

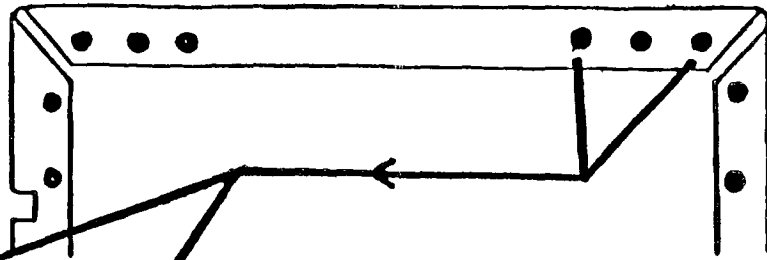
PRINTER COMMANDS

(energizes or turns on)

	10X	SG-10	MX-80	FX-80	KX-P1091	OKIDATA
ITALICS	27 52	27 52	*****	27 52	27 52	*****
ELITE	27 66 2	27 66 2	*****	27 77	27 77	28
CONDENSED	27 15	27 15	27 15	27 15	27 15	29
PICA	27 66 1	27 66 1	*****	*****	27 80	30
EXPANDED	27 87 1	27 87 1	27 14	27 87 1	27 87 1	31
SUPERSCRIP	27 83 0	27 83 0	*****	27 83 0	27 83 0	27 74
SUBSCRIPT	27 83 1	27 83 1	*****	27 83 1	27 83 1	27 76
NEAR LETTER	*****	27 66 4	*****	27 120 1	27 110	27 49
EMPHASIZED	27 69	27 69	*****	27 69	27 69	27 84
UNDERLINE	27 45 1	27 45 1	*****	27 45 1	27 45 1	27 67
DOUBLE STRIKE	27 71	27 71	27 71	27 71	27 71	27 72
SLASHED ZERO	*****	27 92 1	*****	*****	*****	*****
1/8 LINE SP.	27 48	27 48	27 48	27 48	27 48	27 56
1/6 LINE SP.	27 50	27 50	27 50	27 50	27 50	27 54
7/72 LINE SP.	27 49	27 49	27 49	27 49	27 49	*****
n/72 LINE SP.	27 65 n	27 65 n	27 65 n	27 65 n	*****	*****
n/144 LINE SP.	27 51 n	27 51 n	*****	*****	*****	27 37 57 n
n/216 LINE SP.	*****	*****	*****	27 51 n	*****	*****
TOP MARGIN	27 82 n	27 82 n	*****	*****	*****	*****
BOTTOM MARGIN	27 78 n	27 78 n	27 78 n	27 78 n	*****	*****
LEFT MARGIN	27 77 n	27 77 n	*****	27 108 n	*****	*****
RIGHT MARGIN	27 81 n	27 81 n	*****	27 81 n	*****	*****
COLUMN WIDTH	*****	*****	27 81 n	*****	*****	*****
PAGE LTH. LINES	27 67 n	27 67 n	27 67 n	27 67 n	*****	*****
PAGE LTH. INCHES	27 67 0 n	27 67 0 n	*****	27 67 0 n	*****	*****
PAPER OUT "OFF"	27 56	27 56	27 56	27 56	27 56	*****
PROPORTIONAL	*****	27 112	*****	27 112	27 111	*****
RESET PRINTER	27 64	27 64	*****	27 64	*****	24

THE ABOVE ARTICLE COULD NOT HAVE COME AT A BETTER TIME. I HAVE RECEIVED MANY QUERIES ON HOW TO CONTROL A PARTICULAR PRINTER, WELL WHAT DO I KNOW ABOUT EVERY PRINTER UNDER THE SUN, SO WHEN THIS ARTICLE ARRIVED IN THE " BRAZOS VALLEY 99'ERS ", I WAS ELATED ! SO YOU HAVE ALONG WITH RICH SPRECHER'S ARTICLE QUITE A BIT OF NEW PRINTER INFO TO CHEW ON.

IDENTIFICATION OF 5 1/4" DISKS



SEAL	COMPANY	COMMENTS
• • •	MAXELL	
COMPLETE SEAL	MEMOEX	ALSO ALBINA (BEST Co)
• ⊕	VERBATIM	
• ▽	NASKUA	6 dots down each side
■ ■	BASF	
????????	ELEPHANT	
— — —	3M	2 bars down each side
	WABASH	6 SETS OF 8 SQS. PER SIDE
	FUJI	
■ ■ ■	CONTROL DATA	STORAGE MASTER
— — —	SYNCOM	3 bars down each side
• •	CERTON	8 dots down each side
• •	BONUS	
— —		

THIS CHART SHOWS THE NAME OF THE MANUFACTURER WHO MAY HAVE PRODUCED THAT DISKETTE YOU NOW HAVE IN YOUR DISKETTE DRIVE. I WOULD LIKE TO THANK THE N.O.V.A. USERS GROUP OF VANCOUVER, WA. FOR THIS CHART PRINTED IN THEIR NOV. ISSUE.

DM1000 REVISION RECORD

MODIFIED BY RALPH ROMANS:

VER 3.0 FIXES TO VER 2.4:

- INCORRECT FILE COUNT WHEN GOING FROM 'M' TO 'C'
- FILE COPY WOULD GIVE YOU A BAD COPY IF THE FILE BEING COPIED WAS STORED ON THE MASTER DISK AS A NON CONTINUOUS FILE AND THE SIZE OF THE FIRST SEGMENT WAS EXACTLY 39 SECTORS WITH ADDITIONAL SECTORS IN ANOTHER SEGMENT ON THE DISK.

VER 3.1 FIXES TO VER 3.0:

- FILE COPY WOULD GIVE YOU A BAD COPY IF THE MASTER FILE WAS A FRAGMENTED FILE OF EXACTLY 39 SECTORS AND THE SAME FILE NAME WAS ON THE COPY DISK.
- WHEN ENTERING A FILE NAME IN VARIOUS MODES, IT WAS POSSIBLE TO MESS IT UP.

UNFIXED BUGS IN VER 3.1 - UNABLE TO DISPLAY SOME DISK/VAR 80 FILES THAT ARE FULL OF CONTROL CHARACTERS. COMPUTER HANGS UP!

VER 3.3-CHANGED DEFAULTS ON SWFF AND DISK INITIALIZATION

- DISK INITIALIZATION WIFIS FOR MYARC AND CORCOM
- READ/WRITE TFMRS GETS CLEARED AFTER 1ST USE ON DISK COPY
- FILE 'MGRI' MAY NOW BE CALLED ANY NAME AND ALL FEATURES OF DM1000 WILL WORK.!! THIS WILL ONLY WORK WITH TI CONTROLLER AND CORCOM CONTROLLER
- THE LOADER FOR MYARC CONTROLLER IS CALLED LOADMY
- DURING DISK INITIALIZATION MENU, YOU CAN USE THE UP ARROW TO GO BACK TO PREVIOUS QUESTION.

VER 3.4- ABLE TO DELETE/MOVE/COPY 1 SECTOR FILES

- ADDED 'UP FROM ACTIVE' NOTICE WHEN UP ARROW WILL TAKE YOU BACK TO PREVIOUS QUESTION.

VER 3.5- ABLE TO TYPE/PRINT DISPLAY VAR 80/FIXED 80 FILES

- WHILE THE FILE LISTING IS ON THE SCREEN BY PRESSING A 'T' FOR TYPE(DISPLAY) FILE TO SCREEN OR 'P' FOR PRINT TO LIST DEVICE WITH OPTIONAL CONTROL CODES SENT TO PRINTER FIRST. THE 'P' AND 'T' FOR PRINT OR TYPE ARE ONLY VALID IN THE LEFT MOST FIELD.
- 'EOF' noticed added in lower left corner of screen
- DISPLAY VAR 80/FIXED 80 MENU REMOVED

THE LATEST VERSION OF DISK MANAGER 1000, IS 3.5, AND IT IS TRULY REMARKABLE. THE ABOVE IS A LISTING OF THE VERSION 3.x HISTORY SHOWING THE ADDITIONS, IMPROVEMENTS, AND THE ENHANCEMENTS.

THIS LATEST VERSION HAS TWO SIGNIFICANT ENHANCEMENTS, WHICH INVOLVE THE DISPLAYING AND PRINTING OF DV/80 FILES DIRECTLY TO THE PRINTER FROM THE [CMD] PROMPT AS THE CURSER IS SITTING THERE A "T" FOR TYPE (TO DISPLAY), OR A "P" FOR THE PRINTER MAY BE TYPED INSTEAD OF THE NORMAL Copy, Move, OR Delete.

RICK'S COLLECTIONS: by Rick Kellogg

HERE ARE SOME ITEMS OF INTEREST THAT I HAVE COLLECTED OVER THE PAST SEVERAL YEARS. SOME I HAVE CREATED, SOME ARE BORROWED FROM SEVERAL SOURCES.

SPECIAL SCREEN CHARACTER CODES:

Slashed Zero	CALL CHAR(48,"0038444C54644438")	⊘
Right Arrow	CALL CHAR(?,"000804027F020408")	→
Left Arrow	CALL CHAR(?,"00102040FE402010")	←
Up Arrow	CALL CHAR(?,"081C2A4908080800")	↑
Down Arrow	CALL CHAR(?,"00080808492A1C08")	↓
Solid Line	CALL CHAR(95,"00FF")	—
Copyright Symbol	CALL CHAR(?,"003E41505150413E")	©
PI Symbol	CALL CHAR(?,"0000FE2828282828")	π
Cent Sign	CALL CHAR(?,"00083C4848483C08")	¢
Check Mark	CALL CHAR(?,"0002020404482810")	✓

PROMPT 'BEEP' CALL SOUND(150,1390,2)
PROMPT 'HONK' CALL SOUND(70,218,1)

CONVERSIONS DEF LEFTS(XS,Y)-SEGS(XS,1,Y)
Microsoft Basic DEF MIDS(XS,Y,Z)-SEGS(XS,Y,Z) - Conversion not needed.
to TI Basic DEF RIGHTS(XS,Y)-SEGS(XS,LEN(XS)-Y+1,Y)
(From the Chicago TI User Group newsletter, 'The Chicago Times')

TO PAUSE DURING "PRINT" or "DISPLAY"

6000 CALL KEY(3,K,S)	
6010 IF S=0 THEN 6050	Use a GOSUB 6000 after every PRINT
6020 CALL KEY(3,K,S)	or DISPLAY statement that you want
6030 IF S=0 THEN 6020	to be able to Pause in.
6040 IF S=-1 THEN 6020	Any key pressed will cause a Pause.
6050 RETURN	Press again to resume the PRINT statement.

DISK CAUTION LABELS: by Rick Kellogg

HERE IS A SHORT ROUTINE THAT CAN BE USED TO CREATE A CAUTION LABEL FOR ANY DISKETTES THAT YOU PLAN TO SEND THROUGH THE MAIL. THIS WILL PRINT OUT ON A STANDARD 15/16" x 3 1/2" PRESSURE SENSITIVE LABEL THAT YOU CAN EASILY APPLY TO THE DISKETTE MAILER. THIS PROGRAM IS DESIGNED TO RUN OUT OF BASIC OR EXTENDED BASIC. IT IS ALSO SET UP FOR EPSON/GEMINI/STAR COMPATABLE PRINTERS, BUT COULD BE EASILY USED ON OTHER PRINTERS BY INSERTING THE PROPER PRINTER CONTROL CODES WHERE NEEDED.

100 REM *****	260 PRINT #1:""
110 REM * DISK CAUTION *	270 PRINT #1:CHRS(27);"-0";"
120 REM * LABELS *	MAGNETIC MEDIA ENCLOSED"
130 REM * by *	280 PRINT #1:" _____
140 REM * Rick Kellogg *	"
150 REM * Epson/Gemini *	290 PRINT #1:CHRS(27);CHRS(1
160 REM * compatable *	4);"DO NOT XRAY!"
170 REM * Basic & XBasic *	300 PRINT #1:""
180 REM *****	310 NEXT X
190 REM	320 CLOSE #1
200 CALL CLEAR	330 END
210 INPUT "How many labels?"	<u>DO NOT BEND!</u>
" :A	MAGNETIC MEDIA ENCLOSED
220 OPEN #1:"PIO"	<u>DO NOT XRAY!</u>
230 PRINT #1:CHRS(27);"G";	
240 FOR X=1 TO A	
250 PRINT #1:CHRS(27);"-1";C	
HR\$(14);"DO NOT BEND!"	

BY ART BYERS, WESTCHESTER, NY

The fourth annual TI Faire hosted by the Chicago TI U6 was a fine success from all points of view: Around 900 99/4A owner/users from the middle of the nation (and as far away as Boston, Washington, DC and New York) had a chance to see the newest and best in software and hardware and to spend some money on goodies. So- the Vendors obviously did a great deal of business and will be encouraged to attend other TI shows around the nation. The speakers and events were interesting and well run. Those attending learned just that was new.

Best of all, however, was the chance to meet and mix with the 99'er community, to exchange ideas and information; and to renew our enthusiasms as we proved once again the motto originated by Henry Heins: "We may be an Orphan, but we have a great future!".

For me, the occasion meant putting faces together with many of the famous names such as Chris Bobbit (Asgard), Jim Horn and Jeff Guide (Disk Only Software), Ron Albright (The Orphan Chronicles), Theresa Masters (president of the LA U6), -plus well-known programmers such as Peter Hoddie, Coe Case, Todd Kaplan, and Paul Charlton, - oh yes! and the Tigercub Himself and the most well-known of them all, Jim Peterson. Without Jim half of most U6 newsletters would be blank space! It was nice to talk to Walt Howe and Bob Demeter in person, instead via Telecon.

What was new? Oh Boy! Lots was new! J. Peter Hoddie has a new graphics program "Font Writer" being marketed by Asgard. ("What! another graphics program" you are about to say) - but you have to see it to believe it. That was only a

start. There must have been 50 new software items offered by vendors covering everything from games and education to disk utilities and home finance. DataBiotics long-awaited PILOT language with extensive documentation was finished and on sale plus Super Forth. New Hardware?? Yes and plenty of it! Mini PE Boxes for 3,4 or 5 cards, and prototypes of everything from a sort of super widget that enables you to use the "Review Module Library" hidden software built into the console to a whole new computer (Myarc 9604). One of the big hits of the show was the new IBM type keyboard for our 99/4A, made by RAVE Mfg. I have an interview on tape with one of the principals involved and will print it in detail in the CALL SOUNDS newsletter.

During the lunch break, there was a fascinating rap session for the visiting U6 representatives. Everything was covered from rumors of more software to be released to PD and U6's by Texas Instruments (a diagnostic disk) to fundraising and dues policies, methods of software library distribution, and newsletter exchange.

One of the best talk/demonstrations of the day was the hour on music and the 99/4A, put on by J. Peter Hoddie. That included two linked computers playing music together, music that played while you are programming, and two pieces where Peter played the Cello accompanied by the 99/4A!!!

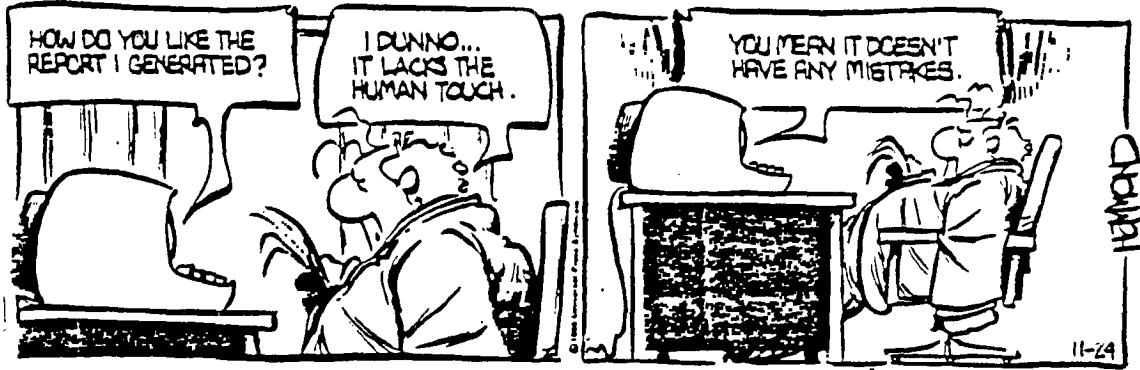
All in all the Chicago club is to be highly complimented. Everything ran smoothly. Those of you who could not make this show are advised to make the next one near you, be it Seattle, Boston, Dallas or New Jersey. These fairs are FUN!! I will report in detail at the November club meeting.

Well, here are some more part numbers to choose from.

(take from the calculator division repair dealers parts list)

compound c641 (what ever that is)	pt no.1010243-0004	price \$320.00
conn.kybd	pt no.1039033-0015	price .46
grom ext.assy	pt no.1049693-0001	price \$ 5.84
grom ext.assy	pt no.1049693-0002	price \$ 5.84
grom port door	pt no.1034750-0001	price .64
kybd	pt no.1039019-0001	price \$ 45.12
mos. 9900n1 tms	pt no.1501646-0002	price \$ 35.20
mos. 9901 tms	pt no.1015974-0001	price \$ 9.80
mos. 9904a	pt no.1501644-3005	price \$ 9.80
mos. 9918 vdp	pt no.1015972-0005	price \$ 24.00
two sided tape (must be good)	pt no.1043610-0002	price \$ 78.80





I/O PORT PIN ASSIGNMENTS
GROM PORT

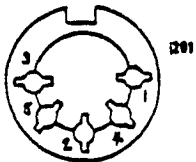


PIN	DESCRIPTION	PIN	DESCRIPTION
1	RESET	2	GND (SYSTEM)
2	D7	4	CRU CLK
3	D6	6	CRU IN
4	D5	8	A15/CRU OUT
5	D4	10	A13
6	D3	12	A12
7	D2	14	A11
8	D1	16	A10
9	D0	18	A9
10	+5 VOLT	20	A8
11	GS (GROM SELECT)	22	A7
12	MO/ATA	24	A3
13	M1 (DBIM)	26	A6
14	GROM CLOCK	28	A5
15	-5 VOLT	30	A4
16	GR (GROM READY)	32	VE
17	GND (JPM1)	34	ROM G
18	GND (SYSTEM)	36	GND (SYSTEM)

I/O PORT PIN ASSIGNMENT
PERIPHERAL I/O PORT

PIN	DESCRIPTION	PIN	DESCRIPTION
1	+5 VOLT	2	SBE (SPEECH SELECT)
3	RESET	4	EXT INT
5	A5	6	A10
7	A4	8	A11
9	DBIM	10	A3
11	A12	12	READY/HOLD
13	LOAD	14	A8
15	A13	16	A14
17	A7	18	A9
19	A15	20	A2
21	GND	22	CRU CLK
23	GND	24	B 3
25	GND	26	VE
27	GND	28	MBE
29	A6	30	A1
31	A0	32	MEMEN
33	CRU IN	34	D7
35	D4	36	D6
37	D0	38	D5
39	D2	40	D1
41	HOLD/IAQ	42	D3
43	-5 VOLT	44	SPEECH

I/O PORT PIN ASSIGNMENTS
VIDEO JACK



PIN	DESCRIPTION
1	NOT CONNECTED
2	JOYSTICK B
3	KEY 0 (UP)
4	KEY 4 (PUSH BUTTON)
5	KEY 3 (LEFT)
6	NOT CONNECTED
7	JOYSTICK A
8	KEY 1 (DOWN)
9	KEY 2 (RIGHT)

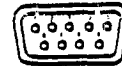
I/O PORT PIN ASSIGNMENTS
REMOTE WIRED HANDHOLD CONTROLS I/O PORT

MALE PLUG FRONT VIEW



I/O PORT PIN ASSIGNMENTS
CASSETTE I/O PORT

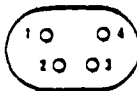
MALE PLUG FRONT VIEW



PIN	DESCRIPTION
1	CS1 MOTOR CONTROL (POS)
2	CS1 MOTOR CONTROL (NEG)
3	GND (SYSTEM)
4	SOUND OUT
5	RECORD OUTPUT
6	CS2 MOTOR CONTROL (POS)
7	CS2 MOTOR CONTROL (NEG)
8	AUDIO IN
9	AUDIO GROUND

PIN	DESCRIPTION
1	+12 VOLT SUPPLY FOR EXTERNAL UNITS SUCH AS MODULATOR
2	SHIELDING CONNECTION
3	SOUND OUTPUT
4	COMPOSITE VIDEO OUTPUT
5	GROUND CONNECTION

I/O PIN ASSIGNMENT
POWER RECEPTACLE (USA)



FRONT VIEW
MALE PLUG CONSOLE

PIN	DESCRIPTION
1	NOT USED
2	18 VOLT AC
3	COMMON
4	8 VOLT AC


```

1 !SAVE DSK1.ADDLABELIB
100 !LABEL PRINTER IB
    by Jerry Keisler
110 ! AS(0)=RESERVED
AS(1)=FIRST NAME AS(5)=CITY
AS(2)=LAST NAME AS(6)=STATE
AS(3)=EXTRA LINE AS(7)=ZIP
AS(4)=STREET AS(8)=PHONE
120 LABELEND=6 :: MM=8000 ::
    ML=300 :: DIM S(300) :: FMS
    ="DSK1."
130 ! ML=MAX SORT LINES
140 ! MM=MAX SORT MEMORY
150 ! S( )=MAX SORT LINES
160 ! FS=FILE SIZE
170 ! RE=REPT$
180 ! FMS=FILE NAME
190 ! SFMS=SCRIPT FILE NAME
200 ! PH=PRINT HOW
210 ! PS=PRI SORT
220 ! SS=SEC SORT
230 ! ##### MENU
240 DISPLAY AT(1,1)ERASE ALL
    : "LABEL PRINTER": "by Jerry K
    eisler"
250 ! ## CHECK & VERIFY FILE
260 IF START=0 THEN DISPLAY
    AT(4,1): "OPEN FILE: " : FMS ::
    ACCEPT AT(4,12)EEP SIZE(-1
    S): FMS :: OPEN #2: FMS, INPUT
    , RELATIVE, INTERNAL, FIXED 128
    :: CLOSE #2 :: START=1 :: 6
    QTD 240
270 DISPLAY AT(4,1): "FILENAM
    E: " : FMS :: " : "HELP": " : PRI
    NT ALL LABELS": " : VIEW / PRI
    NT LABELS": " : DUMP FILE TO P
    RINTER": " : CHANGE FILE NAME"
    : " : END": " : PRESS
    LETTER"
280 CALL KEY(3,K,S):: IF S=0
    THEN 280 :: ON 1+POS("HPVDC
    SE",CHR$(K),1)GOTO 280,360,4
    40,480,550,300,590,290
290 END
300 START=0 :: GOTO 240
310 ! ##### SEND TO PRINTER
320 OPEN #1:"PIO" :: FOR T=1
    TO 4 :: L$(T)=" :: NEXT T
    :: T=2 :: L$(1)=AS(1)&"&AS
    (2) :: IF AS(3)<" THEN L$(T
    )=AS(3) :: T=T+1
330 IF AS(4)<" THEN L$(T)=
    AS(4) :: T=T+1
340 L$(T)=AS(5)&"&AS(6)&"
    &AS(7) :: PRINT #1:L$(1):L$(
    2):L$(3):L$(4) :: FOR T=5 TO
    LABELEND :: PRINT #1 :: NEX
    T T :: CLOSE #1 :: RETURN
350 ! ##### HELP FILE
360 DISPLAY AT(1,1)ERASE ALL
    : "there are 6 lines to the":
    : "inch. measure the distan
    ce": "from top of label to
    top of"
370 DISPLAY AT(7,1): "label a
    nd set LABELEND in": "line
    120 to the number of": "lin
    es required. save this"
380 DISPLAY AT(13,1): "progra
    m with the correct": "numbe
    r in LABELEND.": " : PRESS E
    NTER"
390 CALL KEY(3,K,S):: IF K<>
    13 THEN 390
400 DISPLAY AT(1,1)ERASE ALL
    : "files will store as IF128"
    : "see program ADDDATA for"
    : "instructions of loading"
    : "data files": "modified
    files need to be"

```

```

410 DISPLAY AT(11,1): "stored
    under a different": "name
    or on another disk": " : PRE
    SS ENTER"
420 CALL KEY(3,K,S):: IF K<>
    13 THEN 420 ELSE 240
430 ! ##### PRINT ALL LABELS
440 DISPLAY AT(1,1)ERASE ALL
    : "PRINT ALL LABELS IN": " : ##
    : " : IS PRINTER READY? PE"
450 CALL KEY(3,K,S):: IF K<>
    13 THEN 450 ELSE GOSUB 990
460 GOSUB 1000 :: EEP:JB 320
    :: IF EOF(2)=0 THEN 460 ELSE
    CLOSE #2 :: GOTO 240
470 ! ##### VIEW / PRINT LABE
    LS
480 DISPLAY AT(1,1)ERASE ALL
    : "VIEW / PRINT LABELS": " : FMS
    :: GOSUB 990
490 GOSUB 1000 :: DISPLAY AT
    (5,1): AS(1) : " : AS(2): AS(3):
    AS(4): AS(5) : " : AS(6) : " : A
    S(7): AS(8) : " : "PRINT CONTIN
    UE MENU"
500 CALL KEY(3,K,S):: IF K=7
    7 THEN 530 ELSE IF K=67 THEN
    520 ELSE IF K<>80 THEN 500
510 DISPLAY AT(14,1): "IS PRI
    NTER READY?": " : PRINT HOW MA
    NY TIMES? 1" :: ACCEPT AT(16
    ,23)SIZE(-3)VALIDATE(DIGIT)B
    EEP: I=55 :: FOR J=1 TO TIME
    S :: EEP: P 320 :: NEXT J ::
    DISPLAY AT(14,1): " : " : "
520 IF EOF(2)=0 THEN 490
530 CLOSE #2 :: EEP: 240
540 ! ##### FILE DUMP
550 DISPLAY AT(1,1)ERASE ALL
    : "FILE DUMP TO PRINTER": " : FN
    S : " : IS PRINTER READY? PE"
560 CALL KEY(3,K,S):: IF K<>
    13 THEN 560 ELSE OPEN #1:"PI
    O" :: GOSUB 990
570 GOSUB 1000 :: FOR I=1 TO
    7 :: PRINT #1: AS(1) : " : " : "
    NEXT I :: PRINT #1: AS(8) : "
    IF EOF(2)=0 THEN 570 ELSE PR
    INT #1: "END OF FILE" :: CL
    OSE #1 :: CLOSE #2 :: GOTO 2
    40
580 ! ##### SORT #####
590 DISPLAY AT(1,1)ERASE ALL
    : "SORT " : FMS : " : OUTPUT TO 0)
    DISK 1)PRINTER 1" :: ACCEPT
    AT(3,28)SIZE(-1)VALIDATE("10
    ")BEEP: PH
600 ! ##### CHECK DISK
610 ! ## DISK FREE SPACE
620 OPEN #3:"DSK1." : INPUT , R
    ELATIVE, INTERNAL :: INPUT #3
    : DN$, DS, DS, AS :: DISPLAY AT(
    5,1): "DISK " : DN$: "HAS": AS: "F
    REE SECT": PS"
630 ! ## FIND FILE
640 FOR I=1 TO 127 :: INPUT
    #3: FNAS$, FT, FS, BR :: FND$="DS
    K1." & FNAS :: IF FND$=FMS THE
    M CL: EEP: #3 :: GOTO 670
650 NEXT I
660 ! ## CHECK REQUIRED SPAC
    E OF FILE
670 IF PH THEN 700 ELSE DISP
    LAY AT(8,1): FMS : " : FS: "SEC
    TORS" :: IF FS<AS THEN 690
680 DISPLAY AT(10,1): "THERE
    IS NOT ENOUGH ROOM ON": "DISK
    FOR SORTED FILE PE" :: CALL
    KEY(3,K,S) :: IF K<>13 THEN 6
    80 ELSE 240

```

```

590 DISPLAY AT(10,1): "SORTED
    FILE=DSK1." : SFMS :: ACCEPT
    AT(10,18)SIZE(-10)BEEP: SFMS
    :: IF POS(SFMS, " ") < 1) OR POS(
    SFMS, ".") < 1) OR SFMS=SEG$(FMS,
    6,10) THEN 690
700 GOSUB 990 :: GOSUB 1000
    :: CLOSE #2 :: IF PH THEN 73
    0
710 GOSUB 1010 :: RE=0 :: 60
    SUB 1020 :: CLOSE #3
720 ! ##### SORT HOW
730 IF PH THEN DISPLAY AT(1,
    1)ERASE ALL: "SEND SORTED FIL
    E TO PRINTER" ELSE DISPLAY A
    T(1,1)ERASE ALL: "SEND SORTED
    FILE TO DISK"
740 FOR I=1 TO 8 :: DISPLAY
    AT(3+I,1): I : AS(1) : " : NEXT I :
    : DISPLAY AT(12,1): " 9 BLANK
    " : " 0 MENU": " : PRIMARY SOR
    T 2": "SECONDARY SORT 1"
750 ACCEPT AT(15,16)SIZE(-1)
    VALIDATE(DIGIT)BEEP: PS :: AC
    CEPT AT(16,16)SIZE(-1)VALIDA
    TE(DIGIT)BEEP: SS :: IF SS=0
    OR PS=0 THEN 240
760 DISPLAY AT(18,1): "SORT I
    S " : AS(PS) : " T=EM " : AS(SS)
    : " : IS THIS CORRECT? Y" :: A
    CCEPT AT(21,18)SIZE(-1)VALID
    ATE("YN")BEEP: QS :: IF QS="N
    " THEN 750
770 ! ##### LOAD SORT
780 DISPLAY AT(1,1)ERASE ALL
    : "SORT " : FMS : AS(PS) : " : A
    S(SS) : " : ML: MM: MAX MAX
    " : "REC# BYTES" :: GOSUB 990
    :: FS=0
790 FOR RE=1 TO ML :: GOSUB
    1030 :: RE=RPT$( "0", 3-LEN(S
    TR$(RE)))&STR$(RE) : S$(RE)=
    AS(PS)&AS(SS)&RES :: FS=FS+L
    EN(S$(RE))+4 :: IF MM<FS THE
    M 850
800 DISPLAY AT(6,1): USING "##
    ### ##### : RE, FS : IF EEP(2
    )<> THEN CLOSE #2 :: N=RE :
    : GOTO 870
810 NEXT RE :: CLOSE #2 /
820 ! ## SORT APPAY FULL
830 DISPLAY AT(20,1): "SORT A
    RRAY IS FULL": " : SORT or MEN
    U? S" :: ACCEPT AT(22,15)SIZ
    E(-1)VALIDATE("SM")EEP: QS :
    : IF QS="S" THEN N=RE-1 :: 6
    0TD 870 ELSE 240
840 ! ## OUT OF MEMORY
850 CLOSE #2 :: DISPLAY AT(2
    0,1): "OUT OF MEMORY": " : SORT
    or MENU? S" :: ACCEPT AT(22
    ,15)SIZE(-1)VALIDATE("SM")B
    EEP: QS :: IF QS="S" THEN N=RE
    -1 :: GOTO 870 ELSE 240
860 REM ##### SORT
870 DISPLAY AT(20,1): "SORT IN
    G": " : " : CALL SORT(S$( ), N
    ) : IF PH THEN 910
880 ! ##### OUTPUT TO DISK
890 DISPLAY AT(24,1): "SAVING
    TO " : SFMS :: GOSUB 990 :: 6
    0SUB 1010 :: FOR I=1 TO N ::
    RE=VAL(SEG$(S$(I), LEN(S$(I)
    )-2,3)) : GOSUB 1030 :: RE=1
    :: GOSUB 1020 :: S$(I)=" :
    : NEXT I :: CLOSE #2 :: CLOS
    E #3 :: GOTO 240
900 ! ##### PRINT SORTED FILE
910 DISPLAY AT(1,1)ERASE ALL
    : "IS PRINTER READY? PE"

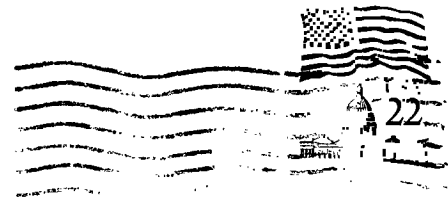
```

```

920 CALL KEY(3,K,S):: IF K<>
    13 THEN 920 ELSE DISPLAY AT(
    3,1)BEEP: "0)PRINT ALL LABELS
    " : "1)DUMP FILE TO PRINTER 1"
    :: ACCEPT AT(4,24)SIZE(-1)V
    AL( DATE("10")BEEP: QS :: IF Q
    S="1" THEN 960
930 ! ## PRINT ALL LABELS
940 DISPLAY AT(10,1): "PRINTI
    NG LABELS" :: GOSUB 990 :: F
    OR I=1 TO N :: RE=VAL(SEG$(S
    $(I), LEN(S$(I))-2,3)) : GOSU
    B 1030 :: GOSUB 320 :: NEXT
    I :: CLOSE #2 :: GOTO 240
950 ! ## DUMP FILE TO PRINTE
    R
960 OPEN #1:"PIO" :: GOSUB 9
    90 :: FOR I=1 TO N :: RE=VAL(
    SEG$(S$(I), LEN(S$(I))-2,3))
    :: GOSUB 1030
970 PRINT #1: AS(1) : " : AS(2
    ) : " : AS(3) : " : AS(4) : " :
    AS(5) : " : AS(6) : " : AS(7)
    : " : AS(8) : " : NEXT I :: CLOS
    E #2 :: CLOSE #1 :: GOTO 240
980 ! ##### SUBS
990 OPEN #2: FMS, RELATIVE, INT
    ERNAL, FIXED 128 :: RETURN
1000 INPUT #2: AS(0), AS(1), AS
    (2), AS(3), AS(4), AS(5), AS(6),
    AS(7), AS(8) :: RETURN
1010 OPEN #3: "DSK1." & SFMS, R
    ELATIVE, INTERNAL, OUTPUT, FIXED
    128 :: RETURN
1020 PRINT #3, REC RE: AS(0), A
    S(1), AS(2), AS(3), AS(4), AS(5)
    , AS(6), AS(7), AS(8) :: RETURN
1030 INPUT #2, REC RE: AS(0), A
    S(1), AS(2), AS(3), AS(4), AS(5)
    , AS(6), AS(7), AS(8) :: RETURN
1040 ! ##### SORT FOR IB
1050 SUB SORT(S$( ), M) : S$( )=
    SORT =PAY, M=NUMBER OF ITEM
    S TO EEP"
1060 P=1 :: L(P)=1 :: R(P)=N
1070 IF P<=0 THEN 1260
1080 LB=L(P) :: RB=R(P) :: P=P
    -1
1090 IF RB<LB THEN 1070
1100 I=LB :: J=RB :: T=S$(I)
1110 IF J<I THEN 1140
1120 IF T%=S$(J) THEN 1140
1130 J=J-1 :: GOTO 1110
1140 IF J=I THEN 1160
1150 S$(I)=T% :: GOTO 1230
1160 S$(I)=S$(J) :: I=I+1
1170 IF I=N THEN 1200
1180 IF S$(I)=T% THEN 1200
1190 I=I+1 :: EEP: 1170
1200 IF J<=I THEN 1220
1210 S$(J)=S$(I) :: J=J-1 ::
    GOTO 1120
1220 S$(J)=T% :: I=J
1230 P=P+1 :: IF I=LB THEN RB=I
    THEN 1250
1240 L(P)=I+1 :: R(P)=RB ::
    RB=I-1 :: GOTO 1090
1250 L(P)=LB :: R(P)=I-1 ::
    LB=I+1 :: GOTO 1090
1260 SUBEND

```

Central Texas 99/4A Users Group
P.O. Box 200246
Austin, Texas 78720-0246



Edmonton 99'er Computer UG
P.O. Box 11983
Edmonton Alberta
Canada T5J 3L1