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Chad Chelius, ACI, ADS

Creating Accessible PDFs from Microsoft Word

Leveraging Microsoft Word to facilitate the creation of accessible PDF files

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Podcast: Chaxchat.com

FB Group: PDF Accessibility

#accessibility**Matters**

Title II Web and Mobile Application Accessibility Rule

Conventional electronic documents means web content or content in mobile apps that is in the following electronic file formats: portable document formats (“PDF”), word processor file formats, presentation file formats, and spreadsheet file formats.

Title II: WCAG or PDF U/A?

The Department also received a comment suggesting that subpart H of this part reference PDF/UA-1 for standards related to PDF files or W3C's EPUB Accessibility 1.1 standard [77] for digital textbooks. The Department declines to adopt additional technical standards for these specific types of content. As discussed, the WCAG standards were designed to be "technology neutral" [78]and are designed to be broadly applicable to current and future web technologies.

Title II: PDF Forms

PDF files that include fillable form fields (e.g., areas for a user to input their name and address) may also be covered by the exception so long as members of the public do not edit the content contained in the official posted version of the document. However, as discussed in the following paragraph, the exception does not apply to documents that are currently used to apply for, gain access to, or participate in the public entity's services, programs, or activities.

Title II: Archived Content

Web content that reproduces paper documents or that reproduces the contents of other physical media would also satisfy the first part of the definition if the paper documents or the contents of the other physical media were created before the date the public entity is required to comply with subpart H of this part. Paper documents include various records that may have been printed, typed, handwritten, drawn, painted, or otherwise marked on paper.

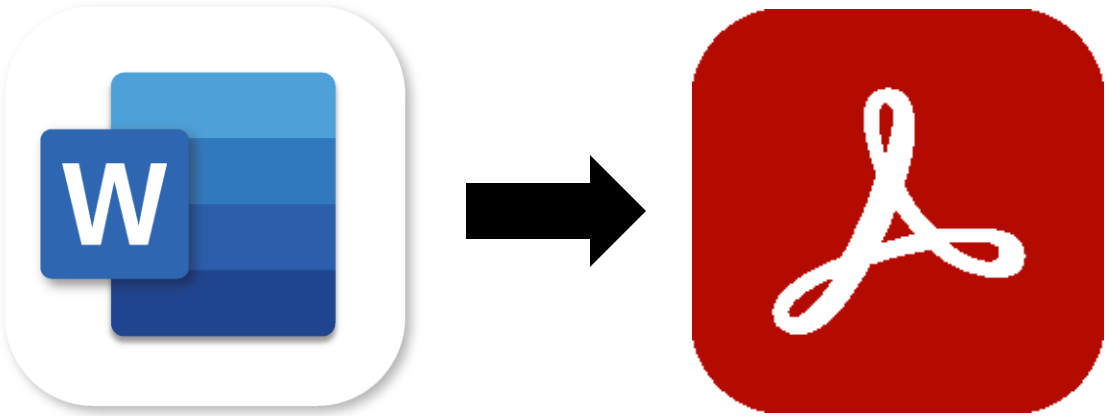
Title II: Archived Content

1. The content was created before the date the state or local government must comply with this rule, or reproduces paper documents or the contents of other physical media (audiotapes, film negatives, and CD-ROMs for example) that were created before the government must comply with this rule, **AND**
2. The content is kept only for reference, research, or recordkeeping, **AND**
3. The content is kept in a special area for archived content, **AND**
4. The content has not been changed since it was archived.

Title II: PDF Exceptions

Exception for individualized, password-protected conventional electronic documents (PDFs, word processor file formats, presentation file formats, and spreadsheet file formats)

Remember: To qualify for this exception, a document must be about a specific person, property, or account.



Why Microsoft Word?

- Most common tool for document creation
- Logical tool for document creation
- Available on most computers
- Built-in accessibility capabilities (both for Word and PDF)

Advantages of Microsoft Word

- Natural choice for document creation. Familiar, easy, intuitive
- Natural top-to-bottom flow which makes defining tag and reading order easy
- Accessible features built-in to Word which facilitates creating accessible documents

Does Word Have Accessibility Features?

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- It does!
- The Microsoft Word document itself can be made accessible
- PDFs exported from Microsoft Word can be made accessible

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Some Accessibility is Better than No Accessibility

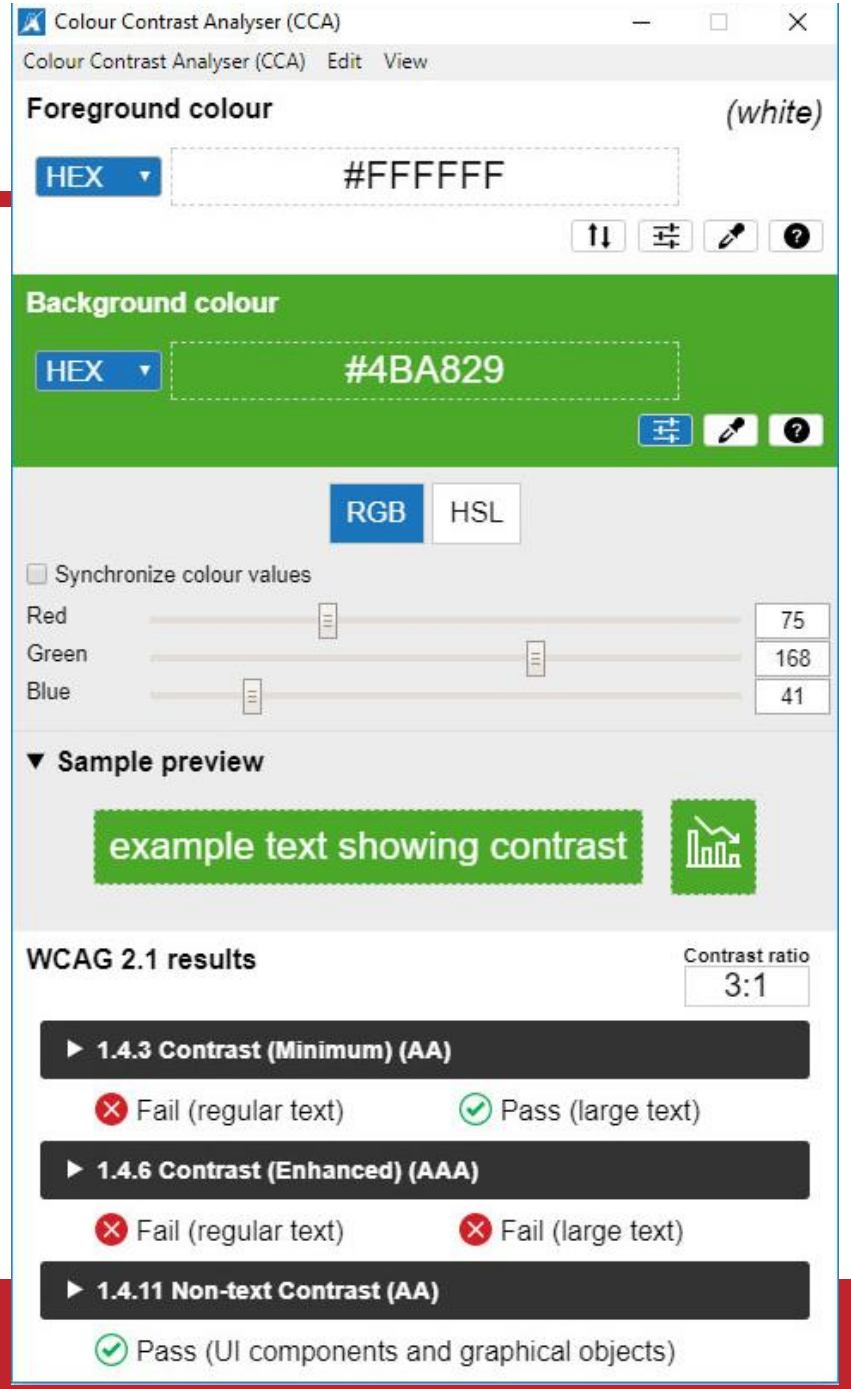
Color Contrast

4.5 to 1

Text below 14pt

3 to 1

Text 14pt bold

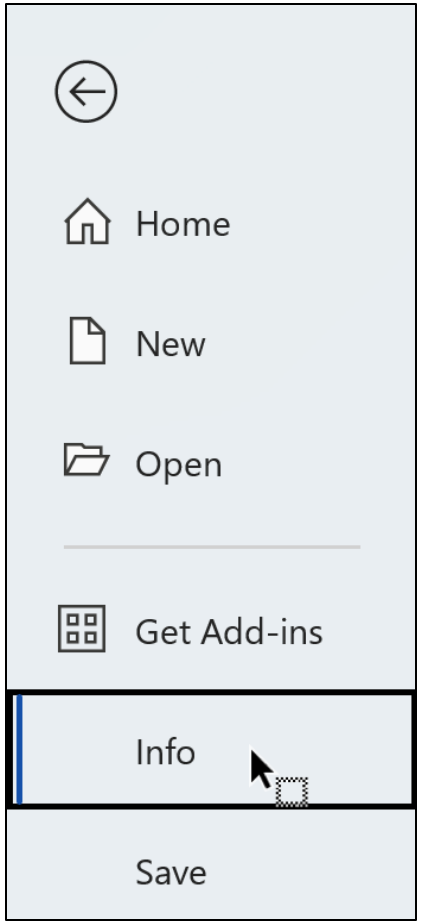


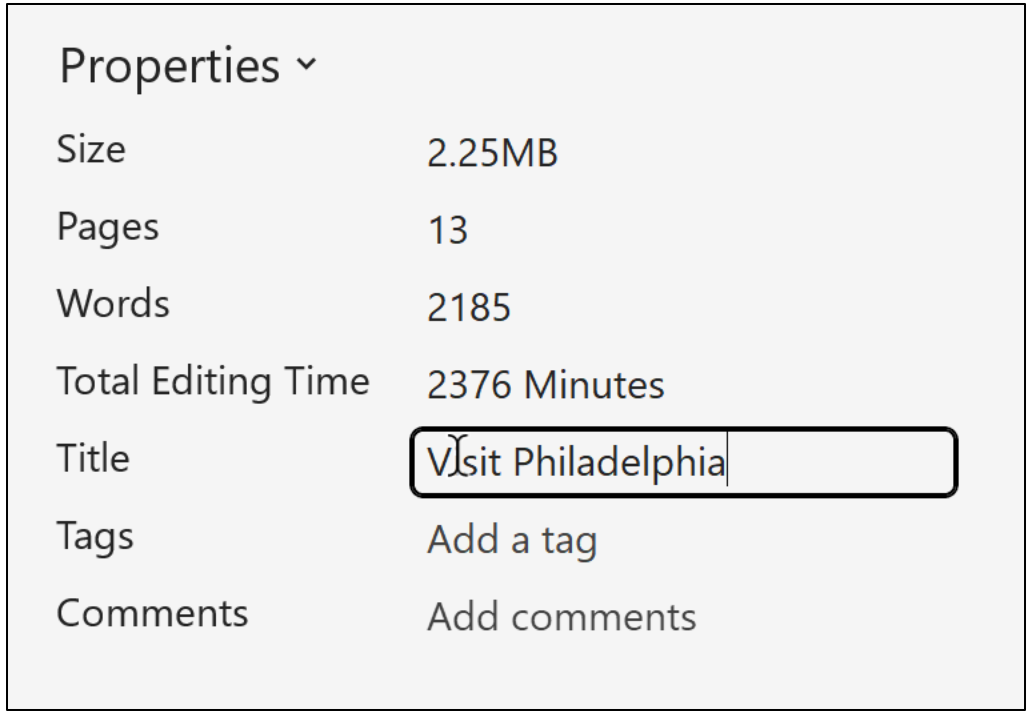
Accessible Color Choices

Document Title

- Accessible PDF files are required to have a document title that describes what the document is about
- Relying on the filename is not a good method of conveying the purpose of a document

Adding a Document Title in Word





Document Structure

Today's web bonus. Sign up for breaking news alerts. Readingeagle.com. Follow us on twitter. To find breaking news and other information from the Reading Eagle on twitter simply type "Reading Eagle" inside the twitter search bar. Twitter.com/readingeagle. READING EAGLE. Today's weather high: 51 low: 32. >>Page A8. Friday February 23, 2024. $3.00. Facebook.com/readingeagle. Twitter.com/readingeagle. PA. Program. EMT Investment. Tuition to be reimbursed for paramedics and EMTs under new effort. Figure. A state program will reimburse EMT workers and EMS agencies in an effort to boost EMT participation. By Anya Sostek. Pittsburgh Post-Gazette. A new state program will provide $1 million per year for the next three years to reimburse Emergency Medical Service workers for their training expenses and EMS agencies for recruiting and retention programs. "We are excited," said Chriss Dell, chief of the McCandless/Franklin Park ambulance authority and former chair of Allegheny County EMS Council, noting that one of the paramedics at McCandless/Franklin Park has already applied for reimbursement. "There are folks that are currently in EMT programs throughout the region that will hopefully be able to tap into it, and we are also excited that if we have folks considering it, this would be an incentive for them to attend." Funded with money from the Fireworks Tax Act. Pennsylvania residents who got certified as emergency medical responders, emergency medical technicians, advanced emergency medical technicians or paramedics after July 1, 2023, are eligible.

Document Structure

Today's web bonus » Sign up for breaking news alerts. readingeagle.com

READING
Pair convicted of 2 murders in drug deal
Berks » A3

ECONOMY
Home sales moved higher in January
Money » A6

MUSIC
Pearl Jam throws listening party
Living » B5

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TODAY'S WEATHER
High: 51
Low: 32
» PAGE A8

Friday, February 23, 2024 $3.00 FACEBOOK.COM/READINGEAGLE TWITTER.COM/READINGEAGLE readingeagle.com

PA. PROGRAM

EMT INVESTMENT

Tuition to be reimbursed for paramedics and EMTs under new effort

BILL UHRICH - READING EAGLE, FILE

A state program will reimburse EMT workers and EMS agencies in an effort to boost EMS participation.

By Anya Sostek
Pittsburgh Post-Gazette

A new state program will provide $1 million per year for the next three years to reimburse Emergency Medical Service workers for their training expenses and EMS agencies for recruiting and

PALMER EXPLOSION

Feds post records in probe of blast

Investigatory documents related to West Reading chocolate plant explosion available to public

By David Mekeel
dmekeel@readingeagle.com

For nearly a year, the National Transportation Safety Board has been investigating a March explosion at a West Reading chocolate factory that killed seven workers.

On Thursday, the agency shared with the public what it has found out so far about the deadly blast at the R.M. Palmer Co. plant.

The NTSB made public its docket of investigatory material, sharing it on the agency's website. The docket includes 151 entries, ranging from interviews with public and Palmer officials to lists of chemicals that were in the building to fire drill records to maintenance reports.

The cache includes hundreds of pages of documents and dozens of photographs. A social me-

Document Structure

- <Heading 1> Reading Eagle
- <Paragraph> Sign up for breaking news alerts.
- <Paragraph> To find breaking news and other information from the Reading Eagle on twitter simply type “Reading Eagle” inside the twitter search bar
- <Paragraph> Friday February 23, 2024.
- <Paragraph> Page A8.
- <Heading 2> EMT Investment
- <Figure> The back of an ambulance showing emergency response stickers on the windows and diagonal warning lines to alert oncoming vehicles.
- <Heading 2> Feds post records in probe of blast
- <Paragraph> A new state program will provide $1 million per year for the next three years to reimburse Emergency Medical Service workers for their training expenses and EMS agencies for recruiting and retention programs.

What Gives a Document Structure?

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- Headings
- Images
- Captions
- Lists
- Tables
- Hyperlinks

What Gives a Document Structure?

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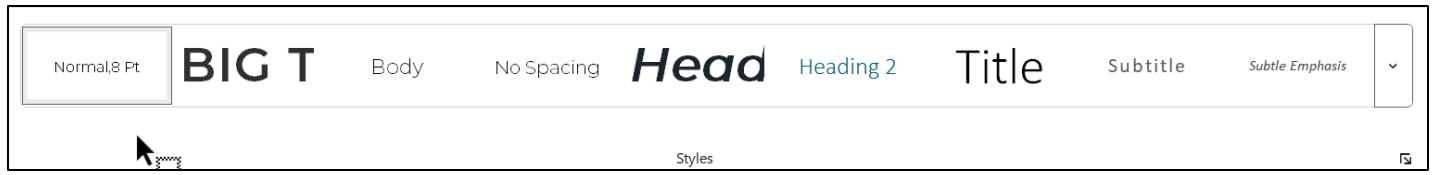
- Structure gives value to sighted users as it helps them to process information efficiently
- Structure gives value to users of assistive technology as it helps them to process information efficeiently

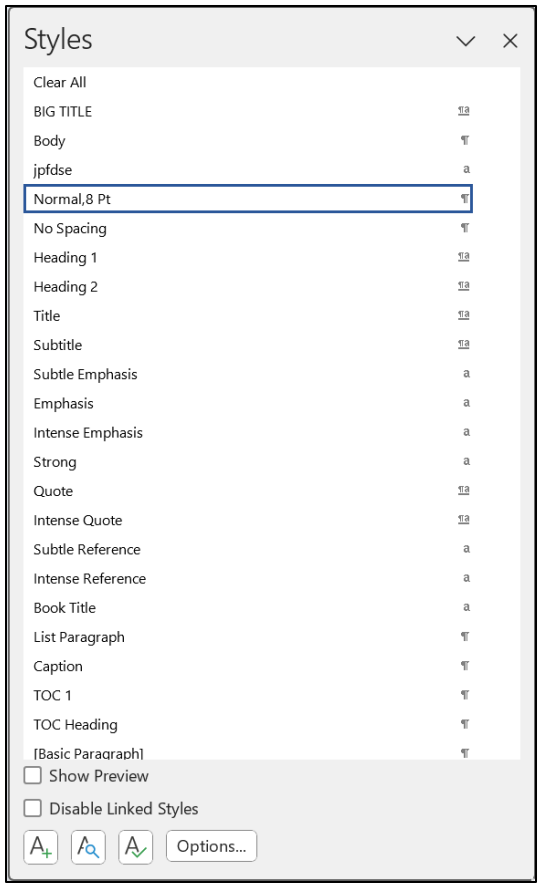
WCAG 1.3.1 Info and Relationships

Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

Adding Structure in Word



- Styles add structure
- Default Headings map to appropriate tags
- You can assign a tag level to a custom style



Alternative Text

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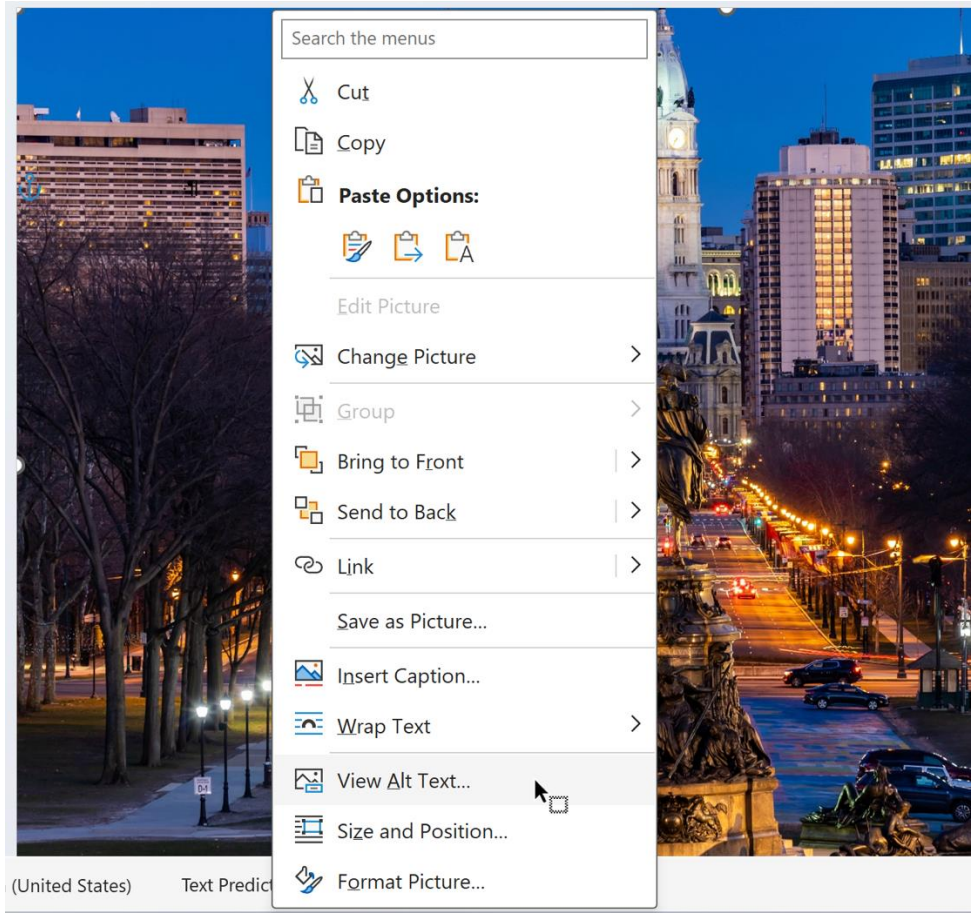
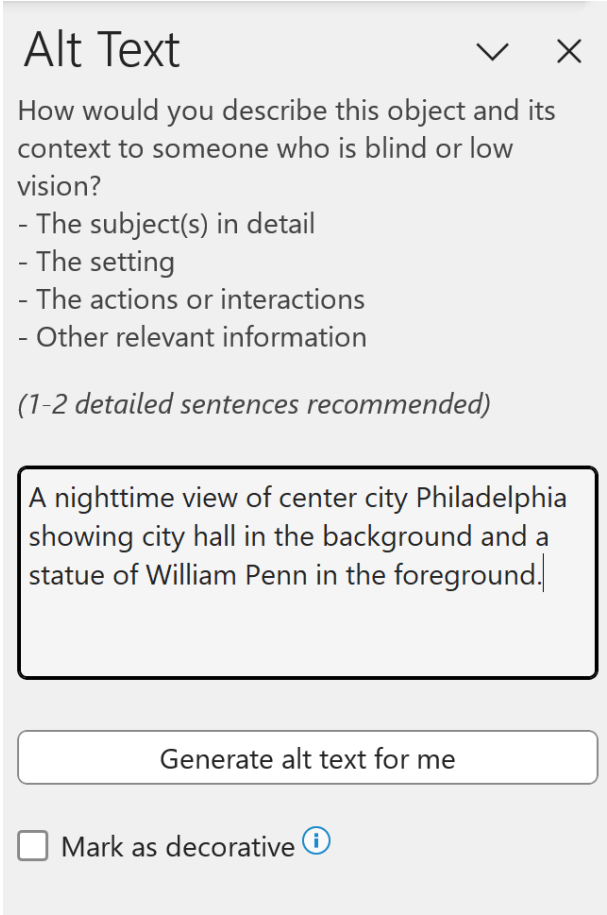
- Graphical elements by default have no informational value to convey to users of assistive technology
- To provide information about graphics to users of assistive technology, we need to add alternative text to graphics
- Graphics include photographs, charts, graphs, infographics, heat maps, and images of text

WCAG 1.1 Text Alternatives

Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

Adding Alt Text in Word





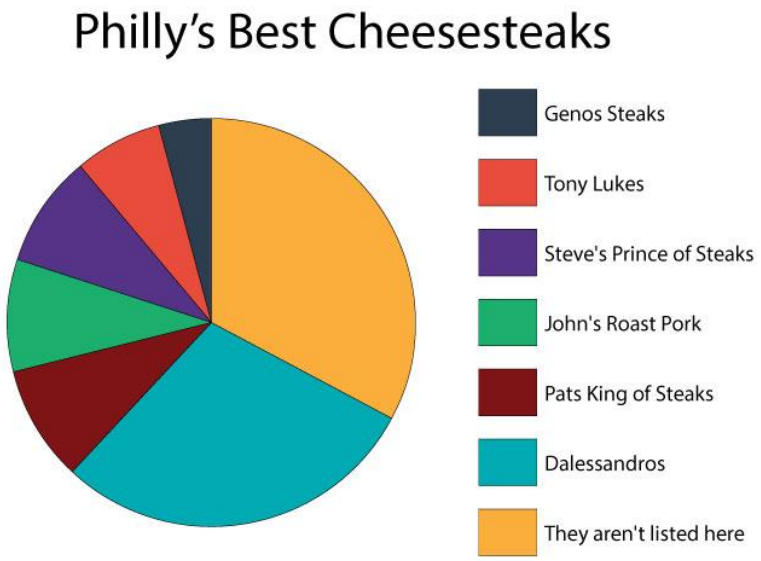
Does Everything Have Value?

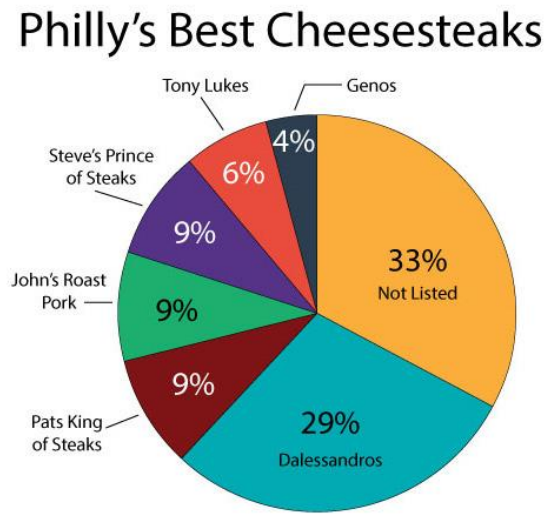
- Sometimes we use imagery in our documents for aesthetic purposes only.
- When trying to decide if something should be read or not in a document, ask “Does this add value to the document”
- If the answer is yes, write alternative text for the element
- If the answer is no, artifact the element so that it is not read by assistive technology

Charts and Graphs

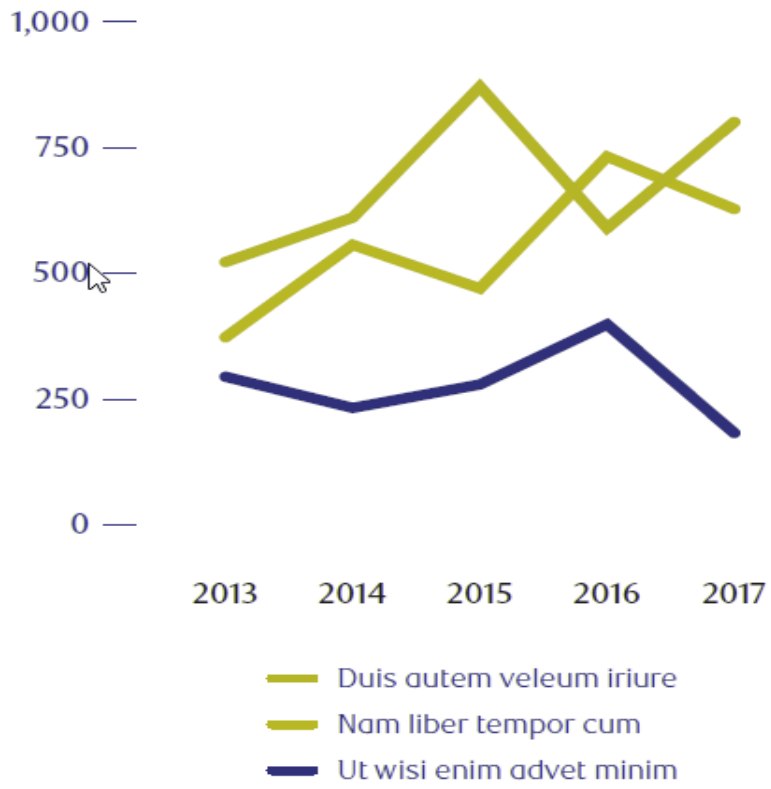
- Charts and Graphs provide important meaning via visual elements
- To convey the meaning of charts and graphs for all users, we need to take special care to ensure that information is conveyed
- Do not use color alone as the only means of conveying meaning

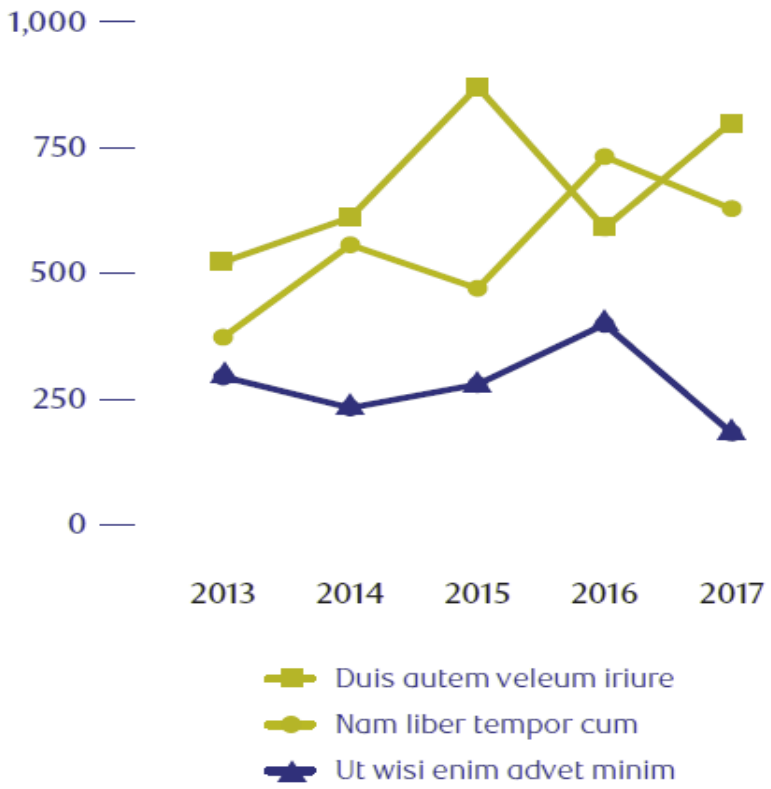
Add Labels for Clarity





Shapes to Distinguish Values





Tables

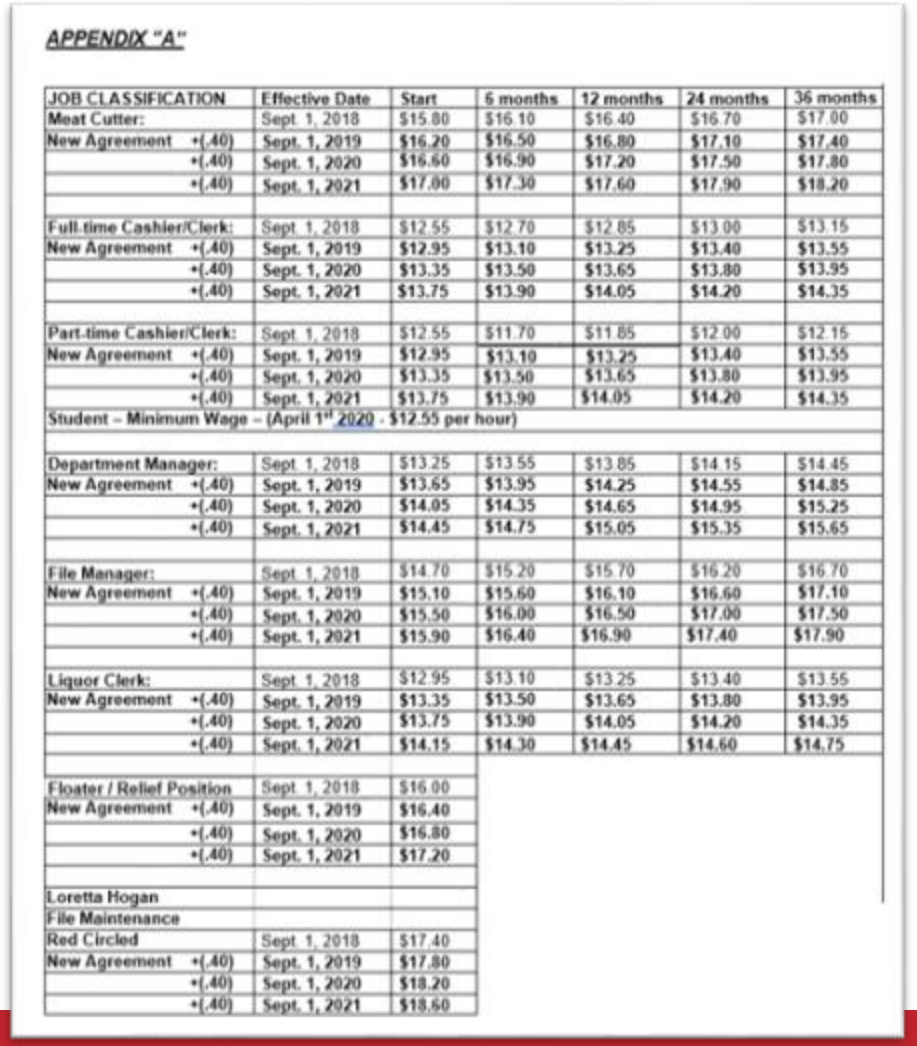
- Avoid layout tables
- Tables are for comparing data
- Remediating tables in a PDF file requires advanced tag knowledge

Table 1: Living Wage calculations across regions in British Columbia.

REGION	LIVING WAGE	GAP BETWEEN $15 MINIMUM WAGE AND LIVING WAGE
Comox Valley	$15.96	$0.96
Port Alberni	$17.22	$2.22
Clayoquot Sound	$20.11	$5.11
Cowichan Region	$18.81	$3.81
District 69, Parksville-Qualicum	$16.44	$1.44
Nanaimo	$17.55	$2.55
Victoria	$20.01	$5.01
Vancouver	$20.62	$5.62
Fraser Valley	$15.90	$0.90
Powell River	$16.75	$1.75
Lower Columbia Region	$18.15	$3.15
Kamloops	$16.90	$1.90
Revelstoke	$18.77	$3.77
100 Mile House	$17.45	$2.45
North Central Region	$16.39	$1.39
North East Region	$18.29	$3.29

Tables

- Keep your tables simple
- Always use Column Headers
- When in doubt, add column headers instead of row headers



APPENDIX "A"

JOB CLASSIFICATION	Effective Date	Start	6 months	12 months	24 months	36 months
Meat Cutter:	Sept. 1, 2018	$15.80	$16.10	$16.40	$16.70	$17.00
New Agreement +(.40)	Sept. 1, 2019	$16.20	$16.50	$16.80	$17.10	$17.40
+(.40)	Sept. 1, 2020	$16.60	$16.90	$17.20	$17.50	$17.80
+(.40)	Sept. 1, 2021	$17.00	$17.30	$17.60	$17.90	$18.20
Full-time Cashier/Clerk:	Sept. 1, 2018	$12.55	$12.70	$12.85	$13.00	$13.15
New Agreement +(.40)	Sept. 1, 2019	$12.95	$13.10	$13.25	$13.40	$13.55
+(.40)	Sept. 1, 2020	$13.35	$13.50	$13.65	$13.80	$13.95
+(.40)	Sept. 1, 2021	$13.75	$13.90	$14.05	$14.20	$14.35
Part-time Cashier/Clerk:	Sept. 1, 2018	$12.55	$11.70	$11.85	$12.00	$12.15
New Agreement +(.40)	Sept. 1, 2019	$12.95	$13.10	$13.25	$13.40	$13.55
+(.40)	Sept. 1, 2020	$13.35	$13.50	$13.65	$13.80	$13.95
+(.40)	Sept. 1, 2021	$13.75	$13.90	$14.05	$14.20	$14.35
Student – Minimum Wage – (April 1st 2020 - $12.55 per hour)						
Department Manager:	Sept. 1, 2018	$13.25	$13.55	$13.85	$14.15	$14.45
New Agreement +(.40)	Sept. 1, 2019	$13.65	$13.95	$14.25	$14.55	$14.85
+(.40)	Sept. 1, 2020	$14.05	$14.35	$14.65	$14.95	$15.25
+(.40)	Sept. 1, 2021	$14.45	$14.75	$15.05	$15.35	$15.65
File Manager:	Sept. 1, 2018	$14.70	$15.20	$15.70	$16.20	$16.70
New Agreement +(.40)	Sept. 1, 2019	$15.10	$15.60	$16.10	$16.60	$17.10
+(.40)	Sept. 1, 2020	$15.50	$16.00	$16.50	$17.00	$17.50
+(.40)	Sept. 1, 2021	$15.90	$16.40	$16.90	$17.40	$17.90
Liquor Clerk:	Sept. 1, 2018	$12.95	$13.10	$13.25	$13.40	$13.55
New Agreement +(.40)	Sept. 1, 2019	$13.35	$13.50	$13.65	$13.80	$13.95
+(.40)	Sept. 1, 2020	$13.75	$13.90	$14.05	$14.20	$14.35
+(.40)	Sept. 1, 2021	$14.15	$14.30	$14.45	$14.60	$14.75
Floater / Relief Position	Sept. 1, 2018	$16.00				
New Agreement +(.40)	Sept. 1, 2019	$16.40				
+(.40)	Sept. 1, 2020	$16.80				
+(.40)	Sept. 1, 2021	$17.20				
Loretta Hogan						
File Maintenance						
Red Circled	Sept. 1, 2018	$17.40				
New Agreement +(.40)	Sept. 1, 2019	$17.80				
+(.40)	Sept. 1, 2020	$18.20				
+(.40)	Sept. 1, 2021	$18.60				

Tables

- Do not include table title in table structure
- Always have headers
- Avoid checkmarks, X's, dashes, and other icons in tables

TABLE 5.4 UNDERSTANDING WCAG	TABLES	TEXT	GRAPHICS
SUCCESS CRITERIA 1.3.1	X	X	X
SUCCESS CRITERIA 1.4.1	--	✓	-
SUCCESS CRITERIA 1.5.1	✓		✓

TABLE 5.4 UNDERSTANDING WCAG

SUCCESS CRITERIA	TABLES	TEXT	GRAPHICS
SUCCESS CRITERIA 1.3.1	SELECTED	YES	NO
SUCCESS CRITERIA 1.4.1	NO	YES	NO
SUCCESS CRITERIA 1.5.1	APPLICABLE	N/A	YES

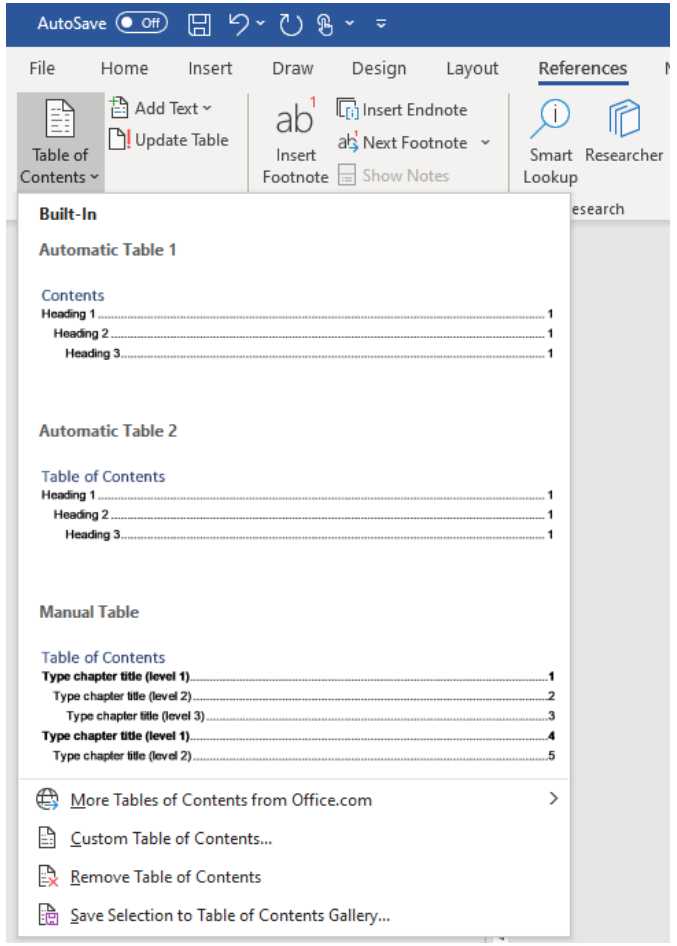
Hyperlinks

- Click here
- More info
- Download
- Get PDF

Be Descriptive

Table of Contents

- Reference > Table of Contents
- Requires the use of styles in the document
- Use meaningful headings
- Avoid lengthy headings that span multiple lines
- Avoid ALL CAPS for readability



The Microsoft Word Accessibility Checker

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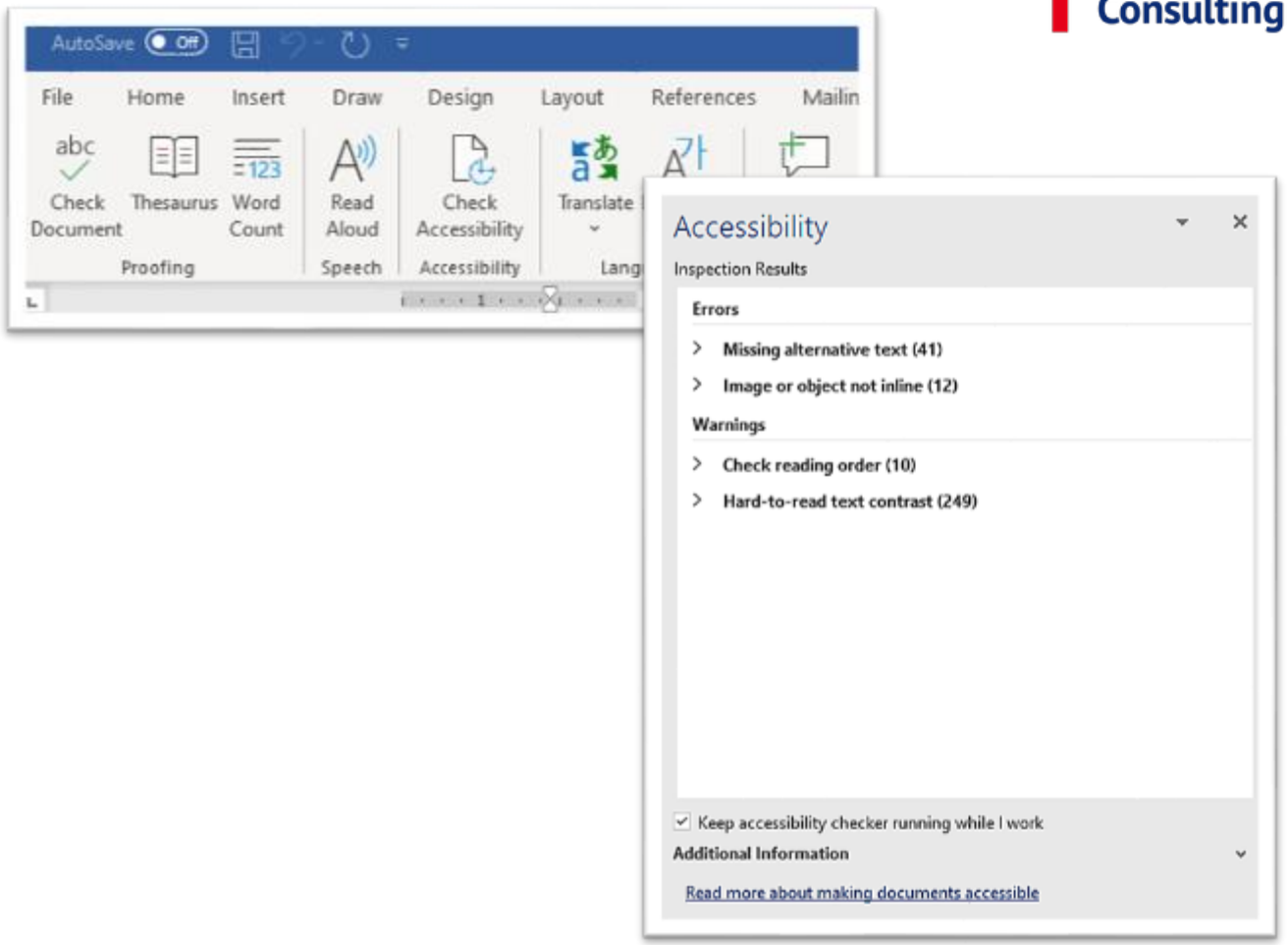
- This is the first step to accessibility
- Does not ensure compliance
- Avoids significant barriers
- Walks you through potential issues
- Warnings require human evaluation



Creating a PDF

- Never “Print” to a PDF. This yields no accessibility at all
- “Save As” PDF – Microsoft method
- Acrobat Tab – Adobe method

PDF Accessibility Workflow

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- Generate PDF from Word
- Walk the Tags tree in Acrobat
- Run the Checker
- Fix any errors
- Test with a screen reader

Common Issues

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- Tag Order
- Heading Structure incorrect
- Missing Alt-text on images
- Non relevant items not artifacted
- Scope missing for table headers
- Missing Document Title
- Document Language not set

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