

# HOWTO: applying the aoTuV Beta5 patch to libvorbis

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## Introduction

I own an iPod Mini and thanks to some small *modifications* (I installed Rockbox) I am now able to listen to music encoded with Ogg Vorbis. But the version of Ogg Vorbis that is installed with Ubuntu (libvorbis-1.1.2) is woefully outdated. Since 2005 little has changed, officially. But some people continue to make patches, improvements and optimisations. Like the aoTuV patch, for example.

I happen to like classical music, and it so happens that audiophiles consider Ogg Vorbis with the aoTuV patch applied, to be second to none for classical music when encoding with a quality setting of -q6. But search all you like in the Ubuntu repositories; it is nowhere to be found. So you must apply the patch yourself, which is relatively easy, as I will demonstrate in the next section.

## Applying The Patch

A warning in advance: I am writing this under the apprehension that the reader has at least minimal knowledge of installing programs in Ubuntu, and has a basic understanding of the UNIX shell environment. You will also need to at least have gcc and g77 installed, in addition to a few other programs required for building Ubuntu packages (e.g. quilt and fakeroot, et al.) If they are not installed, you will be notified, possibly with quite cryptic messages. After you receive such errors (and decipher them if necessary) you simply proceed by installing the missing dependencies with Synaptic (or by using whatever other method you prefer) and trying again.

Applying the patch involves a few simple steps (although admittedly, I have had a little help<sup>1</sup>). They are as follows:

1. First you must download the Ubuntu libvorbis source code. First create a new directory in your home directory, then go into it and execute the following commands:

```
$> apt-get source libvorbis
$> mv ./libvorbis-1.1.2-dfsg ./libvorbis-1.1.2
```

2. Then you must download the patch from the website:

```
http://www.geocities.jp/aoyoume/aotuv/
```

3. Unpack the patch you downloaded in step 2 and move the file aotuvb5-libvorbis1.1.2.diff into the directory containing the libvorbis-1.1.2 directory.
4. Apply the patch with the following command:

```
$> patch -p0 < aotuvb5-libvorbis1.1.2.diff
```

5. Then edit the file libvorbis-1.1.2/debian/changelog in a text editor. Look for the line at the top containing the string "libvorbis (1.1.2.dfsg-1.2)" and change it into "libvorbis (1.1.2.dfsg-1.2+aoTuVbeta5)". Save it and close the editor.
6. Finally, we can make the packages! Go into the directory libvorbis-1.1.2 and execute the following command:

```
$> dpkg-buildpackage -rfakeroot
```

It is possible that this fails the first few times, when there are some dependencies that you need to install first (as I warned about). Just install them and keep trying until it finally starts building the packages.

7. The finished packages will end up one directory higher than the source directory. Finally: install the packages libvorbis0a and libvorbisenc2, and then you're done.

That's all there's to it! Now every ogg you encode will use the optimised version of libvorbis. Have fun!

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<sup>1</sup>The procedure I read about in the thread "aoTuV beta 4 tunnings[sic] for Vorbis", posted by someone named pjssilva on the Ubuntu forums, was very helpful in developing this procedure. But I deviate from his method significantly (i.e. patching the ubuntu libvorbis sources directly, instead of copy-pasting directories from one source to the other, and using a more logical version string in the changelog).