

COREBOOT

FOR AMD PLATFORMS



SOLUTION OVERVIEW

Are you *getting the support* you need from your IBV? Are *development costs* and *royalty fees* for you BIOS out of control? Are you looking for a *better alternative*? Then look to coreboot.

The coreboot project is an open source alternative aimed at replacing the proprietary BIOS (firmware) found in most of today's x86 based platforms. Coreboot provides all the initialization code required to get your favorite OS up and running, yet it is designed to be minimalistic – get in, set up and get out.

Coreboot can scale from specialized applications that have the bootloader and OS stored in a single flash device, to more BIOS-like implementations. The bottom line is that you can build what you need without having to carry unnecessary features in the target application. This reduces code size and flash space while improving boot time and even overall system performance.

DEVELOP FASTER

Coreboot can be deployed on almost any AMD platform. The tools and services from Sage enable you to get this done with a minimum of effort. The Sage EDK includes a complete build environment for coreboot, while SmartProbe allows you to see and control what is happening on your system during execution. Finally, Sage is there when you need coreboot development, expert integration and support services.

CREATE MORE

The freedom of coreboot can be a catalyst for innovation. It may be something simple, like using the chipset to provide GPIOs rather than an expander. It may be as complex as adding a new type of boot media. No matter the innovation, the combination of coreboot with the tools and services from Sage opens up an entire new range of possibilities for your next AMD based design.



FEATURES

- ✓ Supports AMD Embedded Solutions
 - Includes AMD's AGESA and CIMX
- ✓ Supports booting almost anything
 - Linux
 - Windows 7/Vista/XP
 - FreeBSD, NetBSD, OpenBSD
 - OpenSolaris
 - Most RTOSes
 - Most Legacy OSES
- ✓ 100% Free Software (GPL)
 - No royalties
 - No license fees
 - Full source code availability
- ✓ Boot sources
 - SPI or LPC FLASH
 - IDE or SATA HDD
 - Ethernet
 - USB Floppy, Optical or HDD
 - Other...
- ✓ Fast boot times
 - As little as 700 milliseconds from power-on to operation
- ✓ Modular open architecture
 - Runs in 32-Bit protected mode
 - Written in C
- ✓ Fully supported
 - Core updates provided by AMD
 - Platform support provided by Sage



DEVELOPMENT PHILOSOPHY

At Sage, we believe that having the right tools can make the difference between doing a good job and doing a *great* job. We appreciate that tools do not take the place of the developer, but they can:

- ✓ Increase the creativity, productivity and consistency of any engineer.
- ✓ Enable development teams to better meet schedules without sacrificing deliverables.
- ✓ Permit projects to accomplish more with less by making development more efficient.

Sage is committed to enabling engineers with the right tools. We strive to create the highest quality, most productive tools available for the systems we support, at a sensible cost.

SAGE DEVELOPMENT SOLUTIONS

Sage offers an extensive set of development and debug solutions for AMD platforms. These include:

Sage Embedded Development Kit (EDK)

The Sage EDK is an Eclipse based integrated development environment (IDE) optimized for use with AMD processors and chipsets. This IDE encompasses the entire development process, including: editing, building and debugging. All in a streamlined graphical user interface that can operate standalone or in conjunction with SmartProbe by Sage for maximum debug capability.

SmartProbe for AMD Platforms

SmartProbe provides the developer with a comprehensive hardware interface for controlling the system under development with zero system overhead. The probe works well in standalone environments, such as GDB, EMACS and VIM, but provides maximum benefit when used in conjunction with the Sage EDK.

Engineering Services

The Associates at Sage are ready with the technical experience necessary to turn a concept into reality. Sage is dedicated to helping our customers get their products to market by providing a broad range of hardware and software development services concentrating on enabling your team.

SUPPORTED AMD COMPONENTS

Processor Models		Family	Revision	Chipsets	
AMD Athlon™	AMD Phenom™	0Fh	F & G	M690x	SB600
AMD Athlon™ II XLT	AMD Phenom™ II XLT	10h	ALL	780E	SB7x0
AMD Athlon™ II Neo	AMD Turion™	11h	ALL	785E	SB8xx
AMD Sempron™	AMD Opteron™	12h	ALL	SR56x0	SP5100
AMD Embedded G-Series		14h	ALL	A55E	A50M

