

```

10 DEFSTR r,d,a,m,i,s,n : ' ##### Declare String
Variables #####
20 DEF FNC(t)=((80-LEN(s))/2)
30 MODE 2:r=CHR$(24):d1=CHR$(18)
40 s="M I C R O F I L E":GOSUB 2330
50 s="Copyright "+CHR$(164)+" 1984 P. Paton":
PRINT:GOSUB 2330
60 PRINT:PRINT TAB(10)STRING$(60,95)
70 S="M A I N   M E N U":PRINT:PRINT:GOSUB 2330
80 PRINT:PRINT:PRINT TAB(27)"( 1 )      Create A
New File":PRINT:PRINT
TAB(27)"( 2 )      Run Main Program":PRINT:PRINT
TAB(27)"( 3 )      Save
Data File":PRINT:PRINT TAB(27)"( 4 )
Exit From Program"
90 PRINT:PRINT TAB(10)STRING$(60,95)
100 LOCATE 30,22:PRINT"Choose Option ";:l=1:GOSUB
2150:op=VAL(m)
110 IF op<1 OR op>4 THEN PRINT CHR$(7):GOTO 100
120 ON op GOSUB 210,740,1380,150
130 GOTO 10
140 ' ##### Exit From Program #####
#####
150 CLS:s="Press "+r+" S P A C E   B A R "+r+" to
return to menu ":GOSUB 2330
160 s="Any other key to leave this program":PRINT:
PRINT:GOSUB 2330

```

```

170 q$=INKEY$:IF q$="" THEN 170
180 IF q$(">")="" THEN CLS:s="RUN TERMINATED":GOSUB
2330:FOR w=1 TO 2000:
NEXT:CLS:END
190 CLS:GOTO 40
200 *##### Create New File #####
#####
210 CLS:s="C R E A T E   F I L E":GOSUB 2330
220 LOCATE 25,23:PRINT"Enter Filename ";:l=10:GO
SUB 2150:name=m:fil$=m
230 IF LEN(name)=0 THEN PRINT CHR$(7):GOTO 220
240 LOCATE 1,3:s="Creating :- "+name:GOSUB 2330
250 GOSUB 2310
260 LOCATE 5,23:PRINT"How Many Fields Do Records
In This File Contain
( 1 - 15 ) ";:l=2:GOSUB 2150:x=VAL(m)
270 IF X<1 OR X>15 THEN PRINT CHR$(7):GOTO 260
280 WINDOW #1,5,75,6,20:GOSUB 2310:DIM f$(x)
290 LOCATE 5,5:PRINT STRING$(70,131):LOCATE 5,21:
PRINT STRING$(70,140)
300 FOR y=1 TO x:a=STR$(y)
310 IF LEN(a)=2 THEN a="0"+RIGHT$(a,1) ELSE a=
RIGHT$(a,2)
320 PRINT #1,a:NEXT
330 FOR y=1 TO x:LOCATE 20,23:PRINT"Enter Field
Name"
340 LOCATE 9,(y+5):l=10:GOSUB 2150
350 IF LEN(m)=0 THEN PRINT CHR$(7):GOTO 340

```

```

360 f$(y)=m
370 IF LEN(f$(y))<10 THEN f$(y)=f$(y)+" ":GOTO 370
380 GOSUB 2310:LOCATE 20,23:PRINT"Enter Field
Length
390 LOCATE 20,(y+5):l=2:GOSUB 2150
400 IF LEN(m)=1 THEN m="0"+m
410 f$(y)=f$(y)+m:f1=VAL(m)
420 IF f1<1 OR f1>50 THEN PRINT CHR$(7):GOTO 390
430 LOCATE 20,(y+5):PRINT"( ";STRING$(f1,45);" )"
440 GOSUB 2310:NEXT:y=y-1
450 '##### Quit, Save or Amend New File
#####
460 LOCATE 10,23:PRINT"(Q)uit or (S)ave or (A)mend
File Parameters ";:
l=1:GOSUB 2150:m=UPPER$(m)
470 IF m="Q" THEN RUN: ' ##### Quit #####
#####
480 IF m="S" THEN 640: ' ##### Save #####
#####
490 IF m="A" THEN 510: ' ##### Amend #####
#####
500 PRINT CHR$(7):GOTO 460
510 GOSUB 2310:LOCATE 10,23:PRINT"Amend Field No.
";:l=2:GOSUB 2150:x=
VAL(m)
520 IF x<1 OR x>y THEN PRINT CHR$(7):GOTO 510
530 GOSUB 2310:LOCATE 10,23:PRINT"(N)ame or
(L)ength ";:l=1:GOSUB 2150
:m=UPPER$(m)
540 IF m="L" THEN 590 ELSE IF m="N" THEN 560
550 PRINT CHR$(7):GOTO 530
560 LOCATE 9,(x+5):l=10:GOSUB 2150
570 IF LEN(m)<10 THEN m=m+" ":GOTO 570
580 MID$(f$(x),1,10)=m:GOSUB 2310:GOTO 460
590 LOCATE 20,(x+5):PRINT d1:LOCATE 20,(x+5):
l=2:GOSUB 2150
600 IF VAL(m)<1 OR VAL(m)>50 THEN PRINT CHR$(7)
:GOTO 590
610 LOCATE 20,(x+5):PRINT"( ";STRING$(VAL(m)
,45);" )"
620 f$(x)=LEFT$(f$(x),10)+m:GOSUB 2310:GOTO 460
630 '##### Save File Parameters #####
#####
640 GOSUB 2310:LOCATE 5,23:PRINT"Insert Cassette
And Rewind Then Press ";r;" REC ";r;" & ";r;"
PLAY ";r;" Then ";r;" ENTER ";r;" ";:l=1:GOSU
B 2150
650 GOSUB 2310:LOCATE 5,23:PRINT" S A V I N G
P A R A M E T E R S"
660 name=" "+name
670 OPENOUT "!"
680 PRINT #9,name
690 PRINT #9,y
700 FOR x=1 TO y
710 PRINT #9,f$(x)
720 NEXT
730 CLOSEOUT:GOSUB 2310:RUN
740 REM ##### Main Program #####
#####
750 CLS:s="M I C R O F I L E":GOSUB 2330
760 s="M E N U":PRINT:PRINT:GOSUB 2330
770 PRINT:PRINT TAB(10)STRING$(60,95)
780 s="( 1 ) Load A New File
":PRINT:PRINT:GOSUB 2330

```

```

790 s="( 2 )      Browse Through File  ":PRINT:
PRINT:GOSUB 2330
800 s="( 3 )      Search File           ":PRINT:
PRINT:GOSUB 2330
810 s="( 4 )      Return To Main Menu  ":PRINT:
PRINT:GOSUB 2330
820 PRINT:PRINT TAB(10)STRING$(60,95)
830 LOCATE 30,22:PRINT"Choose Option ";:l=1:GOSUB
2150:op=VAL(m)
840 IF op<1 OR op>4 THEN PRINT CHR$(7):GOTO 830
850 IF op=4 THEN 30
860 IF op<>1 AND flg=0 THEN 910
870 IF op=1 THEN GOSUB 1570:GOSUB 1700:GOSUB 1790
880 IF flg=1 AND op=2 OR op=3 THEN CLS:GOSUB 1700
890 IF op=2 THEN GOSUB 2310:GOTO 930
900 IF op=3 THEN GOSUB 2310:GOTO 1180
910 IF flg=0 THEN CLS:s="NO FILE PRESENT PLEASE
SELECT OPTION 1":GOSUB 2330:FOR w=1 TO 2000:
NEXT:GOTO 740
920 '##### Browse Through File #####
#####
930 x=1
940 FOR u=1 TO y:LOCATE 57,4:PRINT x;" Of ";j;"
":LOCATE 22,(u+5)
950 PRINT dat(x,u);:t=VAL(RIGHT$(f$(u),2)):PRINT
SPACE$(t-LEN(dat(x,u)
)):NEXT
960 LOCATE 5,2:PRINT"Free Space = ";free;" Records"
970 GOSUB 2310:LOCATE 5,23:PRINT"(Q)uit, (F)orward
, (B)ack, (J)ump, (D)elete, (A)mend, (+)=Add
Record ";:l=1:GOSUB 2150:m=UPPER$(m)
980 IF m="Q" THEN 740
990 IF m="F" AND x<j THEN 1060 ELSE IF m="F" THEN
1070
1000 IF m="B" AND x>1 THEN x=x-1:GOTO 940 ELSE
IF m="B" THEN 1070
1010 IF m="J" THEN GOSUB 1100:GOTO 940
1020 IF m="D" THEN FOR t=1 TO y:dat(x,t)=STRING$(
VAL(RIGHT$(f$(t),2)),45):NEXT:GOTO 940
1030 IF m="A" THEN GOSUB 2310:LOCATE 20,23:PRINT
"Amend Field ";:l=2:GOSUB 2150:GOSUB 1080:LOCATE
22,(b+5):l=VAL(RIGHT$(f$(b),2)):GOSUB 2150:dat(x,
b)=m:GOTO 970
1040 IF m="+" THEN GOSUB 1130:GOTO 960
1050 PRINT CHR$(7):GOTO 970
1060 x=x+1:GOTO 940
1070 GOSUB 2310:LOCATE 1,23:PRINT r;" OUT OF
RANGE ";r:CHR$(7):FOR t=1 TO 1000:NEXT:GOTO 970
1080 b=VAL(m)
1090 IF b<1 OR b>y THEN PRINT CHR$(7):GOTO 970
ELSE RETURN
1100 GOSUB 2310:LOCATE 20,23:PRINT"Jump To Record
";:l=3:GOSUB 2150:x=VAL(m)
1110 IF x>0 AND x<=j THEN RETURN
1120 GOTO 1070
1130 j=j+1:x=j:LOCATE 57,4:PRINT x;" Of";j:FOR
b=1 TO y:LOCATE 22,(b+ 5):PRINT STRING$(VAL
(RIGHT$(f$(b),2)),45):NEXT
1140 LOCATE 5,2:PRINT"Free Space = ";free;"
Records"
1150 FOR b=1 TO y:LOCATE 22,(b+5):l=VAL(RIGHT$(f$(
b),2)):GOSUB 2150:dat(x,b)=m:NEXT
1160 free=free-1:GOTO 970

```

```

1170 ***** Search File *****
1180 FOR t=1 TO y:LOCATE 22,(t+5):PRINT STRING$(VAL(RIGHT$(t$ (t),2)),4
5):NEXT
1190 GOSUB 2310:LOCATE 20,23:PRINT"Search On Field No. ";:l=2:GOSUB 21
50:h=VAL(a)
1200 IF h<1 OR h>y THEN PRINT CHR$(7):GOTO 1180
1210 GOSUB 2310:LOCATE 10,23:PRINT"Enter Data For Search":
1220 LOCATE 22,(h+5):l=VAL(RIGHT$(t$ (h),2)):GOSUB 2150:s=a
1230 x=1
1240 IF INSTR(dat(x,h),s)=0 THEN 1280 ELSE GOTO 1290
1250 IF x=j THEN 1260
1260 GOSUB 2310:LOCATE 20,23:PRINT"(Q)uit or (R)e-run Search ";:l=1:G
SUB 2150:a=UPPER$(a)
1270 IF a="Q" THEN 740 ELSE IF a="R" THEN 1180 ELSE PRINT CHR$(7):GOTO
1260
1280 IF x<j THEN x=x+1:GOTO 1240 ELSE IF x>=j THEN 1360
1290 LOCATE 57,4:PRINT x;" "
1300 FOR t=1 TO y:LOCATE 22,(t+5)
1310 PRINT dat(x,t);:b=VAL(RIGHT$(t$ (t),2)):PRINT SPACE$(b-LEN(dat(x,t
)):NEXT
1320 GOSUB 2310:LOCATE 10,23:PRINT"(Q)uit or (C)ontinue Search ";:l=1:
GOSUB 2150:a=UPPER$(a)
1330 IF a="Q" THEN 1260
1340 IF a="C" THEN IF x<j THEN GOTO 1280 ELSE IF a="C" THEN GOTO 1360
1350 PRINT CHR$(7):GOTO 1320
1360 GOSUB 2310:LOCATE 20,23:PRINT r;" END OF FILE REACHED ";:r;CHR$(7)
:FOR w=1 TO 2000:NEXT:GOTO 1260
1370 REM ***** Save Data File *****
1380 IF flg=0 THEN CLS:s="N O T H I N G   T O   S A V E":GOSUB 2320
:FOR w=1 TO 3000:NEXT:CLS:GOTO 40
1390 CLS:s="S A V E   D A T A":GOSUB 2330
1400 w=j
1410 FOR x=1 TO w:IF LEFT$(dat$(x,1),1)="-" THEN j=j-1:NEXT
1420 s="Insert & Rewind DATA tape, then press "+r+" REC "+r+" & "+r+"
PLAY "+r:PRINT:PRINT:PRINT:GOSUB 2330
1430 s="Press "+r+" ENTER "+r+" when ready ";:PRINT:PRINT:PRINT TAB(FN
c(t))s;:l=1:GOSUB 2150
1440 ft=0:FOR x=1 TO w:FOR b=1 TO y:ft=ft+LEN(dat(w,b)):NEXT:NEXT-
1450 OPENOUT "I"
1460 fil#name
1470 PRINT #9,fil#
1480 PRINT #9,ft
1490 PRINT #9,j
1500 FOR x=1 TO w:FOR b=1 TO y
1510 IF LEFT$(dat(x,1),1)="-" THEN 1530
1520 PRINT #9,dat(x,b)

```

```

1530 NEXT:NEXT
1540 CLOSEOUT
1550 RUN
1560 '##### Load File Parameters #####
1570 CLS:WINDOW #1,5,75,6,20:LOCATE 5,5:PRINT STRING$(70,131):LOCATE 5
,21:PRINT STRING$(70,140)
1580 LOCATE 10,23:PRINT"Insert File Parameters Tape Then Press ";r;" P
LAY ";r;" & ";r;" ENTER ";r;" ";:l=1:GOSUB 2150
1590 GOSUB 2310:LOCATE 10,23:PRINT"L O A D I N G   P A R A M E T E R
S"
1600 ON ERROR GOTO 2390
1610 OPENIN"! "
1620 INPUT #9,name
1630 INPUT #9,y
1640 DIM f$(y)
1650 FOR x=1 TO y
1660 INPUT #9,f$(x)
1670 NEXT
1680 CLOSEIN:GOSUB 2310
1690 RETURN
1700 CLS:WINDOW #1,5,75,6,20:LOCATE 5,5:PRINT STRING$(70,131):LOCATE 5
,21:PRINT STRING$(70,140)
1710 FOR x=1 TO y:a=STR$(x)
1720 IF LEN(a)=2 THEN a="0"+RIGHT$(a,1) ELSE a=RIGHT$(a,2)
1730 PRINT #1,a:NEXT
1740 FOR x=1 TO y
1750 LOCATE 9,(x+5):PRINT LEFT$(f$(x),10)
1760 LOCATE 20,(x+5):PRINT"( ";STRING$(VAL(RIGHT$(f$(x),2)),45);" )":N
EXT
1770 LOCATE 5,4:PRINT"Active File ";name:LOCATE 50,4:PRINT"Record   ###
"
1780 RETURN
1790 LOCATE 5,23:PRINT"Load Data File ( Y or N ) ";:l=1:GOSUB 2150:m=U
PPER$(a)
1800 IF m="N" THEN 1770 ELSE IF m="Y" THEN 1830
1810 PRINT CHR$(7):GOTO 1790
1820 '##### Load Data File #####
1830 GOSUB 2310:LOCATE 10,23:PRINT"Insert Data Tape The Press ";r;" PL
AY ";r;" & ";r;" ENTER ";r;" ";:l=1:GOSUB 2150
1840 GOSUB 2310:LOCATE 10,23:PRINT"L O A D I N G   D A T A"
1850 OPENIN"! "
1860 INPUT #9,file
1870 INPUT #9,ft:GOSUB 2350
1880 IF file=name THEN 1900
1890 GOSUB 2310:LOCATE 10,23:PRINT r" DATA & PARAMETER FILE MISMATCH "
;r:FOR x=1 TO 2000:NEXT:CLOSEIN:ERASE dat:GOTO 1830

```

```

1900 INPUT #9,j
1910 FOR x=1 TO j:FOR b=1 TO y
1920 INPUT #9,dat(x,b)
1930 NEXT:NEXT
1940 GOSUB 2310:LOCATE 5,23:PRINT"Please Wait"
1950 CLOSEIN
1960 flg=1:GOTO 740
1970 GOSUB 2310:LOCATE 5,23:PRINT"Do You Wish To Begin A New Data File
( Y or N ) ";:l=1:GOSUB 2150:m=UPPER$(m)
1980 IF m="N" THEN ERASE F$:GOTO 740 ELSE IF m="Y" THEN GOSUB 2010:GOT
O 740
1990 PRINT CHR$(7):GOTO 1970
2000 '##### Start A New Data File #####
2010 J=1:ft=0:GOSUB 2350:FOR x=1 TO free
2020 LOCATE 5,2:PRINT"Free Space = ";free;" Records"
2030 LOCATE 57,4:PRINT j;" ";FOR z=1 TO y:LOCATE 22,(z+5):l=VAL(RIGHT
$(f$(z),2)):GOSUB 2150
2040 dat(x,z)=m:NEXT
2050 GOSUB 2310:LOCATE 10,23:PRINT"(Q)uit, (C)ontinue or (A)pend ";:l
=1:GOSUB 2150:m=UPPER$(m)
2060 IF m="Q" THEN flg=1:GOTO 740 ELSE IF m="C" THEN 2080 ELSE IF m="A
" THEN 2100
2070 PRINT CHR$(7):GOTO 2050
2080 FOR b=1 TO y:LOCATE 22,(b+5):PRINT STRING$(VAL(RIGHT$(f$(b),2)),4
5):NEXT
2090 J=J+1:free=free-1:NEXT
2100 GOSUB 2310:LOCATE 20,23:PRINT"Append Field No. ";:l=2:GOSUB 2150
2110 b=VAL(m):IF b<1 OR b>y THEN PRINT CHR$(7):GOTO 2100
2120 LOCATE 22,(b+5):l=VAL(RIGHT$(f$(b),2)):GOSUB 2150

```

```

2130 dat(x,b)=a:GOTO 2050
2140 '##### Keyboard Input Routine #####
2150 FOR F=1 TO L:PRINT CHR$(45);:NEXT:FOR F=1 TO L:PRINT CHR$(8);:NEXT
T:P=1:M=SPACE$(L):PRINT CHR$(24);CHR$(42);CHR$(24);CHR$(8);
2160 I=INKEY$
2170 IF I="" THEN 2160
2180 V=ASC(I)
2190 IF P=1 AND V=127 THEN PRINT CHR$(7);:GOTO 2160
2200 IF P>1 AND V=127 THEN PRINT CHR$(8);CHR$(42);CHR$(8);
2210 IF P>1 AND V=127 THEN P=P-1:MID$(M,P,1)=" ":GOTO 2160
2220 IF V=13 THEN PRINT SPACE$(L+1-P):M=LEFT$(M,(P-1)):RETURN
2230 IF V=44 THEN PRINT CHR$(7);:V=32:GOTO 2250
2240 IF V>31 AND V<123 THEN GOTO 2250 ELSE PRINT CHR$(7);:GOTO 2160
2250 IF P>L THEN PRINT CHR$(7);:GOTO 2160
2260 MID$(M,P,1)=CHR$(V):PRINT CHR$(V);CHR$(42);CHR$(8);
2270 IF P<=(L+1) THEN P=P+1
2280 IF P=(L+1) THEN PRINT " ";CHR$(8);
2290 GOTO 2160
2300 '##### Clear Prompt Line #####
2310 LOCATE 1,23:PRINT d1:RETURN
2320 '##### Print s$ In Centre Of Screen Line #####
2330 PRINT TAB(FNC(T))S:RETURN
2340 '##### Calculate Number Of Free Records #####
2350 tr=0:FOR x=1 TO y:tr=tr+VAL(RIGHT$(f$(x),2)):NEXT
2360 free=INT((FRE(""))-fL)/tr
2370 IF free>32767 THEN free=5000
2380 DIM dat(free,y):RETURN
2390 IF ERR=10 THEN ERASE f$:RESUME 1640
2400 RESUME NEXT

```