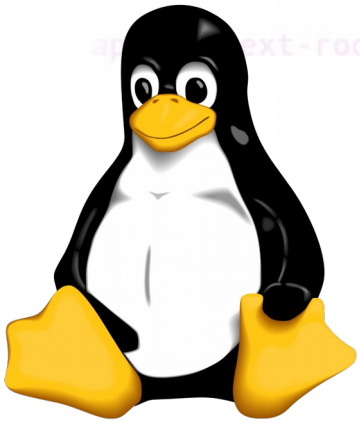
Linux

Command line applications

Lection №5

(version 1.0)



History

- History
- Shift-PgUp/PgDown

View file

- cat <filename>
- less <filename>
- more <filename>

Command	Action
Page Up or b	Scroll back one page
Page Down or space	Scroll forward one page
Up Arrow	Scroll up one line
Down Arrow	Scroll down one line
G	Move to the end of the text file
1G or g	Move to the beginning of the text file
/*characters*	Search forward to the next occurrence of *characters*
n	Search for the next occurrence of the previous search
h	Display help screen
q	Quit `less`

Manual / Help

- man <topic>
- man -a <topic>
- man -k <text>

Manipulating Files And Directories

- cp – Copy files and directories
- mv – Move/rename files and directories
- mkdir – Create directories
- rm – Remove files and directories
- ln – Create hard and symbolic links

Task 1

- Create /home/student/Task1
- Copy file /etc/passwd into Task1
- See content of the file
- Rename passwd to task1.txt
- Remove directory Task1
- Remove file task1.txt

How to shut down

- **shutdown** may be used to halt, power-off or reboot the machine
- **reboot** is used to reboot the machine

You need superuser rights to execute such command

Task 2

- Reboot the machine
- Reboot the machine by using *shutdown*
- Reboot the machine with 2 min. timeout
- Shutdown the machine
- Setup shutdown for the machine at the end of the lecture

Services

A Linux service is an application (or set of applications) that runs in the background waiting to be used, or carrying out essential tasks. I've already mentioned a couple of typical ones (Apache and MySQL). You will generally be unaware of services until you need them.

How can you tell what services are running, and more importantly, how can you set up your own?

Let's start by looking at how the system is set up, and in particular at the directory /etc/rc.d. Here you will find either a set of files named rc.0, rc.1, rc.2, rc.3, rc.4, rc.5, and rc.6, or a set of directories named rc0.d, rc1.d, rc2.d, rc3.d, rc4.d, rc5.d, and rc6.d. You will also find a file named /etc/inittab. The system uses these files (and/or directories) to control the services to be started.

Run Level

Run Level	Generic	Fedora Core	Slackware	Debian
0	Halt	Halt	Halt	Halt
1	Single-user mode	Single-user mode	Single-user mode	Single-user mode
2	Basic multi-user mode (without networking)	User definable (Unused)	User definable - configured the same as runlevel 3	Multi-user mode
3	Full (text based) multi-user mode	Multi-user mode	Multi-user mode - default Slackware runlevel	
4	Not used	Not used	X11 with KDM/GDM/XDM (session managers)	Multi-user mode
5	Full (GUI based) multi-user mode	Full multi-user mode (with an X-based login screen) - default runlevel	User definable - configured the same as runlevel 3	Multi-user mode
6	Reboot	Reboot	Reboot	Reboot

Run Level

Why would you want to change the runlevel? Normally you will only use full GUI or text multi-user mode -- runlevels 4 or 5. You'd only want runlevels 1 or 2 if you have some system problems and you want the most basic access. Runlevels 0 and 6 should never be used as a default (for obvious reasons -- you don't want the system to shutdown or reboot as soon as you turn it on). You can, of course, change mode whilst the system is running. Type init followed by the required runlevel e.g.:

init 6

This will reboot the system.

Services

Another way to start/stop services is to use command *services*.

- Start: **services *service_name* start**
- Stop: **services *service_name* stop**
- Restart: **services *service_name* restart**

Task 3

- Open firefox and url *http://localhost*
- Start service **apache2**
- Check url *http://localhost*
- Stop *service* ***apache2***
- Check url *http://localhost*

Sources

- https://www.linux.com/news/enterprise/systems-management/8116-an-introduction-to-services-runlevels-and-rcd-scripts