

User Manual

Author: Yiding Li

Know the Manual

Know the Reader

Write with Purpose

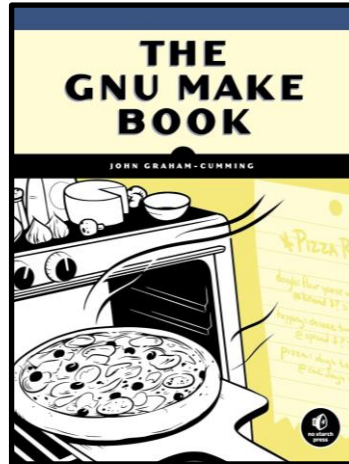
Some Tips

Recall

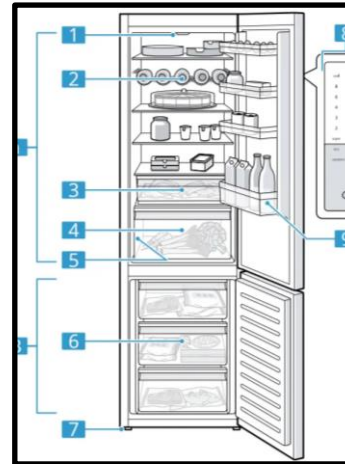
Resources

Accessibility

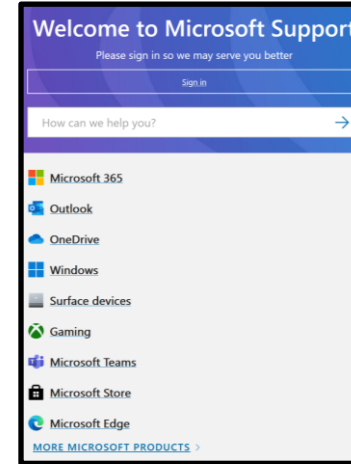
What is a User Manual?



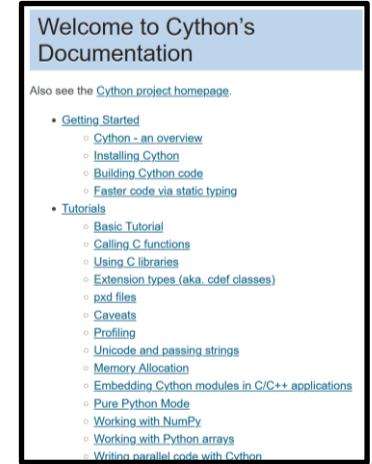
- For software
- Ship & forget
- Require expertise
- Read before you do



- For hardware
- Synchronous
- Last hope



- For the product portfolio
- Forum



- For software
- Versioned
- Live document
- Task-oriented

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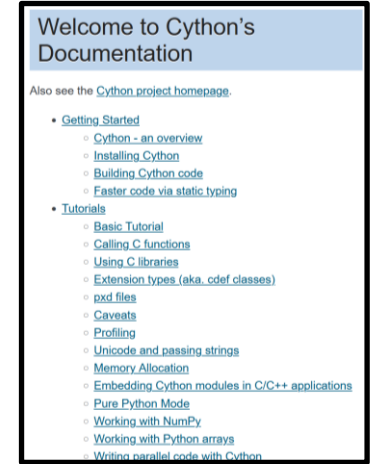
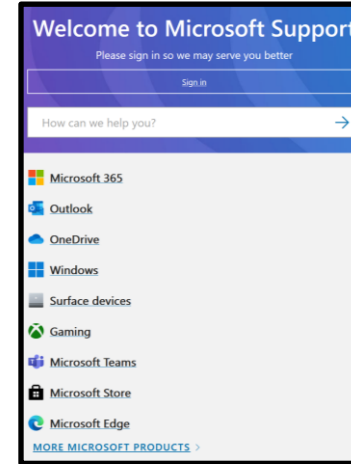
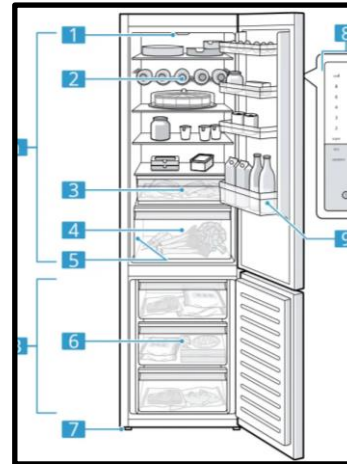
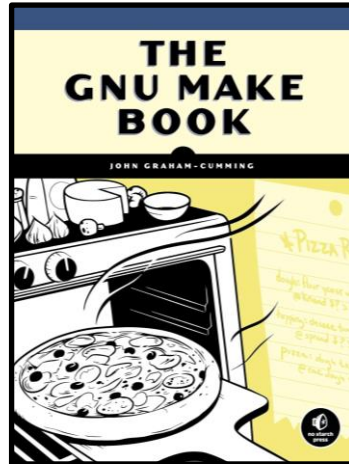
Some Tips

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What is a User Manual?



Differences?



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Some Archetypes

- Manual as first step:
 - User takes up task
 - User meets challenge
 - The manual might help!
 - Example: ***instruction manual***
- Manual as the last resort:
 - Problem arises during usage
 - User fails to solve problem
 - Problem blocks usage
 - Read the manual or give up
 - Example: ***service manual***

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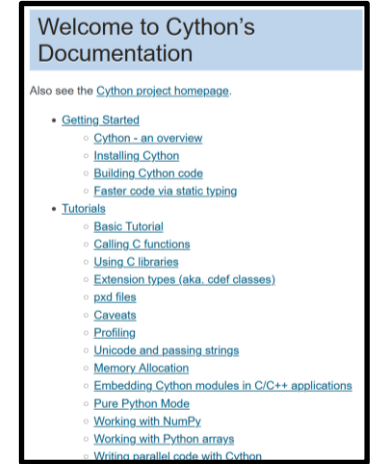
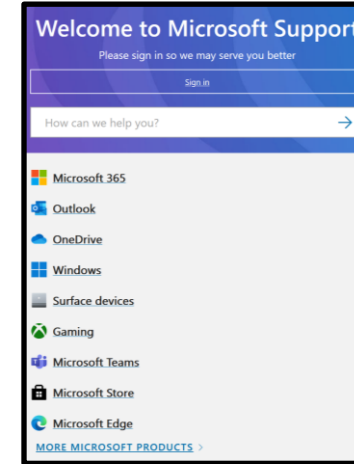
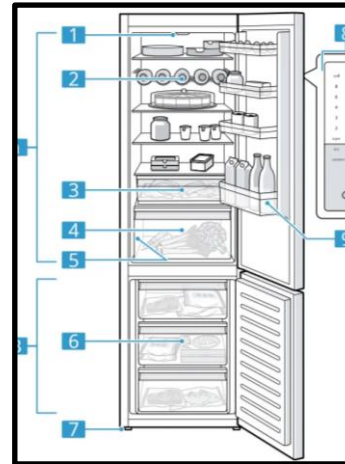
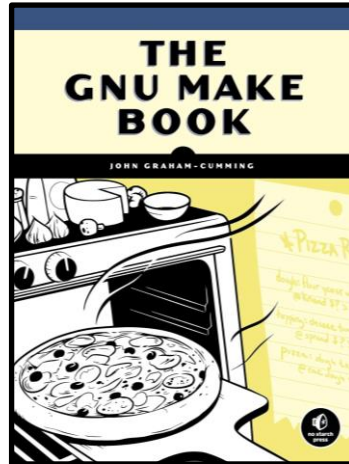
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What is a User Manual?



Commonality?

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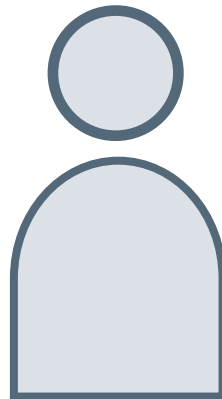
Resources

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The Common Manual

A **document** with a **purpose**:

- **Reader**: user
- **Purpose**: deliver user to success



Reader



Manual



Success



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Who are the Readers?

- Different characteristics and goals:
 - Knowledge: problem domain, solution domain
 - Approach to problem solving
 - Attitude
- etc.

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The Common Reader

- Two common goals:
 - To gain knowledge (**descriptive writing**)
This experiment has been approved by the MREB
 - To perform a task (**procedural writing**)
Press the red button

Style	Mood	Tense	Pronoun	Structure
Procedural	Indicative	Present	Second (you)	Instructions
Descriptive	Imperative	Any	First/third	(Chrono)logical

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Tangent: Procedural Writing

CAUTION

Remove the power cord for complete separation.

- For safety purposes, disconnect the power cord if the projector is not to be used for prolonged periods of time.
- Before cleaning, turn off and unplug the projector. Neglect could result in fire or electrical shock.



Disconnect the
plug from the
power outlet.

Alternatives:

- For complete separation, remove the power cord.
- *Please* remove the power chord for complete separation.
- *You should* remove the power cord for complete separation.
- *It is important* to remove the power cord.
- Removing the power cord is advised.

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- Common antigoal?

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- Common antigoal?
 - *Be reading this manual*

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Maximise Happiness

- Align structure with user expectation
 - Problem → Solution
 - Task → Instruction
 - Reference → Definition
 - More examples in future readings
- Requires understanding of user:
 - Goal
 - Knowledge
 - Attitude
 - Accessibility

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Minimise Pain

- Work against the antigoal
- Reduce time spent reading
 - Be **concise**: reading takes less time
 - Be **clear**: only need to read once
 - Be **correct**: the absolute bottom line

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The Basics

- **Consistency:** the same word means the same thing
- **Relevance:** every sentence contributes
- **Actionability:** recommendations, alternatives, etc. can be acted on
etc.

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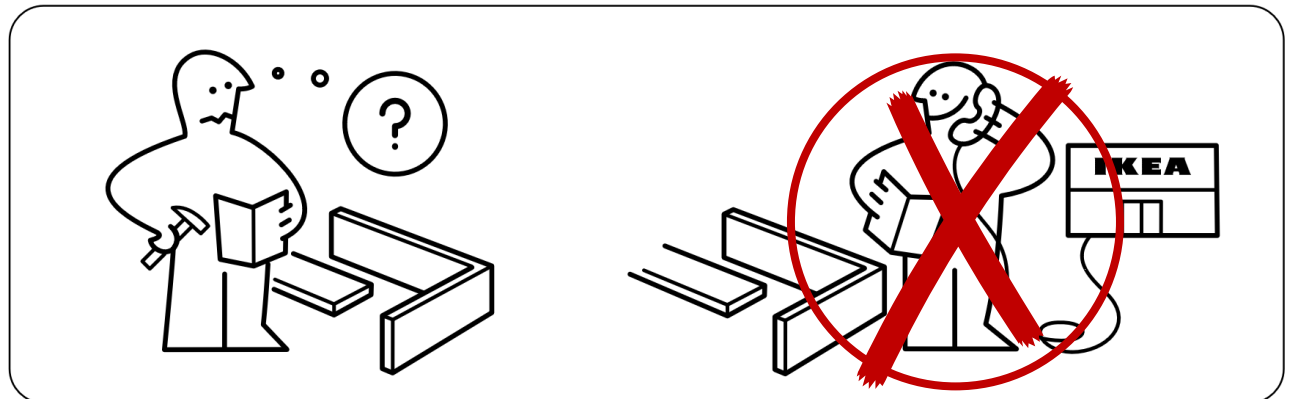
Recall

Resources

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Manuals are not Interactive

- Unresolved ambiguity = **incorrectness**
- No second chance!



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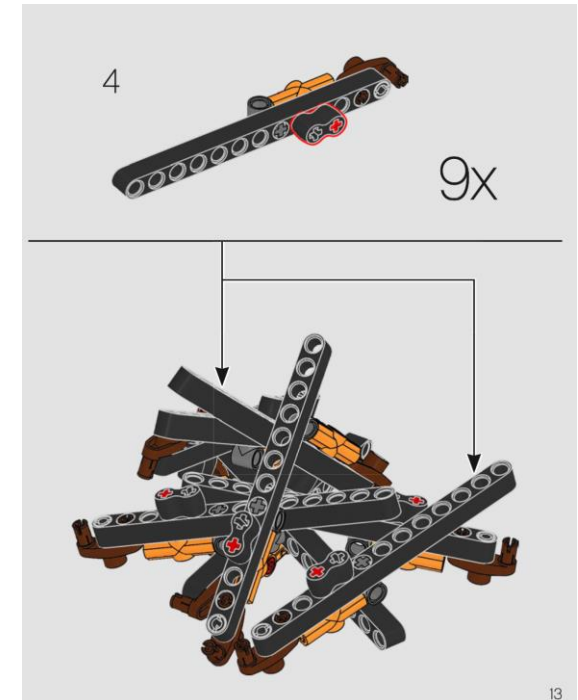
Recall

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Ambiguity

- One interpretation
 - Instruction → one action
 - Description → one understanding
- Possible causes:
 - Incomplete
 - Incorrect
 - Homonymy
 - Solution: standard vocabulary
 - ASD-STE 100
 - RFC 2119
 - Too much to read?



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Ambiguity

- Simple English standards
- *Each word is permitted for only one part of speech:*

'Oil the valve' is not permitted, because in this sentence 'oil' is a verb.

'The oil is dirty' is permitted, because in this sentence 'oil' is a noun.

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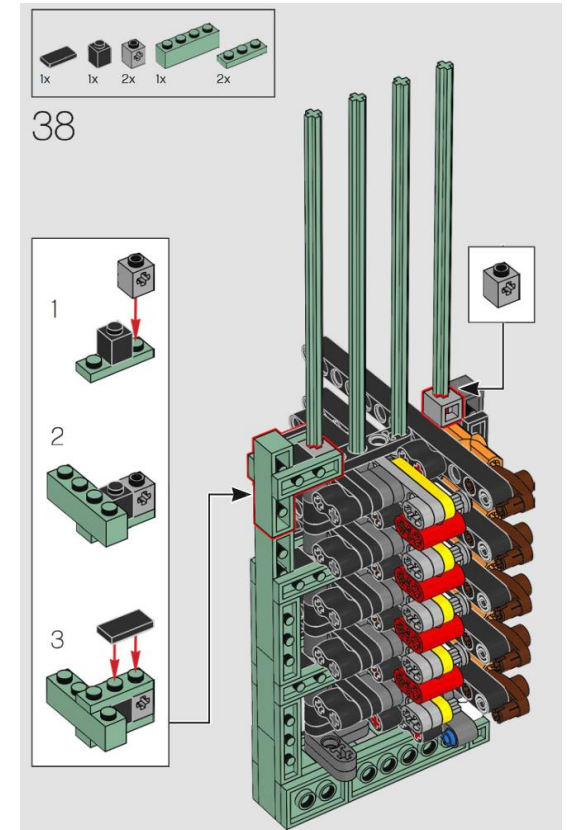
Recall

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A Silver Bullet?

- Usage pattern
 - Assumes expertise
 - Unreliable
- Context
 - Creative thinking to fill in the gaps
 - Unreliable
- Elaboration
 - Work towards the antigoal
 - Might add confusion
 - Unreliable



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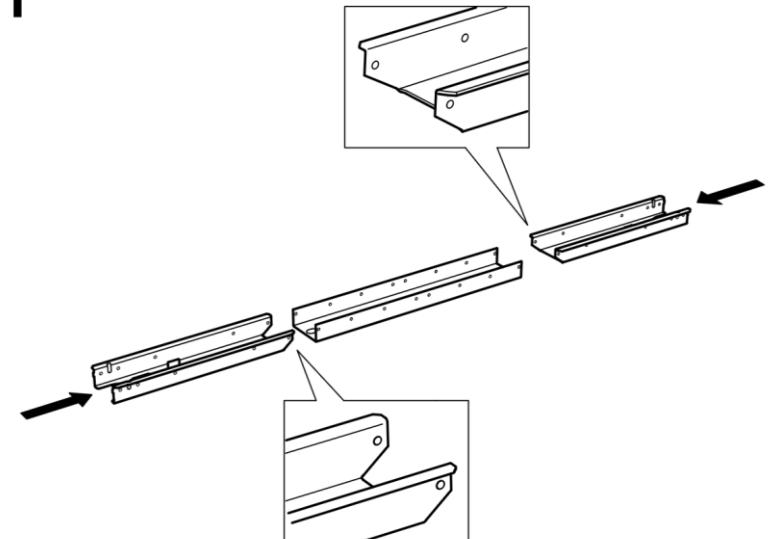
Resources

Accessibility

Clarify

- Provide additional information
- Anticipate user need
- Why not clarify everything?

1



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Clarify (cont.)

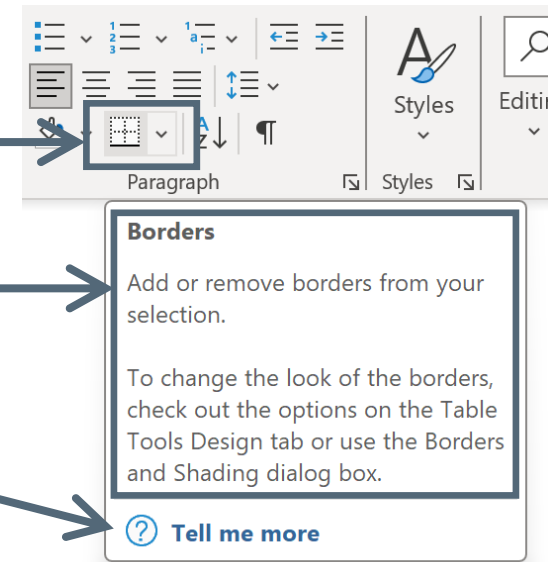
- Account for the proficiency gap

Power user: shortcut [Alt-H-B]

Proficient user: GUI button

Novice user: read description

More detail available



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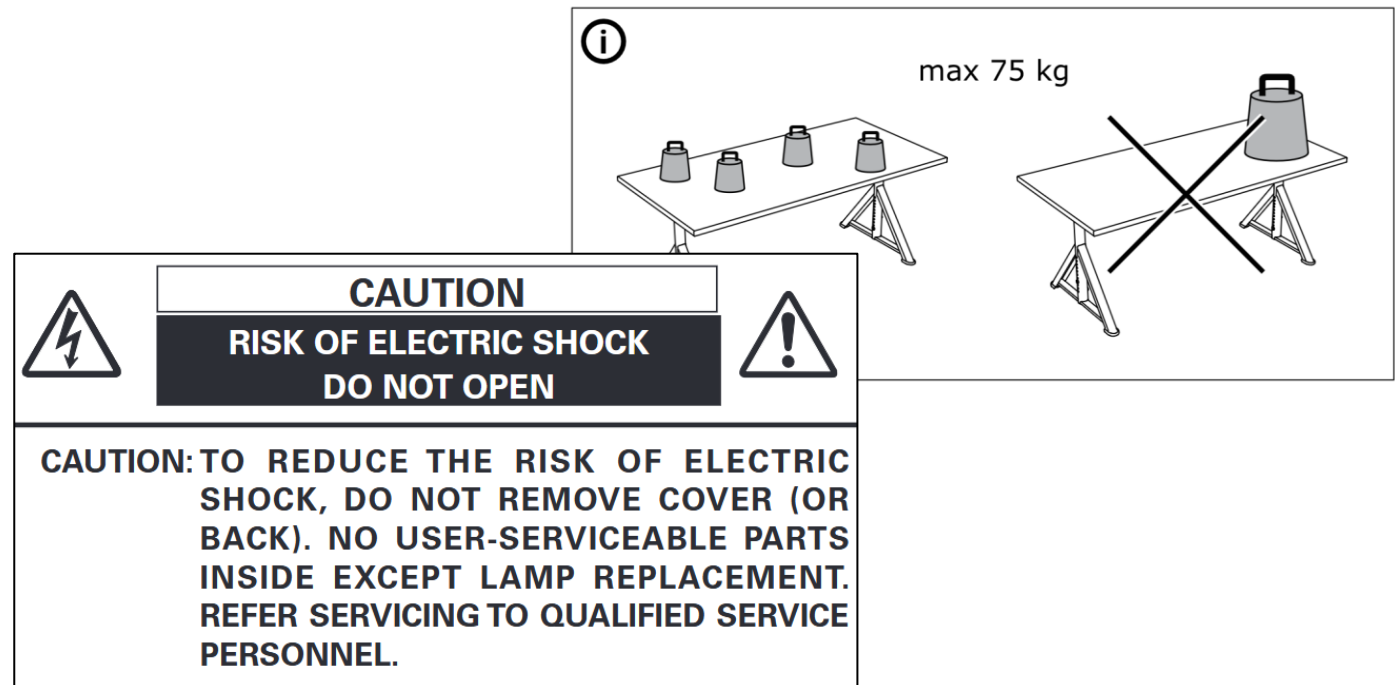
Recall

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Clarify (cont.)

- Also anticipate hazards!
- Critical to normal operation and *safety*



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Instructional Videos

- Pro:
 - Aligns perfectly with user actions
 - Communicates context for actions
- Con:
 - Only available as multimedia
 - Cannot skim
 - *Accessibility?*
- Accessibility services at Mac:
 - See later

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Making an Impression

Retain knowledge = read less

- Use **highlighting**
- Use visuals
- Proximity
- Dynamics
- Break instructions into units
- Use mnemonics
- Primacy & recency



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Repetition

What is the antigoal?

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Visuals

(draw attention by astonishment!)



Source:

https://commons.wikimedia.org/wiki/File:White_Domestic_Shorthair_Cat_2006_%28cropped%29.jpg, Scott from seattle, US, CC BY-SA 2.0

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Some Tips

Recall

Resources

Accessibility

Visuals

(... to *really* hammer it in!)

Safety Precautions (continued)

CAUTION

Remove the power cord for complete separation.

- For safety purposes, disconnect the power cord if the projector is not to be used for prolonged periods of time.
- Before cleaning, turn off and unplug the projector. Neglect could result in fire or electrical shock.

Ask your dealer to clean inside of the projector every year.

Accumulations of dust inside the projector cause result in fire or malfunction. Cleaning inside is more effective if performed before humid periods such as the rainy season.

- Do not clean inside the projector yourself because it is dangerous.

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Accessibility

Visuals

(... to *really* hammer it in!)

But do not overload!

Safety Precautions (continued)

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Visuals

(... unless absolutely necessary.)

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Read this Safety Guide first.

LCD Projector

User's Manual - Safety Guide

Thank you for purchasing this projector.

⚠ WARNING • Before using, read these user's manuals of this projector to ensure correct usage through understanding. After reading, store them in a safe place for future reference. Incorrect handling of this product could possibly result in personal injury or physical damage. The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this projector.

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Visuals

(... a humbler example)

Consistency is key!

Note

Highlights information that users should take into account, even when skimming.

Tip

Optional information to help a user be more successful.

Important

Crucial information necessary for users to succeed.

Warning

Critical content demanding immediate user attention due to potential risks.

Caution

Negative potential consequences of an action.

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Resources on Technical Writing

- Style guides (Chicago, IBM, etc.)
- Government resources
 - design.canada.ca/style-guide/
 - cpsc.gov/s3fs-public/pdfs/guide.pdf
- English textbooks
 - *The Elements of Style*
- Technical writing resources
 - *Technical Communication* (Markel)
- McMaster LibGuides
 - libguides.mcmaster.ca/

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Example: Identify the User

- Reader characteristics?
 - Goal
 - Knowledge
 - Attitude
 - Accessibility
- Document format
 - Web: interactive, scripting available,
 - PDF: portable & accessible, embedding limited
 - Manpage: most portable, cannot use unicode / multimedia



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Example: Setting a Goal

- Define scope of instruction
- Identify key tasks
- Define specific and measurable success criteria
- Test user acceptance
- Identify foreseeable hazards
- Specify required knowledge and skills



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Evaluate the Manual

- Function:
 - Demonstrate the primary workflow
 - Clear overview of contents (sections, chapters, etc.)
- Quality:
 - Language tailored to expected users
 - Good use of visuals (images, etc. that are not text)
 - Good structure (logical, chronological, etc.)
 - Style (coherence, concision, without too much emphasis on the technical details)

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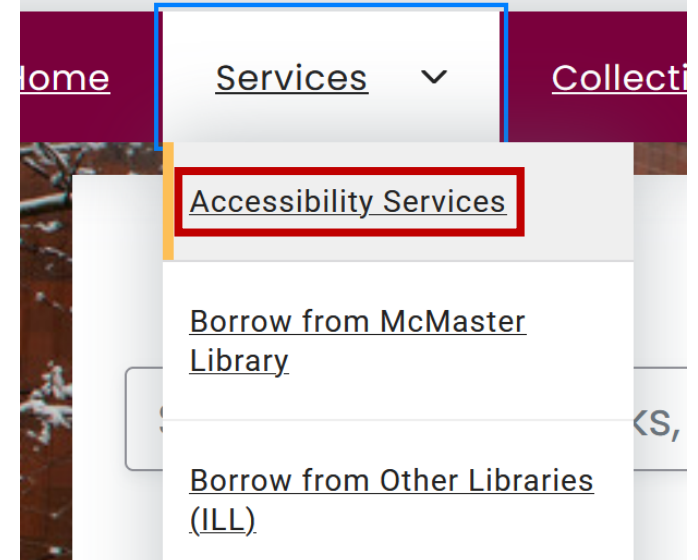
Recall

Resources

Accessibility

Accessibility @ Mac

- McMaster Accessibility Services
- Tools & references



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Accessibility

Accessibility @ Mac

- McMaster Accessibility Services
- Tools & references
- Appointments available

Nancy Waite - Coordinator, Library Accessibility Services

Email: liblas@mcmaster.ca or waitenm@mcmaster.ca

Phone: (905) 525-9140 x26058

Fax: (905) 546-0625

****Please feel free to book an appointment using my [Microsoft Bookings Page](#) to find a time that works for you!**

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Example: SensusAccess

- Convert file to given format
- Audio to text & text to audio
- Accessibility features

Step 2 - Select target format

Specify the target format of your document. For more information about formats, please visit [target formats](#). For the uploaded document type, the following formats are available:

- Target format
- ☐ MP3 audio
 - ☐ Braille
 - ☐ E-book
 - ☐ Accessibility conversion

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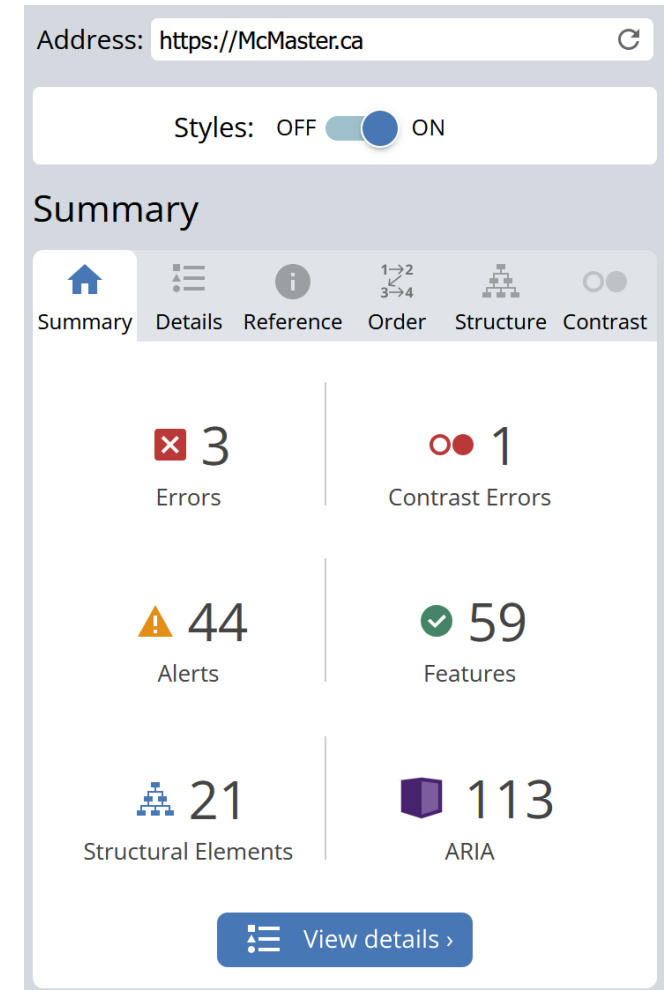
Recall

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Example: WAET

- One-stop shop for Web accessibility



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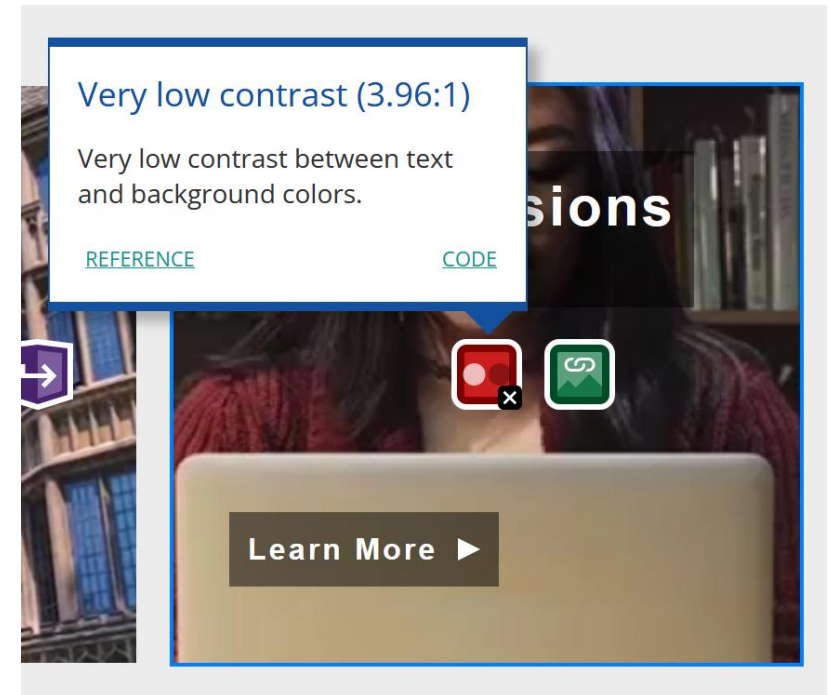
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Example: WAET

- One-stop shop for Web accessibility
- Visualise "invisible" accessibility features



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Example: Contrast Checker

- Rate colour contrast


Foreground


Hex Value Color Picker 

Alpha

Lightness 

Background

Hex Value Color Picker 

Lightness 

Contrast Ratio

8.59:1

[permalink](#)

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Example: Contrast Checker

- Rate colour contrast
- Preview foreground & background contrast

Normal Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Graphical Objects and User Interface Components

WCAG AA: **Fail**



Text Input

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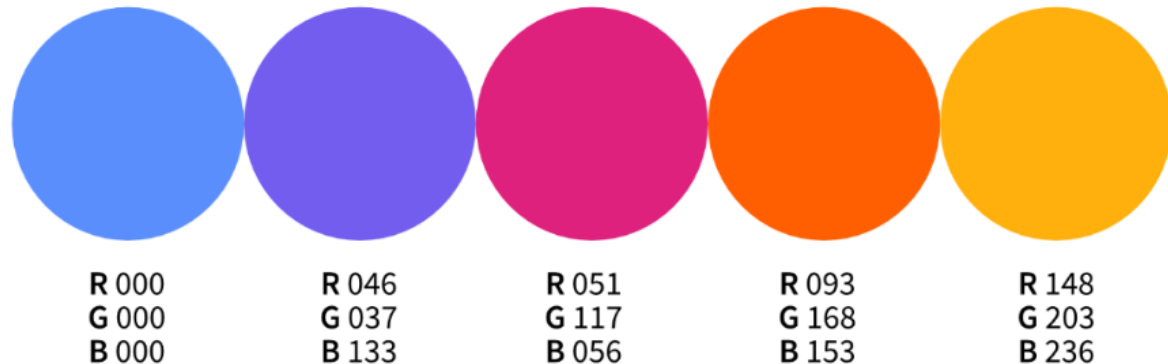
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Example: Colour Schemes

- Colorblind-friendly
- High contrast, pleasant looking, just good to have

IBM Design Library





Questions?