Linux Cheat Sheet

Suse Commands

Hardware Information

hwinfo --short --wlan	Displays a summary of the wireless network devices installed on the system, including vendor, model, and driver details
hwinfo --short --gfxcard	Displays a brief description of the graphics card (GPU) installed on the system, along with information about the vendor, model, and drivers
lspci	Lists all PCI devices connected to the system and can be used to determine the hardware components installed there and the drivers that go with them
lsusb	Lists all USB devices connected to the system, can be used to identify the USB devices installed on a system and their associated drivers

Build Service

osc bco <source project> <source package>	Creates a local working copy of the source code package from the specified OBS project and package
osc commit -m "<comment>"	Commits the changes made to the local copy of the source code back to the OBS project
osc sr	Submits a request to the OBS to integrate the changes made to the source code package in the local working copy back to the OBS project

YaST Administration

yast —-qt	Starts the YaST graphical interface using the Qt toolkit
yast --gtk	Starts the YaST graphical interface using the GTK toolkit
yast --ncurses	Starts the YaST interface in a text-based mode, using the ncurses library, allowing for system administration tasks to be performed in a text-based mode.

Network Commands

ip a	Shows all of the system's network interfaces' IP addresses and network configuration
ip ru; ip route show table all	Displays the system's routing tables and rules for network traffic
iwconfig	Displays the wireless network interface configuration
ss -anptu	Displays information about all active network connections and the processes that are associated with them
ss -anp	Provides details about all of the active network connections
traceroute	Identifies the path that packets take from one computer to a target destination by showing the intermediate hops
nslookup	Enquires about domain names and IP addresses from the DNS (Domain Name System)
ifconfig	Displays information about the network interfaces on a system, such as their IP addresses, netmasks etc
route	Displays and modifies the kernel's IP routing table
ping hostname	Sends a packet to a specified host and timers the host's response
firewall-cmd	Configures the firewall settings on a Linux system
netstat	Shows network-related information such as open ports and active connections

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yast -l	Lists every YaST module that is currently available
yast <modulename>	Launches a particular YaST module, enabling the execution of system administration tasks via a graphical or text-based interface, depending on the module

Package Management

zypper ar -f <URL> <alias>	Adds a new repository to the system with the specified URL and alias
zypper lp	Finds out what patch updates are needed
zypper patch	Applies the needed patches
zypper ref	Updates the repository metadata for all configured repositories to reflect the most recent software releases
zypper up	Updates every installed package to the most recent version that is available in the configured repositories
zypper dup	Upgrades the entire system to the latest available packages
zypper if <package name>	Displays comprehensive details about a specific package, including its version, size, summary, and dependencies
zypper se <package, pattern or dependancy name>	Looks for packages by name, pattern, or dependency
zypper se --provides <file path>	Searches for packages that provide a specific file
zypper se tiff	Finds packages matching the name or description "tiff"
zypper se -s tiff	Searches for packages with the name or description "tiff" and displays a brief summary of each package
zypper se -i tiff	Carries out a search for packages matching the name or description "tiff" and displays detailed information about each one, such as its version, size, summary, and dependencies

Package Maintenance

osc mbranch -c $PACKAGE	Makes a new branch for a given package in the OBS
osc patchinfo	Displays the list of patches that have been applied to a package in the OBS
osc submitrequest (sr)	Submits a package update request to the OBS to integrate changes made in a package branch

Package Editing

osc add $FILE	Adds new files to the package
osc addremove (a	Adds new files and deletes removed files from the package
osc del (rm) $FILE	Deletes files from the package
osc commit (ci)	Commits changes to the package
osc vc	Views the version control status of the package
osc up	Updates the package to the latest version
osc status (st)	Views the status of the local package compared to the remote repository
osc log	Views the revision history of the package

Help

man zypper	Displays the zypper command's manual page, which contains comprehensive instructions on how to use zypper and descriptions of its options, subcommands, and syntax

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zypper se -u tiff	Looks for packages with the name or description "tiff" that have an update available
zypper se -x tiff	Searches for packages with the name or description "tiff" that are not installed
zypper in digikam	Installs the package "digikam" and its dependencies from the specified repositories
zypper in --repo myspecialrepo digikam	Installs "digikam" and its dependencies from the configured repositories as well as the "myspecialrepo" repository
zypper in -D --repo myspecialrepo digikam	Installs the "digikam" package and its dependencies from the "myspecialrepo" repository, choosing the most appropriate dependencies automatically based on system architecture and package version
zypper in -d --repo myspecialrepo digikam	Does not install the "digikam" package and its dependencies after downloading them from the "myspecialrepo" repository
zypper rm digikam	Removes the "digikam" package and all of its dependencies from the system
zypper install <package name>	Installs packages by name
zypper info <package name>	Displays detailed information about a specific software package
rpm -ql <package name>	Lists every file that a package has installed, along with their path and permissions

System Monitoring & Memory Information

free	Shows details about the system's memory usage, including the total amount of available memory, the amount that has been used, and the amount of free memory
htop	Provides an enhanced and more detailed view of system processes compared to the top
journalctl	Provides a centralized and structured view of system logs
zypper help [command name]	Displays help details for the command that is specified

Kernel and Module Management

uname -r	Displays the current Linux kernel version and release
dmesg	Shows kernel messages, which can provide information about hardware events, boot process, and other system activity
rmmod [modulename]	Removes the specified kernel module from the currently running kernel
modprobe [modulename]	Loads the specified kernel module
lsmod	Lists currently loaded kernel modules

User Management

useradd <name>	Creates a new user account on the system
userdel <name>	Deletes a user account from the system
passwd <name>	Changes the password for a user account
usermod <options> <name>	Modifies an existing user account, such as changing the user's home directory or shell

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Suse Commands

kill	Terminates a process
less /proc/meminfo	Displays details about the system's memory usage, such as the total amount of available memory, how each process is using it, and other information
less /proc/cpuinfo	Shows specific details about the CPU, such as its model, speed, cache size, and other characteristics
lscpu	Provides information on the capabilities and architecture of the CPU
lsof | less	Lists all open files on the system and displays them in a scrollable format
lsof | grep -i filename	Lists all open files on the system and displays them in a scrollable format
pkill	Terminates or signal processes without specifying their process IDs
ps -ef	Shows a list of active processes along with their process IDs (PIDs) and other details
pstree	Displays the running processes as a hierarchical tree, with parent-child relationships highlighted
rsyslog	Provides advanced features such as log filtering, message routing, and message modification
sar	Provides information on CPU, memory, disk I/O, and network activity
swapon -a	Activates all available swap partitions
swapoff -a	Deactivates all active swap partitions
top	Provides real-time details on system activities, resource usage, and other system statistics
uname -a	Displays information about the current operating system

Systemd Commands

systemctl shutdown	Shuts down the system, powering it off entirely
systemctl reboot	Restarts the system
systemctl restart network	Restarts the network service, which can be useful for applying network configuration changes
systemctl stop firewalld	Stops the firewall daemon, which may be necessary if you need to perform tasks that require temporarily disabling the firewall
systemctl start apache2	Starts the Apache web server
systemctl status smb	Shows the status of the Samba file and print sharing service, indicating whether it is running or not
systemctl enable sshd	Enables the SSH daemon, which allows secure remote access to the system
systemctl disable cups	Disables the Common Unix Printing System (CUPS), which provides printing services
systemctl list-units --type service	Lists all of the active services managed by Systemd
systemctl status <service name>	Shows a service's status, including whether it is running, stopped, or failed
systemctl start <service name>	Initiates a particular service
systemctl stop <service name>	Halts a particular service
systemd-delta	Shows the differences between the default Systemd unit files and any custom unit files
systemctl restart <service name>	Restarts a specific service

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File System

fdisk -l	Displays a list of all the system's disks and partitions
lsblk	Provides details on all of the available block devices
findmnt	Shows details about the file systems that are currently mounted
less /proc/self/mountinfo	Displays complete information about mounted file systems
mount -t <type> <device> <mount point>	Mounts a file system with the specified type, device, and mount point
mount -t iso9660 -o loop dvd-image.iso <mount point>	Mounts an ISO image to a specified mount point
umount /dev/<device>	Unmounts the specified device
umount /<mount point>	Unmounts the specified mount point
df --o -h	Shows details about the system's use of the disk, such as the filesystem, size, amount of used space, amount of available space, and usage percentage
df --output=target,fstype,pcent	Shows the target mount point, filesystem type, and percentage of disk usage for each filesystem that is mounted
du -h	Displays each file's and directory's disk usage data in the current directory tree in a human readable format
du -h -t10M	Displays disk usage information for each file and directory in the current directory tree that is larger than 10 megabytes, in human-readable format

File Permission

chgrp	Changes group ownership of one or more files to a specified group

systemd-analyze blame	Displays how long it takes for each service to start when the system first boots up
systemd-analyze plot >filename.svg	Creates an SVG image that displays how long it took for each service to start during system startup
timedatectl	Shows the current system time and date, along with the time zone and any setup NTP (Network Time Protocol) servers.

File and Directory Operation

cat	Creates, displays, and concatenates files
cd	Changes the current working directory
cd ..	Moves up one level in the directory structure
cd -	Moves back to the previous directory
cp	Copies files and directories
cp -r	Copies files and directories from one location to another
find	Searches for files and directories in a specified location based on various criteria such as file name, size, type, etc
grep	Searches for a specific pattern or string in a file or output from another command
ln	Creates a link between files or directories
ls	Lists directory contents
mkdir	Creates a new directory

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chmod	Changes the permissions (read, write, execute) of one or more files	*rmdir*	Removes an empty directory
chown	Changes the ownership (user and group) of one or more files or directories to a specified user and group	*locate*	Searches for files on the system using a pre-built database

File Compression and Archiving

bzip2	Compresses files & decompresses compressed files	*mv*	Moves or renames files or directories
zip	Creates a compressed archive of multiple files and directories that are saved with a .zip extension	*pwd*	Displays the current working directory
tar	Creates or extracts tar archives, which are commonly used for backup and distribution purposes	*rm*	Removes files or directories
gzip	Compresses files in the gzip format	*rsync*	Synchronizes files and directories between systems
unzip	Extracts files from a .zip archive		

File System Layout

/bin	Contains essential user command binaries (programs) that are required during system booting and for running the system	*/proc*	Contains a virtual file system that provides information about running processes and system configuration
/boot	Contains the files needed for booting the system	*/run*	Contains runtime data that is required by system services and applications
/dev	Contains device files, which are special files that allow programs to interact with hardware devices such as hard drives, USB drives, printers, etc	*/sbin*	Contains essential system administration binaries that are required for system maintenance tasks
/etc	Contains configuration files for the system and various applications	*/srv*	Used for storing data for specific services provided by the system
/home	Contains the home directories for all regular users on the system	*/sys*	Contains a virtual file system that provides information about the system's hardware devices and their configuration
*/lib**	Contains shared library files	*/tmp*	Used for temporary files that are created by system processes and applications
/mnt	Used for temporarily mounting file systems or devices	*/usr*	Contains user binaries, libraries, and documentation for various applications installed on the system
/opt	Used for installing third-party software packages	*/var*	Contains variable data, such as log files, spool files, and temporary files created by system processes and applications
/root	Home directory for the root user		

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