## MPLAB®C18

ANSI-Compliant C Compiler for PIC18CXXX Microcontrollers





# MPLAB C18 provides powerful integration capabilities and ease of use!

The MPLAB C18 compiler is a full-featured ANSI-compliant C compiler for the Microchip Technology PIC18CXXX family of PICmicro® microcontrollers (MCUs). MPLAB C18 is fully compatible with Microchip's MPLAB Integrated Development Environment (IDE), allowing source level debugging with both the MPLAB ICE 2000 In-Circuit Emulator and the MPLAB SIM simulator. MPLAB IDE provides a convenient, project oriented development environment that reduces development time.

MPLAB C18 allows code for the PIC18CXXX family to be written in the C high-level language using powerful PICmicro libraries, enabling the developer to devote more time to the application and less time to the details of the processor.

MPLAB C18 was designed explicitly for the PIC18CXXX family and uses a software stack for maximum RAM reusability.

MPLAB C18 provides user configurable interrupt support for saving and restoring context during interrupt handling. Libraries are provided for multiple memory models. Libraries, precompiled objects, and linker scripts can be included in MPLAB projects along with C and Assembly source files for use with MPLAB IDE's make and build functions.

MPLAB C18 will run on any 486 or better PC as a native 32-bit Microsoft®Windows®95, Windows NT®or Windows 2000 Professional executable.

#### Features:

- ANSI-compliant
- Integrated with MPLAB for easy-to-use project management and source-level debugging
- Generates relocatable object modules for enhanced code reuse
- Native floating point and long data types
- Fully compatible with object modules generated with MPASM<sup>™</sup>, allowing complete freedom in mixing C and Assembly in a single project
- Transparent read/write access to external memory
- Interrupt code can be written in C or Assembly
- Strong support for inline assembly for when total control is absolutely necessary
- Efficient code generator engine with multi-level optimization
- Extensive library support, including peripheral string manipulation, and math libraries
- Allows code and data to be located at absolute addresses
- Easy manipulation of processor configuration words



## MPLAB®C18

#### **Ordering Information:**

Model Name: MPLAB C18

Ordering Part Number: SW006011

Devices Supported: All PIC18CXXX microcontrollers

#### **Devices Supported:**

PC with Pentium® processor or greater Microsoft® Windows® operating system COM Port

#### **Customer Support:**

Microchip maintains a worldwide network of distributors, representatives, local sales offices, Field Application Engineers and Corporate Application Engineers. Microchip's Internet home page can be reached at: www.microchip.com.

### **System Description:**

The MPLAB C18 ANSI-compliant C Compiler comes complete with the MPLAB IDE. The IDE allows you to quickly move between different development and debugging modes, for example, you can quickly advance from software debugging with MPLAB SIM simulator to hardware debugging with MPLAB ICE.

MPLAB C18 has implemented extensions to the C language to provide specific support for Microchip's PICmicro MCU environment.

To order or obtain more information about MPLAB C18 or any other Microchip product, contact the Microchip sales office nearest you.

Development Tools from Microchip				
MPLAB® IDE	Integrated Development Environment			
MPASM <sup>™</sup> Assembler	Universal PICmicro macro-assembler			
MPLINK™ Object Linker	Linker			
MPLIB <sup>™</sup> Object Librarian	Librarian			
MPLAB C17	C compiler for PIC17CXXX MCUs			
MPLAB C18	C compiler for PIC18CXXX MCUs			
C Compilers	Sold by third-party vendors (HI-TECH, IAR, CCS)			
MPLAB SIM Simulator	Software Simulator			
MPLAB ICD	In-Circuit Debugger			
ICEPIC <sup>™</sup> Emulator	Low-cost in-circuit emulator			
MPLAB ICE 2000	Full-featured modular in-circuit emulator			
PICSTART <sup>®</sup> Plus Programmer	Entry-level development kit with programmer			
PRO MATE® II Device Programmer	Full-featured, modular device programmer			
KEELOQ® Evaluation Kit	Encoder/Decoder evaluator			
KEELOQ Transponder Evaluation Kit	Transmitter/Transponder evaluator			
microID <sup>™</sup> Developer's Kit	125 kHz and 13.56 MHz RFID development tools			
MCP2510 CAN Developer's Kit	MCP2510 CAN evaluation/development tool			
MXDEV <sup>™</sup> 1 Analog Evaluation System	Evaluation kit for MCP devices			

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