Prescan | Auto CCR | Histogram | Gradation | Global CC | Selective CC | Scan

Info

8%

Rot/Flip

Pipette

- White Point
- Neutral Point ⌘N
- Black Point
- Reset Automatic ⌥⌘A

USM

iSRD

SRDx

GANE

PrinTao

June 30, 2020

For advice on the best viewing settings visit https://mbp.ac/pdf

Scanning Film with LaserSoft Imaging SilverFast

Around six months ago I posted about my Rolleiflex F3.5 Twin Lens Reflex camera, and how the ability to develop film in broad daylight with the Lab-Box had contributed to a rekindling of my love for film. The Rollei was a replacement for my old Yashica TLR camera, which I still have, but the few drawbacks in its design and the difficulty and sometimes pure panic of working with the dark bags that I reported on around four years ago, had caused my interest in film to dwindle again for a while. The Rollei and Lab-Box have brought it all back around for me, so I will occasionally shoot film for the pure joy of it, and being able to come home and process my film myself is the icing on the cake.

Back in episode 690 I also talked about the scanner that I bought late last year because my old Epson scanner had given up the ghost. After a fair amount of research I decided to go for the CanoScan 9000F Mark II scanner, the main reasons for which are the inclusion of the medium format film holders and the ability to get very high resolution scans at a reasonable price. As I shared last week, one roll gives me just 12 frames, and with developing costs etc. we're talking a couple of bucks per photo, so it keeps you relatively careful about releasing the shutter each time, although I will, of course, still opt to grab a photo and throw it out if necessary, rather than hesitating too much about the cost.

Although I've been using SilverFast 8 to scan my film for the last six months, I realized last week that I had not talked about it here on the blog and podcast, so I'd like to do that today. I initially was not happy with the results I was getting from SilverFast 8 as I thought it was too grainy, but I've been able to get over that to a degree. What happened was a combination of various factors that actually did make my images too grainy, so I'll briefly cover that too.

Basically, for some of my winter snow scenes, I was essentially over-exposing my images a little, because with digital I get better quality images by exposing to the right. As one of my incredibly knowledgable participants on my January Hokkaido Landscape Tour shared with me though, for film, you have to protect the shadows rather than the highlights, and therefore I find that I'm not exposing the same way with film and that is more important with snow scenes, because of all the white, although in general, my exposures were relatively good, there were a few times when they were a little bit too hot.

The problem was compounded by the fact that I started to experiment with some other developing chemicals, and I guess I learned that you don't experiment when shooting film on important shoots. I'd been using Ilford DDX, which is a very nice developer, but I tried Ilford Perceptol, and found it more difficult to get good results, but that was partly because some of my winter scenes were a little too bright. The main reason though, I'd come to find, was probably agitating the film too often during the development process. The Lab-Box tutorials said that you need to agitate more often, and more rigorously, which is what I was doing, but as I looked into the cause of my over-grainy images I found that this can cause more grain, and sometimes streaks on the images, which I was also getting.

I didn't find this out though until I'd damaged a number of rolls of film, and also, on recommendation from a kind reader/listener, I made one last change, which was to switch my chemicals again, this time to Adox Rodinal. Although I liked the results I was getting with Ilford DDX, I was throwing it out occasionally because of the relatively short shelf-life. You also have to use much more of it, with a 1+4 mix ratio, which helps with the shelf-life problem if you develop film often, but still, I found that I was both going through too much of it, and sometimes throwing it out because it had crystalized too much and basically gone off.

Rodinal, on the other hand, requires just a 1+50 mix, although I also got caught as I arrived at that. The one downside of Rodinal is that it takes quite a long time to develop your roll, so I initially tried working with a 1+25 solution, which halves the development time, but I also found that doing so increases grain, and that, to a degree, cost me another roll of photos. I finally arrived at working with Rodinal at 1+50 and halved the agitation during development. I had originally been agitating quite rigorously every 30 seconds, based on the Lab-Box tutorials, but I reduced that to relatively slow agitation every minute, and the results are finally what I was hoping for, and what grain I do sometimes see, is now very pleasing, natural film grain, and no vertical streaks.

One last thing that I did as well, although I'm going to try not doing this now that I've worked out all of the other kinks, is that I started to mix my developer with purified water, which is basically one step down from distilled water. I'd been using tap water, and I'm still not sure if that was part a problem, but using the purified water may have helped. I've also considered buying a distilled water machine, but they aren't cheap for a good one, and I'm not sure how important this is to the process. If anyone has an opinion on this, please let me know via the comments below.

SilverFast Startup Screen

Anyway, now that I'm getting the sort of results I wanted from my development process, and using Adox Rodinal, which can be stored for a very long time without worrying about shelf life, the results that I am getting with SilverFast 8 are very pleasing, but it took me a fair amount of trial and error to get the results I'm happy with, so I'll walk you through the process now. As you can see from the screenshot of the startup screen, you select your scanner on startup, and in fact, you have to bind your license to your scanner, and I've not really looked into how easy it is to change this later if you change the scanner, but hopefully that is possible and not a costly process.

Somewhat uncharacteristic of me, I actually went for the cheapest version of SilverFast which is the SE version at €49. There's a chart showing what you get with the higher versions, and would have liked to try but don't have access to is the Auto Adaptive Contrast

Optimization. The other thing that might be of use is the Job Manager, but that doesn't kick-in until the Ai Studio version which is €299 and I wasn't willing to pay that much for this software. Everything you'll see today is what I've got with the SE version.

Scanning 120 Film with the CanonScan 9000F Mark II

I am setting my film into the scanner using the film holder that comes with it for 6 x 6 cm frames. Here is the photo from my earlier post to illustrate that. I load the film with the shiny side down, because the scan is performed from underneath the glass. There is a window in the lid of the scanner, but that contains a light source and a diffuser to soften the light source as it illuminates the film for the scan.

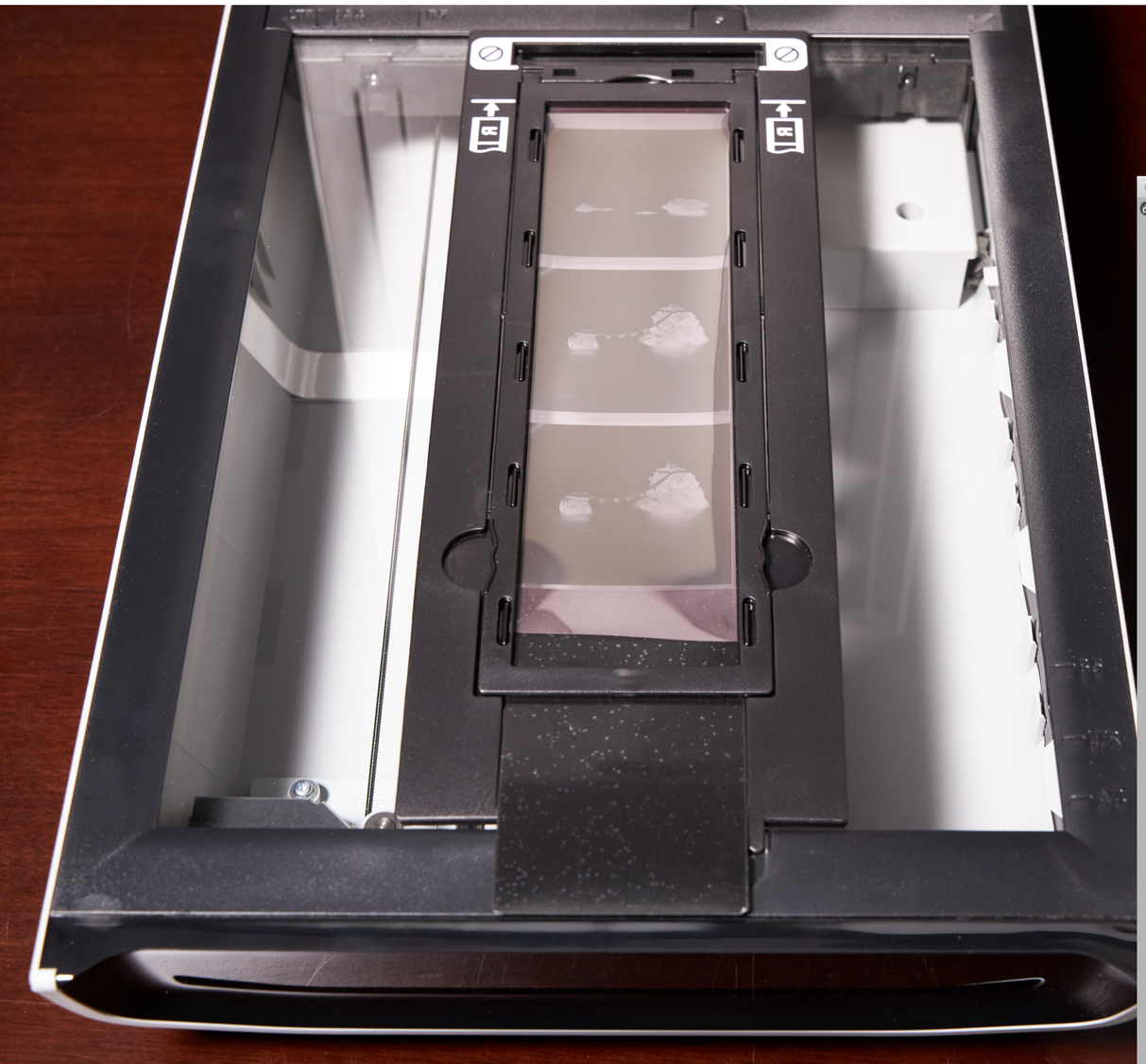
When I first started using SilverFast I selected the following settings in the Preferences > General tab, and after arriving at the settings I liked, I saved the tool dialogs as a preset here. You can update that with the floppy disk icon. Under the CMS tab I selected the Adobe RGB (1998) color space, and that will be plenty as I'm scanning black and white images, so the lack of ProPhoto RGB doesn't bother me here. I left the options under the Special tab at their default settings.

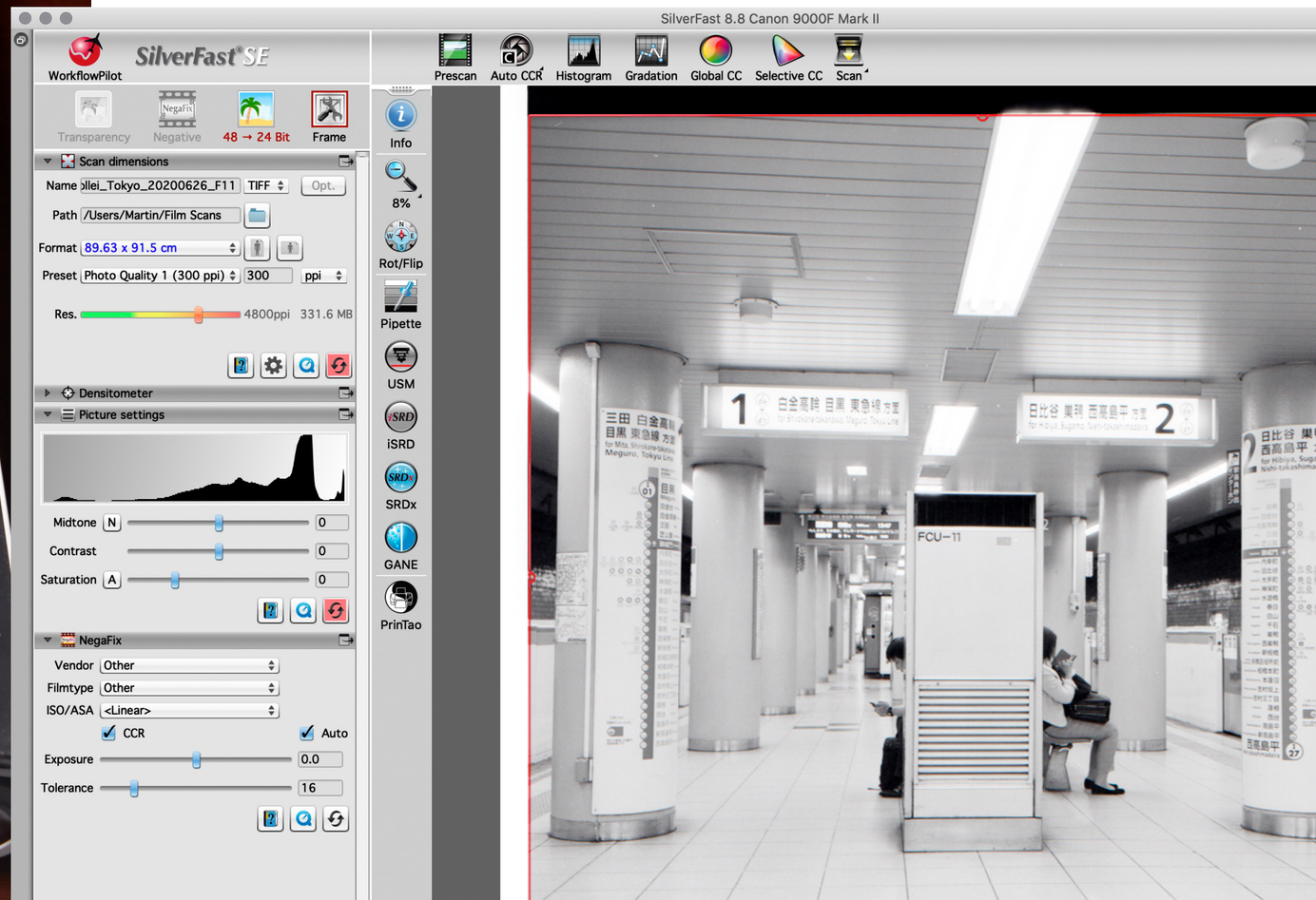
SilverFast General Settings

Most of the other important settings for my scanning workflow can be seen in this screenshot of the main scanning window. You can see in the top left corner that I'm scanning to TIFF files, and dropping the scanned images into a folder called Film Scans initially, in my home directory. I have the quality set to 300 ppi, and I'm scanning at 4800 ppi, which results in images that can be printed at 300 ppi at approximately 90 cm square, but can actually be printed around twice that size at 150 ppi and still look great.

Scan Dimensions

People often try to tell me that this resolution is too high, and while I agree that it's a tad on the high side, my next lower option is 2400 ppi and that is not enough for my use cases, which often involve printing my photos out very large. I have tested in steps and found that there is an increase in detail up to 4800, but





nothing more is gained after this. Also, keep in mind that the optics of your camera and how sharp the original photograph is all come into play here, so find your own maximum resolution, and work with that. I'm happy with 4800.

Picture Settings

Under the Picture Settings panel you can easily adjust the midtowns which affects the brightness of the image without shifting the black and white points. If you click on the N button that you there, you switch between Normal and Logarithmic modes, as necessary. I've used both depending on the photo, so it's worth giving it a click sometimes if you aren't getting what you want. If this was a color image, I could click the C button to introduce Adaptive Saturation which prevents over saturation in more saturated areas of the image.

NegaFix

The NegaFix panel is interesting, and provides a number of presets based on various film types. For example, they have Ilford Delta 100, which does a really nice job, and can, of course, be applied to other films. I generally leave this off and adjust the image myself later in Capture One Pro, because they tend to plug up the shadow areas a little too much for my liking, but these presets are definitely worth a play with. The CCR button that you see there is for Color Cast Removal, which does a good job of neutralizing the color.

It's probably also worth noting that most of the time I leave the NegaFix options set to Other for the Vendor and Film type, and leave the ISO pulldown set to Linear. If the image is a little too pasty I sometimes use Standard instead of Linear, but I find it can be a little heavy handed, so I go with Linear and then apply a tone curve to my liking in Capture One Pro. I prefer to keep that extra bit of control.

NegaFix Linear ISO Unsharp Masking

Also note from these screenshots, that I'm reducing the amount of Unsharp Masking that I apply to the images as well. I found that the Automated Sharpness was sometimes a little heavy handed in some areas. My Yashica would need more sharpness though, so again, the settings you select really depends on the camera and probably also the acuity of your film.

Densitometer

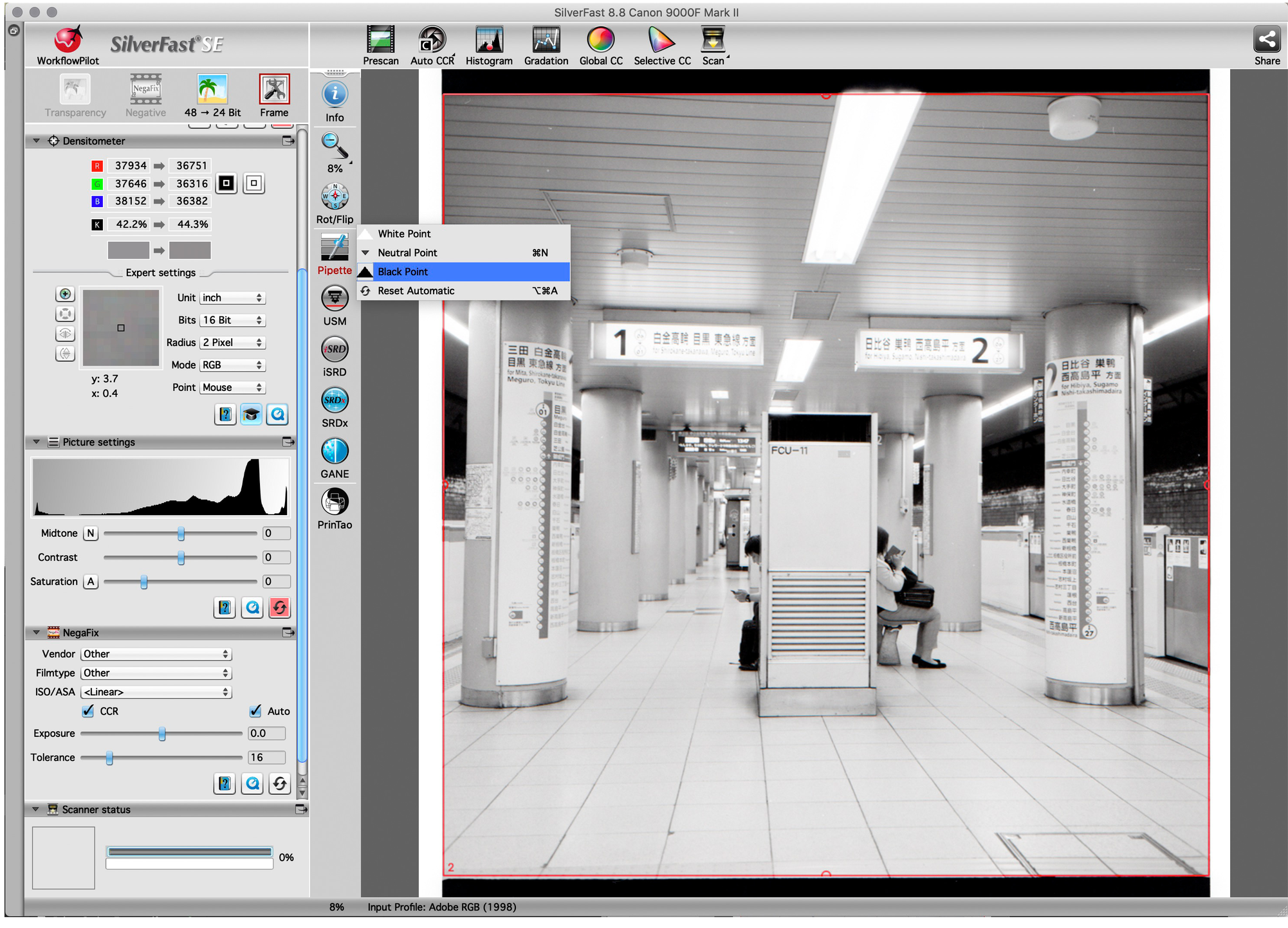
If we also take a peak inside the Densitometer panel which was closed in the first screenshot, and you'll see that we can check the Black and White points, and although the left and right rectangles are both the same in this screenshot, as you make adjustments to your images in SilverFast, the right rectangle shows you the tones or colors for color film after the changes. The left rectangle represents your original film tones.

Setting Black and White Points

Also, you can click on the Pipette icon in the toolbar to the right of the sidebar, and set your Black and White points, and if necessary, the Neutral point as well, and Reset it all if necessary. I generally find that setting the Black and White points helps to get a nice spread of tones throughout the image.

iSRD

iSRD is a form of Dust and Scratch Removal. The important thing to note here is that it only works in 1:1 or HQ (High Quality) modes, and it requires a high resolution infrared scan to get into that mode. Luckily though once you have that scan, you are done. You apparantly don't need to do another scan, as the software has all the information it needs at that point, but to be completely honest I have found this feature to be pretty buggy and actually never gone through with a scan using iSRD. Sometimes the preview looks great, but then I simply cannot get a view of the cleaned up scan, and other times it takes so long to process, even with my 10 core iMac Pro, that I end up just coming out of iSRD and clean up my image manually in Capture One Pro later.

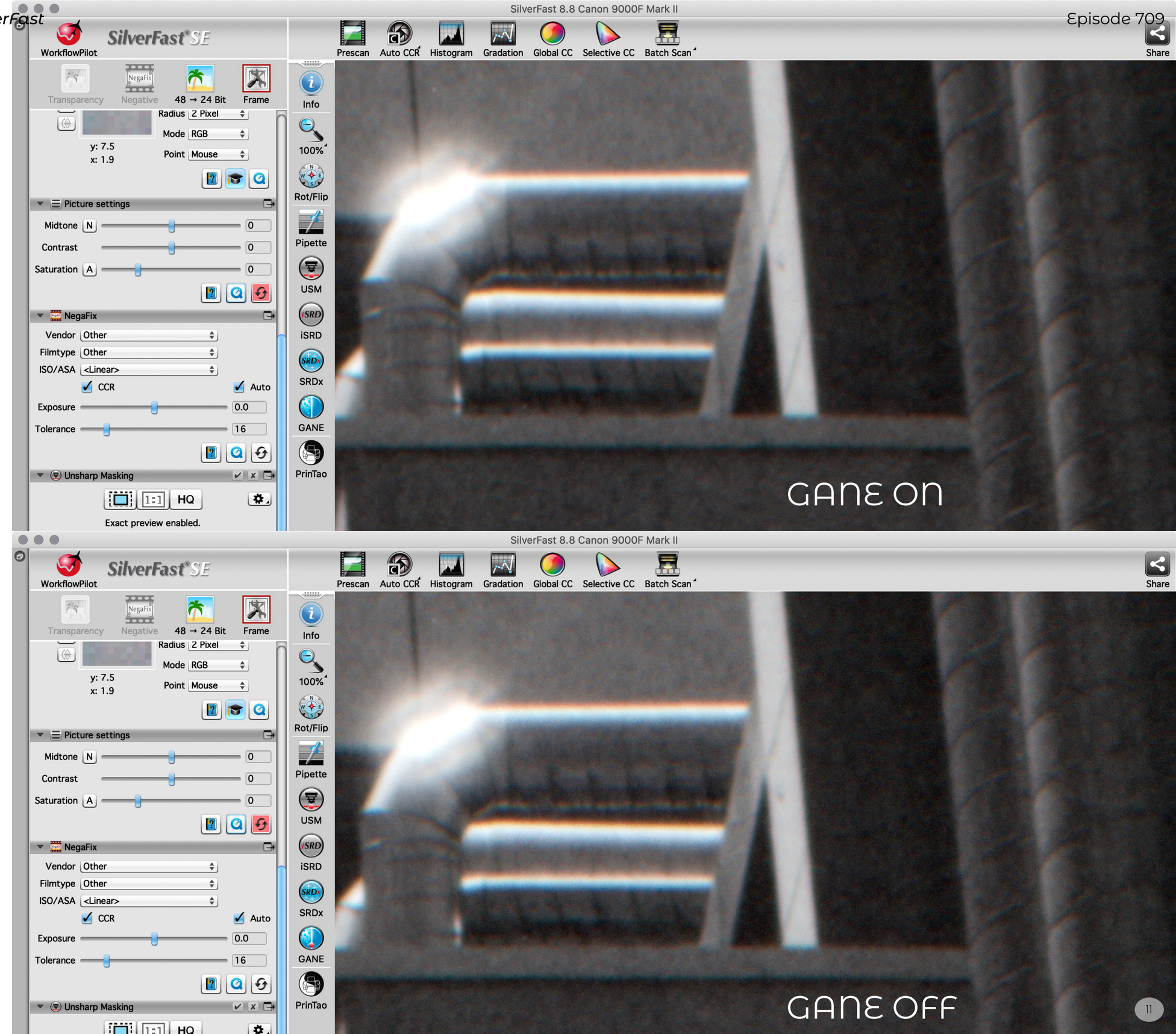


GANE

Another of the few features that I am disappointed in, and cannot get the SilverFast Support team to comment on, is the Grain and Noise Elimination. I personally think that this is just not working at all, at least not on Mac OS Catalina.

Here for example, is a screenshot of a dark area of an image which has a bit of grain in it. You can see from the bottom left corner that Grain and Noise Reduction is currently turned off in one image, because there is no tick in the box in the top right of its pane, and in the second image the check is on, supposedly apply Strong GANE. I've viewed this on a 32 inch display though, and if anything, the image with Strong Grain and Noise Elimination applied is marginally grainier, but it may be because I'm pushing the resolution to the limit.

If you want to see the minute difference between the two images to the right, visit the blog and use the side by side comparison.

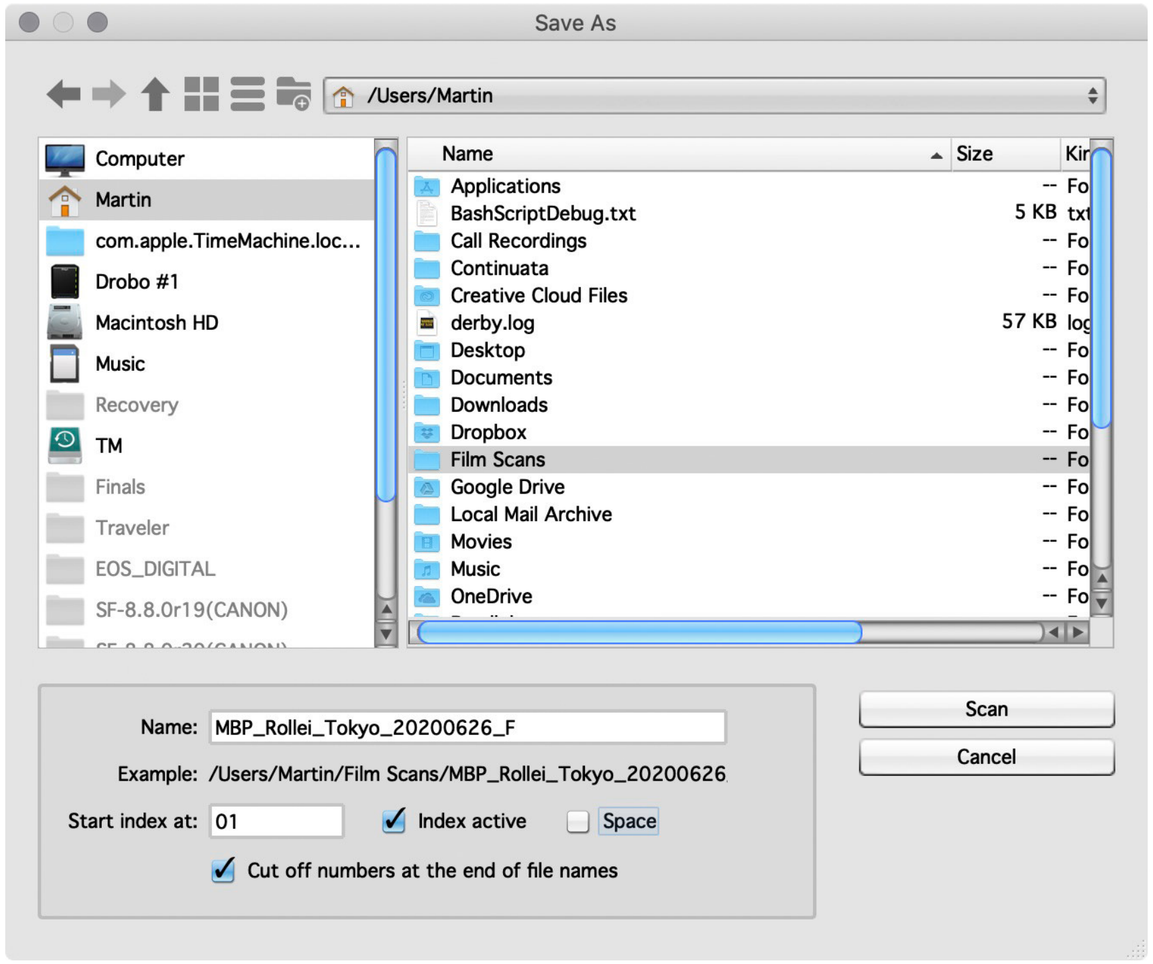


I'm not going to touch on the other features, which I don't really use, but I should mention that the Auto CCR button on the top toolbar can do a nice job as well. It's basically Automatic Image Optimization with Color Cast Removal. Especially when you first start using SilverFast, this can be really useful to see what it does and what is possible.

Batch Processing

I would like to finish by mentioning Batch Processing. Although I can only scan three images at a time, once I have selected the appropriate settings for each image, I go to the top toolbar and hit the Scan button, and select Batch Scan, which opens up this dialog box. Here I can set the folder into which my scanned images will be saved, and also give my files a name. I then provide a starting number and turn on Index active, and the software will then start at 01 and automatically increment that number each time a scan is performed. When I'm doing an entire roll of 12 images I have to open this dialog four times, but I only set that number on the first batch, and it increments through to 12 automatically.

Once I save my images via the Batch Scan process, due to the way the images are saved from SliverFast, they are not editable in Capture One Pro. I have to open them in either Photoshop or Affinity Photo and save them again, even if I keep them in the TIFF format. Until I do that, none of the sliders in Capture One Pro are active so I cannot make any changes.



MBP Film EXIF Updater Script

After saving the image files, I actually do one last thing, and that is to grab the script that I made six months ago that enables me to easily add EXIF data to my photos. As I shoot I use an App on my iPhone called FilmPad, which records the shooting data and time etc. and then once I've developed and scanned the film, I open up my EXIF Updater script, and hit number 1 to parse the folder of images, and then walk me through each image to add the camera and shooting information. I dreaded doing this manually with Exiftool before I created this script, but now I don't have to look up or remember any commands. My script does all that for me. I just have to enter a few pieces of data in human readable form.

I spend a few hours yesterday clearing up a few final bugs that I was aware of, and will be putting this script up for sale in the coming days, so if anyone is interested in grabbing a copy, come back in a week or so and it should be available. I will also produce a post to explain how to use it so if you need a reminder, subscribe to our newsletters and I'll let you know when it's ready. The result, of course, is that my images are tagged with camera and shooting data, so my website shows EXIF data when you view the images, and also they show up at the right date and time in other image management apps.

Anyway, I hope you found this useful. I'm happy now that I have started using SilverFast, despite the few things that don't really work well for me, and for the price of the SE version, I think I'll continue to use it. Although the grain did bother me at first, as I explained earlier, my current scans contain much more organic film grain, as opposed to the Canon Software which basically smooths everything over and then resharpen, removing pretty much all grain, and that was perhaps too much the other way.

This post and podcast was not sponsored or endorsed in anyway by LaserSoft Imaging or any other third party. I paid for the software myself and they don't even know about this review at the time of publishing, although I will send them a link after release.

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