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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'modf.3p' command

\$ man modf.3p

MODF(3P) POSIX Programmer's Manual MODF(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

modf, modff, modfl ? decompose a floating-point number

SYNOPSIS

```
#include <math.h>

double modf(double x, double *iptr);

float modff(float value, float *iptr);

long double modfl(long double value, long double *iptr);
```

DESCRIPTION

The functionality described on this reference page is aligned with the ISO C standard. Any conflict between the requirements described here and the ISO C standard is unintentional. This volume of POSIX.1?2017 defers to the ISO C standard.

These functions shall break the argument *x* into integral and fractional parts, each of which has the same sign as the argument. It stores the integral part as a double (for the `modf()` function), a float (for the `modff()` function), or a long double (for the `modfl()` function), in the object pointed to by *iptr*.

RETURN VALUE

Upon successful completion, these functions shall return the signed fractional part of x .

If x is NaN, a NaN shall be returned, and $*iptr$ shall be set to a NaN.

If x is $?\text{Inf}$, $?0$ shall be returned, and $*iptr$ shall be set to $?\text{Inf}$.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

The `modf()` function computes the function result and $*iptr$ such that:

```
a = modf(x, iptr) ;
```

```
x == a+*iptr ;
```

allowing for the usual floating-point inaccuracies.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

`frexp()`, `isnan()`, `ldexp()`

The Base Definitions volume of POSIX.1?2017, `<math.h>`

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2017

MODF(3P)