

# High-Powered PSOC Development at Garage-Powered Prices



## ImageCraft ICCV8 for AVR

ANSI C embedded systems development tools for Atmel AVR microcontrollers

### comprehensive target support

- ICCV8 for AVR supports all AT90S and ATMega devices (except for 1200, which does not have SRAM), Tiny26, AT94K FPSLIC and ATXMega.
- Works with our companion product, ICctiny for Tiny devices & AT90S1200.
- Strings may be placed in either SRAM or FLASH.
- Write interrupt handlers in C.
- Supports inline assembly, and can interface with assembly modules.
- Byte operations.
- Automatic generation of bit IO instructions such as sbi, cbi, sbis, ... etc.

### powerful and user-friendly IDE

- Based on the powerful open-source cross-platform CodeBlocks (C::B) IDE.
- Workspace and project support.
- Advanced features such as symbol browsing, code folding etc.
- ImageCraft enhancements include GUI project options for target memory and other setup without manually writing linker option file etc.
- Also includes Application Builder for generating peripheral initialization for select AVRs.

### ANSI C compiler

- Modern fast C Compiler with FULL support for the ANSI C language. NOT micro-C or extended K&R C.
- 32-bit longs, 32-bit IEEE single precision floating point.

### optimizations

- Device specific instructions.
- Optimized switch handling.
- Algebraic simplifications.
- Block level common subexpression elimination.
- Advanced register allocation.
- Peephole optimization.

### assembler / linker

- Relocatable assembler and linker.
- Assembler directives include conditional processing, include files, macros and textual defines.
- Industry standard output formats; Intel HEX, AVR COFF.

### debugger support

- Full debugging in Atmel's AVR Studio, including data watchpoint.
- Compilers produce listing files that are usable by most assembly level debuggers using conversion programs.

### libraries

- Subset of ANSI C library including printf, memory allocation, strings, and math functions.
- Target-specific functions such as those for accessing EEPROM and various subsystems (SPI, ADC, etc.)

### tools

- Make utility.
- Librarian to manage library file.

### documentation

- HTML help, PDF and optional printed manual.

### third party tool support

- Command line compilers callable from other editors / programs (e.g. Codewright).

### technical support

- Excellent technical support via email. Typical turnaround time is the same day!
- Free 6 months maintenance update via internet download.
- Low cost annual maintenance plans.

### available in multiple versions:

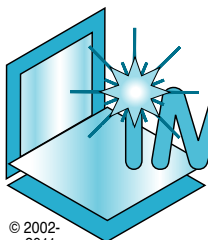
- **STD** - ANSI C compiler for AVR code generation. IDE with Application Builder, editor, project manager, code browser and built-in ISP. Support for up to 64K byte flash programs. C structure debug info. Support for COFF debugging with AVR Studio. Help files available as HTML Help and PDF file.
- **ADV** - STD + Code Compressor™. Decrease program size from 5-15%. Support for 128K bytes and 256K bytes MegaAVRs. MISRA safety checks for more robust code.
- **PRO** - ADV+ MIO Global Optimizer™ and "8-bit optimizations." Improve program size and runtime speed by 10-20%. 64 bit IEEE floating point support. Cross-module type checking for function calls and data references.

### fully functional demo:

- ICCV8 for AVR 45-day fully function demo may be downloaded from our website.
- 4K limited for non-commercial use after 45 days.

### V8 for Windows pricing:

- V8 Standard for Windows 95/98/NT/XP - \$249
- V8 Advanced for Windows 95/98/NT/XP - \$369
- V8 Professional for Windows 95/98/NT/XP - \$549
- USB Licensing Dongle - \$60
- NOTE: STD version owners may upgrade to the ADV or PRO versions for the difference in price.



# IMAGEcraft™

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