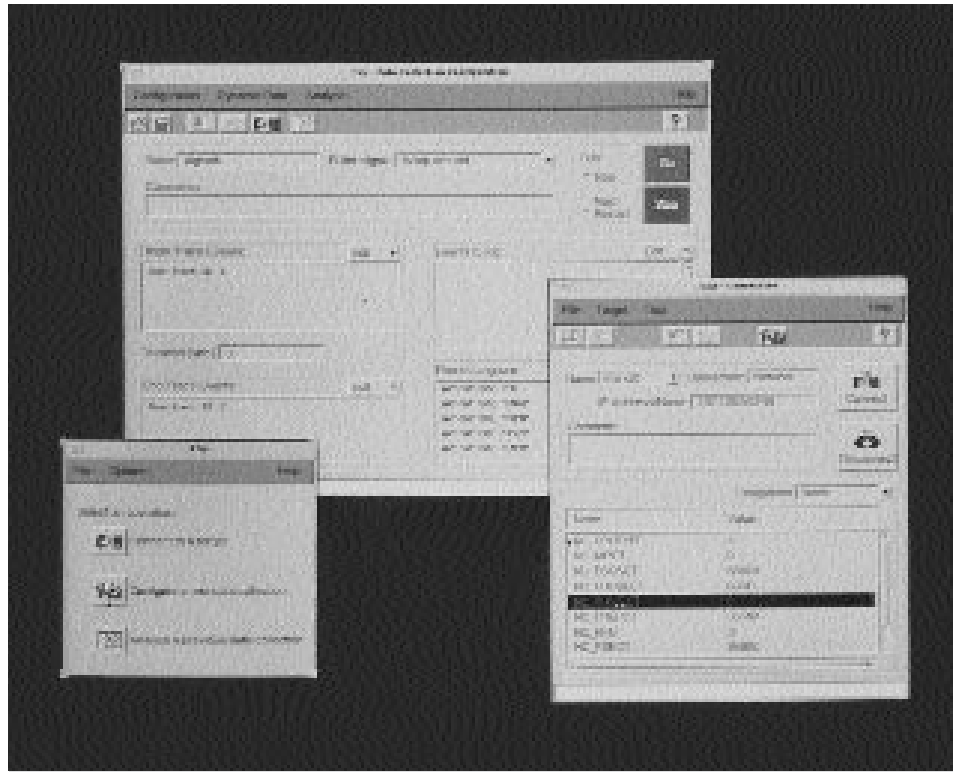# ESp* Intuitive Visual Debugging for pSOSystem

- Visual Display of All Multitasking Operations
- Most Complete User-Definable Time-Based Analysis, Filtering and Triggering Capabilities
- Inventory All Application and Kernel Objects
- Run-Time Profilers Including Memory Allocation and CPU Use Gauges
- Simple Networked Connection
- Faster Time-To-Market, Higher Code Quality, Increased Programmer Productivity

The ESp* visual debugging and analysis tool allows programmers to see the complex interactions of multitasking pSOS+* and pSOS+m* (multiprocessing) applications not possible with previous generation debugging tools. With ESp, the behavior of pSOS+ and pSOS+m real-time applications can be seen in action. ESp provides views of all multitasking operations, memory usage and CPU processing power demands. Designed for seamless integration into the pSOSystem* environment, the ESp networked host-target connection establishes easily and allows target sharing among engineering teams. This allows field maintenance staff to remotely tap into the ESp agent to test, debug and correct problems over the application's entire life cycle.

ESp software acts as a target resident agent, collecting and relaying information about pSOS+ or pSOS+m kernel behavior over a networked or serial connection. ESp graphically displays pSOSystem component configurations, memory stack usage and errors, kernel object inventories (tasks, queues, regions and partitions), user-specified events and CPU use graphs. Specifically, run-time profiling meters provide precise information on memory usage greatly reducing the guess work of embedded application memory management. Profiling meters show CPU perfor-

mance, frequency of I/O calls, interrupts, service calls, context switches and user events.

The main display provides a dynamic view of context switches, task state transitions, interrupts, system calls, exceptions and all major application activities. ESp software also offers data wrap-around capabilities, collecting data until a prototype program crashes, providing post-mortem analysis capabilities. Its event triggering and filtering capabilities let developers zero in on key performance parameters without getting distracted by non-essential data.

HOST SYSTEMS SUPPORTED:
IBM-compatible PCs; Sun SPARCstations; HP 9000/700 series workstations

PROCESSORS SUPPORTED:
i960® Processor Family

AVAILABILITY:
Q3 '95

CONTACTS:
Integrated Systems, Inc.
3260 Jay Street
Santa Clara, CA 95054
Phone: (800) 543-pSOS (7767)
             (408) 980-1500
FAX: (408) 980-0400
e-mail: sales@isi.com
For international contacts see Appendix B.