

wait3(2) - Linux man page

Name

wait3, wait4 - wait for process to change state, BSD style

Synopsis

```
#include <sys/types.h>
#include <sys/time.h>
#include <sys/resource.h>
#include <sys/wait.h>
```

```
pid_t wait3(int *status, int options,
            struct rusage *rusage);
```

```
pid_t wait4(pid_t pid, int *status, int options,
            struct rusage *rusage);
```

Feature Test Macro Requirements for glibc (see [feature test macros](#)(7)):

```
wait3():
    _BSD_SOURCE || _XOPEN_SOURCE >= 500 || _XOPEN_SOURCE &&
    _XOPEN_SOURCE_EXTENDED
wait4():
    _BSD_SOURCE
```

Description

These functions are obsolete; use [waitpid](#)(2) or [waitid](#)(2) in new programs.

The **wait3()** and **wait4()** system calls are similar to [waitpid](#)(2), but additionally return resource usage information about the child in the structure pointed to by *rusage*.

Other than the use of the *rusage* argument, the following **wait3()** call:

```
wait3(status, options, rusage);
```

is equivalent to:

```
waitpid(-1, status, options);
```

Similarly, the following **wait4()** call:

```
wait4(pid, status, options, rusage);
```

is equivalent to:

```
waitpid(pid, status, options);
```

In other words, **wait3()** waits of any child, while **wait4()** can be used to select a specific children, on which to wait. See [wait\(2\)](#) for further details.

[Traduire](#)

If *rusage* is not NULL, the *struct rusage* to which it points will be filled with accounting information about the child. See [getrusage\(2\)](#) for details.

Return Value

As for [waitpid\(2\)](#).

Errors

As for [waitpid\(2\)](#).

Conforming To

4.3BSD.

SUSv1 included a specification of **wait3()**; SUSv2 included **wait3()**, but marked it LEGACY; SUSv3 removed it.

Notes

Including [<sys/time.h>](#) is not required these days, but increases portability. (Indeed, [<sys/resource.h>](#) defines the *rusage* structure with fields of type *struct timeval* defined in [<sys/time.h>](#).)

On Linux, **wait3()** is a library function implemented on top of the **wait4()** system call.

See Also

[fork\(2\)](#), [getrusage\(2\)](#), [sigaction\(2\)](#), [signal\(2\)](#), [wait\(2\)](#), [signal\(7\)](#)

Referenced By

[explain\(1\)](#), [explain\(3\)](#), [explain_wait3\(3\)](#), [explain_wait3_or_die\(3\)](#), [pmloop\(3\)](#), [time\(1\)](#)