

File And Find

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199 REM+++++++CBM C64+++++++
200 REM+   WRITE   FILES   +
201 REM+++++++CBM C64+++++++
220 GOSUB 1500
240 FOR K=65 TO 90
260 Z#=CHR$(K)+X#:C#=D#+ "WRITING "+CHR$(K)
280 GOSUB 2000
300 NEXT K
399 REM+++++++
400 REM+   READ   FILES   +
401 REM+++++++
420 FOR L=0 TO 1 STEP 0:FOR M=1 TO 1
440 PRINT D#;"ACCESS TO RECORDS"
460 INPUT"SEARCH STRING ( *=QUIT )";N#
480 L#=LEFT$(N#,1):IF L#="*" THEN GOTO 5000
500 IF L#<"A" OR L#>"Z" THEN M=0
520 NEXT M
540 Z#=L#+Y#
560 GOSUB 3000
580 PRINT TAB(5)"RECORD ";N#;" (HIT ANY KEY)"
600 GET GT#:IF GT#="" THEN 600
620 NEXT L
999 END

1499 REM*****
1500 REM*****INITIALISE S/R*****
1501 REM*****
1520 D#=CHR$(147):PRINT D#,CHR$(8);CHR$(142)
1540 X#=",";S,"W":Y#=",";S,"R"
1600 RETURN
1999 REM*****
2000 REM*****WRITE A FILE S/R*****
2001 REM*****
2020 PRINT C#;INPUT"HW MANY RECORDS";R
2040 OPEN 8,8,2,Z#
2060 IF R=0 THEN PRINT#8,"*":CLOSE8:RETURN
2080 FOR I=1 TO R
2100 PRINT C#;PRINT "RECORD #";I
2120 INPUT "TEXT.....";R#
2140 PRINT#8,R#
2160 NEXT I
2180 PRINT#8,"*":CLOSE8
2499 RETURN
2999 REM*****
3000 REM*****READ A FILE S/R*****
3001 REM*****
3020 PRINT D#;"SEARCHING ";L#;" FOR ";N#
3040 OPEN 8,8,2,Z#
3060 FOR I=1 TO 100000
3080 INPUT#8,R#
3100 PRINT R#
3120 IF R#="*" THEN N=0:I=100000
3140 IF R#<N# THEN N=I:I=100000
3160 NEXT I:CLOSE8:N#=""
3180 RETURN
5000 REM*****CLOSE   PROGRAM*****
5020 PRINT CHR$(9);"END OF PROGRAM":STOP

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220: Initialise
260-280: Create files "A" to "Z"
420-540: Input search record, find initial letter, identify file containing it
560: Search that file
580-600: Report outcome of search
1520: Clear screen, set upper case mode
2040: OPEN file to WRITE
2060: Check for empty file, write "*", CLOSE file
2120-2140: Input text of record, write it to file
2180: Write "*" as last record, CLOSE file
3040: OPEN file to READ
3120: Test for last record, quit search
3140: Test whether record found, quit search
3160: CLOSE file

This program demonstrates the use of sequential files on disk by creating a simple alphabetical index book comprising 26 files, one for each letter of the alphabet. Into each file you can type records beginning with that letter, or no records at all. You can then search for any record. The appropriate file will be searched and displayed until the record is found; if it is not found, the message 'RECORD 0' will be displayed.

The program uses the disk operating system to gain direct access to the file appropriate to the search record; the file itself is then read sequentially, however. This cuts search time to a reasonable length; if the files were on tape, searching would be unbearably slow

Basic Flavours

BBC Micro

Follow the Spectrum variations for lines 260 and 540
 Replace PRINT#8, INPUT#8, and CLOSE#3 by PRINT#C8, INPUT#C8, and CLOSE#C8
 600 GTS=GETS
 1520 *DISK
 1530 MODE 7
 1540 DS=CHR\$(12):PRINT DS"USE UPPER CASE"
 1550 PRINT"--HIT ANY KEY--":GTS=GETS
 2040 C8=OPENOUT(ZS)
 3040 C8=OPENIN(ZS)
 5020 PRINT"END OF PROGRAM"

Spectrum Microdrive

Insert LET where necessary.
 Replace PRINT DS;.. by CLS PRINT.
 Replace PRINT C# by CLS:PRINT: C#
 Replace OPEN 8,8,2,Z# by OPEN #8;"m";1;ZS
 Replace CLOSE#8 by CLOSE #8
 Delete line 1540
 260 ZS=CHR\$(K):LET C#="WRITING"+ZS
 480 LET LS=NS(1):IF LS="*" THEN GOTO 5000
 540 LET ZS=LS
 600 FAUSE 0
 1520 CLS:LET F2=PEEK 23658:POKE 23658,8
 3080 INPUT #8;R#
 5020 POKE 23658,F2:PRINT "END OF PROGRAM":STOP

