Up to 100 Proposals Monthly Net Aids Medical Center's Search for Grants

ROCHESTER, N.Y. — Just like any other going concern, profit-making or otherwise, money is the lifeblood of a medical center performing sophisticated scientific research.

At the University of Rochester Medical Center here, nearly half the \$80 million annual operating revenue is generated by proposals written by the center's staff. Three years ago, it became apparent to the center's management that it needed an efficient, automated means of producing these reports, then reproducing them with charts, graphs and other artwork for submission.

After surveying market offerings and assessing its special needs, the center selected a network based around a cluster of Xerox Corp. 8010 workstations which combine computing, writing and editing with the creation of charts, graphs and mathematical equations.

Charles Betz, the center's DP manager, said the Xerox system was chosen because "it was the vendor that most reasonably offered a number of workstations... that will handle our specialized work load while printing in a variety of fonts... We now have italics."

Betz said further that the center's geographical layout is conducive to Xerox's Ethernet communications network.

Each department within the center, he said, is a complete vertical organization, few of which could make use of shared logic.

Using the 8010, grant writers at the medical center will compose up to 100 proposals each month. This level of proposal generation is necessary partly to support the Strong Memorial Hospital, which the medical center operates, and the schools of medicine, dentistry and nursing for the University of Rochester, according to Jeffrey Nagle, associate director of research administration at the center.

The written proposals, most of which are earmarked for various de-



partments within the federal government, are channeled through Nagle's office. The typical proposal is 50 pages long, which Nagle said mandates tight writing and editing "and a network of machines that simplifies the process."

With a Digital Equipment Corp. Decsystem-10 processor and VAX-11 superminicomputer serving as system hosts, Betz's department provides electronic files, a laser printer and data communications service, all linked by Ethernet. The individual departments that make up the center's laboratories, health care units and research facilities tap into the system as they need to via the Xerox workstations. Data base management is accomplished by Relational Technology, Inc.'s Ingres data base management system.

Display screens at each workstation allow authors to write, modify, store and retrieve text. They can construct mathematical equations and draw charts, graphs and flow diagrams using the equivalent of an electronic template with an array of lines, shapes and symbols.

A hand-held mouse allows system users to move text and graphics about the screen, changing formats as they wish from one typeface and type size to another. They can also instruct the machine to convert data to graphics form and rearrange the text to make room.

For the future, Betz's department is "looking forward to Xerox's promise of higher level applications protocols...so that our terminals on the DEC switch can share print services." Betz said the center will also add some Xerox 860 and 820 personal computers.