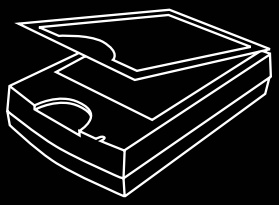
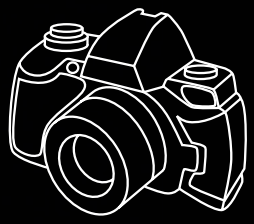
SilverFast®

v.6.6 Upgrade





48 Bit

LaserSoft Imaging®

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Introduction

Dear *SilverFast* User,

SilverFast 6 has established the name *SilverFast* as the standard for scan software world-wide, while *SilverFastHDR* and *SilverFastDCPro* have become popular for working with scanner and camera raw data.
We are proud that more than 1.5 Million users work with *SilverFast* world-wide and with the recent support of the best scanners on the globe, the Heidelberg (Linotype-Hell) high-end series Topaz, Tango, Nexscan, Primescan and Chromagraph, we have reached the top of the imaging development. We are also proud to continue with some of the work of a great inventor of our time, Dr. Ing Rudolf Hell, the inventor of the fax machine, drum scanners and numerous other significant inventions, that built an important part of today's information technology.

At the 20th anniversary of *LaserSoft Imaging* we are now adding another milestone to our development with *SilverFast 6.5* - even more quality and more productivity.

Please enjoy *SilverFast 6.5* !

Karl-Heinz Zahorsky
President & CEO
LaserSoft Imaging AG

Kiel, November 2006

Change of system requirements

SilverFast6.5 supports the operating systems Windows® 2000, Windows® ME, Windows® XP, Macintosh® OSX 10.3 and better.

Windows® 98 and Macintosh® OS9 are not supported anymore.

Contents of the Upgrade

SilverFast 6.5 (6.6, 6.6.1) contains the following features:

1. SilverFast ColorServer
The Hotfolder functionality allows flexible correction of image materials as well as the automatic control of directories.

2. Multi-Exposure
For some scanners, the new Multi-Exposure function will result in a higher density and better quality while being much faster than Multi-Sampling.

3. Improved NegaFix
The NegaFix mode now operates more colour neutral with the new CCR colourcast neutralizer.

4. New NegaFix Profiles
Several new NegaFix profiles have been added and support more negative films.

5. Auto-Frames
By this function, Image frames can automatically be generated on the prescan.

6. SF-Basic
The SilverFast interface can now be switched from standard to basic mode.

7. New Installer
The new Apple-Installer is now used to Macintosh.

8. SFAi - HDR Gamma Optimization
SilverFastHDR now automatically recognizes and sets the gamma value used in SilverFastAi.

9. Extended Selective Colour Correction
New presets for SilverFastSE and SilverFastSEPlus allowing better colour corrections.

10. Color management in SilverFast SE
All SilverFast SE versions contain only one input and one RGB working color space.

11. Automatic IT 8 calibration
One click scanner calibration.

12. Options dialog
Additions on the “General” and “Auto” palette.

13. iSRD and HDRi
Dust and scratch removal iSDR for film and flatbed scanner.
HDRi, the new raw data format with integrated infrared channel.

14. Kodachrome
ICC profile for Kodachrome slides.

SilverFast ColorServer

Hotfolder

What is the *ColorServer* (Hotfolder)?

The hotfolder functionality allows the flexible correction of image material and the automatic control of directories.

On the one hand, entire image collections can be processed fully automatically. This will commonly be used for converting or scaling of images: By means of a few mouse clicks, all images may be copied from folder A into folder B while resizing them to a 72dpi output for web use.

On the other hand, the control of import-directories is possible. For example: The flash memory of a digital camera is emptied into a hotfolder. The hotfolder will then automatically process all images according to the users presets.

Which *SilverFast* Versions include the *ColorServer*?

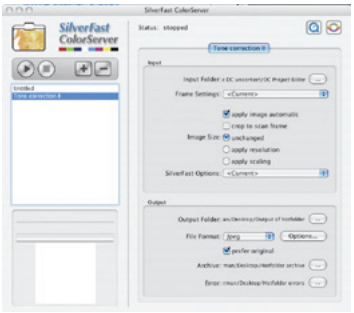
The *ColorServer* is an optional extension for *SilverFast DC Pro Studio* and *-HDR Studio* versions.

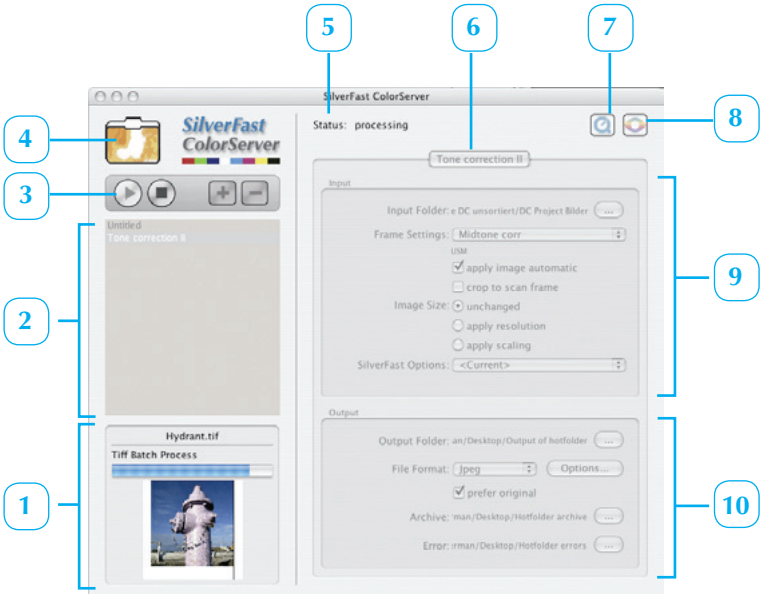
Launching the *ColorServer*

The *ColorServer* may be opened in *SilverFast's* main dialogue by clicking of the respective button left of the large preview window.

The image on the right show the ColorServer in operation.

The image below shows the resting ColorServer.





1 Status window
Shows the status of the currently processed image.

2 Hotfolder selection
A list of all generated hotfolders.

3 Taskbar
Start, stop , add new hotfolder, delete selected hotfolder.

4 Hotfolder thumbnails
The thumbnail displays a flickering image when a hotfolder is active.

5 General status of the ColorServer
Halted or in operation.

6 Name of the selected hotfolder

7 QuickTime movie
Introduction to the ColorServer.

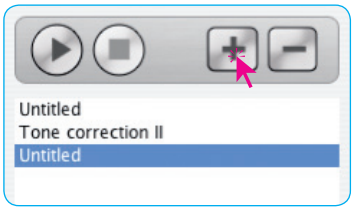
8 Switch to SilverFast's main dialogue

9 Input area
Here, all parameters of the current hotfolder can be entered and displayed.

10 Output area
Target directory, file format as well as archive and error directories can be chosen here.

Working with the *ColorServer*

Using the *ColorServer* is easy. The following passage describes the generation and operation of a hotfolder.

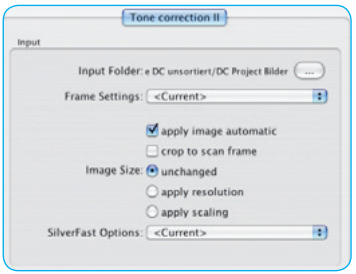


Select / Generate a Hotfolder

Selection of a hotfolder is done by simply clicking the respective name in the hotfolder list.

A new hotfolder is generated by clicking the plus-button in the toolbar. The new hotfolder appears as “Unnamed” in the list. By double-clicking the name, it will be highlighted and can be edited.

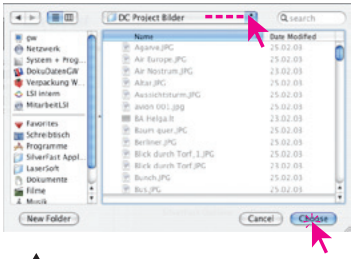
A single click switched between hotfolders. The selected parameters of the selected hotfolder are immediately displayed in the input- and output areas.



Setting Input Parameters for a Hotfolder

The name of a selected hotfolder appears on the upper edge of the input area.

- **Source directory:** First, select a source directory. A click on the directory button opens the operating system’s file browser.



Attention!

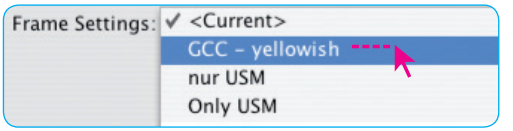
Each hotfolder **must** have a different source directory. A single source directory cannot be used by two or more hotfolders.

Attention !

The Hotfolder is emptied with processing!

The pictures in it are changed by the processing, according to the adjusted parameters. If it’s necessary to keep the originals preserved an archive directory **must** *be selected absolutely.*

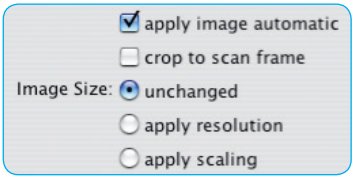
- **Frame parameters:** Previously generated parameter settings from *SilverFast's* main dialogue may be chosen next. These parameter settings will then be applied to every image that is dropped into hotfolder.



Reminder

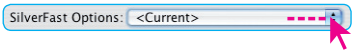
Where and how can the parameters be set?

In SilverFast's main dialogue window on the "Frame" palette, under the "Setting" menu. All set parameters will be taken such as gradation-, colour corrections, USM, scaling, output resolution, etc.



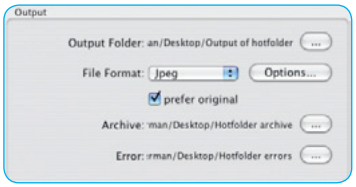
- **Use image automatic**: The image automatic is individually applied for each image in the hotfolder.

- **Cut to image frame**: All images in the hotfolder are cut to the proportion of the currently selected frame in *SilverFast's* main dialogue.
- **Image size / Do not change:** By this selection, all images remain in their original size.
- **Apply resolution:** The selected output resolution of *SilverFast's* main dialogue is applied to all images in the hotfolder
- **Apply scaling:** The selected scaling of *SilverFast's* main dialogue is applied to all images in the hotfolder.

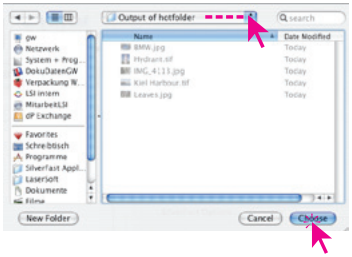


- **SilverFast options**: By this, all preset parameters in *SilverFast's* main dialogue may be applied to all images in the hotfolder.

Setting the Hotfolder's Output Parameters

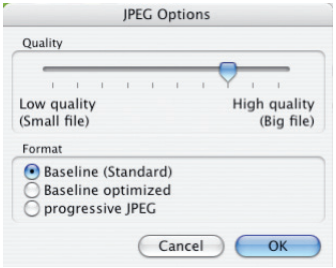


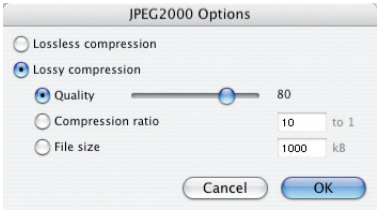
- **Target directory:** Next, the target directory is to be selected. A click on to the directory button will launch the operating systems file browser.

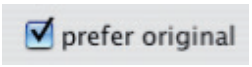


The target directory can be the same for any number of hotfolders – unlike the source directory.

- **File format:** If the same output format is to be applied to all images of the hotfolder, it can be selected here. TIFF, JPEG and JPEG2000 are available.

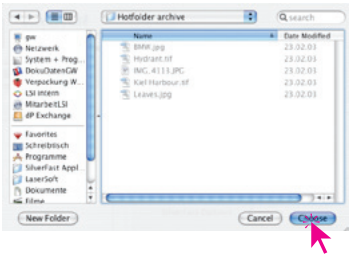


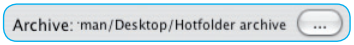




- **Prefer original:** If the output format is to be the same as the original file, check this box. By doing this, the selected settings in the previous menu are overruled / deactivated.

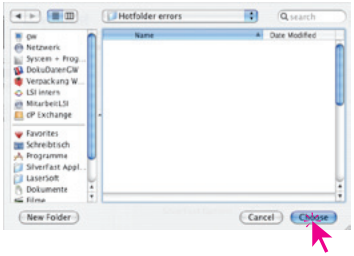
- **Archive directory:** Next, the archive directory can be chosen. A click on to the directory button will launch the operating systems file browser.

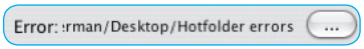




The archive directory collects 1:1 copies of the originals.

- **Error directory:** The error directory grabs all defective files, as well as all files that could not be successfully processed by the hotfolder. A click on to the directory button will launch the operating systems file browser.





Practical uses of *ColorServer*

Below is a classical example of the daily workflow of a photographer:

- Many pictures are taken on an event e.g. a marriage or a sports event.
- The full memory cards must now be emptied on location
- The photos are to be presented as a beamer presentation as soon as possible after the event
- *SilverFast DC Pro's ColorServer* optimizes all images automatically
- Additionally, a backup of all images is generated.

The individual steps:

Step 1
The event is under way and the first memory card is full.
Now this card is tom be emptied on a Laptop / Computer.

Step 2
First, generate a folder (called "work folder" here) into which all images are to be transferred. This folder will be declared as the ColorServer-Hotfolder later..

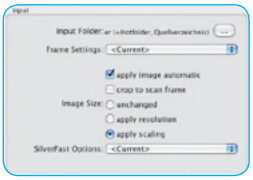
Step 3
Now the images from the first memory card can be transferred into the unload folder.

Step 4

Parallel to this, the ColorServer can now be opened in SilverFast DC Pro Studio. By clicking the Plus-button, a new Hotfolder is created and the current event can be named.

Step 5

The unload folder is now declared as monitored source directory.



Step 6

The input parameters can now be entered. In our example, a previously selected frame setting is chosen, which merely re-sizes the images to a beamer-conform XVGA resolution and applies a gentle USM.

Step 7

Activate “Image automatic” and “Use scaling”.

Step 8

The destination folder is to be selected.

Step 9

The output format is generally set as JPEG, since it is the most suitable for this purpose.

Step 10

Now things become important! An archive folder is to be created and selected. The reason: The images are removed from the source directory and altered! Hence, the original files need to be saved in an archive folder.

Step 11

For security reasons, an additional error folder may be generated and selected.

Step 12

The ColorServer is now prepared and ready and may be launched by clicking the Start button.

Step 13

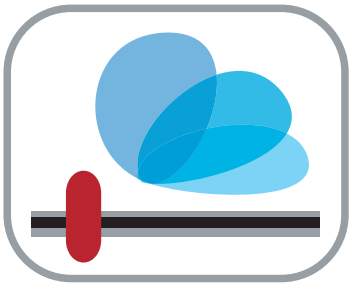
Once the next memory card is full, the contents merely have to be transferred into the unload folder (see Step 3); the optimization monitored by the ColorServer is then done automatically in the background.

Step 14

At the end of the event or once the last memory card has been emptied, the destinantion folder contains all images for the beamer presentation. The originals were copied into the archive folder and (hopefully) the error folder is empty.

Multi-Exposure

Enhancing the Dynamic Range of Scanners



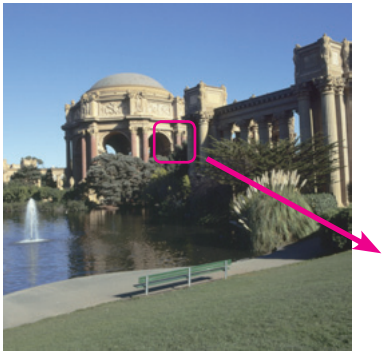
Function

SilverFast's Multi-Exposure generates scans into which variable exposures may be calculated.

The function is similar to exposure rows as they are known from photography.

With this feature, the supported film- and flatbed scanner's dynamic range is significantly increased and the noise of the CCDs effectively minimized. Hence, more details will become visible, which is especially true for the dark parts of an image.

In comparison to multi sampling, there is one main advantage: Multi-Exposure reaches the same quality much faster! The slower 8x or 16x Multi-Sampling processes become completely obsolete, since even a 2x Multi-Exposure reaches a higher quality.



Multi-Sampling (multiple scans)
The single scan shows significant noise. A 2x Multi-Sampling reduces this noise.

1x scan

4x scan

2x Multi-Exposure

Multi-Exposure
If the two images above are compared to the Multi-Exposure results, a significant improvement in quality can be seen. The noise is reduced even more and more image details become visible.

Supported Scanners

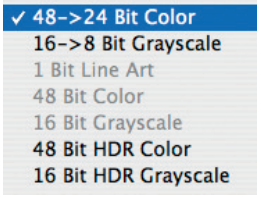
Multi-Exposure needs specific hardware features, which are not available in all scanners. In addition, Multi-Exposure is only available for positives.
For negatives, *SilverFast's NegaFix* already uses a similar technique.
The following scanners support the Multi-Exposure feature at the time this manual was printed:

- Nikon Coolscan V ED (LS-50)
- Nikon Super Coolscan 5000 ED (LS-5000)
- Nikon Super Coolscan 9000 ED (LS-9000)
- Nikon Coolscan IV ED (LS-40)
- Nikon Super Coolscan 4000 ED (LS-4000)
- Nikon Super Coolscan 8000 ED (LS-8000)
- Minolta DiMAGE Scan Elite 5400
- Minolta DiMAGE Scan Elite 5400 II
- Epson Expression 836 XL
- Epson Perfection V700 Pro
- Epson Perfection V750 Pro
- Epson Perfection 4490
- Epson Perfection 4870
- Epson Perfection 4990

Please refer to *LaserSoft Imaging's Homepage* for a list of scanners which might now be adapted for this feature.

Supported *SilverFast* Versions

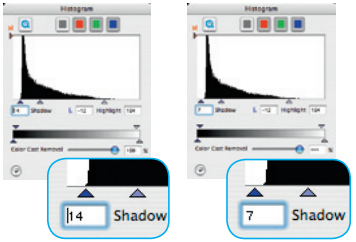
Multi-Exposure is included with all *SilverFast Ai Studio* and *SE Plus* 6.6 versions of the above listed scanners and many more. *Multi-Exposure* only works with positives and negatives in transparency mode.



Scan type „48->24 Bit Color“ and Multi-Exposure

Since versioin 6.5.1 and later Multi-Exposure (ME) is also useable with scan types “48->24 Bit Color” and “16->8 Bit Grayscale”.
An effect of ME can’t be made visible in the big prescan because the preview data are based on a regular exposed scan.

The auto-adjust function calculates on base of the normal prescan too and doesn’t make use of the increase of dynamic range caused by ME. But there is a little trick:
If ME is used together with the auto-adjust function it is recommended to reduce the histogram value for the shadows down to half or one third.



The example shows the reduction of the shadow level from 14 to 7.
That make the additional dynamic range visible in the fine scan, even in 24 bit and 8 bit fine scans.

Usage of *Multi-Exposure*

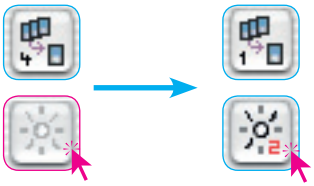
Multi-Exposure only operates in transparency mode when scanning negatives or slides.

Activation and use of *Multi-Exposure* is simple: The button for activating the Multi-Sampling can be found on the left side of the large Preview window of SilverFast Ai... the button for *Multi-Exposure* is underneath it.

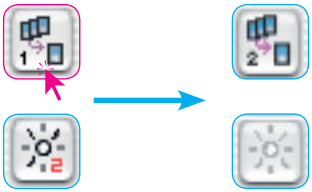
The button can be switched between Multi-Sampling or *Multi-Exposure* mode by clicking it.

Attention! Only one function may be used at any given time: either Multi-Sampling or Multi-Exposure.

When switching from one Multi-Sampling-level to *Multi-Exposure*, Multi-Sampling will automatically be reset to the first level and is de-activated.



Example: Switching from 4x Multi-Sampling to 2x Multi-Exposure. One click de-activates Multi-Sampling and activates 2x Multi-Exposure.



Example: Switching from 4x Multi-Exposure to 2x Multi-Sampling. One click switches off Multi-Exposure and activates 2x Multi-Sampling.

Scanning 48 Bit

One of the main features of Multi-Exposure is the big dynamic range of the final scans. There are two different workflows recommended, corresponding to the selected scan type “48 Bit Color” or “16 Bit Grayscale”.

Attention !

*Please read the note “**Scan type „48->24 Bit Color“ and Multi-Exposure**” on the previous page if you plan to use the scan types “48 Bit Color” or “16 Bit Grayscale”.*

Scan-Type „48 Bit Color“

This scan type produces 48 bit scans which can be optimised completely just while scanning.

In contrast to scan type “48 Bit HDR Color” all imaging tools and filters are enabled.

That makes the workflow equal to the regular scanning in 24 bit mode. The significant difference is the doubled file size.

Scan-Type „48 Bit HDR Color“

Similar to the classic workflow from *SilverFast Ai*-to-*SilverFast HDR*, all you need to do is draw the scan frame, set the scaling and the output resolution. Then you are ready to scan – when using multiple images, select the batch mode.

The saved scans are then opened with *SilverFast HDR* – ideally, by the embedded *JobManager* and can then be optimized further.

If multiple images are to be scanned, this Multi-Exposure feature will lead to a tremendous saving of time. No more waiting for repeated prescans, Zoom enlargements, USM or de-screening previews! The user can hence optimize a large number of images, without ever having to wait. At the end of the optimization, the final calculation of the *JobManager* is launched which will then take care of all the work.

Attention !

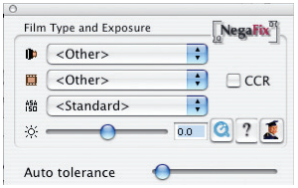
Scan type “48 Bit Color” and “16 Bit Grayscale” are only available in SilverFast full versions.

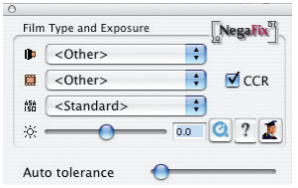
NegaFix Improvement

Automatic Colour Cast Removal (*CCR*)

The *NegaFix* mode now operates much more colour neutral thanks to a new extended function. This is especially important for not 100% matching film profiles. With this feature, even the missed parts of the orange masks can easily be removed, already when the negatives are converted.

The activation of the *CCR* is done by a check box within the *NegaFix* dialogue.





Effect of CCR

The effects of CCR are already visible when no negative profiles have been selected:

Image left: CCR turned off
Image right: CCR turned on.

Supported *SilverFast* Versions

The automatic colour cast removal *CCR* is available in all *SilverFast* versions which previously contained the *NegaFix* function.

New *NegaFix* Profiles

Several new *NegaFix* profiles now support additional negative-films. The following profiles have been added to the 120 films already supported:

Fuji Pro 160S

Kodak 100UC

NegaFix in *JobManager** import dialogue

The *JobManager** import dialogue has been upgraded with the "Process as Negative (use NegaFix)" check box.
Here, raw data scans of film negatives can be transferred directly to *JobManager* as positives. After import, negative thumbnails are automatically shown as positives in *JobManager*.

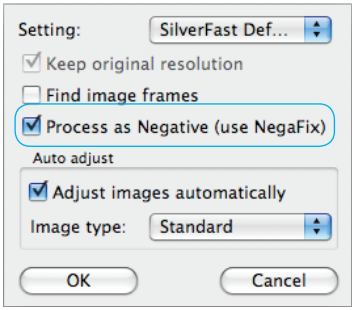
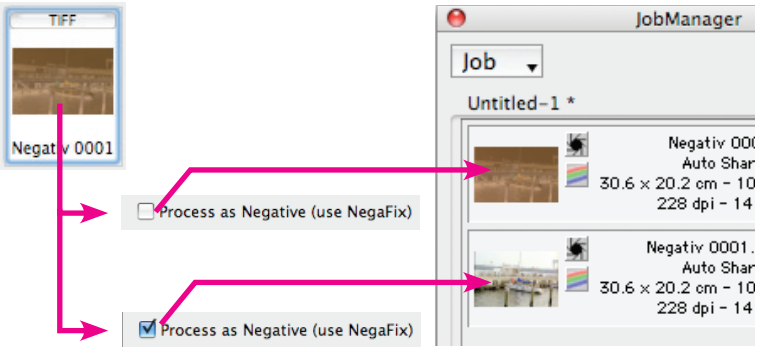
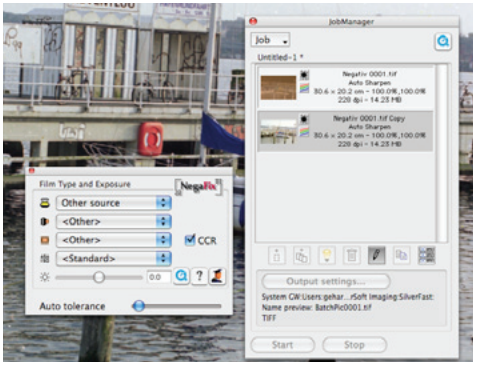


Figure to right: The negative is shown as a positive when added to the JobManager only when NegaFix is activated. Otherwise, it appears as a negative.



Another advantage is that when the raw data negative is opened from *JobManager*, the *Nega*-Fix dialogue appears immediately.

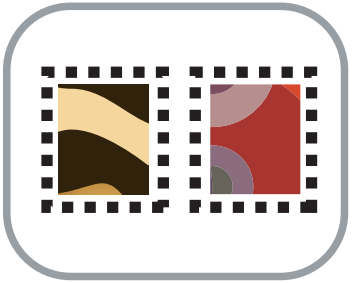


*** *Attention***

The availability of this function depends on what hardware and on which version of SilverFast are being used.

Auto-Frames

Automatic Detection of Frames



Using this function, image frames may be generated automatically on the preview / prescan window.

For this it is necessary for the images to have a certain distance between them and the outer edge. A lack of distance could hinder a clear detection of frames.

A high contrast background is helpful in reflective scans. For transparencies, using the supplied film- and slide holders is useful, since they offer an optimal contrast to the background.

Supported *SilverFast* Versions

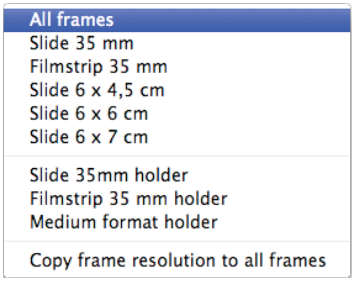
This function is available for all *SilverFast* versions.

Auto-Frame Function

Before this function is activated, a preview / prescan should be performed.

Next, the function can be launched by clicking the relevant button. The Auto-Frame button is located in the vertical toolbar, left of the large preview window.

A click on the button opens a menu. Under the “All frames” option, *SilverFast* searches for images in the preview window and tries to define them with a scan frame/image frame.



An example is shown on the next page.

Auto-Frames example with *SilverFast Ai*

The left-hand image shows the large preview window after the first prescan has been done. Only one scan frame can be seen, which runs along the entire edge of the prescan window.

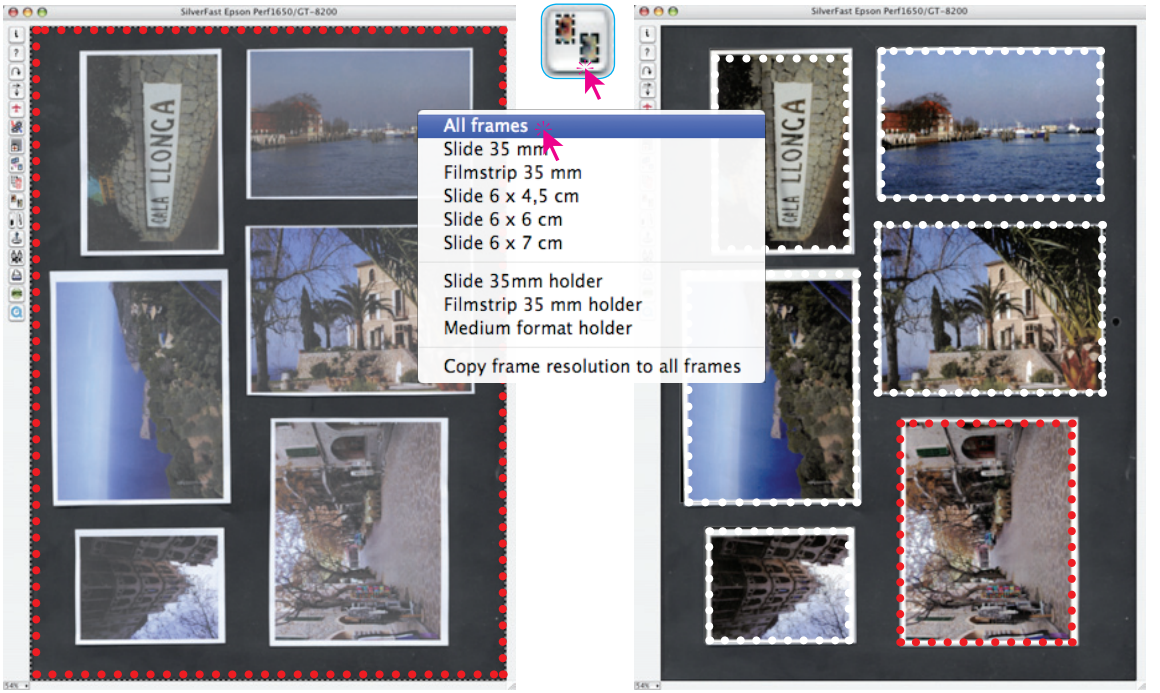
Click the Auto-Frame button and select “All frames” from the menu.

The right-hand image then shows the result of the frame search. All six images were fitted with a frame. The image frame is coloured red. This is the current active image frame.

If needed; any image can now undergo an individual optimization process. For example: image automation, colour correction and; frame alignment; image size; resolution and sharpening.

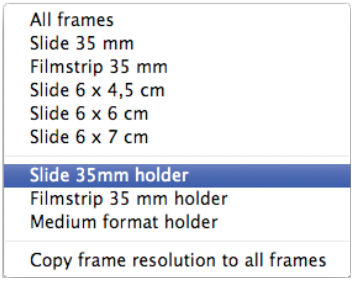
All six frames may now be scanned in batch mode.

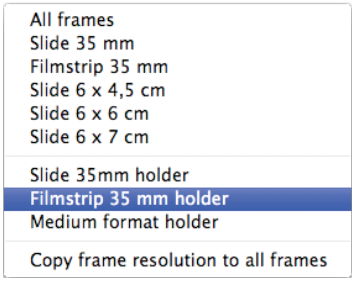
Several options are available for special film-strip and slide originals.

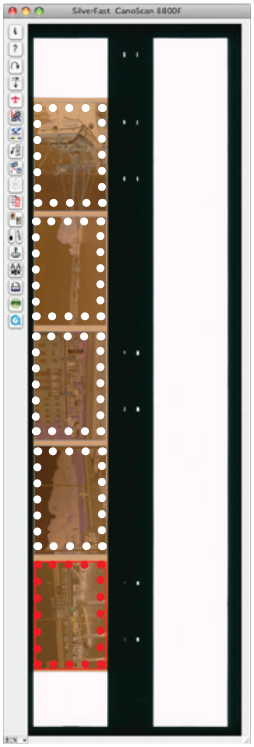


Auto-frame for flatbed scanner with transparency unit

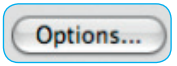
The automatic frame detector works more comfortably when scanning mounted slides or film-strips. If one places the slides or film-strips on the flatbed scanner with the appropriate film holder, then the relevant option can be chosen from the menu. Here are some examples shown for 35mm slide and 35mm film-strip holders.



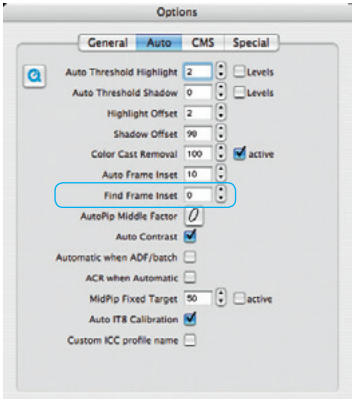


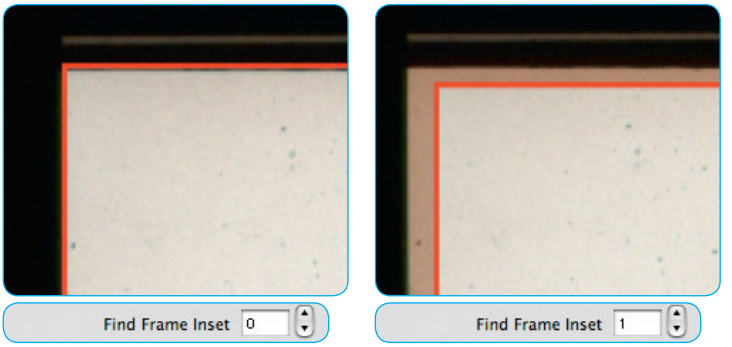


Resizing auto-frames*



The find frame function may be edited and changed under „options/auto/resize auto frames“.
The function “find frames“ may be edited by means of the numerical value. At 0% *SilverFast* tries to align the preview frame and the final scan frame to the exact margins of the scanned image. Negative values will cause the frame to be enlarged and positive values will reduce the frame size (see example) and push the frame further into the image.





Reducing auto frames
Sections of SilverFast‘s preview window with different values for frame reduction left: 0%; right: 1%

Tip for scanning framed slides: While using *iSRD*, it might be better to use small value for example 0.1%; as this might give better results at the image borders. If the *iSRD* overlaps the actual slide frame; this part of the scans may be blurred.

**** Attention***
The availability of this function depends on what hardware and on which version of SilverFast are being used.

Automatic frame rotation

Apart from detecting image frames automatically, *SilverFast Ai Studio* and *SilverFast SE Plus* versions 6.5.5 or later now offer the option to automatically rotate and align frames.

If the contrast differences between image and image background are high enough; *SilverFast* will not only find the individual images but also rotate the scan frames automatically. By this method; images which are not aligned to the scanner will be automatically aligned while scanning.

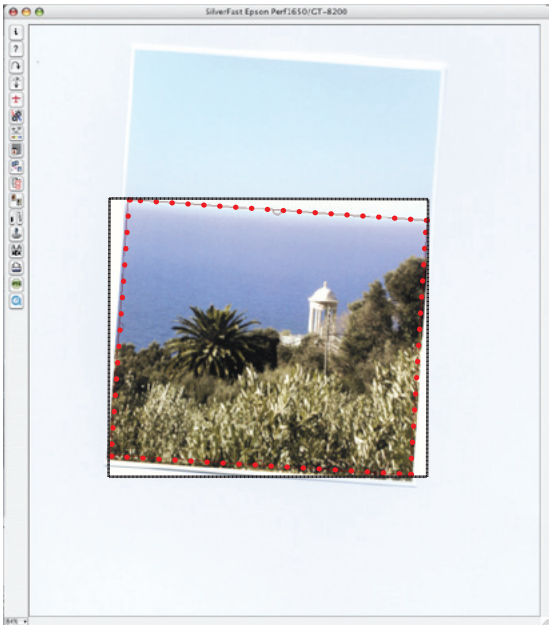
For example: *SilverFast* recognizes the four non-aligned images on the scanned bed and automatically creates frames around these. Inactive frames are displayed in white the active frame is displayed in red.

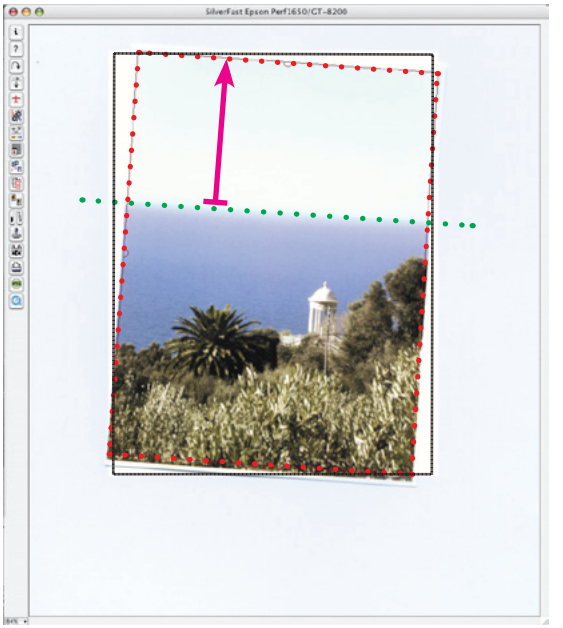
Manual frame rotation and alignment

The mouse can be used to change the size and the rotation of any frame freely.

Adjusting the frame size

In order to change that frame size the active red frame may be grabbed at its edges or borders and may be resized. And on the image on the lower left the contrast difference between the image and image background is not sufficient. This is not a problem because the frame can manually be altered by use of the mouse.





Since the actual scan cannot really be rotated, the selected scan area must always be larger for rotated images. After the final scan SilverFast then rotates and resizes the scan area to the selected output dimension.

Adjusting the rotation

The manual frame rotation is done by click dragging the semicircular grabbers on the borders all of the scan frame. A pressed shift key will cause the frame to be rotated in steps of 45°.

Image 1 (left): beginning with manually drawn frame (red dots)

Image 2 : rotation by click dragging the left grabber

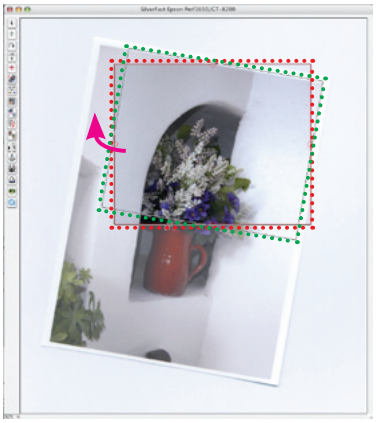
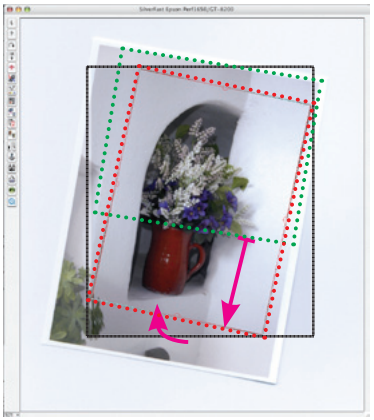


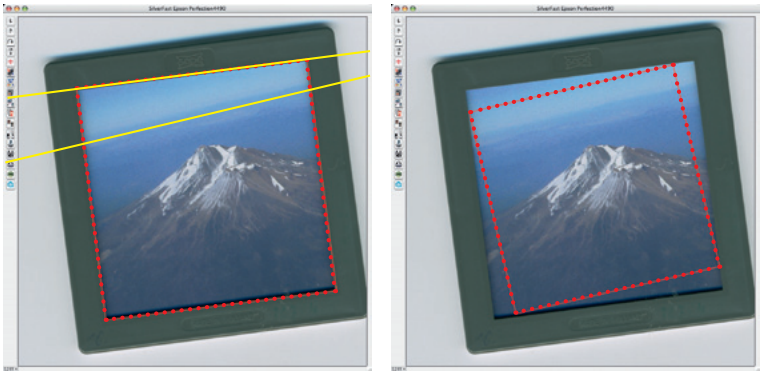
Image 3 (left): moving and dragging the scan frame to the desired final format by click dragging the frame borders and edges as well as a fine correction over the rotation by means all the grabbers.

Image 4: final scan



Align horizon

Every photographer has come across images in which the camera was not perfectly aligned horizontally. The result is that the image appears tilted.
A manual frame alignment can correct this error while scanning.



Left image: The scan frame was detected correctly, but the horizon is misaligned

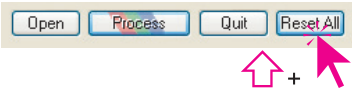
Image right: the scanned frame was manually rotated and repositioned. Image horizon and image border are now parallel..

Deleting framesets

Since *SilverFast* always reopens the last preview window, those settings may not work for the new image. A general reset (Reset all) allows the deletion of old scan frames, and a new frame is placed over the entire prescan area.

“Reset all” on Macs: Click the reset button while keeping the “Shift” key pressed.

“Reset all” for Windows: Click the “Options” key while keeping the “Shift” key pressed.



SilverFast Basic-Mode

Switching between Interfaces

Basic-Mode as Starting Aid

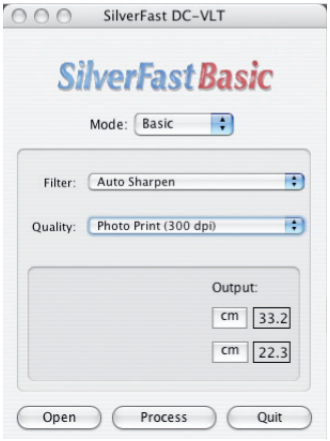
All *SilverFast* versions from V6.5 and up may now be switched between Standard- and Basic mode. By this, *SilverFast* novices will find the software easier to use.

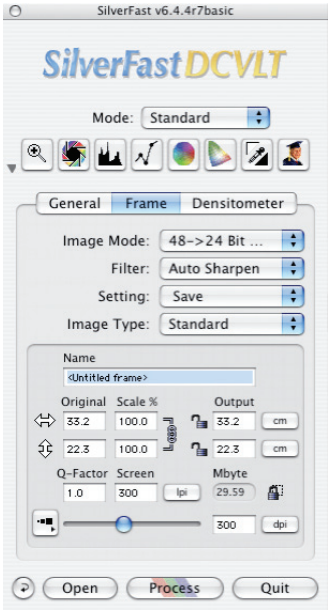
Supported *SilverFast* Versions

The Basic-mode is available in all *SilverFast SE, -SE Plus, -DC SE and -DC VLT* versions.

Basic / Standard Selection

The selector can be found in the main part of the *SilverFast* dialogue, and displays the current mode: Basic or Standard.

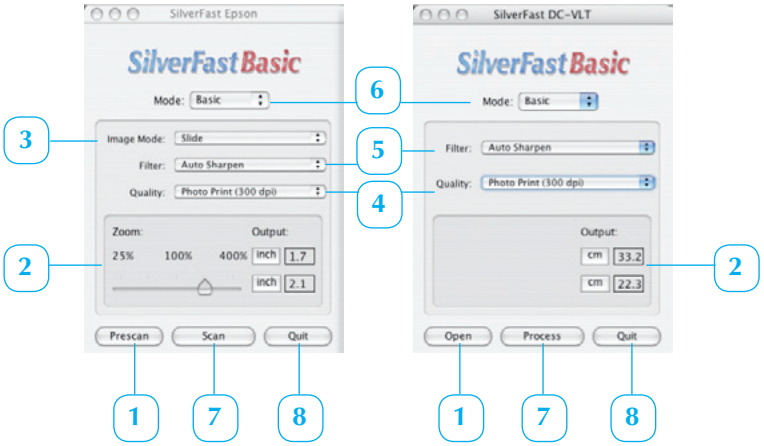




Attention!

When switching from Standard to Basic mode, all parameters will be lost that are not part of Basic mode.

Basic-Mode Overview

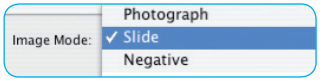


The Basic dialogue
Left: SilverFastSE
Right: SilverFastDCVLT

1 Launch prescan / open image
Launches the prescan in the scanner version or opens an image file in the DC verions.

2 Output size and measuring units

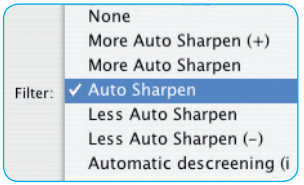
3 Scan type (only for scanner versions)
Selection of Photograph, Slide or Negative

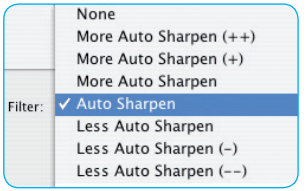


4 Output resolution

5 Filters
Selection of sharpening filter.

In scanner versions the additional option of de-screening.





6 Mode
Switch between Basic and Standard mode.

7 Scan / Process
Launches the scan or launches the optimization process.

8 Cancel / Quit
Ends SilverFast.

New Installers

SFD-6.4.4r7a(DCPro Studio).mpkg

The new Apple installer is now used for Macintosh computers.

All *SilverFast* installer were shipped as ".mpkg" file. A double click onto the installer icon launches the installation process.

The entire installation is completely guided and follows the current Apple Macintosh standard.

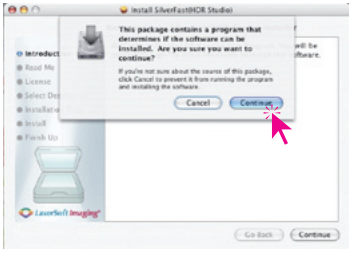
Supported *SilverFast* Versions

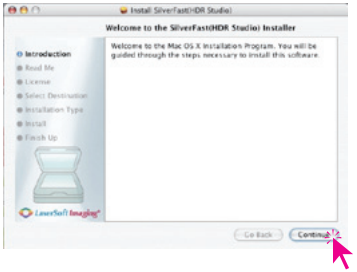
The new installers are used by all *SilverFast* Macintosh versions.

Installation Process

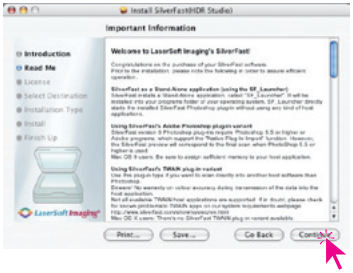
SFD-6.4.4r7a(Epson).mpkg

Double click the installer icon.



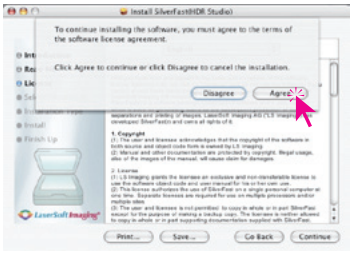


Click „Continue" to run the installation process

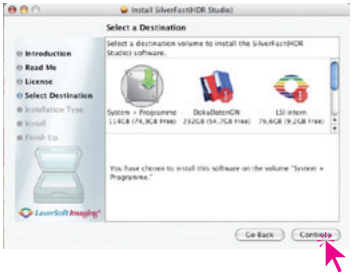


Please read the latest informations about the installation process and SilverFast.

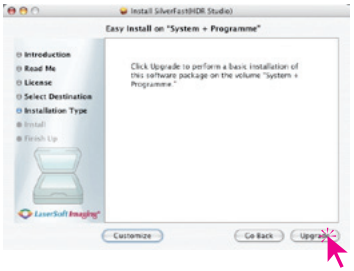
Please read and accept the terms of use and license agreement.



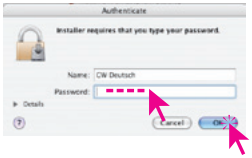
Select the destination volume.



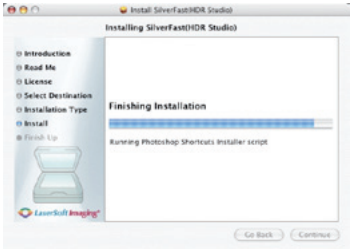
Start installation procedure.

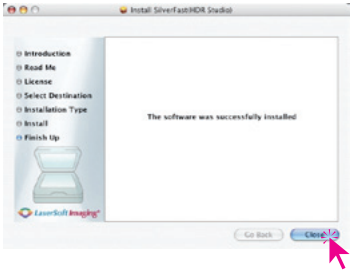


Security check
You have to be logged in to your computer as root or administrator to run an installation successfully.



Installation finshed.





SF Ai – HDR Gamma Optimization

The used gamma values of *SilverFast Ai* is now automatically detected and applied in *SilverFast HDR*.

Supported *SilverFast* versions

The automatic gamma recognition is available in all *SilverFast HDR* and *SilverFast HDR Studio* versions.

Usage

The gamma detection is needed wherever RAW data files from different sources (changing scanners, etc) are to be optimized.

For example: Scanner A is digitizing images (*SilverFast Ai* in *48 Bit HDR Colour* mode) with a gamma of 1,8. Scanner B is optimised 48 bit images (*SilverFast Ai* in *48 Bit Colour* mode) in the same format, but is using a higher gamma of 2,2 (brighter monitor display)

In both cases the checkbox “For HDR Output” behind “Gamma gradation” should be activated in the “General” palette.

The entered gamma value will now be embedded into the scan data.

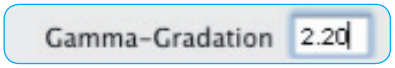
The central working place now receives both images, in order to process them with *SilverFast HDR* for layout.

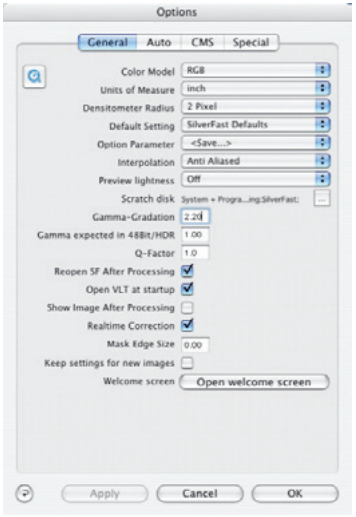
The embedded gamma will now be recognized by *SilverFast HDR* and will be applied when opening the images. Each image is thus correctly displayed on the monitor.

Images Without Embedded Gamma

In case an image has no embedded gamma, *SilverFast HDR* will apply the standard gamma.

This standard gamma value may be entered in *SilverFastHDR's* general palette under the "Options..." menu.





Attention!

Images that contain un unspecified gamut or images that were not generated by *SilverFast* versions should be opened with a standard gamut of 1,0.

Every other gamut value could influence the image display since the embedded and the selected gamut in *SilverFast* are added and appear cumulative.

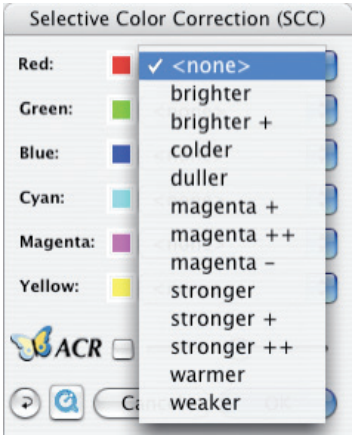
More Powerful Selective Colour Correction

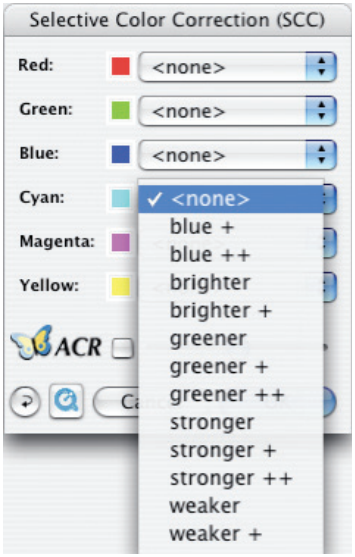
Extended SCC-Presets

All *SilverFast SE* and *SilverFast SE Plus* versions of V.6.5 or newer will contain this new feature.

Supported *SilverFast* Versions

This feature is available for all *SilverFast SE*, *-SE Plus*, *-DC SE* versions.





Colour management

CMS palette

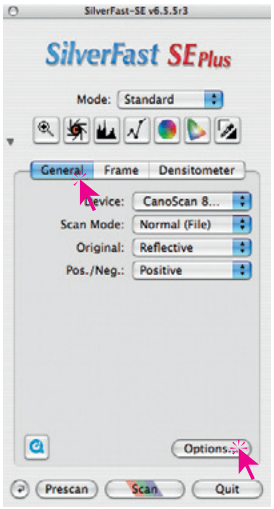
SilverFast version 6.5 or later now include a simple color management by means of ICC profiles for all of *SilverFast SE* and *SE Plus* versions.

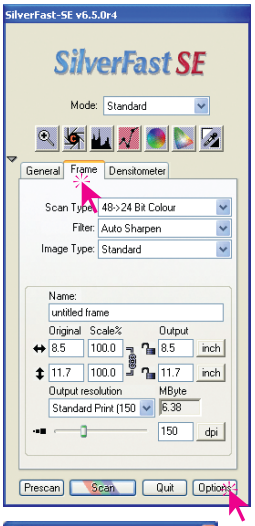
Supported *SilverFast* versions

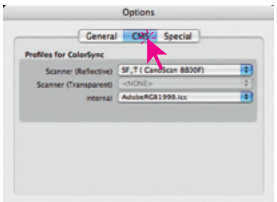
The CMS palette and for color management is available in all *SilverFast SE* and *SE Plus* versions 6.5.0r4 or later.

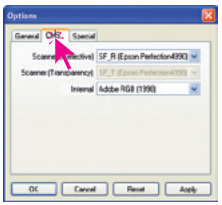
Activating the colour management

The settings for the colour management are entered in the presets (options...) dialogue.



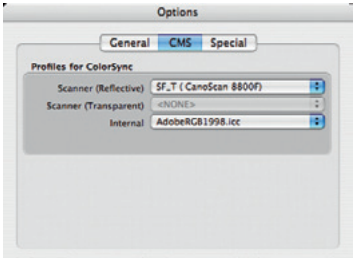






Opening the preset dialogue "options"
Left: Macintosh
General/options/CMS

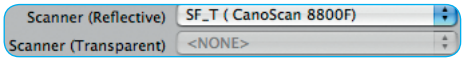
Right: Windows



SilverFastSE and SEPlus
CMS palette

SilverFast SE and *SE Plus*

Depending on the type of used scanner “scanner (reflective)” or / and “scanner (transparent)” are available. The current IT8 calibration profile is to be selected here.

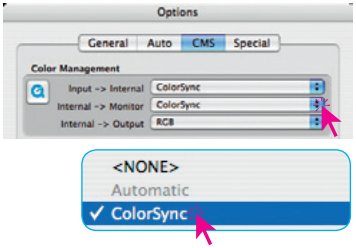


The RGB working color space “Adobe RGB 1998” or “Adobe sRGB” can be selected in the menu point called “Internal”

Attention!

Please make sure that the selected colour spaces are the same in *SilverFast* and your other image editing programs. If different colour spaces are selected here for colour display of the final scan will be different from what was shown in the *SilverFast* preview.

SilverFast plug-in under Adobe Photoshop CS3

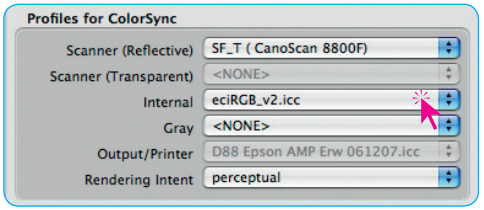


Photoshop CS3 does not allow an automatic adjustment of color spaces between *SilverFast* and CS3.

If SilverFast is used from within Photoshop CS3 this will cause the menu point: “options/CMS/color management/internal monitor” to be grayed out.

It is therefore recommended to select “ColorSync” for Mac / “ICM” for Windows and then to determine the working colour space.

This is also done in the CMS dialogue, but under the menu point “profile for ColorSync (ICM) /internal”.



Automatic IT8 calibration

One-click scanner calibration

SilverFast version 6.5 or later now include the completely automatic IT8 calibration. All that is needed to do now is to place the IT8 target onto the scanner and take the IT8 start button. The entire calibrations process is fully automatic.

The IT8 calibration is standard in all *SilverFast Studio* versions and can be purchased as an option for *SilverFast Ai, HDR* and *DC Pro*.

Requirements for a correct IT8 calibration process.

For reflective IT8 calibration the white or black covers of the scanner's transparency unit should be inserted.

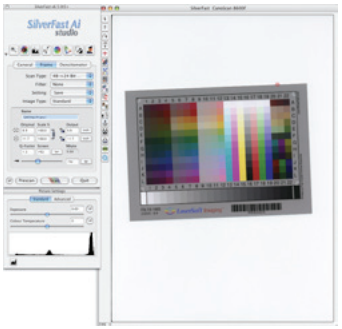
When a calibrating reflective targets the IT8 target should be the only image on the scan bed.

Place the IT8 target in the centre of the scan area.

The calibration process

1. Position target

Place the IT8 target on the scanner. There is no need to do a pre scan because SilverFast will recognize the IT8 target automatically. In case a pre scan is done anyway, it should not be rotated and should not be zoomed.



2. Click the IT8 button

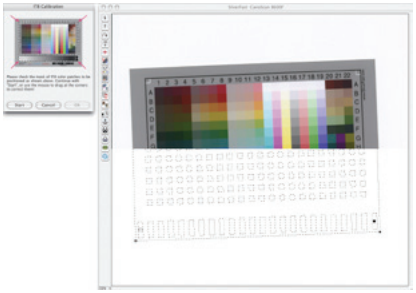
A simple mouse click on the IT8 button will launch the calibration process.

3. Recognize target

The target will automatically be detected and framed. Even a not perfectly aligned IT8 target will be automatically rotated and detected by SilverFast.

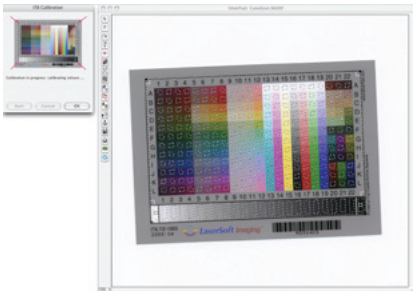
4. Grid and barcode

The detected target will be enlarged, the grid will be applied and the target will be correctly identified by means of the imprinted barcode.



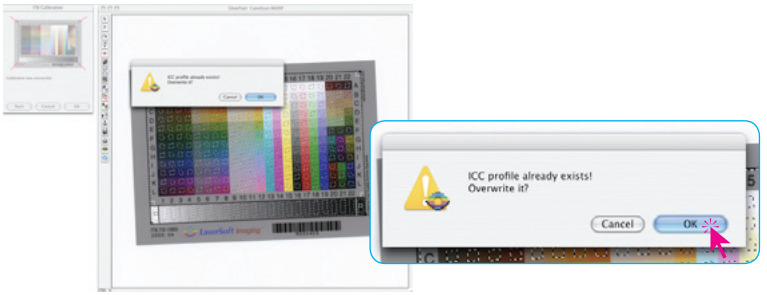
5. Measuring the IT8 target

By means of the imprinted barcode the corresponding reference data file can be identified and applied. The calculations and creation often ICC profile will follow.



6. Replace old profile? !

In case SilverFast finds an existing profile it will prompt if the new profile shell replace this. In general a click on "OK" is required.
SilverFast and saves the new profile in the correct directory of the computer and activates color management within the presets.

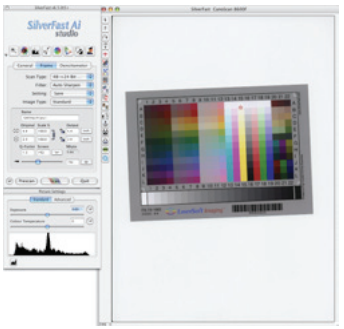


7. Calibration successful

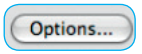
After successful calibration, SilverFast will display the corresponding message. This dialog is closed by clicking "OK"

8. Updating the preview

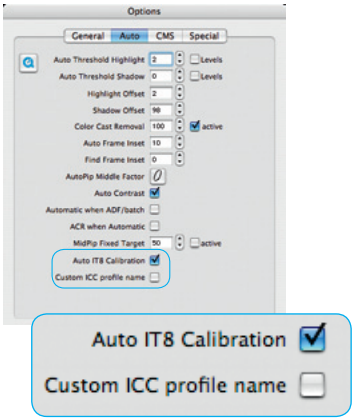
SilverFast now performs an updated prescan which incorporates the newly generated profile.
This concludes the IT8 calibration process. The user does not have to do any additional tasks.
SilverFast is now calibrated and ready for further scans.



Presets



The presets (General-palette – Options – Auto – IT8 calibration), allow the option of modification by the user.



Auto IT8 Calbration: This check box activates or de-activates the automatic IT8 calibration.

A de-activated check box will make the calibration run in a step-by-step mode and allows the user to interact with the process.

Initially, a prescan is required in order to place scan frame over the IT8 target.

Next, the IT8 function itself is launched and the mask needs to be placed over the preview of the scanner. It can be moved and resized by means of click dragging it.

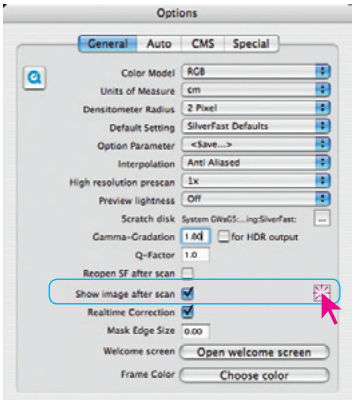
When the “Start” button is clicked, the process is launched and the scanner will start to operate. *SilverFast* will then search for the corresponding reference data file. This reference file is a text file in which the numerical values of the IT8 target are contained.

Next, *SilverFast* will generate the scanner profile. If needed, this profile can be renamed as desired.

Custom ICC profile name: If this check box is activated, a dialogue for naming the ICC profile pops up at the end of the calibration process.

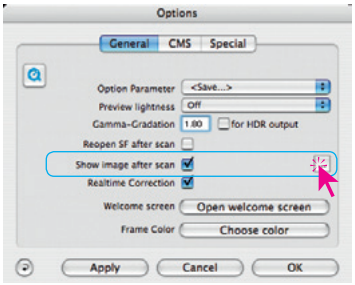
Dialogues in “Options”

“General” palette



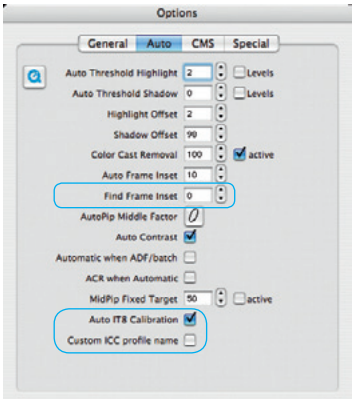
General palette in SilverFast Ai

Show image after scan / **choose application***: The button on the right opens a browser dialog, in which the user can specify which application should be used to open the scanned file (e.g. Photoshop or iPhoto)



General palette in SilverFastSE

“Auto” palette*



Auto-frame reduction*: This value manipulates the exactness of the “Find frames” function. 0 percent will make *SilverFast* align the frames exactly to the margins of the image (e.g. a 35mm). Negative values will enlarge the frame and positive values will cause the frame to me reduced in size.

Auto IT8 calibration*: This activates or de-activates the fully automatic IT8 calibration.

Custom ICC profile name*: If this field is checked, the user has the option to enter a custom name for his newly generated ICC scanner profile.

* *Attention!*
The availability of this function depends on the hardware capabilities!

iSRD

iSRD for Nikon Filmscanners (Mac only !)

The *iSRD* function (the Infrared-based dust and scratch removal) is now also available for Nikon scanners from version 6.6 onwards.

The *iSRD* function will completely replace the *ICE technology* on Macintosh operating systems.

This became necessary because Nikon has stopped their development of their MAID driver for the current Mac OS systems. From *SilverFast 6.6* onwards, *SilverFast* will drive the Nikon scanners directly, not utilizing any MAID modules. This ensures a quick and stable operation of the scanners under e.g. Mac OS 10.5 Leopard.

The following Nikon film scanners will be supported with *iSRD*:

Nikon LS-5000 (SUPER COOLSCAN 5000 ED)

Nikon LS-50 (COOLSCAN V ED)

Nikon LS-4000 (SUPER COOLSCAN 4000 ED)

Nikon LS-40 (COOLSCAN IV ED)

Nikon LS-2000 (SUPER COOLSCAN LS-2000)

If supported by the scanner type, the film strip adapters SA-20, SA-21 and SA-30 will be useable, as well as the slide feeder *SF-200* and *SF-210*.

The older film scanners like COOLSCAN LS-10, SUPER COOLSCAN LS-1000 und COOLSCAN III will not be supported.

The MAID-replacement and implementation of *iSRD* for the multi format Nikon scanners SUPER COOLSCAN 8000 und SUPER COOLSCAN 9000 ED will follow..

Detailed instructions on the use of *SilverFast iSRD* can be found in Chapter 6.13 “SilverFastSRD – scratch and dust removal” of the manual.

The direct link is:

http://www.silverfast.com/showdocu/en.html?docu=929

iSRD for Canon Flatbed Scanners

The *iSRD* function (the Infrared-based dust and scratch removal) is now also available for some Canon flatbed scanners from version 6.6.0r4 onwards:

- Canoscan 8800F
- Canoscan 8600F
- Canoscan 8400F
- Canoscan 9900F
- Canoscan 9950F

Detailed instructions on the use of *SilverFast iSRD* can be found in Chapter 6.13 “SilverFastSRD – scratch and dust removal” of the manual.

The direct link is:

http://www.silverfast.com/showdocu/en.html?docu=929

HDRi

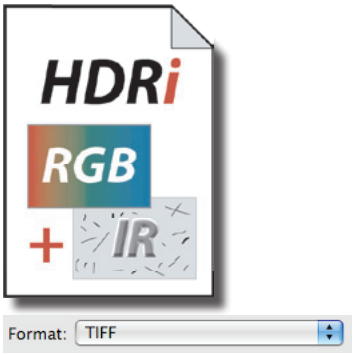
iSRD scans for *SilverFast HDR* and *DC*

With *iSDR* capable scanners, all versions of *SilverFast* from 6.6.1r1 onwards can produce raw data scans, in which additional information from infrared scans is embedded unmodified. Hence, it is possible to apply dust and scratch removal after the scan without any loss of quality. Bulk scanners, such as slide magazine or flatbed scanners with large transparency units, can be used in an even more effective and time-saving manner. Particularly beneficial will be the split workflow in the *SilverFast Archive Suites*.

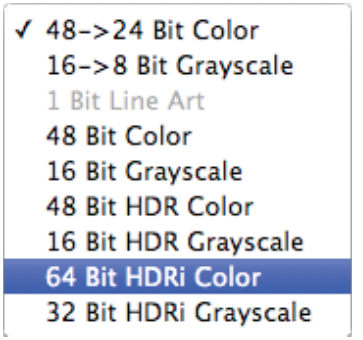
Two new scan types have been added for *HDRi*. They can be found on the “Frame” palette under “Scan type”

Scan type „64Bit HDRi Color“

This scan type produces a raw data file in “TIFF” format at 4x16 bit, in other words 16 bit for each of the colour channels red, green and blue, plus an additional 16 bit for a pure infrared scan. File size is increased by approximately one-third. Thus, the scan type is roughly equivalent to the “48 Bit HDR color” type, but with an integrated infrared scan.



64 Bit HDRi TIFF file
It includes not only the 48 bit colour raw scan, but also a 16 bit greyscale raw scan of the infra-red channel.



Scan type “32 Bit HDR Grayscale

This scan type produces a raw data file in “TIFF” format at 2x16 bit, in other words 16 bit for the normal greyscale raw scan, plus additional 16 bit for the pure infra-red scan. File size is doubled. Thus, the scan type is roughly equivalent to the “16 Bit HDR Grayscale” type, but with an integrated infrared scan.

Another difference from raw scans with no *iSDR* information is that for these scan types the scanning software does not apply any rotation of the scan frame. The small semi-circular adjusters do not appear in the scan frames. This procedure is necessary in order to prevent from the outset any possible positioning or alignment prob-

lems when subsequently composing the scans. “Real” raw data scans are produced, allowing further processing to access the full potential of the raw scan.

Further processing of *HDRi* scans

Further processing is easy and takes place using *SilverFast HDR* (and higher) and *SilverFast DC VLT* (and higher).

These versions of *SilverFast* recognise automatically that the file is *HDRi*.

If an *HDRi* file is opened, the relevant version of *SilverFast* immediately shows the *iSDR* button in the vertical toolbar, left of the large preview window.
The button comes up in grey, meaning the function is inactive.

If you wish to use *iSDR* on the open raw data image, a single click on the *iSDR* button will activate this function. It will operate in fully automatic mode, defining the parameters for dust and scratch removal by itself. The *iSDR* function automatically adjusts the strength of the effect according to the image resolution.

Individual or manual control of the *iSDR* function can be activated by clicking again on the *iSDR* button.

An additional button appears immediately below.

Click to open the *iSDR* dialogue.

Operation of the *iSDR* dialogue in *SilverFast DC* or *SilverFast HDR* is carried out in exactly the same way as for the scanning software.

Detailed instructions on the use of *SilverFast iSRD* can be found in Chapter 6.13 “*SilverFast SRD* – scratch and dust removal” of the manual.

The direct link is:

http://www.silverfast.com/showdocu/en.html?docu=929

ICC-Profiles for Kodachrome Slides

By implementing more Kodachrome ICC-profiles into *SilverFast* Version 6.6.0r4, most Canon, Epson, Hewlett-Packard, Microtek, Minolta, Plustek, Quatographic and Reflecta's scanners are now able to scan Kodachrome slides with the highest possible dynamic range – automatically IT8 calibrated and free of dust and scratces.

Please regard: *SilverFast Multi-Exposure*® (for enhancing the dynamic range) and *iSRD* (Infrared scratch and dust removal) are hardware dependent features.
Kodachrome profiles are not included in *SilverFast SE*.

Further informations about "Scanning Kodachrome slides with SilverFast" and a list of supported scanners can be found here:
http://www.silverfast.com/show/kodachrome/en.html

How easy this is can be seen here with the QuickTime-movie:

http://www.silverfast.com/download/movie/aist-660r1_en_kodachromeslidesandisrd_en_2008-08-14.mov

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