

Creating Accessible Documents

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AMAC Accessibility Georgia Institute of Technology, College of Design

AMAC Accessibility Solutions



AMAC was created in 2005 to provide complete, timely, and efficient accommodations to students with print related disabilities. We first started with textbook conversion, and have added many departments and services over the years.



AMAC's Products and Services



E-Text Production provides textbooks, supplements, journals, brochures, and manuals in a variety of accessible electronic formats, including PDF, DOC, DAISY, PowerPoint, HTML, and MathML files.

Braille Services produce timely, cost-effective, high-quality electronic and embossed Braille and custom tactile graphics.

Captioning and Described Media Services make classroom lectures, meetings, labs, or webinars fully accessible for deaf or hard-of-hearing and provide post-production transcripts, captioning, and described video.

Assistive Technology Team conducts on-site and remote assessments, and offer demonstrations, training, and assistive technology for education, work, and daily living environments.

Accessibility Compliance Consultations focus on the accessibility needs of organizations, offering technical assistance, customer support, and evaluation of overall website accessibility.

E-Text Products



Format	Description of Accessible Features
PDF	PDF files that retain the same layout as the print textbook and include bookmarks for navigation, synchronized highlighting of text, and can be read aloud by screen readers. Students can easily magnify the text or change color contrast options. Images do not have alt text descriptions.
MS Word Doc	DOCs are best for students who use screen reading software such as JAWS and are formatted in a single column layout. Three levels of headings and page numbers are included, reading order is determined manually, and alt text descriptions are provided for all images except for decorative images and images with adequate captions.
DAISY	DAISY files are read by Dolphin EasyReader, which has a wide range of voices. These files have three levels of headings, correct reading order, and alt text descriptions are provided for all images except for decorative images and images with adequate captions.
PowerPoint	Each PowerPoint slide has a unique descriptive title, all images and tables are fully described, and the reading order is determined for all objects on the slide. Also, all content will be placed in accessible content boxes that will be read aloud by screen readers.
HTML	HTML files have three levels of headings that provide navigation, reading order is determined, and alt text descriptions are provided for all images except for decorative images and images with adequate captions.
MathML	MathML files include all the features of our accessible HTML files, plus all equations and symbols are accessible to screen readers and are pronounced according to MathSpeak guidelines.
Audiobooks	Books are downloaded and read with Learning Ally software. These files are audio only, but are read aloud with human narration, not synthetic speech.

Who Uses Accessible Media



The audience for Accessible Media is not just people with disabilities. It is far larger than you would imagine...

People who have blindness, color blindness, or low vision People with mobility issues who cannot hold a textbook People with motor disabilities who cannot turn pages The Deaf and Hard of Hearing Community People with learning disabilities such as dyslexia or ADHD People with head injuries, trauma, or cognitive disabilities Auditory learners Aging population

Why Accessibility Is Best Practice



Making material accessible is best practice ethically, practically, and legally.

- Making material accessible allows for equity and fairness in information distribution and opportunities.
- Accessible files can be converted into multiple file formats easily and can reach more people.
- WCAG 2.0 stands for Web Content Accessibility Guidelines. Following these guidelines protects you from litigation.
- The United States Department of Justice recommends the ADA Compliance Guidelines for ICT Accessibility.
- Section 508 Guidelines are determined by the GSA, the Government-wide Section 508 Accessibility Program.

Microsoft Word Accessibility



- 1. Choosing accessible fonts and design features.
- 2. Creating white space.
- 3. Creating and modifying headings.
- 4. Generating an automated table of contents.
- 5. Creating accessible lists.
- 6. Establishing a logical reading order.
- 7. Formatting accessible tables.
- 8. Using column breaks, section breaks, and page breaks.
- 9. Writing alternate text descriptions for images.
- 10. Using the accessibility report.



Accessible Fonts



- Use font sizes between 12 and 18 points for body text.
- Use standard fonts with clear spacing and easily recognized upper and lower case characters. The following fonts are the most accessible: Calibri, Arial, Verdana, Tahoma, and Times New Roman.
- Sans serif fonts (e.g., Calibri, Arial, Verdana) are generally considered easier to read than serif fonts (e.g., Times New Roman, Garamond).
- Avoid large amounts of italicized, bold, or underlined text. Text in all caps is also difficult to read and produces eye strain.



Try to use plain text whenever possible, avoiding unnecessary tables, borders, or graphics if they do not convey meaning.

•Use normal or expanded character spacing, rather than condensed spacing.

Use language that is clear, direct, and easy to understand.

Explain all acronyms, symbols, and abbreviations.

Provide meaningful context for all hyperlinks.





Provide sufficient color contrast between text and background colors. Do not use color as the sole means of communicating information such as required fields and error messages.

Text should be easy to read.

- Color contrast in comparison to the background should be a ratio of 4.5:1.
- A good tool to test the color contrast is Colour Contrast Analyser found at <u>The Paciello Group</u> (www.paciellogroup.com).



When creating white space in your document,

DO NOT:

Hit Enter, Tab, or Spacebar more than once.

DO: Use line spacing. Use tab stops.

Viewing Repeated Blank Characters



To see the blank characters, turn on Show/Hide paragraph marks.

You only need to fix the repeated occurrences. It is fine to have one blank character per occurrence.

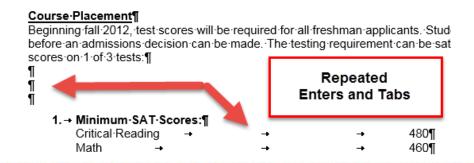


Repeated Blank Characters



Repeated blank characters are caused by hitting enter, tab, or space multiple times in a row.

A screen-reader may say the word, "paragraph mark," or "blank space," or "tab," for each of these blank characters, which could confuse the listener.



Using Line Spacing



Put your cursor either before or after the word where you want white space.

Use the Line Spacing option in the Page Layout tab and add space before or after the word as seen below.

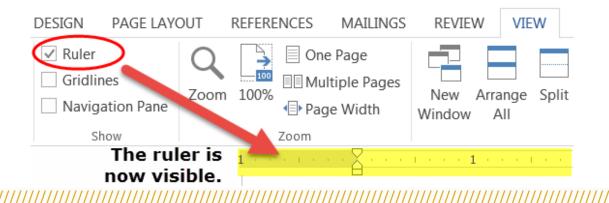
Delete any repeated hard line breaks.

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G.		Para	raph		r <u>s</u>



A **tab stop** is a horizontal position which is set for placing and aligning text on a page.

First you must view click the View tab and check the box for Ruler, as seen below.



Using Tab Stop



Click on the ruler where you want your tab to stop.

Then hit Tab in the designated section. (Hint: you can drag the tab stop if you need to.)

1 · · · · · · · · · · · · · · · · · · ·	Minimum SAT Scores:	480 460	Click on the ruler where you want the tab to stop.
2.	Minimum ACT Scores: English Math	21 19	Place your cursor after the word Reading and hit tab.
3.	Required Minimum COM English Reading Math	IPASS scores: 32 62 20	The number 480 stops right where you specified.

Adding Headings





Heading levels help users navigate and they also help you organize your content. Instead of making your headings look a certain way, and instead focus on how they function.

Screen reader users can use quick key commands or shortcuts to navigate documents by Heading levels.

• Your headings will retain your document structure when exporting to different file formats.





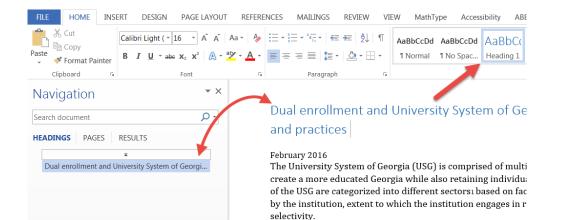
Click the View Tab and check the Navigation Pane box to view all the headings in the document.

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Highlight some text and choose the Heading style from the Home Tab and your heading will show up in the Navigation Pane on the left.

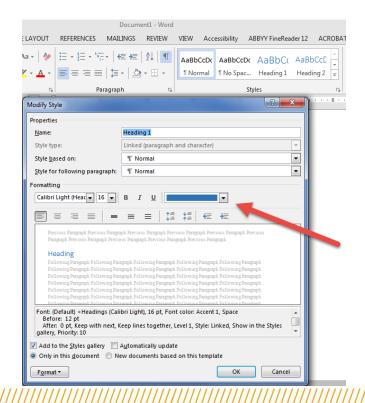


Customized Headings



Heading styles can also be customized, so you can keep style options while also adding meaningful structure for screen reader users.

Right click on a Heading Style on the Home Tab and then select Modify Style to adjust your formatting options.

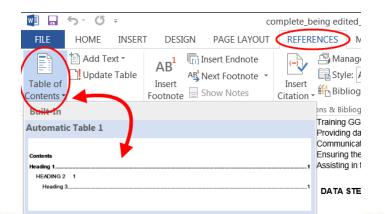


Automated Table of Contents



Once you've applied heading styles, you can insert your table of contents by clicking the References tab and then the Table of Contents command.

Select a built-in table of contents.

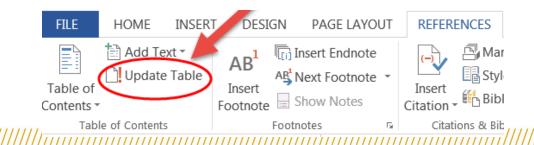


Updating the Table of Contents



The TOC is automatically updated When you update the TOC, youwhenever you open thewill choose to update the entiredocument.TOC, or just the page numbers.

You update the TOC by clicking the References tab and then Update Table, in the Table of Contents group. Only edit the headings within the body of the document, not in the table of contents itself.



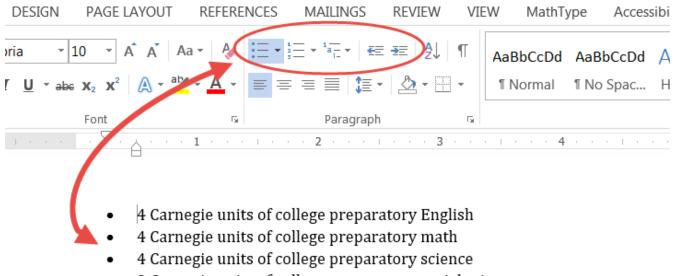


Using list styles will identify to a screen reader that there is a list and the number of items in the list.

- Using list styles will also preserve list formatting when exporting a file to another format.
- Use Word's list builder to create true lists rather than creating your own lists with icons or graphics as bullets.
 - Use the icons in the Paragraph group on the Home tab.
 - When you select a bullet or number, the entire list of bullets and numbers will become selected = true list.
 - Use the icons to adjust your list styles and hierarchies.

List Options





- 3 Carnegie units of college preparatory social science
- 2 Carnegie units of the same foreign language, or 2 units of American Sign





Avoid too many sidebars and callouts that will sound disruptive and confuse someone using a screen reader if possible.

You should not span a sentence to the next line for visual purposes if there is other text that will interrupt it.

Instead, create a table or another column.

	Semester Hos	ars-Atten	pted →	→	→	A	linimu	im-Ci	umul	ative GPA	
	Plus Transfer		-+	→	-+		-+	·(C	GC	Credit Only)	
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Accessible Tables



Tables should:

Have a specified header row.

Have a logical reading order from left to right, top to bottom.

Contain related information.

Consist of the same number of cells per row/column (not merged cells).

Have a title and caption that gives an overview of what's inside the table. If placed before the table, it can help the person using screen reading software to focus and interpret the data.

Avoid Merged and Empty Cells



Do not merge cells. Merged cells do not provide clear information to a person with printrelated disabilities. Each row and column MUST have the same number of cells as the others.

Avoid leaving any cells blank/empty.



Empty Cells in Tables





The way this is currently configured, a screen reader would treat this as a table with rows, most of which are blank. A list of all events might work better, or consider adding "No events planned on this day" in empty cells.

Table Header Rows



Organize a table so that the table has only one header row.

	Thursday, February 6, 2014		
	Professional Attire for Entire Day wi	ith School Pin & Na	melay
10:30 a.m. – 10:55 a.m.	Registration at Hampton Inn – Park in GT Ar	ea #1 Visitor Lot	
11:00 a.m.	Meet in hotel lobby for bus transport to B.O.R.	Two	sharp
	Welcome from the Chancellor	header	
11:30 a.m. –12:30 p.m.	(Session #1): Chancellor Hank Huckaby Guest Regent Lori Durden, other USG staff	rows	Room 5158
12:30 pm – 1:00 pm	Lunch at BOR's office		Room 5158
	(Session #2): "Welcome to Capitol Hill" Speakers: Amanda Seals & Tom Daniel, <i>Legisl</i> i	ative Affairs	



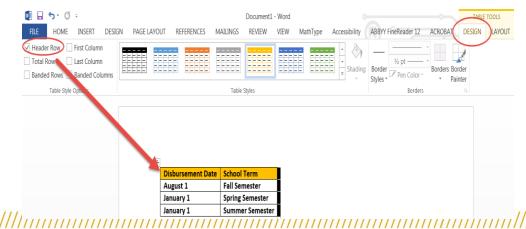


To properly specify the header row, first select the table.

Then click the Design Tab.

Now check the box for Header Row.

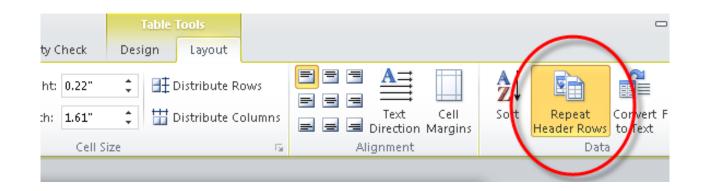
Your first row now becomes a Header Row.



Eliminating Header Row Errors



If you still have errors in the accessibility report about not having specified a header row, click on the table, then go to the Table Layout ribbon, and select "Repeat Header Rows."



Keep Table Rows Together



If the table spans more than one page, make sure that "Allow row to break across pages" is unchecked. Right click the table and click Table Properties. Choose the Row tab and uncheck Allow row to break across pages.

				Table Properties
CATEGORY	RESPONSIBILITY	RETENTION	1	Iable Bow Colymn Cgll Alt Text
Gifts and Pledges	Associate Vice President for Development			Size Size Specify height: 0" At least V
Letters and agreements of gifts		PERM JENT	BOF	School and a schoo
Copies of bequest instruments and wills		PE MANENT	BOF	Options Allow row to break across pages
from individuals or estates		PERMANENT	0.05	
Related documentation and correspondence			BOF	Repeat as header row at the top of each page
Award guidelines	-	7 years	BOF	A Previous Row Vext Row
Records of fund disbursements		7 years	BOF	
Correspondence			-	
Records documenting communication with government agencies, vendors and the public pertaining to fiscal policy, obligations and revenue	Each Functional Manager	PERMANENT	BOI	
Emails, voicemails, calendars	GGC	Managed by GGC	-	
NANCIAL RECORDS			-	
Determination Letter from the IRS	Chief Financial Officer	PERMANENT	1	
Annual Reports (Audited)	Chief Financial Officer	PERMANENT	BO	OK Cancel
Form 990 Tax Returns	Chief Financial	PERMANENT	- 1	

Repeat Header Rows



If the table spans more than one page, make sure that you check the selection to repeat the header row for each page.

- •Select the first row of the table, right click, and choose Table Properties.
- •Check the box for "Repeat as header row at top of each page."

Accommodations & Activities (cont'd.)

State Parks and Outdoor Recreation Areas charge \$5 parking. Historic Sites charge an admission fee. Some activity fees apply. Some amenities may be seasonal. Availability subject to change.

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32	Providence Canyon Outdoor Recreation Area, p. 36	1,003									6	*		G		
33	Red Top Mountain State Park, p. 37	1,776	18	-1		92	12	40				*		CIFG		
34	Reed Bingham State Park, p. 37	1,613				46	23	50	1		1	*		CIFG		
35	Reynolds Mansion on Sapelo Island, p. 38	6,110										*		IF	13	
36	Richard B. Russell State Park, p. 38	2,508	20			28	6	35						IF		
37	Seminole State Park, p. 38	604	14			50	41	40				*		IFG		
38	Skidaway Island State Park, p. 38	588			3	87	82	50				*		IFG		
39	Smithgall Woods State Park, p. 39	5,664	6									*				
40	Stephen C. Foster State Park (Okefenokee Swamp), p. 39	80	9			64	8	50				*	Y	CIFG		
41	Sweetwater Creek State Park, p. 39	2,549		10						5				IFG		
42	Tallulah Gorge State Park, p. 40	2,739				50	12				3	*		IFG		
43	Tugaloo State Park, p. 40	393	20	6		105	25	35		11		*		CIFG		
44	Unicoi State Park and Lodge, p. 41	1,050	30			49		40		33		*		CIFG	100	
45	Victoria Bryant State Park, p. 41	502				27	8	40		8		*		CIF		
46	Vogel State Park, p. 41	233	35			85	17	40		18		*		CIFG		
47	Watson Mill Bridge State Park, p. 41	1,118			3	30	20	40				*		IF		1

Layout Tables



Do not use tables for layout purposes only.

Tables have to have logically related information with a header row.

You cannot format content into a table just to make it look nice. Tables are not intended to be used for lists, groups of words, or visual purposes only.

If you want to format content like a table, then use column breaks, section breaks, page breaks, or tab stops.

Screen	readers	read	
information	across	t This is a layout	
in a	linear	table. There is	Γ
thereby	making	i and no clear classification of	
difficult	to	ι the words.	
information	contained	in tables.	

	Friday, February 7		Layout table:
	- Business Casual At	tire for Day	
6:00 a.m. – 8:00 a.m.	Breakfast available at hotel, Check out of ho Participants put luggage in cars and drive to G	have a clear header row which	
	President's Welcome Address	Student S	identifies
8:30 a.m. – 9:15 a.m.	Welcome video		what each column
9:15 a.m. – 9:35 a.m.	President Bud Peterson, President of Georgia Nicholas Picon, Georgia Tech 5GA President Dr. Bill Schafer, VP for Student Affairs Other Georgia Tech administrators	Tech	represents. This table was created
9:15 d.m 9:35 d.m.	Georgia Tech SGA Executive Cabinet Video, Q & A		for visual purposes.
9:35 a.m. – 10:45 a.m.	" Tour of SGA Office" "Tour of CULC"- Student tour of new Georgi	a Tech acade	mic facility CULC
- 15 min. break -			

Column, Section, and Page Breaks



Only adjust spacing using page layout, line spacing, section breaks, and ruler. Do not hit enter or tab repeatedly to create white space.

Create columns with Microsoft Word's formatting tools, not by tabbing or creating a makeshift table to arrange text.

Inserting section breaks and adjusting your margins can help you change the layout of your page if necessary.

Using Section Breaks



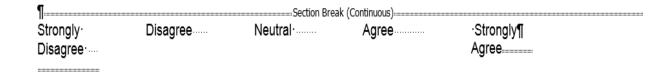
If you want to format a certain section of the document:

Turn on show/hide paragraph marks.

Place your cursor before the section you are formatting.

Click the Layout Tab> Breaks> Section Breaks Continuous.

Then insert another section break after the section. Within the two section breaks, you can format the text however you wish and this formatting will not affect the rest of your document.





Often the Accessibility Checker will flag hyperlinks in your document. To create fully functional and accessible links, do the following:

- 1. Write the name of link in plain language, ie. The Department of Natural Resources News Site.
- 2. Highlight the name of the link and right click to Insert a Hyperlink.
- 3. Paste the URL in so that the title turns into a clickable link.
- 4. Add the URL in parentheses after your hyperlink for print audiences, and right click to remove the hyperlink from the URL.

Example: To learn more about our educational programs, workshops, classes, and events, please visit <u>The Department of Natural Resources</u> <u>Education website</u> (www.gadnr.org/education).

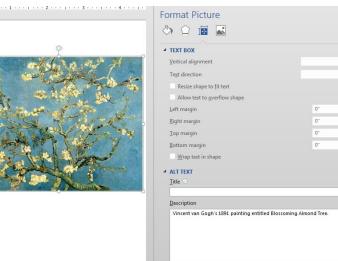
Alternate Text Descriptions



All images in a document should be fully described so that everyone has equal access to visual information. Remember to use proper capitalization, grammar, spacing, and punctuation.

To add alt text to an image:

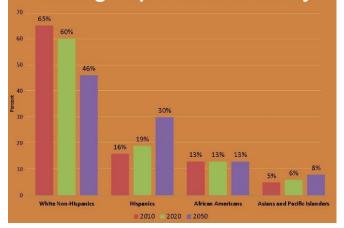
- Right-click the image.
- Choose Format Picture.
- Select the Layout Properties icon.
- Click on the Alt Text link.
- Type in the description field.



An Example of Alt Text Description



Growing Population Diversity



Brief: A bar graph showing projected population diversity growth by ethnicity in the years 2010, 2020, and 2050. Ethnicities measured include White/Non-Hispanic, Hispanic, African American, and Asian and Pacific Islander.

Complete: A grouped bar graph showing the growing population diversity in 2010, 2020, and 2050. The horizontal axis is labeled with different ethnicities and the vertical axis is labeled with percentages from zero to seventy. In 2010, the percentage of white non-Hispanics was 65 percent, and is estimated to be 60 percent in 2020 and 46 percent in 2050. In 2010, the percentage of Hispanics was 16 percent, and is estimated to be 19 percent in 2020 and 30 percent in 2050. In 2010, the percentage of African Americans was 13 percent, and is estimated to remain at 13 percent in both 2020 and 2050. In 2010, the percentage of Asians and Pacific Islanders was 5 percent, and is estimated to be 6 percent in 2050.

Adding Metadata



By clicking on the File tab and viewing the **Document Properties, you** can edit information such as Author, Title, Subject Tags, or Comments to provide further information about what the document contains. This data will be retained if you save as an accessible PDF.

Properties *	
Size	25.9KB
Pages	1
Words	60
Total Editing Time	25 Minutes
Title	Moving AHEAD Conference
Tags	Add a tag
Comments	Add comments
Related Dates	
Last Modified	Today, 10:40 AM
Created	Today, 10:14 AM
Last Printed	Never
Related People	
Author	Morrison, Valerie Mandeville
	Add an author
Last Modified By	Morrison, Valerie Mandeville
Related Document	s
📃 Open File Loca	tion
Show All Properties	5

Check Accessibility

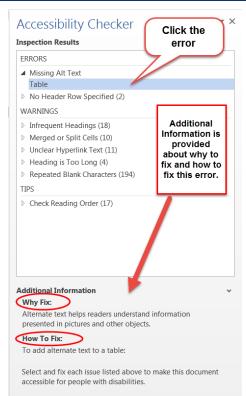


Save your document as a .docx file.

- Go to the **File** tab and click on **Check for Issues**, and select **Check Accessibility**.
- The accessibility checker will open in a separate pane and list all accessibility issues with links to each potential problem.
- Additional information appears below, instructing you on why this might cause a problem and how to fix the issue.

Finding and Fixing Errors





Read more about making documents accessible

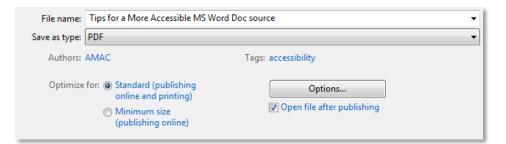
Saving Your File as an Accessible PDF



MS Word 2010 includes the option to Save and Export accessible formatting including headings and alt text when the doc is saved as a PDF.

To export your Word doc to an accessible PDF format, go to File > Save As >

from the **Save as type** drop down menu choose **PDF** and click on **Options**.



Accessible PDF Options



From the PDF Options menu, under Include non-printing information, be sure to check the following options:

- Create bookmarks using Headings
- Document properties
- Document structure tags for accessibility

Options 2 X
Page range
All
Current page
Selection
○ Page(s) From: 1 → To: 1 →
Publish what
Ocument
Ocument showing markup
Include non-printing information
Create bookmarks using:
<u> H</u> eadings
Word bookmarks
Document properties
Document structure tags for accessibility
PDF options
ISO <u>1</u> 9005-1 compliant (PDF/A)
\boxed{V} Bitmap te <u>x</u> t when fonts may not be embedded
Encrypt the document with a password
OK Cancel

PDF Accessibility



- 1. Text highlights in proper reading order.
- 2. Bookmarks provide structure and organization.
- 3. Pagination is clear and navigable.
- 4. File size is manageable, under 25 MB is ideal.
- 5. File names are clear and contain no symbols.
- 6. Images have alt text descriptions if necessary.
- 7. Language and metadata are included in properties.



Adding Bookmarks to a PDF



PDFs should have bookmarks to help a user easily navigate to different sections of the file. Bookmarks can be generated from a Word document with headings, or you can add them directly into your PDF by highlighting text and clicking Control + B or right clicking and choosing "Add Bookmark."

Table	of Contents					
	Сор <u>у</u> С	trl+C				
Acknowledgements,	Copy With <u>F</u> ormatting					
Introduction	Ed <u>i</u> t Text					
1. Agency	Export Selection As					
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Employees versus I						
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PROBLEM 1.1	Create Link					
Analysis	Create Link					
PROBLEM 12		Look Up "Contents"				
Analysis						
	s and Independent Contractors: .					
	oints to remember;					
	LE					
Agency Problems In	olving Contracts					
	rity					
ILLUSTRATIVE EXAM	 LE	20				
Apparent A	thority.	20				
Limitations	n Ratification	21				

Bookmark Hierarchy



Bookmarks can have different hierarchies for organizational purposes. To adjust the hierarchy of your bookmarks, drag them up and under the "parent bookmark" so they appear indented.

Bookm	arks	\times
0- 0- -	□ Lo ↔	
	cing Business Associations: A Checklist pproach to Business Associations	
	Acknowledgements	
	Table of Contents	
	Introduction	
ДC	hapter 1: Agency	
ДC	hapter 2: General Partnerships	
ДC	hapter 3: The Structure of the Corporation	n



To reduce a PDF's file size you can try either of the following methods:

- Save your PDF as a reduced file size. Go to FILE, select "Save As Other", and select "Reduced Size PDF." When prompted to select Acrobat Version Compatibility, select "Acrobat 9.0 or later" from the dropdown menu.
- 2. Split the file into smaller sections, naming each section clearly.

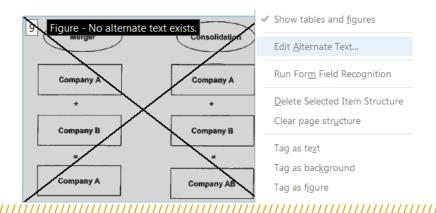


Keep titles short and simple and under 50 characters if possible.

- Do not include symbols, such as / : & %) # '
- If you split a PDF into separate files, name each section clearly.



To add alt text descriptions to images in a PDF file, it's easiest to turn on T.U.R.O. in the Accessibility Tools, which stands for "Touch Up Reading Order." This highlights all figures for you, and you can then right click on the ones needing descriptions and select "Edit Alternative Text."



Inaccessible PDF Forms



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H	IULL	IDENTI	FICAT	ION NU	MBER	R (AF	TER 1	972, 1	12 OR	14 CI	HAR.)		OUT	-OF-S1	ATE	REGI	STRAT	ION N	UMBER	B	OAT L	INGTH		
1 2	3	4	5	6	7	8	9	10	11	12	13	14								-		FEET	IN	CHES
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This Vessel Registration Application would be very confusing for someone using a screen reader to navigate and edit. It could be remediated, but each check box would need to be individually formatted with alt text descriptions.

Accessible HTML Forms





GEORGIA DEPARTMENT OF NATURAL RESOURCES APPLICATION FOR EMPLOYMENT

An Equal Opportunity Employer

EDUCATION:

High School Graduate or E	quivalent (GED)?	es	□No				
College / Te	chnical School					Progra	im
Institution	City/State	Major	Hours	Minor	Hours	Type of	Date Degree
						Degree	Completed
							/
							/
							/
							1

The PDF form above could easily be rendered as a table in HTML format, keeping the same content and format, and it would be easier for a person using a screen reader to navigate and edit. **Employment forms** would be a top priority in conversion, followed by forms on **frequently visited pages**, and landing or **home pages**.

Accessibility Report



You can also generate an Accessibility Report in the Accessibility Tools options. Click on "Full Check" to open a list of things you'd like your check to include, such as figures missing alt text, missing bookmarks, errors in reading order, color contrast, not having a language selected, etc.

ccessibility Checker Options
Report Options Image: Create accessibility report Folder: C:\Users\vmorrison6\Documents Image: Choose content Choose content
Page Range
Checking Options (31 of 32 in all categories)
Category: Document
 Accessibility permission flag is set Document is not image-only PDF Document is tagged PDF Document structure provides a logical reading order Text language is specified Document title is showing in title bar Bookmarks are present in large documents Document has appropriate color contrast
Select All Clear All
Help Start Checking Cancel

Excel Accessibility



- 1. Consider design and formatting in terms of clarity.
- 2. Each sheet tab should have its own unique name.
- 3. If content is in table format, include clear column and row headings whenever possible.
- 4. Do not merge cells or leave table cells blank.
- 5. Bulleted and numbered lists are created properly.
- 6. Graphics, smart art, charts, shapes, and tables are described with alternate text descriptions.

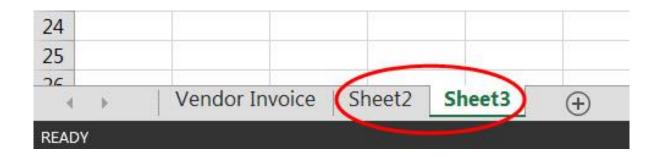


Unique Names for Each Sheet



Each Excel sheet should have its own unique name for easy navigation.

In addition, all empty sheet tabs should be deleted to avoid confusion.



Structural Alt Text for Tables



In addition to adding alt text descriptions for any images or visual content, consider adding structural alt text to summarize your table contents. This gives someone a chance to hear what the table contains before listening to all the data.

Example:

Table 10.1 is titled Physical Properties of the Giant Planets. It has 5 columns and 13 rows. The column headings are Physical Property, Jupiter, Saturn, Uranus, and Neptune.

*Please note that because the first column heading was left blank, we filled it in so that the table would make more sense.

TABLE 10.1 Physical Properties of the Giant Planets

	Jupiter	Saturn	Uranus	Neptune
Orbital semimajor axis (AU)	5.20	9.6	19.2	30
Orbital period (Earth years)	11.9	29.5	84.0	164.8
Orbital velocity (km/s)	13.1	9.7	6.8	5.4
Mass ($M_{Earth} = 1$)	317.8	95	14.5	17.1
Equatorial radius (km)	71,490	60,270	25,560	24,300
Equatorial radius (R _{Earth} = 1)	11.2	9.5	4.0	3.8
Oblateness	0.065	0.098	0.023	0.017
Density (water = 1)	1.33	0.69	1.27	1.64
Rotation period (hours)	9.9	10.7	17.2	16.0
Tilt (degrees)	3.13	26.7	97.8	28.3
Surface gravity (relative to Earth's)	2.53	1.07	0.89	1.14
Escape speed (km/s)	59.5	35.5	21.3	23.5

Accessibility Checker in Excel



Accessibility Checker

Inspection Results



WARNINGS

 Default Sheet Names Sheet1

Additional Information

Select and fix each issue listed above to make this document accessible for people with disabilities.

Read more about making documents accessible

Use the Accessibility Checker in Microsoft Excel, just as you would in Microsoft Word. Go to File, then click on Check Issues, and then Check Accessibility to run a quick report listing issues you need to fix.

PowerPoint Accessibility



- 1. Consider design and formatting in terms of clarity.
- 2. Add content by using accessible Templates and Layouts.
- 3. Slide titles are unique, descriptive, and in a logical order.
- 4. Select proper reading order for objects on each slide
- 5. Text is accessible to screen reading software in outline view.
- 6. Extra white space is eliminated in outline view.
- 7. Bulleted and numbered lists are created properly.
- 8. Graphics are described with alternate text descriptions.





Fonts - use a readable font in a large enough size that your presentation will be seen throughout the room.

Backgrounds - Always place text on a plain or solid background.

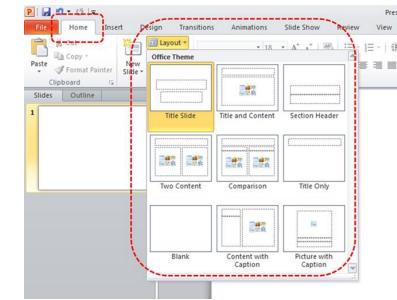
- Inserting a **background image** allows you to include graphics that are not read aloud by screen reading software. For example, the AMAC logo above is simply a background image.
- **Colors and contrast** text color should provide enough contrast with background color that people can easily read it. Readers with low vision read yellow font on a black background most easily.
- **Layout** use a standard layout template with text placeholders. This will help with logical reading order and make sure that all of your content will be accessible.

Templates and Layouts



Use PowerPoint's builtin templates, not the text boxes which can be inaccessible to screen readers.

- •Go to Home Ribbon
- •Click on Layout
- •Right clicking on the slide pulls up layout options, as well.



Unique and Descriptive Slide Titles



Give each slide a unique title

- Aids in navigation
- Clarifies your presentation
- Organizes your ideas
- Helps your audience focus

Selecting Reading Order

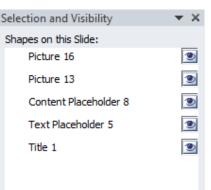
Go to menu item: Home

In the Editing section, select Select > Selection Pane...

In the **Selection** pane, all the elements on the slide are listed in reverse order. In other words, the tab order of objects begins at the bottom of the list and tabs upwards.

Elements can be re-ordered using the arrows at the bottom of the Selection and Visibility pane.

Note how many objects are in this example screenshot. It would be more accessible if the slide were simplified and streamlined with fewer objects if possible.





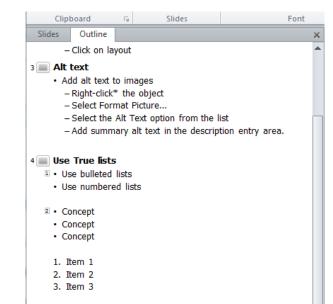
Outline View



Check that text appears in the Outline View (View tab>Outline View)

If accessible templates and proper content placeholders have been used, the text will be viewable in the outline view. If text boxes were used on the slides, screen reading software might skip this text.

Delete extra hard line breaks in the outline view when possible. These will be read as "blank line."



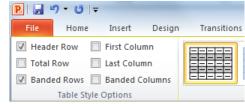
Inserting Tables



To add a table with headings

- Go to menu item: Insert
- In the Tables section, select the Tables icon
- Select the number of rows and columns you would like your table to have
- Select the table and a Table Tools menu item should appear
- Go to menu item: Table Tools > Design
- In the **Table Style Options** section, select the **Header Row** check box *Note:* Whenever possible, keep tables simple with just 1 row of headings.
- Add a brief description before table if possible, to give an overview of data.

ID	Institution	Туре	Eligible
24	Emory	Post-doctorate	yes
77	UGA	Undergraduate	yes
82	Georgia Tech	Undergraduate	yes



Select Lists Styles



Create bulleted and numbered lists with the built-in list tools.

The Home tab has drop down menus where you can easily create lists and adjust their hierarchy.

Avoid creating a list with icons or graphics as bullets.







Considering Graphics



If most of your images are decorative, can you combine them into one?

If your slide contains an animation, can you include a text description that sums up the main content?

Do your graphics appear crisp and legible?

Can your information be conveyed in a different format either instead or *in addition* to your graphic?

To determine the alt text to add, determine the purpose and meaning of the image and write a brief text equivalent.

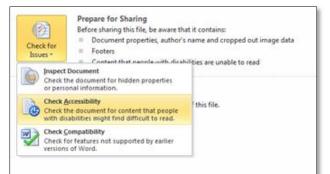
Using the Accessibility Checker



To access the Accessibility Checker, go to the File tab and click **Check for Issues**

From the drop down menu, select Check Accessibility





Save Your Presentation as an Accessible PDF



MS PowerPoint 2010 and 2013 include the option to Save and Export accessible formatting, including alt text when the ppt is saved as a PDF. To export your file to an accessible PDF format, go to File > Save As > from the **Save as type** drop down menu choose **PDF** and click on

Options.

Under Include Non-Printing Information, be sure to check:

- Document properties
- Document structure tags for accessibility

If Adobe Acrobat PDF Maker is installed, choose Save as Adobe PDF. An important advantage to exporting with Adobe PDF Maker – slide titles will export as Bookmarks in the PDF.



Students may request live or remote captioning through Disability Services.

In addition, captioning is required for all video content in a classroom or posted online.

All videos should be transcribed accurately, with all visuals described, including all sound effects and speaker identification.

YouTube captioning does work, but it must be edited. You can extract the YouTube transcript and edit it, or write a transcript yourself.

Audio Description



Audio description refers to an additional narration track intended primarily (but not only) for visually impaired consumers of visual media. Options include the following:

- 1. Provide a separate audio track which contains a brief description that can be selected by the viewer (ie. Netflix).
- 2. Create a separate video with extended description merged into the original audio track. This extends the length of the video and provides more detail (ie. what AMAC provides)
- 3. Provide a script that includes a transcript of all audio plus description of what is onscreen.
- 4. Avoid the need for audio description by describing all visual information in the original video.

Accessibility Checklists



You can find helpful 508 Checklists for various file types on the U.S. Department of Health and Human Services website (www.hhs.gov/web/section-508/making-filesaccessible/checklist).





Checklist: Multimedia File

AMAC Accessibility Memberships



AMAC accessibility services can be accessed by becoming an AMAC member.

We offer a range of membership levels, each designed to meet the particular accessibility needs of different types of organizations.

Membership Levels

There are five AMAC Accessibility membership levels:

The **<u>Basic</u>** and <u>**Deluxe**</u> memberships are designed for post-secondary institutions.

The <u>Corporate, Government, and Non-Profit (CGN)</u> memberships are designed to support companies and organizations in their efforts to accommodate employees, clients, and customers with disabilities.

The Georgia Board of Regents (BOR) post-secondary membership is designed specifically for institutions, departments and affiliates within the University System of Georgia.

The <u>Assistive Technology (AT)</u> membership is designed for individuals who are not part of an organization and only require AT evaluation services.

Feel free to visit our <u>membership website</u> for more information or contact Sam Evans, our Accounts Manager, at <u>sam.evans@amac.gatech.edu</u> or 404-894-8683.

AMAC's Accessibility MOOC

About this course:

In this introductory course, learn how to measure an organization's ICT accessibility and assess the importance of maintaining an inclusive workplace for both employees and customers with disabilities. This self-paced course consists of six modules detailing some of the primary ICT accessibility obstacles facing organizations today. Each module is taught by a subject matter expert – through content-rich videos, activities, and discussion forums.

What you'll learn

Foundations of ICT accessibility. Principles of accessible ICT design. Identify the uses of assistive technology. Create accessible documents and multimedia. Evaluate and repair websites for accessibility. Identify components of ICT accessibility operations.



Title: <u>ICT100X Information and Communication Technology (ICT) Accessibility MOOC</u> **Link:** https://www.edx.org/course/information-communication-technology-ict-ict100x





AccessGA represents a joint initiative of the Georgia ADA Coordinator's Office, AMAC, and GTA. The objective is to support Georgia's state agencies with ICT accessibility, and promote equal and timely access for employees and customers with a wide range of disabilities.



AccessGA Offerings



Webinar Offerings

Technical Assistance and Hands-On Training

Monthly Newsletters

Up-to-Date Wiki of ICT Accessibility Resources and Information

Web Accessibility Audits

Procurement and VPATs



Contact Information



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Digital Media Speciali

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