CosmoAssembly - Manual

0.What is CosmoAssembly?

CosmoAssembly is a pseudo-assembler made on python by me, Arsospace(BlackWinter#6891).

It’s not much good for something serious or complicated, have fun)

P.S. And actually not completed, some functions does not exist

1.Registers

A – int

B – int

C – int

D – int

B1 – bool

B2 – bool

B3 – bool

2.Flags

Z – if the result of the last action is zero, then z=1

P – if the result of the last action is greater than zero, then p=1

N – if the result of the last action is less than zero, then n=1

3.Functions

SET[REG] [NUM] – set the register value [REG] to a number [NUM]( If the register [REG] is Boolean, then the assignment [NUM] 1 will mean [REG] = True, and if [NUM] 0 then [REG] = False)

ADD[REG] [NUM] – add the number [NUM] to the [REG] register

ADD.R [REG1] [REG2]–add register [REG1] to register [REG2]

SUB[REG] [NUM] – subtract from the register [REG] the number [NUM]

SUB.R [REG1] [REG2]-subtract from the register [REG1] [REG2]

MUL[REG] [NUM] - Multiply the register [REG] by the number [NUM]

MUL.R [REG1] [REG2] –multiply the register [REG1] by the register[REG2]

ECHO [REG] – print [REG] register to display

GOTO [M] – start executing code from the [M] mark

INP[REG]-read value and write it to [REG]

4.Marks

M1:

ECHO A

GOTO 1

You can make only 5 labels in the code and they are all numbered in the order of creation (if you want to go to them via “GOTO”) you can call them whatever you want, but it would be best to name them like "1:" or "M1:".

5.Transition

EZ [M] – if z=1, go to [M] mark

POS [M] – if p=1, go to [M] mark

NEG [M] – if n=1, go to [M] mark

6.Syntax

To start writing a program, you need to enter

!START!

and to finish

!RUN!

7. Examples

!START!

SETA -72

M1:

ECHO A

M2:

ADDA 5

MUL 2

POS 1

GOTO 2

!RUN!

This program sets the value of A to -72, then adds 5 many times and multiplies a by 2, and when a is greater than zero outputs the register value.

!START!

GOTO 4

P1:

ECHO A

ECHO B

GOTO 5

M2:

ECHO B

ECHO A

GOTO 5

E3:

SETC 0

ECHO C

S4:

INPA

INPB

SUB.R A B

POS 1

NEG 2

EZ 3

E5:

!RUN!

This program asks the user for two numbers and outputs the largest at the beginning, and then the smallest and if the numbers .