

# StethoScope Data Visualization, Profiling & Debugging Tool

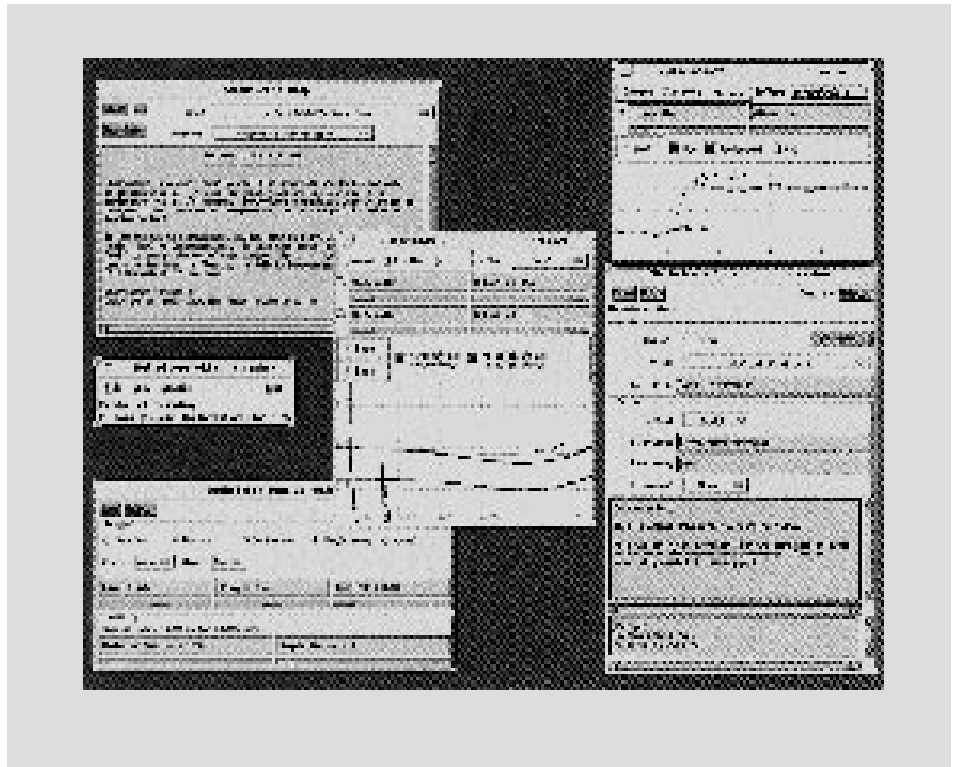


- Collect, Store and Document Data For Further Analysis
- Export Data to Analysis Tools Such as MATLAB
- Easily Produce Presentation-Quality Graphics
- Find and Analyze Intermittent and Sporadic Events
- Measure and Improve System Performance

Part of Wind River's WindPower\* tool suite, StethoScope is a real-time graphical monitoring, performance analysis, and data collection tool for VxWorks\* applications. It lets application developers dynamically examine and analyze real-time applications as they run on a target system. StethoScope's powerful multi-window environment enables developers to choose program variables interactively, and watch them change in real time.

StethoScope consists of two distinct modules: a Motif graphical user interface that runs on the host workstation, and a real-time signal manager that runs on the target system. The real-time code collects and buffers time histories of any variables in the application or the underlying kernel. Variables to be collected can be easily specified, even while the program is running. A low-priority process transfers data from the buffer to StethoScope. This design permits on-line viewing while imposing minimal intrusion on the application.

StethoScope's full-color graphical display allows the application developer to open multiple windows simultaneously and plot an independent set of signals in each. Signals can be selected with a click of a mouse and plotted in both time history and "X vs. Y" formats. Data of particular interest can be captured with StethoScope's powerful triggering modes, using any desired signal as the trigger. Data can be collected before the trigger event with pre-triggering, after the event



with delayed triggering, or directly with user-code triggering. All collection and triggering parameters can be set directly from the graphic interface.

StethoScope also includes ScopeProfile, a dynamic execution profiler, which is used to calculate the CPU usage of a VxWorks program on a procedure-by-procedure basis. ScopeProfile reveals both the direct usage of the CPU by each routine, and the summed usage by all subroutines. The resulting display clearly pinpoints any performance problems.

HOST SYSTEMS SUPPORTED:  
Sun SPARCstations and HP9000/700 series workstations

PROCESSORS SUPPORTED:  
i960® Processor Family

AVAILABILITY:  
Now

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