NAME

nan, nanf, nanl − return 'Not a Number'

LIBRARY

Math library (*libm*, *−lm*)

SYNOPSIS

#include <math.h>

double nan(const char ****tagp*);**
float nanf(const char ****tagp*);**
long double nanl(const char ****tagp*);**

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

nan(), **nanf**(), **nanl**():
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

DESCRIPTION

These functions return a representation (determined by *tagp*) of a quiet NaN. If the implementation does not support quiet NaNs, these functions return zero.

The call *nan("char−sequence")* is equivalent to:

```
strtod("NAN(char−sequence)", NULL);
```

Similarly, calls to **nanf**() and **nanl**() are equivalent to analogous calls to **strtof**(3) and **strtold**(3).

The argument *tagp* is used in an unspecified manner. On IEEE 754 systems, there are many representations of NaN, and *tagp* selects one. On other systems it may do nothing.

VERSIONS

These functions were added in glibc 2.1.

ATTRIBUTES

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

Interface	Attribute	Value
nan(), **nanf**(), **nanl**()	Thread safety	MT-Safe locale

STANDARDS

C99, POSIX.1-2001, POSIX.1-2008. See also IEC 559 and the appendix with recommended functions in IEEE 754/IEEE 854.

SEE ALSO

isnan(3), **strtod**(3), **math_error**(7)