

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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