

NAME

dup3 - duplicate an existing file descriptor

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

```
#include <fcntl.h>
#include <unistd.h>
```

int

```
dup3(int oldd, int newd, int flags);
```

DESCRIPTION

The **dup3()** function duplicates an existing object descriptor while allowing the value of the new descriptor to be specified.

The close-on-exec flag on the new file descriptor is determined by the `O_CLOEXEC` bit in *flags*.

If *oldd* != *newd* and *flags* == 0, the behavior is identical to `dup2(oldd, newd)`.

If *oldd* == *newd*, then **dup3()** fails, unlike `dup2(2)`.

RETURN VALUES

The value -1 is returned if an error occurs. The external variable *errno* indicates the cause of the error.

ERRORS

The **dup3()** function fails if:

- | | |
|----------|--|
| [EBADF] | The <i>oldd</i> argument is not a valid active descriptor or the <i>newd</i> argument is negative or exceeds the maximum allowable descriptor number |
| [EINVAL] | The <i>oldd</i> argument is equal to the <i>newd</i> argument. |
| [EINVAL] | The <i>flags</i> argument has bits set other than <code>O_CLOEXEC</code> . |

SEE ALSO

`accept(2)`, `close(2)`, `dup2(2)`, `fcntl(2)`, `getdtablesize(2)`, `open(2)`, `pipe(2)`, `socket(2)`, `socketpair(2)`

STANDARDS

The **dup3()** function does not conform to any standard.

HISTORY

The **dup3()** function appeared in FreeBSD 10.0.