



## Red Hat Enterprise Linux Release 9.2 Manual Pages on 'cproj.3' command

**\$ man cproj.3**

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

### NAME

cproj, cprojf, cprojl - project into Riemann Sphere

### SYNOPSIS

```
#include <complex.h>

double complex cproj(double complex z);

float complex cprojf(float complex z);

long double complex cprojl(long double complex z);

Link with -lm.
```

### 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 first appeared in glibc in version 2.1.

### ATTRIBUTES

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

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?Interface                      ? Attribute                      ? Value                      ?

??

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

??

## CONFORMING TO

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)

## 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/>.

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