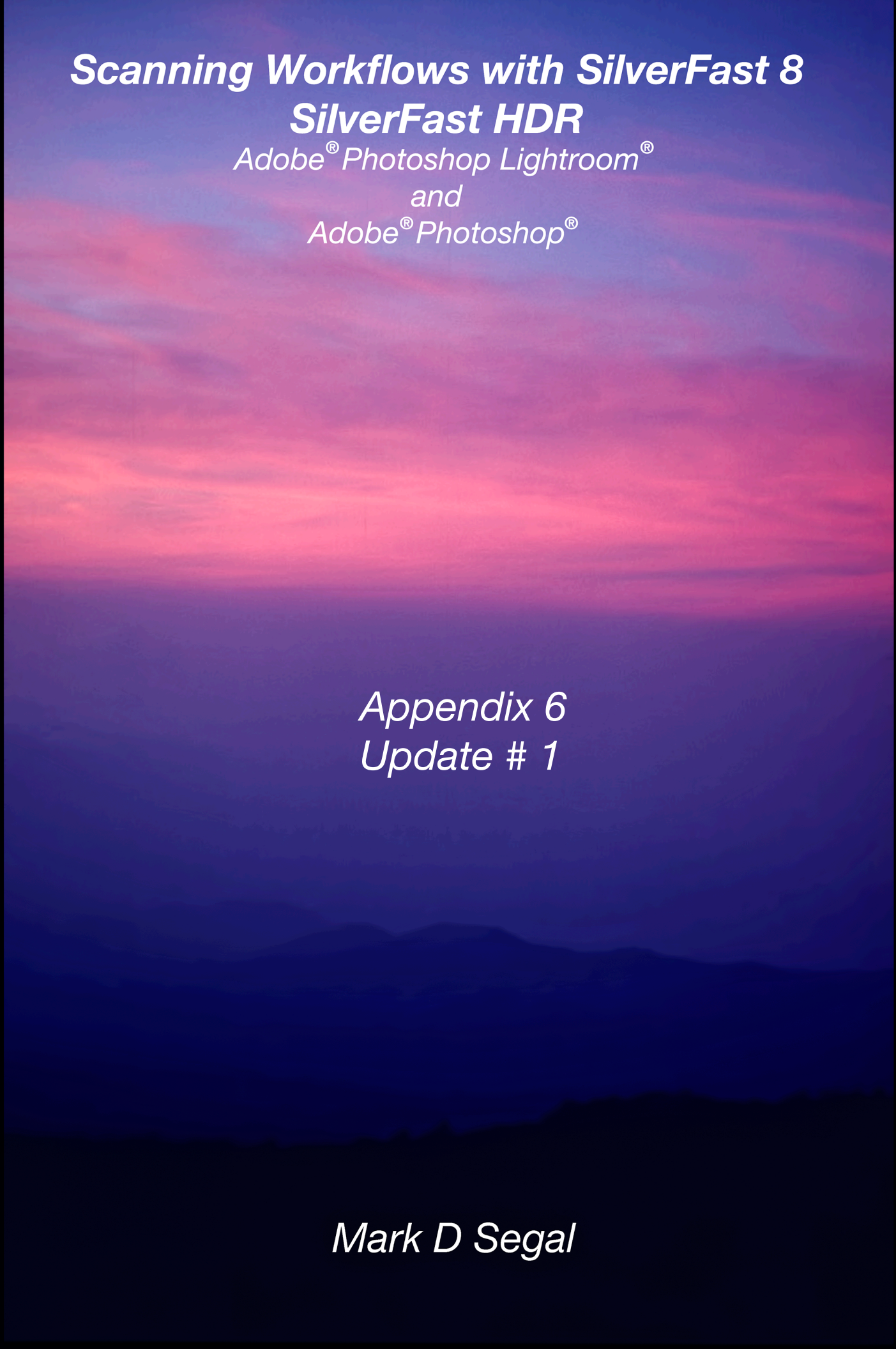
Scanning Workflows with SilverFast 8
SilverFast HDR

Adobe® Photoshop Lightroom®
and
Adobe® Photoshop®



Appendix 6
Update # 1

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Scanning Workflows with SilverFast 8 - Update #1

Introduction:

Since the completion of "Scanning Workflows with SilverFast 8, SilverFast HDR, Adobe Photoshop Lightroom and Adobe Photoshop" in Q1 2012, LaserSoft Imaging has released several application updates containing new or amended features. The purpose of this update is to provide instruction on these new items. The update is provided free of charge as part of the service to customers who bought or will buy the book. Not every update applies to every scanner version; therefore if you find an item mentioned here not available in the latest download of SilverFast 8 for your scanner, it means the feature is not applicable to that scanner model. This update is based on SilverFast 8.0.1r14 release.

1. Ending Workflow Pilot:

If you wish to exit Workflow Pilot Mode at any point during the process of using it, you may do so by clicking on the blue WorkflowPilot icon in the upper left of the application interface (Figure u1).

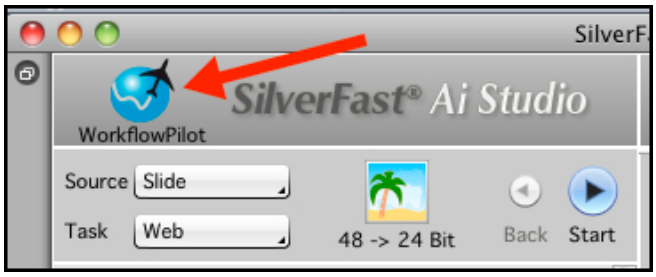


Figure u1.1 End Workflow Pilot

2. Font Size Increased:

LSI has increased the font size of text in the GUI from 9 point to 11 point. People with high resolution displays will especially appreciate this improvement. There is nothing you need do about this other than enjoy the improvement!

3. Photoshop CS6 Support Added:

LSI has made the application compatible with Photoshop CS6 for importing images from SF8 to CS6. SF8 remains backward compatible with earlier versions of Photoshop.

4. Output Rotate/Flip Added to the Densitometer:

The Densitometer now has two modes: it can measure the colour values of pixels, and it can be used to rotate or flip the output orientation of the image without

affecting the position of the large monitor preview. This feature exists in the "Expert" settings, activated by the column of buttons to the left of the window in the Densitometer "Expert" panel Figure u1.2).

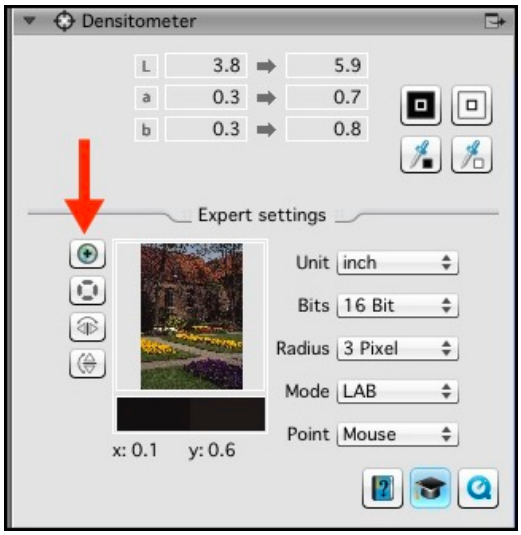


Figure u1.2 Output Rotate/Flip Controls

The top button (red arrow) is a toggle switch that enables the rotating and flipping action to be triggered with the three buttons below it. To initiate a rotate or flip, toggle this top button. It turns into a "radio button" and the black swatch in the center of the dialogue turns into a preview of the output image (Figure u1.2).

Each click of the second button rotates the images 90 degrees clockwise. The effect appears in the Densitometer dialog window as it will appear in scanned output (Figure u1.3, red arrow, one 90 degree rotation), without however changing the orientation of the image in its prescan state in SF8 (**Navigator** and **Prescan** views).

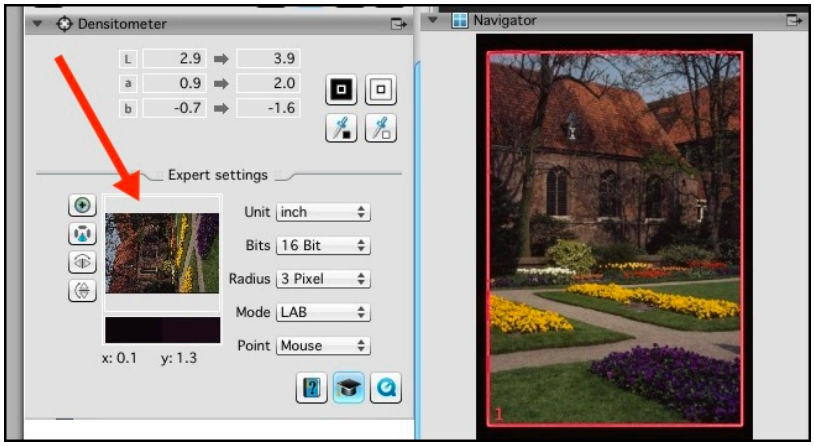


Figure u1.3 90 Degree Output Rotation

Each click of the third button flips the image horizontally, while each click of the fourth button flips it vertically.

Gradation Tool Dialog:

The **Brightness** slider has been removed and replaced with a **Midtone** slider. The value in the dialog to the right of slider is 0 when the curve is linear. Shifting the slider leftward darkens the image and shifting it rightward brightens the image. It can be shifted to -30 going leftward and +30 going rightward (Figure u1.4 overleaf)

The **Midtone** slider is also correlated with the **Midtone** slider of the **Output Histogram** in the **Picture Settings** panel. Both have the same scale and produce the same effect.

It is also correlated with the middle slider of the **Histogram** tool, which is an input histogram. The span of this slider also always measures from -30 to +30.

Figure u1.4 shows that you can produce exactly the same midtone adjustment by adjusting the middle slider to the same numerical extent in all three tools: Gradation Curve, Histogram and Picture Settings.

There is, however, at least one very important distinction to be made in the case of the **Histogram** tool (the input histogram – the one sitting just above the tone curve in Figure u1.4)), as this is the only tool in SF8 that allows you to remap the white and black points in order to "normalize" the image's contrast and brightness range[1].

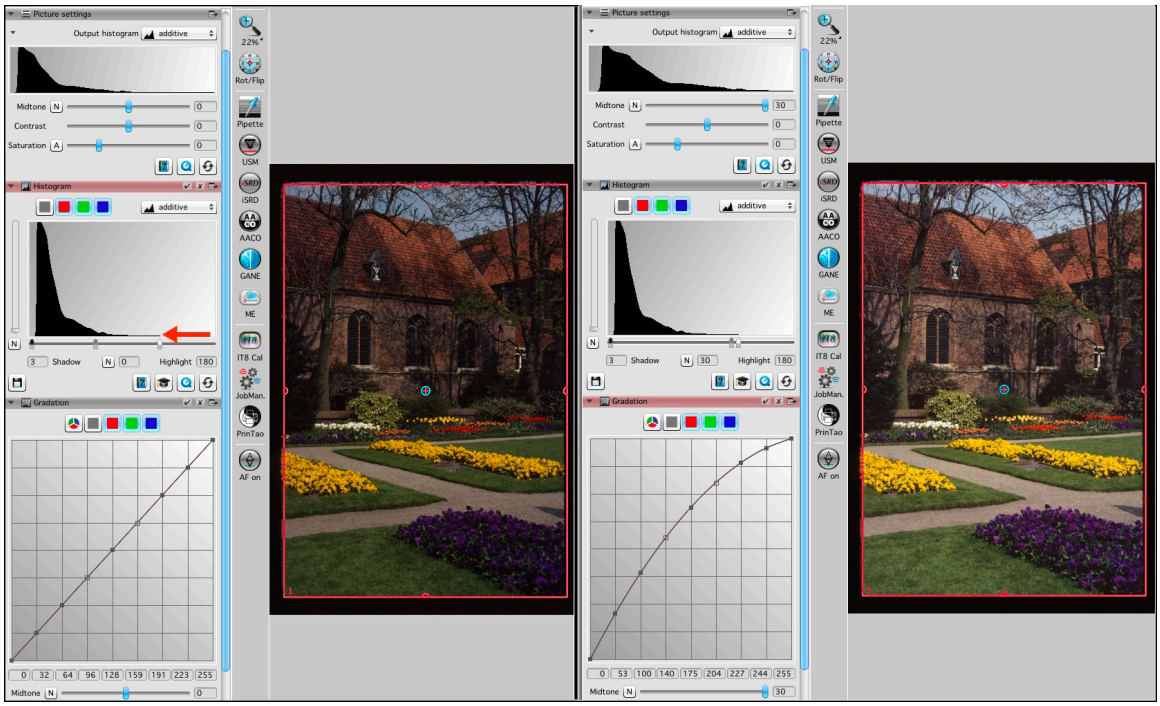
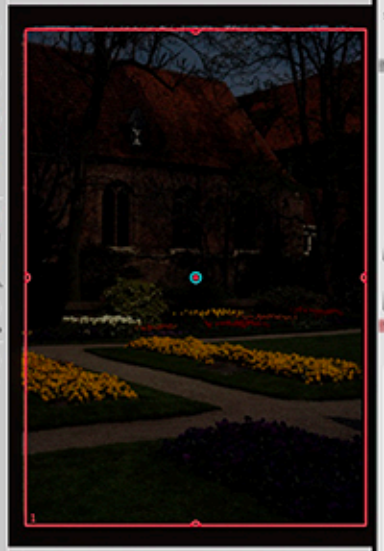


Figure u1.5 Normalizing the Histogram(left) and Added Midtone Brightness (right)

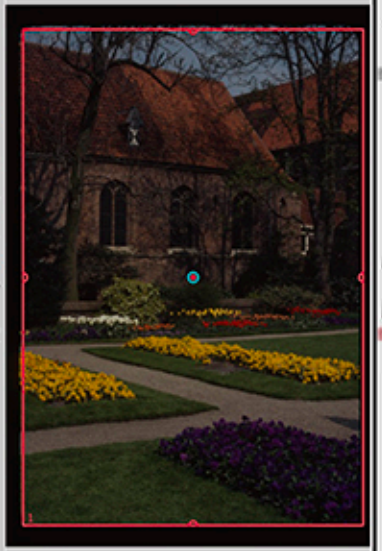
[1] The concept of normalizing the histogram is explained in the book.

Dark Curve; Value = -30



All midtone sliders far left

Linear Curve; Value = 0



All midtone sliders centered

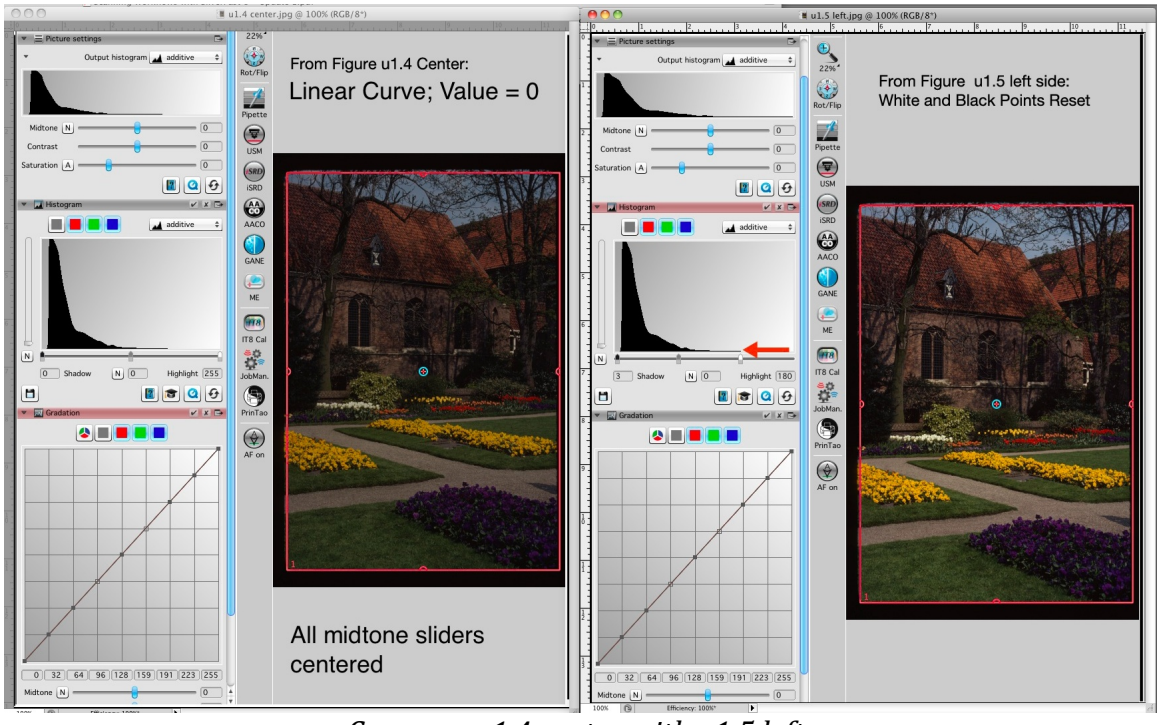
Bright Curve; Value = +30

All midtone sliders far right

This image provides a good demonstration of why this is important. The scan preview emerged dark relative to the appearance of the Kodachrome slide[2].

The most telling cause of this outcome is the fact that the whitest point in the image (the white flowers by the church wall) sits well below the upper limit of the tonal range (value=255). In fact, it is at level 179, because if I remap the white point (right-most **Highlight** slider in the **Histogram** tool) to level 179 (Figure u1.5, left side, red arrow), the histogram remains unclipped and the brightness and contrast is much improved. Contrast is improved yet further by remapping the black point (left-most **Shadow** slider in the **Histogram** tool) from level 0 to level 3.

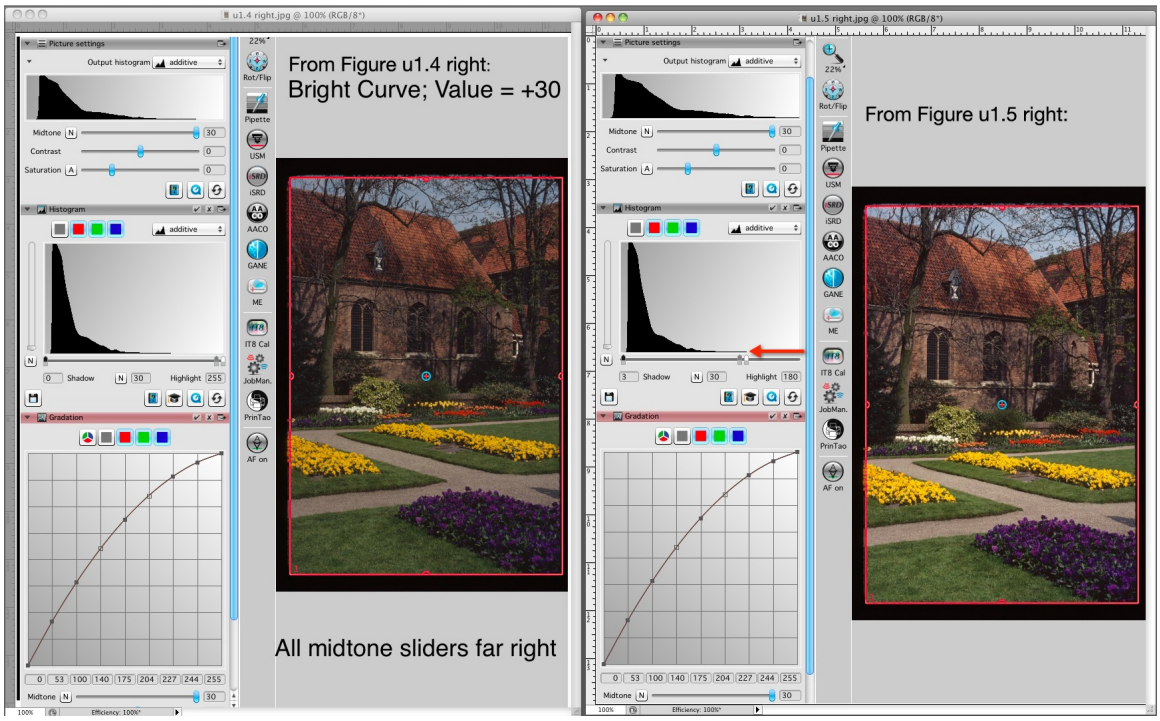
You can see the overall result of simply resetting the white and black points (without clipping the histogram) comparing the left photo in Figure u1.5 with that of the middle panel in Figure u1.4. The midtone adjustment in Figure u1.5 left image remains at zero in all three of the tool panels (as it is in the middle panel of u1.4), but brightness and contrast improved by normalizing the histogram (resetting the white and black points to better portray the tonal range of the original image). The comparison of figures u1.4-center and u1.5-left is shown for convenience in the illustration immediately below, where the left side shows no midtone adjustment and no white and black point reset, and the right side shows only the result of resetting the white and black points, also leaving midtones unadjusted:



Compare u1.4 center with u1.5 left

[2] I suspect because white point of the scan is below the whitest point of the slide.

Now here's the relevance to the **Midtone** slider in the **Gradation** tool: having normalized the white and the black points in the **Histogram** tool, which remaps the tones to sit within a narrower range, if you now proceed on top of that to make **Midtone** adjustments in the **Gradation** tool, even though the numerical value of the adjustments will always remain within the range of -30 to +30 in all three tool panels, the effect of this shift is fully contained within the narrowed tonal range of the image as set in the **Histogram** tool, and the luminance impact on the image is compounded, because it is being applied to an already adjusted (brightened) tonal range. You can see this difference comparing (for convenience, reproduced just below) the right panels of Figures u1.4 and u1.5, where u1.5 right is brighter than u1.4 right, even though both have the same **Midtone** adjustment to a value of +30.



Compare u1.4 Right with u1.5 Right

The workflow implications emerging from this set of comparisons are simply this:

- Firstly, normalize the histogram by setting the white and black points to appropriate levels without clipping the histogram end-points, unless you wish to clip them on purpose for special effects.

- Secondly, adjust the midtones, using either the **Midtone** slider in the **Gradation** panel or the middle slider under the input **Histogram**[3].

We aren't finished here yet – because SF8 has another very interesting graphic effect controlled through the amended **Gradation** panel. Go to the bit depth

[3] You could also use the **Midtone** slider in the **Picture Settings** panel.

selection icon (Figure u1.6 left side, red arrow) and convert the image to the format **16 -> 1 Bit** (Figure u1.6, green arrow). This makes every pixel either black or white, depending on its underlying luminance level.

In this image mode, the gradation curve becomes a threshold adjustor, determining the level of luminance at which a pixel converts to either black or white. You can produce some visually appealing artistic effects with this. The start position in the left side of Figure u1.6 looks rather uninformative – largely a black box.

But by dragging the **Threshold** slider to the right, lighter pixels are brightened and depending on how light they become, they convert to white, leaving the remainder black. In this example, I moved the **Threshold** slider rightward to a value of 85 and the result is an interesting "wood-block print" effect of the church image (Figure u1.6, right side). Had I moved the slider further to the right, more pixels would have turned white. The slider is the only available control over this curve shape. The position of the curve points cannot be changed manually.

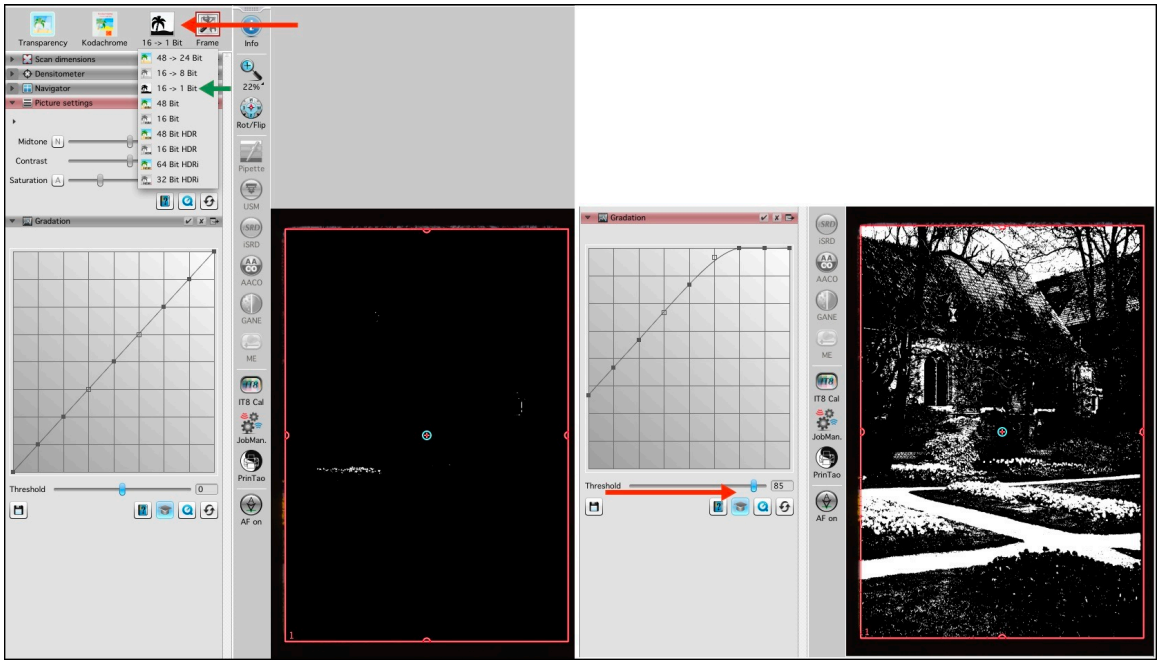


Figure u1.6 Threshold Adjustment for 1 Bit Output

Analog Gain:

While on the subject of luminance, let us cover **Analog Gain**, otherwise known as "lamp control". This control is available only for supported scanners, for example the Nikon 5000. It is found in **Preferences > Special** (Figure u1.7, red arrow). Click on the button by the red arrow and a dialog will open (Figure u1.7, lower-right inset).

The default position for each slider is "0" and they can each move within a range of +20 to -20. Because this is a hardware-dependent adjustment, its effect can be seen only after shifting the slider and committing to a new prescan. After you shift a slider to any non-zero position, a dialog (Figure u1.8) appears. Click **Yes** and the image will be prescanned, showing the effect.

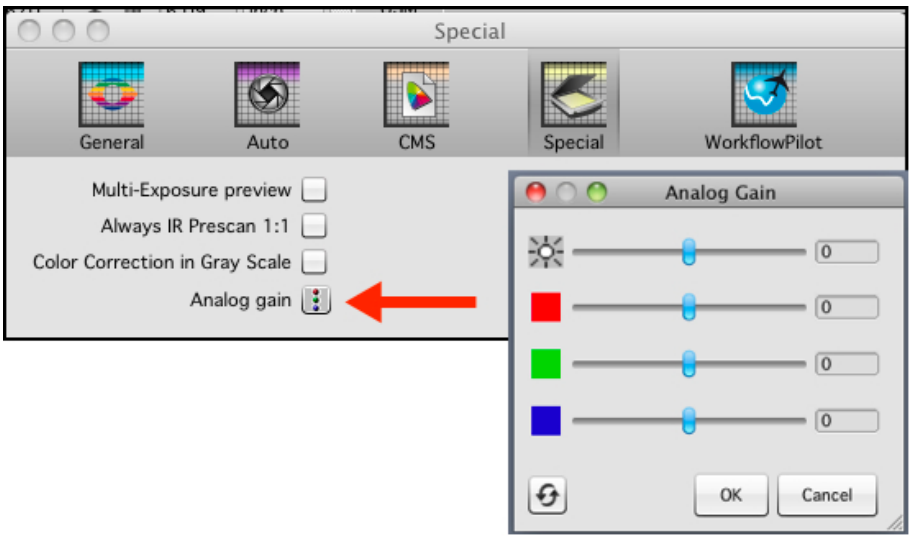


Figure u1.7 Analog Gain Controls

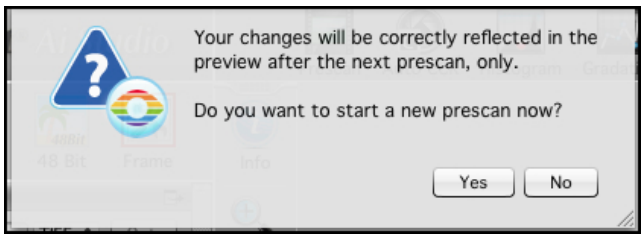


Figure u1.8 Analog Gain Prescan Advisory

The overall impact of this adjustment is rather limited, as shown in the comparison of Figure u1.9, shifting the neutral brightness slider (top one, bulb icon) from -20 (left panel) to +20 (center panel). The main change from 0 to +20, for example, shifts the right toe of the histogram from level 179 to level 184.

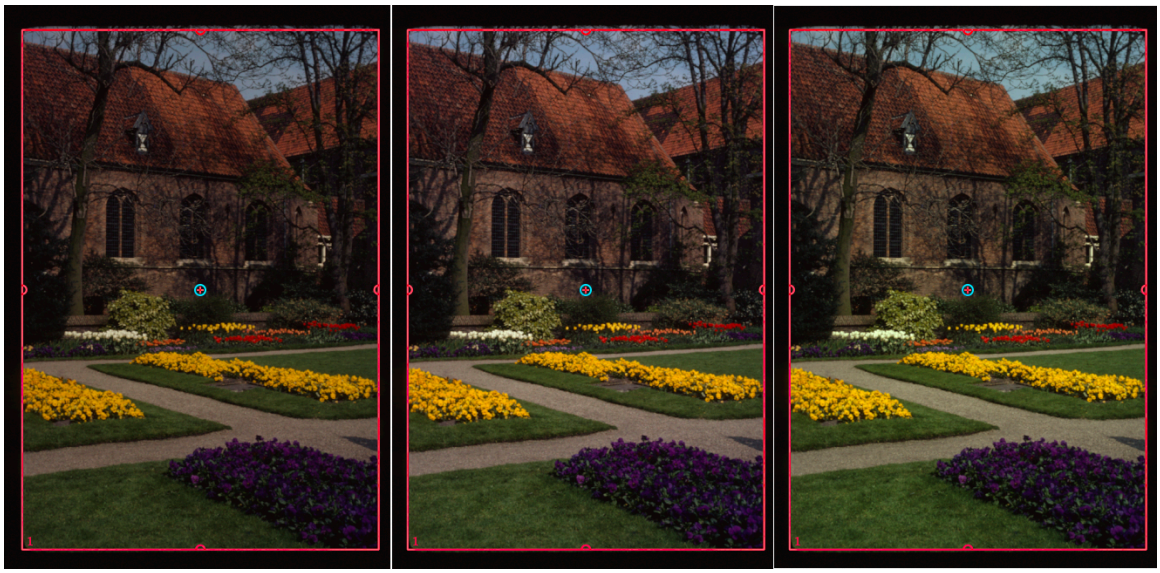


Figure u1.9 Brightness and Colour Adjustment Range of Analog Gain

The individual color channel sliders below the top one are for adjusting the brightness of each channel independently. You want to be careful with these, because they alter the colour balance of the image, as you can see by my having moved the Green channel slider from 0 to +20 (Figure u1.9, right panel). Notice how the sky now has a cyan cast and the path has changed from brownish to greenish, while the grass is brighter green and the yellow flowers are less orangy. The church wall has also shifted from reddish-brown to greenish-brown.

Because this adjustment is made in **Preferences**, it is sticky until you change it and will remain sticky at the value of each subsequent adjustment until changed. Hence it's use is recommended if you think most of your images need a systemic, generalized adjustment to a uniform extent. For example, if I think my scanner is systematically delivering darker output than I think it should, increasing the neutral analog gain may help to systematically mitigate this issue, but only a little.

Always IR Prescan 1:1

While in **Preferences>Special**, there is one more newcomer: **Always IR Prescan 1:1** (Figure u1.10, red arrow). Checking this option will cause the scanner to systematically make a 1:1 preview scan for the infrared channel with every image pre-scanned while this option remains checked. As explained in the book, a 1:1 prescan is needed to use iSRD. The iSRD panel has a **1:1 Preview** command that needs to be triggered with every image, unless you have preselected this option as shown here in **Preferences>Special**. I find this a useful preference to activate, because most images need some amount of cleanup with iSRD.

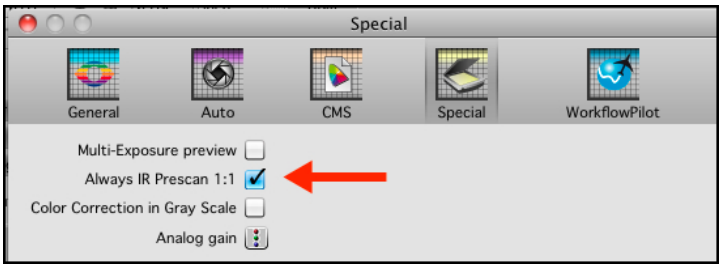


Figure u1.10 IR 1:1 Prescan Preference

Show Image After Scan

In **Preferences>General**, if you check the box beside **Show image after scan** (Figure u1.11, red arrow), every time you make a scan, the output image will open in the chosen external image editing application. You select this external image editing application by clicking on the "…" button (Figure u1.11, green arrow) and from the drop-down menu select your preferred application (NOT the application folder, but the application itself – "**.exe**" in Windows, or "**.app**" in Mac). If you wish to cancel these selections and revert to SilverFast defaults, click the button under the blue arrow in Figure u1.11.

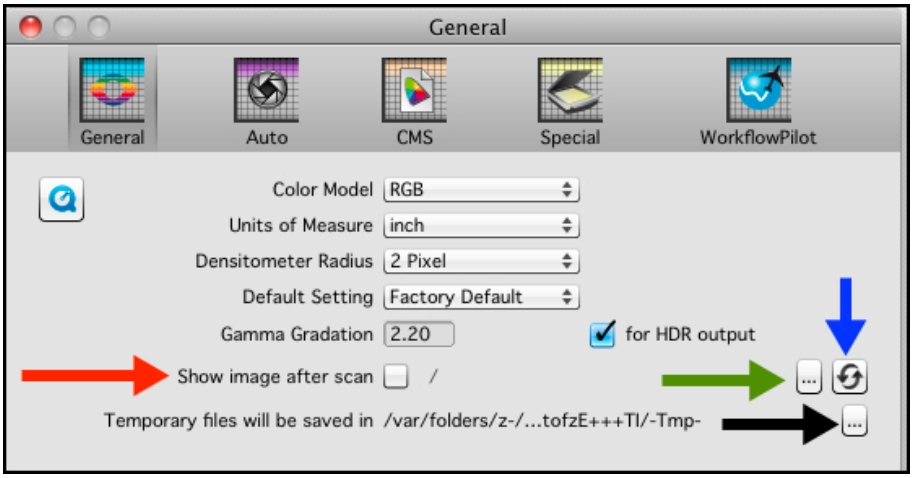


Figure u1.11 Show Image After Scan

Temporary files will be saved in…

Again in **Preferences>General**, the bottom line allows you to select a drive space in which to store SilverFast's "temp files", by clicking on the "…" button (Figure u1.11, black arrow). This pulls up your Finder (Mac) or Explorer (Windows) allowing you to migrate to a folder where these "temp files" will be stored. This is akin to the "scratch disk" function of Photoshop, providing for the handling of RAM overflow. If you have more than one hard drive inside your computer, the usual recommendation is to use a drive that is not the system drive for the scratch disk. This way both drives can work independently, improving operational efficiency.

Auto-renaming with Job Manager

Batch scanning using **JobManager** is explained in the book. The added feature (which existed in SilverFast 6.x) is the ability to batch-rename images and have them sequentially numbered as they are scanned. The **step-by-step** implementation is as follows, for this demo - using the Epson Perfection V750 Pro scanner in slide transparency mode.

1. You need to be using the Ai Studio version of the software in Manual mode (red globe in the upper left corner of the interface).

2. Click the **Frame** button (Figure u1.12, red arrow) and in the dropdown menu that opens click **Find frames>35mm film holder**.

3. After making any custom adjustments to any of the images and you are ready to batch-scan them, click on the **JobManager** icon in the tool column (Figure u1.12, green arrow). This will open the **JobManager** dialog (Figure u1.13). You will see all of your selected images lined-up in the column, with the name **Image 1**, **Image 2**, …etc.

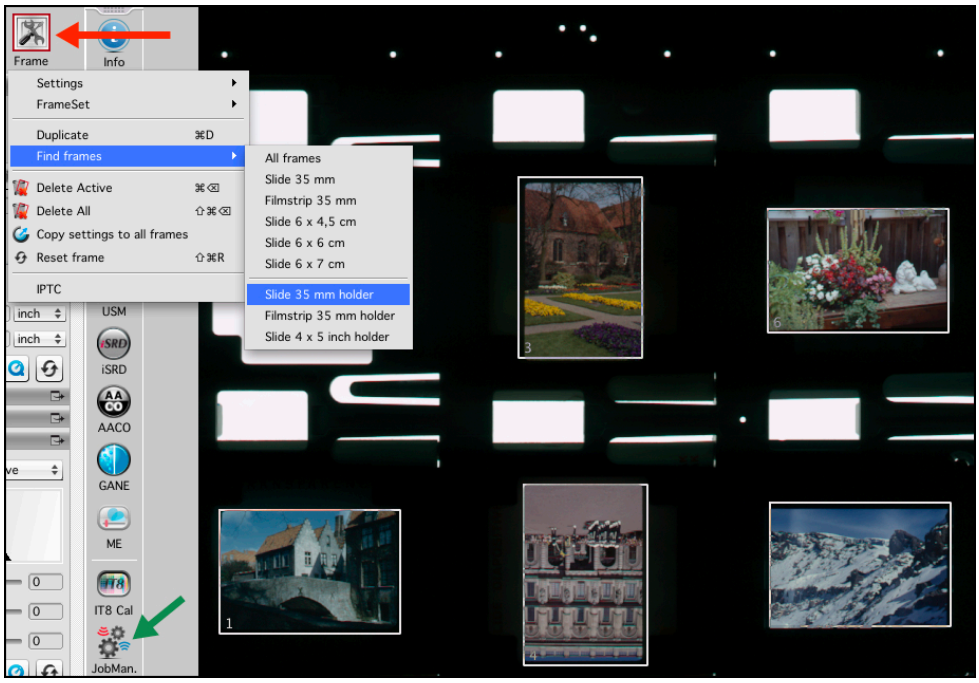


Figure 1.12 Find Frames for Batch Scanning

4. Click the Start button (Figure u1.13, red arrow). This will trigger the **Save As** dialog where you auto-rename the images (Figure u1.14).

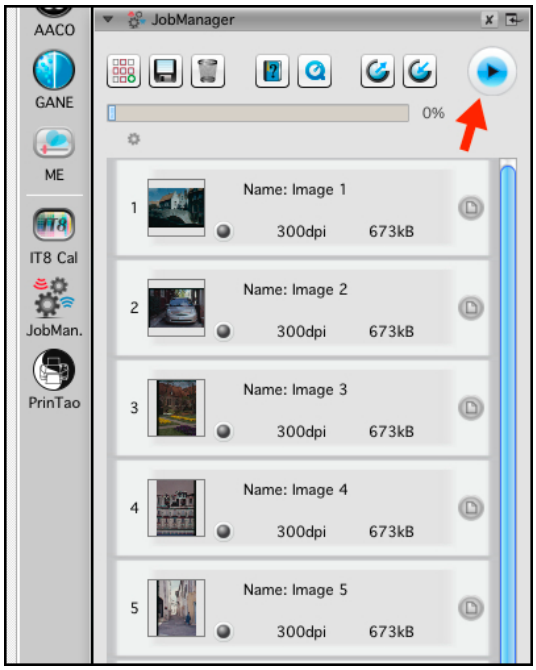


Figure u1.13 Batch Scan Start Command

5. Within the **Save As** dialog (Figure u1.14), do the following:

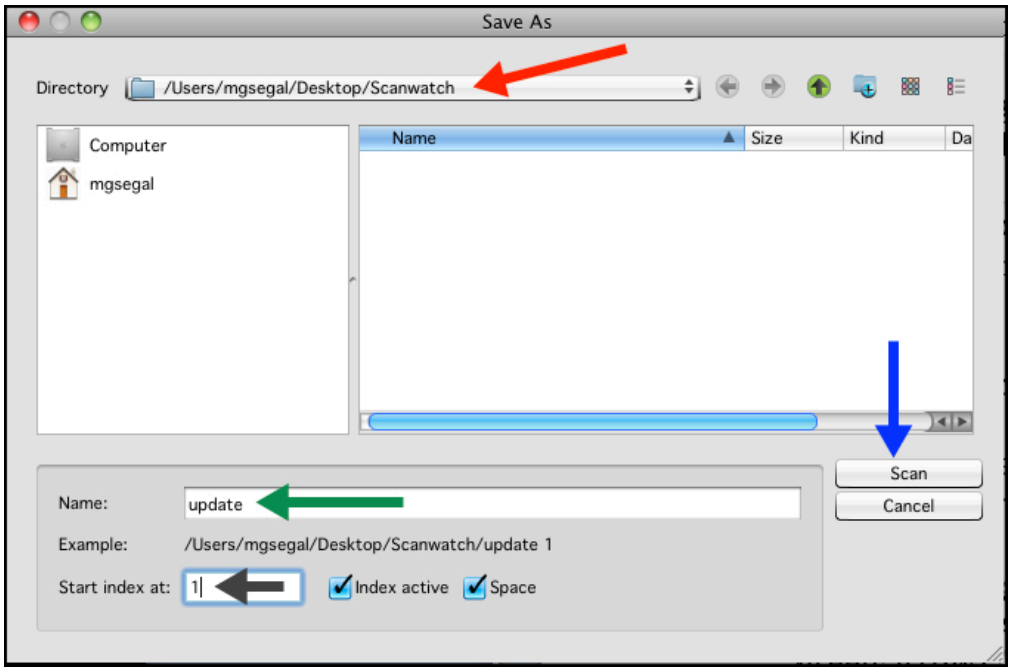


Figure u1.14 Save As Dialog for Batch Auto-Renaming

a. Select the **Directory** and folder (red arrow) where you want the scans to be saved (just in case I wish to further work these images in Lightroom, here I selected "Scanwatch" [4].

b. In the **Name** field (green arrow), enter the name you wish to see replicated with each image that will be scanned (here I entered "update").

c. In the **Start index at** field (black arrow) enter the start number of the numbering sequence that SilverFast will trigger once you begin the scan process.

d. Check the two boxes **Index active** and **Space** if you want the numbering sequence to apply and you want a space between the number and the name.

e. Click **Scan** (button under the blue arrow). The selected images (in our example 5 of them) will scan to the selected destination with the naming automatically done in sequence as shown in Figure u1.15. The name "update" is preserved, while each image is then sequentially numbered as instructed.

For those of you batch-scanning with auto-renaming directly from SF8 into Lightroom (using the automated migration approach described in the book), the images migrated from the "Scanwatch" folder to the "SF8 Output" folder automatically, and then appear in the "Previous Import" window of Lightroom (Figure u1.16).

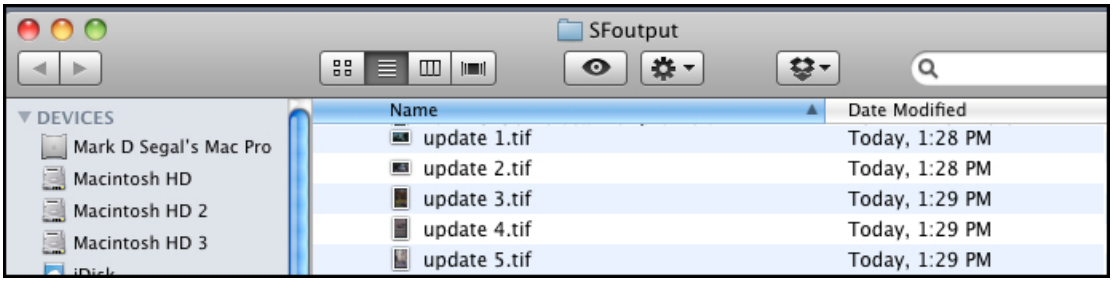


Figure u1.15 Scanned and Renamed Image Files

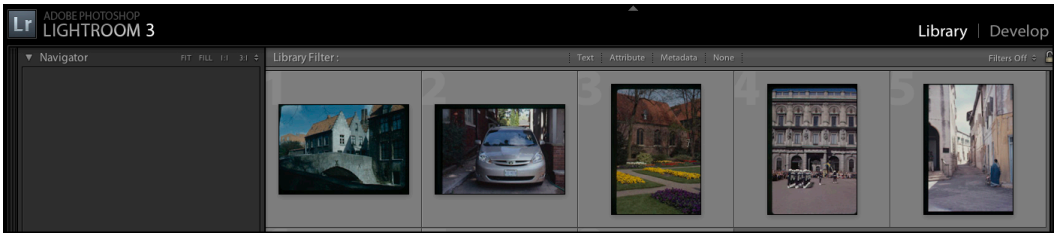


Figure u1.16 Renamed Images Opened in Lightroom (Optional)

[4] As explained in the book, this is my "watched folder" for Lightroom; any image entering this folder will automatically enter Lightroom's "Previous Import" folder when I open Lightroom.

Error Correction

Please refer to the book, page 124 in the “Example”, the phrase “16.5 by 11 inches” should read: “14 by 9 inches”.