
ACCESSIBILITY 101 (NOT ONLY) FOR LIBREOFFICE DEVELOPERS

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ACCESSIBILITY: WHAT IS IT?

accessibility [/æk. ,sɛs.ə. 'bɪl.ət.i/]:

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 ...
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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**

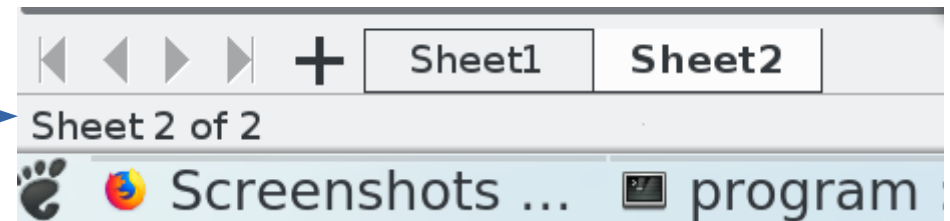
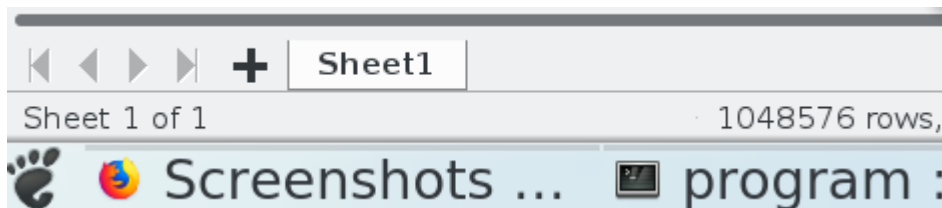
1 | 4

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)

before:



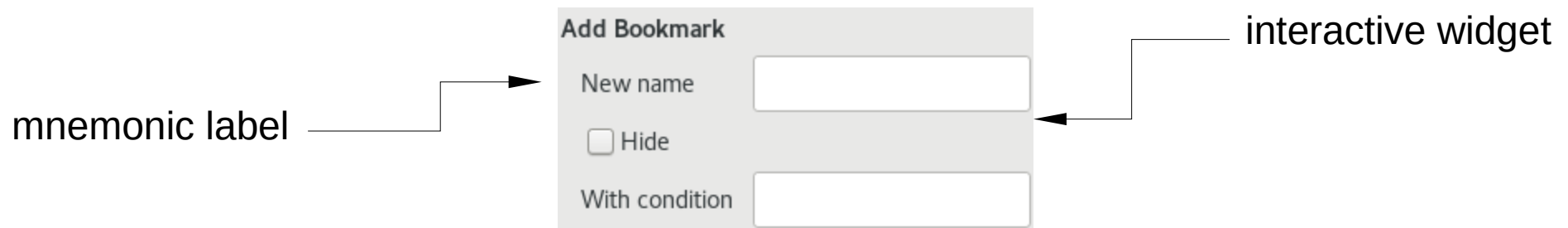
after:

2 | 4

**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
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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?
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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
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WIDGET PROPERTIES CONTROLLING KEYBOARD A11Y

- `WB_CHILDDLCTRL`:
 - 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
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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_CHILDDDLCTRL flag is wrong)
 - tdf#115117: conditional formatting manager is not keyboard-accessible
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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)
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ANY QUESTIONS?



THANK YOU!

