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Release Notes
CodeWarrior Development Studio for MPC55xx/56xx
Version 2.9

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I. About this Release

A. Version Information

CodeWarrior™ Development Studio for MPC55xx/MPC56xx Version 2.9

B. 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

C. Supported Operating Systems
- Windows XP Pro Edition (32-bit)
- Windows XP Pro Edition (64-bit)
- Windows Vista Home Premium Edition (32-bit)
- Windows Vista Home Premium Edition (64-bit)
- Windows Vista Business Edition (32-bit)
- Windows Vista Business Edition (64-bit)
- Windows 7 Home Premium Edition (32-bit)
- Windows 7 Home Premium Edition (64-bit)
- Windows 7 Professional (32-bit)
- Windows 7 Professional (64-bit)

D. Installation and Licensing

To install CodeWarrior Development Studio for MPC55xx/MPC56xx V2.9, double-click the installation package and a wizard will guide you through the installation process.

This CodeWarrior release is available in two editions: Special Edition and Standard Edition.

The Special Edition supports C/C++ code up to 128KB in both the compiler and the debugger.

The Standard Edition supports unlimited C/C++ code size in both the compiler and debugger.

An Evaluation Edition is available which includes all the functionality of the Standard Edition for 30 days, after which it reverts to the Special Edition.

E. Getting Help

All issues will be tracked through Freescale's normal Service Request Process. To report feature requests (enhancements) or defects for CodeWarrior Development Studio for MPC55xx/MPC56xx V2.9, please submit a Service Request.

1. Go to http://www.freescale.com/support
2. Log in.
3. On the resulting MyFreescale page, click Enter a Service Request
4. Choose category: Technical Request
5. Choose topic: CodeWarrior
6. Click Continue.
7. Provide the required information. An attachment up to 10 MB may be attached to the SR. You may also specify email addresses of people you would like to keep notified on the progress of the SR. Separate multiple email addresses with commas.
   - Type: pick from Query (Question), Change Request (Enhancement) or Problem Report (Bug)
   - Target: specify the hardware microcontroller/ microprocessor family involved
   - Priority: choose from Normal, High, or Highest
   - Description: details of the issue or feature request
8. When finished, click Submit.

After Submit is selected, a confirmation page will be displayed with your SR number. You will also receive a confirming email sent to the address specified in your Freescale account.

Freescale has well-established processes for moving SRs into our formal feature request/planning process and into the formal defect tracking tools used by the R&D team. There is no guarantee that a reported feature will be implemented, or a reported defect will be fixed in any particular period of time, but it does mean that your feedback will be seen, heard, listened to, and acted on in some way.

F. Supported Targets

CodeWarrior Development Studio for MPC55xx/MPC56xx V2.9 supports all the devices included in version 2.8 plus support for MPC5646C, MPC5676R, MPC5604E, MPC5606B.

II. New Features

A. Compiler

Improved handling of stack frames for leaf functions when performing long2float conversions.

Appendix A — Defects Fixed

The table below lists the defects that have been resolved in this release.

MTWX48545	MPC55xx/56xx V2.8: wrong code generated for function INTC_InitINTCInterrupts. @h should be used instead of @ha
MTWX50140	[MPC5646C] Exception init routine EXCEP_InitExceptionHandlers() uses register R2 to calc an exception addresses. It destroys the original Read-Only small data section anchor R2 register.
MTWX44517	Linker options "-relocate" and "-norelocate" seems have no influence on the generated .elf file.
MTWX48783	MPC55xx/56xx: problem with goto function

MTWX49345	"[MPC5566]SRAM initialization covers just 64kB of RAM (MPC5566_HWinit.c) but this mcu has 128kB."
MTWX47098	Internal compiler error occurs when VLE interrupt prolog/epilog __declspec(interrupt vle_multiple SRR machine) is being created by the compiler.
MTWX47844	Standalone assembler does not report an error when -vle option enabled and assembler file includes booke or other instructions not supported by e200 (zen).
MTWX49883	"Internal Compiler Error while executing in file 'PCodeInfo.c' line: 652 occurs when macro #define FSMON_MAX_UINT16 ((uint32)0xFFFF is used."
MTWX47898	CodeWarrior v2.8 installer fails if "Custom" installation selected. "Internal Error 2753" occurs.
MTWX48424	Math function sqrt() generates program exception when SPFP libs are used.
MTWX48074	Precompiler calculated floating point values (SPFP_Only enabled) does not match with runtime calculated equivalent values.
MTWX48385	CW 2.3 MPC55xx _f_ftod implementation bug for -SNaN
MTWX44438	AUTOSAR OS/MPC564xB code - wrong declaration of OSOTMSignal
MTWX35136	InterProcedural Analysis broken (CodeWarrior for MPC55XX v2.4)
MTWX43099	Linker crash
MTWX46683	Leopard Project Wizard generated project has Watchdog timer (SWT) disabled.
MTWX47325	The intrinsic Data Cache Block Touch __dcbt() requires a writable pointer void* instead of const void*.
MTWX47502	.sbss2 section is not being initialized to zeros
MTWX46520	CodeWarrior C++ project generated by the Wizard does not initialize static constructors.
MTWX47009	In the automatic flash programmer which causes the Leopard cut2 devices to enter SAFE mode

The table below lists each unresolved issue in this release and workarounds if available.

MTWX48492	Targeting Manual does not describe the vector options at all (SPE, SPE Addl, SPE2, None). Build tools reference manual is missing description of "spe2_vector" compiler option. Workaround: None
MTWX50212	There is an error in the header file for the MPC5607B device Workaround: None
MTWX47861	Incorrect information for AT, Access Flags and ALIGNALL in the Build Tools Reference manual Workaround: None
MTWX48116	Unable to compile specific assembly line that includes a value calculation with a data object and @ asm operation if the data object is located in small data section. Workaround: turn off the small data section(s) -sdatathreshold 0 -sdata2threshold 0
MTWX49928	CodeWarrior PC-Lint plugin does not work well with the latest PC-Lint v9.0. Unable to use different au-misra.lnt file when misra option is checked. Workaround: 1) Backup the original .lnt files 2) rename au-misra1.lnt to au-misra.lnt
MTWX47283	Documentation needs to be updated with regards to the corrected list of intrinsic functions Workaround: None