

MLS - COUNT WHITES/BLACKS

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097E 22 DEC R2 ;Stack pointer free
      7F 8A GLO RA ;D=RA.0 for adjusting "I" pointer

0980 52 STR R2 ;Push RA.0 for later done check
      81 FC ADI ;Add 59 hex to RA.0
      82 59
      83 AA PLO RA ;Put back in RA.0--points to last board square
      84 88 GLO R8 ;(=00 as R8.0 is tone duration which is off here)
      85 AE PLO RE ;RE.0=00=white pieces count
      86 AF PLO RF ;RF.0=00=black pieces count
      87 0A LDN RA ;Get byte from board @ M(R(A))
      88 FB XRI ;Test if = FF border byte
      89 FF
      8A 32 BZ ;If so, branch to skip count next
      8B 95
      8C 0A LDN RA ;Get same board byte (either 00, 80 or 01)
      8D 32 BZ ;If=00, then empty--branch past next part
      8E 95
      8F F6 SHR ;Shift LSB into DF register

0990 3B BNF ;Branch on DF=0 (piece is 80 hex=black)
      91 94
      92 1E INC RC ;RC+1 counts the white piece
      93 38 SKP ;Skip next instruction always
      94 1F INC RD ;RD+1 counts the black piece
      95 2A DEC RA ;RA-1 addresses next board square
      96 8A GLO RA ;D=RA.0 (get address RA.0 to test if done)
      97 F3 XOR ;Compare RA.0:byte on stack (original RA.0)
      98 3A BNZ ;If ≠, branch to continue count
      99 87
      9A F8 LDI ;Set R6=address Chip-8's V0
      9B F0
      9C A6 PLO R6
      9D 8E GLO RE ;D=RE.0=number white pieces
      9E 56 STR R6 ;M(R(6))=D -- store as V0 value
      9F 16 INC R6 ;R6+1 points to Chip-8's V1

09A0 8F GLO RF ;D=RF.0=number black pieces
      A1 56 STR R6 ;M(R(6))=D -- store as V1 value
      A2 12 INC R2 ;Reset stack pointer
      A3 D4 SEP R4 ;Return

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