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Thread safe C++ libraries

Client

Aquila Technology Group, Inc, is a major supplier to government and industry worldwide, specializing in industrial controls, safeguards surveillance and seals, computer systems, and secure computer networks. Aquila supplies nuclear safeguards products to government and industry worldwide including the development, manufacture, sale, and maintenance of all equipment. Aquila also manufactures containment seals and is involved in replacement seal technology development.

Solution

The UNIX-based systems used to support POSIX threading in order to enable concurrent execution below the process level, but from the very beginning it was is hard to the threads, because C++ libraries were considered to be non re-entrant.

The solution was offered by Auriga, the project started with the Cygnus distribution of GNU C++ to provide thread-safe versions of C++ libraries. User applications needed only to be recompiled and re-linked, even though non re-entrability had its roots in the interfaces of the library functions, not in a sloppy implementation.

Auriga's Contribution

Development and re-engineering

Implementation

DIGITAL UNIX running on VME Alpha64 computer, C/C++.