The Media Streaming Journal

```
                                  Terminal
-rwxr-xr-x 1 sys       52850 Jun  8  1979 hptmunix
drwxrwxr-x 2 bin         320 Sep 22 05:33 lib
drwxrwxr-x 2 root         96 Sep 22 05:46 mdec
-rwxr-xr-x 1 root      50990 Jun  8  1979 rkunix
-rwxr-xr-x 1 root      51982 Jun  8  1979 rl2unix
-rwxr-xr-x 1 sys       51790 Jun  8  1979 rphtunix
-rwxr-xr-x 1 sys       51274 Jun  8  1979 rptmunix
drwxrwxrwx 2 root         48 Sep 22 05:50 tmp
drwxrwxr-x12 root        192 Sep 22 05:48 usr
# ls -l /usr
total 11
drwxrwxr-x 3 bin         128 Sep 22 05:45 dict
drwxrwxrwx 2 dmr          32 Sep 22 05:48 dmr
drwxrwxr-x 5 bin         416 Sep 22 05:46 games
drwxrwxr-x 3 sys         496 Sep 22 05:42 include
drwxrwxr-x10 bin         528 Sep 22 05:43 lib
drwxrwxr-x11 bin         176 Sep 22 05:45 man
drwxrwxr-x 3 bin         208 Sep 22 05:46 mdec
drwxrwxr-x 2 bin          80 Sep 22 05:46 pub
drwxrwxr-x 6 root         96 Sep 22 05:45 spool
drwxrwxr-x13 root        208 Sep 22 05:42 src
# ls -l /usr/dmr
total 0
# 
```

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www.radiosolution.info

Welcome to The Media Streaming Journal

Greetings,

I present you with a world class Open Source alternative to the continuing battle over Microsoft © and its innate desire to update itself at the blink of an eye.

The loss of Windows 2000 © was the straw that broke the camels back for me and my Love / Hate relationship with Microsoft ©. I was determined to find an operating system that offered the flexibility of Windows but focused on solid performances based on the Open Source philosophy. I was fortunate to find that with Debian Linux.

Over the years, I amassed a collection of notes to help me manage the various systems that I administer. I wanted to pass this compilation forward and help others in their quest for optimizing their Debian desktop system.

It is my hope that you can make the most of these notes so that you can maximize your Debian Linux potential.

Please feel free to contact either the Publication Director (Derek Bullard) or myself if you have any questions or comments regarding The Media Streaming Journal.

Namaste

David Childers

The Grand Master of Digital Disaster
(Editor In Chief)

www.linkedin.com/pub/david-childers/4/736/72a

The Media Streaming Journal

What is in this edition of the Media Streaming Journal

The Debian Desktop Experience

David Childers

Magazine cover graphic:

https://commons.wikimedia.org/wiki/File:Version_7_Unix_SIMH_PDP11_Emulation_DMR.png

RADIOSOLUTION

Our Mission

Let our friendly, knowledgeable staff assist you to build your project, such as an online radio station using our high end reliable video and audio streaming technologies. We want to become your partner for all your hosting needs, as well as your one stop shop for radio products such as custom DJ drops and radio ID's.

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Radiosolution is a SHOUTcast hosting provider located in Quebec Canada. We also offer Icecast, Wowza and Web Hosting services. Contact us to discuss the best option available as you start internet radio station. Radiosolution can provide personalized service in English, Dutch, and French. Starting an internet radio station can be intimidating, many people want to start one, but have no idea where to start. Radiosolution will be there for you every step of the way. Everyday people are searching the internet for free SHOUTcast servers. With Radiosolution SHOUTcast hosting we will allow you to try our services for FREE. By trying our services, you can be confident that you have chosen the best radio server hosting provider. You have nothing to loose because we offer a 30 day satisfaction guarantee. What are you waiting for? Contact us now! Radiosolution offers everything you need to start internet radio station. You will not need to go anywhere else. We can create your website, market your station and help you submit your station to online directories. We also feature the voice of Derek Bullard aka Dibblebee He can create affordable commercials, DJ intros, sweepers, jingles, ids and so much more.

- Ensure that any additional third party software repositories used will not conflict with the primary Debian repository software installation.

- Never use a terminal command unless you have a thorough knowledge of it's function and purpose.

- Familiarize yourself with the man pages and operating instructions of all software applications.

- Familiarize yourself with the man pages for all standard system commands.

- Routinely back up important information on your computer system.

- Regularly update your computer system to ensure that all system software is current.

- Stay informed of any security threats that are relevant to your computer system.

- Ensure that appropriate security measures are installed and used on your computer system.

- Ensure that relevant security measures are in place and used when accessing wireless data networks.

- Keep all computer password information written down and securely stored.

- Keep all online account password information written down and securely stored.

- Routinely change all computer access passwords.

- Regularly change all online account access passwords.

- Ensure that all passwords use standard security practices for optimal protection.

- Enable users with SUDO access instead of granting Super User status.

THINK VERY CAREFULLY BEFORE YOU PRESS THE ENTER KEY.

An Ounce Of Prevention Is Worth A Pound Of Cure.

Knowledge Is The Key.

Apt-Get Commands

apt-get is a tool used for automatic software package management. This includes updating a Debian machine, retrieving software packages, and installing Debian packages/programs.

apt-get install (package name)

Install software package.

apt-get -f install

Fix broken install.

apt-get install (package name #1) (package name #2) (package name #3)

Install multiple packages.

apt-get remove (package name)

Remove software package.

apt-get autoremove (package name)

Remove packages that were automatically installed to satisfy dependencies and are no longer needed.

apt-get --purge remove (package name)

Remove package AND configuration file.

apt-get update

Updates the list of available packages and their versions (from repositories).

apt-get upgrade

Upgrades without regards to dependencies. no additional packages are installed or removed.

apt-get dist-upgrade

Upgrade ensures that all dependencies are resolved.

sudo apt-get check

Update package cache and checks for broken dependencies.

apt-get clean

Clean disk space by cleaning retrieved .deb files from the local repository.

apt-get autoclean

Removes package files that can no longer be downloaded, and are largely useless.

apt-cache search (package name)

Find out the package name and information regarding it.

apt-cache show (package name)

Display package information and short description.

apt-cache showpkg (package name)

Check dependencies for software package.

apt-cache pkgnames

List all the available packages.

http://wiki.debian.org/DebianPackageManagement

System Update

<u>Update Debian system</u>

Shell script to update Debian system.

- Create a document.

- Copy the update shell script text to the document.

- Rename the document to update.sh.

- Make the shell script file executable.

Update Shell Script
....

```sh
#!/bin/sh

# Updates the list of available packages and their versions (from repositories).
apt-get update

# Upgrade ensures that all dependencies are resolved.
apt-get dist-upgrade

# Removes package files that can no longer be downloaded, and are largely useless.
apt-get autoclean
```

....

Execute the update shell script with the following command: **./update.sh**
(The period in front of the forward slash is part of the command.)

Desktop Tweaks

Configure software applications to start when Mate Desktop launches

- System tab.

- Control center.

- Startup applications.

Create desktop launcher to execute/ run script

```
[Desktop Entry]
 Encoding=UTF-8
 Name=System Update
 Comment=System Update
 Exec=/home/saint/Scripts/monitor
 Icon=/home/saint/Scripts/monitor.png
 Type=Application
 Terminal=False
 Categories=Application;
```

Change the sections that are **bold face** to the appropriate settings.

Note

- Use **Terminal=false** if a terminal display is not needed.

http://askubuntu.com/questions/536994/starting-a-script-in-a-desktop-icon

http://askubuntu.com/questions/436891/create-a-desktop-file-that-opens-and-execute-a-command-in-a-terminal

Launch web browser from the terminal

This command opens the default browser, then opens a specified URL when the web browser launches.

x-www-browser http://some-url.org

https://askubuntu.com/questions/8252/how-to-launch-default-web-browser-from-the-terminal

Example

- Create desktop launcher.

- Use this command in the launcher to open Firefox and then open the online Skype application.

firefox-esr %u https://login.skype.com/login

<u>Note</u>

Change <u>web browser</u> command if you prefer to launch another web browser.

Change <u>URL</u> location per your requirements.

- Associate this icon with the launcher.

- Label the launcher Skype online.

http://www.clker.com/cliparts/t/4/z/V/l/P/phone-icon-th.png

<u>Open terminal, execute a command, and keep the terminal application open</u>

This will allow you to execute a command from your desktop that requires terminal access. This will keep the terminal open after the execution of the command.

<u>How to</u>

- Create a text file.

- Copy this text to the txt file.

- - - - - - - - - - - - - - - - -

#! /bin/bash
$@
 /bin/bash

- - - - - - - - - - - - - - - - -

- Save the txt file.

- Rename the txt file to Help.Script.sh

- Change the permissions of the file and make it executable.

chmod 755 Helper.Script.sh

This script should be called from your panel/menu launcher using a command structure that will launch your terminal emulator, then call on this shell script, and then provide an argument that is taken in by this script ("$1" or $@); this argument tells the script which command to run (for instance: nmap –help).

SYNTAX: [command] [path/to/Helper.Script.sh] [argument]

<u>Note</u>

When launching the script from your panel or menu.

– The word "USER" should be changed to your own <u>username</u>.

– Change "<u>nmap –help</u>" to whatever command is specific to your needs.

– Make sure that Helper.Script.sh is executable. (chmod 755 Helper.Script.sh)

- You must reference the directory location of the Helper.Script.sh

- The command you should use in your panel/ menu launcher is as follows.

<u>Launch with mate-terminal</u>

mate-terminal -x /home/USER/Helper.Script.sh nmap --help
<u>Launch with xterm</u>

xterm -e /home/USER/Helper.Script.sh nmap --help

<u>Launch with terminator</u>

terminator -x /home/USER/Helper.Script.sh nmap --help

<u>Note</u>

<u>-x</u> and <u>-e</u> are the flags for "execute", depending on which terminal you are using.

<u>/bin/bash</u> tells the terminal to keep a bash shell open and running at the bottom of the script.

<u>Example</u>

- Create desktop launcher.

- Use this command in the launcher to open the Helper.Script.sh file and then execute the command

mate-terminal -x /home/saint/Scripts/Helper.Script.sh speedtest

<u>Note</u>

Remember to include the directory where the Helper.Script.sh is located - <u>/home/saint/Scripts/</u>.

Remember to change the command to your specific needs.

- Associate this icon with the launcher.

- Label the launcher Speed Test.

http://icons.iconarchive.com/icons/icons8/ios7/128/Sports-Running-icon.png

Full Helper.Script.sh

Helper.Script.sh

- -

```
#! /bin/bash
#
# THIS PROGRAM WILL: Open the terminal, execute a command, and keep the terminal open.
# The intention is that you call this script from a menu launcher and include an argument in your
command. (SEE BELOW)
#
# Darrin Goodman (http://www.hilltopyodeler.com/blog) > hilltopyodeler@gmail.com
# Credit is due to 13u11fr09 through his/her thread at http://ubuntuforums.org/archive/index.php/t-
296628.html
# Go to the link above for more ideas and philosophies on this subject.
#
# This script should be called from your panel/menu launcher using a command structure
# that will launch your terminal emulator, then call on this shell script, and then provide
# an argument that is taken in by this script ("$1" or $@); this argument tells the script
# which command to run (for instance: nmap --help).
# SYNTAX: [command] [path/to/helperScript.sh] [argument]
#
# PLEASE NOTE THAT:
#      - "USER" SHOULD BE CHANGED TO YOUR OWN USERNAME BELOW
#      - CHANGE "nmap --help" TO WHATEVER IS SPECIFIC TO YOUR NEEDS.
#      - MAKE SURE THAT helperScript.sh IS EXECUTABLE (chmod 755 helperScript.sh)
#
# The command you should use in your panel/menu launcher is as follows.
#   For gnome-terminal, use: gnome-terminal -x /home/USER/helperScript.sh nmap --help
#   For xterm, use: xterm -e /home/USER/helperScript.sh nmap --help
#   For Terminator, use: terminator -x /home/USER/helperScript.sh nmap --help
# [-x] and [-e] are the flags for "execute".
#      Note: for some reason, "terminator -x" will launch some things in Terminator,
#      but not others; not sure why at this time.
#
# The reference below to /bin/bash tells the terminal to keep a bash shell open and running.
$@
/bin/bash
```

- -

http://www.hilltopyodeler.com/blog/?p=382

Hard Drives

FSTAB   (File Systems Table)

FSTAB **/etc/fstab** is a system configuration file that lists all available disks and disk partitions. It also indicates how they are to be integrated into the overall system's file system.

http://wiki.debian.org/fstab

Data contained in FSTAB MUST MATCH data for all attached memory devices.

The lsblk command lists information about available block devices.

- **su** (Login to root.)

- **lsblk --output NAME,FSTYPE,LABEL,UUID,MODE**

NAME   System device name.   **LABEL**   Label of device.   **MODE**
                                                                                 Mode (Device permissions).

FSTYPE   File type of device.   **UUID**
                                                       Universal Unique Identifier.

Example output display

root@saint:/home/saint# lsblk --output NAME,FSTYPE,LABEL,UUID,MODE

```
NAME    FSTYPE LABEL UUID                            MODE
sda                                    brw-rw----
├─sda1 ext4        8a278609-8700-4cdb-bb81-a51362332626 brw-rw----
├─sda2                                 brw-rw----
└─sda5 swap       c05cb757-ef28-49a9-bbc6-46f3afda7302 brw-rw----
sdb    ext4       cbe105d5-aedf-49c7-9e3d-de584e07a7d5 brw-rw----
sr0
```


sda - Primary hard drive.   sdb - Secondary hard drive.   sr0 - cdrom drive
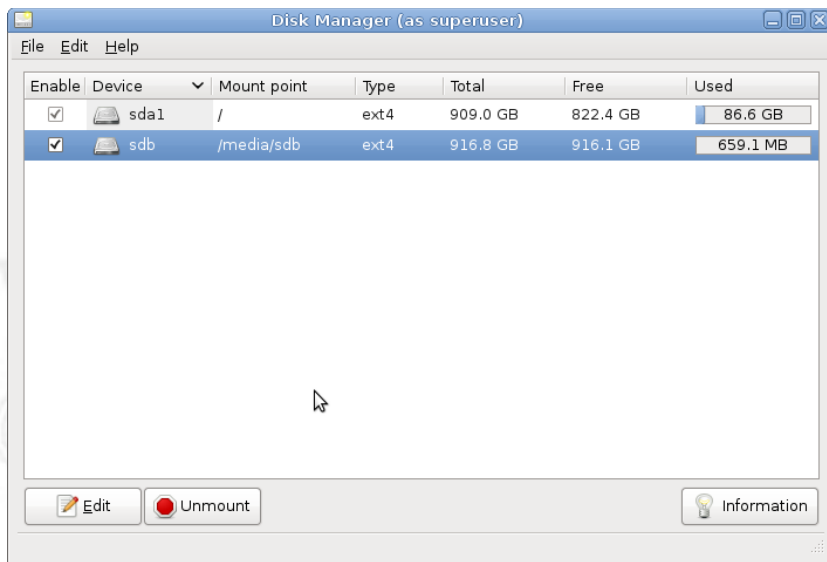

Gedit or nano can be used to read or edit the FSTAB configuration file

- **su** (Login to root.)

- **gedit /etc/fstab**

- **nano /etc/fstab**

Configure additional internal hard drive disk for automount

disk-manager software must be installed.

1. Click on Enable for each Hard Drive that needs to be auto mounted on boot.

2. Ensure there is a Check Mark in front of the device.

3. Click on File in upper left hand corner.

4. Click on Save.

5. Exit.

Configure secondary hard drive permissions
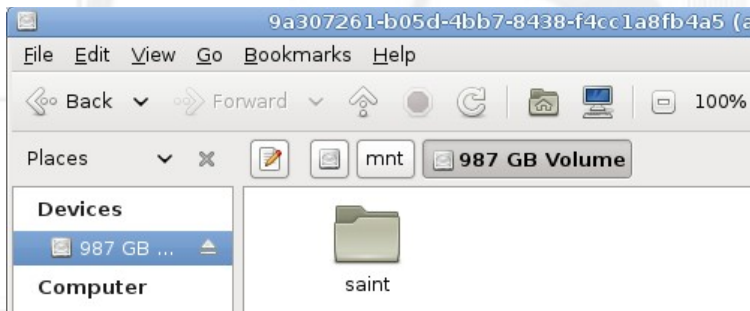
1. **su** (Login to root.)

2. **dbus-launch caja** (Launch file manager.)

3. Click on hard drive under devices.

4. Right click on volume.

5. Click on properties.

6. Click on permission in popup box.

7. Select user name for owner, group, others.

8. Select create and delete files under folder access.

9. Click apply permissions to enclosed files tab.

http://ubuntuforums.org/showthread.php?t=1336768

Desktop launcher for remote network file location (Network Hard Drive)

Launcher command

**desktop
icon**

caja smb://192.168.1.105/share/
   │ │ │
   │ │   Network address
   │ │
   │   SMB protocol
   │

http://free-icon-
download.com/modules/PDdownloads/images/
screenshots/free-computer-hard-drive-clipart-
harddisk-6.png

  File manager application

* Right click on image

  - Save graphic to computer desktop.

  - Name graphic drive.png.

Debian Repository

Debian system repository source list

The source list file is located here on the system: /etc/apt/sources.list

Remove **Debian CD** from repository source

deb cdrom:[Debian GNU/Linux 8.0.0 _Jessie_ - Official amd64 CD Binary-1 20150425-12:54]/ jessie main

Debian repository information

http://wiki.debian.org/SourcesList

Generate a custom Debian source list

http://debgen.simplylinux.ch/

Add **contrib non-free** after **main** in the Source List

(This will allow users to have access to contrib and non-free components.)

deb http://httpredir.debian.org/debian jessie main contrib non-free
deb-src http://httpredir.debian.org/debian jessie main contrib non-free

deb http://httpredir.debian.org/debian jessie-updates main contrib non-free
deb-src http://httpredir.debian.org/debian jessie-updates main contrib non-free

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http://television.scenicradio.com

all-free-download.com/free-vector/download/magnifying_glass_clip_art_23181.html

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Network Support

List all ip addresses of attached devices on local network using apr-scan

su (Login to root.)

wired: **arp-scan --interface=eth0 --localnet**

OR

su (Login to root.)

wireless: **arp-scan --interface=wlan0 --localnet**

Display a list of installed hardware, including network cards

lspci -vq

Please Note:

The list of installed hardware may be long, depending on the amount of hardware that is installed. You must be search through the list and identify either the network controller or ethernet controller, depending on the network hardware information that is needed.

Example output display

03:00.0 Ethernet controller: Broadcom Corporation NetXtreme BCM5754 Gigabit Ethernet PCI Express (rev 02)
      Subsystem: Dell OptiPlex 745
      Flags: bus master, fast devsel, latency 0, IRQ 45
      Memory at ddef0000 (64-bit, non-prefetchable) [size=64K]
      Expansion ROM at <ignored> [disabled]
      Capabilities: <access denied>
      Kernel driver in use: tg3

04:00.0 Network controller: Qualcomm Atheros AR9227 Wireless Network Adapter (rev 01)
      Subsystem: Qualcomm Atheros Device 0301
      Flags: bus master, 66MHz, medium devsel, latency 168, IRQ 16
      Memory at dddf0000 (32-bit, non-prefetchable) [size=64K]
      Capabilities: <access denied>
      Kernel driver in use: ath9k

Install a script to test network speed using command line

- Login to root.

su

- Download this script.

wget https://raw.github.com/sivel/speedtest-cli/master/speedtest_cli.py

- Make the script executable.

chmod a+rx speedtest_cli.py

- Move the speedtest_cli.py script to the /usr/bin directory.

mv speedtest_cli.py /usr/local/bin/speedtest

- Set the user and group of speedtest to root.

chown root:root /usr/local/bin/speedtest

- Terminal command to test the computer connection speed.

speedtest

Example output display

Retrieving speedtest.net configuration...
Retrieving speedtest.net server list...
Testing from XFINITY (89.146.163.25)...
Selecting best server based on latency...
Hosted by Darby by TRQ (Thomasville, AL) [72.14 km]: 61.3 ms
Testing download speed.......................................
Download: 18.15 Mbit/s
Testing upload speed...
Upload: 11.18 Mbit/s

http://www.shellhacks.com/en/HowTo-TEST-Internet-Speed-via-Linux-Command-Line

Adjust network MTU for slow Wifi connection

(1) - Click on system tab on panel.

(2) - Click on control center tab.

(3) - Click on network connections icon.

(4) - Select Wifi connection in box.

(5) - Click on the edit button.

(6) - Click on Wifi tab in box.

(7) - Change MTU from automatic to **XXX** (Bottom tab).

http://www.systutorials.com/3767/smaller-mtu-faster-wifi-linux/

Adjust the MTU number XXX to the appropriate setting for maximum throughput.

Printer Support

System printing

http://wiki.debian.org/SystemPrinting

<u>Cups printer control</u>

http://localhost:631/admin

<u>Login to Cups</u>

User name → Root

Pass word → Administrator password

<u>Repository of printer drivers for Linux and Unix</u>

http://www.openprinting.org/drivers

<u>PPD printer device files</u>

These device drive files are located here on the system → /etc/cups/ppd

Password Security

A computer access password functions as the primary means of preventing unauthorized access to a computer. Passwords are essential for providing physical security for a computer system. The use of easy passwords is typically the weakest link in a computer systems security and is the equivalent of not using any password protection.

It is important to select strong passwords for both the ADMINISTRATOR / ROOT in addition to the USER login. This password should contain a minimum of twelve characters. The password should consist of at least two upper case letters, two lower case letters, two numbers and two special characters.

DO NOT use identical passwords for system login.

- Use a different login password for both the <u>ADMINISTRATOR / ROOT</u> and the <u>USER</u> Login.

- Establish a set routine for changing ALL system passwords on a regular basis.

- <u>ADMINISTRATOR / ROOT</u> and the <u>USER</u> password should be changed on a regular basis.

- **DO NOT POST COMPUTER SYSTEM ACCESS PASSWRODS ON THE COMPUTER.**

- **MAINTAIN PHYSICAL SECURITY** of all access password information.

Debian provides a software package within their repository that can be installed and configured to generate a security conscious password. (<u>apg</u> package.)

Check the security of passwords online

http://www.passwordmeter.com/

http://www.my1login.com/resources/password-strength-test/

http://password-checker.online-domain-tools.com/

http://www.yetanotherpasswordmeter.com/

Sudo

Sudo is a program designed to let system administrators allow some users to execute some commands as root. The basic philosophy is to give as few privileges as possible but still allow people to get their work done.

Using sudo is safer than opening a session as root for a number of reasons.

Non system administrators do not need to know the root password (sudo prompts for entering the the current user's password).

Using sudo allows work to be done as an unprivileged user, which reduces the potential for damage that mistakes can cause.

A user must belong to group=sudo for that user to be able to use sudo.

Adding people to sudo group

- Login to root.

su

- Add a user to the sudo group.

adduser [user_login_id]] sudo

- Verify that a user is a member of the sudo group.

groups [user_login_id]

Manually edit sudo configuration file

- Login to root.

su

- Edit sudo file with this command.

visudo

http://wiki.debian.org/sudo

The sudo command in is followed the command you are attempting to run.

sudo [command name]

The user will be prompted to enter their user personal account password after the sudo command has been initiated.

Each command or string of commands that needs to be run as root must be preceded by sudo.

Software Installation

Install a Debian package via command line

dpkg -i deb_package_name

Remove a Debian package via command line

dpkg -r deb_package_name

Clear out broken packages in installation

aptitude -f

Fix a package install

apt-get -f install

Detailed information about a package

apt-cache show package_name

Install Deb file with GUI

gdebi-gtk

Completely remove package and associated files

apt-get purge deb_package_name

Install multiple packages

apt-get install package1 package2 package3

GUI for installing / remove installed software packages

gpk-application

Display information about specific software and/or command line options

man application_name

Software List

Desktop

mate-desktop-environment-extras   (Mate desktop with extras.)

Mate Desktop is a derivative of the old Gnome 2 Desktop. It provides ease of use with system flexibility. It also provides full functionality with low system resource consumption.

lightdm-gtk-greeter-settings   (A simple configuration utility for the LightDM Display Manager.)

→ Download from the web and manually install.

http://packages.debian.org/stretch/lightdm-gtk-greeter-settings

numlockx   (Enable NumLock in X11 sessions.)

Enable computer to automatically enable number lock on boot-up

- Edit the LightDM configuration file, "/etc/lightdm/lightdm.conf",

- **su** (Login to root.)

- **gedit /etc/lightdm/lightdm.conf**

- Add the following line under the **[SeatDefaults]** section heading:

greeter-setup-script=/usr/bin/numlockx on

http://www.linuxquestions.org/questions/debian-26/howto-debian-7-wheezy-lxde-auto-numlock-both-before-and-after-login-4175500323/

Debian Wallpaper / Icons

http://www.debian-art.org/

Additional screen saver packages

xscreensaver-gl

xscreensaver-gl-extra

xscreensaver-data-extra

Configuring additional screensavers with mate

After installing additional screensavers you must enable them.

- Go to screensavers directory:

- **cd /usr/share/applications/screensavers**

- Edit the .desktop files by replacing the line.

- **OnlyShowIn=GNOME;**

- With this line.

- **OnlyShowIn=GNOME;MATE;**

- Use the sed tool to edit all files at once instead of changing each file manually.

- **find . -name '*.desktop' | xargs sed -i 's/OnlyShowIn=GNOME;/OnlyShowIn=GNOME;MATE;/'**

You are now able to use all the new screensavers you have just installed.

http://greyblake.com/blog/2013/02/02/install-more-screensavers-on-mate-desktop/

<u>System Hardware</u>

firmware-linux   (Binary firmware for various drivers in the Linux kernel.)

lsb   (Linux Standard Base.)

<u>Graphic card video drivers</u>

http://wiki.debian.org/GraphicsCard

<u>Wireless networking</u>

http://wiki.debian.org/WiFi

<u>Desktop Applications</u>

vlc   (Multimedia player and streamer.)

vlc-plugin-samba   (Adds support to access Samba shares for vlc.)

audacity   (Audio editor.)

openshot   (Video editor.)

cheese   (Tool to take pictures and videos from your webcam.)

<u>Skype</u>   <u>Online Skype client</u>

http://wiki.debian.org/skype   http://login.skype.com/

hexchat   (IRC client for X based on X-Chat 2.)

pidgin   (Graphical multi-protocol instant messaging.)

Telegram

This is a messaging app with a focus on speed and security.

http://www.telegram.org/

transmission   (Torrent client.)

filezilla   (Graphical FTP / FTPS / SFTP client.)

xsane   (GUI for sane - scanner access now easy.)

> unetbootin   (Cross-platform utility used to create live USB systems.)

http://www.vivaolinux.com.br/topico/Debian/Instalar-Unetbootin-Debian-8-Jessie

brasero   (CD/DVD burning application.)

hplip-gui   (GUI utilities for Hewlett Packard Linux printing and imaging.)

Web Browsers

> Opera   (Web browser.)

http://wiki.debian.org/Opera

> Vivaldi   (Web browser that is compatible with Chrome extensions and plug-ins.)

http://www.vivaldi.net/

pepperflashplugin-nonfree   (Flash player maintained by Google – for Chrome / Vivaldi only.)

Full HTML 5 codec support for Vivaldi web browser

Download Ubuntu chromium-codecs-ffmpeg-extra Debian package.
(http://packages.ubuntu.com/search?keywords=chromium-codecs-ffmpeg-extra)

- Delete the current libffmpeg.so file from the installed Vivaldi software /opt/vivaldi/lib/.

- Unpack the Ubuntu chromium-codecs-ffmpeg-extra package.

- Copy libffmpeg.so from /usr/lib/chromium-browser/libs/ - in the chromium-codecs-ffmpeg-extra.

- Place the extracted libffmpeg.so (from chromium-codecs-ffmpeg-extra) into /opt/vivaldi/lib/.

(Add-ons for Web Browsers)

- Forecastfox (fix version)   (Weather.)

- Multi Web Search   (Research the Web on different search engines displayed on one page.)

- Saved Password Editor   (Create and edit entries in the password manager.)

- https everwhere   (Encrypts internet communications with many major websites.)

- NoScript   (Control active content on websites.)

- Adblock Plus   (Blocks annoying advertising on the web.)

icedtea-plugin   (Plug-in to execute Java.)

System Applications

xchm   (Viewer for Compiled HTML Help - CHM files.)

pavucontrol   (Volume control tool [mixer] for the pulseaudio sound server.)

gnome-packagekit   (Software management.)

unrar   (Un-archiver for .rar files.)

wavemon   (Wireless device monitoring.)

laptop-mode-tools   (Power savings tools for laptop operation.)

hardinfo   (Displays hardware system information.)

gedit   (GNOME text editor.)

arp-scan   (Identify IP hosts on local network.)

smbclient   (Utilities for accessing Microsoft windows and samba servers.)

gnome-disk-utility   (Tool to manage disk drives and media.)

gnome-commander   (Two pane - graphical file manager.)

gparted   (Hard drive partition editor.)

disk-manager   (Simple file system configurator.)

smartmontools   (Control and monitor storage systems using S.M.A.R.T..)

ntp   (Network Time Protocol.)

FFmpeg is a set of tools for transcoding, streaming and playing of multimedia files

Notes for FFmpeg

- Remove old ffmpeg binary packages in /usr/bin/.

- Place new ffmpeg binary packages in /usr/bin/.

- Chmod +x ffmpeg binary packages to executable.

Static builds of FFmpeg for Linux

http://johnvansickle.com/ffmpeg/

fbreader   (Simple e-book reader.)

calibre   (Calibre is a complete e-library solution.)

pdfsam   (PDF split and merge.)

pdfmod   (Simple tool for modifying PDF documents.)

pdftk   [command line]   (Tool for manipulating PDF documents.)

PDF Edit   (Edit PDF documents.)

http://sourceforge.net/projects/pdfedit/

Master PDF Editor   (This software provides advanced functions for working with PDF format.)

This free version can be used only in non-commercial purposes.

http://code-industry.net/free-pdf-editor/

playonlinux   (GUI front-end for wine which allows installation of windows software on Linux.)

gnucash   (Personal and small-business financial-accounting software.)

LibreOffice

LibreOffice Debian Packages

English thesaurus Add-On

myspell-en-us

Library of license-free images Add-On

openclipart-libreoffice

Additional font packages

ttf-dejavu   Ttf-bitstream-vera

texlive-fonts-extra   ttf-liberation

ttf-mscorefonts-installer

Additional fonts

LibreOffice accesses fonts here on the system:
→ /usr/share/fonts/

http://fonts.debian.net/

Advanced Dictionary and Thesaurus

http://extensions.libreoffice.org/extension-center/english-dictionaries

Language tool

This extension detects spelling and grammar errors.

http://www.languagetool.org/

Scribens

This extension detects spelling and grammar errors.

http://www.scribens.com/

Grammark

This online program detects poor grammar, highlights the errors, and suggests improvements.
(Similar to the commercial Grammarly online service.)

http://www.grammark.org

System Security

United States Computer Emergency Readiness Team (US-CERT)

This agency is responsible for analyzing and reducing cyber threats, vulnerabilities, disseminating cyber
threat warning information, and coordinating incident response activities.

http://www.us-cert.gov/

Real time cyber threat map

http://www.fireeye.com/cyber-map/threat-map.html

http://map.norsecorp.com

http://threatmap.fortiguard.com/

http://threatmap.checkpoint.com/ThreatPortal/livemap.html

http://cybermap.kaspersky.com/

http://community.blueliv.com/map/

<u>Debian security</u>

http://www.debian.org/security/

<u>General security software</u>

clamtk   (GUI front-end for Clamav.)

clamav-daemon   (anti-virus utility for Unix - scanner daemon)

gufw   (GUI for Linux firewall.)

rkhunter   (Rootkit, backdoor, sniffer and exploit scanner.)

chkrootkit   (Rootkit detector.)

debian-security-support   (Debian security support coverage checker.)

nautilus-wipe   (Secure deletion extension for Nautilus.)

apg   (Automated Password Generator.)

bleachbit   (Delete unnecessary files and securely delete files from system.)

gnupg   (Tool for secure communication. Encrypt, Decrypt and create digital signature.)

gna   (Graphical user interface for the GNU Privacy Guard - GnuPG.)

<u>UFW Firewall</u>

<u>UFW command line basics</u>

- Enable defaults.

ufw default deny incoming

ufw default allow outgoing

- Verify the firewall is enabled.

ufw status verbose

<u>Firewall rules</u>

UFW denies all of the incoming connections by default. A rule must be made If there is an application that requires a network connection.

- Enabled service.

UFW reads data from /etc/services to enable services configured on the host computer.

| View the list of configured services installed on the host computer.
|
| **less /etc/services**

- Service connections can be specified.

ufw allow [Name Of Service]
(Example of service - SSH)

- Port ranges can be specified.

| Simple example for tcp:
|
| **ufw allow 1000:2000/tcp**
|
| Simple example for UDP:
|
| **ufw allow 1000:2000/udp**

- IP addresses can be specified.

ufw allow from 111.222.333.444

https://wiki.debian.org/Uncomplicated%20Firewall%20%28ufw%29

<u>Clamav</u>

<u>Manually update Clamav virus application</u>

 - **su** (Login to root.)   - **freshclam**

 - **/etc/init.d/clamav-freshclam stop**   - **/etc/init.d/clamav-freshclam start**

<u>Manually update Clamav virus signature database</u>

 - **su** (Login to root.)   - **freshclam - update virus databases**

 - **/etc/init.d/clamav-freshclam stop**   - **/etc/init.d/clamav-freshclam start**

<u>View Clamav log</u>

- **su** (Login to root.)

- **gedit /var/log/freshclam.log**

Lori DuBose Productions

Voice–over – Narration

Audio/Video Talent

Radio/TV Talent – Journalist

Radio Talk Show Host/Producer

Audio Books – Marketing – Creative

www.facebook.com/LoriDuBoseProductions

AppArmor

Application Armor (AppArmor) is a Linux kernel security module that allows system administrators to restrict a programs capabilities with per-program profiles.

apparmor   (User-space parser utility for AppArmor.)

apparmor-utils   (Utilities for controlling AppArmor.)

apparmor-profiles   (Profiles for AppArmor Security policies.)

apparmor-profiles-extra   (Extra profiles for AppArmor Security policies.)

apparmor-notify   (AppArmor notification system.)

Enable AppArmor

- **perl -pi -e 's,GRUB_CMDLINE_LINUX="(.*)"$,GRUB_CMDLINE_LINUX="$1 apparmor=1 security=apparmor",' /etc/default/grub**

- **update-grub**

- **reboot**

https://wiki.debian.org/AppArmor/HowToUse

/etc/init.d/apparmor {start|stop|restart|reload|force-reload|status|recache}
                    - This command controls the service itself.

aa-status - Displays a list of policies in use as well as which ones are in Complain or Enforce mode.

aa-unconfined - Displays a list of applications and services with open network ports that do not have AppArmor protection enabled.

aa-complain application_name - Forces a policy for a specific application or service into Complain Mode for debugging purposes.

aa-enforce application_name - Forces a policy for a specific application or service into Enforce Mode for real-time live protection.

aa-autodep application_name - Generates a profile for a specific application or service. The generated profile will most likely need further tuning.

aa-genprof application_name - Generates a profile or a specific application or service using aa-autodep, sets the profile to Complain mode, and writes a marker to the system log.

aa-logprof - Log analyzer that shows access errors and help you add new rules to a profile.

http://forums.linuxmint.com/viewtopic.php?t=18681

AppArmor audit logs can be found in /var/log/syslog.

Multiple Debian Package Installation Script

Script to install multiple instances of software package applications.
Remove Number sign ' **#** ' from in front of software package to install.

apt-get install

# # # # # # # # #	# gnome-commander
# mate-desktop-environment-extras	# gparted
# lightdm-gtk-greeter-settings	# disk-manager
# numlockx	# smartmontools
# # # # # # # # #	# ntp
# xscreensaver-gl	# # # # # # # # # #
# xscreensaver-gl-extra	#fbreader
# xscreensaver-data-extra	# calibre
# # # # # # # # #	# pdfsam
# firmware-linux	# pdfmod
# lsb	# pdftk
# # # # # # # # #	# playonlinux

vlc

vlc-plugin-samba

audacity

openshot

cheese

hexchat

pidgin

transmission

filezilla

xsane

brasero

hplip-gui

# # # # # # # # # #

icedtea-plugin

# # # # # # # # # #

xchm

pavucontrol

gnome-packagekit

unrar

wavemon

laptop-mode-tools

hardinfo

gedit

arp-scan

smbclient

# # # # # # # # # #

gnome-disk-utility

gnucash

# # # # # # # # #

myspell-en-us

openclipart-libreoffice

ttf-dejavu

texlive-fonts-extra

ttf-mscorefonts-installer

ttf-bitstream-vera

ttf-liberation

# # # # # # # # #

clamtk

clamav-daemon

gufw

rkhunter

chkrootkit

debian-security-support

nautilus-wipe

apg

bleachbit

gnupg

gpa

# # # # # # # # #

apparmor

apparmor-utils

apparmor-profiles

apparmor-profiles-extra

apparmor-notify

# # # # # # # # #

General Information

Monitor resolution: 1280 x 720

Debian system post installation user's guide

Online guide

http://www.debian.org/doc/manuals/debian-reference/

Debian administrators handbook

Free PDF download

https://www.debian-handbook.info/get/

Find a file in Linux

- This will find every instance of conf no matter where it is.

- The / after find tells find to look in every directory below and including the root of the file system.

- The - in front of name tells Linux to not worry about caps.

$ find / -iname filename or partial filename (such as conf.conf)

http://www.wikihow.com/Find-a-File-in-Linux

Display kernel version

$ uname -r

Statistics on computer hard drive life expectancy

https://www.backblaze.com/blog/hard-drive-reliability-stats-q1-2016/

http://www.digitaltrends.com/computing/google-ssd-study/

Online Firewall Scanners

Test computer for open ports and services

http://www.check-and-secure.com/portcheck/_en/

Test computer for open ports and services

http://www.canyouseeme.org/

Test firewall

http://www.shieldcheck.com/

Free online network port scanner tool

http://www.ipfingerprints.com/portscan.php

Additional References

<u>The Linux Command Line</u>

Free Creative Commons PDF download.

http://www.linuxcommand.org/tlcl.php

<u>The Debian Administrator's Handbook</u>

Free Creative Commons PDF download.

https://debian-handbook.info/