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Rocky Enterprise Linux 9.2 Manual Pages on command 'bsd_signal.3'

\$ man bsd_signal.3

BSD_SIGNAL(3)

Linux Programmer's Manual

BSD_SIGNAL(3)

NAME

bsd_signal - signal handling with BSD semantics

SYNOPSIS

```
#include <signal.h>

typedef void (*sighandler_t)(int);

sighandler_t bsd_signal(int signum, sighandler_t handler);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

bsd_signal():

Since glibc 2.26:

```
_XOPEN_SOURCE >= 500
&& ! (_POSIX_C_SOURCE >= 200809L)
```

Glibc 2.25 and earlier:

```
_XOPEN_SOURCE
```

DESCRIPTION

The bsd_signal() function takes the same arguments, and performs the same task, as sig?nal(2).

The difference between the two is that bsd_signal() is guaranteed to provide reliable sig?nal semantics, that is: a) the disposition of the signal is not reset to the default when the handler is invoked; b) delivery of further instances of the signal is blocked while the signal handler is executing; and c) if the handler interrupts a blocking system call, then the system call is automatically restarted. A portable application cannot rely on signal(2) to provide these guarantees.

RETURN VALUE

The `bsd_signal()` function returns the previous value of the signal handler, or `SIG_ERR` on error.

ERRORS

As for `signal(2)`.

ATTRIBUTES

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

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?Interface ? Attribute ? Value ?

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?`bsd_signal()` ? Thread safety ? MT-Safe ?

??

CONFORMING TO

4.2BSD, POSIX.1-2001. POSIX.1-2008 removes the specification of `bsd_signal()`, recommend?ing the use of `sigaction(2)` instead.

NOTES

Use of `bsd_signal()` should be avoided; use `sigaction(2)` instead.

On modern Linux systems, `bsd_signal()` and `signal(2)` are equivalent. But on older systems, `signal(2)` provided unreliable signal semantics; see `signal(2)` for details.

The use of `sighandler_t` is a GNU extension; this type is defined only if the `_GNU_SOURCE` feature test macro is defined.

SEE ALSO

`sigaction(2)`, `signal(2)`, `sysv_signal(3)`, `signal(7)`

COLOPHON

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