

How To Burn DVDs in Linux using the 'k3b' utility

How-To by:

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July 26, 2004

As the title indicates, this document outlines the general use of the Linux CD/DVD Creator called **k3b**. k3b is currently one of the most popular Linux system burning applications due to its easy-to-use graphical user interface (GUI). It is optimized to run on the KDE graphical desktop environment (versus GNOME). As a result, if you are planning to burn DVDs (or CDs) with k3b, it is best to login to a system through KDE rather than GNOME. Command line utilities that k3b uses to burn CD/DVDs include *cdrecord*, *cdrdao*, and *growisofs*. Systems currently loaded with the k3b application include **koi** and **mako** systems on the AVED project at MBARI.

To begin burning a DVD, first logon to a system and then type the following at the prompt (\$):

```
[username@koi username]$ k3b
```

where *username* is YOUR username (e.g., salamy)

This should start to build the k3b GUI. You should see similar lines on your terminal window as the following:

```
"QPixmap: Cannot create a QPixmap when no GUI is being used"
```

```
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```

```
"Kbuildsycoca running ..."
```

These comments are normal and may vary on the first build. Once the Kbuildsycoca runs the GUI should open.

NOTE: If the system indicates an error in the build of the GUI it is most likely a permissions error. If you should get build errors, first go to your home directory and verify that you own your .kde (that's "dot kde") directory.

```
[username@koi username]$ cd ~
```

```
[username@koi username]$ ls -la
```

If for some reason, you are not the owner of your .kde directory, do the following:

```
[username@koi username]$ chown -R username:username .kde
```

If root is the owner, you may need to become root in order to make this change.

Re-run the command:

```
[username@koi username]$ k3b
```

If this does not work, you will have to source out the error statement. Again, it is usually a permissions issue.

Once the GUI starts, you will receive several startup "tips". Feel free to read or close these windows. You may also receive requests from the system on CD or DVD read/write speeds if is not automatically detected. These speeds are generally found on the boxes of the burners or on-

line. The GUI will indicate the type of burners it detects in the upper left hand corner which should be easy to search on on-line for write speed information.

The next step is to build a new Project. Do this on the top menu:

File → New Project → new Data DVD Project

This will create a new project in the bottom half of your screen with browser windows in the upper half of the screen. To choose files to burn to DVD, simply browse the file tree structure and drag and drop specific files to the new Data DVD Project icon in the bottom left of the screen.

!!!NOTE: Due to the fact the k3b uses older CD/DVD command line utilities like *growisofs* it is still limited to their file-size restrictions. No individual file to be burned can be greater than 2GB. You may have directories that are greater than 2GB but no file in that directory can be 2GB or larger, otherwise the burning application will fail. This includes large *.tar files.

DVDs can hold up to 4.4 GB of information. A space monitor bar at the bottom of the GUI will illustrate an “estimated capacity left” as you drag and drop files into the new project. Beware of going over 4.4GB.

Once you have dragged and dropped all of the files that you want into your new DVD project, set up the project’s properties in the following manner starting at the top menu:

Project → Properties

This should open a second window entitled: “DVD Project – k3b”

Click on the “**Writing**” menu tab. The following should be set:

Burning Device: (e.g., SONY DVD RW DRU-530A)

Speed: Auto

Writing Mode: Auto

Options: [*“On the Fly”* and *“Remove Image”* options should be checked. Leave others unchecked.]

Next, click on the “**Settings**” menu tab.

“**No Multisession**” should be checked.

Next, click on the “**Volume Desc**” menu tab. This is an arbitrary section for Disk information and is dependent on the user and the data being stored.

Volume Name: Whatever the user wants to call it (e.g., *Scorpionfish_image*)

Volume Set Name: Whatever the user wants (e.g., *Part 1 of 3*)

Volume Set Size: 1 (default)

Volume Set Number: 1 (default)

Publisher: Whatever the user wants (e.g., *MBARI*)

Preparer: k3b-Version 0.11.6 (default)

System: Linux (default)

Application: k3b The CD Kreator Version 0.11.6 ©2003 Sebastian Trueg and the k3b Team (default)

Next, click on the **"Filesystem"** menu tab. The following should be set here:

Under **Filesystems**: Click on **"Generate Rock Ridge Extensions"**

Under **Symbolic Links**: Do **Not** click on either option.

Under **Permissions**: Click on **"Preserve File Permissions (backup)"**

Under **Whitespace Treatment**: Click on **"Replace with [_]"** This will put an underscore in for all white spaces within filenames.

Finally, click on the **"Advanced"** menu tab.

Here, click only on the following box:

"Allow untranslated filenames"

Save the Setup when done.

The project title should reflect the one that was given in the setup now. It is good to verify this.

Next, you are ready to begin burning the DVD. Go to:

Project → Burn

[There is also a shortcut to burn in the lower right hand corner of the GUI].

This will open up the same window you used to set-up the disk information previously with the addition of a **"Burn"** button. Click through the menu tabs to perform a final verification that all of the settings are correct and then click on **"Burn"**.

The system will start to burn the files to the DVD as requested. This process will take some time depending on the speed of the burner and the number of files.

While burning, the GUI will show you a time-bar to indicate its process, speed, and estimated time until completion.

When the system is through burning the files to DVD, the GUI will indicate that it was successful and eject the CD. You are then welcome to begin another project or to quit. It is okay to discard unsaved data if the DVD was burned successfully and it is the only copy of those files that you wish to make.

REMEMBER, if any of the files you are burning exceeds 2GB, the system will act like it is continuing to burn but will ultimately fail and eject the CD. The GUI will even indicate that it successfully created the DVD (although it will eject the DVD in less than 30 seconds from start indicating a failure). As it will have started the writing process by the time it encounters the >2GB file, the DVD will be unable to perform other burns and will be wasted. So make sure none of your files exceeds 2GB.

Upon quitting k3b, some of the child KDE processes may be slow to halt. Often performing a few **Ctl-C**s will clear the terminal window of follow-up statements. These are nothing to worry about.

You may check the files on the DVD by mounting the CD-ROM with the following commands:

Remember you cannot mount while in the /mnt directory or in a directory below it!!!!

To Mount - [username@koi username]\$ **mount /mnt/cdrom**
To Unmount (and allow DVD ejection) - [username@koi username]\$ **umount /mnt/cdrom**