

IEEE Standards Interpretation for IEEE Std 1003.1™-2001 IEEE Standard Standard for Information Technology -- Portable Operating System Interface (POSIX®)

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Interpretation Request #97

Topic: pwd -P **Relevant Sections:** XCU pwd

The Environment Variables section of the pwd(1) command, <http://www.opengroup.org/onlinepubs/009695399/utilities/pwd.html>, is clear that execution of ``pwd -P'' shall set the environment variable PWD to a canonical form (no symlinks, ., or ..). But in practice, I was unable to find any system where pwd could change the environment, whether provided as a shell built-in (ash, bash, pdksh, zsh) or as a separate utility (GNU coreutils, Solaris 8). Additionally, I don't see how a separate utility would be capable of setting the environment of the invoking shell, which would implicitly require pwd to be a shell builtin; but unlike the cd utility, the Application Usage section of pwd is silent on this fact.

For example,

```
$ cd /tmp
$ mkdir a
$ ln -s a b
$ cd -L b
$ pwd -L
/tmp/b
$ echo $PWD
/tmp/b
$ pwd -P
/tmp/a
$ echo $PWD # pwd -P did not change $PWD
/tmp/b
```

Action:

Under the description of the use of the PWD variable by pwd, change:

"If the -P option is in effect, this variable shall be set to an absolute pathname of the current working directory..."

to:

"If the -L option is in effect, this variable is read as described in the DESCRIPTION. If the -P option is in effect, this variable may be set to an absolute pathname of the current working directory..."

Interpretation Response

The standards states the requirements for pwd, and conforming implementations must conform to this. However, concerns have been raised about this which are being referred to the sponsor.

Rationale for Interpretation

None.