

Panorama of GUI toolkits on Haiku

From ncurses to Qt5

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Haiku

- Free Software rewrite of BeOS
- An Operating System for the desktop
- A lot of POSIX
 - But we don't claim to be Unix®
- Some more funny things
 - Typed & indexable xattrs



Native GUI

- InterfaceKit
 - C++ API (similar to Qt)
 - BMessage objects
- Multithreaded
 - 1 message loop / window + 1 app main thread
- Few bindings
 - yab (yabasic port)



Toolkit Pros/Cons

- ✓ More apps, less work
 - ✓ More potential users
 - ✓ More devs?
- ✓ It *can* be done right
- ✗ Never completely native
 - ✗ No Scripting support
 - ✗ `hey Foo get Frame of View ...`
 - ✗ Screen reader...
- ✗ Less incentive for native apps



Toolkit usage in Debian GNU/Linux

- ```
for t in $(debtags cat | tr ' ,' '\n\n' | grep uitoolkit: |
sort | uniq); do echo -en "$t\t"; debtags search $t | wc -l;
done
```

```
uitoolkit::athena 92
uitoolkit::fltk 25
uitoolkit::glut 23
uitoolkit::gnustep 41
uitoolkit::gtk 2024
uitoolkit::motif 53
uitoolkit::ncurses 757
uitoolkit::qt 965
uitoolkit::sdl 488
uitoolkit::tk 135
uitoolkit::TODO 52
uitoolkit::wxwidgets 117
uitoolkit::xlib 254
```

- Whatever TODO means
- Probably not the best metric anyway



# ncurses



- So what, it's a toolkit 😊
- Works not too bad



# hdialog



- Native implementation of [x]dialog
- Some missing features
- **Shanty** is a similar app (Zenity clone)



# SDL 1.2



- Of course!



SDL 2



- What Else?™



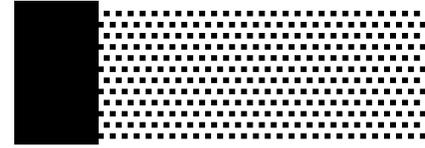
# nativefiledialog



- Native file selectors for Win32, GTK+3, OSX
- Ported during GCI 2014
- For use with SDL/SDL2/...



# LibreOffice (VCL)

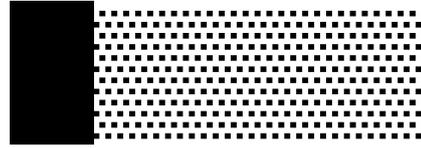


- Visual Class Libraries
- LibreOffice / OpenOffice's own GUI toolkit
  - Is it used anywhere else?





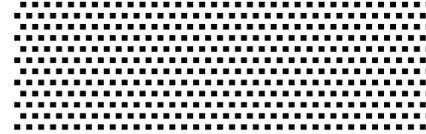
# IUP



- Multi-platform GUI toolkit
  - GTK+, Motif and Windows
  - “Bindings for C, Lua and LED
  - Uses native interface elements
  - Simplicity of its API”
- WIP port by Adrien Destugues (PulkoMandy)



# wxWidget



- Is this still in use?
- Oh, I need it for KiCAD!
- Port started long ago, nothing usable yet.
- But last month I made a very nice icon for it ^^^



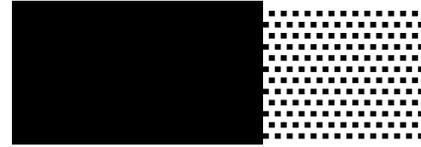
# Tk



- Tcl (the language): ported
- Tk: not yet. Make a `wish`, icon already there 😊
- Would be useful for Python's `TkInter`!



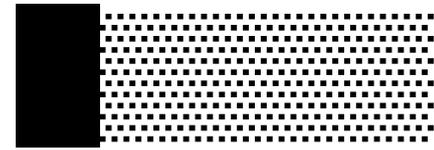
# FLTK



- Not so much used, but why not
  - There's an XPilot branch using it 😊
- Started the port last December, already usable
- Subwindows: must replace with BViews



# Lazarus (FreePascal)



- GUI toolkit of choice for FreePascal
- FreePascal ported by Olivier Coursière
- The Qt binding should probably be used



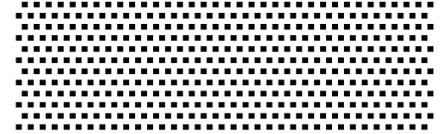
# Java (AWT, Swing)



- We are officially supported by [OpenJDK](#)
- AWT should work
  - Still [some crashes](#) (using Arduino IDE)
- Swing uses AWT
  - NetBeans & ThinkFree Office work



# Crazy Eddie's GUI (CEGUI)

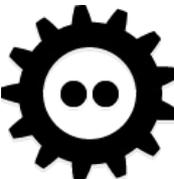


- Someone posted a recipe last week
  - needs an update



# GTK

- Anyone really needs this???
- Ok well...
  - GObject, really...



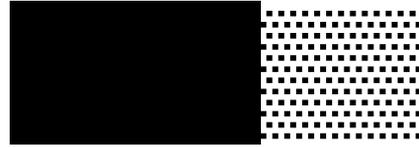
# Qt 4



- Recipe + packages available
- Latest VLC requires Qt
- ⚠ No X11 to call for ugly hacks!



# Qt 5



- Recipe + packages available
- Not stable yet...
- OpenGL not usable yet
  - SleepyHead works with GL disabled
- ⚠ No X11 to call for ugly hacks!



# Conclusion?

- Lotsa hard work...
- Lotsa fun! 😊
- Thanks for sending patches...
- Questions?

