Microcontrollers

CodeWarrior Development Studio for MPC55xx/MPC56xx V2.8

Note

The Standard Edition provides the full feature set of this product. It is included in the Professional Suite as a courtesy to our Professional Suite customers, who already have a Professional Suite license and want development support for the MPC55xx/56xx devices.

Overview

The Freescale CodeWarrior Development Studio for MPC55xx/MPC56xx V2.8 is a comprehensive development tool suite designed to enable embedded developers to meet the pressures of shorter project life cycles. CodeWarrior comes complete with an integrated development environment (IDE) designed for each stage of the development process—from board bring-up through embedded application development.

Build System

The CodeWarrior build system helps you develop applications with the smallest code size and fastest execution time. The CodeWarrior build tools include an ANSI-compliant C/C++ compiler for MPC55xx/MPC56xx microcontrollers. When used with the CodeWarrior linker, built on Power Architecture® technology, this compiler generates MPC55xx/MPC56xx applications and libraries that conform to the Power Architecture Embedded Application Binary Interface (EABI) standard.

The CodeWarrior build system provides two libraries: Main Standard Library (MSL) and Embedded Warrior Library (EWL). The CodeWarrior C and C++ compilers use the MSL for C to provide and extend the libraries documented in the ISO/IEC standards for C. This library conforms to the library described in the ISO/IEC 9899:1999 (C99) standard. It also conforms to the previous standard, ISO/IEC 9899-1990 (C99). A simple macro allows you to build MSL to meet the conformance standards required for your application.

EWL, a new alternate library, is based on updated MSL source files to improve MISRA compliance. Like MSL, it can be configured and built to be either C99 or C90 compliant.

CodeWarrior build tools can also support separately purchased eTPU and PC-lint software. The Freescale eTPU compiler package contains a stand-alone C cross compiler and preprocessor, with an assembler and linker for use with MPC55xx/56xx eTPU and eTPU2 products. A full compatibility mode for support of existing legacy code and best-in-class performance will put you ahead of the competition.

PC-lint software checks source code more closely than the C/C++ compiler, with the ability to find bugs, inconsistencies, non-portable constructs, redundant code and similar problems. PC-lint verifies that your source code conforms to any of these standards: Kernighan & Ritchie (K&R) C, ANSI C, or ANSI/ISO C++, Motor Industry Software Reliability Association (MISRA).

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Debugger

The CodeWarrior Development Studio for MPC55xx/MPC56xx includes P&E Microcomputer System's ICDPPCNEXUS for debugging code on the MPC55xx/56xx processors. The debugger supports the Book E, VLE and multiple cores found on these processors. It uses the processor's JTAG/Nexus debug mode, via a hardware interface, to provide access to all on-chip resources. The debugger features include:

- Full-speed in-circuit debug

- Breakpoints with counters on the Nth execution

- Variables window

- Support for multicore as well as VLE, Book E and mixed-mode devices

- Startup and macro files for automating the debug process

- Context-sensitive help for all commands

- Symbolic register files to allow decoding of on-chip peripheral registers

- MMU memory map display

- SPR display/modification

- Flash programming integrated into the debugger

- C source-level debugging based on ELF/DWARF 2.0 format

Specifications

IDE version

- 5.9

Host platforms

- Microsoft® Windows® XP/Vista®/7

- Microsoft Windows XP 32- and 64-bit (Professional Edition)

- Microsoft Windows Vista 32- and 64-bit (Business)

- Microsoft Windows Vista 32-bit (Home Premium)

- Microsoft Windows 7 32- and 64-bit (Professional Edition)

- Microsoft Windows 7 32- and 64-bit (Home Premium)

Language support

- Assembly, C/C ++

Build tools output format

- ELF/DWARF 2.0, Freescale S-Record

MPC55xx device support

- MPC5514E/G, MPC5515S, MPC5516E/G/S, MPC5517E/G/S

- MPC5533, MPC5534

- MPC5553, MPC5554

- MPC5561, MPC5565, MPC5566, MPC5567

MPC56xx device support

- MPC5601D/P, MPC5602B/C/P, MPC5603B/C/P, MPC5604B/C/P, MPC5605B, MPC5606B/S, MPC5607B

- MPC5632M, MPC5633M, MPC5634M

- MPC5643L

- MPC5644A/B/C

- MPC5645B/C/S

- MPC5646B/C

- MPC5668E/G

- MPC5674F

- MPC5675K

System Requirements

Recommended configuration

- 1.8 GHz Pentium® compatible processor or better

- Microsoft Windows XP/Vista/7

- 2 GB RAM

- 2 GB hard disk space, 400 MB on Windows system disk

- CD-ROM drive for installation

- USB port for communications with target hardware

- Ethernet port for communications with target hardware (optional)

Operational minimum configuration

- 1.4 GHz Pentium® compatible processor or better

- Microsoft Windows XP

- 1 GB RAM

- 1 GB hard disk space, 400 MB on Windows system disk

- CD-ROM drive for installation

- USB port for communications with target hardware

- Ethernet port for communications

Support Policy

- Online help and documentation

- Includes 12-month technical support

- Free 30-day evaluation license available

CodeWarrior Development Studio for MPC55xx/56xx is included in the CodeWarrior Development Tool Suites. To order the product, select the part number for the CodeWarrior Development Tool Suite that meets your needs.

Special Suite—CodeWarrior for MPC55xx/56xx, Special Edition

- Special Edition CWS-MPC-5500-SE

Standard Suite—CodeWarrior for MPC55xx/56xx, Standard Edition

- Perpetual $2495
  - Node Locked CWP-STANDARD-NL
  - Floating CWP-STANDARD-FL
  - Tech Support, CWT-STANDARD, is $495 after the first year

- Annual Subscription $995
  - Node Locked CWA-STANDARD-NL
  - Floating CWA-STANDARD-FL

Professional Suite—CodeWarrior for MPC55xx/56xx, Professional Edition*

- Perpetual $4995
  - Node Locked CWP-PRO-NL
  - Floating CWP-PRO-FL
  - Tech Support, CWT-PRO, is $995 after the first year

- Annual Subscription $1995
  - Node Locked CWA-PRO-NL
  - Floating CWA-PRO-FL

Contact your local Freescale representative for more information.

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