SALES BULLETIN NO. 95-5

FAST-FAX

Information Systems

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.

FCSTI$ — 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.

(1M) 8/69

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

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, expecially 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.

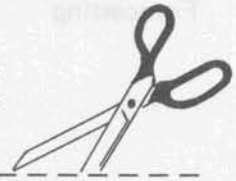
One program concerns Lease Evaluation and Appraisal Procedures (LEAP) and the other deals with Risk Analysis for Drilling Prospects (RISK).

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

CLIP AND SAVE



YOUR FAST-FAX REPRESENTATIVES

Region	Specialists	DIAL COMM
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

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.

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	Airduct Design (Mark II)

SALES BULLETIN NO. 95-6

FAST-FAX

Information Systems

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* Complies information on truck trailers in a system to reduce empty backhauls.
- SBA1** Small business loan amortization schedule
- NUMED* List for 10 nuclear medicine programs

- EUSDX*
- 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

(1M) 8/69

GENERAL ELECTRIC
INFORMATION SERVICE DEPARTMENT

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 thar" 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 Johannsberg, 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

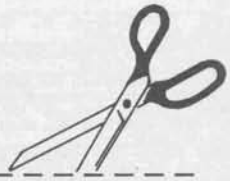
Mickey McGuire, Atlanta sent instructions for wiring modifications to use Calcomp Plotter with Datanet 730. A schematic drawing is included. If you would like a copy of the instructions and drawing, call your Fast-Fax rep.

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



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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[illegible]BED—Fan, dining set. Mu sell. 574-9445.

SPEAKER SYSTEM—Electro-Voic Georgian, very good cond. $50 301 -662-2323.

STUFFED COLONIAL EXE[illegible]ER juicer, waxer, scale, china, quil record player, tape recorder. Be offer. KI 6-6173.

STEEL STEEL STEE

REINFORCED STEEL
STRUCTURAL STEEL

Channel & Angle Iron
WELDED OR CUT TO SIZE

Gr[illegible]ral Wr[illegible]ing Co.
529-8177
1017 BRENTWOOD RD. NE.

STENOGRAPH MACHINE—In exce cond. $100. Call 659-2[illegible] after si

STENOTYPE w/guar. & latest bks under ½ cost. Also special bk. fo teaching yourself. 522-8087.

STENO-TYPE MACHINE—Studer seven model. Never used. W/tex books if desired. $100. 765-5470.

STEREO—KLH model 24, FM radi Like new. $225. JO 2-9603, 583-2945.

STEREO CONSOLE—Fisher S-7 Garrard Changer. $400. 525-3087 Ar lington.

STEREO CONSOLE—5 ft., $16 Must sell. Eds. [illegible]6-6950.

STEREO—Sales & service. ARLING TON RADIO. JA 7-1000.

STEREOS—Mfg. close-out. We bought them right. Parts, consoles & com ponents. Prices start at $78.40. Delta Stereo, 2[illegible] Hamilton st., Hy attsville, 927-2[illegible]0.

STEREO—Fisher 60-T Receiver & 2 Wharfedale 90 speakers. Cost $495 & $280 ea. Make offer. 833-2[illegible]28.

STEREO—Sylvania Ellson. 4/40. In good cond. $95. 684-7992.

STEREO—Custom made Scott re ceiver AM/FM, disc-o-tek turn table. Must sell. $500. 971-4193.

STEREO—Fully rebuilt 30w Eicho stereo amp. & Fisheyette pre-amp. $40. Garard changer $15. Weather's turntable Empire 980 cartridge $35. 589-8[illegible]6.

STEREO SPEAKERS—Pair AR-2 X. 659-9[illegible]8.

STEREO—[illegible] portable Super Trimline 400. Solid state, det. 8" speakers, 4 sp. auto record changer, Diamond Stylus, Seldom used. 1 yr. Cost $130. must sell $60. JA 5-[illegible]73.

STEREO-TAPE PLAYER — Sony TC-155. Used 10 hrs. $69. 546-0545.

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

STEREO—Magnavox AM/FM com sole. Excel. $95. 931-1540.

STEREO—Scott, 382-B, AM-FM re ceiver & 2 Jensen speakers in cabi nets. Call 589-1068.

STEREO—Fisher, [illegible] excel. cond. $75. Cost $239. 9[illegible]-6800.

STEREO Clear Jet 8. Stereo tape player. AM/FM stereo radio. Stereo record changer. Like new. 69 mod. 1 unit. 52[illegible]-2542.

STEREO—AM/FM [illegible]. Bal. due $182.50 pymts. 59 [illegible]. Home demo. WAREHOUSE DISCOUNT 868-2728

STEREO — Radio (SW, MW, FM) Combination. $50. Call 525-4267.

STEREO—Telefunken; camera lens & acces; TV, silverware. [illegible] Zeiss.

STEREO KLH — Model 20. AM/FM radio $325. 3[illegible]-3664. Call aft. 6 p.m.

STOVE—Gas, 4[illegible] Tables, $5; 3 armchrs., $15; TV, $15. 338-9022.

SWIMMING POOL — 4' high, 15' d, alum. side, all pumps & acces. $125. 365-[illegible]78.

SWIMMING POOL — 12[illegible] vinyl w/pump & all accessories. Used one season. $80. 423-4[illegible]56.

TABLES—Factory closeout of O.C. TABLES by PULASKI MFG. CO. from the "Diplomat" group. ½ price! Pecan color with Chrome plate[illegible] components. COCK[illegible] compare at $[illegible] WE[illegible] COMM[illegible] only $3[illegible] SQU[illegible] re at $8[illegible] ch and[illegible]

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.

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

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.

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

WATER COOLERS—Elec. New & Used. Pressure and bottle type 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
NEW 50 Gals., $79.95
ALSO ELEC., ALL SIZES. Glass-lined tanks with 5-year warranty.
APEX PLUMBING SUPPLY
3827 BLADENSBURG RD.
779-3800 OPEN 9 TO 4

WEDDING DRESS 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, [illegible] cost $150, sell $75. 338-1296 Sun., w/days, after 6 p.m.

WEDDING GOWN — Pure white never worn. (We elope.) Size 10, alt. to size 8. $150. 525-6152.

RARE & EXOTIC paintings of nudes on black velvet. My father searched the world for these unusual beauties & now they are yours at from $5 to $75. Pvt. 265-8072.

BASEMENT SALE—Bicycle, lawn mower, used 1 yr., rugs, etc. 9[illegible]-2033

MOVING—Must sell contents of h[illegible], incl. imported French din.rm set, breakfront, sofa, tables & chairs. 587-5913.

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

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

MISC. — Harvard Classics, 52 vols., excel. cond., $100. Humidifier, portable, 4 gal., excel. cond., $20. Patio alum. swing lounge, $10. New rubbing (green), Thai temple dancers, elegantly framed, $60. 362-1117.

FIRED OF AIR POLLUTION?—Go under water. Complete SCUBA outfit—used twice—twin tanks. Sharkskin wet suit, finest Aqualung regulator w/"J" valve. Depth gauge, wright—the works! Retail value over $300, must sell for grad school tuition. First offer $175 takes it. Call David at 829-[illegible] for demonstration.

MOVING—MUST SELL custom-made sofa, teak game tbl, color TV console, [illegible] oriental rug, oil paintings, lamps, [illegible], etc. 703-361-[illegible]74.

FOR SALE—Yello[illegible] wood 3 cu. Ton Early Am[illegible] Good cond. $[illegible] [illegible]ans, rug

June sale.

[illegible]ANS
h & G Sts. NW. ST. 3-9400
9332 Georgia Ave.
Silver Spring, 585-1105
Sm. Spg. Open Eves. Park in front

PIANOS—Piano rental from $8 monthly with option to buy. Also inquire about our extended purchase-rental program. Kitts, WASH. AREA'S LARGEST MUSIC STORE. Downtown, 1330 G st. nw., RE 7-6212. Open Thurs. 'til 9. Baileys Crossroads Shopping Ctr., Va., 481-7181. Congressional Plaza Shop. Ctr., Rockville pike, HA 7-7420; Marlow Heights Shopping Center, 423-0680. Va. & Md. stores open daily 'til 9; Sat. 'til 6.

PIANO—Steinway, 7 ft. grand. Inside compl. rebuilt 4 yrs. ago. Excel. cond. $2,[illegible]00. 362-8611.

PIANO—Starr console, tuned, $325, 528-2852.

PIANO—EVERETT, upright, walnut. Excel. cond. $[illegible]00. 356-[illegible]675.

PIANO—Estey, 4 ft. 7 in. Grand, lik[illegible] new. $500. 736-[illegible]07...

PIANO—Knabe upright fine cond. A bargain. $195. [illegible]-1740.

PIANO—Steinway, 6 ft. ebony grand, excel. cond., $1500. 931-0929.

PIANO—Hobart Cable mahog. console, rec. tuned, excel. cond. $[illegible]. 671-5645 Sun. or eve. &

PIANOS
RENTAL PLAN
COHEN MUSIC
$131 Backlick Rd.
Bradlick Shopping Center
ANNANDALE, VA.
[illegible]-5453

PIANO—Spinet Bradbury. Walnut. Just tuned. $295. 585-8656.

PIANOS
USED SAVINGS
Estey console ..... $[illegible]
Howard cbnt., record ..... $[illegible]
Melody grand, cons., wal. ..... $[illegible]
Starck apt. size 325
A complete selection of the fine line of YAMAHA pianos.
ALEXANDRIA
PIANO & ORGAN SERVICE
[illegible]22 [illegible]t. Vernon Ave. Alex.
[illegible]48-[illegible]

PIANO—Kranich Spinet, 5 octaves, rebuilt by technician, new strings & hammers. $400. 529-9321.

PIANO—Mod. upright, blk. Excel. cond. tone. $195. 532-[illegible]

PIANO—Upright $50; accordion $30. CO 5-1057. Or, Sun. 11-6 wkdys. 'til 8.

PIANOS—Spring savings on new Baldwin pianos. As low as $15.76 mo. Incl. bench, del. & 10 yr. warranty. Rental—option to buy.
GISKE (Baldwin Dealer)
716 11th st. nw. NA. 8-0423
DOWNTOWN Open THURS. 'til 9
[illegible]-Arl. Blvd. (Op. p. 7 Cor.) 'til 9
[illegible]-3302 Sat. 'til 6
[illegible]or. Thurs.

Free life pu[illegible]es. 12-yr. rep sell you

Beagles
Cairn Te[illegible]
Scotties
Dachshun[illegible]
To[illegible]
Westhil[illegible]
W[illegible]
Pem[illegible]

Bank-An[illegible]

ALEXANI[illegible]
Twinbrook

ROCKVI[illegible]
Twinbroo[illegible]

TYSONS CENTER, 893-818[illegible]
Tysons Corner Shopping Center

BE AIR at BOWIE, 262-5323
Bekelt Shopping Center

FREDERICKSBURG, 703-[illegible]73-1655
Fredericksburg Shopping Center

OPEN DAILY & SUNDAY

A Complete Pet Center
for all your pet needs

AIREDALE—Fem, ch. Tom Jones sire, $75; 703—659-2914.

ALASKAN MALAMUTE—AKC, 8 mos., must sell. $150. 299-3[illegible]61.

AMERICAN ESKIMO—$75. Poodles min. $75 up. Toys $100. Pomeranians $150. Yorkies $275. Germ. Sheps. $49 up. Beagles $45 up. Welsh Terr. $90 up. AKC or purebreds. Perm. shots. 783-4062.

ANIMAL WELFARE LEAGUE OF FAIRFAX COUNTY has for adoption:
Irish Setter—Handsome mature M. Lee, well-bred, heads trailing, love & patience.
DOG FOOD [illegible]
Centreville, Virginia
9-6 Mon. thru [illegible]
[illegible]-9270.

BASENJIS — 5 mos. AKC. High quality, low prices, easy terms to qualified buyer. JA[illegible]-7748.

BASENJIS—AKC, shots, reasonable, terms. Health cert. Tel.: 703—886-4084 after 6 p.m. 129 College Circle, Staunton, Va.

BASENJIS—M&F, top qual. Reas. price, terms. Fully guar. [illegible]-2111.

[illegible]—AKC fem. Siam., [illegible]ock. [illegible]474-9118.

[illegible]arents, moving [illegible]

[illegible]ock, AK[illegible]

[illegible]AKC., long & [illegible]. 280-[illegible]
[illegible]ud service [illegible]n. $35, 37[illegible]-8927
[illegible]mos. old. [illegible]0661.
[illegible]AKC blk, & ta[illegible] $60. 451-[illegible]89.
[illegible]UPS—AKC, cha[illegible] shots, [illegible]med.
[illegible]UPPIES—Brad[illegible] 7 wks, [illegible] & [illegible]5-087[illegible].
[illegible]wks. old, A[illegible]s. Must sell.
[illegible]KC 6 wks., A[illegible] champ pedig[illegible] 4-893[illegible].
[illegible]IPS—AKC, ch[illegible] F., 6 wks. old[illegible]0.
[illegible]PINSCHER—C[illegible]old. M & F.
[illegible]S — AKC, sho[illegible]75. 301—833-4562.
[illegible]yrs., $75. [illegible]. 723-9516 aft.
[illegible]day Sat.
[illegible]NSCHER PUP[illegible] by ch. Heiko[illegible] 627-2162.
[illegible]—4 mos. AKC[illegible] Must sell. 559-[illegible]
[illegible]AWAY, 1 yr. [illegible]ts. 451-0063.
[illegible]ack Lab, ok[illegible]ts. Good with chi[illegible]d home w/fence
[illegible]OG PUPPIES—[illegible]stered, shots, [illegible]
[illegible]PUPPIES—A[illegible] champ sired.
[illegible]OG PUPPIES[illegible]725.
[illegible]OG—AKC, Brind[illegible] shots. $250. Ca[illegible], Ext. 354.
[illegible]UPS—AKC Champ[illegible]58-8627. Annapolis
[illegible]R PUPS—4 fem.[illegible]627-3437
[illegible]SPANIEL PUP[illegible] pedigree. Hunt[illegible]1432.
[illegible]SPANIEL PUP[illegible]d, shots, worme[illegible] present, the whe[illegible] fam. will enjoy. (301) 498-1753.
GERMAN SHEP. UPS—AK[illegible] M&F, 8 wks., wormed, mani[illegible] champs in pedigree. $50. Beth-Sil[illegible] Spg. 949-1288.
GERMAN SHEPHERD PUPPIES—[illegible] Male & fem., pure [illegible], blk. & sl[illegible] vet. Male, $75; fem, $55. 273-7823.
[illegible]M. SHEPS.—6 wks. AK[illegible] Champ. background. Big bon[illegible] $75-$100. Sil. Spg. 585-8[illegible]6
GERM. SHEP.—Puppies. [illegible] AKC. Shots, show quality. [illegible] F[illegible] M. 864-0339.
GERM. SHEP. PUPS — Male[illegible] females, AKC reg., Amer. [illegible] Eng. Intl. champ. line. All [illegible] guar. Boarding for all dogs. [illegible] Acre Kennels, 753-6422, or call [illegible] leci. 301—934-4922.
GERM. SHEP.—AKC, [illegible] 2 yr[illegible] excel. companion, $75. [illegible]-7079.
GERMAN SHEPHERDS—AKC, [illegible] & goes for info. call 451-5059.
GERM. SHEP.—GT. DANE PUPS—Fe[illegible] w/black mask. 7 [illegible] Good watchdog. 277-8062.
GERM. SHEP.—Fem., [illegible]ayed, watch dog. Make offer. 533-834[illegible] 534-1040.
GERM. Shep.—pups. 4 w[illegible] Weaned, thoroughbred, no pap[illegible] Call 894-4549 or 665-5648.
GERM. SHEPS.—25 AKC pups, [illegible] up. Older [illegible]eps. $75 up 78[illegible]-4062.
GERMAN SHEPHERDS — 3 ma[illegible] above ave[illegible] in size; 6 m[illegible] through 2[illegible] obedience train[illegible] $59—$150[illegible]8 Mon.-Sa[illegible]
GERM[illegible] —4 mo. exc[illegible] [illegible]89.
[illegible]ERD[illegible] [illegible]ale 11 mo[illegible] 770-9906[illegible]
[illegible]. Femal[illegible]. & ta[illegible]

SALES BULLETIN NO. 95-7

FAST-FAX

Information Systems

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:

(1M) 9/69

GENERAL ELECTRIC
INFORMATION SERVICE DEPARTMENT

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 BINGHAMTON, 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 Zucchino, 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 formating 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

"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.

* * * * *

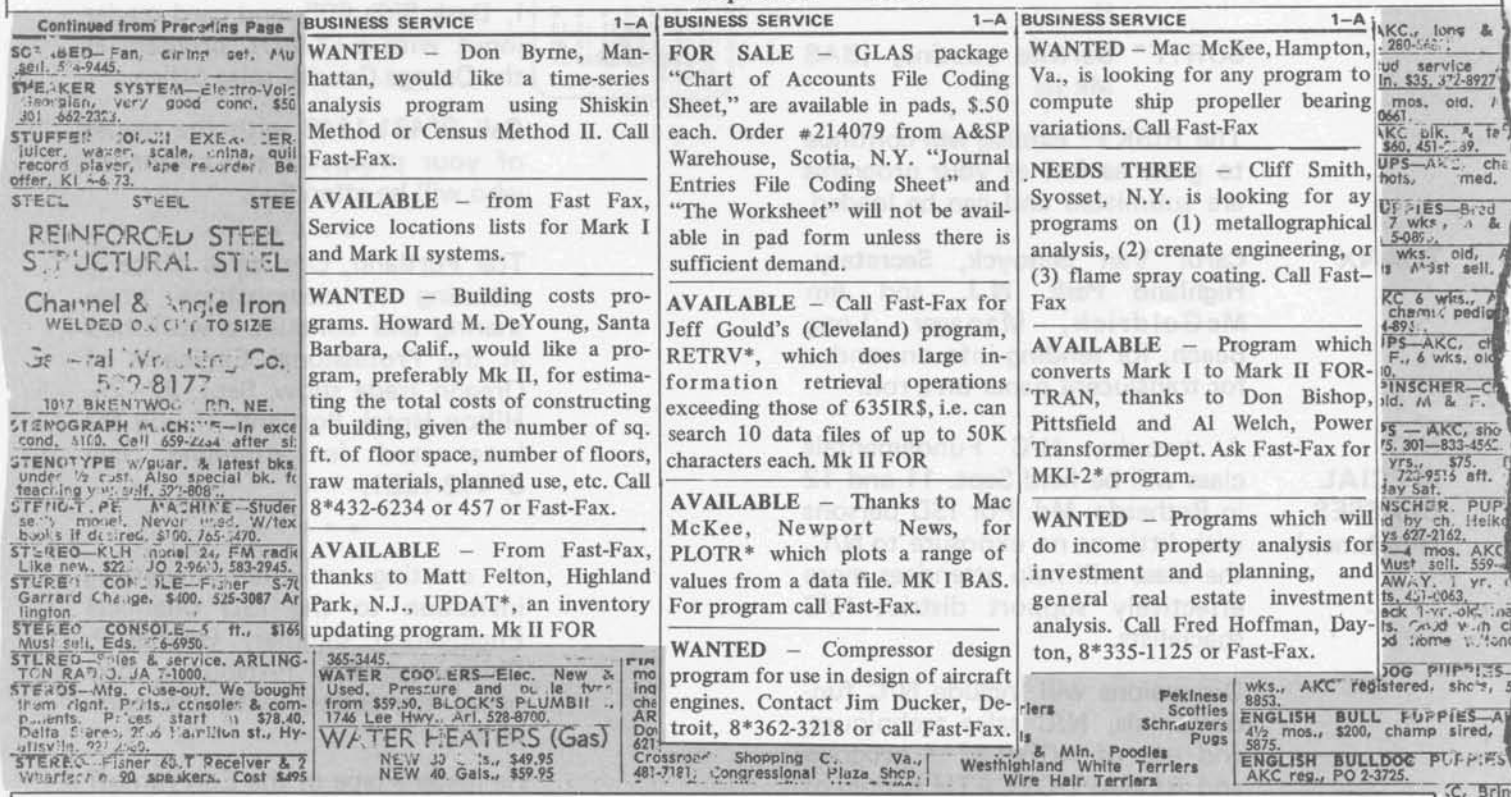
The next ISD seminar, "Time-Sharing Computer Applications for the Chemical Engineer," with Dr. R. V. Jelinek, Professor of Chemical Engineering, Syracuse University will take place in Teaneck, N.J., September 25. Contact **Enid (Nee Schester) Lerhman,** 8*225-8308 for reservations.

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

Fast-Fax Bugle CLASSIFIED

SECTION B

September 1969



Continued from Preceding Page

SOFABED—Fan, dining set. Mu sell. 5[illegible]4-9445.

SPEAKER SYSTEM—Electro-Voic Georgian, very good cond. $50 301-662-2323.

STUFFER COUGH EXERCISER juicer, waxer, scale, china, quil record player, tape recorder. Be offer, KI 4-6-73.

STEEL STEEL STEE

REINFORCED STEEL
STRUCTURAL STEEL

Channel & Angle Iron
WELDED OR CUT TO SIZE

General Wrecking Co.
5[illegible]9-8177
1017 BRENTWOOD RD. NE.

STENOGRAPH MACHINE—In exce cond. $100. Call 659-2[illegible]4 after si

STENOTYPE w/guar. & latest bks. under ½ cost. Also special bk. fo teaching yourself. 52[illegible]-808[illegible].

STENO-TYPE MACHINE—Studer sent model. Never used. W/tex books if desired. $100. 765-[illegible]470.

STEREO—KLH model 24, FM radio Like new. $22[illegible] JO 2-96[illegible], 583-2945.

STEREO CONSOLE—Fisher S-70 Garrard Change. $400. 525-3087 Ar lington.

STEREO CONSOLE—5 ft., $165 Must sell. Eds. [illegible]6-6950.

STEREO—Sales & service. ARLINGTON RADIO, JA 7-1000.

STEROS—Mfg. close-out. We bought them right. Prints, consoles & components. Prices start at $78.40. Delta Stereo, 2[illegible]6 Hamilton st., Hyattsville. 22[illegible]-2[illegible]0.

STEREO—Fisher 60-T Receiver & 2 Wharfedale 90 speakers. Cost $495

BUSINESS SERVICE 1–A

WANTED – Don Byrne, Manhattan, 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 programs. Howard M. DeYoung, Santa Barbara, Calif., would like a program, preferably Mk II, for estimating 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 [illegible] from $59.50. BLOCK'S PLUMBI[illegible] 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 available in pad form unless there is sufficient demand.

AVAILABLE – Call Fast-Fax for Jeff Gould's (Cleveland) program, RETRV*, which does large information 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 PLOTR* 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, Detroit, 8*362-3218 or call Fast-Fax.

Crossroads Shopping C[illegible] Va., 481-7181; Congressional Plaza Shop.

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 FORTRAN, 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, Dayton, 8*335-1125 or Fast-Fax.

Pekinese
Scotties
Schnauzers
Pugs
& Min. Poodles
Westhighland White Terriers
Wire Hair Terriers

AKC., long & [illegible] 280-[illegible]

[illegible]ud service [illegible]n. $35, 372-8927

[illegible] mos. old. [illegible] 0661.

AKC blk. & ta[illegible] $60, 451-[illegible]39.

[illegible]UPS—AKC, cha[illegible] hots, [illegible]med.

[illegible]UPPIES—Brad 7 wks., [illegible] & [illegible] 5-089[illegible].

[illegible] wks. old, [illegible] Must sell.

[illegible]KC 6 wks., [illegible] champ pedig[illegible] 4-893[illegible].

[illegible]IPS—AKC, ch[illegible] F., 6 wks. old [illegible]0.

[illegible]PINSCHER—Ch[illegible] old. M & F.

[illegible]PS — AKC, sho[illegible] 75. 301—833-456[illegible]

[illegible] yrs., $75. [illegible] 723-9516 aft. [illegible]day Sat.

[illegible]NSCHER. PUP[illegible] [illegible]d by ch. Helk[illegible] [illegible]ys 627-2162.

[illegible]—4 mos. AKC Must sell. 559-[illegible]

[illegible]AWAY. 1 yr. [illegible] [illegible]ts. 451-0063.

[illegible]ack 1-yr.-old. [illegible] [illegible]ts. Good with chi[illegible] [illegible]od home w/fence

[illegible]OG PUPPIES—[illegible] wks., AKC registered, shots, 5[illegible] 8853.

ENGLISH BULL PUPPIES—A[illegible] 4½ 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.

SALES BULLETIN NO. 95-8

FAST-FAX

Information Systems

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

1M (9-69)

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

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 Datenet 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 Domonkos, 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 Bugle CLASSIFIED

SECTION B

September 1969

Continued from Preceding Page

SC[illegible]BED—Fan, cir[illegible] set. Mu[illegible] sell. 5[illegible]4-9445.

SPEAKER SYSTEM—Electro-Voi[illegible] Hamplan, very good cond. $5[illegible] 301-662-2323.

STUFFED [illegible]OLOR EXE[illegible]ER juicer, waxer, scale, china, qui[illegible] record player, tape recorder. Be[illegible] offer. KI 6-[illegible]73.

STEEL STEEL STEE

REINFORCED STEEL
STRUCTURAL STEEL

Channel & Angle Iron
WELDED O[illegible] CUT TO SIZE

Ge[illegible]eral Wr[illegible]ing Co.
529-8177
1017 BRENTWOO[illegible] RD. NE.

STENOGRAPH M[illegible]CHI[illegible]S—In exce[illegible] cond. $100. Call 659-2[illegible]4 after 5[illegible]

STENOTYPE w/guar. & latest bks. under ½ cost. Also special bk. f[illegible] teaching yourself. 522-8087.

STENO-TAPE MACHINE—Studer[illegible] se[illegible]y model. Never used. W/tex[illegible] books if desired. $700. 765-5470.

STEREO—KLH model 24, FM radi[illegible] Like new. $22[illegible] JO 2-9600, 583-2945.

STEREO CON[illegible]OLE—Fisher S-7[illegible] Garrard Change. $400. 528-3087 A[illegible] lington.

STEREO CONSOLE—5 ft., $16[illegible] Must sell. Eds. [illegible]76-6950.

STEREO—Sales & service. ARLIN[illegible] TON RADIO. JA 7-1000.

STEREO—Mfg. close-out. We bough[illegible] them right. Parts, consoles & com[illegible] ponents. Prices start at $78.4[illegible] Delta Stereo, 2[illegible]6 Hamilton st., Hy[illegible] attsville. 927-[illegible]600.

STEREO—Fisher 65-T Receiver & [illegible] Wharfedale 90 speakers. Cost $49[illegible] & still ok. Make offer. 833-2[illegible]28.

STEREO—Sylvania Ensign. 4/40. [illegible] Good cond. $90. 684-7992.

STEREO—Custom made Scott r[illegible] ceiver AM/FM, disc-o-tek tur[illegible] table. Must sell. $500. 971-4193.

STEREO—Fully rebuilt 30w Elch[illegible] stereo amp. & preamp to pre-amp $40. Garard changer $15. Weather[illegible] turntable Empire 980 cartridge $3[illegible] 589-8[illegible]6.

STEREO SPEAKERS—Pair AR-[illegible] X. 659-9[illegible]83.

STEREO—G[illegible] portable Super Trim line 400. Solid state, del. 8" speak[illegible] ers, 4 sp. auto record changer, Diamond Stylus. Seldom used. 1 yr. Cost $130, must sell $60. JA 5-[illegible]378.

STEREO-TAPE PLAYER — Sony, [illegible] TC-155. Used 10 hrs, $69. 546-0545.

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

STEREO—Magnavox Au[illegible] com[illegible] pole. Excel. $95. 931-1540.

STEREO—Scott, 382-B, AM-FM re[illegible] ceiver & 2 Jensen speakers in cabi[illegible] nets. Call 5[illegible]-1068.

STEREO—Piano, [illegible] excel. cond. $75. Cost $239. [illegible]-3404.

STEREO Lear Jet 8, Stereo tape player. AM/FM stereo radio. Stereo record changer. Like new. 69 mod[illegible] unit. 52[illegible]-2542.

STEREO—AM/FM [illegible]s, Bal. due $182.[illegible] pymts. $9 [illegible]. Home demo. WAREHOUSE DISCOUNT 868-2728

STEREO — Radio (SW, MW, FM) Combination, $50. Call 525-[illegible]267.

STEREO—Telephoto camera le[illegible]s[illegible] & acces.; TV, silverware. [illegible] 7[illegible]6.

STEREO KLH — Model 20. AM/FM radio $329. 3[illegible]-3664. Call aft. 6 p.m.

STOVE—Gas, [illegible] Tables, $5; 3 armchrs., $15; TV $15. 338-9062.

SWIMMING POOL — 4' high, 15' d[illegible] alum. side all pumps & acces. $[illegible] 365-[illegible]76.

SWIMMING POO[illegible] — 12[illegible]' vinyl w/pump & all accessorie[illegible] Used one seas[illegible]. $80. 473-4[illegible]56.

TABLES—Factory closeout of O.C. TABLES by PULASKI MFG. CO. from the "Diplomat" group. [illegible] price! Pecan color with Chrome plate[illegible] co[illegible]ponents. COCK[illegible] compar[illegible] at [illegible] WE COMM[illegible] only $14, SQU[illegible] re at $8[illegible] with and[illegible]

BUSINESS SERVICE 1-A

WANTED – Jim Allen, Long Beach and Al Weingartner, El Monte, any programs to do calculations for exterior lighting. For example, how many luminaires and poles for a used-card lot 100 by 150 feet? Contact Fast-Fax.

WANTED – Ian Cuthbertson, Toronto, any programs written for design of internal combustion engine? Contact Fast-Fax.

AVAILABLE – Paul Prager, Reseda, has a Mk II FORTRAN program that does all calculations for CPA's filling out Medicare bills. If interested call 8*432-4011 and ask for 385-9411, or call Fast-Fax.

WANTED – Jack Novick, Dallas, programs that will do cost analysis like that required by the Dept. of Defense. Call Fast-Fax.

WANTED – Information on portable TTYs and 2-way radios. Would somebody please test a portable TTY into a T/S system via two-way radio? For example, 110V AC connected to TTY, but audio coupled to the telephone in a car or truck. Fast-Fax has had a half-dozen calls wanting to know if it can be done. Oklahoma City and Waynesboro have had no experience with it.

BUSINESS SERVICE 1-A

AVAILABLE – Sort and Description programs for Critical Path Scheduling, CPSOR* and CPDES*, Mk II FOR thanks to Judith L. Jehn, Dayton. Call Fast-Fax.

WANTED – Dave Comroe, Teaneck, wants to know where to buy fold-up rolling cards which fit the portable teletype unit. (One vendor is nearby, the Newark Caster Truck Co., in Newark, N.J. Know of any others?)

WANTED – Phil Starkenberg, Orange County, Calif., would like a program for general practitioners that does partial diognostics giving the probability of having a certain disease. Call 8*431-1148 of Fast-Fax.

AVAILABLE – ACREV* an accounts receivable program to update a customers account from data input, Mk II BAS, thanks to Matt Felton, Highland Park. For program call Fast-Fax.

WANTED – Joyce Yurman, Los Angeles, is looking for double subscripted string routine for Mark II FORTRAN. Call 8*431-4011 or 385-9411 or Fast-Fax.

BUSINESS SERVICE 1-A

AVAILABLE – BYSEL*, finds optimum time for trading stocks and bonds from seasonal indices, Mk I BAS, from Tony Asturi, Pittsburgh, Contact Fast-Fax for program.

WANTED – John Whyte, Omaha, any programs to analyze cooling requirements for air conditioners. If you have one, call Fast-Fax.

WANTED – Don Smith, Louisville – Does anybody have any programs for furniture manufacturers, or wood-working manufacturers? Call Fast-Fax.

WANTED – Jean Richard, Hamden, Conn., any programs to do factor analysis? If anybody has one, please send to RISKY*

WANTED – Jim Kern, Minneapolis, any programs to do duct sizing for air conditioning firms? Call Fast-Fax.

AVAILABLE – COWSS*, computes profitable dairy animal; also clever t/s demo, Mk II FOR, thanks Bill Cafiero, Syracuse. For program call Fast-Fax.

WANTED – Jamie Ban, Akron, any programs to calculate mechanical or electrical design of fans? Contact Fast-Fax.

RARE & EXOTIC paintings of nudes on blk. velvet. My father searched the world for these unusual beauties & now they are yours at from $5 to $75. Pvt. 265-8072.

BASEMENT SALE—Bicycle, lawn mower, used 1 yr., rugs, etc. 9[illegible]-5033

MOVING—Must sell contents of h[illegible], incl. Imported French din. rm set, breakfront, sofa, tables & chairs. 587-6913.

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

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

MISC. — Harvard Classics, 52 vols., excel. cond., $100. Humidifier, portable, 4 gal., excel. cond., $20. Patio alum. swing lounge, $10. New rubbing (green), Thai temple dancers, elegantly framed, $60. 362-1117.

TIRED OF AIR POLLUTION?—Go under water. Complete SCUBA outfit—used twice—twin tanks, Sharkskin wet suit, Finest Aqualung regulator w/J valve. Depth guage, weight-belt, workset. Retail value over $300, must sell for grad school tuition. First offer $195 takes it. Call David at 829-0509 for demonstration.

MOVING—MUST SELL, custom-made sofa, oak game tbl, color TV console, (2) oriental rug, oil paintings, lamps, chrs., etc. 702-361-8[illegible]74.

FOR SALE—Yellow weed 3 c[illegible] Ton Early Am[illegible] Good c[illegible]t. [illegible]ans, cu[illegible]

O—Estey, 4 m.[illegible] ht. [illegible] and, new, $600. 736-9[illegible]7.

O—Knabe upright fine cond. A[illegible]ain, $195, [illegible]7740.

O—Steinway, 6 [illegible] ebony grand, excel. cond., $1500. 331-0929.

PIANO—Hobart Cable mahog. console, rec. tuned, excel. cond. $4[illegible] 671-5645 Sun. or eve., &

PIANOS
RENT[illegible] PLAN
COHN MUSIC
9131 Backlick Rd
Bradlick Shopping Center
ANNANDALE, VA.
[illegible]

PIANO—Spinet Bradbury, Walnut. Just tuned. $295. 589-8656.

PIANOS
USED SAVINGS
Estey console ..... $[illegible]
Howard cbr., record ..... [illegible]
Melody grand, cons., wal. ..... $[illegible]
Starck apt. size 225
A complete selection of the fine line of YAMAHA pianos.
ALEXANDRIA
PIANO & ORGAN SERVICE
[illegible] Vernon Ave. Alex.
[illegible]

PIANO—Kramer Spinet, 5 octaves, rebuilt by technician, new strings & hammers. $400. 529-9321.

PIANO—Mod. upright, blk. Excel. cond./tone. $195, 532-[illegible]27.

PIANO—Upright $50; accordion $25; CD 5-105 Cir. Sun. 11-5 wkdys. till 8.

PIANOS—Spring savings on new Baldwin pianos. As low as $15.76 mo. incl. bench, del. & 10 yr. warranty. Rental—option to buy.
GISRIEL (Baldwin Dealer)
716 11th st. nw. NA 8-0423
DOWNTOWN Open THURS. till 9
[illegible] Arl. Blvd. (Rt. 7 Cor[illegible] 532-[illegible]02
Thurs[illegible]

Twinbrob[illegible]

TYSONS [illegible]
Tysons C[illegible]

BE AIR [illegible]
Bel-Air Shopping Center

FREDERICKSBURG, 703-[illegible]73-1655
Fredericksburg Shopping Center

OPEN DAILY & SUNDAY

A Complete Pet Center for all your pet needs

AIREDALE—Fem. ch. Tom Jones sire, $75; 703—659-2914.

ALASKAN MALAMUTE—AKC, 5 mos., must sell. $150. 299-3[illegible]61.

AMERICAN ESKIMO—$75. Poodles min. $75 up. Toys $100. Pomeranian $150. Yorkies $275. Germ. Sheps. $49 up. Beagles $45 up. Welsh Terr. $90 up. AKC or purebreds. Perm. shots. 783-4062.

ANIMAL WELFARE LEAGUE OF [illegible]EFAX COUNTY has for adoption: Irish Setter—Handsome mature M. Lge. well-bred. Needs training, love & patience. DOGWOOD KENNELS Centreville, Virginia 9-6 Mon. thru [illegible] [illegible]-9230.

BASENJIS — 5 mos. AKC. High quality, low price, easy terms to qualified buyer. [illegible]-361-7748.

BASENJIS—AKC, shots, reasonable, terms. Health cert. Tel.: 703—886-4084 after 6 p.m. 129 Colleen Circle, Staunton, Va.

BASENJIS—M&F, top qual. Reas. price; terms. Fully guar. [illegible]4-5111.

[illegible] AKC furn. cham., [illegible]ock [illegible]24-9116.

[illegible] parents, moving [illegible]

[illegible]ock, Al[illegible]

Spg. 949-1268.

GERMAN SHEPHERD PUPPIES—Male & fem., pure [illegible], blk, & sl[illegible] ver. Male, $75; fem. $55. 273-7823.

[illegible]M. SHEPS.—6 wks. AK[illegible] Champ. background. Big bone[illegible] $75-$100. Sil. Spg. 585-8416

GERM. SHEP.—Puppies. [illegible] AKC. Shots, show quality. 3 F[illegible] M. 864-0339.

GERM. SHEP. PUPS – Male[illegible] females, AKC reg., Amer. Gc[illegible] Eng. Intl. champ. line. All [illegible] guar. Boarding for all dogs. Acre Kennels. 753-6422, or call [illegible] lect. 301—934-4922.

GERM. SHEP.—AKC, [illegible] 2 yr[illegible] excel. companion, $75. [illegible]-7079.

GERMAN SHEPHERDS—AKC, [illegible] & girls, for info. call 451-5059.

GERM. SHEP.—GT. DANE PUPS—Fawn w/black mask. 7 Good watchdo[illegible]. 277-6062.

GERM. SHEP.—Fem., spayed, watch dog. Make offer. 533-834[illegible] 534-1046

GERM. [illegible]—pups. 4 w[illegible] Weaned, [illegible]oughbred, no pap[illegible] Call 894-4549 or 866-5648.

GERM. SHEPS.—25 AKC pups, up. Older [illegible]eps. $75 up. 78[illegible]-4062.

GERMAN SHEPHERDS — [illegible] ma[illegible] above aver[illegible] in size; 6 m[illegible] through 2[illegible] obedience train[illegible] $59—$150[illegible]8 Mon.-Sat., [illegible]

GERM[illegible] [illegible]-4 mo. [illegible] exc[illegible] [illegible]89.

GERM[illegible] [illegible]ale 11 mo[illegible] [illegible]ll 771-6906[illegible] [illegible], Femal[illegible] [illegible]k. & ta[illegible]

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.

SALES BULLETIN NO. 95-9

FAST-FAX

Information Systems

World Leader in Time-Sharing Service

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.

TRANS-LUCENT 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)

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

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

EUSD PROGRAMS GOING OFF RISKY* OCTOBER 15

Electirc 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.

COMPATIBLE 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 to 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 inputing 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.

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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:

ENGINEERING AND SCIENTIFIC		Pub No.
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$, SENSI$	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
HTTRPR	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
PBREK$, SEVST$	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
MANUFACTURING		
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 Bugle CLASSIFIED

SECTION B

September 1969

Continued from Preceding Page

SC[illegible]BED—Fan, dining set. Mu sell. 5[illegible]-9445.

SPEAKER SYSTEM—Electro-Voic Georgian, very good conc. $5[illegible] 301-662-2323.

STUFFED POUND EXER[illegible]ER juicer, waxer, scale, china, qui record player, tape recorder Be offer, KI 6-6 73.

STEEL STEEL STEE

REINFORCED STEEL
STRUCTURAL STEEL

Channel & Angle Iron
WELDED OR CUT TO SIZE

Ge[illegible]eral Wr[illegible]ing Co.
5[illegible]9-817[illegible]
10[illegible] BRENTWOO[illegible] RD. NE.

STENOGRAPH MACHINES—In exce cond. $100. Call 659-2[illegible] after si

STENOTYPE w/guar. & latest bks under ½ cost. Also special bk. fo teaching yourself, 571-806[illegible].

STENO-TYPE MACHINE—Studer se[illegible] model. Never used. W/tex books if desired. $100. 765-[illegible]470.

STEREO—KLH model 24, FM radi Like new. $22[illegible] JO 2-960[illegible], 583-2945.

STEREO CONSOLE—Fisher S-7 Garrard Change. $400. 525-3087 A lington

STEREO CONSOLE—5 ft., $16 Must sell. Eds. [illegible]76-6950.

STEREO—Sales & service. ARLINC TON RADIO, JA 7-1000.

STEROS—Mfg. close-out. We bougl from right. Prits., consoles & con p[illegible]ents. Prices start [illegible] $78.4 Delta Stereo, 2[illegible] Hamilton st., H attsville, 927-[illegible]50.

STEREO—Fisher 60-T Receiver & Wharfedale 90 speakers. Cost $4 & $280 or make offer. 833-2[illegible]28.

STEREO—Sylvania Ensemble, 4/40. good cond. $[illegible]. 684-7992.

STEREO—Custom made Scott r ceiver AM/FM, disc-o-tek tur table. Must [illegible] $500. 9[illegible]-4193.

STEREO [illegible]ly rebuilt 30w Eich stereo amp. & Lafayette pre-am $40. Garard changer, $15. Weather turntable Empire 980 cartridge $3 589-8[illegible]6.

STEREO SPEAKERS—Pair AR-[illegible]X. 659-9582.

STEREO—5 [illegible] portable Super Fi line 400. Solid state, det. 8" speak ers, 4 sp. auto record changer Diamond Stylus. Seldom used. 1 yr Cost $130. must sell $60. JA 5-[illegible]373.

STEREO-TAPE PLAYER — Sam C-155. Used 10 hrs. $69. 546-0545.

STEREO—2 [illegible]gh. spkr. boxes, $5[illegible] call aft. 6 p.m. 933-5054.

STEREO—Magnavox AM/FM cus sole. Excel. $95. 931-1540.

STEREO—Scott, 382-B, AM-FM re ceiver & 2 Jensen speakers in cab nets. Call 56[illegible]-1068.

STEREO—Fisher, [illegible] excel. cond $75. Cost $239. 9[illegible]-0806.

STEREO Lear Jet 8, Stereo tap player. AM/FM stereo radio. Ster record changer. Like new. 69 moc 1 unit. 59[illegible]-9542.

STEREO—AM/FM [illegible]s. Bal. due $182.[illegible] pymts. $9 [illegible]. Home demo. WAREHOUSE DISCOUNT 868-2728

STEREO — Radio (SW, MW, FM) Combination, $[illegible]0. Call 525-[illegible]267.

STEREO—Telefunken; camera le ses & acces; TV, silverware. [illegible] 72[illegible].

STEREO KLH — Model 20. AM/FM radio $325. 3[illegible]-3664. Call aft. 6 p.m.

STOVE—Gas, [illegible] Tables, $5; 3 arm chrs., $15; V. $15. 338-9[illegible]

SWIMMING POOL — 4' high, 15' d, alum. side wall pumps & acces. $195. 365-[illegible]76.

SWIMMING POOL — 12 [illegible]-vinyl w/pump & all accessorie Used one season. $80. 42[illegible]-4[illegible]6.

TABLES—Factory closeout of G.C. TABLES by PULASKI MFG. CO. from the "Diplomat" group. ½ price! Pecan color with Chrome plate[illegible] co[illegible]ponents. COCK[illegible] co[illegible] par[illegible] at [illegible] WE [illegible] COMMC [illegible]nly $[illegible] SQU [illegible]re at $83[illegible] [illegible]th arm[illegible]

BUSINESS SERVICE 1-A

NEEDED – Harlan Dodge, Dayton, would like a program to evaluate a PART program for point to point machining to total run time given the machine characteristics. Contact Fast-Fax.

WANTED – Don Ina, Cleveland, wants a servo analysis program for hydraulic mechanical applications. Call Fast-Fax.

AVAILABLE – Bar Chart program, BCHAR*, and x y plotter program, XYPLO*, both Mk I BAS, thanks to Nancy Reily, Bethesda, Call Fast-Fax for documentation.

WANTED – Jim Rash, Los Angeles, is looking for a program to help a vehicle research customer in using photometrics to describe the geometry of birds in flight. The idea is to use precision geometry in design of flying machine. Contact Fast-Fax.

AVAILABLE – UNITR*, maximizes costs for a unit train, Mk II FOR. Thanks to R.J. Lewis, Bethesda. Contact Fast-Fax.

WANTED – Al Ackerman, Long Island, needs a program to help in the study of the deteriorating effect of nuclear radiation on electrical circuits. Call Fast-Fax if you have one.

AVAILABLE – Bob Cox, Teaneck, sent FACTR* which performs a principle components solution with a varimax rotation of the factor matrix. Also, DCRIM*, Discriminant analysis program. Both Mark II FOR. Call Fast-Fax.

BUSINESS SERVICE 1-A

WANTED – Ed Seramur, Milwaukee, needs a design program to determine the critical speed of any given rotating shaft of varying diameter and material composition. Call Fast-Fax.

AVAILABLE – WEVOT*, weighted voting program, MK I BAS, thanks Elaine Rogers, Syracuse. For program contact Fast-Fax.

WANTED – Pete Andreoletti, Manhattan, is looking for architectural, mechanical or structural engineering application programs. Contact Fast-Fax.

AVAILABLE – B60-2*, conversion program for Call 360 or Tymshare Superbasic to Mk II BAS. Thanx Gary Martin, Palo Alto. Call Fast-Fax for program.

WANTED – Jack Croone, Detroit, wants programs to analyze the performance of military vehicles such as tanks, multi-drive axle trucks, to deal with suspension performance, i.e. torsion flex, the ability to climb inclines, and other mobility tests. Also he would like programs which analyze soil and terrain characteristics which influence the placement and firing of small and medium armaments. If you have any of these programs, call Fast-Fax.

BUSINESS SERVICE 1-A

AVAILABLE – NETINF***, in on-line library which describes the different input date file between Mk I and Mk II for "Hydraulic Network Analysis, NETWK$***.

WANTED – Bob Byrne, Seattle, would like programs useful in the brewing of beer (commercially we trust). Call Fast-Fax.

WANTED – Cal Floerki, Minneapolis, needs corrugation scheduling program for paper mills. Contact Fast-Fax.

AVAILABLE – an information file RETINF*** which describes the difference in input data "Retaining Walls" program – RETWL$***. tween Mk I and Mk II.

WANTED – a storm sewer design package w/ area runoffs, flow timing and velocity considerations, call Wayne Garber, Bethesda, 8*273-4765 or Fast-Fax.

WANTED – Dick Fontaine, Highland Park, is looking for a covariance analysis program with equal and unequal sample size. If you have one, call Fast-Fax.

AVAILABLE – A program which will generate on random numbers for a poisson distribution. Thanks Cal Cillay Engineering & Scientific Applications. For program call Fast-Fax.

AKC., long & [illegible] 280-[illegible]

ud service in. $35. [illegible]-8927

mos. old. [illegible] 3661.

AKC blk. & ta $60. 451-[illegible]89.

UPS—AKC, che hots., med.

PPIES—Brad 7 wks., & 5-08[illegible]

wks. old, A is. Must sell.

KC 6 wks., A champ pedig 4-89[illegible]

UPS—AKC, ch F., 6 wks. old 0.

INSCHER—C ld. M & F.

S — AKC, sho '5. 301—833-456[illegible]

yrs., $75. [illegible]-9516 aft. day Sat.

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

—4 mos. AKC Must sell. 559-

AWAY, 1 yr. ts. 451-0063.

ack [illegible]-AK[illegible] ts. Good with ch od home w[illegible]tance

OG PUPPIES— stered, shots, $

PUPPIES—A champ sired,

DOG PUPPIES 725.

OG—AKC, Brinc shots. $250, C , Ext. 354.

UPS—AKC Cham 68-8627, Annapoli R PUPS—4 fem., 627-343[illegible]

SPANIEL PUP pedigree. Hunt 2432.

SPANIEL PUP ed, shots, worme resent, the whi (301) 498-1753.

P. UPS—AK wormed, mem ree. $50. Beth-Sil

ERD PUPPIES— ire [illegible], blk. & sl m, $55. 273-7823.

—6 wks. AK ound. Big bon

$75-$100. Sil. Spg. 585-8416

GERM. SHEP.—Puppies. AKC. Shots, show quality. M. 864-0339.

GERM. SHEP. PUPS — Males females, AKC reg., Amer. Gc Eng. Intl. champ. line. All guar. Boarding for all dogs. Acre Kennels, 753-6422, or call lect. 301—934-4922.

GERM. SHEP.—AKC, 2 yr excel. companion, $75. 924-7079.

GERMAN SHEPHERDS—AKC, & goes for info. call 451-5059.

GERM. SHEP.—GT. DANE PUPS—Fawn w/black mask. 7 Good watchdogs. 277-8062.

GERM. SHEP.—Fem., spayed, watch dog. Make offer. 533-834 534-1046

GERM. SHEP.—pups. 4 w Weaned, thoroughbred, no pap Call 894-4549 or 665-5648.

GERM. SHEPS.—25 AKC pups, up. Older ones. $75 up 782-4062.

GERMAN SHEPHERDS — 1 ma above ave[illegible] in size; 6 m through ? obedience train $50—$150 [illegible]8 Mon.-Sa.

GERM[illegible] [illegible]4 mo. exc[illegible] [illegible]89.

[illegible]ERD [illegible]ale 11 mo [illegible]ll 774-[illegible] [illegible], Fema [illegible]. & ta

5645 Sunnyside St. [illegible]

[illegible]OS

RENT-A-PLAN
JOHN MUSIC
$131 Backlick Rd
Bradlick Shopping Center
ANNANDALE, VA.
[illegible]

[illegible]O—Spinet Broadway. Walnut. tuned. $295. 589-8656.

[illegible]05

USED SAVINGS

Estey console ..... $[illegible]
Howard upr., record ..... $[illegible]
Melody grand, cons., wal. ..... $[illegible]
Starck apt. size $25
A complete selection of the fine line of YAMAHA pianos.

ALEXANDRIA
PIANO & ORGAN SERVICE
[illegible]23 [illegible]t. Vernon Ave. Alex.
[illegible]48-3[illegible]0 [illegible]7-3[illegible]0

PIANO—Kranich Spinet, 5 octaves rebuilt by technician, new strings & hammers. $400. 529-9321.

PIANO—Mod. upright blk. Excel. cond./tone. $195. 532-[illegible]7.

PIANO—Upright 36" accordion $[illegible] CO 5-105[illegible] Sun. 11-5 wkdys. 411 E.

PIANOS—Spring savings on new Baldwin pianos. As low as $15.76 mo. incl. bench, del. & 10 yr. warranty. Rental—option to buy. GISRIEL (Baldwin Dealer) 710 11th st. nw. NA 8-0423 DOWNTOWN Open THURS. 'til 9

[illegible] Arl. Blvd. (O. p. 7 Cor.) [illegible] [illegible]02 [illegible] Thurs.

MISC. — Harvard Classics, 52 vols., excel. cond., $100. Humidifier, portable, 4 bath, excel. cond., $20. Patio alum. swing lounge, $30. New rubbing (green), Thai temple dancers, elegantly framed, $60. 362-1117.

TIRED OF AIR POLLUTION?—Go under water. Complete SCUBA outfit—used twice—twin tanks, Sharkskin wet suit, finest Aqualung regulator w/J" valves. Depth gauge, weight—the works! Retail value over $300, must sell for grad school tuition. First offer $195 takes it. Call David at 829-[illegible]09 for demonstration.

MOVING—MUST SELL, custom-made sofa, oak game tbl. color TV console, [illegible]ls oriental rug, oil paintings, lamps, [illegible]s, etc. 70[illegible]—361-[illegible]74.

FOR SALE—Yel[illegible] need 3 c[illegible] Ston Early Am[illegible] Good [illegible]t. [illegible]582-[illegible] [illegible]ans, rug

FREDERI Fredericks OPEN

A Complete Pet Center for all your pet needs

AIREDALE—Fem. ch. Tom Jones sire, $75; 703—659-2914.

ALASKAN MALAMUTE—AKC, [illegible] mos., must sell. $150. 299-3[illegible]1.

AMERICAN ESKIMO—$75. Poodles min. $75 up. Toys $100. Pom[illegible]ranian $150. Yorkies $275. Gorm[illegible] Sheps. $49 up. [illegible] [illegible]olies $45 up. Welsh Terr. $90 up. Also or purebreds. Perm. shots. 783-4062.

ANIMAL WELFARE LEAGUE OF [illegible]AIRFAX COUNTY has for adoption:
Irish Setter—Handsome mature A. [illegible]ge. Well-bred. Needs training, love & patience.
DUCKWOOD KENNELS
Centreville, Virginia
9-6 Mon. thru [illegible]
[illegible]3-9230.

BASENJIS — 5 [illegible]s. AKC. High quality, low price, easy terms to qualified buyer [illegible]. 361-7748.

BASENJIS—AKC, shots, reasonable, terms. Health cert. Tel.: 703—886-4084 after 6 p.m. 129 Colle[illegible] Circle, Staunton, Va.

BASENJIS—M&F, top quality. Rea[illegible] price, terms. Fully guar. [illegible]-2111.

[illegible]—AKC fem. Siam, [illegible]ack 424-911[illegible].

[illegible]parents, moving [illegible]ack, AK

SALES BULLETIN NO. 95-10

FAST-FAX

Information Systems

World Leader in Time-Sharing Service

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 Statisticans 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 EQUIPMENT 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

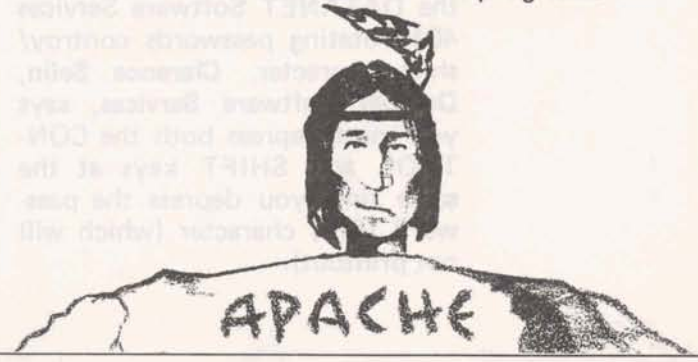
(3) LEFT SHIFT – ZERO FILL
RIGHT SHIFT–ZERO FILL

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

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

EUSD PROGRAMS GOING OFF RISKY* OCTOBER 15

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

HEADQUARTERS 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 Bugle CLASSIFIED

SECTION B

October 1969

AVAILABLE 1A

LPLAG* linear programming for large systems, and a program for integration of first-order differential equations using Fehlberg's fifth-order method, FEHLS*. both Mk I FOR Thanks to Julio Kun. For either one call Fast-Fax.

Thanks to Albert Garcia, Orange County, Calif. for the program ACPRE* a conversational ACNET$*** data file preparation. Mk II FOR. Contact Fast-Fax.

John Hannah, Manufacturing Applications, has provided a program for masking operations, converts alphanumeric to integer word format, LOGIC* Mk II FOR. Call Fast-Fax.

Looking for a house? MULTL* finds it from a real estate data file, Mk II FOR. Thanks Matt Felton, Highland Park, N.J. Call Fast-Fax.

AVAILABLE 1A

Need a statistical analysis program? QUEST* analyses questionnaire responses, MK II BAS. Call your Fast-Fax rep.

Inventory update program for 1500 items (user is liquor store). Thanks to Matt Felton for LIQOR*, Mk II FOR. Contact Fast-Fax.

PCOST*, project cost accounting, computes man-hours and costs for several projects, Mk I BAS. Thanks Mickey McGuire, Atlanta. Call Fast-Fax for the program.

For plotting second order equations (any three variable equation), Robert Cox, Teaneck, provided Fast-Fax with CONTR* Mk II FOR Thanx Robert. For the program, call Fast-Fax.

WANTED 2A

Program to tell how the Mets can beat Baltimore. Call Marv Thornberry.

WANTED 2A

Extrusion simulated programs for the petro/chemical area. Contact Fast-Fax.

Hugh Calkin, Hartford. Has anybody converted to t/s a statistics program written in FORTRAN for 1130 & 7090 by Census Bureau called, "Census 2, Version X:II". If you have such a program call Fast-Fax.

Fred Hofmann, Dayton, would like welding engineering & design programs. Contact Fast-Fax if you have one.

Carol Barclay, Chicago, is looking for subroutines to perform discrete fourier transform. Contact Fast-Fax.

Pete Kehrer, Long Island, wants programs on high school attendance, grading, class scheduling. Call Fast-Fax.

Evan Christman, Allentown, is looking for simulation modeling and sensitivity analysis programs applicable to an automated pallet handling system as a warehouse. Call Fast-Fax.

Wayne Garber, Applied Mechanics, wants any programming aids for Mk II (similar to string and editing functions already received) that would be useful civil engineering applications.

PERSONALS

CRYSTAL CITY — LOWEST PARKING RATES. Monthly space available immediately. No deposit required. 2328 Jefferson Davis Hwy., Arlington, Va. Call ...

DANCE CLASSES — Parties & private lessons. ... Conn. ...-6600

DANCE CLASSES — Private & group lessons. ... Conn. ... 4 pvt. lessons, $4.00.

DOG TRAINING

Obedience, K-9 police, watch, investigation, hunting, etc. European trainer. ... all, evening, weekday only.

ELDERLY RETIRED — Can accommodate 2 persons very reasonably in extra large rm. w/everything found. Quiet. 244-1...

EXPERT TYPING—M.S.S., theses, terms, 17's, resumes. Also professional writing, proofing, editing. Rear. 524-1038.

FLAMENCO ... Spanish modern jazz dance lessons. ... PE 7-3078

FOAM ... & C...—615 22nd NW. Fabrics, ... 296-6272.

FORMS 171 — ... prepared & revised. Edit/rewrite papers, reports. Daily, Sun., JU 5-1698, 9-...

FORMS 171—Resume prepared & revised. Edit/rewrite papers, reports Daily, Sun., JU ...

HOME OWNERS NEED CASH? ... & ... Call ... 1500 L & S ...

LOANS

For Professional People and Executives

$2,000 to $5,000 AVAILABLE

Convenient Terms Arranged

Confidential, business-like Service

... CREDIT CORP.

WASH. POST BOX ...

"RICHARD ... PETTERY, or anyone knowing ... whereabouts please contact Arthur G. Kingsmill, Attorney at Law, 614 Second Street, Gretna, Louisiana 70053, Area Code 504, ...

SKETCH— ... our or ... child by talented professional artist. Call ... 5-4022.

TYPING— Forms, resumes. Off. nr. 14th & ... NW., rush service when possible. ...

HUNT, FISH, SKI ACCOM. 7A

GOOSE-DUCK — Hunting Farm, Thomas Island, Md. Bay front, river front & field goose pits. Approx. 500 ac. Phone 947-5706

HUNTER—Taking reservations for game hunting in W. Va. Mod. lodge. Lots deer, sm. rab. Two hr. drive, ...

HUNTERS—Goldsboro duck hunting parties. Eastern shore, Bayhard, Centreville, Md. ...

MOTOR TRAVEL 8

AARCON AUTO TRANSPORT SHIP YOUR CAR

Autos Avail. ... Daily, Fla., Wash., Colo., Ill., Mo.

Autos Avail. ... West Coast & other cities

AUTOS AVAIL.—Fla., Calif., New Mexico, ... Chester ...

AAA TRANSPORT CAR ... CITY, U.S.A. ... Bonded ...

girls and working wives, why not relax in the evening while our men shampoo them for you. Modern equipmt. and ... add a new crest to your ... 12x15, $5.00; all-to-wall-$8.50 per ... yd. Call Capitol Carpet Cleaners ...

BUSINESS SERVICES 5A

A-1 Movers
Storage Space Available
582-5229

AAAAAA MOVER—Loc./long dist. Trash removed. ... 0419, 399-... 34.

A1—Moving ... del. handyman. small. 723-... 9-5754.

ARCHITECT — Reg., will execute work or farm-out basis. DU 7-2907.

CHARGE PAVING & HAULING—Very low rates. ... 1236

DOWNTOWN—Trans. desk space and/or mailing address. Use our tel. no. 737-... or ... 1686

HARRIS MOVERS—Long van service. 3 men & ... $16/hr. 894-1500.

HAULING TRASH—BSMTS., yrs. & lots. Move anything ... 263-... 97.

HAULING—2 men ... with van. Reasonable rates. Call ... 583-...

JUNK GLADLY REMOVED Call ...

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Hand finished ... black & white processing. Send for price list Alan ... 1763 Sycamore ... SW, Washington, D.C.

PRINTING DISCOUNTS—PHOTO DELIVERY. Offset ... small white black ink 1 side $6.95. Addl. M's 5.00, plus postage 80c per M. Others on quote. Up to 10"x14". Negs. & plates avail. A complete service. Naval Printing Documents, 5134 N. 9th St. Philadelphia, Pa.

WISCO MOVING
Pick up & deliver service ...-6...

LIGHT MOVING
Reas. rates, Call 67...

OFFICE & BUS. EQUIPT. 9B

... TYPEWRITER EQUIP. & SUPPLY ... 9411.

Washington's Fun Place To Visit!

Good music, select pieces of mdse. & just a well rounded wild atmosphere places our market place at the top of your "Have to Visit" list ... a few newly arrived items include ... age. ornate iron, drapery ... arch, 2 unusually lge. stained glass windows, $45-$57.50 ea.; indiv. leaded stained glass panels, $45; ... pcs. blue & wht. Wedgewood, $6 ea.; 5 lge. pewter spoons, $4 ea.; 3' brass candlestick, $35; unbelievable collection of over 700 pcs. of Victorian, sterling & silver plate, everything from coin spoons to full setting services from 6 to 55; lge. alabaster bust of Nelson O'Hara w/shild & sword $150; antique iron doll ... w/ornate head & foot boards, ... selection of early coffins & caskets, $20-$150; heavy brass ... $57.50; unusual wooden magazine stand, $10; 4 lge. decorator armoires, $55-$67.50 ea.; Victorian table w/inlaid reverse painting & glass of early nautical scene, ... 5 massive hanging stained glass paneled lamps w/chains, $75-$125 ea.; lge. collection of old crocks & jugs, $5-$9 ea.; 1855 lge. oil painting by William Pilor, $45; 18 pcs. misc. pewter, $1-$35; fantastic collection of old banks, over 300, from 10c up; old Fousi cart w/sign, $12; just to name a few of our over 100,000 itr

McDONALD-SCHAFFNER, Inc. T/A Kensington ...

... sale in ... COUNTRY PRICES ... round tables, pictures, Shoot-ing ... chairs in ... desk ... beds, cob ... 11-... 141 ... Rt. ...

CUPBO ... stop in ... with us ... day. Yo ... set; 4 w ... mirrors, ... plus lea ... set ladde ... bed, carpenter's chest, blanket chest, marble-top furn., chests, drawers; trestle & harvest tbls., wal. ext. tbl. wal. secretaries, desks, pie safe, cupboards, chest-on-chest, wash stands, ... tables, spool cab., trunks, beaut. ... lg. sideboard, Tiffany type hanging shades; many clocks of all kinds and sizes, plus clock repair, plus our usual stock of furn. refinished & in rough. Use your BankAmericard, Central Chg., also lay-a-way & delivery at 2645 Penn. shopping ctr. S.E. (cor. Wash. Blvd.). Open ... daily 11-7. 547-2894.

DESKS—old school desks. Excel. cond. 469-...974.

ENGLISH PEWTER—Over 100 yrs. old. Unusual pieces. Mary Baynes Gifts, 3400 N. Fairfax ... Arl., Va. Kenns Dept. Store shopping area.

FIREPLACE FENDER—Brass with splashboard; pistol; Steuben glass; wall clock. 966-...

FURN.—Early American country furniture. Cane ... drop-leaf table, seats 6-8, ... fiddleback chairs, 1825 split spindle mirror, fleur mapla & butternut bedside table. Model Civil War cannon. Decoys brass, copper, tail, mantle and ... grandfather clocks. The Martin Farm, LO ... 3438.

GARAGE SALE—Sun., 10 ... washstand, ... bed ... & more. 10 ... city off Rt. ... marble ... St. ...

ANTIQUES ... Gallows ... SHIPMENT ... Rt. 455 to Gal... R brick ... St. ...

PS OF MARYLAND ... d Prints ... Paintings ... m Fr... m ... 549-0059 ... rian ... 0 doz ... brass ... READ ... F & T ... e. S.E. ... -670... ed Wed ...

MEN ... rance all ... urniture. ... wood. Quon... le Quon Yen ... & buckles ... ewelry ... Flemish cupbo... lions ... table ... panese screens ... TODAY 10-5 ... D ANTIQUES ... ston Boulevard ... ngton, Va. ...

EVES ... RKET ... closed on Fr... t as of O... hmond Hwy. ... SHOPPING CENTE... 360-3200 ... SAT., 10 TO 6 ... 12 TO 5 P.M.

VERY INTERESTING

Imagine, any junk you buy today will be antique in a ... 100 yrs. Come & get some of the ... kind ... any of our 5 shops. Bring the ... & spend an interesting hour or ... with us.

"THE S... HOUSE BOYS" ... 940 Silver Ave. (nr. Rt. ...) ... 587-... Silv. Spr., Md. (2 mi. S. of Exit ... OPEN EVERY SAT. & SUN. ...

OVER WEIGHT ON ... VERSE ... Imports—selling 2 ... ching ... Beds ... glass & marble ... stands ... 1840 Rococo ... Beautifully carved ... bentwood chairs interestin... sh... 1840 Beautifully ... loveseat, ... piece marble ... clock w/set hand. 18... cuckoo ... Other ite... ... 10-6. 46...

... MAN SERMAN CHAIRS ... for sale or 2 matching arm ... Excel. cond. Must be seen. ... 00. 638-...

... PUBLIC AUCTION ... of antique household & m... Oct. 11 ... 69, 10 a.m. Loc... Meadow Branch Rd. off Rt. ... Westminster, Carroll ... Md. ...

ANTIQUES—... chip table, 6 decorated plank chairs, decorated ... plank bottom chairs, ... orated can... items were painted ... of Lebanese ... ware ...

SALES BULLETIN NO. 95-11

FAST-FAX

Information Systems

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 compilling 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	Vic Henschel	Doug Benson	Jim Dickert	Mike Drake
8*273-4345	8*273-4525	8*273-4421	8*273-4578	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-bid 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.

Fast-Fax Bugle CLASSIFIED

SECTION B

November 1969

WANTED

Gord Calby, London, Ontario, is looking for (1) Program to do fuel oil truck dispatching based on a degree day algorithm (2) program to analyse traffic flow. If you have either, call Fast-Fax.

Has anyone converted the FOR-4 program, MANOVA to Mk II. Contact Ron Fellow, San Diego 8*431-1180 or call Fast-Fax.

Cliff Smith, Syosset, is looking for an accounts payable program. Contact Fast-Fax if you have one.

Ian Cuthertson, Toronto, wants radio propagation and antenna design programs. Call Fast-Fax.

Bob Mario, Syracuse, is looking for a small business financial model program. Contact Fast-Fax.

H.S. Sabharwal, Berkeley, needs an inventory control program that will determine the economic order quantity and reorder points from approximately 100 stock items.

Cliff Eckman, Minneapolis, would like a spring design program – Helical. Call Fast-Fax.

Susan Larson, Albuquerque, wants programs to compute revenue figures as generated by salesmen for Mk I and Mk II with Y-T-D totals and other goodies. If you can help, call Fast-Fax.

AVAILABLE

For GE components only – five programs to provide CALCOMP drawing of printed circuit board that has already been designed. Also provides companion N/C drill tape. Suggested applications: drafting and manufacturing groups in GE departments that manufacture electronic printed circuit boards. Programs were described in GE MONOGRAM, March, 1969. It is not a design package. Call Fast-Fax.

LOCAT*, a subroutine to locate character strings in Mk II FOR or BAS. For program from Bill Wright, Dallas, call Fast-Fax.

Financial analysts can use this subroutine, COMMA*, which puts commas in bit numbers, Mk II FOR. From Mac McKee, Newport News.

Richard Fisher, Wellesley, Mass., provided a conversation program to create a control file for PLBAL$. For the program, CRCTL*, Mk II FOR, contact Fast-Fax.

DSMCO*, convert DSM file to regular file for Mk I or Mk II, BAS, FOR, and data files, Mk I or II BAS. Thanks to Robert Collins, Houston. Call Fast-Fax.

LETER*, Bill McClary's computer written letter program, Mk II, FOR has documentation available from FAST-FAX.

BOWLG*, a bowling league program updates weekly averages, high games, etc. Mk I BAS, from George Chipman, Pittsburgh. For program, call Fast-Fax.

AVAILABLE

Going to the Moon? Terry Carpenter, Waltham, Mass., provided RISKY* with a program simulating landing on the moon. Give it the wrong data and you may be lost in space or crash. Good demo. Mk I BAS. Call Fast-Fax for L-E-M*.

CRCLE*, selects proper layout pattern to minimize scrap when cutting equal size circles from metal plates, Mk I BAS. Thanks W.O. Kirchmier, Berkley. For program call Fast-Fax.

Big T/S service, on-line debugging with output in cards, CRDTR* Mk II, FOR. For David Comroe's Teaneck program, call Fast-Fax.

STMRG*, does stepwise multiple linear regression, Mk II FOR, Thanks Robert Cox, Teaneck. Contact Fast-Fax for documentation.

High school programs, thanks to Bill McClary, Schenectady, all Mk I BAS. Call Fast-Fax for

RNKR3*, class ranking by cumulative grade average

EPRO2*, projects high school enrollments, good demo

BUDGT*, helps prepare high school annual budget.

CHISQ*, calculates the Chi Square to determine if data file fits, Mk I, BAS, from Norm Waite, Eng. & Sci. Applications. Contact Fast-Fax.

EDFIN*, finds and replaces a string of characters in Mk II FOR. PLOT2*, plots a points file created by NCPTS$***, Mk II, FOR. Thanks Michael Stark, Grand Rapids. Call Fast-Fax.

PERSONALS

CRYSTAL CITY — LOWEST PARKING RATES. Monthly space available immed. $15 mo. No deposit required. 2328 Jefferson Davis Hwy., Arl., Va. Call ...

DANCE CLASSES — parties & private lessons. ... Conn. ... 686

DANCE CLASSES — Arthur Murray ... 4, private lessons. ... Conn. ... 4:30.

DOG TRAINING

Obedience, K-9 police, watch, investigation, hunting, etc. European trainer. ... aft. 6, wkday only.

ELDERLY PERSONS — can accommodate 2 persons very reasonably in extra large rm. w/excel. food, care. 534-1412.

EXPERT TYPING — MSS., theses, forms 171, resumes. Also professional writing, proofing, editing. Reas. 524-1348.

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FOAM — Fabrics, ... 615 22nd NW. Fabrics, stuffing. 338-6272.

FORMS 171 — Resumes prepared & revised. Edit/rewrite papers, reports. Daily, Sun., JU 5-1698. 9-6.

FORMS 171 — Resumes prepared & revised. Edit/rewrite papers, reports. Daily, Sun., JU 5-1698. 9-6.

HOME OWNERS NEED CASH? 1st, 2d & 3d trusts. Call 628-1500. L & S Investment Co.

LOANS

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$2,000 to $5,000 AVAILABLE

Convenient Terms Arranged

Confidential, business-like Service

... CREDIT CORP.

WASH. POST BOX ...

"RICHARD A. PEVTERY," or anyone knowing his whereabouts please contact Arthur G. Kingsmill Attorney at Law, 614 Second Street, Gretna, Louisiana 70053, Area Code 504, ...

SKETCH — your pet or child by talented professional artist. Call ...

TYPING — Forms, resumes. Off. nr. 14th & ... Quick service when possible. ...

HUNT, FISH, SKI ACCOM. 7A

GOOSE-DUCK — Hunting Farm, Tilghman Island, Md. Bay front, river front & field goose pits. Approx. 500 ac. Phone 947-8786.

HUNTER — Taking reservations for game hunting in W. Va. Mod. lodge. Lots deer, some bear. Two hr. drive. ...

HUNTERS — Goose & duck hunting parties. Eastern Shore, Maynard, Centreville, Md. ...

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MAYFLOWER MOVERS COSTS LESS ...

MOVING AND HAULING SERVICE — Basements cleared. ...

PHOTO PROCESSING

Hand finished custom black & white processing. Send for price list. Alan ... 1763 Sycamore St. NW, Wash., D.C.

PRINTING DISCOUNTS — PROMPT DELIVERY. Offset ... sheet, white, black ink 1 side $6.95. Addl. M's 5.00, plus postage 60c per M. Others on quote. Up to 10"x14". Neg. & plates avail. A complete service. Nash Printing Discounts, 5134 N. ... St., Philadelphia, Pa.

WASCO MOVING

Pick up & deliver service ...

LIGHT MOVING Reas. rates. Call 67...

OFFICE & BUS. EQUIPT. 9B

... GRAPH EQUIP. & ... 8411.

Unusual wooden ... $10; 4 lge. decorator armoires, $55-$87.50 ea.; Victorian table w/inlaid reverse painting on glass of early nautical scene, ... 5 massive hanging stained glass paneled lamps w/chains, $75-$125 ea.; lge. collection of old crocks & jugs, $1-$9 ea.; 1895 lge. oil painting by William Pilor, $45; 18 pcs. misc. pewter, $1-$35, fantastic collection of old books, over 3,000, from 10c up; old Fassi cart w/sign, $12; just to name a few of our over 100,000 items.

McDONALD-SCHRIDER, Inc. t/a Kensington ...

your ... also lay ... shing ... Open ... daily 11-7. ...

DESKS — old school desks. Excel. cond. ...

ENGLISH PEWTER — Over 100 yrs. old. Unusual pieces. Mary Baynes Gifts, ... N. Fairfax Dr., Arl., Va. Kamns Dept. Store shopping area.

FIREPLACE FENDER — Brass with splashboard; pistol; Steuben glass; wall clock. ...

PURN. — Early American country furniture. Cherry drop leaf table, seats 4-8. Pr. fiddleback chairs, 1825 split spindle mirror. Tiger maple & butternut bedside table. Model Civil War cannon. Decoys, brass, copper, wall, mantle and grandfather clocks. The Martin Farm, DU ...

GARAGE SALE — Sun., ... washstand, iron bed, ... more. ... ally off R... Marble ...

ANTIQUES ... Gaithersburg, Md. ... SHIPMENT ... Rt. 355 to Gai... R bridge to Rt. ... St. ...

PS OF MARYLAND ... d Prints ... Paintings ... m Frame ... GALLERY ... Washington ... Andrie, Va. ... 549-0059 ... OF STORAGE ... rlan ... inc ... brass ... TREASURE & T... e. S.E. ... d Wed ... MENT ... rance all ... rniture. ... wood Quon ... le Quon Yen ... k buckles ... welry ... Flemish cupboa... lions ... table ... panese screens ... TODAY 10-5 ... RD ANTIQUES ... ington Boulevard ... ngton, Va. ...

EVES ... RKET ... closed on Fr... ht as of O... ... thmond Hwy. ... SHOPPING CENTE... 360-3200 ... SAT., 10 TO 6 ... 12 TO 5 P.M. ... NTERESTING ... bunk you buy tod... e in a 100 yrs. Co... of the fancier kind ... shops. Bring the k... nteresting hour or ... ERPRISE BO... ... Inv. Ga.) 587-... 2 mi. So. of Ex... Y SAT. & SUN. ... T ON VERSE ... ching ... 2 pr. ching... beds w/brass & marble ... stands. ... 10 Rococo E... beautifully carved, (4) ... bentwood chairs interestin... skin. 1840 Beautifully ... loveseat. Rare month ... clock w/seconds hand. 18... cuckoo c... Other item... op. ... 46. ... FROM GERMAN CHALE... ite sofa & 2 matching arm... Excel. cond. Must be seen. ... 00. 738-19... ... UCK AUCTIO... of antique household & mi... Oct. 11, 1969, 10 a.m. Loc... Meadow Branch Rd., off R... near Westminster, Carroll ... Md. ... ANTIQUES — ... chip table, 6 decorated plank chairs, decorated ... on's ... plank bottom ... chine... orated cane ... t ... items were paint... of Lebanon ... ware ...

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 intrpreted 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-Timer 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 satisfyers, 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.)

SALES BULLETIN NO. 95-12

FAST-FAX

Information Systems

World Leader in Time-Sharing Service

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)

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

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

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, LNBAS$***, 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.

Department	Uses
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 Bugle CLASSIFIED

SECTION B

November 1969

WANTED

Joe Lindroth, Long Beach, is looking for vibration analysis programs for shipbuilding.

Del Merenda, Meriden, Conn. is looking for programs which calculate heat flow through solids dealing with thermal conductivity, heat loss, and radiation.

Jim Sandum, Minneapolis, wants a program which lists gear summaries for Gleason bevel gear machines.

Ken Conroy, Greenville, S.C., needs a locater program which gives hotel and phone number of people attending a convention.

John Beyers, Memphis, is looking for a Critical Path Method loop checker for Mk II (similar to Mk I).

Del Merenda, Meriden, Conn.: needs program to do complex matrix inversion on Mk II. Call Del 8*225-6215.

Don Beecher, Philadelphia, would like a program to take care of maintenance order system. For example, a supervisor has two men report back at 3 o'clock, and he needs a program to answer the question, "What job do I have for two men that will take them two hours?" Send to Fast-Fax.

Charlie Ray, Buffalo, wants a routine to set-up program schedules for radio & TV broadcasters.

WANTED

Nick Markus, Toledo, is looking for a program to design machine logic controls for the operation of elevators.

Has anyone converted the FORTRAN IV covariance analysis program, MANOVA, to time-sharing. Please call Ron Fellows, San Diego 8*431-1180.

Cal Floerke, Minneapolis, wants a program to analyse the information contained in a shipper export declaration for use by air freight forwarders.

Bill Porter, Greensboro, would like a program for steel pipe stress analysis.

Want to change or add a name on the mailing list? Call Minnie Ferguson 8*273-4749. She also has copies of all contracts and sends them pronto on request.

AVAILABLE

Improved Mk II FORTRAN Sort and Description programs, CPMST* and CPMDT*, from Ray Porter, Bus & Mfg. Appl. Call Fast-Fax for program documentation.

Payroll program with output in printed check form and two reports, PAY70* and REP70*, Mk II BAS. For documentation submitted by Walt Cotton and Seth McClure, call Fast-Fax.

YATES*, from Robert L. Cox, Teaneck, utilizes Yates algorithm to analyse data from a multi-factor, 2 level experiment, Mk II BAS. Call Fast-Fax for program.

AVAILABLE

GRHEL*, calc. the change gears needed for Helical gear cutting machines, Mk II BAS. Thanks to Jim Muhlenkamp, Grand Rapids. Contact Fast-Fax.

Monte Carlo methods in risks evaluation of product to be manufactured, MTCAR*, Mk II BAS. Contact Fast-Fax for documentation.

SCONV*, program from John Sliter, Schenectady, converts BMC card file to Mk II FOR characters. Self-documentating. Call Fast-Fax.

DRUMS*, a program used by a telephone company, codes answer back drums, Mk II BAS. Submitted by Pete Lysaght, Wellesley.

Want to do a demo on the Labor Distribution & Payroll package (FAST-FAX 95-7)? Fast-Fax has a paper tape of data files. READ-THIS on RISKY*, Mk II gives up to date changes in package.

An instructors outline for teaching Mark I FORTRAN. Thanks to Norm Thurston, Applications. For outline call FAST-FAX.

COST1* and COST2* which print tables of tape vs. disc program storage costs for Mk I and Mk II respectively. Thanks to Gary McIrvin, Kansas City. Programs on RISKY*, self-documenting.

PERSONALS

CRYSTAL CITY — LOWEST PAR... RATES. Monthly space avail... furnished rooms, no deposit required... 2328 Jefferson Davis Hwy., Arl... Va. Call ...

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FORMS 171 — Forms prepared & revised. Editorwrite papers, reports. Daily, Sun. ... 524-1698, 9-...

FORMS 91—Resumes prepared & revised. Editorwrite papers, reports Daily, Sun. ... 524-1698, 9-6.

HOME OWNERS NO. 1 CASH ... 1st, 2d & 3d ... Call GE 8-1500 ... L & S ...

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SKETCH ... our or child by ... Call ...

TYPING—Formal resumes. Off. nr. 14th & ... Rush service when possible. ...

HUNTING, FISHING ACCOM. 7A

GOOSE-DUCK — Hunting Farm, Tilghman Island, Md. Bay front, fly & field ... & field goose pits. Approx. 5 miles ... Phone 9-7 ...

HUNTER ... taking reservations for game hunting in W. Va. ... lodge. Lots ... sorts, sr's, rab. Two hr. drive. ... 4-7 ...

HUNTERS—Goose ... duck hunting ... Eastern Shore, Bayside, ... Md. ... 24.

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... GRAPH EQUIP. & ... 451-9411.

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WANTED

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... Mer... rance & ... furniture. ...

... wood ... ...

... le Guan Yen ... & buckles ... jewelry ... Flemish cupboard ... lions ... 1 table ... Japanese screens ... TODAY 10-5 ...

... ANTIQUES ... ington Boulevard ... ington, Va. ...

... EVES ... PORT ... closed on Fri... at as of Oct. ... Richmond Hwy. ... SHOPPING CENTER ... 9-5:30 ...

... MON. THRU SAT., 9 TO 6 SUN., 12 TO 5 P.M. VERY INTERESTING ... Imagine, any junk you buy today will be antique in a few yrs. Come & get some of the junc... kind ... any of our 3 shops. Bring the kids & spend an interesting hour or ... with us. ... THE SHOPPE ... 940 ... Silver Spring, Md. ... 387-... Silver Spring ... of Exc... OPEN SUN. ...

OVERWEIGHT ON ... HORSE ... Impossible—selling 2 ... ching ... 1934 ... glass & marble ... stands, 1910 Rococo ... Beautiful ... bench ... wood chairs interesting ... 1840 Beautifully ... loveseat. ... month ... clock with hand, 18... cuckoo ... Other ... Open ...

... GERMAN CHALET ... It some 4-9 matching arm ... excel. cond. Must be seen. ... 00. 938-...

... DELUXE AUCTION ... of antique household & misc. Oct. 11 ... 9:30 a.m. Loc... Meadow Branch ... off Rt. ... Leesburg ... Can't ... Md. ...

ANTIQUES— ... ship ... table & desk rated ... chairs, decorated ... & plank bottom ... orated can... item ... paint... of Lebanon ... ware ...

DESKS ... school ... Exec., cond. 469-974...

ENGLISH PEWTER—Over 100 yr. old. Unusual pieces. Mary Baynes Gifts, ... N. Fairfax ... Arl., Va. Kenns Distl. Store ... shopping area.

FIREPLACE ... SCREEN—Brass with ... board, bellows; Steuben glass ... all cloth ... 966-...

FOR SALE—Early ... American country ... furniture. ... drop ... Indian ... seats, ... fiddleback chairs, 1825 ... split spindle mirror, ... maple & butternut ... table. Model Civil War ... cannon. Decoys brass, ... oil, mantle and ... andiron ... blocks. The Martin ... farm, LO ...

GARAGE SALE ... Sun., 10-... washstand, ... bed ... & more. 19... ly off Rt. ... marble ...

SALES BULLETIN NO. 95-13

FAST-FAX

Information Systems

World Leader in Time-Sharing Service

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.

PCACL$*** 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, RPØI, 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

GENERAL ELECTRIC

INFORMATION SERVICE DEPARTMENT

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 transfered 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.

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

CØGØ FEATURES The improved CØGØ$$***, 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 CØGØ$$***.
   (B) A command and data input file, a command and data results file and a scratch file must be created, if the 'file' mode is chosen.
   (C) When the 'file' mode is chosen, all output will be placed in the command and data results file which should be listed when the run is complete.
   (D) Any errors detected will be noted in the command and data results file.
   (E) For users of the 'term' mode, the execution of CØGØ$$*** 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 CØGØ$$***.
   (B) Reading of only selected points and writing of selected points is now accomplished by the KN1 and DP1 commands.
   (C) Any file read from may be appended by a DP1 command or any file written into may be read from by a KN1 command.
   (D) DP1 and KN1 may be used now in any mix as many times as desired during a run of CØGØ$$***.

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

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	DESCRIPTIØN
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 + CØNVERSIØN PRØGRAMS
MISCL*	MISCELLANEØUS PRØGRAMS
PUBNU*	MARK I ØFF-LINE PRØGRAMS
LIBNU*	MARK II ØFF-LINE LIBRARY
DEMØ**	DEMØ PRØGRAMS

CALLING DARTMOUTH

Don Parks, Boston: The telephone 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

WANTED

Fred Waring, Chicago, is looking for a program to convert PL1 language. If you have it, call Fast-Fax.

Cliff Eckman, Minneapolis, wants a program for design of fire prevention sprinkler system. Also, needs programs that design air conditioning configuration for architects. Contact Fast-Fax.

Ken Clement, Santa Barbara, wants a program to resequence FORTRAN statement numbers. If you have done it, call Fast-Fax.

Earl Taylor, Columbus, is looking for a program to do real estate accounting, property analysis, income and expense control. Call Fast-Fax.

Dean Pierson, Highland Park, N.Y. would like a program to schedule judicial court cases. Notify Fast-Fax.

Dave Johnson, St. Louis, would like a PERT cost program that conforms to the NASA PERT/C supplement. Contact Fast-Fax.

Do you have any corporate and personal income tax programs, particularly income averaging or other specialized income tax applications? Bob Cox, West Orange has an interested customer. Call Fast-Fax.

Program for liquid scintillator, made by Nuclear Chicago, which measures radio activity of different compounds. Call Vicky Zinser, Toronto or Fast-Fax.

WANTED

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.

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 percentages, let Cliff Eckman, Minneapolis, know, or Call Fast-Fax.

Program wanted to perform Willson Plot Analysis in heat exchange design. Contact Ed Woll 8*273-4616 or Fast-Fax.

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.

Bob Christopheson, Portland, is looking for a water hammer program. If you have one, call Fast-Fax.

AVAILABLE

PRICE*, generates cost estimate for using T/S based on input info about the customer, Mk I BAS. Thanks Don Moore, Syracuse. For program, call Fast-Fax.

Thanks to Dave Comroe, Teaneck, for CRDTR* which converts Mk II FORTRAN programs to batch FORTRAN – can be used for 360 or any other FORTRAN IV system. Available on RISKY*

AVAILABLE

All purpose forecasting and plotting program, ALPLT*, Mk I BAS, from Ronald Pushee, Schenectady. For program documentation, call Fast-Fax.

JSEDT*, program to edit the required customer created file used in JSHOP$***, Mk II BAS. From John Chadderton, Mfg. Appl. Contact Fast-Fax for documentation.

GAILW*, a subroutine to generate a line feed without a carriage return, from Gail Walsh, Eng. & Sci. Appl. Mk II FOR, self-documentating.

Speech with slides for chemical engineers. To reserve, call Tal Briddell, 8*273-4661.

PLOT7*, an improved version of PLOT2*, plots point to point from file created by NCPTS$***, Mk II FOR. Contact Fast-Fax.

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.

"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

"Notes On A Special Nonsymmetric Real Matrix Eigen Problem," a special report by Norman B. Waite, Eng. & Sci. Appl. Contact Fast-Fax.

PLOTTING FCST2$ FCST3$

Ron Fellows, San Diego: My customer wanted to plot results of FCST2$ and FCST3$. A diagnostic said something like "FPLØTT NØT 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 sleuthes 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$***, Machine Capability; QRCTS$***, 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 COGO$***, 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
Airduct 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.

ØPTIC$* UPDATED** An updated version of OPTIC$***, 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.

OPTIC$ 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 DELAYED Investment Analysis Language (IAL), 50 Time-Sharing subroutines 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

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 printouts from the Washington Sales Office. Call Fast-Fax.

WANTED

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.