

NAME

longjmp, siglongjmp - nonlocal jump to a saved stack context

SYNOPSIS

```
#include <setjmp.h>
```

```
void longjmp(jmp_buf env, int val);
```

```
void siglongjmp(sigjmp_buf env, int val);
```

Feature Test Macro Requirements for glibc (see [feature_test_macros\(7\)](#)):

```
siglongjmp(): _POSIX_C_SOURCE >= 1 || _XOPEN_SOURCE || _POSIX_C_SOURCE
```

DESCRIPTION

longjmp() and [setjmp\(3\)](#) are useful for dealing with errors and interrupts encountered in a low-level subroutine of a program. **longjmp()** restores the environment saved by the last call of [setjmp\(3\)](#) with the corresponding *env* argument. After **longjmp()** is completed, program execution continues as if the corresponding call of [setjmp\(3\)](#) had just returned the value *val*. **longjmp()** cannot cause 0 to be returned. If **longjmp()** is invoked with a second argument of 0, 1 will be returned instead.

siglongjmp() is similar to **longjmp()** except for the type of its *env* argument. If, and only if, the [sigsetjmp\(3\)](#) call that set this *env* used a nonzero *savesigs* flag, **siglongjmp()** also restores the signal mask that was saved by [sigsetjmp\(3\)](#).

RETURN VALUE

These functions never return.

CONFORMING TO

C89, C99, and POSIX.1-2001 specify **longjmp()**. POSIX.1-2001 specifies **siglongjmp()**.

NOTES

POSIX does not specify whether **longjmp()** will restore the signal context (see [setjmp\(3\)](#) for some more details). If you want to portably save and restore signal masks, use [sigsetjmp\(3\)](#) and **siglongjmp()**.

The values of automatic variables are unspecified after a call to **longjmp()** if they meet all the following criteria:

- they are local to the function that made the corresponding [setjmp\(3\)](#) call;
- their values are changed between the calls to [setjmp\(3\)](#) and **longjmp()**; and
- they are not declared as *volatile*.

Analogous remarks apply for **siglongjmp()**.

longjmp() and **siglongjmp()** make programs hard to understand and maintain. If possible, an alternative should be used.

SEE ALSO

[setjmp\(3\)](#), [sigsetjmp\(3\)](#)

COLOPHON

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