

Command	Description
• <code>grep . /proc/sys/net/ipv4/*</code>	List the contents of flag files
• <code>set grep \$USER</code>	Search current environment
• <code>tr '0' '\n' < /proc/\$\$/environ</code>	Display the <i>startup</i> environment for any process
• <code>echo \$PATH tr : '\n'</code>	Display the \$PATH one per line
• <code>kill -0 \$\$ && echo process exists and can accept signals</code>	Check for the existence of a process (pid)
• <code>find /etc -readable xargs less -K -p '*ntp' -j \$(((\$LINES:-25)/2))</code>	Search paths and data with full context. Use n to iterate
Low impact admin	
# <code>apt-get install "package" -o Acquire::http::DI-Limit=42 \</code> <code>-o Acquire::Queue-mode=access</code> <code>echo 'wget url' at 01:00</code>	Rate limit apt-get to 42KB/s
# <code>apache2ctl configtest && apache2ctl graceful</code>	Restart apache if config is OK
• <code>nice openssl speed sha1</code>	Run a low priority command (openssl benchmark)
• <code>renice 19 -p \$\$; ionice -c3 -p \$\$</code>	Make shell (script) low priority. Use for non interactive tasks
Interactive monitoring	
• <code>htop -d 5</code>	Better top (scrollable, tree view, lsof/strace integration, ...)
• <code>iotop</code>	What's doing I/O
# <code>watch -d -n30 "nice ps_mem.py tail -n \$(((\$LINES:-12)-2))"</code>	What's using RAM
# <code>iftop</code>	What's using the network. See also iptraf
# <code>mtr www.pixelbeat.org</code>	ping and traceroute combined
Useful utilities	
• <code>pv < /dev/zero > /dev/null</code>	Progress Viewer for data copying from files and pipes
• <code>wkhtml2pdf http://.../linux_commands.html linux_commands.pdf</code>	Make a pdf of a web page
• <code>timeout 1 sleep 3</code>	run a command with bounded time. See also timeout
Networking	
• <code>python -m SimpleHTTPServer</code>	Serve current directory tree at http://\$HOSTNAME:8000/
• <code>openssl s_client -connect www.google.com:443 </dev/null 2>&0 </code> <code>openssl x509 -dates -noout</code>	Display the date range for a site's certs
• <code>curl -I www.pixelbeat.org</code>	Display the server headers for a web site
# <code>lsof -i tcp:80</code>	What's using port 80
# <code>httpd -S</code>	Display a list of apache virtual hosts
• <code>vim scp://user@remote//path/to/file</code>	Edit a remote file directly in vim
• <code>curl -s http://www.pixelbeat.org/pixelbeat.asc gpg --import</code>	Import a gpg key from the web
• <code>tc qdisc add dev lo root handle 1:0 netem delay 20msec</code>	Add 20ms latency to loopback device (for testing)
• <code>tc qdisc del dev lo root</code>	Remove latency added above
Notification	
• <code>echo "DISPLAY=\$DISPLAY xmessage cooker" at "NOW +30min"</code>	Popup reminder
• <code>notify-send "subject" "message"</code>	Display a gnome popup notification
<code>echo "mail -s 'go home' P@draigBrady.com < /dev/null" at 17:30</code>	Email reminder
<code>uuencode file name mail -s subject P@draigBrady.com</code>	Send a file via email
<code>ansi2html.sh mail -a "Content-Type: text/html" P@draigBrady.com</code>	Send/Generate HTML email
Better default settings (useful in your bashrc)	
# <code>tail -s.1 -f /var/log/messages</code>	Display file additions more responsively
• <code>seq 100 tail -n \$(((\$LINES:-12)-2))</code>	Display as many lines as possible without scrolling
# <code>tcpdump -s0</code>	Capture full network packets
Useful functions/aliases (useful in your bashrc)	
• <code>md () { mkdir -p "\$1" && cd "\$1"; }</code>	Change to a new directory
• <code>strerror() { python -c "import os; print os.strerror(\$1)"; }</code>	Display the meaning of an errno
• <code>plot() { echo 'plot "-" "\$@"; cat; } gnuplot -persist; }</code>	Plot stdin. (e.g.: • <code>seq 1000 sed 's/./s(&)/' bc -l plot</code>)
• <code>hili() { e="\$1"; shift; grep --col=always -Eih "\$e \$" "\$@"; }</code>	highlight occurrences of expr. (e.g.: • <code>env hili \$USER</code>)
• <code>alias hd='od -Ax -tx1z -v'</code>	Hexdump. (usage e.g.: • <code>hd /proc/self/cmdline less</code>)
• <code>alias realpath='readlink -f'</code>	Canonicalize path. (usage e.g.: • <code>realpath ~/.\$USER</code>)
Multimedia	
• <code>DISPLAY=:0.0 import -window root orig.png</code>	Take a (remote) screenshot
• <code>convert -filter catrom -resize '600x>' orig.png 600px_wide.png</code>	Shrink to width, computer gen images or screenshots
<code>mplayer -ao pcm -vo null -vc dummy /tmp/Flash*</code>	Extract audio from flash video to audiodump.wav
<code>ffmpeg -i filename.avi</code>	Display info about multimedia file
• <code>ffmpeg -f x11grab -s xga -r 25 -i :0 -sameq demo.mpg</code>	Capture video of an X display
DVD	
<code>for i in \$(seq 9); do ffmpeg -i \$i.avi -target pal-dvd \$i.mpg; done</code>	Convert video to the correct encoding and aspect for DVD
<code>dvdauthor -odvd -t -v "pal,4:3,720xfull" *.mpg;dvdauthor -odvd -T</code>	Build DVD file system. Use 16:9 for widescreen input
<code>growisofs -dvd-compat -Z /dev/dvd -dvd-video dvd</code>	Burn DVD file system to disc

Unicode	
• <code>python -c "import unicodedata as u; print u.name(unicr(0x2028))"</code>	Lookup a unicode character
• <code>uconv -f utf8 -t utf8 -x nfc</code>	Normalize combining characters
• <code>printf '\300\200' iconv -fut8 -tutf8 >/dev/null</code>	Validate UTF-8
• <code>printf 'UTF8\n' LANG=C grep --color=always '[^ -~]\+'</code>	Highlight non printable ASCII chars in UTF-8
• <code>fc-match -s "sans:lang=zh"</code>	List font match order for language and style
Development	
• <code>gcc -march=native -E -v -</dev/null 2>&1 sed -n 's/.*-mar/-mar/p'</code>	Show autodetected gcc tuning params. See also gcccpuopt
• <code>for i in \$(seq 4); do { [\$i = 1] && wget http://url.ie/6lko -qO- ./a.out; } tee /dev/tty gcc -xc - 2>/dev/null; done</code>	Compile and execute C code from stdin
• <code>cpp -dM /dev/null</code>	Show all predefined macros
• <code>echo "#include <features.h>" cpp -dN grep "#define __USE_"</code>	Show all glibc feature macros
• <code>gdb -tui</code>	Debug showing source code context in separate windows
Extended Attributes (Note you may need to (re)mount with "acl" or "user_xattr" options)	
• <code>getfacl .</code>	Show <u>ACLs</u> for file
• <code>setfacl -m u:nobody:r .</code>	Allow a specific user to read file
• <code>setfacl -x u:nobody .</code>	Delete a specific user's rights to file
• <code>setfacl --default -m group:users:rw- dir/</code>	Set umask for a for a specific dir
• <code>getcap file</code>	Show capabilities for a program
• <code>setcap cap_net_raw+ep your_gtk_prog</code>	Allow <u>gtk program</u> raw access to network
• <code>stat -c%C .</code>	Show SELinux context for file
• <code>chcon ... file</code>	Set SELinux context for file (see also restorecon)
• <code>getfattr -m- -d .</code>	Show all extended attributes (includes selinux,acls,...)
• <code>setfattr -n "user.foo" -v "bar" .</code>	Set arbitrary user attributes
BASH specific	
• <code>echo 123 tee >(tr 1 a) tr 1 b</code>	Split data to 2 commands (using process substitution)
• <code>meld local_file <(ssh host cat remote_file)</code>	Compare a local and remote file (using process substitution)
Multicore	
• <code>taskset -c 0 nproc</code>	Restrict a command to certain processors
• <code>find -type f -print0 xargs -r0 -P\$(nproc) -n10 md5sum</code>	Process files in parallel over available processors
• <code>sort -m <(sort data1) <(sort data2) >data.sorted</code>	Sort separate data files over 2 processors