

C64 BASIC Tute - Episode 6

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GOTO

```
10 print "hello" 20 goto 10
```

GOSUB

```
10 print "before subroutine" 20 gosub 100 30 print "after subroutine" 40 end  
100 print "during subroutine" 110 return
```

FOR

```
10 for i=1 to 10 20 print i,"hello" 30 next
```

- next i is optional in C64 BASIC It will figure it out

STEP

```
10 for i=1 to 10 step 2 20 print i,"hello" 30 next
```

IF

```
10 b=3 20 if b>=3 then print "3 or more"
```

There is no ELSE, only THEN



THEN

THEN will read all statements until the end of the line

GOTO

In a couple of weird quirks of the language, THEN is optional if the next statement is GOTO.

But GOTO is optional if you use THEN.

These lines are all the same: if a>10 then goto 100 if a>10 then 100 if a>10 goto 100

Perhaps these were done to help offset the 80 character line limit. In code, this can be shortened to:

10ifa>10tH100 (t shift-h is the abbreviation for then)

Relational Operators

= equal > greater than < less than >= greater than or equal <= less than or equal <> not equal

- text and numbers can use these operators

Logical Operators

AND NOT OR

XOR is possible, but requires POKEing your data into memory and using the WAIT statement

Logical Operator Context

A=64 OR 32 : print A output: 96

A=64 AND 64 : print A output: 64

A=64 AND 128 : print A output: 0

- to use Logical Operators in IF statements, each condition must be repeated in full

10 A=50 20 if A>=30 OR a<=100 then print "A is any number" 30 if A>=30 AND a<=100 then print "A is between 30 and 100"

Binary

128	64	32	16	8	4	2	1
	1	1					
	1						
	1						

Binary truth tables

ON

ON uses an index that starts at 1.

```
10 for i=1 to 3 20 on i gosub 100,200,300 30 next 35 end 100 print i,"gosub  
100" 110 return 200 print i,"gosub 200" 210 return 300 print i,"gosub 300"  
310 return
```