Chapter 18: Common Applications

INTRODUCTION

By the end of this chapter, you should be familiar with common Linux applications including:

- Internet applications such as browsers and email programs.
- Office Productivity Suites such as LibreOffice.
- Developer tools such as compilers, debuggers, etc.
- Multimedia applications such as those for audio and video.
- Graphics editors such as GIMP and other graphics utilities.

SECTION 1: INTERNET APPLICATIONS

The internet is a global network that allows users around the world to perform multiple tasks such as searching for data, communication through emails, and online shopping. Obviously, you need to use network-aware applications to take advantage of the intert. These include:

- Web browsers
- Email clients
- Online media applications
- Other applications

Linux offers a wide variety of web browsers, both graphical and text based including:

- Firefox
- Google Chrome

- Chromium
- Epiphany
- Konqueror
- w3m
- lynx

Email applications allow for sending, receiving, and reading messages over the internet. Linux systems offer a wide number of email clients, both graphical and text-based. In addition, many users simply use their browsers to access their email accounts. Most email clients use the Internet Message Access Protocol (IMAP) or the older Post Office Protocol (POP) to access emails stored on a remote mail server. Most email applications also display HyperText Markup Language (HTML) formatted emails that display objects such as pictures and hyperlinks. the features of advanced email applications include the ability of importing address book/contatct lists, configuration information, and emails form other applications. Linux supports the following types of email applications:

- Graphical email clients such as Thunderbird (produced by Mozilla), Evolution, and Claws Mail.
- Text mode email clients such as mutt and mail.

Linux systems provide many other applications for performing internet-related tasks. These include the applications on the following table:

Application	
FileZilla	Intuitive graphical FTP client that supports FTP, Secure File Transfer Protocol (SFTP) and F
Pidgin	To acce
Ekiga	
Hexchat	

SECTION 2: PRODUCTIVITY AND DEVELOPMENT APPLICATIONS

Most day-to-day computer systems have productivity applications (sometimes

called office suites) available or installed. Each suite is a collection of closely coupled programs used to create and edit different kinds of file such as:

- Text (articles, book, reports, etc.)
- Spreadsheets
- Presentations
- Graphical objects

Most Linux distros offer LibreOffice, an open source office suit that started in 2010 and has evolved from OpenOffice.org. While other office suites are available as listed, LibreOffice is the most mature, widely used, and intensely developed. The component applications included in LibreOffice are:

Component of LibreOffice	Usage
Writer	Word processing
Calc	Spreadsheets
Impress	Presentations
Draw	Create and edit graphics and diagrams

Linux distros come with a complete set of applications and tools that are needed by those developing or maintaining both user applications and the kernel itself. These tools are tightly integrated and include:

- Advanced editors customized for programmers' needs such as vi and emacs.
- Compilers (such as gcc for programs in C and C++) for every computer language
- Debuggers such as gdb and various graphical front ends to it and many other debugging tools (such as valgrind.)
- Performance measuring and monitoring programs, some with easy to use graphical interfaces, others more arcane and meant to be used only by serious experienced development engineers.
- Complete Integrated Development Environments (IDEs) such as Eclipse that put all these tools together.

On other operating systems, these tool have to be maintained and installed separately, often at high cost, while on Linux they are all available at no cost through the standard package installation system.

SECTION 3: MULTIMEDIA APPLICATIONS

Multimedia applications are used to listen to music, view videos, etc., as well as to present and view text and graphics. Linux systems offer a number of sound player applications including:
Application	Use
Amarok	Mature MP3 player with a graphical interface that plays audio and video files and streams (online audio files.) It allows you to create a playlist that contains a group of songs and uses a database to store information about the music collection.
Audacity	Used to record and edit sounds and can be quickly installed through a packager manager. Audacity has a simple interface to get started.
Rhythmbox	Supports a large variety of digital music sources including streaming Internet audio and podcasts. The application also enables search of particular audio in a library. It supports "smart playlists" with an automatic update feature which can revise playlists based on specified selection criteria.
Of course, Linux systems also can connect with commercial online music streaming services such as Pandora and Spotify through web browsers.

Movie players can portray input from many different sources either local to the machine or on the internet. Linux systems offer a number of movie players including:

- VLC
- MPlayer
- Xine
- Totem

Movie editors are used to edit videos or movies. Linux offers a number of movie editors including:
Application	Use
Kino	Acquire and edit camera streams. Kino can merge and separate video clips.
Cinepaint	Frame-by-frame retouching. Cinepaint is used for editing images in

a video.
Blender | Create 3D animation and design. Blender is a professional tool that uses modeling as a starting point. there are complex and powerful tools for camera capture, recording, editing, enhancing, and creating video, each having its own focus.
Cinelerra | Capture, compose, and edit audio/video.
FFmpeg | Record, convert, and stream audio/video. FFmpeg is a format converter, among other things, and has other tools such as ffplay and ffserver.
SECTION 4: GRAPHICS EDITORS AND UTILITIES

Graphics editors allow you to create, edit, view, and organize images of various formats like Joint Photographic Experts Group (JPEG or JPG), Portable Network Graphics (PNG), Graphics Interchange Format (GIF), and Tagged Image File Format (TIFF). GIMP (GNU Image Manipulation Program) is a feature-rich image retouching and editing tool similar to Adobe Photoshop and is available on all Linux distros. Some features of GIMP are:

- It can handle any image file format.
- It has many special purpose plugins and filters.
- It provides extensive information about the image, such as layers, channels, and histograms.

In addition to GIMP, there are other graphics utilities that help perform various image-relted tasks including:
Graphics Utility	Use
eog	Eye of Gnome (eog) is an image viewer that provides slid show capability and a few image editing tools such as rotate and resize. It can also step through the images in a directory with just a click.
Inkscape	Inkscape is an image editor with lots of editing features. It works with layers and transformations of the image. It is sometimes compared to Adobe Illustrator
convert	convert is a command line tool (part of the ImageMagick set of applications) that can modify image files in many ways. The options include file format conversion and numerous image modification options such as blur, resize, despeckle, etc.
Scribus	Scribus is used for creating documents used for publishing and providing a What You See Is What You Get (WYSIWYG) environment. It also provides numerous editing tools.
SUMMARY

- Linux offers a wide variety of Internet applications such as web browsers,

email clients, online media applications, and others.

- Web browsers supported by Linux can either be graphical or text-based such as Firefox, Google Chrome, Epiphany, w3m, lynx, and others.
- Linux supports graphical email clients such as Thunderbird, Evolution, and Claws Mail along with text mode email clients such as mutt and mail.
- Linux systems provide many other applications for performing Internet-related tasks such as FileZilla XChat, Pidgin, and others.
- Most Linux distros offer LibreOffice to create and edit different kinds of documents.
- Linux systems offer entire suites of development applications and tools including compilers and debuggers.
- Linux systems offer a number of sound players including Amarok, Audacity, and Rhythmbox.
- Linux systems offer a number of movie players including VLC, MPlayer, Xine, and Totem.
- Linux systems offer a number of movie editors including Kino, Cinepaint, and Blender among others.
- The GIMP (GNU Image Manipulation Program) utility is a feature-rich image retouching and editing tool available on all Linux distros.
- Other grahpics utilities that help perform various image-related tasks are eog, Inkscape, convert, and Scribus.