```
LIST

65504 REM ++++++++++++++++++++++++++++++++
65505 REM +   VECTORS    M. TAYLOR       +
65506 REM + X1,Y1 AND X2,Y2 ARE JOINED   +
65507 REM +  AS   TWO GRAPHIC POINTS     +
65508 REM + FOR USE WITH NASCOM GRAPHICS +
65509 REM ++++++++++++++++++++++++++++++++
65510 IF X1=X2 AND Y1=Y2 THEN RETURN
65511 SET(X1,Y1):  SET(X2,Y2)
65512 DX = ABS(X1-X2): DY = ABS(Y1-Y2)
65513 IF DX .LE. DY GOTO 65517
65514 FOR X=0 TO X2-X1 STEP SGN(X2-X1)
65515 Y=Y1+(((Y2-Y1)/DX).X.ABS(X))
65516 SET(X+X1,Y):NEXT:RETURN
65517 FOR Y=0 TO Y2-Y1 STEP SGN(Y2-Y1)
65518 X=X1+(((X2-X1)/DY).X.ABS(Y))
65519 SET(X,Y+Y1):NEXT:RETURN
OK
```

Ed: Thanks for the Basic subroutine which is very efficient. You don't need the outer brackets in Lines 65515 and 65518.

We have come across several minor bugs in the Nascom Basic, but luckily none of them have any effect on running programs. The bug you mention is quite annoying, we agree. To be fair to Nascom, this particular bug is, we think, in the 8080/Z80 Microsoft 8K Basic, and was not added by Nascom.

MORE ON BASIC

Dear Sir,

I have enjoyed reading the INMC newsletters but would naturally like to see more items for the Nascom 2. Obviously, you can only do this with readers help and I profer my contributions below:-

1. The Nascom suggestion for writing to line 16 is to first write on line 15 and then transfer this to line 16. This does work but gives the appearance that the program has gone wrong - and we all know our programs never do that! The following routine writes a string C$ directly to the top line:-

```
10 C$ ="THIS IS THE LINE TO WHICH YOU CAN'T WRITE"
20 FOR A = 1 TO LEN (C$)
30 POKE 3017 + A, ASC(MID$(C$,A,1))
40 NEXT
```

Working on the assumption that 'anything POKE can do DOKE can do quicker' I tried to improve the above, but without success. I found it necessary first to make LEN(C$) exactly divisible by 2 and then to format the ASCII codes of the two characters currently being dealt with by first reversing them and then converting to a single decimal number. Having provided the approach to steer well clear of I await suggestions from my peers.