rich gui without pain

enlightenment foundation libraries and guarana

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agenda

- efl - enlightenment foundation libraries
- guarana
- demos & eye candy

about me

- brazilian
- software developer since 1991
- free software developer since 1998
- working with rich ui since 2002
- graduated as computer enginner in 2005
- worked at INdT until 2008
- **started profusion april 2008**

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about profusion

- highly skilled people: **quality on time**
- training, consulting and development
- embedded and mobile linux
- focus on multimedia & rich ui

we bring “wow” to your device

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enlightenment foundation libraries

“Enlightenment is the building blocks to create beautiful applications.”

“Enlightenment, or simply e, is a group of people trying to make a new generation of software.”

which libraries?

enlightenment foundation libraries we'll consider here:

- **evas:** canvas
- **ecore:** main loop and events
- **edje:** theme engine
- **elementary:** simple widgets
- **eet:** data store
- **eina:** data types
- **embryo:** safe scripting

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evas

- stateful object oriented 2D canvas
- simple objects: rectangles, images, text...
- smart objects (groups)
- highly optimized, both 32 and 16bpp
- software, xrender, directfb, opengl...
- unix/x11, windows (including CE), macos/quartz...
- **retained render:** everything happens at once
- mature code

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ecore

- main loop
- support for system events, ie: `kill(2)`
- asynchronous events support
- animator primitive to share timers
- `idle_enterer` and `idle_exiter` primitives
- `ecore_evas` deals with evas and...
- `ecore_x` deals with xlib/xcb and...

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edje

- theme engine based on evas, ecore, embryo...
- based on states and transitions
- scalable yet pixel-perfect
  - relative geometries
  - image border properties
  - per-part `scale` flag
- reactive to events
- scriptable using embryo (lua in future?!)
- powerful layout system built-in (possible next week!)

themes are not restricted to changing colors and replacing images anymore!

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new kids on the block

elementary and guarana

why they rock, what's different and why you should bother

everything on canvas

instead of going the traditional widgets based on x11 windows, have just one window with a canvas, everything else are objects on canvas, including widgets!

- faster: canvas will handle optimizations
- flexible: widgets can overflow/overlap
- easy: no manual handling of expose, etc.
- runs everywhere
- no flicker on resize

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- born after guarana, but released before
- created by raster, BSD
- initial code was port from `e_widget_*`
- moved officially to everything is an `Evas_Object`
- focus on touchscreen
- focus on mobile phones and pdas

guarana

- created by ProFUSION, LGPL
- embedded systems development framework
- more than just widgets
- widgets were **Evas_Object** from start
- model-view-controller (mvc) platform
- nice module loader
- [still] focus on set-top boxes

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guarana is more than widgets

- clear separation between data, presentation and business logic
- view is usually a smart object/edje
- optimized mvc lists for large data sets
- controllers discovery from models (mime-type like)
- controller modules will be loaded automatically

competition or collaboration?

they were born with different goals and mainly different deadlines, but they're meant to **collaborate**.

work already started: `grn_sequence_box` became `evas_object_box` and `els_table` became `evas_object_table`, other bits moved into `ecore_evas`, some will go to Edje and some will spawn new libraries to unify stuff.

in future we plan to have a single widget API with multiple implementation, satisfying both PDA, MID and STB.

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show me those eye candies!

canola2 beta9

- developed at Instituto Nokia de Tecnologia (INdT)
- python + efl
- sponsored/funded the development of python-efl
- target at Nokia N800 and N810, runs anywhere
- test build at `http://openbossa.indt.org/canola2/developer.html`
- closed source

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enna

- free software (in E's SVN: PROTO/enna)
- efl + c
- under development (not production ready)

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elementary_test

- elementary test suit
- free software, in SVN under TMP/st/elementary

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enjoy

- developed by ProFUSION
- free software (LGPL)
- born as guarana demo
- under development

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edje_editor

- free software GPL
- under heavy development
- very capable
- help designers & testing
- also show inkscape2edc and gimp script

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thanks!

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