

MICRO - COMPILER

(English translation of this manual by C16-Chris & S_/S 2005)

Cover

Compiled Programs run 50 or 60 times faster

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1 Entry

The following BASIC program will fill the screen with 1000 "A"

```
10 FOR V = 3072 TO 4071
20 POKE V , 1
30 NEXT
```

Please type in this program in your C16/C116/Plus4

This program can be executed by Basic in 5 seconds

If you compile this program with Micro-Compiler it will run 50 times faster so you can't see the filling of screen (made in 1/10 second).

That's what Micro-Compiler can do ☺

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2. Loading instruction

Please insert Micro-Compiler Disk in your Floppy-drive, then press (SHIFT) and (RUN-STOP).
The program starts and soon you can see the Title-screen.

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3. Working with Compiler

3.1 Enter the File Name

Press (RETURN) to leave the Title-screen

The Compiler asks now for the program filename.

Your program to be compiled, must be on the inserted floppy.

(Please don't work with the original Micro-Compiler disk)

3.2 Input Start-address

Now you must type in the Start-address.

The program could conflict with produced code if you set a value from \$1000 to \$2600.

Set as start-address \$3000 or more

3.3 Compiling a program

The program is going to be compiled; you can see processing.

After compiled, system returns an exit/error code, and shows beginning and ending addresses for your compiled program.

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3.4 Run a compiled program

You can run your program by: SYS start-address-in-decimal

You can use the start-address from Basic by converting it into decimal by PRINT DEC ("start-address")

3.5 Save a compiled program

You can save the compiled program by MONITOR (RETURN) S "NAME" 8 start-address end-address.
Look in your User-guide for more info.

3.6 Load a compiled program

You can load the program by LOAD "NAME" ,8,1

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4 Programming in Micro Basic

4.1 Commands

Micro Basic accepts 13 commands:

LET Variable = Value
PRINT (Value)(CHR\$(Value))("STRING")(";)
IF Value or Value THEN...
FOR Variable TO Value (STEP Value) ... NEXT
PEEK (Value)
POKE Value , Value
SYS Value
GOTO Line-number
RETURN
END
STOP
REM (anything you want)
WAIT

4.2 What you must look for at programming

- Variables must be different at the first letter
- You must not use strings

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- Range of Variables' values must be from -65535 to +65335
- You can not use the Print-Command with negative Values, it works with only two bytes. If you want to work with negative numbers you must use Variables.
- Accepted operands: + , - , * , / , AND , OR , PEEK() .
- Processing works from left to right step by step, thus you are not allowed to use () .

- You can use symbols (,) , = , ()
- You can apply cycles FOR / NEXT
- "THEN Number" syntax is not allowed, you must enter "THEN GOTO Number"
- You can use POKE 239,0 : WAIT 239,1

4.3 Practicable programming in Micro-Basic

When you program in Micro-Basic you have not all Commands.
 Many BASIC commands can be built using combinations of Micro-Basic Commands.
 Don't use COLOR-command; use POKE inserting color-code in Memory-address 65301- 65305.
 In your user-guide you can find the addresses.

5 Mixing of Micro-Basic Compiled and Basic 3.5

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5.1 All

You can mix Compiled and Basic programs really easy.
 If you want to insert the Compiled code in your Basic 3.5 program type:

```
10 COLOR 0 , 5 , 4 : SYS 16384 : PRINT . . . . .
```

5.2 Loading a Compiled-program

The Compiled program must be loaded (,8,1) into machine before executing it by SYS
 Warning: there is a bug in O.S.: if you load it from a program like:

```
10 LOAD "compiled" ,8,1
```

then system enters into an endless loop. To avoid this you must operate as follows:

```
10 IF A = 0 THEN A = 1 : LOAD " compiled " ,8,1
```

5.3 Parameters supplying

You can exchange Variables between Basic 3.5 and compiled-files by using:
 POKE and PEEK .

End of manual