The Time-Sharing Leader

FOR GE TIME–SHARING USERS

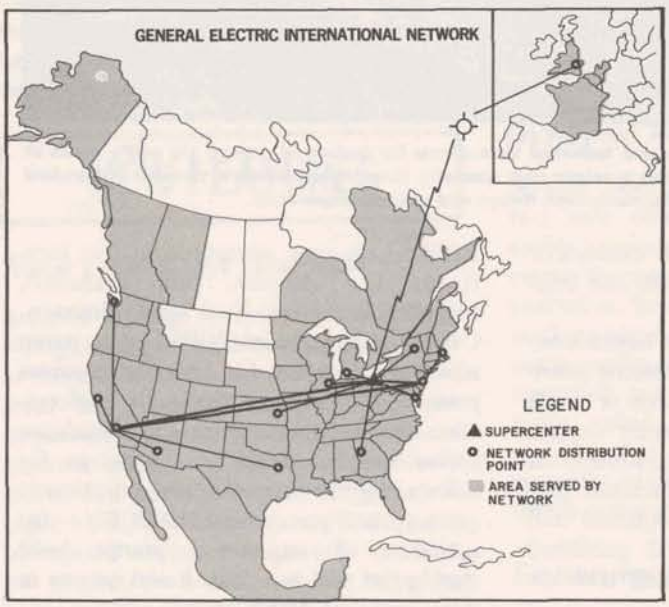
Information Services

World Leader In Time-Sharing Service

Vol. 3 No. 1 January 1972

BUILD YOUR OWN PRIVATE WORLDWIDE TIME-SHARING NETWORK

A unique business service now enables companies to create and maintain their own private world-wide time-sharing networks complete with customers and detailed program usage statistics.



General Electric International Network. Make it your own.

Called Network Software Services (NSS), this offering combines the reach and power of the GE Network with extensive reporting capabilities to allow companies to pass on development and maintenance costs directly to those components or customers who utilize their software. NSS is also used for the development of centralized private libraries for firm-wide and/or customer use that eliminates software overlap or duplication.

Through NSS, for example, a headquarters facility may create a proprietary data base and appropriate programs for use by company components or customers spread all over the world, to receive a return on the use of the programs directly proportional to their utilitarian value. For a nominal service charge, detailed monthly reports are returned to the author under a special agreement with General Electric.

NSS is receiving enthusiastic endorsement by national firms wishing to provide software support or services to various components or field offices on a "pay-as-you-use" basis. Some companies use NSS to distribute software that complements or enhances some other service or product they sell; e.g. process control equipment manufacturers, numerically-controlled machine tool manufacturers, consulting and accounting firms. The branches or customers of these companies utilize the GE Network to access the special programs created for them in a private NSS library.

Another continually-growing group of NSS clients are experts in specific industry disciplines. They create programs peculiar to their field, and load them on the Network. This arrangement gives the author broad distribution capability and

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NEW MARK II '72

BUSINESS SYSTEMS CAPABILITY WITH TIME-SHARING ECONOMY

Business systems capability with time sharing economy. That's what the new features added in January mean to GE Network Information Service subscribers. Now there are more ways than ever to apply the Network to one of industry's thorniest day-to-day problems: business systems revolving around data collection and reporting.

The new features now available concentrate on the following areas of primary concern to the user designing on-line business systems.

Greater operational simplicity – a critical ingredient for anyone considering a network that ties in outlying locations where personnel may have little computer experience.

Business Systems/EDP capability – applications that play a key role in a business' day-to-day operation demand dynamic data protection and control capabilities that go beyond the scope of typical time-sharing needs. Features such as Journalization, LOCK/UNLOCK, SLEEP/WAKE and program controls facilitate this.

Dynamic System Management – anyone commiting themselves to an elaborate business system needs controls for security, operation and finance. Through the new programming tools and features of the administrative user program he now has this.

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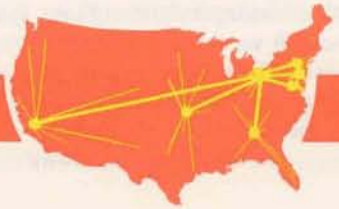
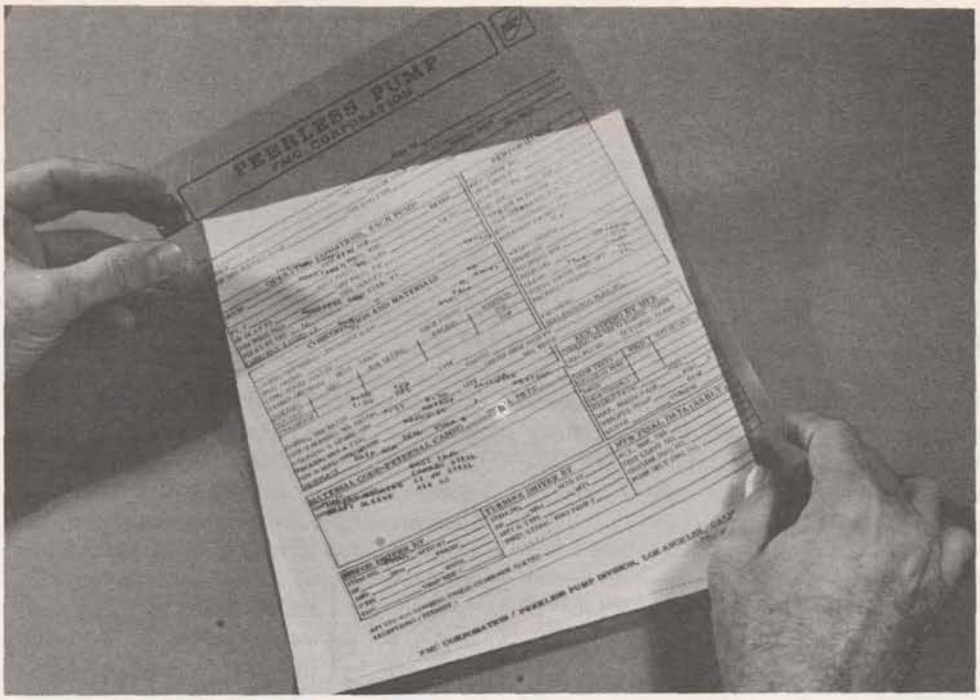


NETWORK RASCAL PLUS COPYING MACHINE SOLVES PEERLESS PUMP QUOTATION PROBLEM

A RASCAL has been added to the sales force of Peerless Pump, a Division of FMC Corp., to help capitalize on the growing industrial pump market. RASCAL – Rapid Access System for Customer order information, Application assistance and Logistic support from engineering – uses its crafty ways on GE's Network to provide top level engineering assistance to salesmen in far flung locations.

"RASCAL is a major step forward in our efforts to provide Peerless customers with competent and fast engineering assistance on a wide range of pump applications," said Jeff Johnson, Western Operations Engineering Manager, Los Angeles.



Peerless Pump order entry forms and technical data sheets for industrial pumps are easily made at sales offices by running preprinted overlays and specially formatted printouts through a standard copying machine. This method eliminates time dalays and reduces paperwork.

TIME DELAYS ELIMINATED

"The G.E. national network made this system feasible and the efforts of their service representatives made it a reality. The time delays have been eliminated and clerical paperwork significantly reduced," said Johnson. Terminal output, is formatted to permit an order entry form and technical data sheet to be easily generated by running the print-out through a standard copying machine with a clear preprinted form overlay. Engineering personnel are more creatively utilized now because the field salesmen can make up quotations with RASCAL without engineering help. Salesmen can be assured the information is correct and up-to-date since Engineering maintains control over file contents and program logic.

Peerless is one of the largest manufacturers of vertical turbine and horizontal centrifugal pumps for industrial, municipal and agricultural markets. In the past few years business emphasis has changed from the agricultural market to the complex highly engineered industrial and large municipal pump markets. This required more and more top level engineering assistance for field sales personnel from the factories.

LONGHAND EFFORTS LOST BUSINESS

As the field sales engineers begin working with the new marketing efforts, problems started to creep in... long delays in processing requests for quotations and other engineering assistance began occurring. To offset these, many salesmen attempted to do more of their own quotation work, or avoided applications where they could not immediately respond to the customers' request. As might be expected, lost business resulted.

In 1970, Peerless management began looking for solutions to the engineering assistance problem. It could double or triple the size of factory engineering departments, but that was not economical. It could initiate a massive education program for the field sales engineers and revise product literature and published application data, but this would take too long.

The answer came with the advent of RASCAL. Peerless has used time-sharing services for several years at the factories in design and application problems.

RASCAL CONVERTED FROM IN-HOUSE MACHINE

In early 1971, Johnson asked G.E. to see if a large pump-selection program could be converted to time-sharing use. This program was running on an IBM 360/50 in a batch mode, and two other time-sharing services had been unable to successfully make the conversion. Brian Garnichaud, G.E.'s account representative, working with Sarah Jones, the Peerless programmer, made the conversion and RASCAL was born.

RASCAL is now accessible in five locations: Los Angeles, San Francisco, Indianapolis, New York and Houston. Currently it includes POPS-C – a pump selection program for chemical process pumps, SPEED – a hydraulic performance conversion program for alternative driver speeds, HENRY – program for calculating the impeller and adjustment on deep well pumps, and HISTORY – for selection of engineered pumps built during the past ten years based on one or more specified design criteria.

Expansion of RASCAL is now planned for all major Peerless sales offices.

YOUR PRIVATE NETWORK

(Continued from page 1)

an all-encompassing business mechanism with no front end costs – in essence, sharing in the benefits of General Electric's $100 million Network investment. Details on the software available from these independent authors is available through your GE Representative.

For more information on how you might create your own private, world-wide time-sharing service, check box 940 on page 4 or contact your GE Representative.

NEW FEATURES INHANCE NETWORK BUSINESS SYSTEM POTENTIAL

NEW BUSINESS SYSTEMS CAPABILITY

(Continued from page 1)

In addition, a variety of new and powerful editing and programming tools are added for greater programmer efficiency plus an economical new storage option.

Consider the new features reviewed below in combination with the inherent economic assets of time-sharing and the reach of the Network to over 80% of the business phones in the U.S. plus Western Europe. And then start thinking about how you can apply them to your company's problems.

For documentation to program these new features and detailed profiles on their capabilities contact your local GE Marketing Representative or check box 107 on page 4 and receive them by mail. If you have an immediate programming need, complete documentation exists on-line in the library as JAN72*. This program features an index allowing you to list only those items of interest.**

NEW FEATURES

New Low Cost Storage

Archival Storage provides an auxiliary, storage media for data not requiring direct or immediate access. At the user's request, from his terminal, specified files are duplicated on magnetic tape and stored external from the system. Archivally stored files may be retrieved on an overnight basis. Considerable cost savings can be realized where a user has only sporadic, but predictable need for certain large files in his catalog.

Price: $.02/Archival Storage Unit/month (ASU = PSU or DSU)

$5.00/file to store

$10.00/file to retrieve

Dynamic Data Protection

Journalization is a new capability of recording data into the system in such a way that this record should not be destroyed or altered in any way as a result of any reasonably forseeable system malfunction, communication failure, program error or user action. The status of the transaction file can be relied upon to provide a means for a user to recreate a current and accurate master file.

More Economical File Sharing

Simultaneous File Sharing is the key to taking advantage of the Network concept of sharing a single file among a variety of widely dispersed locations, for such on-line applications as inventory management. A new file LOCK/UNLOCK capability now enables one file in a catalog to more efficiently serve multiple running programs simultaneously for both READ and WRITE access.

New Program Controls

Program controls allow a customer to build his own operating system within the GE Network system. Programs can be used to exercise supervisory control over the use of the Network, so that given tasks can be performed automatically and efficiently without operator interaction. These controls provide a means for a system to be self-contained and self-adaptive.

Dynamic File Capability

Scratch Files and called subroutines are two new dynamic file techniques that enable running programs to automatically create the necessary files required during execution. Scratch Files create temporary working space for data manipulation without incurring storage costs or cumbersome operating procedures. Files from dynamically called subroutines have all the properties of standard catalog files that normally require operator interaction to create or purge.

Economy In Multi-inquiries

SLEEP/WAKE subroutines, within the total data processing offering of the General Electric Company, enable the Network Information Service to be used for data processing applications that require one program to interact with another. Typical examples are routing of processed information via a common file, or making inquiries through such a common file to any number of locations having terminals and programs in continuous operation and retrieving and processing such information. Users do not consume or pay for system resources (CRU's) during periods of program inactivity.

New Calendar Month Billing

Beginning with your January 1972 invoice, GE Network Information Service bills will cover the period from the first day of each month (or the date service was initiated) to the last day of the month, inclusive.

The exact billing period covered will continue to be recorded on your invoice, but this change to calendar month billing should eliminate any overlap between months and hopefully simplify customer budgeting and accounting efforts.

New Programming Conveniences

Master Describe Command for easier file management; programs of any size can now be compiled at any time with RVB; maximum size binary random files increased from 500 to 1000 DSU's, and a more detailed LENGTH command are among these new capabilities. They all add up to increased efficiency and cost savings for the user developing programs for his own use or to be run by others.

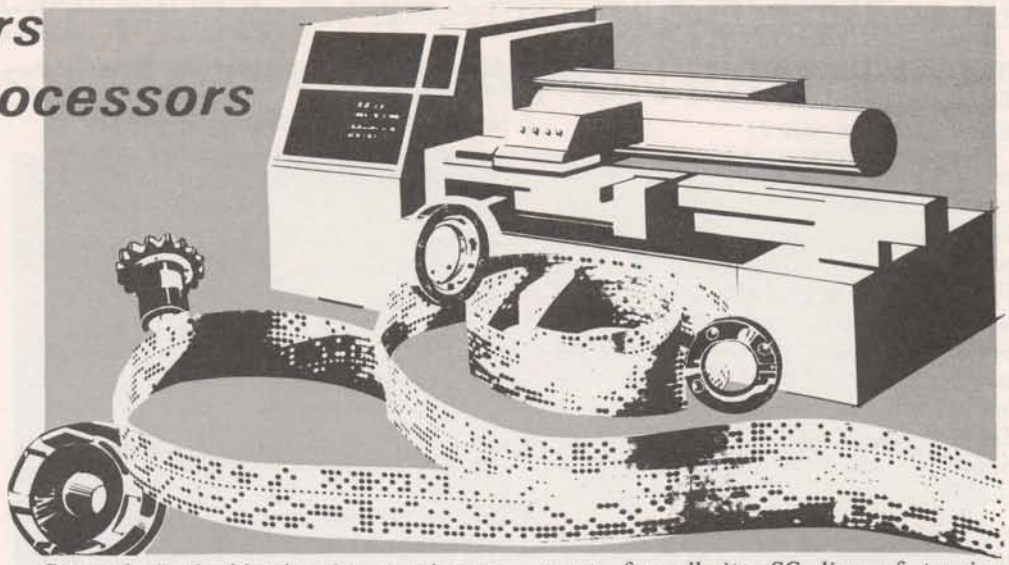
More Tedit Improvements

The new editor, TEDIT, introduced in November 1971, providing single letter string or character editing, has been enhanced to further increase productivity and economy for the user. Improvements of a new line finder routine, an abort character to exit from loops, a mode to ignore line numbers, and additional verification modes all can be of value to users immediately.

The Time-Sharing LEADER

Published by the Information Services Marketing Department, Bethesda, Md., for General Electric Time-Sharing customers to inform them of new features and services. Communications regarding items in the LEADER should be directed to your GE time-sharing representative.

N/C Tool Builders Network Postprocessors



Numerical Control machine tool builders, seeking to expand the use of their specialized postprocessors to customers throughout the U.S. and Western Europe, are making them available via GE Network Information Service.

As a result, owners of Bridgeport, Jones & Lamson, and Warner & Swasey machines now have direct access to these tool builders' specifically tailored postprocessors through the GE National Metalworking catalog.

Postprocessors programmed, maintained and updated by the machine builder assure greater all round efficiency than most generalized postprocessors can offer the machine end user. Users will save storage costs and pay only when the postprocessors are used.

Currently in the Metalworking catalog are postprocessors for Bridgeport's Series 1 mill with Bridgeport contouring control, the entire line of J & L's TNC machines with Bendix Series 800 and 910 NC systems and Warner & Swasey postprocessors for all its SC line of turning machines with GE 100S and various Series 7500 NC systems and the W&S DCC (Direct Computer Control) system.

For additional information check box 930 below.

FOR MORE INFORMATION

For descriptive literature on new and improved System Features and GE Application Library programs, check appropriate boxes below and mail to:

Time Sharing LEADER
General Electric Co.
450 Duane Ave.
Schenectady, N.Y. 12345

NEW MARK II '72 FEATURES profiles and reference manual supplement. 107 ☐

N/C BUILDERS' POSTPROCESSORS information on machine tool builder's postprocessors in the GE National Metalworking catalog. 930 ☐

NETWORK SOFTWARE SERVICE general description of service offered by GE to software authors desiring to use GE Network to make packages available. 940 ☐

STATSYSTEM lets you organize volumes of data on items such as sales, production, population, economic or similar information to do business management forecasting, marketing, production or engineering analysis – all within a single package. 340 ☐

AUTOFILE business management tool for record keeping combining reporting and file updating. Processes transactions and generates required periodic reports. 405 ☐

miniTAB an economical subset of AUTOTAB. A report oriented language, designed for periodic tabular reports, e.g. cost analysis, cash flows, budget to actual analyses. 303 ☐

FINEX a financial analysis system for quickly and easily analyzing historical data and/or projecting financial statements. A much enhanced version of the library program FINAN$. 305 ☐

FAPP, Financial Analysis of Project Performance, produces fast and economical reports on budget versus actual performance of business projects and items which make up these projects. 310 ☐

GPSS General Purpose Systems Simulator significantly improved resulting in considerable cost reductions over previous versions; can process larger problems with Run Big Option. 256 ☐

ECAP Electronic Circuit Analysis Program analyzes the AC, DC and transient response of electronic circuits; now has plotting and abbreviated output in AC and transient analyses; more efficient with reduction in cost. 403 ☐

DYSIM Dynamic System Simulator for fast, economical evaluation of a systems dynamic performance; allows entry of FORTRAN descriptions of system modules. 273 ☐

GETURN provides faster and easier programming of horizontal chucker lathe work. Reduces time and cost by providing computerized machinability and methods planning. 191 ☐

Name_____

Company_____

Street_____

City_____ State_____

Title_____ Phone_____