UNIAUD

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Not Going to

- Get too technical
- Solve any problems

My Perspective

- What I want to achieve
- What everyone wants to know

UNIAUD

- Where We Are
- Future Plans

Where We Are

- Why talk about Uniaud?

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- Why talk about Uniaud?
  - Drivers are not interesting, they should just work
  - Uniaud makes eComStation great (potentially)
  - Why doesn't it work?

Uniaud Architecture / Components

- Uniaud16
- Uniaud32
- Uniaud API
- Mixer

Uniaud16

- Uniaud16
  - MMOS/2 Driver
  - Only interfaces with Uniaud32
  - Closed Source
  - 16-bit

Uniaud16 Progress

- Major improvements in stability
- Dozens of compiler warnings fixed (SL)
- Build process completely rewritten (MG)
- Only requires OpenWatcom (MG)
- Debug without serial port (AH)
- Cleaner output (AH)
- Fixed serious buffering issues (AH)
- Bldlevel automated (MG+AH)
- 1.1.4RC6 is GA quality

Uniaud32

- ALSA
- DRV32
- LIB32 (Linux kernel)

ALSA

- Advanced Linux Sound Architecture
- All of sound support in Linux
- GPL 2
- 32 bit
- Very impressive technology
- Very large

Uniaud32

- ALSA
  - Linux sound driver
- DRV32
  - OS/2 personality
- LIB32
  - Subset of the Linux kernel

Uniaud API

- uniaud.dll
- Works without Uniaud16
- Used by WarpVision

Uniaud API

- No source for uniaud.dll
- Not much interest
- There are other options for a new API
  - alsa-lib
  - salsa
  - JACK

Mixer

- Hardware mixer
- Uniaud32 controls
- Uniaud16 controls
- unimix.exe
- UniMixPM
  - Not part of Uniaud

UNIAUD IS BIG.

Development – Old vs. New

History

- (Archeology)

History

- ALSA 0.9.0beta6, *circa 2001*
- Trainwreck of development styles

Development Styles

- Uniaud
  - Uniaud16
    - DRV16
    - LIB16
  - Uniaud32
    - ALSA
    - DRV32
    - LIB32
- ALSA
  - Release early,
  - Release often.

Uniaud needs from ALSA:

- Bugfixes
- New hardware support

Decisions....

- ALSA was in beta
- Rapid changes
- New rules
- Everything moved around

- Decided not to update all code to latest
- Could break something
- More work

Results...

Years pass

New Hardware is added

Parts are updated

Parts are changed

\+

Uniaud32 is a fork of ALSA

A Fork

- Has its own bugs
  - Some are like ALSA, some not
- Same debugging process
  - Test
  - Identify problem
  - Re-test
  - Check for regressions
- Duplication of effort

Uniaud as a Wrapper

- We cannot sustain a duplication of effort
- Let the ALSA project handle ALSA
- Uniaud encapsulates it
- ALSA is then not part of Uniaud
- Uniaud becomes small and manageable

How to Transform Uniaud

- Development over several years
- Lines between parts are blurred
- Uniaud32's ALSA is not necessarily interchangeable
- This needs serious attention

Community Effort

- Open Source
- Many contributors
- Uniaud has already benefited
- More to do
- If I can do it...

Improvements

- Accessibility
- Source Management
- Building
- Debug
- Branching

Branches

- 1.1.4
- ReSync
- HDA / 2.0

How to Get Stuff Working

- Mailing Lists
- Tickets
- Building and Debugging

How to Get Stuff Working

- Mailing Lists
- Tickets
- Building and Debugging
- It will get better!

Future Plans

- My Commitment
  - Build issues
  - Finish ReSync
  - Merge with Paul's Code
  - Test LiveCD

Future Plans

- Linux code update
- Mixer – LBMix
- AP2
- ALSA API
- HDA Objects

Uniaud is Cool

- ALSA
- Open Source
- Can be made Sustainable
- Linux, without Linux
- Tremendous potential
- OS/2 Community