

Green Hills* Monserv Debug Server & Mon960 ROM Monitor



- Allows MULTI* Source Level Debugger to be Used With Almost Any Target Hardware
- Basic Debug Features Include Ability to Download Programs, Control Execution, Set Breakpoints and Single Step
- Handles Programs With Position Independent Code and Data
- Collects Execution Statistics for Profiling
- Command Window Allows Programmer Communication With Target Using *stdin*, *stdout* and *stderr*
- Target Program Can Do I/O on Host File System
- Configurable for Use With all i960® Processor Models: Sx, Kx, Cx, Jx, Hx
- Easily Ported to User's Hardware by Adapting Reset and Communications Routines
- Distribution Includes Versions Pre-Ported to QT960, EP960CX, EV960CA and Cyclone

The MULTI source level debugger communicates with its targets by means of debug servers resident on the host. Monserv is the debug server used to communicate with ROM monitors. Mon960 is the ROM monitor for i960 processors. It resides on the target, where it provides the system debug primitives MULTI needs. Together, *monserv* and *mon960* allow the full functionality of the MULTI debugger to be brought to bear on arbitrary 960 based systems. It can load programs into memory, start them, halt them, set breakpoints, examine variables and single step. Profiling data can be collected for use by the MULTI profiler. Programs on the target can use *stdin*, *stdout* and *stderr* to communicate with a command window. Standard system calls such as *open()*, *lseek()*, *read()* and *write()* can be used to manipulate files on the host, and shell commands may be issued using *system()*.

Mon960 is distributed as source code so that it can be configured to match the

hardware of the target system. This involves doing such things as setting up the vector table, adapting the reset routines to initialize critical hardware and adapting the I/O routines to the target's serial controller.

HOST SYSTEMS SUPPORTED:
PC/Windows, Sun/Solaris, Sun/SunOS, HP9000/HPUX, Alpha/OSF1, SGI/Irix, Aviion/DGUX, PC/SCO, PC/UnixWare, RS6000/AIX, DECstation, more...

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

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For international contacts see Appendix B.

