

## HIGHLIGHTS

- Architecture-specific language extensions
- Extensive optimizations support the 80296Sx
- Interrupt functions in C and in-line assembly
- Vertical register windowing in C
- Single-precision floating point
- Complete ANSI C libraries in source
- Full Intel OMF-96 and Intel hex support

## INTRODUCTION

The TASKING 196/296 software development toolset is compatible with the former Intel development tools and is available on numerous host platforms.

The toolset consists of:

- EDE, our Embedded Development Environment that unifies all the tools into one interface
- Optimizing ANSI C compiler
- Macro Assembler, Linker/Locator and utilities
- ChipView-x96 Debugger and Simulator

## THE C COMPILER PACKAGE

The TASKING 196/296 Compiler takes full advantage of the architecture without violating the ANSI standard. The user can choose from four levels of optimization to improve the execution efficiency of the application code. Special function registers provide direct access to peripherals at C level. The 196/296 Compiler supports SFRs for on-chip peripherals, such as high speed input/output, pulse width modulation, A to D converter, watchdog timer, serial port, and standard I/O lines.

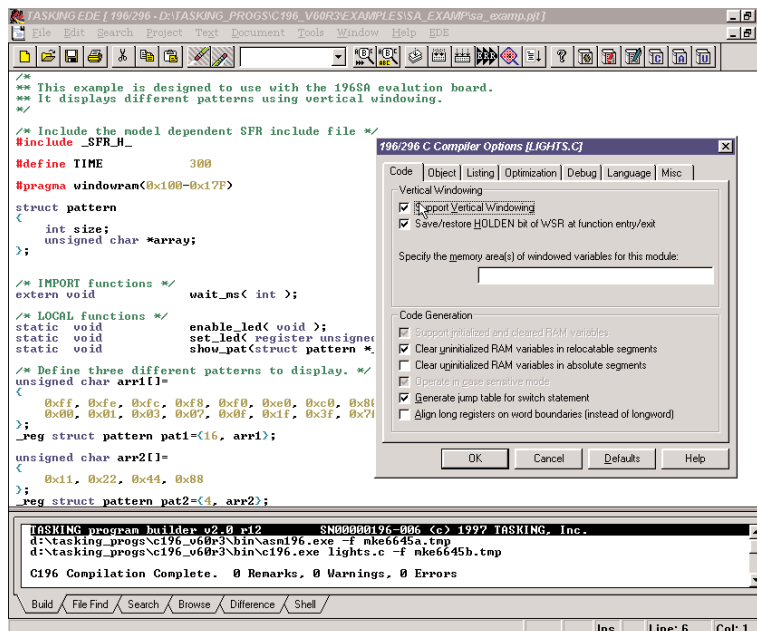
The 196/296 Compiler package also supports the 296 with SFR access, new instructions (in-line assembly for the DSP instructions) and a 296 version of the library. To enable variables to be accessed faster, the compiler provides a register storage type to be used in variable declarations to allocate variables in register memory. This register memory can then be accessed with 8 bit addressing. For those members of the 196 microcontroller family that can address 512 bytes or more of on chip RAM, register windowing is supported to provide fast access to variables using 8 bit addressing.

## EMBEDDED DEVELOPMENT ENVIRONMENT

TASKING's Embedded Development Environment (EDE), is a single, easy-to-use interface that integrates the components of the 196/296 toolset, streamlining the process of building, editing, and compiling your embedded applications.

EDE provides the following:

- Integrated tools delivering a rapid edit-compile-debug process
- Easy project setup with generation of Makefiles
- Push button control over a variety of development tasks
- Language sensitive editor with error parser
- Access to third party tools



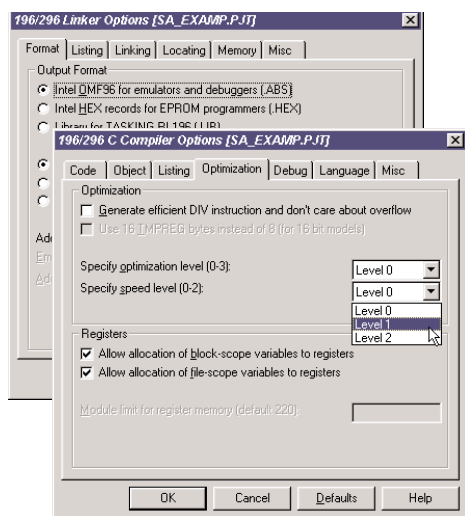
EDE is project oriented and helps you organize your work by grouping together all the files associated with your project, and identifying the 196/296 and its tools as the chosen architecture.

## THE CHIPVIEW-96 DEBUGGER

The ChipView Windows debugger from ChipTools, Inc. is a true Windows application and makes full use of Windows controls such as toolbars, tool tips, and context sensitive pop-up menus. TASKING is a distributor of ChipView-x96. The ChipView-x96 instruction set simulator supports both 16 and 24 bit opcodes to let you debug your 196/296 program in a safe crash-proof environment.

The ChipView-x96 features are:

- Conditional code and software data breakpoints
- I/O simulation using files, timed or polled
- Full trace including C, assembly, and stack
- Data monitoring of expressions and variables
- Cycle timing (simulator only)
- Interfaces to any Intel 196/296 microcontroller evaluation board
- Includes assembler source of user customizable RISM ROM monitor
- Context sensitive help and on-line user manuals



ChipView-96 fully supports vertical and horizontal windowing and automatically traps odd-boundary or reserved address accesses. Interrupts can be timed or manually triggered while the simulation is running.

The instruction set simulator collects up to 16K of trace, complete with time stamp information. Code and data spaces can be mapped with 256 byte granularity.

## COOPERATION WITH THIRD PARTIES

TASKING cooperates with different hardware manufacturers for emulators and evaluation boards, and with software manufacturers for real-time operating systems. Our extensive cooperation ensures you have access to the tools you need to be most productive.

## AVAILABILITY

The TASKING 196/296 development tools are available to run on PC/Windows, PC/Linux and Unix (Sun Solaris, HP9000). A demonstration version of the 196/296 toolset is downloadable from our web site at: [www.tasking.com/196](http://www.tasking.com/196)

## CUSTOMER SUPPORT

TASKING is dedicated to providing quality products and support worldwide. This support includes program quality control, product update service and support personnel to answer questions by telephone, fax or email. A 90 maintenance period is included with the purchase of all standard TASKING products and entitles you to enhancements and improvements as well as individual response to questions and problems. Annual maintenance agreements are available at the end of the initial maintenance period.

## PRODUCT PACKAGING & ORDERING CODES

Each TASKING product comes with full documentation. The documentation is available on-line as well and provides full-text search capabilities for quick and easy lookup of topics.

Product Code	Package contents
07-200-006-022	EDE, C Compiler, Assembler/Linker

## North America

Altium Inc.  
Ph: +1 760-231-0760  
[sales.na@altium.com](mailto:sales.na@altium.com)  
[support.na@altium.com](mailto:support.na@altium.com)

## Germany

Altium Europe GmbH  
Ph: +49 721 8244 300  
[sales.de@altium.com](mailto:sales.de@altium.com)  
[support.eu@altium.com](mailto:support.eu@altium.com)

## China

Altium Information Technology (Shanghai) Co., Ltd  
Ph: +86 21 6182 3900  
[sales.cn@altium.com](mailto:sales.cn@altium.com)  
[support.cn@altium.com](mailto:support.cn@altium.com)

## Japan

Altium Japan K.K.  
Ph: +81 3 6672 6155  
[sales.japan@altium.com](mailto:sales.japan@altium.com)  
[support.japan@altium.com](mailto:support.japan@altium.com)

## The Netherlands

Altium Technology Centre  
Altium BV  
Ph: +31 33 4558584  
[tasking@altium.com](mailto:tasking@altium.com)

[www.tasking.com](http://www.tasking.com)