Out of the box AUTOMATING MP3

BY CHRISTIAN PERLE

One of the best things about Linux is the amazing number of tools and utilities that have been written for it. With so much available, though, it can be hard to decide what's worth the download and what isn't. Each month, Out of the box trawls through them all to find a "must have", or at least an underrated program than deserves a place on your system, and shows you how to install and use it. This month it's the turn of tear, an automatic MP3 creation tool.

It can take absolutely ages to convert your CD collection into MP3 format: First you normally have to capture each track on each CD and save it as a WAV file. Then you have to convert them to MP3 format. Finally you have to give them all meaningful names. You needn't do things like this if you have the right tool, though, and tear is just such a tool. It even offers automatic track naming by using CDDB, an online database where title information on countless CDs is stored.

Undemanding

tear, whose name stands (in the best GNU tradition), for "*tear encodes and rips*", is not the first nor only program to automate CD to MP3 conversion. It is, however, unusually undemanding in terms of the resources it requires. Indeed, it only requires **Perl**, the Perl module *CDDB_get*, *cdparanoia,* and *lame*. Perl is present on every normal Linux system, and the last three are included in the *tear* package, which can be downloaded from *http://tear.sourceforge.net/*. A graphical **frontend** isn't amongst *tear*'s features, but one isn't really necessary as the program does all the essential tasks itself.

Into the system

The components necessary to run *tear* can be **compiled** from the source code contained in the package. However, you may well find that you already have them installed, or that they are provided as optionally installable packages with your distribution.

We'll assume that you don't already have *cdparanoia*, *lame* and *CDDB_get* compiled and installed in your system. To do so, having downloaded the package to your system, enter the following commands:

```
tar xzf tear-0.2.tar.gz
cd tear-0.2/misc/cdparanoia
./configure && make
su  (enter root password)
make install ; exit
cd ../lame
make && strip lame
su  (enter root password)
cp lame /usr/local/bin ; exit
cd ../CDDB_get
perl Makefile.PL
make
su  (enter root password)
make install
```

Finally the *tear* Perl script must be copied into the */usr/local/bin* directory, as follows:

```
cd ..
cp tear /usr/local/bin ; exit
```

Warning, recording!

Having completed the installation we can now test the new program. To do so, insert an audio CD in

MP3: *An abbreviation for MPEG 1 Audio Layer 3, a process which compresses CD quality audio data to around an eleventh of its original size without noticeable audio deterioration.*

WAV: *A normally uncompressed audio format first widely used on Windows platforms.*

Perl: *The "Practical extraction and report language", a very powerful script language used on a variety of platforms.*

Frontend: *a program which serves as the interface for another program in order to simplify its use.*

Compile: *A program in source text form is not yet ready to be executed by the operating system. This must be compiled (translated) using a compiler to convert it into the form of a program that can be executed by whatever type of processor your system is based around. One great advantage of source code is that it can be compiled for use on various platforms (Intel, Sparc, Alpha and so on) - as long as, that is, the code has been written in such a way as to make it portable across platforms in the first place.*

■

your CD-ROM drive and start a terminal emulator (*xterm*, *rxvt*, *Eterm* or whatever) and enter the following command:

```
tear N b 128
```

tear will then read the complete CD using *cdparanoia* (Figure 1). Before the last track is read you should ensure that your computer has a connection to the Internet, as once *tear* has finished reading your CD it will attempt to interrogate the CDDB database. The *N* option we gave the program tells it to run in a more verbose than normal mode, while *b 128* specifies the **bit rate** to be used by *lame*. You'll be glad to know that the MP3 files created this way will have full and correct **ID3 tags** without you lifting a finger. *tear* also supports several other options, an overview of which can be displayed using *tear h*.

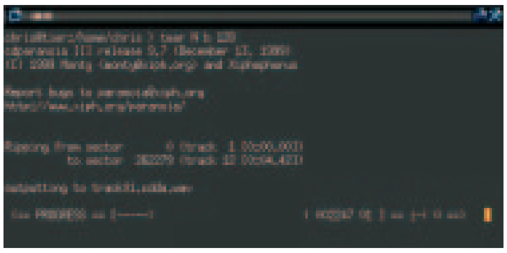
Once it has done all the work we've asked it to, *tear* will have created an *mp3* directory with additional sub-directories. This is where our MP3 music files can now be found.

Not much room?

Ala, not all of us can afford the latest 80Gb hard disks, so you'll often find you don't actually have enough disk space to accommodate a complete album in WAV format (which is the first step taken by *tear* in order to eventually produce your MP3 files). For this reason, *tear* has a *B* option, which tells it not to perform "batch processing". With this option, *tear* completely processes just one track at a time, deleting the WAV file used once the MP3 file for the track has been created. Our next example uses this option, disables verbose output mode, and requests a higher bit rate than before:

```
tear B b 160
```

And that's about all there is too it – CD to MP3 in just a few keystrokes. Before long you'll find your computer is no longer just a computer, but a jukebox too! ■



```
chris@tiger:/home/chris > tear N b 128
cdparanoia III release 9.7 (December 13, 1999)
(C) 1999 Monty <monty@xiph.org> and Xiphophorus

Report bugs to paranoia@xiph.org
http://www.xiph.org/paranoia/

Ripping from sector       0 (track  1 [0:00.00])
          to sector  282279 (track 13 [0:04.42])

outputting to track01.cdda.wav

 (== PROGRESS == [------]                  | 002187 00 ] == :-) 0 ==
```

Fig. 1: tear uses cdparanoia

Bit rate: MP3 files can be created with various bit rates (often specified in KBit per second). At very low bit rates an MP3 file can be compressed more, but there is greater loss of sound quality. Conversely, at high bit rates you get less compression but better sound quality. In practice, bit rates between 128 Kbps and 192 Kbps offer a good balance between quality and compression.

ID3 tag: A special addition to an MP3 file that can be used to store data such as year of publication, music genre and so on. Most MP3 players read this information and display it when playing files. ■

K-splitter
MOTLEY

BY STEFANIE TEUFEL

Who says there's no place for gossip and scandal in a Linux magazine? K-splitter dishes the dirt on what's happening in the K-World and noses around behind the scenes.

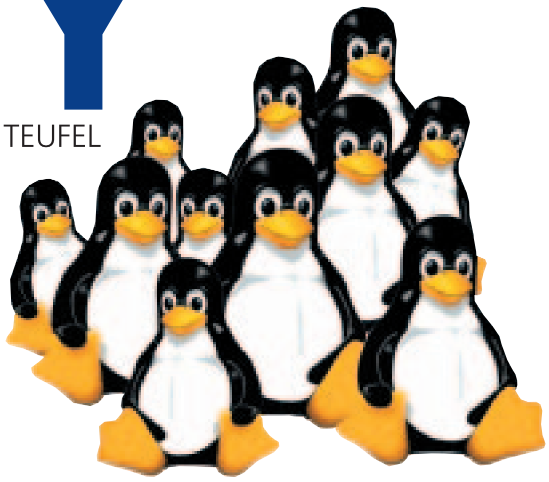


Fig. 1: Penguins as far as the eye can see

Penguin invasion

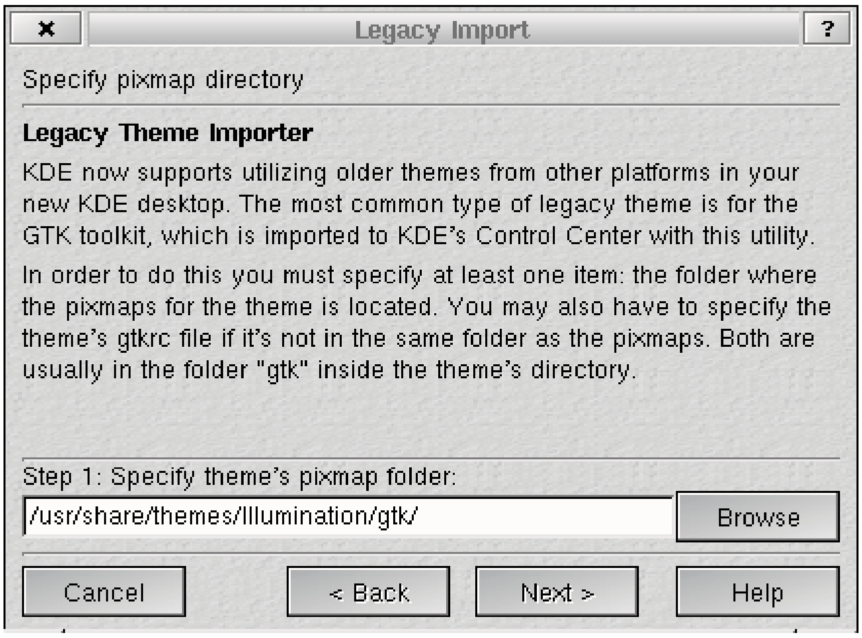
Anybody who couldn't wait a few more weeks until the final release of KDE 2.0 and downloaded KDE Beta 3 ("Korner", aka KDE 1.92) will have been both disappointed and amused. Disappointed because the developers neglected to provide the widely announced Freeze feature in it, and amused to find *Icon Themes* specifically aimed at all penguin lovers (see Figure 1).

Users of the previous beta versions, *Confucius* and *Cleopatra*, can have a look at the amusing little fellows too. Go to http://ftp.kde.org/pub/kde/Incoming/, or the KDE mirror of your choice, grab the *theme-penguins.tar.gz* package and unpack it in the **$***HOME/.kde/share/icons* directory. All that now separates you from your new desktop pals is a small entry in *$HOME/.kde/share/config/kdeglobals*. Just open *kdeglobals* in any editor you like and add:

```
[Icons]
Theme=penguins
```

And that's it. Each KDE application you start from

*$: The dollar symbol before a variable name tells the shell that you want to use the named variable's content. The shell variable **HOME** refers to your home directory.* ■



Legacy Import

Specify pixmap directory

Legacy Theme Importer

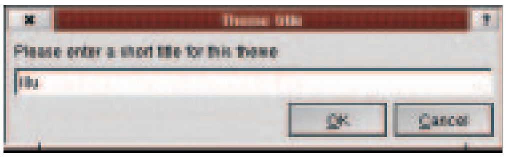
KDE now supports utilizing older themes from other platforms in your new KDE desktop. The most common type of legacy theme is for the GTK toolkit, which is imported to KDE's Control Center with this utility.

In order to do this you must specify at least one item: the folder where the pixmaps for the theme is located. You may also have to specify the theme's gtkrc file if it's not in the same folder as the pixmaps. Both are usually in the folder "gtk" inside the theme's directory.

Step 1: Specify theme's pixmap folder:

/usr/share/themes/Illumination/gtk/

Fig. 2: Importing themes made easy



Theme title

Please enter a short title for this theme

illu

Fig. 3: Import me!

now on will be a fully paid-up member of Penguin Lovers of the world.

And they do see eye to eye

If you were to believe many a Usenet posting, you might think that KDE and GNOME developers hate each other's guts. This can't be the case though, as the second innovation of the KDE 2 beta 3 proves. At long last, all those nice GTK-Themes that GNOME users know and love can be used by KDE aficionados.

How is it done? Well, quite simply by using a new *Legacy Theme Importer* tool. Just to be different, you won't find this in the KDE control centre like most other configuration tools. This little baby is hidden in the K-menu under the *System* option (see Figure 2).

When using the importer option, the first thing you'll need to do specify a path to the theme want to import (in most cases your GTK themes will be found at */usr/share/themes*). Next you'll need to christen your imported theme with a more expressive name (see Figure 3), which in future KDE will show you in the control centre as a selection option. The end result can really look great, as the new look of the KDE control centre in Figure 4 shows!

Attempted outbreak

Anyone who uses Microsoft's *Outlook Express* under Windows will be especially pleased with yet another new arrival in the KDE camp – *Kmailcvt*. The current version for KDE 1.1.2 and beta versions for the 2.0 series can be found at http://calypso.wolmail.nl/~ac6730/kmailcvt/.

This neat little tool makes the changeover from *Outlook*to the KDE *KMail* email client a lot less traumatic, as it allows you to import your old folders (ending in *.dbx*) into Kmail. It also lets you import *MS Exchange Personal Addressbook-*(*.pab*-)files into the KDE address book. This is all done with little more than a mouse click (see Figure 5).

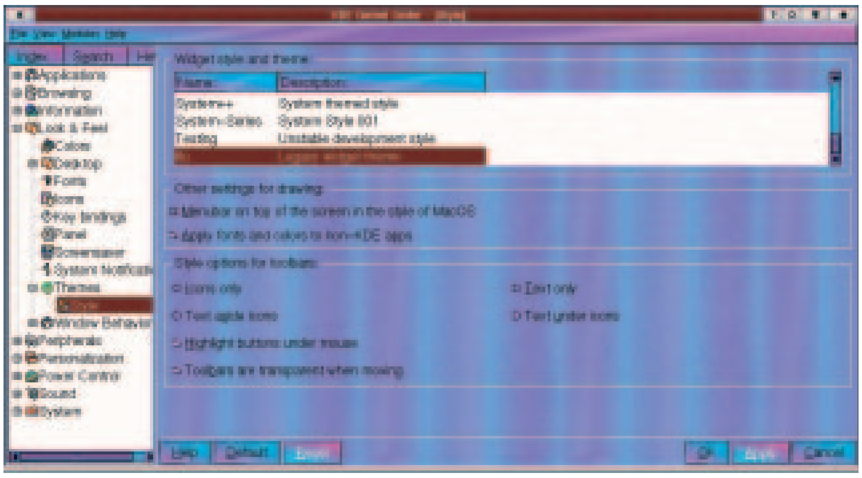
Portals

A portal all developers interested in KDE should look at is http://www.ksourcerer.org/, whose aim is to collect everything that can possibly make programming for and under KDE even easier in one place. If you like the idea, please do your bit to help. If you stumble across a nice bit of documentation or a scrap of code on your travels across the Web, let the lads at KSourcerer know by sending them an email at team@ksourcerer.org. There's an awful lot there already, including great tools from programmers such as Burkhard Lehner, the author of the book *KDE and Qt programming*. ■

The author

Stefanie Teufel is a graduate political economist and works as an online editor at the Business Channel. She is also absolutely passionate about Linux, so in her spare time she writes books on the subject, not to mention articles for Linux Magazine!

Fig. 4: Doesn't it look great?



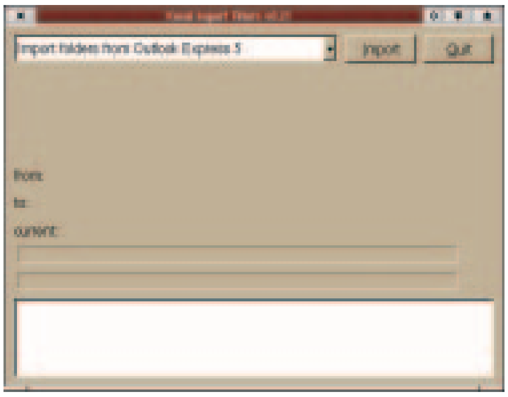


Fig. 5:
Make them see the light – convert Outlook email!