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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'wait3.2' command

\$ man wait3.2

WAIT4(2) Linux Programmer's Manual WAIT4(2)

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 *wstatus, int options,
```

```
          struct rusage *rusage);
```

```
pid_t wait4(pid_t pid, int *wstatus, int options,
```

```
          struct rusage *rusage);
```

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

wait3():

Since glibc 2.26:

```
_DEFAULT_SOURCE ||
```

```
(_XOPEN_SOURCE >= 500 &&
```

```
  ! (_POSIX_C_SOURCE >= 200112L || _XOPEN_SOURCE >= 600))
```

From glibc 2.19 to 2.25:

```
_DEFAULT_SOURCE || _XOPEN_SOURCE >= 500
```

Glibc 2.19 and earlier:

```
_BSD_SOURCE || _XOPEN_SOURCE >= 500
```

wait4():

Since glibc 2.19:

`_DEFAULT_SOURCE`

Glibc 2.19 and earlier:

`_BSD_SOURCE`

DESCRIPTION

These functions are nonstandard; in new programs, the use of `waitpid(2)` or `waitid(2)` is preferable.

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(wstatus, options, rusage);
```

is equivalent to:

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

Similarly, the following `wait4()` call:

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

is equivalent to:

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

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

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>`.)

C library/kernel differences

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)`

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

Linux

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