"It solves most computer problems of many actuaries and many computer problems of every actuary!"

Ronald S. Davies, FSA, FCIA
Davies Actuarial Consulting, Ltd.
Toronto, Ontario
It's the MCM System 800... a computer system particularly useful to the Actuary.

Broadly used by a growing number of actuaries in life, casualty, reinsurance, pension and consulting activities, the MCM computer system is achieving cost effective results, while providing the convenience of unlimited access at a low expense.

A survey of actuaries using the MCM System and its APL language have yielded the following common findings:

- The APL Computer Language is more concise than Fortran or PL1, probably in the ratio of 10 to 1. Because it is mathematically oriented, it permits the Actuary to write his own programs to as complicated a degree as necessary.

- The MCM/800 System allows Stand-Alone problem solving. It is a complete, self-contained system that allows the Actuary to conduct operations independent of programmers, systems analysts and large, main-frame systems.

- The Actuary can fulfill virtually all functions with only the MCM/800 System. This unique business system allows computation, printout, graphing, charting and plotting to be conducted within the department... even at home.

- The System has reduced timesharing expenses by typically $1000 to $2000 per month, in some cases providing a payback period of as low as 6 months.
“APL is the obvious computer language for actuaries...

It permits us to solve our own problems without the need for programmers, at a fraction of the time and cost of other languages.”

Charles Sormani, FSA  
Vice President, Actuarial Dept.  
Union Labor Life Insurance Co.  
New York, N. Y.
Here are some representative applications:

GROUP LIFE QUOTATIONS:
The MCM/800 System prepares the costs, with any kind of volume discounts, produces totals with as many sub-totals as necessary and then prepares the written report.

GROUP PENSION PROPOSALS:
The MCM/800 System prepares the costs using different rates for males and females, employee and employer and gives whatever listing is desired and then prepares the report.

MODELS FOR DIVIDEND CALCULATIONS ON INDIVIDUAL INSURANCE:
The effect of any dividend scale on reserves and surplus is determined by running a model program anticipating the distribution of insurance policies by type, size, sex and attained age.

GROUP LIFE AND/OR PENSION ADMINISTRATION:
The MCM/800 System can be used to keep a data bank for any client. It can be updated monthly to reflect changes in data for a given employee. It can add or delete employees from the data bank and calculate mortality and withdrawal experience.

PREPARATION OF RETENTION EXHIBITS:
For group life cases, illustrations are prepared showing the retention history of any case over any number of years. Each year, new data can be fed in. The program then updates the file and gives it back in any form desired.

GROUP LIFE RATE UNDERWRITING:
The system can keep the experience of any given client, such that a printout of the pertinent experience, with appropriate experience ratios, can be made to those who determine new anniversary rates. Appropriate allowances can be built in for each to suit the requirements of the underwriter.

CASH SURRENDER VALUES OR ASSET SHARES FOR PROPOSED NEW POLICIES:
The MCM computer calculates the asset share projection of the new policy to determine the adequacy of the rate basis, the amount of cash surrender value which could be allowed without reserve strain and the amount of reserve strain for a given cash surrender value table.

PREMIUM CALCULATIONS:
The MCM/800 System can test the practical formula to be used for premium rate manuals against the theoretical formula for closeness of fit. Plus . . . dividend and experience rating refunds, rate book calculations and printing of camera-ready schedules, and many, many more.

One would never think of using a large computer to calculate an "annuity certain" for an unusual rate of interest or to solve a simultaneous equation with two unknowns. However, the MCM/800 is just as ideal for these small jobs as for the bigger ones.
the MCM System 800
A complete, self-contained computer system at a completely affordable price.

The System 800 is comprised of a portable APL computer, printer and over a half-million bytes of random accessed storage. The MCM System 800 provides
• Full-time, Real-time access to interactive computing
• Access to time-shared or central data bases, using the computer as an intelligent terminal
• File handling capability that is both simple to use and expandable to meet the large data base requirements of Actuaries
• A virtual memory handling system (AVS) normally found only on large computer systems.
• Total security of programs and data using interchangeable and low cost cassettes and diskettes.