

SqueakGTK

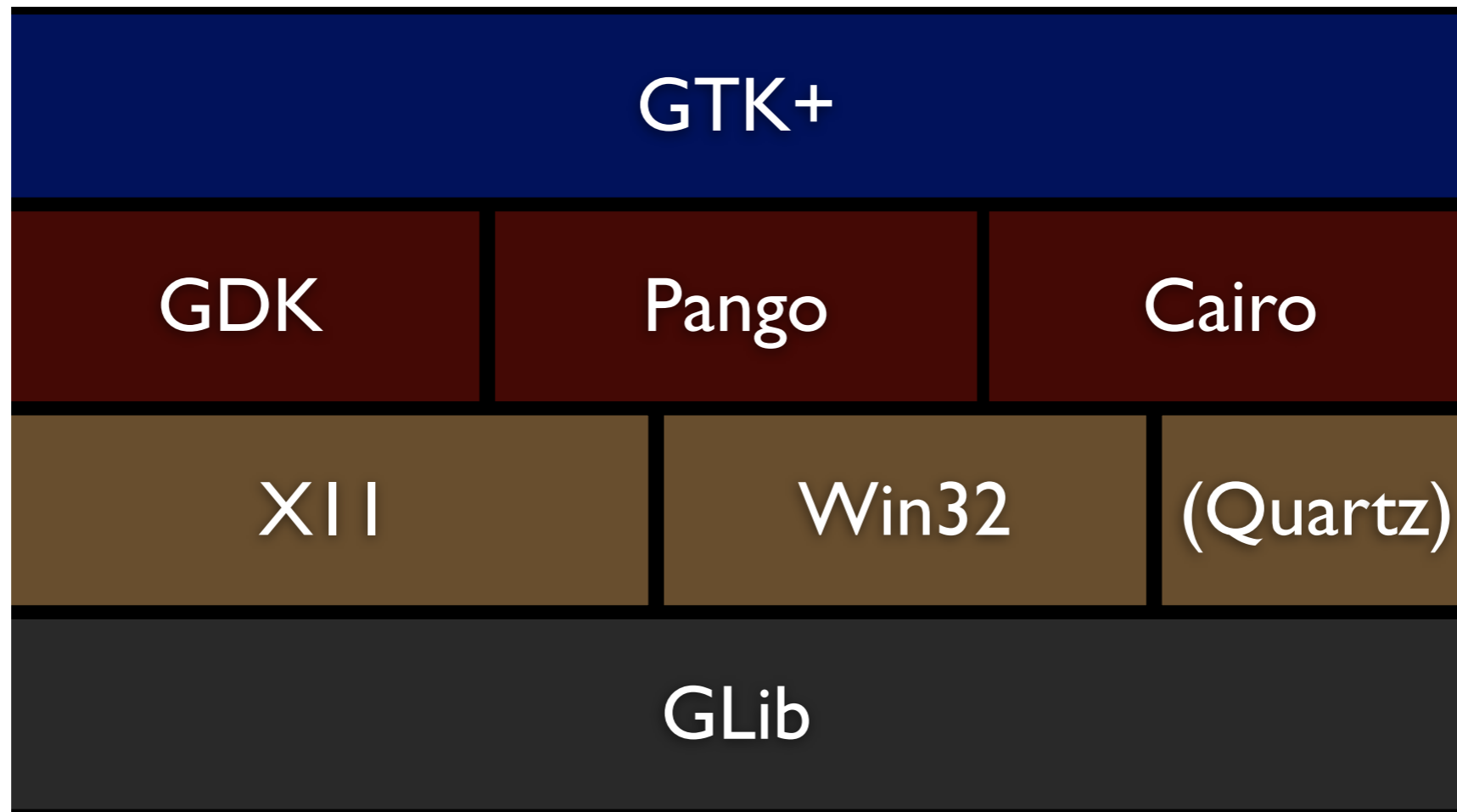
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SqueakGTK

- Presentation of GTK+
 - GLib
 - GDK, Pango, Cairo
 - GTK+
- SqueakGTK tools (Omnibrowser, launcher)
- To do
- Conclusions

GTK+

- Open source toolkit (LGPL)
- Created for the GIMP
- Written in C
- Multi platform



GTK+ Stack

GLib

- Cross platform utility
 - Linked list, hash tables, binary trees, ...
 - C object model : GObject
 - Fundamental types (Float, String, ...)
 - Enumeration

GObject

- Single inherited class structure
- Signals
- Independent type system (GType)
- Memory management : reference counting

GDK

- Drawing : pixmaps, drawables, graphic pattern
- Events : mouse, keyboard, window, ...
- Fonts : metrics

Pango

- Rendering text
- Internationalized
- Different font backends
- Integration with Cairo

Cairo

- Vector graphic-based
- Device-independant API
- 2D
- Several backends (PDF, PostScript, SVG, ...)
- GTK+ integration

Cairo

- Shape rendering
- Alpha blending
- Gradient drawing
- OpenGL acceleration

GTK+

- Now code our first application

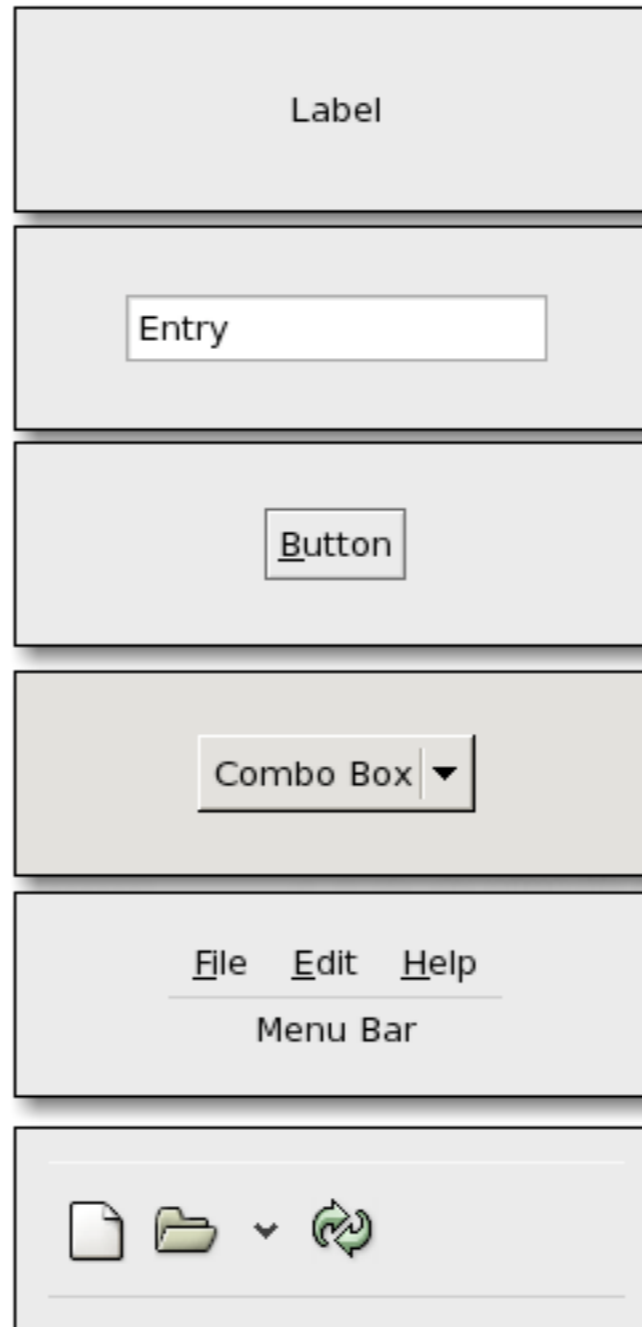
GTK+

- First create a window

GTK+


- Now how to add a widget ?

Widgets



Widgets

Check Button

0 
Spin Button

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Notebook



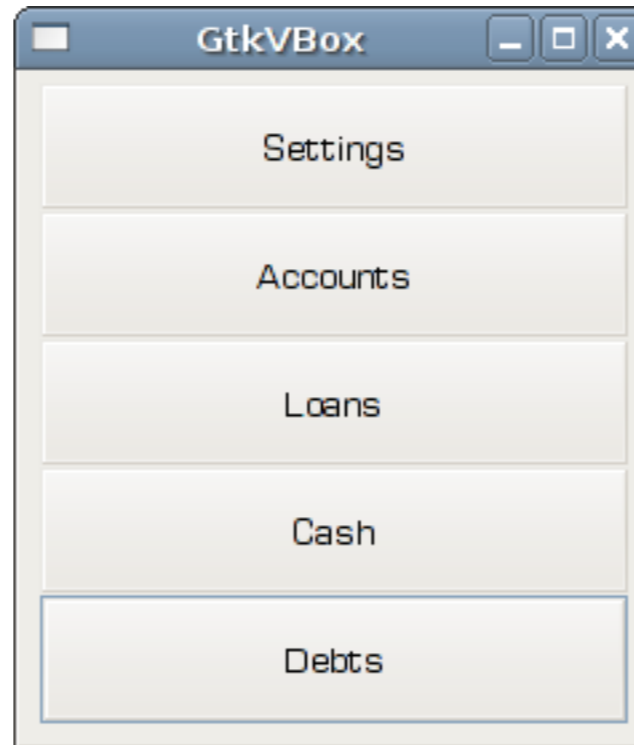
Layout

- **GtkFixed**



Layouts

- **GtkVBox**



Layouts

- **GtkTable**



GTK+ Events

- `when: anEvent send: aMessage to: anObject`
- `when: anEvent do: aBloc`

inside GTK+

- Each GtkWidget inherit from GPointer
- C pointer store in a ByteArray
- Each Gtk classes call primitives

inside GTK+ events

- Handle events :
 - Do we have an event ?
 - Handle events

GTK+

- Events
 - Active waiting for events (morphs, ...)
 - GTK+ events handling

first process :

[self waitForEvents] repeat.

Second process :

[self handleEvents] repeat.

SqueakGTK

- Omnibrowser
- Launcher
 - Inspector
 - Browser

To do

- Restore the state of the interface
- Write tutorials
- Improve the tools
- Create a desktop
- Support of GObjectInspector
- ...

Conclusion

- Support multiple operating system
- Powerful and flexible user interface
- Stable
- <http://code.google.com/p/squeakgtk/>