

# Gentoo for OS X

**is Aqua around Gentoo a viable approach?**





# About me

- Dutch guy (left my clogs at home)
- PhD student at CWI (databases)
- MonetDB core developer (SQL/Java)
- Sun Certified Programmer for the Java 2 Platform 1.4
- Gentoo for OSX Lead (interim)





# CWI

- National Research Centre for Mathematics and Informatics, Amsterdam, the Netherlands
- Database Architectures and Information Access
- <http://www.cwi.nl/~fabian/>





# MonetDB

- Main-memory fully vertical decomposed database
- Fully open source and hosted on SourceForge
- Targetted at high performance (query processing at light speed)
- <http://monetdb.cwi.nl/>



# Gentoo

- Gentoo Linux user since October 2002
- Gentoo Developer since 30-07-2005
- Gentoo for Mac OS X Interim Lead since 02-10-2005





# My Gentoo Life

- Handling keywording request
- Fixing compilation/build issues
- Writing documentation
- Working on getting the project moving again
- Trying to manage people :)



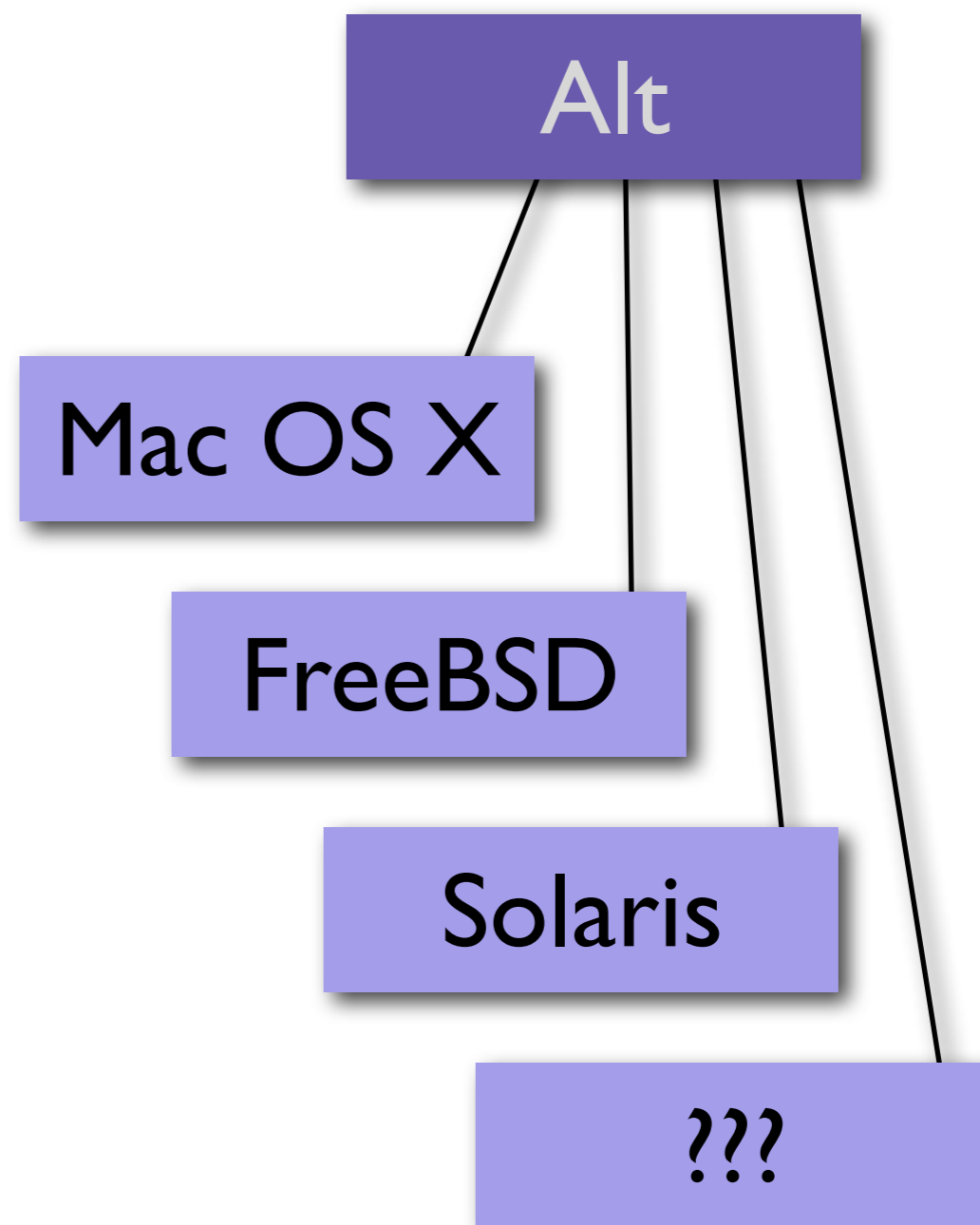
# Why OSX?

- It is not open source!?!?
- The Darwin kernel (XNU) is open source, FreeBSD user-space on top
- Many supplied tools are open source
- The Aqua interface is superior to any other window interface
- It's a Walhalla for a UNIX savvy user



# In Gentoo Alt

- The OSX Project is a member of Alt, but...
- The OSX Project is the only 'live' project, which gives it a special status
- Many other projects envisioned within Alt, with FreeBSD currently in an overlay







# Some History

- Daniel Robbins did initial work on getting portage itself running on OSX
- Pieter van den Abeele (MIA at the moment, last blog 25-06-2005...) made changes to the tree, and did the first release



# ... more history

- Press release 19-06-2004 in the GWN (Apple, we have a problem)
- Ideas on custom built Darwin systems using portage (dev: kito)
- Proposal of the meta-pkg effort, an attempt to combine the repositories of Gentoo, DarwinPorts and Fink.



# Situation Today

- From 20 developers down to 2.5
- A `~ppc-macos` keyword in portage
- A `darwin/macos` profile
- A lot packages have to be keyworded still



# Fact Sheet :)

- Gentoo for Mac OS X users are GCC4 users!
- By default Gentoo for Mac OS X uses the `collision-protect` feature of Portage
- Various users show interest in the project, and use it



# Project Status

- More or less stuck, no innovation for a while
- No more stable markings (unless required for security issues)
- A few 'blocking' packages get more and more annoying; resolution required for 'movement' again



# Ongoing Efforts

- Tighter co-operation with other Gentoo Alt Projects
- Better integration with Gentoo mainstream projects, i.e. via use of **unconditional patches** in ebuilds
- Steps being made towards a prefix aware Portage, to avoid clashes



# Alt Projects

- FreeBSD has a lot in common with (FreeBSD based) Darwin
- often need the same patches
- often share the same (BSD) utilities (sed, find, etc.)
- Solaris will need a prefixed Portage install, like Mac OS X



# Let's do things better :)

- Remove conditionals in ebuilds  
use `ppc-macos && epatch ...`
- And avoid/remove OSX specifics in ebuilds
- Sometimes through an eclass such as `multilib.eclass: get_libname` returns libname with the proper suffix (`.so, .dylib`) and version





# Prefixed Portage

- Allowing Portage to install into a different location
- Useful for Mac OS X, as many packages collide with the OS... and you don't want to overwrite them
- Useful for Fedora Core or Debian users at work that want great software (prefix is e.g. homedir)



# And more...

- Thinking about an automated testing system to detect broken packages (base on Catalyst?)
- Dreaming about 64-bits version of Gentoo for Mac OS X
- Toying with the ideas of a Darwin system built from Portage



# Concluding...

- Gentoo for Mac OS X has a long way to go, before it will be ‘grown up’
- A lot work needs to be done: portage, keywording, compilation issues...
- The project fills a gap in OS X: support for tools “the Gentoo way”



# So,

**is Aqua around Gentoo a viable approach?**

- Yes it is!
- It will serve many UNIX savvy users
- It will not only be used on OSX
- It already makes people happy
- But, some heavy changes will have to be made

# Questions?

