

DESIGNING FOR ALL PDF Accessibility

Naira Tumanyan



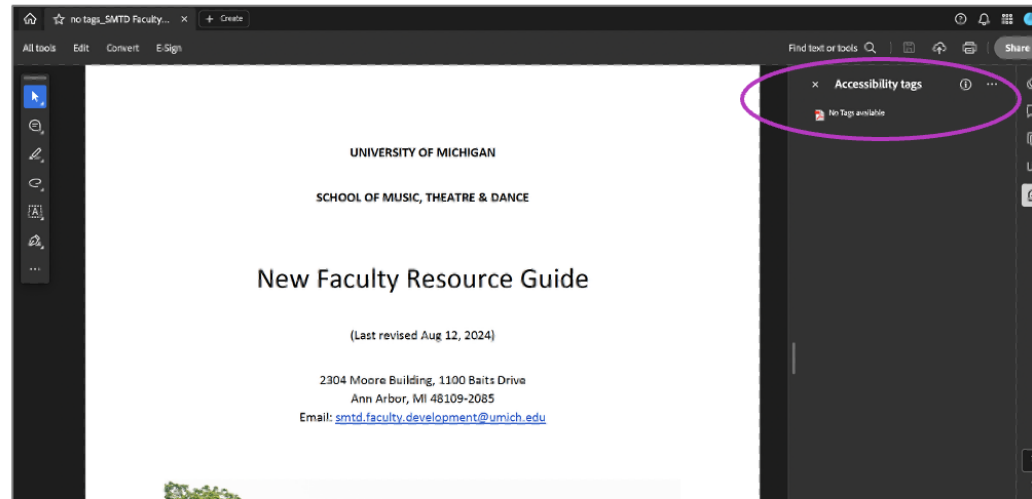
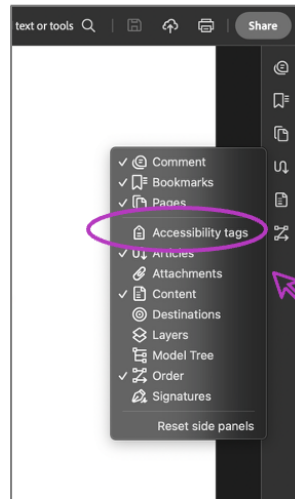
Agenda

- PDF Accessibility basics
- Accessibility Checkers

Tagged PDF

✓ Did I export with tags from the source document?

- If you open the document and find no tags, it indicates that it was saved incorrectly.



Resources

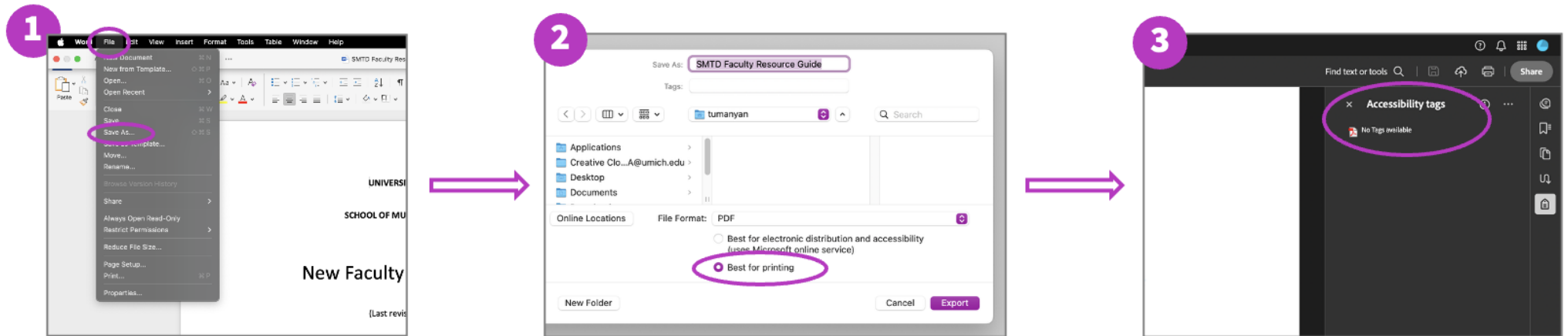
- [PDF Decision Tree](#)
- [What is a Tagged PDF?](#)

Saving the document **incorrectly**

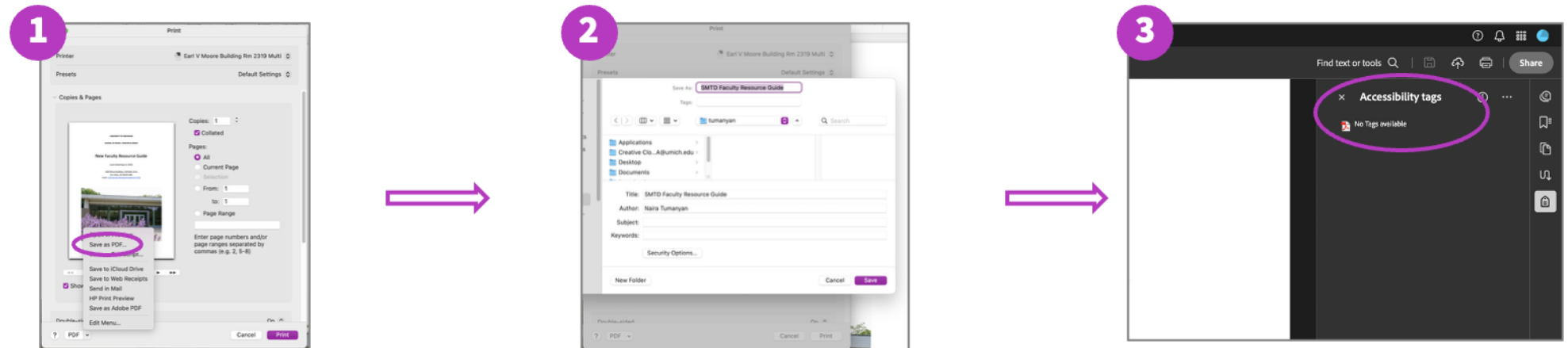
Saving **without tags** = **NO** accessibility

Examples below shows how to save a Word document as a PDF on a Mac

Option 1:



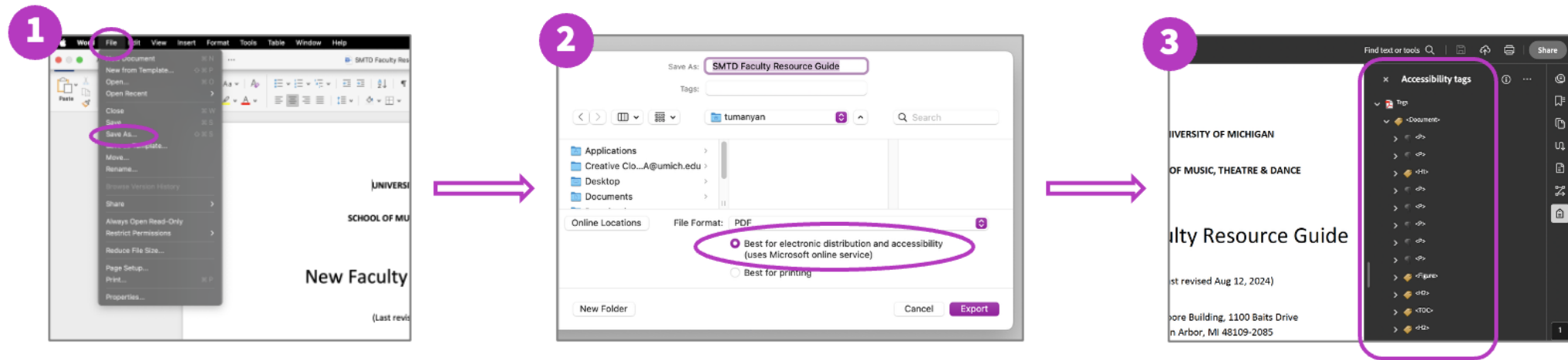
Option 2:



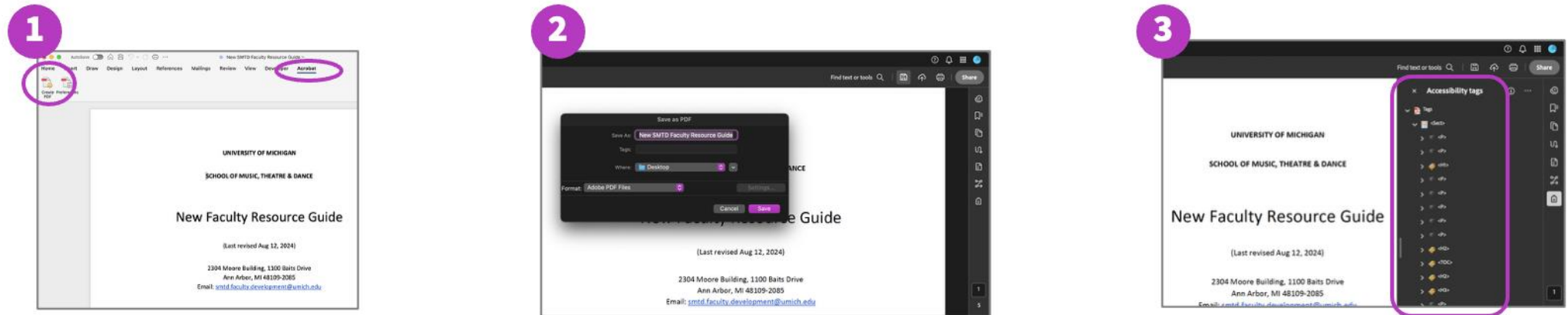
Saving the document correctly

Examples below shows how to save a Word document as a PDF on a Mac **to ensure accessibility**

Option 1:



Option 2:



General Tags

- <Document> = Document (main tag under which all other tags are nested)
- <Part> = Part (large section of the document)
- <Sect> = Section (small section within a larger part)
- <P> = Paragraph
- <Figure> = A figure or image
- <Caption> = An image or figure caption
- <L> = A list
- = List item (embedded within an <L> tag)
- <Link> = A hyperlink
- <OBJR> = Object reference (active component of the link)
- <Table> = A table
- <TR> = Table row.
- <TH> = Table Heading
- <TD> = Table data

Resources

- [Common PDF Tags and Their Usage](#)

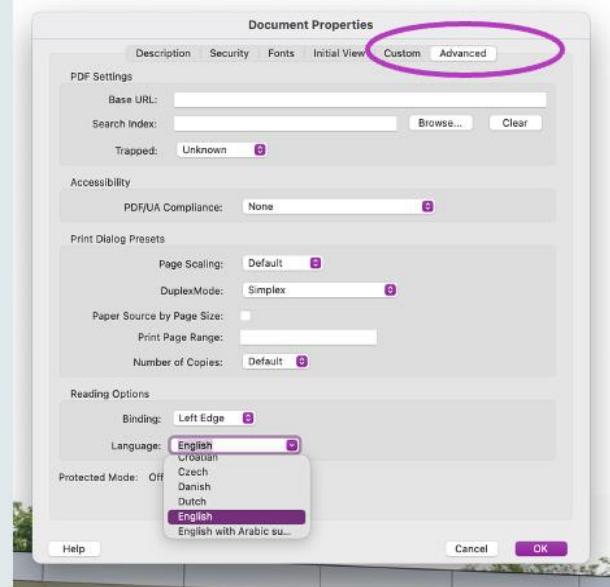
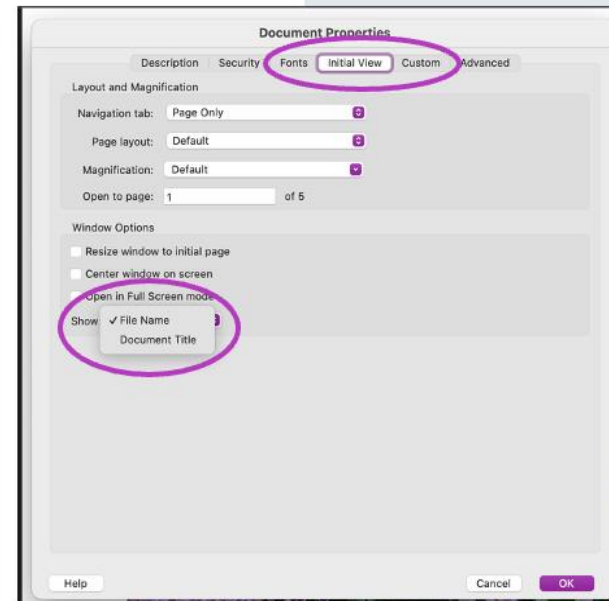
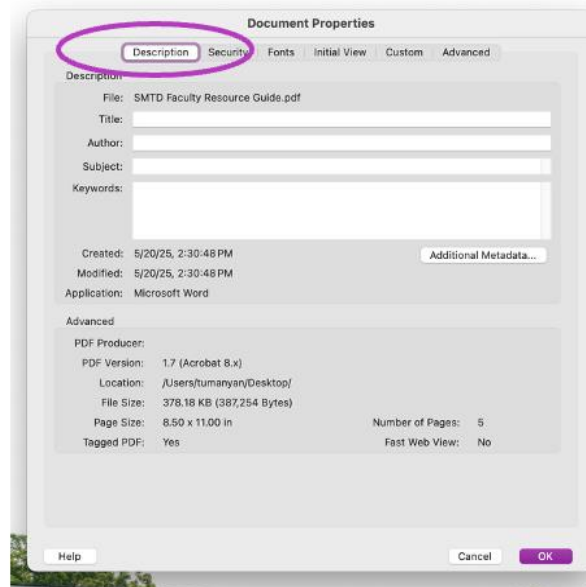
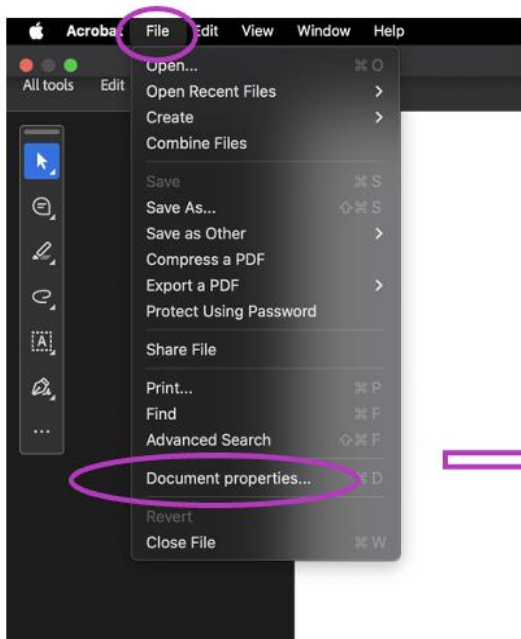


Metadata

✓ Did I include the Title details in the document properties?

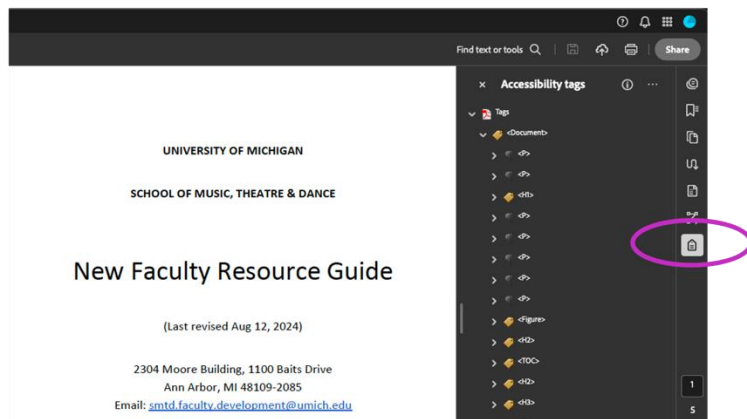
- While only the file Title is required, adding Author, Subject, and Keywords is helpful.

✓ Did I set Language in the document properties?

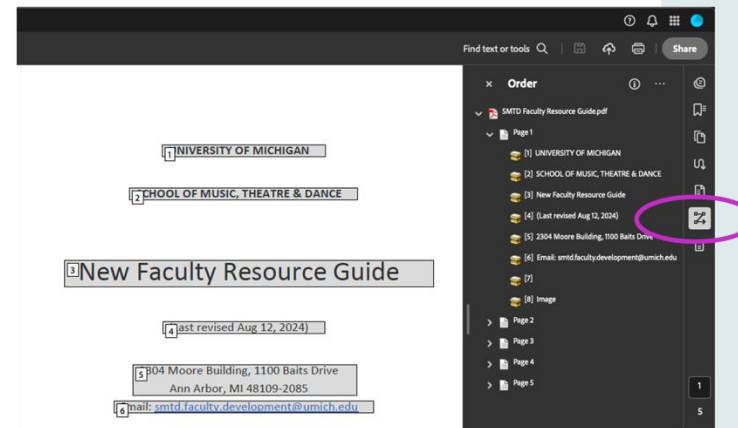


Accessibility tags, Order pane, & Content pane

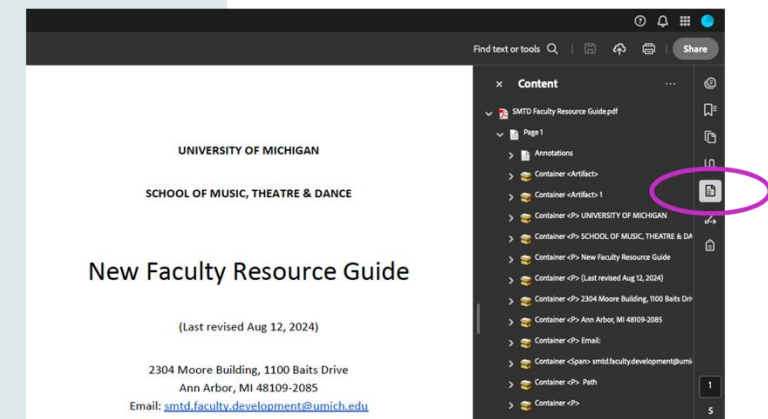
Accessibility Tags enable screen readers to interpret and convey document content correctly to users who use screen readers.



Order Pane determines the sequence in which content is read by assistive technologies.



Content Pane provides a tree-like view of all elements in the PDF.

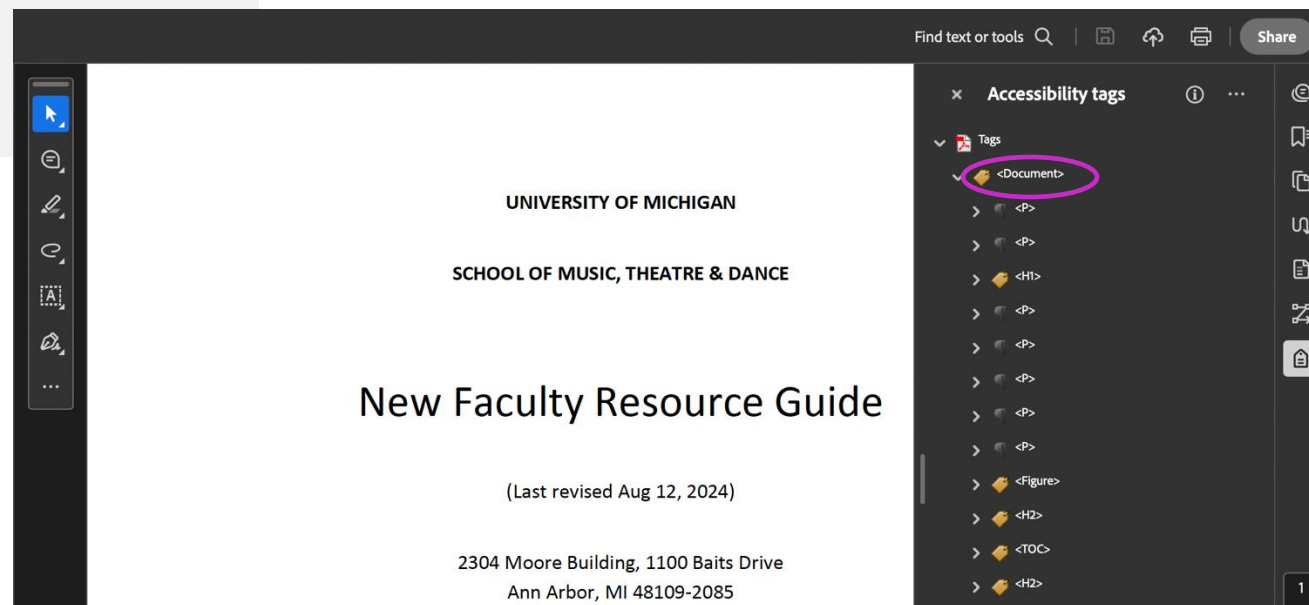


Resources

- [Adobe: Create and verify PDF accessibility](#)

Navigating the tags pane

- ✓ • Does my document include a Document root tag?
- ✓ • Do I need to change an incorrect tag?



Resources

- [Adobe: Create and verify PDF accessibility](#)

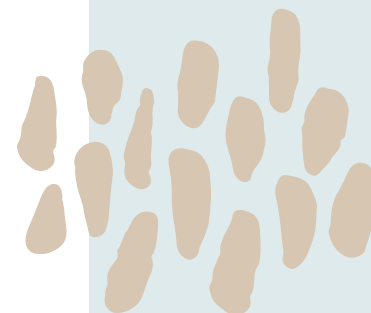
Headings



Are my section headings in place?

- H1 through H6 heading tags should be used for headings.
 - Heading 1 (H1) – document title, there should only be one <H1> for the document.
 - Heading 2 (H2) – the highest-level sub-heading
 - Heading 3 (H3) – third level heading, etc.
- Heading levels should be applied sequentially without skipping levels.

The screenshot shows a document viewer interface. The document content is centered and reads: "UNIVERSITY OF MICHIGAN", "SCHOOL OF MUSIC, THEATRE & DANCE", "New Faculty Resource Guide", "(Last revised Aug 12, 2024)", "2304 Moore Building, 1100 Baits Drive", "Ann Arbor, MI 48109-2085", and "Email: smtd.faculty.development@umich.edu". On the right side, an "Accessibility tags" panel is open, showing a tree view of the document's structure. The tags are: <Document>, <P>, <H1>, <P>, <P>, <P>, <P>, <P>, <Figure>, <H2>, <TOC>, <H2>, <H3>, <P>, <H3>, <L>, <L>. The <H1>, <H2>, <H2>, <H3>, and <H3> tags are circled in pink. The document viewer also has a search bar at the top right and a sidebar with navigation icons on the left.



Alternative Text

✓ Do informative images and graphs have alt text?

- Alt text should be concise (125-250 characters) describing the context.
- Clear language and action words should be used
- Specify if the image is a graph, chart, table, or painting but avoid generic terms like "photo" or "image."
- Mention identity only if it is relevant.

Resources

- [Wolverine Describer](#)
- [ASU Image Accessibility Creator](#)
- [WebAIM: Alternative Text Guide](#)



Suggested Alt Text: A middle-aged blind man stands in a park, wearing a white cap, dark sunglasses, and an orange polo shirt. Holding a smartphone in his left hand, he listens and speaks into it.

Color

✓ Do all font colors meet the minimum contrast requirements?

- Regular text (smaller than 18 pt/24 px or 14 pt/18.66 px bold) requires a 4.5:1 color contrast ratio.
- Large text (larger than 14 pt/18.66 px bold or 18 pt/24 px) requires a 3:1 color contrast ratio.
- Color alone should not be used to convey important information



Resources

- [WebAIM Contrast Checker](#) (web-based)
- [Deque Color Palette Contrast Checker](#) (web-based, color palette)
- [TPGi Colour Contrast Analyser](#) (downloadable/desktop app)
- [Who Can Use](#) (web-based)
- [Adobe Color](#) (web-based)
- [ColorContrast.App](#) (web-based)

Reading order

✓ Am I verifying the reading order is accurate?

- Verify that all meaningful content is focusable and in the correct order.
- Artifact all decorative items/content.
- Remove Artifact tags. Delete empty tags

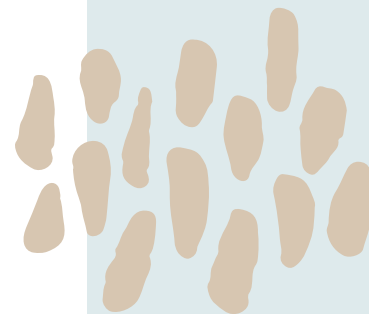


Table Structure

✓ **Are all my tables live tables and not images?**

✓ **Have I set the scope for the tables?**

- The title of a table should not be placed within the table itself.
- **Column Header:** A cell in the first row (or first few rows) of a table that describes the content of the columns beneath it.
- **Row Header:** A cell in the first column (or first few columns) of a table that describes the content of the rows to its right.
- **Data Cell:** A cell that contains the actual data or values within the table.

Table example: Concerts & Events, Classes, Student Recitals, General Scheduling

Contact Person	Email	Scheduling for classes by Departments	Student recitals, events, and general booking by building
Erin Burris	etheisen@umich.edu	All Departments except Dance	Earl V. Moore, Stamps, Stearns, and Burton Tower
Katie Gunning	kgunning@umich.edu	Dance	Dance
Kathryn Pamula	kpamula@umich.edu	N/A	Walgreen Drama Center (WDC)

PDF Accessibility Checkers

- Acrobat Accessibility Checker (Windows & Mac) (Free)
- [PAC 2024](#) (Windows) (Free)
- [Commonlook PDF Validator](#) (Windows) (Free)
- [axesCheck](#) (Windows & Mac) (Free)

PDF Remediation Tools

- Adobe Acrobat (Free)
- [CommonLook PDF](#) (Windows) (Not free)
- [axesPDF](#) (Windows) (Not free)
- [Grackle PDF](#) (Windows & Mac) (Not free)
- [PDFix](#) (Windows & Mac) (Partially free, Lite version is free)

Resources at U-M

- [Digital Accessibility at the University of Michigan](#)
- [Digital Accessibility Help Request Form from ITS](#)
- [Assistive Technology Request Form](#)
- Email 4help@umich.edu or contact SMTD IT at smtt.it@umich.edu



THANK
YOU

