Freescale CPU08 / HC11 / HC16 development tools

Version 6 C Compiler Tools with Windows IDE for Freescale microcontrollers

Pricing and Availability

ICC08 and ICC11 start at just $249 ($99 for ICC16)

NOTE: These products have been designated EOL (End of Life) and are sold *without* technical support. They are not compatible with Vista or Windows 7 but will work under Win95, Win2K, ME and XP. Please try the 30 day fully functional demo to make sure that the product you are interested in does work for your purposes before making a purchase.

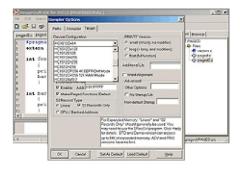ICC08 supports all HC08 and HCS08 devices.

ICC11 supports all HC11 devices.

ICC16 supports all HC16 devices

A more detailed description of features is available for ICC08 and ICC11 in Acrobat PDF Format: (Open in new browser windows.)

[ICC08 Flyer Page](#).

[ICC11 Flyer Page](#).

ICC08, ICC11, ICC16 Features at a Glance:

- comprehensive target support
- powerful and user-friendly IDE
- ANSI C compiler
- optimizations
- assembler / linker
- debugger support

- libraries
- documentation
- third party tool support
- technical support
- (Additional features, debugger information, etc. listed below)
- **ICC08:** The IDE includes the Application Builder for GP32 (only. No other 08 device is supported) for easy generation of peripheral initialization code via a point and click interface.

Product Editions:

- **ICC08** comes in both STANDARD and PROFESSIONAL editions. The PRO version includes the Code Compressor™ technology that decreases program sizes by 5-10%.
- **ICC11** and **ICC16** come in STANDARD edition only.
- V6/V7 USB Dongle 64-bit driver is here: http://imagecraft.com/pub/drivers.zip

Debugging your Code with ICC08 / ICC11 / ICC16

- **ICC08**: The preferred debugger for ICC08 is **NoICE-08** (available from ImageCraft). NoICE-08 provides full C source level debugging and requires the use of either MON08 for HC08 (e.g. typically just a serial connection to the development board) or BDM-08 pod for MC9S08 such as the P&E USB Multilink or the SofTec Microsystems iNDART-HCS08.
- **ICC11**: The preferred debugger for ICC11 is **NoICE-11** (available from ImageCraft). NoICE-11 provides full C source level debugging of RAM based code and requires a small (~1K bytes) monitor program to run on the target.
- **ICC16**: The preferred debugger for ICC16 is the P&E HC16 debugger. It provides source line stepping and breakpoint on C functions.

Related Software Tools, Hardware Accessories, Etc.:

NOTE: ImageCraft's ICC11 compiler is one of the most widely used compilers in many academic institutions for mechantronic and microcontroller classes.

NOTE 2: Salvo, μexec and μ/COS-II (below) do *not* apply to ICC08 and ICC16.

- **Hardware USB Licensing Dongle (available from ImageCraft)**
  - Use a hardware device to manage your license instead of the default node lock software license. Allows you to use the compiler on more than one machine or safely reformat your system without software license replacement.
- **ImageCraft carries HC08 development kits from ELMICRO.**

- **Pumpkin Inc.'s Salvo™ RTOS**
  - Salvo can be ordered directly from ImageCraft. Once purchased, we will email you the instructions on downloading Salvo.
  - designed expressly for single-chip microcontrollers like Atmel's AVR, TI's MSP430 and Freescale's HC11. With Salvo, you can implement new designs quickly in any MSP430 and HC11 derivative, with plenty of RAM and ROM left over.
  - Salvo is an event-driven, priority-based multitasking RTOS with minimal on-chip resource requirements. Event support includes semaphores (binary and counting), message, message queues and event flags. Time-based services include delays, waiting with timeouts and elapsed time. Salvo has low interrupt latency and fast context switching. It is highly configurable, scalable, ROMable and extensible. Salvo is for use with ImageCraft's ICCAVR, ICC430 and ICC11 development tools.
  - Salvo comes in different versions, with varying features to fit your budget. See http://www.pumpkininc.com and click on Products/Salvo for the complete list. Salvo Lite is freeware with limited functionality that you can use to evaluate Salvo. Salvo Tiny is a new low cost package that is built specifically with the ICC compilers. Salvo is royalty-free. Around the world, embedded designers benefit from Salvo's rich feature set, rock-solid reliability and excellent support. Please visit their website (http://www.pumpkininc.com) for more information and to download Salvo Lite for evaluation.
  - This table (click) summarizes the features of different Salvo versions. You should however, always consult the Pumpkin Inc. website for the latest product information
- **μexec**
  - For the simplest needs of multitasking kernels, ImageCraft has written a minimal executive that works well with ICC11 and ICC12: ftp://ftp.imagecraft.com/pub/pub/contrib/uexec.zip Others have extended μexec to include semaphores, mailboxes, and ported it to other ICC compilers such as ICCAVR. Email us if you are interested in more details.
- **μ/COS-II**
  - From http://www.ucos-ii.com: "μC/OS-II is a highly portable, ROMable, scalable, preemptive, real-time, multitasking kernel. μC/OS-II is written in ANSI C and the inner workings of μC/OS-II are described in the book "μC/OS-II, The Real-Time Kernel" (ISBN 1-57820- 103-9) written by world renowned author Jean J. Labrosse."
  - μ/COS-II ports exist for ICCAVR, ICC11, and ICC12.