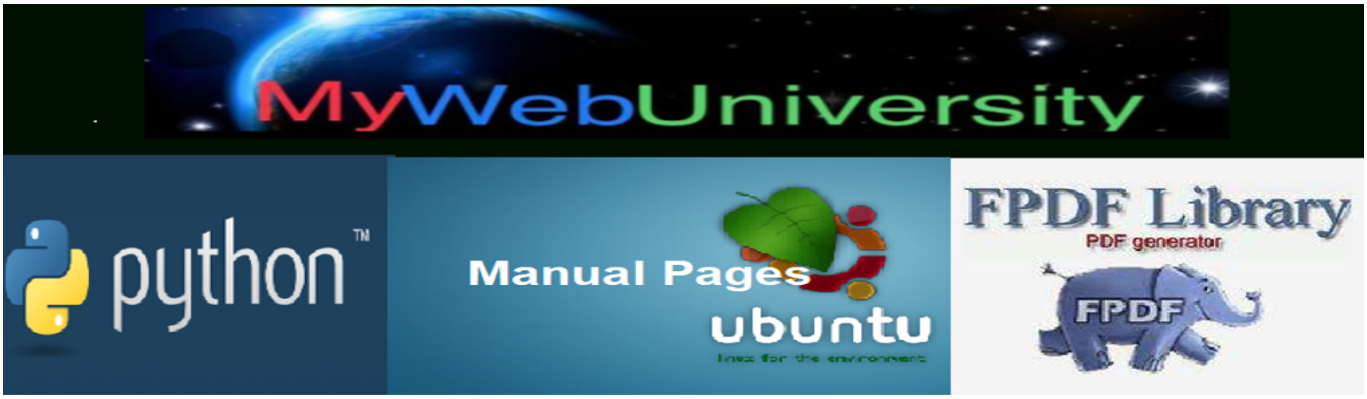

Rocky Enterprise Linux 9.2 Manual Pages on command 'atan.3'

$ man atan.3

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

NAME

atan, atanf, atanl - arc tangent function

SYNOPSIS

```
#include <math.h>

double atan(double x);

float atanf(float x);

long double atanl( long double x);
```

Link with -lm.

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

atanf(), atanl():

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
    || /* Since glibc 2.19: */ _DEFAULT_SOURCE
    || /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These functions calculate the principal value of the arc tangent of x; that is the value whose tangent is x.

RETURN VALUE

On success, these functions return the principal value of the arc tangent of x in radians; the return value is in the range [-pi/2, pi/2].

If x is a NaN, a NaN is returned.

If x is +0 (-0), +0 (-0) is returned.

If x is positive infinity (negative infinity), +pi/2 (-pi/2) is returned.

ERRORS

No errors occur.

ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

Interface	Attribute	Value
atan(), atanf(), atanl()	Thread safety	MT-Safe

CONFORMING TO

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

The variant returning double also conforms to SVr4, 4.3BSD, C89.

SEE ALSO

acos(3), asin(3), atan2(3), carg(3), catan(3), cos(3), sin(3), tan(3)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at https://www.kernel.org/doc/man-pages/.