“Symbolic constant”

In C, #define x 0

In ASM, .equx x,0

“symbolic constant” are not stored in memory. Different from “named constant.”

Advantage: no memory is used to store the value.

(Steve Gibson)

Big Endian: Server, SPARC, IBM mainframe, JVM

Little Endian: Client, Intel

Dec = 1289. Hex 509. Hex 00000509 Little endian

09

05

00

00

One hex= 4 bits = half of 8 bit byte = nibble

movl = long 4 bytes

movb = byte 1 byte

movw = word 2 bytes

mov $1, %eax

32 bits

mov $1,%ax

16 bits

-2^(n-1) , 2^(n-1) -1 = -2^(3-1) , 2^(3-1) -1 = -2^2, 2^2 -1 = -4,3

0 0 0 | 0

0 0 1 | 1

0 1 0 | 2

0 1 1 | 3

1 0 0 | -4

1 0 1 | -3

1 1 0 | -2

1 1 1 | -1

RISC store each instruction in one word

CISC use different sizes (bytes) for instructions











