

MCM TAPE TAPE-02.TXT

TAPE LABEL/ANNOTATIONS: "T.L. YOUNG
13 May 76 Initialized '0'
16 April 77 1
ΔTV 6
GROUP 1: PLOT, P1, P2, P3, P4, SET"

GROUPS:

1

NAMES IN GROUP 1:

PL0 P1 P2 P3 P4 SET

∇PLOT SPC;M1;M2;DA;NS;DB;DEL;CUR;XYN;IC;AIC;D;ADY;DX;ADX;DY;D2;DB2;ID;S

- [1] @A 15 SEP 1977 T.L.YOUNG CALCOMP 'PLOT' FUNCTION
- [2] ◦□OU P_UNIT ◦ S←1↑□OU 10 ◦'SAVE PREVIOUS OUTPUT UNIT. SETUP PLOTTER UNIT'
- [3] CUR←2↑SPC◦ 'GET X+Y COORDINATES, REAL VALUES'
- [4] XYN←[.5+(CUR×N_S×P_FACT)◦'GET X AND Y COORDINATES IN INTEGER'
- [5] AIC←|IC←⁻1↑SPC ◦'GET PEN CONTROL - PASSED PARAMETER'
- [6] →(P_STAT=AIC)/NOPEN ◦'NO PEN MOVEMENT IF PEN IN REQUESTED POSITION'
- [7] →AIC◊EOP,NOPEN,PEMOV,PEMOV ◦'BRANCH BASED ON PEN=|0,1,2,3'
- [8] PEMOV:□BO 1↑AIC◊P_CMD◦'OUTPUT PEN MOTION COMMAND: PEN UP OR PEN DOWN'
- [9] P_STAT←AIC ◦'SAVE THE PEN COMMAND'
- [10] ID←0◦' SETUP DELAY COUNTER'
- [11] DL1:→(P_WAIT[AIC+□IO-1]≥ID-ID+1)/DL1◦'GENERATE A VARIABLE WAIT FOR PEN UP/DOWN'
- [12] @ GET NUMBER OF PEN MOVEMENTS REQUIRED TO MOVE TO →CUR←'
- [13] NOPEN: NS←DA←(ADX←|DX←1↑D) [(ADY←|DY←⁻1↑D←XYN-X_Y)
- [14] M1←P_MOTION[□IO+(4×0>1↑(ADX<ADY)◊DX,DY)+2×ADX≥ADY]◦'GET 1ST PEN MOTION'
- [15] D2←(DEL←(DB2←2×DB)-DA)-DA◊DB←ADX|ADY
- [16] M2←P_MOTION[□IO+1↑((2×DX<0)+(DY<0))◊1 3 7 5]◦' GET 2ND PEN MOTION'
- [17] NXPNT:→(0=NS)/EOP◦'IF NO MORE STEPS REQUIRED, AT THE END POINT' ET

[18] →(DEL≥0)/GZ ◦ ' USE 2ND PEN MOTION'
 [19] DEL←DEL+DB2
 [20] □BO M1◦ 'OUTPUT 1ST PEN MOTION'
 [21] ID←0◦ 'SETUP COUNTER FOR PEN MOTION DELAY'
 [22] DL2:→((1↑P_WAIT)≥ID←ID+1)/DL2 ◦ 'THIS IS A DELAY TO ALLOW THE PEN TO MOVE'
 [23] →NXPNT◦ 'OUTPUT NEXT POINT MOVEMENT'◦ NS←NS-1◦ ' DECREMENT NO. STEPS REMAINING'
 [24] GZ:DEL←DEL+D2
 [25] □BO M2◦ ' OUTPUT 2ND PEN MOTION'
 [26] ID←0 ◦ 'SETUP COUNTER FOR PEN MOTION DELAY'
 [27] DL3:→((1↑P_WAIT)≥ID←ID+1)/DL3 ◦ 'DELAY TO ALLOW PEN TO MOVE'
 [28] →NXPNT◦ 'NEXT POINT MOTION'◦ NS←NS-1 ◦ 'DECREMENT NO. OF STEPS REMAINING' 0
 [29] EOP:C_R←2↑(2×IC<0)ϕCUR,0 0◦X_Y←2↑(2×IC<0)ϕXYN,0 0◦ 'NEW CURRENT LOC'
 [30] ◦□OU S◦ ' RESTORE ORIGINAL OUTPUT UNIT'

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∇P1

[1] @A 22 MAR 1979 T.L.YOUNG PLOT TEST 1
 [2] SET
 [3] PLOT (.2 .3 2)
 [4] PLOT (.3 .061 0)
 [5] PLOT .4 .5 ⁻2
 [6] PLOT ⁻.3 .5 3

∇

∇P2

[1] @A 22 MAR 1979 T.L.YOUNG PLOT TEST 2
 [2] SET 0
 [3] PLOT 1.0 0.0 3

[4] PLOT .2 .5 2
[5] PLOT $\bar{.8}$ 0.0 2
[6] PLOT .2 $\bar{.5}$ 2
[7] PLOT 1 0 2
[8] PLOT .2 $\bar{.5}$ 3 *PLOT ($\bar{.8}$ 0 2)
[9] PLOT .2 .5 2

∇

∇P3 4

[1] *A 22 MAR 1979 T.L.YOUNG DRAW A POLYGON 2" DIAMETER 1"
[2] SET
[3] PLOT 1.00 0.00 3.00
[4] PLOT 0.94 0.34 2.00 G
[5] PLOT 0.77 0.64 2.00
[6] PLOT 0.50 0.87 2.00 0
[7] PLOT 0.17 0.98 2.00 4
[8] PLOT $\bar{0.17}$ 0.98 2.00 4
[9] PLOT $\bar{0.50}$ 0.87 2.00 7
[10] PLOT $\bar{0.77}$ 0.64 2.00
[11] PLOT $\bar{0.94}$ 0.34 2.00 0
[12] PLOT $\bar{1.00}$ $\bar{0.00}$ 2.00
[13] PLOT $\bar{0.94}$ $\bar{0.34}$ 2.00
[14] PLOT $\bar{0.77}$ $\bar{0.64}$ 2.00 T
[15] PLOT $\bar{0.50}$ $\bar{0.87}$ 2.00
[16] PLOT $\bar{0.17}$ $\bar{0.98}$ 2.00
[17] PLOT 0.17 $\bar{0.98}$ 2.00
[18] PLOT 0.50 $\bar{0.87}$ 2.00 7
[19] PLOT 0.77 $\bar{0.64}$ 2.00 0T

[20] PLOT 0.94 -0.34 2.00

[21] PLOT 1.00 0.00 2.00

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∇P4 0

[1] @A 22 MAR 1979 T.L.YOUNG PLOT TEST 4

[2] @ DRAW THE NUMBER '2' .14" HIGH

[3] SET

[4] PLOT 0.00 0.10 3.00

[5] PLOT 0.00 0.12 2.00

[6] PLOT 0.02 0.14 2.00

[7] PLOT 0.06 0.14 2.00

[8] PLOT 0.08 0.12 2.00

[9] PLOT 0.08 0.10 2.00 P4

[10] PLOT 0.00 0.02 2.00 0

[11] PLOT 0.00 0.00 2.00

[12] PLOT 0.08 0.00 2.00

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∇SET

[1] @A 20 MAR 1979 SETUP PLOT TEST PARAMETERS

[2] N_S←200 ° P_F←1.0 ° P_C←85 89 °P_M←49 50 51 52 53 54 55 56

[3] P_W←3 10 10 ° P_S←2 ° C_R←0.0 0.0 ° 'AT X-Y ORIGIN' ° X_Y←0 0

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