ACCESSIBILITY 101
(NOT ONLY) FOR LIBREOFFICE DEVELOPERS

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accessibility [ˈæksesəˌbɪləti]:
The term "accessibility" most often used in reference to specialized hardware or software, or a combination of both, designed to enable use of a computer by a person with a disability or impairment.
PUBLIC SERVICE ANNOUNCEMENT

IMPROVING A11Y IMPROVES USER EXPERIENCE FOR EVERYONE

(EVEN FOR USERS WITHOUT DISABILITIES)
SO WHY DON'T WE A11Y?

• We are lazy :-)  
  • Taking the easy way out
• Development budgets are tight  
  • UX and a11y are secondary concerns
• Development teams are not diverse  
  • if no one around us has a11y needs ...
YES YOU CAN!
(EVEN IF YOU DON'T CODE)

image source:
knowyourmeme.com
4 SIMPLE STEPS TO BETTER A11Y

1. USE MAGNIFYING GLASS
2. POKE AT MNEMONIC|BUDDY LABELS
3. EXERCISE TAB KEY
4. IMPROVE A11Y OF NON-TEXTUAL CONTENT
USE MAGNIFYING GLASS
TRY INCREASING UI FONT SIZE

• Less of an issue nowadays – no more fixed-size widget layout

• No more upper limit on UI font size (tdf#113444, thanks to @Bernhard_CIB)

• Menus accessible with expander if not fitting the window (thanks to @quikee)

• Tabs in Calc follow UI font size (tdf#113444, thanks to @Bernhard_CIB)
IMPROVE KEYBOARD NAVIGATION:
POKE AT MNEMONIC|BUDDY LABELS
MNEMONIC LABEL (GTK) || BUDDY LABEL (QT)

- Text in UI, labelling interactive widget (e.g. combobox, spinbox)
- What the screen reader reads
- Highlight character ("_Label" or "&Label")
- Pressing **ALT-L** activates the interactive widget
CHECK DIALOG'S MNEMONICS

- Open dialog's .ui file in Glade
- Does every interactive widget have a label?
- Is the label associated with the interactive widget?
- TDF tender to automate part of the process
  - detecting errors with a script
  - fixing them needs human interaction
IMPROVE KEYBOARD NAVIGATION:
EXERCISE TAB KEY
USE ONLY (SHIFT-)TAB AND ARROW KEYS TO NAVIGATE IN UI

• **F6** key to switch between UI frames (menu → toolbars → document → sidebar → menu)

• **TAB** to travel between the widgets (**SHIFT-TAB** to travel backwards)

• Does every widget accept keyboard focus?

• Is the order of traversal logical?
WIDGET PROPERTIES CONTROLLING KEYBOARD A11Y

- Window::Get|SetStyle()
- WB_TABSTOP:
  - accepts keyboard focus if Tab key pressed on previously focused widget
- WB_DIALOGCONTROL:
  - set on top-level container, closed navigation cycle within dialog | tabpage
  - 1st child gets focus again if Tab key pressed on last child
WIDGET PROPERTIES CONTROLLING KEYBOARD A11Y

• WB_CHILDDLGCCTRL:
  • a container with children widgets (example: extension manager)
  • 1st child gets focus if Tab key pressed on previous widget
  • next widget gets focus if Tab pressed on last widget
ASSORTED BUGS

• tdf#102077: some Impress sidebar panels are keyboard-trapped (no way to move keyboard focus to the next panel)

• tdf#104861: extension manager is not keyboard-accessible (hint: WB_CHILDDLGCTRL flag is wrong)

• tdf#115117: conditional formatting manager is not keyboard-accessible
IMPROVE A11Y OF NON-TEXTUAL CONTENT
NON-TEXTUAL CONTENT BADLY EXPOSED TO ASSISTIVE TECHNOLOGIES

- tdf#39558: inserted images have no alternate text by default
  - and no obvious way to insert it
  - file name as the default alt text?
- example of solution: MuseScore extension
  - an extension to insert MuseScore file as image
  - in a11y-friendly way (with proper alt texts)
ANY QUESTIONS?

THE ANSWER TO YOUR QUESTION IS...

NO

memegenerator.net
THANK YOU!