Each year, more than a thousand insurance companies send in annual financial statements to the National Association of surance Commissioners (NAIC). And each year, the NAIC sends a copy of these statements, on disk, to the anxiouslyawaiting insurance industry analyst Andrew Zunser. Andrew feeds the data into his APL-based analysis system, which uses a series of sophisticated extrapolation techniques to measure the adequacy of reserves. In the end, he publishes for his subscribers a set of manuals that describe his findings.

The market for his booklet: institutional investors and insurance companies. In general, companies that are overreserved have more promising investment potential than those that are under-reserved. Moreover, many insurance companies like to keep close watch on the reserves adequacy of their competition.

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## Variable Insurance Products: Time-Critical Administration

—by **Gary A. Bergquist,** Zark Incorporated, Hartford, CT, USA

These days, more and more people are placing their money in investments that are tied to stock market performance, such as mutual funds. When these investments are purchased through insurance companies in the form of Variable Annuities, or Variable Life Insurance, insurance-related tax advantages improve their appeal. The products are called "Variable" because the value of a unit of such an investment (called the "Unit Value" or UV) varies daily in direct proportion to the value (called the "Net Asset Value" or NAV) of the underlying mutual fund.

Each evening when the market closes, the insurance company notes the closing NAVs, re-computes the corresponding UVs, incorporating daily fees and dividends, and passes along the UVs to the policy-level administration system. The admin system, in an overnight run, then translates that day's cash transactions (buys and sells) into units via the UV. The net cash and units are summarised by the admin system into distinct buckets (called "sub-accounts") by insurance plan and mutual fund. The net dollars are translated back to mutual fund shares via the NAV, and are passed along to the fund manager to buy or sell the appropriate number of mutual fund shares.

All of this must be done before the market opens the next morning! If late, the insurance company must pay the difference, possibly thousands of dollars, for any losses arising from fluctuating NAVs. Meanwhile, Murphy's law continues to operate. If something can go wrong, it does. With no time to spare, what programmers would not choose APL as their language of choice? The Variable Products Administration (VPA) System was written in APL and is used by a dozen companies to serve as the intermediary between the admin system and the fund manager.

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Healthcare Finance: Budget Management for Healthcare

—by **Gregory R. Ferguson**, President Kreg Information Systems Eight Piedmont Center, Suite 412; Atlanta, GA 30305 USA

Kreg Information Systems over the past two years has rewritten several applications using APL2000's Windows APL. Healthcare providers, like hospitals, physicians, nursing homes, use these products to develop Enterprise-wide budgets: labour, nonlabour expenses, and revenue. During the year, they use these same products to import data from their General Ledger and Payroll systems and then produce monthly expense and revenue variance reports for management control.

Kreg writes these products using Windows APL. We have incorporated the Formula One grid control (an Excel-compatible 32-bit OCX) for data editing and printing, and another 32-bit OCX, ChartFX, to generate graphs. We spent about one year designing the basic Windows-based system, and then about six months converting the various calculations, input, and reports from the DOS system.

This spring, Kreg will release new features for these products, including our Task Manager. The Task Manager keeps track of the settings of all objects on a form. The user then stores these settings as a task, and groups tasks together as a job. Then, by simply clicking on a job, the systems will run automatically with no manual intervention. This summer we will connect Task Manager with the System Agent so users can schedule jobs to run overnight or over the weekend.

*More information:* http://www.kreg.com, or e-mail us at info@ kreg.com