

Byte Craft Limited

Code Development Systems

Byte Craft Limited specializes in optimized code generation for embedded systems with specialized instruction-sets. Byte Craft Limited was the first company to develop a C compiler for the Freescale eTPU, the National Semiconductor COP8™ and the Freescale RS08. Our compilers are now being used by a wide range of design engineers and manufacturers in areas of Commerce, Industry, Education and Government.

MPC

Supports all Microchip PIC 12x/14x/16x/17x families, 8K and Flash parts
Named address space supports variable grouping
Works with Microchip's PICMASTER, ICE 2000 emulator, MPLAB-SIM simulator, Advanced Transdata, Tech-Tools Mathias, Clearview, iSystem
Supports setting configuration fuses through C

COP8C

Supports the Feature Family, and SGR/SGE
Supports LOCAL memory reuse, SPECIAL memory through software
Supports SREG memory management
Support for symbolic debugging with emulators, including MetaLink
Supports setting configuration fuses through C

C6805

Supports all M68HC05 variants
Supports LOCAL memory reuse, SPECIAL memory through software
Emulators supported include MMDS05, MMEVS and Metalink iceMASTER
E6805 available to support EVM, EVS
Supports setting Mask Option Register through C

C38

Supports all MELPS740 variants, including 7600 series, M509xx, M371xx, M374xx and M38xxx
Supports MUL, 7600
Supports processor-specific instructions BRK, CLC, CLD, CLI, CLT, CLV, NOP, PHA, PLA, PLP, ROL, ROR, RRF, SEC, SED, SEI, SET, STP, WIT
Allows direct access to AC, X, Y, CC registers

C6808

Supports all M68HC08, **including RS08**
Supports LOCAL memory reuse, SPECIAL memory through software
Supports 6808 extended addressing, instructions
Support for symbolic debugging with many emulators including MMDS08 and MMEVS08
Supports setting Mask Option Register through C

SXC

Supports all SX variants, including SX48, X52
Supports LOCAL memory reuse, SPECIAL memory through software
Supports virtual device drivers within C
Data types include bit, bits, char, short, int, int8/16/24/32, long, float and fixed point
Support for assembly source-level debugging with Parallax SX-Key

Z8C

Supports all Zilog Z8 and Z8+ variants
Supports instruction set variants C94, C95, HALT, MUL, STOP, WAIT
Supports processor-specific instructions DI, HALT, NOP, RCF, SCF, STOP, WAIT, WDT, WDH
Generates information required for source-level debugging

eTPU-C

Supports the Freescale eTPU
High-level language for peripheral tasks
Intuitive coding for threads, channel condition encodings, subinstructions
Best code density for parallel architecture
Works with any host CPU compiler, supports eTPU Trace/Debug with Ashling PathFinder

Fuzz-C™

Transforms fuzzy logic to plain C; call between C and fuzzy functions
Accepts fuzzy logic rules, membership functions and consequence functions
Standard defuzzification methods provided; add new defuzzification methods easily
Includes plots of membership and consequence functions in generated comments

*Fuzzy Logic.
Any C compiler,
any platform.*

Compilers Summary

Features

Byte Craft compilers generate tight and fast executables, as well as **configurable listing files** that allow analysis of the generated code and original source.

Header files describe each processor derivative. **#pragma** statements configure the compiler for available interrupts, memory resources, ports, and configuration registers. Convenient **#defines** make your programs portable between members of a processor family.

C extensions include: **bit** and **bits** data types, binary constants, **case** statement extensions, direct register access in C, embedded assembly, initialization control, direct variable placement, interrupt support in C.

Two forms of linking are available: **Absolute Code Mode** links library modules into the executable during compilation. The **BLink linker** uses a more traditional linker command file and object files. Either route provides optimization at final code generation. You can include **Macro Assembler** instructions within C code, or as separate source files. Embedded assembly code can call C functions and access C variables directly. You can also pass arguments to and from assembly code.

Availability

Byte Craft Limited products are available world wide from **Arcadi Systems**.

Demonstration versions of the Code Development System are available. For more information, contact

support@arcadisystems.com

Upgrade Policy

Registered customers receive free upgrades and technical support for the first year. All other **registered users** may purchase major releases for a fraction of the full cost. Along with our version upgrades, Byte Craft Limited remains committed to maintaining a high level of technical support.

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