A Brief Study on Video Editing Softwares: Final Cut Pro and Adobe Premiere Pro

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Abstract:
This paper presents a comparative study of Final Cut Pro and Adobe Premiere Pro. The basic criterion for studying these two video editors is their Features set. This research study gives an overview on the similarities and differences in the basic use of Final Cut Pro and Adobe Premiere Pro. Since every video editor has difference in platform on which it works, and its composition this gives the best valuable comparative study.

Keywords: Final Cut Pro, Adobe Premiere Pro, Video editing software.

I. INTRODUCTION

Video Editor: A video editor is a software that controls video machines to mechanically put pieces of a film together. Video editing softwares perform non-linear video editing i.e. the original content is not modified. Most modern transcoding software supports transcoding a portion of a video clip, such as cropping and trimming. However, other non-linear video editing functions such as montage or compositing can be performed and do the trimming or cropping without transcoding.

II. FINAL CUT PRO AND ADOBE PREMIERE PRO

1. Final Cut Pro: Final Cut Pro is a non-linear video editing software that was first developed by Macromedia Inc. Later it was further developed by Apple Inc. It is developed for macOS. It provides non-destructive editing. Editing for various video formats including DV, HDV, P2 MXF, XDCAM, 2K, 4K and 5K film formats. It has a variant range of video and audio filters. It can perform multi-camera editing for combining video from multiple camera sources. Also it supports a number of simultaneously composited video tracks and unlimited audio tracks. It has a manual 3-way color correction filter, video scopes and a selection of generators. One of the biggest strengths of Final Cut Pro is that it efficiently handles 4K video files. Another advantage is the ability to edit and custom motion titles inside the platform with ease and so it does not needs any separate third-party applications.

2. Adobe Premiere Pro: Adobe Premiere Pro is a video editing application developed by Adobe Systems. It was first launched in 2003. It is a timeline-based video editor and a multi-workstation program. Premiere Pro can support high resolution editing at up to 10,240 × 8,192 resolution, and 32-bits per channel color, in both RGB and YUV formats. It supports audio sample-level editing and VST audio plug-in. Also it supports a wide variety of video and audio file formats and codecs on both MacOS and Windows. Adobe Premiere Pro was launched after Adobe Premiere which was first launched in 1991. Adobe Premiere’s latest feature is the timeline video track keyframes. Integrated assets which is a big advantage of Adobe Premiere Pro.

III. COMPARITIVE STUDY AND ANALYSIS

Dealing with formats – Both software can handle variety of Frame rates, sizes and source media codes. For High end RED Camera file format, plug-ins need to be installed but that is very rare case. Apple can directly handle few video formats without conversion. But for that it uses a preferred codec – ProRes for Final Cut Pro X. Adobe Premiere Pro CC has no Built-in Transcoding Algorithms, in the editing panel, editor can import files in actual format without transcoding or rewrapping and can also work with them directly in sequence. A mix of various formats, codecs, sizes and frame rates aren’t always capable of playing single timeline smooth as would optimized media, like ProRes.
Different Business Models -
Adobe, Apple and Avid have three distinctly different approaches. Adobe Premiere Pro offers cross platform options, Where Final Cut Pro only works on Apple hardware computer systems. Adobe usually offers most of its content creation products only through Creative Cloud (CC) subscription. Individual users can access all creative applications, when they quit subscription, the application stops to function. Then users can install software on as many computers as they want (Apple or Windows), only two can be activated at a time.

Output Quality -
Today we work with HD (or even SD) outputs, but in future higher resolutions like 2k, UHD and 4k are to be used. Both software can handle heavier than HD formats as source without any difficulty. Premiere pro and final cut pro can handle RED Epic Dragon which is of 6k camera files. Both Adobe and Apple can output bigger and heavier files and sequence sizes too, like 2k and 4k.

Premiere Pro PROS
I. Creative Cloud - Creative cloud is an appealing option as users are able to uses all Adobe’s professional softwares including Photoshop, After Effects, Illustrator encourages users to learn new tools.
II. Dynamic Link - As said above, using different softwares is good, but seamlessly importing and exporting between software without rendering files without losing layers is great.
III. Color Correction - Premier pro has many built in options for color corrections, and since they started Lumetri we can do powerful color corrections quickly.
IV. Cross Platform Compatibility - Premiere pro can be used on PC or MAC. Whether user has old PC setup or latest Apple laptop he can probably run and work on compatible version of Premiere Pro. Here users Don’t need to invest in new equipments lowers the cost.

Premiere Pro BUGS-
I. Non-stop play head in Multicam Timelines - While editing Multicam timeline the playhead continuously plays and to react to any commands pressed by user. II. Right click appears on different screens - Editors usually work on two screens and found that if right clicked on second screen then the Drop down list appears on other screen.
III. Poor execution of Dynamic links - It didn’t work as it should. If we update project in After Effects, it wouldn’t update in Premiere Pro, or it would update there but after rendering it would render out old version
IV. Render Fails - Render fails just being told ‘Unknown Error’. With the large time lining it becomes tedious to track where render failed. Often found it was effects on clips caused this, but it would’ve been nice for the Premiere Pro to give us a bit more help as to why and where the render failed in a timeline.

Final Cut Pro PROS
I. Constant Autosave - Has no save function that works impressively well. For example if computer crashes are the times the data can be lost but since the autosave instead you just reopen your FCPX library and get your timeline exactly as it was before the crash.
II. More than one project at the same time: This simple feature actually helps on a day-to-day working on different projects. It enables if we’re working on client’s project and we need to quickly check another client’s project. It’s perhaps even more useful in that we can open many projects and share footage between them.
III. Organizing is better - This is a real winning feature of FCP. The keyword folders are so much better for organizing media that we’re sure that other NLEs will end up copying. It allows you to organize your media and sequences with keywords and any video can have as many keywords as you want. This feature might seem obvious, but when you start organizing your footage this way we found that we can edit quicker and better.

Final Cut Pro CONS
I. Audio mixing: we really like the no tracks style to editing in FCPX, having no tracks does make audio mixing a little more tedious. Unlike Premiere Pro, where you can adjust audio track , and key frame them, in FCPX as there are no tracks ,that means all audio editing is done at a clip level.
II. Colour Correction: The most striking thing in FCP the built in colour corrector in FCPX is that it has no curves window. The FCPX tool is not at all bad, but it is little hard to really control the colour or exposure in an image.
III. Changing tools a lot more: Because of the magnetic timeline there are different tools to move things around in your timeline, like position tool (shortcut P) and the select tool (shortcut A). We find switching a lot between these two and the blade tool (shortcut B), probably a bit more than we’d like to.

IV. CONCLUSION
Basically, a video editor is software made for editing and enhancing videos. In this paper we have compared the two types of video editors, it’s features, versions and basic platform dependency. The features give the basic idea of the differences in both the softwares. This study gives the knowledge about the two editors and how and where it can be used. The gradual up gradation and increase in features in both the softwares can be seen through this study. Both Final Cut Pro and Adobe Premiere Pro are commercially active softwares. Final Cut Pro has one feature that Adobe doesn’t have i.e. speed. It’s faster, smoother and offers a more pain free experience for the user.

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