Grip

Converting at speed

Do you repeatedly find yourself searching for CDs. Is your music collection a shambles? MP3 encoders are two-a-penny, but most of them are difficult to operate or configure. This is where grip starts to shine, combining the functionality of a CD player with a stable, and useful GUI for CD ripping and MP3 encoding tasks. BY FREDERIK BIJLSMA

Adding a collection of music CDs to your local MP3 archive without jumbling things up can be challenging, but Linux has tools that take care of all the tasks this involves. You can use *cdparanoia* [1] to convert the CD to wav audio format, for example, and LAME [2] is a reference class MP3 encoder. So why should you be interested in a GUI to help you rip your CDs and **encode** MP3s?

The answer is quite simple: *grip* [3] by Mike Oliphant uses a GUI that provides a collective roof for the whole range of functions needed to convert CDs to MP3 files. For example, the program can automatically add so called **ID3 tags** with the titles and artists names, query **CDDB** databases and creating a directory for each new CD.

Before you can start ripping CDs with *grip*, you will need *cdparanoia*, (alternatively, you could use *cdda2wav* [4]) and the GNOME libraries (normally stored in a packet called *gnome-libs* or similar). *Grip* uses a special encoder program to encode each audio format. LAME is a good choice for MP3 files.

LAME is the acronym for *LAME Ain't an Mp3 Encoder* and thus follows GNU naming conventions. The Ogg Vorbis audio format [5] can be used as an alternative to MP3. Ogg Vorbis is completely free of software patents and can thus be used in any environment.

Installation

You will find various *grip* formats on the subscription CD. The sources are stored in the *grip-3.0.7.tar.gz* archive, you can install a binary packet for Debian Linux by entering *dpkg -i grip_3.0.0-1_i386.deb*. Current Red Hat distributions can use *rpm -ivh grip-3.0.7-1.i386.rpm* to install the packet.

The binary for SuSE Lnux is included on the SuSE installation CDs. If you would prefer to compile the source code, you need the packet mentioned previously, plus the GNOME and *libghttp* development packages. Use the following lines to create the complete program:

```
tar xzf grip-3.0.7.tar.gz
cd grip-3.0.7
./configure
make
su
make install
```

Hey Mr. DJ!

You can then type *grip* in an X terminal to start the program. A window like the one shown in Figure 1 appears. The initial screen resembles a CD player in size and appearance, and this is of course one of the basic *grip* functions. The program's playback functions are available below the player area. When you insert a CD, *grip* automatically attempts to access the **freedb** CD track database to retrieve a track-list for the CD. Of course, this only works if you are connected to the Internet.

The query feature is important if you intend to rip a larger collection of CDs, as the track and artist data allows *grip* to automatically store the results in a neat hierarchy, without any user interaction – provided it can locate the CDs in the online database.

If the CD cannot be located in the database, or if the connection to the database server fails, you can enter the missing data manually. To do so, click on the *Disc Editor* icon (shown as a pencil). You can now enter data for each track. Clicking on the envelope symbol also transmits the data you entered to the

GLOSSARY

CDDB/freedb: *CDDB [6] allows users to query a server on the Internet for CD information. The client sends a disc ID generated by reference to the currently inserted disc to the server, and the server uses the ID to query its database. In addition to the original CDDB, which is now run commercially by Gracenote, the non-profit freedb.org version is now available to users and developers alike.*

Encoding: *This describes the process of non loss-free compression of a file, using the MP3 format for example. The encoder specifies what parts of the music to leave out completely (such as human inaudible frequency ranges, for example), and what parts to compress using any available algorithms. The resulting file, although smaller in size should sound the same.*

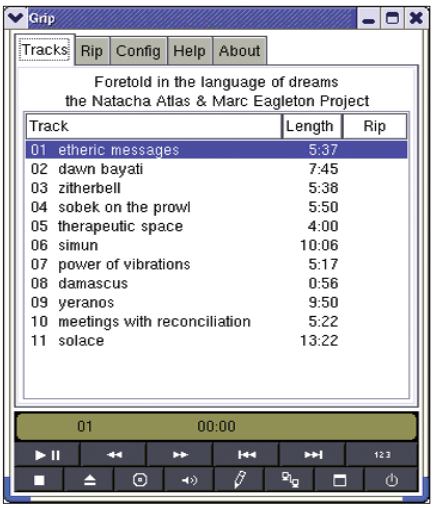

Figure 1: Grip with track information for a CD retrieved from the Internet

freedb project, where it will be much appreciated by other users.

Configuration

Before you can copy a CD to disk, you will need to set a few of *grip*'s internal parameters. First click on the *Config* tab to launch the configurator (see Figure 3). There is normally no need to change the settings in the *CD* tab, although you might need to specify a different CD-Rom device, if you have multiple drives; for example, */dev/cdrom1*, if this is the second CD drive recognized by the Linux kernel.

The settings in the *Rip* tab are more interesting: *cdparanoia* is the default ripping program for CDs, so you can leave that setting. But you will almost certainly need to customize the storage location for wav files to reflect your environment. In addition to the path that *grip* will use to call the program, and the storage position for wav files, a few variables are available for *Rip command-line* and *Rip file format*. Variables comprise a percent sign "%" and a letter. For example, %A represents the artist's name and is replaced by this name in the command line. Table 1 provides an overview of important *grip* variables.

The *Encode* tab allows you to select a program for converting wav files to MP3 or Ogg Vorbis format. Assuming you have a license for the Frauenhofer MP3 encoder and want to use this license, you can enter the license here. The program automatically customizes the options that *grip* passes to the encoder. You can use the *Encode File Format* line to specify what name *grip* will use to store the files in what target folder.

The line accepts variable definitions: the *~/mp3/%A/%d/%t-%a-%n.mp3* string would store the files in *mp3/CD artist folder/CD name/* below your home directory and create files with track numbers, artists and tracks. Of course, you will need ID3 tags to display this data later on the MP3 player: ID3 tags allow you to use a special format for the MP3 file to store information such as the track and artist names, so that the MP3 player can display this data independently of the file name. Check the *Add ID3 tags to encoded files* checkbox in the *ID3* tag if you intend to use IDE tags.

Box 1: Variables

```
%a Artist or track name
%A Artist for this CD
%b Bitrate to use for encoding
%c CD device to use
%d CD name
%t Track number (e.g. 01 or 18)
%n Track name
%y Release date of CD
```

Ripped is as Good as Played

If you are happy with your configuration options, you can launch into the ripping process. To do so, use the right click the tracks you want to rip. You can also click on the "Rip" column to select all the tracks on the CD. The *Rip* menu includes the *Rip Only* and *Rip + Encode* options. *grip* starts to read the CD when you click on one of these buttons – if you selected the latter option, the tracks are converted to MP3 or Ogg Vorbis files.

If you have not selected any tracks for the track-list, *grip* will prompt you to confirm, before ripping the whole CD. After launching the process, the progress indicator at the bottom of the page gives you a good idea of how long the remainder of the process will take. And you can look forward to enjoying a nicely organized track collection when the indicator finally hits 100 percent.

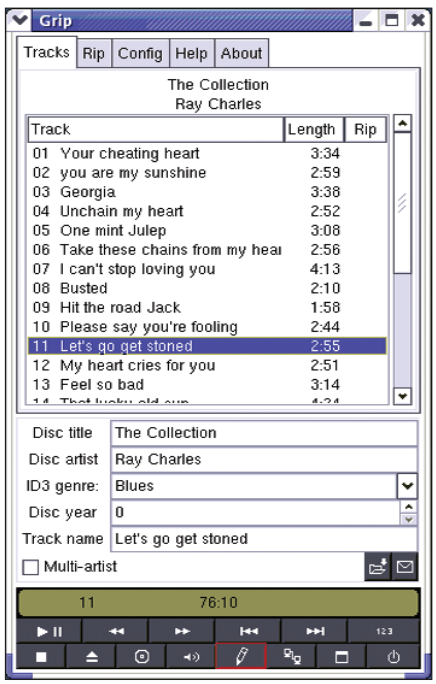

Figure 2: By clicking the red-painted area you can name CDs by yourself which have not been found in freedb

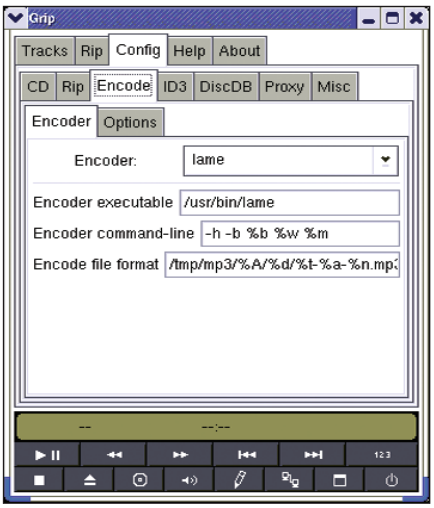

Figure 3: grip configuration windows

INFO

[1] cdparanoia: *http://www.xiph.org/paranoia/*

[2] LAME: *http://lame.sourceforge.net/*

[3] Grip: *http://nostatic.org/grip/*

[4] cdda2wav: *http://www.cdda2wav.de/*

[5] Ogg Vorbis format: *http://www.xiph.org/ogg/vorbis/*

[6] CDDB/freedb: *http://www.freedb.org*

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