Device Drivers:
Recent Progress and Future Plans

A presentation for Warpstock USA 2016

By David Azarewicz

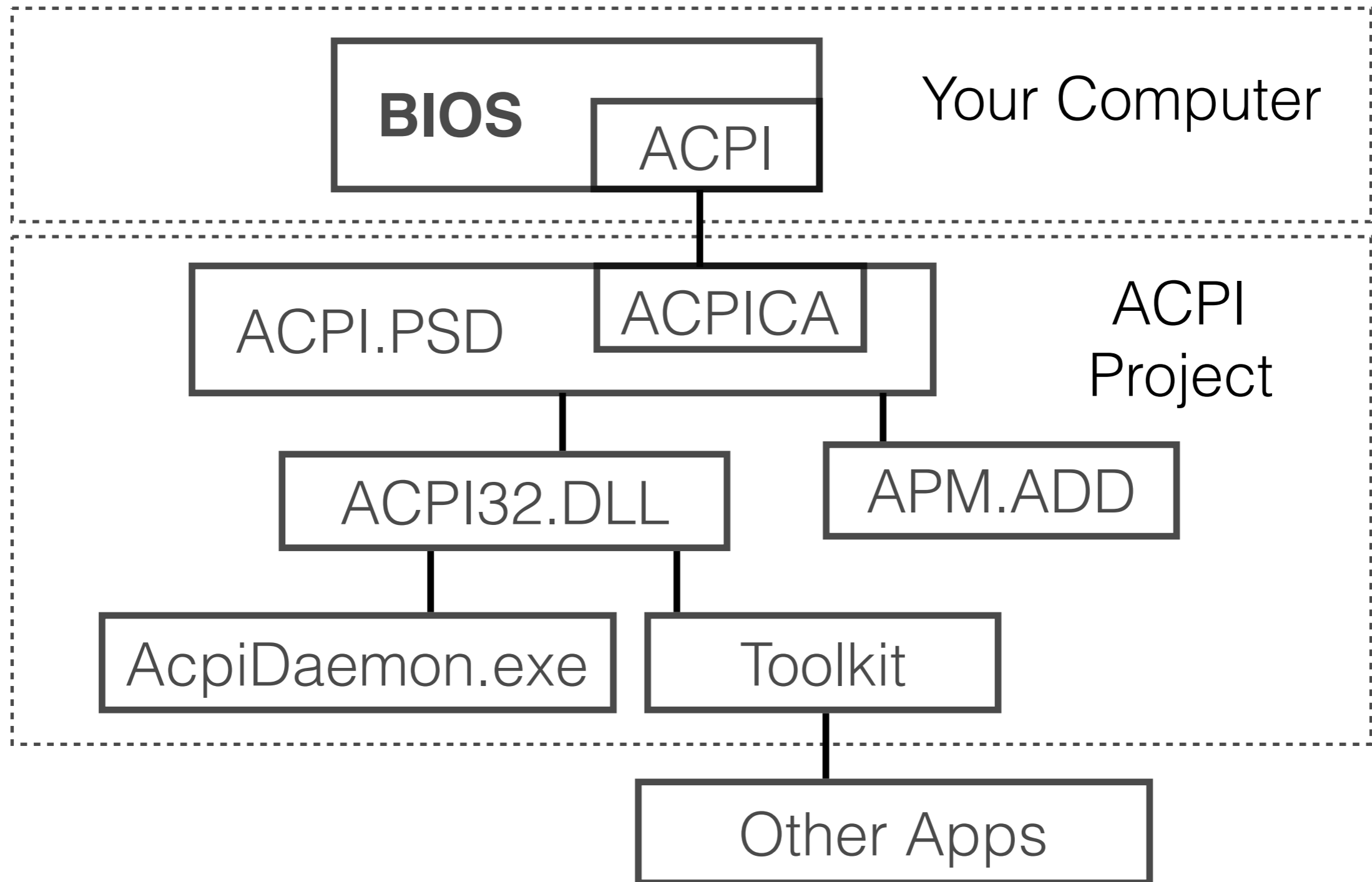David Azarewicz is a founding member of Arca Noae, LLC

ACPI Project

The ACPI project provides:

- A Platform Specific Driver (ACPI.PSD) that reads and interprets the ACPI in your system and configures your hardware to run OS/2.

- A Dynamic Link Library (ACPI32.DLL) for applications to query and use the ACPI in your system.

- A daemon (AcpiDaemon.exe) that provides some system services like power management, power button, sleep button, lid open/close events, etc.

- An APM emulator driver (APM.ADD) that tries to emulate APM functions and queries using the ACPI.

- A toolkit for writing applications that use the ACPI.

ACPI Project

Your Computer

- BIOS
  - ACPI

ACPI Project

- ACPI.PSD
  - ACPICA
- ACPI32.DLL
- APM.ADD
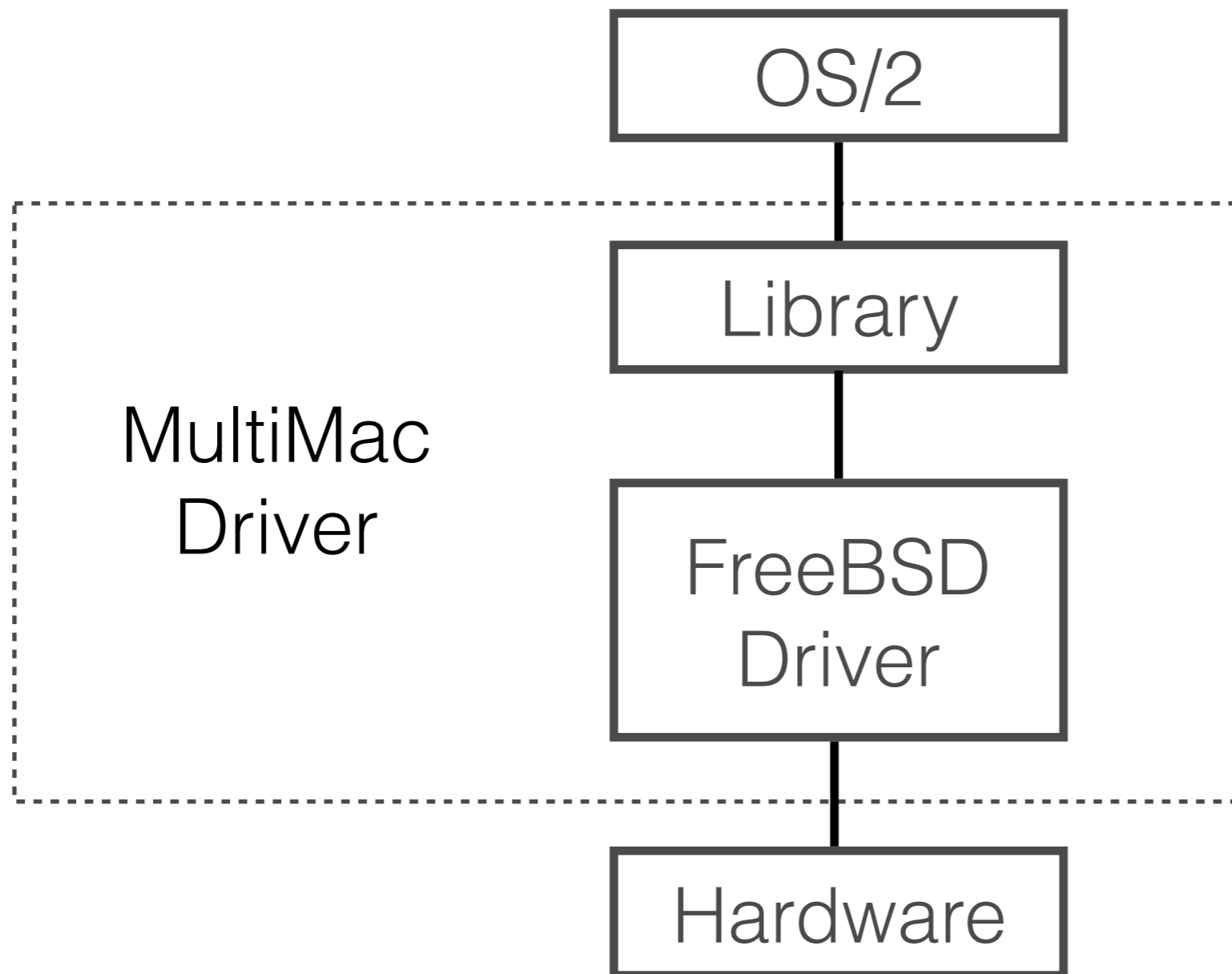- AcpiDaemon.exe
- Toolkit

Other Apps

ACPI Project

- Stable, reliable (version 3.23.04)

- Major changes
  - Support for up to 64 interrupts

- Minor improvements
  - ACPICA updates
  - Better kernel detection and integration.
  - Better automatic configuration.

- New versions are released in the Arca Noae subscription.

MultiMac

- MultiMac is a framework and library for porting network drivers to OS/2.

- Originally a library was built to allow compiling Linux drivers to run on OS/2 (LCL32).

- Now we have and are continuing to develop a library for compiling FreeBSD drivers (BCL32).

MultiMac

MultiMac

- Many new drivers have been built and released using the BCL32 compatibility library.

- Support for building wireless drivers is progressing. This is a much bigger job than originally thought.

- New MultiMac packages will be released in the Arca Noae subscription.

USB

- Stable, reliable (version 11.14)

- Fixed a problem booting from USB disk.

- Actively working on USB 3 driver. (USBXHCI.SYS)

- New versions will be released in the Arca Noae subscription.

Display Drivers

Panorama
- Stable, reliable (version 1.07)
- Minor issues
  - Custom resolutions for Nvidia BIOS

SNAP
- Work is in progress
- MTRR fixes have been implemented

Disk Drivers

OS2AHCI
- Stable for normal disks (version 1.32)
- Known issues
  - Problems with ATAPI devices
  - Slow booting

DaniS506
- Stable, reliable (version 1.08.15)

Other Drivers

AMOUSE
- Stable, reliable (version 2.75.01/3.01.00)
- Version 3.01.01 coming soon
- Known issues
  - Scrolling issue.

JFS
- Stable, reliable (version 1.09.06)
- Known problems
  - Rare chkdsk issues

Other Drivers

Sound
- A new up-to-date sound driver is in the works.
- Built using the Drv32 and the Bcl32 libraries.
- The majority of the work done for MultiMac is useable here, and any work on this project also benefits MultiMac.

What If You Have Problems?

- Read the docs, ReadMe, wiki.

- Is your problem reproducible?

- Is your config.sys ok, or is it a horrible mess?

- Are you using all the latest Arca Noae drivers?

- Do you have any unsupported or questionable drivers or software installed?

- Could it be something else?

So Now What?

- Consider opening a ticket.

- Keep in mind there are very few developers and we are all extremely busy.

- Try to isolate the problem so it is easier for the developer to reproduce.

Reporting Problems

- Open a ticket at mantis.arcanoae.com

- One system and one problem per ticket.

- Provide appropriate data. Read the wiki.
  - Reasonable summary
  - Description of the problem
  - How to reproduce it
  - Testlog log file
  - It's best not to attach random things to the ticket. Follow the directions in the wiki.

Choosing Hardware

Choose <u>quality</u>, generic, standards compliant hardware.

Don't buy the cheapest thing you can find.

Stay away from nvidia.

Questions?

David Azarewicz

http://88watts.net

david@88watts.net

David Azarewicz is a member of Arca Noae, LLC