

Sarai FLOSS Fellowship 2008 – Report on project to explore the feasibility of using only FLOSS video editors for digital video editing

--Hassath

My original proposal can be viewed [here](#). My project outline can be viewed [here](#).

Research and preparation:

I did some research on the current scenario and the various FLOSS tools available to edit digital video. Some of the pages I found useful are listed [here](#). I reviewed some of the most popular tools and selected four of them to install and experiment with. I figured out the hardware requirements for these tools and set up a test machine with the following specifications: an Athlon64/2.2 GHz processor, 3GB RAM, an nVidia GeForce 5200 FX video card and a 17" monitor with 1280x1024 resolution. The distribution I used was the latest Ubuntu version at that time – Ubuntu 8.10, Intrepid Ibex. I also conducted interviews with some film editors. I collected some footage to experiment with. I was documenting the various steps and problems as I was trying out the different tools. I eventually edited the footage into a short 10 minute film.

From my interviews with film practitioners, I realised a few things about the current scenario in film editing. Basically, there are two widely-used proprietary tools – Apple's [Final Cut Pro](#) (called FCP) and [Avid Media Composer](#) software (Avid). Either one or both are taught at film schools and other institutions which teach Mass Communication. I had been under the impression that the proprietary tools were stable, and did not cause any problems to practitioners. My conversations with editors made me realise that such is not the case. These tend to crash sometimes, and editors use them because of established practice, and because there is nothing else available which has proven to be better. Habit also has a part to play in people sticking to a particular tool. Most people use pirated versions of the software, because they say they can't afford licenses. Interestingly, they are of the opinion that if a stable and capable FLOSS alternative emerges, it would help them in their work. The need for such a featureful and stable tool is such that the fact of it being run on an unfamiliar FLOSS platform is something that can be ignored. If it's a new tool which fulfils their requirements, they will learn it. However, for them to make the change, the program has to be vastly better than the existing ones. Generally speaking, filmmakers don't seem to give much thought to the politics of the technology they use – they want the technology to work well for them, and that's all they really expect. I was looking forward to the perspective of FLOSS-aware media practitioners, but unfortunately, the Sarai Media Lab evinced no interest in my project.

I eventually selected four FLOSS editors to experiment with – Kino, Kdenlive, Open Movie Editor and Cinelerra. Below is a brief description of my experience with each tool.

Kino:

Website: www.kinodv.org

The latest version (as of January 2010) is 1.3.4, released in September 2009

The version I used was 1.3.0.

It was the easiest tool to install, since it was available in the Ubuntu Intrepid repositories, and it gave no errors in the process of installation. The major positive points were that it had a friendly, intuitive interface, and things work without a problem. On the negative side, there was some minor fiddling needed to get the capture from a camera to work, though there were sensible errors to help. However, the one big thing which really made a difference was that there were not enough features in this tool for a professional editor to work productively. For example, there is no separate audio track, and no way to edit audio. Also, the titles generated from within Kino are very fuzzy. The documentation of this tool is the best – it is clear and coherent, and both offline and online documentation is useful and helpful.

This was the tool I was eventually comfortable with using and suggesting to other non-professionals. Feminist Approach to Technology (<http://www.fat-net.org>) was holding a video workshop for women in the development sector in March 2009. I gave a session on Kino to the participants who use FLOSS for their daily work. The report of the workshop can be found [here](#).

Kdenlive:

Website: www.kdenlive.org

The latest version (as of January 2010) is 0.7.9, released in October 2009

The version I used was 0.7.5

I found the tool in the Ubuntu Intrepid repositories, and I installed it. But then I discovered that there was a later version, which had not been incorporated into the repositories, but had made major progress. There were instructions on how to install it, and I installed the later version, but had problems in doing so. The major positive points are that it has a neat interface, and capture from a camera works without a problem. On the negative side, I couldn't get anything done with it. To begin with, when I dragged a one-hour dv clip to the timeline and press 'play', Kdenlive would crash. I posted on the Kdenlive forum about this, but received no responses. My post to the forum can be found [here](#). The documentation is not satisfactory. The help package which comes with Kdenlive does not launch, and the manual on their website is incomplete.

Open Movie Editor:

Website: www.openmovieeditor.org

The latest version (as of January 2010) is 0.0.20081029, released in October 2008. Development has been suspended.

The version I used was 0.0.20080102.

There was a version available in the Ubuntu Intrepid repositories and I installed it. After launching it, I tried to play .dv and .mov clips on it. When I dragged a .dv clip onto the timeline and then tried to play it, OME crashed. When I dragged a .mov clip onto the timeline and played it, the video played, but I got only static as sound. On looking at OME's support forum, I discovered that others have had this problem

(<http://www.openmovieeditor.org/board/viewtopic.php?id=963>) but all the help they got was:

"Hi, sorry to hear about that, I'm not sure why that happens, I guess it is a bug, but I cannot help you with this, sorry."

I found a suggestion that a modified version might work. I tried to install the [modified version](#), but was unsuccessful as it gave errors. On the positive side, on launching, by default it gives two video and audio tracks each to begin with, and there is the option of adding more. On the negative side (apart from the fact that it doesn't play any clips without crashing), there are no tools to capture footage from the camera. The state of the documentation is pathetic. Online documentation is insufficient, and the launching help from within OME gives no help, only 'about OME'.

Cinelerra:

Website: <http://cinelerra.org/>

Cinelerra has two versions: cv and heroine. The answer to why there are two versions of cinelerra can be found [here](#).

The latest Community Version (as of January 2010) is 2.1.

Basically, CV is the community version. I used version 1:2.1.0-1svn20081017akirad2 from the akirad repository, as advised by the cinelerra cv website.

Cinelerra is not available in the Ubuntu Intrepid repositories. The instructions on the website say to use the akirad repository, and that installs fine. On the negative side, supported formats don't include DV, which is the most common format for digital footage. Also, capture doesn't work. A tutorial suggested by their website mentions: "Cinelerra is not perfect. Before long you will be familiar with the tendency it has to crash. This usually takes the form of all the windows suddenly disappearing." Cinelerra launches fine, but when I load a .mov file and play it, I can see the video, but in place of the audio, all I get is a strange 'tch tch' sound. Some research showed that installing ffmpeg from the restricted repositories might help, and so I did it. However, it only changed the 'tch tch' to silence. There was absolutely no sound. No sound from the track at all. Looking around indicates that it is a bug. Cinelerra apparently works fine with avi files. On the positive side, it has made its interface similar to those of proprietary tools, presumably to make it easier for professionals who are trying to migrate. Offline documentation is non-existent- there is just no help tab when Cinelerra is launched. However, on their website, there is a detailed manual, and links to some tutorials. However, the section on Ubuntu installation is incomplete.

Puredyne:

After trying out the above four tools, I decided to try Puredyne, which claimed to be “ an operating system developed to provide media artists with a complete set of tools for realtime audio and video processing”. Since it is a live distribution, I burnt the image onto a CD to use it.

Website: puredyne.goto10.org

As of January 2010, leek and potato was the latest version, with carrot and coriander planned as the future release.

The version I used was Leek and Potato

Since I used the live CD, there were no installation problems. Booting from the CD worked, and I had an entire operating system at hand. On the positive side, it is a portable distribution for audio and video processing needs. Since it's available as a USB stick too, it is rather convenient for those on the move. Also, it bundles together many applications at one place, so one has the opportunity to try out and use different applications side by side without installing them. On the negative side, it is very slow in launching any application. The set of applications provided for multimedia use includes the four tools I had tested earlier. Again, it's only Kino which works properly. As for documentation, they have an incomplete wiki on their website. The documentation is focussed on downloading puredyne, and, if required, installing it. Advanced configuration instructions are missing.

Final Edit:

I decided to use Kino to edit the footage I had acquired during the FAT video workshop. I was able to create a ten minute film using Kino, and export it to a .mov format and also a .flv format. Kino's weaknesses are visible in this film- there are glitches in the audio because there was no way to smoothen the transition between shots. I had to use audacity to cut some background music from a whole song. The titles which appear are generated by Kino and very fuzzy, especially when projected onto a big screen. It goes to prove that Kino is not a tool for professional editors. The film has been submitted to Sarai already. A low resolution version can be found [here](#).

Conclusion:

After reviewing these editors, I concluded that none of them are ready to serve the needs of a professional editor or an institution. They are not easy enough to install and use, not stable enough, not documented well enough, and not featureful enough. Out of these programs, Kino is the only one which does what it sets out to do despite its lack of features. There is a generally neglectful attitude towards documentation across projects which needs to be addressed urgently. The interface and documentation need to focus on the needs of a film editor, not necessarily an open source software geek.

Wider testing with different combinations of distributions and platforms needs to be undertaken and the project should clearly specify its hardware and software dependencies and the combinations that are known to work. Most often, the tools give the impression that they will work on any major distribution. However, the fact is that they have been tested only in some particular configuration, which is mentioned nowhere. Trying to find a working combination and repeatedly finding errors that the developers have never seen before can be a very frustrating and discouraging experience. Having said that, there is great gap in the digital editing field which can be filled successfully by a stable and well-documented featureful FLOSS video editor. I think that the situation might have improved by 2011 or so, and another review will be appropriate at that time.

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Delhi