

**NAME**

`fpathconf`, `pathconf` – get configuration values for files

**SYNOPSIS**

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

```
long fpathconf(int fd, int name);
```

```
long pathconf(const char *path, int name);
```

**DESCRIPTION**

**fpathconf()** gets a value for the configuration option *name* for the open file descriptor *fd*.

**pathconf()** gets a value for configuration option *name* for the filename *path*.

The corresponding macros defined in `<unistd.h>` are minimum values; if an application wants to take advantage of values which may change, a call to **fpathconf()** or **pathconf()** can be made, which may yield more liberal results.

Setting *name* equal to one of the following constants returns the following configuration options:

**\_PC\_LINK\_MAX**

The maximum number of links to the file. If *fd* or *path* refer to a directory, then the value applies to the whole directory. The corresponding macro is **\_POSIX\_LINK\_MAX**.

**\_PC\_MAX\_CANON**

The maximum length of a formatted input line, where *fd* or *path* must refer to a terminal. The corresponding macro is **\_POSIX\_MAX\_CANON**.

**\_PC\_MAX\_INPUT**

The maximum length of an input line, where *fd* or *path* must refer to a terminal. The corresponding macro is **\_POSIX\_MAX\_INPUT**.

**\_PC\_NAME\_MAX**

The maximum length of a filename in the directory *path* or *fd* that the process is allowed to create. The corresponding macro is **\_POSIX\_NAME\_MAX**.

**\_PC\_PATH\_MAX**

The maximum length of a relative pathname when *path* or *fd* is the current working directory. The corresponding macro is **\_POSIX\_PATH\_MAX**.

**\_PC\_PIPE\_BUF**

The maximum number of bytes that can be written atomically to a pipe or FIFO. For **fpathconf()**, *fd* should refer to a pipe or FIFO. For **pathconf()**, *path* should refer to a FIFO or a directory; in the latter case, the returned value corresponds to FIFOs created in that directory. The corresponding macro is **\_POSIX\_PIPE\_BUF**.

**\_PC\_CHOWN\_RESTRICTED**

This returns a positive value if the use of **chown(2)** and **fchown(2)** for changing a file's user ID is restricted to a process with appropriate privileges, and changing a file's group ID to a value other than the process's effective group ID or one of its supplementary group IDs is restricted to a process with appropriate privileges. According to POSIX.1, this variable shall always be defined with a value other than -1. The corresponding macro is **\_POSIX\_CHOWN\_RESTRICTED**.

If *fd* or *path* refers to a directory, then the return value applies to all files in that directory.

**\_PC\_NO\_TRUNC**

This returns nonzero if accessing filenames longer than **\_POSIX\_NAME\_MAX** generates an error. The corresponding macro is **\_POSIX\_NO\_TRUNC**.

**\_PC\_VDISABLE**

This returns nonzero if special character processing can be disabled, where *fd* or *path* must refer to a terminal.

**RETURN VALUE**

The return value of these functions is one of the following:

- \* On error, `-1` is returned and *errno* is set to indicate the cause of the error (for example, **EINVAL**, indicating that *name* is invalid).
- \* If *name* corresponds to a maximum or minimum limit, and that limit is indeterminate, `-1` is returned and *errno* is not changed. (To distinguish an indeterminate limit from an error, set *errno* to zero before the call, and then check whether *errno* is nonzero when `-1` is returned.)
- \* If *name* corresponds to an option, a positive value is returned if the option is supported, and `-1` is returned if the option is not supported.
- \* Otherwise, the current value of the option or limit is returned. This value will not be more restrictive than the corresponding value that was described to the application in `<unistd.h>` or `<limits.h>` when the application was compiled.

**ERRORS****EACCES**

(**pathconf()**) Search permission is denied for one of the directories in the path prefix of *path*.

**EBADF**

(**fpathconf()**) *fd* is not a valid file descriptor.

**EINVAL**

*name* is invalid.

**EINVAL**

The implementation does not support an association of *name* with the specified file.

**ELOOP**

(**pathconf()**) Too many symbolic links were encountered while resolving *path*.

**ENAMETOOLONG**

(**pathconf()**) *path* is too long.

**ENOENT**

(**pathconf()**) A component of *path* does not exist, or *path* is an empty string.

**ENOTDIR**

(**pathconf()**) A component used as a directory in *path* is not in fact a directory.

**ATTRIBUTES**

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

Interface	Attribute	Value
<b>fpathconf()</b> , <b>pathconf()</b>	Thread safety	MT-Safe

**CONFORMING TO**

POSIX.1-2001, POSIX.1-2008.

**NOTES**

Files with name lengths longer than the value returned for *name* equal to `_PC_NAME_MAX` may exist in the given directory.

Some returned values may be huge; they are not suitable for allocating memory.

**SEE ALSO**

**getconf(1)**, **open(2)**, **statfs(2)**, **confstr(3)**, **sysconf(3)**

**COLOPHON**

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