

**NAME**

**sincos**, **sincosf**, **sincosl** - sine and cosine functions

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include** <math.h>

*void*

**sincos**(*double x, double \*s, double \*c*);

*void*

**sincosf**(*float x, float \*s, float \*c*);

*void*

**sincosl**(*long double x, long double \*s, long double \*c*);

**DESCRIPTION**

The **sincos**(), **sincosf**(), and **sincosl**() functions compute the sine and cosine of  $x$ . Using these functions allows argument reduction to occur only once instead of twice with individual invocations of **sin**() and **cos**(). Like **sin**() and **cos**(), a large magnitude argument may yield a result with little or no significance.

**RETURN VALUES**

Upon returning from **sincos**(), **sincosf**(), and **sincosl**(), the memory pointed to by  $*s$  and  $*c$  are assigned the values of sine and cosine, respectively.

**SEE ALSO**

cos(3), sin(3)

**HISTORY**

These functions were added to FreeBSD 11.2 to aid in writing various complex function contained in ISO/IEC 9899:1999 ("ISO C99").