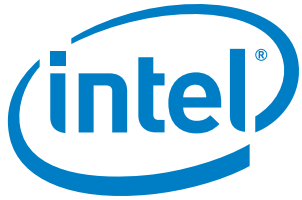

Intel® C Compiler for EFI Byte Code

In-Depth

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The Intel® C Compiler for EFI Byte Code enables the development of EFI Byte Code (EBC) images, allowing binary portability among multiple architectures. EBC images can be executed on EFI 1.10, UEFI 2.0 (or later) compliant systems, and can be executed on IA-32, Intel® 64, or Intel® Itanium® architectures. The Intel C Compiler for EBC delivers leading-edge size performance, offers source code compatibility, and comes with one year of customer support direct from Intel.

All features are for IA-32, Intel 64, and Itanium architecture-based systems unless otherwise noted).

- The compiler provides leading-edge, compact code-size performance.
- EBC images are binary compatible across IA-32, Intel 64, and Itanium architectures.
- The same EFI source code can be re-compiled with the EBC compiler. Developers can use a single source to create images for different target architectures including IA-32, Intel 64, or Itanium architecture-based processors.
- Since an EFI Byte Code (EBC) image can execute on IA-32, Intel 64, or Itanium architectures, a significant reduction in code-size space is realized, resulting in cost savings to card vendors. Another cost-saving feature enables card vendors to offer a single card to serve multiple market segments. The Intel C Compiler for EFI Byte Code creates an image in EFI Byte Code (EBC). This image can be executed by systems that implement the EFI 1.10, UEFI 2.0, or later specifications. These systems include an EBC interpreter that loads and interprets the EBC image, allowing an EBC image to be executed on multiple platforms and architectures including the IA-32, Intel 64, or Itanium architectures.

Typically, an EBC image is programmed into a PCI card's option ROM. Since an EBC image can execute on multiple architectures, a significant reduction of code-size space is realized. Another cost-saving feature is enabling card vendors to have one card that serves multiple markets.

Prior to using this compiler, it is recommended that a working native EFI image should already be developed. The EFI Development Kit (EDK) from http://EDK.tianocore.org is the preferred development environment for developing EFI compliant drivers. The EDK contains sample drivers and required reference code.

Features	Benefits
Compact code size	The compiler provides leading-edge, compact code-size performance.
Cross-architecture compatibility	EBC images are binary compatible across IA-32, Intel 64, and Itanium architectures.
Source compatible with multiple EFI drivers	The same EFI source code can be re-compiled with the EBC compiler. Developers can use a single source to create images for different target architectures including IA-32, Intel 64, or Itanium architectures.
Card vendors can save code-size space and use a single card to serve multiple market segments	Since an EFI Byte Code (EBC) image can execute on IA-32, Intel 64, or Itanium architectures, a significant reduction in code-size space is realized, resulting in cost savings to card vendors. Another cost-saving feature enables card vendors to offer a single card to serve multiple market segments.

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