

OS Lab Assignment 2

Name: Keshav Garg

Id: 2018UCP1674

/proc Virtual file system

The files in the /proc directory hierarchy contain information about the system hardware and the processes that are running on the system. We can change configuration on the kernel by writing for some files which contains write permission.

The name of the proc file system stems from its original purpose on the Oracle Solaris operating system, which was to allow access by debugging tools to the data structures inside running processes. Linux added this interface and extended it to allow access to data structures in the kernel. Over time, /proc became quite disordered and the sysfs file system was created in an attempt to tidy it up.

Files under the /proc directory are virtual files that the kernel creates on demand to present a browsable view of the underlying data structures and system information. As such, /proc is an example of a virtual file system. Most virtual files are listed as zero bytes in size, but they contain a large amount of information when viewed.

Virtual files such as /proc/interrupts, /proc/meminfo, /proc/mounts, and /proc/partitions provide a view of the system's hardware. Others, such as /proc/filesystems and the files under /proc/sys provide information about the system's configuration and allow this configuration to be modified.

Files that contain information about related topics are grouped into virtual directories. For example, a separate directory exists in /proc for each process that is currently running on the system, and the directory's name corresponds to the numeric process ID. /proc/1 corresponds to the init process, which has a PID of 1.