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# SINC-LINK



## TIMEX-SINCLAIR USERS CLUB NEWSLETTER

Toronto, Ontario

## MESSAGE FROM THE PRESIDENT

As you all know or may not know, the present executive was appointed to serve an interim of six months. That period is up now and some of us are relocating our directions. As such, I will be stepping down as President and a new one, George Chambers, will be coming in. George has done a fine job co-ordinating in the past year and we wish him all the best in the future.

I will probably be in one of the other executive positions and if not, then I hope that I can help the new Executive in any way possible.

Regards,  
Greg Lloyd

## EDITOR'S NOTE

I'm sure I speak on behalf of the rest of the membership, Greg. You have done a fine job as president and the club has come a long way since our 'Get-Together' days. Even though the club is now more formalized, we have not lost sight of the 'free-for-all' or a one-on-one member contact during our meetings which I'm sure has helped a lot of members with some difficult areas of the computer.

Congratulations, George, as the new President of Timex-Sinclair Club. Good luck as our new President.

## EXECUTIVE OFFICERS

PRESIDENT: Greg Lloyd  
SECRETARY: George Chambers  
LIBRARIAN: Martin Mauk  
TREASURER: John Roach  
NEWS EDITOR: Stan Piotrowski  
ACTIVITY DIRECTORS: Brian Hammond, Ian Roberts  
MEETING CHAIRMAN: Harold Goodwin  
LIASON OFFICER: (out-of-town member) Chris Hart

## CHECKING COMPUTER ACCURACY

(by Bill White)

An article in the April issue of SCIENTIFIC AMERICAN gives a method for determining the calculating precision level of a computer or calculator. The procedure is to enter 1.0000001 and square it 27 times. The correct result is, to ten digits,

1.00000027

but most machines will be wrong.

All calculators can usually have the first three digits correct so that the per cent error is under 0.1. Unfortunately, most computers are a rather sad lot when tested on this method. These are some of the results:

COMPUTER	RESULT	%ERROR
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Apple II Basic	22723.9709	96.6
IBM PC Basic	8850273.	1212.
Ontel Basic	8886690	1217.
ZX-81 Basic	710493.46	5.3

The comparison with these others, makes our little "toy" look like a giant. So don't knock it!

The program I used to test the ZX-81, which listed the numbers as they were calculated is:

```
10 INPUT A
20 FOR B = 1 TO 27
30 LET C = A ** 2
40 PRINT C;" ";
50 LET A = C
60 NEXT B
```

**A MACHINE CODE PROGRAM WITH 1 POP**  
(by K. Van Vliet)

This is the Machine Code program I used to discuss turning a Call PQ Routine (a GOSUB with a RETURN) into a GOTO PQ with the RETURN address:

Q + 1 + 256 P in HL as follows:

First, set up the following Basic program, RUN it and then LOAD all the decimal values found at the end of this article when prompted for each INPUT N at its proper address:

NOTE: If you made an error then iput a number larger than 255 and start over.

```
1 REM ...25 characters minimum...
10 FOR I = 16514 TO 16538
20 PRINT I;" ";
30 INPUT N
40 PRINT N
50 POKE I,N
60 NEXT I
70 CLS
80 PRINT AT 5,0;"inverse space"
90 RAND USR 16523
100 POKE 16528,118
110 POKE 16532,118
120 PRINT AT 10,0;"inverse space"
130 RAND USR 16523
140 STOP
```

