

Brief Tutorial by Dimitri Kali for *HITCHER*; Post-Production in SCRATCH

Dimitri Kali's post-production studio in St. Petersburg, Russia, has developed a robust post-production workflow that can be easily adapted to fit the needs of the artists, the clients, and any project -- feature films, commercials, music videos, and more. Most recently they pushed out a music video for PSYRUS' single hit, HITCHER. With exciting imagery, and a strong dose of creativity, this is storytelling at its best. Take a look at this *Demidov Production* at https://www.youtube.com/watch?v=58bWccHax3I.

Q: Who were the director and DP for "HITCHER"?

D: Sergey Filatov and Vildan Rainov, respectively.

Q: What cameras were used for the shoot?

D: Red Epic-X with Dragon 6K S35 Sensor

Q: What formats were you working with?

D: Luckily, we were working only in .R3D 4K raw data. The .R3Ds were processed with RedColor 3 and RedGamma 3 deBayering settings, which work well with the grading options I prefer. The overall footage was 1Tb in total.

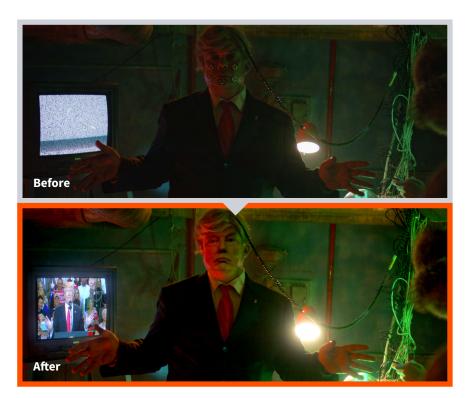


Q: Tell us about the project.

D: The client developed a brief about the desired look and provided some reference materials, which was quite useful when creating the distinctive imagery of the video. I extended this reference look by sending some color keyframes for review to the creative producer, Aleksey Demidov, who was deep inside the post-production process. I waited to receive a number of comments since reference materials are just that – for reference – and not the exact footage. But then I was simply asked to keep it up, which was a pleasant surprise for me.

Because of the music-video format, CGI shots and specific editing, I did feel like it was a micro-sequence of work, in which every song-beat brings a new shape to the music. I talked with the producer about reliable ways to introduce pace and movement into the music through color. Since he has a lot of experience, he was able to immediately focus and be responsive to the suggested deviations.





I then did a number of iterations through different sequences, talked to the DP for his preferences, and made some alterations I thought were necessary. After a couple of proposed looks we did flip some decisions, abandoned the controversial ones, and started finalizing the project.

Q: How is your post workflow set up at your studio?

D: Assimilate's SCRATCH is our primary software for pre-and-post production, including dailies, conforming, color grading, special effects, compositing, and finishing. We also have OFXs on board.

I try to avoid multiple platforms through the filmmaking process so I bring SCRATCH into play every time it's possible. To put it simply, SCRATCH allows

you to organize a complex project structure based on your need. We prefer this organic way of keeping content clean and clear through the pipeline – something we are continually fine-tuning.

The following outlines our project structure (or groupings) for "HITCHER", and almost all our projects.

- TAKES: Conforming of the shoots for any department. This grouping always appears at first.
- REELS: The main edit for the working color-grading reels the "body" of a project. We also have a mirrored reel created for multiple language localizations for distribution needs.





ASSIMILATE POWER TO THE CREATORS

- TITLES: Opening-and-ending title sequences (this works better when separated from REELS).
- RENDERS: Different rendering master versions with minor editing changes primarily at the beginning and the end of the video; quick daily builds; and final rendering to meet the distribution technical requirements.
- REELS for SOUND: For the sound design department, using their own standards within editing and sound mastering for DCP (re-generating timecodes, clap syncs, fps versions, build watermarks, etc.).
- CGI: For the VFX department doing multiple log-to-lin and back conversions, specific renders, tests, etc.
- (TRAILERS FOR MOVIES: For the main edit, color grading, and mastering of the movie trailer, which uses selected shots from the REELS group.)



Editing

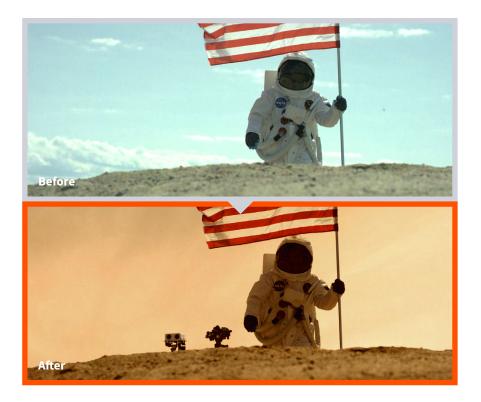
The editing process was inside Avid/Premier, but since there is a lot of hustling that happens around deadlines, it's often quicker to make final edits inside SCRATCH, which we actually did on "HITCHER."

Conforming

We have different groups working on the various functions of each project. All the conformed material is put into a construct (timeline) in the SCRATCH media browser. After finishing this assembly, I always hit the lock timeline to prevent any hand-crafted accidents. SCRATCH natively supports all the popular data formats, which enables us to communicate efficiently between different departments (editorial, VFX, color grading, sound design) and quickly react to ongoing and unexpected demands from the project.







Color grading, Compositing, VFX

First, we did some scripting since we were to deal with incoming VFX. In this case, a SCRATCH global watch folder comes into play and this feature saves a lot of time. Once the VFX shot is done, the python script checks for the latest version (by date) over all stored dailies on the data server; then the script creates an XML file for every shot and puts the XML into the global watch folder. Often times all the newest versions of VFX shots were uploaded into my project.

After hitting the refresh button, the new versions appear at the exact, intended construct slot. We have created a slot ID-to-daily shot pairing tab, which the python script reads after new dailies emerge on the server; thus, every XML shot has its own

slot ID and SCRATCH simply knows where to put the shots after the XML script finishes its uploading process. You can decide whether the uploaded shot will replace the previous one, inheriting its grade layers, or create a new version of the shot. This feature is handy not only through review sessions, but also for an up-to-date status.

So, now that I set my project structure, I did some basic XML work via the SCRATCH user's guide, and it's time to start the grading process. With every project, I am working with different people in various capacities. For "HITCHER", I worked with the producer and DP for their creative support. Throughout the grading process, we worked together to achieve the desired look and feel of the video. Basically, the client looks for distinguishable color separation that maintain continuity throughout the shots.

First, I corrected exposure errors, did shot framing and added extra keyframe animation through camera movement in the shots. Then I isolated the mattes for faces, skies, and other key elements using the powerful keying, tracking, and masking tools of SCRATCH. For CGI shots, I used handy EXR masks via different overlay modes. This step is also for "heavy lifting" preparation like shot re-lighting. Then, with SCRATCH slot-color notes, I worked on the color balance shots and created visual color keyframes to refer forward and backward on the timeline. It's like building a visual vocabulary for everyone.

Sometimes the color keys were wrongly chosen and the sequence tended to show another look as the story progressed; I then regrouped, noted the right color keyframe and sustained it through the entire sequence. I then animated some grades with SCRATCH keyframes and created some animating curves to bring together a satisfying, unified look. The final "glue" for all the material is done with a touch of FilmConvert - a beautiful and useful plug-in.

I'll often use the FilmConvert grain only, or color bars only, with a mixed percentage over the created look. This step brings more of the feel than the look to the entire image, and definitely holds an upper hand when comparing before and after. FilmConvert supports multiple-camera color profiles for a vast array of cameras.



Above all, I want to emphasize the advantages of the keying modes and curve modes inside the SCRATCH color workflow. In my experience, they work at a higher level mathematically for my grading approach than other industry software. Also, the numeric tab is where SCRATCH nails its power. The numbers are always as perfect for polishing pixels as for a principal base for my grades.

Finishing

Shot to shot, sequence to sequence, through the entire video, the grading process is not a straightforward one; it reverses and twists. The final check for inconsistencies, the look and feel, additional color grading – it's all thoroughly done at this time. It's vital to have powerful tools and a consistent workflow like SCRATCH so that you can be nimble and quick in fixing any issues.

Deliverables

ProRes 4444 Master and MP4 H264 dailies

Q: Did you create any of the VFX?

D: All the VFX for "HITCHER" were created in our studio by the VFX department with some modeling, animation, simulation, and green-screen compositing. I received ready-to-grade linear EXRs with necessary alpha channels from the VFX department; then on to lin-to-log. At this stage, I did a regular QA-check with the VFX supervisor; we created comments for anything wrong and I red-flagged the shots on the timeline.

Through the review sessions and basically everywhere, I used shot-color notes on my locked timeline, such as SRC - source (green), CGI done (blue), CGI wip (purple), CGI review (red) and many more. It's like using hashtags to navigate through the project via search, and then catching client inputs and needs.

Q: How did you do the compositing for the VFX?

D: For "HITCHER", we had a room for quick compositing, such as background-object clean-ups and shot re-lighting, all of which I can handle quicker in SCRATCH rather than rendering a source shot, sending it to the VFX guys, and receiving it back.

I also received rendered motion graphics and titles with alpha channels to composite over the source footage. Additionally, I asked the VFX department to prepare an additional roto (in EXR alphas) for characters' faces or key back-ground elements, which I could then use as a new correction layer for a specific color grading task.

Q: What is your overall impression of working in SCRATCH?

D: I have several comments in this respect.

- Interaction of the SCRATCH system logic Editing, conforming, and color grading capabilities on a very high-quality performance level for a post-production workflow.
- Assembling and Edit Clear version hierarchy, color-comment ability, ability for remote reviews, and super easy data management via the media browser, construct groups and sub-menus, with necessary information always at hand.
- *Grading* Intuitive and strong color workflow with powerful features like full-native support for numerous camera formats, layers system, precise keying and tracking tools, powerful numbers and curve modes.
- *Delivery* Useful render presets with file-name custom specifications, and powerful render tree management.



Q: What are the key points about SCRATCH that are important for the creative post community to know?

D: The BIG two:

• *Stability. It is crucial* – Especially if you are handling a very big project like a feature with CGI, complex edit, maintaining numerous review sessions, rendering multiple output formats and being the final frontier towards the cinema delivery, so...you want to be sure a 101% that your "shields" won't fall at any circumstances. I have never had a single crash through the working process even under the heaviest loads, which sounds unbelievable, but it's a fact! I could confidently start bashing inside my session while assembling the new project, or while going through chaotic concept exploration of a shot look, then easily optimize the number of constructs, grading levels and so on, without the worry of losing any of my progress. Same for the rendering, much of the background rendering helps a lot, also the remote re-rendering process and the result appears as the program claims. And there are many more elements that keep the workflow crisp and efficient.

 UI/UX. It is splendid – Since my very first entry into the SCRATCH, I was amazed at how this program balances the user-interface and intuitive interaction with the user, such as the proportions of workspace, basic workflow arrangement, and pleasant interface design. The logic behind the SCRATCH tools and workflow allows me to increase my working pace and I forget about the UI/UX – that's called a good UI/UX job! Contact information: Dimitri Kali Post Production Supervisor dmitryklsn@gmail.com +7-999-669-0011

SCRATCH

