

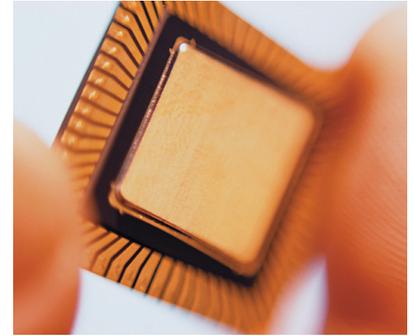


# CodeWarrior™ Development Studio for 68K Embedded Systems, v3

## Overview

CodeWarrior™ Development Tools for 68K Embedded Systems, version 3 is a powerful development tool that quickly gets you up and running on your new projects. With one well-integrated edit, build, troubleshoot and deploy process, CodeWarrior tools enable your

engineering team to save time and increase the quality of your finished products. CodeWarrior tools also simplify collaboration between developers on the same project team and allow developers on multiple projects to share design information, code and troubleshooting results.



The image shows a collage of various software windows from the CodeWarrior Development Studio. The windows include:

- Register Details Window:** Shows details for the CSA[15:0] register, including its bit fields and value.
- General Purpose Registers:** A table listing registers D0 through D6 with their addresses and values.
- Project Stationery:** A dialog box for creating a new project, showing options for project name and location.
- Processor Settings Preference Panel:** A sidebar menu for configuring the target processor (M68000 Processor).
- Global Optimization Preference Panel:** A dialog for selecting optimization levels (Level 1 to Level 4) and target code size (Faster Execution Speed vs. Smaller Code Size).
- Special Purpose Register for MC68S328:** A table listing special purpose registers like SCR, PCR, IDR, IODCR, CSGBA, CSGBB, CSGBD, SPIRWD, SPIPCNT, SPIINTCS, SPIDMA, ILCR, ILCR2, ILCR3, ILCR4, ILCR5, ILCR6, and their values.
- Command Line Debugger:** A window showing command line options for the debugger, such as TCN2, SPIINB, SPIPC, SPIPC, IADR, IZDR, USTCNT, UTK2, UMSCL, UMSCT2, WATCHDOG, RTCTEN, DAYALPH, SDCTLF\_H, EDCTLF\_L, and their corresponding values.
- Debugger Window:** Shows the source code for a timer example, including a loop and a delay function.
- Project Manager:** A window showing the project's file structure, including libraries, source files, and object files.



# Warrior Development Studio for 68K Embedded Systems

## Benefits

- > Speed your time-to-market by creating, compiling, assembling, deploying, and debugging within a single, integrated development environment. Use highly integrated CodeWarrior tools to speed your development or plug in familiar third-party editors and debuggers.
- > Re-architected compiler allows you to create application code that executes faster while creating a smaller footprint. The CodeWarrior ANSI/ISO C/C++ compliant compilers support and generate ELF/DWARF files for execution and debugging. Both function-level and inline assembly is supported within the C/C++ source file. In C, register-based calling conventions allow flexibility and increases performance.
- > Configure and manage multiple build configurations: The CodeWarrior project manager handles all the interdependencies between the projects, sub-projects and "targets" in your application. All your project settings, such as compiler and linker options, are stored in the project for future use. The CodeWarrior project manager allows you to configure and manage multiple build configurations and improves the functionality provided by a makefile in traditional command line tools; you can create projects, sub-projects and "targets." The project includes source code files and applicable libraries, and it manages all the interdependencies among files, automatically storing the settings for compiler and linker options in the project.
- > State-of-the-art debugger: The CodeWarrior debugger provides the power to evaluate structures and complex expressions. You can use the debugger to execute your program one statement at a time, suspend execution when control reads a specified point or interrupt the program when it changes the value of a designated memory location. When the debugger stops a program, you can view the chain of function calls, examine and change the values of variables and inspect the contents of the processor registers. The debugger displays mixed source and assembly code. Use command line TCL scripts in the debugger window to quickly program, test, capture and store data.

## Product Features

### Compiler and Linker Supports

- > Improved in-line assembly optimizations
- > ELF/DWARF file formats
- > Global optimizations for C/C++/EC++
- > Multiple targets per projects for focused debugging
- > Supports register-based calling convention for improved performance

### Debugger Supports

- > Codewarrior Target Resident Kernel debug monitor via serial
- > BDM port for parallel interface from P&E Microsystems for CPU32
- > Debugger includes command line plug-in
- > Use TCL/TK scripts to streamline code testing
- > Connect feature for easier board bring-up troubleshooting
- > Source, assembly or mixed source/assembly debugging
- > Pop-up windows to Display/Edit variable values and registers
- > Run control executes code or assembly instructions at any location

### Project Manager and Build System

- > Award-winning integrated development environment (IDE)
- > Project manager with easy-to-use graphical user interface (GUI)
- > Holds source files and libraries, manages dependencies and stores compiler, linker and other preferences using projects
- > Multiple targets per project — use the same project to build different versions of code, such as debug and release builds
- > Keeps constant track of code size, file link order and debugging options

### Editor and Code Navigation System

- > Pop-up menus for quick navigation and access to functions and headers in each project
- > Drag-and-drop editing in IDE for source code
- > Support for error management directly in the error message window

### Class Hierarchy Browser for C++

- > View classes, methods, member functions, data members and other structures in an organized manner
- > Graphically display hierarchy of classes for a clearer view of class relationships

### File Compare and Merge Tool

- > Compare two text files, graphically display the differences between the files and apply changes between files; in addition, compare the contents of two folders recursively

### Supported Processors

- > DragonBall™ Super VZ (MC68SZ328)
- > DragonBall VZ (MC68VZ328)
- > DragonBall EZ (MC68EZ328)
- > CPU32 (MC683xx)

### System Requirements

- > Pentium® II processor or AMD-K6® class processor
- > 64 MB RAM, 128 MB RAM recommended
- > 195 MB hard disk space
- > CD-ROM for installation
- > Hosted on Windows® ME/2000/98/Windows NT®

### Support

- > Online help with online and hardbound documentation
- > Includes 90-day New User Technical Support; other support options available

**Learn More:** For more information about Freescale products, please visit [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior)