

# Help Getting Help

Whatever the newest user needs to know

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<https://newlug.sluug.org/>

# Goals

- This will be a *survey* of finding **help**, within Linux Operating System Distributions and outside.
- Intended for newcomers, the true beginners.
- Some useful examples, certainly not everything.
- Some example commands needed installation.
- We will first explore **help** available within the *command line terminal*, which will then lead us into the richly abundant *graphical help* resources of the **LinuxMint MATE** Desktop Environment.

# POSIX

<https://en.wikipedia.org/wiki/POSIX>

- "POSIX defines the application programming interface (API), along with command line shells and utility interfaces, for software compatibility with variants of Unix and other operating systems."

[https://en.wikipedia.org/wiki/Unix\\_shell](https://en.wikipedia.org/wiki/Unix_shell)

Users type commands into the shell.

- POSIX does not standardize **help** for new users. (AFAIK)

Not intuitive ~ User has to know commands.

Not intuitive with unix

Not intuitive with linux

# CLI vs GUI

[https://en.wikipedia.org/wiki/Command-line\\_interface](https://en.wikipedia.org/wiki/Command-line_interface)

- "A command-line interface or command language interpreter (CLI), also known as command-line user interface,... ...is a means of interacting with a computer program where the user (or client) issues commands to the program in the form of successive lines of text (command lines)."
- "Today, many end users rarely, if ever, use command-line interfaces and instead rely upon graphical user interfaces (GUI) and menu-driven interactions."

# CLI – Command Line Interface

1. `$ a_command` (without options) (sometimes)
  2. `$ a_command ?` (old method) \
  3. `$ a_command -?` (old method) /
  4. `$ a_command --?`
  5. `$ a_command -h` (sometimes used for some other feature)
  6. `$ a_command --help`
  7. `$ a_command help` (function-name)
- ★ `$ help` # (when using the bash shell)

# Commands as Help

★ \$ man

★ \$ **man man**

★ \$ **whatis man whatis**

man (1) - an interface to the on-line reference manuals

man (7) - macros to format man pages

whatis (1) - display one-line manual page descriptions

★ \$ **whatis apropos**

apropos (1) - search the manual page names and descriptions

★ \$ apropos

★ \$ **whatis info pinfo**

info (1) - read Info documents

info (5) - readable online documentation

pinfo (1) - curses based lynx-style info browser

# More Commands

★ \$ info

★ \$ **pinfo** (I prefer using pinfo, instead of info)

★ \$ pinfo bash

\$ **whatis find locate which**

**find (1)** - search for files in a directory hierarchy

**locate (1)** - find files by name

**which (1)** - locate a command

★ \$ find

★ \$ **locate**

★ \$ **which**

# Bash Shell Builtins

★ \$ pinfo builtins

★ \$ **whatis type**

**type: nothing appropriate**

★ \$ type type

type is a shell builtin

★ \$ **type command**

**command is a shell builtin**

★ \$ type cd dirs which

cd is a shell builtin

dirs is a shell builtin

which is /usr/bin/which



# Application Documentation

- ★ \$ **whatis file**

  - file (1) - determine file type (...is it something you can edit?)

- ★ \$ **whatis nano**

  - nano (1) - Nano's ANOther editor, an enhanced free Pico clone**

- ★ \$ **nano** (an excellent example of an event driven application)

  - (I prefer to use the VIM editor rather than nano)**

- ★ \$ **whatis view vim vimdiff vimtutor**

  - view (1) - Vi IMproved, a programmer's text editor**

  - vim (1) - Vi IMproved, a programmer's text editor**

  - vimdiff (1) - edit two, three or four versions of a file with Vim and show differences**

  - vimtutor (1) – The VIM Tutor**

# Unix System Resources

- ★ `$ ls /usr/share/doc`
- ★ `$ cd /usr/share/doc/manpages`

# Bad Help



X # rm -rf / (NEVER DO THIS)

X Wallpaper ~ Linux and VIM (evil)

<http://wallpaperswide.com/abbreviation-wallpapers.html>

X fork bomb (evil)

[https://en.wikipedia.org/wiki/Fork\\_bomb](https://en.wikipedia.org/wiki/Fork_bomb)

X # :(){ :|:& };: ( 

X Sticker (evil)

[https://www.redbubble.com/people/boomshadow/works/8049244-fork-bomb-green?cat\\_context=u-stationery&grid\\_pos=25&p=sticker&rbs=7bf56d0d-9079-42cc-a57e-4cd7ca7d2bdd&ref=shop\\_grid&searchTerm=stickers%20linux](https://www.redbubble.com/people/boomshadow/works/8049244-fork-bomb-green?cat_context=u-stationery&grid_pos=25&p=sticker&rbs=7bf56d0d-9079-42cc-a57e-4cd7ca7d2bdd&ref=shop_grid&searchTerm=stickers%20linux)

# Getting to the Graphical

**...So, we have surveyed using the Command Line Interface.**

**Now on to the Graphical,  
But, first...**

# Not Quite Graphical

From `curses` => `pcurses` => `ncurses` and `terminfo` and `termcap`

<https://en.wikipedia.org/wiki/Ncurses>

<https://www.linuxjournal.com/content/getting-started-ncurses>

<https://invisible-island.net/ncurses/ncurses.faq.html>

## ★ \$ **whatis aptitude mc ranger**

**aptitude (8)** - high-level interface to the package manager

**mc (1)** - Visual shell for Unix-like systems.

**ranger (1)** - visual file manager

★ \$ aptitude

★ \$ mc

★ \$ ranger

MANY OTHERS: `lynx`, `mutt`, `emacs`, `htop`, `less`, `minicom`, `screen`, `tmux`, `vim`

# GUI lookback to CLI

★ \$ whatis xman gman

xman (1) - Manual page display program for the X Window System

gman (1x) - GTK+ based front-end for man, a good replacement for xman.

★ \$ **xman**

★ \$ gman

# GUI Welcome Screens



**These are presented upon user login**



**LinuxMint MATE**



**Ubuntu-MATE**

# More GUI Help

★ \$ whatis yelp

yelp (1) - browse system documentation

★ \$ yelp

- This is the GNOME Help Browser



# LinuxMint.com Documentation

- Announcements, News

<https://blog.linuxmint.com/>

- Release Notes ~ Technical information on each edition ~ ***read ahead!***

[https://linuxmint.com/rel\\_tessa.php](https://linuxmint.com/rel_tessa.php) ~ example of current 19.1 release

- Installation Guide

<https://linuxmint-installation-guide.readthedocs.io/en/latest/index.html>

- Troubleshooting Guide

<https://linuxmint-troubleshooting-guide.readthedocs.io/en/latest/>

- User Guides

PDF for Desktop Environments (Cinammon, MATE, Xfce, etc.)

# Additional Help - Training



- Introduction to Linux (LFS101) ~ **Free** Training Course  
<https://training.linuxfoundation.org/training/introduction-to-linux/>
- **Free** Linux course ~ How to work with Linux  
<https://geek-university.com/course/free-linux-course/>
- **Free** Linux Professional Institute (LPI) Training Materials  
<https://www.lpi.org/how-to-get-certified/free-training-materials>
- **Ten Free** Linux Courses  
[https://study.com/articles/10\\_Sites\\_Offering\\_Free\\_Linux\\_Courses\\_Online.html](https://study.com/articles/10_Sites_Offering_Free_Linux_Courses_Online.html)
- Certification and Non-Certification Training (**My Paid Subscription**)  
<https://www.itpro.tv/courses/linux/linuxbeginners/> **Free** Preview  
<https://www.itpro.tv/courses/linux/> Subscriber Levels and **Linux+**

# Distribution Screen Shots

## *Useful for comparing visually*

- Debian
  - <http://screenshots.debian.net/>
- **Linux Mint**
  - <https://linuxmint.com/> (a few right on home page)
  - <https://www.linuxmint.com/screenshots.php>
  - <https://distrowatch.com/gallery.php?distribution=mint>
- Ubuntu-Mate
  - <http://ubuntu-mate.org/> (a few right on home page)
  - <https://distrowatch.com/gallery.php?distribution=ubuntumate>
- **Other distribution screen shots available thru DistroWatch pages**

# Internet Podcasts

- Podcasts (Netcasts)
  - <http://goinglinux.com> General Linux Topics
  - <https://mintcast.org/> **One LinuxMint Community**
  - <https://www.ezeelinux.com/> Switching People to Linux
  - <http://TheFrugalComputerGuy.com> **LinuxMint and LibreOffice**
  - <https://switchedtolinux.com/> Another Linux Advocate
  - <https://www.professormesser.com/> **A+ and other topics**
  - <https://Twit.TV> Numerous weekly shows
    - <https://twit.tv/shows/security-now> **Hot topics in Security**
    - <https://twit.tv/shows/floss-weekly> FOSS application projects
  - <http://www.asknoahshow.com/> Every Tuesday @ 6PM Central (UTC-6)
  - <https://www.jupiterbroadcasting.com/> Linux and BSD

# Community Support Forums



- LinuxMint Forum ~ Their best place to find **LinuxMint** help  
<https://forums.linuxmint.com/>
- Ezeelinux.com EzeeTalk (Forum) **LinuxMint** and more  
<https://www.ezeelinux.com/talk/>
- Ubuntu-MATE (Forum)  
<https://ubuntu-mate.community/>

# St. Louis Unix Users Group

**STL! / unix / usr / group**

- **SLUUG Web Page**
  - <https://www.sluug.org/>
- **SLUUG Sponsored Resources**
  - ANNOUNCE email
  - DISCUSS email
  - Wiki
  - IRC

# SLUUG Sponsored Groups

## *Loosely Affiliated Special Interest Groups*



**SLACC** ~ Saint Louis Area Computer Club

<https://slacc.sluug.org/>



**STLLUG** ~ Saint Louis Linux User Group

<https://stllug.sluug.org/>



**NEWLUG** ~ Newcomer Linux User Group

<https://newlug.sluug.org/>

# More Internet Resources

- More About Linux
  - <https://en.wikipedia.org/wiki/Linux>
  - <https://en.wikipedia.org/wiki/Portal:Linux>
- For information on hundreds of Linux distributions
  - <https://distrowatch.com/>
  - <https://en.wikipedia.org/wiki/DistroWatch>
- Search Engines
  - DuckDuckGo <https://duckduckgo.com/>
  - Google <https://www.google.com/>
  - Call Phil... 

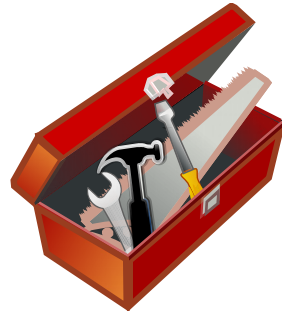


# Read The Friendly Manual



- The Linux Documentation Project  
<http://TLDP.org/>  
[https://en.wikipedia.org/wiki/Linux\\_Documentation\\_Project](https://en.wikipedia.org/wiki/Linux_Documentation_Project)
- The Linux man-pages project  
<https://www.kernel.org/doc/man-pages>
- RTFM  
<https://en.wikipedia.org/wiki/RTFM>

# Tools



- Unix Tool Box

<http://cb.vu/unixtoolbox.xhtml>

- Cheat Sheets

<http://cht.sh>

<http://www.cheat-sheets.org/>

<http://www.techieblogger.com/2009/10/linux-unix-ubuntu-solaris-cheat-sheets.html>

<https://devhints.io/>

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# Alternative Software

- Crowdsourced software recommendations
  - <https://alternativeto.net/>
- Even more sites, listed under Finding Application Software section...
  - [https://newlug.sluug.org/cdrom.html#finding\\_apps](https://newlug.sluug.org/cdrom.html#finding_apps)
- **REMEMBER:**
  - \$ apropos (or man -k)
  - \$ aptitude
  - \$ info (or **pinfo**)
  - \$ man man
  - \$ **xman** (or gman)
  - \$ synaptic



# Remote Desktop Assistance



Gitso ~ a frontend to reverse VNC connections

<https://code.google.com/archive/p/gitso/>



Remote Desktop Viewer (Vinagre/Vino) ~ Gnome offering

[https://en.wikipedia.org/wiki/Vino\\_\(VNC\\_server\)](https://en.wikipedia.org/wiki/Vino_(VNC_server))



Remmina ~ client/server for GNOME desktop environment

<https://en.wikipedia.org/wiki/Remmina>



X2go ~ access a graphical desktop of a computer over a low bandwidth (or high bandwidth) connection.

<https://wiki.x2go.org/doku.php>

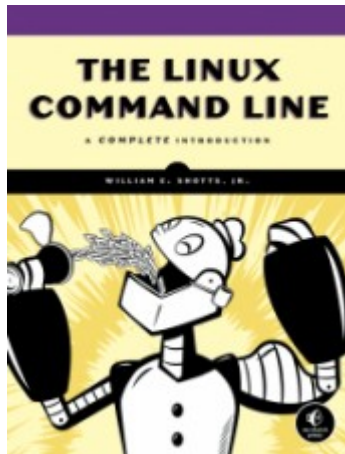


TeamViewer ~ Commercial with free single personal use

<https://www.teamviewer.com/en-us/>

# Book for CLI

## The Linux Command Line



A Complete Introduction by William E. Shotts Jr.

4<sup>th</sup> Internet Edition Available Now

Hard Copy printed by No Starch Press

ISBN-13: 978-1-59327-389-7

\$39.95 USD or less

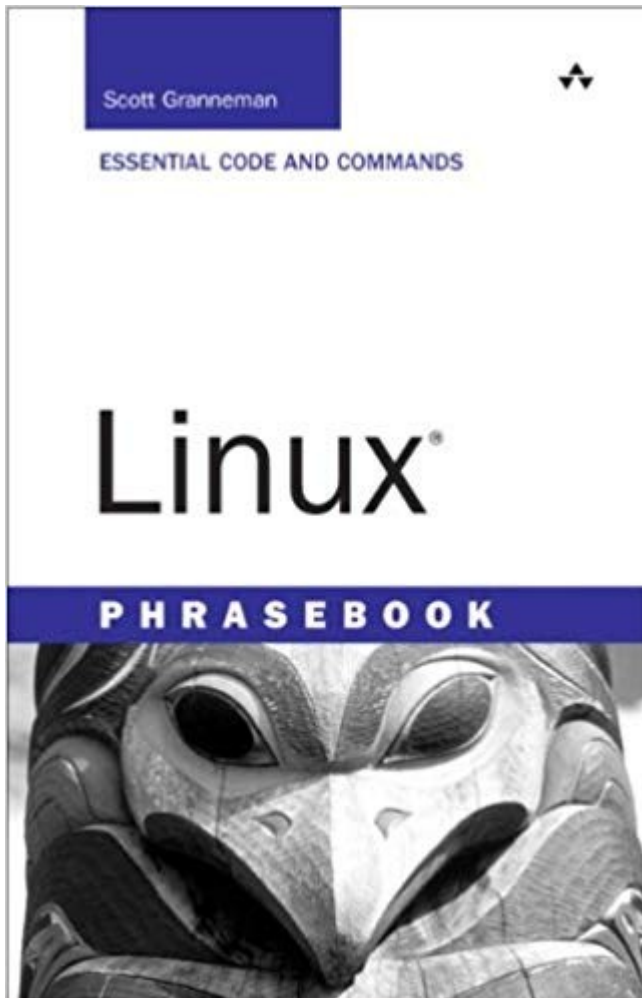
\*\*\*\*\*

**PRO:** Free online content available  
Free PDF download available

<http://linuxcommand.org/index.php>

**CON:** ??????????????????

# Another Book for CLI



**Linux Phrasebook** by Scott Granneman

1<sup>st</sup> Edition **Essential Code and Commands**

\$6 USD (many used available for less)

Copyright © 2006 by Sams Publishing

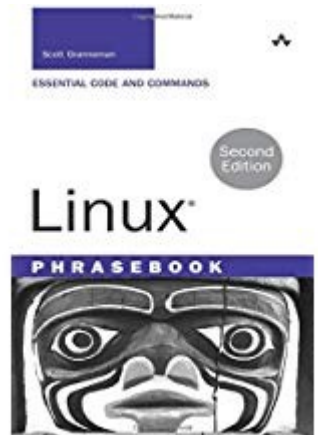
ISBN 0-672-32838-0

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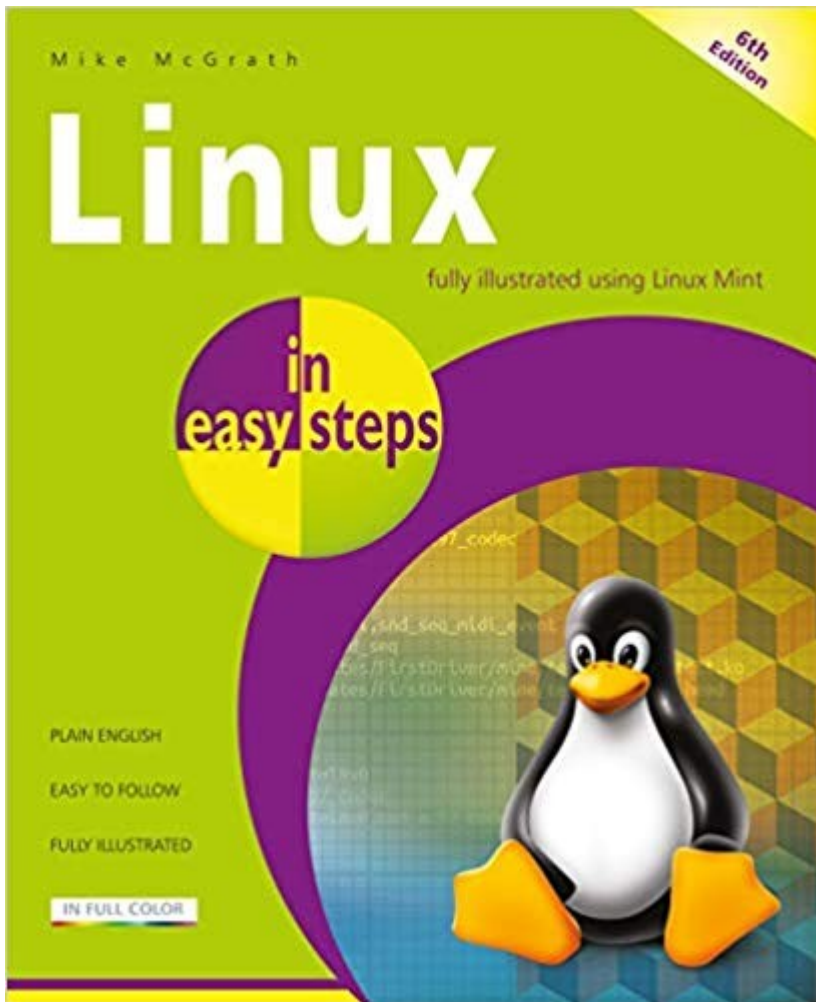
**PRO:** Invaluable, **Must Have for CLI**

**CON:** Example wrapping hard to read

2<sup>nd</sup> Edition: ISBN-13 978-0321833884 \$23 USD or less



# Book for GUI



**Linux in easy steps** by Mike McGrath

6th Edition

**fully illustrated using Linux Mint**

\$15.99 USD *or less*

ISBN-13 978-1840788082

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- **PROS:** Primarily good graphic examples
  - Minimal command line coverage
- **CONS:** Graphics are just relatively small
  - Desktop Environment is Cinnamon
  - (I recommend MATE environment)

# Help Getting Help

What are your questions?





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