Jasmin

Java – Assembly – Interprete

Configuration

Font:*

Sans Serif

Size:

12

Simulated Memory Size (bytes):
(default is 4096)

4.096

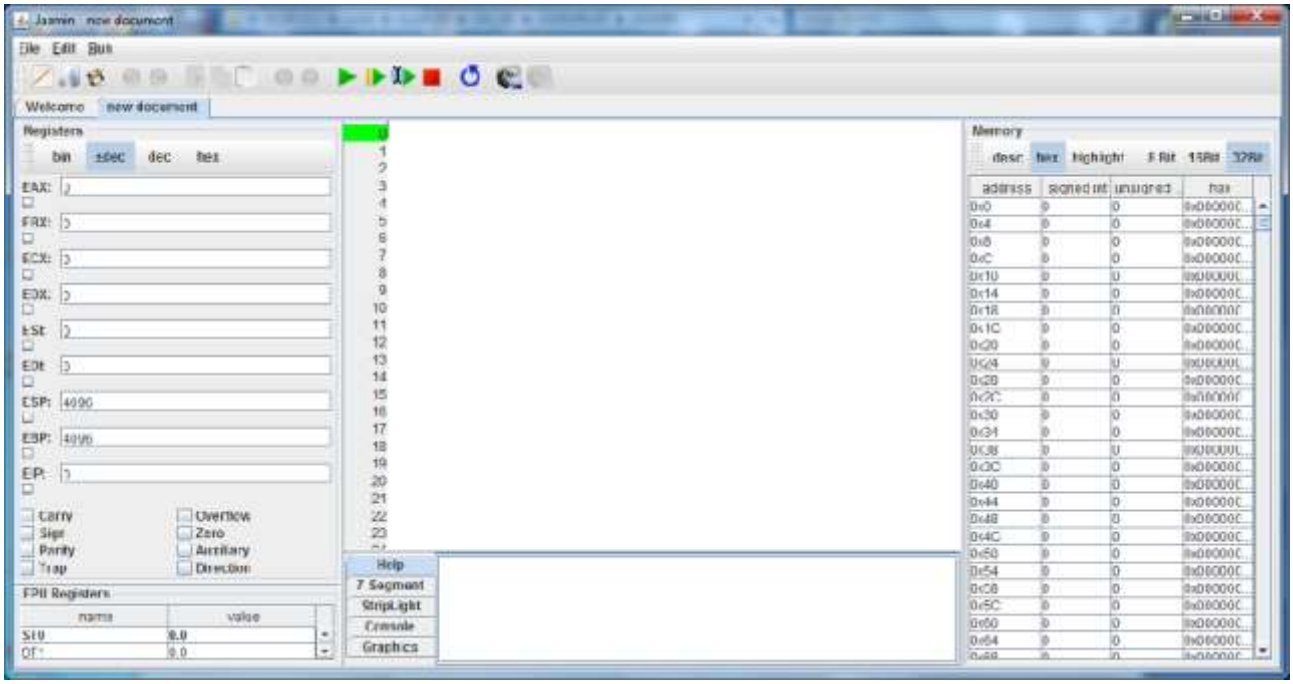
Start adress of the useable memory:

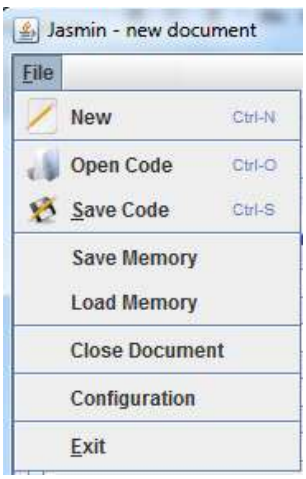
0

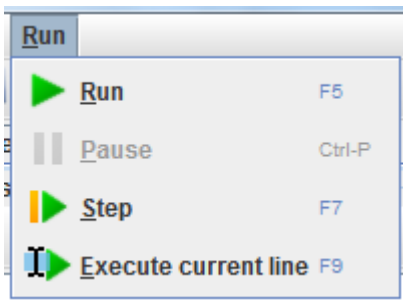
Context help language:

en

*please allow a few seconds for the font list to load, as the fonts need to be rendered

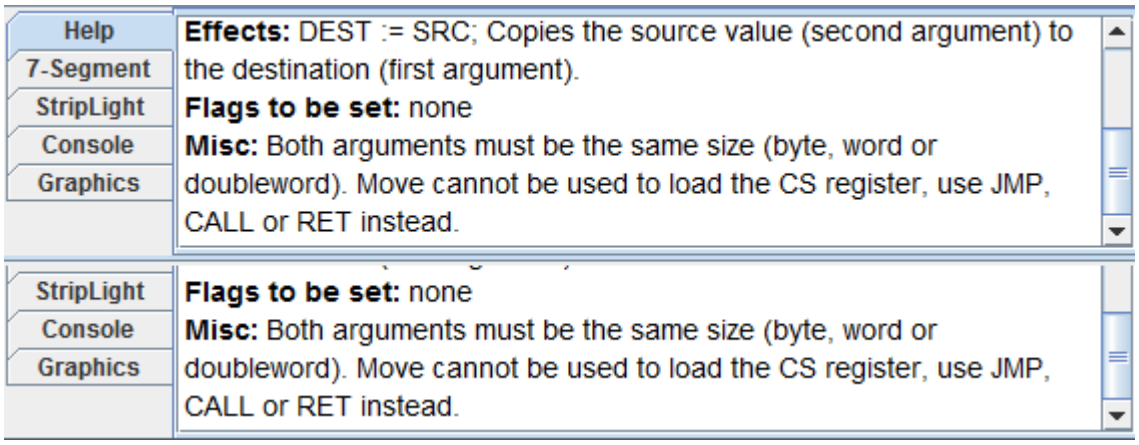


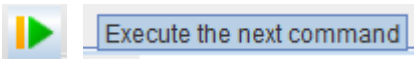


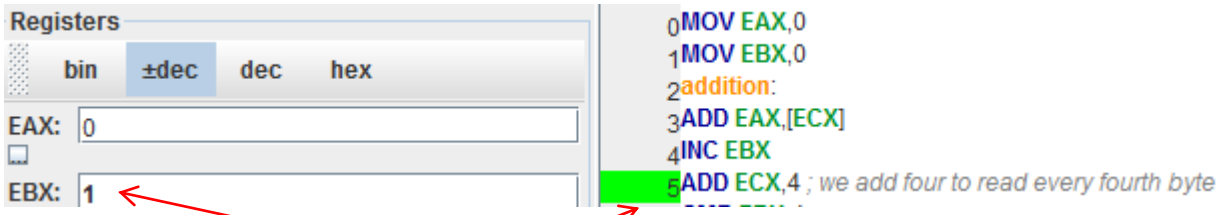


Primo esempio (*tutte le celle di memoria contengono 0*)

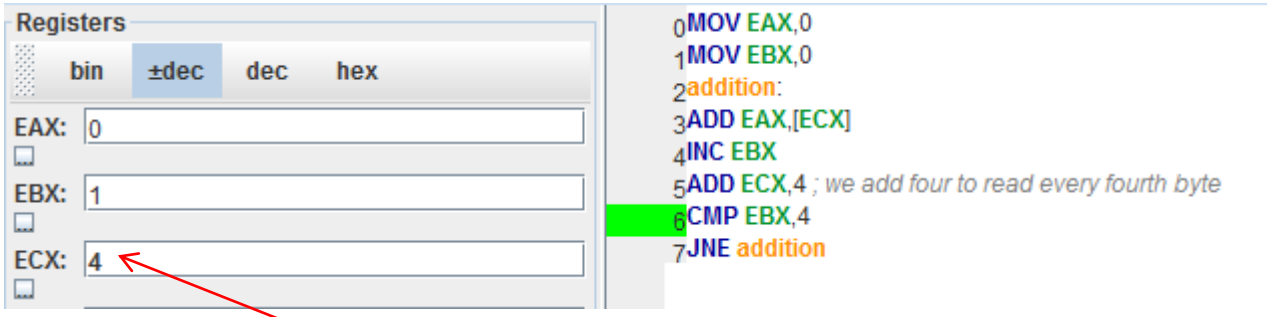
```
0 MOV EAX,0
1 MOV EBX,0
2 addition:
3 ADD EAX,[ECX]
4 INC EBX
5 ADD ECX,4 ; we add four to read every fourth byte
6 CMP EBX,4
7 JNE addition ; EAX now contains the expected value
8
```



Esecuzione passo-passo: 

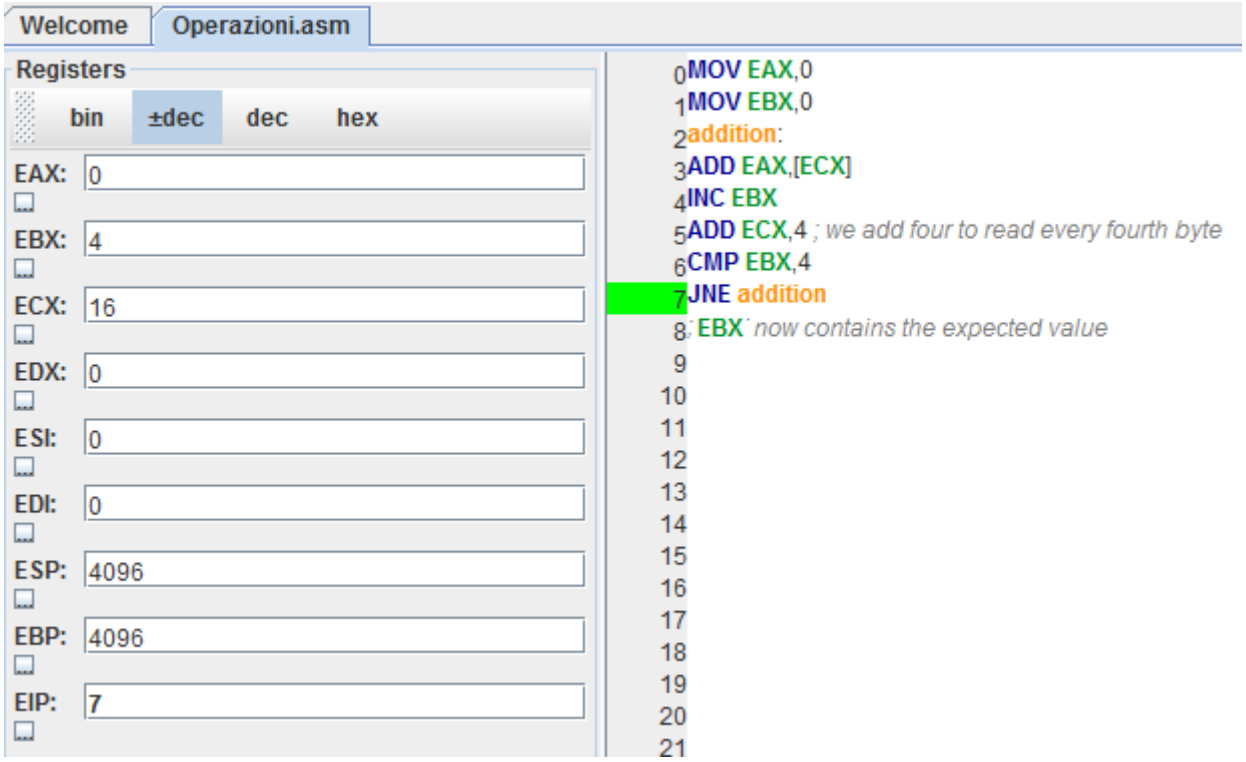


Ha incrementato il contenuto di EBX e punta l'istruzione successiva



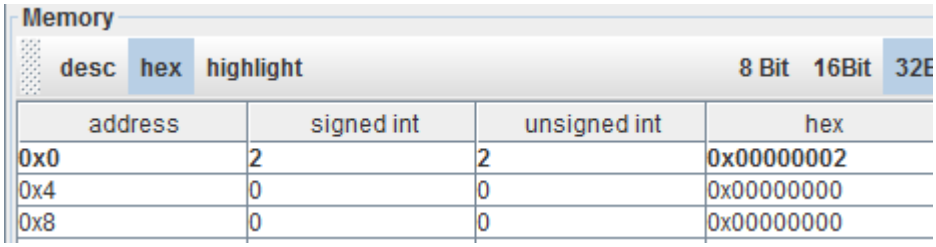
Ha sommato 4 al contenuto di ECX

Solo dopo 4 incrementi del contenuto di EBX non salta più all'etichetta addition

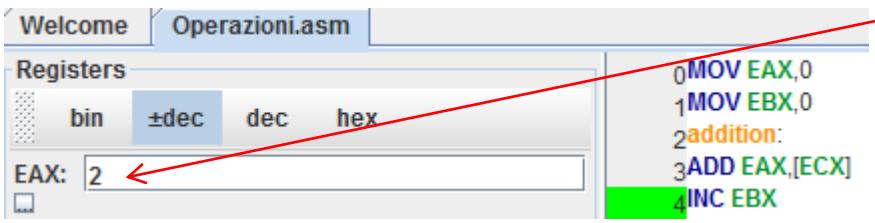


ed il confronto con 4 setta i flag Zero e Parity (oltre ad Auxiliary cioè **Half-carry flag** o **Decimal adjust flag**)

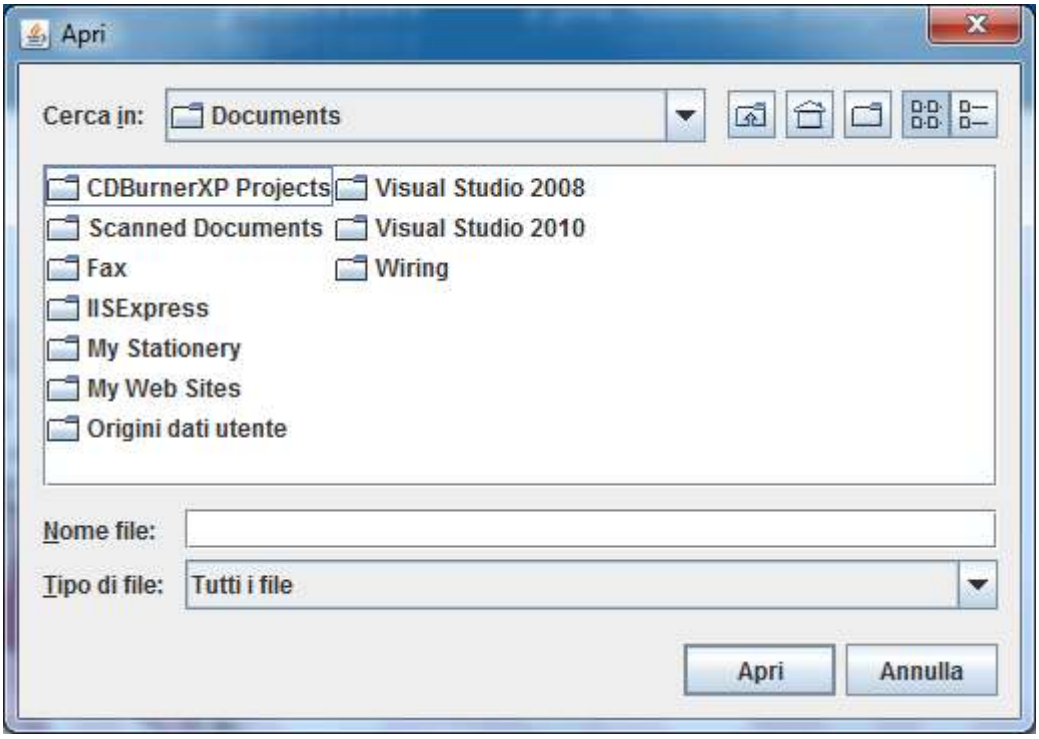
Primo esempio (*nella cella di memoria con indirizzo 0 si inserisce 2*)



Allora: sommando il contenuto puntato da ECX (cioè 2) ad al contenuto di EAX (cioè 0) si ottiene in EAX 2



Salvataggio di default nella cartella Documents:




```
; first we set EAX and EBX to zero

MOV EAX, 0

MOV ECX, 0

; then we create a loop that performs the addition

addition:

; note the addition of 4 in each iteration, because the address is given
in bytes

ADD EAX,[EDX]   ; somma il contenuto indirizzato da EDX al contenuto di EAX

INC ECX

ADD EDX,4

CMP ECX 4

JNE addition
```

Il linguaggio **assembly**, detto anche linguaggio assemblativo, è, tra i linguaggi di programmazione, quello più vicino al linguaggio macchina vero e proprio (*binario*), pur essendo differente rispetto a quest'ultimo.

Erroneamente viene spesso chiamato "*assembler*", anche se quest'ultimo termine identifica il programma "*assemblatore*" che converte il linguaggio assembly in linguaggio macchina.

Documentazione → http://wwwi10.lrr.in.tum.de/~jasmin/documentation.html
→ http://wwwi10.lrr.in.tum.de/~jasmin/basics.html **(istruzioni)**