NAME

cproj, cprojf, cprojl − project into Riemann Sphere

LIBRARY

Math library (*libm*, *−lm*)

SYNOPSIS

#include <complex.h>

double complex cproj(double complex *z***);**
float complex cprojf(float complex *z***);**
long double complex cprojl(long double complex *z***);**

DESCRIPTION

These functions project a point in the plane onto the surface of a Riemann Sphere, the one-point compactification of the complex plane. Each finite point *z* projects to *z* itself. Every complex infinite value is projected to a single infinite value, namely to positive infinity on the real axis.

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
cproj(), **cprojf**(), **cprojl**()	Thread safety	MT-Safe

STANDARDS

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

NOTES

In glibc 2.11 and earlier, the implementation does something different (a *stereographic* projection onto a Riemann Sphere).

SEE ALSO

cabs(3), **complex**(7)