

The Devpts Filesystem

Each mount of the devpts filesystem is now distinct such that ptys and their indices allocated in one mount are independent from ptys and their indices in all other mounts.

All mounts of the devpts filesystem now create a `/dev/pts/ptmx` node with permissions `0000`.

To retain backwards compatibility the a `ptmx` device node (aka any node created with `mknod name c 5 2`) when opened will look for an instance of devpts under the name `pts` in the same directory as the `ptmx` device node.

As an option instead of placing a `/dev/ptmx` device node at `/dev/ptmx` it is possible to place a symlink to `/dev/pts/ptmx` at `/dev/ptmx` or to bind mount `/dev/pts/ptmx` to `/dev/ptmx`. If you opt for using the devpts filesystem in this manner devpts should be mounted with the `ptmxmode=0666`, or `chmod 0666 /dev/pts/ptmx` should be called.

Total count of pty pairs in all instances is limited by sysctls:

```
kernel.pty.max = 4096      - global limit
kernel.pty.reserve = 1024 - reserved for filesystems mounted from the initial mount namespace
kernel.pty.nr             - current count of ptys
```

Per-instance limit could be set by adding mount option `max=<count>`.

This feature was added in kernel 3.4 together with `sysctl kernel.pty.reserve`.

In kernels older than 3.4 `sysctl kernel.pty.max` works as per-instance limit.