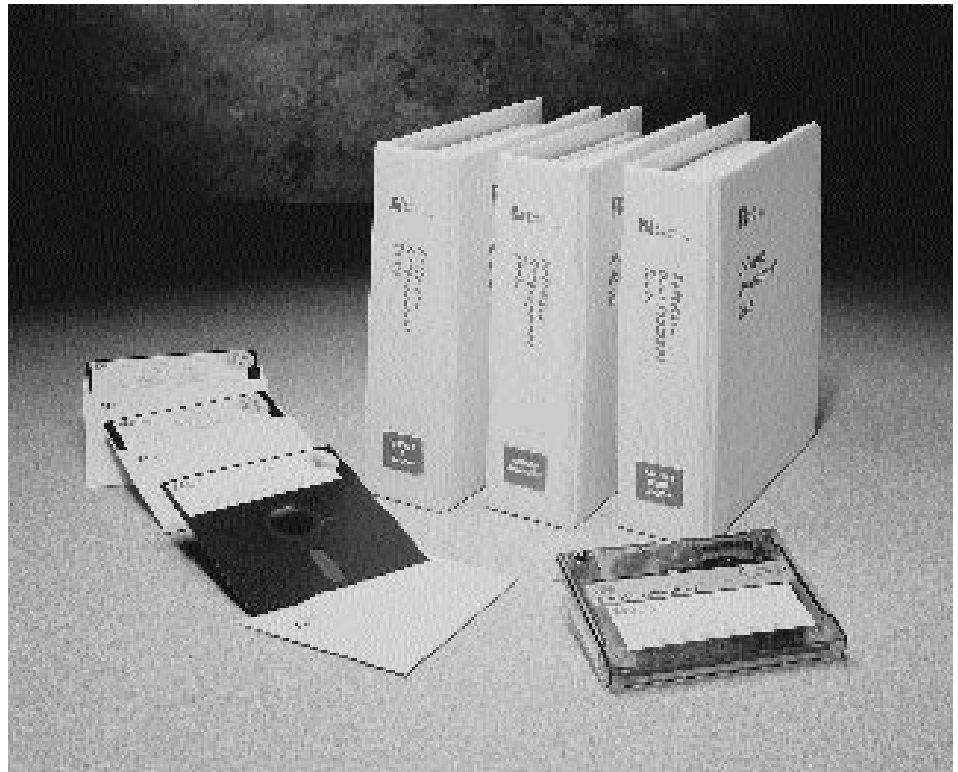


i960® Processor ANSI C Cross Development Tools



- C Cross Compiler
 - Implements Full ANSI C Standard
 - Produces Highly Optimized Code for High Performance i960® Processor Applications
 - Supports Interrupt Handling in C Thereby Speeding Development
 - Supports Transfer of Initialized Variables from ROM to RAM at Start-up
 - Big-Endian Support for Inter-Networking Applications
- Intel-Compatible Assembler, Librarian, and Linker
- Multiple Debug Environments with XRAY Debugger Target Monitor, In-Circuit Emulator, and Instruction-Set Simulator
 - Source-Level Debugging of Optimized C Code
 - Point-and-Click Multi-Window Interface
 - Code Patch Scheme Eliminates Tedious Edit-Compile-Link-Load Cycle



C Cross Compiler

The Microtec Research C Cross Compiler is an optimizing compiler which supports the generation of ROMable reentrant code. The C Compiler provides extensive diagnostics and warnings at compile time for superior code checking. The C Compiler supports all of the ANSI C language constructs and preprocessor statements, numerous command-line options, and emits debugging information for use with the XRAY Debugger. The C Compiler supports multiple code and data models, including generation of position-independent applications. In addition to incorporating a variety of standard optimizations, the C Compiler performs the following instruction scheduling optimizations for; i960® CA processor pipeline scheduling; i960 CA processor superscalar instruction scheduling; i960 KB processor floating-point in-lining; and i960 KB processor register bypassing.

Cross Assembler, Linker, and Librarian

The Assembler converts the tight, efficient assembly language code produced by the

ANSI C compiler, as well as hand-coded i960 processor family assembly source programs, into relocatable object modules (in IEEE-695 format). The Linker integrates a group of separately compiled, assembled, or incrementally linked modules into a composite module in which all external references between modules are resolved. The Librarian is an object module library management facility for independently developed modules of embedded software.

XRAY Debugger

The XRAY Debugger executes high-level source or assembly language programs to let you completely control the flow of program execution. Unique to XRAY Debugger is its ability to debug fully optimized code at source-level. The debugger's window-oriented interface segregates program information into functionally divided sections called viewports for quick and easy referencing. The original high-level source code or assembly code is displayed in the code viewport. Other viewports display program information such as data structures, commands, breakpoints, and microprocessor registers.

Versions of XRAY Debugger are available to accommodate different debug environments including in-circuit emulation, target monitor, software simulation and real-time kernels.

PROCESSORS SUPPORTED:
i960 Sx, Kx, Cx, Jx and Hx Processors

HOST SYSTEMS SUPPORTED:
Sun SPARCstation, MS Windows/DOS, RISC System 6000, and HP 9000 Series 700.

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