i960® Processor C++/ANSI C Cross Development Tools

- C++/ANSI C Cross Compiler
  - Implements a Superset of the AT&T Version 2.1 Language Definition
  - 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
  - Capsule Class Libraries and AT&T Standard Class Libraries
- 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++/ANSI C Code
  - Point-and-Click Multi-Window Interface
  - Macro Facility for On-the-Fly C Code-Patch

C++/ANSI C Compiler

The C++ Compiler is an advanced optimizing C++ 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 package fully implements a superset of the C++ language as defined by AT&T/USL for version 2.1. The C++ Compiler supports multiple code and global data models, including generation of position-independent applications. In addition to incorporating a variety of standard optimizations, the C Compiler performs instruction scheduling optimizations for

- i960 CA processor pipeline scheduling
- i960 CA processor superscalar instruction scheduling
- i960 KB floating-point in-lining
- i960 KB processor register bypassing

Cross Assembler, Linker, and Librarian

The Assembler converts the tight, efficient assembly language code produced by the C++/ ANSI C compiler, as well as hand-coded 80960 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 troubleshoots C++ and ANSI C code in source or assembly language programs to let you completely control the flow of program execution. XRAY Debugger has the unique 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 micro-processor registers.

PROCESSORS SUPPORTED:
i960 Processor Family

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

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