- b A bit string (ascending bit order inside each byte, like vec()).
- B A bit string (descending bit order inside each byte).
- h A hex string (low nybble first).
- H A hex string (high nybble first).
- c A signed char value.
- C An unsigned char value. Only does bytes. See U for Unicode.
- s A signed short value.
- S An unsigned short value.

(This 'short' is \_exactly\_ 16 bits, which may differ from what a local C compiler calls 'short'. If you want native-length shorts, use the '!' suffix.)

- i A signed integer value.
- I An unsigned integer value.

(This 'integer' is \_at\_least\_ 32 bits wide. Its exact size depends on what a local C compiler calls 'int', and may even be larger than the 'long' described in the next item.)

- 1 A signed long value.
- L An unsigned long value.

(This 'long' is \_exactly\_ 32 bits, which may differ from what a local C compiler calls 'long'. If you want native-length longs, use the '!' suffix.)

- n An unsigned short in "network" (big-endian) order.
- N An unsigned long in "network" (big-endian) order.
- ${\tt v}$  An unsigned short in "VAX" (little-endian) order.
- V An unsigned long in "VAX" (little-endian) order.
   (These 'shorts' and 'longs' are \_exactly\_ 16 bits and
   \_exactly\_ 32 bits, respectively.)
- q A signed quad (64-bit) value.
- Q An unsigned quad value.

(Quads are available only if your system supports 64-bit integer values \_and\_ if Perl has been compiled to support those. Causes a fatal error otherwise.)

- j A signed integer value (a Perl internal integer, IV).
- J An unsigned integer value (a Perl internal unsigned integer, UV).
- f A single-precision float in the native format.
- d A double-precision float in the native format.
- F A floating point value in the native native format (a Perl internal floating point value, NV).
- D A long double-precision float in the native format.

  (Long doubles are available only if your system supports long double values \_and\_ if Perl has been compiled to support those. Causes a fatal error otherwise.)
- p A pointer to a null-terminated string.
- P A pointer to a structure (fixed-length string).