Adobe Creative Cloud for Faculty & Staff

- Adobe Creative Cloud software is now available for use (at no additional charge) on all faculty and staff university-owned computers, labs and classroom devices, and for all students.
- Please note that this deployment of Adobe software is not available for use on personally-owned faculty and staff devices at this time.
- Learn more about Adobe Creative Cloud for Faculty & Staff.

- Adobe Reader is for viewing, printing, signing, sharing, and annotating PDFs. Adobe Reader doesn’t have Accessibility checking tool.

Universal Design Center
Scanned Documents, 1 of 2

- Adobe Acrobat Text Recognition
- Correcting Recognized Text
- Limitations
Scanned Documents

- Scanned documents are essentially one image per page
- **Screen readers or other assistive technology are unable to convert images into text**
- Scanned documents, especially poor quality scans or handwriting, can be difficult to read for everyone
- Other benefits of having digital copy
  - Can be searched
  - Can copy and paste text

Guidelines for Scanned PDFs

- Should be **avoided** as much as possible
- Optical character recognition can help
- A digital copy that contains the text should be provided
- If the document can be found in the library, a reference to the library item can be provided
Live or Real Text

• To check if the text is “live” or “real,” try to select the text with your cursor. If you’re unable to highlight/select it then it is not real text, and therefore not accessible for all users.

• Live text is searchable; this allows users to use search functions like CTRL + F to look for specific terms and find what they need quickly or copy/paste text.
Scanned Documents - OCR

• Success is highly dependent upon:
  • The quality of the scan
  • The quality of the OCR engine
  • Use Scanned PDF
    • Multiple Runs of Enhance Scan

• Some Gotchas
  • Colored backgrounds
  • Use Scanned PDF
  • Handwritten text

• After improving the quality of the scan document, next step is tagging PDF accessibility markup.
Limitations with OCR

• Adobe has limitations with OCR ➔ Reflow Text issues
• Misrecognized text or
• Alternatives
  o Proprietary Tools
    • Ominipage (scanning and OCR software)
    • ABBYY Fine Reader (all-in-one OCR and PDF software application)
  o Open Source Tools
Text Recognition

• Need to conduct Optical Character Recognition (OCR)

• Text Recognition Types:
  o Searchable Image
  o Searchable Image (exact)
  o Editable Text and Images
Correct Recognized Text

- Text Suspects
- Does not capture all text
1. Open Scanned PDF
2. Run Enhance Scan tool “Scanned Document” (Recognize Text Checked)
3. Tags the accessibility mark up of the document text, images, etc. Autotag document may be inaccurate. Always validate tags.
4. Run Full Accessibility Check
5. Check Results
Camera Image

1. Open Scanned PDF with Logos or Images
2. Run Enhance Scan tool Camera Image
3. Run Text Recognition
4. Tagging document
5. Check Results
Alternate Approaches for Scanned Documents

• Adobe Scan on iOS or Android (free)
  • Text recognition
• ABBY Fine Reader
  • ABBY PDF Transformer (cheaper alternative)
Option A: Edit PDF Tool

• Allows you to add and edit text and content within your PDF

• Benefits
  o Saves Time
  o Helpful if you converted from inaccessible files

• Drawback
  o If you have extensive edits, may need to retag your document.
Edit Scanned Documents

• Select **Edit PDF** button

• After performing text recognition, notice fonts are not part of the system *font name-number*

• To use available font, click on “Settings”
  • Use available system font
  • Make all the pages editable

Note: In case you can’t edit or add text, restart your computer.
**Option B: No Source Document?**

In case you can’t find the source documents, you can export PDFs to different file formats, including Microsoft Word, Excel, PowerPoint, etc.

*Follow Option A: Edit PDF Tool steps prior to Export PDFs to Microsoft Word.*

*Note: Need to verify format, alignment, unrecognized characters, punctuation, spelling, etc.*
Tags the accessibility mark up of the document text, images, etc
If this is your first time to set up Adobe Acrobat software:

- Select Tools Tab
- Accessibility
- Add Shortcut
Accessibility Tool

Contains settings to build accessible PDFs and to support the reading of accessible PDFs
## Accessibility Tools

<table>
<thead>
<tr>
<th>TOOLS / FEATURES</th>
<th>PURPOSE</th>
<th>ICON</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESSIBILITY</td>
<td>Encompasses all tools and features needed to create accessible documents</td>
<td><img src="accessibility_icon.png" alt="Accessibility" /></td>
</tr>
<tr>
<td>FULL CHECK</td>
<td>Acrobat Built-in Accessibility Checker</td>
<td><img src="full_check_icon.png" alt="Full Check" /></td>
</tr>
<tr>
<td>TAGS</td>
<td>Accessibility markup and structure to document</td>
<td><img src="tags_icon.png" alt="Tags" /></td>
</tr>
<tr>
<td>ORDER</td>
<td>Defines logical reading order of the document</td>
<td><img src="order_icon.png" alt="Order" /></td>
</tr>
<tr>
<td>CONTENT</td>
<td>List of all content in your PDF</td>
<td><img src="content_icon.png" alt="Content" /></td>
</tr>
</tbody>
</table>
Navigation Pane

These are the primary tools needed to create an accessible PDF

View > Show/Hide > Navigation

- Tags Panel, Content Panel, Order Panel
Tags Panel

Why is the Tags Panel known as tag tree important?

Keep the tags in a correct order because at times screen readers may follow the tag order instead of the reading order to review the document.
Order Panel

Screen readers read a document from left-to-right and top-to-bottom. That means reading order is important for users with visual impairments. When content, tables, images or charts are out of order or a document is poorly organized, the reader can become confused as to the meaning of the information.
Content Panel

- List of all content in your PDF
- You can delete content within your panel
<table>
<thead>
<tr>
<th>TAG</th>
<th>ICON</th>
<th>HOW TO TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headers 1 - 6</td>
<td><img src="image" alt="H1&gt;" /></td>
<td>Reading Order, Tag Preferences</td>
</tr>
<tr>
<td>Paragraph / Text</td>
<td><img src="image" alt="&lt;P&gt;" /></td>
<td>Reading Order, Tag Preferences</td>
</tr>
<tr>
<td>Images</td>
<td><img src="image" alt="&lt;Figure&gt;" /></td>
<td>Reading Order, Tag Preferences</td>
</tr>
<tr>
<td>Tables</td>
<td><img src="image" alt="&lt;Table&gt;" /></td>
<td>Reading Order, Tag Preferences</td>
</tr>
<tr>
<td>Links</td>
<td><img src="image" alt="&lt;Link&gt;" /></td>
<td>Reading Order, Tags Panel, right-click Properties, dropdown list “Type” to change tag preferences</td>
</tr>
<tr>
<td>List</td>
<td><img src="image" alt="&lt;L&gt;" /> OR <img src="image" alt="&lt;LBody&gt;" /></td>
<td>Reading Order, Tags Panel, right-click Properties, dropdown list “Type” to change tag preferences</td>
</tr>
<tr>
<td>Background/Artifact</td>
<td><img src="image" alt="&lt;Artifact&gt;" /></td>
<td>Reading Order, Tag Preferences</td>
</tr>
<tr>
<td>Section</td>
<td><img src="image" alt="&lt;Sect&gt;" /></td>
<td>Reading Order, Tags Panel, right-click Properties, dropdown list “Type” to change tag preferences</td>
</tr>
</tbody>
</table>
There are 37 different tags under Object Properties

1. Article
2. Annotation
3. Bibliography Entry
4. Block Quote
5. Caption
6. Code
7. Division
8. Document
9. Figure*
10. Form*
11. Formula*
12. Heading*
13. Heading 1*
14. Heading 2*
15. Heading 3*
16. Heading 4*
17. Heading 5*
18. Heading 6*
19. Index
20. Label
21. Link
22. List
23. List Item
24. List Item Body
25. Note*
26. Paragraph*
27. Part
28. Quote
29. Reference*
30. Section
31. Span
32. Table*
33. Table Data Dell
34. Table Header Cell
35. Table of Contents
36. Table of Contents Item
37. Table Row

* Shown in Reading Order
Use Reading Order tool to begin tagging your document

(Formerly known as the TURO or Touch Up Reading Order tool).
1. Access via Order Panel or Tag Tree
2. Set up Display
3. Editing Tags in Reading Order tool
How to tag document?

1. Open Accessibility, Reading Order Tool
2. Draw a rectangle around the content or double-click the content then click one of the Reading Order buttons
3. Proceed step #2 to tag the rest of the content
Adding Tags (1)

Headers

Text (regular text / paragraph)
Adding Tags (2)

Images

- Images are tagged as “Figure”
- Or images with short text underneath as “Figure/Caption”
- Decorative lines or shapes can be tagged as “Background/Artifact”. This will ignore by assistive technology.
Background/Artifact

An artifact is content that does not provide meaningful information such as decorative images or line spaces. Artifacts should not be present in the Tag Tree. <Artifact> list in Content Panel ignore by assistive technology.

1. Open the Tag Tree
2. Select the empty <P> tag
3. Access the Reading Order tool from the Tag Panel
4. Select the item number for content to be marked as an artifact (note it will have a blue box around it)
5. Select “Background/Artifact” from the Reading Order tool
6. Note that the previous empty <P> tag is now gone
Background/Artifact Example

• Select the empty `<P>` tag
• Select Background/Artifact button from Reading Order tool.
• Empty `<P>` tag is now gone
Check Tab Order

The tab order is the series in which keyboard users will follow when navigating a PDF. The tab order must be consistent with the reading order; otherwise, readers may read the content in a different order.

1. Navigate to the Panes section located on the left side of your screen. Open Pages panel by clicking on the Pages icon
2. Right-click to select “Page Properties”
3. Select Use Document Structure
Final Accessibility Full Check

Conduct manual or visual checks on Logical Reading Order and Color Contrast
Logical Reading Order
Is the logical reading order structured correctly?

[9] VEGETABLES
[10] • USDA offers fresh, frozen, canned, and dried options
[11] • USDA only offers no salt added frozen vegetables
[12] FRUITS
People who have low vision or colorblind could encounter some difficulty distinguishing text color from a background color if the contrast is insufficient contrast ratio 1.5:1.

This example has a great color contrast ratio of 8.7:1. The contrast is sufficient for those who have color deficiencies.

- Download Colour Contrast Analyser onto your computer (PC/Mac) to ensure accessible contrast or use an online contrast checker from WebAIM.
- WCAG Level AA requires a contrast ratio of at least 4.5:1 for regular sized text (12 or 14 pt. font) and 3:1 for large text (18 pt. font).
- Coblis Color Blindness Simulator
Accessibility Tips

• Always save your PDF as you add accessibility markup

• When modifying extensive content in reading order, drag content down not up

• Remove empty tags i.e. <p>

• Header, footer, and page numbers, decorative lines or shapes tag as “Background/artifact”
Use screen readers to finalize your document accessibility features

NVDA screen reader can be downloaded free of charge by anyone.

Screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display.

Provides auditory descriptions of each onscreen element using gestures, a keyboard, or a braille display.

Adds spoken, audible, and vibration feedback to your device.
Resources

• This video shows you how to convert a scanned PDF using Adobe Acrobat Pro DC. **OCR to PDF** (2 minutes)

• A short how-to guide for converting scanned documents to real text using OCR. **Convert Scanned PDFs with Adobe Acrobat.**
How can we help you make a difference?

Universal Design means design for everyone

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- Tools and Services