

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 #99

Topic: df file operand **Relevant Sections:** XCU df

If the XSI option is supported, the operand may be the name of a special file:

file

A pathname of a file within the hierarchy of the desired file system. If a file other than a FIFO, a regular file, a directory, [XSI] [Option Start] or a special file representing the device containing the file system (for example, /dev/dsk/0s1) [Option End] is specified, the results are unspecified. Otherwise, df shall write the amount of free space in the file system containing the specified file operand.

However, even though the operand may name a special file, df is still limited to writing the amount of free space in the file system containing the specified file operand.

All the implementations I've been able to test actually give the space on the specified special file, rather than on the filesystem that contains the special file node (typically root).

e.g.

```
$ /usr/xpg4/bin/df -P /dev/dsk/c0t8d0s6
Filesystem 512-blocks Used Available Capacity Mounted on
/dev/dsk/c0t8d0s6 26140278 7754176 18124700 30% /arc
```

Action:

Change the sentence on 12182-12183 from

Otherwise, df shall write the amount of free space in the file system containing the specified file operand.

to

[XSI][Option Start] If the file operand names a special file containing a filesystem, df shall write the amount of free space in that file system.[Option End]. Otherwise, df shall write the amount of free space in the file system containing the specified file operand.

Interpretation Response

The standards states the requirements for the file operand for the df utility, 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.