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1270 CLS:KEYOFF
1290 LOCATE 0,10
1300 PRINT "*****"
1310 PRINT " Tapiolan SRK:n Pienoisrautatiekerho
1320 PRINT " Computer / Model Railway -Interface
1330 PRINT " versio 2.8 16-02-1989
1340 PRINT "
1360 PRINT" <40 merkin naytolle >
1370 PRINT"*****
1380 '
1390 ON ERROR GOTO 6830
1400 DEFINT A-
Z :JS=1:RM=13:IT=62:LA=60:OJ=0:EJ=1:PA=80:CX=0:CY=0:ER=0:VI=0:VV=99:A=0:V$="":J
=0:AL=0:OP=0
1410
T=0:Q=0:K$="":Y=0:CK=0:ST=0:KO=0:MV=0:MO=0:RK=0:GS=0:DT=0:QF=0:FU=0:PI=0:PD=0:S
G=0:ED=0:SE=0
1420 FOR AL=1 TO 4 :PV(AL)=99:NEXT
1430 DIM RS(RM),RJ(RM),RP(RM),PM(RM),VA(8),SL(RM),SI(RM),PI(4),AR(2)
1440 FOR Q=1 TO RM
1450 RS(Q)=0:RJ(Q)=EJ:RP(Q)=0:PM(Q)=0
1460 NEXT
1470 DIM RI(RM): GOSUB 6630
1480 FOR Q=1 TO RM-1:SI(Q)=Q+1:NEXT
1490 SI(RM)=1
1500 FOR Q=2 TO RM:SL(Q)=Q-1:NEXT:SL(1)=RM 'Ladataan seur.La.alkiot
1510 FOR Q=1 TO 20:PRINT:NEXT 'Poistetaan alkukuva
1520 VP=VARPTR(RS(1))
1530 GOSUB 2160 'Pohjakuvan piirto
1540 GOSUB 2440 'Funktionappainten Aktivointi
1550 GOSUB 5880 'Alkusijoitukset
1560 '*****
REAALIAIKALOOPPI*****
1570 IFT=1THENGOSUB6700ELSEGOSUB2060' Radan/napp. luku!
1580 ONSGGOSUB2530,7090
1590 SG=0
1600 ONSTRIGGOSUB2530,7090
1610 GOSUB1670:GOSUB2340:GOSUB6480:GOSUB6160:GOSUB6340
1620 IFDT=0GOTO1570
1630 PV(DT)=999:DT=DT+1:IFDT>4THENDT=1
1640 GOTO 1570
1650 '***** LOGIIKKA *****
1660 '
1670 A=USR2(VP)
1780 IF(PEEK(&HE100))<>0 THEN GOSUB 7410
1930 '***** VAIHTEET
*****
1940 VI=VA(1)+(VA(2)*2)+(VA(3)*4):IF VI=VVTHENRETURN
1950 VV=VI
1960 IF(VIAND4)=0 THEN GOTO1980
1970 VPOKE461,93:VPOKE467,91:SL(13)=9:SI(9)=13:GOTO1990
1980 VPOKE461,45:VPOKE467,45:SL(13)=12:SI(9)=10:
1990 ON VIAND3 GOTO 2010,2020,2030
2000 VPOKE447,45:VPOKE449,45:SI(2)=3:SI(3)=4:SL(3)=2:SL(4)=3:RETURN
2010 VPOKE447,93:VPOKE449,45:SI(2)=0:SI(3)=4:SL(3)=0:SL(4)=3:RETURN
2020 VPOKE447,45:VPOKE449,91:SI(2)=3:SI(3)=0:SL(3)=2:SL(4)=0:RETURN
2030 VPOKE447,93:VPOKE449,91:SI(2)=4:SI(3)=0:SL(3)=0:SL(4)=2:RETURN
2040 '
2050 '***** NAPPIKSEN LUKU
*****
2060 K$=INKEY$:IFK$=""THENRETURN
2070 Q=((ASC(K$))-96)
2080 IF K$="1" THEN VA(1)=VA(1)XOR1
2090 IF K$="2" THEN VA(2)=VA(2)XOR1
2100 IF K$="3" THEN VA(3)=VA(3)XOR1
2110 IF Q<1 OR Q>13 THEN RETURN
2120 RJ(Q)=RJ(Q)XOR1:RETURN
2130 '
2140 '***** POHJAKUVA
*****
2150 CLS
2160 PRINT" | "

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2170 PRINT"|=ODOTA!=====|"
2180 FOR Y=1 TO 18
2190 PRINT"|"":NEXT
2200 PRINT"|"
2220 PRINT"Kierr.aika|"
2230 PRINT"|"
2240 LOCATE 0,10
2250 PRINT"1 2 3 4 5 6 7 8 9 0 1 2 3"
2260 PRINT"-----<Twin-t"
2270 PRINT" a b c d e f g h i j k l m"
2280 PRINT" Kau Kyl Tau Sat Lv"
2290 LOCATE 28,14: PRINT"<Kyt&#223;k!": LOCATE 28,15: PRINT"<Muisti"
2300 LOCATE 10,17: PRINT"Releet>":LOCATE 2,1:PRINT"ALUSTUS"
2310 RETURN
2320 '**** NAYTON PAIVITYS
*****
2340 '
2350 A=USR(VP)
2360 '
2370 LOCATE11,21:PRINTUSING"##.##";TIME/50;:TIME=0
2380 IF CK=0 THEN PRINT"*":CK=1 ELSE PRINT" ":CK=0
2390 IFER=0THENRETURNELSEER=ER+1:IFER>3THENGOSUB6980'Error-viestin pesu
2400 RETURN
2410 '
2420 '
2430 '***** FUNKTIONAPPAINTEN AKTIVOINTI
*****
2440 KEYOFF
2450 KEY(1)ON:KEY(2)ON:KEY(3)ON:KEY(4)ON:KEY( 5)ON:
2460 KEY(6)ON:KEY(7)ON:KEY(8)ON:KEY(9)ON:KEY(10)ON:
2470 STRIG(0)ON:IF JS=1 THEN STRIG(1)ON
2480 ONSTRIGGOSUB2530,7090
2490 ONKEYGOSUB2990,3670,3990,4210,4410,4610,4940,5100,5450,5610
2500 RETURN
2510 '
2520 '***** STRIG:N KESKEYTYKSET (OTSIKOT)
*****
2530 CY=CSRLIN: CX=POS(0):ST=ST+1: IF ST>3 THEN ST=0
2540 IF KO=0 THEN LOCATE 17,1:PRINT"=====ELSEKO=0:LOCATE 22,1:
PRINT"St=";ST;"Fu="FU
2550 IF KO<>0 THEN KO=0:LOCATE 22,1:PRINT"St=";ST;"Fu="FU
2560 ON ST GOTO 2650,2710,2770,2830,2860,2890,2920
2570 '
2580 '==== ST=0
=====
2590 LOCATE 2,1:PRINT"KULKUT. VARAUK.=="
2600 LOCATE 0,8:PRINT" | <1 <2 <3 <4 <5 "
2610 LOCATE 0,9:PRINT" | 6> 7> 8> 9> 10>"
2620 LOCATE CX,CY:RETURN
2630 '
2640 '==== ST=1
=====
2650 LOCATE 2,1:PRINT"KULKUT. HATAP.=="
2660 LOCATE 0,8:PRINT" | <1 <2 <3 <4 <5 "
2670 LOCATE 0,9:PRINT" | 6> 7> 8> 9> 10>"
2680 LOCATE CX,CY:RETURN
2690 '
2700 '==== ST=2
=====
2710 LOCATE 2,1:PRINT"PAIKALL. ANTO=="
2720 LOCATE 0,8:PRINT" | r-1-r r2r r3r r4r r5r"
2730 LOCATE 0,9:PRINT" | 6----r"
2740 LOCATE CX,CY:RETURN
2750 '
2760 '==== ST=3
=====
2770 LOCATE 2,1:PRINT"PAIKALL. PURKU=="
2780 LOCATE 0,8:PRINT" | r-1-r r2r r3r r4r r5r"
2790 LOCATE 0,9:PRINT" | 6----r"
2800 LOCATE CX,CY:RETURN
2810 '

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2820 '=== ST > 3
=====
2830 LOCATE 10,1:PRINT"<POISTA VIRTAMUISTI>====="
2840 LOCATE 0,9:PRINT"          <F1 F6>          <F2 F7>          <F3 F8><F4 F9><F5 F1F>"
2850 LOCATE CX,CY:RETURN
2860 LOCATE 10,1:PRINT"SIJOITA KULJ.1====="
2870 LOCATE 0,9:PRINT"          <F1 F6>          <F2 F7>          <F3 F8><F4 F9><F5 F1F>"
2880 LOCATE CX,CY:RETURN
2890 LOCATE 10,1:PRINT"SIJOITA KULJ.2====="
2900 LOCATE 0,9:PRINT"          <F1 F6>          <F2 F7>          <F3 F8><F4 F9><F5 F1F>"
2910 LOCATE CX,CY:RETURN
2920 LOCATE 10,1:PRINT"SIJOITA KULJ.3====="
2930 LOCATE 0,9:PRINT"          <F1 F6>          <F2 F7>          <F3 F8><F4 F9><F5 F1F>"
2940 LOCATE CX,CY:RETURN
2950 '
2960 '***** FUNKTIONAPPAINTEN TOIMINNOT *****
2970 '
2980 '===== F1
=====
2990 CY=CSRLIN: CX=POS(0): LOCATE 18,1:PRINT"F1 "
3000 ON ST GOTO 3530,3550,3590
3010 '=====(ST=0)=====
3020 ON VI GOTO 3130,3210,3240,3320,3400,3480,3510
3030 '-----VI=0
3040 IF RP( 3)=0 AND RS( 4)<>LA GOTO 6850
3050 IF RS( 3)=PA OR RS( 2)=PA OR RS(13)=PA GOTO 6870
3060 IF RS(12)=IT GOTO 6890
3070 IF RS( 3)<>0 OR RS(13)<>0 GOTO 6910
3080 IF RP(13)<>0 GOTO 6930
3090 IF RP( 2)<>0 GOTO 6950
3100 RS( 3)=LA:RS( 2)=LA:RS( 1)=LA
3110 GOTO3640
3120 '---)-----VI=1
3130 IF RP( 2)=0 GOTO 6850
3140 IF RS( 2)=PA OR RS(13)=PA GOTO 6870
3150 IF RS(12)=IT GOTO 6890
3160 IF RS( 2)<>0 OR RS(13)<>0 GOTO 6910
3170 IF RP(13)<>0 GOTO 6930
3180 RS( 2)=LA:RS(1)=LA
3190 GOTO 3640
3200 '---(-----VI=2
3210 IF RP( 3)=0 GOTO 6850
3220 GOTO 3060
3230 '---)---(-----VI=3
3240 IF RP( 2)=0 AND RS( 4)<>LA GOTO 6850
3250 IF RS( 2)=PA OR RS(13)=PA GOTO 6870
3260 IF RS(12)=IT GOTO 6890
3270 IF RS(13)<>0 GOTO 6910
3280 IF RP(13)<>0 GOTO 6930
3290 RS( 2)=LA:RS( 1)=LA
3300 GOTO3640
3310 '-----X-VI=4
3320 IF RP( 3)=0 AND RS( 4)<>LA GOTO 6850
3330 IF RS( 3)=PA OR RS( 2)=PA OR RS( 9)=PA GOTO 6870
3340 IF RS( 8)=IT GOTO 6890
3350 IF RS( 3)<>0 OR RS( 9)<>0 OR RS(12)=IT GOTO 6910
3360 IF RP( 9)<>0 OR RP( 8)<>0 GOTO 6930
3370 RS( 3)=LA:RS( 2)=LA:RS( 1)=LA:RS(13)=LA:RS( 9)=LA
3380 GOTO 3640
3390 '---)-----X-VI=5
3400 IF RP( 2)=0 GOTO 6850
3410 IF RS( 2)=PA OR RS( 9)=PA GOTO 6870
3420 IF RS( 8)=IT GOTO 6890
3430 IF RS( 2)<>0 OR RS( 9)<>0 OR RS(12)=IT GOTO 6910
3440 IF RP( 9)<>0 OR RP( 8)<>0 GOTO 6930
3450 RS( 2)=LA:RS( 1)=LA:RS(13)=LA:RS( 9)=LA
3460 GOTO 3640
3470 '---(---X-VI=6
3480 IF RP( 3)=0 GOTO 6850
3490 GOTO 3330
3500 '---)---(---X-VI=7
3510 IF RP( 2)=0 AND RS( 4)<>LA GOTO 6850

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3520 GOTO 3410
3530 RS(1)=0:RP(1)=0:RS(2)=0:IF VA(1)=0 THEN RS(3)=0:IF RJ(2)=EJ THEN RP(2)=0
3540 IF VA(3)=1 THEN RS(13)=0:RS(9)=0:GOTO 3640ELSE GOTO3640
3550 IF(RJ(2)=EJ AND RJ(4)=EJ)THEN IF RJ(3)<>0 GOTO 7000 ELSE GOTO 3560 ELSE
IF RP(2)=RP(4) GOTO 7000 ELSE IF RJ(3)=OJ GOTO 3570 ELSE GOTO3560
3560 RS(2)=PA:RS(3)=PA:RS(4)=PA:RP(2)=RP(2)+RP(3)+RP(4):RP(3)=RP(2):
RP(4)=RP(2):GOTO 3640
3570 RS(2)=PA:RS(4)=PA:IF RP(2)>RP(4)THEN RP(4)=RP(2) ELSE RP(2)=RP(4):GOTO
3640
3580 LOCATE CX,CY:RETURN
3590 IF RP(3)=RP(4)THEN IF(RJ(2)=EJ AND RJ(3)=EJ AND RJ(4)=EJ) GOTO 7020 ELSE
GOTO 3600 ELSE IF(RJ(2)=EJ AND RJ(4)=EJ)GOTO 7020 ELSE GOTO 3620
3600 RS(2)=0:RS(3)=0:RS(4)=0:IF RJ(2)=OJ THEN RP(3)=0:RP(4)=0 ELSE IF RJ(3)=OJ
THEN RP(2)=0:RP(4)=0 ELSE RP(2)=0:RP(3)=0
3610 GOTO 3640
3620 RS(2)=0:RS(4)=0:IF RJ(2)=OJ THEN RP(4)=0 ELSE RP(2)= 0
3630 GOTO 3640
3640 LOCATE CX,CY:RETURN
3650 '
3660 '===== F2
=====
3670 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F2 "
3680 ON ST GOTO3900,3910,3940
3690 ON VI GOTO 3790,3810,3830,3710,3790,3810,3830
3700 '----- VI=0 TAI 4
3710 IF RP( 5)=0 AND RS( 6)<>LA GOTO 6850
3720 IF RS( 5)=PA OR RS( 4)=PA OR RS(3)=PA GOTO 6870
3730 IF RS( 2)=IT OR RS( 3)=IT GOTO 6890
3740 IF RS( 5)<>0 OR RS( 4)<>0 GOTO 6910
3750 IF RP( 4)<>0 OR RP( 3)<>0 OR RP( 2)<>0 GOTO 6930
3760 RS( 5)=LA:RS( 4)=LA
3770 GOTO 3960
3780 '---)-----VI=1 TAI 5
3790 GOTO 6950
3800 '---(-----VI=2 TAI 6
3810 GOTO 6950
3820 '---)-(-----VI=3 TAI 7
3830 IF RP( 5)=0 AND RS( 6)<>LA GOTO 6850
3840 IF RS( 5)=PA OR RS( 4)=PA GOTO 6870
3850 IF RS( 2)=IT GOTO 6890
3860 IF RS( 5)<>0 OR RS( 4)<>0 GOTO 6910
3870 IF RP( 4)<>0 OR RP( 2)<>0 GOTO 6930
3880 RS( 5)=LA:RS( 4)=LA
3890 GOTO 3960
3900 RS(4)=0 :RS(5)=0 :IF RJ(4)=OJ THEN GOTO 3960 ELSE RP(4)=0:GOTO 3960
3910 IF(RP(5)=RP(6))OR(RJ(5)=EJ AND RJ(6)=EJ)THEN GOTO7000
ELSERP(5)=PA:RS(6)=PA
3920 IF RP(5)>RP(6) THEN RP(6)=RP(5) ELSE RP(5)=RP(6)
3930 LOCATE CX,CY:RETURN
3940 RS(5)=0 :RS(6)=0
3950 IF RJ(5)=EJ THEN RP(5)=0 ELSE RP(6)=0
3960 LOCATE CX,CY:RETURN
3970 '
3980 '===== F3
=====
3990 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F3 "
4000 ON ST GOTO4090,4130,4160
4010 '
=====
4020 IF RP( 8)=0 AND RS( 9)<>LA GOTO 6850
4030 IF RS( 8)=PA OR RS( 6)=PA GOTO 6870
4040 IF RS( 5)=IT GOTO 6890
4050 IF RS( 8)<>0 OR RS( 6)<>0 GOTO 6910
4060 IF RP( 6)<>0 OR RP( 5)<>0 GOTO 6930
4070 RS( 8)=LA:RS( 7)=LA:RS( 6)=LA
4080 LOCATE CX,CY:RETURN
4090 IF RS(6)<>LA GOTO 4100 ELSE RS(6)=0: IF RJ(6)=EJ THEN RP(6)=0
4100 IF RS(7)<>LA GOTO 4110 ELSE RS(7)=0: IF RJ(7)=EJ THEN RP(7)=0
4110 IF RS(8)<>LA GOTO 4120 ELSE RS(8)=0: IF RJ(8)=EJ THEN RP(8)=0
4120 LOCATE CX,CY:RETURN
4130 IF(RP(8)=RP(9))OR(RJ(8)=EJ AND RJ(9)=EJ) THEN GOTO 7000
ELSE RS(8)=PA:RS(9)=PA

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4140 IF RP(8)>RP(9) THEN RP(9)=RP(8) ELSE RP(8)=RP(9)
4150 LOCATE CX,CY:RETURN
4160 RS(8)=0 :RS(9)=0
4170 IF RJ(8)=EJ THEN RP(8)=0 ELSE RP(9)=0
4180 LOCATE CX,CY:RETURN
4190 '
4200 '===== F4
=====
4210 CY=CSRLIN: CX=POS(0): LOCATE 18,1: PRINT"F4 "
4220 ON ST GOTO 4310,4330,4360
4230 IF VI>3 GOTO 6950
4240 IF RP(10)=0 AND RS(11)<>LA GOTO 6850
4250 IF RS(10)=PA OR RS( 9)=PA GOTO 6870
4260 IF RS( 8)=IT GOTO 6890
4270 IF RS(10)<>0 OR RS( 9)<>0 GOTO 6910
4280 IF RP( 9)<>0 OR RP( 8)<>0 GOTO 6930
4290 RS(10)=LA:RS( 9)=LA
4300 LOCATE CX,CY:RETURN
4310 RS(9)=0 :RS(10)=0 :IF RJ(9)=OJ THEN GOTO 4380 ELSE RP(9)=0:GOTO 4380
4320 LOCATE CX,CY:RETURN
4330 IF(RP(10)=RP(11))OR(RJ(10)=EJ AND RJ(11)=EJ) THEN GOTO 7000
    ELSE RS(10)=PA:RS(11)=PA
4340 IF RP(10)>RP(11) THEN RP(11)=RP(10) ELSE RP(10)=RP(11)
4350 LOCATE CX,CY:RETURN
4360 RS(10)=0 :RS(11)=0
4370 IF RJ(10)=EJ THEN RP(10)=0 ELSE RP(11)=0
4380 LOCATE CX,CY:RETURN
4390 '
4400 '===== F5
=====
4410 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F5 "
4420 ON ST GOTO 4510,4550,4570
4430 IF VI>3 GOTO 6950
4440 IF RP(13)=0 AND RS( 1)<>LA GOTO 6850
4450 IF RS(13)=PA OR RS(11)=PA GOTO 6870
4460 IF RS(10)=IT GOTO 6890
4470 IF RS(13)<>0 OR RS(11)<>0 GOTO 6910
4480 IF RP(11)<>0 OR RP(10)<>0 GOTO 6930
4490 RS(13)=LA:RS(12)=LA:RS(11)=LA
4500 LOCATE CX,CY:RETURN
4510 IF RS(11)<>LA GOTO 4520 ELSE RS(11)=0: IF RJ(11)=EJ THEN RP(11)=0
4520 IF RS(12)<>LA GOTO 4530 ELSE RS(12)=0: IF RJ(12)=EJ THEN RP(12)=0
4530 IF RS(13)<>LA GOTO 4550 ELSE RS(13)=0: IF RJ(13)=EJ THEN RP(13)=0
4540 LOCATE CX,CY:RETURN
4550 IF RJ(13)=EJ GOTO 7000 ELSE RS(13)=PA
4560 LOCATE CX,CY:RETURN
4570 IF RJ(13)=EJ THEN GOTO 7020 ELSE RS(13)=0
4580 LOCATE CX,CY:RETURN
4590 '
4600 '===== F6
=====
4610 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F6 "
4620 IF ST>0 GOTO 4870
4630 '==(st=0)=====
4640 ON VI GOTO 4740,4770,4840,4650,4740,4770,4840
4650 IF RP( 3)=0 AND RS( 2)<>IT GOTO 6850
4660 IF RS( 3)=PA OR RS( 4)=PA OR RS( 5)=PA GOTO 6870
4670 IF RS( 6)=LA GOTO 6890
4680 IF RS( 3)<>0 OR RS( 4)<>0 OR RS( 5)<>0 GOTO 6910
4690 IF RP( 5)<>0 OR RP( 6)<>0 GOTO 6930
4700 IF RP(4)<>0 GOTO 6950
4710 RS( 3)=IT:RS( 4)=IT:RS( 5)=IT
4720 LOCATE CX,CY:RETURN
4730 '---)-----VI=1 JA 5
4740 IF RP( 3)=0 GOTO 6850
4750 GOTO 4660
4760 '---(---VI=2 JA 6
4770 IF RP( 4)=0 GOTO 6850
4780 IF RS( 4)=PA OR RS( 5)=PA GOTO 6870
4790 IF RS( 6)=LA GOTO 6890
4800 IF RS( 4)<>0 OR RS( 5)<>0 GOTO 6910
4810 IF RP( 5)<>0 OR RP( 6)<>0 GOTO 6930

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4820 RS( 4)=IT:RS( 5)=IT
4830 LOCATE CX,CY:RETURN
4840 '-)-(---VI=3 JA 7
4850 IF RP( 4)=0 AND RS( 2)<>IT GOTO 6850
4860 GOTO 4780
4870 IF(ST=1 AND VA(2)=0)THEN RS(3)=0: RS(4)=0: RS(5)=0:IF RJ(4)=OJ THEN
    IF RJ(5)=EJ THEN RP(5)=0 ELSE:ELSE RP(4)=0
4880 IF ST=1 THEN IF VA(2)=1 THEN RS(4)=0 :RS(5)=0 :IF RJ(5)=EJ THEN RP(5)=0
4890 IF ST=2 THEN IF RJ(3)=EJ THEN GOTO 7000 ELSE RS(3)=PA:GOTO 5840
4900 IF ST=3 THEN RS(3)=0 :GOTO 5840 ELSE GOTO5840
4910 LOCATE CX,CY:RETURN
4920 '
4930 '===== F7
=====
4940 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F7 "
4950 IF ST>0 GOTO 5030
4960 IF RP( 6)=0 AND RS( 5)<>IT GOTO 6850
4970 IF RS( 6)=PA OR RS( 8)=PA GOTO 6870
4980 IF RS( 9)=LA GOTO 6890
4990 IF RS( 6)<>0 OR RS( 8)<>0 GOTO 6910
5000 IF RP( 8)<>0 OR RP( 9)<>0 GOTO 6930
5010 RS( 6)=IT:RS( 7)=IT:RS( 8)=IT
5020 LOCATE CX,CY:RETURN
5030 IF ST>1 THEN GOTO 3680
5040 IF RS(6)<>IT GOTO 5050 ELSE RS(6)=0: IF RJ(6)=EJ THEN RP(6)=0
5050 IF RS(7)<>IT GOTO 5060 ELSE RS(7)=0: IF RJ(7)=EJ THEN RP(7)=0
5060 IF RS(8)<>IT GOTO 5070 ELSE RS(8)=0: IF RJ(8)=EJ THEN RP(8)=0
5070 LOCATE CX,CY:RETURN
5080 '
5090 '===== F8
=====
5100 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F8 "
5110 ON ST GOTO 5390,4130,4160
5120 ON VI GOTO 5140,5140,5140,5210,5300,5300,5320
5130 '-----VI=0,1,2 JA 3
5140 IF RP( 9)=0 AND RS( 8)<>IT GOTO 6850
5150 IF RS( 9)=PA OR RS(10)=PA GOTO 6870
5160 IF RS(11)=LA GOTO 6890
5170 IF RS( 9)<>0 OR RS(10)<>0 GOTO 6910
5180 IF RP(10)<>0 OR RP(11)<>0 GOTO 6930
5190 RS( 9)=IT:RS(10)=IT
5200 LOCATECX,CY:RETURN
5210 '-----X-VI=4
5220 IF RP( 9)=0 AND RS( 8)<>IT GOTO 6850
5230 IF RS( 9)=PA OR RS(13)=PA OR RS( 2)=PA OR RS( 3)=PA GOTO 6870
5240 IF RS( 8)=LA GOTO 6890
5250 IF RS( 9)<>0 OR RS(11)=IT OR RS( 1)<>0 OR RS( 2)<>0 OR RS( 3)<>0 GOTO 6910
5260 IF RP(13)<>0 OR RP( 2)<>0 OR RP( 3)<>0 OR RP( 4)<>0 GOTO 6930
5270 RS( 9)=IT:RS(13)=IT:RS( 1)=IT:RS( 2)=IT
5280 LOCATECX,CY:RETURN
5290 '-)---X-VI=5 JA 6
5300 GOTO 6950
5310 '-)-(X-VI=7
5320 IF RP( 9)=0 AND RS( 8)<>IT GOTO 6850
5330 IF RS( 9)=PA OR RS(13)=PA OR RS( 2)=PA GOTO 6870
5340 IF RS( 8)=LA GOTO 6890
5350 IF RS( 9)<>0 OR RS(11)=IT OR RS( 1)<>0 OR RS( 2)<>0 GOTO 6910
5360 IF RP(13)<>0 OR RP( 2)<>0 OR RP( 4)<>0 GOTO 6930
5370 RS( 9)=IT:RS(13)=IT:RS( 1)=IT:RS( 2)=IT
5380 LOCATECX,CY:RETURN
5390 IFVA(3)=0 THEN GOTO 5410
5400 RS(9)=0:RS(13)=0:RS(1)=0:RS(2)=0:RP(13)=0:RP(1)=0:RP(2)=0:
    GOTO 5840
5410 RS(9)=0 :RS(10)=0 :GOTO 5840
5420 LOCATE CX,CY:RETURN
5430 '
5440 '===== F9
=====
5450 CY=CSRLIN:CX=POS(0):LOCATE 18,1:PRINT"F9 "
5460 IF ST>0 GOTO 5550
5470 IF VI>3 GOTO 6950
5480 IF RP(11)=0 AND RS(10)<>IT GOTO 6850

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5490 IF RS(11)=PA OR RS(13)=PA GOTO 6870
5500 IF RS( 1)=LA GOTO 6890
5510 IF RS(11)<>0 OR RS(12)<>0 GOTO 6910
5520 IF RP(13)<>0 GOTO 6930
5530 RS(11)=IT:RS(12)=IT
5540 LOCATE CX,CY:RETURN
5550 IF ST>1 THEN GOTO 4330
5560 IF RS(11)<>IT GOTO 5570 ELSE RS(11)=0: IF RJ(11)=EJ THEN RP(11)=0
5570 IF RS(12)<>IT GOTO 5580 ELSE RS(12)=0: IF RJ(12)=EJ THEN RP(12)=0
5580 LOCATE CX,CY:RETURN
5590 '
5600 '===== F10
=====
5610 CY=CSRLIN: CX=POS(0): LOCATE 18,1: PRINT "F10"
5620 IF ST>0 GOTO 5820
5630 ON VI GOTO 5730,5730,5750,5730,5730,5730,5730
5640 '-----VI=0
5650 IF RP(13)=0 AND RS(12)<>IT GOTO 6850
5660 IF RS(13)=PA OR RS( 2)=PA OR RS( 3)=PA GOTO 6870
5670 IF RS( 4)=LA GOTO 6890
5680 IF RS( 1)<>0 OR RS( 2)<>0 OR RS( 3)<>0 GOTO 6910
5690 IF RP( 2)<>0 OR RP( 3)<>0 OR RP( 4)<>0 GOTO 6930
5700 RS( 1)=IT:RS( 2)=IT:RS(13)=IT
5710 LOCATE CX,CY:RETURN
5720 '---)-----VI=1,2 JA 4,5,6 JA 7
5730 GOTO 6950
5740 '---)---(---VI=3
5750 IF RP(13)=0 AND RS(12)<>IT GOTO 6850
5760 IF RS(13)=PA OR RS( 2)=PA GOTO 6870
5770 IF RS( 4)=LA GOTO 6890
5780 IF RS( 1)<>0 OR RS( 2)<>0 GOTO 6910
5790 IF RP( 2)<>0 OR RP( 4)<>0 GOTO 6930
5800 RS( 1)=IT:RS( 2)=IT:RS(13)=IT
5810 LOCATE CX,CY:RETURN
5820 IF ST=1 THEN RS(1)=0 :RP(1)=0: RS(2)=0 :RS(13)=0 :GOTO 5840
5830 IF ST>1 THEN GOTO 4550
5840 LOCATE CX,CY:RETURN
5850 '
5860 '
5870 '***** ALKUSIJOITUKSET
*****
5880 LOCATE 1,3: PRINT "Onko tosi kysymyksessa(k/e)?" :V$=INPUT$(1)
5890 LOCATE 20,1: IF V$="k" THEN PRINT "Rata kytk": T=1 ELSE
T=0: PRINT "Simul.liik."
5900 IF T=0 GOTO 5980
5910 LOCATE 0,10
5920 PRINT " | a b c d e f g h i j k l m"
5930 PRINT " |-----<Twin-t"
5940 PRINT " | 1 2 3 4 5 6 7 8 9 0 1 2 3"
5950 LOCATE 1,3
5960 PRINT "Varmistanko ulostuloja(k/e)?" :V$=INPUT$(1)
5970 IF V$="k" THEN: DT=1 ELSE DT=0
5980 LOCATE 1,3
5990 PRINT "Sijoita junat (pienet kirj.!)"
6000 FOR J = 1 TO 3
6010 PRINT " | Junan nro" J " sijainti?" : K$=INPUT$(1): PRINT K$
6020 Q=(ASC(K$))-96: IF Q<1 OR Q>RM THEN GOTO 6040
6030 PM(Q)=J
6040 NEXT
6050 LOCATE 2,1: PRINT "ODOTA!=="
6060 FOR Q=3 TO 7: LOCATE 1,Q: PRINT SPC(30): NEXT
6070 GOSUB 6690: TIME=0: GOSUB 2340: STOP ON: ON STOP GOSUB 6790
6080 LOCATE 2,1: PRINT "ALUSTUS==": LOCATE 1,3: PRINT "Ke!paako(k/e)?" :V$=INPUT$(1)
6090 IF V$="e" OR V$="E" THEN GOTO 6130
6100 LOCATE 1,3: PRINT SPC(30): LOCATE 2,4: PRINT "OHJELMA KAYNNISTYY!!": ER=1
6110 TIME=0: GOSUB 2540: Otsikko ja F-napp-kuvat
6120 RETURN
6130 FOR Q=1 TO RM: PM(Q)=0: NEXT
6140 GOSUB 2150 'POHJAKUVAN PIIRTO
6150 GOTO 5880 'TAMAN RUTIININ ALKUUN
6160 '***** PAKKI_INDEXIT
*****

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6170 'AR(2)=0
6180 FOR Q=1TO2:IFRP(Q)=0THENGOTO6200
6190 AL=RP(Q):PI(AL)=PI(AL)+RI(Q)
6200 NEXT
6210 IF RP(3)=0 THEN GOTO6230
6220 AL=RP(3):IF PI(AL)=8 THEN PI(AL)=10 ELSE PI(AL)=PI(AL)+16
6230 IF RP(4)=0 THEN GOTO6250
6240 AL=RP(4):IF PI(AL)=10 THEN PI(AL)=11:AR(2)=1 ELSE PI(AL)=PI(AL)+3
6250 FORQ=5TO12:IFRP(Q)=0THENGOTO6270
6260 AL=RP(Q):PI(AL)=PI(AL)+RI(Q)
6270 NEXT
6280 IFRP(13)=0THENMO=0:VPOKE700,45:GOTO6300
6290 AL=RP(13):IFRP(9)=ALTHENMO=1:VPOKE700,77ELSEPI(AL)=PI(AL)+56:MO=0:
VPOKE700,45
6300 RETURN
6310 '
6320 '
6330 '***** ULOSTULOT (ja moottorin
pysaytys)*****
6340 ON STRIG GOSUB 2530,7380
6350 FORAL=1TO4:IFPV(AL)=PI(AL)THENPI(AL)=0:GOTO 6410
6360 LOCATE20,16+AL:PRINTSPC(15):LOCATE20,16+AL:PRINTAL;:PRINT(PI(AL));:
PRINTBIN$(PI(AL))
6370 IFAL<3 THENPD=127+AL ELSE PD=141+AL
6380 OUT &H91,PD:OUT &H90,0:OUT &H90,1
6390 OUT &H91,PI(AL):OUT &H90,0:OUT &H90,1
6400 PV(AL)=PI(AL):PI(AL)=0
6410 NEXT
6420 'OUT &H91,200:OUT &H90,0:OUT &H90,1 osite kayttamattoman kohdalle
6430 IF MO=MV THEN RETURN ELSE IF MO=1 THEN MOTORON ELSE MOTOROFF
6440 GOSUB 7440:MV=MO
6450 RETURN
6460 '
6470 '***** OPAstimet KYLA TAUSTA JA SATAMA
*****
6480 IF RS( 2)=LA AND RJ( 1)=EJ THEN PI(1)=PI(1)+64
6490 IF RS( 4)=IT AND RJ( 5)=EJ THEN PI(2)=PI(2)+64
6500 IF RS(13)=IT AND RJ( 1)=EJ THEN PI(3)=PI(3)+64
6510 OP=0
6520 IF RS(5 )=LA AND RJ( 4)=EJ THEN OP=1
6530 IF RS(6 )=IT AND RJ( 7)=EJ THEN OP=OP+2
6540 IF RS(8 )=LA AND RJ( 7)=EJ THEN OP=OP+4
6550 IF RS(9 )=IT AND RJ(10)=EJ THEN OP=OP+8
6560 IF RS(10)=LA AND RJ( 9)=EJ THEN OP=OP+16
6570 IF RS(11)=IT AND RJ(12)=EJ THEN OP=OP+32
6580 IF RS(13)=LA AND RJ(12)=EJ THEN OP=OP+64
6590 PI(4)=OP
6600 RETURN
6610 '
6620 '
6630 '***** rotareiden
indexit*****
6640 FOR Q=1 TO RM: READ RI(Q): NEXT
6650 DATA 1,8,0,3,24,4,32,5,40,6,48,7,56
6660 RETURN
6670 '
6680 '
6690 '***** RADAN LUKU
*****
6700 ON STRIG GOSUB 2530,7380
6710 FORQ=0TO7:OUT&H91,144+Q:OUT&H90,0:OUT&H90,1:RJ(Q+1)=INP(162)AND1:NEXT
6720 FORQ=8TORM-1:OUT&H91,128+Q-8:OUT&H90,0:OUT&H90,1:RJ(Q+1)=INP(162)AND1:NEXT
6730
FORQ=1TO2:OUT&H91,128+Q+4:OUT&H90,0:OUT&H90,1:VA(Q)=(INP(162)AND1)XOR1:NEXT
6740 '
6750 OUT&H91,135:OUT&H90,0:OUT&H90,1:VA(3)=(INP(162)AND1):OUT&H91,200:
OUT&H90,0:OUT&H90,1
6760 RETURN
6770 '
6780 '
6790 '***** CTRL-STOP RUTIINI VAPAUTTAA RELEET
*****

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6800 PI(1)=0:PI(2)=0:PI(3)=0:PI(4)=0:MOTOROFF:GOSUB 6340:KEYON:END
6810 'LOCATE 0,20:END
6820 '
6830 '***** ERROR RUTIINI VAPAUTTAA RELEET
*****
6840 PI(1)=0:PI(2)=0:PI(3)=0:PI(4)=0:GOSUB 6340:KEYON:ON ERROR GOTO 0:END
6850 BEEP:LOCATE 2,4:PRINT"VAROITUS:Ei junaa jolle tietä! ":ER=1
6860 LOCATE CX,CY:RETURN
6870 BEEP:LOCATE 2,4:PRINT"VAROITUS:Myönetty paik.lupa! ":ER=1
6880 LOCATE CX,CY:RETURN
6890 BEEP:LOCATE 2,4:PRINT"VAROITUS:Seur.as:lle jo tie! ":ER=1
6900 LOCATE CX,CY:RETURN
6910 BEEP:LOCATE 2,4:PRINT"VAROITUS:Linja varattu! ":ER=1
6920 LOCATE CX,CY:RETURN
6930 BEEP:LOCATE 2,4:PRINT"VAROITUS:Seur.as:lla juna! ":ER=1
6940 LOCATE CX,CY:RETURN
6950 BEEP:LOCATE 2,4:PRINT"VAROITUS:Vaihteet vaarin! ":ER=1
6960 LOCATE CX,CY:RETURN
6970 LOCATE CX,CY:RETURN
6980 LOCATE 2,4:PRINT SPC(32):ER=0
6990 LOCATE CX,CY:RETURN
7000 BEEP:LOCATE 2,4:PRINT"VAROITUS:En hyväksy paik.lupaa!":ER=1
7010 LOCATE CX,CY:RETURN
7020 BEEP:LOCATE 2,4:PRINT"VAROITUS:En hyväksy,ei junaa! ":ER=1
7030 LOCATE CX,CY:RETURN
7040 '
7050 '
7060 '***** Kojetaulun Funktionappaimet
*****
7070 OUT&H91,150:OUT&H90,0:OUT&H90,1
7080 RK=((INP(162)/2)AND1)
7090 KO=1:ST=0:FU=1:CY=CSRLIN:CX=POS(0)
7100 FOR QF=0 TO1
7110 OUT&H91,144+QF:OUT &H90,0:OUT&H90,1
7120 ST=ST+((INP(162)/2)AND1)*(QF+1)
7130 NEXT
7140 'IF RK=0 THEN GOSUB 1540
7150 FOR QF=2 TO 5
7160 OUT&H91,144+QF:OUT &H90,0:OUT&H90,1
7170 FU=FU+(((INP(162)/2)AND1)XOR1)*(2^(QF-2))
7180 NEXT
7190 '
7200 OUT&H91,150:OUT&H90,0:OUT&H90,1
7210 GS=((INP(162)/2)AND1)
7220 IF GS=0 THEN LOCATE 20,1:PRINT"==LUKUVIRHE!==" :GOTO7260
7230 BEEP:OUT&H91,192:OUT &H90,0:OUT&H90,1
7240 GOSUB 2540
7250 ON FU GOSUB 2990,3670,3990,4210,4410,4610,4940,5100,5450,5610
7260 LOCATE CX,CY:RETURN
7270 '
7280 '
7290 '***** PAKIN KYTKENTA/IRR. KOJETAULUSTA *****
7300 'ON (ST-3) GOSUB 1740,1770,1800,1830
7310 'LOCATE 40,1:PRINT "rot:";PRINTCHR$(FU+96);
7320 'IF RJ(FU)=OJ THEN RP(FU)=ST:PM(FU)=0 ELSE RP(FU)=0:PM(FU)=ST
7330 'LOCATE 2,2:PRINTST,FU;
7340 LOCATE CX,CY:RETURN
7350 '
7360 '
7370 '***** KOJETAULUN LUKU ESTYNYT!
*****
7380 CY=CSRLIN:CX=POS(0)
7390 SG=2:LOCATE 22,1:PRINT"HETKINEN====="
7400 LOCATE CX,CY:RETURN
7410 LOCATE 2,4:PRINT "HAAMUJUNA ROTARILLA ";PEEK(&HE100);" ";ER=1
7420 LOCATE CX,CY:RETURN
7430 '***** Ulostulojen korjaus moottorireleen jäljiltä *****
7440 FOR AL=1 TO 4
7450 PV(AL)=99
7460 NEXT
7470 RETURN

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