

# HAIKU

Free Software Operating System  
with fine ingredients and multiple recipes

# What is Haiku?

- Operating System
  - Desktop focused (x86)
- Free Software (MIT licence)
  - + 43 other licences
- From the ground up (no Linux, no X11)
- Inspired by the BeOS
  - C/C++
  - Keep It Smart & Simple
  - Binary compatibility as goal for R1

# Community

- Spawned from the BeOS community
  - Macintosh and Amiga roots
  - Used to proprietary systems
  - But also free as in beer (BeOS **R5 Personal Edition**)
- Newcomers
  - Developers & users seeking lighter FOSS OS
  - Academia
    - **Google Summer of Code**
    - **University of Auckland** (Auckland Layout Model...)

# Why MIT licence ?

- After Be, Inc. demise...
  - Need to maintain the BeOS spirit
    - → Rewrite
  - Fear of proprietary vendor failure and focus shifts
- Need to own the source code
  - Need for a FOSS licence
- Still allows easy commercial niche attempts
- You cannot avoid GPL vs BSD trolls anyway :^)

# FLOSS projects reuse

- Why reinvent the wheel ?
  - Concentrate on the project itself, its added value
- Fit in existing projects
  - Maintained
  - Portable
  - Compatible licence-wise
- Correctly integrated, they appear as native
- You still can't avoid conflicts in a whole OS

# FOSS projects reuse examples

- **Anti-Grain Geometry** (drawing in app\_server)
  - Forked before licence change (BSD → GPL)
- **FreeType 2** (font rendering in app\_server)
  - Patented code disabled by default
- **GNU** tools & glibc
- **FreeBSD** network drivers (+ abstraction layer)
- **FFmpeg** (LGPL) → libavcodec media add-on
- Translation Kit add-ons using libpng, libjpeg...

# Haiku includes...

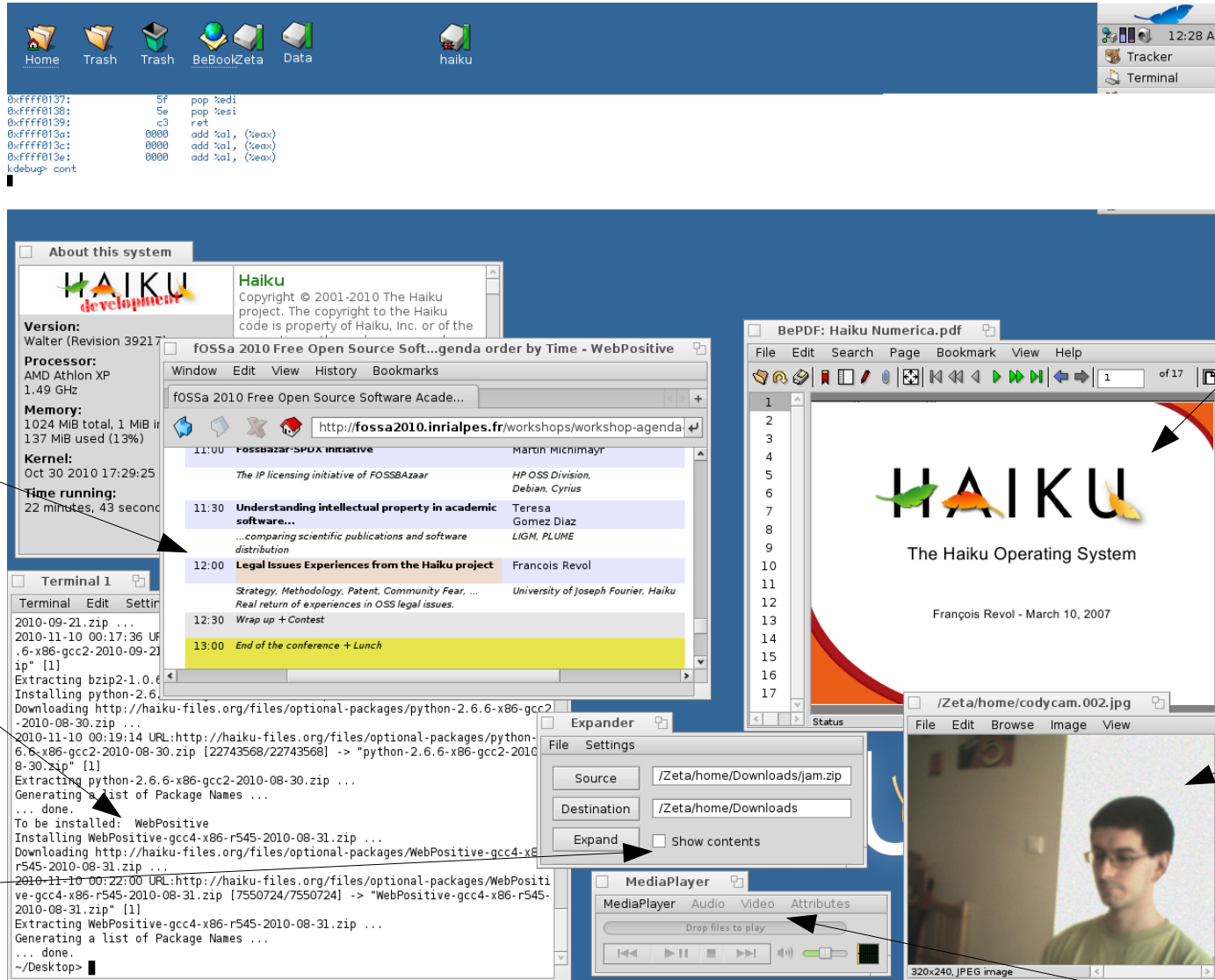
Kernel Debugging Land  
(UDis86)

GUI  
(FreeType,  
AGG...)

WebPositive  
(WebKit)

Bash, sed...

GNU tar,  
gzip, bzip2,  
unzip...



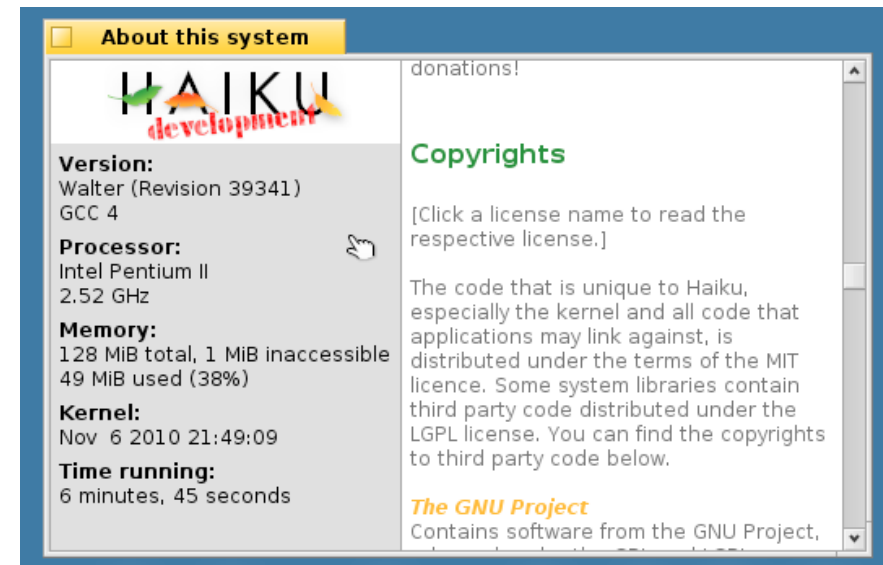
BePDF  
(xPDF)

TranslationKit  
(libjpeg,  
libpng...)

MediaPlayer  
MediaKit  
(ffmpeg...)

# Respecting other's licences

- AboutSystem app
  - Lists all copyrights
  - Points to licences in [/system/data/licences](#)
  - Ask authors what they prefer ("et al." ok? full cite?)
  - Includes optional packages
  - Notice the really small scrollbar knob !



# We also disseminate

- **SkyOS** (closed source, now defunct) forked OpenBFS
- We contribute fixes back to projects we use when possible
- Upstreaming ports avoids having to maintain forks

# Avoiding "distro hell"

- We want to keep a coherent system, avoid forks and diverging distributions
- Distribution guidelines
  - Protect the "brand", the trademark
  - Discourage distribution in favor of the "official" version
  - Of course still possible as per the licence

# At build time

```
$ ./configure -help
...
--distro-compatibility <level>
```

The distribution's level of compatibility with the official Haiku distribution. The generated files will contain the respective trademarks accordingly.

official -- the official Haiku distribution.  
 compatible -- a Haiku Compatible (tm) distro.  
 default -- any other distro (default value).



No  
Yes

α?



Trolls ahead !

```
--include-gpl-addons
--include-patented-code
```

This should be useless in Europe !

```
--include-sources
```

Simplest option for (L)GPL compliance

```
--include-3rdparty
```

Include GPL licensed add-ons.  
 Enable code that is known to implemented patented ideas and techniques. If this option is not specified, the resulting distribution may still implement patented ideas and techniques. This option only disables code that is currently known to be problematic.  
 Includes the source code of projects that require either an offer of source code or a copy of the patched sources. This is preferable when distributing on physical mediums.  
 Include 3rdparty/ in the build system.

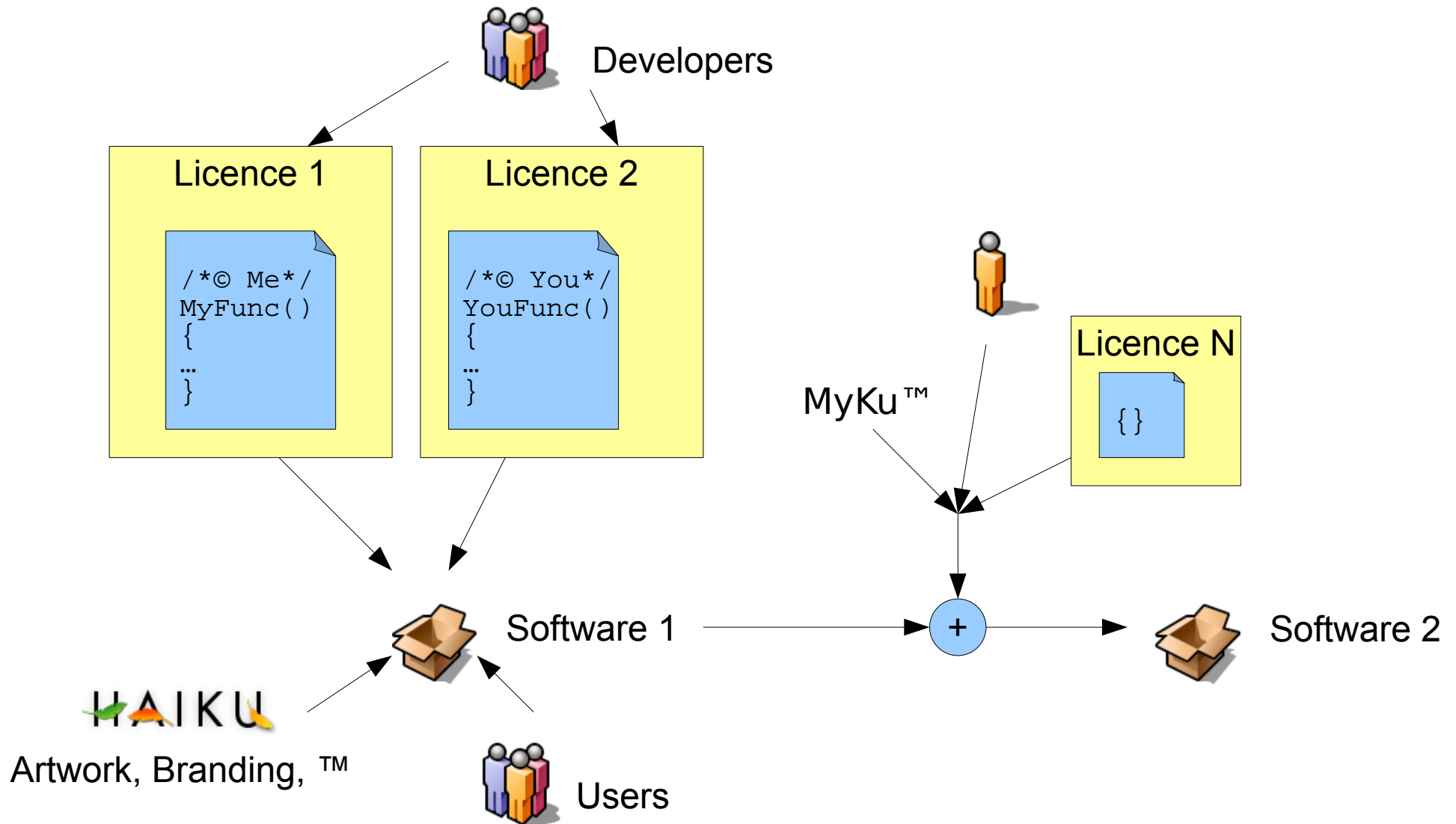
# Being respected

- We haven't achieved world domination yet
- Others have more problems with licences
  - <http://gpl-violations.org/>
  - <http://ffmpeg.org/shame.html> (61 listed)

# Other problems

- Preventing commercial release
  - Some code included in add-ons are "freeware" with source
    - Author can't be reached to ask for MIT relicensing
      - NFSv2 from BeOS
- Contributors who change mind and ask the website theme they wrote to be removed
  - Need to assert how much he contributed exactly
    - Time waster

# Software is not just code



# Oh, by the way...

▪  
;

SCO code taints,  
GPL can't write again,  
Winter froze my brain.

# Resources

- Main website: <http://haiku-os.org/>
- Trac + SVN: <http://dev.haiku-os.org/>
- <irc://irc.freenode.org/haiku>
- <http://ports.haiku-files.org/>
- <http://dev.osdrawer.net/projects/>