

UTIL CODE 1

502

64512

D4400 45FF

TPO

LUNCH

START

```

4400: 03 F6 01 00 FC 00 00 00 00 00 00 C3 1C FC C3 81 .....
4410: FC C3 98 FC C3 A1 FC C3 BE FC C3 C9 FC C3 CD FC .....
4420: C3 64 FD ED 5B 02 FC 21 57 FC 7E 23 46 05 04 28 .D..[...!W.#F..(
4430: 06 23 CD 52 FC 18 F3 23 22 F4 FD 0E 12 2A F4 FD .#.R...#".....*..
4440: 7E 23 46 05 04 28 06 23 CD 52 FC 18 F3 23 0D 20 #F..(.#.R...#.
4450: EC 3E 4E 06 00 CD 52 FC C9 12 13 10 FC C9 4E 28 .>N...R.....N(
4460: 00 0C F6 03 FC 01 4E 19 00 00 00 0C F5 03 FE 01 .....N.....
4470: 00 03 01 01 F7 01 4E 16 00 0C F5 03 FB 01 E5 FA .....N.....
4480: E5 06 F7 01 4E 12 00 00 CD CE FD 21 F6 FD 22 02 ....N.....!..".
4490: FC 21 A0 00 01 00 01 CD F1 FC D2 00 07 CF 2F CD .!...../..
44A0: CE FD CD 78 FD C3 00 07 CD CE FD 21 C6 FD ED 5B ...X.....!...[
44B0: 02 FC DD 7E 07 E6 04 F6 F0 F3 CD 8D FD FB E6 44 .....D
44C0: CA 00 07 CF 2D CD CE FD 0E 50 CD 7A FD C3 00 07 ....-....P.Z....
44D0: 2E B0 18 02 2E 90 E5 CD CE FD E1 3A 01 FC 67 01 .....:..G.
44E0: FF FF CD F1 FC 3A 02 38 2F DD 96 01 DD 96 03 20 .....:8/.....
44F0: 78 ED 53 02 FC C3 00 07 C5 E5 21 00 30 3A 00 30 X.S.....!..0:.0
4500: E6 D0 47 DD 7E 02 E6 2F B0 BE 28 11 77 DD 7E 08 ..G.../..(..W..
4510: 3C 28 07 3D 2F 32 01 38 18 03 CD 78 FD E1 DD 46 <(.=/2.8...X...F
4520: 06 0E 14 7C 2F 32 03 38 CD 7A FD E6 18 28 0A C5 .../2.8.Z...(..
4530: CD 78 FD C1 10 ED CF 2F C4 C1 DD 66 06 DD 7E 07 .X...../...F...
4540: E6 04 B5 C5 ED 5B 02 FC E5 21 B7 FD CB 6F 28 02 .....[...!...0(
4550: 2E C6 F3 CD 8D FD FB E1 C1 E6 7C C8 E6 6C 37 C8 .....L7.
4560: E6 40 28 02 CF 2D 25 20 D4 CF 2F CD CE FD DD 7E .@(...-% ..../....
4570: 02 E6 10 32 00 FC DD 7E 00 32 01 FC C3 00 07 0E ...2....2.....
4580: 00 DD 7E 07 E6 0B B1 CD 8D FD F5 3A 01 38 2F DD .....:8/.
4590: 77 08 F1 C9 2F 32 00 38 AF 3D 20 FD CD A1 FD 3A W.../2.8.= .....;
45A0: 00 38 2F CB 47 20 F5 C9 3E FE DB FE 0F D8 3E 7F .8/.G ..>.....>.
45B0: DB FE 0F D8 3E 2F 32 00 38 FB 76 D7 52 05 08 78 .....>/2.8.V.R..X
45C0: B1 3A 03 38 28 04 2F 12 13 0B 08 ED 45 08 1A 2F ..:8(../.....E../
45D0: 32 03 38 18 F3 CD 08 17 3A 00 FC E6 0F 06 FF F7 2.8.....:.....
45E0: 0E E5 DD E1 DD 7E 02 E6 0F 57 3A 00 FC E6 10 B2 .....W:.....
45F0: 32 00 30 DD 7E 03 2F 32 02 38 C9 00 00 0D 0A 30 2.0../2.8.....0

```

#

UTILITY

```

① STABILISE MEMSTART
   CLEAR MEMSTART-1
   STABILISE BUFFSTART
   GOSUB 8650

```

$$\text{CODELEN} = 846 + 256 = 502$$

$$\text{CODESTART} = 0 + 256 * 252 = 64512$$

RETURN

$$\text{BOOTSTR} = \text{CODESTART} + \text{CODELEN} = 65014$$

$$= FC \emptyset \emptyset$$

FD FG

64512	DANDS = CODESTART	PC00 00	C3	DRV NO.
64513	TRACK = CODESTART+1	PC01 00	1C	TRACK NO
64514	STARTBUF = CODESTART+2	PC02 00 00	FC C3	
64516	INITBUF = CODESTART+4	PC04 00 00	C381	
64519	WRITEBOOT = INITBUF+3	PC07		
64522	RESTORE = WRITEBOOT+3	TC A		
64525	WRITEI = RESTORE+3	TC D		
64528	STEPIN = WRITEI+3	TC 10		
64531	WRITEII = STEPIN+3	FC 13		
64534	READII = WRITEII+3	FC 16		
64537	ENRM = READII+3	FC 19		

CONTRIBUT -

→ 39936

BRNO = 1 (DRIVE NUMBER)

Состав 2300

OPEN 'CAT' ?

POKE BANDS, DRV NUMBER

RAND USER ENQM

7ADF4 - 65012

DATE INACT	36864
CODELED	502
BOOTSTR	65014

64512, 800

CONTIENE
UTILCODE14
BOOTSTR

$$\begin{array}{r} 65044+ \\ 256 \\ \hline 65240 \end{array}$$

QED $\cup$
 $\cup D A, 7F$
 $\text{in } A, (F\bar{E})$

12 A (the)
RACA'

~~0008~~ 504, 44

041F Out (07/14)

$$\mu_{A, (E)}$$

200, 312
LDA, EE

2A, (7E)
22CA

3213 47 4134

8444
~~8305~~
1844F
9824

Find 8000/Bfff

W D
Q B

*DLIC00 IDF3

DANDS FC00 NOP DS 1
 TRACK FC01 NOP DS 1
 STARTBUFF FC02 NOP DS 2
 FC03 NOP
 INITBUF FC04 JP FC1C INIT
 WRITERBOT FC07 JP FC01 WRTBT
 RESTORE FC0A JP FC08 ASTR
 WAITET FC0D JP FCA1 WRTTK
 STEPIN FC10 JP FCBE STPIN
 WAITEM FC13 JP FCC0 WTMH
 READM FC16 JP FCCD NDM
 ENRM FC19 JP FD64 CHRH
 INIT FC1C LD DE, (FC02) STAMBUFF
 FC20 LD HL, FC57 MARKRS
 FC23 LD A, (HL) ←
 FC24 INC HL
 FC25 LD B, (HL)
 FC26 DEC B
 FC27 INC B
 FC28 JR Z, 06 FC30
 FC2A INC HL
 FC2B CALL FC52 FILL
 FC2E JR F3 FC23
 FC30 INC HL
 FC31 LD (FDF4), HL HRRBUF
 FC34 LD C, 12
 FC36 LD HL, (FDF4) ← MRKBUF
 FC39 LD A, (HL) ←
 FC3A INC HL
 FC3B LD B, (HL)
 FC3C DEC B
 FC3D INC B
 FC3E JR Z, 06
 FC40 INC HL
 FC41 CALL FC52 FILL
 FC44 JR F3
 FC46 INC HL ←
 FC47 DEC C
 FC48 JR NZ, EC
 FC4A LD A, 4E
 FC4C LD B, 00
 FC4E CALL FC52 FILL
 FC51 RET
 FILL FC52 LD (DE), A ←
 FC53 INC DE
 FC54 DJNZ FC FC52
 FC56 RET
 MARKRS FC57 LD C, (HL) DB 4EH, 28H
 FC58 JR Z, 00 DB 00H, 0CH
 FC5A INC C
 FC5B OR 03 DB F6H, 03H
 FC5D CALL M, 4E01 DB FCH, 01H
 FC60 ADD HL, DE DB 4EH, 19H
 FC61 NOP DB 00, 00
 FC62 NOP DB 00, 0C
 FC63 NOP DB F5, 03
 FC64 INC C DB FE, 01
 FC65 PUSH AF
 FC66 INC BC
 FC67 CP 01
 FC69 NOP

; DITE & SIDE
 ; TRACK
 ; DIFFER DATI IN TRANSITO
 ;
 ; SCRITTURA BOOTSTRAP (1° SETTORE DISCO)
 ; RESTORE (TR 00)
 ; SCRITTURA TRACCE ?
 ; STEP IN
 ; SCRITTURA SETTORE
 ; LETTURA SETTORE
 ;
 ; PREPARAZIONE BUFFER PER FORMATTAZIONE
 ; PUNTA LA COPPIA 4EH, 28H
 ;
 ;
 ;
 ; CONTROLLA SE HA FINITO
 ; FINITO: PROSEGUE
 ; PUNTA LA COPPIA 00, 0CH
 ; COPIA A IN (DE) CONTANDO B
 ;
 ; PUNTA LA COPPIA E6, 03H
 ; SALVA L'INDIRIZZO PER I LOOP SUCCESSIVI
 ; C'E' SETTORI
 ;
 ; COPIA A IN (DE) CONTANDO B
 ;
 ; CONCLUDE SCRIVENDO 256 VOLTE 4EH NEL BUFFER
 ; COPIA A IN (DE) CONTANDO B

1C6A INC BC
 1C6B LD BC,F701
 1C6E LD BC,164E
 1C71 NOP
 1C72 INC C
 1C73 PUSH AF
 1C74 INC BC
 1C75 EI
 1C76 LD BC,FAE5
 1C79 PUSH HL
 1C7A LD B,F7
 1C7C LD BC,124E
 1C7F NOP
 1C80 NOP

DE 00, 03
 DB 01 01
 F7 01
 4E 16
 00 0C
 F5 03
 FB 01
 E5 FA
 E5 06
 F7 01
 4E 12
 00 00

256 E5

WRBT

1C81 CALL FDCE
 1C84 LD HL,FDF6
 1C87 LD (FC02),HL
 1C8A LD HL,00A0
 1C8D LD BC,0100
 1C90 CALL FCF1
 1C93 JP NC,0700
 1C96 RST 08H
 1C97 CPL

64669 RSTR

1C98 CALL FDCE
 1C9B CALL FD78
 1C9E JP 0700

WRITK

1CA1 CALL FDCE
 1CA4 LD HL,FDC6
 1CA7 LD DE,(FC02)
 1CAB LD A,(IX+07H)
 1CAE AND 04
 1CB0 OR F0

1CB2 DI
 1CB3 CALL FD8D
 1CB6 EI
 1CB7 AND 44
 1CB9 JP Z,0700
 1CBC RST 08H
 1CBD DEC L

STPIN

1CBE CALL FDCE
 1CC1 LD C,50

STEP IN + UPDATE

1CC3 CALL FD7A
 1CC6 JP 0700

WRTM

1CC9 LD L,B0
 1CCB JR 02RDWR

RDM

1CCD LD L,00

RDWR

1CCF PUSH HL
 1CD0 CALL FDCE
 1CD3 POP HL
 1CD4 LD A,(FC01)
 1CD7 LD H,A
 1CD8 LD BC,FFFF
 1CDB CALL FCF1
 1CDE LD A,(3802)
 1CE1 CPL
 1CE2 SUB (IX+01H)
 1CE5 SUB (IX+03H)
 1CE8 JR NZ,78
 1CEA LD (FC02),DE
 1CEE JP 0700

{ 205
 206
 253
 205
 120
 253
 195
 0
 4
 CAD
 CE
 FD
 CD
 48
 FD
 C3
 00
 07

1CF1	PUSH	BC
1CF2	PUSH	HL
1CF3	LD	HL, 3000
1CF6	LD	A, (3000)
1CF8	AND	D8
1CFB	LD	B, A
1CFC	LD	A, (IX+02H)
1CFF	AND	2F
1D01	OR	B
1D02	CP	(HL)
1D03	JR	Z, 11
1D05	LD	(HL), A
1D06	LD	A, (IX+08H)
1D09	INC	A
1D0A	JR	Z, 07
1D0C	DEC	A
1D0D	CPL	
1D0E	LD	(3801), A
1D11	JR	03
1D13	CALL	FD78
1D16	POP	HL
1D17	LD	B, (IX+06H)
1D1A	LD	C, 14
1D1C	LD	A, H
1D1D	CPL	
1D1E	LD	(3803), A
1D21	CALL	FD7A
1D24	AND	18
1D26	JR	Z, 0A
1D28	PUSH	BC
1D29	CALL	FD78
1D2C	POP	BC
1D2D	DJNZ	ED
1D2F	RST	08H
1D30	CPL	
1D31	CALL	NZ, DDC1
1D34	LD	H, (HL)
1D35	LD	B, DD
1D37	LD	A, (HL)
1D38	RLCA	
1D39	AND	04
1D3B	OR	L
1D3C	PUSH	BC
1D3D	LD	DE, (FC02)
1D41	PUSH	HL
1D42	LD	HL, FDB7
1D45	BIT	5, A
1D47	JR	Z, 02
1D49	LD	L, C6
1D4B	DI	
1D4C	CALL	FD8D
1D4F	EI	
1D50	POP	HL
1D51	POP	BC
1D52	AND	7C
1D54	RET	Z
1D55	AND	6C
1D57	SCF	
1D58	RET	Z
1D59	AND	40

1D5B JR Z,02
 1D5D RST 08H
 1D5E DEC L
 1D5F DEC W
 1D60 JR NZ,D4
 1D62 RST 08H
 1D63 CPL
 1D64 CALL FDCE
 1D67 LD A,(IX+02H)
 1D6A AND 10
 1D6C LD (FC00),A
 1D6F LD A,(IX+00H)
 1D72 LD (FC01),A
 1D75 JP 0700

CHKM

64288
RSTR1

1D78 LD C,00 14,0 ; RESTORE COMMAND
 1D7A LD A,(IX+07H) 221,196,7 ;
 1D7D AND 0B 230,11 ; HEAD LOAD & RATE
 1D7F OR C 177
 1D80 CALL FD8D W/CHND 205,141,253
 1D83 PUSH AF 245
 1D84 LD A,(3801) 58,1,56
 1D87 CPL 47
 1D88 LD (IX+08H),A 281,119,8
 1D8B POP AF 241
 1D8C RET 201

W/CHND

1D8D CPL
 1D8E LD (3800),A
 1D91 XOR A
 1D92 DEC A
 1D93 JR NZ,FD
 1D95 CALL FDA1 BREAK
 1D98 LD A,(3800)
 1D9B CPL
 1D9C BIT 0,A
 1D9E JR NZ,F5
 1DA0 RET

DELAY

CHECK BUSY

BREAK

1DA1 LD A,FE
 1DA3 IN A,FE
 1DA5 RRCA
 1DA6 RET C
 1DA7 LD A,7F
 1DA9 IN A,FE
 1DAB RRCA
 1DAC RET C
 1DAD LD A,2F
 1DAF LD (3800),A
 1DB2 EI
 1DB3 HALT

BREAK (?)
KEY

1DB4 RST 10H
 1DB5 LD D,D
 1DB6 DEC B
 1DB7 EX AF,AF'
 1DB8 LD A,B
 1DB9 OR C
 1DBA LD A,(3803)
 1DBD JR Z,04
 1DBF CPL
 1DC0 LD (DE),A
 1DC1 INC DE
 1DC2 DEC BC
 1DC3 EX AF,AF'

FDC4 RETN
 FDC6 EX AF,AF'
 FDC7 LD A,(DE)
 FDC8 CPL
 FDC9 LD (3803),A
 FDCC JR F3
 FDCE CALL 1708 ; PAGE IN ROM
 FDD1 LD A,(FC00) ANDS ; DRIVE & SIDE
 FDD4 AND 0F
 FDD6 LD B,FF
 FDD8 RST 30H
 FDD9 LD C,E5
 FDDB POP IX
 FDDD LD A,(IX+02H)
 FDE0 AND 0F
 FDE2 LD D,A
 FDE3 LD A,(FC00)
 FDE6 AND 10
 FDE8 OR D
 FDE9 LD (3000),A
 FDEC LD A,(IX+03H)
 FDEF CPL
 FDF0 LD (3802),A
 FDF3 RET
 FDF4 DS 2 ; BUFFER MARKER FORMATTAZIONE

PAGE IN →

HEX BUF
#

300TSTR

CARICAMENTO DA 65014 (FDF6)

24/10/2014

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0400: 02 18 02 06 04 C5 CD 5C 04 CD 39 04 D7 F1 2B E1 .....#
0410: D5 C5 1A 44 F7 0A C1 D1 CD 74 00 18 92 FE 23 20 ...D...T...#
0420: 0E E7 CD 39 04 3E 07 D7 0B 22 32 8D 5C AF 32 8E ...0...>...2.\.2.
0430: 5C 32 01 5C D7 6B 0D 18 E2 D7 18 00 FE 3A 28 04 \2.\.K.....(
0440: FE 0D 20 DB DF C0 FD 36 00 FF CD 04 05 F4 1B D7 .. ...6.....
0450: 18 00 FE 3B 28 03 FE 2C C0 E7 BF C0 FE 23 20 0C ...:(...#
0460: DF 28 03 D7 D0 35 E7 D7 82 1C 18 2B D7 FE 24 FD .(...5...+...$
0470: CB 01 76 28 0D DF 28 12 AF D7 D0 35 EF 04 01 38 ..V(...(...5...8
0480: 18 08 CD 4F 04 20 0D D7 82 1C CD 4F 04 20 08 D7 ...0...0...
0490: 8C 1C 18 06 D7 E6 1C D7 E6 1C DF 28 05 06 02 CD .....(....
04A0: 50 00 D7 18 00 C0 01 03 00 D7 30 00 D5 D7 B6 2A P.....0.....*
04B0: EF 08 C0 02 C1 02 01 38 D7 F1 2B 0B 78 E1 28 02 .....8...+X.(
04C0: CF 20 1A CB EF E1 77 E5 D7 09 1E E1 23 71 23 70 .).....W.....#Q#P
04D0: EF 06 E0 E1 17 38 C0 21 01 30 CB 4E 21 FF 1F 28 .....8...!..0.N!..(
04E0: 02 23 23 CD F5 04 4F 7E 23 23 A7 28 06 B0 28 03 .##...0##.(...
04F0: 23 18 F4 79 48 CD FF 04 0C C8 C5 06 00 09 C1 56 #..YH.....V
0500: 2B 5E EB C0 E1 5E 23 56 ED 7B 3D 5C D5 C3 00 07 +!...+V.[-\....
0510: E1 7E FD 77 00 CD 43 05 ED 7B 3D 5C E1 E5 3E 13 ..W..C..[-\...>
0520: BC 38 1D CD 78 05 03 13 41 CD 9F 05 3D 06 FF F7 .8..X...A...=...
0530: 04 7E E6 7F D7 10 00 CB 7E 23 28 F5 21 49 13 E3 .....#(!I..
0540: C3 00 07 D7 C5 16 FD CB 02 0E 3A 3A 5C FE 57 C8 .....:...\W.
0550: 2A 4F 5C 01 14 00 09 E5 DD E1 ED 5B 53 5C 1B A7 *0\.....[S\..
0560: ED 52 C8 D2 85 0C 19 DD 4E 05 DD 46 06 DD CB 04 .R.....N..F....
0570: 6E 28 E3 CD 75 06 18 D8 E1 5E 23 56 23 4E 23 06 N(..U.....+V#N#..
0580: 00 E5 C5 D5 CD BD 05 E1 D5 D7 C3 33 E1 EB 2B C1 .....3...+
0590: C0 CD BD 05 E1 D5 0B 2B ED A0 23 ED B0 D1 E5 E5 .....+...#.....
05A0: 2A 3D 5C 2B 36 C0 23 E3 D5 C5 D1 C1 C5 D7 1D 1C *=\+6.#.....
05B0: C1 E3 D5 F5 50 59 CD DC 05 F1 D1 E1 C0 D7 05 1F ....PY.....
05C0: 21 00 00 30 54 5D A7 ED 42 F9 C5 E5 2A 3D 5C ED !..9T]..B...*=\.
05D0: 52 44 4D E1 EB ED B0 C1 2A 3D 5C C0 EB 1B E5 37 RDM.....*=\....7
05E0: ED 72 2B 44 4D E1 2B ED B8 13 EB F0 C0 F5 EF 05 .R+DM.+.....
05F0: C1 02 38 D7 F1 2B C5 D5 1A 06 04 F7 08 D1 C1 F1 ..8...+.....
0600: E0 D5 C5 EB 23 4E 23 46 EB 57 7C CD 22 06 C1 0B .....#N#F.W."...
0610: 0B 0B 38 0B 7D C5 CD 22 06 C1 30 03 D7 65 17 7A ..8..."..0...E.Z
0620: D1 C0 A7 F2 28 06 2F 0B B9 D8 78 A7 C8 37 C0 C5 .....(/...X...7..
0630: F5 ED 53 5F 5C 2A 53 5C 2B D7 55 16 23 E5 DD E1 ..S-\*S\+.U.#...
0640: F1 CD 52 06 54 5D 2A 5F 5C ED A0 EB C1 CD 61 06 ..R.T]*-\.....A.
0650: EB C0 DD E5 E1 CD 58 06 01 08 00 0F 38 03 01 C4 .....X.....8...
0660: 15 71 23 70 23 C0 06 08 DD 7E 04 F6 20 F7 08 E0 .Q#P#.....
0670: 06 06 CD 68 06 CD D1 06 01 14 00 A7 ED 42 D8 09 ...H.....B...
0680: E5 DD E5 E1 DD 4E 05 DD 46 06 C5 D7 E8 19 CD 78 .....N..F.....X
0690: 05 63 16 23 62 6B 36 42 23 36 4B 23 23 23 36 16 .C.#BK6B#6K###6.
06A0: 23 23 23 36 10 C1 78 2F 47 79 2F 4F 03 F1 C3 9F ###6..X/GY/O....
06B0: 05 2A 4F 5C 11 14 00 19 EB 2A 53 5C 2B D7 E5 19 .*0\.....*S\+...
06C0: CD 78 05 7C 12 0C CD 9F 05 AF 06 18 12 13 10 FC .X.....
06D0: C0 DD E5 E1 ED 4B 4F 5C A7 ED 42 23 C0 EF 05 A1 .....K0\..B#....
06E0: 1B 38 C0 FF FF FF FF FF FF FF FF FF FF FF FF FF .8.....
06F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
0700: C0 C0 04 C0 04 0B 07 25 07 DD 06 21 00 00 CD 01 .....%...!....
0710: 06 38 13 DD 2A 4F 5C 1A FE 70 D8 01 05 00 20 03 .8...*0\..P....
0720: 01 0F 00 DD 09 C0 D7 E7 34 4B 07 6F 07 3D 07 25 .....4K.O.=.%
0730: 07 DD 06 67 07 75 07 3D 07 25 07 DD 06 21 00 00 ...G.U.=.%...!..
0740: CD 01 06 38 E1 01 07 00 C3 2F 06 FE 0D 20 07 CD ...8...../....
0750: 67 07 3E 0A 18 11 FE 20 D8 FE 80 38 0A D6 A5 38 G.>....8...8
0760: 04 D7 10 0C C0 3E 3F 06 00 67 3E FF C3 51 0C CD .....>..G>..Q..
0770: 75 07 CB BF C0 06 02 18 F0 07 07 A2 07 83 07 25 U.....
0780: 07 AB 07 21 00 0F CD 01 06 30 03 D7 0E 16 01 08 ...!.....0.....
0790: 00 CD 2F 06 ED A0 C0 F5 CD B1 07 F1 D0 D7 F2 15 ..../.....
07A0: D0 C0 CD B1 07 D0 D7 E6 15 D0 C0 CD B1 07 C3 66 .....F
07B0: 06 06 0F DD 7E 07 D7 01 16 DD 2A 51 5C DD 7E 04 .....*Q\..
07C0: F6 20 FE 23 C0 10 EC CF 48 02 08 48 08 B3 08 4D .#....H...H...M
07D0: 08 0D 09 F5 DD 7E 1E DD B6 1F 28 27 F1 DD E5 E1 .....('....
07E0: 01 07 00 00 CB 6E 28 09 32 0F 5C 7E E6 9F 77 18 .....N(2.\..V.
07F0: 1F CB 76 28 06 32 0E 5C CB EE C0 FE 17 20 03 CB ..V(2.\.....

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D1000 10FF

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1000: F3 31 02 40 C3 37 17 FF C3 10 05 E1 F5 C3 67 00 .1.0.7.....G.
1010: E3 FD E1 D5 5E 23 18 3B FD CB 01 7E C0 CF 47 FF .....†#.j.....G.
1020: D7 20 00 C0 FF FF FF FF E1 4E 06 00 E5 C3 91 05 . ....N.....
1030: E1 4E 23 E5 C3 D7 04 FF FD E5 D7 38 00 FD E1 C0 .N#.....8....
1040: DD 86 03 2F 32 02 38 C0 C5 D5 11 4A 00 D5 06 00 .../2.8.....J....
1050: F7 06 E0 56 23 F3 EB E5 21 08 17 E3 FD E5 E3 FD ...V#...!.....
1060: 21 3A 5C C3 00 07 E0 D7 7B 00 23 E3 E5 D5 06 FF !:\.....[. #.....
1070: F7 00 D1 C1 E0 FD CB 02 0E C5 2A 51 5C E5 DD E1 .....*Q\...
1080: DD 7E 04 F6 20 EB 37 ED 52 45 F7 08 F1 CD 74 00 ... .7.RE....T.
1090: E1 E1 D0 F5 FD CB 37 6E 20 04 F1 C3 00 07 F1 30 .....7N .....0
10A0: FA FE 0D 28 08 D7 85 0F CD 04 05 38 0F CD 04 05 ...(. ....8....
10B0: 25 10 EF 00 34 F1 27 AE 14 7A 38 18 08 DD 2A 51 %...4.'...Z8...*Q
10C0: 5C CD 66 06 E1 E1 18 D3 2A 4F 5C 01 10 00 00 ED \.F.....*Q\.....
10D0: 4B 61 5C FD 42 20 28 0B 0B 0B 0A D6 F7 20 20 3C KA\B ( ..... <
10E0: 06 06 CD 51 0C 18 18 FE 1B 38 02 CF 31 32 3A 5C ...Q.....8..12:\
10F0: 2A 5D 5C 22 5F 5C FD CB 00 7E 32 3A 5C 20 00 CD *]\~\....2:\ ..
0100: 43 05 ED 7B 3D 5C 18 03 FD CB 0D 7E 20 F1 ED 5B C..[-\..... ..[
0110: 61 5C E5 A7 ED 52 E1 30 E6 ED 5B 50 5C A7 ED 52 A\...R.0..[Y\..R
0120: 38 00 D7 FB 10 2A 5D 5C 2B 18 00 2A 45 5C D7 6E 8....*]\+...*E\N
0130: 10 23 23 23 FD 56 0D 1E 00 D7 8B 10 DF 20 03 D7 .###.V..... ..
0140: A7 11 D7 BF 16 E7 06 FF F7 02 E5 E7 C0 FE 2A C2 .....*.
0150: 4E 03 DF 28 06 01 22 00 D7 30 00 D5 E7 CD 5C 04 N..(..."..0....\
0160: CD 78 05 52 06 4C 36 C0 D5 CD 78 05 9E 06 BD DD .X.R.L6...X.....
0170: 21 25 00 DD 10 3E C3 CD 6A 02 DD 23 3E 1F CD 6A !%...>...J...#>...J
0180: 02 E1 A7 ED 42 EB DD E1 CD 0F 05 E5 CD 30 04 E1 ....B.....9..
0190: DD 46 0C DD 4E 0B C5 03 03 03 03 03 03 03 E5 22 .F..N....."
01A0: 5B 5C D7 2B 2D 3A 74 5C A7 F5 3E 01 28 01 3C CD [\.-+T\...>.(.<.
01B0: ED 05 DD E5 E1 D7 15 16 F1 E1 C1 DD E5 ED 5B 65 .....[E
01C0: 5C ED 52 10 30 03 2A 5B 5C E5 2A 61 5C A7 20 17 \.R.0.*[\.*A\..
01D0: C5 01 01 00 CD 7A 02 01 0A 00 00 0E 06 CD 7A 02 .....Z.....Z.
01E0: C1 E1 CD 7A 02 18 7B 01 01 00 CD BC 02 28 02 CF ...Z..[.....(..
01F0: 35 2B 7E 01 11 00 00 77 F5 E5 0E 0B 00 0E 06 CD 5+....V.....
0200: 07 02 DD E1 F1 FE 03 28 00 3A 74 5C 3D 28 1C 3D .....(:T\=(.=
0210: 20 3C CD 78 05 CB 07 3D 2B 36 E1 2B 2B 2B 36 C0 <.X...-+6..++6.
0220: 2B 36 3C E1 CD 0F 05 28 12 CF 32 CD 78 05 08 08 +6<.....(..2.X...
0230: AC 21 68 00 10 36 C0 E1 CD 0F 05 DD E5 E1 42 4B .!H..6.....BK
0240: 30 05 CD 07 02 18 1B CD BC 02 28 16 CF 34 CD 78 0.....(..4.X
0250: 05 B6 08 0E E1 CD 0F 05 42 4B E5 CD 07 02 E1 D7 .....BK.....
0260: CE 08 DD E1 CD 70 06 C3 AF 03 DD 77 D7 DD 77 EB .....P.....W..W.
0270: DD 77 37 DD 77 58 DD 77 6C C0 D0 DD 2A 51 5C DD .V7.WX.WL...*Q\
0280: 7E 04 F6 20 06 00 F7 08 D0 78 B1 C8 7E 23 0B D0 .. ....X..#..
0290: E5 CD 74 00 E1 18 F1 D0 DD 2A 51 5C DD 7E 04 F6 ..T.....*Q\...
02A0: 20 06 02 F7 08 D0 78 B1 C8 D0 E5 CD 74 00 E1 30 .....X.....T..0
02B0: 06 D0 77 23 0B 18 EF 28 F1 D7 E4 15 D0 DD 2A 51 ..V#....(.....*Q
02C0: 5C DD 7E 04 F6 20 06 02 F7 08 D0 78 B1 C8 D0 E5 \.... ....X....
02D0: CD 74 00 E1 30 07 D0 BE C0 23 0B 18 EE 28 F0 D7 .T..0.....#....(..
02E0: E4 15 CD 5C 04 FE CC 20 65 DF 28 0A CD DD 06 3E ...\. ...E.(...>
02F0: 02 CD ED 05 DD E5 E7 CD 5C 04 CD 30 04 DD E1 DD ..... \..0....
0300: E5 CD 66 06 3E 01 CD ED 05 E1 E5 DD E5 DD E5 D7 ..F.>.....
0310: 15 16 D7 E6 15 30 12 2A 51 5C E3 F5 D7 15 16 F1 .....0.*Q\.....
0320: D7 F2 15 2A 51 5C E3 18 E6 20 0E 3E BF DB FE 0F ...*Q\.... >....
0330: 38 E0 3E FE DB FE 0F 38 D0 E1 DD E1 CD 70 06 DD 8.>.....8.....P..
0340: E1 CD 70 06 18 60 D7 82 1C CD 4F 04 28 03 D7 8A ..P..I....0.(...
0350: 1C CD 5C 04 06 01 FE DF 20 0F E7 D7 48 20 28 11 ..\..... ..H (
0360: C5 D7 82 1C CD 30 04 18 0F 06 03 FE BF 20 02 E7 .....9..... ..
0370: 05 CD 30 04 C5 CD DD 06 EF 05 C5 02 38 CD 78 05 ..9.....8.X.
0380: 36 17 21 2B 2B 36 C0 CD 0F 05 28 02 CF 2A E5 EF 6.!++6....(.*..
0390: 04 E5 38 E1 F1 E5 CD ED 05 E1 01 18 5C A7 ED 42 ..8.....\..B
03A0: 00 38 04 DD CB 04 AE EB CD D1 06 EB 73 23 72 3E .8.....S#R>
03B0: FE D7 01 16 FD 36 00 FF CD 04 05 76 1B FE 23 20 .....6.....V..#
03C0: 8D E7 D7 48 20 20 08 CD 30 04 CD B1 06 18 E0 D7 ...H ..9.....
03D0: 82 1C CD 30 04 D7 1E 17 78 B1 28 D3 DD 2A 4F 5C ...9....X.(..*Q\
03E0: DD 00 DD 2B E5 CD 75 06 C3 30 17 DF 28 07 F5 3E ...+.U..0..(>
03F0: 02 D7 01 16 F1 D7 70 20 D4 4F 04 06 00 18 06 06 .....P ..0.....

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0800: F6 C0 F5 CD CA 0B D2 20 02 F1 12 DD CB 07 FE C0 .....).
0810: DD 4E 08 DD 46 00 D7 2B 2D DD 4E 1E DD 46 1F D7 .N..F..+-..N..F..
0820: 2B 2D ED 4B 0E 5C D7 2B 2D EF 06 04 01 32 38 D7 +-..K..\..+-.....28.
0830: 00 1E DD 6E 10 DD 66 11 00 44 4D CD 1A 0C D7 00 ...N..F..DM.....
0840: 1E DD 71 0A DD 70 0B C0 CD CA 0B 1A C0 DD CB 00 ..Q..P.....
0850: 5E C8 DD 5E 0C DD 56 0D DD 6E 0E DD 66 0F DD 4E t...t...V..N..F..N
0860: 0A DD 46 0B 0B A7 ED 42 20 0B DD 6E 12 DD 66 13 ..F....B ..N..F.
0870: A7 ED 52 28 3B DD E5 D5 C5 DD E5 01 03 00 D7 30 ..R(.....0
0880: 00 36 00 2B DD 7E 07 E6 0F 77 3E 03 CD 20 0A E1 .6..+.....W>....)
0890: 11 14 00 10 EB 01 0A 00 CD 73 0A 30 2F E1 22 0C .....S.0/..".
08A0: 5C E1 22 A0 5C 2A 0E 5C CD 8D 0B CD 70 06 DD E1 \..".\*..\....P...
08B0: C3 6A 0C 21 F6 F1 F5 3E 03 CD 34 0A CD 73 0A E1 .J.!...>..4..S..
08C0: 30 06 3E 02 CB 4C 20 0B CB 44 20 02 CF 30 CD B7 0.>..L ..D ..0..
08D0: 0A 3E 01 F5 CD 6A 0C F1 CD 52 06 11 AB 5C CD F3 .>....J....R....\..
08E0: 08 2A 0E 5C 2B EB 72 2B 73 2B 54 5D 2B 2B ED A8 .*\..+..R+S+T]++..
08F0: ED A8 C0 DD E5 E1 01 1F 00 00 AF 77 2B 77 2B EB .....W+V+..
0900: 0E 10 ED B8 DD 7E 0F E6 0F DD 77 0F C0 DD 4E 0E .....W....N.
0910: DD 46 0F 03 D7 2B 2D DD 4E 0A DD 46 0B D7 2B 2D .F....+-..N..F..+-
0920: DD 4E 08 DD 46 00 D7 2B 2D DD 4E 12 DD 46 13 D7 .N..F..+-..N..F..
0930: 2B 2D DD 4E 0C DD 46 0D D7 2B 2D EF 0E 03 04 01 +-..N..F..+-.....
0940: 03 0F 31 36 30 00 02 30 38 C0 50 00 B0 00 E3 00 ..160..08.P.....
0950: 3E 02 CD 20 0A 21 00 00 CD 8A 00 CD AE 00 CD 8A >...).!.....
0960: 00 30 FB 44 4D D7 2B 2D DD 4E 08 DD 46 00 D7 2B .0.DM..+-..N..F..+
0970: 2D EF 00 04 34 3B 00 05 3A 38 CD AE 00 DD E5 D7 -...4;...:8.....
0980: E3 2D DD F1 CD AE 00 C3 70 06 E5 CD 7C 0B E1 ED .-.....P.....
0990: 5B 0E 5C 10 ED 5B A0 5C 7A A3 3C 37 C8 ED 52 11 [. \..[. \Z.<7..R.
09A0: A2 5C 1A A7 C8 06 0A CD B0 00 13 1A 10 F9 3E 0D .\.....>..
09B0: DD E5 D7 F2 15 DD E1 A7 C0 3E 03 21 F6 F1 CD 2C .....>.!...
09C0: 0A CD 73 0A D2 CC 08 2A 0E 5C E5 23 E5 CD 7C 0B ..S.....*\..#...
09D0: 2A A0 5C 7C A5 3C E1 20 F2 22 0E 5C E1 CD 8D 0B *.\..<..". \.....
09E0: C3 70 06 21 F6 F1 CD 01 06 DA 39 0A 13 1A 13 13 .P.!.....9.....
09F0: CD 6C 0B F5 06 04 CD 51 0C 0B ED 43 9C 5C ED 43 .L.....Q....C.\.C
0A00: AC 5C 22 AE 5C 21 03 00 22 A0 5C 6C 22 9E 5C 2B .\.. \!..". \L". \+
0A10: 22 B0 5C F1 06 00 21 00 00 11 0C 5C C3 51 0C D3 ". \....!.....\..Q..
0A20: 07 48 08 20 0A 6A 0C 0D 00 21 00 F1 CD 34 0A DD .H.)..J....!...4..
0A30: 36 04 EF C0 CD 01 06 30 02 CF 2B C5 F5 D5 EB 23 6.....0..+.....#
0A40: 7E 06 06 CD 51 0C 21 20 00 00 09 D1 F1 C5 44 4D CD ...Q.! .....DM.
0A50: 2F 06 ED A0 E3 EB 73 23 72 AF 23 77 23 77 23 77 /.....S#R.#W#W#W
0A60: 23 77 E5 CD 3E 0C E1 01 22 00 00 09 EB CD F3 08 D1 #W...>...".....
0A70: 13 C1 C0 D5 C5 DD 36 1E 10 21 01 00 22 0E 5C CD .....6..!..." \.
0A80: 10 08 CD 7C 0B FD 34 D4 2A A0 5C 7C A5 3C C1 D1 .....4.*.\..<..
0A90: C8 D5 C5 21 A2 5C 1A ED A1 20 E7 13 EA 96 0A 3E ...!\..>
0AA0: 20 EB 21 AC 5C 37 ED 52 38 07 EB ED A1 20 E7 18 .!\..7.R8.....
0AB0: F0 C1 D1 FD 35 D4 C0 2A 0E 5C E5 D5 C5 CD 10 08 ....5.*.\.....
0AC0: CD 7C 0B FD 36 D4 00 CD 10 08 CD 7C 0B 01 00 00 ...6.....
0AD0: C5 0B 2A A0 5C 7C A5 3C 28 1E E5 03 C5 CD 7C 0B ..*\..<(.....
0AE0: C1 2A 0E 5C D1 A7 ED 52 D1 D5 EB A7 ED 52 30 E2 .*\....R.....R0.
0AF0: E1 D5 ED 43 0E 5C 18 DA C1 0B D7 2B 2D DD 4E 08 ...C.\.....+-..N.
0B00: DD 46 00 D7 2B 2D EF 22 C0 01 E1 37 00 0C A2 04 .F..+-.."...7....
0B10: 3A 31 30 00 13 E0 04 33 08 04 E1 03 36 00 00 E1 :10....3....6....
0B20: A1 03 E0 32 38 A7 C0 38 30 02 CF 2E CD 10 08 CD ...28..80.....
0B30: 7C 0B 2A A0 5C 23 22 9E 5C E5 D7 90 1E E1 00 22 .*\..#". \....."
0B40: A0 5C D7 00 1E ED 43 9C 5C C1 D1 CD 6C 0B 01 10 .\.....C.\....L...
0B50: 00 D7 30 00 21 0C 5C ED B0 FD 34 D4 E1 D5 CD 8D ..0.!.\....4.....
0B60: 0B E1 2B 01 10 00 11 AB 5C ED B8 C0 C5 21 AC 5C ..+.....\.....!\.
0B70: 06 0A 2B 36 20 10 FB C1 EB ED B0 C0 21 0C 5C 06 ..+6 .....!\.
0B80: 10 C5 E5 CD C4 0B E1 77 23 C1 10 F5 C0 E5 ED 5B .....W#.....[
0B90: 0E 5C A7 ED 52 30 03 FD 35 D4 CD 10 08 21 0C 5C .\..R0..5.....!\.
0BA0: 06 10 C5 E5 CD C4 0B E1 46 77 23 78 12 DD CB 07 .....FW#X....
0BB0: FE C1 10 EE 2A 0E 5C D1 A7 ED 52 C8 D5 30 D8 FD .....*\....R..0..
0BC0: 34 D4 18 D0 CD 48 08 D8 CF 2E DD 5E 0A DD 56 0B 4....H.....t...V.
0BD0: DD 4E 0C DD 46 0D DD 6E 12 DD 66 13 A7 ED 42 3F .N..F..N..F..B?
0BE0: 00 20 0B DD 6E 0E DD 66 0F A7 ED 52 3F D0 D5 DD . ..N..F..R?...
0BF0: 6E 08 DD 66 00 37 FD 52 30 00 03 CD 1A 0C 11 00 N..F..7.R0.....

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0C00: 00 C1 D5 CD 10 0C C1 03 DD 71 0A DD 70 0B 37 C0 .....Q..P..7.
0C10: DD E5 E1 10 11 20 00 10 EB C0 DD 6E 0C DD 66 0D .....N..F.
0C20: A7 ED 42 C8 C5 CD 6A 0C C1 DD 71 0C DD 70 0D DD ..B...J...Q..P..
0C30: CB 02 5E C8 DD 6E 12 DD 66 13 A7 ED 42 D8 06 02 ...↑..N..F...B...
0C40: 11 00 00 CD 10 0C DD 6E 0C DD 66 0D DD 7E 07 E6 .....N..F....
0C50: 0F DD E5 CD 50 0C DD E1 C0 E5 D5 C5 06 FF F7 0E ....Y.....
0C60: E5 DD E1 C1 F7 0C D1 E3 7C C0 DD CB 07 7E C8 06 .....
0C70: 00 CD 40 0C DD CB 07 BE C0 81 0C 87 0C 47 0D 47 ..@.....G.G
0C80: 0D 0E A0 18 04 CF 57 0E 80 C5 D5 D0 C5 D5 E5 D0 .....W.....
0C90: DD 4E 04 DD 46 05 00 38 EC 44 4D D7 2B 2D DD 7E ..N..F..8.DM.+-.
0CA0: 01 D7 28 2D D7 A0 36 DD 7E 00 D7 28 2D D7 A0 36 ..(-..6...(-..6
0CB0: D7 04 1E A7 21 00 30 28 0D 3D 20 C0 DD CB 02 66 ....!.0(.= ....F
0CC0: 28 C3 CB E6 18 02 CB A6 D7 07 23 70 CD 40 00 78 (.....#Y..@.X
0CD0: D0 E1 D1 C1 D0 D1 E1 67 CD 8E 0D C5 E5 21 00 30 .....G.....!.0
0CE0: 3A 00 30 E6 D0 47 DD 7E 02 E6 2F B0 BE 28 11 77 ;.0..G.../..(.W
0CF0: DD 7E 08 3C 28 07 3D 2F 32 01 38 18 03 CD 0F 0D ..<(.=/2.8.....
0D00: E1 DD 46 06 0E 14 7C 2F 32 03 38 CD A1 0D E6 18 ..F.../2.8.....
0D10: 28 00 C5 CD 0F 0D C1 10 ED CF 2F C1 DD 66 06 DD (....../..F..
0D20: 7E 07 E6 04 B5 C5 D5 E5 21 E6 0D CB 6F 28 02 2E .....!.0(..
0D30: F5 F3 CD B4 0D FB E1 D1 C1 E6 7C C8 E6 40 28 02 .....@(.
0D40: CF 2D 25 20 DA CF 2F 21 01 30 CB 4E 28 21 F5 2B ..-% ..!/!.0.N(!.+
0D50: CB A6 AF CD 40 00 01 80 00 11 80 27 21 80 00 CD .....@.....'!...
0D60: DB 0C F1 A7 2A 80 27 11 E8 FA ED 5A CC 80 27 26 .....*.'.....Z..'2
0D70: 00 DD 6E 00 54 DD 5E 01 DD CB 02 66 28 04 CB 25 ..N.T.↑.....F(..%
0D80: CB 14 D7 A0 30 DD 4E 04 DD 46 05 A7 ED 42 DD 7E .....0.N..F...B.
0D90: 02 E6 C0 01 40 00 CB 21 6B 10 D6 40 30 F8 C0 0E .....@..!....@0...
0DA0: 00 DD 7E 07 E6 0B B1 CD B4 0D F5 3A 01 38 2F DD .....:8/.
0DB0: 77 08 F1 C0 2F 32 00 38 AF 3D 20 FD CD C8 0D 3A W.../2.8.= .....:
0DC0: 00 38 2F CB 47 20 F5 C0 3E FE DB FE 0F D8 3E 7F .8/.G ..>.....>.
0DD0: DB FE 0F D8 3A 00 30 E6 F0 32 00 30 3E 2F 32 00 .....:0..2.0>/2.
0DE0: 38 FB 76 D7 52 05 08 78 B1 3A 03 38 28 04 2F 12 8.V.R..X...8(./..
0DF0: 13 0B 08 ED 45 08 1A 2F 32 03 38 18 F3 01 0E 1E ....E.../2.8.....
0E00: 0E 21 03 30 36 38 2B 36 FF 23 36 3C 2B 77 CD C8 .!.068+6.#6<+W..
0E10: 0D 3A 00 30 CB 77 20 F6 23 36 34 36 3C C0 CD C8 ..:0.W .#646<...
0E20: 0D 21 03 30 AF 77 2B 77 23 36 04 CB 76 C8 2B 7E .!.0.W+W#6..V.+
0E30: 2B CB 0E 44 10 FE 37 CB DE C0 FF FF FF FF FF FF +..D..7.....

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#

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1700: FF FF FF FF FF FF FF FF 00 2B E3 F5 D5 E5 11 EA .....+.....
1710: A3 10 30 06 11 E0 FF 10 30 05 E1 D1 F1 E3 C9 E1 ..0.....0.....
1720: D1 F1 E3 78 B1 28 0D 2B 2B 2B E5 DD E1 CD 70 06 ...X.(.+++...P.
1730: E1 D7 EB 16 C3 AF 03 21 02 20 22 2B 20 21 CA 17 .....!. "+ !..
1740: 11 00 20 01 2B 00 ED B0 06 2B 2B 1B 1A BE 3E 3C .. .+.....+.....><
1750: 20 04 10 F6 CB CF 21 01 30 71 2B 36 3F 23 77 2B .....!.0Q+6?#W+
1760: 71 3E 2F 32 00 38 41 C5 C3 00 07 7A 17 81 17 73 Q>/2.8A.....Z...S
1770: 17 73 17 01 40 00 21 00 02 C0 CD 87 17 EB ED B0 .S..@.!......
1780: C0 CD 87 17 ED B0 C0 D5 11 40 00 42 4B D7 A0 30 .....@.BK..0
1790: 11 00 80 10 D1 C0 BB 17 AB 17 A0 17 25 07 DD 06 .....%...
17A0: 01 00 00 CD 2F 06 ED A0 ED A0 C0 DD 56 08 7A DD ....//.....V.Z.
17B0: 5E 07 B3 20 02 3C C0 1A 37 18 07 DD 56 08 DD 5E ↑...<...7...V.↑
17C0: 07 12 13 DD 72 08 DD 73 07 C0 1D 20 01 0B 20 02 ....R..S... .
17D0: 14 20 00 00 00 28 12 41 00 01 00 05 0C FF 28 12 . ...(.A.....(.
17E0: 42 00 01 00 05 0C FF F7 17 15 18 39 18 40 10 50 B.....0..I.P
17F0: 10 71 10 8A 10 00 10 E1 75 00 0B F0 00 0E F0 00 .Q.....U.....
1800: 17 F0 00 47 BD 00 FF C8 00 FD B2 00 E3 00 00 2D ...G.....-
1810: 1D 00 00 E7 00 F8 4D 01 EF 4D 01 D6 4D 01 D5 4D .....M..M..M..M
1820: 01 D1 E2 02 D3 46 03 FD BD 03 CF EB 03 D0 03 04 .....F.....
1830: D2 FF 03 FB 1D 04 00 FF 00 20 66 18 2A 70 18 2B .....)F.*Y.+
1840: 8C 18 2D A0 18 2E AF 18 2F B8 18 30 C6 18 31 D4 ..-...../..0..1.
1850: 18 32 E3 18 34 F2 18 35 05 10 47 14 10 48 24 10 .2..4..5..G..Ht.
1860: 57 34 10 00 3F 10 40 6E 76 61 6C 60 64 20 64 65 W4..?.INVALID DE
1870: 76 60 63 65 20 6E 61 6D E5 53 74 72 65 61 6D 20 VICE NAM.STREAM
1880: 61 6C 72 65 61 64 70 20 6F 70 65 EE 40 6E 76 61 ALREADY OPE.INVA
1890: 6C 60 64 20 64 72 60 76 65 20 6E 75 6D 62 65 F2 LID DRIVE NUMBE.
18A0: 57 72 60 74 65 20 70 72 6F 74 65 63 74 65 E4 44 WRITE PROTECTE.D
18B0: 60 73 6B 20 66 75 6C EC 44 60 73 6B 20 40 2F 4F ISK FUL.DISK I/O
18C0: 20 65 72 72 6F F2 46 60 6C 65 20 6E 6F 74 20 66 ERRO.FILE NOT F
18D0: 6F 75 6E E4 48 6F 6F 6B 20 63 6F 64 65 20 65 72 OUN.HOOK CODE ER
18E0: 72 6F F2 46 60 6C 65 20 73 60 7A 65 20 65 72 72 RO.FILE SIZE ERR
18F0: 6F F2 56 65 72 60 66 60 63 61 74 60 6F 6E 20 66 O.VERIFICATION F
1900: 61 60 6C 65 E4 57 72 6F 6E 67 20 66 60 6C 65 20 AILE.WRONG FILE
1910: 74 70 70 E5 31 30 38 34 20 44 61 76 65 20 43 6F TYP.1984 DAVE CO
1920: 72 6E 65 F0 44 6F 6E 27 74 20 62 65 20 61 20 77 RNE.DON'T BE A W
1930: 61 6C 6C F0 52 61 6D 20 63 6F 72 72 75 70 F4 4E ALL.RAM CORRUPT.N
1940: 6F 20 6D 65 73 73 61 67 E5 00 4C 10 00 07 A6 04 O MESSAG..L.....
1950: 20 C0 07 6D C0 07 23 70 07 62 33 07 74 20 07 6B ..M..#Y.B3.T).K
1960: 01 07 73 01 07 70 01 07 EF 1F 0A AF 06 17 00 7A ..S..P.....Z
1970: 10 20 4A 00 6D 4A 00 00 84 10 85 0C 85 0C C0 04 . J.MJ.....
1980: 85 0C 85 0C C0 04 C0 04 C0 04 01 70 0C 02 70 0C .....Y..Y.
1990: FF FD 0D 0B 6B 17 00 A2 10 01 D5 17 02 DE 17 00 ....K.....
19A0: 00 00 85 0C 85 0C 30 0A 30 0A FF FF FF FF FF FF .....9.9.....
19B0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
19C0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
19D0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
19E0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
19F0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF .....
#
1FF0: FF FF FF FF FF FF FF FF FF FF FF FF FF FF E7 17 .....
#

```

THIS VERSION OF THE DISC OPERATING SYSTEM HAS A NUMBER OF EXTENSIONS WHICH IMPROVE ITS COMPATIBILITY WITH THE MICRO- DRIVE SYSTEM. THESE EXTENSIONS ARE DESCRIBED BELOW.

FOR LOAD* AND SAVE* ALL OF THE USUAL CASSETTE/MICRODRIVE OPTIONS ARE NOW AVAILABLE.

WHEN USING OPEN# WITH THE OUT EXTENSION A MAXIMUM LENGTH CAN BE SPECIFIED.

FOR EXAMPLE

OPEN# 4;"M";1;"OUTFILE" OUT 256

OPENS A FILE WITH A MAXIMUM LENGTH OF 256 BYTES. THE CORRECT LENGTH IS WRITTEN WHEN THE STREAM IS CLOSED USING THE CLOSE# COMMAND. IF NO LENGTH IS SPECIFIED WHEN A FILE IS OPENED IT IS ALLOCATED ONE HALF OF THE LARGEST FREE SPACE REMAINING ON THE DISC. THIS MEANS THAT IF A PROGRAMME FAILS AND THE STREAM IS NOT CORRECTLY CLOSED HALF OF THE LARGEST AVAILABLE DISC SPACE WILL BE USED UP.

A CLEAR # COMMAND HAS BEEN IMPLEMENTED. THIS CAN BE USED TO RESET A STREAM AND MAKE IT AVAILABLE AGAIN. IT IS USEFUL WHEN A FAILURE OCCURS AND STREAMS CANNOT BE CLOSED CORRECTLY USING CLOSE#. FOR EXAMPLE

CLEAR #4

RESETS STREAM FOUR, WHILE

CLEAR #

RESETS ALL STREAMS.

MERGE *<FILENAME> AND VERIFY *<FILENAME> ARE NOW AVAILABLE. THESE MERGE AND VERIFY FILES ON THE DISC OPERATING SYSTEM IN THE SAME WAY AS THE CORRESPONDING CASSETTE COMMANDS.

THE MOVE COMMAND CAN NOW BE USED TO TRANSFER INFORMATION FROM CHANNEL TO CHANNEL, FROM STREAM TO CHANNEL AND FROM CHANNEL TO STREAM.

MOVE "M";1;"TEXT" TO "S"

WHICH TRANSFERS THE CONTENTS OF THE FILE 'TEXT' ON DRIVE 1 TO THE SCREEN.

MOVE "K" TO "M";1;"INFILE"

TRANSFERS CHARACTERS FROM THE KEYBOARD TO THE FILE 'INFILE' ON DRIVE 1. IN THIS CASE (AND ON OTHER SLOW CHANNELS) AN END-OF -FILE IS CAUSED BY PRESSING SHIFT AND ENTER TOGETHER.

THE CAT #<STREAM>;<DRIVE> COMMAND IS NOW AVAILABLE AND CATALOGUES THE DISC IN THE SPECIFIED DRIVE TO THE GIVEN STREAM. FOR EXAMPLE

2
THE FORMAT <CHANNEL> COMMAND IS AVAILABLE. FOR THE DISC SYSTEM THIS COMMAND REWRITES THE CATALOGUE FILE ON A PREVIOUSLY INITIALISED DISC. IF USED ANY INFORMATION ALREADY ON THE DISC WILL BE LOST. USE WITH CARE!!

TWO EXTRA CHANNELS HAVE BEEN ADDED.

THE CHANNEL "CAT":<DRIVE>IN/OUT OPENS THE DISC CATALOGUE FOR INPUT OR OUTPUT. CARE MUST BE TAKEN IF WRITING TO THE CATALOGUE FILE. IF IT IS CORRUPTED THEN FILES ON THE DISC WILL BE LOST.

THE CHANNEL "T" IS USED TO OUTPUT TEXT TO THE PARALLEL PRINTER PORT. THIS CHANNEL IGNORES CODES 0 TO 31 EXCEPT FOR CARRIAGE RETURN (13) WHICH CAUSES A CARRIAGE-RETURN/LINE-FEED PAIR TO BE SENT. CODES GREATER THAN 127 WHICH REPRESENT TOKENS ARE EXPANDED WHILE GRAPHICS CHARACTERS ARE PRINTED AS ?. THIS CONTRASTS WITH THE "B" CHANNEL WHICH PASSES ALL CODES TO THE PARALLEL PRINTER PORT WITHOUT MODIFICATION.

IN ADDITION THE "M" CHANNEL IS TAKEN AS THE DEFAULT AND SO, FOR EXAMPLE, THE COMMAND

```
LOAD*1;"UTILITY"  
IS EQUIVALENT TO  
LOAD*"M";1;"UTILITY".
```

A NUMBER OF USEFUL CALLS ARE:

USR 8 - RETURNS THE VERSION NUMBER.

USR 14070 - RESETS THE SYSTEM AS ON POWER UP.

USR 432 - RETURNS THE NUMBER OF BYTES REMAINING IN THE CURRENT STREAM.
FOR EXAMPLE

```
PRINT #4;<.....> OR
```

```
INPUT #4;<.....>
```

LEAVES FOUR AS THE CURRENT STREAM. THIS CALL RETURNS -1 IF THE STREAM IS OF UNKNOWN LENGTH.

NOTE (1) INKEY\$# 4 LEAVES THE CURRENT STREAM UNCHANGED. ANY SHADOW ROM COMMAND RESETS THE CURRENT STREAM TO THE SCREEN.

(2) THE FOLLOWING COMMANDS

```
PRINT #4; : PRINT USR 432
```

DO NOT WORK AS PRINT RESETS THE CURRENT STREAM TO THE SCREEN. TO DO THIS USE

```
PRINT #4; LET I=USR 432 : PRINT I
```

THIS CAN MORE USEFULLY BE USED TO DETECT THE END OF A FILE. FOR EXAMPLE

```
PRINT #4; IF USR 423=0 THEN PRINT "EOF"
```

TO BACKUP THE UTILITY DISC USE THE PROGRAMME 'UT. BACKUP' AND NOT THE MAIN UTILITY PROGRAMME. THE MASS DUPLICATION OF THE UTILITY DISC LEAVES ONLY NECESSARY TRACKS FORMATTED AND SO THE MAIN PROGRAMME WILL FAIL WITH A DISC I/O ERROR.
