

IAR Embedded Workbench^R for the Samsung SAM8 family of microcontrollers

IAR Embedded Workbench is a set of highly sophisticated and easy-to-use development tools for embedded applications. It integrates the IAR C Compiler, assembler, linker, librarian, text editor, project manager and C-SPYTM debugger in one integrated development environment (IDE). With its built-in chip-specific optimizer, IAR Embedded Workbench generates very efficient and reliable FLASH/PROMable code for SAM8. In addition to solid technology, IAR Systems also provides professional worldwide technical support.



INTEGRATED DEVELOPMENT ENVIRONMENT (IDE)

- A modular and extensible IDE running under Windows 98/ME/NT4/2000/XP
- Create projects, edit files, compile, assemble, link and debug your applications within the seamlessly integrated environment
- Tool options configurable on global, group of source files, or individual source files level
- Full support for the SAM8, SAM8x, SAM8xRC, SAM8xRI and SAM8xRCRI derivatives
- Multi-byte editor support

COMPILER

- ISO/ANSI standard C compiler
- Multiple levels of optimizations for code size and execution speed
- Powerful memory model and memory attribute alternatives
- Internal and external stack
- Extended keywords specific for the SAM8
- Built-in advanced SAM8-specific optimizer
- Reentrant code
- Efficient floating-point
- Choice of code models
- Easy and fast interrupt handling directly in C

- Mixed C and assembler listings
- Support for inline assembler

ASSEMBLER

- A powerful relocating macro assembler with a versatile set of directives and operators
- Built-in C language preprocessor, accepting all C macro definitions

IAR XLINK LINKER

- Complete linking, relocation and format generation to produce FLASH/PROMable code
- Flexible segment commands allowing detailed control of code and data placement
- Support for a wide range of industry-standard symbolic formats
- Links only functions/variables needed by the application
- Generates checksum of code for run-time checking
- Comprehensive cross-reference and dependency memory maps

Different Architectures. One Solution.

IAR XLIB and XAR

- For creating and maintaining library projects, libraries and library modules
- Listings for entry points and symbolic information

ISO/ANSI C LIBRARY

- All required ISO/ANSI C libraries included (character handling, input/output, general utilities, string handling, math and trigonometric, low-level routines, etc)
- All low-level routines such as computer writechar and readchar provided in full source code for user customization
- Reduced versions of computer printf are available to reduce the code size and increase the speed

IAR C-SPY™ SIMULATOR DEBUGGER

- Complex code and data breakpoints
- C call stack with parameters
- Complete support for stack unwinding even at high optimization levels
- Backtrace possibility via the call stack
- I/O and interrupt simulation

- Versatile monitoring of registers, structures, call chain, locals, global variables and peripheral registers
- Fine-grain single stepping
- Profiling and code coverage
- Plug-in architecture allows support for any RTOS-aware debugging

COMPREHENSIVE DOCUMENTATION

- Perfect-bound user guides with detailed information
- Extensive step-by-step tutorials
- Help and hypertext versions of the user documentation available on line

FREE EVALUATION SOFTWARE

For more product information and free evaluation software, visit our web site:
www.iar.com

PROFESSIONAL EDITION

IAR Embedded Workbench Professional for SAM8 includes efficient graphical tools for system design, test and documentation:

- Graphical representation of any complex system with UML-based state charts, a very suitable format for real-time systems with many

- concurrent and interrelated processes or execution threads
- Detailed diagrams give an overview of the system structure and makes it easier to discuss the system design with others—both engineers and non-engineers
- Advanced testing and simulation facilities detect errors at an early stage of the software development process
- Automatic generation of well-structured system documentation in Rich Text Format or HTML saves valuable time and energy

IAR visualSTATE® for SAM8

IAR visualSTATE for SAM8 is a suite of fully integrated tools for the entire embedded software development process. It includes an UML-compliant graphical design environment, advanced verification and validation tools, and a very powerful code generator.

When developing with visualSTATE the entire application is based on the design, and due to the unique technology it is possible to perform exhaustive testing and to generate reliable and production-ready C code—in just a few seconds. The generated code is absolutely consistent with the design; it executes deterministi-

cally and can even be more compact than handwritten code.

Together with IAR Embedded Workbench, it forms a complete set of development tools for the SAM8, supporting you through the entire development process — From Idea to Target®!

Sweden
IAR Systems AB
P.O. Box 23051
Strandbodgatan 1
SE-750 23 Uppsala
Phone: +46 18 16 78 00
Fax: +46 18 16 78 38
Email: info@iar.se

United States
IAR Systems
(US HQ – West Coast)
Century Plaza
1065 E. Hillsdale Blvd
Foster City, CA 94404
Phone: +1 650 287-4250
Fax: +1 650 287-4253
Email: info@iar.com

United States
IAR Systems
(East Coast)
2 Mount Royal
Marlborough, MA 01752
Phone: +1 508 485 2692
Fax: +1 508 485 9126
E-mail: info@iar.com

Germany
IAR Systems AG
Posthalterring 5
DE-85599 Parsdorf
Phone: +49 89 88 98 90 80
Fax: +49 89 88 98 90 81
Email: info@iar.de

United Kingdom
IAR Systems Ltd.
Gainsborough Business Centre
Hamilton House,
Mabledon Place Euston,
London, WC1H 9BB
Phone: +44 207 554 85 85
Fax: +44 207 554 85 86
Email: info@iarsys.co.uk

Denmark
IAR Systems A/S
Lykkesholms Allé 100
DK-8260 Viby J
Phone: +45 8734 1100
Fax: +45 8734 1190
E-mail: info@iar.dk

Japan
IAR Systems K.K.
1-5 Kanda-Sudacho,
Chiyoda-ku,
101-0041 Tokyo
Phone: +81 3-5298-4800
Fax: +81 3-5298-4801
E-mail: info@iarsys.co.jp