NUTI NEWS

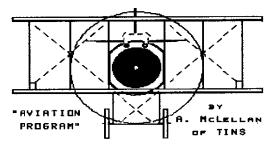
· NITTANY USERS OF TEXAS INSTRUMENTS *

L. Chapin, Pres.



AUGUST 1990 Send Exclange Newsletter to NUTI 325 Wittshire in: State College, Pa. 16803 (Do NOT send to the MUNI Material: may be copied. Cite author & NUTI NEW.





ARTICLES BEING FEATURED THIS ISSUE:

EINE-TUNING GENEVE MENU SYSTEM, loading programs no longer a chore AVIATION PROGRAM, list look at a North-of-the-Border flight planner IERMINOLOGY AT HEARTBEAT. Chapin report from the Washington "beat" UPCOMING TRIAD. Triple-treat program for the 9640 looms on horizon

INFORMAL GATHERING HELD ON JULY 17: Despite predicted inactivity over the sunmer, a few of our members got together at Maurice's to view the video tapes of the Lima Ohio II Fair in May. Highlighted was Asgard's new product lire of a MIDI, II nouse with related software. The Rock Runner game had exceptional graphics. Our evening ended with live demo's on a 99/4A set up for that purpose. We can assemble again at the same place on August 21st if that is your wish. Some bulk-purchased diskettes will be for sale, and your editor is donating program disks from his own collection to the NUTI library. We have two machines for copying. Bring your formatted (SS/SD) disks.

URGENT MATTERS NEED YOUR ATTENTION:
(1) We need to have a permanent place to meet, beginning in September.
Dave Snell is looking into use of a room on Campus (Steidle Building).

- (2) We need to consider an election and dues structure, by year's end.
 (3) Dan Dewey needs floopy cases for our growing library. Any donors?
- (4) This editor <u>needs</u> material for NUTI NEWS. Your articles welcomed! (5) Our exchange newsletters <u>need</u> reading. Pre-1989 are being of pped for our tutorial files on hardware hacks, software, etc. then trashed.

FINE-TUNING A GENEVE MENU SYSTEM

	CHEZ G	ENEVE	-	
A rchiver	Jog Reminder	S earch F1	1	Show Dir
9 asic Adv	₭ ard Game	7 elco	2	Type Scrn
C ad TGA	L apTopPubl	U til Dsk	3	Run EA/5
9 bm 1st Base	MultiPlan	View Mem	4	Print F1
E xit MDOS	N option	₩ ord Proc	5	Print Dir
F ortran	O option	X tend Bas	6	Reformat
S PL/EA	₽ark HD	Y MYArt	7	option
4 yperCopy	Q DE Editor	Z option	8	Read Docs
I option	R TI Artist	O ver. DOS	9	Dsk Mgr V

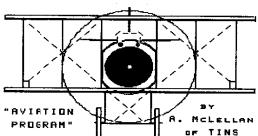
Some housekeeping chores during this long hot summer have included the further tailoring of MDOS menu utilities "EXEC-GETSTR-GETKEY". As I previously-reported (February 1990), the utilities load E/A 5 programs directly into the Geneve, by-passing the GPL interpreter. Other programs also will load. Barry Boone's "EXEC-GETSTR-GETKEY" is being packaged (with ARCHI/ER III also thrown in) by Texaments, 53 Center St., Patchogue, NY 11772 for \$17.95, plus \$2.50 postage.

QDE by Clint Pulley was used to edit the batch file MM on the root directory of my hard drive for necessary commands. The file Mt is used to show a cafeteria-style menu (above) which prompts when the Geneve is booted, or after MM has returned you to the Menu screen. My most-used programs are listed $A\!-\!2$, and the least-used ones $O\!-\!9$. Alphanumeric keypress choices were based on acronyms or euphonics.

Selections load from hard drive, except following load from disks: C THE GEOMETER'S APPRENTICE; F FORTRAN; and H HYPERCOPY. A prompt will guide you to "Insert Floppy Into Drive A" from MDOS mode. Future hard drive support for these programs is unknown: there are no recent upgrades of TGA, and Mike McCann won't be developing any new software for the Geneve, according to reports; HYPERCOPY never was nore than a floppy copier; FORTRAN in TI-99 version (4.4) coes support the Warre HFCC, so may we get it for 9640 before too long?

The old standby disk manager MDM5 (g) is inactive, due to v. 0.97H MDOS currently operated under, and I now use DOS commands. Shown, but not yet installed, is my new data base manager, FIRST BASE, to be key-pressed from ℓ . "Options" will be reserved for future use.

AVIATION PROGRAM by Allen McLellan



This month we have a new Extended Basic program called AVIATION2. that comes to us from Canada, via an exchange newsletter courtesy of the West Penn 99'ers (July 1990). After keying in the program I 'saved" it to D/V 80 format with a LIST "DSKx.filename" compand and 28FORMAT to convert to 28 columns and PRINTALL for listing in multi-columns on these two pages, both utilities by im Peterson.

AVIATION2 was written by Allen McLellan of the TINS user group in Haifax, Nova Scotia. Allen retired as a navigator from the RCAF and is authority on the subject. There are actually two programs here: (1) Flight Plan; and (2) Astro Program. Note these are NOT flight simulators. "Flight Plan" does pre-flight calculations on distance, speed and time up to 10 legs of a course, computes fuel consumption, and gives position when a track crosses a longitude. "Astro Program" is about celestial navigation, and to be reviewed next month. We will also benchmark test it on time of execution.

Listing starts on next page and concludes at bottom of this page.

780 REM ASTRO PROGRAM 790 CALL CLEAR :: CALL SCREE 840 ACCEPT AT (9.8) STJE1-218E M(10):: DESPLAY AT(12.7): "As tro Program' :: CALL HCHAR(1 3.9,45,131:: PRINT :: PRINT 800 PRINT 'Gives computed Al titude (HC)& Azimuth 1730 o f celestialbody, given assum ed positionof an observer an d Greenwich" 810 PRINT "Hr Angle (GHA) &

Declination(DEC) of the lody :: 60St0 990

820 CALL CLEAR :: DISPLA' AT (5.3): Enter Time: 00002 :: ACCEPT ATES, 151STZE1-411EEP VALIDATE DIGITI: TIME

830 DISPLAY AT(7,3): "Enter A ssumed Position:" :: DISHAY AT(9,1): "LAT : 00 Deg 10 M in N N/S' :: DISPLAY ATC 1.1): LONG: 000 Des 00 Nin f E/

EP VALIDATE (DIGIT): AITD :: A CCEPT IT(9, 151517E(-))VALIDA TE (DIGIT) : ALTH

850 ACCEPT AT (9, 22) SIZE (-1) V ALIDATE("NS"): ALTS :: ACCEPT AT IT 1 7) SIZE I-3 I VALIDATE (DI GIT): AIGD :: ACCEPT JT (11.15 ISIZE(-2) VALIDATE (DIGIT) : ALG

860 ACKEPT AT(11, 22) SIZE(-1) VALIDATE ("EN"): ALGS :: DISPL AY AT(14.3): "Enter:" :: DISP LAY AT (6.1): "GHA: DOD Dep 0 ft Min"

870 DISPLAY AT(18.1): DEC: 00 Des 00 Min # N/S* 880 ACCEPT AT (16, 6) SIZE (-3) B EEP VALIDATE (DIGIT): GIAD :: ACCEPT AT (16, 14) SIZE (-2) VALI DATE (DIGIT): GHAM

890 ACCEPT AT(18./ISIZE(-2)B JI)+PI/2)/C :: IF SIN(RALG-R EEP VALIDATE (DIGIT): DECD :: ACCEPT AT (18.14) SIZE (-2) VALI DATE (DIGIT) : DECM

900 ACCEPT AT(18,:1) SIZE(-1) VALIDATE("NS"):R\$:: RALT=1A LTD-ALTH/60)*C :: IF ALTS="N " TIEN 910 :: RALl=-RALT 910 RALG=[ALGD+AL(M/60]*C :: IF ALGS="V" THEN 920 :: RAL G=-1416

920 RGHA=(GHAD+GHAM/60)*C :: :: RDEC=(DECD+DECM/60)*C :: IF AS="N" THEN 930 :: RDEC= -RD:C

930 G=SIN(RALT) PSIN(RDEC)+CO SIRAT) *COS(RDEC) *COS(RALG-R GHA :: RHCD=ATN (G/SQR (1-G*G)

940 J=(SIN(RDEC)-ISIN(RALT)* SIN RHCD)))/(COS(RHCD)*COS(R ALTI):: ZWD=(-ATW(J/SQR()-J*

GHA)>=0 THEN S60 950 ZND=360-ZW) 960 HCD=RHCD/C :: PRINT USIN ĥ. HC = # Deg": INT(HCD);:: PRINT USING " ## Min";(HCD-INT(HCD)1*30 :: PRINT 970 PRINT USING * 71 = 1 ## Degrees':ZND :: PRINT :: INPUT * Colculate Another (Y/N)?":S\$:: I! S\$="Y" THEN 820 :: IF SS=";" THEN 820 980 PRINT :: [IPU] "Return t > Main Menu (Y.W)?":S\$:. IF SS='Y' THEN 100 :: IF SS='y ' THEN 100 :: IND 390 PRINT :: PRINT * (Press ENTER to continue)* 1000 CALL KEY(0, KEY, STATUS): IF KEYO13 OF STATUSO1 TH

H 1000 :: RETURN

AVIATION PROGRAM by Allen McLellan

100 PF4 *********** 110 RES * AVEATION PROGRAM * 120 RE1 * BY A. MCLILLAN * 130 REI *16 ROBERT AILEN DR* 14D RE1 * HALIFAX I.S. * 150 REI * CANADA B31 2V7 * 160 REI * 26 JAN 50 170 REA ***************** 180 CAL CLEAR :: C=FE/180 : : CALL SCREEN(12):: CISPLAY AT(2,6: "Aviation Program" : : CALL HCHAR (3, 8, 45, 16) 190 DEPLAY AT(4,13): by :: DISPLA' AT(6,9): A. McLellan 200 DISPLAY AT(8,2): This program performs all computa tions using sphericaltrigono metry and therefore is completely accurate." 210 DIPLAY AT(17.61:"1 - F1 ight Plan* :: DISPLAY AT(19, 6): 2 · Astro Program :: DI SPLAY /T(23.3): "Select Progr am 1 or 2:1" 220 ACCEPT AT (23, 25) SIZE (-1) BEEP VALIDATEI*12*):K :: IF K=2 THBN 780 :: CALL SLEAR : : CALL SCREEN(4) 230 PRBAT " Fligh: Plan Program" :: PRINT " -- --- :: Ptint This program gives track. 240 PRDIT heading, distan ce ground :: PRINT spee d, time, and fuel for " :: P RINT ' each of the legs, an d the 250 PRINT * total time and total fiel " :: PRINT " for

the entire flight, o ' :: PRINT ' as many as ten geog raphic ' 260 PRIIT * position: (including bith * :: PRINT * dep arture and destination " :: PRINT " points). " 270 PRIIT . Also sives lati tude where ' 280 PRIFT ' tracks cross in termediate " :: PRINT " lon gitude. Positions must * :: PRINT be entered in degre es and

290 PRINT * minutes of lati R I=1 TO X-1 :: TT=TT+T(I):: tude, and ' :: PRINT ' long itude. All entries to " :: P RIMT * be complete, with leeding " 300 PRINT * zeros if requir ed to fill" :: PRINT " all cues. 1 :: GOSUB 910 310 CALL CLEAR :: DISPLAY AT (12.3): Enter Number of Posi (max 10):":: tions ACCEPT ATTIA, IB) NEEP YALIDA TE()IGIT):X 320 FOR I=1 TO X 330 CALE CLEAR :: DISPLAY AT (8.i): "Enter Position": I :: CAL. HCHAR (9, 8, 45 16):: DISP LAY AT(11,11: LAT: 00 Deg 00 tin N N/S" 340 DISPLAY AT(13.1): LONG: 000 Deg 00 Min V L/V" :: ACC EPT AT (11.8) STZET-ZIBEEP VAL IDATE (DIGIT): LTD()) 350 ACCEPT AT (11. IS IST7F (-2) VALIDATE(DIGITH: L'M(I):: ACC EPT AT(11,22)SIZE+1)YALIDAT E('IS'):LTI\$ 360 ACCEPT AT (13, 7) STZE (-3) Y ALTIATE (DIGIT): LGE(I):: ACCE PT AT (13, 15) SIZE (-2) VALIDATE (DINIT):LGM(I):: ACCEPT AT(I 3.20SIZE(-1)VALIDATE("EV"): 1 GT! 370 GDSUB 570 380 NEXT I 390 CALL CLEAR :: DISPLAY AT (10.1): "Enter TAS (Knots):" :: CISPLAY ATT12, II: "Enter F uel (Lbs/Hr):" :: ACCEPT ATE 10.22) BEEP VALIDAT: (DIGIT): I 400 ACCEPT AT(12, 27) BEEP VAL IDAE (DIGIT): FF 410 FOR I=1 TO X-1 420 CALL CLEAR :: DISPLAY AT (14,1): "Enter Les" I: "Wind: 000/000" :: ACCEPT AT[14,19) STZEL-SIBEEP VALIDATE (DIGIT) :100([) 430 ACCEPT AT(14,2))SIZE(-3) BEEP VALIDATE (DIGIT): VS(I) 440 (EXT I

450 30SUB 610

460 CALL CLEAR :: T=D :: FO

NEXT I :: TF=TT*FF 470 FOR I=1 TC X-1 480 PRINT "Leg"; I :: PRINT U SING "Dist:####mm":D(I)::: PRINT USING 'TR:###":TR(I); :: PRINT USING " TH:###":HDG (T) 490 PRINT USING "6/S : ###K" :6S(I);:: PRINT USING * Time :## Hr": INTIT(EI); :: PRINT U SING " ## Min": (T(I)-INT(T(I 1))]*60 500 PRINT USING 'Fuel: ##### Lbs':F(I):: PRINT 510 IF I=4 THE# GOSUB 990 520 NEXT 1 530 PRINT :: PRINT USING * Total Time:## Hrs': INT(TT):: : PRINT USING ' ### Mins*: UT T-INT(TT))*60 :: PRINT 540 PRINT USING "Total Fuel :##### Lbs":TF :: PRIWT :: 1 IPUT " Find LAT where TR crosses intermediate LONG (Y/N 12": 1\$ 550 IF T\$="Y" THEN 890 :: TF TS="y" THEN 690 560 PRINT :: IMPUT "Return t → Main Henu (Y/N)?":N\$:: IF NS="Y" OR HS='y" THEN 100 : END 570 REM CONVERT TO RADIANS A AD HEMISPHERIC SIGN CONVENTI I) = -LT(I)

\$80 LT(E)=LTD(3)+LTM(E)/60 : IF LTIS="#" THEN 590 :: LT

990 RLT(I)=LT(I)+C :: L6(I)= [GD11]+LGM(I)/60 :: IF LGIS= W* THEN 600 :: LGIII=-LG(I) 100 REGITI-EG(I)°C :: RETURN FID REN COMPUTE TR. DIST. 6/S. 'IME.FUEL

120 FOR I=1 TO X-1 (30 A(I)=SIM(RLT(I))*SIM(RLT I+I))+COS(RLT(I))=COS(RLT(I 4111*COS(RLG(1)-RLG(1+1));; I(I)=60*(-ATH(A(I)/SOR(ABS(-J(I)*A(I)+1)))#I/2)/C (40 B(I)=(SINIRLT(I+11)-(SIN RLT(I))*COS(C*D(I)/60)))/(C (\$(RLT(1))*SIN(C*D(11/60)):: TR(I)=(-ATN(B(I)/SOR(ABS(-B

|[]*B([]+|])+P[/2]/C 650 IF SIN RLG(I)-RLG(I+1))> =0 THEN 660 :: TR(I)=360-TR(

660 RWD(I)=WD(I)*C :: E(I)=W S(I)*SIN(R(D(I)-(TR(I)*C))/T AS :: HDG(1)=TR(1)+(ATM(E(1) /SQR(1-E(I)*E(I))))/C 670 GS(II)=1AS*COS(HOG(II)*C-T R(I)*C)-WS(I)*COS(RWD(I)-TR(1)*C1:: T())=D(1)/GS(1):: F(I)=T(I)=FF

680 WEXT I:: RETURN 690 REM COMPUTE LAT TR CROSS ES INT LONG

700 CALL CLEAR :: DISPLAY AT (10.3): "Latitude at Which Ir ack* :: DISPLAY AT(12.31; Cr. osses Given Longitude" :: CA LL HCHAR (13.5.45.23)

710 DISPLAY AT(16, 11: "LOW: 000 Dep 00 Mins W E/W" :: DE SPLAY AT(18.1): "LONG between Position | " :: ACCEPT AT(16,7)SIZE(-SIBEEP VALIDATION IGIT): MOL

720 ACCEPT NT(16, 15) SIZE (-2) VALIDATE (DIGIT): MML :: ACCEP T AT(16.23151ZE(-1)VALIDA'E) "EV"]:M\$:: ACCEPT AT(18.33) BEEP SIZE (-I) VALIDATE (DIGIT)

730 ACCEPT UT(18, 27) ST7F [-1] YALIDATE(DIGIT): 0 :: RML=MD 1+MML/60) °C :: IF MS="W" THE N 740 :: RM=-RML

740 RMLT=ATI((TAN(RLT(P)))'SI N(RML-RLG(Q))-TAH(RLT(Q))*SI NIRME-REG(P))/SIN(REGIP)-RE 610111/C :: IF SGM(RMLT)=-1 THEN TS="S" FLSF TS="N" 750 RMLT=AB/(RMLT):: PRINT U SING * TR Crosses 10MG at ## ": ENTIRMET)::: PRINT USINE " ##": | RPU.T- NT (RPU.T)) *60: ;;

PRINT TS :: PRINT 760 IMPUT * Other Int Point s (Y/N)?": H1 :: IF #\$="Y" TH EN 690 :: II NS="y" THEN 690 770 PRINT :: INPUT 'Return t o Main Henu (Y/N)?":N\$:: [F MS="Y" OR MS="y" THEM 100: : END

1.

TERMINOLOGY AT THE HEARTBEAT

By Chip Chapin

During the last month or so I have been spending my time in the nation's capital (the nation's 'kinder and gentler' Heartbeat) and, while some things are exactly as you would expect, some things are just that little bit different. When I ran across some computer terminology definitions in a U. S. Government publication, I just knew that they were going to clear up any old confusions that might have crept into our non-official lingo over the years. I was just a teensy bit worried that the definitions might not relate to the TI, it being an Orphan an' all, but shucks, it all fit in just as fine as frog hair. Them Gumb'nent folks has really jot it together. Why, I'll even be able to join in when my friends with IBMs talk about using those AUTOEXEC.BATS. Anyhow, here's some of the latest definitions making the rounds in the DC area.

Advanced User: A person who has managed to remove a computer from its packing materials.

Power User: A person who has mastered the brightness and contrast controls on any computer's monitor.

American-Made: Assembled in America from parts made abroad.

 ${\it Alpha~Test~Version}$: Too buggy to be released to the paying public.

Beta Test Version: Still too buggy to be released.

Release Version: Alternate pronunciation of "beta test version".

Sales Manager: Last week's new sales associate.

<u>Consultant</u>: A former sales associate who has mastered at least one-tenth of the dBase III Plus manual.

<u>Systems Integrator</u>: A former consultant who understands the term AUTOEXEC.BAT.

AUTOEXEC. BAT: A sturdy aluminum or wooden shaft used to coax AT hard disks into perforning properly.

Backup: The duplicate copy of crucial data that no one bothered to make; used only in an abstract sense.

<u>Clone</u>: One of the many advanced-technology computers IEN is beginning to wish it had built.

<u>Convertibile</u>: Transformable from a second-rate computer to a first-rate doorstop or paperweight. (Lexical note: replaces the term "junior.")

<u>Copy Protection</u>: A clever method of preventing incompetent pirates from steeling software and legitimate customers from using it.

<u>Database Manager</u>: A program that allows users to manipulate data in every conceivable way except the absolutely essential way they conceive of the day after entering 20m of raw information.

<u>EMS</u>: Emergency medical service; often summoned in cases of apoplexy induced by attempts to understand extended, expanded or enhanced memory specifications.

Encryption: A powerful algorithmic encoding technique employed in the creation of computer manuals.

<u>FCC-Certified</u>: Guaranteed not to interfere with radio or television reception until you add the cable that is required to make it work.

Hard Disk: A device that allows users to delete vast quartities of data with simple mnemonic commands.

Integrated Software: A single product that deftly performs hundreds of functions the user never needs and awkwardly performs the half-dozen he uses constantly.

Laptop: Smaller and lighter than the average breadbox.

<u>Multitasking</u>: A clever method of simultaneously slowing dowr the multitude of computer programs that insisted on runring too fast.

<u>Network</u>: An electronic means of allowing more than one person at a time to corrupt, trash, or otherwise cause permanent damage to useful information.

<u>Portable</u>: Smaller and lighter than the average refrigerator.

<u>Support</u>: The mailing of advertising literature to customers who have returned a registration card.

Transportable: Neither chained to a wall nor attached to an alarm system.

Printer: An electromechanical paper-shredding device.

<u>Spreadsheet</u>: A program that gives the user quick and easy access to a wide variety of highly detailed reports based on highly inaccurate assumptions.

<u>Thought Processor</u>: An electronic version of the intended outline procedure that thinking people instantly abandon upon graduation from high school.

Upgraded: Didn't work the first time.

User Friendly: Supplied with a full-color manual.

Very User Friendly: Supplied with a disk and audiotape so the user need not bother with the full-color manual.

Version 1.0: Buggier than Maine in June; eats data.

<u>Version 1.1</u>: Eats data only occasionally; upgrale is free, to avoid litigation by disgruntled users of Version 1.0.

<u>Version 2.0</u>: The version originally planned as the first release, except for a couple of data-eating bugs that just won't seem to go away; no free upgrades or the company would go bankrupt.

 $\underline{\textit{Version 3.0}}$: The revision in the works when the company goes bankrupt.

<u>Videotex</u>: A mcribund electronic service offering people the privilege of paying to read the weather on their television screens instead of having Willard Scott read :t to them free while they brush their teeth.

Warranty: Disclaimer.

Works:ation: A computer or terminal slavishly linked to a mainframe that does not offer game programs.

That's all, folks. This came from MICROCOMPUTING, government computer news, who credited the WIC Connection, the newsletter of the EPA's Washington Information Center. The WIC obtained it from an EPA employes who picked up a copy in New Hampshire. And guess what - the author or authors are unknown.

UPCOMING TRIAD PROGRAM FOR GENEVE

(Ed. Note: I got this via modem from Chip Chapin who downloaded it from GEnie's TISIG. Sorry, but I forgot to ask for a file number. TRIAD for the TI-99/41 was reviewed in February 1989 MICROpendium. The upcoming version of this combined sditor-disk manager-terminal emulator for Myarc 9640 Geneve is awaited with great anticipation, all of the below features entirely memory-resident in one package. But read on. Please excuse some minor editing to conserve space.)

June 22, 1990

Preliminary Information on Release of TRIAD (or whatever) for the Geneva:

A number of folks have asked questions about this project, mainly, 'When will it be out?' I hope that it will be done in a couple of weeks, but since it is a Geneve project.....

The following is a brief summary of some features of the program. Please understand the information included here is NOT guaranteed. Program is still in flux, as it were, and I don't want people to think I promised something and then didn't deliver. So with that cavest in mind, here goes:

The program consists of three main parts:

Terminal emulator Floppy disk manager Word processor

-In addition, a configuration program will be included which will be bootable (is that a word?) from the main meru. That's the only part of the program which does not reside in memory. Yup, all the other stuff does. (Well over 100K of grogram). -A quirky little option on the main menu is the ability to leave the program and enter the EA cart. Leaving the EA cart takes you back to the Triad areas.

Terminal emulator features:

the display of the buffer size.

The usual configuration possibilities (baud, parity, etc.) plus a few odd ones: add linefeed to incoming/outgring carriage returns, automatically increment the log name (LOG1, LOG2, etc.) set time delay for logging, set echo to host mcde (echo characters back to the other guy who forgot to go into half duplex on a local call), toggle the beeps and konks on or off, decide how to handle untrapped control codes, toggle flow control, toggle ADM3A.

Text buffer: Just under 24K, automatically logged to disk when full or with a single keypress; allows recovery from disk errors. Status line at the bottom of the screen dynamically updates

-Conference mode has separate window at the bottom.

-Help acreen

-Screen dump (not real exciting, but ...

-Review buffer (window back) allows paging received text up and

-Autodialer for 20 numbers, which can be stacked for rotational dialing until connect. User-selectable modem iritialization strings, recognition strings, error strings, timeout,

-Script language which allows you to automate communications, including downloading or uploading of files (very complex, but

-Script supports concatenation of variables and several powerful string operations, including the ability to trap incoming text and respond accordingly. You may use labels and many easily recognizable commands such as GOTO, GOSUB, RETURN, and SEND. Script can be in either object or source form (if the latter, it is compiled on the fly) and can be leaded directly from terminal node or included as a macro and bcoted with a single keystroke from the macro screen.

-Ten macros may be created, each up to 76 bytes in length. -File transfer options: ASCII, XMODEM, IKXMODEM, Compuserve B+, and YMODEM batch. In the latter, you may send files from several devices. If receiving files in batch mode, any file extension which causes hard drive directory indigestion is stripped (e.g., PICTURE.GIF would arrive as PICTURE). If you upload a DIS/FIX 128 file, you will be asked if you really want to include a TI (Charlton) header. (For YMODEM batch, you set this up beforehand so you don't have to sit there and answer the question for each file being sent). A detailed screen for each protocol (except ASCII) allows you to track the progress of a file transfer.

-Online buffer over 100 K (this may change) to which you may download files or into which you may pre-load files for uploading before you go online. You may flush al. files to disk by simply giving a pathname.

-Transfers may be made to or from the usual devices, including the hard drive.

-External protocol. An easily accessible hook allows you to boot a protocol not included in the program, such as KERMIT, ZMODEM, or BIMODEM. Naturally, someone will have to write one. (Specifications will be made available without cost). If I remember to do it, I will include a dummy file that you can boot. It will also be possible to have the external booted with the main program instead of on the spot.

Floppy disk manager features:

-Well, you can expect the obvious here: copying disks, files, etc. -You can of course copy files to and from a hard drive, or between directories on a hard crive. I have not included code to format a hard drive, create, rename, or delete directories, or set up an emulation file. I'm too lazy to do so. Besides, how often do you

you do it? The 'sweep disk' option is sensitive to the number of sectors actually formatted, so you should be able to sweep those weird-sectored ram disks you set up in your AUTOEXEC. -Another option will allow you to recover files on a floppy. You may enter a single name for the search or let the computer search the disk and present you with possible files you might wish to recover.

Word processor features:

-Large buffer (90K?)

-Can hold 9 documents in memory simultaneously. Supports separate tab settings and formitting specifications for each document. -Supports 'true' word wrap, i.e. the words move to the right and wrap around as you insert text. No more FCTN2/CNTL2 split lines. -Can print a file to a printer, screen or disk. Printing to disk, you have choice of DIS/VAR 80 or DIS/FIX 128 formats. If you select the latter, you may print it to suit the IBM or MAC worlds. (Program will also load DIS/FIX 128 and DIS/VAR 80 files, as well as the special Triad format files).

-Allows loading of an alternate CHARA1 file.

-Mark or block mode allows you to mark text to be deleted, copied, moved, printed or saved. You may also mark a block to be forced to upper or lower case letters. Marked text is highlighted. -Reasonable solution to the TIWRITER problem of special character

-Control codes for printers will be contained in user-definable macros.

-Press CTRL-L and cursored line is displayed in a window. You may add the appropriate macros for underlining, italics, etc. The nacros are never shown while in normal edit but a flag on the status line informs you if a cursored line contains a hidden macro. Macros can be reviewed at any time by by pressing F10. A help screen is available in case you forget which of the 62 macro possibilities you want.

-For printing you can specify the number of lines per page. number of lires per page, number of blank lines at the top and bottom and a couple of other odds and ends.

-Keypresses are as consistent with MYWORD/TIWRITER as possible. There are a couple of additional keys: CNTL-3 will delete a word, CNTL-8 will tack tab to the previous word, and CNTL-C will center the current line on the screen.

Hope this has been of interest to you.

Wayne Stith