

Hex Address	Instructions
100	Load X
101	Add Y
102	Store Z
103	Halt
104 X,	0023
105 Y,	FFE9
106 Z,	0000

Table 4.4 An Example Using Labels

First Pass – Create the Symbol Table

Symbol	Hex Value (address)
X	104
Y	105
Z	106

Table 4.4 – 1 The Symbol Table

Second Pass – Translate instructions into machine representation.

Instruction – Symbolic Form			Instruction – Machine Representation (Hex)		
Address	Mnemonic	Operand	Opcode	Operand	Combined
100	Load	X	1	104	1104
101	Add	Y	3	105	3105
102	Store	Z	2	106	2106
103	Halt		7	000	7000
104 X,	0023		0	023	0023
105 Y,	FFE9		F	FE9	FFE9
106 Z,	0000		0	000	0000

Table 4.4 – 2 Translating Instructions