### Haiku: Bet a beta?

What took you so long?

Speaker: François Revol revol@free.fr



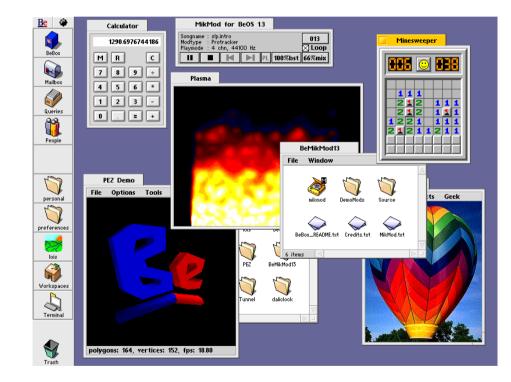
## <u>Haiku?</u>

- Free Software Operating System
- Inspired by BeOS
- We use our own kernel & graphics server
  - Pros: We control the whole stack
  - Cons: Much harder porting GNU/Linux & X11 stuff
- C++ API



## The Haiku desktop inspiration

- Inherited from BeOS
- Goes waaay back!
- Oh look! A Dock!
  - Later changed to DeskBar





### <u>"That's so 1998!"</u>

- If you say so
- 3D effects waste time...
- Old machines don't have latest 3D card
- Yet theming is possible to some extent.



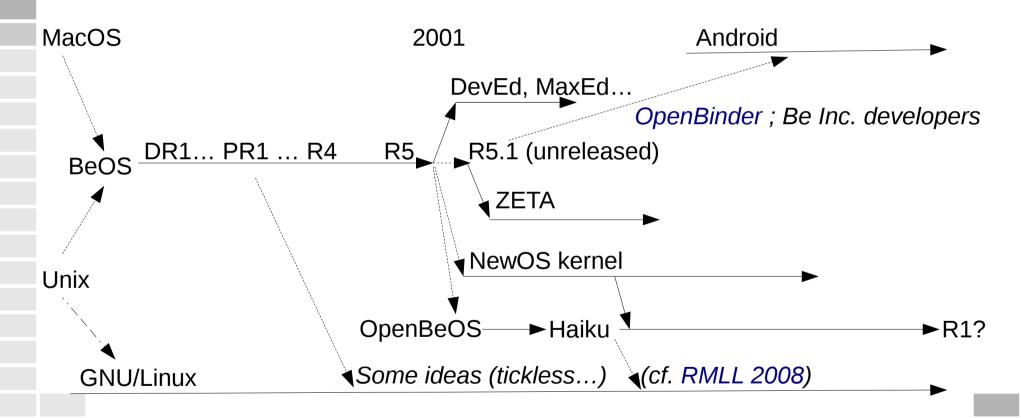
## Haiku specifics

- Extensive use of xattrs
  - Typed & indexable
  - Other OSes have xattrs
    - But nobody agree on those ②
- Live Queries
  - Served right from BFS



### Haiku genealogy

• Poke levenez.com 🙂



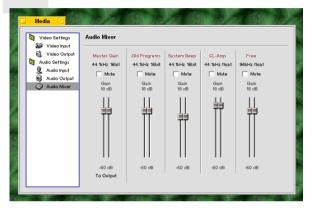


## Be Inc. engineers legacy

- Dominic Giampaolo wrote BFS
  - Worked at SGI
  - Then went to Apple
    - Added journaling to HFS+
    - Spotlight (hint: formulas vs Query formulas)
    - TimeMachine / TimeCapsule...
    - APFS
- Others went to Google to work on Android



### Just put it in the mixer!



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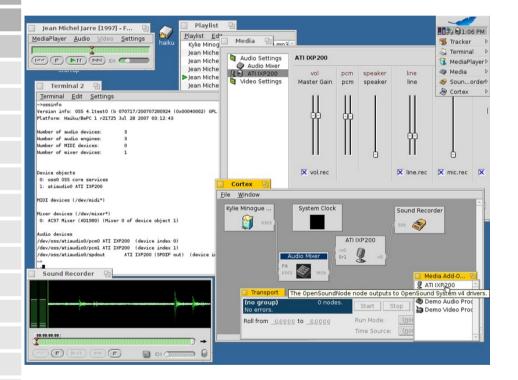


- 1 ch. / stream
   Single PCM
- BeOS R4.5 (1998)
- channel ctrl
- Win XP

- Win8
- 1 / app, yay!



### **DirectShow? Gstreamer?**



- The MediaKit
  - API Circa 1998
  - Rewritten in Haiku
- With an OSS4 sink



# Copying is not theft

- We always reinvent the wheel
- We always think we're the first
- But still, a paper on semantic desktop & xattr without a mention of BeOS is *rude*.
- "Good artists copy; Great artists steal"
- And... we still have a lot to be stolen - cf. FOSDEM 2017 talk



## **Technodiversity**

- (Microsoft) Monoculture is killing the biiits
- Just like in Nature we need diversity
- "So, the Linux folks told you there was Linux beside Windows & MacOS... but there's more."
  - Can't you just tell them right firsthand? 🕾
- "Oh no we don't want to bother supporting <name your OS>, it's not POSIX"
  - Says he who uses Linux syscalls without AC\_CHECK()



### **BeOS Community woes**

- November 15<sup>th</sup> 2001 : Be Inc. dissolution
- Many went to the Mac  $\textcircled{\begin{tmatrix} \blacksquare}$
- Went to GNU/Linux
- A few decided ...

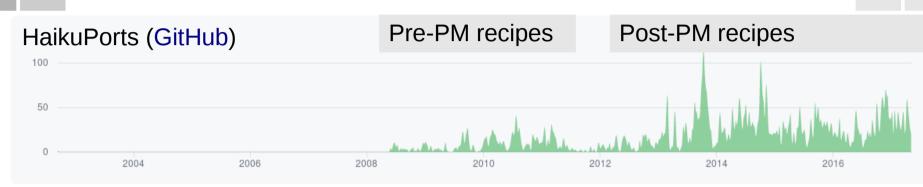


# [openbeos] Ok, let's start

- ... to rewrite it... as Free Software
  - Some had commercial projects
    - And feared the "viral" GPL...
- First mailing list post (August 18th 2001)

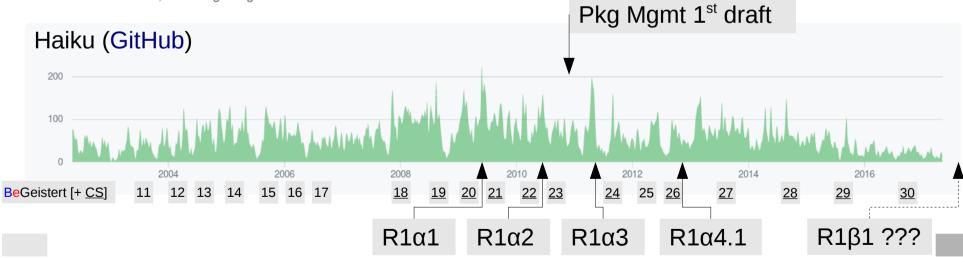


### Ups and downs



#### Jul 7, 2002 – Jul 4, 2017

Contributions to master, excluding merge commits





# <u>Social</u>

- IRC on Freenode
- Mailing lists
- Devs' blogs
- Forums



# Social (IRL)

- BeGeistert
  - 1 week-end for BeOS & Haiku users & devs
  - Düsseldorf, ~ 1.5 per year
  - Last edition (October 2016) was probably the last.
- 1 week Coding Sprint for devs
- FOSDEM, RMLL, CapitoleDuLibre...



### The "C" word

- We overused the word "Community"
  - So we stopped using the word for a while.
- Is there really a single unified Community?
  - Or just a bunch of people with  $\neq$  desires & wishes?



# World Domination Plan

- Reimplement BeOS
- $\Box$  Keep the technological advance
- Show how better it is
- □ Supplant Microsoft & Apple
- 🗆 Profit!



### "The Queer Factor"

- cf. "Haiku has No Future" talk at FOSDEM 2010
  - "(like most other small OSS Operating Systems)"
- Being "different" = not being "mainstream"
- You have to accept this.
- But it's ok.
  - Have fun!
  - Love being copied, means you were right 🖤



### **Distributions**

- Haiku is a Haiku distribution
- We actually have (had) other Haiku distros
  - Pingwinek (2004-2007)
  - Discover HAIKU (from TuneTracker Systems)
- But we're so small already, so why fork?



### Package Management

- R1/alpha4.1 was  $\approx$  BeOS R5 already
- But we got used to proper PM on other OSes
- Made sense in 2010
- We wanted it "The BeOS Way"™
- But some disagreed and forked
  - Not for long though
- cf. FOSDEM 2016 talk



## Sources of Fresh Blood 🝸

- Google Summer of Code (GSoC)
  - Some students stay and continue to contribute
  - We're in again this year!
- Google Code-In (GCI)
- Talks at {FOSDEM,RMLL,CdL...}
- When upstreaming ports go right



## **Contribution levels**

- Core devs (~30) (push on main haiku git)
- Patches from others
  - git shortlog -s -n | wc -l  $\rightarrow$  258 authors
- Haikuports accepts pull-requests
  - git shortlog -s -n | wc -l  $\rightarrow$  170 authors
- Bug reports



### Drivers?

- No drivers = no user = no apps = no drivers...
  - No specs (hw's user manual) = no drivers | RE 🟵
    - Hw vendors complicit to the M\$ monopoly
- Bundled sale... (Microsoft monopoly)
  - "He who controls the bootloader" (2001)
  - UEFI + Secure Boot now... 🔅
- GNU/Linux has some *binary* drivers at least
- FreeBSD emulation for Network drivers S



# Ok so what now?

- Still missing some build bots for release packages (underway)
- R1β1 should be out Real Soon Now<sup>™</sup>
- Forward Looking Statements 😁
  - This presentation contains forward-looking statements that involve risks and uncertainties that could cause actual results or outcomes to differ materially from those contemplated by the forwardlooking statements.



### A few bugs are left, With your help before this fall, Beta Real Soon Now.

