

## XMMS plugins

# UNPLUGGED — NO WAY

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Certainly, XMMS gets on like a house on fire with skins from WinAmp, its brother from the Windows world – but when it comes to plugins, they go their separate ways. No matter, because for most expansions of the Windows player there is also an appropriate expansion under Linux.

What was once just a simple MP3 player is now known, and rightly so, as “X Multimedia System”, XMMS for short. With hundreds of plugins, the program can be expanded to incorporate new functions. Below, we present both the plugins included in the download as well as third-party plugins.

## Noise makers, there right from the start

The *CD audio player 1.2.5* plugin, an audio-input plugin, for example, makes it possible to play back audio CDs. In the configuration dialog (reached by clicking on the *Configure* button in the tab *audio I/O plugins* in the XMMS Preferences menu) specify the **Device** to which your CD-ROM is connected.

After that, add the corresponding device file to the playlist (usually */dev/cdrom*) – and that’s it. With the tab *CD Info* you can persuade XMMS to fetch the display of the title on the CD automatically via one of the free **CDDB** servers on the Net. This obviously presumes you have a Internet connection running.

Another audio input plugin delivered as standard is named *MPEG Layer 1/2/3 Player 1.2.5* and looks after everything to do with your *mp3* files. It is based on the classic *mpg123*. If the files are playing back at only half the normal speed, owners of older sound cards should reduce the *Resolution* from *16 Bit* to *8 Bit*, then the songs should again sound normal.

This plugin is also responsible for the fact that you can use XMMS in connection with the Internet radios from *Shoutcast*. If you use a **Proxy** to do so, you can set this (including port, username and

password) in the *Streaming* tab.

If you want to store the streams on your hard drive, ask XMMS to do so in the same tab by selecting the field *Save stream to disk*. With a few little changes you can get *Netscape* to use *xmms* automatically when you select a radio channel at <http://www.shoutcast.com/>. In Netscape 4.x select the menu item *Edit / Preferences / Navigator / Applications*, and make sure the entry *xmms %s* is assigned to the MIME type *audio/x-scpls* as the application to be used.

## Diversion for the output

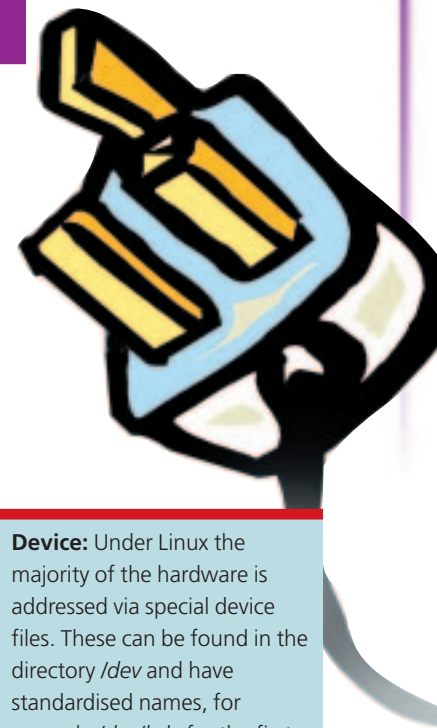
One of the *Output-plugins* usually supplied as standard is the *Disk Writer plugin*. With this not only *mp3* files, but all formats for which there is an input plugin, can be converted to the *wav* format, so you could then, for example, burn them onto an audio CD.

The most fundamental standard plugin, though, would be the **OSS-Driver**. If a computer has several sound cards, after a click on the *Configure* button, set which of these XMMS ought to use. This is also where you can adjust the size of the data buffer used by XMMS when streaming.

If you have installed **esd**, you can use the *ESD plugin*. This means other programs can continue to use sound effects while you listen to music in XMMS.

## Effects and sequences of images

The sound behaviour of the sound output is affected by the *Effect plugins*. So you can give songs an echo with the *Echo plugin 1.2.5*, or put a



**Device:** Under Linux the majority of the hardware is addressed via special device files. These can be found in the directory */dev* and have standardised names, for example */dev/hda* for the first IDE hard disk or */dev/dsp* for the “digital signal processor” of the sound card.

**CDDB:** Abbreviation for “Compact Disk DataBase”, a CD title database on the Internet. This database contains all the information on any audio CD which has gone on sale. CDDBs are either kept locally or you can fetch the data from the Internet. For an audio player which supports the CDDB format, as soon as the CD is inserted a check is made as to whether the CD is already known. If not, the CD player tries to connect to the Internet and to find the data there on a CDDB server. CDDB programs access the TOCs (“Table of Contents”), which is a list contained on every CD.

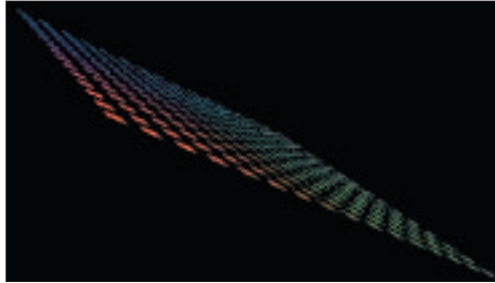


Figure 1: Gorgeously coloured

muzzle on the singer by listening to just the instrumentation, with the aid of the *Voice removal plugin 1.2.5*.

If you feel like visual experiences, let yourself be impressed by the *OpenGL plugin* from the category of *Visualization plugins* (Figure 1). It reacts to the same keyboard commands as the *xmms* main window.

Using the keyboard the [z] key is for jumping to the previous track beginning, [x] is the play key, [c] acts as the pause key, [v] is stop and [b] jumps to the next track. Plus, you can use the arrow keys to change the x and z axes or [q] and [w] to change the y axis respectively. The [Return] key resets the values.

In the configuration menu, activate the so-called *3DFX fullscreen mode*. If you have an XFree installation, in which the **DRI** is enabled, the plugin will be shown in a window which holds the mouse prisoner. Just press the [Esc] key once, and the so-called full-screen mode disappears.

Apart from the standard plugins there are a wide variety of jolly, useful and also pointless expansions for XMMS. To present them all would take up an entire issue of the magazine, so

### Box1: JESS practical

To install this plugin from its source archive, you will need the *libSDL* ("Simple DirectMedia Layer") library together with the development packet in version 1.1.5 or higher and the development packet for XMMS, in particular the tool *xmms-config*. The "Simple DirectMedia Layer" library can be obtained from <http://www.libsdl.org/>.

To play in the plugin itself, the following steps are necessary:

```
tar xzf jess-2.0.0.tar.gz
cd jess-2.0.0
make
su
(enter root password)
make install ; exit
```

In order for XMMS to take note of the new plugin, you will have to restart the program. It will then be ready for action under *Options / Preferences / Visualization plugins / \_JESS\_v2*.

whether we like it or not, we shall have to limit ourselves to a few very subjectively selected highlights. For the full plugin pitch with a brief functional description in each case, it's worth taking a look at

<http://www.xmms.org/plugins.html>.

## Shaken and stirred

Even without OpenGL it's still possible to have colour and an attractive appearance. This is shown by *JESS*, which also comes under the category of *Visualization plugins* and can be obtained from <http://arquier.free.fr/>. Under the influence of the music, *JESS* conjures up a wide variety of effects such as fading, rotation or zooming onto the screen (Figure 2). If your X-window configuration has a mode for 640x480 pixels, the whole thing also works in full-screen mode. The plugin responds to the keys [F1] to [F5] for fading, [F9] to [F12] for various character modes, [p] to change the colour palette and the spacebar to toggle between window and full-screen mode.

Information on installation can be found in Box 1.

## Real listening pleasure

The *Realaudio-plugin* from *4Front* is brand new ([http://www.xmms.org/plugins\\_search.html?mode=search&query=rmxmms](http://www.xmms.org/plugins_search.html?mode=search&query=rmxmms)). With its help, real audio streams *QSound-iQ-* and *spatializer streamFX* effects can be mixed together. The spatializer upgrades MP3s, in particular those which have been recorded at a low bit rate. These include mainly streaming MP3s, which are played out live during an on-going Internet transfer.

The programs in the *iQ* family convert MP3s and other audio files from XMMS into virtual 3-D stereo. Plus, *wav* files and other audio data in 3D stereo can be improved by it. The commercial *QSound-iQ* plugin was previously only available in the Windows version of the *RealPlayer*. Through the new *Realaudio* plugin there is now the option of using 3D sound effects and representing the Real audio stream graphically. But anyone wanting to use it must also have installed *RealPlayer 8.0* on the hard disk.

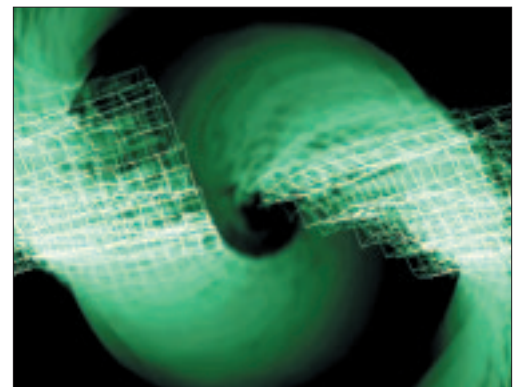


Figure 2: Digital whirlwind

**Proxy:** A proxy is a server between the Internet and an internal network / computer, which mediates between the two. The best-known examples are web proxies, which buffer often-required websites and then make these available to the user more quickly than with a direct connection to the Internet. The pages then only have to go down the route to the user and no longer have to be loaded direct from the Internet.

**OSS:** Abbreviation for "Open Sound System". A distinction is made between *OSS/Free* (*OSS/Lite*) and *OSS/Linux*, the commercial variant. The free version is currently the only sound system which is a direct part of the standard kernel and is available with every current Linux distribution. The essential difference between the two variants lies in the fact that the paid-for version offers buyers support and supports a few additional sound cards. A few Linux distributions come with limited-period demo versions of *OSS/Linux*.



Figure 3: On the drums, ready, go...



Figure 4: VIP on your desktop

## Played for the dance

The plugin *GDancer* also provides graphical highlights, and you can get it from <http://figz.com/gdancer/>. After installation you will find the entry *GDancer [gdancer.so]* in the section *Options / Preferences / Visualization plugins*. Click on it with the mouse, and then activate the field *Enable plugin*. Straight away, a little man should appear, as in Figure 3, who will strut his stuff and move rhythmically to the beat of your audio files.

So that it does not get too boring, the maker and fans of this plugin also supply additional little figures at <http://figz.com/gdancer/themes.php>, so that if you like, you can always have new characters moving across your desktop. Unpack the respective theme in the directory `~/xmms/gdancer_themes/`, which is made automatically the first time the plugin is started.

You can change the theme by clicking with the right mouse button on the existing figure and selecting the item *Configure*. In the drop down menu select your desired theme, and immediately you could have, say, Bill Clinton dancing on your desktop (Figure 4).

## Peaceful coexistence

Not quite so much fun, but on the other hand a lot more useful, is the additional plugin *xmmsarts*. There is something special about this: The KDE Project is producing its own multimedia architecture, based on *aRts* ("Analog Realtime Synthesizer"). It is actually pretty good, since *aRts*, like *esd*, allows several audio or video data streams to play back at the same time. Stupidly, the sound device (say, your sound card) does not agree when both *aRts* and other programs want to access it simultaneously. This causes problems of co-operation between *aRts* and XMMS.

For all those who don't want to do without either one, the *xmmsarts* plugin is an obvious choice, and is available for downloading at <http://home.earthlink.net/~bheath/xmms-arts/>. This clever little *aRts* output driver ensures that in future there will be no more clashes between XMMS and *aRts*, but instead they can live together peacefully.

Once installed, under *Options / Preferences / audio I/O plugins*, select the freshly-added item *aRts Driver 0.3 [libartsout.so]* (in more recent versions the entry may display a higher version number), and you can now play music with *aRts*, too.

## Blender

For many users of the plugin, *Crossfade* is used purely and simply to blend XMMS titles into each other and play them back uninterrupted. The latest version can be found on the homepage of the author at <http://www.netcologne.de/~nc-eisen/pe2/xmms-crossfade/>.

After installation *Crossfade* takes its place in the ranks of the *Output plugins*. Once selected, when working through the playlist, XMMS fades out towards the end of one track and fades in the next song.

In the current version a minor cosmetic flaw from the previous versions has been corrected. This means that *Crossfade* is now also capable of outputting sound via *esd*. To do this, use the *Configure* button to open the configuration menu, go to the *Output* section, and change from the default *Builtin OSS Driver* to *Output plugin*. There, select *eSound Output plugin 1.2.5* (Figure 5).

The tab *Gap Killer* is also of interest. If you choose this effect, when XMMS is to play titles one after another without cross-fading and without audible gaps – welcome to the endless loop...■

**esd:** The "Enlightened Sound Daemon" is a server ("utility program") which mixes together several audio sources prior to output on the sound card. So these can be used by more than one program at the same time.

**DRI:** Abbreviation for "Direct Rendering Infrastructure". This makes it possible to use 3D functions based on OpenGL with hardware support by the graphics card inside an X window. In practical terms, this means that 3D functions can be used better, more simply and above all more efficiently.

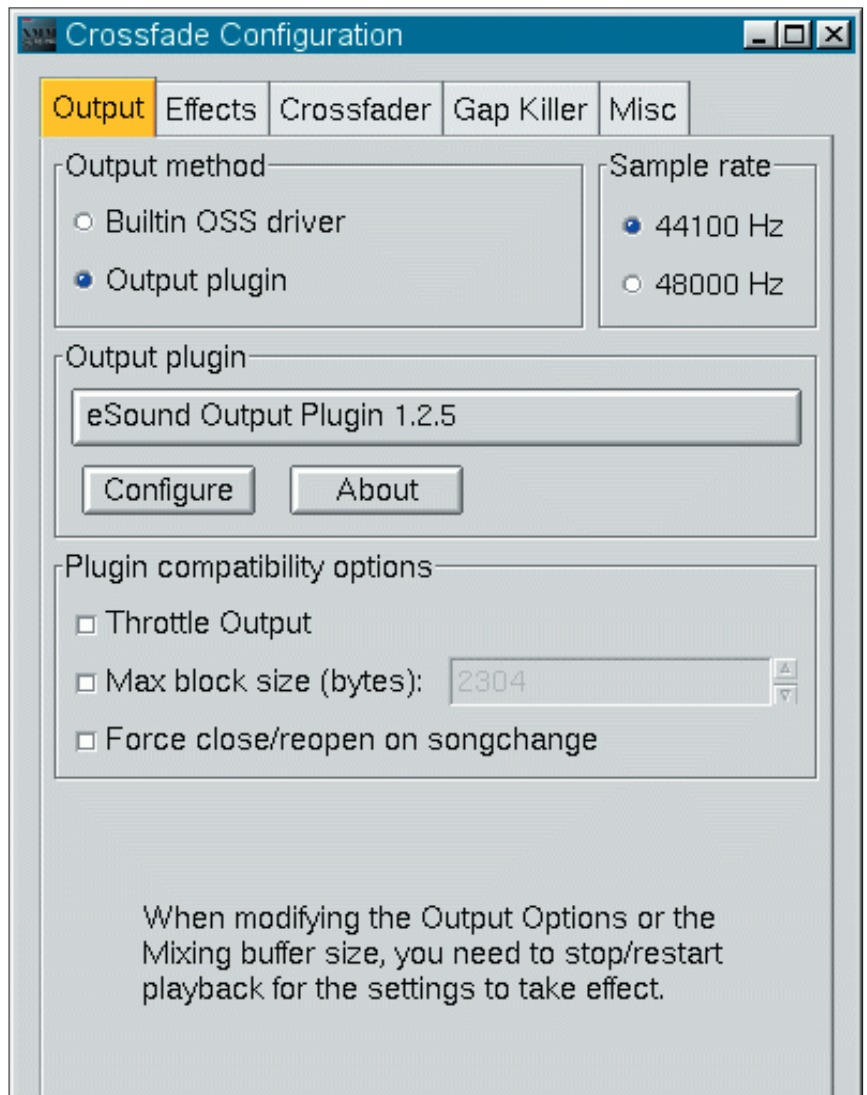


Figure 5: Crossfade + esd = no problem