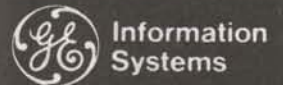


## SALES BULLETIN NO. 95

# FAST-FAX



World Leader  
in Time-Sharing  
Service

4-14-69

### WHAT IS THIS FAST-FAX ALL ABOUT?

When Ken MacDonald was made Manager of the Field Sales Operation, he wanted to set up a unit that would be responsive to the information requests of the field. Recognizing that many field people don't know who to call at the home office for answers, Ken decided that a special "hot-line" system could serve the needs of the field.

This responsive unit is called the Sales Support Unit. There are presently two people in the unit — Jim Doyle, Unit Manager, who answers on 8\*273-4421, and John Watts, Specialist, who answers on 8\*273-4345.

If you call Fast-Fax, you will receive a response within 24 hours. If you don't get the answer in 24 hours, you will get a call that will tell when you'll get your answer.

Fast-Fax will not debug programs for you. If you have a question requiring a technical and detailed answer, you'll be given the Dial-Comm of the specialist knowledgeable in that area.

Fast-Fax has officially opened full service to the Eastern and Northeastern Regions and limited service to the Southern Region. As additional staff members are in place, Fast-Fax will serve all regions.

This is the first issue of Fast-Faxgram. All further issues will be 95-1, 95-2, etc.

Not all questions asked and answered are printed here. Those with general information content are printed, assuming that you may require the same information.

### Gear train program

**Lee Schwieger — Tulsa:** Do you have any gear train design programs? Fast Fax sent him one — offered another — but he needed a program to calculate inertia. Do you have one? Do you want the gear train design program?

### Volume Discount

**Dave Sweetman — Detroit:** Can DATANET-730 rental fees count toward volume discount? No. Only Mark I and Mark II services count toward volume discount.

### Bank Programs

**Marvin Broz — Columbus:** How do we get copies of Dartmouth banking programs? Tapes were sent to all Mark II sites, IPC Mgrs have them in their private library under name BANKPR. Get them transferred to your user number.

Note: The programs are public domain (OK to give listing). These programs are undocumented and not supported by Dartmouth or Bethesda.

### Mark II Catalog

**Frank Tung — Long Island:** Is there a printed catalog of Mark II library programs?

Yes. 20,000 copies of Customer Bulletin 35 were printed on March 18. Bulk shipments were sent to each office location. More

are available via Form AF 110 and Schenectady.

**DATANET -730** **Dick Belden — York:** How can I rent or sell DATANET-730's where handsets won't fit the coupler?

Make the entire telephone portable as well as the terminal. Get one handset that fits; equip it with a 4-prong jack. Have customer install phone plugs where terminal is to be used.

**Paper Tape Perforator** **Joan Wood — Long Island:** Is there an inexpensive paper tape perforator for prepartation of tapes off-line?

Model 33 TC teletype sells for \$740 from Teletype Corp. (Phone companies won't sell or lease terminals not intended for connection to their lines.)

**DATANET -730** **Jim Kessler — Tulsa:** Customer can't get DATANET-730's to talk to each other over phone lines. Why?

They're equipped with TDM114 data sets that don't permit inter-talk. TDM115's would provide the function, but they're not in the product line as yet.

**Machine Scheduling** **Joan Wood — Long Island:** Is there a program to schedule machines in a shop?

Sorry, can't help you on that. How about LP Programs or CPM. Can they do the job? Any help anybody?

**Resource** **Charlie Ray — Buffalo:** What is the status of Resource?

It's being sold initially by ISS&S on the Bethesda system. Home office contact on Resource is FAST-FAX 8\*273-4345

**80-column cards into T/S** **Bill Burns — Philadelphia:** What card readers can be attached to the Teletype terminal for data entry into our service?

Motorola Information Systems Div. makes the MDR1000. A Phoenix firm makes the Cardliner-10. Call Fast-Fax for sales offices nearest you. Engineering will be testing and evaluating both devices soon.

**DATANET -730 contract** **Joan Wood — Long Island:** Contract for DATANET-730 doesn't say anything about 1/2 of rental fees applying toward purchase, but SR's were told it can. How do we get it onto the contract?

You can attach a rider as follows:

"Conversion from rent to sale: GE will credit 50% of the rental paid on the ACT-735 toward the sale price, excluding maintenance. Total credit cannot exceed \$500.00". Lease price minus maintenance divided by two  $2/110-35$ . It requires 7 month's rental to earn the \$500 credit.

**EDITEXT** **Dave Beck — Cleveland:** What is the status of EDITEXT?

The Editext service is being completely re-evaluated. Commercial service offered from Washington IPC is being phased out. Bill Watson is the Editext man in Product Planning: 8\*273-4204.

**Pipe Stress program** **Lee Schwieger — Tulsa:** Do you have a pipe stress analysis program?

Fast-Fax sent him one via TTY and Dial-comm for cast iron and stainless steel pipe — he wanted one for plastic pipe. Anybody else want PIPE and PIPE? Anybody have a pipe stress program for plastic pipe?

**FX Lines** **John Clark — Philadelphia:** To determine how we can serve national accounts better, we need to know what cities have local phone service to what systems. Can you help?

See the attached list — current as of March 19, 1969.

Fast-Fax nomination for the "farthest-out" question:

Cut and Fill program

**Dennis Sullivan — Chicago:** Do we have a cut-and-fill civil engineering program?

Wayne Garber in Portland developed one presently stored in L.A. Mark II. Portland office sent him available documentation and let him try EARTH\$WG on Mark II.

Portable TTY's

**Norm Wilson — Manhattan:** What is the procedure for getting more portable teletypes for demonstrations?

It's done through an AR (Appropriation Request). Get your District and Region to consolidate needs and submit an AR.

**Meryl Peterson — Houston:** What is the delivery time for terminals in Antwerp, Belgium?

It took a cable to the Brussels IPC and Fast-Fax delivered the answer to Meryl — who had a customer moving to Europe and wants to use time-sharing there. Incidentally, it only takes eight days to get a terminal in Antwerp.

Fast-Fax is building a library of demonstration and general programs. The Pipe Stress Analysis program is typical of the programs we'll keep on file to send on demand. If you have programs that you would like to share with other Sales Reps., send them to Fast-Fax.

The Fast-Fax office will be the distribution point for off-line library programs. LIBOFF\*\*\* for Mark II, CATPUB\*\*\* and CATGEO\*\*\* for Mark I service.

FROM	TO
MILWAUKEE	CHICAGO
KANSAS CITY	CHICAGO
ST. LOUIS	CHICAGO
KANSAS CITY	CLEVELAND
COLUMBUS	CLEVELAND
DAYTON	CLEVELAND
DETROIT	CLEVELAND
INDIANAPOLIS	CLEVELAND
KANSAS CITY	CLEVELAND
LOUISVILLE	CLEVELAND
TOLEDO	CLEVELAND

**CENTRAL REGION LOCAL PHONE SERVICE BY MARK I SERVICE**

<u>TO</u>	<u>FROM</u>
CHICAGO	KANSAS CITY
CHICAGO	ST. LOUIS
CLEVELAND	CINCINNATI
CLEVELAND	COLUMBUS
CLEVELAND	DAYTON
CLEVELAND	LOUISVILLE
CLEVELAND	PITTSBURGH
CLEVELAND	PITTSBURGH
CLEVELAND	YOUNGSTOWN
DETROIT	TOLEDO

**CENTRAL REGION LOCAL PHONE SERVICE TO MARK II SERVICE**

<u>TO</u>	<u>FROM</u>
CHICAGO	MILWAUKEE
CHICAGO	MINNEAPOLIS
CHICAGO	ST. LOUIS
CLEVELAND	AKRON
CLEVELAND	BUFFALO
CLEVELAND	CINCINNATI
CLEVELAND	COLUMBUS
CLEVELAND	DAYTON
CLEVELAND	DETROIT
CLEVELAND	INDIANAPOLIS
CLEVELAND	KANSAS CITY
CLEVELAND	LOUISVILLE
CLEVELAND	TOLEDO

WESTERN REGION LOCAL PHONE SERVICE TO MARK I SERVICE

<u>TO</u>	<u>FROM</u>
BERKELEY	PALO ALTO
BERKELEY	SACRAMENTO
LOS ANGELES	GARDEN GROVE
LOS ANGELES	SANTA BARBARA
LOS ANGELES	SANTA BARBARA
PHOENIX	ALBUQUERQUE
PHOENIX	COLORADO SPRINGS
PHOENIX	DENVER
PHOENIX	SALT LAKE
PHOENIX	TUCSON
SEATTLE	PORTLAND
PHOENIX	LOVELAND

WESTERN REGION LOCAL PHONE SERVICE TO MARK II SERVICE

<u>TO</u>	<u>FROM</u>
BERKELEY	PALO ALTO
BERKELEY	SACRAMENTO
LOS ANGELES	DENVER
LOS ANGELES	GARDEN GROVE
LOS ANGELES	PHOENIX
LOS ANGELES	SAN DIEGO
LOS ANGELES	SANTA BARBARA
LOS ANGELES	SANTA BARBARA
PHOENIX	COLORADO SPRINGS
PHOENIX	SALT LAKE CITY
SEATTLE	PORTLAND

**SOUTHERN REGION LOCAL PHONE SERVICE TO MARK I SERVICE**

<u>TO</u>	<u>FROM</u>
ATLANTA	ANDERSONVILLE
ATLANTA	COCOA BEACH
ATLANTA	HUNTSVILLE
ATLANTA	MEMPHIS
ATLANTA	NASHVILLE
ATLANTA	ORLANDO
ATLANTA	PENSACOLA
BETHESDA	NORFOLK
BETHESDA	RICHMOND
DALLAS	AUSTIN
DALLAS	BATON ROUGE
DALLAS	CORPUS CHRISTI
DALLAS	FORT WORTH
DALLAS	HOUSTON
DALLAS	LAFAYETTE
DALLAS	NEW ORLEANS
DALLAS	OKLAHOMA CITY
DALLAS	PORT NEECHES
DALLAS	SAN ANTONIO
DALLAS	TERMINAL, TEXAS
DALLAS	TULSA

**SOUTHERN REGION LOCAL PHONE SERVICE TO MARK II SERVICE**

<u>TO</u>	<u>FROM</u>
ATLANTA	NASHVILLE
ATLANTA	ORLANDO
BETHESDA	ATLANTA

BETHESDA	BALTIMORE
BETHESDA	NORFOLK
DALLAS	FORT WORTH
DALLAS	HOUSTON
DALLAS	LAFAYETTE
DALLAS	NEW ORLEANS
DALLAS	OKLAHOMA CITY
DALLAS	TERMINAL, TEXAS
DALLAS	TULSA

**EASTERN REGION LOCAL PHONE SERVICE TO MARK I SERVICE**

<u>TO</u>	<u>FROM</u>
TEANECK	DEER PARK
TEANECK	HARRISBURG
TEANECK	MANHATTAN
TEANECK	MINEOLA
TEANECK	PHILADELPHIA
TEANECK	POUGHKEEPSIE
TEANECK	PRINCETON
TEANECK	ST. COLLEGE

**EASTERN REGION LOCAL PHONE SERVICE TO MARK II SERVICE**

<u>TO</u>	<u>FROM</u>
NEW YORK	MINEOLA
TEANECK	BRIDGEPORT
TEANECK	CORNING
TEANECK	BINGHAMTON
TEANECK	HARTFORD
TEANECK	MINEOLA
TEANECK	NEW LONDON
TEANECK	PHILADELPHIA
TEANECK	PRINCETON
TEANECK	ROCHESTER
TEANECK	ST. COLLEGE
TEANECK	SYRACUSE

**EASTERN REGION LOCAL PHONE SERVICE TO DESK-SIDE SERVICE (605)**

<u>TO</u>	<u>FROM</u>
KING OF PRUSSIA	BETHESDA
KING OF PRUSSIA	BETHLEHEM
KING OF PRUSSIA	ENGLEWOOD
KING OF PRUSSIA	MANHATTAN
KING OF PRUSSIA	NEWARK
KING OF PRUSSIA	SYRACUSE
KING OF PRUSSIA	WELLESLEY

**NORTHEAST REGION LOCAL PHONE SERVICE TO MARK I SERVICE**

<u>TO</u>	<u>FROM</u>
SCHENECTADY	BIG FLATTS
SCHENECTADY	JOHN CITH
SCHENECTADY	ROCHESTER
SCHENECTADY	SYRACUSE
SCHENECTADY	UTICA
WELLESLEY	HARTFORD
WELLESLEY	NASHUA
WELLESLEY	NEW HAVEN
WELLESLEY	PROVIDENCE
WELLESLEY	STAMFORD
WELLESLEY	WORCESTER

**NORTHEAST REGION LOCAL PHONE SERVICE TO MARK II SERVICE**

<u>TO</u>	<u>FROM</u>
SCHENECTADY	ROCHESTER
SCHENECTADY	SYRACUSE
WELLESLEY	MANHATTAN



# FAST-FAX



World Leader  
in Time-Sharing  
Service

## Mark II CRU differences

**Marg Star - Boston:** When doing Mark II editing, is the CPU connected and the customer billed even though it doesn't show up on CRU printout? Yes, the software is being modified so that CRU's printed on the terminal will agree with CRU's on the monthly bill, but they don't agree now. See the attached write-up on Mark II CRU printouts for a partial explanation.

## Spring Joint

**Ron Moutardier - Detroit:** One of my customers wants to go to the Spring Joint Computer Conference in Boston May 14, 15, 16. Can I get him an admission ticket? Yes, they're available from Fast-Fax, but they don't admit anybody to technical sessions - exhibits only. A & S P is sending pre-show folder to all offices. GE has two display areas: (1) Inf. Sys. Group has a theatre-type multiple-screen presentation; (2) Information Devices Dept. will show peripherals with Waynesboro demonstrating the Terminet-300 (using 605 access)

## Fast-Fax's teletype

If you're working late and you want to be sure a message reaches Fast-Fax in the morning, call our teletype on 8\*273-4379. It's in the same room as our coffee machine, so the message will be seen. Messages on this terminal also deli-

verable to Backer, Hendricks, Chessler, Cohen and Richardson.

## N.C.

**Ron Moutardier - Detroit:** Do you have a machine tool description file (MTDF) for the Weidamatic Punch Press Model A-15? Fast-Fax doesn't have one in the file as yet, but Art Lee in Philly has one -- call him.

## SEASON program

**Tony Asturi - Pittsburg:** Have you heard of a program called SEASON? Yes, it computes multiplicative and additive seasonal indices from monthly data. It also computes forecasts using these indices. We'll send you a listing (about 85 lines)

## PAINT program

**Jim Schuster - Greensboro, N.C.:** Can you get us a copy of the PAINT program as described in publication 119077? The author, R. M. Briber has released the program and documentation through GE's Technical Information Series reports. We're duplicating the documentation and will send it as soon as possible.

## Machine Scheduling

**Bill Burns - Philadelphia:** One of my customers has a 20-man shop and wants to know if there is a program that will help schedule the men and the machines? A Mark II program called ASIGN\$ uses the Gilmore Algorithm. A 7-page

RECEIVED  
MAY 15 1969  
A. F. JONES

write-up with examples named Job Assignment Analysis is available from Fast-Fax.

Schartman is applauded

"Thanks for the terrific job you did for a customer here in Baltimore . . . we almost lost him until you helped him out . . . now he's so happy he wants to talk about GE's great service at a local NC Society meeting . . . Joe, you're a prince."

These are just a few of the nice things that Bruce Barnard of Baltimore wrote in a letter to Joe Schartman in Cleveland. It's a good example of field people helping each other. Congratulations Joe --- keep up the good work.

Plotters

**Jim Dickson — Atlanta:** Are there any new plotter techniques, programs or documentation available for Calcomp plotters? Nothing other than the two Users Guides: Mark II Fortran Plotting Routines 902203 - updated Jan. '69 and Mark I Fortran Plotting Routines 708205 updated Jan. '69. Mark II software and preliminary documentation for COMLOT plotters is getting closer.

Mush! Mush! you huskies

**Lacy Johnson — Santa Barbara:** . . . was informed by the Standard Oil Company that they had decided to install a Mod 33 in the Anchorage Division office. They've asked for a GE man to be on site at installation time to instruct personnel.

ECAP

**Ed Taylor — Cleveland:** What is the status of the ECAP package? It's in field test in some selected sites, and good results are being fed back. Some revisions are being made to make the programs even more attractive to circuit design engineers.

Logic Ckt Analysis

**Elaine Rogers —Syracuse:** Do we have a program that will do logic circuit analysis? It's in the mill, but no dates are available. It can be used by circuit

Sales Rep moves to Mgr. role

analysis people, or anybody doing any type of logic flow.

Congratulations to Pete Ekstrand, new Sales Manager at the Atlanta office. He was a sales rep in the Washington office. Ray Kane recently named him "Salesman of the Month". Pete moves on to bigger and better things, leaving an enviable record: 22 contracts in 20 weeks.

Trucking programs

**Mel Fisher — Philadelphia:** Has anybody developed any programs for the trucking industry to help them eliminate empty back-hauls? Yes, Fast-Fax stumbled onto one in the field, and as soon as we get a tape with documentation it will be sent to you Mel. Would anybody else like to have it? Place your order with Fast-Fax.

Civil Engineering Programs

**Jack Kajsasz — Buffalo:** The application write up (173118) on Purcell Civ. Engr. firm states that hundreds of programs are available for engineers to use. Where are they? Purcell said it -- not GE. But he's referring to the hundreds of available Civ. Engr. programs that state highway departments have for road and bridge building. Written for the 1620 in Fortran II, they convert easily to T/S, and they're public domain -- usually with good documentation. Get in touch with your state highway dept. data processing division.

T/S on GSA?

**Jack Mahaffey — Knoxville:** Is GE Time-Sharing Service on GSA list for approved products or service for the government to buy? No. The government doesn't accept our standard contract -- each has to be separately written. **Dick Farrell — Washington** is sending Fast-Fax copies of sample contracts which will help other government agencies write acceptable contracts. Call Fast-Fax for your samples.

Mark II program size	<p><b>Bob Donnestadt — Milwaukee:</b> What is the largest size program the Mark II can handle? With chaining, there's no limit. You get 17K for any one-time execution, but you can chain to additional 17K chunks all day.</p>	<p>Mod 33 TC Lease</p>	<p>to read <u>Joe Schmid's letter thoroughly</u>. Summaries are contained on the last page of this bulletin.</p>
Fast-Fax personnel	<p>Two new people were added to the Fast-Fax staff. Brian Berger answers 8*273-4345, and Tim Kramer answers 8*273-4421. We regret to say that John Watts has left the company. He's moving to a very nice position with a firm making IS&amp;R equipment.</p>	<p>Terminet-300</p>	<p>Some local phone companies will lease Mod 33 TC's, even though they're not connected to a line. Fast-Fax reported that they weren't leasable, but local phone companies apparently reserve the option. Check in your area before you commit. A picture of the 33TC and specifications is attached.</p>
CPM	<p><b>Louis Goodrich — Houston:</b> Our present CPM package describes the units as being equivalent to "one-half days". Is there a conversion necessary to make the units represent hours or tenths-of-hours? No conversion necessary just input the data representing the unit factor you want, but remember what they are when they come out.</p>	<p>What is Half-duplex?</p>	<p><b>Bob Mario — Syracuse:</b> How can we get some data on the Terminet-300? The Waynesboro plant has given Fast-Fax permission to reprint their brochure. You'll get copies as soon as they're printed.</p>
Inf. Stor. & Retrieval	<p><b>Pete Thompson — Philadelphia:</b> Do you have documentation on the Mark I Information Storage and Retrieval program? Yes, it's called 265IR\$. CATPUB documentation is now available through Fast-Fax, instead of Helen Fincutter.</p>	<p></p>	<p><b>Bud Wise — Cincinnati:</b> What is half-duplex, full-duplex, and echo-plex?  Half:duplex: data moves on the line in one direction at a time only. The analogy is a radio conversation where one party speaks, then says "over" and listens while other party speaks.  Full-duplex: data can move both ways on the line at the same time. The analogy is a phone conversation — both parties can speak and be heard at the same time.</p>
Datanet-730	<p><b>Jack Sharkey — Manhattan:</b> Can we include a de-installation charge in a Datanet-730 contract? No, we must be consistent in our charges to the customers. Arbitrary charges not common to all are not legal.</p>	<p></p>	<p>Echoplex: The printed character at the terminal is caused not by the finger action at the keyboard, but by the echo of the character sent from the terminal to the computer and back again. This requires a full duplex line.</p>
Heat Exchange	<p><b>Jim Reinher — Chicago:</b> What is the status of the heat exchange package? An April 24 letter to all regional, district and IPO managers from Joe Schmid had a field test critique sheet, with 3 Users Guides (Field Test draft versions). The programs are in field test on all Mark II systems. They are a part of the total Heat exchange package. <u>Be sure</u></p>	<p>Half-duplex vs. Full-duplex</p>	<p><b>Ed. Ferguson — Los Angeles:</b> Our competitors using full duplex lines claim reliability is low on half-duplex lines. Is there any official write-up form AT&amp;T or Bell Labs that defines the trade-offs? The local phone representative promised to get a copy which we'll send on to you. Full duplex has some</p>

merit where lines are marginal, but in metropolitan L.A., it's probably a waste. Remember that your competitors require their customers to pay more for the full duplex lines (25% in most cases). And, chances of hits on the line are doubled. If garbage appears on the terminal, you have no way of knowing if it was clobbered on the way to the computer, or on the way back -- so it only tends to confuse the matter.

### Customer Bulletin No. 36

What's the story on Customer Bulletin No. 36? It was a victim of many circumstances. To meet a deadline, it was printed without the careful proof-reading it should have had. Errors in the sample problem caused the recall. It's been reprinted and redistributed. Then, at the last minute, minor bugs were found in the new BASIC, so the formal announcement of Binary Random Access Files has been temporarily suspended. The bugs have been found and the announcement should come within the next few days.

to read the Bulletin's letter the...

Some local phone companies will have Mod 33 TC's even though they're not connected. Don't let this fool you. Report that you were a local, but local phone companies apparently receive the signal. Check in your area before you commit. A pic-out of the 33TC and the...

Bo -- Synovus: How can some data on the Terminal 200? The Westernport plant has given FastFax permission to reprint their product. You'll get copies as soon as they're printed.

But Wise -- Cincinnati: What is half-duplex, full-duplex, and... Half-duplex: data moves on the line in one direction at a time only. The analogy is a radio conversation where one party speaks then says "over" and listens while other party speaks. Full-duplex: data can move both ways on the line at the same time. The analogy is a phone conversation -- both parties can speak and be heard at the same time.

Ed: The printed circuit at the terminal is coded not by the finger action at the keyboard, but by the scan of the character sent from the terminal to the computer and back again. This requires a full duplex line.

Ed: Ferguson -- Los Angeles: Our competitors using full duplex lines claim reliability is low on half-duplex lines. Is there any official white-up from AT&T or Bell Labs that defines the standard? The local phone representatives promised to get a copy which will send on to you. Full duplex has some...

Half-duplex vs Full-duplex

Bob Donnelly: What is the Mark II... the Mark II... printing... get 17K for... option, but you... additional 17K...

Two new people... the Fast-Fax... answers 8733... Keyboard answers... We report to... Watt has left... He's moving to a... position with... IS&R equipment...

Louis Goodrich: Our present... sorted the unit... valant to "one... there a connect... make the unit... or limits-of-fo... version necessary... data representation... for you want... what they are... out.

Pat Thompson: Do you have... the Mark I information... and Reflex program... called 255RS. CATBUS... mention is now available... through Fast-Fax, instead of... Helen Finckler.

Jack Shewey -- Manhattan: Can we include a de-installation change in a Datanet-730 contract? We must be consistent in our charges to the customer. Arbitrary charges not common to all are not legal.

Jim Reinier -- Chicago: What is the status of the next exchange package? An April 24 letter to all regional districts and RD managers from Joe Schmidt had a field test outline that with 3 Users Guides (Field Test draft version). The program set in field test on all Mark II systems. They are a part of the next... Next exchange package...

Mark II program size

Fast-Fax personnel

CPM

Int. Stor. & Retrieval

Datanet-730

Next Exchange

## Mark II CRU printout vs. CRU accumulation for billing

Assume that Tom Hughes goes to the terminal . . . dials up the Mark II system in the normal way, to do some work.

```
GE MARK II T/S FROM NEW JERSEY
TERMINAL 211 ON AT 17:11 04/09/69
USER NUMBER--
SYSTEM--BAS
NEW OR OLD--OLD
OLD FILE NAME--TRAIN
READY (The system has located the file address in the user's catalog)
110 DATA 1,2,3,4,5,6,7,8,9,10
120 DATA 31.5,34.7,22.543,12.75 Editing functions performed by system
130 DATA 123.456,987.654,456.123
140 )
150 ) line deletions performed by system
160 )
EDI RES Edit resequence operation
READY
REN (the system renames the program - a service rendered)
NEW FILE NAME-- NIART
READY
SAV --another system function performed
READY
EDI DEL 200-250 Edit delete function performed by system.
READY
SAV system saves program -- adds name to user's catalog
DUPLICATE FILE NAME; REPLACE OR RENAME
READY
REN program is renamed - a service rendered
NEW FILE NAME -- NIART10
READY
SAV system saves program - adds name to user's catalog
READY
BYE
OFF AT 17:17 04/09/69 NEW JERSEY ←
```

→ At this point in time, Tom Hughes secretary informed him that he had an urgent long distance phone call. He hasn't issued a RUN command as yet. Rather than destroy the work that was done, he SAVES it, and will run it later.

Notice no CRU's printed at terminal.

## **Summary of three Heat Exchange Programs in Mark II Field Test as of April 24, 1969**

### **FLUID PROPERTY PROGRAMS (Field Test Users Guide No. FT902206)**

A set of subroutines calculates thermal properties of nine engineering fluids. The fluids are: air, oxygen, carbon dioxide, hydrogen, nitrogen, steam, pyranol 10-C, transformer oil.

Properties are: density, viscosity, specific heat, thermal conductivity, Prandtl number.

The programs are independent subroutines and part of the Mark II Fortran Subroutine Library. Also there is a subroutine control program on the MARK II library THPRP\$.

### **NTU-EFF PROGRAMS (Field Test Users Guide No. FT902205)**

The subroutine ENTUS and the subroutine control program ENTU\$ calculate heat transfer effectiveness, capacity rate ratio, and minimum and maximum flow capacities for seven different heat exchanger flow areas used conventional two-fluid heat exchanger design. The calculations assume steady state heat and fluid flow, negligible longitudinal heat conduction and a uniform velocity profile. Experience shows calculated values are accurate within 1% if these assumptions are satisfied. FNTU\$ is part of the MARK II FORTRAN Subroutine Library.

### **STEAM PROPERTY FUNCTIONS (Field Test Users Guide No. FT903211)**

Various steam and water properties, such as enthalpy, saturation temperature, density, specific heat, viscosity, and thermal conductivity, may be calculated by use of individual functions having arguments of temperature, pressure and humidity. The functions, one for each property, are part of the MARK II FORTRAN Subroutine Library.



Model 33 TC \$740.00

Equipment Features and Components

Description

Teletype Corporation Model 33TC Standard Duty Send-Receive Page Printer Set with Tape Perforator and Reader (Private Line Version) with these features:

Set Features (Less Punch and Reader)

- |  |  |
|--|--|
| Eight-level, 11.0 unit code (1.0 unit start and 2.0 unit stop pulse)   | Copyholder   |
| 8-1/2" friction feed platen capable of handling one or two ply paper (maximum roll diameter 5")  | Answer-back mechanism (21 character) actuated by the "here-is" key       |
| Data communications type wheel arrangement with associated four-row keyboard layout (American Standard Code for Information Interchange) | Answer-back drum to be coded by the customer                             |
| 115 V AC 60 cycle synchronous motor unit   | Function box "on-line" operation of line feed, carriage return, and bell |
| Gears for 100 wpm operation (110.0 Bauds)  | Space suppression at end-of-line   |
| Adjusted for 72 character line   | Control key (functions)  |
| Horizontal spacing 10 character per inch   | Shift key (locks out keys without shift case)                            |
| Vertical spacing 3 or 6 lines per inch   | Break key and "Here-is" key  |
| Selector magnet driver can accept .020 or .060 amperes with proper wiring (strapping)  | Power supply transformer   |
| Two-tone cover: Ivory and Greige   | Convenience outlet   |
| Standard Teletype nameplate  | 3-way switch (off, on-line and local)                                    |
|  | Wiring provisions for optional full duplex operation                     |
|  | Sheet metal stand with greige color finish                               |

## Tape Reader Features

3-way operating switch for start, stop and free position  
"End-of-Tape" mechanism to shut down reader  
Feed sensing electromagnet is pulsed by the distributor

Power pack assembly  
Parallel wire output to distributor  
Operating sequence; reads tape and feeds  
Capable of reading fully perforated tape

P.D. No. 106 (Continued)

Change 9

Dated October 1, 1968

P. D. No. 106

### Tape Punch Features

Four operating buttons, "OFF", "ON", "BACKSPACE", and "RELEASE"  
1" Core for tape supply  
Fully perforated 8-level code holes and feed hole  
"V" shaped tape tearoff  
Operating sequence; feed and punch  
Removable chad box (Designed for attaching to stand)

### Dimensions

Complete set less stand:  
Width 22"  
Depth 18-1/2"  
Height 8-3/8"  
Weight 44 lbs.

Stand: Supports Teletypewriter  
Width 17-3/4"  
Depth (at Top) 8"  
Depth (at Bottom) 6-1/2"  
Height 24-1/2"  
Weight 12 lbs.

### General Information

Interoperates with existing teletypewriters having corresponding features  
Fewer options possible compared to Model 35 Heavy-Duty Equipment  
Actual and schematic wiring diagrams packaged with set  
Set shipped completely assembled less stand and chad box  
For applications requiring a broader range of features, the Teletype Model 35 line of equipment is recommended.  
The above equipment requires a channel capable of handling 110.0 Bauds (Bits per second) for operation at 100 wpm. If for use on Dataphone Service with "Bell" Data Subset or its equivalent, we can furnish the necessary interface coupler under Part No. 198420, at \$78.20 net each plus Part No. 186145 Cord with Connector at \$5.60 net each.  
One copy each of Bulletins 273B Vol. 1, 310B Vol. 2, and 1184B furnished with each set

### Estimated Service Life

7500 Hours at 60 or 66 wpm  
4500 Hours at 100 wpm

### Lubrication Intervals

### Printer, Tape Punch and Reader

100 WPM	500 Hours or 6 months, whichever is first
60 or 66 WPM	1000 Hours or 1 year, whichever is first

### Preventive Maintenance and Overhaul

<u>At 60 or 66 WPM</u>	<u>At 100 WPM</u>
2500 and 5000 hours	1500 and 3000 hours

Note: Hours indicates actual operating time.

"Even" vertical parity version of this set is shown on P.D. No. 106B (Model 33TZ)



# FAST-FAX



World Leader  
in Time-Sharing  
Service

Due to the large influx of inquiries and questions pertaining to the Terminet-300 terminal, we have decided to issue this status report. Our original plan was to issue a complete package of information when all plans were finalized. Our interim status is as follows:

## TERMINET-300 STATUS

### WHEN

The Information Service Department will offer a limited quantity of TN-300 terminals for lease or sale starting in the 4th quarter of 1969.

### Brochures and Technical Data

The sales promotion literature is being secured by the Sales Support Unit and will be issued to all field location concurrent with the Sales Plan.

### Product Plan

The Product Plan for the TN-300 is currently in preparation and will be issued by Product Planning in June 1969 for review and comment.

### Sales Plan

A Sales Plan will be issued by the Terminal Sales Function in July 1969 for review and comment.

### TN-300 Terminals on Order

Currently 100 terminals are on order for ISD with availability scheduled to the field sales operation during the 4th quarter of 1969. An additional 360 terminals are on order as an initial quantity for 1970.

### Prices

The Final Price Approval (FPA) has not been approved by the Information Systems Group as yet. The FPA has been prepared by the Information Devices Department in Oklahoma

City and is currently under ISD review. Final Price approval is expected by July 1, 1969.

### Deployment

The current plan is to deploy the initial TN-300 terminals to the major cities which will have 30 character-per-second service from the Mark II AX system. The deployment will then broaden to all other current sales areas as trained personnel, maintenance programs, and terminals become available.

### Maintenance

The maintenance program and the service areas will be essentially the same as those set up for the Datanet-730 program. The contract and agreement must be negotiated with GE's Field Engineering Department. The terms and arrangements will be made known when they are available.

### Terminal Specification

The terminal to be offered by ISD will be manufactured to a special ISD specification that meets time-sharing system requirements. This terminal will differ slightly from the standard Waynesboro models.

### Sales Tools

Approximately 1/2 of the first quantity of terminals available to ISD's Field Sales operation will be allocated for use as sales tools for demonstrations, hardware/software compatibility and field check out. The additional units will be available for lease or sale after the initial test.

### Competitor Units

It is possible that some of our competitors will have a small quantity of Terminet-300's available prior to the delivery of our units. However, our current plan dictates we live with this situation in order not to secure the first units off the Waynesboro production line.

1297 PURCHASE \$ 80  
6/LINE VS \$ 40/NORTH  
LEASE

# FAST-FAX



World Leader  
in Time-Sharing  
Service

T/S output to  
punch cards

**Dick Janson — Long Island:** Is there some way to have the terminal produce punched cards? The CT-812-X by Oneida Electronics Inc. Box 46 Yorkville, N.Y. converts TTY output so it can drive a modified card punch. Price range is \$3,000. Xerox of spec sheet available from Fast-Fax.

American  
Standard  
vocabulary

**Mike Diamond — Detroit:** Where can I get a copy of the American Standard Vocabulary for Information Processing? Order the catalog (free) from USA Standards Institute 10 East 40th Street N.Y., N.Y. 10016.

National  
Software  
Catalog

**Bob Maraio — Syracuse:** Is there a nationwide catalog of programs that are for sale? The ICP Quarterly, Vol. 3, No. 2, April 1969 is a catalog of computer programs for sale and has a roster of contract programming firms. It is published by International Computer Programs, Inc., 2511 E 46th St., Indianapolis, Ind. 46205. Fast-Fax has access to the department's copy — most programs listed are batch, not all in Fortran.

Electric  
Utility  
Programs

**Larry Lesser — Manhattan:** Do we have any electric Utility Programs? GE's Electric Utility Sales Dept. (EUSD) made a group of programs available to ISD. Documentation is very poor or

nil; and the programs have not been maintained. They serve best as an indication of what utility companies can do with time-sharing. Don't give them to an unsophisticated user, or you'll be smothered with calls for help.

New Mark II  
FORTRAN

The new version (with complex and double precision) was planned for release in early June. Problems in field test now indicate commercial availability in early July. If you haven't mailed out Customer Bulletin No. 37, hold it until the end of June.

Customer  
wants to  
sell software

**Egan Skinner — Greensboro, N.C.:** My customer wants to sell software to GE. What's the first step? Address correspondence to J.C. Chessler, Manager, Datanet Software Services GE Information Service Dept., 7735 Old Georgetown Rd., Bethesda, Md. 20014.

Medical  
Programs

**Al Abrams — Manhattan:** Do we have any programs for the medical field? An Applications Section man is formally assigned to the job. In late July he promises a status report on programs in the following areas: diagnostics, drug compatibilities, bacterial identification by gas chromatography, and radioactive therapy.

**DATANET-730 Sprocket feed?**

**Mike Diamond — Detroit:** Is sprocket feed available on the Datanet-730? Sorry no. The phone company can install it on a Mod 35 with no strain — it's a kludge on their Mod 33's; doubtful they'll install it on our 730's.

**Plotters with DN-730**

An effort is being made to permit the Calcomp plotter to be connected to the Datanet-730. More details as they're available.

**Initiation Charges**

Should a Mark II customer have to pay initiation charges onto 605 Service? Legally yes. The initiation charge covers charges for a "class" of service. One fee for Mark I/II class service; one fee for 605 service, and one fee for resource service.

**New Contract Office**

**Charles Hatch — 8\*273-4397:** handles any contract administrative problem for the department. If you want clearance to put in deviations to the standard agreement, contact Charles Hatch.

**Program submission**

**Richard Beckett — Berkeley:** I have a gas network analysis program that may be useful to other CAS's. Who do I send it to? Send it to Fast-Fax — the central point for program submission. They're forwarded to the Applications section for review and evaluation for on-line or off-line use.

Fast-Fax tips the hat to the following people who have submitted programs:

**Richard Beckett, CAS Berkeley,** for gas network analysis.

**Lee Denny, CAS/Schenectady,** for TRANS1, TRANS2, TRANS3, (Basic to Fortran converter) received by way of Audio Products Dept.

**Robert King, CAS/Highland Park, N.J.** sent a step-wise multiple regression program and subroutine for calculating involute functions.

**Bob O'Keefe, AR/Cincinnati,** sent a Mark I Fortran version of Analog Simulation (the forerunner to the present Mark II version); Bob also sent a Basic program to do numerical integration for the dynamic analysis of systems. The program is documented in GE TIS report DF66MD709.

These programs are being evaluated by the Applications Section, and Fast-Fax will report on their status when they're ready for field use. DO NOT BUG the contributor for data.

**Dick Chamberlin — Tulsa:** Do we have any programs to help in contract negotiating? Yes, a program called CONFPI was described in the National Contract Management Journal, written by Ray Kane and Hal Greenberg. It's reprinted as our Publication No. 125117A (available from Schenectady warehouse).

It's another reason why a manager can justify use of time-sharing. Read the article — if you want a copy of the program, call Fast-Fax.

