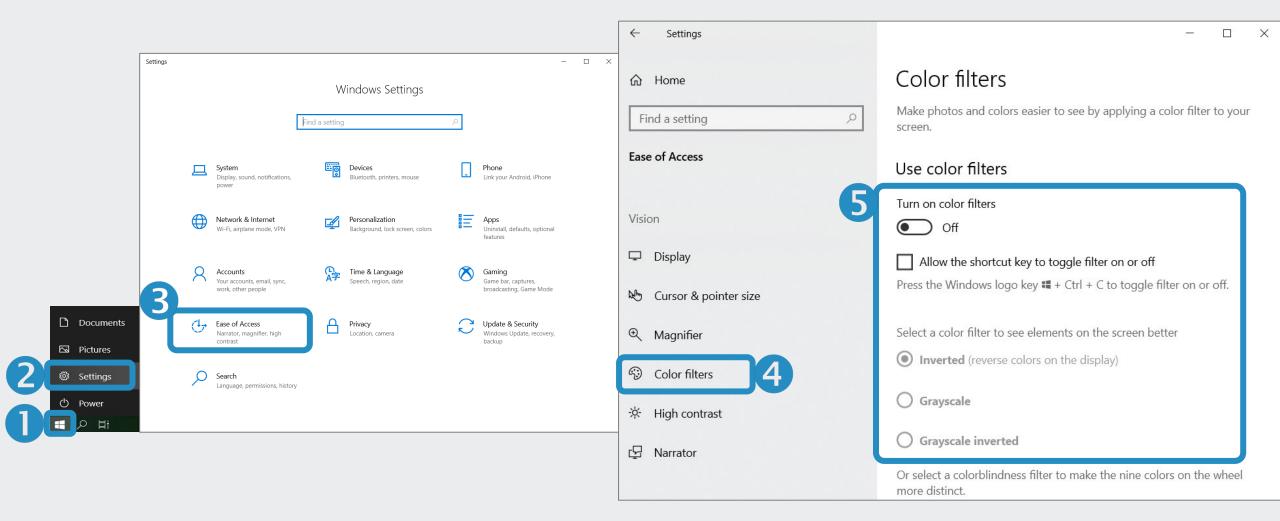




Color filters in Windows 10



Start > Settings > Ease of Access > Color filters

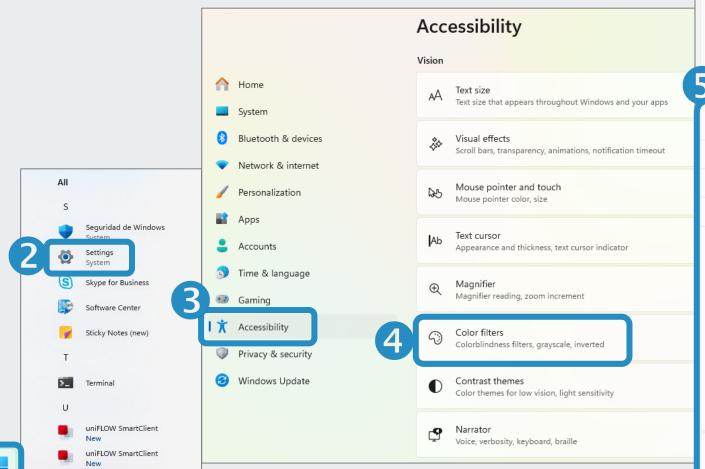


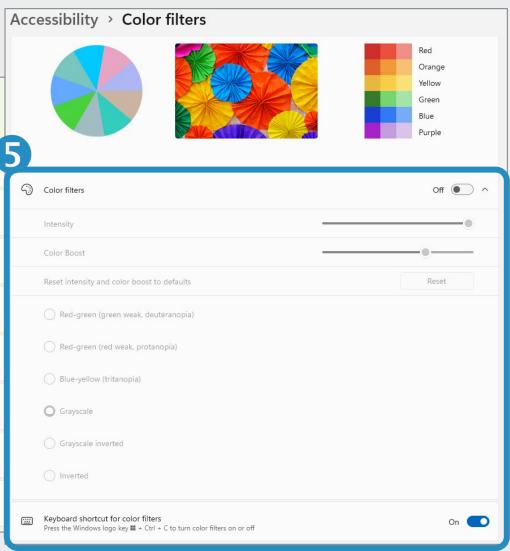
Shortcut for filters: Win + Ctrl + C

Color filters in Windows 11



Start > Settings > Accessibility > Color filters





Shortcut for filters: Win + Ctrl + C

3

Screen readers



Free screen readers





NVDA (Windows)

Check our videos about how to test different types of files with NVDA



Voice Over (macOS and iOS)
Already included in the operating system

Preparing Acrobat Reader or Acrobat Pro



1. Check settings for Acrobat Reader

Edit > Accessibility > Setup Assistant...

Select:

- Infer reading order from document
- Read entire document at once

2. Check settings for Acrobat Pro

Edit > Preferences > General... > Reading

Select:

- Reading Order: Infer reading order from document
- Page vs. Document: Read entire document at once

Accessibility Tool > Reading options:

- Reading Order: Infer reading order from document
- Reading Mode Options: Read the entire document



Tips for using NVDA to check PDF files



1. Know how to exit NVDA

Click NVDA icon in the taskbar > Exit

2. Add Focus Highlight plugin

To install: right click NVDA icon in taskbar, Tools > Manage add-ons > Get add-ons Click Focus Highlight > Download stable version.

3. Mute the sound when not needed

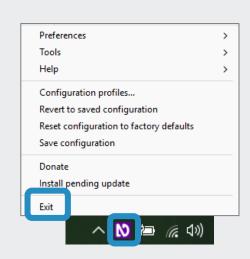
Insert + S

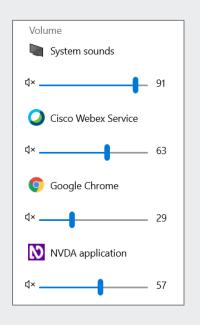
4. Instead of sound you can activate speech viewer

Right click NVDA icon in the taskbar > Tools > Speech viewer

5. Control the loudness of NVDA speech with Volume Mixer tool

Taskbar > Speakers > Open Volume Mixer > Adjust volume for NVDA application when it runs





Shortcut keys for NVDA



Modifier key (NV)

Insert key and/or CapsLock key

Note for MAC users

Possible to run NVDA if Windows10 is installed as a parallel OS.

Modifier key: Num Pad key "0".

Read from cursor till end

Laptop keyboard: NV + a

Desktop keyboard: NV + Down

Pause reading

Ctrl

Chose where to start read

Double click in the document

Read next/previous line

Down / Up

Go to next/previous heading

h / Shift h (Only works if document contains headings)

Open Elements List to see all Links and list of all Headings

NV + F7 (Required setting: Read entire document at once)

Go to next/previous table

t / Shift t (Only works if document contains tables)

Questions?

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Accessibility site of the Publications Office