



## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'strtof.3' command***

### ***\$ man strtof.3***

STRTOF(3)            Linux Programmer's Manual            STRTOF(3)

#### NAME

strtod, strtof, strtold - convert ASCII string to floating-point number

#### SYNOPSIS

```
#include <stdlib.h>
```

```
double strtod(const char *nptr, char **endptr);
```

```
float strtof(const char *nptr, char **endptr);
```

```
long double strtold(const char *nptr, char **endptr);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

```
strtof(), strtold():
```

```
  _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

#### DESCRIPTION

The `strtod()`, `strtof()`, and `strtold()` functions convert the initial portion of the string pointed to by `nptr` to double, float, and long double representation, respectively.

The expected form of the (initial portion of the) string is optional leading white space as recognized by `isspace(3)`, an optional plus ('+') or minus sign ('-') and then either (i) a decimal number, or (ii) a hexadecimal number, or (iii) an infinity, or (iv) a NAN (not-a-number).

A decimal number consists of a nonempty sequence of decimal digits possibly containing a radix character (decimal point, locale-dependent, usually '.'), optionally followed by a decimal exponent. A decimal exponent consists of an 'E' or 'e', followed by an optional plus or minus



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?strtod(), strtod(), strtold() ? Thread safety ? MT-Safe locale ?

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CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C99.

strtod() was also described in C89.

NOTES

Since 0 can legitimately be returned on both success and failure, the calling program should set errno to 0 before the call, and then determine if an error occurred by checking whether errno has a nonzero value after the call.

In the glibc implementation, the n-char-sequence that optionally follows "NAN" is interpreted as an integer number (with an optional '0' or '0x' prefix to select base 8 or 16) that is to be placed in the mantissa component of the returned value.

EXAMPLES

See the example on the strtol(3) manual page; the use of the functions described in this manual page is similar.

SEE ALSO

atof(3), atoi(3), atol(3), nan(3), nanf(3), nanl(3), strfromd(3), strtod(3), strtoul(3)

COLOPHON

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