CDox

Wrapped

Now that CD writers and blank CDs are affordable, people tend to burn a lot of CDs. But how do you go about labeling the finished product to help you find it more easily later? CDox is the software for this job.

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No matter whether you use them for backups or other purposes, anyone who burns a lot of CDs and DVDs knows the problem: you soon lose track of the data stored on them. Now, was that CD over there in the corner an audio or data CD? Of course you can use a text marker to scribble a few cryptic – or even illegible – notes on the CD and the case. Unfortunately, text markers are light sensitive, and sooner or later your notes will just fade away, leaving even the most heroic of note takers fighting a losing battle against the muddle.

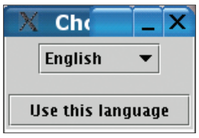


Figure 1: When first launched, CDox asks you what language you would like to use

So it has to be a neat laser printout. Unfortunately, no matter how determined you may be, at the outset, to use an office package to design your CD inlays, all that determination tends to crumble when faced with tedious tasks like getting the measurements right and creating templates. The only real alternative is a specialized program that does nothing else but create CD covers, and inlays.

CDox (*http://sourceforge.net/projects/cdox/*), a Java application written by Rutger Bezema and Andreas Schmitz does just that. A friendly wizard accompanies the user step-by-step through the process of creating "CD papers", but of course you can create a CD cover manually, if you really want to.

Out of the Box

There are thousands of tools and utilities for Linux. "Out of the Box" takes a pick of the bunch and each month suggests a little program, which we feel is either absolutely indispensable or unduly ignored.

One of CDox' more interesting functions is currently in the implementation phase: version 1.0.2 will have a new plug-in that reads **ID3 tags** from MP3 files (this is perfect for anyone wanting to burn MP3 files on data CDs), but this failed to work in our lab.

As CDox is Open Source, there is nothing to prevent you remedying this. If you feel confident enough with Java, you can enhance the source code, or add your own plug-ins to add functionality.

Coffee House Style Installation

Thanks to Java, you do not even need to compile the program, and that makes installing it very easy. However, CDox does assume a working Java version 1.4 runtime environment.

We used the Sun version 1.4.2 Java runtime environment from *http://java.sun.com/j2se/downloads.html* in our lab. It is important to note that the "Java Runtime Environment" (JRE) is part of the "Java 2 Platform, Standard Edition", or J2SE for short. If you will just be launching Java applications, you only need a JRE, but if you intend to develop Java software yourself, you will need to download the fully-featured "Software Development Kit" (SDK).

Users with **RPM**-based distributions should look out for a file called *j2re-1_4_2-linux-i586-rpm.bin*. This is a shell script that allows you to run the following command as a non-privileged user:

```
sh j2re-1_4_2-linux-i586-rpm.bin
```

Agreeing to the license agreement by typing *yes* will extract the *j2re-1_4_2-linux-i586.rpm* package. The JRE is installed immediately if you launch the script with *root* privileges.

After installing the Java environment, ensure that you are working as *root* and type the following command

```
rpm -ivh cdox-1.0.2-1.noarch.rpm
```

to install CDox. On non-RPM Systems you can alternatively unpack the CDox tarball with the following command:

```
tar xzf cdox-1.0.2.tgz
```

This creates a subdirectory called *cdox-1.0.2* in your current working directory. Now simply change to this directory and type *./linux.sh* to run the program.

Follow the Brown Cow

If you have installed the RPM package, rather than the tar archive, you can simply type *cdox* to launch the new jewel case tool. This shell script attempts to launch the Java interpreter and pass the name of the CDox **JAR package** to Java as a parameter.

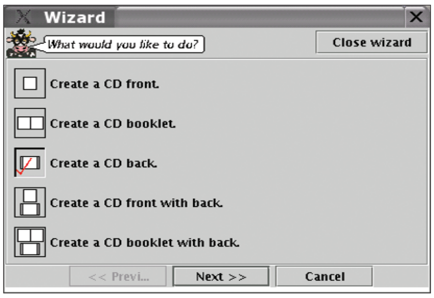


Figure 2: Steps to success – just follow the brown cow icon

Under normal circumstances, a small menu now appears to prompt you for your choice of language (see Figure 1), which is then stored in the *~/.java/.userPrefs/cdox/prefs.xml* file. If *cdox* issues a warning of the following kind on the command line instead

```
Using /usr/share/cdox/cdox.jar.
Exception in thread "main" java➘
.lang.NoClassDefFoundError: ➘
java/util/prefs/➘
BackingStoreException
```

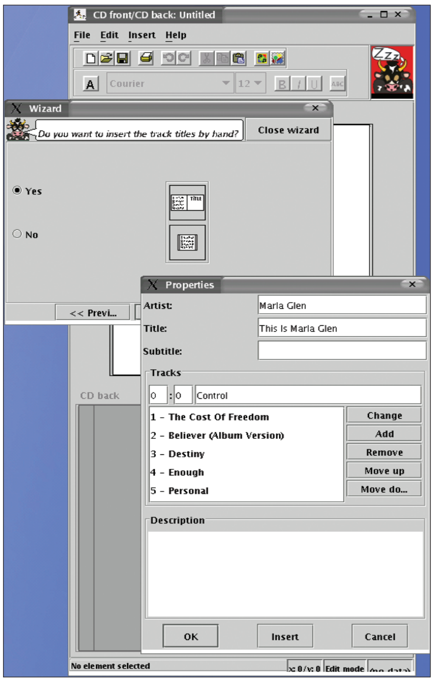
you can assume that the script has tried to run the Java code with the wrong (i.e. an older) Java environment. In this case, simply set the *JAVA_HOME* environment variable to the top directory of the 1.4 runtime …

```
export JAVA_HOME=➘
/usr/java/j2re1.4.2
```

and launch *cdox* again.

After closing the select language dialog box, a friendly wizard appears with a cow figure that wants to know the amount of detail you require for your CD documents (see Figure 2). In other words, will you be designing a front or back cover, or a complete booklet?

After making your selections, click the "*Next* > >" button to choose the background graphics. In the case of backup CDs or simple data file copies, you might prefer a simple CD cover with a straightforward structure and a clean layout. In this case just click the "*Next* > >" button again to do without all the extras.



Do you want to insert the track titles by hand?

● Yes

○ No

Artist: Marla Glen

Title: This Is Marla Glen

Subtitle:

Tracks

0 : 0 Control

1 – The Cost Of Freedom
2 – Believer (Album Version)
3 – Destiny
4 – Enough
5 – Personal

Description

No element selected x: 0/y: 0 Edit mode (no data)

Figure 3: The title editor for audio CDs

If you then say *No* when asked "Do you want to insert the track titles by hand?", it will be up to you to label the cover later. If you opt for *Yes*, you are asked to specify whether the CD will be an audio, video, or data CD, and can then click on the *User* button. This will open an editor that prompts you for the title of the CD, and the artist and tracks in case of audio CDs (see Figure 3), or for a text-string in the case of data CDs (just type your text in the *Text* line and click on *Add*). When you are finished, click the *Insert* button.

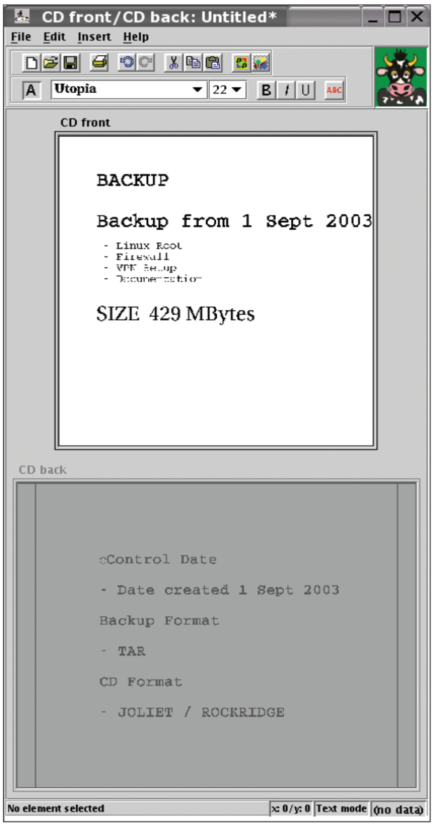
If this all sounds like too much work, you might prefer to click the *Source* button instead of *User*. If you specify *Other CD* (that is data CD) as the *CD* type, in theory you should be able to specify a directory of MP3 files and tell *cdox* to read their ID3 tags, and put them on the cover – that would have been nice, but as previously mentioned, this function did not work in our Linux lab.

No matter whether you create a table of contents for the CD, you can click on *Close* to exit the wizard and send your entries and selections to the main CDox window (see Figure 4).

Polishing

You can now use the main window as a cover editor that allows you to modify the existing sleeve texts and add new entries. *Insert / Text on* allows you to select a font and point-size, use the *ABC* button to select a color, and finally select a position in the layout. There may be a delay before a gray box appears and you can type the required text.

Clicking on the *A* icon closes the box. Right clicking the box containing an image will open a shortcut menu that allows you to rotate or mirror the box, and a left click will insert a box at the selected position in the layout.



BACKUP

Backup from 1 Sept 2003

- Linux Root
- Firewall
- VPN Setup
- Documentation

SIZE 429 MBytes

Control Date

- Date created 1 Sept 2003

Backup Format

- TAR

CD Format

- JOLIET / ROCKRIDGE

No element selected x: 0/y: 0 Text mode (no data)

Figure 4: Front and back cover of the CD during manual polishing

Despite the ugly on-screen appearance of the fonts, the printed results are normally fine. The display problem seems to be caused by the interaction between X11 and some fonts.

You can even swap *cdx* files with Windows users. As CDox is a Java program, Windows users will also be able to install it. Unfortunately, only two graphic file types are available for export, *JPG* and *PNG*.

If the virtual cow is driving you mad with its mooing, not to worry, you can disable sound output by unchecking the *Edit / Options / Miscellaneous tab / Play sounds* checkbox! ■

GLOSSARY

ID3 tag: *Additional (track, artist, album title, genre, release date) information in MP3 files that can be read by the MP3 player to indicate what you are currently listening to.*

RPM: *The "RPM Package Manager" is a powerful package management tool that can install, de-install and verify packages. Also, the tool discovers dependencies between installed software and the packages you want to install, thus ensuring that your system will not only be up-to-date, but also serviceable.*

JAR package: *This is an archive file in "Java ARchive" format that typically contains multiple Java files, such as Java program classes with the images required by the program.*