422 Linux Commands

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Manual pages, are an essential feature of **Unix-like operating systems**, including **Linux**. Manual pages are pre-installed and provide the official documentation and detailed descriptions of the system commands, utilities, and programming functions.

Sections: Manual pages are organized into different sections, each covering specific areas:

1. **Section 1: User Commands** – Commands for regular users (`ls`, `cd`, `cp`, `mv`, `rm`, `pwd`, ...).
2. **Section 2: System Calls** – Functions that provide services to programs by the kernel (`open`, `read`, `write`, `close`, `fork`, `exec`, ...).
3. **Section 3: Library Functions** – Functions provided by system libraries for use by programs (`printf`, `malloc`, `free`, `strcpy`, `strlen`, `fopen`, ...).
4. **Section 4: Devices and Drivers** – Commands related to devices and hardware management (`tty`, `shm`, `dmesg`, `lsblk`, `mount`, `lspci`, ...).
5. **Section 5: File Formats and Conventions** – Configuration files and file formats used by the system (`passwd`, `crontab`, `fstab`, `groupadd`, `ld.so.conf`, `hosts`, ...).
6. **Section 6: Games and Screens** – Fun or interactive programs (`nethack`, `fortune`, `cowsay`, `tetris`, `pacman`, `zombie`, ...).
7. **Section 7: Miscellaneous** – Commands that don't fit into other categories but are commonly used (`git`, `bash`, `grep`, `awk`, `sed`, `curl`, ...).
8. **Section 8: System Administration Commands** – Commands for system management and configuration (`systemctl`, `useradd`, `usermod`, `chmod`, `chown`, `service`, ...).

Structure of Manual Pages — Each manual-page is divided into several parts:

- **NAME**: Briefly describes the command or function.
- **SYNOPSIS**: Shows how to use the command, including syntax and options.
- **DESCRIPTION**: Provides more detailed information about the command or function.
- **OPTIONS**: Lists and explains the options/flags that can be used with the command.
- **EXAMPLES**: Gives practical examples of using the command.
- **SEE ALSO**: Provides references to related commands or topics.

A typical Linux distribution provides between 1000 and 2000 commands. This document compiles 422 Linux commands, each with a one-line description.

List of 422 Linux commands

1. **a2disconf** – Disable an Apache configuration file. `$ sudo a2disconf example.conf`
2. **a2dismod** – Disable an Apache module. `$ sudo a2dismod rewrite`
3. **a2dissite** – Disable an Apache site. `$ sudo a2dissite example.com`
4. **a2enconf** – Enable an Apache configuration file. `$ sudo a2enconf example.conf`
5. **a2enmod** – Enable an Apache module. `$ sudo a2enmod rewrite`
6. **a2ensite** – Enable an Apache site. `$ sudo a2ensite example.com`
7. **a2query** – Query Apache configuration. `$ a2query -m rewrite`
8. **aa-enabled** – Check if AppArmor is enabled. `$ aa-enabled`
9. **aa-exec** – Execute a command under an AppArmor profile. `$ aa-exec -p profile_name command`
10. **aa-status** – Display AppArmor status. `$ aa-status`
11. **aa-teardown** – Unload all AppArmor profiles. `$ sudo aa-teardown`
12. **ab** – Apache HTTP server benchmarking tool. `$ ab -n 100 -c 10 http://localhost/`
13. **ac** – Print the total connect time for users. `$ ac -p`
14. **accton** – Turn on process accounting. `$ sudo accton /var/log/account/pacct`
15. **add-apt-repository** – Add a repository to APT sources. `$ sudo add-apt-repository ppa:example/ppa`
16. **addpart** – Add a partition to a device. `$ sudo addpart /dev/sda 3 1024 2048`
17. **agetty** – Alternative Linux getty. `$ agetty tty1 9600`
18. **alias** – Create shortcuts for longer commands. `$ alias ll='ls -l'`
19. **alsamixer** – ALSA soundcard mixer. `$ alsamixer`
20. **amidi** – ALSA MIDI utility. `$ amidi -l`
21. **amixer** – ALSA soundcard mixer (command-line). `$ amixer sset Master 50%`
22. **anacron** – Run periodic jobs. `$ sudo anacron`
23. **apache2ctl** – Apache HTTP server control interface. `$ sudo apache2ctl restart`
24. **apg** – Generate random passwords. `$ apg -m 12`
25. **apm** – Advanced Power Management utility. `$ apm`
26. **apmsleep** – Suspend or hibernate using APM. `$ sudo apmsleep suspend`
27. **apparmor_parser** – Load AppArmor profiles. `$ sudo apparmor_parser -r /etc/apparmor.d/profile`
28. **apply** – Apply a command to a set of arguments. `$ apply "echo" file1 file2`
29. **apropos** – Search the man pages for a keyword. `$ apropos copy`
30. **apt-cache** – Query the APT cache (Debian/Ubuntu). `$ apt-cache search vim`
31. **apt-get** – APT package handling utility (Debian/Ubuntu). `$ sudo apt-get install vim`
32. **apt-key** – Manage keys for APT repositories. `$ sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys <key>`
33. **apt-mark** – Mark or unmark packages as automatically installed. `$ sudo apt-mark auto package_name`
34. **apt-sortpkgs** – Sort APT package lists. `$ apt-sortpkgs file.list`
35. **apt** – Package management system for Debian-based distributions. `$ sudo apt update`
36. **ar** – Create, modify, and extract from archives. `$ ar x archive.a`
37. **arch** – Display machine architecture. `$ arch`
38. **arj** – Compress or extract .arj archives. `$ arj x archive.arj`

39. **arping** – Send ARP requests to a neighbor. `$ arping -I eth0 192.168.1.1`
40. **as** – The GNU assembler. `$ as -o file.o file.s`
41. **at** – Schedule a one-time task to be executed later. `$ at 09:00 < command`
42. **atq** – Display the at job queue. `$ atq`
43. **atrm** – Remove a job from the at queue. `$ atrm 1`
44. **atrun** – Run at jobs. `$ sudo atrun`
45. **authconfig** – Configure system authentication. `$ sudo authconfig --update`
46. **authselect** – Configure system authentication (modern replacement for authconfig). `$ sudo authselect select sssd`
47. **autoconf** – Generate configuration scripts. `$ autoconf`
48. **automake** – Generate Makefile.in files. `$ automake`
49. **autoreconf** – Rebuild configure scripts. `$ autoreconf`
50. **autoscan** – Generate a preliminary configure.ac. `$ autoscan`
51. **autoupdate** – Update configure.ac to newer standards. `$ autoupdate`
52. **awk** – Pattern scanning and processing language. `$ awk '{print $1}' file.txt`
53. **axel** – Lightweight command-line download accelerator. `$ axel http://example.com/file.txt`
54. **badblocks** – Search for bad blocks on a device. `$ sudo badblocks /dev/sda`
55. **base32** – Encode or decode data in base32. `$ echo "hello" | base32`
56. **base64** – Encode or decode data in base64. `$ echo "hello" | base64`
57. **basename** – Strip directory and suffix from filenames. `$ basename /path/to/file.txt`
58. **basenc** – Encode or decode data in various formats. `$ basenc --base64 file.txt`
59. **bashbug** – Report a bug in Bash. `$ bashbug`
60. **batch** – Execute commands when system load levels permit. `$ batch`
61. **bc** – Command-line calculator. `$ echo "5+2" | bc`
62. **bccmd** – Send BlueCore commands. `$ bccmd -t bcsp /dev/ttyS0`
63. **bchunk** – Convert a CD image to an ISO file. `$ bchunk file.bin file.cue file.iso`
64. **bdftopcf** – Convert BDF fonts to PCF format. `$ bdftopcf font.bdf`
65. **beep** – Produce a beep sound. `$ beep`
66. **bg** – Resume a suspended job in the background. `$ bg %1`
67. **bind** – Show or set key bindings for the shell. `$ bind -P`
68. **bison** – GNU parser generator. `$ bison file.y`
69. **blkdiscard** – Discard sectors on a device. `$ sudo blkdiscard /dev/sda`
70. **blkid** – Locate/print block device attributes. `$ blkid /dev/sda1`
71. **blockdev** – Call block device ioctls. `$ sudo blockdev --report /dev/sda`
72. **bootctl** – Manage systemd-boot. `$ sudo bootctl status`
73. **brctl** – Manage Ethernet bridges. `$ sudo brctl addbr br0`
74. **break** – Exit from a loop. `$ for i in 1 2 3; do break; done`
75. **bsdtar** – Manipulate tar archives. `$ bsdtar -xvf archive.tar`
76. **btrfs** – Manage Btrfs filesystems. `$ sudo btrfs subvolume create /mnt/subvol`
77. **bunzip2** – Decompress .bz2 files. `$ bunzip2 file.bz2`
78. **busctl** – Introspect the D-Bus. `$ busctl list`
79. **byobu** – Text-based window manager and terminal multiplexer. `$ byobu`
80. **bzcat** – Decompress `.bz2` files. `$ bzcat file.bz2`

81. **bzcmp** – Compare bzip2 compressed files. `$ bzcmp file1.bz2 file2.bz2`
82. **bzdiff** – Compare `.bz2` files. `$ bzdiff file1.bz2 file2.bz2`
83. **bzexe** – Compress executable files. `$ bzexe file`
84. **bzgrep** – Search `.bz2` files with `grep`. `$ bzgrep "pattern" file.bz2`
85. **bzip2** – Compress files using Burrows-Wheeler block sorting. `$ bzip2 file.txt`
86. **bzip2recover** – Recover data from a corrupted `.bz2` file. `$ bzip2recover file.bz2`
87. **bzless** – View .bz2 files with less. `$ bzless file.bz2`
88. **bzmore** – View .bz2 files page by page. `$ bzmore file.bz2`
89. **c99** – Compile C programs. `$ c99 -o program program.c`
90. **cal** – Display a calendar. `$ cal 2025`
91. **calibrate_ppa** – Calibrate a PPA (Pulse Per Second) device. `$ sudo calibrate_ppa`
92. **cancel** – Cancel a print job. `$ cancel 123`
93. **capinfo** – Display capabilities of a file. `$ capinfo file`
94. **capsh** – Set or get capabilities for a process. `$ capsh --print`
95. **captoinfo** – Convert termcap to terminfo. `$ captoinfo file.termcap`
96. **case** – Conditional statement in shell scripts. `$ case $var in pattern) command;; esac`
97. **cat** – Concatenate and display file contents. `$ cat file.txt`
98. **catman** – Create or update the manual page cache. `$ sudo catman`
99. **cd** – Change the current directory. `$ cd /home/user`
100. **cdrecord** – Record CDs or DVDs. `$ cdrecord dev=/dev/cdrom file.iso`
101. **cfdisk** – Partition table manipulator. `$ sudo cfdisk /dev/sda`
102. **chattr** – Change file attributes on a Linux file system. `$ chattr +i file.txt`
103. **chcon** – Change the SELinux security context of a file. `$ chcon -t httpd_sys_content_t file.txt`
104. **chgrp** – Change the group ownership of a file. `$ chgrp group file.txt`
105. **chkconfig** – Manage system services. `$ sudo chkconfig --list`
106. **chmod** – Change file permissions. `$ chmod 755 file.sh`
107. **chown** – Change file owner and group. `$ chown user:group file.txt`
108. **chroot** – Change root directory for a command. `$ chroot /newroot /bin/bash`
109. **cksum** – Calculate a CRC checksum of a file. `$ cksum file.txt`
110. **clear** – Clear the terminal screen. `$ clear`
111. **cmp** – Compare two files byte by byte. `$ cmp file1.txt file2.txt`
112. **comm** – Compare two sorted files line by line. `$ comm file1.txt file2.txt`
113. **consoletype** – Display the type of terminal in use. `$ consoletype`
114. **continue** – Resume the next iteration of a loop. `$ continue`
115. **cp** – Copy files or directories. `$ cp file1.txt file2.txt`
116. **cpio** – Copy files to and from archives. `$ cpio -o < files.txt`
117. **cron** – Daemon to execute scheduled commands. `$ cron`
118. **crontab** – Edit the cron jobs for the current user. `$ crontab -e`
119. **csplit** – Split a file into sections based on context. `$ csplit file.txt /pattern/ {2}`
120. **ctrlaltdel** – Reboot the system using a keyboard shortcut. `$ ctrlaltdel`
121. **curl** – Transfer data with URLs. `$ curl -O http://example.com/file.txt`
122. **cut** – Remove sections from each line of files. `$ cut -d, -f1 file.csv`
123. **date** – Display or set the system date and time. `$ date "+%Y-%m-%d"`

124. **dc** – Desk calculator for arbitrary precision arithmetic. `$ echo "2 3 + p" | dc`
125. **dd** – Copy and convert files. `$ dd if=/dev/sda of=/dev/sdb`
126. **declare** – Declare variables and their attributes. `$ declare -i num=10`
127. **df** – Report disk space usage. `$ df -h`
128. **diff3** – Compare three files line by line. `$ diff3 file1.txt file2.txt file3.txt`
129. **diff** – Compare files line by line. `$ diff file1.txt file2.txt`
130. **dig** – DNS lookup utility. `$ dig google.com`
131. **dir** – List directory contents. `$ dir /home/user`
132. **dircolors** – Set terminal color schemes for `ls`. `$ dircolors`
133. **dirname** – Strip the last component from the file name. `$ dirname /path/to/file.txt`
134. **dirs** – Display the directory stack. `$ dirs`
135. **dmesg** – Print or control the kernel ring buffer. `$ dmesg | grep error`
136. **dnf** – Package manager for Fedora and Red Hat. `$ sudo dnf install vim`
137. **docker** – Manage Docker containers and images. `$ docker run hello-world`
138. **dpkg** – Debian package manager for installing, removing, and querying packages. `$ dpkg -i package.deb`
139. **dstat** – Versatile resource statistics tool. `$ dstat`
140. **du** – Estimate file space usage. `$ du -sh /home/user`
141. **echo** – Display a line of text. `$ echo "Hello, world!"`
142. **egrep** – Extended regular expressions for `grep`. `$ egrep '^test' file.txt`
143. **eject** – Eject removable media like CD/DVD. `$ eject`
144. **enable** – Enable a shell built-in command. `$ enable -n echo`
145. **env** – Display environment variables. `$ env`
146. **ethtool** – Display or change network interface settings. `$ ethtool eth0`
147. **eval** – Evaluate and execute arguments as a command. `$ eval echo hello`
148. **ex** – Ex editor, part of the vi editor. `$ ex file.txt`
149. **exec** – Execute a command in the current shell. `$ exec ls -l`
150. **exit** – Exit the shell. `$ exit`
151. **expand** – Convert tabs to spaces. `$ expand file.txt`
152. **expect** – Automate interactive applications. `$ expect script.exp`
153. **export** – Set environment variables. `$ export PATH=$PATH:/new/path`
154. **expr** – Evaluate expressions. `$ expr 3 + 2`
155. **factor** – Factorize a number. `$ factor 28`
156. **fakechroot** – Run a command with fake root privileges. `$ fakechroot ls`
157. **false** – Do nothing, return failure status. `$ false`
158. **fc** – Fix or re-edit commands from the history. `$ fc`
159. **fdisk** – Partition table manipulator for Linux. `$ fdisk /dev/sda`
160. **fg** – Bring a background job to the foreground. `$ fg %1`
161. **fgrep** – Fixed-string search for `grep`. `$ fgrep "pattern" file.txt`
162. **file** – Determine file type. `$ file file.txt`
163. **find** – Search for files in a directory hierarchy. `$ find /home -name '*.txt'`
164. **finger** – User information lookup program. `$ finger user`
165. **fmt** – Simple text formatter. `$ fmt file.txt`

166. **fold** – Wrap text to a specified width. `$ fold -w 80 file.txt`
167. **for** – Loop through a list of values. `$ for i in {1..5}; do echo $i; done`
168. **free** – Display memory usage. `$ free -h`
169. **fsck** – File system consistency check. `$ fsck /dev/sda1`
170. **ftp** – File Transfer Protocol client. `$ ftp ftp.example.com`
171. **function** – Define a function in the shell. `$ function myfunc { echo "Hello"; }`
172. **fuser** – Identify processes using a file. `$ fuser file.txt`
173. **g++** – GNU C++ compiler. `$ g++ file.cpp -o file`
174. **gawk** – Pattern scanning and processing language. `$ gawk '{print $1}' file.txt`
175. **gcc** – GNU C compiler. `$ gcc -o program program.c`
176. **gdb** – GNU debugger. `$ gdb ./program`
177. **gedit** – GUI text editor for GNOME. `$ gedit file.txt`
178. **getent** – Get entries from databases. `$ getent passwd user`
179. **getfacl** – Get file access control lists. `$ getfacl file.txt`
180. **getopt** – Parse command-line options. `$ getopt -o ab: file.txt`
181. **getopts** – Parse positional parameters in a shell script. `$ getopts "a:b:" opt`
182. **git** – Version control system for tracking changes in files. `$ git status`
183. **grep** – Search for patterns in files. `$ grep 'pattern' file.txt`
184. **groupadd** – Add a new group. `$ sudo groupadd mygroup`
185. **groupdel** – Delete a group. `$ sudo groupdel mygroup`
186. **groupmod** – Modify a group. `$ sudo groupmod -n newgroup oldgroup`
187. **groups** – Show user groups. `$ groups username`
188. **gunzip** – Decompress `.gz` files. `$ gunzip file.gz`
189. **gzip** – Compress files using the gzip algorithm. `$ gzip file.txt`
190. **halt** – Halt the system immediately. `$ halt`
191. **hash** – Remember the full path of a command. `$ hash`
192. **hd** – Display files in hexadecimal format. `$ hd file.txt`
193. **head** – Output the first part of files. `$ head -n 10 file.txt`
194. **history** – Show the history of commands used in the shell. `$ history`
195. **host** – DNS lookup utility. `$ host google.com`
196. **hostname** – Show or set the system's hostname. `$ hostname`
197. **hostnamectl** – Control the system hostname. `$ hostnamectl set-hostname newhostname`
198. **htop** – Interactive process viewer. `$ htop`
199. **iconv** – Convert between different character encodings. `$ iconv -f utf-8 -t iso-8859-1 file.txt`
200. **id** – Print user and group information. `$ id`
201. **ifconfig** – Configure network interfaces. `$ ifconfig eth0`
202. **ifdown** – Shut down a network interface. `$ sudo ifdown eth0`
203. **ifup** – Bring a network interface up. `$ sudo ifup eth0`
204. **inotifywait** – Wait for changes to files using inotify. `$ inotifywait /path/to/file`
205. **install** – Copy files and set attributes. `$ install -m 755 file /path/to/destination`
206. **inxi** – Display system information. `$ inxi -Fxz`
207. **iostat** – CPU and I/O statistics. `$ iostat`
208. **iotop** – Display real-time I/O usage by processes. `$ iotop`

209. **`ip addr`** – Show or manipulate IP addresses. `$ ip addr show`
210. **`ip link`** – Show or manipulate network interfaces. `$ ip link show`
211. **`ip route`** – Show or manipulate IP routing. `$ ip route show`
212. **`ip rule`** – Show or manipulate routing policy database. `$ ip rule show`
213. **`ip tunnel`** – Show or configure tunnels. `$ ip tunnel add tun0 mode gre remote 192.168.1.1 local 192.168.1.2`
214. **`ip`** – Show/manipulate network interfaces, routing, etc. `$ ip addr show`
215. **`ipcalc`** – Perform IP calculations. `$ ipcalc 192.168.0.0/24`
216. **`iptables`** – User-space utility for configuring Linux kernel firewall. `$ sudo iptables -L`
217. **`is`** – List information about a file or directory. `$ is file.txt`
218. **`isoinfo`** – Display information about ISO-9660 filesystems. `$ isoinfo -i file.iso -d`
219. **`iw`** – Show or manipulate wireless devices and settings. `$ iw dev wlan0 link`
220. **`iwconfig`** – Configure wireless network interfaces. `$ iwconfig wlan0 essid "Network"`
221. **`iwlist`** – Get more detailed wireless network information. `$ iwlist wlan0 scan`
222. **`jobs`** – Display active jobs in the current shell. `$ jobs`
223. **`join`** – Join lines of two files on a common field. `$ join file1.txt file2.txt`
224. **`journalctl`** – Query systemd journal logs. `$ journalctl -u apache2`
225. **`jq`** – Command-line JSON processor. `$ jq '.name' file.json`
226. **`kill`** – Terminate a process. `$ kill 1234`
227. **`killall`** – Kill processes by name. `$ killall firefox`
228. **`kmod`** – Manage kernel modules. `$ kmod list`
229. **`last`** – Show the last logins of users. `$ last`
230. **`less`** – View file contents interactively. `$ less file.txt`
231. **`let`** – Perform arithmetic operations in the shell. `$ let x=5+3`
232. **`ln`** – Create hard or symbolic links. `$ ln -s /path/to/file symlink`
233. **`loadkeys`** – Change the keyboard layout. `$ loadkeys us`
234. **`local`** – Declare local variables in shell functions. `$ local var=10`
235. **`locate`** – Find files by name using a database. `$ locate file.txt`
236. **`login`** – Begin a session on the system. `$ login`
237. **`logname`** – Print the name of the current user. `$ logname`
238. **`ls`** – List directory contents. `$ ls -l`
239. **`lsattr`** – List file attributes on a Linux second extended file system. `$ lsattr file.txt`
240. **`lsblk`** – List information about block devices. `$ lsblk`
241. **`lscpu`** – Display information about the CPU architecture. `$ lscpu`
242. **`lshw`** – Display detailed hardware information. `$ lshw -short`
243. **`lsmod`** – Show the status of modules in the Linux kernel. `$ lsmod`
244. **`lsof`** – List open files. `$ lsof -i`
245. **`lspci`** – List all PCI devices. `$ lspci`
246. **`lsscsi`** – List SCSI devices. `$ lsscsi`
247. **`lssubsys`** – Show system device hierarchies. `$ lssubsys`
248. **`lsusb`** – List all USB devices. `$ lsusb`
249. **`machinectl`** – Control local and remote containers. `$ machinectl list`
250. **`man`** – Display the manual pages for a command. `$ man ls`

251. **md5sum** – Calculate and check MD5 checksums. `$ md5sum file.txt`
252. **mii-tool** – Query or control the MII status of network interfaces. `$ mii-tool eth0`
253. **mkdir** – Create directories. `$ mkdir mydir`
254. **mkfifo** – Create a named pipe (FIFO). `$ mkfifo mypipe`
255. **mkfs** – Create a file system. `$ sudo mkfs.ext4 /dev/sda1`
256. **mkisofs** – Create an ISO 9660 filesystem image. `$ mkisofs -o image.iso /path/to/files`
257. **mknod** – Create a special file. `$ mknod mydevice c 89 1`
258. **mktemp** – Create a temporary file or directory. `$ mktemp`
259. **more** – View file contents page by page. `$ more file.txt`
260. **mount -o loop** – Mount an ISO image as a file system. `$ sudo mount -o loop file.iso /mnt`
261. **mount** – Mount a file system. `$ mount /dev/sda1 /mnt`
262. **mpstat** – Report CPU statistics. `$ mpstat -P ALL`
263. **mtr** – Network diagnostic tool combining `ping` and `traceroute`. `$ mtr google.com`
264. **mv** – Move or rename files or directories. `$ mv file.txt /path/to/destination/`
265. **namei** – Follow a path to its components. `$ namei -l /path/to/file`
266. **nano** – Command-line text editor. `$ nano file.txt`
267. **nc** – Netcat, a utility for reading from and writing to network connections. `$ nc -l 1234`
268. **netcat** – Another name for `nc`. `$ netcat -z -v 192.168.1.1 1-1000`
269. **netstat** – Display network connections, routing tables, and more. `$ netstat -tuln`
270. **newgrp** – Log in to a new group. `$ newgrp staff`
271. **nice** – Start a process with a modified scheduling priority. `$ nice -n 10 command`
272. **nl** – Number lines of a file. `$ nl file.txt`
273. **nm** – List symbols from object files. `$ nm /path/to/file.o`
274. **nmcli** – Command-line interface for NetworkManager. `$ nmcli device status`
275. **nohup** – Run a command immune to hangups. `$ nohup command &`
276. **nproc** – Show the number of processing units available. `$ nproc`
277. **nslookup** – Query Internet name servers interactively. `$ nslookup google.com`
278. **ntpdate** – Synchronize the system clock with a remote NTP server. `$ sudo ntpdate time.google.com`
279. **numactrl** – Control NUMA (Non-Uniform Memory Access) policy. `$ numactrl --interleave=all`
280. **od** – Dump files in octal, hexadecimal, or ASCII. `$ od -c file.txt`
281. **parted** – A command-line partition manipulation program. `$ parted /dev/sda`
282. **passwd** – Change user password. `$ passwd user`
283. **paste** – Merge lines of files. `$ paste file1.txt file2.txt`
284. **patch** – Apply a patch file to source code. `$ patch < patchfile.diff`
285. **pathchk** – Check the validity of a file name or path. `$ pathchk /path/to/file`
286. **pg** – View file contents with scrolling and searching. `$ pg file.txt`
287. **pidof** – Find the PID of a running program. `$ pidof firefox`
288. **ping** – Send ICMP echo requests to network hosts. `$ ping google.com`
289. **pkill** – Kill processes by name. `$ pkill firefox`
290. **pl** – Perl pager for reading output. `$ pl file.txt`
291. **pluto** – Network time protocol for synchronization. `$ pluto`
292. **pmap** – Display memory usage of processes. `$ pmap 1234`
293. **pmount** – Mount removable devices automatically. `$ pmount /dev/sdb1`

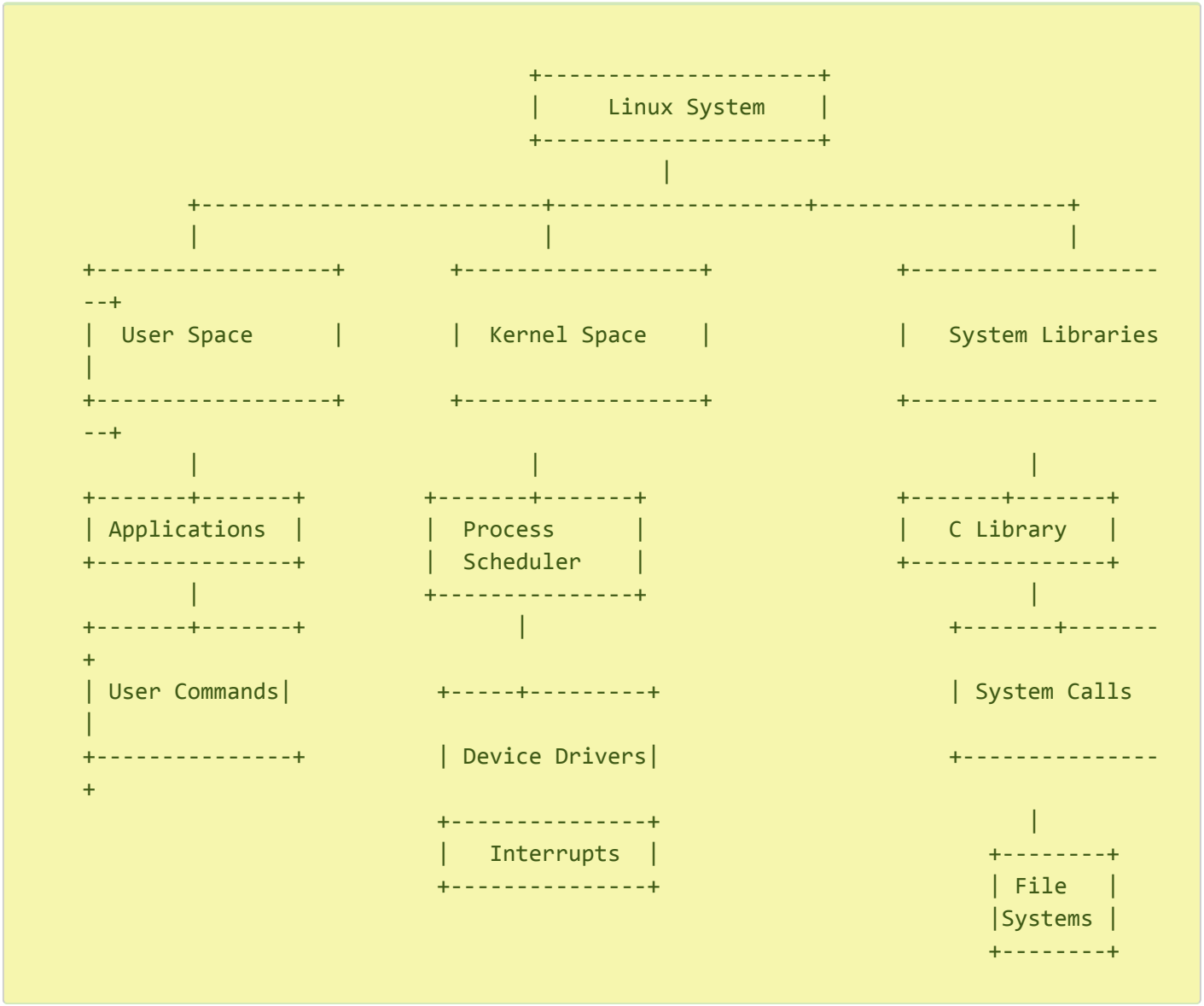
294. **popd** – Pop a directory from the directory stack. `$ popd`
295. **poweroff** – Shut down the system immediately. `$ poweroff`
296. **pr** – Format text files for printing. `$ pr file.txt`
297. **printenv** – Print all or specific environment variables. `$ printenv PATH`
298. **printf** – Format and print data. `$ printf "Hello, %s!\n" "world"`
299. **ps** – Report a snapshot of current processes. `$ ps aux`
300. **pstree** – Display processes in a tree format. `$ pstree`
301. **ptables** – Display current network port tables. `$ ptables`
302. **pushd** – Save the current directory and change to a new one. `$ pushd /home/user`
303. **pwd** – Print the current working directory. `$ pwd`
304. **quota** – Display disk usage and limits for users. `$ quota -u user`
305. **quotacheck** – Check file system disk quotas. `$ quotacheck -avug`
306. **ram** – Manage system memory (less common, might be specific to certain distributions). `$ ram status`
307. **ramdisk** – Create a RAM-based file system. `$ ramdisk /mnt/ramdisk`
308. **read** – Read a line of input from standard input. `$ read varname`
309. **reboot** – Reboot the system. `$ sudo reboot`
310. **rename** – Rename files according to regular expressions. `$ rename 's/.txt/.bak/' *.txt`
311. **renice** – Change the priority of running processes. `$ renice -n 10 -p 1234`
312. **reorder** – Reorder the lines in a file based on a key. `$ reorder file.txt`
313. **reset** – Reset the terminal. `$ reset`
314. **resize** – Set terminal window size. `$ resize`
315. **rev** – Reverse the lines of a file. `$ rev file.txt`
316. **rm** – Remove files or directories. `$ rm file.txt`
317. **rmdir** – Remove empty directories. `$ rmdir mydir`
318. **route** – Show or manipulate the IP routing table. `$ route -n`
319. **rsync** – Remote file and directory synchronization. `$ rsync -avz source/ destination/`
320. **runlevel** – Show the current runlevel. `$ runlevel`
321. **scp** – Securely copy files between hosts. `$ scp file.txt user@remotehost:/path/to/destination`
322. **screen** – Terminal multiplexer to manage multiple sessions. `$ screen`
323. **sd** – Stream editor (a more minimal version of `sed`). `$ sd 'old' 'new' file.txt`
324. **sdparm** – Set or get device parameters. `$ sdparm --all /dev/sda`
325. **sed** – Stream editor for filtering and transforming text. `$ sed 's/old/new/' file.txt`
326. **select** – Select from a list of options. `$ select var in option1 option2; do break; done`
327. **service** – Start, stop, or restart system services. `$ sudo service apache2 restart`
328. **set** – Set or display shell variables. `$ set var=value`
329. **sftp** – Secure File Transfer Protocol. `$ sftp user@remotehost`
330. **sh** – Command interpreter (shell). `$ sh script.sh`
331. **sha256sum** – Compute and check SHA-256 checksums. `$ sha256sum file.txt`
332. **shutdown** – Shutdown the system. `$ sudo shutdown -h now`
333. **sl** – Steam Locomotive (funny command). `$ sl`
334. **sleep** – Delay for a specified amount of time. `$ sleep 5`
335. **sort** – Sort lines in text files. `$ sort file.txt`
336. **source** – Read and execute commands from a file in the current shell. `$ source ~/.bashrc`

337. **split** – Split files into pieces. `$ split -l 100 file.txt`
338. **ss** – Utility to investigate sockets. `$ ss -tuln`
339. **ssh** – Secure Shell client to access remote machines. `$ ssh user@remotehost`
340. **stat** – Display file or file system status. `$ stat file.txt`
341. **strace** – Trace system calls and signals. `$ strace -p 1234`
342. **stty** – Change and print terminal line settings. `$ stty -a`
343. **su** – Switch user or execute a command as another user. `$ su - user`
344. **sudo** – Execute commands as another user (typically root). `$ sudo apt-get update`
345. **sum** – Calculate file checksum and block counts. `$ sum file.txt`
346. **symlink** – Create symbolic links. `$ ln -s /path/to/file symlink`
347. **sync** – Synchronize the file system. `$ sync`
348. **sysctl** – Configure kernel parameters at runtime. `$ sysctl net.ipv4.ip_forward=1`
349. **systemctl** – Control the systemd system and service manager. `$ sudo systemctl restart apache2`
350. **tac** – Concatenate and print files in reverse. `$ tac file.txt`
351. **tail** – Output the last part of files. `$ tail -n 10 file.txt`
352. **tar** – Archive files into a tarball. `$ tar -czvf archive.tar.gz /path/to/directory`
353. **tee** – Read from standard input and write to standard output and files. `$ echo "Hello" | tee file.txt`
354. **telnet** – User interface for the Telnet protocol. `$ telnet remotehost`
355. **test** – Check file types and compare values. `$ test -e file.txt`
356. **time** – Measure program execution time. `$ time ls`
357. **timeout** – Run a command with a time limit. `$ timeout 5s command`
358. **times** – Display user and system times for processes. `$ times`
359. **top** – Display tasks and resource usage in real-time. `$ top`
360. **touch** – Change file timestamps or create an empty file. `$ touch file.txt`
361. **tput** – Initialize terminal capabilities. `$ tput setaf 1` (sets text color to red)
362. **tr** – Translate or delete characters from input. `$ echo "abc" | tr 'a' 'x'`
363. **tracepath** – Traceroute with automatic MTU discovery. `$ tracepath google.com`
364. **traceroute** – Trace the route packets take to a network host. `$ traceroute google.com`
365. **trap** – Set up signal handling in scripts. `$ trap "echo Goodbye" EXIT`
366. **tree** – Display directory structure as a tree. `$ tree /path`
367. **true** – Do nothing, return success status. `$ true`
368. **ts** – Timestamp output (part of `moreutils`). `$ echo "hello" | ts`
369. **tty** – Print the terminal type. `$ tty`
370. **type** – Display information about a command type. `$ type ls`
371. **ulimit** – Get or set user resource limits. `$ ulimit -a`
372. **umask** – Set the file mode creation mask. `$ umask 022`
373. **umount** – Unmount file systems. `$ sudo umount /mnt`
374. **unalias** – Remove aliases. `$ unalias ll`
375. **uname** – Print system information. `$ uname -r`
376. **unzip** – Extract files from a ZIP archive. `$ unzip archive.zip`
377. **uptime** – Show how long the system has been running. `$ uptime`
378. **useradd** – Add a new user to the system. `$ sudo useradd user`

379. **userdel** – Delete a user account. `$ sudo userdel user`
380. **usermod** – Modify a user account. `$ sudo usermod -aG group user`
381. **uuidgen** – Generate a new universally unique identifier (UUID). `$ uuidgen`
382. **vdir** – List directories in a detailed format. `$ vdir`
383. **vi** – A text editor. `$ vi file.txt`
384. **view** – View a file with `vi` in read-only mode. `$ view file.txt`
385. **w** – Display who is logged in and what they are doing. `$ w`
386. **wait** – Wait for a process to complete. `$ wait $!`
387. **wall** – Send a message to all users. `$ wall "System will shut down in 10 minutes"`
388. **watch** – Execute a program periodically and show output. `$ watch df -h`
389. **wc** – Count words, lines, and characters in files. `$ wc file.txt`
390. **wget** – Download files from the web. `$ wget http://example.com/file.txt`
391. **whatis** – Display a one-line description of a command. `$ whatis ls`
392. **whereis** – Locate binary, source, and man pages for a command. `$ whereis ls`
393. **which** – Show the full path of a command. `$ which python`
394. **who** – Show who is logged in. `$ who`
395. **whoami** – Show the current logged-in user. `$ whoami`
396. **wpa_cli** – Control the wpa_supplicant (wireless network configuration). `$ wpa_cli status`
397. **write** – Send a message to another user. `$ write user`
398. **xargs** – Build and execute command lines from input. `$ echo "file1 file2" | xargs rm`
399. **xdg-open** – Open a file or URL in the user's preferred application. `$ xdg-open http://example.com`
400. **yes** – Output a string repeatedly. `$ yes "hello"`
401. **zcat** – Concatenate and display compressed files. `$ zcat file.gz`
402. **zcmp** – Compare compressed files. `$ zcmp file1.gz file2.gz`
403. **zdiff** – Compare compressed files line by line. `$ zdiff file1.gz file2.gz`
404. **zegrep** – Search compressed files with `grep`. `$ zegrep "pattern" file.gz`
405. **zfgrep** – Search compressed files with `fgrep`. `$ zfgrep "pattern" file.gz`
406. **zgrep** – Search compressed files for a pattern. `$ zgrep "pattern" file.gz`
407. **zip** – Package and compress files into a ZIP archive. `$ zip archive.zip file1.txt file2.txt`
408. **zipcloak** – Encrypt a ZIP archive. `$ zipcloak archive.zip`
409. **zipinfo** – Display detailed information about a ZIP archive. `$ zipinfo archive.zip`
410. **zipsplit** – Split a large ZIP archive into smaller files. `$ zipsplit archive.zip`
411. **zless** – View compressed files with `less`. `$ zless file.gz`
412. **zmore** – View compressed files page by page. `$ zmore file.gz`
413. **zsh** – Z shell, an extended Bourne shell with many features. `$ zsh`
414. **zstd** – Fast compression algorithm, an alternative to `gzip`. `$ zstd file.txt`
415. **zstdcat** – Decompress `.zst` files. `$ zstdcat file.zst`
416. **zstdgrep** – Search inside `.zst` compressed files. `$ zstdgrep "pattern" file.zst`
417. **zstdmt** – Multi-threaded version of `zstd`. `$ zstdmt -o file.zst file.txt`
418. **zsv** – Validate `.zst` compressed files. `$ zsv file.zst`
419. **ztest** – Test .zst compressed files for integrity. `$ ztest file.zst`
420. **zupdate** – Update .zst compressed files. `$ zupdate file.zst`
421. **zverify** – Verify .zst compressed files. `$ zverify file.zst`

422. `zzz` – A placeholder command (often used in scripts). `$ zzz`

Linux System Components

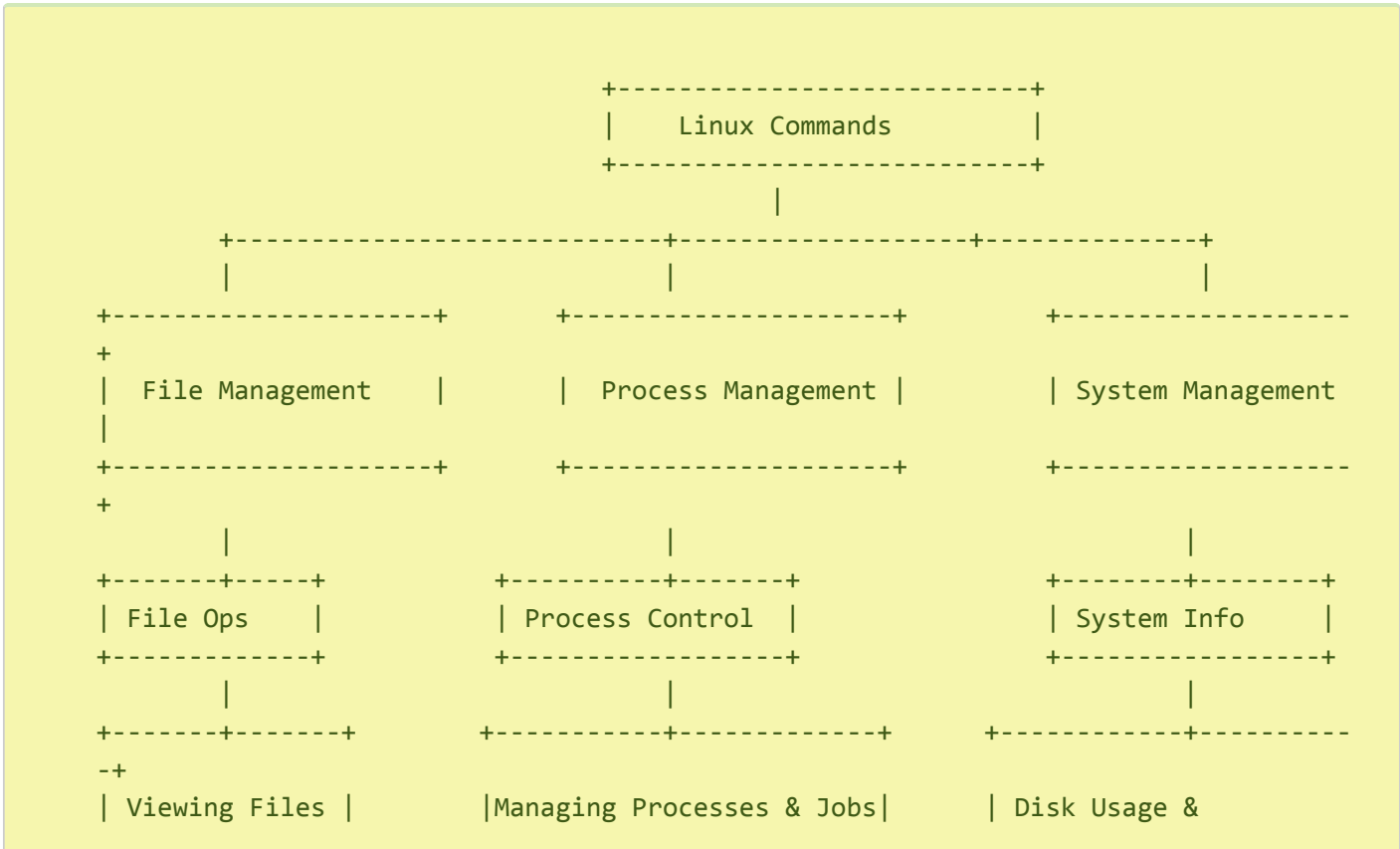


Linux System Architecture Overview

- **Linux Operating System**: The complete software environment that provides the fundamental services and resource management for applications and hardware.
- **User Space**: A distinct memory space where user-level applications and processes operate, isolated from the kernel's privileged environment.
    - **Applications**: User-driven software such as web browsers, text editors, and other functional programs.
    - **User Commands**: System-level instructions executed by the user via the terminal, for example, `ls`, `cp`, `rm`, etc.

- **Kernel Space**: The privileged layer of the operating system that directly interfaces with hardware and governs the overall system operation.
    - **Processes**: Active programs or tasks that are managed and executed by the kernel.
    - **Scheduler**: The component responsible for managing process execution, prioritizing tasks, and allocating CPU time.
    - **Device Drivers**: Software components that facilitate communication between the operating system and peripheral hardware devices, such as network interfaces and storage controllers.
    - **Interrupts**: Mechanisms for handling hardware or software events that require immediate attention, ensuring efficient resource utilization.
- **Hardware**: The physical components, including the CPU, memory, and storage devices, that are controlled and managed by the operating system.
- **System Libraries**: Collections of precompiled routines and functions that provide standardized services for applications and facilitate system-level interactions.
    - **C Library**: The primary standard library for the C programming language, enabling access to essential system calls and common utilities.
    - **File Systems**: The software layer responsible for managing storage devices, structuring data into files and directories, and ensuring data persistence.
    - **System Calls**: The programming interface that allows user-space applications to request services from the kernel, enabling interaction with system resources.

Linux Commands Classification



```
    Networking|
    +--------------+        +-------------------------+      +----------------------
    -+
            |
    +-------+---------+
    | File Permissions|
    +-----------------+
```

1. File Management

Commands in the **File Management** category focus on tasks related to handling files and directories on a Linux system.

- **File Operations**: Commands that allow you to create, remove, move, or copy files and directories.
  - `$ cp`, `mv`, `rm`, `mkdir`
- **Viewing Files and Directories**: Commands used for viewing file contents and listing directory contents.
  - `$ cat`, `ls`, `head`, `tail`
- **File Permissions**: Commands that control access and modify permissions for files and directories.
  - `$ chmod`, `chown`, `chgrp`

2. Process Management

The **Process Management** category contains commands for handling processes on the system, including starting, stopping, and monitoring processes.

- **Process Control**: Commands for controlling running processes, including starting, stopping, and managing jobs.
  - `$ ps`, `kill`, `bg`, `fg`
- **Managing Processes and Jobs**: Commands for listing running jobs and processes, as well as managing job execution.
  - `$ jobs`, `top`, `nice`

3. System Management

Commands related to **System Management** are used for configuring system settings, monitoring system performance, and managing system resources.

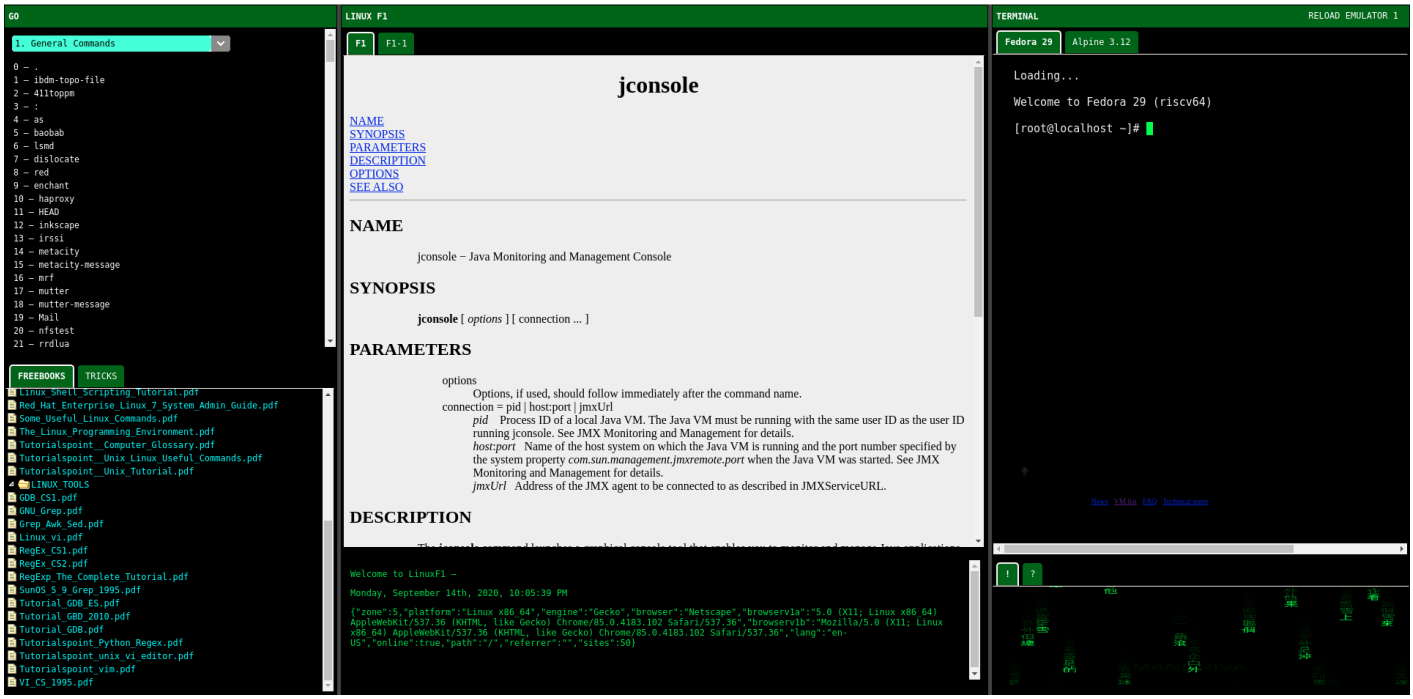
- **System Info**: Commands that provide information about the system's hardware, OS version, uptime, and more.
  - `$ uname`, `uptime`, `hostname`, `dmesg`
- **Disk Usage**: Commands for managing disk space and displaying disk usage statistics.
  - `$ df`, `du`, `mount`, `umount`
- **Networking**: Commands for configuring and monitoring network interfaces, connections, and routing.
  - `$ ifconfig`, `ping`, `netstat`, `traceroute`

Each classification serves a different aspect of system administration, from managing files to handling processes and configuring system resources.

LinuxF1

LinuxF1 is a utility website written in Javascript launched in 2020 to index **Linux manual pages** for CentOS, allowing fast online Linux commands searching, easily adaptable to other Linux distributions.

GitHub: https://github.com/abritoh/linuxf1



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