PRODUCT BENEFITS

Economical and effective tools package in one complete solution with the strong run-time architecture of the OS-9® Real-Time Operating System (RTOS).

Tight integration between OS-9 and Hawk IDE providing a kernel-aware development environment.

Coherent add-ons enhance the evelopment activities and flow from one development task to the next.

Tab-based screen layout reduces screen clutter.

Flexible code display areas that can be tailored to development tasks.

Ultra C/C++ Compiler is tuned to the microprocessor and enables the creation of small, fast, and efficient code.

Easy debugging of C or C++ code with source level debugger and symbolic target resident debugger.

MICROWARE®

SOFTWARE COMPONENTS • CONSULTING SERVICES • DEVELOPMENT TOOLS •
Embedded Solutions for Successful Products™

PRODUCT OVERVIEW

Hawk™ IDE is an OS-9-aware development environment designed to support the integration of other productivity tools to enhance the features of Microware's state-of-the-art code generation and debugging technology. Hawk allows users to edit, compile and debug C/C++ code, manage complex software build scenarios, and manage solo- or team-based changes to source code with version control.

Hawk provides tight coupling between add-on tools at a lower overall cost. Hawk also integrates a variety of code archival systems which makes it an automated project management system as well as an IDE. Tutorials, complete documentation and tight coupling of all add-ons insures a fast learning curve and shortened development cycle.

PRODUCT FEATURES

Designed For Usability

Microware Hawk was designed to be easy to learn and use. Hawk's components use the Windows interface to provide a consistent set of displays and operating controls. Hawk's operations can be invoked using either a pop-up menu or selection button. In addition, Hawk includes on-line help to provide immediate assistance for every function. On-line help takes the user right to the help needed while Hawk is in use. As developers move through the on-line manual, bookmarks can be set for commonly used sections and notes included for specific information.

Customized Tools Solution

By creating a kernel-aware tool and open interface to our tools, Microware enables other tool manufacturers to build support for OS-9. Microware has partnered with Starbase's CodeWright®; a full-featured professional editor. Codewright provides the basis for the Hawk IDE, and its extensive API is available for further customization of Hawk for OEMs and users. Hawk's API library consists of hundreds of API calls for extending the user interface, performing host-target communication, and adding in-circuit emulator support to the debugger. Hawk's API assistance feature helps the user by inserting syntactically correct function calls into the code. There is also an extendible AppBasic interface that allows easy customization of the user interface for development tasks. Windows, toolbars and menus can all be customized to create an environment specific to user preferences and needs.

Fully Programmable IDE

The Hawk environment can also be custom-tailored to fit individual requirements. Add custom experts and productivity enhancing features using hundreds of C API calls or the powerful AppBasic scripting language.

HAWK™ IDE

PRODUCT FEATURES (CONT.)

Powerful Development

Writing code has never been easier. With the Hawk source code editor, Microware provides the most powerful editing features in the industry, including:

- Difference editing
- Selective display
- Tracking/repair compilation errors
- Syntax highlighting
- Redefinable keyboard
- Customizable toolbars and menus
- Keystroke recording and playback
- API assistance

Ultra C/C++ Compiler

Microware's Ultra C/C++ is OS-9 aware and tuned to microprocessor specifications for size and speed considerations, unlike other generic compilers.

Ultra C/C++ is a highly optimized compiler that uses state-of-the-art optimization techniques to extract maximum performance from 32-bit RISC and CISC microprocessors. Most compilers allow optimization of applications on a file-by-file basis.

Ultra C/C++ optimizes applications, together with libraries, as a whole. Also included with Hawk is the production-proven Tools.h++ class library from Rogue Wave. This internationalized C++ foundation class library is packed with more than 120 reusable classes including sets, bags, sorted collections, strings, linked lists, dates and times, and extensible virtual streams for persistence.

New Source Level Debugging Features

The Hawk source level debugger has the best features in its class. Debugging C and C++ code is easy, using a number of powerful features such as:

- Source- and assembly-level breakpoints
- Display/change registers
- View locals
- Watchpoints
- Directly view/change memory
- Stack back-tracing
- Easy-to-use interface
- System- or process-level debugging

The debugger interface contains the features developers have come to expect in their tools. Developers familiar with Borland or Microsoft tools will find themselves at home using the Hawk development suite.

Users can debug any number of processes at the same time whether the processes are on different machines or different processor families. Development time is decreased while code reliability is increased because the Hawk debugger provides easy access to all aspects of OS-9 processes.

System State Debugging

Tight integration between Hawk and OS-9 enables advanced debugging capabilities. Distinct to OS-9 is the division between user and system state processes. User state is the normal program environment where processes are executed. System state is the environment in which system calls and device driver code are executed and the kernel is directly accessed. System state debugging allows debugging of operating system extension modules such as file managers, device drivers, and kernel extensions.

Symbolic target resident debugging is a unique capability for system-state task and driver development. Microware's resident debugger augments Hawk's capability for advanced engineersdeveloping low-level software.

Version Control Made Simple

Version control can be used to better understand and manage development processes. Developers may check-in code, check-out code, review revision logs, and retrieve old versions. It's easy to protect work right from the IDE.

The Hawk environment is open in nature, allowing the use of any version control software. Support is provided for systems adhering to the SCC provider interface, like ClearCase and SourceSafe, as well as other systems like PVCS and RCS. In addition, the interface is available for users to create their own support.

Manage Complex Projects With Ease

Hawk's Project Manager is a superior solution to control complex projects with dozens of source files and build options. The Project Manager will create a project with the optimal build settings, then allow users to change any of the settings at a project, component, or source code level. Users have complete control of the compilation process by setting the Ultra C/ C++ compiler options through an easy-to-use interface without the hassles and errors of makefile maintenance. Building OS-9 software has never been easier.

SYSTEM REQUIREMENTS

- **Pentium-based PC**
- **Microsoft® Windows 95, 98, NT**
- **Minimum 32Mb of memory**
- **CD-ROM drive**
- **Approx. Hard Disk Requirements: 100 Mb**

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