

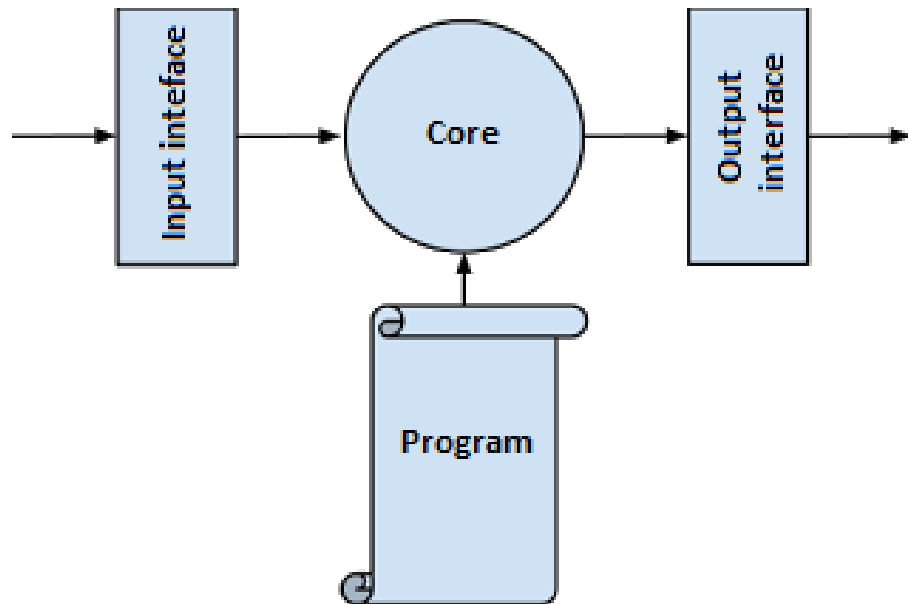
Internetul Lucrurilor

Control

Interpretare Program

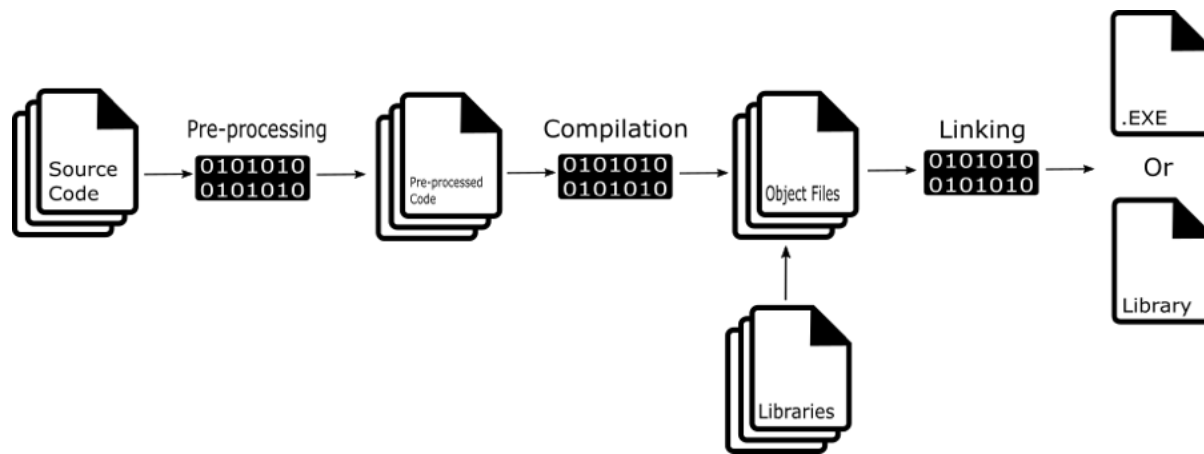
Program

Definește comportamentul sistemului sub forma de secvența de instrucțiuni care urmează una după alta



1. Program executat
2. Program Interpretat

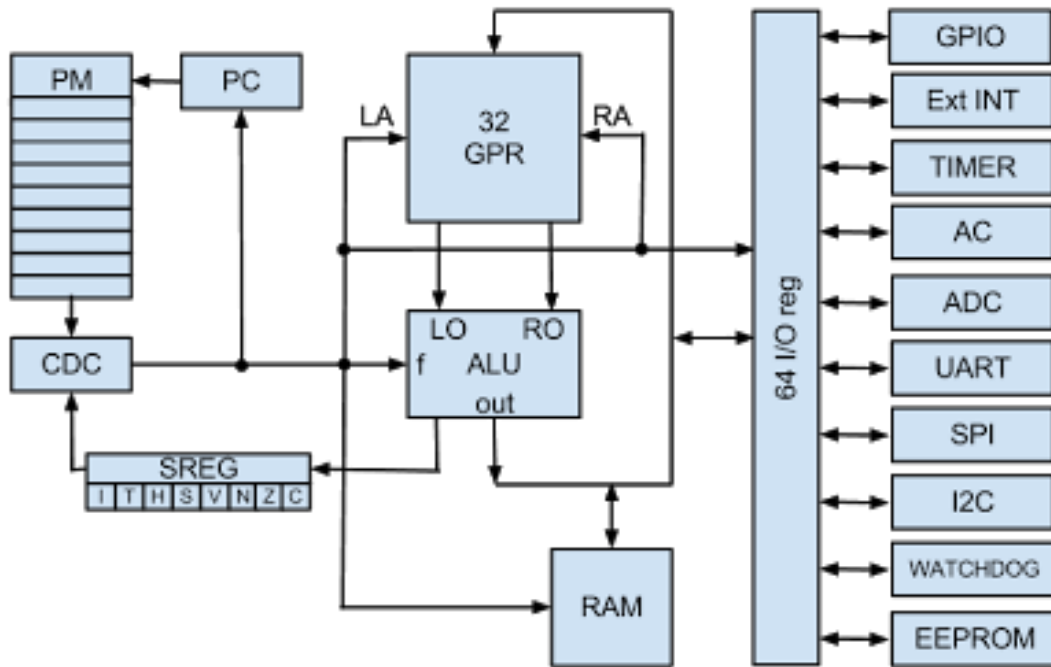
Program executat



```
0000025c: F1AD0D10 SUB.W      R13, R13, #16
12
00000260: 2035      MOV             R0, #0x35
00000262: F88D0005 STRB.W      R0, [R13, #5]
13
   y = '1';
00000266: 2031      MOV             R0, #0x31
00000268: F88D000C STRB.W      R0, [R13, #12]
14
   array[10] = array[5] + y;
0000026c: F89D1005 LDRB.W      R1, [R13, #5]
00000270: F89D000C LDRB.W      R0, [R13, #12]
00000274: 1840      ADD             R0, R0, R1
00000276: F88D000A STRB.W      R0, [R13, #10]
16
   return 0;
0000027a: 2000      MOV             R0, #0x0
17
}
```

<https://medium.com/better-programming/learn-how-to-compile-a-c-program-382c4c690bdc>

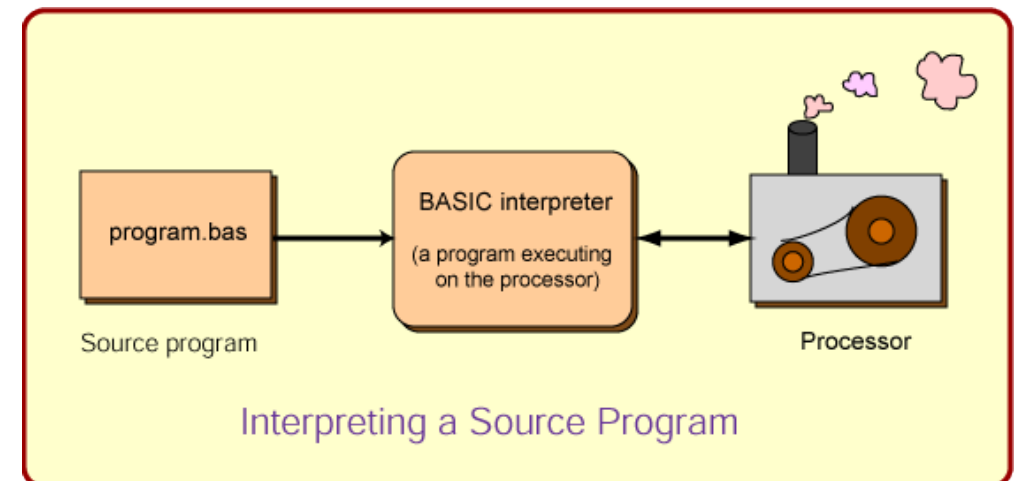
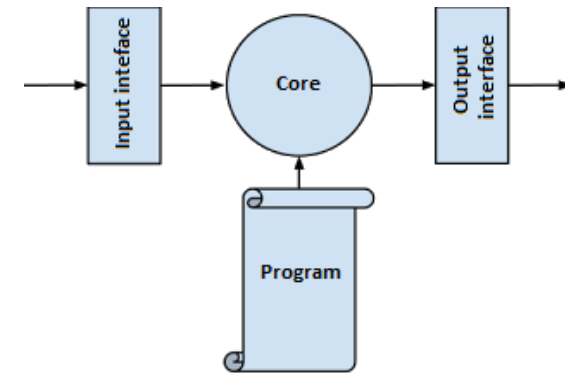
Program executat



	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
	4-bit Opcode				Source Register				Ad	b/w	As	Destination Register					
0xc000:	4031	0100	0000	0011	0001												mov.w #0x0400,r1
0xc002:	0400																
0xc004:	40b2	0100	0000	1011	0010												mov.w #0x5a80 ,& 0x120
0xc006:	5a80																
0xc008:	0120																
0xc00a:	427f	0100	0010	0111	1111												mov.b #8,r15
0xc00c:	12b0	0001	0010	1011	0000												call.w #0xc012
0xc00e:	c012																
0xc010:	3ffc	0011	1111	1111	1100												jmp 0xc00a
0xc012:	831f	1000	0011	0001	1111												sub.w #1,r15
0xc014:	23fe	0010	0011	1111	1110												jne 0xc012
0xc016:	4130	0100	0001	0011	0000												mov.w @r1+ ,r0

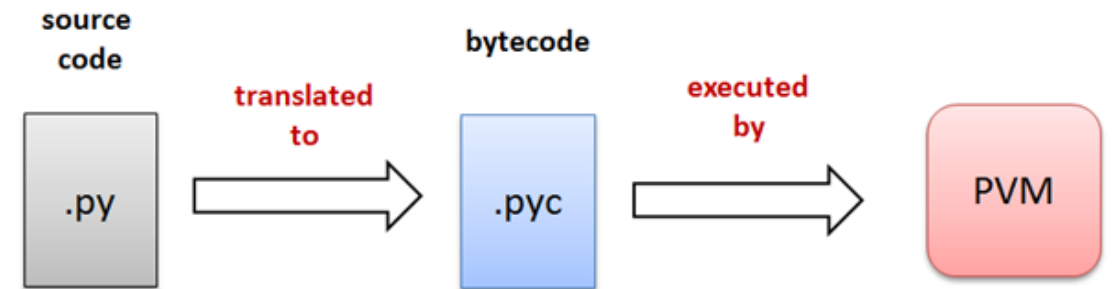
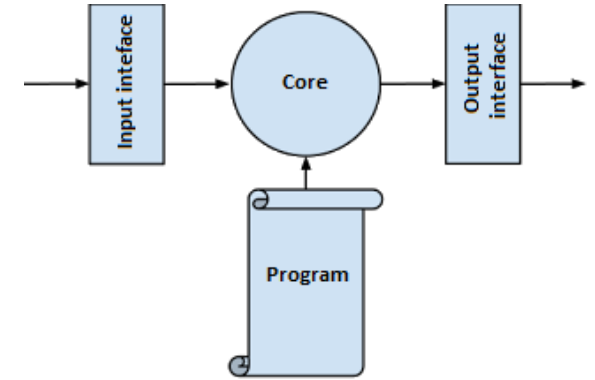
Program Interpretat - BASIC

```
10 INPUT "What is your name: ", U$
20 PRINT "Hello "; U$
30 INPUT "How many stars do you want: ", N
40 S$ = ""
50 FOR I = 1 TO N
60 S$ = S$ + "*"
70 NEXT I
80 PRINT S$
90 INPUT "Do you want more stars? ", A$
100 IF LEN(A$) = 0 THEN GOTO 90
110 A$ = LEFT$(A$, 1)
120 IF A$ = "Y" OR A$ = "y" THEN GOTO 30
130 PRINT "Goodbye "; U$
140 END
```



Program Interpretat - Python

```
x = 34 - 23           # A comment.  
y = "Hello"         # Another one.  
z = 3.45  
if z == 3.45 or y == "Hello":  
    x = x + 1  
    y = y + " World" # String concat.  
print x  
print y
```



MicroPython



<https://docs.micropython.org/en/latest/esp32/quickref.html>

G Code interpreter

The diagram illustrates the interpretation of G-code commands. It shows a sequence of commands with specific parameters highlighted and labeled with arrows pointing to their respective functions:

- Fan speed setting:** Indicated by a green arrow pointing to the `M107` command.
- Nozzle travel speed (without extrusion):** Indicated by a red arrow pointing to the `F9000` parameter in the `G0` command.
- Layer height:** Indicated by a blue arrow pointing to the `Z0.300` parameter in the `G0` command.
- Nozzle printing speed (with extrusion):** Indicated by a red arrow pointing to the `F2340` parameter in the `G1` command.
- Extrusion length:** Indicated by an orange arrow pointing to the `E0.18815` parameter in the first `G1` command.
- X, Y Coordinates:** Indicated by a blue arrow pointing to the `X57.299 Y55.078` parameters in the second `G1` command.

```
;Layer count: 25
;LAYER:0
M107
G0 F9000 X52.235 Y55.800 Z0.300
;TYPE:SKIRT
G1 F2340 X56.093 Y55.800 E0.18815
G1 X56.346 Y55.605 E0.20373
G1 X57.299 Y55.078 E0.25684
G1 X58.540 Y54.758 E0.31934
G1 X59.404 Y54.719 E0.36152
G1 X60.320 Y53.688 E0.42878
```

<https://all3dp.com/g-code-tutorial-3d-printer-gcode-commands/>

Morse Interpreter

International Morse Code

A	· -	N	- ·	1	- - - -	.	- · · ·	=	- · · ·
B	- · · ·	O	- - -	2	- · - -	,	- · · -	+	- · - ·
C	- · · · ·	P	- · · ·	3	- · · -	?	- · · ·	-	- · · · ·
D	- · · ·	Q	- · - ·	4	- · · ·	!	- · - -	\$	- · · · ·
E	·	R	- · ·	5	- · · · ·	'	- · · · ·	@	- · · · ·
F	- · · · ·	S	- · · ·	6	- · · · ·	"	- · · · ·		
G	- · · ·	T	-	7	- · · · ·	(- · · · ·		
H	- · · · ·	U	- · ·	8	- · · · ·)	- · · · ·		
I	· ·	V	- · · ·	9	- · · · ·	&	- · · · ·		
J	- · · · -	W	- · ·	0	- - - -	:	- · · · ·		
K	- · -	X	- · · ·			;	- · · · ·		
L	- · · ·	Y	- · · -			/	- · · · ·		
M	- -	Z	- · · ·			-	- · · · ·		

SOS	- · · · - · · ·	Break	- · · · -
New Line	- · · ·	Closing	- · · · - · · ·
New Page	- · · · ·	Shift to Wabun code	- · · · - -
New Paragraph	- · · · · -	End of contact	- · · ·
Attention	- · · · - ·	Understood	- · · · -
Error	- · · · · ·	Invitation for named station to transmit	- · · · - -
Wait	- · · · ·	Invitation for any station to transmit	- · · -

