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10 *****
15 *
20 *          DISC MISER          *
25 *
30 *  A Disc to Tape Archive Program  *
35 *
40 *          By Ted Krapkat        *
45 *
50 *  The Anstrad User - December 1993 *
55 *
60 *****
65 "
70 MODE 1 : CLEAR : 1016C : MEMORY 16FFF
75 DIM N6(40),format$(40),n(10),f(40,10)

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80 RESTORE 140
95 ' Poke in machine code if necessary
90 IF PEEK(&9000)<>195 THEN GOSUB 265
95 '
100 POKE 46642,255:REM CAPS LOCK on
105 CALL 42432,4:REM Tape speed 2500 baud
110 INK 0,13:INK 1,26:INK 2,0:INK 3,24:ORDER 13
115 CALL &B0BA : CLOSEIN : CLOSEOUT
120 !DISC
125 GOTO 715:*** Go to main menu ***
130 '
135 *** Read Disc Sectors ***
140 POKE &A64E,drive:POKE &A646,&B4
145 FOR track=0 TO 39
150 POKE &A64F,track
155 FOR sector=0 TO n6(track)
160 POKE &A651,f(track,sector)
165 add=&70*256+sector*512
170 add$=HEX$(add,4):hiadd$=LEFT$(add$,2)
175 lowadd$=RIGHT$(add$,2)
180 hiadd=VAL("%"+hiadd$)
185 lowadd=VAL("%"+lowadd$)
190 POKE &A64B,lowadd:POKE &A64C,hiadd
195 CALL &A636
200 NEXT
205 name$=discname$+"."+RIGHT$(STR$(track),LEN(STR$(track))-1)
210 POKE 33280,track:*** Save track No.***
215 a$="Saving "+discname$+" Track"+STR$(track)+" to Tape"
220 x=1:y=20:GOSUB 925
225 '
230 ' *** Save track to tape ***
235 CALL 42528,&7000,4609,33
240 NEXT
245 PRINT CHR$(7):CHR$(7)
250 GOTO 110
255 '
260 'Poke the 1st part of the machine code
265 total=0
270 FOR lin=0 TO 12
275 FOR col=0 TO 19
280 READ byte$
285 add=lin*20+col+36864:byte=VAL("%"+byte$)
290 total=total+byte
295 POKE add,byte
300 NEXT
305 READ checksum$
310 checksum=VAL("%"+checksum$)
315 IF checksum<>total THEN PRINT "Data Error in Line";340
+lin*5:POKE &9000,0:END
320 total=0
325 NEXT
330 GOSUB 1340
335 RETURN

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340 DATA C3,21,90,C3,A6,90,C3,5E,90,C3,84,90,00,C1,C6,C2,C
7,C3,C8,C4,0C84
345 DATA C9,C5,C1,C6,C2,C7,C3,C8,C4,C9,C5,11,FF,11,FF,01,C
D,49,90,1E,0C08
350 DATA 00,00,50,00,DF,50,90,21,0D,90,E5,DF,52,90,E1,30,0
A,34,51,0E,08C5
355 DATA 77,23,7D,06,21,20,EF,32,0C,90,11,00,0A,7B,DF,55,9
0,74,DF,50,07F6
360 DATA 90,C9,6C,C5,07,72,CA,07,03,C6,07,63,C7,07,CD,C2,9
0,05,01,10,0902
365 DATA 00,0D,E5,E1,09,47,0D,21,CC,90,7E,DD,72,00,DD,77,0
2,DD,23,DD,0A4D
370 DATA 23,DD,23,DD,23,2B,2B,10,ED,F1,F5,FE,09,30,04,3E,0
1,10,02,3E,072E
375 DATA C1,05,DF,F4,9D,01,F1,FE,0A,38,0B,32,A0,A0,3E,3A,3
2,A2,AB,21,0A92
380 DATA CC,90,DF,F7,90,C9,CD,C2,90,4B,6F,DD,66,05,1E,00,0
F,FA,90,C9,08FC
385 DATA CD,C2,90,4F,DD,6E,06,DD,66,07,DF,FD,90,C9,DD,56,0
0,DD,5E,02,0A0E
390 DATA DD,7E,04,C9,00,00,C1,02,00,00,C6,02,00,00,C2,02,0
0,00,C7,02,0540
395 DATA 00,00,C3,02,00,00,C8,02,00,00,C4,02,00,00,C9,02,0
0,00,C5,02,03E7
400 DATA 00,00,CA,02,01,C5,07,52,C6,07,66,C6,07,4E,C6,07,0
0,00,00,00,05B6
405 '
410 ' *** Save Disc to Tape ***
415 MODE 1:INK 3,26:INK 2,0
420 a$="Which Drive (A/B)?":X=1:Y=1:GOSUB 925
425 a$=INKEY$:IF a$="" THEN 425
430 IF a$="a" OR a$="A" THEN drive=0:drive$="A":GOTO 445
435 IF a$="b" OR a$="B" THEN drive=1:drive$="B":GOTO 445
440 GOSUB 680:GOTO 425
445 A$=drive$:X=20:Y=1:GOSUB 925
450 A$="Name of Disc to Save ?"
455 X=1:Y=3:GOSUB 925:PEN 2
460 LOCATE 24,3:INPUT "",discname$
465 GOSUB 695
470 IF badname=1 THEN badname=0:LOCATE 24,3:PRINT SPC(15):
GOTO 460
475 TAPENAME$="."+DISCNAME$:PEN 1
480 a$="Insert Source Disc in Drive "+drive$
485 x=1:y=5:GOSUB 925
490 a$="Press any key when ready.....":X=1:Y=7
495 GOSUB 925:WHILE INKEY$="" :WEND
500 OPENOUT TAPENAME$
505 POKE &92B8,drive
510 '
515 ' *** Read disc sector format ***
520 a$="Mapping Track":x=1:y=10:GOSUB 925
525 FOR q=0 TO 5
530 FOR t=0 TO 6
535 track=q*7+t:go=1

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140 IF track<40 THEN PEN 2:LOCATE 14,18:PRINT track:PEN 1
145 IF track>39 THEN 635
150 CALL 19000,track:IF PEEK(19000)<>0 THEN goto+1:IF got
>5 THEN 550 ELSE n(t)=0:GOTO 580
155 m:=256:y:=19000:yy=y
160 p:=PEEK(y):IF p=m THEN 575
165 IF p<m THEN m:=p:yy=y
170 yy=y+1:GOTO 560
175 n(t)=y-yy:IF (n(t)<0 OR n(t)>9) AND n(t)<>0 THEN n(t)=
10:nS(track)=9
180 nS(track)=n(t)-1:f:=PEEK(yy)
185 IF f=0C1 OR f=041 OR f=1 THEN 590
190 GOTO 1455
195 PRINT #9,nS(track)
200 FOR s=0 TO n(t)-1
205 f(track,s)=PEEK(s+yy)
210 IF track<40 THEN PRINT #9,HEX$(f(track,s),2)
215 NEXT s
220 NEXT t
225 NEXT q
230
235 '*** Save Disc Sector Map to Tape ***
240 A$="Insert Destination Tape"
245 y:=13:GOSUB 925
250 a$="Press REC and PLAY then any key....."
255 y:=15:GOSUB 925:WHILE INKEY$="" :WEND
260 a$="Saving Sector Map to Tape"
265 y:=18:GOSUB 925:CLOSEOUT
270 GOTO 140
275
280 '*** Oops! Sound an error ***
285 SOUND 1,1200,20,15:RETURN
290
295 '*** Check for illegal filename ***
300 IF discname$="" OR LEN(discname$)>16 THEN GOSUB 680:b=
discname$:RETURN
305 RETURN
310
315 '**** Main menu ****
320 MODE 1
325 INK 1,26:INK 2,0:INK 3,24:PEN 2
330 A$="DISC TO TAPE ARCHIVE PROGRAM"
335 X=7:Y=2:GOSUB 850
340 x=y=4:GOSUB 850
345 MOVE 80,395:DRAW 475,0,2
350 DRAW 0,-60:DRAW -475,0:DRAW 0,60
355 PEN 1:A$="1....ARCHIVE DISC TO TAPE"
360 x=y=9:GOSUB 925
365 A$="2....RETRIEVE DISC FROM TAPE"
370 x=y=12:GOSUB 925
375 A$="3....CATALOGUE DISC"
380 x=y=15:GOSUB 925
385 A$="4....TERMINATE PROGRAM"

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x=y=18:GOSUB 925
390 A$="Press number of desired option"
795 x=y=23:GOSUB 850
800 INK 0,13 : INK 1,26 : INK 2,0 : INK 3,24
805 BORDER 13
810 a$=INKEY$:IF a$="" THEN 810
815 IF a$="1" THEN :TAPE,OUT:GOTO 415
820 IF a$="2" THEN :TAPE,IN:GOTO 975
825 IF a$="3" THEN 1250
830 IF a$="4" THEN CALL 0
835 GOTO 810
840
845 '*** Outlined Text Sub-routine ***
850 xgraph=x*16-16:ygraph=416-(y*16)
855 PRINT CHR$(23)+CHR$(3);
860 MOVE xgraph+2,ygraph
865 TAB:PRINT a$;
870 MOVE xgraph-2,ygraph
875 PRINT a$;
880 MOVE xgraph,ygraph+2
885 PRINT a$;
890 MOVE xgraph,ygraph-2
895 PRINT a$;TAGOFF
900 PRINT CHR$(22)+CHR$(1)+CHR$(23)+CHR$(2);
905 LOCATE x,y:PRINT a$
910 RETURN
915
920 '*** Shaded Text Sub-routine ***
925 LOCATE x,y:PRINT a$
930 INK 1,26
935 PRINT CHR$(23)+CHR$(3);
940 xgraph=x*16-16:ygraph=416-(y*16)
945 MOVE xgraph+2,ygraph
950 TAB:PRINT a$;TAGOFF
955 PRINT CHR$(23)+CHR$(2);
960 RETURN
965
970 '*** Retrieve Disc From Tape ***
975 MODE 1:INK 3,26:INK 2,0
980 WINDOW #1,1,39,21,23
985 A$="Which Drive (A/B)?"
990 X=1:Y=1:GOSUB 925
995 a$=INKEY$:IF a$="" THEN 995
1000 IF a$="a" OR a$="A" THEN drive=0:drive$="A":GOTO 1010
1005 IF a$="b" OR a$="B" THEN drive=1:drive$="B":GOTO 1010
1010 GOSUB 680:GOTO 995
1015 A$=drive$:X=20:Y=1:GOSUB 925
1020 A$="Name of Disc to Retrieve?"
1025 X=1:Y=3:GOSUB 925:PEN 2
1030 LOCATE 20,3:INPUT "",discname$:GOSUB 695
1035 IF badname=1 THEN badname=0:LOCATE 20,3:PRINT SPC(11)
:GOTO 1030

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1040 TAPENAME$="!"+DISNAME$;INK 1,26:PEN 1
1045 name$=discname$+"."+RIGHT$(STR$(track),LEN(STR$(track
))-1)
1050 A$="Insert Archive Tape"
1055 x=1:y=5:GOSUB 925
1060 a$="Press PLAY then any key....."
1065 X=1:Y=7:GOSUB 925:WHILE INKEY$="" :WEND
1070 a$="Loading Disc Sector Map from Tape"
1075 x=1:y=10:GOSUB 925
1080 OPEN IN TAPENAME$
1085 FOR track=0 TO 39
1090 INPUT #9,n$(track)
1095 FOR sector=0 TO n$(track)
1100 INPUT #9,a$:f(track,sector)=VAL("&" + a$)
1105 NEXT sector : NEXT track
1110 POKE &A64E,drive:POKE &A646,&B5
1115 A$="Insert Target Disc in Drive "+drive$
1120 x=1:y=13:GOSUB 925
1125 a$="Press any key when ready....."
1130 X=1:Y=15:GOSUB 925:WHILE INKEY$="" :WEND
1135 FOR track=0 TO 39
1140 IF f(track,0)=0 AND f(track,1)=0 THEN 1150
1145 CALL CHR$(0),f(track,0),f(track,1),f(track,2),f(track,3
),f(track,4),f(track,5),f(track,6),f(track,7),f(track,8),0
,n$(track)+1,drive,track
1150 A$="Loading "+discname$+" Track"+STR$(track)+" from T
ape"
1155 x=1:y=19:GOSUB 925
1160 CALL 42506,&7000,4609,33
1165 IF PEEK(33280)<>track THEN GOTO 1315
1170 IF f(track,0)=0 AND f(track,1)=0 THEN 1230
1175 CLS #1:POKE &A64F,track
1180 FOR sector=0 TO n$(track)
1185 POKE &A651,f(track,sector)
1190 add=&70*256+sector*512
1195 add$=HEX$(add,4):hiadd$=LEFT$(add$,2)
1200 lowadd$=RIGHT$(add$,2)
1205 hiadd=VAL("&" + hiadd$)
1210 lowadd=VAL("&" + lowadd$)
1215 POKE &A64B,lowadd:POKE &A64C,hiadd
1220 CALL &A636
1225 NEXT sector
1230 NEXT track
1235 PRINT CHR$(7);CHR$(7):GOTO 110
1240 '
1245 ' *** Catalogue Disc ***
1250 CLS
1255 a$="CATALOGUE DISC IN WHICH DRIVE (A OR B)?"
1260 X=1:Y=12:GOSUB 925
1265 A$=INKEY$:IF A$="" THEN 1265
1270 IF A$="A" OR A$="a" THEN IA : GOTO 1285
1275 IF A$="B" OR A$="b" THEN IB : GOTO 1285
1280 GOSUB 680:GOTO 1265
1285 PEN 2:CLS:CAT:PEN 1

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1290 A$="
Press any key to continue..."
1295 X=1:Y=24:GOSUB 925:CALL &B818
1300 GOTO 110
1305 '
1310 '*** Tape Read Error Found ***
1315 IF PEEK(33280)>track THEN CLS #1:a$="Read Error! Rewi
nd Tape & Press any Key":x=1:y=21:GOSUB 925:CALL &B818:GOT
O 1150
1320 IF PEEK(33280)<track THEN CLS #1:a$="Found "+DISNAME
$+" Track"+STR$(PEEK(33280)):x=1:y=21:GOSUB 925:GOTO 1150
1325 GOTO 1170
1330 '
1335 '*** Poke 2nd part of machine code ***
1340 total=0
1345 FOR lin=0 TO 7
1350 FOR col=0 TO 19
1355 READ byte$
1360 add=lin*20+col+42432:byte=VAL("&" + byte$)
1365 total=total+byte
1370 POKE add,byte
1375 NEXT
1380 READ checksum$:checksum=VAL("&" + checksum$)
1385 IF checksum<>total THEN PRINT "Data Error in Line":14
85:lin$5:POKE &9000,0:END
1390 total=0
1395 NEXT
1400 RETURN
1405 DATA &E,01,&C0,&D0,&7E,&00,&FE,&01,&20,&07,&21,&40,&01,&3E,&19,&18,
&34,&FE,&02,&20,&0672
1410 DATA &71,&D0,&00,&00,&3E,&23,&18,&29,&FE,&03,&20,&07,&21,&A7,&00,&3E,
&32,&18,&1E,&FE,&0508
1415 DATA &04,&20,&07,&21,&85,&00,&3E,&37,&18,&13,&FE,&05,&20,&07,&21,&6F,
&00,&3E,&3C,&18,&0380
1420 DATA &08,&FE,&06,&C0,&21,&5F,&00,&3E,&3C,&C0,&67,&9C,&C9,&00,&FE,&03,
&C0,&D0,&66,&05,&0888
1425 DATA &D0,&6E,&04,&D0,&5E,&02,&D0,&56,&03,&D0,&7E,&00,&C0,&A1,&BC,&C9,
&FE,&03,&C0,&D0,&0AAE
1430 DATA &66,&05,&D0,&6E,&04,&D0,&5E,&02,&D0,&56,&03,&D0,&7E,&00,&C0,&9E,
&BC,&C9,&21,&46,&08DF
1435 DATA &A6,&C0,&D4,&BC,&22,&47,&A6,&79,&32,&49,&A6,&C3,&4A,&A6,&84,&3C,
&C0,&07,&21,&70,&0977
1440 DATA &94,&11,&00,&01,&0E,&C1,&0F,&47,&A6,&C9,&08,&00,&00,&00,&00,&00,
&00,&00,&00,&00,&00A0
1445 '
1450 '*** Non-standard format ***
1455 CLS
1460 a$="Sorry! Non-Standard Format"
1465 x=7 : y=12 : GOSUB 925
1470 a$="Press any key to continue..."
1475 x=6 : y=23 : GOSUB 925
1480 GOSUB 680:GOSUB 680
1485 CALL &B818 : RUN

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