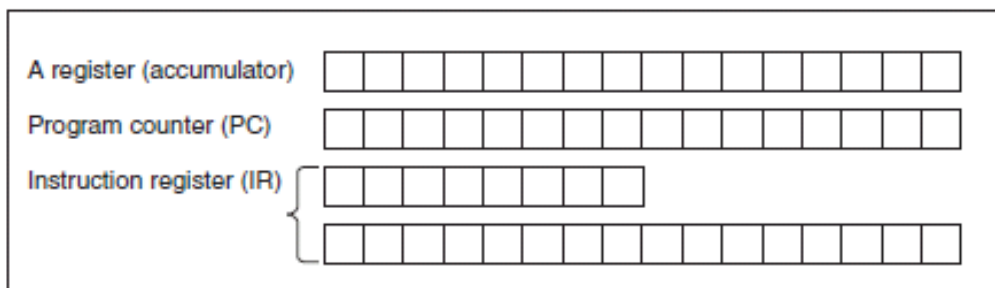
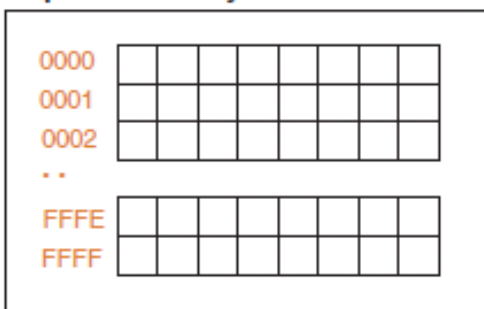


Pep8/Architecture

Pep8's CPU (as discussed in this chapter)



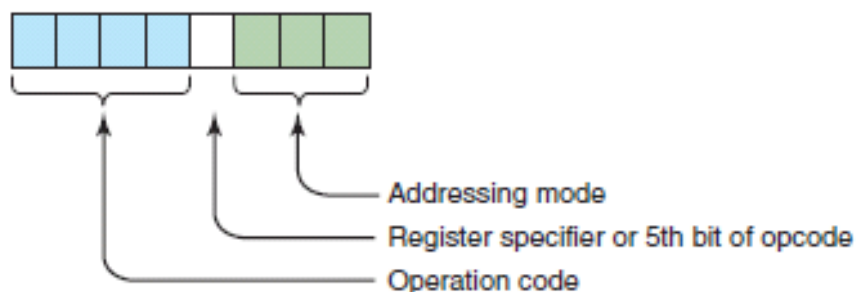
Pep8's Memory



Pep8 Instruction Format

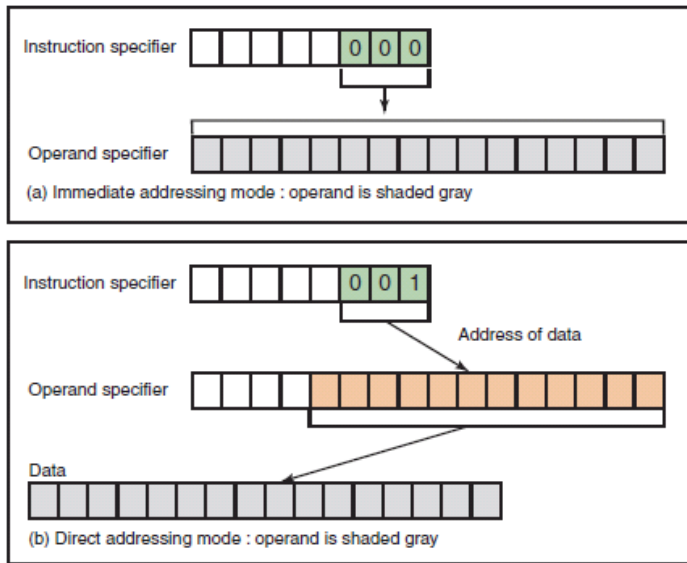


(a) The two parts of an instruction



(b) The instruction specifier part of an instruction

Pep/8 Addressing Modes



Pep/8 Instructions

Mnemonic	Opcode	Operand, Mode Specifier	Meaning of Instruction
STOP	0000		Stop Execution
LDA	1100	0x008B, i 0x008B, d	Load the operand 8B into register A Load the contents of location 8B into register A
STA	1110	0x008B, d	Store the contents of register A into location 8B
ADDA	0111	0x008B, i 0x008B, d	Add 008B to register A Add the contents of location 8B to register A
SUBA	1000	0x008B, i 0x008B, d	Subtract 008B from register A Subtract the contents of location 8B from register A
BR		label	Branch to the location specified in the operand specifier
BRLT		label	If the A register is less than zero, branch to the label
BREQ		label	If the A register is equal to zero, branch to the label
CPA		0x008B, i 0x008B, d	Compare the A register to 008B, set A to difference Compare the A register to the contents of location 008B
CHARI	01001	0x008B, d	Read a character and store it into location 8B
CHARO	01010	0x008B, i 0x008B, d	Write the character 8B Write the character stored in location 8B
DECI		0x008B, d	Read a decimal number and store it into location 8b
DECO		0x008B, i	Write the decimal number 139 (8B in hex)
DECO		0x008B, d	Write the decimal number stored in location 8B
STRO		0x008B,d	Write ASCII string (terminated by \x00) starting at 0x008B

Pseudo-op	Argument	Meaning
.ASCII	"Str\x00	Represents a string of ASCII bytes
.BLOCK	Number of bytes	Creates a block of bytes
.WORD	Value	Creates a word and stores a value in it
.END		Signals the end of the assembly-language program