

Linux Lessons: Linux Multimedia

“Linux needs to be a player in the multimedia arena.”

by Pete Choppin

One of the most important things that Linux has to get right, if it wants to be considered a serious contender in the desktop scene, is the ability to be used as an entertainment device. Whether it's playing music or movies, Linux has to be good at it—at least as good at playing them as Windows.

Historically, a weakness of Linux has been multimedia playback. Linux never really was an entertainment system. But for Linux to truly break into the desktop market, it will need to seriously address multimedia.

The good news is that a few teams of developers have been developing many applications that, in some cases, are better than their Windows counterparts! Let's first address some basic technical hurdles that Linux must overcome to really be a player in the multimedia arena, and then we will take a look at a few very nice entertainment applications that are available.

Codecs

If you will indulge me, let's first define some technology that enables various multimedia applications to operate. A codec is a device or computer program capable of encoding and/or decoding a digital data stream or signal. The word *codec* is a morph of the terms "compressor-decompressor" or, more commonly, "coder-decoder." The programs that are developed to accomplish this are sometimes protected by copyrights. The codecs that are used for Windows Media Player and that handle the MP3 formats are owned and copyrighted by Microsoft, and, therefore, Linux operating systems cannot legally ship with these programs.

The codecs war still goes on and to date, Linux has not made much headway. There are many [Open Source codecs](#), but the problem is the demand for using the proprietary Windows codecs is great enough that Linux cannot simply ignore the problem. Either Linux and Microsoft will have to come to some agreement on this technology or someone will need to develop an open-source codec that doesn't infringe on copyrights, and yet is compatible with Windows media.

Basic Media Players

There are many media players available for Linux; however, there are just a few that are packaged with the more popular Linux distributions. The advantage of using packaged apps, rather than manually installing others, is simply that it is less of a hassle. For the most part, these packaged apps are ready to run (although it may be necessary to add codecs for other formats that Linux cannot legally include in the distribution). Here are just a few.

MPlayer—MPlayer has been one of the best players for playing media in Linux, since it supports a large number of codecs and includes lots of features.

VLC Media Player—VLC is another cross-platform free and open-source media player. It is

also a lot more powerful than MPlayer, allowing you to stream all sorts of media across the network.

Amarok—Amarok is one of those applications that is better than almost any other media player that's available in Windows. Until now, Amarok was not available in Windows, but with the advances in KDE4, we can check out Amarok in Windows itself. Amarok is just an audio player, but it supports a large variety of files and includes a lot of features

Audacious—Audacious is a lookalike of Winamp, a media player available in Windows. Audacious is a fork of Beep Media Player, which was a fork of XMMS, a Winamp clone. Audacious has a huge number of features, thanks to its extensible nature and large number of plugins. One of these plugins gives Audacious the ability to play MP3, Ogg Vorbis, FLAC and Monkey's Audio files out of the box. Audacious also supports old Winamp 2 skins.

Together, these four applications are capable of playing any media format you throw at them. Whether it's high-definition videos, lossless music, videogame sounds, or Internet radio, these applications will support them all. Now let's take a look at some very cool entertainment applications. These are better classified as media centers because their capabilities go well beyond basic media playback.

[LinuxMCE](#)

This feature-rich media center has excellent media controls, and management of all streams of multimedia, photos, music and video. But keep in mind that it is not a software package in the traditional sense that you can install it to your system. It is a complete Linux distribution based on Ubuntu.

[XMBC](#)

Released in 2002 for the Microsoft Xbox, but also available on Linux platforms across the PC architecture, XMBC is another excellent media center for images, audio and video, in all common formats. It is simple and intuitive to use, and a top media player for theming and standalone use. XMBC is easy to install with Ubuntu. It does, however, require third-party tweaking to run on some of the other most common distros.

[MythTV](#)

MythTV is a media center software that can be installed on your computer just like any other application. It has strong roots in the Linux arena and is considered the "mother of all Linux media centers." With an easy install across multiple Linux platforms—Ubuntu, OpenSuse, Fedora, Mandriva and others—MythTV comes with digital video recording (DVR) capability, and some excellent plugins across the Myth portfolio, thus catering to a huge array of multimedia needs with MythArchive, MythMusic, MythVideo, MythWeb, Theming and Media Server capabilities.

[WOMP!](#)

Lightweight and clean both in installation and usability, WOMP! is arguably the simplest of all Linux media centers to use. A no-nonsense application, it does not have the deep features or

functionality of those mentioned, but for the average user it is an exceptional piece of open-source software. WOMP! can burn and play audio and video files, and has a small install footprint, thus leaving plenty of space for multimedia storage/navigation. It may have a dated look and feel, and would benefit from YouTube integration, but this is a very neat, no-frills, no-fuss media center for playing and burning media files in Linux.

Windows is regarded as a media master in usability, availability and versatility. Be that as it may, Linux has some very nice alternatives. As Linux becomes more and more usable for everyone, it will have to become a powerful media center in order to compete with Windows. We've looked at several great contenders in the Linux multimedia realm and hopefully made some sense of it. There are still some hurdles Linux must overcome, but it has already come a long way.