Wiki Article
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The TMS320C6000 EABI Migration Guide

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ABSTRACT

The C6000 compiler tools support a new ELF-based ABI named EABI. Prior to this time, the compiler only supported a single ABI, which is now named COFF ABI. The following compelling best-in-class features are available under the C6000 EABI:

General

- Zero-init globals: “int gvar;” gets set to 0 before main runs.
- Dynamic linking: Add code to a running system.
- *Native* ROMing: Easy to create and link against ROM code.
- GPP-like 32-bit long: Eases porting of existing general purpose code.
- Faster linking: Remove duplicate debug information much faster.
- Compressed init of globals: Save memory presently used by init tables.

C++

- Efficient small classes: Much existing C++ code runs faster.
- Vastly improved template instantiation and function inlining. The current solution has many drawbacks; these are resolved.
- No run-time overhead exceptions: Exceptions become practical.
- Smaller virtual tables: Saves memory. Matches how other compilers handle it.

User applications may need to be migrated to build for C6000 EABI. The COFF ABI to EABI migration using the C6000 compiler version 7.2 is straight forward and involves few simple steps in most cases. The details of this COFF ABI to EABI migration are available at the TI’s Embedded Processor Wiki site: http://processors.wiki.ti.com/index.php/C6000_EABI_Migration.

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