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DEVELOPED FOR ARMY PERSONNEL, NEW SOFTWARE COULD MAKE LIFE EASIER FOR MOBILE EXECs AND OTHER CIVILIANS

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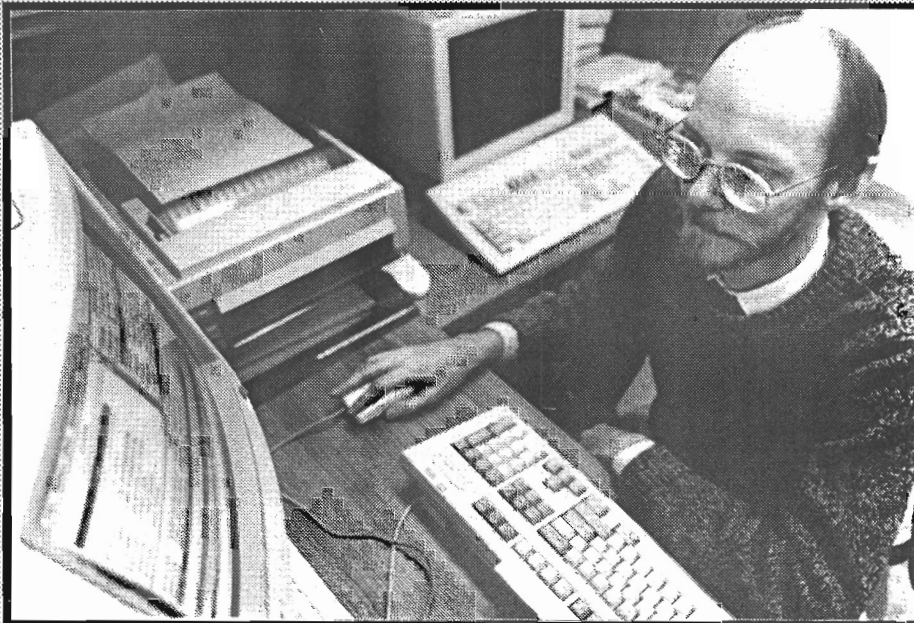
In a highly mobile society, military personnel and busy executives are frequently relocated, but recent software developments should help these pinch hitters 'hit the ground running,' without wading through lengthy procedural manuals or spending days searching for last year's budget report.

Developed at the Georgia Institute of Technology for the U.S. Army's Construction Engineering Research Laboratory (CERL), the Knowledge Worker System gives new employees a helping hand.

"Military personnel may be stationed in one job for a few years, and then they receive a new assignment somewhere else," explained George Olive Jr., a senior research scientist at Georgia Tech. "In the business world, job changes are caused by reorganization, downsizing and promotions. These transitions can be difficult -- for the employee as well as the company."

A computer specialist for Georgia Tech's Construction Research Center, Olive led the team that developed Knowledge Worker. Under separate contracts with CERL, McClendon Automation of Fairfax, Va. contributed data to populate the system's knowledge base and provided an interface with Tymnet, a widely used communications link.

CERL's initial purpose for the Knowledge Worker System was to reduce the learning



George Olive Jr. of Georgia Tech demonstrates the Knowledge Worker System. (Call for photo.)

curve for office workers managing the Army's \$1 billion annual construction program, according to CERL Project Manager Beverly Thomas. The system has evolved, she said, into a productivity multiplier for knowledge workers -- professionals who define requirements, allocate resources, review execution, and gather and disseminate information.

Knowledge
Worker System goes
-OVER-

well beyond traditional day-at-a-glance management systems to capture an institution's broader knowledge base, according to Thomas. "Many of the management systems on the market today are basically stand-alone programs which can sometimes be modified to work on a network," she said. "Knowledge Worker is a true groupware product. The system is driven by a master calendar that contains information about the major milestones of a group of knowledge workers whose tasks are inter-linked. It also includes a multi-tiered hierarchy which is driven, at its top level, by Department of Defense deadlines, Army deadlines, and so forth. All of this information filters down to the individual user."

The Knowledge Worker System runs on a 386 IBM PC or clone under Microsoft Windows, Olive said, and a separate database, such as Oracle, allows the user to access information from any station in the network. By February 1991, a prototype system will be converted for full-scale implementation in a 20-user network at Corps offices in Washington, D.C.

Each morning, Army knowledge workers will use the system to access a list of projects and responsibilities, including reports to be filed, budgetary deadlines, meeting plans, and so forth. Ongoing responsibilities are listed continuously, and all other tasks appear in chronological order, by date. Knowledge Worker provides detailed procedural guidance to help the employee complete each task.

An "Attachments" function provides access to previous reports and other supplementary information, while various "Help" and tutorial screens keep the employee on track. When many tasks must be completed quickly, Knowledge Worker prioritizes each item, to let the employee know which responsibilities are most critical. By accessing staff calendars, an executive can quickly call a meeting.

The system can also warn an employee who is in imminent danger of missing a deadline. For example, Olive said, imagine that Ms. X must file an important report within the week, but she can't complete the task without project status information from her colleague, Mr. Y. In such a case, the Knowledge Worker System would keep track of Mr. Y's progress; if he failed to submit the status report on time, Ms. X would be immediately alerted to the problem.

As Army knowledge workers update the system's database, it will begin to provide more and more detailed information, Thomas said, adding that CERL ultimately plans to incorporate artificial intelligence algorithms into the program.

The new system will help government and business organizations improve productivity, Olive said. "If all employees are using Knowledge Worker, it will be easy to track the flow of information through an organization," he added. "In this way, you could improve efficiency by redefining job responsibilities to eliminate any redundancy."

Thomas is optimistic that the private sector will assist in making Knowledge Worker available for public use and government procurement. "The Technology Transfer Act of 1986 makes it possible for the private sector to market research products originally developed by the Army," she noted.

CERL is a Corps of Engineers laboratory established in 1969 to conduct research that will help the Army procure, operate, and maintain its facilities more efficiently and at a lower life-cycle cost. Established in late 1987 to boost U.S. productivity and competitiveness, the Georgia Tech Construction Research Center concentrates on all phases of construction, from planning and design to management, operations, maintenance, and support.

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