

Assembly

Sizes of C Data Types in x86-64

C declaration	Size (bytes)	Intel data type	Assembly suffix
char	1	Byte	b
short	2	Word	w
int	4	Double word	l
long	8	Quad word	q
long long	8	Quad word	q
float	4	Single precision	s
double	8	Double precision	l

Instruction Data Types

MOV source, dest	Move data source -> dest
movb	Move 1 byte
movw	Move 2 bytes
movl	Move 4 bytes
movq	Move 8 bytes

x86-64 Integer Registers

%rax	%eax %ax %al (function result)	%r8	%r8d (fifth argument)
%rbx	%ebx %bx %bl	%r9	%r9d (sixth argument)
%rcx	%ecx %cx %cl (fourth argument)	%r10	%r10d
%rdx	%edx %dx %dl (third argument)	%r11	%r11d
%rsi	%esi %si %sil (second argument)	%r12	%r12d
%rdi	%edi %di %dil (first argument)	%r13	%r13d
%rsp	%esp %sp %bsl (stack pointer)	%r14	%r14d
%rbp	%ebp %bp %bpl	%r15	%r15d