

## SALES BULLETIN NO. 95-5

# FAST-FAX



World Leader  
in Time-Sharing  
Service

### Nuclear Medicine

**Harry Chapman—Portland, Ore.**  
Do we have any bio-medical programs available? Fast-Fax has received ten self-documenting programs in nuclear medicine calculations (a speciality in the bio-medical field). The programs have applications in erithrokinetic, collimator design, and data plotting. Dr. J. M. Mozley, Prof. of Radiology, State University of New York, who authored the Programs, has prepared a thumb nail sketch of each which is available from Fast-Fax.

### What is X-Ray Diffraction?

Chemical structure of unknown substances can be determined by bombarding it with X-rays and measuring the angles of defraction. Known substances have known diffraction characteristics, and these are in a large data base called the ASTM X-Ray Powder Diffraction File. The file is on GE-635 batch, but is too large to fit on Mark I, Mark II, or GE-605. This is contradictory to the article in *INDUSTRIAL AND ENGINEERING CHEMISTRY*, May 1969, p. 79, which said it will soon be offered on GE Time-Sharing. The file is being prepared for 3-D.

Customers or prospects interested in the file should be interested in an off-line program called DSPAC\$ which does X-ray diffraction problems. Another program,

CRSTAL, is in the same ball park, but not yet available in the off-line library.

### WANTED

#### Optimum Insurance Plan

**Ed Seramur — Milwaukee** wants a program to evaluate employee information in determining an optimum insurance plan. Please notify FAST-FAX.

#### Design Programs

**Don Frye-Sacramento** is looking for two design programs (1) Flash boiler design working with moving liquids through coils, and (2) turbine design. If you have either, call FAST-FAX.

#### Soil Stability

**Stephanie Alexander — San Diego** would like soil stability programs using the Bishop's method and the finite element method. Call FAST-FAX.

### AVAILABLE

#### Time-Series Forecasting

Off-line documentation is now available for time-series forecasting, Mark II, BASIC.

FCST1\$ — computes a simple linear trend line and seasonal factors monthly.

FCST2\$ — uses exponential smoothing on time-series data and indicates scheme best for forecasting.

FCST3\$ — similar to above but considers data of seasonal variations.

THANX

**Dennis Mulford — Cincinnati and Miles Connor-Dayton** for sending in the logistics management games. LGEXPL is an explanation program and LGEMNX is a very conversational logistics management game.

**Garrett's LEAP good for new 20% law**

The proposed oil depletion allowance law may reduce the tax break from 27½% to 20%. Petroleum firms, large and small, will be re-evaluating their oil leases, especially where marginal wells are concerned.

A good program package to help them find results quickly with time-sharing has been developed by Garrett Computing Systems of Dallas and is available through ISD Datanet Software Services.

One program concerns Lease Evaluation and Appraisal Procedures (LEAP) and the other deals with Risk Analysis for Drilling Prospects (RISK).

For information see Sales Bulletin No. 94-2A.

**Fast-Fax Keeps Old Address**

The FAST-FAX office has moved to the Richards Building on Arlington Rd., but the mail center remains the same, so continue to send correspondence to 7735 Old Georgetown Rd., Bethesda, Md. 20014

**Calendar Announcements**

Are you planning a local seminar or sales event that may have more than local interest? Let us know and we will publish it in FAST-FAX. Let other interested persons take advantage of your efforts.

**Acoustic Coupler Costs**

**Dennis Hoffman — Teaneck:** My customer has an Olivetti terminal that he wants to use on GE Time-Sharing Service. How much does our acoustic coupler cost and what is the rental fee?

The TDM 114 acoustic coupler rents for \$25 a month (including maintenance by service shops) and sells for \$395. The TDM 115 acoustic coupler costs \$495.

If you need information on any of these couplers, you may contact the Communications Product Dept., Lynchburgh, Va., DIAL COMM 8\*272-2429, ask for Al Alfredson, Gerry Bacon, or Dick Seifert.

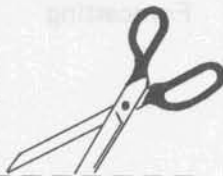
**T/S in Spectro**

Are you looking for programs for a spectrochemistry laboratory (Optical Emission and X-ray Fluorescence)? Several programs, developed with GE Time-Sharing, are discussed in a Department of Commerce publication, NBS Technical Note 407. You may obtain it from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

**Translucent Paper in a Roll**

**Art Reed — York, Pa.** is looking for a vender who has translucent paper in a roll for use in the teletype machine. He would like to use it for duplicating purposes such as with the ozalid technique. If you know of such a supplier, contact FAST-FAX.

## CLIP AND SAVE



### YOUR FAST-FAX REPRESENTATIVES

<u>Region</u>	<u>Specialists</u>	<u>DIAL COMM</u>
Eastern	Brian Berger	8*273-4345
Central	Vic Henschel	8*273-4525
Southern	Doug Benson	8*273-4421
Northeast	Jim Dickert	8*273-4578
Western	Mike Drake	8*273-4397
	Tim Kramer	8*273-4578

Fast-Fax Teletype Number 8\*273-4449

THANX

**Richard Spivak — Cleveland** for sending along the proposal he prepared for Cleveland Public Schools on computer time-sharing assisted curriculum and T/S with math and science courses. If you are considering



such a proposal, you may obtain a copy of Spivak's by calling FAST-FAX.

**3-D RESOURCE Questions** Who can be contacted in the various regions concerning 3-D RESOURCE questions?

Central — R.A. Gang, Cleveland 8\*344-6380

Eastern — R.L. Cox, Teaneck 8\*225-8301

Northeast — R.G. Roebuck, Syracuse 8\*256-1995

Southern — D.D. Walker, Atlanta 8\*283-1165

Western — R.E. Kalferd, Phoenix 8\*433-4851

Fast-Fax — Doug Benson 8\*273-4421

**3-D Demo Numbers** If you are considering a 3-D Resource demonstration, a written request for user numbers must be sent to:

P.A. Fabrizio  
Manager-Operations Resource Service  
General Electric Company  
4853 Cordell Avenue  
Bethesda, Maryland 20014

DIAL COMM 8\*273-9270  
RECOMM AIIKK

Your request should include (1) cost center of sales office requesting the demo (2) length of time of validation (3) desired date (4) desired password (5) number of storage links to be allocated to the demo number.

**Full-duplex vs. half-on Datanet-730**

**Bob Dunn — Houston:** Can either full-duplex or half-duplex lines be used with the acoustic coupler on the new Datanet-730 terminal by simply flipping a switch from one to the other?

The Datanet-730 terminal is presently equipped with the TDM 114 acoustic coupler. By the end of 1969, a Datanet-730 with a TDM 115 acoustic coupler should be available.

Both the TDM 114 and the TDM 115 have a "copy" switch which permits full- and half-duplex operation. The TDM 114 can operate only in originate mode with no capability to switch from originate to answer mode.

The TDM 115 operates in both originate and answer modes and can be used to communicate to another Datanet 730 terminal.

**Quality Control on Time-Sharing**

**Rod Lemberg — Milwaukee** wants a sophisticated quality control program that would inform the user of how big a sample should be taken and what machine he should be running jobs on to get the proper results. He wants the program to do machine selection by accuracy. He's looking for programs similar to APSAM and SAMSI as described in Sampling Aids for Auditors, but written for the quality control engineer. Please forward to FAST-FAX.

## FAST-FAX LIST OF PUBLICATIONS "NOT AVAILABLE"

The demand for promotional material, users guides, and similar material often exhausts supplies before reprinting is complete. To minimize back ordering efforts, the Software Sales Promotion Unit, which coordinates the printing of promotional material, has established a new procedure.

Now in effect, if your order is returned from the A&SP Warehouse in Schenectady with the notation "NOT AVAILABLE, REFER TO FAST-FAX", please wait 30 days and then re-submit the order. To help keep you advised on the status of publications "NOT AVAILABLE", Fast-Fax

(Sales Bulletin 95-5 and sequential numbers) will periodically publish such a list along with a projected date to re-submit your order.

If you have a specific question or problem about your back order, contact Norm Otis, SSP, Bethesda, Md., DIAL COMM 8\*271-1150, Ext. 734 or 735. Please do not call the A&SP Warehouse.

The following publications were "NOT AVAILABLE" August 1, 1969. Supplies are being replenished and may be ordered after September 2, 1969.

Pub. No.	Title
GER-1948	Numerical Control Field
GER-1949	GE's '67 Time-Sharing Gains
291-23	Ad Reprint discontinued
291-24B, C	Ad Reprint discontinued
291-39	Ad Reprint discontinued
101028B	Teletype Sticker
106086	Tip-On Transmittal
107038	Time-Sharing Code Form
108038-1	AC Linear Network Analysis
108038-3	Laplace Transform Inversion
108038-6	Cash Flow Analysis
108047C	List of Locations
120058	Can You Afford Manual Programming
125117A	Time-Shared Computer-New Member of Negotiation Team (Discontinued)
128117A	Traverse Analysis
137078	Time-Sharing in Cleveland Schools
143078	Computer Kids Most Likely To Succeed
148088	Capital Investment Analysis
153098	New Decision Making Tools For Managers
160098	Critical Path Scheduling
169118	Numerical Analysis Programs
175118	Mathematical and Statistical Programs
176128	Computers Figure Job Costs

### Users Guides

220125B	BASIC Language Programming Instructors Guide
710218	Prestressed Bridge Girder Analysis (Now Off-Line Documentation)
803218A	Command System for 605 Desk Side Service
807234	Mark II AC Linear Network
807235	Mark II DC Linear Network
807236	Cash Flow Analysis
810246	Air duct Design (Mark II)



# FAST-FAX



World Leader  
in Time-Sharing  
Service

August 18, 1969

## OFF-LINE LIBRARY IN BRIEF

FAST-FAX is often asked for a brief explanation of off-line library programs listings. Try this!

The Mark I and Mark II Program Library Listings (Customer Bulletins 19-5 and 35-1) contain catalogs CATPUB\*\*\* and LIBOFF\*\*\* respectively. They list off-line programs...those generally not used sufficiently to justify storage as on-line programs. (On-line programs make up most of the library listings in the bulletins).

Off-line programs receive some support from ISD headquarters, are documented, and may be obtained upon request from your IPC. Documentation for any off-line program is distributed by FAST-FAX.

## RISKY\*

This is a new FAST-FAX catalog of programs which has nothing to do with stock market investments, computer dating, or the off-line library programs mentioned above.

RISKY\* is an acronym FAST-FAX gave to a group of programs which you may run-at-your-own-risk. Often documentation is not available.

These programs were received by FAST-FAX from field people, other GE departments, and miscellaneous sources. They were developed for a specific need, and could be of value to others. Some of the programs are documented and may be put in the on-line or off-line library in the future.

To find out the up-to-date listings in RISKY\*, contact your FAST-FAX rep. Currently the catalog includes:

- LGXPL\* Explanations of logistics management game
- LGMNX\* Logistics management game
- TRUCK\* Compiles information on truck trailers in a system to reduce empty backhauls.
- SBA1\*\* Small business loan amortization schedule
- NUMED\* List for 10 nuclear medicine programs
- EUSDZ\* (List and description of 75 programs from Electric Utility Sales Division in two parts. These programs are available from FAST-FAX)
- MRGER\* Computes financial results of proposed merger

The RISKY\* catalog will grow as fast as your programs are submitted and can be loaded.

#### NGPAK\*H

From the West, comes reports of two good-sized accounts, two good yielding taps, for the Natural Gas Processors Association program packages. The well-tested program package for process and design engineers in the petro/chemical industry is offered through the Datanet Software Services. See Customer Bulletin No. 94-2B.

A first "In the West" DSS package for NGPAK\*H programs was to El Paso Natural Gas Company. Dave Boren, Sales Rep., and Mike Schermer, Manager - Albuquerque, were the prime sales contacts. They say it was the technical assist from headquarters which helped "put it there" on the contract.

Fluor Corporation, Los Angeles, a petro/chemical consulting firm, recently signed a national contract through the efforts of the San Gabriel Valley sales office. Fluor has offices in the south and west.

Dave Digerness and Brian Garnichaud sales strategy included having Fluor reps attending the Los Angeles chemical engineers' seminar which features Dr. R. V. Jelinek.

NGPAK\*H is a good package to tap customer sources as indicated by these two good-sized accounts. For sales support on applications in the petro/chemical industry contact Tal Briddell, 8\*271-1150, X661.

#### CENTRAL REGION 3-D

To contact R. A. Gang, Cleveland, Central Region concerning 3-D RESOURCE questions, you should call 8\*344-6386...not the number in the last FAST-FAX.

#### RADNT\$

Recently added to the off-line library, this program computes thermal analysis on heat precipitation bodies, Mark II, FORTRAN. Practical applications are in nuclear radiant labs, steel industries, aerospace, foundries (blast furnaces) and inter-component heating in electrical package (card of transistors).

#### PUBLICATIONS AVAILABLE

The following time-sharing publications are now available and you may order them from A&SP Distribution Services, General Electric, 705 Corporation Park, Scotia, N.Y. 12302

- Mark II Fortran Reference Manual, Revised 8-01,206046D
- Mark I Command System Manual Revised 7-25, 229116C
- Mark II Command Systems Manual, Revised 7-01, 711223B
- Mark II Coordinate Geometry, User Guide Pub. No. 806229D, Revised 8-01
- Mark II Sampling Aids for Auditors, Users Guide Pub. No. 906219, New 7-16

When ordering please use form AF-110.

#### COLOR IT BROWN

User Guides covers are color coded for quick reference, I.E. Mark I is blue, and Mark II is brown. Due to an error among the numerous printing instructions, several thousand copies of a Mark II program, Electronic Circuit Analysis, ECAP\$\$, were printed with a blue cover. They were not returned for the brown cover because of the urgent need to have the Users Guide in the field to accompany a sales package.

The remaining print order, however, will have the proper cover.



**IPC's  
ABROAD**

**Ray Gates, Greenville, S.C.** What are the locations of the IPC's in Europe? In England, we have systems in London, Birmingham, Manchester, Acton; Scotland, Glasgow; France, Paris, Lille; The Netherlands, The Hague; Belgium, Brussels; Denmark, Copenhagen; Sweden, Stockholm; West Germany, Cologne; and Italy, Milan.

We also have centers located in Vancouver, British Columbia; Montreal, Quebec; Toronto, Ontario; Melbourne and Sydney, Australia. This Fall a center will open in Johannesburg, South Africa.

General Electric is world-wide leader in time-sharing service.

**MORE P/C  
SEMINARS**

The ISD seminar "A New Age for Chemical Engineers," continues its successful tour. It features Dr. R. V. Jelinek, Professor of Chemical Engineering, Syracuse University, who does a real convincing job on the use of time-sharing in the petro/chemical industry.

See that your customers and prospects attend. Make arrangements now. The locations, dates, and persons to contact are:

Charleston, West Virginia, August 21

Ed Gorsuch, 8\*344-6350

Houston, Texas, August 28

Al Griffin, 8\*352-5270

Teaneck, N.J. & metro New York, September 25

Enid (Nee Schester) Lerhman,  
8\*225-8308

**CALCOMP  
PLOTTER  
WITH  
DATANET**

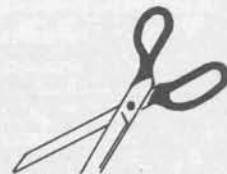
**Mickey McGuire, Atlanta** sent instructions for wiring modifications to use Calcomp Plotter with Datanet 730. A schematic drawing is included. If you would like a copy of the instructions and drawing, call your Fast-Fax rep.

**NEW IN  
OFF-LINE  
LIBRARY**

**PSGAD\$** — Bridge design by prestressed girder analysis, Mark I, FORTRAN (formerly in on-line listings).

**DSPAC\$** — Interplanar spacings from lattice parameters (X-ray diffraction), Mark II, BASIC

**CLIP AND SAVE**



**YOUR FAST-FAX REPRESENTATIVES**

<u>Region</u>	<u>Specialists</u>	<u>DIAL COMM</u>
Eastern	Brian Berger	8*273-4345
Central	Vic Henschel	8*273-4525
Southern	Doug Benson	8*273-4421
Northeast	Jim Dickert	8*273-4578
Western	Mike Drake	8*273-4397
	Tim Kramer	8*273-4578

Fast-Fax Teletype Number 8\*273-4449

# Fast-Fax Bugle CLASSIFIED

## SECTION B

August 1969

Continued from Preceding Page

SC 46ED-Fan, dining set, Au sell, 574-2445.  
SPEAKER SYSTEM—Eletro-Voic Garran, very good cond. \$50 301-662-2323.  
STUFFED TOY, W/ EXERCISER, juicer, wazer, scale, china, quilt record player, tape recorder, Be offer, Kl 4-673.

STEEL REINFORCED STEEL STRUCTURAL STEEL

Channel & Angle Iron WELDED TO SIZE  
General Welding Co.  
572-8177  
1017 BENTWOOD RD. NE.

STENOGRAPH MACHINE—In exce cond. \$100. Call 659-2244 after 5:00

STENOTYPE w/guar. & latest bks under 1/2 cost. Also special bk. fo teaching w/ self. 572-8066

STENO TYPE MACHINE—Studer se's model. Nevor used. W/text books if desired. \$100. 765-470.

STEREO—KLH model 24, FM radii like new. \$225. JO 2-9633, 583-2945.

STEREO CONSOLE—Fisher 5-71 record changer. \$400. 528-3087 Arlington

STEREO CONSOLE—5 ft., \$169. Must sell. Eds. 6-6950.

STEREO—Piles & service. ARLINGTON RAPID. JA 7-1000

STEREO—Mig. close-out. We bought from right. P-rts., consoles & components. P/rts. start at \$78.40. Delta Stereo, 26 1/2 Hamilton st., Hyattsville, 727-2260.

STEREO—Fisher 60-T Receiver & 2 Wharfedare 90 speakers. Cost \$495 & 3290.00. Make offer. 833-2728.

STEREO—Sonya Emerson. 4/40. In good cond. \$92. 684-7992.

STEREO—Custom made Scott receiver AM/FM, disc-tok turn table. Must sell. \$500. 971-4193.

STEREO—Myro 30w Elcho stereo amp. & Playeta pre-amp. \$40. Concord Changer. \$15. Weather's turntable Empire 160 cartridge \$35. 589-8764.

STEREO SPEAKERS—Pair AR-2. \$659-9688.

STEREO—3 portable Super Trim-line 400. 800 disc, det. 8" speakers. 4 st. auto record changer. Diamond Stylus, Saldom used. 7 yr. Cor! \$130. must sell. 560. JA 5-7573.

STEREO TAPE PLAYER—Sony. C-155. Used 10 yrs. 569. 564-0545.

STEREO—2 lge. spkr. boxes, \$50. call aft. 6 p.m. 933-5054.

STEREO—Magnavox AM/FM console. Excel. \$95. 931-1540.

STEREO—Scott, 382-B, AM/FM receiver & 2 Jensen speakers in cabinets. Call 581-1068.

STEREO—Piano, \$100. excel. cond. \$75. Cost \$239. 93-0800.

STEREO—Pair Jet 8. Stereo tape player. AM/FM stereo radio. Stereo record changer. Like new. 69 mod. 1 unit. \$2. 2242.

STEREO—AM/FM cr. 3. Bal. due \$182.50. pymts. \$9. Home demo. WARHOUSE DISCOUNT 868-2728

STEREO—Radio (SW, MW, FM) Combination. \$50. Call 525-2267.

STEREO—Teletone; camera lens set & acces; TV, silverware. 74-724

STEREO KLH—Model 20. AM/FM radio \$325. 313-3664. Call aft. 6 p.m.

TOY—Gas. 2. Tires. \$5; 3 arrchrs. \$15; 7. \$13. 338-3022.

SWIMMING POOL—4' high, 15' d. aluminum side, all pumps & acces. \$125. 365-276.

SWIMMING POOL—12' vinyl w/pump & all accessories. Used one year. \$80. 423-456.

TABLES—Factory direct of O.C. TABLES by PUL/SKI MFG. Co. from the "Diplomat" group. 1/2 price! Pecan color with chrome plate. 2000. 2000. 2000.

WE—COMM only \$34. 931-1540

WE—COMM only \$34. 931-1540

BUSINESS SERVICE 1-A

AVAILABLE - Karyl Andolina, Pittsburgh, sent BBROK\* which computes and prints invoices for brokers fees, and taxes on bond transactions and SBROK\* which does the same for stock. You can obtain the program listing from RISKY\* catalog. Contact Fast-Fax.

WANTED - Airline programs, Dave Johnson, St. Louis, is looking for airline programs other than maintenance engineering and market forecasting. If you have such programs, call Dave at 8\*326-4241 or FAST-FAX.

AVAILABLE - MRGER\* a new program in RISKY\* catalog which gives a quick check on financial desirability of companies considering a merger. Call FAST-FAX.

New w/guarantee. Discount prices. 365-3445.

WATER COOLERS—Elec. New & Used. Pressure and Boile type from \$39.50. BLOCK'S PLUMBING 1746 Lee Hwy. Ari. 528-8700.

WATER HEATERS (Gas)

NEW JO. \$49.95  
NEW 40 Gals., \$59.95  
NEW 50 Gals., \$79.95

ALSO ELEC. ALL SIZES. Glass-lined tanks with 5-year warranty. APEX PLUMBING SUPPLY 3927 BLADEN ST. RD. 779-3800

WEDDING DRES. AND VEIL—Size 16. Orig. \$145. sell \$70. 561-6246.

WEDDING GOWN—Size 10. With train. \$35. Organza. 794-8756.

WEDDING GOWN & VEIL—Never worn. \$100. cost \$150. sell \$75. 338-1296 Sun. w/days, after 6 p.m.

WEDDING GOWN—Pure white net. worn. (We slope) size 10, all. to size 8. \$155. 325-6132.

RARE & EXOTIC paintings of nudes on black velvet. My father searched the world for such unusual beauties & now they are yours at 1/2 price. \$5 to \$75. Pvt. 265-8072.

BASEMENT SALE—Bicycle, lawn mower, used 1 yr., rugs, etc. 942-5033

MOVING—Must sell contents of home incl. imported French dinner set, breakfast set, tables & chairs. 587-6913.

HOUSEHOLD ITEMS—Excel., To move Estate, also piano, 2 cemetery lots, odd items incl. 338-2379.

MISC. BLDG. MATERIAL—Also household items, glass drs. Call 534-2507.

MISC.—Havard Classics, 52 vols. excel. cond. \$100. Humidifier, portable, 4 gal., excel. cond. \$20. Parlo alum. swing lounge, \$15. New rubbering (green), Tial temple dancers, separately framed, \$60. 362-1117.

FIRE OR AIR POLLUTION?—Go under water. Complete SCUBA outfit—used twice—Winn tanks. Sharkskin vest. Finest Air lung respirator w/ 100' valve. Depth gauge, weight—the worst! Retail value over \$300. must sell for grad school tuition. First offer \$375 takes it. Call David at 829-5539 for demonstration.

MOVING—MUST SELL. custom-made 20" x 24" game tbl. color TV console. 15 original rug. oil paintings, lamps, etc. 702-361-8774.

FOR SALE—Yellow wood 3 cl. Plan Early Am. Good cond. 582-3022

BUSINESS SERVICE 1-A

AVAILABLE - NUMED\* List of 10 nuclear medical programs with comments, developed by Dr. Mozley, State University of New York at Albany. Programs available from Fast-Fax.

NEW - A recent listing of ISD sales offices, address and telephone numbers. Order Pub. No. 108047D, "LIST OF LOCATIONS", from A&SP Warehouse.

AVAILABLE - Jeff Gould, Cleveland submitted a flow chart program written in Mk II FORTRAN which flow charts Mk II BASIC programs. It is self-documenting. Call FAST-FAX

Free life insurance. 12-yr. rep. sell you

Bank-An

ALIXANI Turkish

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

Bank-An

BUSINESS SERVICE 1-A

WANTED - Alex Stewart, Hammond is looking for programs on job cost analysis for machine shops, etc. If you have one, call Alex 8\*323-3858 or FAST-FAX.

PERSONAL - Appearing in AUTOMATION magazine, August 1969, is an article written by ISD's Robert Miller on "Look to Time-Sharing In Preparing N/C Tapes." Read it and show it to your customers.

AVAILABLE - From Bob Evanoff-Toledo, two self-documenting programs to balance expense accounts and checking accounts. Mark I, BASIC. Call FAST-FAX for the programs.

IMAGE, MK II - Jeff Gould, Cleveland, sent to FAST-FAX a self-documenting program which is a stop gap in Mark II BASIC to do the job of image statements in Mark I.

AVAILABLE - From A&SP Warehouse, to fill your urgent requests you may now order these publications, Traverse Analysis, 128117A and Capital Investment Analysis, 1480888; also teletype sticker, 101028C.

ARMY ENTER, 893-818, Tyons Corner Shopping Center

BE AIR at BOWIE, 262-5323 Beeler Shopping Center

FREDERICKSBURG, 703-773-1655 Fredericksburg Shopping Center

OPEN DAILY & SUNDAY

A Complete Pet Center for all your pet needs

AIKEDALE-Fem. ch. Tom Jones sire. \$75: 703-659-2914.

AL SKAN MALAMUTE-AK, 1 mos., must sell. \$150. 299-3441.

AMERICAN ESKIMO-\$75. Poodles min. \$75 up. Toys \$100. Pcr. granian \$150. Yorkies \$275. Pars. Sheps. \$49 up. E. spitz \$45 up. Welsh Terr. \$90 up. AKC or purebreds. Perm. shots. 783-4062.

ANIMAL WELFARE LEAGUE OF FREDERICKSBURG COUNTY has for adoption:

Irish Setter—Handsome mature M. Lge. well-bred, heads trailing, love & patience, DUCK-DOG #1455 5 Centerville, Virginia 9-6 Mon. thru Sat. 6-9-2230

EASENJIS - 3 mos. AKC. High quality, low price, easy terms to qualified buyer. 361-7748.

BASENJIS-AKC, shots, reasonable, terms. Health cert. Tel.: 702-886-4084 after 6 p.m. 129 Collier Circle, Staunton, Va.

BASENJIS-M&F, top qual. Rees. AKC fum. 129 Collier Circle, Staunton, Va. 702-886-4084

Parents, moving

Parents, moving

Parents, moving

Parents, moving

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627

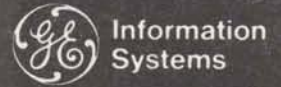
AKC, long & 280-5627

AKC, long & 280-5627

AKC, long & 280-5627



# FAST-FAX



World Leader  
in Time-Sharing  
Service

September 1, 1969

## BEFORE YOU SIGN UP A BRANCH...

No doubt you are anxious to begin time-sharing service to a customer who is at a branch location of one of ISD's national accounts. **Bob Thacker, National Accounts**, reminds you to be sure and obtain from your customer a purchase order or letter before activating the service.

## PAYROLL, JOB PACKAGE



For the small business with several jobs in process and having less than 100 employees, this Labor Distribution and Payroll package could save dollars and hours.

The package does most of the job accounting necessary in small manufacturers, engineering, architectural and other contract firms by maintaining detailed to-date accounts of all jobs in process. It also provides an easy and fast method of obtaining a variety of reports which can be selected and printed at random. It may be used to obtain information for billing.

Four programs, JOB01\*, JOB02\*, JOBRP\*, PAYR1\*, make up the package which is now in RISKY\* catalog. They are Mark II BASIC except for PAYR1\* which is Mark II FORTRAN. Because of file size limitations on Mark I JOBRP\* and PAYR1\* programs are each stored in three separate files... JOBRP\*, JOBR2\*, JOBR3\* and PAYR1\*, PAYR2\*, PAYR3\*.

The programs deserve to be protected and should be stored in compiled form when given to a customer. The package is supported by a 36-page documentation.

Call your FAST-FAX rep for the RISKY\* catalog number and supporting documentation for this Labor Distribution and Payroll package.

## WHERE TO BUY T/S ABROAD

International IPC's were mentioned in the last issue of FAST-FAX, however, of basic importance is knowing where to buy Time-Sharing Service.

Thirty-six International sales offices are listed on the back of "List of Locations", Pub. No. 108047D which was recently updated, and more are being added as our worldwide service continues to grow.

## MEDICAL CHECK-UP

The nuclear medicine programs by Dr. J. M. Mozley, State University of New York have been quite popular and a big help in signing new customers. If you have any medical programs, please contact FAST-FAX and help build a healthy medical catalog.

## PRICING FOR SCHOOLS

Several have asked for a definition of those schools and educational institutions which qualify for special pricing of time-sharing service. The accepted statement for the ISD Educational Plan is as follows:

Education Institution means "Any corporation, foundation, trust, or other institution operated for scientific or educational purposes, not organized for profit, no part of the net earnings of which inures to the profit of any private shareholder or individual."

All Education Plan contracts must be processed through the Legal Operation. School bells are ringing... so have your papers in order.

**IPO IN  
BINGHAM-  
TON, N.Y.**

ISD, in providing additional local sales support to our customers in central New York State, has opened an office in Binghamton, N.Y. J. H. Rayle is Manager; Rose Kenick, Secretary; Paul Sowa, Sales Rep; Vic Mack, Account Rep; Al Zucchini, Account Rep; and Tom McCloud, Customer Applications Specialist.

The address is:

Colonial Plaza  
30 West State Street  
Binghamton, N.Y. 13901

Tele: (607) 772-0546  
DIAL COMM 8\*252-1011

**UPDATE  
YOUR  
ADDRESS  
LIST**

Change St. Louis IPO address  
From: Olive Street  
To: 1015 Locust Ave.  
St. Louis, Missouri 63101

Change York, Pa., IPO address  
From: 1617 East Market St.  
To: 110 Haines Road  
York, Pa. 17402

Change Manhattan IPO address  
From: 570 Lexington Ave.  
To: 110 E. 59th St.  
New York, N.Y. 10022

**NEW ON  
RISKY\***

RISKY\*, the new FAST-FAX catalog of unsupported programs, has had several additions since it was initially published in FAST-FAX 95-6. These run-at-your-own-risk programs may be of value to one of your customers.

To obtain your listing to date in RISKY\* contact your FAST-FAX rep. Recent additions include:

**SBROK\*** Computes brokerage fees, taxes, etc., and prepares an invoice with name, price and shares (FOR Mk II)

**BBROK\*** Calculates total charges on bond purchases or sale including price, interest and commission. (FOR Mk II)

**EXPNS\*** Balances expense accounts (BAS Mk I)

**CHECK\*** Balances checking accounts (BAS Mk I)

**JOB01\***, **JOB02\***, **JOBRP\***, and **PAYR1\*** are programs which make up the Labor Distribution and Payroll package.

**TRAIN\*** Design a gear train (BAS Mk I)

**PIPE\*\*** Calculates deflections, moments and maximum stresses in piping due to expansion or contraction with temperature change using the M. W. Kellogg simplified procedure (FOR Mk I)

**CONFP\*** Fixed price incentive fee contract negotiation tool. Analysis elements of cost and profit. (BAS Mk I)

**RBJET\*** Analysis of round boyant jets into stratified ambient environments as in the design of sewers. (FOR Mk II)

**FRMAT\*** Program to do formatting in Mk II BAS

**FLCT1\***, **FLCT2\***, etc. is a flowchart program written Mk II FORTRAN that flowcharts Mk II BASIC programs... stored in five parts.

**IMAGE\*** Stop-gap Mk II image statement replacement program. (Mk II FOR)

**PUBNU\*** List programs to date in Mk I off-line library

**LIBNU\*** List programs to date in Mk II off-line library



**STRNG\*** Five use defined functions plus assignment statements and function call statements. Self-documenting (BAS Mk I)

**SORTF\*** Sortfile routine, (BAS Mk II)

The **RISKY\*** catalog will continue to grow as fast as your programs are submitted and can be loaded.

**THANX**

**Carol Van Schoyck, Secretary, Highland Park, N.J., and Jim McGoldrick, Manager, Long Beach,** for sending info on vendor for translucent paper on a roll.

**N/C  
SPECIAL  
CLASSES  
(Freshmen)**

A two-day N/C Fundamentals class will be held Sept. 11 and 12 in Bethesda, Md. For ISD persons with little or no exposure to N/C, the class will help attendees more effectively support district N/C specialists.

Discussions will include N/C fundamentals, N/C sales techniques, and use of NCPPL\$\*\*\* program and REMAPT-GELATH system of programs.

Class is limited to 30 on a first-come-first-serve basis. To register, contact **Bud Studley** or **Nancy Lipman**, 8\*271-1150, Ext. 622.

Note: It is expected that following the classes an attendee will spend three or four days with his district N/C specialist before approaching a N/C customer or prospect.

**(Grads)**

A three-day seminar for N/C specialist will take place in Chicago (Sheraton-Chicago Hotel), Oct. 1, 2, & 3. This seminar and workshop will cover the latest programs and programming techniques available to ISD customers.

ISD specialists experienced in N/C will be notified of the seminar via mail. Other interested and qualified persons should contact either **Bud Studley** or **Nancy Lipman**, 8\*271-1150, Ext. 622.

**SEMINARS!!!  
MAKE A  
NOTE**

SEPTEMBER 1969						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

"GE EXPO", a seminar of premier offerings, is planned by Orange County (Calif.) IPO, from 1-7 p.m. September 17. It will feature demos of 3-D Resource, Network I, Desk Side 605, and card reader input with a COBOL program at the Orange County sales office.

Call 8\*431-1148 with the names of your prospects and customers who will be attending.

\* \* \* \* \*

The Portland, Ore. sales office is planning to demonstrate time-sharing and conduct a workshop at the Professional Engineers of Oregon trade show, Sept. 22-25, Hilton Hotel, Portland. If you are interested in attending, call 8\*442-1231.

\* \* \* \* \*

In creating an attention-getting invitation to the ISD Chemical Engineering seminar, **George P. Chipman, CAS, Pittsburgh,** prepared the letters with the computer.

He made a tape of the Edit run-off of the program and copied the tape "locally" onto a GE letterhead. This gave an original letter to each customer to whom it was sent. "This letter was prepared by the GE Mark I Computer" was a subtle sell message he put on the bottom of the letter.

Great idea, George...Fast-Fax appreciated receiving a printout of your letter.

\* \* \* \* \*

The next ISD seminar, "Time-Sharing Computer Applications for the Chemical Engineer," with **Dr. R. V. Jelinek, Professor of Chemical Engineering, Syracuse University** will take place in Teaneck, N.J., September 25. Contact **Enid (Nee Schester) Lerhman**, 8\*225-8308 for reservations.

Coming: Chemical Engineering seminars in San Francisco and Chicago. . . .

# Fast-Fax Bugle CLASSIFIED

## SECTION B

September 1969

Continued from Preceding Page

**SCISSOR**—Fan, girling set. #10  
sell. \$4-9445.

**WEAKER SYSTEM**—Electro-Vol-  
tizer, very good conn. \$50  
#01 462-2303.

**STUFFER**—EXERCISE—ER-  
lucer, wazer, scale, unina, quilt  
record player, tape recorder. Be  
offer, Kl 4-673.

**STEEL STEEL STEEL**

**REINFORCED STEEL  
STRUCTURAL STEEL**

Channel & Angle Iron  
WELDED OR CUT TO SIZE

General Welding Co.  
502-8177

1017 BRENTWOOD RD. NE.

**STENOGRAPH MACHINES**—In exce-  
cond. \$100. Call 659-2234 after 5p.

**STENOTYPE** w/guar. & latest bks  
under 1/2 cost. Also special bk. fr  
teaching y. w. \$27-808.

**STENO-T. PE. MACHINE**—Studer  
ser. model. Never used. W/text  
book's if desired. \$100. 765-470.

**STEREO—KLH** model 24, FM radi  
Like new. \$22. JO 2-963, 583-2945.

**STEREO CONSOLE**—Fisher S-7  
Garrard Change. \$400. 525-3087 Ar-  
lington.

**STEREO CONSOLE**—5 ft., \$165  
Must sell. Eds. 76-6950.

**STEREO**—Sales & service. ARLING-  
TON RAD. CO. JA 7-1000.

**STEREOS**—Mfg. close-out. We bought  
them right. Pkts., console & com-  
ponents. Prices start @ \$78.40.  
Delta Sales, 2606 Hamilton St., Hy-  
attsville, 221 2409.

**STEREO**—Fisher 60-T Receiver & 2  
Wharfedale 20 speakers. Cost \$495

**BUSINESS SERVICE 1-A**

**WANTED** — Don Byrne, Man-  
hattan, would like a time-series  
analysis program using Shiskin  
Method or Census Method II. Call  
Fast-Fax.

**AVAILABLE** — from Fast Fax,  
Service locations lists for Mark I  
and Mark II systems.

**WANTED** — Building costs pro-  
grams. Howard M. DeYoung, Santa  
Barbara, Calif., would like a pro-  
gram, preferably Mk II, for estimat-  
ing the total costs of constructing  
a building, given the number of sq.  
ft. of floor space, number of floors,  
raw materials, planned use, etc. Call  
8\*432-6234 or 457 or Fast-Fax.

**AVAILABLE** — From Fast-Fax,  
thanks to Matt Felton, Highland  
Park, N.J., UPDAT\*, an inventory  
updating program. Mk II FOR

365-3445.

**WATER COOLERS**—Elec. New &  
Used. Pressure and oule fr  
from \$59.50. BLOCK'S PLUMBING  
1746 Lee Hwy. Arl. 528-8700.

**WATER HEATERS (Gas)**  
NEW 30 Gals., \$49.95  
NEW 40 Gals., \$59.95

**BUSINESS SERVICE 1-A**

**FOR SALE** — GLAS package  
"Chart of Accounts File Coding  
Sheet," are available in pads, \$.50  
each. Order #214079 from A&SP  
Warehouse, Scotia, N.Y. "Journal  
Entries File Coding Sheet" and  
"The Worksheet" will not be avail-  
able in pad form unless there is  
sufficient demand.

**AVAILABLE** — Call Fast-Fax for  
Jeff Gould's (Cleveland) program,  
RETRV\*, which does large in-  
formation retrieval operations  
exceeding those of 635IR\$, i.e. can  
search 10 data files of up to 50K  
characters each. Mk II FOR

**AVAILABLE** — Thanks to Mac  
McKee, Newport News, for  
PLOT\* which plots a range of  
values from a data file. MK I BAS.  
For program call Fast-Fax.

**WANTED** — Compressor design  
program for use in design of aircraft  
engines. Contact Jim Ducker, De-  
troit, 8\*362-3218 or call Fast-Fax.

**BUSINESS SERVICE 1-A**

**WANTED** — Mac McKee, Hampton,  
Va., is looking for any program to  
compute ship propeller bearing  
variations. Call Fast-Fax

**NEEDS THREE** — Cliff Smith,  
Syosset, N.Y. is looking for ay  
programs on (1) metallographical  
analysis, (2) crenate engineering, or  
(3) flame spray coating. Call Fast-  
Fax

**AVAILABLE** — Program which  
converts Mark I to Mark II FOR-  
TRAN, thanks to Don Bishop,  
Pittsfield and Al Welch, Power  
Transformer Dept. Ask Fast-Fax for  
MKI-2\* program.

**WANTED** — Programs which will  
do income property analysis for  
investment and planning, and  
general real estate investment  
analysis. Call Fred Hoffman, Day-  
ton, 8\*335-1125 or Fast-Fax.

AKC, long &  
280-5421

ud service  
In. \$35, 372-8927

mos. old. /  
0661

AKC blk. A, Te  
\$80, 451-7-39.

UPS—AKC, che  
hots, med.

UPPIES—Bred  
7 wks., A &  
5-087.

wks. old, A  
is 1st sell.

KC 6 wks., A  
chem. pedigree  
4-895.

IPS—AKC, ch  
F., 6 wks. old  
10.

INSCHER—Ch  
old. M & F.

PS—AKC, sh  
5. 301—833-4562

Yrs., \$75.  
723-9515 aft.  
day Sat.

NSCHER PUP  
id by ch. Heiko  
ys 627-2162.

4 mos. AKC  
Must sell. 559-  
AWAY. 1 yr. 1  
bs. 457-0053.

ACK 1-yr.-old, na  
bs. Good v. ch  
sd home v. home

JOG PUPPIES  
wks., AKC registered, shc, 5  
8853.

**ENGLISH BULL PUPPIES**—A  
4 1/2 mos., \$200, champ sired,  
5875.

**ENGLISH BULLDOG PUPPIES**  
AKC reg., PO 2-3725.

### AVAILABLE ISD PUBLICATIONS

To bring you up to date on the status of several promotional publications and reference material, Software Sales Promotion Unit has issued the list below. These publications may now be ordered from the A&SP Warehouse, General Electric Co., 705 Corporations Park, Scotia, N.Y. 12302.

#### NEW PUBLICATIONS

- Selected On/Off Line Business Management Programs, 221089
- EDP INDUSTRY REPORT, "GE Announces \$34 Million Investment . . . for On-Line Services," 222089

#### PUBLICATIONS REPRINTED . . . NOW AVAILABLE

- Mark II Index of Library Programs, Customer Bulletin 35-1
- Time-Sharing Coding form, 107038A
- Mark II General Ledger Accounting, Users Guide, 904212A
- Mark I FORTRAN Reference Manual, 206046D

#### WHEN STOCK IS DEPLETED WILL NOT REPRINT

- Introduction to Time-Sharing FORTRAN, (Elementary Instruction Guide) 227106

#### REPRINTS DISCONTINUED

- Time-Sharing Computer — New Member of Negotiation Team
- Can You Afford Manual Programming
- Computer Kids Most Likely To Succeed

When ordering available publications, please use form AF-110.

C. Brine  
\$750. Ca  
W.

Chemi  
Annapolis  
—4 tem.

EL PUP  
L. Hunt

EL PUP  
worme  
the wh  
1753.

PS—AKC  
d. men  
Beth-Sil

JPPES—  
blk. & sh  
73-7823.

i. AKC  
g bond

3  
J F

Miler  
Gc  
All c  
dogs.  
r call c

2 yr  
7079.  
AKC,  
059.  
ANE  
pak. 7

ayed,  
533-834

4 w  
no pap

pups,  
78-4062.

— 1 ma  
37 6 m  
ice trv.in  
on-Sa. 3  
mo.

RC  
ele 11 m  
11 777-990  
Fernal  
& ta



SALES BULLETIN NO. 95-8

# FAST-FAX



World Leader  
in Time-Sharing  
Service

Sept. 15, 1969

HELP  
"SHAPE-UP"  
RISKY\*  
FILL-OUT  
FORM  
(Attached)



"As a means of sharing good programs, ISD sales people have responded quite favorably to the Fast-Fax RISKY\* library," said Ed Vandeven, Manager-Sales Plans and Programs. "This response is felt not only by the number of programs sent to Fast-Fax (12 within the past two weeks), but also the large number of requests for the programs from the field.

"Reports of sales people being able to close contracts with some of these limited-use programs are becoming more frequent," he said.

To help you provide an even better program package for the RISKY\* library, Fast-Fax is asking that you complete a simple Submittal form to accompany each program. This will give the basic information most frequently requested with the program. A submittal form is attached and additional forms are available from your Fast-Fax rep.

RISKY\* depends on you...share your program and help our customers realize added services coming from GE Time-Sharing.

NGPAK\*H  
FIRST IN  
THE EAST

Dave Comroe, Teaneck, is reported to have the "first in the East" customer to sign for the Datanet Software Service's Natural Gas Processor's Association program package.



Here's the facts...August 5, 1969, Comroe was able to get existing client AIRCO, a GE Time-Sharing user, to sign up for the NGPAK\*H. Dave says what helped put it over was the knowledge gained from the petro/chemical Datanet Software Seminar in Dallas.

N/C  
SEMINAR  
IN  
PITTSBURGH

A Numerical Control Seminar, Sept. 22, 23, 24, in the Allegheny Center at Pittsburgh, will cover N/C programming, use of GE Time-Sharing Service to prepare the N/C tapes. Knowledge of machine tool operations and numerical control programming will be helpful. A fee of \$50 is required for each person. For customers and prospects in the Pittsburgh area, contact George P. Chipman, 8\*342-6443.

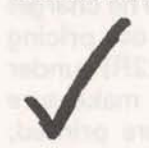
MORE  
PETRO/  
CHEMICAL  
SEMINARS

Tal Briddell, Sales Programs, reports that in keeping pace for the demands of the chemical engineering seminars, which feature Dr. R. V. Jelinek, Syracuse University, the schedule now includes:

San Francisco, Sept. 19, contact Ed Ferguson, Berkley, 8\*421-1390

Teaneck and metro New York, Sept. 25, contact Enid (Nee Schester) Lerhman, 8\*225-8308

Chicago, Oct. 14, contact Ed Gorsuch, Cleveland 8\*344-6350



**NEW LOOK  
TO AN  
OLD IDEA**

One of ISD's earliest promotional items that listed cities receiving "local" GE Time-Sharing Service has just had a face-lifting and an up-dating. Under the title, "Local Service Available In 44 States", Pub. No. 127068A, it reflects local service to be in place as of Sept. 30, 1969.

This is the type of promotional tool that will help you sell to big companies with scattered branch offices and support facilities. Order copies from the A&SP Warehouse, Scotia, N.Y., on form AF-110.

**PITTSFIELD  
SALES  
OFFICE**

An ISD sales office, to help Eastern New York sales and service, is now located at 766 Tyler Street, Pittsfield, Mass. 01201. In the sales office are **Don Bishop, Pete Mauro, and Gerry Grover**, who can be reached on 8\*234-3458.

**635IR\$**

Elaine Rogers, Syracuse: What is this 635IR\$ program I've been hearing about? It's a Mark II version of the 265IR\$ that was on the Mark I off-line library. The name will be changed to SERCH (or something like that). Documentation available from Fast-Fax.

**FILES ON  
HIGH SPEED  
PRINTER**

Paul Lindsley, Philadelphia: How do I get my customer's T/S files printed on the high speed printer and what does it cost? The charges are in paragraph 3 of pricing schedule (Form MF-22R) under Media Conversion. To make sure the proper programs are printed, ask the customer to put his request in writing, specifying the user number, the specific name of the program in his catalog, and have him specify exactly what he wants done. There is no mailing charge for the printout if the printout is not unusually large. Billing will appear on the normal monthly billing statement.

**NEW  
OFF-LINE  
PROGRAM**

PTOWR\$, Design packed absorption or distillation tower, Mk I, FOR.

VANLR\$, calculates the van Laar constants for binary azeotropes. Tabulated values of liquid vapor composition are also printed out. Mk I FOR.

**RISKY\*  
ADDITIONS**

People in the field are continuing to send good programs to Fast-Fax for the RISKY\* program library. The library of unsupported programs now includes:

QUEST\* Analysis questionnaires responses (market research) Mk II BAS

STRNG\* Contains five user defined functions plus string assignment statements and function call statements BAS MK II

BONDA\* Program prepares five reports which analyze the composition of a bond investment portfolio by years of maturity, bond type, Moody's rating, coupon income, and individual issues maturity, Mk II BAS

BOEXP\* Users instruction for BONDA\*

EDPAG\* Program will do MK II Edit Page; to be saved in compiled form.

F60-2\* 360 FORTRAN to Mk II FORTRAN Conversion.

MSLOD\* Job shop scheduling demonstration program Mk II BAS

UPDAT\* Inventory updating program Mk II FOR

PLOTR\* Program plots numbers as read from a file in order of reading. Mk I BAS

MK1-2\* Mark I to Mark II FORTRAN Conversion program written in Mark II FORTRAN

RETRV\* Large scale information retrieval and search program similar to 635IR\$ but without limitations. Mk II FOR - Great for personnel searching for documentation

To obtain your listing call RISKY\*, for documentation contact your FAST-FAX rep.



**MAKE YOUR PROPOSAL SPARKLE** Do you have a special proposal or application package you would like to dress up for a key prospect? If so, there is a new notebook available just the right size for small specialized information packages.

This new three-ring notebook only 1 1/8" thick, holds normal 8 1/2 x 11 material, is white with "Time-Sharing Service" lettering in blue. On form AF-110, order publication number 211079 from the A&SP Warehouse, Scotia, N.Y. 12302.

**TELETYPE TO DATANET 730** Robin Smith and John Crisp, Orlando, worked out the following simple procedure to send information from a teletype to a Datanet 730.

1. Use the teletype to call the person or office which is to receive the information.
2. Tell the answering party that you want to send some information over the teletype to the Datanet 730.
3. Have the party place the handset in the coupler with the Datanet on line.
4. Push down the answer button on the teletype (third from the left).

5. The teletype will answer and you are in business with only one phone call.

Thanks much, Robin and John. We appreciate your sharing this with other GE time-sharing service users.

**DO YOU NEED ASSEMBLY LINE PROGRAM???**

Joe Dmonkos, Sales Programs, has received a few requests for an assembly line balancing program. They want it to assign work elements to work stations within technological and precedence restrictions in such a way as to minimize the assembly line cycle time. Because of the cost of developing such a program, Joe wants to know if there is a real need. If you have or know of a customer who has expressed a need for such a program, contact Joe on 8\*273-1150, Ext. 659 or call Fast-Fax.

**IS THERE A NEED FOR...**

Do you have a prospect who would like to use a Friden 7102 terminal on the GE Mark II system. Bill Kirchmier, Berkley, is interested in knowing. Call 8\*421-1390. A Terminal Sales Unit rep has told Fast-Fax this is now under consideration.

**LOOK US UP** at National Society of Petroleum Engineers annual meeting, Sept. 28 - Oct. 1, Denver Convention Center. GE Time-Sharing demo in booths 76-77.

#### **EUSD PROGRAMS GOING OFF RISKY\* OCTOBER 15**

The 75 Electric Utility Sales Division programs which are in the RISKY\* catalog will be stored as papers tapes in the Fast-Fax office after October 15. Jim Doyle, Manager - Sales Support Unit, suggests any salesman who believes he may want to use an unsupported EUSD program should access it from RISKY\* before this date.

The RISKY\* library is growing. To make way for new additions, periodically, programs will be removed and stored as paper tapes. Programs and date of planned removal will be published in FAST-FAX.





FAST-FAX PROGRAM SUBMITTAL\*

To: Fast-Fax Program Library  
General Electric Company  
Information Service Dept.  
7735 Old Georgetown Road  
Bethesda, Maryland 20014

Program Name: \_\_\_\_\_ Mark I \_\_\_ Mark II \_\_\_

Language: BASIC \_\_\_ FORTRAN \_\_\_ ALGOL \_\_\_

Brief Program Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Who is using it? \_\_\_\_\_

Suggested Applications: \_\_\_\_\_

\_\_\_\_\_

Are you willing to provide limited support? \_\_\_\_\_

Program author: \_\_\_\_\_

Submitted by: \_\_\_\_\_ DIAL COMM \_\_\_\_\_

Date: \_\_\_\_\_

Please include a source listing, paper tape, sample input, a typical run with output, and any documentation available.

\* Submission of program to Fast-Fax assumes submitter has full authority to release program.

# Targeted Industries Program

Information Service Department • 7735 Old Georgetown Road • Bethesda, Maryland 20014

All Field Personnel

GE'S INFORMATION SERVICE DEPARTMENT GOES TO THE 44TH ANNUAL FALL MEETING - SOCIETY OF PETROLEUM ENGINEERS

GE's participation in this year's show at the Convention Center in Denver, September 28 through October 1, will be engaging, informative, and will generate solid sales leads for you in the petro-chemical field.

As an attention-getter, there will be an audio-visual presentation of the step-by-step application of the Natural Gas Processors Association Thermodynamic Program (NGPAK & H), and at the close of the presentation the audience will be invited to use the terminals at the booth.

To best utilize the Show in getting sales prospects for you, we'll have forms available at the booth to be completed by the potential prospect. He can request:

- 1) a salesman to call on him, or
- 2) literature to be sent to him.

NOTE: The literature package will include a return card requesting a salesman's call. Get in touch with those chemical and petroleum engineering customers and prospects.

Look for us at booths 76 and 77.

If you have any questions or need assistance please call Tal Briddell, Sales Programs, Dial Comm 8\*271-1150, extension 661.







World Leader in Time-Sharing Service

# FAST-FAX

October 1, 1969

**BUILD YOUR GE ACCOUNT** If you have an account with one of the General Electric components, a program that calculates individual and group salary adjustments could help you build revenue. It has good documentation prepared by **G. O. Mueller and R. H. Porter, Engineering Section, ISD, Ask Fast-Fax for details.**

**IT PAYS** **Mike Schermer, Albuquerque** puts GE Time-Sharing stickers on 1"x3"x3" clear plastic boxes. His customers use them to store tapes. He also bought an ad for time-sharing on a bus-stop bench... Right in front of an IBM office. It pays to advertise.

**CONNECTING REMOTE TERMINALS (Special Report)** To help you understand the nitty-gritties of ASCII codes, and communication in general, **Dan Kerr, Product Planner-Terminals**, has written two comprehensive reports — one for Mark I, one for Mark II. If your prospect has been stumping you with details about terminals and codes, get your copy of the Kerr Report from Fast-Fax. Specify Mark I or Mark II.

**ASSEMBLY LINE BALANCING PROGRAMS** **Elaine Rogers, Syracuse**, has provided Fast-Fax with an Assembly Line Balancing programs, Mk II FORTRAN which can handle up to 90 work elements. The program is available on the Fast-Fax RISKY\* Library. It was in the last issue of Fast-Fax, that a request for such a program was made. Thanks Elaine for your prompt input.

**COMPUTING JOB COSTS** An article, "Computers Figure Job Costs," Pub. No. 176128, describes the use of Master Standard Data combined with other handling data to compute actual costs in manufacturing. This evidently turned on a customer. GE does not have such a program. **Larry Wolfe, Special Applications**, said that a program or a reasonable facsimile will be developed if there is enough interest. Call Fast-Fax if you have a need for this program.

**TRANSLUCENT PAPER VENDOR** Vendor for translucent paper on a roll is **Link Paper Co.** 45 Cedar Lane Englewood, N.J. Attn: Mr. Flecher Cost is \$2 per roll

**CUSTOMER ALPHA & SIC LIST** **Dave Sweetman, Manhattan**. Why doesn't Fast-Fax have a listing of customers sorted alphabetically in addition to Stand Industrial Classification (SIC) categories? What beautiful timing -- Fast-Fax received the long awaited list just hours before your letter arrived. It's current as of July 31.

**PETRO/CHEMICAL SEMINAR** The informative chemical engineering seminar which features Dr. R. V. Jelinek, Syracuse University, will be in Chicago, October 14, reports **Tal Briddell, Sales Programs**. For reservations have your manager contact **Ed Gorsuch, Cleveland, 8\*344-6350.**



1M (10-69)

<b>Eastern</b>	<b>Central</b>	<b>Southern</b>	<b>Northeast</b>	<b>Western</b>
Brian Berger 8*273-4345	Vic Henschel 8*273-4525	Doug Benson 8*273-4421	Jim Dickert 8*273-4578	Mike Drake 8*273-4397

**GENERAL ELECTRIC**  
INFORMATION SERVICE DEPARTMENT

**EUSD PROGRAMS GOING OFF RISKY\*  
OCTOBER 15**

Electric Utility programs in the RISKY\* catalog will be stored as paper tapes in the Fast-Fax office after October 15. Any salesman who may want to use one of the programs should access it before this date, advises **Jim Doyle, Manager — Sales Support Unit.**

**PERSONAL  
COMPUTER  
LETTERS**

**William P. McClary, Schenectady,** has a variation of a common letter which is prepared with time-sharing. With the use of EDIT RUNOFF for text, he composes a file of names and addresses. The program accesses the file and types individual address on letters with reference to the addressee within the text. Cost is about \$.50 a letter.

**COMPAT-  
IBLE  
READER**

**Dan Kerr, Terminal Planning,** reports that an optical indiscriminate reader compatible with most terminals used on GE Time-Sharing systems, is available from Motorola. The optical-mark-read is great for customers doing inventory control, market analysis, or education records, in which cards or page-size forms are used. For additional information, contact Dan on 8\*273-4694, or call Fast-Fax. (Reader shown below)

**RISKY\***

RISKY\*, the Fast-Fax library of unsupported programs, is growing, thanks to the good reception of

you people in the field. The sharing of these programs has made it possible to generate additional sales. It's a good give and take project.

The RISKY\* User number will change October 1, so contact your Fast-Fax rep when you want to get a listing of the programs available or access a particular program. Recent additions include:

**ALB1\*\*, ALB2\*\*, ALB21\*** Assembly Line Balancing Program which can handle up to 90 work elements. Mk II FOR

**B60-2\*** Call 360 or Tymshare Superbasic Conversion to Mk II BASIC, Mk II BAS.

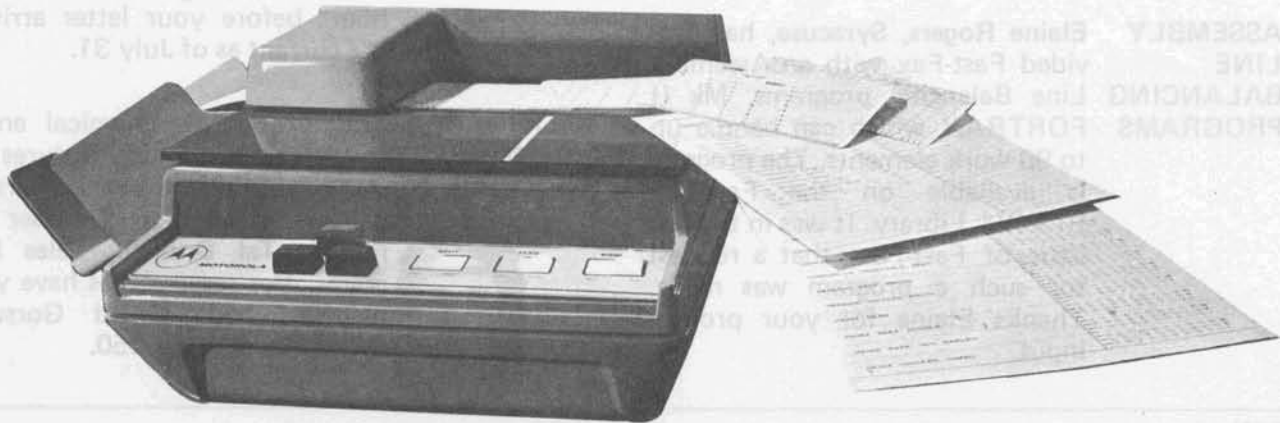
**COWSS\*** Computes profitable dairy cow, good demo, Mk II FOR

**ACREV\*** Accounts Receivable program updates from data file, Mk II BAS

**CPSOR\*** Critical Path Scheduling sort program similar to Mk I, but uses three external files — input, output, and a working file. Mk II FOR

**CPDES\*** Critical Path Scheduling Description program uses data file and description file, Mk II FOR

Help shape-up the RISKY\* catalog. When you send a program to Fast-Fax, please give us some basic information on the convenient yellow Submittal Form.





**COMROE'S  
CORNER**

Dave Comroe, Teaneck, suggested to Fast-Fax that a column on "sexy algorithms" or programming tips become a regular part of FAST-FAX. His idea has been embraced and to recognize him for the good idea we're calling it "COMROE'S CORNER" for this issue of Fast-Fax.

You field people will be the prime source of these programming tips. If you wish to contribute, just call your Fast-Fax rep or send us a short note.

Just for starters, here's a few slinky tips that may lure a customer your way and help him with a programming problem.

> > > > COMROE'S CORNER < < < <

Paging on the Mark II printer under background media conversion (BMC) may be accomplished by storing a form feed character (control L) in the file. When the system sees this character it will slew to the top of the next page. If you have a customer who is creating a large file that must be dumped at the computer center (it may be too expensive to print out on a terminal) this method can be used to put the file into a more readable format. -- **Dave Comroe, Teaneck**

\*\*\*\*\*

Another technique to get one blank line in a file using FORTRAN, write

```
220 10 WRITE ("INF", 20)
4010 20 FORMAT ( )
```

Also can be put inside DO loop to generate number lines desired. Good for making an output file more readable, if desired. -- **Don Beecher, Philadelphia**

\*\*\*\*\*

Scanning for bad data file..... INPUT (file number) from a file reads only the number of values in the variables lists and then moves to the next line of data in the file. If the variables list exceeds the number of data items on the line in the file, it will continue reading (line numbers and all) from the next line or lines until the input variable list is satisfied.

One could use this for fast scanning of data files by inputting for line number and first variable and testing the variable for decision to read rest of line or go on to next line. -- **Wayne Garber, Eng. & Sci. Applications**

## NEW ISD PUBLICATIONS AVAILABLE

Several exciting new ISD promotion and reference materials are now available from the A&SP Warehouse, advises Norm Otis, Software Sales Promotion. Sales Bulletin 54-6 will soon be released giving new information on all ISD publications and promotional materials available.

The new "Hands-On User's Guides®" in the Marketing and Economic Forecasting package and the status of other publications follows:

Electronic Circuit Analysis Program, Mk II, Customer Bulletin 93, new.  
Local Service Available, Mk I & II, 127068A, revised  
Electronic Circuit Analysis Program, Mk II, 226099, new  
General Ledger Accounting System, Mk II, 904212A, Hands On User's Guide®  
Cash Flow Analysis, Mk I & II, 807236A, revised  
Sampling Aids for Auditors, Mk II, 906219, new  
Electronic Circuit Analysis Program, Mk II, 906323, new  
Unit Conversion Program, DIM\$\$\$\*\*\*, Mk I & II, 906333, new  
Linear Programming Transportation Distribution Analysis, Mk II, 907342, new  
"How To Tame Wild Elephant... intro to GE Time-Sharing", Mk I & II, 908345  
Selected Chemical/Petroleum Engineering Programs, Mk I & II, 225099, new

### MARKETING AND ECONOMIC FORECASTING PACKAGE

GETSA\$\$\$ , Discrete Time Series Forecasting, Mk I, 227099, new general description  
GROTR\$\$\$ , Mk I, 228099, new, general description  
GROWTH\$\$\$ , Mk I, 229099, new, general description  
TRANS\$\$\$ , Mk I, 23099, new, general description  
FOSTR\$\$\$ , Mk I, 231099, new, general description  
Forecasting Your Business With GE Time-Sharing, Mk I, 232099  
GROWTH\$\$\$ , Mk I, New Hands On User's Guide®, 906327  
GROTR\$\$\$ , Mk I, New Hands On User's Guide® , 906328  
GETSA\$\$\$ , Mk I, New Hands On User's Guide® , 906329  
FOSTR\$\$\$ , Mk I, new Hands On User's Guide® , 906330  
TRANF\$\$\$ , Mk I, new Hands On User's Guide® , 906331

Publications may be ordered from the A&SP Warehouse, General Electric Co., 705 Corporation Park, Scotia, N.Y. 12302. Please use form AF-110.

If you should receive a "NOT AVAILABLE" notice on your order, please wait 30 days and re-order. Or submit your order again if you should see in FAST-FAX that your publication will be available on a earlier date. Do not call the warehouse. If you have any questions contact Norm Otis, SSP, 8\*273-4735.

® Registered Trademark of General Electric Company



CLASSIFIED

SECTION 8

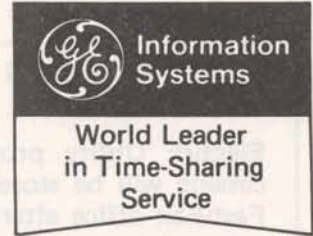
**FIELD TEST DOCUMENTATION**

Fast-Fax has received several inquiries about a listing of documentation and programs in field test. The current list we have been able to compile follows:

<b>ENGINEERING AND SCIENTIFIC</b>		<b>Pub No.</b>
ENTU	NTU-EEF Heat Transfer analysis packages, Mk II FOR	902205
HTEXDG	Heat Exchange Analysis Program, Mk II FOR	905218
STMWAT	Steam and Water Properties, Mk II FOR	903211
LINE1\$ LINPR\$, SENSIS\$	Linear Program Methods, Mk II FOR	904214
ILP1	Integer Linear Program, Mk I FOR	904215
SHELL\$	Analysis Thin Shells of Revolution, Mk II, FOR	809224
THPRP	Thermal Properties of Some Engineering Fluids, Mk II FOR	902206
CIFLO\$	Load Flow Studies, Mk II FOR	906325
HTRPR	Heat Transfer, Mk II FOR	906334
LTRAN\$	Laplace Transform Inversion, Mk II FOR	907339
NWSIS\$, MIEOQ\$	Inventory Simulation, and Economic Order Quantity Analysis, Mk I BAS	906320
PBRESK\$, SEVST\$	Inventory program to calculate "Price-Breaks" and Optimun utilization of limited warehouse space, Mk I BAS	906321
PORT2\$	Parameter Conversions To Describe Two-part Network Mk II, FOR	907335
LGIC1\$, LGIC2\$, LGIC3\$, CONOP\$	Optimization subprograms Mk I APT	907336
CONOPS	Optimization subprogram, Mk II APT	907336
MATRX\$	Matrix operations, Mk II FOR	906326
STRESS	Structural Engineering System Solver, Mk II FOR	908344
<b>MANUFACTURING</b>		
PCNJS\$	Continuous Process Industry Scheduling, Mk II FOR	906324
JSHOP\$	Job Shop Scheduling, Mk II BAS	907337
OPTICS	Lens pre-design and Optimization Analysis, Mk II BAS	906322
MACHCS	Time-Sharing Tools For Quality Control Series I, Mk II FOR	908343







# FAST-FAX

October 10, 1969

**NAME  
MAY NOT  
BE  
THE SAME**

Doug Benson, Southern rep, says that we don't intentionally change the name of a program you submit to the Fast-Fax library. Programs in the RISKY\* catalog require an asterisk (\*) in the sixth position.

With this filing method, the original program cannot be destroyed accidentally or changed when accessed by the field user number. We would appreciate your using this naming method.

When one file refers to another, the same naming technique should be used, i.e. JØB01\*, JØB02\*.

**ASA  
LIST**

George Laraia, West Orange, N.J. How can I get a list of members in the American Statisticians Association for my area?..... Brian Berger, Eastern rep, called the ASA headquarters and they're sending a list of the chapter presidents and secretaries.

**TAPE  
EQUIP-  
MENT  
VENDOR**

Ken Anderson, Manhattan. One of my customers wanted to know where he could get an automatic tape winder to roll-up paper tape as it came from the TTY. Can you (Fast-Fax) help?.... Yes. We know of one supplier, Remote Computing Services, 799 Roosevelt Rd., Bldg 3-209A, Glen Ellyn, Ill., 60137 which has several models available. One model costs \$138. Write and ask for their catalog which includes splicers, winders, tape cases, etc.

**IS THERE  
A NEED**

John Hannah, Manufacturing Applications, is surveying the potential need for several functions for Mark II FORTRAN. Does anybody in the field need any of the following functions:

- (1) Integer pack and unpack  
Range of integers =  $\pm 2^{17}-1$
- (2) Bit logical functions
  - (a) AND
  - (b) OR
  - (c) EXCLUSIVE OR
  - (d) NOT
- (3) LEFT SHIFT - ZERO FILL  
RIGHT SHIFT - ZERO FILL

If you have a need for any of them, call your Fast-Fax rep.

**EDPAG\*  
REFINED**

Chuck Kemper, Education & Training, provided an improved version of a Mark II Edit Page. Listed as EDPAG\* in RISKY\*, it will perform the function with up to 50 files.

EDPIN\*, also from Chuck, provides information necessary for the Edit Page command. Thanks much Chuck for the programs.



1M (10-69)

Eastern	Central	Southern	Northeast	Western
Brian Berger 8*273-4345	Vic Henschel 8*273-4525	Doug Benson 8*273-4421	Jim Dickert 8*273-4578	Mike Drake 8*273-4397

## EUSD PROGRAMS GOING OFF RISKY\* OCTOBER 15

Electric Utility programs in the RISKY\* catalog will be stored as paper tapes in the Fast-Fax office after October 15. Any salesman who may want to use one of the programs should access it before this date, advises **Jim Doyle, Manager - Sales Support Unit.**

**IMPORTANT CHANGES** Norm Otis, Software Sales Promotion, says two ISD publications have correction statements which should be noted.

"Numerical Analysis Routines," Mk II (users guide), 807231A, has an input error reflected on pages 54 and 63. You will soon receive "Changed Pages" which should be distributed to your customers who have this publication.

"REMAPT Part Programming," Mk II, (reference manual) 805220, was recently re-issued as a straight reprint with corrections. Because the corrections were numerous, please destroy all old books and distribute the latest book (7-69).

Additional publications with these corrections are available from the A&SP Warehouse, Corporations Park 705, Scotia, N.Y. 12302. Please use form AF-110 when ordering publications.

**PASSWORD TROUBLE** Fast-Fax calls indicate several field people are having a problem with the DATANET Software Services 401 rotating passwords control/shift character. **Clarence Selin, Datanet Software Services,** says you must depress both the CONTROL and SHIFT keys at the same time you depress the password (C/S) character (which will not printout).

## SELLING TIP

Our RISKY\* catalog has meaning (limited support) to we in the "in-group", but to our customers it may sound depreciating. **Jim Doyle, Sales Support,** suggests that you refer to it as "Class III" when talking with a customer.

## NOW IN RISKY\*

Several programs have been added to the RISKY\* catalog of limited supported programs. Most of the programs were written for a specific customer. You may find that upon listing them, you can with a few changes, make them valuable for your use.

Here are a few recent additions:

**BCHAR\*** Plots a bar chart from data file. Mk I BAS

**XYPLO\*** Plots x y coordinates up to four variables from a data file. Mk I BAS

**UNITR\*** Optimize unit train costs for railroad. Mk II BAS

**DCRIM\*** Discriminant analysis program which calculates a set of linear functions and classifies multi-group data. Mk II FOR

**DDATA\*** Sample data file for DCRIM\* Mk II FOR

**FACTR\*** Will perform a principle components solution with a varimax rotation of the factor matrix. Mk II FOR

**FDATA\*** Sample data file for FACTR\* Mk II FOR

**QUEST\*** Analyses Questionnaire responses, i.e. market research. Mk II BAS

**WEVOT\*** Calc imbalance in voting power of representatives in a weighted voting environment. Mk I BAS

For a current list of all programs in the RISKY\* catalog, call your Fast-Fax rep. The catalog list is updated almost daily as new programs are made available to the field.



## DATANET 730 SERVICE AREAS

Looking for a current list (it's continuously growing) of DataNet-730 service areas? Jack Prickitt, Terminal Sales, indicated service is available from the Field Engineering Dept. within a 60 mile radius of the cities listed.

Atlanta, Ga.	Greenville, S.C.	Phoenix, Ariz.
Boston, Mass.	Houston, Texas	Pittsburgh, Pa.
Buffalo, N.Y.	Huntsville, Ala.	Plainville, Conn.
Carlisle, Pa.	Indianapolis, Ind.	San Francisco, Calif.
Chicago, Ill.	Los Angeles, Calif.	Syracuse, N.Y.
Cincinnati, Ohio	Louisville, Ky.	Schenectady, N.Y.
Cleveland, Ohio	Manhattan, N.Y.	Seattle, Wash.
Columbus, Ohio	Miami, Fla.	St. Louis, Mo.
Dallas, Texas	Milwaukee, Wis.	Syosset, N.Y.
Denver, Colo.	Oklahoma City, Okla.	Teaneck, N.J.
Detroit, Mich.	Orlando, Fla.	Tulsa, Okla.
Greensboro, N.C.	Philadelphia, Pa.	Washington, D.C.

### SEASON'S GREETINGS CARDS

**Nadine Adamo, Dallas.** Is there a standard General Electric Co. Christmas card?... The COMMUNICATE! book has a good discussion of this on page IX-1 in the "Promotional Aids" section. Basically, there is no standard department or company card available. Why not contact your local stationer for suitable stock cards and sign them with your name or names. Remember, you need a purchase order number.

### HEAD- QUARTERS DIAL COMM 8\*273-4--

ISD people in the Richards Bldg. Bethesda, may once again be reached by DIAL COMM 8\*273-4 (extension number). A temporary number had been assigned. For information call 8\*273-4011.







# FAST-FAX



World Leader  
in Time-Sharing  
Service

November 1, 1969

**STUDENTS ARE ASKING???** **Charlie Ray, Buffalo:** How can we handle letters addressed to us by students asking for information on such subjects as electricity, motors, jet engines, etc.? ... Send the letters to **Gregory Ellis, General Electric Co., 1 River Road, Schenectady, N.Y. 12305.** (This is a fictitious name like Betty Crocker and Ann Page, but it's the right initials!). Appropriate information will be sent to the requestor from that office.

**PAGE COPY FROM 730** **Barry Howard, IND, New York,** says: If your Datanet-730 terminal is sending data to the computer but not giving you page copy, check the switch on the back of the audio coupler. It should be set on COPY for page copy. Remind your customers of this special feature..... it may eliminate a trouble call.

**HELP FROM ABA** **John Canning, Sales Programs,** reports that Investment Analysis Language (IAL), a series of approximately 50 FORTRAN subroutines, will be released to time-sharing vendors by the American Bankers Association, for use after December 15, 1969. IAL will be used by financial analysts to solve a variety of problems that require forecasting or analysis, such as capital budgeting, portfolio selection and loan analysis. We are presently negotiating with ABA for the acquisition of IAL.

**ROSTER IS SECURE** **Bob Cohen, Manhattan:** Why can't field people have a copy of the roster of other field people? ... Our Personnel people felt we were doing much of the home work for employment agencies by compiling and distributing a list of all ISD field people. It had names, titles, and phone numbers on it. If you have a problem locating some one in the field, Fast-Fax will help you sleuth them.

**ACTION AD** **Karol Smith, Chicago,** answered the Highland, N.J. plea for a program to do co-variance analysis. The customer is happy. If you would like the program, it's on RISKY\* listed as COVAR\*, Mk II FOR. Call Fast-Fax for documentation.

**COMPUTER IN CAR** **Gary Willecke, Milwaukee:** Can an acoustically coupled Datanet-730 be used over a standard mobile radio telephone? Yes and No. No, in the case of a simplex circuit. If you push the "press to talk" switch on a mobile radio handset phone, and then jam it into the coupler, the radio transmitter stays on — and the computer doesn't get a chance to send down the circuit. The computer wants to make the terminal quit sending so it can request a readout of the answerback drum, but it can't stop the transmitter when the "push to talk" is held down. (This could be wired into a special set, but it won't work on a normal set).

Yes, it will work if you set up two simplex circuits, one for transmitting and one for receiving. Communications & Control Division, Lynchburg, Va. has done considerable testing. FCC regulations were recently modified to permit digital data to be sent over two-way radios for police and fire department usage, but apparently, it's not cleared for general use, yet.

**SPEECH SHARING** If you have prepared a talk for a local group on any subject relative to time-sharing (N/C, Business & Finance, Engineering, Education, etc.), you can get mileage from your message and save others in the field a great deal of time, by sharing your talk. Send your script and copies of visuals to **Joanne Thyken, Marketing-Communications, ISD, Bethesda.**

1M (11-69)

Eastern	Central	Southern	Northeast	Western
Brian Berger 8*273-4345	Vic Henschel 8*273-4525	Doug Benson 8*273-4421	Jim Dickert 8*273-4578	Mike Drake 8*273-4397

**GENERAL ELECTRIC**  
INFORMATION SERVICE DEPARTMENT



**FIELD DOCUMENTATIONS AVAILABLE FROM BEVERLY** If you want available Field Test documentation, beyond what is normally distributed to you, contact **Beverly Lippold**, on Dial Comm 8\*273-4763. If you can't reach her, give your Fast-Fax rep a call and he'll pass the information along to Beverly.

**NO DIRECT ROUTE TO CUSTOMER** Several have asked, why can't we avoid the paper tape routine and have RISKY\* programs moved to our customer's user number as long as they're on the same system? ....You would be taking a big chance. With on-line and off-line programs technically supported by headquarters Applications people, this transfer would be safe. But, it is not with RISKY\* programs.

RISKY\* programs are not guaranteed to run under all conditions — the intention of the catalog is to give you a working tool in the form of a program listing that worked for someone else in a specific situation. NEVER, NEVER, take a RISKY\* program to a customer without trying to run it yourself. It's up to you to modify it and see that it fits your customer's needs. Even if your customer is capable of modifying a program, don't give him one that you haven't run.

**COGO IN FORTRAN?** **Harold Hodge, Philadelphia:** Will COGO be available soon in FORTRAN? ....Presently, there are no plans to write it in FORTRAN. If you feel there is a great need for it, let your Fast-Fax rep know.

**T/S DESIGN AND MFG PROGRAMS** GE took part in a major symposium on Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) Oct. 13-17, Davenport, Ia. You may be getting questions about program availability. Here's the status:

Jobshop Scheduling, JSHOP\$: in field test  
NC Part Programming, REMAPT: on-line library  
Machine Accuracy Analysis: working program not yet in library  
Machine Economics Justification: working program not yet in library  
Computerized Machinability: owned by GE Carboloy Dept. Call Joe Domonkos 8\*273-4659 for information.

**35 TWX INTERFACE** **Dick Fontaine, Highland Park:** I have a prospect that has a Model 35 TWX teletype, can it interface into the GE Time-Sharing system?... Yes, but there are some conditions that must be met. First, here are terms that need explanation.

Upright — the standard data transmission mode of 8-bit ASCII characters from regular TTY's and DN-730's into the Time-Sharing System.

Inverted — data transmission mode used to transmit TWX data on communication lines. The inversion (reversing the transmit and receive frequencies) occurs in the data set.

If the TWX is on upright service, your prospect pays only \$9.00 per month for a telephone line, and \$2.50 per month for a switch that changes the TWX network lines to phone company lines. If the TWX is on inverted service, your prospect pays \$9.00 per month for the line, \$23 per month for a data set, and \$2.50 per month for the switch.

Can a Model 35 TWX machine be used off-line to prepare paper tape that is acceptable to time-sharing when read through a regular teletype? Yes, it's standard 8-bit code. But not all large machines in TWX service are Model 35's. There may be some Model 28's still in service that punch 5-level codes.

**TO BUY A TTY** **Joan Wood, Long Island;** who do I contact to purchase (not lease) a teletype? ...You contact Teletype Corporation, Skokie, Ill. 8\*323-0111 and ask for 676-1000.

**COUPLER A MUST** **Doug Jones, Houston,** a prospect wants to get a Datanet-730 terminal without the coupler. Is it possible? ... Sorry, no.

**STRE\$\$ IN FIELD TEST** STRE\$\$, an up to date state of the art program on structural engineering, is now available in field test. Documentation is similar to structural design language from ICES prepared by MIT. STRE\$\$, designed for time-sharing, is a well tested, technically correct, and powerful tool for the structural engineer. For additional information, call Fast-Fax.



> > > > TECHNICAL TIPS < < < <

(COMROE'S CORNER)

MARK II BASIC Simulation of Multiple Statements Per Line

By grouping arithmetic operations with parentheses in MARK II BASIC, you can simulate multiple statements per line such as is done in MARK I FORTRAN. For example instead of

```
Let X = B*C (1)
Let Z = C/D
Let Y = X+Z+X/Z
```

Write it as

```
Let Y = (X=B*C) + (Z=C/D) + X/Z (2)
```

This actually performs three calculations, Y, X, and Z. The compilation is performed from left to right, so the above statement is equivalent to the following three statements:

Another example: instead of writing

```
Let Z = B*C (3)
Let X = Z*D
Let Y = X-Z
```

Write it as

```
Let Y = (X= (Z=B*C) *D) - Z (4)
```

If you wanted, B and C could have been arithmetic expressions as well as numeric variables in the example.

One last example shows how to use this feature with multi-line defined functions. Suppose you have a program which has the following defined function

```
DEF FNP (A, B, C) (5)
PRINT A, B
FOR I = 1 to C
PRINT
NEXT I
LET FNP = 0
FNEND
```

and a statement in the program which looks like this, for example,

```
Let Y = (X = B*C) + (Z = C/D) + X/Z + FNP(X,Z,W)
```

First, the three calculations are performed as in (2) above, and then the values of X and Z are printed and the teletypewriter paper is advanced W lines by function FNP. This is all done in one statement!

Submitted by Joe Snyder, IND.

.....  
In making multiple copies of paper tapes, here's an easy way to make two tapes at one time with two TTY's in your office. Call one machine from the other. Duplicate the tape on the first machine, and it will be duplicated on the second machine. Does anybody know how to make three or more?

**DOCUMENTATION CHANGES** The recently released "X & R Chart Preparation" user guide erroneously indicates Mark I on the cover. This program is, in fact, available only on Mark II.

.....

With the new Mark I BASIC compiler, the BASIC Language reference manual, 202026B has an incorrect statement;

It is last line, p.35 "you may use the line number of a REM statement in a GOSUB or IF-THEN statement."

The correct statement is in the 3rd paragraph, p.17 "Branching to a line containing ...REM... is not allowed."

**BULLETINS FOR CUSTOMERS** Larry Ruderman, Manhattan: Our customers are calling to complain about not getting Customer Bulletins. How do we get bulletins to them?

Customer Bulletins are not sent to customers from headquarters or from the Distribution Warehouse. EACH OFFICE IS RESPONSIBLE FOR DELIVERING OR MAILING CUSTOMER BULLETINS TO THEIR CUSTOMERS.

When you are sent a copy of a Customer Bulletin, two things must happen.

1. Place an order with the A&SP Warehouse for the number of bulletins you need, and
2. Mail them out to customers from your office, or take them to him personally.





# ANSWERS ON FORTRAN COMPILER

The recent CAS Update class in Bethesda had several questions about the Mk II FORTRAN compiler. Here are the questions and the status as supplied by Joe Snyder, IND. 8\*273-4246. (References to Z-027 refer to the number of the master system tape. Most centers are operating on Z-025. Z-026 is the tape for Network I. Z-027 is the next tape due.)

1. Passing a double precision argument into a subprogram to be used as an argument for calculating the DEXP function causes an "UNEXPECTED CONDITION IN RUN-TIME PACKAGE" message with a lockup fault error indicated. Status: Fixed on Z-027; shipment to other sites in November.
2. A negative double precision value (such as - 15.0D1) as used in an expression such as  $B=A^{**}2$ . causes a system error. Removing the decimal point following the "2" resolves the problem. Status: Fixed on Z-027; shipment to other sites soon.
3. The complex exponential function (CEXP) when used with a negative imaginary part gives bad results. Status: Should be in your patch deck now.
4. V-format causes problems when a file is read with a list larger than the file record and the last record read contains a value of zero. Additional zeroes are added since blanks are interpreted seemingly, as additional fields. Status: No work being performed until unformatted I/O specifications are firmly set.
5. Any statement following the semi-colon on the same line after a format statement is ignored. Status: This is probably a permanent situation.
6. The file read statement specifying an END condition causes a "SYSTEM ERROR" message if the statement transferred to by the END condition is too far away from the READ statement. To get around this, let the END condition transfer to a nearby "GO TO" statement which will take you then to the proper statement. Status: Being considered.
7. FORTRAN error diagnostics at run-time sometimes have erroneous line numbers printed with them. Status: Being considered.
8. In some instances a rather incomplete error diagnostic "EXECUTION NOT PERMITTED" comes out. Since this does not tell you much, you would have to re-run the job under system FOX, if possible, to obtain the full error message. If this is not feasible, look for a missing comma following a PRINT or INPUT statement. A fix for this problem is known and a corrective patch is forthcoming. Status: Corrected on Z-027; shipment to other sites in November.
9. Program size limitations under FORTRAN:

Source Program Size	32,000 Characters
Object Program Size	12,240
Run-Time Size	8,248 Words



Bob Blair, Manager of Phoenix office, believes that his salesman, Bob Sommer, would take the big trophy for "new-orders-in-a-short-time." Sommer has signed 23 contracts during the 12 weeks he has been concentrating on selling. He's been on the ISD payroll for 16 weeks, but he had two weeks training at Bethesda and a two-week vacation. With this type of salesman on the team, it's not surprising that Blair is grinning like a Chessy cat.

## ISD PUBLICATIONS STATUS

User Guides and other ISD promotion aids are great customer satisfiers, but often the supply is depleted before more can be printed, said Norm Otis, Software Sales Promotion. If the publication you order is out-of-stock, your order will be returned. You are asked to place it again in 30 days. Fast-Fax will publish the status of popular publications which are out-of-stock. Here is a recent report from Software Sales Promotion:

Electronic Circuit Analysis Program, ECAP, new publication numbers:

Customer Bulletin, CB-39  
 Promotional Sheet, 226099  
 Users Guide, 906323

### PUBLICATIONS TEMPORARILY OUT OF STOCK

Title	System	Pub No.
AC Linear Network Analysis	I	710216
Command System for 605 Desk Side Service	DS	803212
Capital Investment Analysis	I	803216
Learning Curve Analysis	I	803217
Mortgage, Interest Calculation Aids	I	805219
NC GELATH	II	805221
Numerical Interpolation	I	806225
Coordinate Geometry - COGO	II	806229D
Air Duct	II	810246
FORTRAN Translation	DS	812249
GLAS	II	904212A
ECAP	II	906323
"How To Tame....."		908345

### NO LONGER AVAILABLE

Program Library "Fact Finder", 202069

Please order publications with form AF-110 form A&SP Warehouse, General Electric Co., 705 Corporation Park, Scotia, N.Y. 12302. To insure wide distribution of some publications, the quantities you ordered may be reduced initially. If you have any questions contact Norm Otis, SSP, 8\*273-4735.





# DATANET SOFTWARE SERVICE APPLICATIONS

Authors and time-sharing programs available through ISD Datanet Software Service are listed below and a brief description of each is given. ISD contacts are indicated in parentheses. As authors and programs are added, Fast-Fax will publish them.

## FIRST NATIONAL CITY BANK (Clarence Selin 8\*273-4745)

### **BOND ANALYSIS**

SWAP	One for one bond trading analysis
SWAPS	Multiple bond trading analysis
BPRIC	Bond pricing program
BYIEL	Bond yield program

### **CAPITAL BUDGETING**

DEPRE	Analysis of depreciation methods
CASHF	Return on investment analysis
CASHD	Cash flow analysis
CASHT	Cash flow analysis with taxes

### **CREDIT ANALYSIS AND FINANCIAL PLANNING**

MODFUN	Credit Analysis and corporate financial planning system
FUNFLO	Short financial analysis for next five years
HISTRY	Historic growth and ratio analysis
ALTERN	Capital mix decisions
SPREAD	Complete financial statement of past five years

### **INVESTMENT ANALYSIS**

PRFRM	Portfolio performance measurement
TRADE	One for one common stock trading analysis
TRTEN	Multiple common stock trading analysis
MATRX	Prepares maximum price and rate of return matrices

### **LOAN ANALYSIS**

LEVLN	An aid to negotiating loan terms
RATES	Regulation Z - Truth in Lending Program
INSLN	Prints installment loan ledgers
SBALN	Prints amortization schedules - SBA loan participation

### **MARKETING**

MARKE	Market analysis
-------	-----------------

### **PLANNING**

BANKR	Bank planning system
-------	----------------------

### **STATISTICAL**

GROWT	Measures rates of growth
TREND	Forecasting program

### **MONEY MANAGEMENT**

FACTS	Prints up-to-date rates for Certificates of Deposit, Commercial Paper, Bankers Acceptance, Fed. Funds and U.S. Government Securities.
MMIS	Provides 4 current reports: 1) Short Term Investments; 2) Government Bonds, Notes, and Certificates; 3) Tax exempt bonds; 4) Foreign exchange. Updated at 11:00 A.M. daily.

(Continued)

## GARRETT COMPUTING SYSTEMS (Clarence Selin)

- RISK** Analysis for gas and oil drilling prospects. Computes prospects reserves; prospect rates; prospect economics; opportunities necessary to be successful; and maximum safe participation in the project.
- LEAP** Computes and summarizes the present worth value of oil and gas leases before and after production payments and Federal Income Tax. In doing so it time-schedules, oil and gas reserves, operating costs, investments, prices, lease ownership, etc.

## LEAP ASSOCIATES (Clarence Selin)

- SLIDE\$** Acts as a PRESTRESS SLIDE RULE to give quick and accurate calculations to the engineer. It provides the engineer with a fast means for analyzing prestress problems. He can then quickly perform the design phase to satisfy the requirements of moments, stresses, and deflection found in the analysis.
- PROPT\$** Quick and accurate computation of physical properties of precast sections and/or composite sections. The program is capable of developing any section made up of rectangles, triangles, or circles. The composite section may be of different modulus of elasticity to the precast section. A transformed composite area will be automatically computed by the program.

## NATURAL GAS PRODUCERS ASSOCIATION (Clarence Selin)

- NGPA K&H** Based on feed composition and rates, component physical and thermodynamic properties, and initial temperatures and pressures, the program(s) can calculate:
- Final stage temperature and pressure
  - Component rates and K-values
  - Phase composition
  - Phase and component molar and total enthalpies
  - Vapor phase entropy
  - Phase molecular weight and density
  - Liquid phase activity coefficient
  - Liquid and vapor phase fugacity ratios

## CLARY CORPORATION (Don Hilker 8\*273-4745)

A variety of application programs for the calculation of cutting lists, selling prices, profitability, and inventory levels for the fabrication of special, standard, and hip trusses for building roofs.

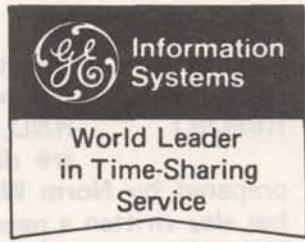
## SUNN REAL ESTATE COMPUTER SYSTEMS (Mike Montrose 8\*273-4728)

The Sunn package consists of programs designed to assist Real Estate brokers in obtaining factual data pertaining to income property investment. Using the Sunn package, a broker can quickly determine for his client the financial benefits, forecast over 3-20 years, of investment in a particular piece of property — taking into account that client's particular tax situation. (Sunn is currently in field test and is loaded only on 635-009 in Los Angeles.)

## PLANNING SERVICES (Mike Montrose 8\*273-4728)

The Planning Services software is designed to assist the Life Insurance broker in providing "customized" insurance packages to his clients. The software requires a separate data base for each Life Insurance company; at present Planning Services is capable of handling New England Life policies and is preparing a data base for Mass. Mutual to be operational on November 1. (Planning Services is currently in field test and is loaded on about one-half of the systems.)





# FAST-FAX

November 15, 1969

**PROBLEM CORRECTED** In CØGØ\$\$\*\*\* the SGM command yielded small errors in isolated instances in arc length and area. Wayne Garber, Eng. & Sci. made a program change which was implemented on October 30, 1969 to correct this difficulty. If you still have difficulties, call Fast-Fax.

**NEED MARK II EXTERNAL SUB-ROUTINES** Ron Ford, Cincinnati: Am I the only guy in the field who thinks that Mark II should have external subroutines available to customers?... We doubt it Ron. If there are others in the field who feel as Ron does, please submit your requests on quick letters to Fast-Fax. We will batch them and forward the batch to the people who are interested in knowing of this demand for such functions.

**FROM TTY PAPER TO VIEWER** Barry Howard, Manhattan: Is there some teletype paper that is fully transparent so that I can take it from the machine and put it right on an overhead projector to show to a group? Yes, with a few "if's." There's a clear transparent material, PROJECTOFILM, which comes in 8½ x 11 sheets which can be used "if" your copy fits on a single sheet (it must be hand fed) and if you have a good black ribbon on the TTY. Careful, copy will smear if touched.

For best results have a Thermofax copying machine handy. Using good white paper on the TTY, take the copy from the TTY, put a piece of PROJECTOFILM, over it and run them thru the Thermofax. The TTY output will transfer to the transparent sheet and can be projected by the overhead project. For the PROJECTOFILM distributor nearest you, contact FAST-FAX.

**PROGRAMING SERVICES AT ISD** A salesman has a time-sharing customer willing to pay for programming services in addition to those provided by the CAS's. He wants to know if there is an ISD component to which he can direct his customer.... Yes. Programming Services Operation in Bethesda has an expert staff in place to do this for time-sharing and 3-D customers. For information call Ken Hall, 8\*273-4634.

**PR PLOT FOR GE CUSTOMERS** Cal Cillay, Eng. & Sci. Appl.: for your General Electric customers who have data to analyze, you can supply them with a package of 13 files from the CATGEO MARK I library: PRPLOT, MAIN, PLOT, DIST, LIST, PRINT, STAT, SORT, SELECT, CENSOR, INOUT, SCLE, and COMM, all in FORTRAN. These files will, on request, (like OFF-LINE programs) be transferred from CATGEO into a user's catalog.

Output from this package includes least square parameter estimates and probability plots for normal, lognormal, exponential, extreme value and Weibull. Documentation is TIS 69C203, "PRPLOT: A versatile time-sharing program for probability plotting and analysis of data," by W. B. Nelson and R. W. Hendrickson (July 1969). Your GE customer (and you) can obtain this report from Distribution Unit, Building 5, GE Research & Development Center, P.O. Box 43, Schenectady, N.Y. 12301.

**NEW OFF-LINE PROGRAM** PROFM\$, Mark II BASIC, creates forecasted income statements and balance sheets for up to five future periods. This program helps the firm determine what funds will be needed to operate the business in future periods. For documentation call Fast-Fax.

1M (11-69)

<b>Eastern</b>	<b>Central</b>	<b>Southern</b>	<b>Northeast</b>	<b>Western</b>
Brian Berger 8*273-4345	Vic Henschel 8*273-4525	Doug Benson 8*273-4421	Jim Dickert 8*273-4578	Mike Drake 8*273-4397



**RANDOM NUMBER REPORT** Functions to generate random numbers in Mark II FORTRAN, RND, RRAND, and DNORM1, are discussed in a special report prepared by **Norm Waite, Eng. & Sci. Appl.** He has also written a paper on the "Pros and Cons of SIXCR\$". For either or both of Norm's papers contact Fast-Fax.

**VISITING DARTMOUTH COMPUTER CENTER** If you have customers or prospects in the education field who will be visiting in the Dartmouth College area, Information Services Division now has a man on campus who will give you a tour of the Dartmouth Time-Sharing Center. Please make arrangements in advance with **Derrick Johnson, 8\*261-3985.**

**NUMED\* GOING TO PAPER TAPES DEC. 1**

The ten nuclear medicine programs listed as NUMED\* in the RISKY\* catalog will be moved to a paper tape library on Dec. 1, 1969. After this date, these programs will be available to you upon request from Fast-Fax.

**MREG1\$ SIXCR\$ PROGRAM PATCHES** **Norman Waite, Eng. & Sci. Applications,** has prepared a patch to the Mk I library program MREG1\$\*\*\* to calculate and printout  $b_0$ , the constant term in the regression equation. It's on RISKY\* stored as NBW11\*. No documentation. After you call the program from the Mk I library, read in a tape of NBW11\*. It changes the necessary lines.

A patch to SIXCR\$\*\*\* to cause the printing of prediction limits instead of confidence limits about the individual Y's is available on RISKY\* as NBW12\*. No documentation. Read it in the same as NBW11\* mentioned above.

**WAYNE WANTS TO KNOW** May we have some feed back on modifications our customers are requesting for engineering programs. If you have made any modifications in civil engineering and programs, **Wayne Garber, Eng. & Sci. Appl.,** would like to see them. Also, would include who the customer was and why they were made. Send them to either Wayne Garber or Fast-Fax.

**IT'S NEW... LEARN BASIC** **Sharyn Willoughby, Eng. & Sci. Appl.,** says LEARN BASIC is not like TUTOR. It's new and is both a teacher and a textbook. With the modern learning concept, it goes as fast as the student paces himself. It's completely self-explanatory. LEARN BASIC, LNBASS\$\*\*\*, will ask how the program is going to be used. Depending upon your answer, it will either guide you to the information you need, or begin the LEARN BASIC lesson series.

**NC SEMINAR IN SEATTLE YIELDS REVENUE** N/C customers and prospects in the Puget Sound area were shown how to stretch profits with GE computer time-sharing cutting tapes at minimum costs. **Bob Garden, Seattle,** said GE customers added punch to the seminar as they talked of their experiences with t/s.

Within one week, a new N/C customer signed a contract for Time-Sharing Service, and another was in the bag the second week. And, another order which may generate \$3000 a month in revenue is expected. Great seminar results!

**ONE-DAY SERVICE** **Dan Wemhoff, National Accounts,** will give you up to the minute information on national accounts within one-day. For this service, just call Dan, or **Bob Thacker,** on 8\*273-4651 or 652, or Fast-Fax, give him the name of the account in which you are interested, the type of information you want and your secretary's telephone number — she can take the info if you cannot be reached immediately!

**HEAT TRANSFER PROGRAMS IMPROVED BUT...** **Ed Woll, Eng. & Sci. Appl.:** The Operation of heat transfer programs have been improved to calculate required heat transfer area and output temperatures in addition to performing the previous analyses. The NTU\*EFF routines, ENTU\$\*\*\*, and the subroutine ENTUS have been replaced with updated versions that have the same names. The operation of the programs has changed however, and you will not be able to use the programs until the new documentation comes out — hopefully in mid-December.



## > > > > TECHNICAL TIPS < < < <

**Don Beecher, Philadelphia:** Is there some way in Mark II FORTRAN to get a line feed without a carriage return? I have a customer who wants to print a subtotal under a column of figures over on the right side of the page. A line feed without carriage return would prevent spacing all the way across the page.

There's no way to get the line feed only, but you can get it done with this little subroutine from **Joe Snyder, IND.** The columns will not be lined up though, because there's no way to backspace.

Here's the subroutine:

```
10 ALPHA FEED
30 PRINT 999,FEED,I
40 999 FØRMAT(1H&,A1,I5)
50 DATA FEED/Ø012012012012/
60 RETURN;END
```

A1 in line 40 gives one line feed, A2 gives two line feeds, etc. Slashes thru Alpha Ø's.

```
Sample Output: 725.98
                422.87
                456.00
                822.12
                2426.97
```

**NEW YORK STATE BIG USER** **John Lubetkin, Marketing** asked **Al Richardson, SR Schenectady**, what the state of New York was doing with GE Time-Sharing Service. Here's a few of the important uses, Fast-Fax extracted from a lengthy list.

<u>Department</u>	<u>Uses</u>
Education	Some GE statistical, education, and business. Also writing their own programs.
State University	Across the board use. They bought manuals to teach classes.
Health	Their own design programming, radiology and related.
Mental Hygiene	Civil engineering packages, design, heat loss, and others.
Parks	Designing their own programs from GE subroutines, some statistical analysis.
Water Resources	Designing their own programs in water pollution, for general design purposes.
Wildlife	Designing their own programs, i.e. annual "Deer Kill" programs.
Transportation	Limited programming.
Planning & Coordination (Governor's Office)	Projections, storage retrieval, designing their own programs.
Office of General Services (Architectural Dept.)	Stress analysis, other engineering programs, Critical Path Method.
Narcotics	General statistical routines.
University Construction Fund	Own design programming, especially specifications.
Budget Dept.	General use of math and statistical packages and subroutines for design of their own programs. Also civil engineers use the civil engineering and financial packages for budget reviews.

Instead of selling to each individual department, the Schenectady office made a proposal to the state government for a national contract. Looks like their work is paying off!







# FAST-FAX

December 5, 1969

**NETWORK I VALIDATION** John White, Omaha: What is the procedure for validating a subsidiary company into Network I when the parent company has a user number and data file? ...The subsidiary must ask the parent company to write a letter to their local time-sharing rep requesting validation of the subsidiary's answerback drum into the Network I user number. Headquarters does not know the answerback coding or passwork for any national contracts. The action must be initiated by the user number holder.

**GELATH REVISED** An improved version of the Users Guide for GELATH Post Processor is due from the printers in late December. In the meantime, data and copies of pertinent information are available from author Bud Studley, Bus. & Mfg. Appl., 8\*273-4760, or call Fast-Fax.

**PCA PROGRAMS** Three Portland Cement Association programs written in FORTRAN for Mark II are now available to GE Time-Sharing users, on-line. It is **IMPORTANT** that you list the instructions for running each program. Documentation from your local PCA is necessary to run them. The programs and instruction files are:

**PCABR\$\*\*\*** Performs the analysis and design of simple span precast prestressed highway or railway bridges. List **PCABRINF\*\*\*** for instructions.

**PCAPL\$\*\*\*** Performs design and analysis of flat plates and continuous concrete frames.

**PCAACL\$\*\*\*** Designs reinforced concrete columns by the ultimate strength theory.

**USES OF POISSON NUMBERS** We — Bob Cohen, El Monte; Mike Myers, San Francisco; and Bill Moore, Newport News, Va. — have users who want to generate Poisson (pronounced pwah-sohn) random numbers as part of a queueing simulation. What is available? ...The subprogram, **RPØ1**, is a new subroutine in the Mark II FORTRAN subroutine Library. It generates random numbers having a Poisson distribution.

**Cal Cillay, Eng. & Sci. Appl.**, gave FAST-FAX some areas where Poisson distribution and queueing theory can be applied:

- \* telephone trunking system
- \* landing of aircraft
- \* movement of aircraft along taxiways
- \* car washing
- \* loading and unloading of cargo from ships
- \* scheduling of patients in clinics
- \* customers and taxis at a taxi stand
- \* radio communications
- \* railroad classification yards
- \* flow on a production line
- \* machine breakdown and operation
- \* passage of people through customs
- \* restaurant service
- \* timing of traffic lights
- \* queueing of customers (parking lots, supermarkets, bakeries, ticket offices, bank windows, ferries, toll booths, gas stations)

**FCST3\$ LINE CHANGES** Rick Fisher, Boston: **FCST3** in the Time-Series Forecasting programs is not protected — it's listable. How come? ...It's the one program of the four that users must change lines of coding to suit their needs. When it was stored in compiled form, they couldn't change the lines. The other programs in the Series are not listable.

1M (12-69)

Doug Benson 8\*273-4421    Brian Berger 8\*273-4345    Jim Dickert 8\*273-4578    Mike Drake 8\*273-4397    Vic Henschel 8\*273-4525



**AVAILABLE NGPA K&H CUSTOMERS** **Tal Briddell, Petro/Chemical:** There are several first class prospects who should be contacted for the Natural Gas Producers Assn. programs through Datanet Software Services. For possible customers in your area, contact your ISD District manager or call Fast-Fax.

**UP TO DATE LIST OF OFF-LINE PROGRAMS** If you are looking for a current list of off-line programs, **Jim Doyle, Manager-Sales Support Unit**, says call RISKY\* for a catalog list. For the program (1) contact your computer center (2) ask them to transfer it to your user number, and (3) if your customer likes it, have it transferred to his user number. For documentation contact Fast-Fax.

**VIBRATION ANALYSIS PROGRAMS** In answer to the ad for vibration analysis programs for shipbuilding **George Chipman, Pittsburgh**, passed along this information. **Dr. Silverburg, GE Missile & Space Division, Valley Forge, Pa.**, has such information in a TIS publication 69SD-285, "Natural Mode and Frequency of a Uniform Curved beam Vibration in Plane of Beam." It may be obtained from the MSD Library, P.O. 9555, Philadelphia, Pa. or write the GE R&D, Distribution Center, P.O. Box 43, Schenectady, N.Y. 12301.

**PROGRAMS FOR UNCONVENTIONAL STRUCTURES** Have you had any customers ask you for finite element stress analysis programs for unconventional structures such as a river dam, stresses near tunnel openings, stresses around openings in plates in aircraft or ship structures, mounting brackets? If so, contact **Ed Woll, Eng. & Sci. Appl.**, 8\*273-4616 or call Fast-Fax.

**QUOTES IN MINUTES** A seamless steel tube pricing program which gives quotes in minutes instead of hours of hand calculations is now available. This program produces quotes for seamless steel tubing when the user specifies OD, wall, feet, grade, tolerances, and other factors. It was developed by **AR Vern Wedow** who had worked on the price/quote desk of a tubing mill for 7½ years. The program, SSTPS, offers you new opportunities to sign up GE customers. For the program call **Vern Wedow, Detroit**, 8\*362-3216. Fast-Fax has documentation.

**BOOKIE NEW ON OFF-LINE** **BOOKIE** is a Mark II FORTRAN Edit Page program with a restart option. For documentation call Fast-Fax.

**COGO FEATURES** The improved **COGO\$\$\$\*\***, in present conversational mode, features (1) instruction input from a file and output to a file and (2) more flexible DP1 and KN1 commands. This improved version came through the cooperative efforts of **Bruce Bott, Groton, Conn.**; **Pete Janca, Santa Barbara**; and **Marty McKey, Seattle**.

The significant improvements are:

- (1) Instruction input from a file and output to a file are now possible.
  - (A) Type 'term' for the conversational mode or 'file' for the file mode at the appropriate point at the beginning of each run of **COGO\$\$\$\*\***.
  - (B) A command and data input file, a command and data results file and a scratch file must be created, if the 'file' mode is chosen.
  - (C) When the 'file' mode is chosen, all output will be placed in the command and data results file which should be listed when the run is complete.
  - (D) Any errors detected will be noted in the command and data results file.
  - (E) For users of the 'term' mode, the execution of **COGO\$\$\$\*\*** is almost the same as before except now the question of terminal or file mode must be answered 'term' during each run.
- (2) More flexible DP1 and KN1 commands
  - (A) Of twenty (20) files (excluding the command and data input file, the command and data results file and the scratch file mentioned in (1) (B) above), 10 may be read from by a KN1 command and 10 may be written into by a DP1 command during any run of **COGO\$\$\$\*\***.
  - (B) Reading of only selected points and writing of selected points is now accomplished by the KN1 and DP1 commands.
  - (C) Any file read from may be appended by a DP1 command or any file written into may be read from by a KN1 command.
  - (D) DP1 and KN1 may be used now in any mix as many times as desired during a run of **COGO\$\$\$\*\***.



# AVAILABILITY OF ISD PUBLICATIONS

Norm Otis, Software Sales Promotion, has given the following information on availability of several ISD publications:

## Publications Available Again

Title	System	Pub. No.
Mark I BASIC Language	I	202026B
Mark I Program Library Catalog	I	228116C
Mark I Command Systems	I	229116C
Mark II BASIC Language	II	711224A
Mark II Command Systems	II	711223B
FORTRAN Language	II	802209B
Coordinate Geometry	II	806229E
Capital Investment Analysis	I	803216

## Temporarily Out of Stock

Laplace Transform	I	801202
Continuous Girder Analysis	I	801205
Regression Analysis	I	802210
Cash Flow Analysis	I & II	807236A

## Due January 1, 1970

Mark II Edit Commands	II	911374
-----------------------	----	--------

Please order publications with form AF-110 from A&SP Warehouse, General Electric Co., 705 Corporation Park, Scotia, N.Y. 12302. If you have any questions contact Norm Otis, 8\*273-4739.

**THANKS** Jim Burt, Cleveland: Can you eliminate terminal time for those who want to find what's new on RISKY\* by storing new programs in a separate file. Good idea, Jim! ...We have now remodeled RISKY\*. The first section will give you a list of the new programs. The other part is similar to CATLØG\*\*\* giving you various catalogs. This should help you find the RISKY\* program more rapidly. Presently the catalogs are:

CATALØG NAME	DESCRIPTION
BIZNS*	BUSINESS + FINANCIAL PRØGRAMS
MANFG*	MANUFACTURING PRØGRAMS
MATH**	MATHEMATICAL + STATISTICAL
ENGRG*	ENGINEERING + SCIENTIFIC
NUMED*	NUCLEAR MEDICINE PRØGRAMS
EUSDZ*	ELEC UTIL SALES DIVN PRØGRAMS
EUSDX*	PART II ØF EUSD PRØGRAMS (ALL ØN PAPER TAPE AT FAST-FAX.)
PGRAM*	PRØGRAMMING AIDS + CONVERSION PRØGRAMS
MISCL*	MISCELLANEOUS PRØGRAMS
PUBNU*	MARK I ØFF-LINE PRØGRAMS
LIBNU*	MARK II ØFF-LINE LIBRARY
DEMØ**	DEMØ PRØGRAMS

**CALLING** Don Parks, Boston: The tele-  
**DARTMOUTH** phone number (8\*261-3985) in  
the last FAST-FAX for Derrick  
Johnson at Dartmouth was apparently incorrect —

I got a beep for an answer... That wasn't a computer, it was his teletype, which he connects to the phone on occasions. If you get a beep, call again on your teletype and send him a message.

# Fast-Fax Bugle CLASSIFIED

## SECTION B

December 1969

PERSONALS	WANTED	WANTED	AVAILABLE	ANTIQUES
<p><b>CRYSTAL CITY - LOWEST PAR</b> TIME RATES. Monthly spe. avail. limited. No mo. No deposit required. 2328 Jefferson Pk. Vis. Hwy., Ari. Va. Call 753-1111</p> <p><b>DANCE CLUBS</b> - parties 4 pv lessons. 11-1133 Corn. 5560</p> <p><b>DANCE CLUBS</b> - parties 4 pv lessons. 11-1133 Corn. 5560</p> <p><b>DOG TRAINING</b> Obedience, K-9 police, watch, inven- tivity, hunting, etc. European trainer. RE 347-7 aft. 6 wkday only.</p> <p><b>ELDERLY PEOPLE</b> - can accom- modate 2 persons very reasonab. in extra large rm. w/evcol. food cups. 564-1442.</p> <p><b>EXPERT TYPING - M.S.</b> - these forms 171, resumes, also profe- sional writing, proofing, editing Recs. 324-1548.</p> <p><b>FIJIANCO</b> - fresh modern lat- dance 1950's. 23rd St. RE 7-207</p> <p><b>FOAM</b> - fabric. K.O. - 615 22nd NV Fabrics, quick. Ang. 338-6272.</p> <p><b>FORMS 171</b> - Resumes prepared &amp; revised. Edit/rewrite papers, ri- ports. Daily, Sun. JU 7-1698. 9.</p> <p><b>FORMS 171</b> - Resumes prepared &amp; revised. Edit/rewrite papers, ri- ports. Daily, Sun. JU 7-1798. 9-6.</p> <p><b>HOME OWNERS NE DCASH?</b> 1st, 3d &amp; 3c. Call 1-8-1500 L &amp; S Investments</p>	<p>Fred Waring, Chicago, is looking for a program to convert PL1 lan- guage. If you have it, call Fast-Fax.</p> <p>Cliff Eckman, Minneapolis, wants a program for design of fire preven- tion sprinkler system. Also, needs programs that design air condition- ing configuration for architects. Contact Fast-Fax.</p> <p>Ken Clement, Santa Barbara, wants a program to resequence FOR- TRAN statement numbers. If you have done it, call Fast-Fax.</p> <p>Earl Taylor, Columbus, is looking for a program to do real estate accounting, property analysis, in- come and expense control. Call Fast-Fax.</p> <p>Dean Pierson, Highland Park, N.Y. would like a program to schedule judicial court cases. Notify Fast- Fax.</p> <p>Dave Johnson, St. Louis, would like a PERT cost program that con- forms to the NASA PERT/C supplement. Contact Fast-Fax.</p> <p>Do you have any corporate and personal income tax programs, par- ticularly income averaging or other specialized income tax applica- tions? Bob Cox, West Orange has an interested customer. Call Fast-Fax.</p> <p>Program for liquid scintillator, made by Nuclear Chicago, which measures radio activity of different compounds. Call Vicky Zinser, Toronto or Fast-Fax.</p>	<p>Has anyone written a program for the preparation of differential charts of electricity rates. If so, contact Mario Beland, or Reynold Hubert, Montreal, 8*238-1298 or Fast-Fax.</p> <p>If you have been working with real estate people on occupancy rental programs to compute break even point for several building balancing cost figures and occupancy percent- ages, let Cliff Eckman, Minneapolis, know, or Call Fast-Fax.</p> <p>Program wanted to perform Willson Plot Analysis in heat exchange de- sign. Contact Ed Woll 8*273-4616 or Fast-Fax.</p> <p>IISD man in Australia would like program information on conveyor Belt Design, for Mk I preferably. If you have such a program, contact Fast-Fax.</p> <p>Bob Christopheson, Portland, is looking for a water hammer pro- gram. If you have one, call Fast- Fax.</p>	<p>All purpose forecasting and plotting program, ALPLT*, Mk I BAS, from Ronald Pushee, Schenectady. For program documentation, call Fast- Fax.</p> <p>JSEDT*, program to edit the re- quired customer created file used in JSHOP\$***, Mk II BAS. From John Chadderton, Mfg. Appl. Con- tact Fast-Fax for documentation.</p> <p>GAILW*, a subroutine to generate a line feed without a carriage re- turn, from Gail Walsh, Eng. &amp; Sci. Appl. Mk II FOR, self-docu- mentating.</p> <p>Speech with slides for chemical engineers. To reserve, call Tal Briddell, 8*273-4661.</p> <p>PLOT7*, an improved version of PLOT2*, plots point to point from file created by NCPT\$***, Mk II FOR. Contact Fast-Fax.</p> <p>GRCHO*, computes four train gear ratios for hobbing machines using number of teeth, Helix angle, pitch of gear and nominal feed. Mk II FOR. Call Fast-Fax.</p> <p>"The Spectrum of Computing", a speech written by Bill McClary, Schenectady, for educators. For copy of it, contact Joanne Thyken, Marketing Communications. 8*273-4741</p> <p>"Notes On A Special Non- symmetric Real Matrix Eigen Pro- blem," a special report by Norman B. Waite, Eng. &amp; Sci. Appl. Contact Fast-Fax.</p>	<p>ANTIQUES</p> <p>Gail Walsh, Eng. &amp; Sci. Appl. Rt. 355 to Gail R. Brindle to Rt. St. 9, 1133</p> <p>PS OF MARYLAND</p> <p>Printings</p> <p>From</p> <p>5 GAIL WASH Walsh Eng. &amp; Sci. Appl. Va. 549-0059</p> <p>OF ST. GEORGE</p> <p>Printings</p> <p>0 don't miss this</p> <p>REASURVE &amp; T</p> <p>8-5-65, 5-670</p> <p>MEMO - re-use all furniture</p> <p>wood Quon</p> <p>le Quon Yen</p> <p>k buckles</p> <p>welry</p> <p>Flemish cupbo</p> <p>lions</p> <p>table</p> <p>apanese screens</p> <p>TODAY 10-5</p> <p>RED ANTIQUES 1100 Boulevard ngton, Va.</p> <p>EVES RKET</p> <p>closed on Fri at as of O</p> <p>Richmond Hwy. SHOPPING CENTER 60-1200</p> <p>J SAT. 10 to 6 2 TO 3 P.M.</p> <p>INTERESTING think you buy tod e in a 100 yrs. Cor f the fancier kind shops. Bring the k forecasting hour or</p>
<p><b>LOANS</b></p> <p>For Professionals, People and Executives</p> <p>\$2,000 - \$5,000 AVAILABLE</p> <p>Convenient Terms &amp; Range</p> <p>Confidential, business-like Service</p> <p>CREDIT CORP.</p> <p>WASH. POST BOX 1111</p> <p>"RICHARD A. PEPPER, or any one knowing his whereabouts please contact Arthur G. Kingsmill Attorney at Law, 614 Second Street Gret., Lou., Phone 70351, Area Cod 504, Jr. 3c"</p> <p>SKETCHES - our or child printed (re-sal) list. Ca 5-9-62.</p> <p>TYPE-IG - Forms, resumes, Off. ni 14th &amp; 11th. Rush service wh. possible. 818-4576</p> <p>HUNT, FISHER &amp; ACCO. 7A</p>	<p><b>MESHANE MOVERS</b> COSTS LESS</p>	<p>antique iron doll w/ornate head &amp; foot boards, 3-57 selection of early coffins &amp; caskets, \$29.95 to \$49.95. 657-5011</p>	<p>any type hang. 1 st. Ce; 11 in. clocks of all kinds and cases, plus clock repair, plus our usual stock of all kinds of clocks.</p>	<p>"THE SURPRISE BOX" 940 S. 11th Ave. (Dr. Galt) 587- SILV. APP. 140. 2 mi. So. of EXI</p>

**PLOTTING**  
**FCST2\$**  
**FCST3\$**

Ron Fellows, San Diego: My customer wanted to plot results of FCST2\$ and FCST3\$. A diagnostic said something like "FPLØTT NOT AVAILABLE". What's the story? ... Sounds like the FPLØTT program was not loaded from the off-line library to your customer's user number. It is not listed on the cover of the Time-Series documentation, and there's no

write-up on it in the documentation. Be sure and ask the center to load FPLØTT when you ask for the FCST Series.

**CIFLØ\$**  
**EXPANDED**

CIFLØ\$ now handles 100 busses, and up to 400 lines. The Field Test Documentation FT906325 still applies, but has some minor typographical errors. List Mk II INFØRM\*\*\* for more details.



# SALES BULLETIN NO. 95-14

# FAST-FAX

Information Systems

World Leader  
in Time-Sharing  
Service

December 19, 1969

## SHARE LIBRARY FOR SCHOOLS

EDUCAT (Educational Catalog) is just the thing for schools in your area. It is comprised of all the programs that the FAST-FAX super sleuths can ferret out, that would be of interest to schools. Included initially are programs from the Dartmouth system, and from GE's TEMPO educational library.

Let the educational institutions in your area know that they can get programs from EDUCAT. Also, encourage them to submit programs of their own, so that other schools can use them.

A paper tape copy of a program and any available documentation may be obtained by calling Fast-Fax. Do not call and ask that the whole library be sent to you. Request them singly, or in groups no larger than three per request.

These programs are in the RISKY\* category — they are not supported by Dartmouth or Headquarters. Give them to your educational customers and prospects as samples of what has been done. Make sure they work before you give them to schools. Most of them are self documenting.

## APPLYING TIME- SHARING

APPLI-FAX is a Fast-Fax special to help point out opportunities in applying General Electric Time-Sharing programs. It will help you identify customers and prospects for several programs and gives you valuable helps on applying them. In the first issue, Larry Wolfe, **Manager-Manufacturing Applications**, provides valuable tips on applying four Business & Manufacturing programs. Although specific applications are given, he also mentions those not directly identified with the industry for which the program was written. For example, MACHC\$\*\*\*, written for the metal-working industry, also has applications in the textile industry.

The programs covered by Larry Wolfe are MACHC\$\*\*\*, Machine Capability; QRCTSS\$\*\*\*, Quality Control X and R Chart Preparation; RGRTH\$\*\*\*, Reliability Growth Analysis; and WKSAM\$\*\*\*, Work Sampling.

In the Scientific and Engineering Applications section of APPLI-FAX, Wayne Garber, **Applied Mechanics**, has discussed several important applications for COGOS\$\*\*\*, Coordinate Geometry.

As more application write-ups are available, a cross reference index will be prepared. It will help you locate program applications quickly, given an industry or prospective user. Volume 1 provides tips on Business & Manufacturing applications and Volume 2 gives Engineering & Scientific program applications.

## PCA INFO

Portland Cement Association programs listed in FAST-FAX 95-13 all have necessary instructions file for running the programs. The programs and the files for instructions are: bridge span analysis, PCABRINF\*\*\*; continuous concrete frames, PCAPLINE\*\*\*; and reinforced concrete columns, PCACLINF\*\*\*



1M (12-69)

Doug Benson 8\*273-4421   Brian Berger 8\*273-4345   Jim Dickert 8\*273-4578   Mike Drake 8\*273-4397   Vic Henschel 8\*273-4525

**GENERAL ELECTRIC**  
INFORMATION SERVICE DEPARTMENT



## ISD PUBLICATION STATUS

Norm Otis, Software Sales Promotion, has given the following list of ISD publications which are TEMPORARILY OUT OF STOCK:

Title	System	Pub. No.
AC Linear Network Analysis*, UG	I	710216
DC Linear Network Analysis*, UG	I	801201
Continuous Girder Analysis, UG	I	801205
Regression Analysis, UG	I	802210A
Desk Side Command System, RM	DS	803212
Capital Investment Analysis, UG	I	803216A
Learning Curve Analysis, UG	I & II	803217
Mortgage - Interest Analysis, UG	I	805219
GELATH Postprocessor, UG	II	805221A
Complex Arithmetic, UG	I	806223
Numerical Interpolation, UG	I	806225
Matrix and Linear Programming, UG	I	806226
Analysis of Simulation, UG	II	807223
Air duct Design, UG	II	810246
FORTRAN Program Conversion, RM	DS	812249
General Ledger Accounting System, UG	II	904212B
Electronic Circuit Analysis Program, RM	II	906323A
T/S Concepts "How To Tame . . ."		908345

(UG - Users Guide, RM Reference Manual)

\* To be replaced by 912379, Mk I & II, Linear Network Analysis, due in January 1970.

**OPTICS\*\*\*** An updated version of  
**UPDATED** OPTICS\*\*\*, a lens predesign analysis program, is now available on Mk II systems. An addendum to the documentation you now have is being mailed to all sales offices. You should ensure that all copies of Field Test documentation, FT906322, previously mailed, are amended accordingly.

OPTICS\$ is another revenue generator with expanded capabilities. Go ahead and demonstrate the versatile capabilities of GE Time-Sharing Service to instrument manufacturers, optical designers and optical researchers.

**IAL** Investment Analysis Language  
**DELAYED** (IAL), 50 Time-Sharing sub-routines from the American Banking Association, has been

delayed. John Canning, Sales Programs, said we are still negotiating for the acquisition of IAL. Also, documentation from ABA is now planned for release around Feb. 1, 1970. IAL in FORTRAN is being released to time-sharing vendors by ABA.

**TTY COPY FOR VIEWER WITH ACETATE ROLL** Ed Kivari, Syracuse: We have a graphic supplier who provides rolls of clear acetate cut into 8½ in. width. Using about 20 ft. lengths rolled up with the TTY paper (for backing) We can have continuous copy for an impressive demo presentation.

### AVAILABLE

### WANTED

LGNUB\*, multiplies large numbers, good demo of subroutine to handle large numbers for multiplication, Mk II BAS. Thanks Rick Fisher, Wellesley, for program written by customer, Dick Morano. Self-documenting.

Punch file name in beginning of tape with TAPEL\*BL, Mk II BAS program from Don Kolafa, Product Planning.

RXTAL\*, a chemical program which simulates well mixed reactors with no volume change owing to reaction, Mk I BAS (conversational mode) from Tal Briddell, Petro/Chemical.

Partridge In A Pear Tree, Snoopy Wishes You A Merry Christmas and Happy New Year, seasonal print-outs from the Washington Sales Office. Call Fast-Fax.

Dick Whitehurst, San Francisco, wants program to analyse passenger & freight revenue for steamship company or the airlines. Call Fast-Fax.

Gene Richard, Meridan, Conn., would like cross tabulation program to compile results with minimum of 15 questions - 500 respondents. If you have such a program, call Fast-Fax.

Dave Comroe, Teaneck would like 1) programs for gas and liquid chromatography, 2) spectro photometric data for analytical chemistry. If you have them contact Fast-Fax.