Q: How many bytes of storage do the various fundamental data types take in the NEXTSTEP implementation?

Q: What are the maximum and minimum values for the various arithmetic data types?

A:

TYPE	SIZE	MINIMUM	MAXIMUM
char	1 byte = 8 bits	-128	127
unsigned char	1 byte = 8 bits	0	255
short	2 bytes = 16 bits	-32768	32767
unsigned short	2 bytes = 16 bits	0	65535
int	4 bytes = 32 bits	-2147483648	2147483647
long	4 bytes = 32 bits	-2147483648	2147483647
unsigned int	4 bytes = 32 bits	0	4294967295

unsigned long	4 bytes = 32 bits	0 4294967295
float	4 bytes = 32 bits	1.17549435e-38f 3.40282347e+38f
double	8 bytes = 64 bits	2.225073858507201e-308 1.797693134862316e+308

·   The **unsigned** and **signed** keywords don't change the size of the type they qualify.
·   Pointers occupy 4 bytes.
·   The **void** type occupies no space.

If you happen to forget any of the sizes, you can quickly remind yourself by running gdb and typing:

    print sizeof(type)

The minimum and maximum values are defined as constants in **<limits.h>** and **<float.h>**.

QA808

Valid for 1.0, 2.0, 3.0