Software libraries: Real-world reuse

The cover articles in this issue examine tools to make software reuse a reality. Many tools are new and have yet to be made part of day-to-day operations. When tools do exist, they are often scattered. However, despite the technology's infancy, some groups have built libraries for reusable components that are available. As examples of such libraries, these two reports detail an internal effort at Pacific Bell and a Defense Dept. cooperative effort.

Unix/C reusability library
Richard Anderson, Pacific Bell

A desire to eliminate redundant coding, reduce development and maintenance time, increase software reliability, and improve market potential prompted Pacific Bell to invest in a Unix/C reusability library for its employees. Since its implementation in 1986, the library has been expanded to help all members of the company's Unix/C community: system administrators, managers, development and maintenance staff, and users.

At the core of the library is an on-line archive of catalogued, reusable code and support information. Of particular interest to system and application developers — the library's original target users — are development and testing tools (like screen generators, database managers, and debuggers) and source-code modules ranging from special functions to full-scale applications. System-administration tools (like backup scripts, queue-management routines, and activity monitors) and project-management tools (like troubleshoot systems and reminder services) appeal to other users. Text-processing tools, technical papers (product evaluations, standards, and system descriptions), training descriptions, and product descriptions have the widest appeal.

Most of the content has been contributed voluntarily by Pacific Bell employees; the rest comes from public-domain sources or from library staff members who generate items requested by Unix/C users. Everything in the library meets basic standards, such as adequate documentation within the source code and proper formatting. Once an item is made available, staff members will support it only if it has passed stringent quality-assurance tests.

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