A life insurance company handles large volumes of constantly changing data: policies are bought or sold, customers change addresses or beneficiaries, mortality tables are revised, interest rates vary. And not only are the databases continually changing, but reports generated from those databases are similarly changing; for example, new laws require new reports for the government, new insurance products demand current status reports, and management needs new types of information for strategic planning.

This continuous evolution of the database keeps a team of computer programmers busy writing new code to implement the changes or to integrate a new software package into the company's system. Thus, the software that runs the computers for a life insurance company is usually composed of many pieces—major programs to manage the customer information base or billing/payment cycles, smaller programs to generate a specific report or enter a new mortality table. All these software packages are meshed into each other and a change in one place can result in a change in another.

In this complex computer environment, there is ample opportunity for error—a mistake by a programmer or a software-induced undesirable side effect. And in insurance, errors can cost a company heavily, so protection against inadvertent change is a must for the efficient firm.

The data processing center at Transport Life Insurance Company, Carrolton, Texas, has taken a step to guard against accidental changes by adopting, as part of its computer system, a software package called EQNINT, for Equations Interpreter Program; above, two center employees are using EQNINT as an error prevention measure. Originally developed by Johnson Space Center, EQNINT cross checks the basic formulas in a program against the formulas that make up the major production system. In other words, EQNINT assures Transport Life that formulas are coded correctly and helps catch errors before they affect the company's customer service or its profitability.

EQNINT was supplied to Transport Life by NASA's Computer Software Management and Information Center (COSMIC). Located at the University of Georgia, COSMIC makes available to industrial and other organizations government-developed computer programs that have secondary applicability (see page 122).®

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