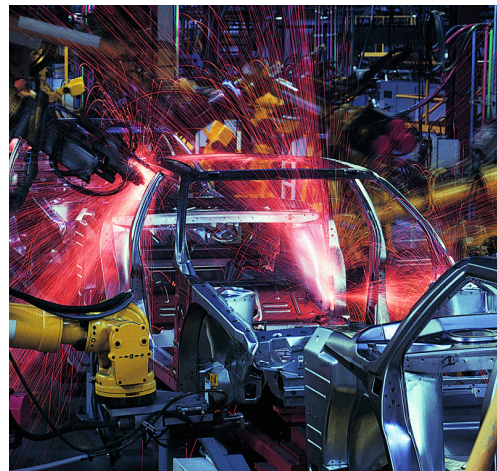# CodeWarrior™ Development Studio
for ColdFire® Architectures

Overview

When building network connected industrial control devices, comprehensive development tools that enhance developer productivity are a crucial component of project success. As a Freescale™ company, we have unique access to the silicon design team is leveraged in every aspect of creating and supporting our products and solutions. Support for all Freescale ColdFire® devices coupled with the cross-platform capabilities of the award-winning CodeWarrior™ integrated development environment (IDE) simplifies code migration and reuse for faster product development. CodeWarrior Development Studio for ColdFire Architectures, version 6.0 is a complete integrated development environment for ColdFire hardware bring-up through embedded applications.

Product Features

Project Manager

CodeWarrior IDE holds source files and libraries, manages dependencies and stores compiler, linker and other preferences using projects in a graphical user interface.

> Dependency management eliminates the need for complicated make-files

> Keeps constant track of code size, file link order and debugging options

> Easily configurable warning levels

Source-Level Debugger

A high performance graphical source-level debugger equipped with the latest features to shorten hardware bring-up and application development time.

> Edit/write code while debugging for faster results with source code browsing

> Pop-up windows to display/edit variable values and registers

> Source, assembly and mixed debugging

> Supports Debug With Arbitrary Records Format (DWARF)

> Debugging and analysis support for industry-leading real time operating systems (RTOS): ARC™ MQX™, ThreadX, Quadros RTXC™ and others. See Web for details.

Compiler and Linker

Industry-leading CodeWarrior C/C++ Compiler Suite includes ANSI C and ISO C++ compatible standard library.

> Standard or compact C libraries available for embedded development

> Global optimizations for C/C++/EC++

> Register-based calling in C/C++ for improved performance

Editor and Code Navigation System

Enables the creation and manipulation of source code and other text files.

> Set breakpoints in the editor

> Supports Assembly language coloring

> Edit compile-time errors from inside the build system

> Pop-up menus enable quick navigation to project functions and headers

> Drag-and-drop editing in IDE for source code

> Click on compile-time error links to view the source of the error

Search Engine

Locates a specific text string; provides file-comparison and file-differencing functionality.

> Differences can easily be viewed with color-coded, line-by-line comparisons

> Compare files and selectively apply differences with a single mouse click

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CodeWarrior Development Studio for ColdFire Architectures

CodeWarrior Development Studio provides the capabilities required by every engineer in the development cycle: from board bring-up to firmware development to final application development.

Segmented ColdFire Development Tools Editions - Features/Benefits

Feature	Benefit	Special Edition	Standard Edition	Professional Edition
IDE				
Stationery Wizard	Allows for easy project set-up	Yes	Yes	Yes
Program Manager > Projects/Sub Projects	Eliminates confusing and often complex make files with visual preference panels	Yes	Yes	Yes
Build Tools				
Assembler	For specific optimization only you can provide	Yes	Yes	Yes
Optimizing Compiler	Reduces code size and maximizes the capabilities of the microcontroller to achieve top performance	C-Compiler code size limited to 128K	C-Unlimited	C-Unlimited C++ Unlimited
Libmaker	Allows reuse and maintenance of Code through libraries	Yes	Yes	Yes
Debug Tools				
Source-Level Debugger	Speeds debug cycles by view the source code as it executes	ASM - Unlimited C - 128K	ASM - Unlimited C - Unlimited	ASM - Unlimited C - Unlimited C++ - Unlimited
Flash Programming	Fully Integrated flash programming improves the build-debug cycle because it automates your downloads	Yes	Yes	Yes
Simulator V2 and V4e	Reduces costs and eliminates possible hardware issues during development	No	Yes	Yes
Data Visualization	Let's you see how your program effects peripherals	Yes	Yes	Yes
RTOS Awareness	Ready to work with RTOS-aware debug capabilities	No	No	Yes
Debug Hardware Support	Allows for stop mode debug and on-chip debugging	USB connections	USB connections	USB/Ethernet connections
Advanced Tools				
Profile and Analysis and Code Coverage	Gives you visibility into you running program to allow fine tuning and better quality and style guidelines	No	No	Yes
CodeTEST Integration	Complete software analysis toolsuite for memory and performance analysis, code coverage, and statement trace	No	No	Yes

CodeWarrior Development Studio for ColdFire Architectures

Features for Version 6
> **NEW** compiler optimizations

> Instruction set simulator (ISS) for V2 and V4e cores from Freescale ColdFire design team

> **FASTER,** more intuitive flash programming of both on-chip and on-board flash memory

> Integrated hardware diagnostics for board-level testing

> **ENHANCED** command window permits more complex scripting capabilities

> Built-in software profiler for hot-spot analysis

> **NEW** support for 521X family

> **ENHANCED** editor for greater developer productivity

> **ENHANCED** open architecture easily incorporates support for new emulators, RTOS and network protocols
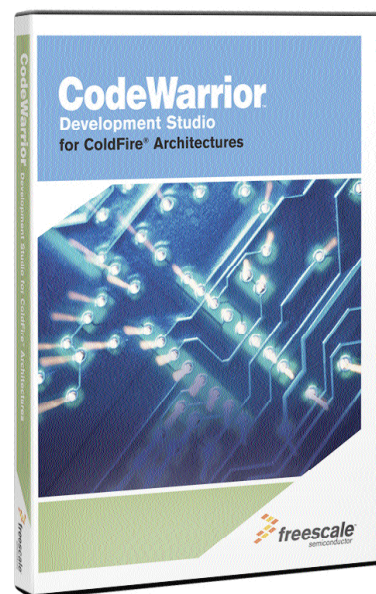
Recommended Embedded Networks Solution

Implementing and testing network protocols and real-time control applications in your industrial control device can cause unnecessary complexity and product shipment delays. Freescale has the answer. Best-in-class components are integrated with CodeWarrior Development Studio for ColdFire Architectures and bundled with example applications to speed your time-to-market.

CodeWarrior Development Studio for ColdFire Architectures

ColdFire evaluation board that meets your requirements.

> Abatron BDI 2000

> ARC, ThreadX, Quadros and others and RTCS TCP/IP Network Stack

> RTXC Quadros RTOS and RTXC Quadnet Networking Software

Processors Supported

MCF52xx V2 Core	MCF53xx V3 Core	MCF54xx V4 Core	MCF547x V4e Core	MCF548x V4e Core
5206e 5208	5307	5407	5470	5480
5213	5329		5471	5481
5214			5472	5482
5216			5473	5483
523x			5474	5484
5249			5475	5485
5272, 527x				
5282, 528x				

System Requirements
> Microsoft® Windows® XP/2000

Emulators (Host Target Interfaces) Supported
> Abatron BDI 1000 or BDI 2000

> P&E BDM interfaces (USB and parallel), Lightning card

Support
> Online help with online and hardbound documentation

> New product purchase includes first year technical support

Learn More: For more information about Freescale products, please visit **www.freescale.com/codewarrior**