M ost of you at some time will have tried to alter or delete a file, only to be given the error message File open . You will probably have then pressed F12 to get to the command line and typed *Close to close all the open files. This is not a particularly good solution, especially if another application has a different file open and expects it to stay open. Issuing a *Close command will cause every file to be closed, not just the one you want to alter. However, help is at hand in RISC OS 3 with a new feature that makes it possible to list all the files currently open. The application listed here, CloseFile , uses this feature to present you with a menu of open files, thus allowing you to close files by name and avoid issuing a blanket command.

A second use of the application is to keep track of open files. This can be useful with Obey files, for example. If an Obey file is pending (i.e. there are still some commands in the file waiting to be executed), it will show up on the menu.

CREATING THE APPLICATION
First create an application directory called !CloseFile . Inside this directory you should save a file called !Sprites. This should contain a 34x17 pixel mode 12 sprite called !closefile , created using Paint. Next you should use a text editor such as Edit and create an Obey file containing the following lines.

    Set CloseFile$Dir <Obey$Dir>
    Iconsprites <Obey$Dir>.!Sprites
    WimpSlot -min 32k -max 32k
    Run <Obey$Dir>.!RunImage

This should be saved as !Run inside the !CloseFile directory. Finally you should type in the listing below (taking care with the assembler section) and save it as !RunImage in the same directory.

USING CLOSEFILE

An Open File Manager

This application by Andrew Hersee allows you to keep track of open files and close them by name.

CloseFile is installed in the usual way by double-clicking on the application s icon. This will place its icon on the right of the icon bar. Clicking Menu will give you a menu from which you may either close all open files (i.e. the same as typing *Close) or close a single file by name. To close a

Closing an open file

single file move over the arrow to the right of the Close File menu entry. An hourglass will appear and after a second or two a menu will open listing all open files. To close a file simply click on its name. If there are no files open then the menu will simply show No files open.

HOW IT WORKS
Acorn has extended the SWI call OS_Args

to enable you to find the pathname represented by a file handle. Details of the new call are as follows:

OS_Args 7 (OSArgs_ReadPath)

On entry:
R0 = 7
R1 = file handle
R2 = pointer to buffer to contain pathname
R5 = buffer length
 On exit:
 Buffer contains zero-terminated pathname
 R5 = number of spare bytes in buffer
        after zero terminator.

If the buffer was not long enough for the pathname, R5 will hold a negative value indicating the shortfall (and no data will be returned in the buffer at all). This provides a mechanism for finding out how long a buffer is needed.

Unfortunately there is no way of telling which file handles are currently being used, so we have to call the SWI for every handle from 1-256. The code to do this is written in assembler since the process is quite time consuming. The machine code calls SWI OS_Args for every file handle and if the returned pathname is not a null string then it is added it to the menu structure.

```
 10 REM         >!RunImage
 20 REM Program   CloseFile
 30 REM Version   A 1.00
 40 REM         RISC OS 3 only
 50 REM Author   Andrew Hersee
 60 REM RISC User April 1993
 70 REM Program   Subject to Copyright
 80 REM         Not Public Domain
 90 :
100 DIM bk% 256,tbk% 1300,mainmenu% 12
8,menu% 6172,indirected% &3000
110 ON ERROR PROCerror(REPORT$+" (inte
rnal error code "+STR$(ERL)+")")
```

```
120 PROCInitialise
130 PROCassemble
140 :
150 REPEAT
160 SYS "Wimp_Poll",&81933,bk% TO flag
170 CASE flag OF
180 WHEN 2:SYS"Wimp_OpenWindow",,bk%
190 WHEN 6:IF bk%!8=2 THEN SYS"Wimp_Cr
eateMenu",,mainmenu%,!bk%-64,216
200 WHEN 9:PROCmenuselection
210 WHEN 17,18:PROCreceive
220 ENDCASE
230 UNTIL quit%
240 SYS "Wimp_CloseDown"
250 END
260 :
270 DEF PROCInitialise
280 SYS "Wimp_Initialise",200,&4B53415
4,"Close Files" TO wimp,us%
290 IF wimp<300 THEN PROCerror("You ne
ed RISC OS 3.00 or later to run CloseFil
e")
300 quit%=FALSE:name$="CloseFile"
310 $mainmenu%=name$
320 mainmenu%!12=&00070207
330 mainmenu%!16=16*11
340 mainmenu%!20=40:mainmenu%!24=0
350 ptr%=mainmenu%+28
360 ptr%!0=2^3:ptr%!4=menu%
370 ptr%!8=&07000001
380 $(ptr%+12)="Close file"
390 ptr%+=24:ptr%!0=0:ptr%!4=-1
400 ptr%!8=&07000001
410 $(ptr%+12)="Close all"
420 ptr%+=24:ptr%!0=2^7:ptr%!4=-1
430 ptr%!8=&07000001
440 $(ptr%+12)="Quit"
450 $menu%="Close file"
460 menu%!12=&00070207
470 menu%!20=40:menu%!24=0
480 !tbk%=-1:tbk%!4=0:tbk%!8=0
490 tbk%!12=68:tbk%!16=68
500 tbk%!20=&301A:$(tbk%+24)="!"+name$
510 SYS "Wimp_CreateIcon",,tbk% TO myi
con
```
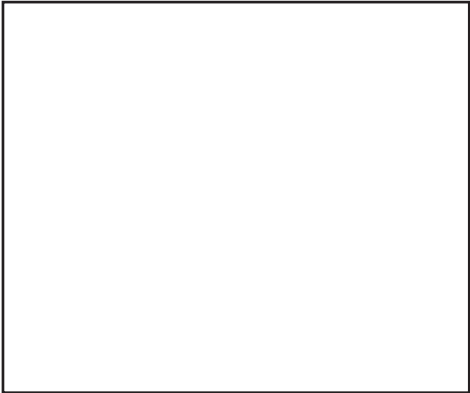
```
520 $tbk%="<CloseFile$Dir>"+CHR$0
530 SYS "OS_GSTrans",tbk%,tbk%+16,300
540 mypath$=FNgetstring(tbk%+16)
550 dir$=""
560 ENDPROC
570 :
580 DEF FNgetstring(I%)
590 string$=""
600 WHILE ?I%>31
610 string$+=CHR$(?I%):I%+=1
620 ENDWHILE
630 =string$
640 :
650 DEF PROCerror(error$)
660 !bk%=ERR
670 $(bk%+4)=error$+CHR$0
680 SYS"Wimp_ReportError",bk%,1,name$
690 SYS"Wimp_CloseDown"
700 END
710 :
720 DEF PROCsavedesktop
730 desk=bk%!20:BPUT#desk,"/"+mypath$
740 ENDPROC
750 :
760 DEF PROCmenuselection
770 LOCAL stay
780 SYS"Wimp_GetPointerInfo",,tbk%
790 stay=(tbk%!8 AND 1)
800 CASE !bk% OF
810 WHEN 0:IF bk%!4>=0 THEN
820 h%=!(menu%+44+28*bk%!4)
830 IF h%>=0 THEN
840 CLOSE#h%:IF stay THEN CALL code%
850 ENDIF
860 ENDIF
870 WHEN 1:CLOSE#0
880 WHEN 2:quit%=TRUE
890 ENDCASE
900 IF stay THEN SYS"Wimp_CreateMenu",
,mainmenu%
910 ENDPROC
920 :
930 DEF PROCreceive
940 CASE bk%!16 OF
950 WHEN 0:quit%=TRUE
960 WHEN 10:PROCsavedesktop
970 WHEN &400C0:CALL code%:SYS"Wimp_Cr
eateSubMenu",,menu%,bk%!24,bk%!28
980 ENDCASE
990 ENDPROC
1000 :
1010 DEF PROCassemble
1020 DIM code% 240
1030 FOR pass%=0 TO 2 STEP 2
1040 P%=code%
1050 [OPT pass%
1060 STMFD R13!,{R0-R12,R14}
1070 MOV R0,#1
1080 SWI "Hourglass_Start"
1090 MOV R8,#0:LDR R9,menu
1100 LDR R10,indirected
1110 LDR R11,size:ADR R0,dummy
1120 LDMIA R0,{R0-R5}
1130 STMIA R9,{R0-R5}
1140 MOV R1,#255
1150 :
1160 .nexthandle
1170 MOV R0,#7:MOV R2,R10
1180 MOV R5,#0:SWI "XOS_Args"
1190 CMP R5,#0:BLLT addname
1200 SUBS R1,R1,#1
1210 BGE nexthandle
1220 MOVS R8,R8,LSL#4
1230 MOVEQ R8,#14*16
1240 MOVNE R0,#2^7
1250 STRNE R0,[R9,#-24]
1260 LDR R9,menu
1270 STR R8,[R9,#-12]
1280 SWI "Hourglass_Off"
1290 LDMFD R13!,{R0-R12,PC}^
1300 :
1310 .addname
1320 RSB R5,R5,#0:ADD R5,R5,#1
1330 SUBS R11,R11,R5
1340 ADDLT R5,R5,R11:MOVS R7,R5
1350 MOVLE PC,R14
1360 SWI "OS_Args"
1370 CMP R7,R8:MOVGT R8,R7
1380 MOV R6,#0:STR R6,[R9],#4
1390 MVN R6,#0:STR R6,[R9],#4
```
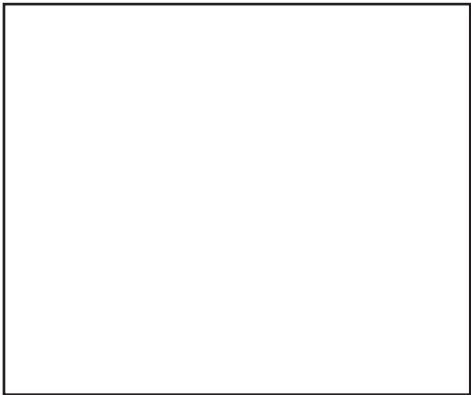
```
1400 LDR R6,iconflag
1410 STR R6,[R9],#4
1420 STR R10,[R9],#4
1430 STR R1,[R9],#4
1440 STR R7,[R9],#4
1450 ADD R10,R10,R7:MOV PC,R14
1460 :
1470 .indirected
```

caption

```
1480 EQUD
indirected%
1490 .menu
1500 EQUD
menu%+28
1510 .size
1520 EQUD
&3000
1530 .dummy
1540 EQUD
2^7:EQUD -1
1550 .iconflag
1560 EQUD
```

```
&07000101:EQUD no
1570 EQUD -1:EQUD 15
1580 .no
1590 EQUS "No files open"+CHR$0
1600 ]:NEXT
1610 ENDPROC
```

caption