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File Edit Selection View Go Run Terminal Help
SIC instruction set and addressing Modes Vode.py - New folder - Visual Studio Code

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\Whale\OneDrive\Desktop\AA51\system proj\New folder> "C:/Program Files/Python310/python.exe" "C:/Users/Whale/OneDrive/Desktop/AA51/system proj/New folder/SIC Instruction set and addressing Modes Vode.py"

---SIC Simplified Instructional Computer Assembler---

-----test program 1-----
-----A simple SIC Assembler Pass1-----
-----source program written in assembly language-----

symbol instructions reference
0 COPY START 0x1000
1 FIRST STL RETADR
2 CLOOP ZSUB RORCC
3 -- LDA LENGTH
4 -- COMP ZERO
5 -- JEQ ENDFIL
6 -- ZSUB RORCC
7 -- J CLOOP
8 ENDFIL LDA EOF
9 -- STA BUFFER
10 -- LDA THREE
11 -- STA LENGTH
12 -- ZSUB RORCC
13 -- LOD RETADR
14 -- RSUB 0
15 EOF BYTE C'EOF'
16 THREE WORD 3
17 ZERO WORD 0
18 RETADR RESRNB 1
19 LENGTH RESRNB 1
20 BUFFER RESRNB 4096
21 RORCC LOD ZERO
22 -- LDA ZERO
23 BLOOP TD INPUT
24 -- JEQ BLOOP
25 -- RD INPUT
26 -- COMP ZERO
27 -- JEQ EXIT
28 -- STCH BUFFER,X
29 -- TIX MAXLEN
30 -- JLT BLOOP
31 EXIT STX LENGTH
32 -- RSUB --
33 INPUT BYTE X'f1'
34 MAXLEN WORD 4096
35 RORCC LDA ZERO
36 BLOOP TD OUTPUT
37 -- JEQ BLOOP
38 -- LDCH BUFFER,X
39 -- MD OUTPUT
40 -- TIX LENGTH
41 -- JLT BLOOP
42 -- RSUB --
43 OUTPUT BYTE X'05'
44 -- END FIRST

-----Assemble Program with loc-----

loc symbol instructions reference
0 0x1000 COPY START 0x1000
1 0x1000 FIRST STL RETADR
2 0x1003 CLOOP ZSUB RORCC
3 0x1005 -- LDA LENGTH
4 0x1009 -- COMP ZERO
5 0x100c -- JEQ ENDFIL
6 0x100f -- ZSUB RORCC
7 0x1012 -- J CLOOP
8 0x1015 ENDFIL LDA EOF
9 0x1018 -- STA BUFFER
10 0x101d -- LDA THREE
11 0x101e -- STA LENGTH
12 0x1021 -- ZSUB RORCC
13 0x1024 -- LOD RETADR
14 0x1027 -- RSUB 0
15 0x102a EOF BYTE C'EOF'
16 0x102d THREE WORD 3
17 0x1030 ZERO WORD 0
18 0x1033 RETADR RESRNB 1
19 0x1036 LENGTH RESRNB 1
20 0x1039 BUFFER RESRNB 4096
21 0x103f RORCC LOD ZERO
22 0x1042 -- LDA ZERO
23 0x104f BLOOP TD INPUT
24 0x1052 -- JEQ BLOOP
25 0x1055 -- RD INPUT
26 0x1058 -- COMP ZERO
27 0x105b -- JEQ EXIT
28 0x105e -- STCH BUFFER,X
29 0x1061 -- TIX MAXLEN
30 0x1064 -- JLT BLOOP
31 0x1067 EXIT STX LENGTH
32 0x106a -- RSUB --
33 0x106d INPUT BYTE X'f1'
34 0x106e MAXLEN WORD 4096
35 0x106f RORCC LDA ZERO
36 0x1070 BLOOP TD OUTPUT
37 0x1073 -- JEQ BLOOP
38 0x1076 -- LDCH BUFFER,X
39 0x1079 -- MD OUTPUT
40 0x107b -- TIX LENGTH
41 0x107d -- JLT BLOOP
42 0x107f -- RSUB --
43 0x1080 OUTPUT BYTE X'05'
44 0x1083 -- END FIRST

---symbol table---

symbol loc
0 COPY 0x1000
1 FIRST 0x1000
2 CLOOP 0x1003
3 ENDFIL 0x1015
4 EOF 0x102a
5 THREE 0x102d
6 ZERO 0x1030
7 RETADR 0x1033
8 LENGTH 0x1036
9 BUFFER 0x1039
10 RORCC 0x103f
11 BLOOP 0x104f
12 EXIT 0x1067
13 INPUT 0x106d
14 MAXLEN 0x106e
15 RORCC 0x106f
16 BLOOP 0x1070
17 OUTPUT 0x1079

-----A simple SIC Assembler Pass2-----
-----Assemble program with object code-----

loc symbol instructions reference object code
0 0x1000 COPY START 0x1000 0x141033
1 0x1000 FIRST STL RETADR 0x141033
2 0x1003 CLOOP ZSUB RORCC 0x422039
3 0x1005 -- LDA LENGTH 0x001036
4 0x1009 -- COMP ZERO 0x021030
5 0x100c -- JEQ ENDFIL 0x301015
6 0x100f -- ZSUB RORCC 0x422061
7 0x1012 -- J CLOOP 0x314083
8 0x1015 ENDFIL LDA EOF 0x00102a
9 0x1018 -- STA BUFFER 0x00c1039
10 0x101d -- LDA THREE 0x00102d
11 0x101e -- STA LENGTH 0x00c1036
12 0x1021 -- ZSUB RORCC 0x422061
13 0x1024 -- LOD RETADR 0x001033
14 0x1027 -- RSUB 0 0x050000
15 0x102a EOF BYTE C'EOF' 0x454446
16 0x102d THREE WORD 3 0x000003
17 0x1030 ZERO WORD 0 0x000000
18 0x1033 RETADR RESRNB 1 no obj. code
19 0x1036 LENGTH RESRNB 1 no obj. code
20 0x1039 BUFFER RESRNB 4096 no obj. code
21 0x103f RORCC LOD ZERO 0x041030
22 0x1042 -- LDA ZERO 0x001030
23 0x104f BLOOP TD INPUT 0x02206d
24 0x1052 -- COMP ZERO 0x021030
25 0x1055 -- RD INPUT 0x02206d
26 0x1058 -- JEQ EXIT 0x302067
27 0x105b -- STCH BUFFER,X 0x504039
28 0x105e -- TIX MAXLEN 0x21206c
29 0x1061 -- JLT BLOOP 0x30203f
30 0x1064 -- RSUB -- 0x010030
31 0x1067 EXIT STX LENGTH 0x101030
32 0x106a -- RORCC -- 0x050000
33 0x106d INPUT BYTE X'f1' 0x0000f1
34 0x106e MAXLEN WORD 4096 0x001000
35 0x106f RORCC LOD ZERO 0x041030
36 0x1070 BLOOP TD OUTPUT 0x022039
37 0x1073 -- JEQ BLOOP 0x302064
38 0x1076 -- LDCH BUFFER,X 0x504039
39 0x1079 -- MD OUTPUT 0x0c2039
40 0x107b -- TIX LENGTH 0x212030
41 0x107d -- JLT BLOOP 0x302064
42 0x107f -- RSUB -- 0x050000
43 0x1080 OUTPUT BYTE X'05' 0x000005
44 0x1083 -- END FIRST --

-----ITE RECORD-----
H:\KCCOPY.0x001000.0x001037a
t:\0x001000.0x1.0x141033.0x001036.0x210330.0x301015.0x422061.0x11003.0x00102a.0x0c1039.0x00102d.0x0c1036.0x422061.0x001013.0x000000.0x054446.0x000003.0x000000
t:\0x000039.0x41.0x041030.0x001030.0x02006d.0x02003f.0x02206d.0x022039.0x02206c.0x02203f.0x021030.0x0c206c.0x0c203f.0x001030.0x000000.0x0000f1.0x001000.0x041030.0x02039.0x0c2064.0x000039.0x0c2079.0x0c21036.0x302064.0x0c0000.0x000005
t:\0x001000
PS C:\Users\Whale\OneDrive\Desktop\AA51\system proj\New folder>
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