A decorative graphic consisting of a grid of colored squares. It includes a dark red square at the top, a grey square on the left, a light grey square in the middle, a red square on the right, a blue square at the bottom, and a blue square on the far right with a white corner that looks like a page being turned.

**SilverFast 8
Product Analysis**

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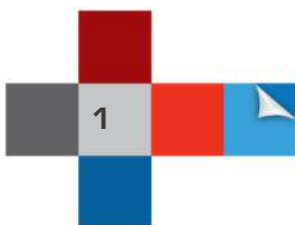
Executive Summary

SilverFast 8 is LaserSoft Imaging's latest version of its flagship scanner software product, SilverFast. Version 8 is a genuine break-through when it comes to interface efficiency and time savings.

SilverFast 8's new interface does not just have a nicer design; the improvements stimulate a faster workflow and a better user experience. A new WorkflowPilot enables users to automate scan jobs fully, but it also allows users to create workflows that allow for fine-tuning when scanning.

SilverFast 8 is also the only scanner software that is capable of multitasking, i.e. a pre-scanned image can be further optimised while another image is scanned for final output.

Compared to Vuescan, once a serious competitor, SilverFast 8 stands out head and shoulders in terms of speed, efficiency, and user-friendliness.



Introduction

LaserSoft Imaging has a range of scanner software for controlling modest consumer scanners up to the highest-end scanners such as Heidelberg's Tango drum scanner. LaserSoft Imaging has an incredible expertise when it comes to image processing. The company has been in close relationship with Rudolf Hell's famous company Hell AG.

While Rudolf Hell was still in charge of Hell AG, Karl-Heinz Zahorsky, now President and CEO of LaserSoft Imaging, gave his first lecture about image processing at MacWorld in Sweden in 1989. In that same year, LaserSoft Imaging and Apple together presented the first professional colour scanner at Hannover's CeBit. LaserSoft Imaging introduced engineers at Hell AG to colour processing on Mac II's, and Hell AG and LaserSoft Imaging agreed on a consultancy contract for the novel desktop publishing technologies as well as for setting up a mutual research program covering Barneyscan film scanners.

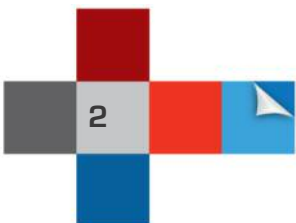
LaserSoft Imaging also cooperated with Barneyscan, whose engineers Thomas and John Knoll developed the CIS XP Extended Image Processing Software. In 1991, LaserSoft Imaging advised Leaf, Sharp, Canon, Sony, Seiko, and others on colour management technology and desktop publishing, and three years later Karl-Heinz Zahorsky developed the software concept and an interface for the Optotech drumscanner. In that year, SilverFast was conceived as well. It is in this scientific and technological heritage that LaserSoft Imaging still develops its scanner software today.

In August 2011, LaserSoft Imaging released SilverFast 8, a completely revamped version of its flagship application for consumer and photo scanners. SilverFast 8 has the following new features and improvements:

- # A modernised, unified interface
- # A new, customizable WorkflowPilot, which replaces the old ScanPilot
- # Mac OS X 10.7 ("Lion") and Windows 7 compatibility
- # Docked control panels — the Control Dock
- # Prescan window that updates in real time with each image optimisation
- # Multitasking capability

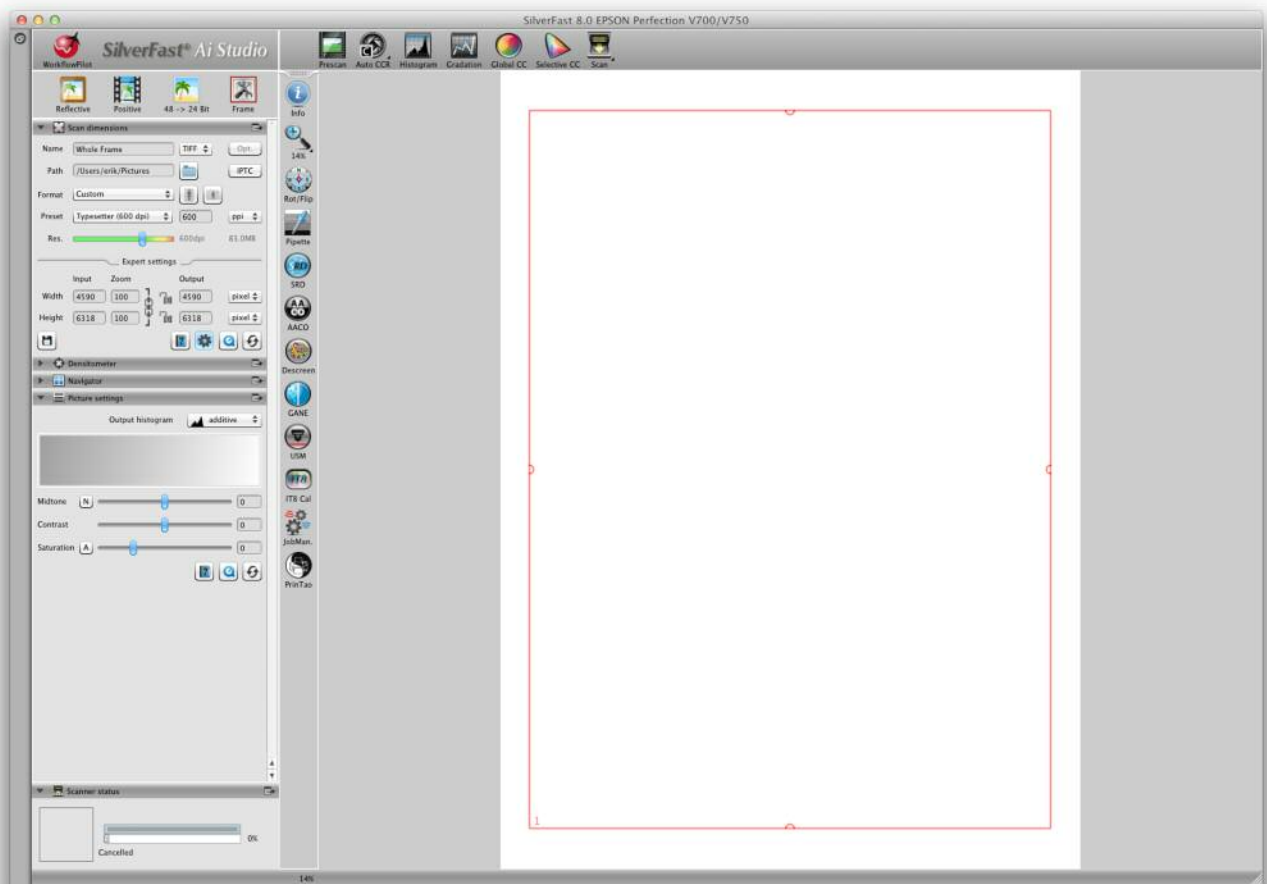
The interface

SilverFast 8 has a modernised look with toolbars, a Control Dock to keep control panels together, and more intuitive icons and buttons. Overall, I found the interface to be visually very pleasing, with the exception of the big arrow cursor.



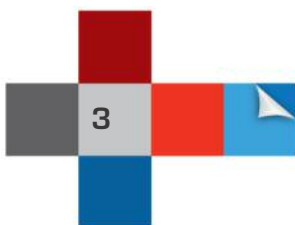
The interface is logically organised with common task icons in the horizontal toolbar running along the top of the screen and the Control Dock neatly listing the control panels at left. The Control Dock can be undocked with the click of a mouse, and docked again. Docking again was less obvious than undocking; it required double-clicking the panel's grab bar.

Each individual panel of the Control Dock can also be undocked. This gives the user maximum flexibility and control. It also resembles Adobe's screen organization, which has become the gold standard for creative interfaces.



The control panels by themselves have been modernised. For example, all colour correction panels have a much smoother graphical appearance, which makes editing the colours of an image much more efficient than before; it's easier to see what you are doing. Most panels are also organised better in terms of usability. Even inexperienced operators will find their way around the interface much faster.

All in all, SilverFast 8's new interface is a joy to work with. It is more efficient, faster, and more beautiful.

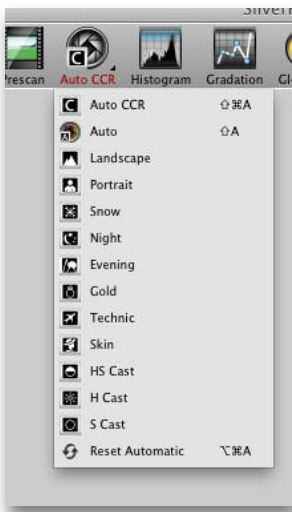


WorkflowPilot

The new WorkflowPilot guides inexperienced or consumer-level users through the necessary processing steps in the right order. For experienced users, WorkflowPilot can be customised, and can then be used to streamline the scanning workflow.

In essence, WorkflowPilot is a script that takes the user from one step to the next. It always starts with a Prescan and ends with the final scan, but in-between these two elementary steps, a user can:

- # Run a preset workflow and follow the factory set steps
- # Clone a preset, change its steps and save it under a different name
- # Create a new preset from scratch.



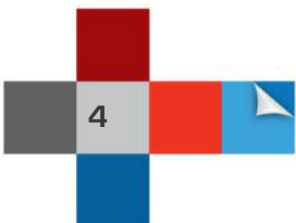
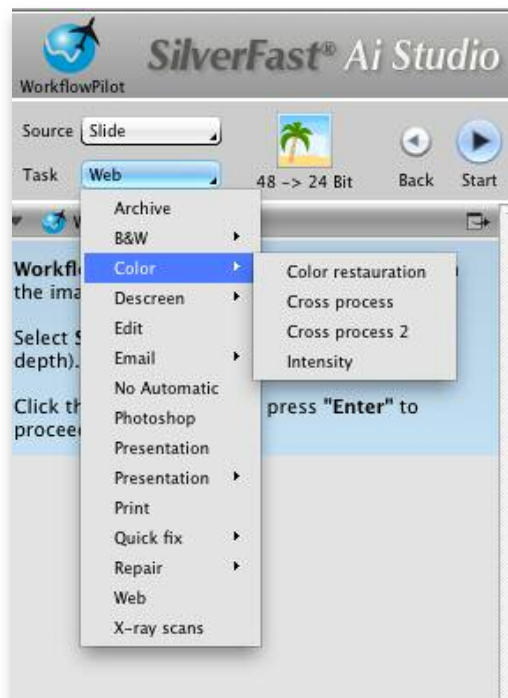
Each of the modules (control panels) for processing the scanned image can be included in a WorkflowPilot preset. Some modules can be predefined in order to automate the workflow. All of them can be set to the “default” value, which will enforce user intervention (manually implementing a correction).

The major benefit of the WorkflowPilot lies in its adaptability. Experienced scanner operators will probably not need the WorkflowPilot’s order enforcement. They should know in which order a scanned image should be corrected and

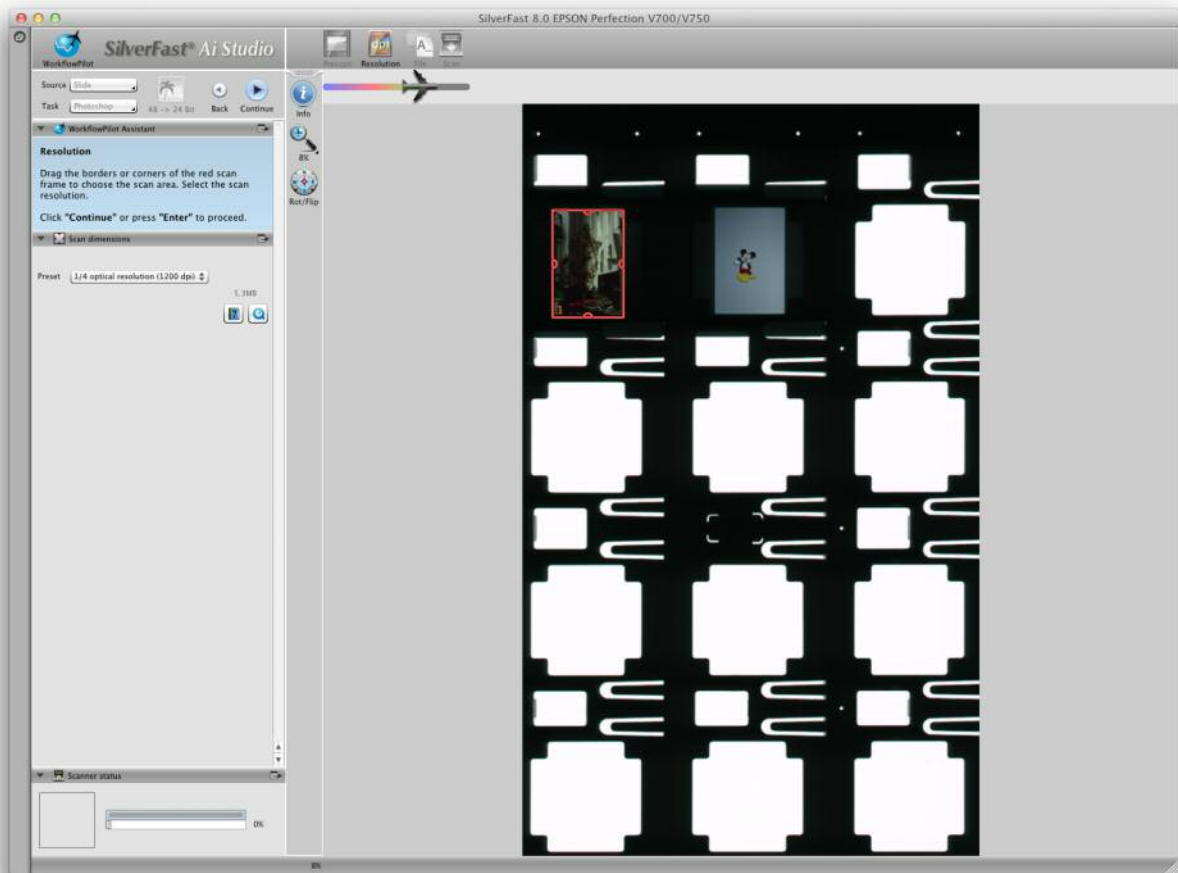
processed to obtain predictable results.

However, SilverFast 8 is not only intended for experienced scanner operators, but also (and perhaps foremost) for photographers, graphic designers, and image archiving personnel. These classes of user are not necessarily extremely knowledgeable when it comes to managing an image processing workflow (photographers may be an exception).

For them, WorkflowPilot offers an environment that is strict with regards to the order in which corrections and optimisations are executed, but flexible enough to optimise the speed and efficiency of the process for each particular output medium.

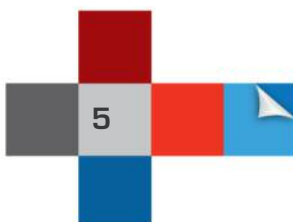


An example: when scanning an image for display on a web page at 640 x 480 pixels, de-screening or fine grain removal doesn't show as the size of the end-result will be too small to see the difference between a carefully fine-tuned image and one that has been processed with less refinement. For such images, a WorkflowPilot preset can be created that runs the image through the most essential corrections and optimisations. Not surpris-



ingly, one of the presets that are standard included with SilverFast 8 is a web output preset, but there are many others, including archive and print output presets. Meanwhile, the web preset is one of those that come with unique features.

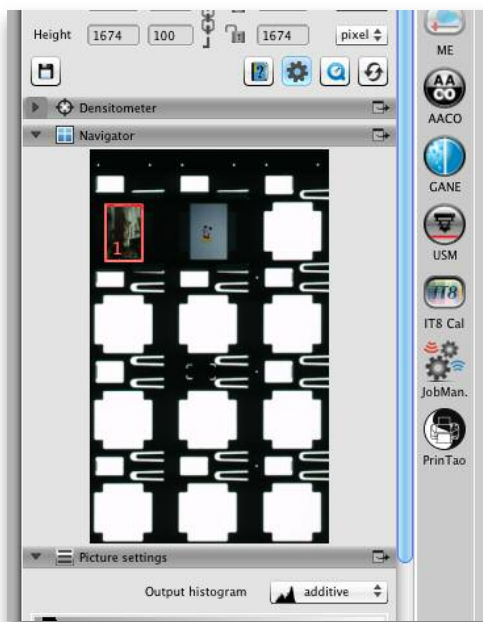
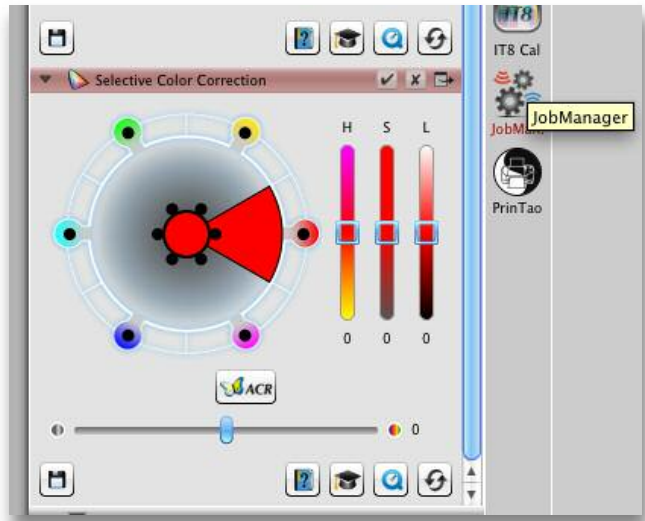
The Web output preset allows users to choose the size of the resulting web image in one of the workflow steps — so far nothing special. However, a user can preview what is meant by “small” or “medium” size in his/her browser by clicking a preview button, after which a default image appears in the selected size. This gives a good idea of how big the resulting scan will look. It's this attention to detail that makes SilverFast 8 stand out.



Control Panels

Although SilverFast 8 has more or less the same set of controls as previous versions, every control panel has been re-designed. The control panels have a Basic mode and an Expert mode. In both modes, the control panels are user-friendly and better designed from the point of view of usability.

Most Control settings can be changed using sliders. In Expert mode, experienced image editors can set options that don't even exist in Photoshop CS5.5 (dust control is a good example). The granular level to which images can be edited prior to the final scan is incredible.

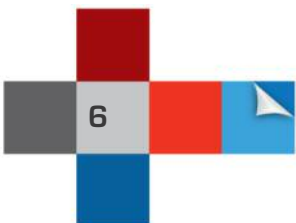


At first sight, control panels come without presets. For example, the curves panel (called Gradation in SilverFast) has no presets to choose from. However, when the Gradation module is checked in the WorkflowPilot setup dialogue, a number of presets become available. Even then, these predefined settings can be changed for each step WorkflowPilot takes you through.

Colour correction related panels have been re-designed up to a point that it makes it easier to know exactly what a user is modifying. For example, the Local Color Correction panel now has a more defined and clearer colour wheel with more intuitive colour wells that you can change interactively by dragging the mouse.

The panels themselves are also much more effective at immediately showing a user which direction a modification will take before applying it. The cursor will change for this purpose, i.e. it will show a plus or minus sign.

A Navigator panel helps users to find their images on a flatbed scanner even when working on a zoomed-in image.



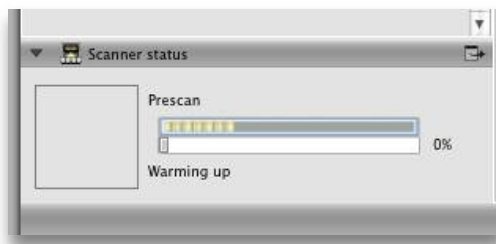
PreScan and Multitasking

The Preview window shows users a prescan of all of the images loaded on the scanner. Images can be zoomed to a level as high as your computer screen will allow. With large computer displays like the Apple 27 inch Cinema Display and a final scan magnification of 1000% of a 35mm slide, this can amount to a magnification of approx. 75%. However, you can never zoom past the Preview window's boundaries, so zooming to 100% and panning around is not possible.

When zoomed in to the maximum level, users can easily see the changes they are making to the image. Any change made to an image is updated in the preview window in real time. Since SilverFast 8 creates a prescan on an Epson Perfection V700 Photo in under 60 seconds, the preview updates cannot but be computed simulations of the corrections that will be performed "for real" when the final scan is performed.



However, the simulated results are not discernable from the actual optimisations when the image is scanned at full resolution. The benefit obviously is a combination of speed and efficiency, especially because SilverFast 8 is also multitasking capable.

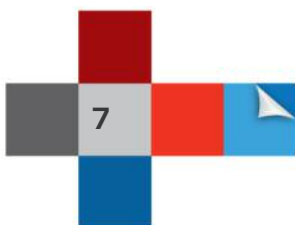


Currently, SilverFast 8 is the only scanner software capable of multitasking. Multitasking in a scanner context means the user can edit one image while scanning the next. Needless to say, this saves a lot of time, especially as the scanner is the slowest part in the workflow.

Even without multitasking, SilverFast 8 is exceptionally fast. With the scanning process itself running at high speeds, it is hard to believe SilverFast can deliver the results it does, and which are the best available in the market.

The competition: Vuescan 9.0.55

Vuescan 9.0.55 by Hamrick is SilverFast 8's main competitor. Vuescan 9.0.55 is a 64-bit scanner application, which delivers more or less the same functionality as SilverFast. However, VueScan 9.0.55 performs poorly with end-results that are too bright when no corrections have been applied, and with a user interface that leaves much guessing as to what certain features will have as a result.



The first thing that I noticed was that Vuescan 9.0.55 (hereafter I will just refer to Vuescan when I refer to version 9.0.55) is much slower than SilverFast 8 when it comes to prescanning and final scanning (see the table). I repeated the performance test three times as I couldn't believe at first the difference would be so outspoken.

Vuescan has a number of identical features to SilverFast. The first is the frame auto-selection functionality. In SilverFast (any version that supports this feature; not just version 8) this auto-selection feature works quite accurately. I tested with 35mm slides, and found that it only fails when the image is almost as black at the edges as the frameholder itself.

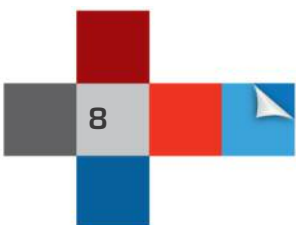
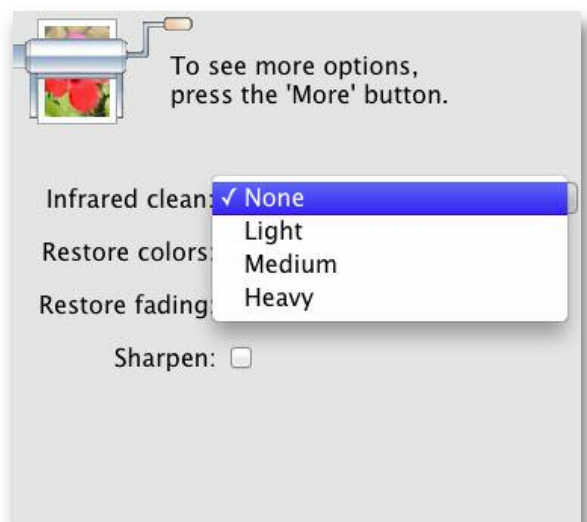


Vuescan's auto-selection feature, however, consistently created a larger frame than the image regardless of the contrast between the image edge and the frameholder. Since much of the accuracy of your corrections depend on the image being selected as cleanly as possible, Vuescan users must manually correct the application's selection, rendering this feature virtually useless. Needless to say, SilverFast's accuracy results in considerable timesavings.

The second feature Vuescan and SilverFast share, is an autopilot. In SilverFast 8, this autopilot has been reworked to a higher standard. In Vuescan, the autopilot is a dumb robot, i.e. the software has a predetermined way of scanning slides with a particular scanner, and there is little room for adjustments — a couple of options can be changed, but most of them operate under the motto "take it or leave it", including the output folder.

Additionally, I found Vuescan's autopilot functionality to behave much like a black box. The user is not guided step by step and nothing much is explained, except for the basics (which most users will know about anyway). If Vuescan's scanning wouldn't be so slow, its autopilot would potentially be faster than SilverFast's because of its "take it or leave it" approach.

As it is now, the Vuescan autopilot cannot prevent a SilverFast user from ending up with a better end-result quicker. Considering the rigid approach, Vuescan's autopilot results are still acceptable, although overall the application seems

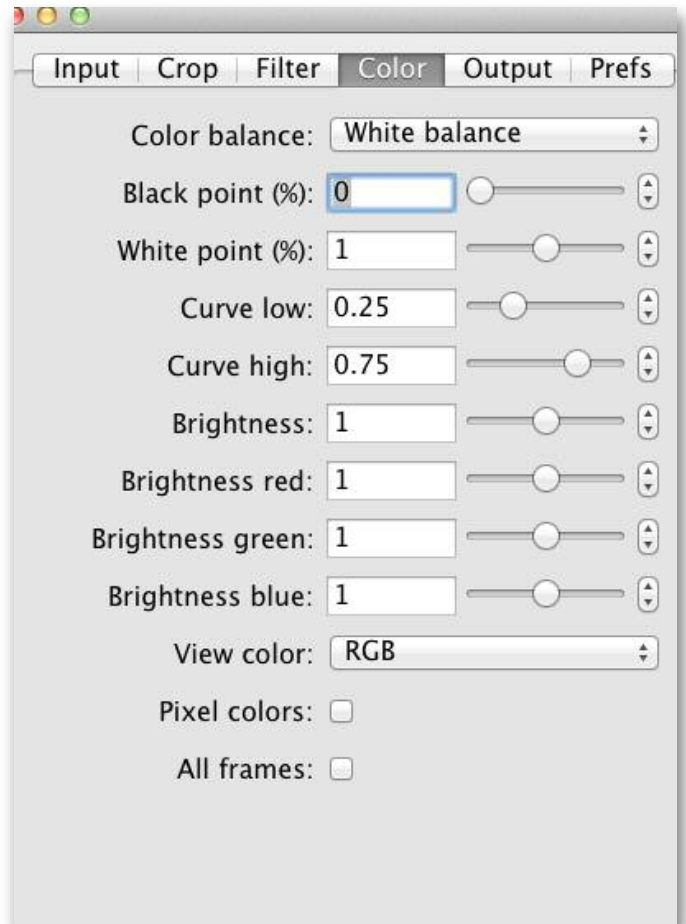


to like bright scans by default, even if the originals are dark.

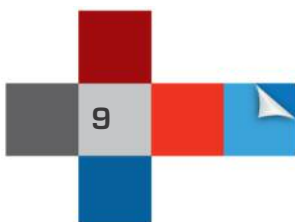
In Advanced mode, Vuescan offers almost as many correction options as SilverFast 8, but the application may not fully exploit your scanner's capabilities. Colour corrections need to be done with a histogram only. Selective colour corrections or edits are not supported. Global colour corrections are supported, but the feedback the user gets is histogram based only.

The histogram and the Curves feature are the only graphical user interface elements for corrections and improvements. The Curves feature is limited to two points that can be modified. IPTC data for archival needs is not supported, as it is in SilverFast 8.

The many image improvement features that are the hallmark of SilverFast since version 6 are nowhere to be found in Vuescan's interface, and SilverFast 8's interface looks like science fiction compared with Vuescan's.



<i>Task</i>	<i>SilverFast</i>	<i>Vuescan</i>
<i>Prescan</i>	0'50"00	02'02"18
<i>Final Scan</i>	0'51"61	02'50"16
<i>GUI elements</i>	100 [base]	10
<i>Colour accuracy</i>	100 [base]	75
<i>User friendliness</i>	100 [base]	40



Conclusion

In a head to head comparison, SilverFast comes out as an overall winner by a large margin, and Vuescan loses on all fronts. Even Vuescan's Exposure button, which the test scanner was bound to support did not work. It simply didn't change a thing.

Strange with Vuescan I found was that TIFF images were smaller than SilverFast's, until I discovered Vuescan by default compresses TIFF images, whereas SilverFast does not. This could be an advantage if you had control over the compression algorithm, but unfortunately you can only turn it on or off. Finally, Vuescan scanned consistently too bright when compared with the original on the scanner.

