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SM

Laboratory work #4

Video processing.

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1 Purpose of the laboratory

Study how to create videos edited videos. Recording screen.

2 Laboratory Work Requirements

Perform the following actions:

a) Record the screen using a screen recorder software.

b) Edit the video and add/delete various elements.

3 Laboratory work implementation

3.1 Video editing

Video editing is the manipulation and arrangement of video shots. Video editing is used to structure and present all video information, including films and television shows, video advertisements and video essays. Video editing has been dramatically democratized in recent years by editing software available for personal computers.

Types of editing Once the province of expensive machines called video editors, video editing software is now available for personal computers and workstations. Video editing includes cutting segments (trimming), re-sequencing clips, and adding transitions and other Special Effects.[1]

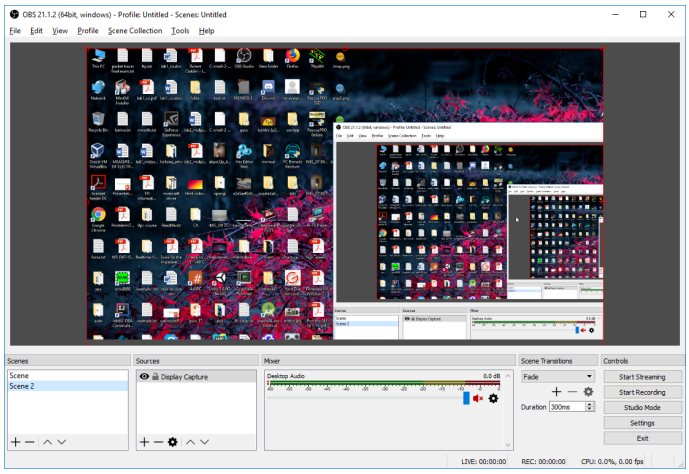
Linear video editing, using video tape and is edited in a very linear way. Several video clips from different tapes are recorded to one single tape in the order that they will appear. Non-linear editing system (NLE), This is edited on computers with specialised software. These are non destructive to the video being edited and use programs such as Adobe Premiere Pro, Final Cut Pro and Avid. Offline editing is the process in which raw footage is copied from an original source, without affecting the original film stock or video tape. Once the editing has been completely edited, the original media is then re-assembled in the online editing stage. Online editing is the process of reassembling the edit to full resolution video after an offline edit has been performed and is done in the final stage of a video production. Vision mixing, when working within live television and video production environments. A vision mixer is used to cut live feed coming from several cameras in real time.

3.2 Implementation

3.3 Screen Capture

In order to record our screen we used the software called OBS Studio. The software is free and open-source.

Figure 3.1 – OBS Studio main window.

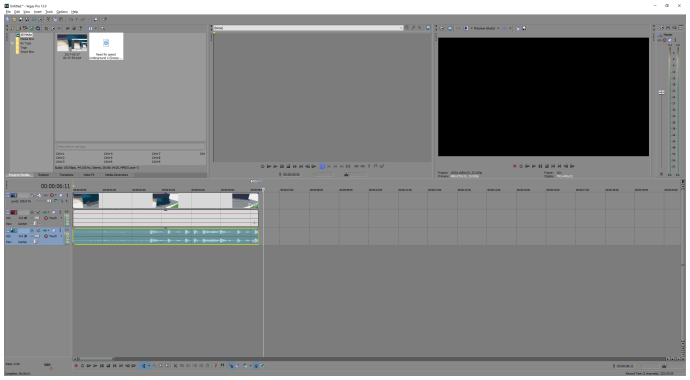


This program has a huge variety of options. Starting from record quality finishing with recording multiple separate layers and streaming content directly to a server.

3.4 Video Editing

The are a lot of programs for video editing, starting from very simple ones like movie maker, finishing with the ones that require a lot of knowledge in order to use them such as after effects. For editing the video I used Sony Vegas witch is a middle difficulty editing tool.

Figure 3.2– Sony Vegas.



Sony Vegas has a large variety of tools like using timelines, effects, cropping, padding, masks and a lot others.

Conclusions

In this laboratory we studied how the screen can be captured and what opportunities such software give us. We also saw how advanced are video editors and how advanced are the algorithms behind all of this.