

Improve on monitor controls for image transformation in

Kdenlive

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1. Motivation :

Kdenlive is an intuitive and powerful multi-track video editor, including most recent video technologies. Non-linear video editing is much more powerful than basic(linear) editors and though it requires more organization before starting, it can be used by specialists as well as for small projects.

I want to help with the development of Kdenlive by improvising the existing 'Transform' effect that is used on video clip frames and to adjust the rotation directly on monitor screen, also on parallel terms improving the UI of the Qml overlay.

2. Project Goals :

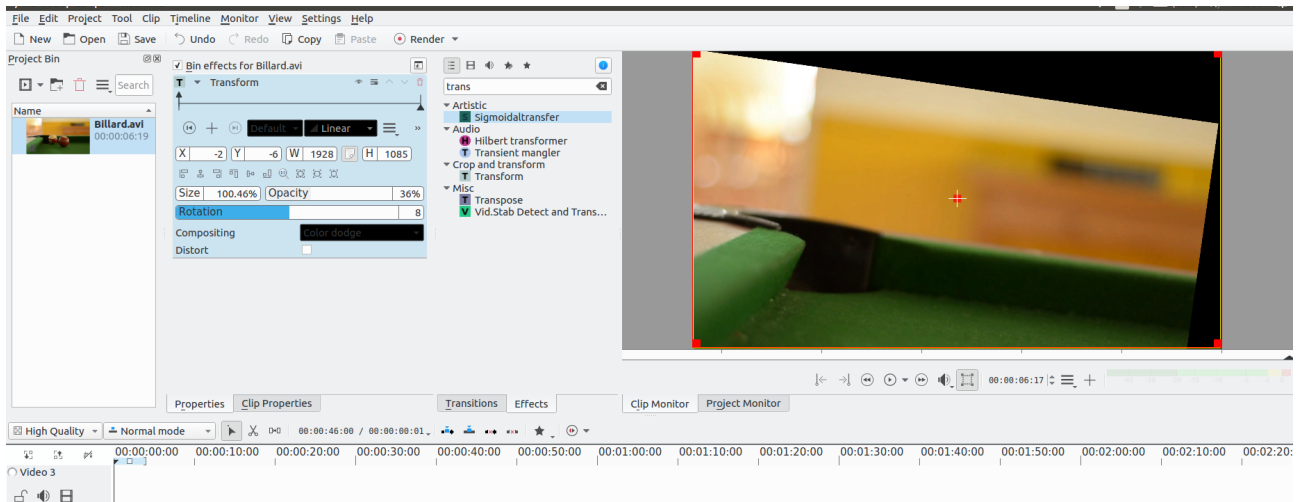
I wish to opt for the 40-day working period for my intended work as a student on Kdenlive.

By the end of the period, I intend to achieve the following:

In addition to resizing and moving the image on the monitor, adding the functionality to adjust rotation directly on monitor screen and improve the UI of qml overlay.

3. Implementation Details :

Currently, the 'Reset Effect' option exists for the 'Transform' effect which includes size, opacity as well as rotation.



The GUI would be modified such that there exists separate 'reset' for rotation. This can be implemented using Qt and qml.

A separate 'Opacity' option to control the opacity and making its individual change rather than as a whole with the 'Transform' effect.

To allow resize with shortcuts for some of the mostly required options as reset, 50% size, align to border, align to center.

Each of the controls – size, rotation, opacity can be displayed independently depending upon the features available:

1. Some effects allow to control only opacity.
2. Some effects allow to control size.
3. Some effects allow all the size, rotation, opacity control.

4. Timeline :

December 31, 2017 - January 3, 2018 (Community Bonding Period):

In this period, I'll talk and consult with the mentors.

I'll gather the various aspects through which I can smoothly work on the project.

January 4, 2018 – January 16, 2018 :

The buttons, layouts, options in GUI are designed.

Adding separate size, opacity, rotation options.

January 17, 2018 – January 21, 2018 :

Testing and reviewing above work by consulting with mentors and working on potential changes and improvements.

January 22, 2018 – February 2, 2018 :

Integrating the developed GUI and added options to Kdenlive codebase.

Further testing and improvements as per the mentor's advice.

February 3, 2018 – February 9, 2018 :

Make changes proposed by mentors.

Submit the code for final evaluation.

5. About Me :

I am a third year undergraduate student at Pune Institute of Computer Technology, Pune, pursuing B.E. in Computer Engineering. I have worked on C++, Python, PHP projects in the past. I am an open source enthusiast and I have been contributing to open source since last few months. I am a participant in the ongoing Kharagpur Winter of Code program conducted by IIT-Kharagpur as well as NJACK Winter of Code program conducted by IIT-Patna.

I have developed an expense management android application. I have worked on MPI, OpenMP, BLAS libraries as a trainee in Centre for Development of Advanced Computing, Pune, India.