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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ttyslot.3' command

$ man ttyslot.3

TTYSLOT(3) Linux Programmer's Manual TTYSLOT(3)

NAME

ttyslot - find the slot of the current user's terminal in some file

SYNOPSIS

#include <unistd.h> /See NOTES */

int ttyslot(void);

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

ttyslot():

Since glibc 2.24:

_DEFAULT_SOURCE

From glibc 2.20 to 2.23:

_DEFAULT_SOURCE ||

_XOPEN_SOURCE && _XOPEN_SOURCE < 500

Glibc 2.19 and earlier:

_BSD_SOURCE ||

_XOPEN_SOURCE && _XOPEN_SOURCE < 500

DESCRIPTION

The legacy function ttyslot() returns the index of the current user's entry in some file.

Now "What file?" you ask. Well, let's first look at some history.

Ancient history

There used to be a file /etc/ttys in UNIX V6, that was read by the init(1) program to find out what to do with each terminal line. Each

line consisted of three characters. The first character was either '0' or '1', where '0' meant "ignore". The second character denoted the terminal: '8' stood for "/dev/tty8". The third character was an argument to getty(8) indicating the sequence of line speeds to try ('-' was: start trying 110 baud). Thus a typical line was "18-". A hang on some line was solved by changing the '1' to a '0', signaling init, changing back again, and signaling init again.

In UNIX V7 the format was changed: here the second character was the argument to getty(8) indicating the sequence of line speeds to try ('0' was: cycle through 300-1200-150-110 baud; '4' was for the on-line console DECwriter) while the rest of the line contained the name of the tty. Thus a typical line was "14console".

Later systems have more elaborate syntax. System V-like systems have /etc/inittab instead.

Ancient history (2)

On the other hand, there is the file /etc/utmp listing the people currently logged in. It is maintained by login(1). It has a fixed size, and the appropriate index in the file was determined by login(1) using the ttyslot() call to find the number of the line in /etc/ttys (counting from 1).

The semantics of ttyslot

Thus, the function ttyslot() returns the index of the controlling terminal of the calling process in the file /etc/ttys, and that is (usually) the same as the index of the entry for the current user in the file /etc/utmp. BSD still has the /etc/ttys file, but System V-like systems do not, and hence cannot refer to it. Thus, on such systems the documentation says that ttyslot() returns the current user's index in the user accounting data base.

RETURN VALUE

If successful, this function returns the slot number. On error (e.g., if none of the file descriptors 0, 1 or 2 is associated with a terminal that occurs in this data base) it returns 0 on UNIX V6 and V7 and BSD-like systems, but -1 on System V-like systems.

ATTRIBUTES

For an explanation of the terms used in this section, see at? tributes(7).

?????????????????????????????????????
?Interface ? Attribute ? Value ?
?????????????????????????????????????
?ttyslot() ? Thread safety ? MT-Unsafe ?
?????????????????????????????????????

CONFORMING TO

SUSv1; marked as LEGACY in SUSv2; removed in POSIX.1-2001. SUSv2 re? quires -1 on error.

NOTES

The utmp file is found in various places on various systems, such as /etc/utmp, /var/adm/utmp, /var/run/utmp.

The glibc2 implementation of this function reads the file _PATH_TTYS, defined in <ttyent.h> as "/etc/ttys". It returns 0 on error. Since Linux systems do not usually have "/etc/ttys", it will always return 0.

On BSD-like systems and Linux, the declaration of ttyslot() is provided by <unistd.h>. On System V-like systems, the declaration is provided by <stdlib.h>. Since glibc 2.24, <stdlib.h> also provides the declara? tion with the following feature test macro definitions:

```
(_XOPEN_SOURCE >= 500 ||
        (_XOPEN_SOURCE && _XOPEN_SOURCE_EXTENDED))
    && ! (_POSIX_C_SOURCE >= 200112L || _XOPEN_SOURCE >= 600)
```

Minix also has fttyslot(fd).

SEE ALSO

getttyent(3), ttyname(3), utmp(5)

COLOPHON

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