



**US Army Corps
of Engineers®**

Engineer Research and
Development Center

Product

Knowledge Worker System

Technology

The Knowledge Worker System (KWS) is a computer application designed to help “knowledge workers” (professionals who use information as their primary input and whose major products are distillations of that information) to capture and organize work activity information, and to learn, prioritize, and execute their tasks more efficiently and effectively. KWS integrates methods and technologies from the disciplines of information management, workflow, work scheduling, software agent, and work measurement into a “Performance Support Environment.” KWS enhances productivity by delivering task-specific information as needed, and by associating all automated tools, software agents, and multimedia document references needed to complete a specific task.

KWS is “groupware” designed for use by collaborative workgroups. Processes can be assigned across organizations to support matrixed management. Knowledge workers can assign tasks to themselves, to other knowledge workers, or to a group of knowledge workers. KWS improves workgroup coordination by allowing knowledge workers to retrieve and update milestones, task completion, and priority status information.

Problem

The U.S. Army, like many organizations, has been significantly impacted by the effects of budget cuts and workforce downsizing. In most cases, these organizations are still required to perform the same tasks, but with fewer personnel and less money. The remaining workforce must be able to quickly adjust and respond to changing demands if these organizations are to maintain mission capability.

A large percentage of the Army’s workforce is made up of knowledge workers, whose typical responsibilities, or tasks, include defining requirements to accomplish goals, allocating resources, analyzing data, providing guidance, and gathering and disseminating information. To effectively perform these tasks, Army knowledge workers must have a thorough understanding of organizational processes; the capability to access information resources to support task execution; the tools that automate routine, repetitive tasks; and time to concentrate on decisionmaking.



Expected Cost To Implement

The cost to implement KWS will vary depending on the customer’s requirements and existing computing environment. KWS is a client/server application that supports an open system environment. The relational process database is accessed via an Open DataBase Connectivity (ODBC) application program interface across a (required) local area network (LAN). The KWS process server is configured to run using a structured query language (SQL) database such as Oracle® or Microsoft® SQL Server. The KWS client runs on a personal computer using Microsoft® Windows® operating systems, including Windows NT® Workstation 4.0, Windows® 2000 Professional, or Windows® XP using the TCP/IP communications protocol. An alternate KWS server configuration uses a Microsoft® Access® 97 database, which can run on a LAN server or as a standalone application.

Benefits/Savings

KWS can help enable the Army continue mission-critical business processes while meeting goals of increased efficiencies. The system provides the following major benefits:

- *Improvements in Efficiency:* Allows the same work to be accomplished in less time.
- *Improvements in Effectiveness:* Helps increase intellectual specialization within an organization.
- *Improvements in Focus:* Allows more time to be devoted to the organization's primary mission/function.
- *Work Elimination:* Eliminates the need for some tasks or accomplishes them automatically.
- *Less Rework:* Reduces the amount of work that must be redone. Productivity measurements of KWS impact indicate a (minimum) 15 percent improvement in efficiency. (Preliminary estimates indicate the percentage may double.) A 15 percent improvement in the Army's Installation Facility Management community alone (25,000 knowledge workers) would yield an annual cost avoidance of \$240 million at an implementation cost of \$125 million.

Status

KWS Version 3.6 is a completed product, ready for installation. KWS has been pilot tested at the following Department of Defense (DOD) sites:

- Network Infrastructure Services Agency, Pentagon
- Special Warfare Center & School, Fort Bragg, NC
- Fort Eustis, VA Directorate of Public Works
- U.S. Army Corps of Engineers, Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC/CERL).

Information on system capabilities, availability, documentation, and points of contact is accessible through this web page: <http://www.cecer.army.mil/kws/welcome.htm>

ERDC POCs

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Distribution Source

A standalone (non-networked) evaluation version of the Knowledge Worker System is available to DOD users through the KWS web site at URL:

<http://www.cecer.army.mil/kws/evalinfo.htm>

Information on obtaining the full networked version of KWS 3.6 is available through the listed ERDC POCs, or through the KWS web site at URL: <http://www.cecer.army.mil/kws/>

Available Documentation

Detailed program documentation and technical reference is available through the listed ERDC POC. General guidelines for KWS implementation are available through URL:

<http://www.cecer.army.mil/kws/research.htm>

Available Training

Formal training can be arranged on a reimbursable basis through the listed ERDC POC.

Available Support

Technical support is available on a reimbursable basis through the listed ERDC POC.