

CSI 402 – Systems Programming – Handout 3.1

Examples of SIC and SIC/XE Programs

Example 1: A simple example to show the assembly language syntax.

SIC Version:

	LDA	FIVE	
	STA	ALPHA	
	LDCH	CHARZ	
	STCH	C1	
	.		
	.		
ALPHA	RESW	1	Uninitialized word.
FIVE	WORD	5	Word initialized to 5.
CHARZ	BYTE	C'Z'	Byte initialized to 'Z'.
C1	RESB	1	Uninitialized byte.

SIC/XE Version:

	LDA	#5	Immediate operand.
	STA	ALPHA	
	LDA	#90	ASCII code for 'Z'.
	STCH	C1	
	.		
	.		
ALPHA	RESW	1	Uninitialized word.
C1	RESB	1	Uninitialized byte.

Example 2: To copy a 11 byte string from one location to another. The program for SIC is given below. (The corresponding program for SIC/XE is left as an exercise.)

SIC Version:

	LDX	ZERO	Initializes X to zero.
MOVECH	LDCH	STR1,X	X specifies indexing.
	STCH	STR2,X	
	TIX	ELEVEN	Increments X and compares with 11.
	JLT	MOVECH	
STR1	BYTE	C'TEST STRING'	String constant.
STR2	RESB	11	
ZERO	WORD	0	
ELEVEN	WORD	11	