

Development Tools

# Getting Started with Freescale Development Tools



## Start with your idea

Then use Freescale's Interactive Development Tool Ecosystem to design a development process that fulfills your specific needs.

Begin by selecting software and hardware tools you need to complete your design.

Get your product to market, on time and on budget.



## Development Hardware

**Demonstration boards (DEMOS)** give designers a cost-effective platform to program and debug project application code, with basic I/O functions and I/O headers for easy expandability. It may be all you need for product evaluation before moving to prototyping.

**Evaluation boards (EVBs)** provide more functionality than demo boards with expanded capabilities. Programmers have the option to either step up to an EVB after initial evaluation on a demo board, or they can start with an EVB and move directly to prototyping.

**BDM Debug Cables** like the USB Multilink and the Open Source BDM (OSBDM) are the link between the IDE running on your PC and the target hardware. These interfaces allow full, non-intrusive in-circuit emulation and are provided by Freescale and our partners, and are integrated in to every Freescale Evaluation board. Acquiring one of these standalone cables is essential when designing a custom board.

## Getting More Information

Visit [freescale.com/mcu](http://freescale.com/mcu) for extensive information on Freescale devices as well as our developmental hardware and software tools from both Freescale and our Tools Alliance Partners.

[www.freescale.com/mcu](http://www.freescale.com/mcu)

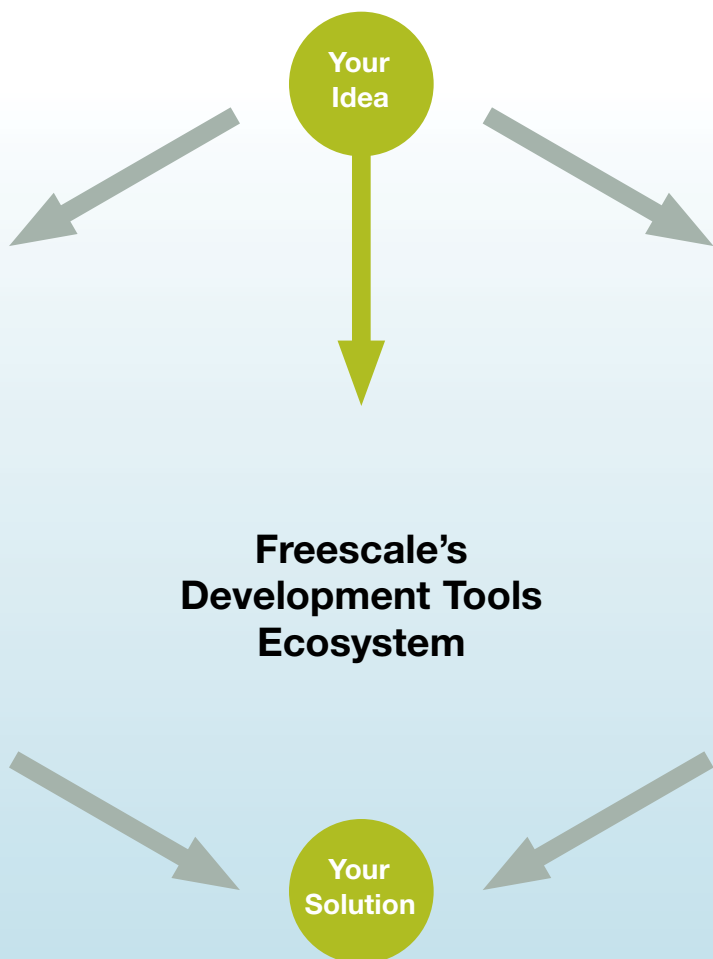
## Getting Our Tools Into Your Hands

Most online tools listings will include a [Buy Direct](#) button and/or a [Distributor](#) button. Click "Buy Direct," and you will start the process of buying your selected tool directly from Freescale. Click "Distributor," and a pop-up will include links to the Freescale authorized distributors that stock the tool you've chosen.

## CodeWarrior Suites

The CodeWarrior development tools are sold in suites. By purchasing a suite entitlement, you are able to register for any or all of the CodeWarrior products contained within that suite. This allows you to gain access to Freescale's entire portfolio of CodeWarrior tools across the suite you purchase.

CodeWarrior Suites can be purchased in a variety of configurations including Node Locked or Floating licenses, and 12-month renewable or permanent licenses. Prices for these suites range from free for our special edition suites to \$4995 for a permanent professional suite license.



**Development Software**

**Software development tools**, including CodeWarrior™ Development Studio and other third-party tools, provide a comprehensive set of integrated development environment (IDE) options, as well as other development tools such as debuggers, emulators, RTOSes, stacks and drivers.

**Drivers and Stacks** provide everything needed to begin using a complex module without spending any time writing module-specific code. Freescale and our Tools Alliance Program partners offer many drivers and stacks for all of our devices.

### Processor Expert™

CodeWarrior Development Suites can also come with Processor Expert™, a Rapid Application Design (RAD) component-based application builder and system integration tool. This tool enables component-oriented programming, provides tested, ready-to-use code and delivers instant functionality of generated code.

Find out more about the CodeWarrior Development Suites and additional supporting products, including value-added extensions and run control devices, by visiting [freescale.com/codewarrior](http://freescale.com/codewarrior).

### Tools Alliance Program

Freescale's Tools Alliance Program (TAP) is a worldwide network of development tools vendors who provide a variety of solutions for our customers. By forming this alliance with industry-leading development tools suppliers, Freescale helps bring the right solution to you. A variety of options are available from the CodeWarrior home page or from individual product summary web pages. View the table at the end of this brochure for additional information on our third-party vendors.

# Freescale's Hardware/Software Solutions

HCS08/RS08 Development Tool Summary							
Family	Part Numbers	Starter Kit		Advanced Evaluation			
		Demo Board	Software	Evaluation Board Kit	Software	Debug Interface	
AC	MC9S08AC128/96	DEMOACKIT	CWX-HXX-SE* Compiles up to 32k of object code	DEMOACKIT + DEMOACEX	Options starting at \$395. More options and information at <a href="http://www.freescale.com/codewarrior">www.freescale.com/codewarrior</a>	USBMULTILINKBDME	
	MC9S08AC60/48/32	DEMO9S08AC60E		DEMOACKIT + DEMOACEX			
	MC9S08AC16/8	DEMO9S08AC60E		DEMOACKIT + DEMOACEX			
AW	MC9S08AW60/32/16	DEMO9S08AW60E					
DZ, DN, DV	MC9S08DZ128/96/60/32/16	DEMO9S08DZ60					EVB9S08DZ60 EVB9S08DZ128
	MC9S08DN60/32/16						
	MC9S08DV60/32/16						
GB, GT	MC9S08GB60/32	M68DEMO908GB60E					M68EVB908GB60E
	MC9S08GT60/32/16/8	M68DEMO908GB60E					M68EVB908GB60E
JS	MC9S08JS16/8	DEMO9S08JS16					
JM	MC9S08JM60/32	DEMOJM					
	MC9S08JM16/8	DEMO9S08JM16					
KA	MC9RS08KA2/1	DEMO9RS08KA2					
		USBSPLYDER08					
	MC9RS08KA8/4	DEMO9RS08KA8					
LA	MC9RS08LA8	DEMO9RS08LA8					
LE	MC9RS08LE4	DEMO9RS08LE4					
LL	MC9S08LL16/8	DEMO9S08LL16					
LC	MC9S08LC60/36	DEMO9S08LC60					
QA	MC9S08QA4/2	DEMO9S08QA4					
QD	MC9S08QD4/2	DEMO9S08QD4					
		USBSPLYDER08					
QB	MC9S08QB	DEMO9S08QB8					
QE	MC9S08QE8/4	DEMO9S08QE8					
	MC9S08QE32/16	DEMO9S08QE32					
	MC9S08QE123/64	DEMOQE128		EVBQE128			
QG	MC9S08QG8/4	DEMO9S08QG8E					
		USBSPLYDER08					
RD, RG, RE	MC9S08RD60/32/16/8	DEMO9S08RG60					
	MC9S08RG60/32						
	MC9S08RE60/32/16/8						
SE	MC9S08SE8/4	DEMO9S08SE8					
SH/SG	MC9S08SH8/4	DEMO9S08SH8					
	MC9S08SH32/16	DEMO9S08SH32					
	MC9S08SG8/4	DEMO9S08SG8					
	MC9S08SG32/16	DEMO9S08SG32					

\* CodeWarrior for Microcontrollers Special Edition is complimentary and is supplied with all Freescale HC(S)08 development tools. This version of CodeWarrior supports object code sizes up to 32KB. Upgrade available to support expanded memory sizes. For information on these upgrade options, please go to [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior).

# Freescale's Hardware/Software Solutions

S12X Development Tool Summary						
Family	Part Numbers	Starter Kit		Advanced Evaluation		
		Demo Board	Software	Evaluation Board Kit	Software	Debug Interface
XA	MC9S12XA512/256	DEMO9S12XDT512	CWX-HXX-SE* Compiles up to 32k of object codea	EVB9S12XDP512	Options starting at \$395. More options and information at <a href="http://www.freescale.com/codewarrior">www.freescale.com/codewarrior</a>	USBMULTILINKBDME
XD/B	MC9S12XDP512					
	MC9S12XDT512/384/256, DQ256, D256					
	MC9S12XDQ256					
	MC9 S12XD256/128/64					
	MC9S12XDG128, D128, D64					
MC9S12XB256/128	DEMO9S12XEP100	EVB9S12XEP100				
XE			MC9S12XEP768/100			
			MC9S12XEQ512/384			
			MC9S12XET256			
	MC9S12XEG128					

\*CodeWarrior Development Studio Special Edition for S12X devices is complimentary and is supplied with all Freescale S12X development tools. This version of CodeWarrior supports object code sizes up to 32KB. Upgrade available to support expanded memory sizes with part number CWP-PRO-NL/FL. For information on these upgrade options, please go to [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior).

DSC Development Tool Summary							
Family	Part Numbers	Starter Kit		Advanced Evaluation			
		Demo Board	Software	Evaluation Board Kit	Software	Debug Interface	
56F8000	MC56F8011	DEMO56F8014-EE	CWX-568-SE* Compiles up to 32k of object codea		Options starting at \$395. More options and information at <a href="http://www.freescale.com/codewarrior">www.freescale.com/codewarrior</a>	CWH-UTP-ONCE-HE	
	MC56F8013	DEMO56F8013-EE					
	MC56F8014	DEMO56F8014-EE					
	MC56F802x/3x						
56F8100	MC56F8123/8122			56F8037EVM			
	MC56F8135						MC56F8323EVME
	MC56F8147/8146/8145						MC56F8367EVME
	MC56F8157/8156/8155						
	MC56F8167/8166/8165						
56F8300	MC56F8323/8322			MC56F8323EVME			
	MC56F8335		MC56F8367EVME				
	MC56F8347/8346/8345						
	MC56F8357/8356/8355						
	MC56F8367/8366/8365						

\*CodeWarrior Development Studio Special Edition for 56800 devices is complimentary and is supplied with all Freescale 56800 development tools. This version of CodeWarrior supports object code sizes up to 32KB. Upgrade available to support expanded memory sizes. For information on these upgrade options, please go to [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior).

# Freescale's Hardware/Software Solutions

## ColdFire® Development Tool Summary

Family	Part Numbers	Starter Kit		Advanced Evaluation			
		Demo Board	Software	Evaluation Board Kit	Software	Debug Interface	
51ACxxx	MCF51AC256/128	DEMOACKIT	CWX-HXX-SE* Compiles up to 64k of object code	DEMOACKIT / DEMOACEX	Options starting at \$395. More options and information at <a href="http://www.freescale.com/codewarrior">www.freescale.com/codewarrior</a>	USBMULTILINKBDME	
51JMxxx	MCF51JM128/64	DEMOJM		EVB51JM128			
51QExxx	MCF51QE128/96/64/32	DEMOQE128		EVBQE128			
520x	MCF5208/7		CWX-MCF-SE* Compiles up to 128k of object code	M5208EVBE			USBMLCF
521x	MCF5213/2/1	M5211DEMO		M5213EVBE			
	MCF5216/4	M5282LITEKITE		M5282EVBE			
521xx	MCF52110/00	M52210DEMO		M52211EVB			
522xx	MCF52211/10	M52210DEMO		M52211EVB			
	MCF52223/21			M52223EVB			
5223x	MCF52235/4/3/1/0	M52233DEMO		M52235EVB			
5227x	MCF52277/4			M52277EVB			
523x	MCF5235/4/3/2	M5234BCKKIT		M523XEVB			
5253	MCF5253			M5253EVBE			
527x	MCF5271/0	M5270PROMO		M5271EVBE			
	MCF5272			M5272C3E			
	MCF5275/4			M5275EVBE			
5225x	MCF52252/4/5/6/8/9	M52259DEMOKIT		M52259EVB			
532x	MCF5329/8/7			M5329EVB			
537x	MCF5373/2			M5373EVB			
5445x	MCF54455/4/3/2/1/0	M54451EVB		M54455EVB			
547x	MCF5475/4/3/2/1/0	M5474LITEKIT		M5475EVBE			
548x	MCF5485/4/3/2/1/0	M5484LITEKITE	M5485EVBE				

\*CodeWarrior Development Studio Special Edition for all ColdFire devices is complimentary and is supplied with all Freescale ColdFire development tools. This version of CodeWarrior supports object code sizes up to 64KB for the V1 devices, and up to 128KB for the V2, V3, and V4 devices. Upgrade available to support expanded memory sizes. For information on these upgrade options, please go to [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior).

## MPC Development Tool Summary

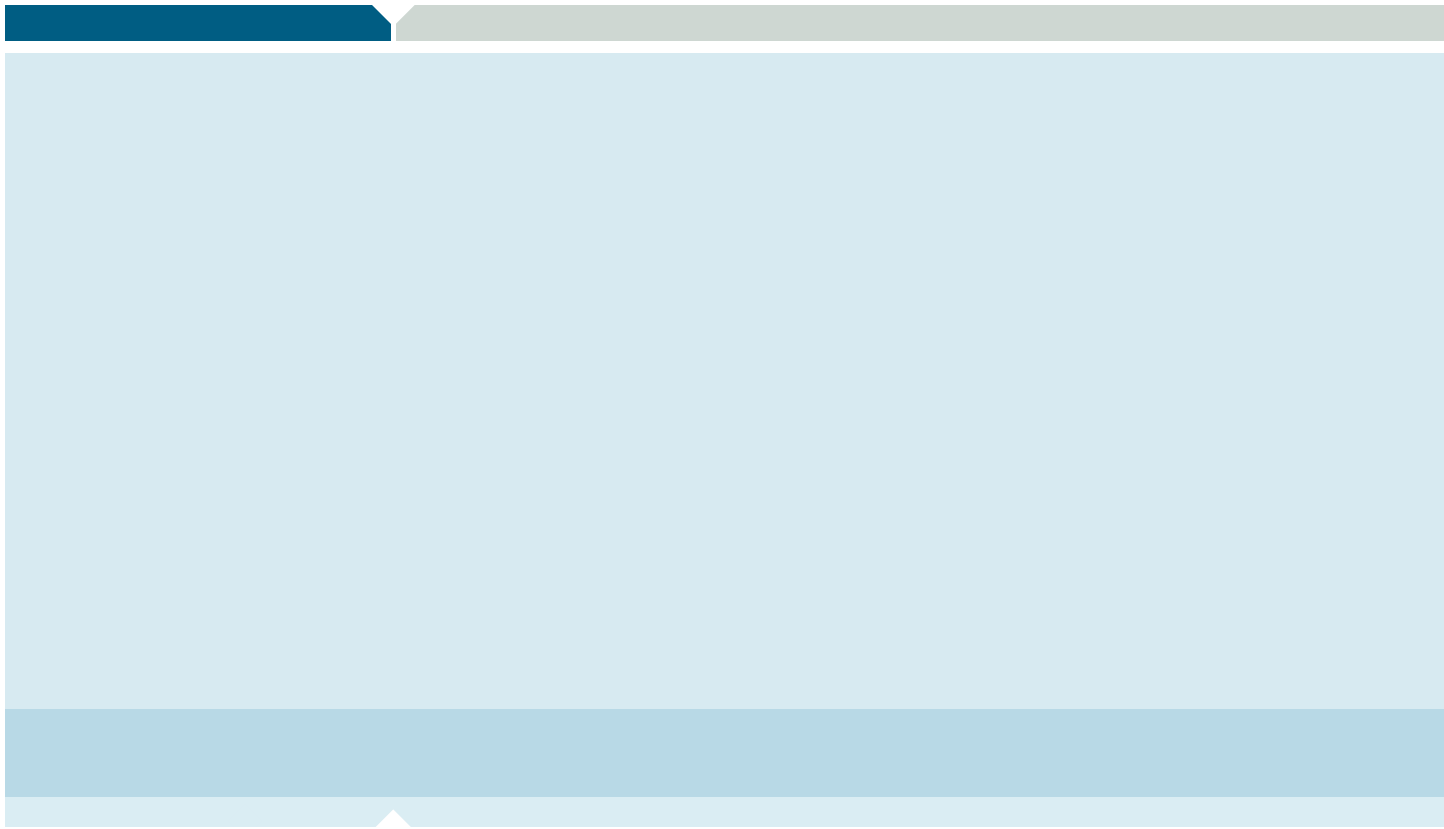
Family	Part Numbers	Starter Kit		Advanced Evaluation		
		Demo Board	Software	Evaluation Board Kit	Software	Debug Interface
MPC55xx	MPC5553		CWS-MPC-5500-SE* Compiles up to 128k of object code	MPC5553EVBE	Options starting at \$395. More options and information at <a href="http://www.freescale.com/codewarrior">www.freescale.com/codewarrior</a>	USBMLPPCNEXUS
	MPC5554			MPC5554EVBE		

\*CodeWarrior Development Studio Special Edition for all MPC devices is complimentary, and is supplied with all MPC55xx Evaluation Boards. This version of CodeWarrior supports object code sizes up to 128KB. Upgrade available to support expanded memory sizes. For information on these upgrade options, please go to [www.freescale.com/codewarrior](http://www.freescale.com/codewarrior).

# Freescale's Third-Party Vendors

8-bit ■ 16-bit ■ 32-bit ■

Third-Party Vendor	Web Site	Hardware			Development Tools			Run-Time Software			Technologies/Specialized Tools							
		Evaluation Boards and Systems			IDE, Debuggers, Compilers and Build Tools			Emulators and Diagnostic Tools				Operating Systems			Drivers/ Protocol Stacks/ Translators			
Abatron	www.abatron.ch/						16	32										
Allgo Embedded Systems	www.allgosystems.com/											32					Audio/Video Codec	
Altium	www.altium.com				32												Audio/Video Codec	
Alvaview	www.alvaview.com											32					Audio/Video Codec	
ARC	www.arc.com											32						
Arcturus	www.arcturusnetworks.com			32								32		32			VoIP, uClinux	
ASH WARE Inc.	www.ashware.com				32												eTPU	
Avocet Systems	www.avocetsystems.com				8	32		8	32									
Axiom Manufacturing	www.axman.com	8	16	32			8	16	32									
Blunk Microsystems	www.blunkmicro.com				32							32		32				
Byte Craft Limited	www.bytecraft.com				8	32											eTPU in C	
CMX Systems	www.cmx.com											8	16	32	8	16	32	Ethernet, USB, TCP/IP, CAN
CodeSourcery	www.codesourcery.com/											32					GNU Toolchains	
Cosmic Software	www.cosmic-software.com				8	16	32											
Crossware	www.crossware.com				32			32										
Unicoi Systems	www.unicoi.com											16	32					
EMAC	www.emacinc.com			32														
eCosCentric	www.ecoscentric.com											32						
Elektronikladen	www.elmicro.com	16	32		16													
Embedded Access	www.embedded-access.com											32						
Emlix	www.emlix.com											32						
Encore Software	www.ncoretech.com													32			VoIP	
ENEA	www.enea.com											32						
Euros Embedded Systems	www.euros-embedded.com											32		32			eTPU	
ExpressLogic	www.rtos.com				32							32		32				
FORTH	www.forth.com				32													
Freescale Semiconductor CodeWarrior™ Linux	www.freescale.com www.freescale.com/codewarrior www.freescale.com/linux	8	16	32	8	16	32	8	16	32	8	16	32	8	16	32		
Freescale MQX™ Software Solutions	www.freescale.com/mqx											32		32			TCP/IP, USB	
FSI Systems	www.fsisys.com			32													ZigBee®	
Green Hills Software	www.ghs.com				32			32				32						
GNU Operating System	www.gnu.org											32						
IAR Systems	www.iar.com				8	32								8	32			
Intec Automation	www.steroidmicros.com			32	32													
InterNiche Technologies	www.iniche.com													32			Ethernet	
iSystem	www.isystem.com/							8	16	32								
Ixxat	www.ixxat.com													32			EtherNet/IP, CAN, IEEE® 1588	
Kadak	www.kadak.com											32						
Lauterbach	www.lauterbach.com/				16	32	16	32										
Logic	www.logicpd.com			32														
Mentor Graphics/Accelerated Technolog	www.acceleratedtechnology.com				32							32		32			CAN, LIN, FlexRay™	
Micrium	www.micrium.com				32							32		32			TCP/IP, CAN, USB	
Micro APL	www.microapl.com													32			CF INIT	
MicroDigital	www.smx-rtos.com			32								32		32			GUI, USB, TCP/IP	
Mocana	www.mocana.com													32			Crypto/Security	
Monebo Technologies	www.monebo.com													32			Medical	
Nano-X	www.microwindows.org													32			GUI	
NetBurner	www.netburner.com			32										32			TCP/IP	
P&E Microcomputer Systems	www.pemicro.com	8	16	32	8	16	32	8	16	32								
PHYTEC	www.phytec.com			32														
PonTech	www.pontech.com			16														
Quadros Systems	www.quadros.com			32								32					TCP/IP	
Segger	www.segger.com											32		32			GUI, USB, TCP/IP	
SenTec Elektronik	www.sentec-elektronik.de			32													LCD	
Simuquest	www.simuquest.com													16	32			
SofTec Microsystems	www.softemicro.com	8	16	32			8	16										
Swell Software	www.swellsoftware.com													32			GUI	
Timesys	www.timesys.com											32					GNU Toolchains	
Treck	www.treck.com													32			TCP/IP	
Trolltech	www.trolltech.com													32			GUI	
uTasker	www.utasker.com													16	32		TCP/IP	
Wind River	www.windriver.com				32			32				32						



**Learn More:** For current information about Freescale products and documentation, please visit [www.freescale.com/mcu](http://www.freescale.com/mcu).

Freescale and the Freescale logo are trademarks or registered trademarks of Freescale Semiconductor, Inc. in the U.S. and other countries. All other product or service names are the property of their respective owners.  
© Freescale Semiconductor, Inc. 2008

Document Number: BRDEVTOOLS  
REV 5

