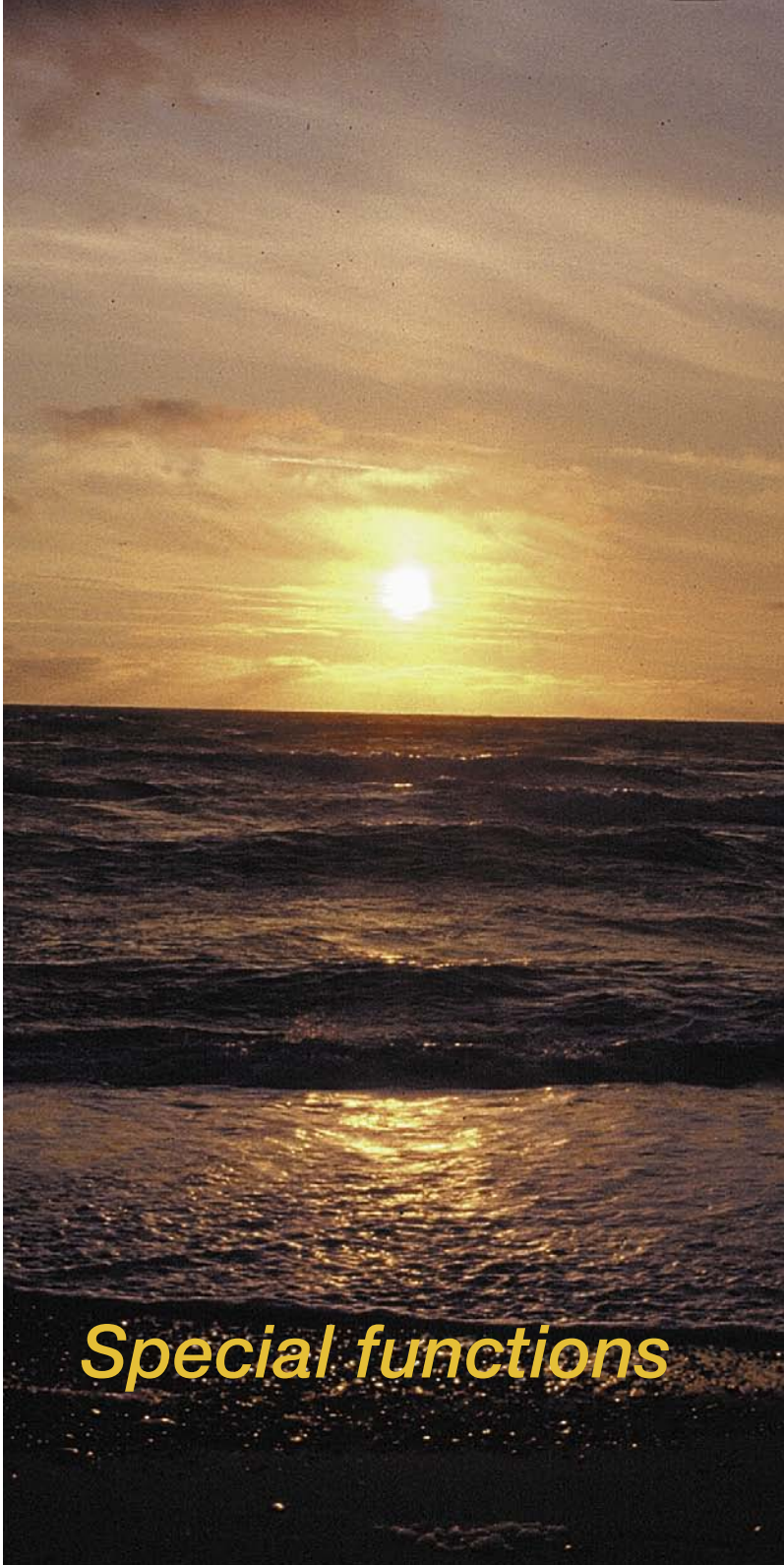
Chapter 6

Special functions



Special Functions

All additional and special functions are described in Chapter 6. Some of these functions are scanner specific and may behave differently depending on the combination of the software and hardware and some menus may differ or not be displayed at all.

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6. Special Functions

6.1 Densitometer
For precise monitoring of density values

6.2 Unsharp Masking
To enhance the image with better sharpness (detail contrast)

6.3 Descreening
To eliminate possible moire patterns when scanning printed images.

6.4 SilverFast GANE
Filter for reduction of grain and noise structures in film scans

6.5 Line art
To scan black and white samples (not greyscale)

6.6 Negative Scans
To scan greyscale or colour negatives.

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Smart removal of defects; remove scratches and dirt by the software.

6.14 SilverFast AACO
Auto-adaptive contrast optimization.

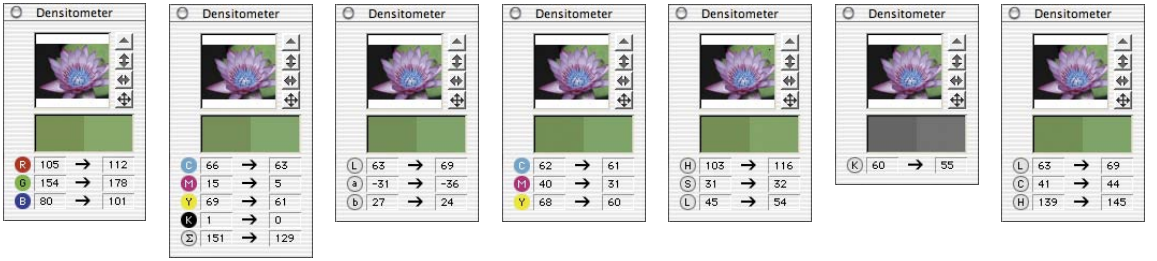
6.15 Clone tool
Retouching tool.

6.16 PrinTao
The extended print dialogue of SilverFast...Studio.

6.17 Image settings
Important image parameters in an overview; including real-time output histogram in SilverFast...Studio.

6.1 The Densitometer

Colour models supported in the densitometer are RGB, CMY, LAB, CMYK, K, LCH and HSL.

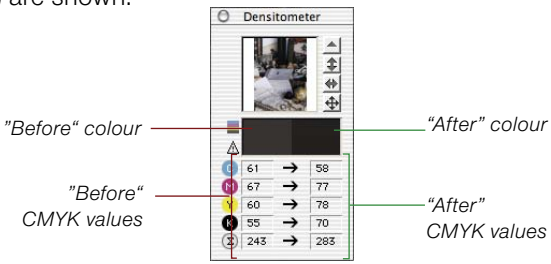


Monitor of Before and After Values

The densitometer shows the unchanged values in the left column. In the right column, the changed values (image auto-adjust, gradation etc.) are shown.

SilverFast...SE versions

The densitometer values in SilverFast...SE versions only show the RGB and K values..

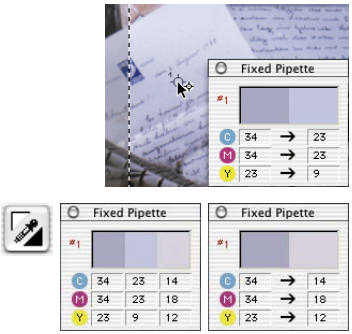


Densitometer is Displayed in the Gradation and the Selective Colour Correction Dialogue

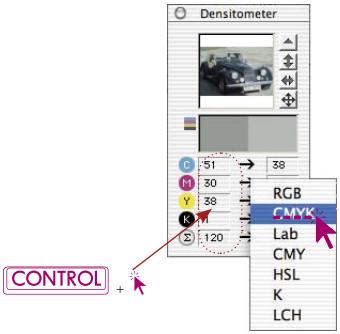
Fix a densitometer point within the scan frame. While opening the gradation or selective colour correction dialogue, the densitometer switches to a threefold monitor.

When corrections are done, the third (right) column shows the altered value in respect to the second column.

Acknowledging the gradation dialogue with clicking “OK” will switch the densitometer back to two columns. The third column will become the second column.



Switching the Densitometer



All densitometers may be switched to a different colour space by two methods:

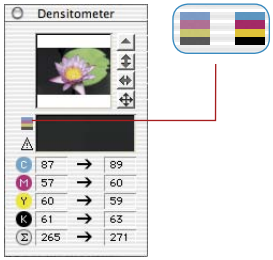
”Toggle switch“ by clicking on to the measurement columns of any densitometer, it will jump to the next colour space mode. Keep clicking here until the desired colour space is shown.

Directly switching in the context menu: Hold down the “Ctrl” key and click into any of the measuring value cells of the densitometer. A pop-up window opens and by selecting another colour space the measured values in the densitometer will be converted to the values of the selected colour space.

CMYK Values Visible on the Prescan

(refer also: „Permanent Softproof, page 91)

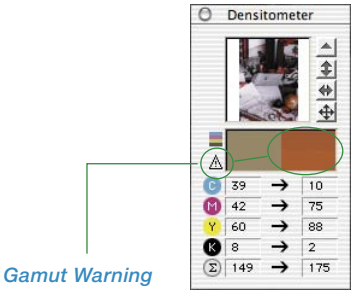
In all Full Versions of *SilverFast*, the CMYK output values can already be seen on the prescan itself.
In case no ICC separation profile is chosen in *SilverFast*, the Photoshop separation settings will be used for the densitometer display. If, however, an ICC profile is selected this profile will be used for the densitometer display. This is done for both the floating single densitometer as well as the multiple densitometer „fixed pipette“.



If a CMYK profile is selected in *SilverFast*, a small button in C, M, Y and K colour is shown left of the colour “before/after“ display in the densitometer window. This button is the activation of the softproof display on the monitor. Simply press this button to activate or deactivate this function. The condition fort his is that the scan-button shows ”Scan CMYK“. After a short calculation, the CMYK colours will be simulated on the prescan.

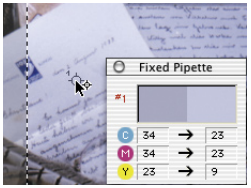
By this method, it is possible to predict the final separation values derived from the Photoshop- or the ICC profiles.

Gamut Warning

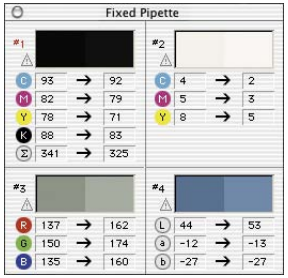


Warning signal when colour at measured position cannot be printed with CMYK colours. The colour cell above right column will be splited horizontally, where the upper part displays the current monitor colour and the lower part displays the colour which would be the printable colour.

Multiple Densitometer (Multiple FixPip)



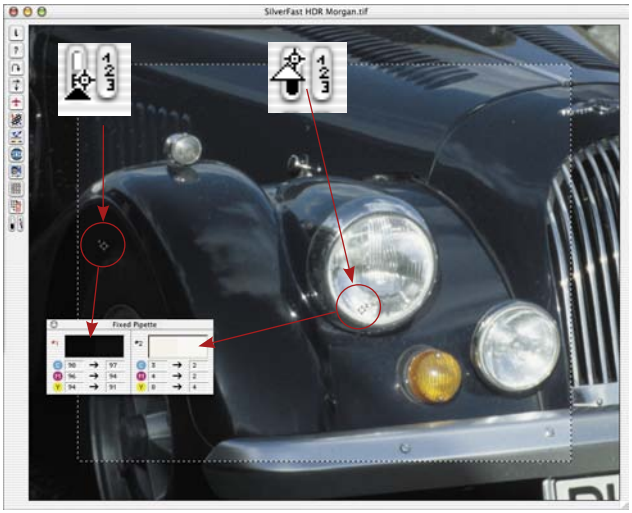
By pressing the ”Shift“ key and clicking on the scan image, up to four individual measurement points can be placed and fixed on any spot of the image. In order to delete these points, simply repeat the procedure. A fixed measurement point is marked in the prescan window by a small numbered circle.



The measuring values of these pipette measuring points will no longer be shown in the densitometer window, but in their own window. The windows will attempt to adapt to the number of measuring points, meaning they will change their size, depending on the number of fixed points and the selected colour types (RGB, CMYK, grey etc.).
The colour types can be adjusted for each pipette independently of each other. The quickest way to switch is done using the context menu (keep ”Ctrl“ key pressed and click on to the value display column)
If all fixed points have been deleted, the window will close automatically. If the window is closed, all fixed points will automatically be deleted.

Transfer of the Brightest/Darkest Point to the Multiple Densitometer

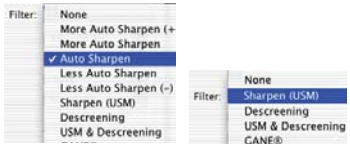
By clicking the white or black area in the icon for “darkest/lightest point” while holding down the “Shift” key, the reading found by *SilverFast* will be transferred to the window “fixed pipette”. Good control of corner values can thus be assured.



6.2 Improving the Sharpness of Artwork

SilverFast has a specially designed sharpness function, called an ”Unsharp Mask“ (USM). The concept stems from traditional lithography, while it was still a chemical process. Contour sharpness was improved by means of an out-of-focus film mask in the copy processes. This process is now used in software and assures a very good, natural-looking sharpness. Normal sharpness functions generally increase detail contrast and intensify all image irregularities of the artwork, making the image appear very unnatural.

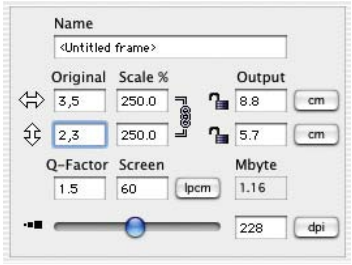
Automatic USM



Filter menu ”Unsharp Masking“ in SilverFast Ai and SilverFast HDR

Auto unsharp masking is done automatically if “Auto sharpen”, “Less auto sharpen” or “More auto sharpen” is chosen in the filter menu of the scan dialogue window for *SilverFast*. “Auto sharpen ” is the basic default setting. Default in *SilverFast Ai*. By this automatic setting the unsharp masking is done with reference to the previously entered scan resolution.
In this setting, unsharp masking is automatically applied to the problem that has been selected. It avoids errors and has good result with most scans. If more or less sharpness is desired simply use the enhancing or reducing settings.

Manual USM

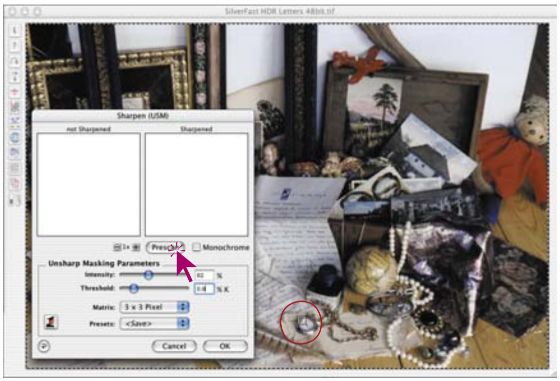


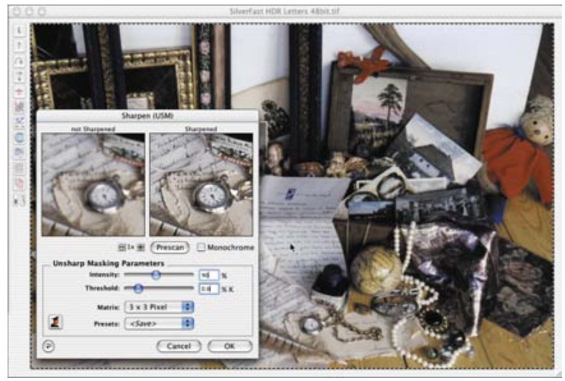
In order to set the unsharp mask manually, the following settings have to be done first:
set the scaling, set the output frame, and enter the final output resolution.

> The setting of the output parameters is absolutely necessary for a proper function of the USM

Only after the above-mentioned points have been done, should the „USM“ function be used in the filter menu in the „frame“ pipette.

First, click on the “Prescan” button in the USM dialogue and then in the main window of *SilverFast* click on the picture area that is suitable for determining sharpness. *SilverFast* will then scan an image detail in the final resolution that is selected.
The two small preview windows will show the scanned image detail, the left one without the sharpen effect and the right one with it.





The sharpen parameters can quickly and easily be adjusted by using the slider “strength” and “threshold” as well as using the popup menu “matrix”. All sliders are calculated in realtime

- **Strength**: this adjusts the intensity of the strength effect (0-500). Customary values are between 50 and 150.
- **Threshold**: the threshold value (0-10) determines where the sharpening of grey shades will take place (normally between 2-10).
- **Matrix**: this determines the distance at which pixels are sharpened to their surroundings. Larger pixel radii are only necessary with images having higher resolutions (standard is 3x3). For an enlargement of 300% we suggest a matrix of “5x5” and from 600% on a matrix of “7x7”.

SilverFast...SE versions
The dialogue is simplified in all SilvertFast...SE versions and is recommended for novice users.

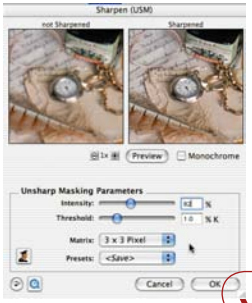
The selected parameters can be saved in the menu “presets” for subsequent scans.
All parameters are returned to their default setting by using the “reset” button.

Zooming into the Preview

In order to zoom into the preview, please use the “Pixel zoom”. Simply press the “+” key to reach a maximum magnification of 8.

Zoomed Prescans
Magnifying factor up to 8x

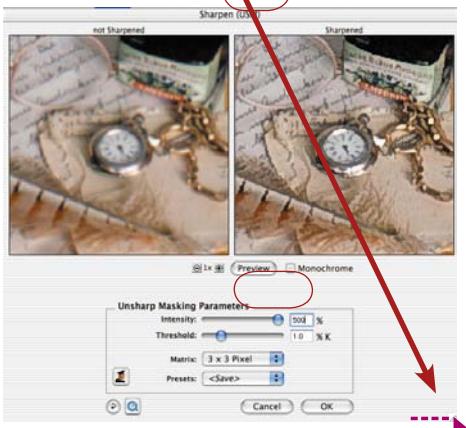
The image of the small prescan can be moved by holding down the “Shift” key (only in the zoom mode!) and click-dragging with the mouse cursor.



USM Dialogue with Scaleable Prescan

In the latest versions of *SilverFast*, the USM dialogue is now fully scalable. By this means it is possible to obtain a realistic sharpening preview on a larger part of the image.

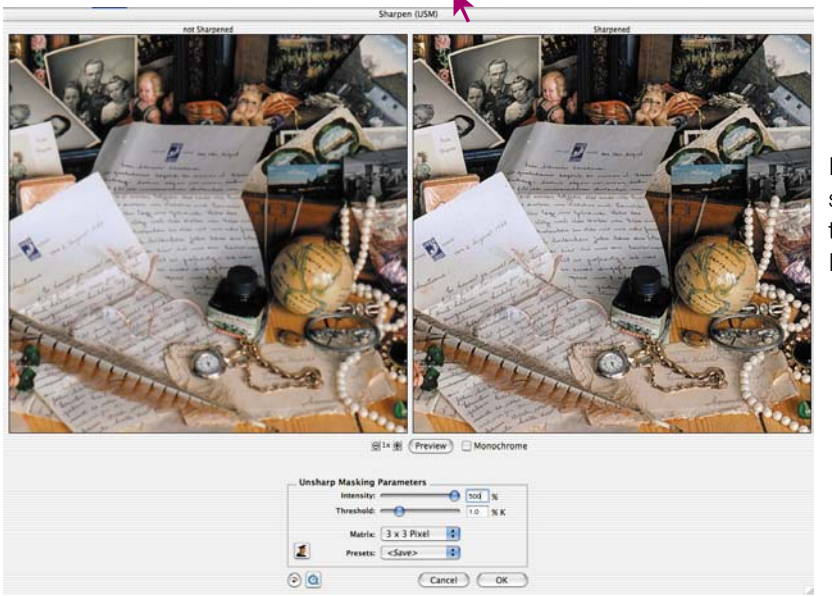
The size of the dialogue box is now resizable by means of a resizing button.



By clicking and dragging the corner button, the USM window can be expanded up to the entire monitor size.

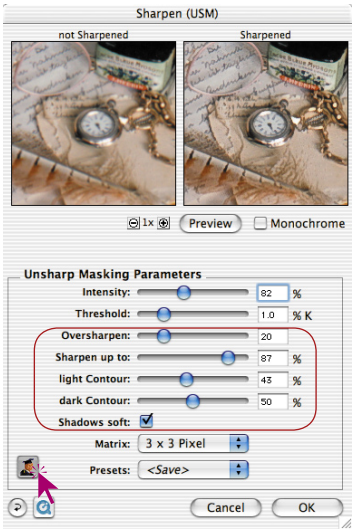
Initially, the contents of the prescan window are only enlarged by pixel-enlargement – the same effect as pressing the “+” button.

The real expansion of the visible area is achieved by keeping the “Shift” button pressed while clicking the “Prescan” button (i.e. it functions like an “Update-button”). (Ref. Illustration lower left).



Resizing the window preserves the captured part of the image. (Ref. Illustration lower right)

Manual USM in the Expert Dialogue



Advanced users can use the extensive expert mode in order to set up optimal sharpening parameters.
A click on the small “Expert button” in the dialogue window will elongate the window and offer additional setting possibilities. An additional click on the “Expert button” (which is now red) will bring the dialogue window back to its normal size.

Additional parameters:

- **Over sharpening**: Reduces the generation of disturbing artifacts at the edges. A value of “Zero” suppresses this generation completely, but often delivers a seemingly artificial image. Low values (10 – 20) allow slight artifacts to appear, but the image appears more plastic and more natural.

- **Sharpening up to**: will determine the percent value of the grey value (0-100%).

  A value of e.g. 80% means that all tones below 80% will be sharpened. The dark tones between 80% and 100% will remain unsharpened.

- **Sharpen from (only in negative-mode):**

  Determines from which percentage (greyscale) sharpening will take effect. (0-100%)

  A value of e.g. 20% means that all tones above 20% will be sharpened. The lighter tones (negatives) from 0% to 20% again remain unsharpened.

  The slider „sharpen up to“ / „sharpen from“ is important to prevent noise in images with shadows to become intensified by the USM.

- **Light Contour / dark Contour**: depending on the desired sharpness of the subject matter, one or the other value can be intensified. In most instances the values are set the same.

- **Shadows soft**: a check in the check box will determine, that “sharpen up to” will be shown soft from that point on. The possibility of noise appearing in images with shadows is mostly eliminated with a good combination of the „sharpen up to“ and the „shadow soft“ settings.

Example for Sharpening Bright Contour / Dark Contour

In order to achieve the desired sharpness results, which will depend on the actual image, you have to change one of the two value accordingly. In general it is advised to keep both values the same. Merely the sliders for bright / dark edge have been changed in all four images.

Bright Contour = 0
Dark Contour = 0

Bright Contour = 40
Dark Contour = 60

Bright Contour = 0
Dark Contour = 100

Bright Contour = 100
Dark Contour = 0

6.3 De-screening an image*

From Version 6.4.2r4 onwards, *SilverFast** uses a completely new descreening in order to remove any screen dots from printed images.

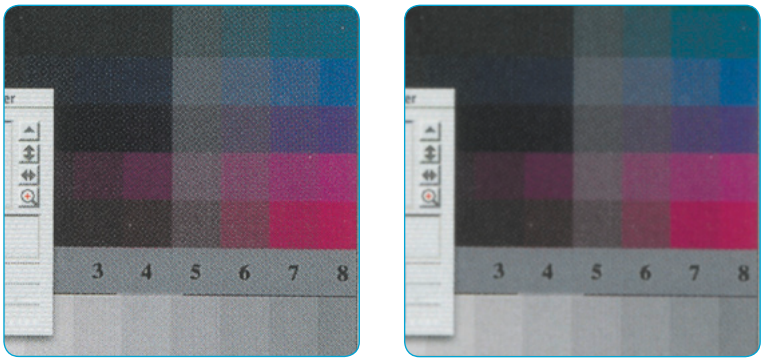


Image taken from a magazine, enlarged 300%
Left: normal Scan without descreening. The moiré on the print is clearly visible...
Right: Scan with descreening. The moiré is completely removed.

**Availability*

***...Studio versions**: have the new full functionality including the two full automatics and the scalable dialogue.*

***...Ai-, ...DCPro-, ...HDR versions**: Offer the complete descreening dialogue with preview, manual selection and automatic screen-detection. The fully automatic functions are not included.*

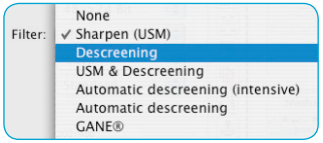
***...SEPlus versions**: offer the scalable descreening dialogue, without preview but with manual screen input and also contains the two automatic descreening options.*

***...SE versions**: contain the new descreening, the descreening dialogue without preview, but with manual screen input. The two fully automated functions are not available.*

Adjusting the Frame of the Image*

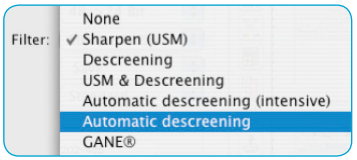
To activate *SilverFast's* descreening, select one* of the menu points* from the filter menu, located within the frame palette:

- Automatic descreening
- Automatic descreening (intensive)
- Descreening
- USM & Descreening



The newly developed descreening in *SilverFast* is able to detect the actual screen of the image automatically.

"Automatic descreening" and "Automatic descreening (intensive)" are fully automated and are available without any further dialogues. In case "Descreening" or USM & Descreening" is selected, a sub-menu will appear, within which more individual parameters may be set.



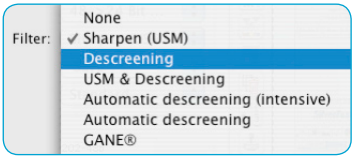
Automatic Descreening

This function launches a fully automated descreening of the image. No more dialogues or menus are necessary. The “Automatic descreening” is recommended for medium and fine screens.
The result is only visible after the final scan and is not displayed in *SilverFast’s* preview window.

Please note that the image to be descreened consist of enough image elements and not only textures and graphics.

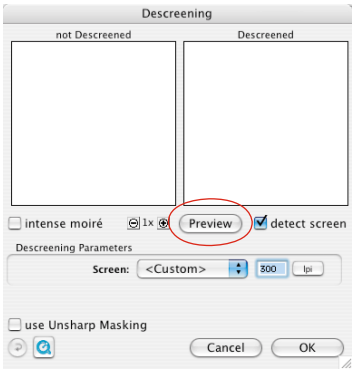
Automatic Descreening (intensive)

The ”Automatic descreening (intensive)” function operates like the “Automatic descreening” function, but in addition uses a specialized calculation algorithm. This selection is recommended for cruder screens and low screen width. The intensive descreening needs more system resources and is more time intensive.
The result will only be visible in the final scan and not in *SilverFast’s* large preview window.

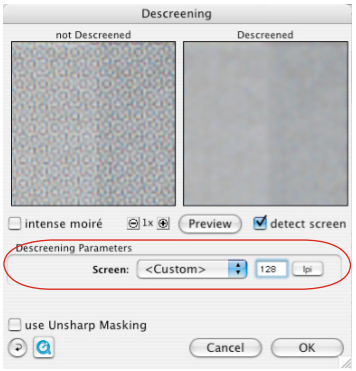


Descreening

This dialogue allows an automatic and manually adjustable descreening. In order to judge the quality of the descreening, a ”before-after” view is available. Here, a freely sizable 100% view of the image is shown.

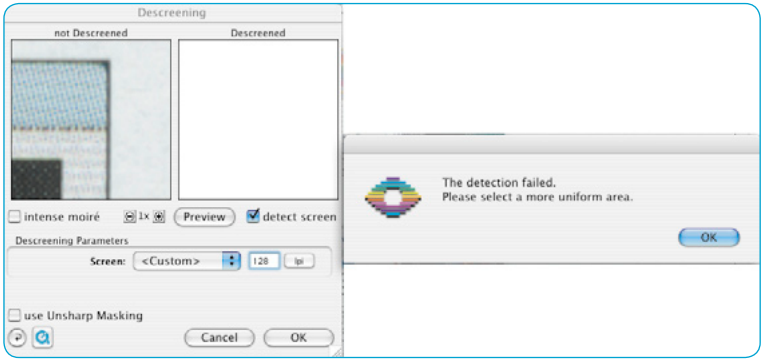


In order to generate a preview, simply click the “Preview” button within the opened dialogue. The mouse pointer changes to a square, with which a homogenous part with medium brightness of the image should be chosen and clicked. The scan starts immediately.
The previously activated input field “detect screen” ensures that the correct screen is calculated automatically.



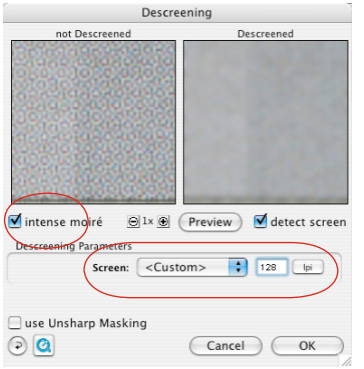
The result of the descreening is displayed after the end of the final scan in the “After” window. Simultaneously, the detected screen is displayed in numerical values in the “Descreening Parameters” window.

In case an inadequate part of the image was chosen, an error message will be displayed. In this case, please choose a different, more homogenous part of the image.

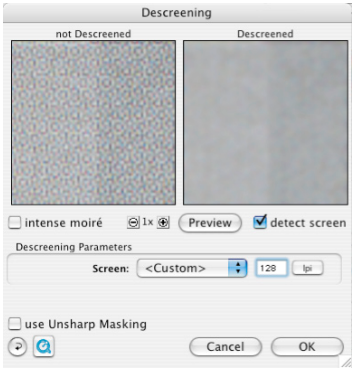


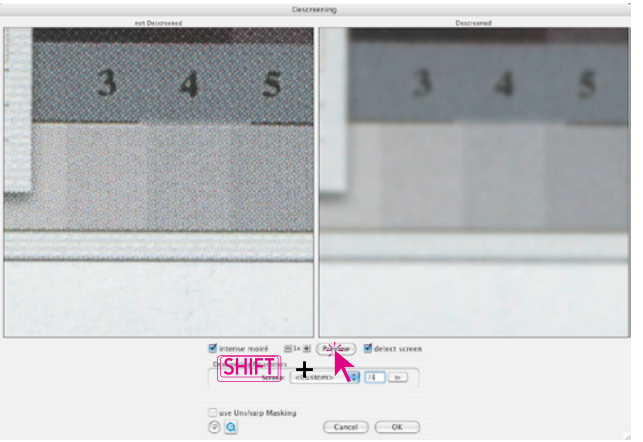
If the result is satisfactory, the dialogue may be closed by clicking the “OK” button, which closes the window.

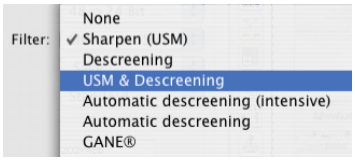
If any artifacts can be found in the “After” window, a different screen may be entered. Alternatively, the field “intense moiré” may be activated. This makes sense while descreening a rough raster with small screen widths. The “After” image is generated immediately after altering any numerical values. The intense descreening needs notably more system resources and is hence more time intensive.



Due to the low monitor resolution of the large preview window, the effect of the descreening cannot be simulated by *SilverFast*. Only once the final scan has been launched, will the parameters for descreening be calculated into the scan.
It is, however, still possible to get an idea of the quality of the final scan prior to performing it; the dialogue-window of the *Studio* and *Plus* versions may be scaled! Simply drag it open by click-dragging the lower right edge of the window. By pressing the “Shift” key and a click on the Update button, the preview will be recalculated and a much larger part of the image is displayed.







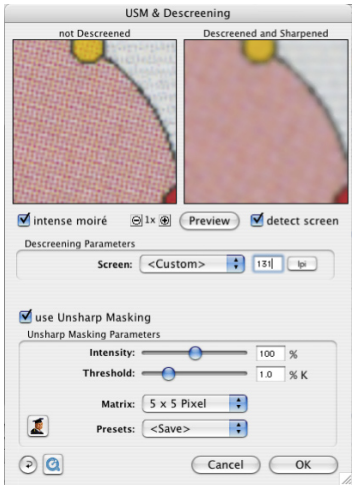
USM & Descreening (Descreening with Unsharp Masking)

If you simply descreen printed artwork it, often looks very soft and appears quite unclear in the image processing program. In order to avoid this, you can add “unsharp masking” to the descreening process.

For this, the descreening in the filter menu may be launched under ”USM & Descreening“.

Alternatively, in case the descreening dialogue is already opened, the USM may be activated by checking the ”use Unsharp Masking“ box.

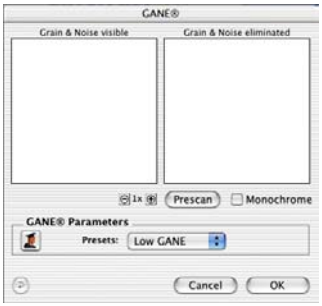
For this purpose, mark the check box “use unsharp masking” with a check mark. All parameters in the elongated dialogue window can be used, just as in normal unsharp masking. You can also choose here between the standard mode or expert mode.



Finally, enter the desired output screen in the field for “screen” in the “frame” palette.

6.4 GANE®

Grain- and Noise Removal



GANE (Grain- and Noise Elimination) is a *SilverFast* filter to remove or reduce film-grain and CCD noise

The reduction of grain-pattern and noise can be monitored in *SilverFast*'s "Before-After preview" and enables a secure judgement of the final results.

Today's modern, high resolution scanners bring out the grain from film, especially from films with high ASA/ISO-values. Suppression of noise is more relevant with older scanners or with digital cameras.

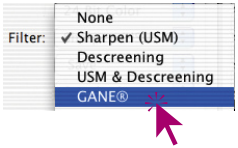
The intensity of the *GANE* filter can be easily controlled by the user with the before-after-preview. For finer adjustment the Expert-mode helps with additional slider. The Expert-mode is only available in *SilverFast* full versions.

Important Preparatory Steps

Since *GANE* works like the "Unsharp Masking (USM)" filter in *SilverFast*, it is first necessary to carry out all steps of the normal *SilverFast* image optimisation work-flow!

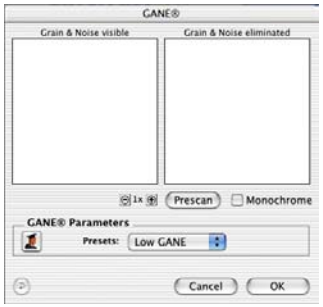
GANE is best used as last step, directly before starting the scan. You should at least set scaling and output resolution!

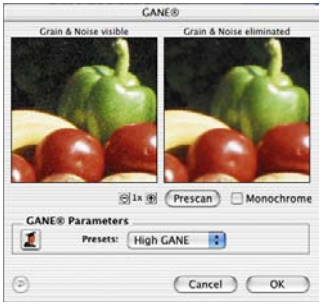
Activating *GANE*



GANE gets activated under Filter in the *SilverFast* main dialogue “Frame“. The *GANE* dialogue window will open up.

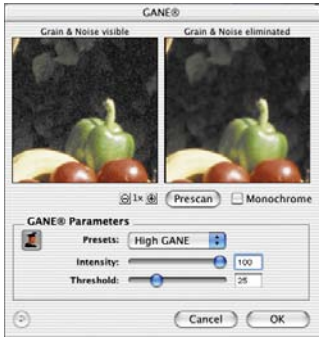
In order to monitor the *GANE* effect in the Before-after-preview, click the “Prescan“ button and with the square mouse cursor click onto a significant image area in the image preview, so you have relevant image details to see the effect.
SilverFast will prepare a 1:1 scan, with the preset resolution, and display the results in the before-after-preview.





Now you only have to select a setting from the “Presets“ menu.
In the example above the setting “High GANE” has been selected.

Expert Mode



Whenever the presets seem insufficient, you can activate the Expert-Mode by clicking onto the Expert button.
The dialogue window will now become larger and three extra sliders become visible.

Intensity: indicates the magnitude of the effect. The maximum value 100, indicates *GANE* will try to eliminate 100% of the noise in all of the image.

An “ideal“ image without any noise will easily be interpreted as “artificial” by the human brain. For instance. an “ideal“ single colour flat area, will seem artificial to the onlooker. On the other hand, an area containing a small amount of noise looks much more “natural“.

Due to these facts, it seems to be reasonable to reduce the intensity with high quality scanners to 80% or less, or when the results look “unnatural“ or “artificial“.

Threshold: Here *GANE* tries to distinguish between unwanted noise and image details that have to be preserved. A small value means a smaller level of noise.

6.5 Line Art Scans (1 Bit)*

Resolution of Line Art Scans

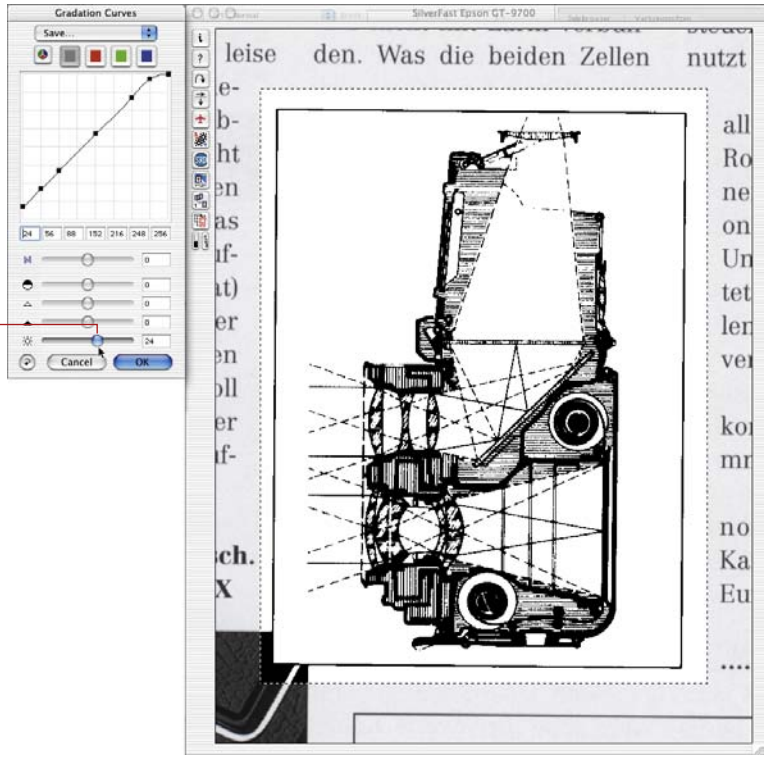
Line art is 1 bit information, where the number of pixels, effectively the resolution, is the key factor (whereas with greyscale images the number of shades or colours is most important) standard flat bed scanner . With *SilverFast*, the scanner can scan different optical resolutions depending on the scanner hardware – with interpolation up to 4800 dpi. But is such a resolution necessary?
The answer is “NO!” - Generally a resolution between 800 and 1200 dpi is enough. Only in rare cases is there a need for a higher resolution, that is to say, slide scanners need higher optical resolution, because of the high level of enlargement that is possible.

Line art image

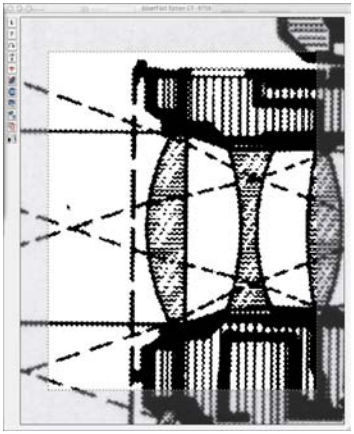
**SilverFast...SE versions*
This function is not available in SilverFastDC... and -HDR... versions.

Zooming for Optimum Threshold Definition

Normally prescans are not useful in determining a threshold value. In order to do so however, the zoom from *SilverFast* is an excellent help.
Zoom into the line art image so that you can see the critical lines and adjust them by means of the threshold slider. The zoom on the left shows that you can zoom into every detail of a line art image so that the threshold can be adjusted perfectly.



Threshold settings in single zoom prescan



Double zoom prescan

6.6 Multiple Sampling

Multiple sampling can be applied for some scanners that show a visible, strong noise in the shadow areas, in order to eliminate the artefacts.

From Version 641r6 onwards, *SilverFast Ai Studio* and *SilverFast-SE Plus* allows any scanner that runs with *SilverFast* to perform the multi-sampling function. This also includes scanners that were not initially meant to support this function.

This does not work with scanners having weak positioning behaviour. Frankly speaking, most scanners are mechanically not precise enough and overlaying several scans for noise reduction would result in „unsharp, out of focus“ scans. Therefore we had to develop a special process that would eliminate the lack of mechanical precision between the sampling scans.

This process is called *Multi-Sampling* with *Auto-Alignment*. The result is sharp scans with the noise artefacts eliminated or significant reduced depending on the number of samples (4, 8 or 16). Now, in principle every scanner can profit from this method which as a result enhances the usable dynamic range showing scans with nice shadow details. Another benefit is, that with a much cleaner scan, so much more Unsharp Masking can be applied for a crisper image, without pronouncing the noise artefacts (since they are gone).

Multi sampling can be activated with its own button. The number of scans per scan frame can be 1, 4, 8 or 16 (the number depends on the scanner). A small number in the button will show the number of sample scans.

Please note that the entire scan time increases proportionally to the number of sample scans.

Only a few scanners use the multi-sampling while the CCD is not moving. The scanner stops and reads the CCD more than once, according to the preset number of sampling scans. The advantage lies in the faster speed (not much longer than a standard scan), but there is also perfect precision of register. In general, there is no loss of sharpness with this method.

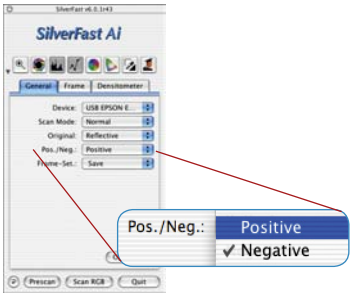
**** Attention!***

This function is hardware dependant and is only available for some scanners.
Multisampling is done by software and is available for all SilverFastAiStudio und SilverFastSEPlus Versions.

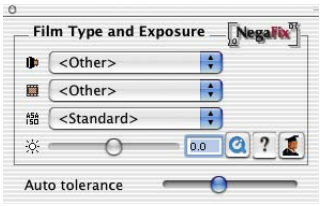
6.7 *NegaFix* - Scanning Negatives*

1. Optimisation of Negatives (Film) with Integrated Profiles

The negative-positive conversion of normally-exposed and developed negatives using *SilverFast*'s *NegaFix* can be achieved with a few easy steps.



Go to the "General" panel and switch the menu "Pos./Neg." to "Negative" mode. When this occurs, the "Negative" dialogue window* with "*NegaFix*" will appear.



The *NegaFix* window offers three pop-up menus and two* sliders. The pop-up menus are used for the selection of the appropriate characteristics of the negative film:

a) **Manufacturer**, or film brand
b) **Film type** or film name
c) **Film speed** (sensitivity)

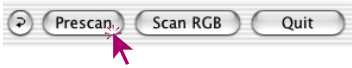
By means of the slider **"Exposure"**, or the input field, the **film exposure** of the negative can be adjusted within plus/minus 3 f-stops.

The slider* „**Auto tolerance**" allows adjustment of highlight in the automatic Film mask recognition.

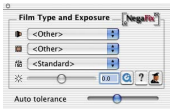
**Which versions of SilverFast contain NegaFix?*
SilverFast...SE contains merely a simplified dialogue.

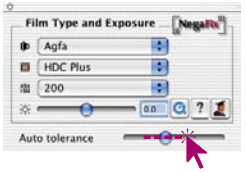
SilverFast DCSE and –DCVLT versions do not contain this feature.

**Auto-tolerance slider and expert dialogue*
The slider is available only in the SilverFastAi..., -DCPro... and -HDR... -full versions.



Begin with a prescan in order to obtain an overview of the image. The preview will display an uncorrected positive image. Please follow the steps on the following page:





1. Image Frame Selection

Ensure the selection marquee is inside the image and does not touch the perimeter of the film material. The image on the right has been automatically optimised with the integrated “Standard Profile”.

2. Select Film Manufacturer

Select manufacturer or negative film brand: e.g. Agfa.

3. Select Film Type

Select the film type: e.g. HDC

4. Select Film Speed

With the pop-up menu, select the film speed (ASA/ISO value) of the actual film. All chosen settings will be instantly updated in the preview window.

5. Auto tolerance

In case the image still lacks neutrality, this slider can be used to adjust the tollerance of the mask-recognition (in the highlights)

6. Correct Film Exposure

Normally, a correction of film exposure is not necessary. If the image appears too bright or too dark, use the slider to simulate a film exposure of ± 3 f-stops. You will see the correction in real-time on the preview.

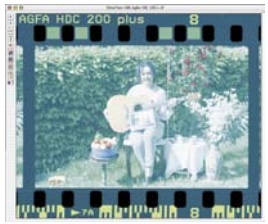
7. Apply Auto-Adjust

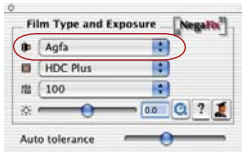
Now the process of negative-positive conversion is complete. To fully optimise your image, press the *SilverFast* auto-adjust button from the tool bar as usual and/or apply other *SilverFast* tools as desired.

2. Example Optimisation of a Negative

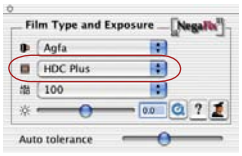
This example is shows the optimisation of an “Agfa, HDC 200 plus” Negative:

First, switch the mode from Positive to Negative and start a prescan. The prescan window will show an image converted to positive.
Change the scan frame so that it is only covering the actual image pixels and does not touch the perforation holes of the film.

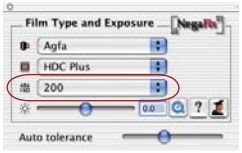




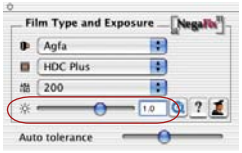
- Film manufacturer: “Agfa”
  This pop-up allows selection of the manufacturer of the Negative film. The selection effect will update the preview window in real-time.



- Filmtype: “HDC plus”
  Select the specific film type in this pop-up. Every film preset will distinctively change the frame in the preview window.



- Film speed: “200 ASA”
  In this pop-up, you can select the film speed (ASA/ISO value) of the film being used. The selection will again update the preview window.



- Exposure correction: “+1 f-stops”
  Finally, with this slider, you can correct the film exposure within +1 f-stop.

This completes the process of converting a negative to a positve.
In order to get optimum results, you only need to click the *SilverFast* auto-adjust button.
The auto-adjust will set the correct high-light-shadow values as well as the overall brightness for the active scan frame.

NOTE!
The IT8 calibration only applies to the "positiv"-scan mode (slides and photographs). Calibration is automatically disabled in „negative"- mode.

In case the results are not as desired, try other film presets (manufacturer), film speeds, sometimes even with a profile of another manufacturer to get better results.
Switching to expert mode is only necessary if the above suggestions aren't suitable.

You can now continue with the normal *SilverFast* tools for further optimisation until you start the final scan:

e.g. naming the image, scaling, USM, descreening, selective colour correction, ... and finally scan in CMYK or RGB.

3. The Expert Dialogue*

When should the Expert Dialogue be used?

** Attention!*
the expert dialogue will only be available in SilverFast Ai, SilverFast HDR, SilverFast DC, etc.

SilverFast SE-Versions will not have the NegaFix expert dialogue

In any case you should first use the normal procedure to convert a negative to positive as outlined in chapter 2.

When these steps do not yield the desired results, open the “expert dialogue”. This could for, instance, be the case when profiles for a specific film are missing, or when the existing profiles do not convert the negative correctly.

Importing film profiles: All film profiles embedded in *SilverFast-NegaFix* can be found by this link:
http://www.silverfast.com/show/negafixprofiles/en.html

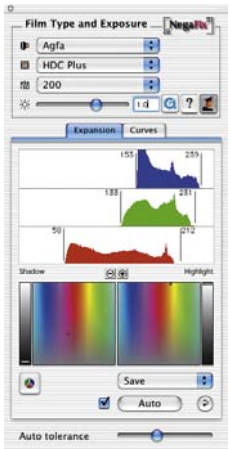
The unpacked data can be imported into SilverFast by means of the import menu, found in the *NegaFix* dialogue -> Film manufacturers -> Import.

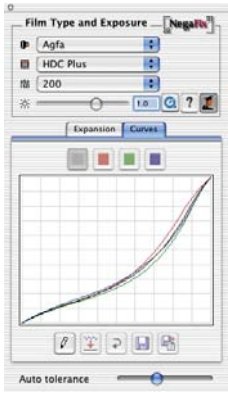
Expert Dialogue Overview

The expert dialogue comes up when you click the “Expert” button and consists of two major panels:

a) the dialogue “Expansion” to monitor and control the dynamic range and expansion of the negative

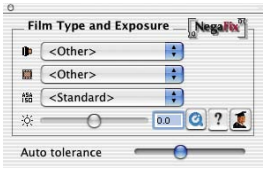
b) the dialogue “Curves” to characterize the profiles and eliminate colour casts.





Workflow of Expert Mode

A short description of how to optimise a negative with the expert dialogue:



1. Standard menu: Select a film profile

Even when none of the profiles will yield a good result, the best possible should be selected. If the deviation is too strong it would be better to switch to “Other”, or “Standard”.

Refer to the procedure for selecting profiles on pages 5, section 1 to 5.

2. Expansion Menu

Using the slider “Auto tolerance” will adjust the strength of the auto-masking process.

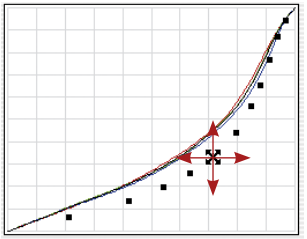
The effect can be monitored in the histogram and preview window. The slider at the position utmost left indicates minimal effects

3. Curves Menu: Adjustment of curves

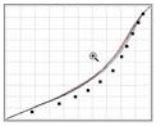
Change to “Edit” mode (click on pencil). Drag the curves so that the image in the preview window will look as desired.

Single curves can be selected by clicking the colour patches (red, green, blue for single curves) above the curves dialogue (to select all curves, click grey patch). All curves are selected by default.

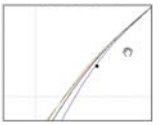
Single curve points can be moved with the mouse.



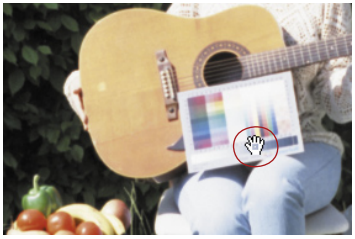
For a more precise adjustment, it is possible to zoom into the curves (“plus“ magnifier; pressed “Alt“ key “Minus“ magnifier)



In the zoomed mode, the visible area may be moved with the pressed “Shift“ key.

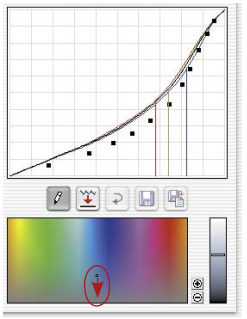


4. Curves Menu: Set Neutral Grey



Sometimes image areas that should be neutral have a colour cast. This can be easily neutralized or even changed into another colour:

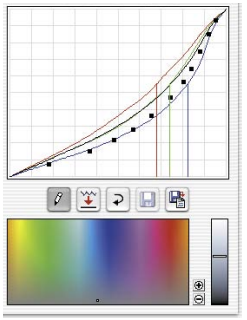
With the curves in edit mode, click onto the colour cast area in the preview. This point in the gradation curves is marked by vertical lines and marked in the HS and L dialogue display below by a single point or a line respectively.



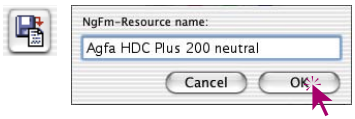
Drag this point in the HS dialogue vertically down to the horizontal grey axis.

The preview window will reflect the change immediately.

If you do not want this point purely neutral, you can drag the point into any other area of the colour space. It is now up to you: which tint you will give to your grey: colder and more blue, warmer and more red, or ...

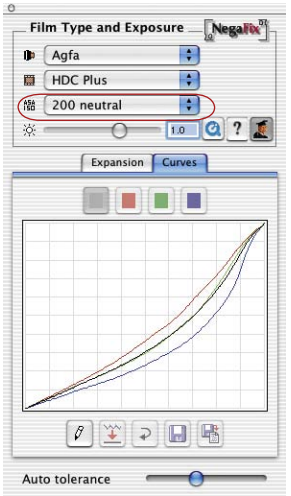


5. Curves Menu: Save the newly Created Profile



Click on “Save as”- button and give the newly created profile a new name.

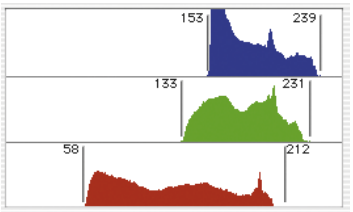
Custom profiles will appended in the pop-up “ASA/ISO”.



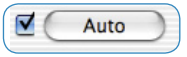
The Expansion Menu in Detail

The upper portion of the expert dialogue, the “Expansion” menu, monitors the orange mask histogram and how *NegaFix* will optimise the orange mask. The histogram will also allow optimisation of the orange mask manually.

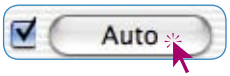
Automatic Mask



The upper half shows the negative histogram, and how the mask automatic has set the highlight and shadow points.



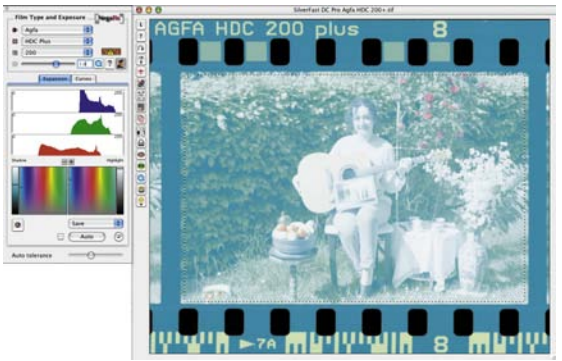
The automatic mask is continuously active, indicated by the check mark, left of the button “Auto”. In case the scan frame must be altered after optimizing it with the *NegaFix* function it is advisable to turn off the mask automation. If this is not done, *NegaFix* will calculate new values and hence alter the current colours.



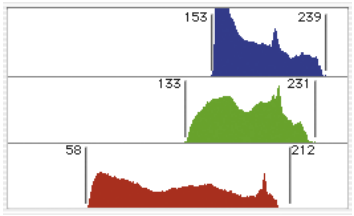
Clicking the button “Auto” will activate the automatic mask manually. *NegaFix* will analyse the negative again, remove the orange mask, and show the resultant histogram and preview image.

Note!

This icon indicates a warning when the automatic mask is inactive. It will appear in the upper area of the *NegaFix* control window. It will also appear after clicking the button “Reset”.



The orange mask removal will be indicated (or controlled) through the position of the vertical delimiters left and right of the single histograms . The orange automatic mask will move the delimters to the initial pixels in the single histograms channels.



The numbers beside the delimiters will indicate the corresponding tonal value. The delimters can also be used as sliders and actively control the orange mask removal process.

The strength of the orange automatic mask can be controlled with the slider “Auto Tolerance” Moving the slider to the far right will have the greatest effect.

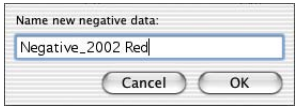
Any change can be monitored in the *NegaFix* dialogue window and also immediately updated in the large *SilverFast* preview. This way you will always be in full control over the results of your corrections.

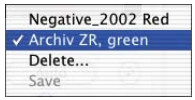
Additional Buttons in the Dialogue Window

Clicking the “Reset” button will reset all settings and will also switch the orange automatic mask off. After a reset the warning icon (auto-mask off) will appear as a reminder.

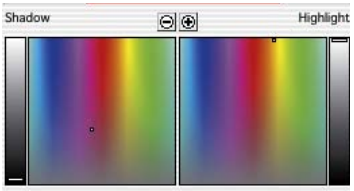
This button will switch the appearance of histograms for monitoring between RGB (“tonal values “ 0 to 255) and CMY (“percentage values” 0 to 100).
The button will only switch the appearance and will have no influence on image quality or any other changes.

The pop-up menu “Save” allows saving of custom highlight/shadow points for the orange mask process or loading of previously saved orange mask H-S points.

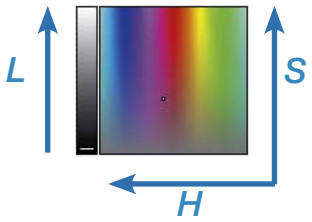




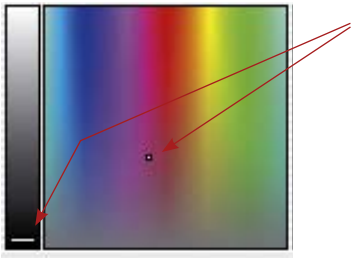
Setting Orange Mask Highlight Shadow points



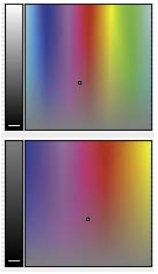
The lower part of the “Expansion” dialogue monitors the position of the orange mask highlight-shadow points within the 3-dimensional HSL colour space.
Both, highlights and shadows will normally have a visible colour cast. The auto-mask will recognize and remove this cast.



The position will be displayed within the square colour space and within the vertical luminance field.
The vertical fields indicate luminance (“L”). The colour square will show the colour hue (angle) horizontally and the saturation (“S”) vertically.



The markings (short bars within the vertical fields, small points within the colour square) indicate the exact position of the highlight-shadow points in the colour space.
The bars, as well as the points, are colour cast correction controls and must be moved with the mouse. Any change will be displayed within the *NegaFix* dialogue window and immediately updated in the *SilverFast* preview window.

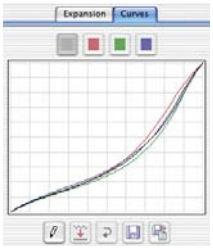


Original view

View after clicking the zoom 3 times.

With the integrated zoom function, you can freely zoom into and out of the colour space.
This will enable very subtle corrections of the neutrality of the orange mask highlight-shadow points.

The Curves Menu

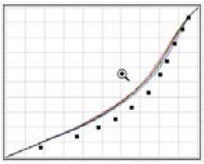


The second window of the expert dialogue, the “Curves” panel, monitors the RGB-curves of the active film profile: All curves (black), as well as the single curves red, green and blue.
This dialogue allows modification of an existing film profile directly and allows it to be saved as a new profile. The colour character of the negative profile can be changed and colour casts can be removed as well.

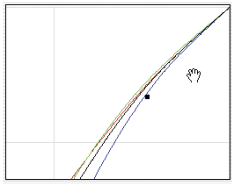
Changing the Film Gradation Curves

The “Edit” button activates the curves dialogue. A black overlay curve, defined by a succession of black curves points will appear. The sequence of points represents the character of the original film manufacturer profile.

For a more precise adjustment it is again possible to zoom into the curve (“Plus“ magnifier; and with the ”Alt“ key pressed the “Minus“ magnifier). Within the zoomed mode, the visible area can be moved by pressing the “Shift“ key and moving the mouse.



Single points on the curves may be touched and relocated with the mouse. For a more precise adjustment, it is possible to zoom into the curves („plus“ magnifier; pressed „Alt“ key „Minus“ magnifier). In the zoomed mode, the visible area may be moved with the pressed „Shift“ key.



Selecting any of the RGB selectors above the curves will activate any of the red, green or blue curves accordingly. Clicking the grey selector will active all curves .

The button “Smoothen” allows to smoothening of an active curve which might be slightly rough. This function can be used repeatedly: Additional clicks will invoke further smoothening operations. Several clicks will increase the effect.

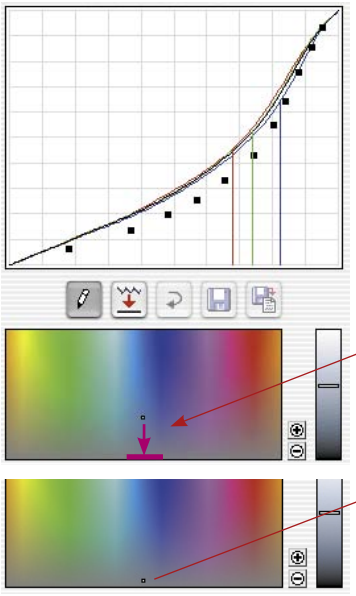
Neutralizing Colour Casts

First click the edit button to activate the curve dialogue.

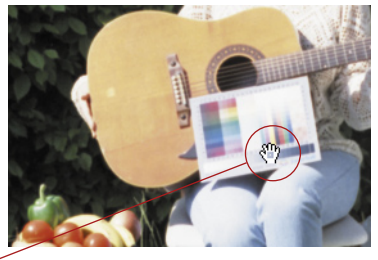
Move the cursor into the image preview window and click onto the area you want to neutralize. While moving the cursor, you can monitor the colour values (CMY recommended) in the floating densitometer.

Clicking onto the image will bring up a new dialogue below the *NegaFix* curve dialogue window. The image point you have clicked onto will be monitored as a small point in the HSL colour space, and the tonal values will be indicated as vertical lines in the film gradation window.

Again the markings in the HSL dialogue represent controls which can easily be moved with the mouse.
For more subtle control, zoom buttons can be clicked to zoom in and out of the colour space.
All changes of all controls will immediately be displayed in the *SilverFast* preview window.



Neutralizing a colour cast is achieved by dragging a point in the HSL dialogue down to the neutral grey axis.

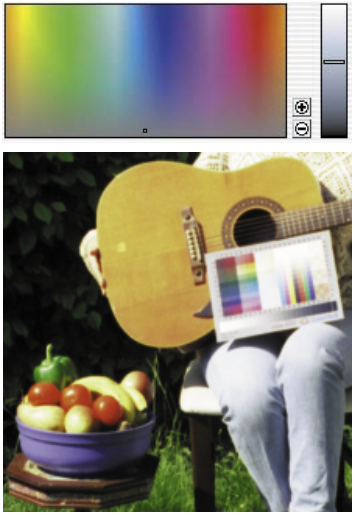


After releasing the mouse the preview window will be updated.

Producing a Colour Cast Deliberately

Naturally any point within the HSL colour space can be moved to any other colour. This will produce a colour cast..

With many images, pure neutrality will look unnatural,



Think about pictures of a sunset. A warm reddish colour cast is surely desired versus a cold neutral rendering

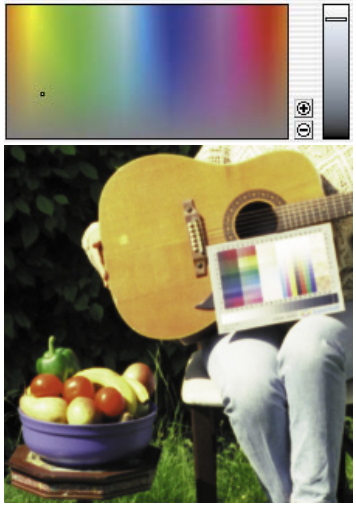


Image with neutral grey

Image with yellowish grey

Saving Changes as a New Profile

Once all changes are done and the preview window shows the desired results, the updated settings can be saved as a new profile:

Clicking the “Save” button will save all parameters in the current profile. Of course the previous profile will be overwritten.

It is safer to use the option “Save as”. Here you can give the profile a new name.
New profiles will be saved under the “ASA/ISO” pop-up menu list and can be reused at any time.

4. DIGITAL ICE technologies used with Kodachrome- and b/w films

The much implemented scratch and dust removal solution “DIGITAL ICE technologies”, which is hardware-implemented in many different scanners, does not operate properly with Kodachrome and conventional b/w films (for both negatives and slides)!

Because of the tanning that occurs while developing the film, a structure is generated on the film which gives different calculation indices in the different layers of the film. This and the high percentage of silver in these films, may lead to unsatisfying scan results.

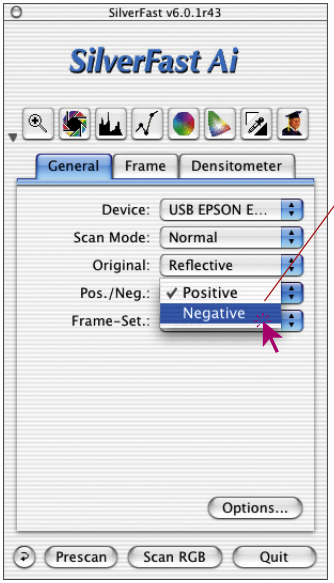
It is hence advisable to deactivate the “DIGITAL ICE technologies” for such films.

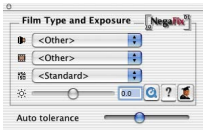
The *SRD* function implemented in *SilverFast* works fine with all types of film.

5. Reference Card *SilverFast NegaFix*

Overview *SilverFast*

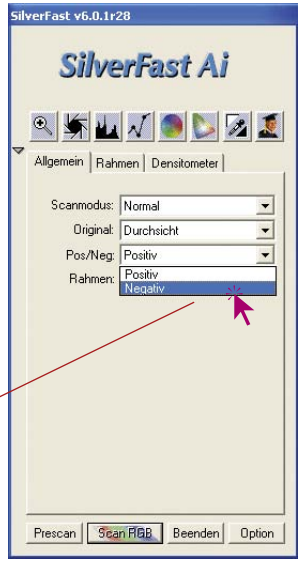
NegaFix can be activated from the “General” panel by selecting the “Negative” pop-up.





NegaFix dialogue in SilverFast Ai under Macintosh

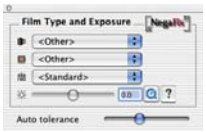
NegaFix dialogue in SilverFast Ai under Windows



Overview *SilverFast SE*

The extended functinality of the “expert dialogue” is only available in the full versions of *SilverFast Ai..., SilverFast HDR..., SilverFast-DC..., etc.*

In *SilverFast SE...* versions, the expert dialogue is not available. All film parameter selections can be fully applied.

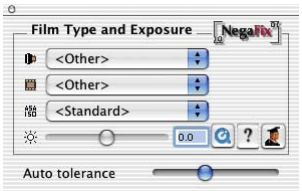


NegaFix dialogue in SilverFast SE under Macintosh

NegaFix dialogue in SilverFast SE under Windows

SilverFastNegaFix Components

The standard dialogue can be extended by clicking onto the “Expert” button*. In extended mode, you can switch between the panels “Expansion” and “Curves”:



NegaFix Dialogue

Standard dialogue editing of negative film contains these controls:

Pop-up to select film manufacturer

Pop-up to select film-type

Pop-up to select film speed

Slider for film exposure control

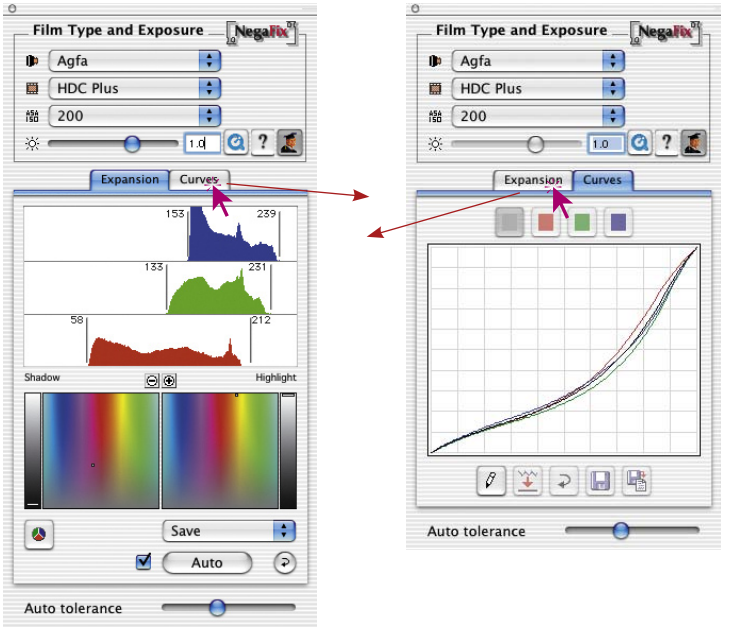
*Button to open / close expert dialogue**

Button to open help-file

*Warning to indicate automask**

**** Note!***

Only available in full version of SilverFast Ai, not available in “SE” version!



Expert-Dialogue “Expansion”*

Single control elements:

Switching between CMY- or RGB- monitoring in the histogram

Auto *Mask automatic button*

Reset button

Save *Save menu*

Auto tolerance

Auto tolerance slider for mask automation

Expert-Dialogue “Curves”*

Single control elements:

Edit-Mode on/off

Smoothen curves

Reset button

Save button

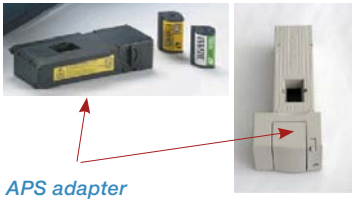
Save-as button

Select single colour channels (RGB)

6.8 The Use of Various Film Holders* for Film Scanners*

After the film adapter has been changed, *SilverFastAi* in general must be restarted in order to recognise the new adapter.

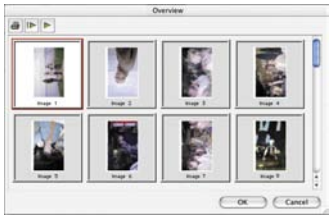
APS Adapter



APS adapter

If the APS adapter is connected, a film cartridge has to be put in, otherwise a message will come up saying: “There is no scanner connected.”

In the preview window a button for the APS overview (Index scan) will be visible. Calling up this function, you can start displaying small overview images using the *Start* button. If images are available in stock, the procedure will be continued behind the last image available. Note: There is no way to identify a loaded film cartridge. After you have changed the film, you will have to refresh the overview!



Attention:

Functions are different from scanner to scanner and some of the functions are only available with specific scanners or imaging applications.

Inside the small button bar above the image overview, there is a print button allowing you to print the overview (1. button). You can also refresh the overview (2. button) after having changed the film or you can stop or continue to refresh an overview (3. button).

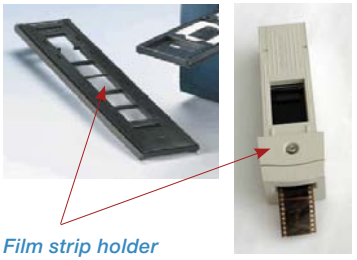
Clicking onto the second button commands the scanner to generate an overview of the current medium (film strip, APS, etc).

The creation of the overview can be monitored and stopped or continued if desired.

To select an image, click on it and confirm with the "*OK*" button. By means of the numbers you can select an image for which no overview scan has yet been created. After selecting an image, the dialogue will close only when the overview scan for the current image being processed has been completed.

To unload an APS film, it must be rewound first. Use the "*Eject*" button on the left border of the prescan window to do this. If this does not work occasionally, turn the scanner off and on. Then the scanner will start rewinding the film automatically. Turn off again before the scanner starts reloading the film strip from the cartridge, and take out your film (listen to the rewind noise). Then switch the scanner on again.

Film Strip Holder*



Film strip holder

Using the film strip holder* is very similar to the APS adapter. Before launching *SilverFast Ai*, the scanner must be switched on, and a film strip must be loaded. In the "*General*" palette, select "*Negative*" or "*Positive*" according to your original.
In case there has not been a prescan accordingly, a preview scan of the first image on the film strip will be generated.

As with the APS adapter, use the appropriate button in the prescan window to open the image overview dialogue. The overview scans (Index scan) will automatically be created or completed, respectively. You can select an image by clicking on it and then on the "*OK*" button. Again, you can select an image by clicking on the frame even if no thumbnail image has yet been created.

Use the "*Eject*" button on the left border of the main prescan window to eject the film strip.

***Attention**

Functions are different from scanner to scanner and some of the functions are only available with specific scanners or imaging applications.

Adjusting the Film Strip Position

This button enables to set a new position of start or end of a film strip, in case the motor driven transport has not positioned the film correctly.
By clicking on to the positioner button, the mouse switches to an arrow. With the base of the mouse the exact beginning of an image in the slide is set. The scanner will then readjust and update the prescan preview.
By pressing the ”Shift“ key and clicking on the positioner button, the direction of the arrow is switched. The exact end of the image can now be marked by clicking on it with the base of the arrow. The scanner will readjust and update the prescan preview.

**Attention:*
Functions are different from scanner to scanner and some of the functions are only available with specific scanners or imaging applications.

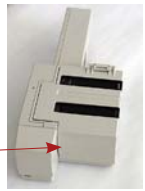
Filmholder for Middle Formats*

Some scanners support holders for different formats. Here the buttons for the middle formats 6x4.5, 6x6, 6x7 and 6x9cm are shown.

Film Holder for Panorama Captures

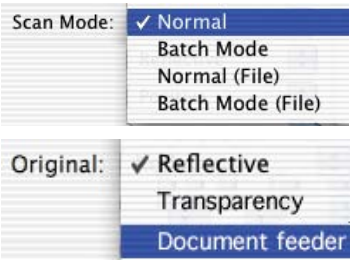
Some film scanners are delivered with special holders for panorama formats. In our example the button for a regular 35mm film (“35”), as well as the button for 35mm panorama (“35P”) are differentiated. By clicking on the respective button, the mode is changed.

Batch Scans for Automatic Document Feeders (ADF)*



Slide holder, slide magazine

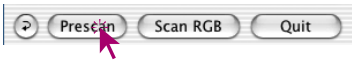
Films and slides can automatically be scanned in with the help of automatic document feeders, slide feeders, APS adapters, etc. Slides can be scanned directly to Photoshop (batch mode) or a fixed disk (batch mode file) with or without automatic imaging. Proceed as follows after the document has been inserted, or the slide magazine has been loaded and inserted:



1. Choose ”Batch mode“ or ”Batch mode (File)“ from “Scan mode“ in the “General“ palette.

   This switches to ”Document feeder“ under ”Original“ and activates the adapter automatically.

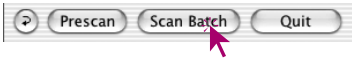
2. Load the first slide (or picture, ...) by clicking the mouse on the button for load image.



3. Click on “Prescan”.

4. Now adjust the prescan with or without auto-adjust accordingly.

   If you scan all pictures manually and wish to correct them with automatic imaging, check the field “automatic with ADF” in preset under the “Options...” menu.



5. Click on “Scan Batch”.

SilverFast Dialogue after Interruption of a Batch

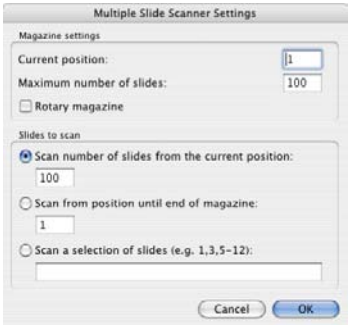
If a batch scan (scan mode ”Batch“...) is interrupted, it may be continued with a restart of *SilverFast* automatically if the ”Alt“ key is pressed simultaneously.
If *SilverFast* is launched regularly the batch scan will not be continued. Otherwise, *SilverFast* will launch normally.

Film scanners with a magazine*

For film-scanners that support regular film magazines used by projectors, *SilverFast Ai* offers additional special functions*. The transport control is done by means of buttons in the vertical tool-bar, located to the left of the preview window.

Holder transport*: For scanners that operate together with regular slide holders*, special buttons* for the transport of the holders are required.

The first button opens the dialogue box “Multiple Slide Scanner Settings”. Here the current position of the magazine are to be entered (the slide case number in the cassette). The preset here is “1”.

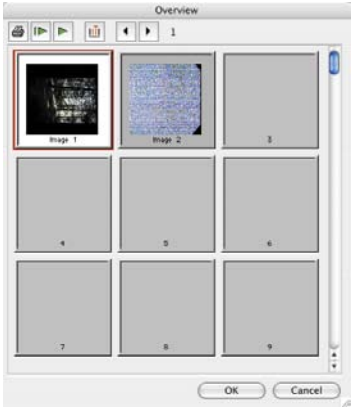


The size of the inserted magazine can also be entered (max. “100”). The option “Round magazine” is to be selected when using such a magazine.

The second button moves the film-magazine forwards and backwards. Clicking on the left arrow will cause the magazine to move backwards; i.e. a lower numerical value and vice versa.

The current position of the magazine is displayed by the number that is displayed below the respective button.

**Attention!*
These functions are different for each scanner and some functions are only available for certain scanners or imaging programs.



Overview dialogue*: All functions for the magazine transport, as well as an additional button for the settings can be found. Here the user may choose between three settings:

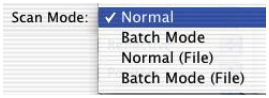
- **Number of slides, starting from the current position**: Specifies how many slides are to be scanned, starting from the current position.
- **Scan from the following position**: Specifies from which position the slides are to be scanned.
- **Area**: Here, different areas of the slide magazine can freely be chosen. For example: The slides of the magazine “1”, “3” and “5 - 12”. In this case, a total of 10 slides.

6.9 File formats in *SilverFast*

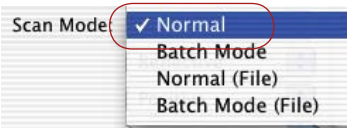
Saving different File Formats

The following table shows the formats that can be generated with programs of the *SilverFast* family:

File format	Channels, data depth (.suffix)	*SilverFast Ai*	*SilverFast SE*	*SilverFast DCProStudio*	*SilverFast DCPro*	*SilverFast DCVLT*	*SilverFast DC SE*	*SilverFast HDRStudio*	*SilverFast HDR*
TIFF	K, 1 bit line art (.tif)	✓	✓	–	–	–	–	–	–
	K, 8 Bit Grayscale (.tif)	✓	✓	✓	✓	✓	✓	✓	✓
	K, 16 Bit HDR Grayscale, uncorrected (.tif)	✓	✓	✓	✓	–	–	✓	✓
	K, 16 Bit Grayscale, corrected (.tif)	✓	–	✓	✓	–	–	✓	✓
	RGB, 24 Bit colour (.tif)	✓	✓	✓	✓	✓	✓	✓	✓
	RGB, Cie-Lab, 24 Bit colour (.tif)	✓	–	✓	✓	✓	–	✓	✓
	RGB, 48 Bit colour, uncorrected (.tif)	✓	✓	✓	✓	–	–	✓	✓
	RGB, 48 Bit colour, corrected (.tif)	✓	–	✓	✓	–	–	✓	✓
	CMYK, 32 Bit colour (.tif)	✓	–	✓	✓	✓	–	✓	✓
	CMYK, 64 Bit colour (.tif)	✓	–	✓	✓	–	–	✓	✓
	All Tiffs afore mentioned alos with LZW	–	–	–	–	–	–	–	–
JPEG	K, 1 Bit line art (.jpg)	–	–	–	–	–	–	–	–
	K, 8 Bit Grayscale (.jpg)	✓	✓	✓	✓	✓	✓	✓	✓
	K, 16 Bit HDR Grayscale, uncorrected (.jpg)	✓	✓	✓	✓	–	–	✓	✓
	K, 16 Bit Grayscale, corrected (.jpg)	✓	–	✓	✓	–	–	✓	✓
	RGB, 24 Bit colour (.jpg)	✓	✓	✓	✓	✓	✓	✓	✓
	RGB, 48 Bit HDR colour, uncorrected (.jpg)	✓	✓	✓	✓	–	–	✓	✓
	RGB, 48 Bit colour, corrected (.jpg)	✓	–	✓	✓	–	–	✓	✓
	CMYK, 32 Bit colour (.jpg)	✓	–	✓	✓	✓	–	✓	✓
	CMYK, 64 Bit colour (.jpg)	✓	–	✓	✓	–	–	✓	✓
JPEG2000	K, 1 Bit line art (.jpf)	–	–	–	–	–	–	–	–
	K, 8 Bit Grayscale (.jpf)	–	–	✓	–	–	–	✓	–
	K, 16 Bit HDR Grayscale uncorrected (.jpf)	–	–	✓	–	–	–	✓	–
	K, 16 Bit Grayscale corrected (.jpf)	–	–	✓	–	–	–	✓	–
	RGB, 24 Bit colour (.jpf)	–	–	✓	–	–	–	✓	–
	RGB, 48 Bit HDR colour uncorrected (.jpf)	–	–	✓	–	–	–	✓	–
	RGB, 48 Bit colour corrected (.jpf)	–	–	✓	–	–	–	✓	–
DCS	CMYK single file, 32 Bit colour (.eps)	✓	–	✓	✓	✓	–	✓	✓
	CMYK multiple files, 4x8 Bit Grayscale + 1x 32 Bit colour (.eps)	✓	–	✓	✓	✓	–	✓	✓
EPSF	K, 8 Bit Grayscale (.eps)	✓	–	✓	✓	✓	–	✓	✓
	RGB, Cie-Lab, 24 Bit colour (.eps)	✓	–	✓	✓	–	–	✓	✓
	CMYK, 32 Bit colour (.eps)	✓	–	✓	✓	✓	–	✓	✓
PSD	RGB, 24 Bit colour (.psd)	–	–	–	–	–	–	–	–

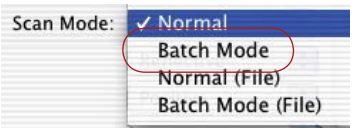


The choice of file format is done in the “Scan mode“ menu in the “General“ palette.
If “Normal (File)“ or “Batch mode (File)“ is chosen, a new window for determining the file format will open in the scan is started.



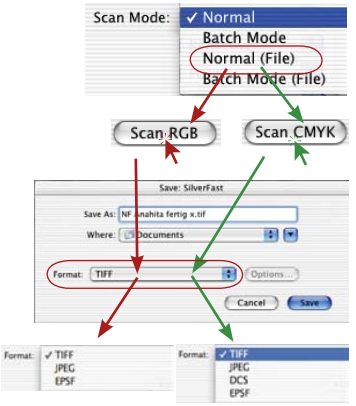
Scan Mode “Normal”

This setting will scan the just activated scan frame of the prescan window and the image file will be opened in the image editor immediately after the scan. The user can then store it from the application as a file.



Scan Mode “Batch”

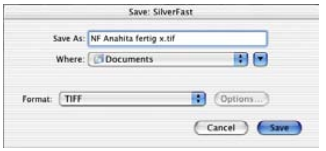
This setting will scan all scan frames of the prescan window and will be opened in the image editor immediately after the scan. The user can then store the images from the application as a file.

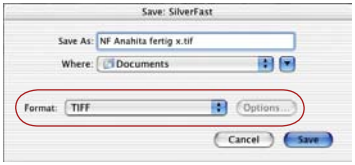


Scan Mode “Normal (File)”

The activated scan frame of the prescan window is scanned with this setting and the image will be automatically saved as a file when the scan is completed.
The setting in the “save” dialogue will determine which file format will be written The “save” dialogue will appear when the button “Scan...“ is clicked.

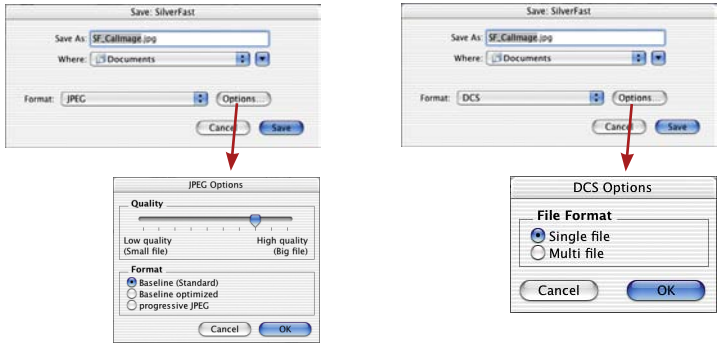
Naming of the scan frame: If the scan frame already has got a name in the *SilverFast* main dialogue, this name will become the actual file name. If no name has been allocated there, the “Save” dialogue will propose “Unnamed 1“. It is advised to allocate an individual name here.



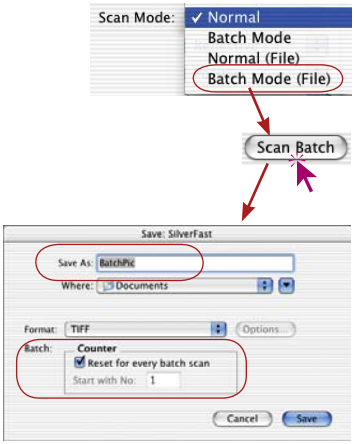


File format: You can choose between various file formats under "Format". The file formats that are offered will depend on whether the scan will be in the RGB (see red arrows) or in the CMYK colour space (see green arrows). The existing table will give you an overview.

In the case of some formats, i.e., "JPEG" and "DCS", an additional box "Options ..." will become active. Additional parameters for these special file formats can be set up.



Scan Mode "Batch Mode (File)"

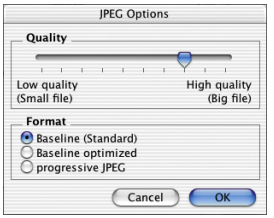


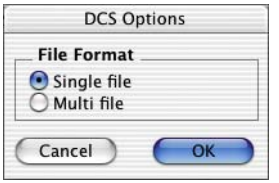
All scan frames of the prescan window will be scanned with this setting and the images will automatically be saved as files upon completion of the scan.
The setting in the "save" dialogue will determine which file format will be written The "save" dialogue will appear as soon as the button "scan batch" is clicked.

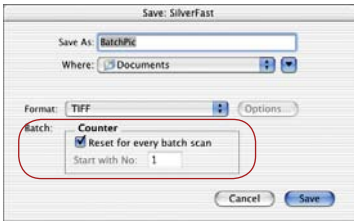
Naming of scan frames: If the scan frame already has got a name in the *SilverFast* main dialogue, this name will become the actual file name. In case no name has been given to the scan frame, the file name "Batch image ..." will be allocated and an incrementing number attached: "Batch Image 0001", "Batch Image 0002", ...

If some of the scan frames have been given a name and some not, there will be a mixture of both principles: "Batch Image 0001", "NameABC", "Batch Image 0003", "NameDEF"...

File format: By using “Format” you can again choose from two different file formats. The prominent table will be easily identified. An additional box named “Options...” will be come active with the formats “JPEG” and “DCS.” Additional parameters can be set for these special file formats.

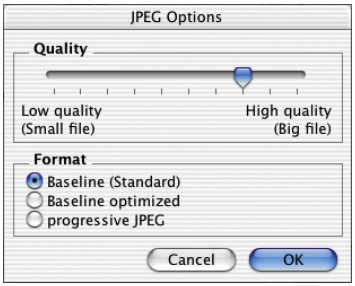






Setting of an image number in the batch: The box “Reset for each batch scan” is activated as a starting set up point, whereby each new batch scan will start with “1” again. The first scan of the batch will get “...0001“ attached.

If the box is deactivated or not marked, *SilverFast* will remember the last scan number (i.e., “...0057”) and will give a consecutive number to the next batch (“...0058 “).



Saving into JPEG File Format

Quality: By means of the slider the user can decide between “low quality with high image compression” and “high quality with smallest image compression”.

Format: Between three parameters can be chosen

“Baseline” is the standard setting. The file format will be universally readable.

“Baseline opimised” will generate a somewhat smaller, optimised file, which will not be readable from all applications and brings about limitations

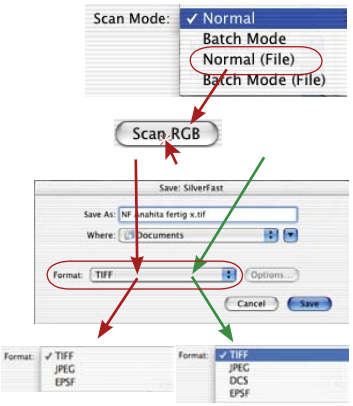
“Progressive JPEG” is a format favoured for the internet. The file will be structured into several resolution layers. During file transfers there will be a low resolution image visible immediately, which will be refined with the progressing transfer until final resolution has been reached.

Saving into DCS File Format

Single file: All separation layers will be saved into a single CMYK file.

Multi file: Each separation layer will be saved into a separate file plus one extra file for preview.

JPEG 2000



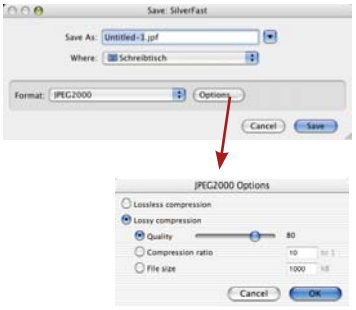
Images may now be saved in the new “JPEG2000” (.JPF) format in all new *SilverFast...Studio* versions.
This option may only be chosen once the scan process has been started, and if the scan mode is set to “Normal (File)” or “Batch Mode (File)” has been selected.

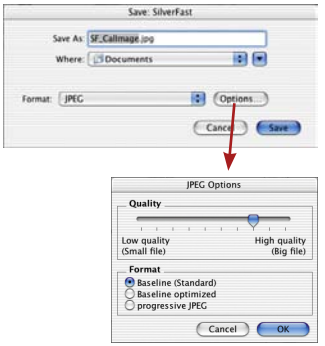
Scan Mode “Normal (File)” or “Batch Mode (File)”

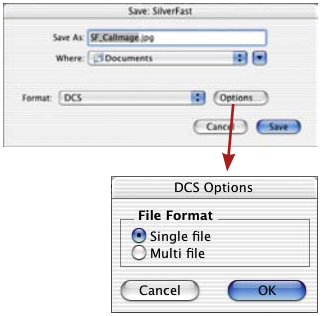
These adjustments advise the software to scan the active frames automatically as a file on to the hard disk.

The setting in the “save” dialogue will determine which file format will be written The “save” dialogue will appear when the button “scan...“ or “process“ is clicked.

File format: You can choose between various file formats under “Format”. The file formats that are offered will depend on whether the scan / process will be in the RGB (see red arrows, images top left) or in the CMYK colour space (see green arrows, images top left). The existing table will give you an overview.
In the case of some formats, i.e. ”JPEG2000“, “JPEG” and “DCS”, an additional box “Options ...” will become active. Additional parameters for these special file formats can be set up.







Reading different file formats

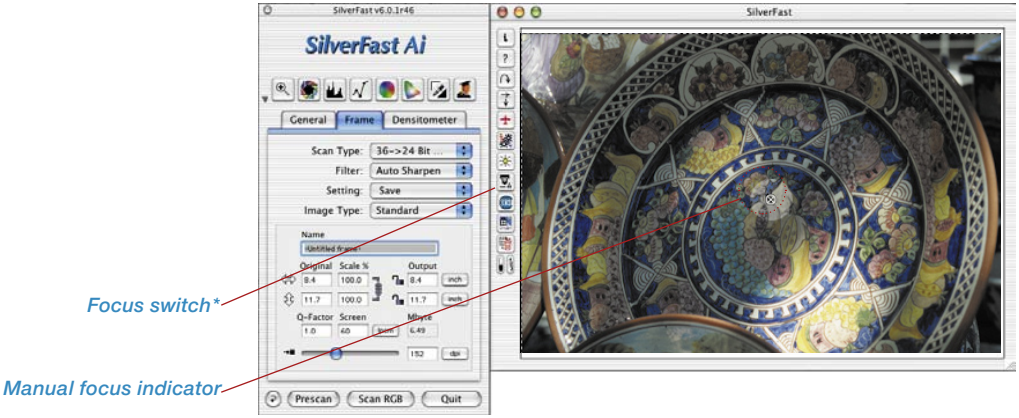
The *SilverFast* applications recognize and open the following file formats:

File format	Channels, data depth (.suffix)	*SilverFast Ai*	*SilverFast SE*	*SilverFast DCProStudio*	*SilverFast DCPro*	*SilverFast DCVLT*	*SilverFast DC SE*	*SilverFast HDRStudio*	*SilverFast HDR*
TIFF	K, 1 bit line art (.tif)	–	–	–	–	–	–	–	–
	K, 8 Bit Grayscale (.tif)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	K, 16 Bit HDR Grayscale, uncorrected (.tif)	–	–	🕮	🕮	–	–	🕮	🕮
	K, 16 Bit Grayscale, corrected (.tif)	–	–	🕮	🕮	–	–	🕮	🕮
	RGB, 24 Bit colour (.tif)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	RGB, Cie-Lab, 24 Bit colour (.tif)	–	–	–	–	–	–	–	–
	RGB, 48 Bit colour, uncorrected (.tif)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	RGB, 48 Bit colour, corrected (.tif)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	CMYK, 32 Bit colour (.tif)	–	–	–	–	–	–	–	–
	CMYK, 64 Bit colour (.tif)	–	–	–	–	–	–	–	–
	All Tiffs afore mentioned alos with LZW	–	–	🕮	🕮	🕮	🕮	🕮	🕮
JPEG	K, 1 Bit line art (.jpg)	–	–	–	–	–	–	–	–
	K, 8 Bit Grayscale (.jpg)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	K, 16 Bit HDR Grayscale, uncorrected (.jpg)	–	–	🕮	🕮	–	–	🕮	🕮
	K, 16 Bit Grayscale, corrected (.jpg)	–	–	🕮	🕮	–	–	🕮	🕮
	RGB, 24 Bit colour (.jpg)	–	–	🕮	🕮	🕮	🕮	🕮	🕮
	RGB, 48 Bit HDR colour, uncorrected (.jpg)	–	–	🕮	🕮	–	–	🕮	🕮
	RGB, 48 Bit colour, corrected (.jpg)	–	–	🕮	🕮	–	–	🕮	🕮
	CMYK, 32 Bit colour (.jpg)	–	–	–	–	–	–	–	–
	CMYK, 64 Bit colour (.jpg)	–	–	–	–	–	–	–	–
JPEG2000	K, 1 Bit line art (.jpf)	–	–	–	–	–	–	–	–
	K, 8 Bit Grayscale (.jpf)	–	–	🕮	–	–	–	🕮	–
	K, 16 Bit HDR Grayscale uncorrected (.jpf)	–	–	🕮	–	–	–	🕮	–
	K, 16 Bit Grayscale corrected (.jpf)	–	–	🕮	–	–	–	🕮	–
	RGB, 24 Bit colour (.jpf)	–	–	🕮	–	–	–	🕮	–
	RGB, 48 Bit HDR colour uncorrected (.jpf)	–	–	🕮	–	–	–	🕮	–
	RGB, 48 Bit colour corrected (.jpf)	–	–	🕮	–	–	–	🕮	–
DCS	CMYK single file, 32 Bit colour (.eps)	–	–	–	–	–	–	–	–
	CMYK multiple files, 4x8 Bit Grayscale + 1x 32 Bit colour (.eps)	–	–	–	–	–	–	–	–
EPSF	K, 8 Bit Grayscale (.eps)	–	–	–	–	–	–	–	–
	RGB, Cie-Lab, 24 Bit colour (.eps)	–	–	–	–	–	–	–	–
	CMYK, 32 Bit colour (.eps)	–	–	–	–	–	–	–	–
PSD	RGB, 24 Bit colour (.psd)	–	–	🕮	🕮	🕮	–	🕮	🕮
Kodak PhotoCD	YCC, (.pcd)	–	–	🕮	🕮	🕮	–	🕮	🕮
CRW (Canon)	RGB, 48 Bit colour (.crw)	–	–	🕮	🕮	🕮	–	🕮	–
CR2 (Canon)	RGB, 48 Bit colour (.cr2)	–	–	🕮	🕮	🕮	–	🕮	–
CS (Sinar)	RGB, 48 Bit colour (.cs1 / .cs4 / .cs16)	–	–	🕮	🕮	🕮	–	🕮	–
DC2 (Kodak)	RGB, 48 Bit colour (.dc2)	–	–	🕮	🕮	🕮	–	🕮	–
DCR (Kodak)	RGB, 48 Bit colour (.dcr)	–	–	🕮	🕮	🕮	–	🕮	–
DNG (Adobe)	RGB, 48 Bit colour (.dng)	–	–	🕮	🕮	🕮	–	🕮	–
ERF (Epson)	RGB, 48 Bit colour (.erf)	–	–	🕮	🕮	🕮	–	🕮	–
HDR (Leaf)	RGB, 48 Bit colour (.hdr)	–	–	🕮	🕮	🕮	–	🕮	–
K25 (Kodak)	RGB, 48 Bit colour (.k25)	–	–	🕮	🕮	🕮	–	🕮	–
KDC (Kodak)	RGB, 48 Bit colour (.kdc)	–	–	🕮	🕮	🕮	–	🕮	–
MOS (Leaf)	RGB, 48 Bit colour (.mos)	–	–	🕮	🕮	🕮	–	🕮	–
MRW (Minolta)	RGB, 48 Bit colour (.mrw)	–	–	🕮	🕮	🕮	–	🕮	–
NEF (Nikon)	RGB, 48 Bit colour (.nef)	–	–	🕮	🕮	🕮	–	🕮	–
ORF (Olympus)	RGB, 48 Bit colour (.orf)	–	–	🕮	🕮	🕮	–	🕮	–
PEF (Pentax)	RGB, 48 Bit colour (.pef)	–	–	🕮	🕮	🕮	–	🕮	–
PEF (Samsung)	RGB, 48 Bit colour (.pef)	–	–	🕮	🕮	🕮	–	🕮	–
RAF (Fuji)	RGB, 48 Bit colour (.raf)	–	–	🕮	🕮	🕮	–	🕮	–
RAW (Leica)	RGB, 48 Bit colour (.raw)	–	–	🕮	🕮	🕮	–	🕮	–
RAW (Panasonic)	RGB, 48 Bit colour (.raw)	–	–	🕮	🕮	🕮	–	🕮	–
SRF (Sony)	RGB, 48 Bit colour (.srf)	–	–	🕮	🕮	🕮	–	🕮	–
TIFF (Phase One)	RGB, 48 Bit colour (.tif)	–	–	🕮	🕮	🕮	–	🕮	–
X3F (Sigma)	RGB, 48 Bit colour (.x3f)	–	–	🕮	🕮	🕮	–	🕮	–

6.10 Focussing the Scanner*

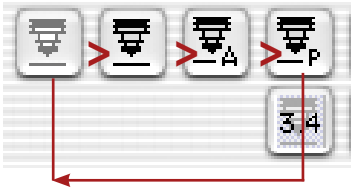
A few scanners* feature a original focussing function*. As known from conventional photography, the focus point can be shifted. Not only can it be altered in distance to the original, but also can it be moved freely to any spot on the image. This function makes it possible to compensate for material roughness of the original. Many slide positives are placed in relatively thick frames or are convex in shape, which - when not taken into account - would cause defocussing of the image.

By clicking on the auto-focus symbol*, the respective focussing mode is turned on or off (refer next page).



Attention!

Which of the focus functions available will depend on the current scanner model!
Some scanner support all focussing functions.
Other scanners instead only support switching auto focus on or off.



Focus function
1. Auto-focus “off”
2. Manual focus “on”
3. Auto focus “on”
4. Focus with preview

The activation of a focus function occurs by clicking the focus button. With each click, the appearance of the button changes, signifying a different function. After four clicks, the first function will again be available.

Auto-Focus “Off”

In the standard position, the focus button is grey. The auto-focus is turned off.

Auto-Focus “On”

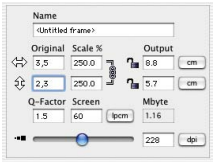
The focus button shows a black symbol together with the letter “A”. The auto-focus is turned on.
Focussing always takes place in the centre of the active scan frame. The focus function orients itself by use of contrast differences in details in the centre of the image. If there is no visual information in this point of the image which can provide sufficient details for the focus function, the auto-focus cannot be successful. The same holds true when the auto-focus encounters a black surface. An error message will appear. In such cases please switch from auto-focus to manual focus.

Manual Focus “On”

The focus button shows only a black symbol of a stylized camera lens. The mouse arrow changes to a pen with which the edge point can be set. The manual focus should be placed on a point on the image where sufficient visual details can be differentiated. Move the mouse to the picture; the mouse pointer changes to a pen symbol. Click on the point in the picture where you want to set the focus. A small circle with a cross appears; the focus point is set.

Manual Focus with Preview

The focus button depicts a black symbol together with the letter “P”. The focus value is displayed in millimetres in an additional icon below

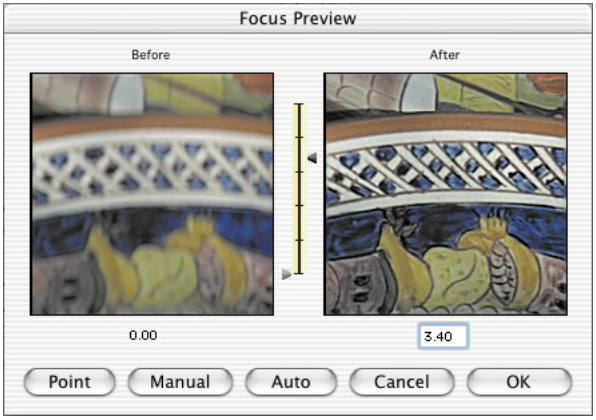


First, set a sufficiently high output resolution for the current frame.

Click first on the focus button. Move the mouse across the picture until the mouse pointer changes to a pen symbol.

Next, click on the point in the picture where you want to set the focus. The point will be marked with a cross symbol.

The “focus preview” dialogue appears and, in the before-and-after window, a preview is produced with the entered resolution. A new scan will automatically begin.

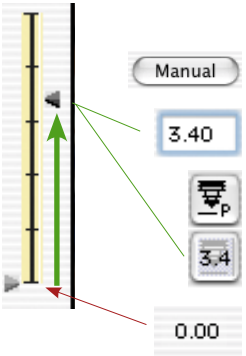


In order to change the focus in the dialogue window, the following tools are available:

1. If the focussing is sufficiently precise, leave the dialogue by clicking “OK”. The entered focus point will be employed in the end scan.

2. The ”Cancel“ button ends the focus dialogue. Focal change will not be used in the end scan. The window closes and the *SilverFast* symbol is available again.

3. If the focussing is insufficient, or if the focussing needs to be checked against a different point in the picture, a new focus point can be placed on the picture via the “Point” button. A new scan will be started.



4. Alternatively, the level of focus can be changed by moving the mouse through the slide controller (between preview images).

   By pushing the right arrow, you can adjust the level of focus via the mouse. The distance of this push is shown in the box under the right preview window and on the button next to the focus button, using “mm” as the unit of measure.

   By clicking on “Manual”, a new scan is started and the resulting preview produced. By clicking “OK” , the level of focus is accepted and used in the later scan.

5. By clicking on “Auto”, you can return to the normal auto-focus function.

6.11 Description of the Special Functions of *SilverFastHDR...*, and *SilverFastDC...*

The scanner independent *SilverFast* versions *SilverFast HDR*... and *SilverFast DC*... principally have the same basic functions of the scanner modules of *SilverFast Ai*....
The differences are listed in detail in Chapter 6.11.

What are the Basic Differences?

SilverFast Ai, SilverFast Ai Studio and *SilverFast SE*

SilverFast Ai is a true scan software and was developed individually for single scan types. The supported scanners are directly controlled by utilizing the internal dynamics of the scanner. The result is maximum quality.

SilverFast Ai is the name of the full version. This version may be extended by two features (at the time of printing this manual). “IT8 calibration” and “Studio Upgrade”. The IT8 calibration is included with several scanners, and may be purchased optionally for other scanners. The *Studio Upgrade* is generally available only as an option and turns a *SilverFast Ai* version into a *SilverFast Ai Studio* version.

SilverFast SE is the special edition of the *SilverFast* scanning software. The dialogues and functions are limited and more recco-mended for novice users.

SilverFast HDR, SilverFast HDR Studio

SilverFast HDR works without a scanner and is used as a tool for optimising existing pictures. All RGB image files having a colour depth of 24 bits (8 bits per channel) and 48 bits (16 bits per channel) can be processed. The files can be in Tiff or JPEG.

SilverFast HDR Studio also works with RAW data of many digital cameras.

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SilverFast DC VLT, SilverFast DC Pro, SilverFast DC Pro Studio, SilverFast DC SE

The *SilverFast DC...* versions are also hardware independent software packages for imaging that have been specially adapted for use by digital photographers.

SilverFast DC... can read and open TIFF, JPEG , 48bit TIFF scanned images and most of the common RAW data files of modern digital cameras. Which camera and which RAW data is already supported can be seen on *LaserSoft Imaging's* homepage:

http://www.silverfast.com/show/dc-cameras-raw/de.html

SilverFast DC SE is a special edition of *SilverFast DC VLT*. It can only open the common 24 Bit standard-formats (JPEG, TIFF), and is limited in its functionality and recommended for novice users.

Attention!

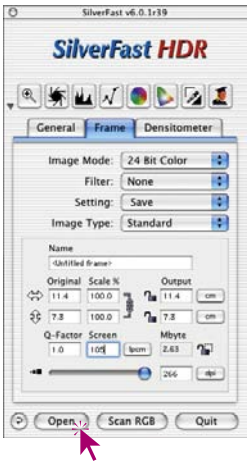
Many functions are similar or the same in all *SilverFast* version. This is especially true for the hardware independent versions of *SilverFast*.

This is the reason why the manual should be cross-read!

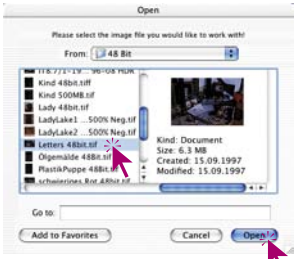
This is why the following passage only briefly describes *SilverFast HDR* since almost all functions are described in detail in the passage about *SilverFast DC*.

The principal functions of *SilverFast*, like for example, the usage of the image automation, etc. are described in detail in the main part of this manual.

Opening an Image with the “Open” Button



Clicking the “Open” button activates a dialogue for selecting the device or folder containing the images:



Open an image directly by double clicking on the name or by single clicking on the name and then the “open” button. The image will be opened within the *SilverFast HDR...* prescan window.

The Virtual Light Table (*VLT*)

The *Virtual Light Table* named “VLT”, is available from *SilverFast* Version 6.0.2 onwards, and replaces the previously used dialogue “Image overview”.
The *VLT* is an outstanding tool, because it combines the four most important steps in one single window while working with images:

- Viewing, getting an overview and searching
- Sort, look over and organizing
- Processing and optimizing of images
- Printing of contact sheets and single images

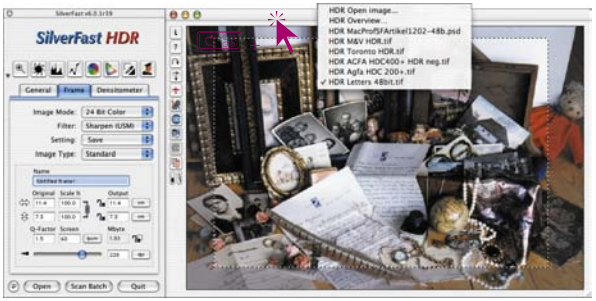
The usage of the *VLT* functions are more precisely described in the following section about *SilverFast DC...*

Alternative Opening of Images

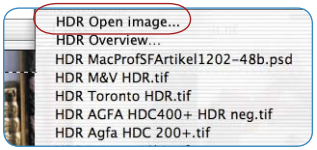
Pressing the “Command“ key and clicking on to the header line of the *SilverFast HDR* prescan window opens a popup menu. Window users can use the right mouse key to open this menu.

Macintosh
Click into header while keeping “Command“ key pressed

Windows
Right click mouse into prescan window

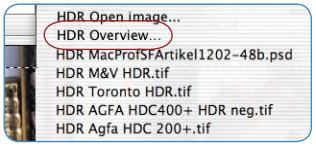


The pop up lists the items “open HDR image”, “HDR overview” and the names of the previous images. A check marks the name of the current displayed image in the prescan window.
The individual entries in detail:



HDR Open Image

Opens a (see: page 255, “Open an image with the “open” button”) dialogue box which requests the device or folder with the images.



HDR Overview

Opens a (see: page 255, “Open an image with the image overview window”) dialogue box used for selecting an image from the overview window.

SilverFastDCVLT, -DCPro, -DCProStudio

SilverFastDC... versions are especially adapted for use with images that were captured by digital cameras. Hence, *SilverFastDC*... versions are able to directly read most of the common native camera formats.

An overview of the formats and the version of *SilverFast* that can read the specific formats can be found in section 6.9 “Reading different file formats” of the manual.

The “virtual light table” called “VLT” is an excellent tool that combines the four most important jobs of digital imaging in one window:

- Viewing, getting an overview and searching
- Sort, look over and organizing
- Processing and optimizing of images
- Printing of contact sheets and single images

If the interaction of camera and computer functions properly, the images may be taken directly from the digital camera by the *VLT* for further processing.

When launching *SilverFastDC...* the *VLT* will open. By clicking these buttons, the user may switch between the *VLT* and the *SilverFast* main dialogue.

Working with RAW Data in *SilverFast DC Pro*

SilverFast DC Pro is able to directly read the most common RAW data formats of professional digital cameras.
Apart from the previously supported classical 48Bit RGB-Tiff format, the RAW data formats CRW (Canon), CR2 (Canon), CS (Sinar), DC2 (Kodak), DCR (Kodak), DNG (Adobe), ERF (Epson), HDR (Leaf), K25 (Kodak), KDC (Kodak), MOS (Leaf), MRW (Minolta), NEF (Nikon), ORF (Olympus), PEF (Pentax), RAF (Fuji), RAW (Leica, Panasonic), SRF (Sony), SR2 (Sony), TIFF (PhaseOne) and X3F (Sigma) are now supported. The complete list of supported cameras can be found on our website at:
http://www.silverfast.com/show/dc-cameras-raw/en.html

System Requirements

Working with RAW data implies working with large files. Subsequently, the system requirements are quite high.

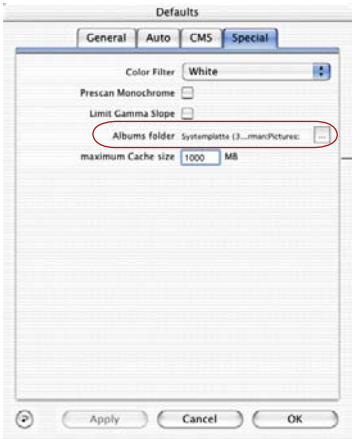
- **System Requirements Macintosh**

  MacOSX, 256 MB RAM, 150MB free disc space

- **System Requirements Windows**

  CPU 1 GHz, 256 MB RAM, 150 MB free disc space

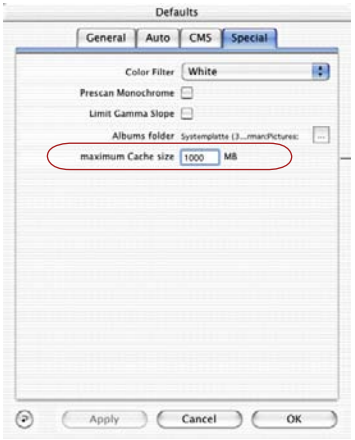
Presets and Cache



In order to ensure optimum usage of the computer system, some thoughts should be devoted to memory requirements and the expected file sizes.
Accordingly, 2 presets should be made in the palette “General” / “Options...” / “Special”

- **Setting the Path for the Album Folder**

  Here, the user may generate and assign an individual directory for the saving of the *SilverFast DC* albums.



- **Setting the Cache Size**

  In order to convert large amounts of RAW data in the background, a respectively large cache memory size is needed.

  The conversion of RAW data means that a RAW data file is converted into an uncompressed “48Bit RGB Tiff” format.

  An example of a generous calculation of the expected memory assignment:

  A digital camera with 6 megapixels delivers a RAW data file of about 6 MB. Converted into 48Bit RGB this will mean a file size of almost 36 MB.

  6 MB *(RAW)* x 3 *(RGB, 8 bit per channel)* x 2 *(RGB, 16 bit per channel)*.

  If, for example, 100 RAW data files with an average size of 6 MB are converted, the required cache size increases to around 3,6 GB. An adequately large hard drive is recommended.

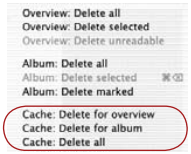
  In case the capacity of the hard disk is reached while converting, *SilverFast* halts and displays a corresponding message. The user then has the chance to alter the assigned cache size in the “Options” / “Special” dialogue.

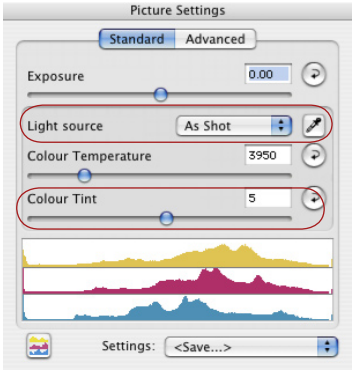
  Naturally, *SilverFast* can continue without increasing the cache size. If the limit is reached and additional files are to be converted, *SilverFast* overwrites the cache of an older image. This happens analog to the cache memory as is done in internet browsers.

  The older image thus loose its blue dot, and the new image will receive it after conversion.

  The contents of the cache memory remain until the user actively deletes it.

The cache may be deleted directly by means of the popup menu “Delete”.





- **Internal RAW Data Conversion Profile for your Camera (*SilverFastDCPro*)**

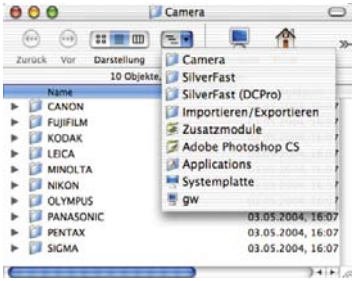
  LaserSoft Imaging has developed special internal RAW data conversion profiles that are can also be installed with the software.

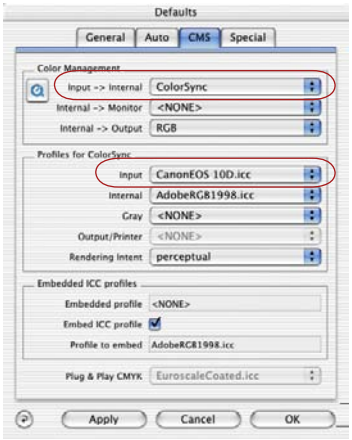
  Note: Only if such a profile for your camera has been installed will a third slider “Colour tint“ and the light source pipette appear in the “Image settings“ window. If this is missing, either no RAW data file was opened or no “internal RAW data conversion profile“ was found the image. Please refer to our website for a complete list of supported cameras.

  If no profile can be found, none will be used. In this case a simple, linear conversion of the RAW data is done which does not always deliver adequate results.

  In case your RAW data images in *SilverFast DC Pro* generally have colour problems, it is likely that no RAW data conversion profile for your camera has been installed.

  These RAW data conversion profiles are found in the installation folder of *SilverFast DC Pro* in the folder “Camera“.





- **Manually selecting a camera specific ICC profile**

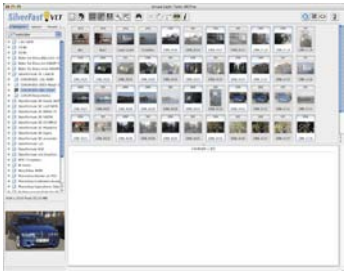
  By means of the implemented IT8 calibration of *SilverFast DC-Pro*, it is possible to generate an ICC camera profile manually.

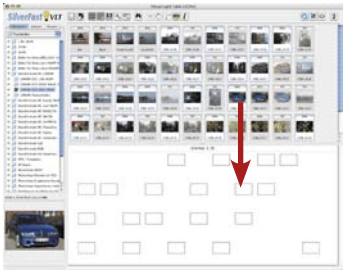
  The ICC profile that was generated by *SilverFast DC Pro* by means of the embeded IT8 – Calibration can be selected in *SilverFast's* main dialogue: “General” / “Options...” / “CMS” in the menu “ColorSync profiles“ / “Input”.

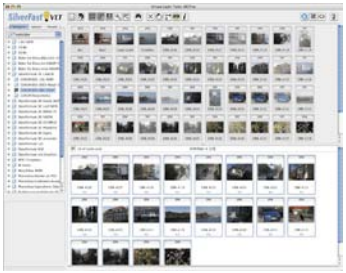
  Please ensure the following settings: “Colour-Management“ / “Input > Internal” set to “ColorSync” (Windows: “ICM”).

Workflow for Conversion of RAW Data Files

SilverFast DC Pro allows a quick conversion of RAW data files in the background.
This is done by choosing the images to be converted in the overview of the *VLT*, and dragging them into an album.







***Left**: First select the images that are to be converted*

***Middle**: Drag them into an Album*

***Right**: The conversion commences immediately*

The conversion of camera RAW data was fully automated and not alterable until *SilverFast DC Pro* version 6.1.0. The progress of the conversion was displayed by a progress bar in the header on the *VLT*.

From version 6.2.0 onwards, this has been changed. The user can now decide if and when he wishes to perform a conversion.

As soon as camera RAW data are moved into the active album from the browser or the overview, a small button with a green arrow is shown in the header of the album window.

The amount of used cache memory is displayed next to it.

In case the cache is almost full, it may be deleted or the cache size may be increased before launching.

Clicking the green arrow commences the conversion. The arrow turns into a red square.

The conversion is a background task, allowing continuous use of *SilverFast*. If, however, the album is changed, the conversion process is stopped automatically.

The conversion status is displayed in the text next to the button. It can also be seen from in thumbnails or the progress bar.

The conversion can be halted at any time by clicking the red square. The square will then turn back into a green arrow.

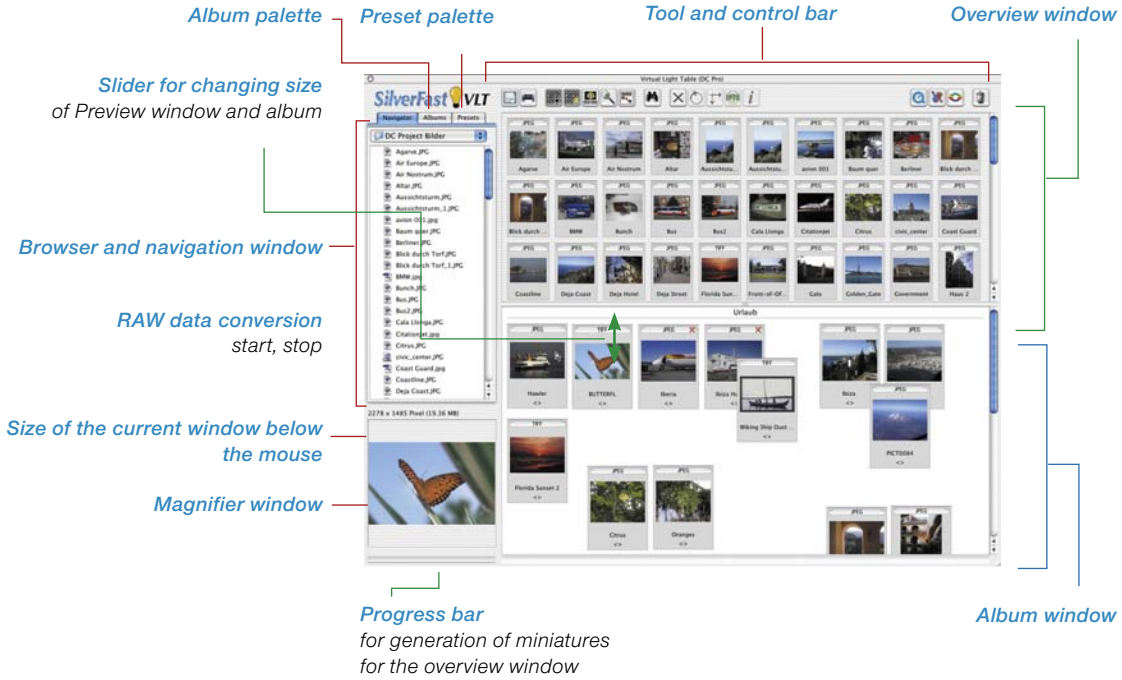
If the RAW image has been converted, its thumbnails in the album are marked with a blue dot on the upper left.

Because *SilverFast* can do the conversion as a background process, the user has the possibility to continue his work at the same time. This could be the continuation of editing previously converted images, editing different albums or optimization of a different image in *SilverFast's* main dialogue.

Launching the Virtual Light Table (*VLT*)

Click on the vertical button bar, left of the preview window, the “VLT” icon. The *VLT* opens immediately and fills the entire monitor. The *SilverFast* main dialogue will be hidden

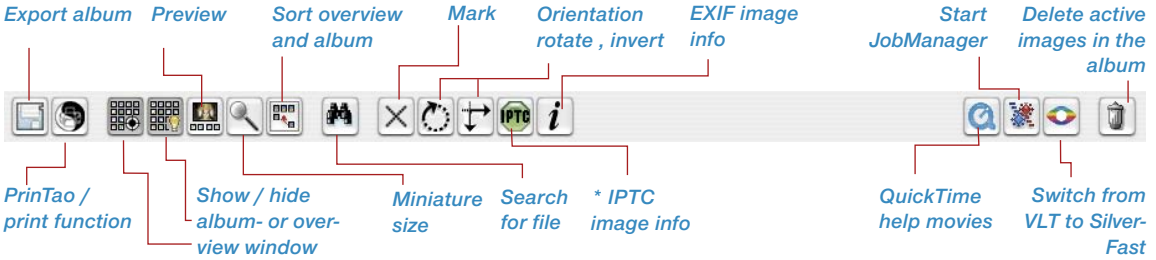
Arrangement of the *VLT*



The *VLT* is divided into five areas:

- Browser and navigation window
  Alternative: Album palette with albums, or Preset palette
- Overview window
- Album window, the actual working area
- Magnifier window
- Tool and control bar

Tool and Control Bar Details

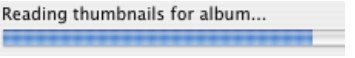


** This function is only available with special SilverFast... versions.*

Browser- and Navigation Window

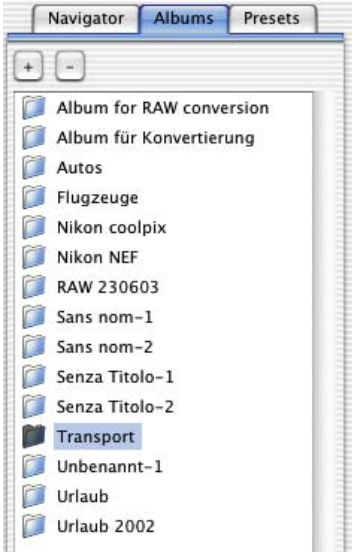
By means of the browser, the entire directory as well as all external storage medium may quickly and easily searched for images. Depending on the camera, the images can also directly be accessed from the device.
The upper popup menu shows the directory. It is possible to jump into any folder.

The contents of the folder are immediately displayed in the long roll bar. The images may be seen here, next to the folders. *SilverFast* displays thumbnail images for any picture recognized.
A progress bar describing the background generation progress of thumbnails (max 512 x 512 pixels) is displayed below the magnifier window.



The thumbnails are saved in the cache of the file “SFthumbs“. The cache may be emptied by the context menu at any time. When using read-only files (on DVD or CD), no thumbnails are generated as they cannot be saved on the medium.

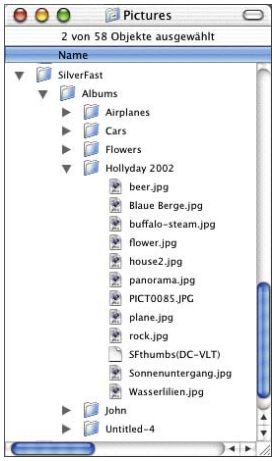
Album Palette



The images are managed in the album palette and the respective album window. Any desired number of individual albums may be created. The contents of the album are displayed in the *VLT* window and can be processed there.

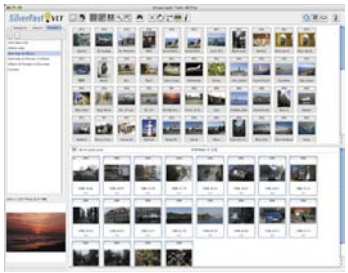
New albums are created as an empty directory in the “Images” folder, located in the sub-directory “SilverFast \ Albums”. By dragging images from the overview window, from the navigator or from the desktop into the album window, copies of the original files are created. The original files always remain untouched.

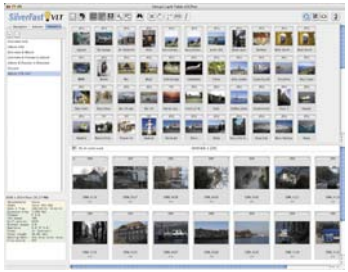
By means of the “Plus” button a new album is created. By clicking the “Minus” button, the active album is deleted.



Presets Palette

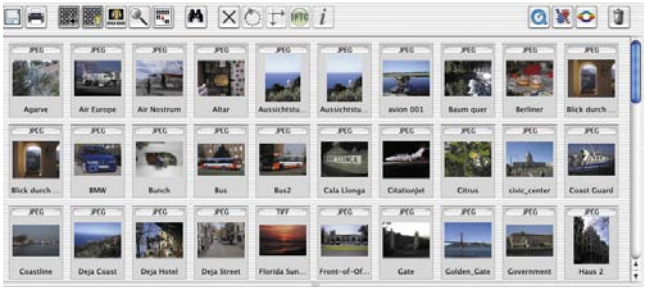
By means of the five defined entries in the “presets” palette, the user-interface of the *VLT* may be changed by a single mouse click. These are: the parameters of the *VLT*, the visible *VLT* window, the thumbnail sizes, setting of the magnifying window and the parameters of the full image view.
Individual settings of the user may be saved and deleted by clicking on to the “Plus”/”Minus” buttons.





Overview Window and Toolbar

If *SilverFast* recognizes images in the chosen directory, it will display miniatures in the overview window.



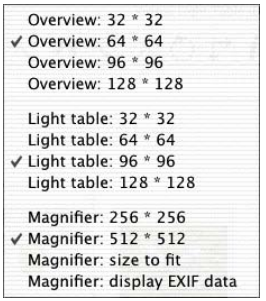
For later use, *SilverFast* generates a small file called “SFthumbs(DC)” into the chosen image folder.

Imported camera images are automatically orientated (rotated), if *SilverFast* find the orientation information within the image data.

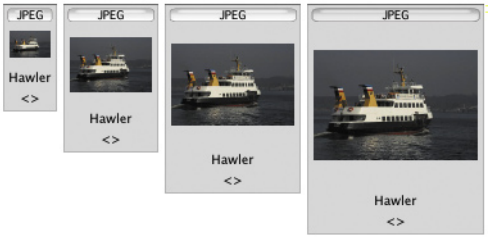
The overview window is freely scalable. The scroll bar on the right allows a quick overview even of a large amount of images.

If a max overview is desired, the album may be hidden by clicking the “Hide/Show” button.

Clicking the button “Thumbnail size” allows the altering of the miniature sizes varying from 32x32 to 128x128 pixels. The example shows the difference in sizes:



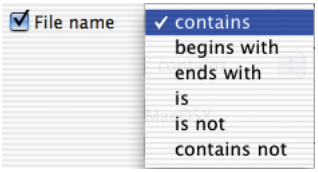
The magnifier window can display up to 512x512 pixels. By means of “Display fitting” the image will always be displayed in maximum size of the magnifier window. By clicking “Show EXIF data” some of the basic EXIF files may be viewed in the magnifier window.

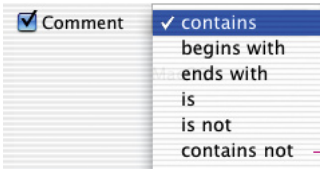


Size comparison
32^2, 64^2, 96^2, 128^2 pixel

Searching

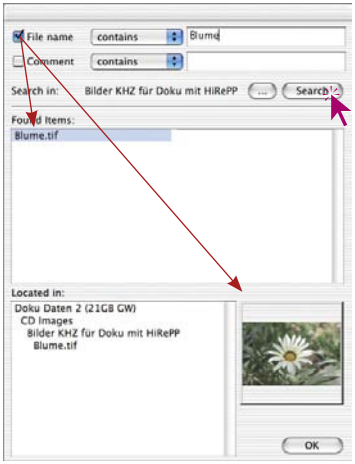
If you wish to directly search for a filename or the image comments, a simple click on the “search” button is sufficient. More search criteria may be entered:





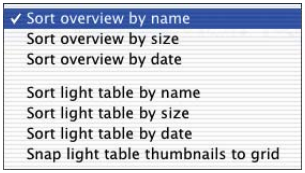
The “Directory” button marks the directory to be searched.
An album to be searched can alternatively be chosen here.

The search is started by clicking on the “Search” button.

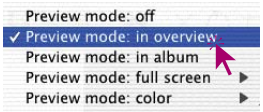


All images that match the search criteria are immediately displayed in the middle window. By clicking on the file name, the entire path is shown and the miniature is displayed in the window.
The found images may be dragged into the album window. By keeping the “Command” key pressed, single images may be added into the selection, and if the “Shift” key is pressed an entire series of images is marked.
Pressing “OK” closes the dialogue.

The miniatures in the overview window and album window are also sortable by the respective buttons name, size and date.



By means of the “display preview” button it is possible to display an enlarged activated image. The overview or the album windows are used for this purpose.



Activate Preview mode:

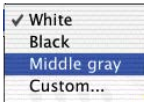
Full screen preview ⌘ + SHIFT + F
or type *Space + clic*

The “Preview mode; entire Monitor” option allows another size adjustment.

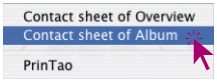
With activated Preview mode:

Next image →
Previous image ←

By the “Preview mode: Colour” option, the background colour of the monitor may be selected.



By clicking the button “PrinTao” \ “Contact sheet overview”, the contents of the overview window may be printed like a contact sheet. The adoption of the image sizes is done automatically.



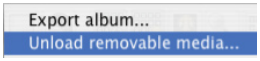
The header of the contact sheet includes the path and the page numbers.

Export Albums

The images of any album as well as all set parameters may be saved by clicking the “Export Album” button.
By default the albums are saved in the “Images” folder of the registered user in the sub directory
“SilverFast” \ “Albums” (Mac OS X)

Windows: Desktop \ user data \ user Images \ SilverFast \ Albums

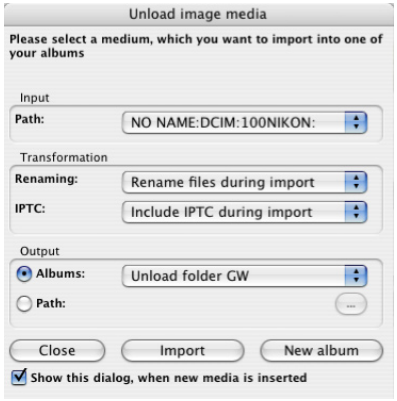
Unloading Camera Storage Media

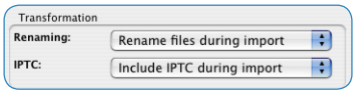


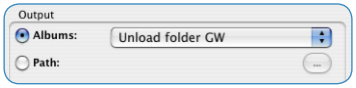
SilverFast allows reading and copying of data from a camera or for example flash cards, directly on to the hard disk. During this process, predefined IPTC information of the images may be entered. These images can also be renamed automatically.

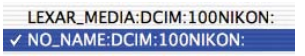
Workflow for Unloading

- Launch *SilverFastDC, -HDR* and the *VLT*
- Attach camera or card reader observing the security regulations for these.
- If the camera or medium is detected, the Import dialogue “Unload images“ appears.









- The detected storage mediums are displayed under "**Input / Path**". If more than one medium is found, please choose the correct one.

- The field "**Transformation**" describes how images are to be treated when importing.

  The menu "**Renaming**" allows complex changes of file names of single or all imported images.

  The menu "**IPTC**" offers additional link to IPTC information of the imported images.

- The destination of the imported images can be set under the "**Output**" dialogue. By clicking "New album", a new and empty album is generated.

- The import dialogue will then open with each new media that is attached - as long as the *VLT* is open.

  The small check box "Show this dialogue when new media is inserted" can be activated for comfortable import.

Attention!

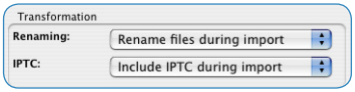
Prior to removing the storage media it should always be removed by the system to avoid damage and loss of data.

Please refer to the respective operating instructions!

Re-naming Images Automatically

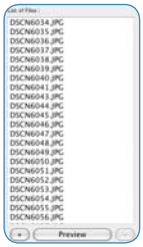
The re-naming of images can be done while unloading them or later, with already saved image files.

Automatic Re-naming while Unloading



The “re-name“ menu allows complex changes of filenames of any part of, or the entire collection of imported files.

The re-naming dialogue is divided into 5 parts:



- **Image List**

  All images that have been found on the storage device or that have been selected by the *VLT* are listed here.

  More images may be added by means of the “**plus**“ button, and images may be removed by the “**minus**“ button.

  The button “**Preview**“ and “**Original**“ is a switch. By this the new names or the old names of the images can be shown.

- **Settings for New Names**

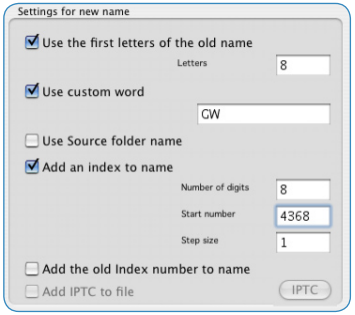
  The check boxes define how the old file names are to be treated.

  “**Use the first characters of the old name**”: Specifies the number of characters that are to be used from the old file name. By this means, for example, an old camera-specific numerical system may be given new names that are added in front of the previous names of the files.

  “**Use custom word**“ - The entered text will be added in 2nd position to all file names.

  “**Use source folder name**“ - if this field is checked, the name of the directory will be added in 3rd position of the new name.

  “**Add the old index number to name**“ - by this field, a new numerical system can be added to the file names in 4th position.

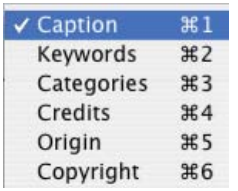


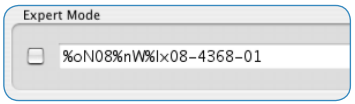
"**Add the old index number to the name**" if checked, this will add the old, already used file name in 5th position.

"Add IPTC to file" If IPTC information is to be entered (e.g. Image author, image rights, etc.), it can be done here.

Clicking the "IPTC" button opens the respective dialog. The IPTC dialogue is divided into 5 separate text fields. By means of the "Previous" / "Next" buttons, the different areas can be reached.

A defined IPTC dialogue may be saved and reloaded at any latter time.





- **Expert Mode**

  Experienced users may enter the file names directly, as a kind of program command..

  Every check box in the "Settings for new names" dialogue resembles a shortcut, consisting of the percent symbol and 2 letters, followed by the used values.

  The commands are entered without the "Space" key separating them.

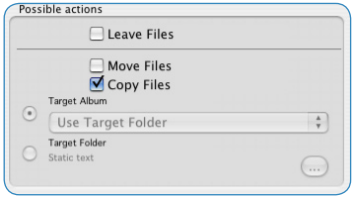
  Example: %oN14%nW U-Test %oF%lx%04-0-01%lt

  %oN14: The first 14 letters of the old filename shall be used

  %nW U-Test: the images are added with the new name "U-Test" - NOTE: The spaces - they are applicable here

  %lx01-0-01: The images receive an index that starts with "Zero" and are increased by "One" for every additional image

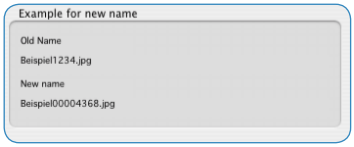
  %lt: the old index of the images is added to the new name at the last position



- **Possible Actions**

  In this part of the dialogue it is decided if the images are to be renamed, moved or copied while importing them.

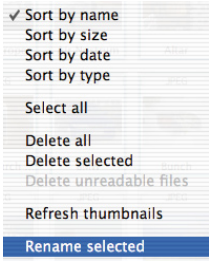
  If images are moved or copied, the destination is to be specified. Any album or any directory may be chosen here.



- **Re-naming Example**

  A demonstration how the set parameters will affect the file names.

Subsequent, Automatic Renaming

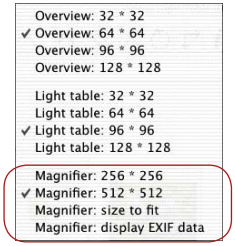


This action is launched from the *VLT*. First select the images to be renamed from the *VLT* overview.
Next, use the context menu (Windows right mouse click) to choose the option “rename selected“; the respective dialogue opens.

Once the renaming dialogue has been opened, any number of images may still be added. The user is not limited to just one source directory.
The usage of this dialogue is the same as the one already described earlier under “Renaming images automatically“.

Magnifier

The magnifier may be used in both the overview window and the album. If you move over any miniature, the contents of the image are immediately displayed in the magnifier window.



By clicking the “Size of miniatures” button the display size of the magnifier is adjustable in two steps, either 256 x 256 pixels or 512 x 512 pixels.

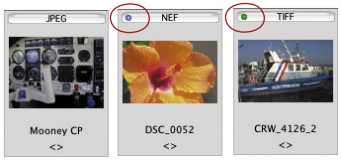
In the highest level there will be a slight increase in the size of the display so that the viewable area will move with the mouse.

By means of the “Display fitting” button, the image file is always displayed in maximum size within the magnifier window.

By clicking “Show EXIF data” some of the basic EXIF files may be viewed in the magnifier window.

Above the magnifier window the pixel size of the current image is displayed.

Blue* or Green Dots within the Thumbnails

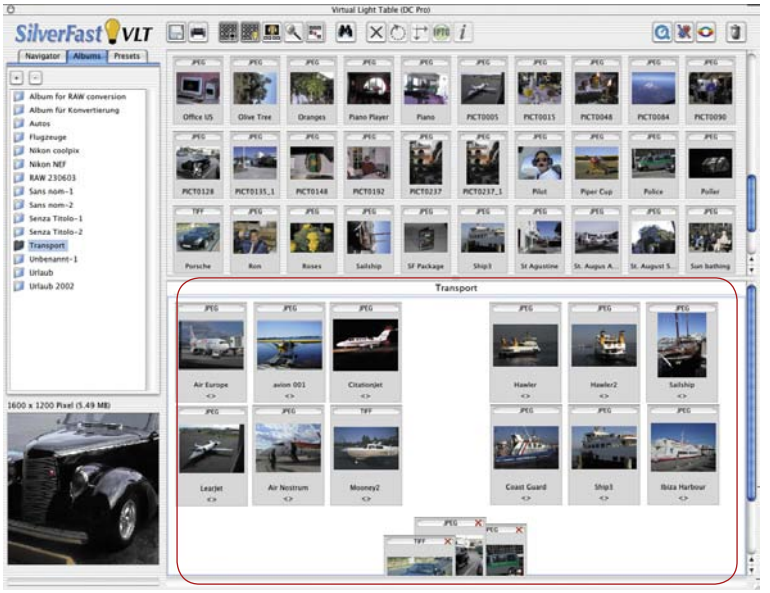


RAW data images that are already converted are marked by a blue dot. These dots may be visible in the overview and in the album. Green dots mark images that have previously been corrected via the main menu of *SilverFast DC*, and been saved back as a copy into the album. Green dots are only available in the albums.

** This function is only available with special SilverFast... versions.*

Album Window
– the Central Working Place of the *VLT*

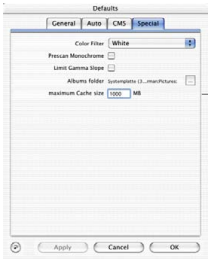
All previously introduced parts and functions group around a central window in the *VLT* – the album window. This is the main working area.



All directories containing image data are identified and saved by means of the browser. The central album window now acts as an organizer for these images.

Any number of individual albums are available. By clicking the album names in the album palette, the user may switch between the albums directly.

When switching, merely the album window window is changed. The browser and the overview window remain untouched.



The path for saving the albums may be set to “General-palette / Options... / Special-palette / ..”

For *SilverFast DC Pro*, the size of the cache memory may also be set here.

Drag & Drop

“Drag & drop” is the quickest and easiest working method. Images may be dragged out of the browser, out of the overview, out of the search dialogue or even directly from the desktop into the album window. Capture the files, drag them over the album window and release the mouse button.
Even entire folders may be copied directly from the desktop by this method.
If the album window is hidden, images may be dragged directly onto the “Show / hide album” button, or onto an album name in the album palette.

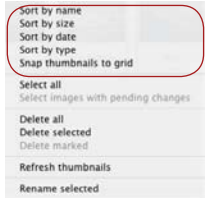
Each newly dragged image file is active; this is shown by the coloured border and the bright background colour.

Sorting Images in Album Window

All images dragged into the the album may now be sorted. The easiest way is by drag & drop.

Choose all
All images in the active album can be chosen by the “Command A“ combination. (Windows “Ctrl A“)

By using the context menu (Mac: “Ctrl” key, Windows: right mouse button) these images may be sorted by name, file size, type or date and aligned automatically in the album window.



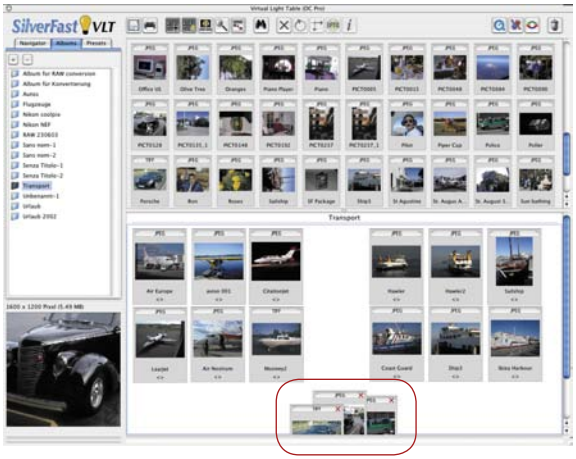
This can be done in two ways:

Sort by drag & drop: Activate the desired by a single mouse click and drag it onto an album in the album palette. Activate the desired image by clicking on it and dragging it over any of the three other *VLT* icons.

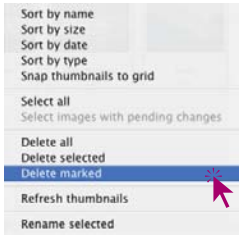
With the “Command” key pressed (Windows. “Ctrl” key) more single images may be marked and added to the selection.

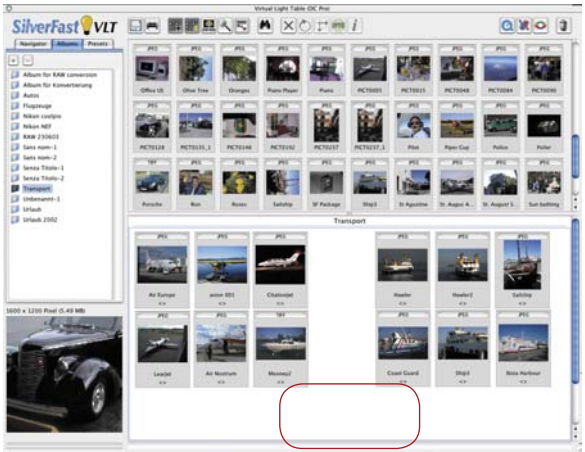
Naturally the images are also manually re-positionable and re-sortable within a one album.

Sort images by marking: First click on the “Mark” button. The mouse pointer switches to a cross as soon as it touches an album window. By clicking onto an image it will be marked with a little cross in the upper right corner.



The undesired images may then be deleted by the context menu.

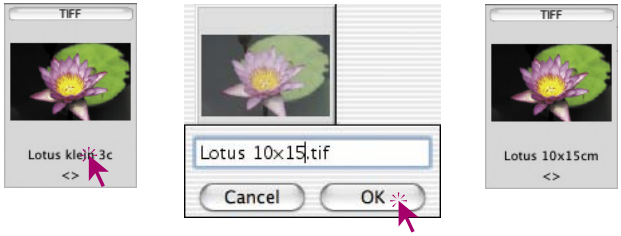




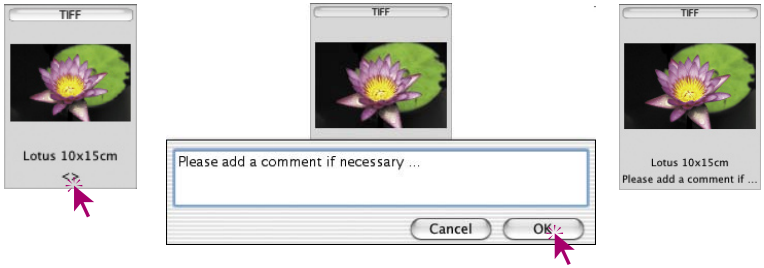
Editing Name and Image Comments in the Album

A small text field for image comments is available beneath the image name below the miniatures. Both may be edited in the album

Editing the file name: Click the name



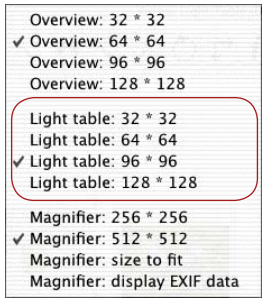
Editing the comments: click on the empty tip of the brackets; i.e. on an already existent comment.



Setting the Size of the Miniatures in the Album Window

The thumbnails of the images are adjustable in their size, just as they are in the overview window. Again, four levels are available.

These settings are then valid for all albums.



Rotating and Flipping Images in the Album

The images in the album window may be rotated and reflected by these two buttons.
The **rotation** is done clockwise in 90° steps; counter-clockwise if the “Shift” key is pressed.
The **reflection** is done by clicking the respective arrow head. By clicking the right arrow the image is reflected horizontally; and vertically by clicking the other arrow.

When clicking onto the rotation- or invert tool, a popup will appear stating that the selected image are being transformed without loss of data.
JPEG files will immediately be transformed without loss of data. In all other formats, only the thumbnail will be transformed initially. To display pending changes in the image, the file name will be marked in red. The marked images may then be selected by means of the context menu “Chose images with pending changes”, or Drag & Drop it into the *JobManager* to be transformed there.

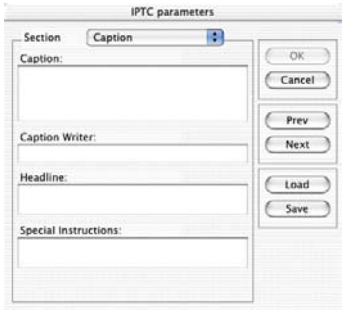
Printing the Album Contact Sheets

By means of the “PrinTao” \ “Contact sheet of album” button, the sorted contents of the album window can be printed like a photographic contact sheet. The adoption of image size, number of pages etc. is done automatically.
Each album is to be printed individually.

Only the page number is printed in the header of the contact sheet.

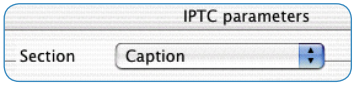
IPTC Image Information in the Album *

Attention: This function and the respective button are only available with *SilverFast DC Pro...*!



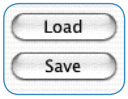
By clicking this button, the extensive IPTC image data may be viewed and edited for an active image in the album.

"IPTC" means "International Press and Telecommunication Council" and includes a standardised collection of information data which may be used by the image-authors, the holders of the image rights as well as image users for database purposes. Apart from copyright issues, the author may enter further data such as image title, date of image, keywords etc. By means of a database, the images may then be searched for specific criteria, making specific searches easy and fast.



A variety of palettes is available in the "Selection" menu.

The entered IPTC data may be saved by clicking the "Save" button for reoccurring files.

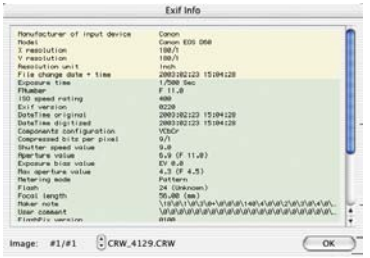


By clicking the "Load" button, the set and saved IPTC data may be recalled.

** This function is only available with special SilverFast... versions.*

Gathering Image Information (EXIF)

By clicking this button, all EXIF information of the image (if available) is displayed.



In this example the complete EXIF information is shown in the left window, and the information of a 48bit RAW data scan on the right.

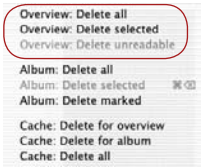
Size of the Album Window

The album window is freely scalable. The scroll bar on the right allows a quick overview even of a large amount of images.

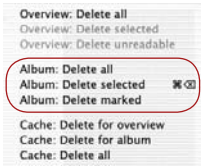
If a max overview is desired, the album may be hidden by clicking the “Hide/Show” button.

Deleting Images in the Albums

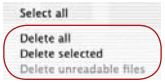
By means of the popup menu “Trash” the images in the overview and the album may be deleted.



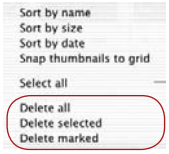
Popup menu “Trash”
for the overview *for the album*



With help of the the context menu (Macintosh: Ctrl + click, Windows: right mouse button) images may be deleted too.



Context menu
for the overview

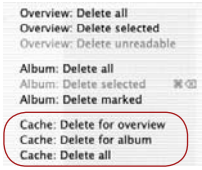


for the album

By the “drag and drop” function entire albums may be pulled to the trash.

Deleting the Cache Memory *

The cache memory saves temporary files as well as help files from the RAW data conversion. This cache memory may be directly deleted by the popup menu “Delete”.
The path for saving and the cache size may be entered in the main menu of *SilverFast DCPro*: “General palette / Options... / Special palette / ...”

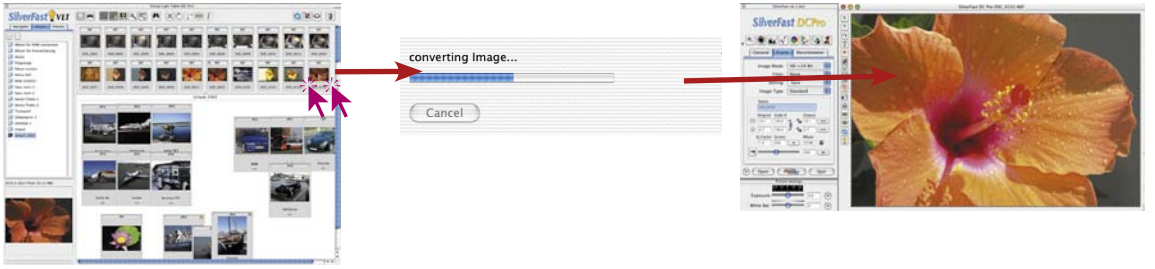


** This function is only available with special SilverFast... versions.*

Direct Optimization in *SilverFast* Main Dialogue

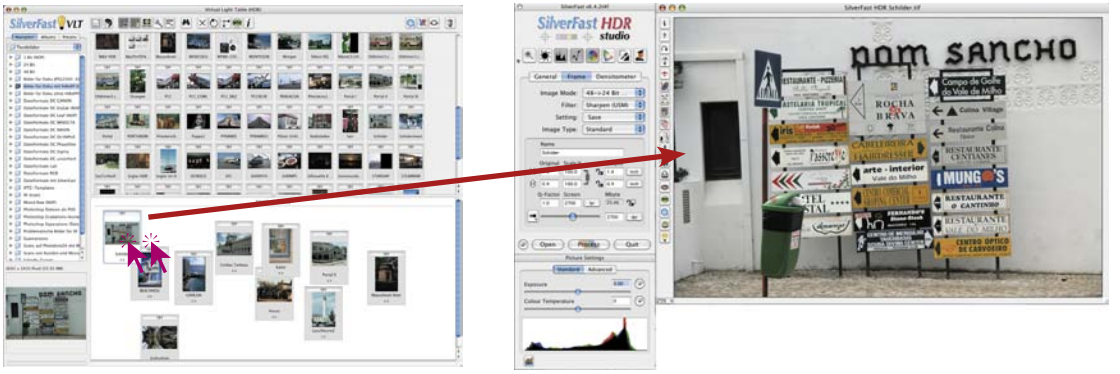
By double-clicking an image in the overview or album window it is directly passed on into the *SilverFast* preview window.

Double-clicking on an unconverted RAW data file (only possible in *SilverFast DCPro*), will commence the conversion. The progress is displayed in the window.



SilverFast DC Pro

Double-clicking a RAW data file in the VLT will start the conversion, and will open the file in the main menu after that.



SilverFast DC, -HDR

Double-clicking an image file in the VLT opens this file directly in the main menu.

All *SilverFast* tools are again available here.

** This function is only available with special SilverFast... versions.*

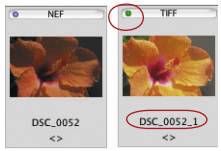
The thumbnails of the RAW data images are marked with a blue dot after successful conversion.

After finishing the optimisation, the image may be calculated and returned to the album as a corrected image by clicking the “Process” button.

Please note that the option “To album” is selected in the “General” palette in the *SilverFast* menu “Process mode”!

If not, the corrected image will be placed directly into the application, e.g. Photoshop; will be opened or placed in a different, yet to be distinguished directory.

The finished image is marked with a green dot in the upper left corner when placed back into the album. A numeric value is added behind the file name: “Name_1.jpg”.



If the optimisation of all images is done, the final images may be relocated directly out of the album into any different directory by means of the export button.

** This function is only available with special SilverFast... versions.*

Optimization by *SilverFast JobManager*

The second possibility to optimize images is the passing on to the *JobManager*.
This is recommended if time is to be saved and several images or even entire directories are to be optimized.

The *JobManager* is activated by clicking the respective button in the *VLT* toolbar. The selected images may then be passed on to the *JobManager* by the drag & drop function and will be processed there.
The selected images may directly be be handed over to the *JobManager* from the *VLT* windows by drag & drop.
Even complete albums may be draged into the *JobManager* window.

Unconverted RAW data images* are converted when handed over to the *JobManager*. This is done in the background. Editing these images is only possible after complete conversion.

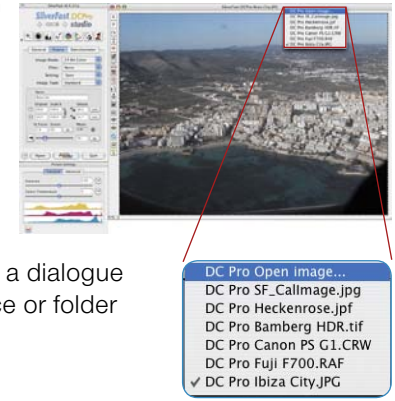
Alternative Opening of Images

Hold down the “Command” key while clicking the title of the *SilverFast DC Pro* prescan window to open a pop up menu. Windows users can right-click the title of the *SilverFast* prescan window.

Macintosh
Click the header of the prescan window while keeping the “Command“ key pressed.

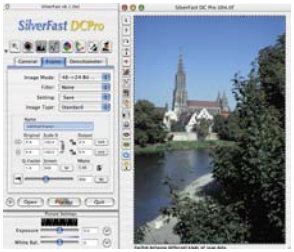
Windows
Use right mouse click in the prescan window.

The pop up lists the items “open DCPro image” and the names of the previous images. A check marks the name of the current displayed image in the prescan window.



- **DCPro Open Image:** Opens a dialogue box which requests the device or folder with the images.

** This function is only available with special SilverFast... versions.*



A *VLT* Workflow Example

1. Launch *SilverFast DC*... and start *VLT*

2. **Browser**: Search for and choose file directory or drag images directly into the album window.
   Image overview: Select images and drag them into the album window
   Search function: Search for file names or comments and drag into album window.

3. Repeat step 2 until all images are found.
   Possibly hide overview window.

4. **Album window**: Sort images in desired manner

5. Edit **file names** and **image comments**.
   Align incorrectly positioned images with the rotation and flip tool.

   Mark with the **Mark tool**
   Alternatively the images may also manually be sorted into different albums by the drag & drop method

6. **Delete the files marked** by the context menu.
   Re-sort the remaining images and **save the albums**.
   Print **contact sheets** if needed.

7. Hand over the first image to the **PreScan window** of *SilverFast* by double clicking it, optimise it there and by clicking the “Process” button hand back the corrected image to the album.
   Time saving alternative: Start the *SilverFast JobManager*, pass on the images by the drag & drop function and start the optimization there.

8. Chose the next image for optimisation.
   Repeat steps 7 to 8 until all images have been optimised.

9. If necessary, copy the optimised images into a different directory.

VLT Keyboard Shortcuts (Macintosh)

General

Select image series	Shift + : SHIFT +
Select single images	Command + : ⌘ +

VLT Window

Open context menu	Ctrl button and click into *VLT* window: CTRL +
Activate all	Command + A: ⌘ + A
EXIF / Image infos	Command + i: ⌘ + I
Delete image	Command + Backspace: ⌘ + BACKSPACE
Mark image as Bad	Shift + click with marker: SHIFT +
Full size Preview	Command + Shift + F: ⌘ + SHIFT + F
or type	Space + click
With activated Preview mode: Next image	→
Previous image	←

VLT Keyboard Shortcuts (Windows)

General

Select image series	Shift + : SHIFT +
Select single images	Ctrl. + : CTRL +

VLT Window

Open context menu	Ctrl button and click into *VLT* window: CTRL +
Activate all	Ctrl.+ A: CTRL + A
EXIF / Image infos	Ctrl.+ i: CTRL + I
Delete image	Delete: DELETE
Mark image as Bad	Shift + click with marker SHIFT +
Full size Preview	Ctrl + Shift + F: CTRL + SHIFT + F
or type	Space + click
With activated Preview mode: Next image	→
Previous image	←

Red Eye Tool

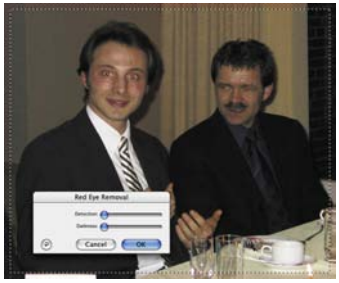
A new function is available from *SilverFastDC... 6* onwards. It is located in the vertical button row, left of the prescan window; a tool for colour correction of “red eyes”.

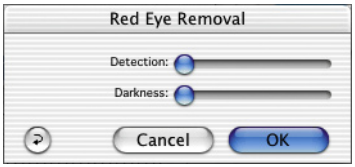
Red eyes occur in flashlight portraits, if the distance between the flash and the lens is small and the pupils of the photographed person are open wide.

First start a prescan of the portrait to be corrected. Click the button “Remove red eyes”.

A note will appear, mentioning that a frame is to be drawn around the eyes on the image.

Click “OK” and use the mouse to draw a frame around the eyes. By keeping the “Shift” key pressed, numerous individual frames may also be drawn. By pressing the “Alt” key, these individual frames can be removed.





Within the now opened dialogue window, the red eyes may now be neutralised by means of the sliders. By clicking “Detect” the sensitivity of the colour detection is determined, and by clicking “Darkness” the degree of darkness of the pupil can be adjusted.

By clicking the “OK” button, the settings are accepted.

The “Remove red eyes” button now displays a darkened centre. By clicking onto the button and then into the correction frame this function is disabled.

Image Settings Dialogue
(Correction of Exposure and White Balance)

The “basic“ image settings dialog

The “extended“ image settings dialog

In *SilverFast DC, -DC Pro* from version 6.2 upwards, the divided window “Image settings“ appears as an individual dialogue which usually appears below the main dialogue.
Depending on the kind of opened image, the window changes its appearance. If JPEG, TIF or RAW data files that are not fully supported by *SilverFast DC...* are opened, the “basic“ version of the dialogue opens.
If a camera RAW data file that contains an internal “RAW data conversion profile“ is opened an extended dialogue will appear.

Exposure: The slider simulates a change in exposure time of the image. The range is generally 3 apertures.

White balance: The white balance of the image can be set by this slider. By this, an incorrect alignment can be compensated.

Light source: By means of the popup menu, presets for certain standard light sources can be chosen. e.g. “Daylight“. The preset is “unchanged“, as long as the value is set in the camera; else the colour temperature will be set by *SilverFast's* automation.

Pipette: The colour temperature of the image can directly be measured by the pipette. For this, a colour-neutral (grey, white, black) point should be selected. The white balance slider will instantly jump to the measured position.

Colour (Colour tint): The colour cast in the image is affected by this slider. Simply said: the colour temperature refers to a shift between RED and BLUE. By means of “colour“, an element of GREEN can be added or subtracted from the image.

Brightness (mid-tones): This slider regulated the brightness of the mid tone values of the image. The slider is coherent with the mid tone sliders of the gradation- and histogram dialogues.

Contrast: This slider controls the contrast of the image. The slider operates like the one within the gradation dialogue.

Saturation: This slider affects the saturation of the image. In the far left position, the image appears completely unsaturated and looks like a greyscale image.

Smoothing of luminance: This operates like a filter. By this, the highlight noise within the luminance channel of the image can be corrected. The filter thus only affects the luminance (The “L“ channel in the Lab colour space), and not the colours.

Colour-distortion reduction: This is a filter that corrects the noise in the colour channels (“a/b“ channel) of the image.

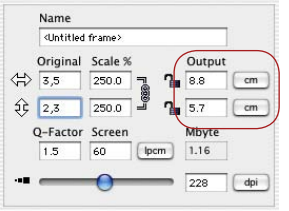
Settings: Saves parameters for RAW conversion for reloading.

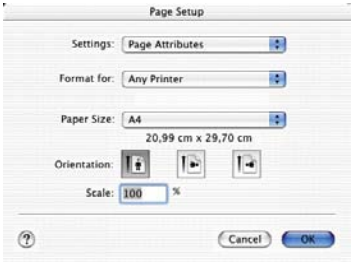
Realtime Histogram: At the lower edge a result histogram of the current picture frame is indicated to the “standard“ dialogue. The display reacts in realtime. In contrast to the normal histogram dialogue, the picture settings dialogue shows the final or result histogram. Thus the histogram, of the resulting picture - after the conversion in *SilverFast DC*... All parameters applied in *SilverFast*, are thus already contained herein. In the normal histogram dialogue however the source or input histogram is shown, which displays the picture - before the editing with *SilverFast DC*.... Only if one presses the “Alt“ key in the normal histogram dialogue, the goal histogram is indicated there also.

Printing Directly out of the Prescan Window

In *SilverFast DC* version 6 it is possible to pass on the contents of the active image frame in the preview window directly to a connected printer. Hence it is unnecessary to save and reload the image in an imaging software for a quick printout.

The size of the image to be printed can be set in the scaling dialogue in the “Frames” palette.





The printing menu is opened by clicking the “print” button in the vertical button bar located left of the preview window. The settings in this menu are dependant on the printer driver and vary respectively. Enter your settings here and start the printout.

SilverFast remains open after commencing the printout. By this means it can be decided if the image is to be saved even after the actual printout.

PrinTao –
The Enhanced Print Dialogue in *SilverFast*

What is *PrinTao*?

In simple terms *PrinTao* is a very enhanced and ultimately powerful print- and layout dialogue with useful features and high productivity. There are numerous functions especially designed and tailored to the requirements of photographers. Especially when having to print many images on i.e. large format printers *PrinTao* will show its strenghts. The feature overview:

PrinTao Features

1. Imaging Functions

a. Position images freely 302-303, 306-304, 309, 319, 322, 326-327, 328
b. Rotate or mirror images 303, 309
c. Scale images 302-303, 308-309, 324-325
d. Crop images 303-305, 309, 319-320, 325
e. Center images on printing page 302-303, 309
f. Align images with guides 326-327
g. Fit images to page 302-303, 309
h. Zoom images inside their frames 305, 325
i. Adjust selected image part 305

2. Page Functions

a. Generate arbitrary number of pages 306-307
b. Save and load pages with layout embedded 318
c. Individual or sets of images can be transferred to the printing page from the image list 302, 306, 309, 319-321
d. Image dimensions can be set with priority to either the long or short side 307
e. Images can overlap and be sent to front or back 306-307, 309, 328-329

3. Page View

a. A page view can be zoomed 299, 323

b. Any page out of multiple pages can be selected with a click of the mouse. 307, 321

4. Text Function

a. Text input can be attached to images 310-317

Position of text can be set to the left, middle, right, above or under the image. Alignment left, centre or right is possible. Fonts as well as font size and colour can be freely chosen.

b. Attach text from meta tags to the image 314-316

Easily attach meta tag text, e.g. image name or EXIF info, to the image. All texts may automatically be attached to the selected images.

c. Copyright text function 310, 317

Copyright text can be transferred to an arbitrary number of images with desired colour, font and font size with a single command.

d. Free text function 316, 328-329

Any kind of text (with arbitrary colour, font and size) can be placed e.g. on the top of the page or freely on the page.

5. Image-Templates

a. Standard-templates 319-322

From the standard set of templates, any one template can be transferred to one or several pages. Various pages can be modified with different templates. Images can be transferred to a page's template via *drag and drop* or by a button. Images in a template can all be replaced or individually replaced.

A template can be automatically assigned as the default for subsequent pages.

Single images can be zoomed (scaled) inside the frame while the desired area can be selected.

b. User-defined templates 319-320

Current templates can be freely altered and saved as user-defined templates. It is also possible to create new templates and use them as user-defined templates.

c. Template-generator 319-320

A template-generator allows creation of templates for any amount of images on the page, such as 3x3 or 5x8 or 7x7 pictures.

Existing generated templates can be altered freely and saved as user-defined templates.

6. Colour Management 331

Printer ICC profiles and rendering intent can be chosen and allocated to all pictures to be printed.

Which *SilverFast* Versions include *PrinTao*?

PrinTao is a component of all scanner independent *SilverFast* versions, in which it is implemented into the *VLT*.

Other than that, *PrinTao* is also a part of every *SilverFast AiStudio* version and may be launched by clicking the respective button located in the vertical toolbar, left of the preview window.

SilverFastDCProStudio and *SilverFastHDRStudio*

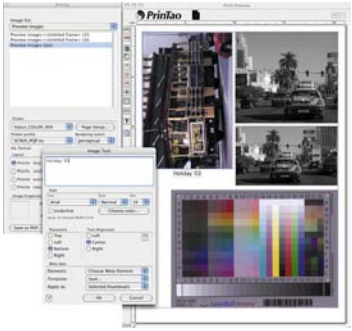
The *Studio* versions of *SilverFast DC Pro* und *SilverFast HDR* contain additional functions in *PrinTao*:

- Sets of **default Templates** for automatic alignment of the images on the printing pages.
- **Selfconfigured templates** for page layout are saveable.
- Freely define and positionable **picture text***.
- Selectable **EXIF/IPTC data** to be embedded into Image text.

Users, which have the optional *SilverFast PhotoProof* function enabled, will find the additional *PhotoProof* settings in *PrinTao*, for embedding a FOGRA media wedge and the according reference profiles. Please examine chapter *SilverFast PhotoProof* for more information.

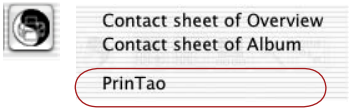
**Attention*
This function is available in the Pro and Studio versions only and operate only under Mac OS 10.3.1 or newer.

SilverFastAiStudio



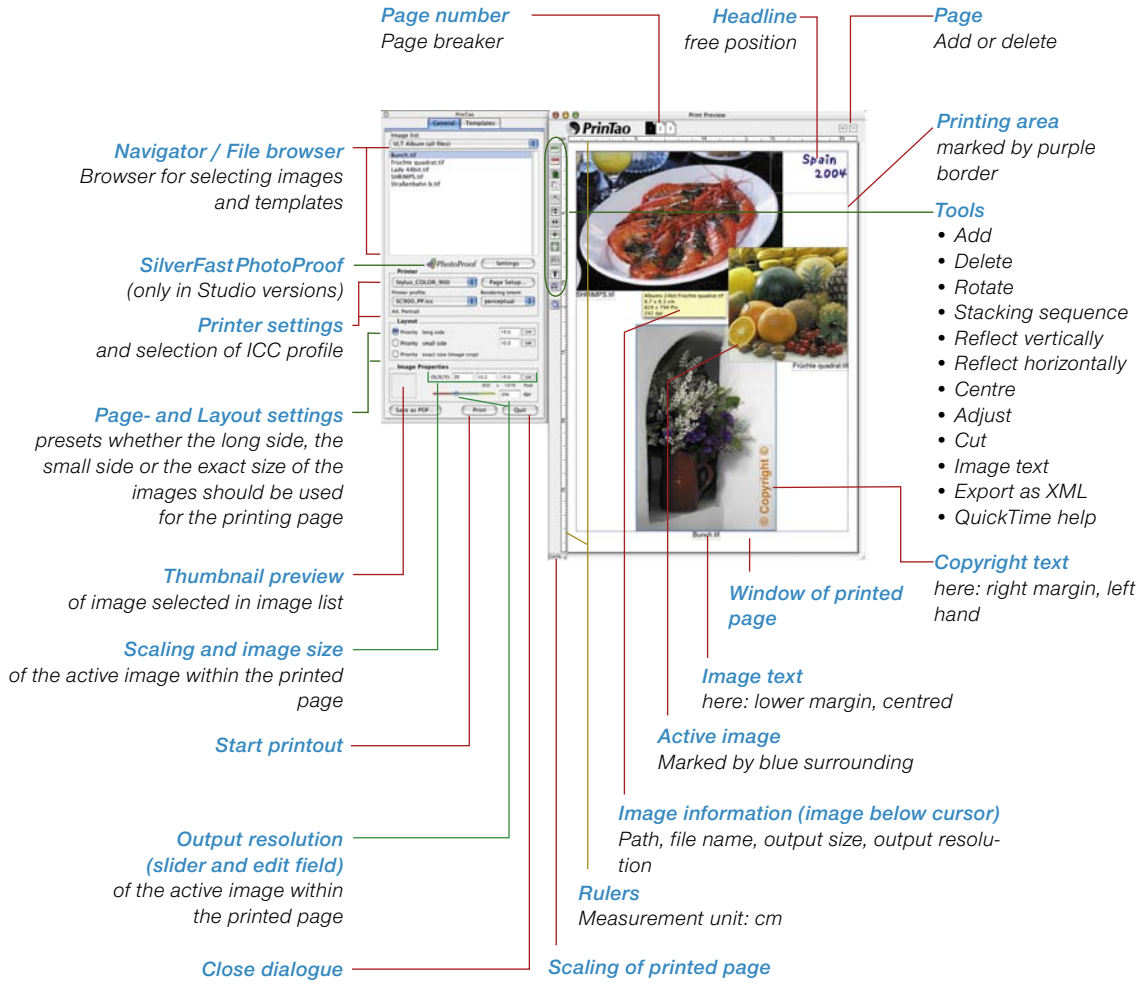
Since the scanner-dependent *SilverFast* versions do not have direct access to the previously saved image, the functionality of some *PrinTao* functions are different or reduced. For example:

- The file browser is not available. Instead, all drawn image frames are displayed within the image list.
- The input field for textures is integrated into the popup menu and may not be floating. The functionality is reduced accordingly.
- There are no templates.



PrinTao in *VLT*

Via the *PrinTao* button in the *VLT* the user gets to choose whether to create contact sheets of the images in an album or overview as well as to print a random of images from an album or the overview.



Navigator / File Browser in *PrinTao*

The first step in *PrinTao* is the selection of images to be printed. This can be done by using the integrated navigator or file browser. The popup menu in the head of the navigator contains several inputs by which individual images or entire directories may be selected.

The contents of the chosen directory is displayed in the list.

By means of the little blue arrow, the directory may be switched to the parent directory.

The menu contents:

- **View file browser**: The contents of the current directory are displayed.

  The path of the directory is shown above.

- **View albums**: Displays all albums that have been previously created in the *VLT*.

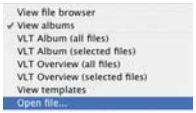
- **VLT Album (all files)**: Displays all images of the current album.

- **VLT Album (selected files)**: Only displays the selected images within the album.

- **VLT Overview (all files)**: Lists all images in the current overview of the *VLT*.

- **VLT Overview (selected files)**: Lists only selected images in the current *VLT*.

- **View templates**: Displays all current templates that were created with *PrinTao*.



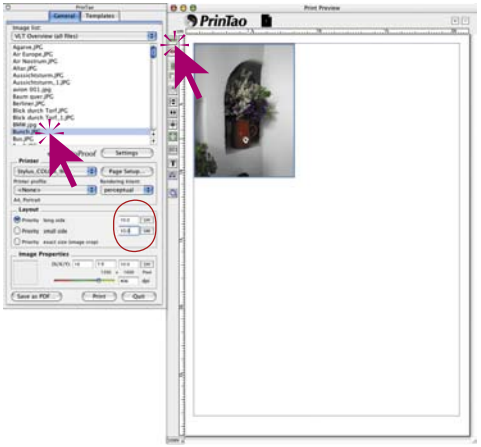
- **Open file...**: By this “Open“ dialogue, a single image may be dragged directly on to the print page of *PrinTao*.

After choosing the image directory and selecting the images that are to be printed, these images are passed on to the print page and arranged there.
The next paragraph describes the procedure for printing single images:

Print Single Image

By means of the navigator popup menu, an image directory, an album or the overview of the *VLT* may be chosen. The images are displayed in the dialogue window.

Select an image by a mouse click in the image list and enter the values fort he desired printing size in the *Layout* (here 15x8cm)



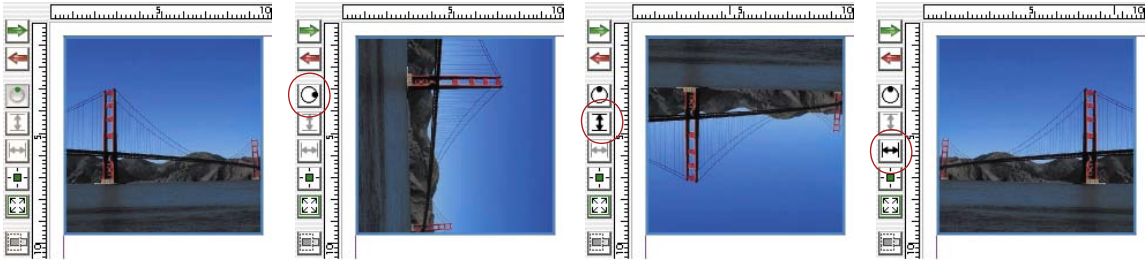
The dimensions of each individual image can be changed after placement on the print page document by changing the *image settings %/X/Y* numerically. The actual output resolution is symbolized by the rainbow gradient coloured slider, underneath the size input box. The values itself are displayed in the input box next to the slider. The image file features a ready-to-print resolution if the handle of the slider is within the yellow or better green area of the slider.

By clicking the *Add* button, the image will be passed on to the printer and automatically be placed in the upper left corner of the printing sheet by *SilverFast*.

If you want to change the placing or the size, this can be done by means of the buttons located left of the printing window.

Left: Centre image in printout
Right: Fit image to printout

The orientation is also alterable. By clicking the *Rotate* button, the image is rotated in 90° steps. By means of the *Invert* buttons, the image may additionally be inverted vertically and horizontally.



All previous changes left the image in its original size-relation. If you want to change the proportions of this image, simply activate the *Cut image* option. In the activated mode the selection can be done in an active image by click-dragging the image. Doing this on the edges allows cutting of the image. Clicking and dragging will reestablish a once cropped image to its original dimensions, admittedly only within the actual dimensions of the original image.

If the *Cut image* mode is deactivated, the proportions of the image may not be altered; only size, position and orientation is alterable. A cut image can be protected against further changes.

Lower left: Image in its original proportion (Cut mode deactivated)

Centre: Cut image (Cut mode activated)

Right: Cut image fit to page (Cut mode deactivated)

Quick and easy Image Cropping by Using Key Shortcuts

There is an even faster alternative to the regular cropping mode, using key shortcuts:

- The image can be cropped directly (while cropping mode is deactivated) by pressing the *Alt* key while click-dragging the frame or corner of an image.

- The image can be cropped symmetrically (while cropping mode is deactivated) by pressing the *Alt* and *Shift* key while click-dragging the frame or corner of an image. Dragging the frame will move the opposite frame edge accordingly. Dragging the corner of a frame edge will move all corners of the frame symmetrically.

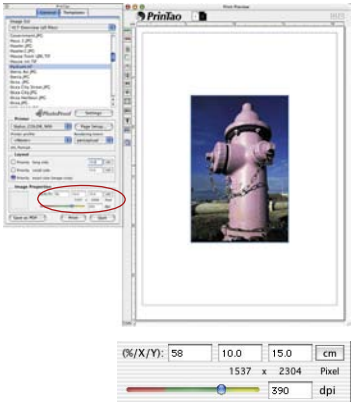


Image after import with priority "exact size", "10x15 cm". The right size of the image shows that a small strip of the image has been cropped automatically.

Reestablish the original proportions by "Alt" upon corner.

Cropping by "Alt" upon corner.

Symmetrical cropping by "Alt + Shift" upon the edges.

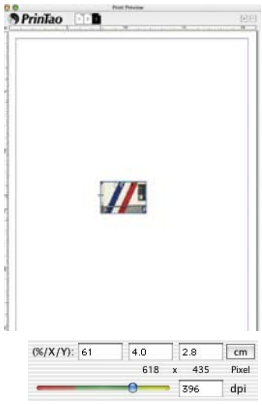
Please note that the input box for the image settings *(%/X/Y)* will display the actual dimension at all times.

Changing the Image Clipping within the Image Frame

The image clipping of a cropped image can be changed afterwards within the image frame.

Pressing the *Shift* key while click-dragging upon the image will move the image clipping inside the frame.

Image after import and adaption to page size.



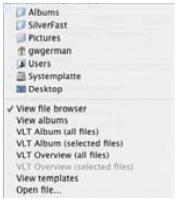
Cropped image.

Rearranging the image clipping while pressing the shift key.

Scaling by readapting to the page size.

If the cropping mode is not activated, the image can be scaled proportionally by pressing the *Shift* key. For that purpose the image frame can simply be resized by touching the the edge or corner of it.

Transfer Several Images to Printout



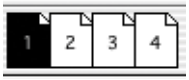
By means of the navigator popup menu, an image directory, an album or the overview of the *VLT* may be chosen. The images are displayed in the dialogue window.

Images are to be selected from this list by the *Add* button to pass them on into the printout window. *SilverFast* will automatically try to place these images in an optimum manner on the print sheet.

In case the printing area is not enough, *SilverFast* will ask if more printing sheets are to be used.

By clicking “New”, *SilverFast* automatically attaches the necessary additional pages.

Choosing interleaving causes all images on the current page to be added. Supernumerary images are collected at the lower right edge of the printing window. They may then manually be arranged, deleted, moved etc.

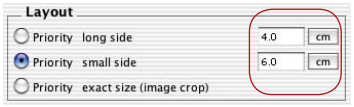


The number of pages as well as the number of the active page are displayed above the window. The pages may be switched by clicking the respective thumbnails.

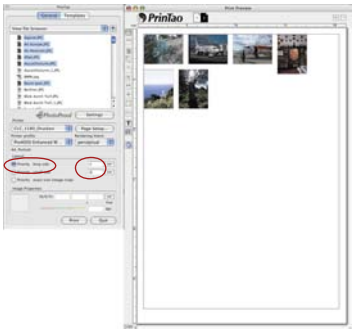
By clicking the *Plus* and the *Minus* buttons respectively, printing sheets may be added or deleted manually.

In case there are many pages, the images may be switched between these pages:

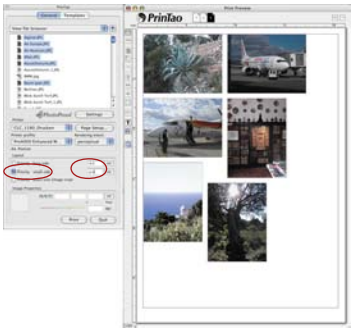
- **Moving images**: Select and click-drag the thumbnails of the current page and simply drag them on to the desired page. These images are then removed from their original position and disappear from that page.
- **Copying images**: Select images of the current page and, while keeping the “Shift” key pressed, drag the thumbnail on to the desired page. The images will them remain on the original page as well.



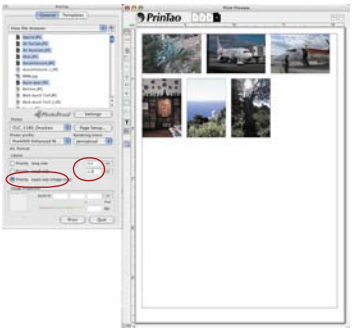
The size of the images that will be printed out is adjustable in the presets under the *Layout* menu. The *Priority* determines if all images use the same long page, the same short page or the exact entered values on the printout.



Priority long side
The selected images were all inserted with a long page of 4 cm.

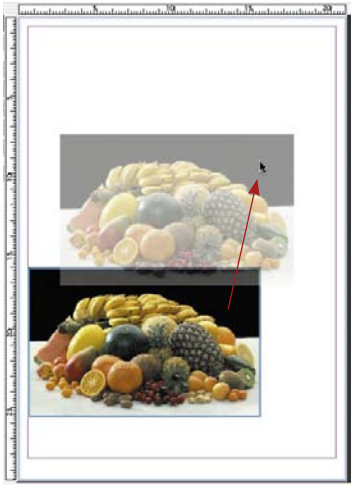


Priority small side
The selected images were all inserted with a short page of 8 cm.



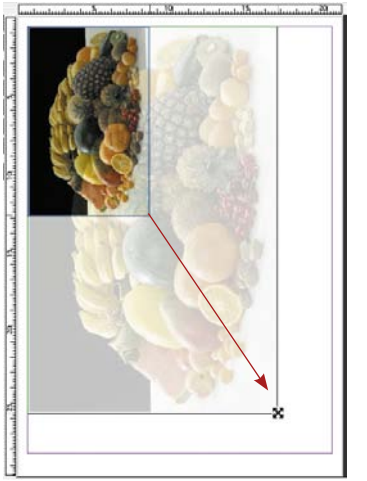
Priority exact size
The selected images were all inserted with an exact size of 4x8 cm. Since in this case the image contents were larger, they were cut to 4x8 cm.

Naturally all single images may also be varied in size by click-dragging them manually in the printout window:



Click-dragging within an image moves the entire image.

Click-dragging an edge / a corner alters the image size (proportionally if the “Cut image” button is deactivated, i.e. i fit appears grey.



Control buttons

By means of the navigation buttons left of the print window, rotating, inverting etc. Is possible:

Add: The images selected and marked are passed on to the printing window.

Delete: The selected images are removed from the printout. Clears the selected picture frame.

Stacking sequence upwards: in the printing area marked pictures are shifted upward one level in the stacking sequence.

Stacking sequence downwards: in the printing area marked pictures are shifted downward one level in the stacking sequence.

Rotate: The selected image is rotated in 90° stepps. The dot at the circle shows the orientation.

Reflect vertically: The active image is reflected vertically in the print window.

Reflect horizontally: The active image is reflected horizontally in the print window.

Centre on page: Places the image centrally in the printout

Adapt to page size: The active image is proportionally adapted to the printing area.

Cut image: If this mode is activated the are of the image can be selected manually by click-dragging the mouse. If this option is deactivated, the proportions of the image may not be changed; only size, position and orientation may be altered.

Text tools*: With the help of this feature, any text may be added to images and additional text may be entered and placed freely on the print page.

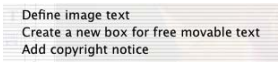
Saving, loading and exporting: The page layout may be saved, re-loaded for future use and also be exported together with the images.

QuickTime movies: A short video that introduces *PrinTao*.

Attention!
This function is available in the Pro- and Studio-Versions only and operate only under Mac OS 10.3.1 or newer.

Adding text to images*

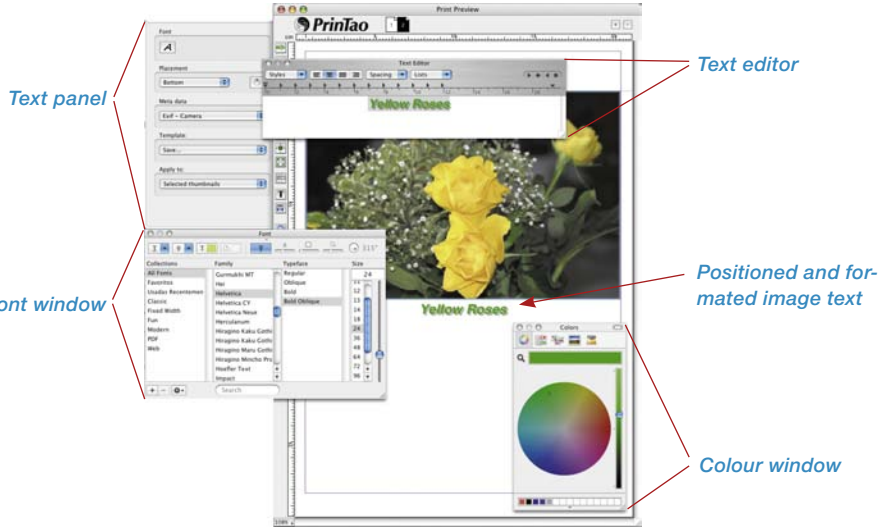
In *PrinTao* a very high performance text tool is contained, which hides itself behind the button with the ***T***.
By clicking a selection menu opens.
Here one can specify any picture text



- which will be shown outward at an edge of the picture,
- to provide a freely positionable text field for layout purposes,
- to add copyright notes as text within the picture.

The text dialogues can be opened directly, by double-clicking upon a placed image or an existing text box.

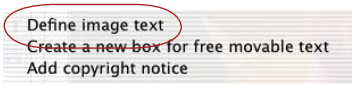
In combination with the free placing and scaling of the pictures on the print pages one has a functionality, which is attainable otherwise only in layout programs.



The text box will be closed by deselecting the edited image (deselect by clicking next to the image).

The three points in detail:

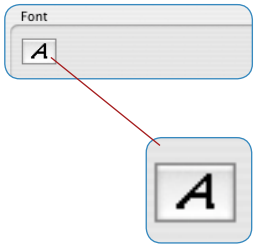
**Attention!*
This function is available in the Pro- and Studio versions only and operate only under Mac OS 10.3.1 or newer.



1. Define Image Text

This very substantial dialogue will enable you to create print page documents with individual as well as automated text. The settings are valid for the text as a whole as well as all the meta data visible in the text box.

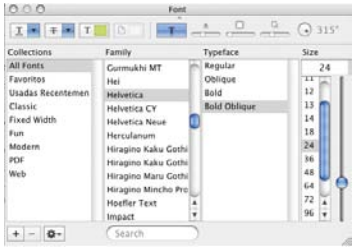
- **Text editor window**: free text can be entered here and it will show the commands of the placed meta data. Meta data can be separated via punctuation marks. The “enter” key will create a line break. Furthermore any type of external text from the system‘s clipboard can be pasted here. By means of the mouse, marked textures may be formatted individually.

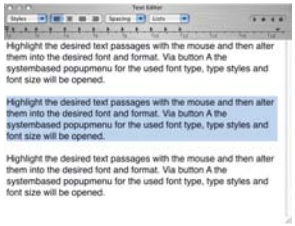


- **Font**: All the system fonts may be viewed here. (This function is available under Mac OS 10.3.1 or higher).

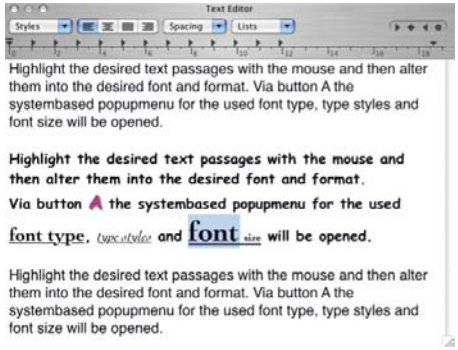
  Highlight the desired text passages with the mouse and then alter them into the desired font and format.

  Via button ***A*** the system based popup menu for the used font type, type styles and font size will be opened. Alternatively, the menu may also be opened by means of the shortcut “Cmd +T“.





Unformatted text with selected text passage

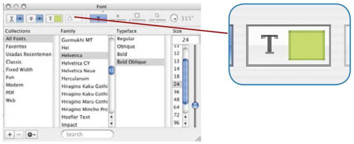


Formatted text

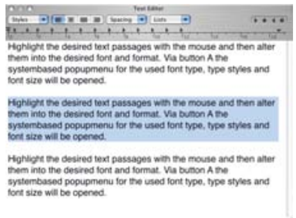
Undo / Redo

There is an unlimited “Undo / Redo” within the text editor:

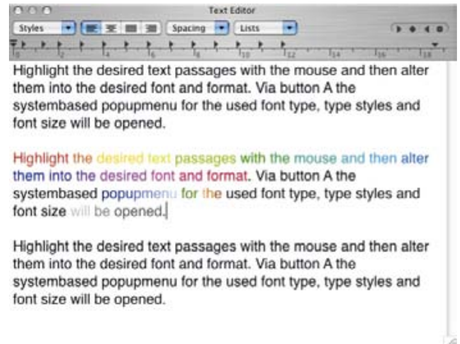
Command + Z Undo
Command + R Redo



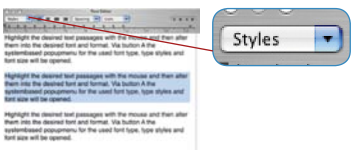
From within the fonts-palette, the colour of the text may also be changed. The button for the colours opens the system owned dialogue for choosing the text colour. The highlighted text is changed into another colour by drag-clicking onto it.



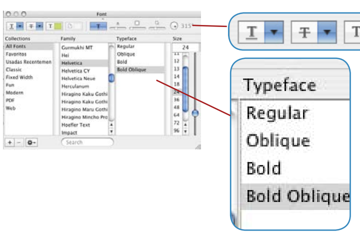
Unformatted text with select-ed text passage

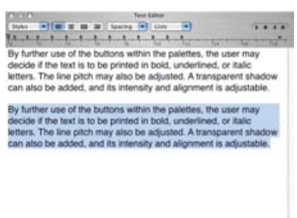


Formatted text

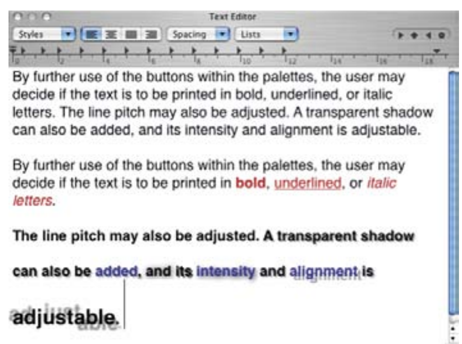


By further use of the buttons within the palettes, the user may decide if the text is to be printed in bold, underlined, or italic letters. The line pitch may also be adjusted. A transparent shadow can also be added, and its intensity and alignment is adjustable.

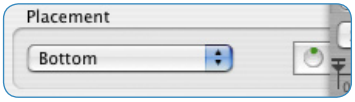




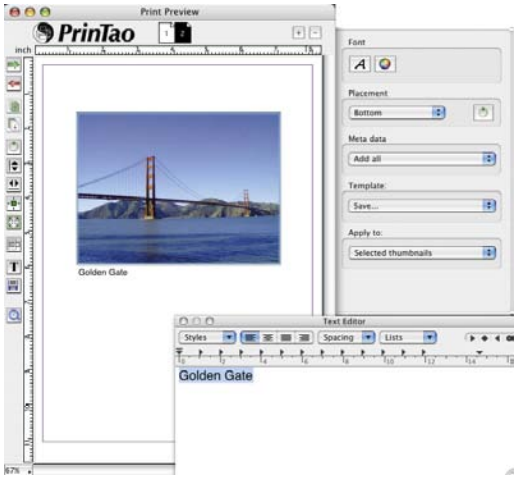
Unformatted text with select-ed text passage



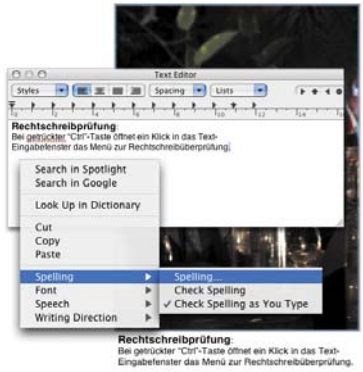
Formatted text

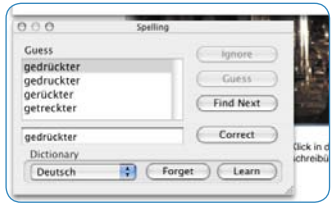


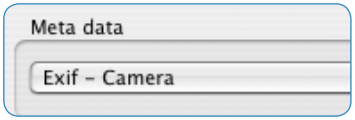
- **Placement**: This popup menu addresses the placement of the text at the edges of the image.
  Via the button on the right hand side the text can be rotated perpendicular clockwise with each mouse click. Holding down the shift key will rotate anticlockwise.

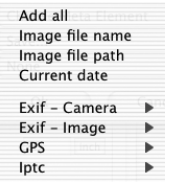


- **Spelling check**: By pressing the “Ctrl“ key and clicking into the text window, a sub-menu for spelling and grammar may be activated.









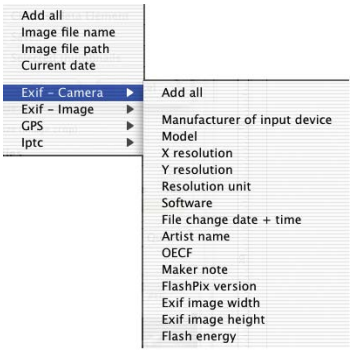
- **Meta data**: A very extensive menu with several sub-menus for the designation of the meta data that is to be entered into the image texts opens here. Each choice of a meta date adds this to the current position of the text cursor.

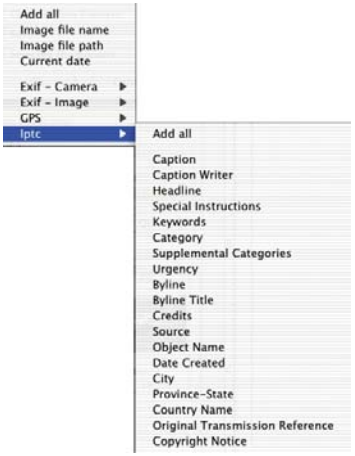
  The meta data commands in sharp brackets within the text field will only lead to an actual printing of the data if the meta data entries are available in the image data. Thus, a meta data entry does not automatically lead to a printed text on the image. An “empty“ meta date will simply be ignored in the printout.

  «**Insert all**» will cause all available meta data to be entered into the image text - this can easily become a very large text!

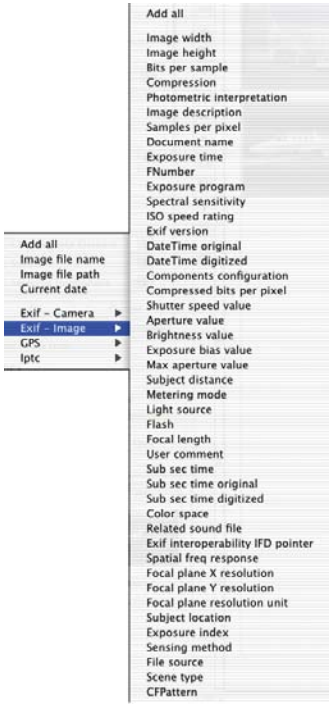
  «**Current date**» enters the current system date into the image text.

  «**EXIF - camera**» is a menu for camera specific meta data.

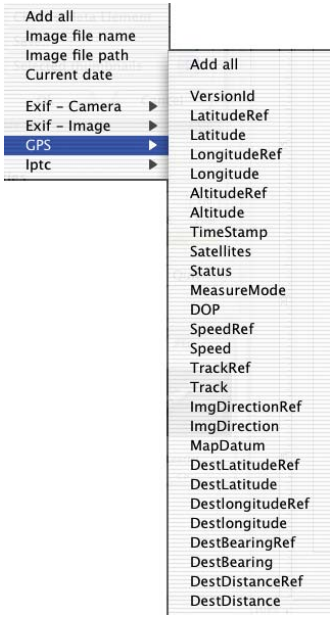




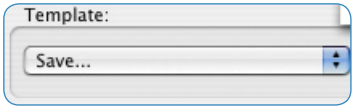
«**IPTC**» allows the embedding of IPTC meta data into the image text.



«**EXIF - image**» displays a large menu for capture- and image specific meta data.

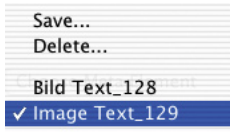


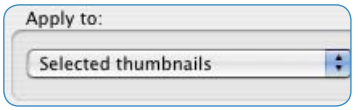
«**GPS**» lists the meta data of satellite supported positioning which is integrated in some cameras.



- **Templates**: here, all entered settings can be saved as a set and reloaded at a later time.

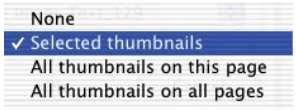
  Saved sets can also be reloaded by entering their respective names.





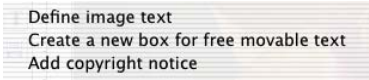
- **Apply to**: In this menu the user can choose which images are to be furnished with text.

  The text printing can be deactivated (*No image*), applied only to selected images (*Chosen image*), or for all images (*All images on this page*), or even assigned to all to all print pages (*All images on all pages*).

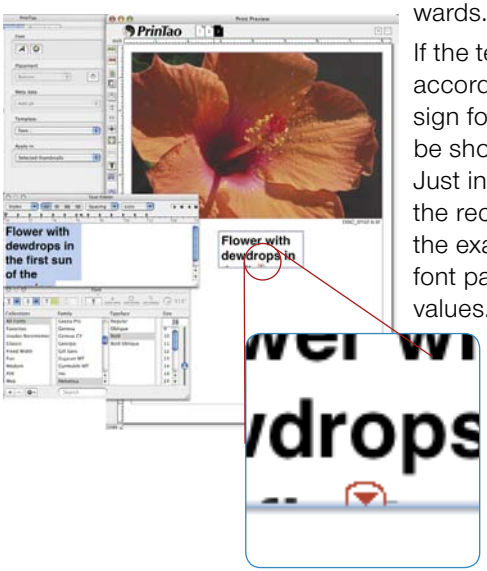


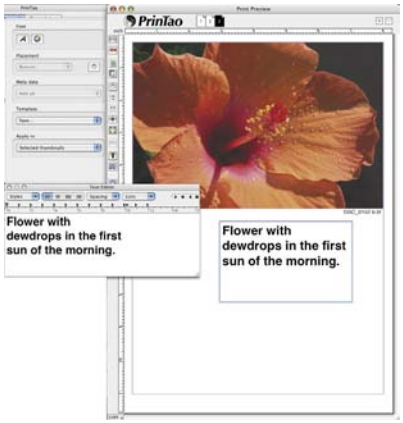
2. Create Freely Positionable Text Framework

After choosing this option a text editing dialogue will be opened and the mouse pointer will change its status to a small cross. Click and draw a rectangle on the printing area in which you wish to position the text. The size and position of the rectangle can be corrected at any time afterwards.

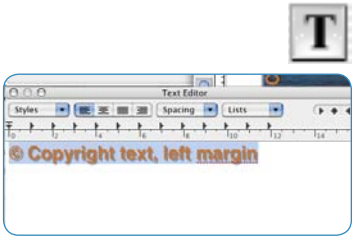


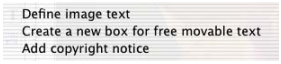
If the text is too long for the according rectangle, a red sign for text overflow will be shown at the bottom. Just increase the size of the rectangle as shown in the example or adjust the font parameters to smaller values.



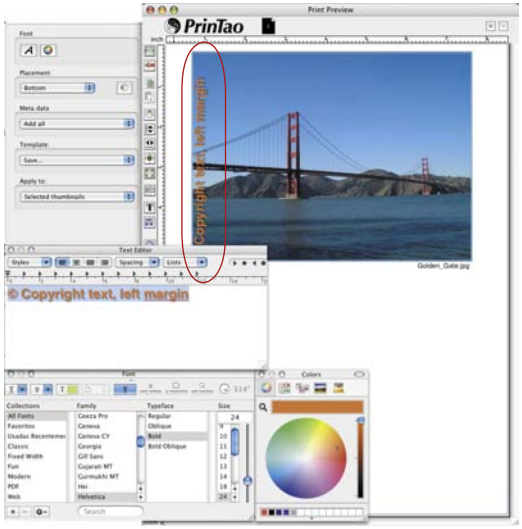


3. Place Copyright Notes Within the Image





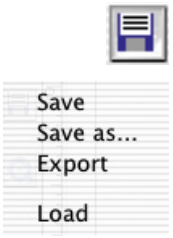
After choosing this option a text dialogue will be opened. A copyright note can be entered now, which will then become visible as a new image text within the image. The text can be placed at any corner of the image.



In our example we have placed a short text left hand within the image.

For changing the copyright note at any time afterwards the dialogue can simply be opened again by choosing the entry in the text menu.

Export Print Documents as XML Files



Print page layouts can be saved from within *PrinTao* for a repeated application. By the “Save as” function, existing and modified templates may be saved under a new name.
Files are saved in XML format, containing all frame parameters and text, but no image data.

When exporting print page layouts they are saved in XML formatted files as well including the images used on the page. The image data will be named «PictureExport_00000000.JPG, PictureExport_00000001.JPG, ...». It is advisable to create a new destination folder for each Export.

Via *loading* both the saved and the exported print page layouts can be reloaded into the *PrinTao*.

Templates in PrinTao

Under the second tab in the *PrinTao* dialogue the user can find a number of predefined templates in order to place numerous images in certain adjustments or alignments on numerous pages very quick and very easy. As a matter of course one can create their own templates.

This is where *PrinTao* creates many opportunities for creativity. Any image can be placed anywhere on the print page document.

All parameters for the modification of templates as well as creating your own templates can be applied in the lower area.

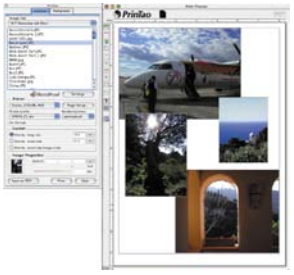
- **New Template from Page**

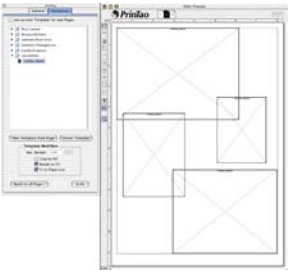
  This is for creating image frame templates in three easy steps.

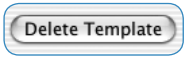
  1. Create your own print page document. Include image frames according the desired layout, crop or place randomly. Then switch to the *Templates* tab.

  2. By clicking the button for *New template from page* a small save dialogue will pop open for naming and saving the new template. Enter a name. By clicking *Ok* the template will be included under the list of *user defined templates*.

  3. Open a new print page document and activate your own template by clicking the new entry under the template list. The placed frames will appear instantly in the chosen sizes.

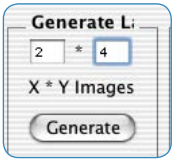






- **Delete Template**

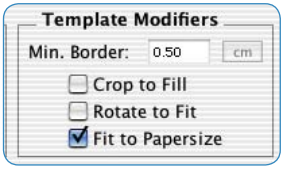
  Will delete the selected template from the list.



- **Create Layouts**

  The number of images per template can be entered here.

  The *x-value* sets the number of columns, the *Y-value* will set the number of rows. In Example: X3 x Y5 means: 5 image rows with 3 frames each will be created on the template page. Therefore it adds up to 15 frames overall.



- **Adapt Template**

  These are general parameters, valid for all images within an activated template of the present print page document.

  Minimum border: specifies the minimum distance of the picture frames among themselves.

  Crop to fill: images will get cropped to the proportions of the present image frames. Example: A square frame is supposed to contain a rectangle image. This will result in a square clipping from the centre part of the rectangle image. The top and bottom edge of the image remain obtained, just the left and right edges will get cropped.

  When pressing the *Shift* key the visible clipping of the image can be moved inside the image frame.

  Rotate to fit: Images in portrait format will automatically get rotated in order to fit right into the landscape oriented image frame. The same is valid for landscape formatted images and portrait formatted image frames.

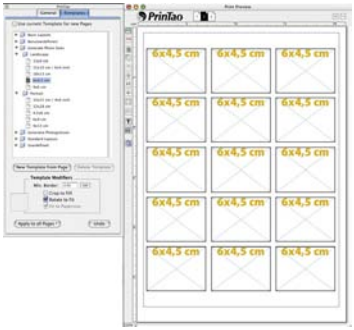
  Fit to paper size: Will fit the chosen template to the adjusted printer paper size.

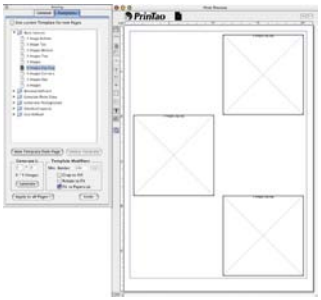
- **Apply to All Pages**

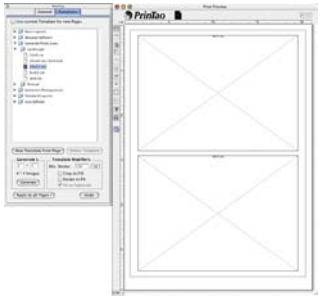
  Will apply the present template to all selected print page documents.

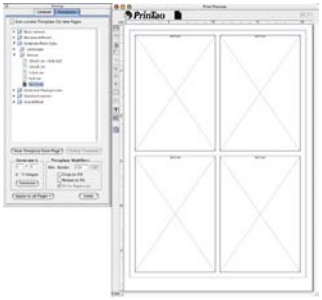
- **Undo**

  Will undo the last performed adjustment or setting





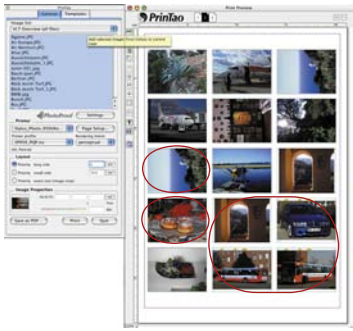




Application of Default Templates

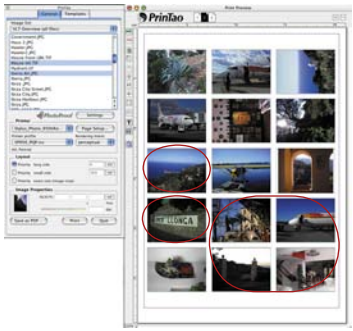
- Switch from the *General* tab to the *Template* tab
- Choose an adequate template. When choosing the template the according empty image frames will appear on the print page.
- Switch back to the *General* tab
- Choose the images to be printed
- Enter the images to the template image frames via the green *add* arrow.

  Alternatively the images can be placed on the print page document by drag&drop. The according image frame can be chosen individually by dragging & dropping a single image.



- The subsequent exchange of single images is easy (see red circles):

  Activate the image to be exchanged by single-clicking on it, remove the contained image from the print page by clicking the red *remove* arrow, choose a new image from the list and enter it.



Delete Image Frame

Every selected image frame, no matter whether an image has been entered or still empty can be removed from the print page document by pressing *Shift* + *backspace*, or by clicking the red *remove* arrow.

Arranging Image and Template Frames via Keybord Shortcuts

Image and template frames can be arranged incremental by using the cursor (arrow) keys:

- *Command* + *cursor*: adjustment by 1 pixel
- *Command* + *Shift* + *cursor*: adjustment by 10 pixel
- *Command* + *Alt* + *cursor*: adjustment to the next guide line accordingly to the end of the print page document

Activate / Deactivate Templates

The templates can be activated / deactivated via a command of the context menu (right mouse click). The function key *F7* can alternatively be used for activating / deactivating of templates. The *magnetic behaviour* is not available when templates are not activated, because the guide lines are deactivated with the same command.

Zoom and Scaling Functionality

PrinTao features many possibilities to change the displayed size of the print page document or to scale the image embedded and for zooming.

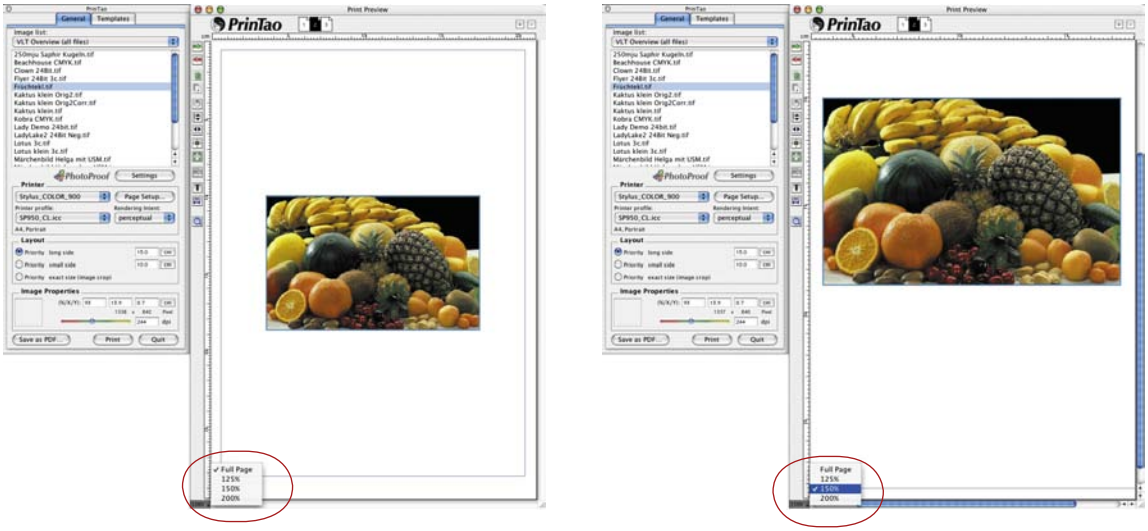
Zoom Print Page Document

For precise work in details it is eventually necessary to display the print page enlarged. There are two kind of ways to zoom the print page:

- **Print Page Zoom via Inputbox**

  In the lower left corner is a inputbox displaying the actual size of the window, which works like a popup menu.

  Different zoom steps can be chosen. The collateral scroll bars can be used for navigating inside the enlarged print page.



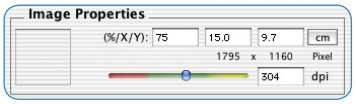
- **Print Page Zoom via Keybord Shortcuts**

  Zooming can be done in 10% steps by using the keybord shortcuts. All images need to be deselected prior to the zooming.

  Command + *plus*: enlargement by +10%

  Command + *minus*: reduction by –10%.

Scaling Images on a Print Page



Every single image of a print page can be scaled as a whole, thus including it's frame. The inputbox *Image settings* displays the scaling value in percentage, as well as the X/Y size of the image.

- **Slider**

  The coloured slider can change the size of an image infinitely variable by dragging the handle.

  Caution is necessary if the slider is moved into the red range. The resolution of the image does not suffice for a high fidelity print.

- **Keybord shortcuts**

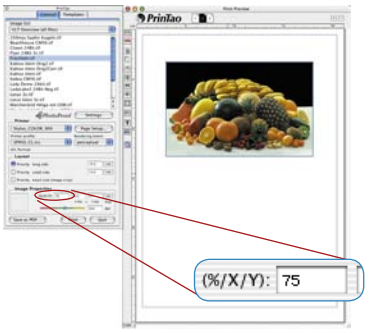
  Image frames can be scaled step by step by keyboard shortcuts:

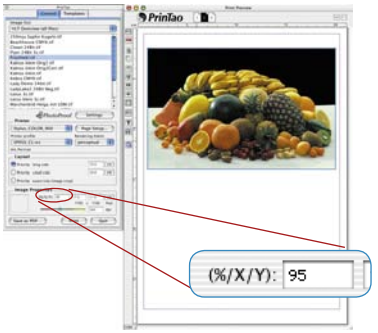
  Command + *plus:* will enlarge the whole image frame by + 10%,

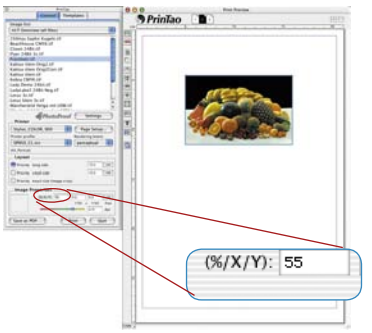
  Command + *minus*: will decrease the whole image frame by –10%.

  Command + *Shift* + *plus:* will enlarge the whole image frame by + 1%,

  Command + *Shift* + *minus*:will decrease the whole image frame by –1%.

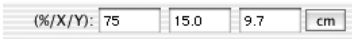






- **Clicking and dragging**

  Clicking and dragging the edge or a corner of an image frame with the mouse will also scale the image infinitely variable



- **Input Box**

  Scaling values can be entered directly in the according input boxes.

Scaling Images Within the Image Frame

There is a way to scale an image within it‘s frame. The size of the image frame will remain the same and does not change.

- **Keyboard shortcut**

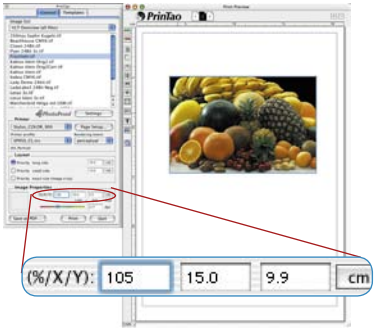
  Images can be scaled within it‘s frame step by step via keyboard:

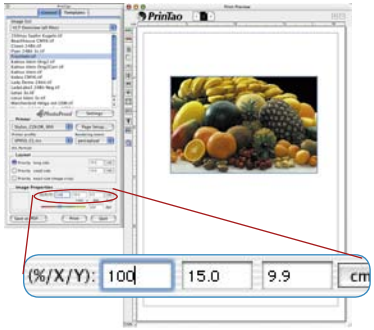
  Command + *Alt* + *plus*: enlarge image clipping by +10%,

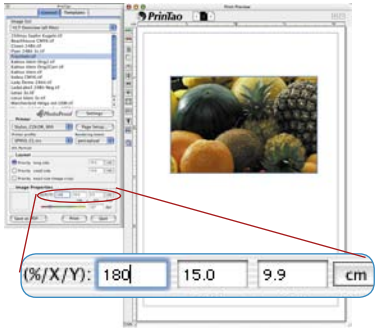
  Command + *Alt* + minus: decrease the image clipping by –10%,

  Command + *Alt* + Shift + plus: enlarge image clipping by +1%,

  Command + *Alt* + Shift + minus: decrease image clipping by –1%

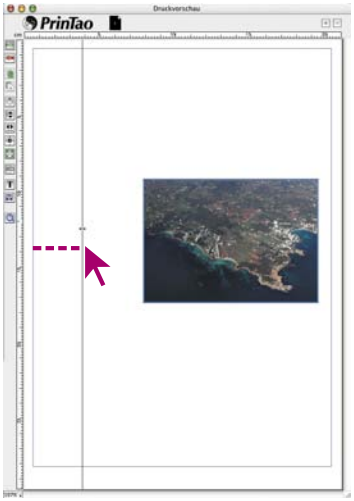






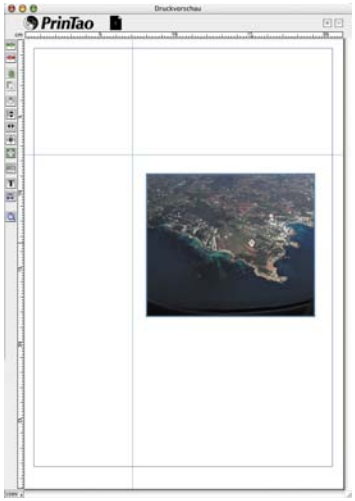
Help Lines and Grid Frames on Print Pages

Similar to a layout-software, *PrinTao* can set Help lines and grid frame for exact positioning of image- and text frames. The simple and structurized assembly can be simplified and speed up with the *magnetic behaviour* of the guide lines.



- **Creating Guide Lines**

  Guide lines are created by simply clicking and dragging on either the horizontal or the vertical ruler.



- **Scrolling Guide Lines via Mouse Click**

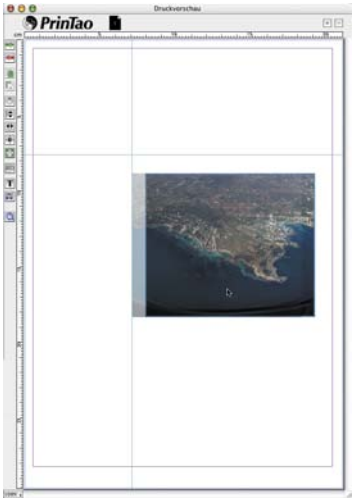
  The guide lines can be scrolled on the print page by using the mouse. The mouse pointer will change accordingly, if the mouse is parked above a guide line.

- **Delete Guide Lines**

  The guide line simply needs to be dragged outside of the print page document in order to delete.
  Alternatively a command from the context menu (right mouse click) will do the same job.

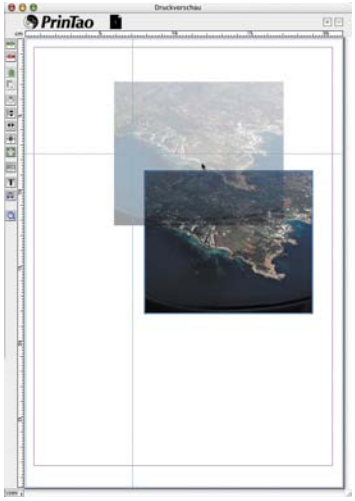
- **Show / Hide Guide Lines**

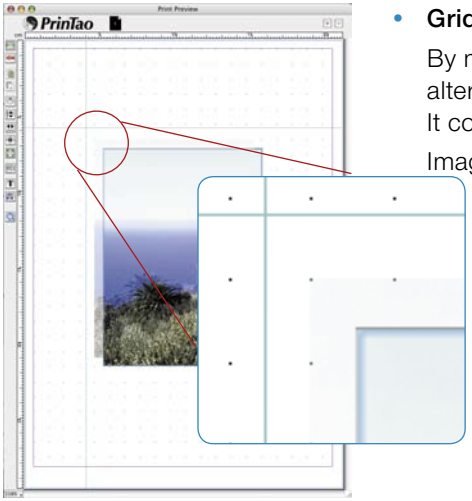
  Via a command from the *context menu* (right mouse click) the guide lines will be shown or hidden. Alternatively the state of the guidelines can be toggled via *F7*. The guide lines loose their *magnetic behaviour* if not shown on the print page.



- **Magenetic Guide Lines**

  If the edge or center of an image approaches a guide line, the image will be protracted to the guide line and engage there.





- **Grid Frame**

  By means of the context menu (Win: right mouse button) or, alternatively by the F7 Key, a fixed grid frame will be displayed. It consists of fine points and fills the entire print page.

  Images may be aligned by means of their magnetic left upper corner to these points.

  By means of a double-click on the horizontal or vertical ruler, the settings for the grid may be altered. The grid distance is freely choosable.

- **Moving Images by means of Keyboard Shortcuts**

  Cmd + *Alt* + *Arrow* moves the image to the next help line, the margin or the next grid line, depending on which is closest.

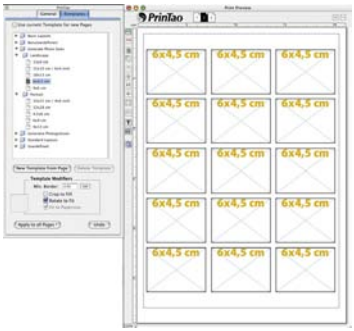
Creative Techniques: Composing Images and Texts

The simplest case is a basic superimposition of a couple of images to a collage i.e. one large scale image in the background and a couple of small scale image on top.

Right: the final result in the print

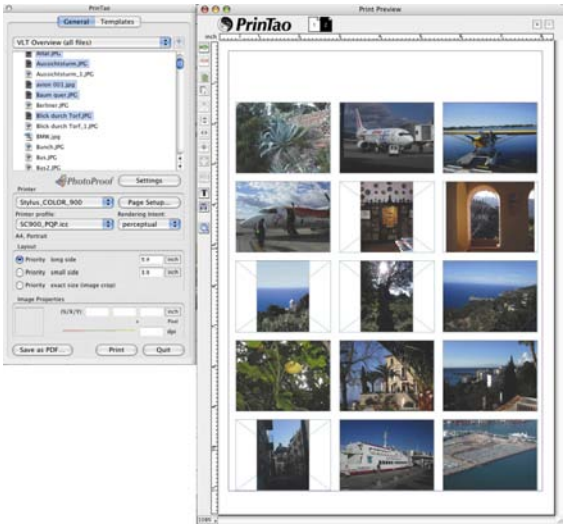
Every collage can be added with any text passages. An example of a small holiday brochure is displayed here.

More complex compositions can easily and widely be accomplished via the templates automatically.

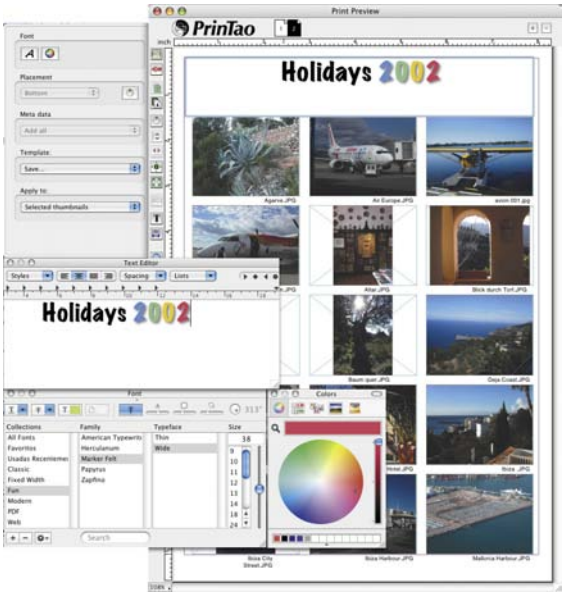


Print page document with empty frames and no text

- At first choose a template.
- Select images to be entered into the image frames.
- Add image subtitles automatically with the text tool.
- Enter a title for the print page document.
- Possibly interchange individual images later.
- ...



Print page document with images.



Print page document with images and text and a free movable text title.

Context Menu (right mouse click) upon a Print Page Document

The substantial context menu features another simplification and assistance assembling layouts and print pages.
Changing the structure of a page quick and easy, deleting images, mirroring and rotating, adding or deleting pages, ... almost all button functionality left of the print page window can be accessed via the context menu.

Printer Setup

The parameters of the connected printer can be defined in the menu “Printer“.
In case a printer profile is available, the according profile can be chosen under “printer profile“ for the appropriate printer/paper setup. This even permits working with calibrated printers. Please read the according chapter “*SilverFast PhotoProof*“.

NOTE: Please note that the following menus for setting up the printer vary substantially, depending on the operating system and the different printer models.

Please note for *SilverFast PhotoProof**!

In order to verify that your desired results will be colour consistent and legally binding please follow these requirements:

- Switch off colour management in your proof printer driver
- Your proof printer has to be calibrated to the necessary ink and paper combination. The corresponding printer profile must be chosen accordingly in the *PrinTao* dialogue.
- The papers used for creating the proofs need to meet the settings in the printer driver as well as the specifications in the chosen Output profile.

Attention!
SilverFast PhotoProof is only available as an option in SilverFast DC Pro Studio and SilverFast HDR Studio.

Keyboard Shortcuts in *PrinTao*

Action	Macintosh	Windows
Activating /deactivating templates and Activating /deactivating guide lines and activate/de-activate grid frame	F7	F7
Delete image frame from print page	Shift + backspace	Delete
Rotate image with template frame	Alt+click on rotate button	Alt+click on rotate button
Rotate image counter-clockwise	Shift+click on rotate button	Shift+click on rotate button

Cropping Mode Not Active

Crop image	Alt + click-dragging edge or corner	Alt + click-dragging edge or corner
Crop image symmetrically	Alt + Shift + click-dragging edge or corner	Alt + Shift + click-dragging edge or corner
Scroll image clipping within image frame	Shift + click-dragging within image	Shift + click-dragging within image
Scale image proportionally	Shift + click-dragging edge or corner	Shift + click-dragging edge or corner

Moving Image- and Template Frames via Keyboard Shortcuts

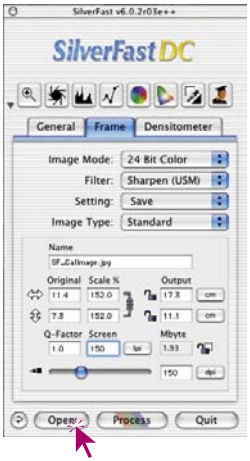
Adjustment by 1 pixel	Command + cursor	Ctrl + cursor
Adjustment by 10 pixel	Command + Shift + cursor	Ctrl + Shift + cursor
Adjustment to the next guide line or rather edge of printable area	Command + Alt + cursor	Ctrl + Alt + cursor

Action	Macintosh	Windows
Zooming the Print Page via Keyboard Shortcuts		
Enlargement by +10%	Command + plus	Ctrl + plus
Decrease by -10%	Command + minus	Ctrl + minus
Scaling Image Frames Stepwise in Percentage		
Enlarge image frame by +10%	Command + plus	Ctrl + plus
Decrease image frame by –10%	Command + minus	Ctrl + minus
Enlarge image frame by +1%	Command + Shift + plus	Ctrl + plus
Decrease image frame by –1%	Command + Shift + minus	Ctrl + minus
Scaling Images Inside it's Frame		
Enlarge image clipping +10%	Command + Alt + plus	Ctrl + Alt + plus
Decrease image clipping –10%	Command + Alt + minus	Ctrl + Alt + minus
Enlarge image clipping +1%	Command + Alt + Shift + plus	Ctrl + Alt + Shift + plus
Decrease image clipping –1%	Command + Alt + Shift + minus	Ctrl + Alt + Shift + minus
Text Functions		
Open text menu	Command + T	not available
Select complete text of text box	Command + A	not available
Print selected text **bold**	Command + B	not available
Print selected text *italic*	Command + I	not available
Underline selected text	Command + U	not available
Launch spelling check (menu)	Ctrl + click into the input field	not available
Undo	Command + Z	not available
Redo	Command + R	not available

Action	Macintosh	Windows
Navigator / File Browser		
Navigation within image list	Arrow up / down	Arrow up / down
Extend selection	keep Shift pressed	keep Shift pressed
Add selected images to printing page	Alt + arrow right	Alt + arrow right
Add selected images to printing page	Alt + Enter	Alt + Enter
Open directory	Arrow right	Arrow right
Back to superordinated directory (if a directory is selected)	Arrow left	Arrow left
Back to superordinated directory (if files are selected only)	Alt + arrow up	Alt + arrow up
Close directory (if *file browser* is selected)	Arrow left	Arrow left
Define selected directory as Root (if a directory is selected)	Alt + Enter	Alt + Enter

Opening an Image with the “Open” Button

Clicking on the “open” button activates a dialogue used for selecting the device or folder containing the images:



Open an image directly by double clicking on the name or by single clicking on the name and clicking the “open” button. The image will be opened within the *SilverFast* prescan window.

Macintosh

Clicking on the header of the prescan window, while keeping the “Command“- key pressed.

Windows

Richt click the mouse in the prescan window.

IT8 Calibration with *SilverFast DCPro*

Differences in Calibration Between a Scanner and a Digital Camera

When calibrating a digital camera, several factor have to be taken into account.

The great advantage of scanners is that they work with almost constant conditions: it has an almost constant light source, a fixed colour temperature and a constant distance between the object and the sensor, as well as an absolute array between object and sensor.

This is completely different with digital cameras! Nothing is really constant or standardised, leaving the camera much more flexible and therewith hard to calculate.

> An IT8 calibration can be performed but, strictly speaking, lasts only as long as no changes are made to the surrounding factors.

These conditions are generally only found in photo studios, tabletop or during repro photography. They are strongly variable when working with changing light conditions, outdoor photography, etc.

Each deviation of the factors makes the calibration work for only one single photo. If a light source is moved in a photo studio, a new calibration-photo is to be made. In order to do this, simply place a suitable IT8 target on a prepared stand into the photo to be taken, and capture the IT8 target in the photo. Then remove the target from the set, and re-shoot the photograph. By this method, two photos are taken, first one for calibration and after that the actual photograph. Professionals know the procedure with grey card tests – the objective is the same with the steps described here.

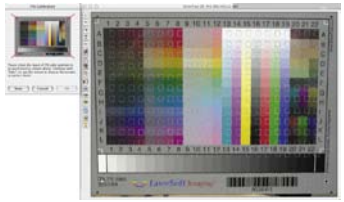
Steps of a Calibration with *SilverFast DC Pro*

Other than with flat bed or film scanners, digital camera users will often come across angularly photographed IT8 targets. A chart that is exactly perpendicular to the optical axis of the camera could reflect and hence make the photograph useless for later calibration.

For compensation of angular distortions, *SilverFast DCPro* is equipped with a flexible and perceptively variable scan frame. This frame contains a grid that resembles the individual measurement fields of the IT8 target.

The calibration itself is the same as in all other *SilverFast Ai* versions. The only difference is the different positioning of the scan frame.

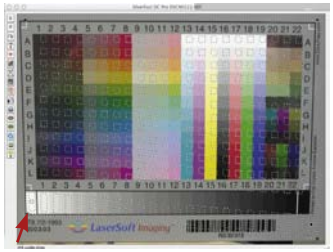
Launch *SilverFast DCPro* and load the IT8 image into the preview window of the main menu.

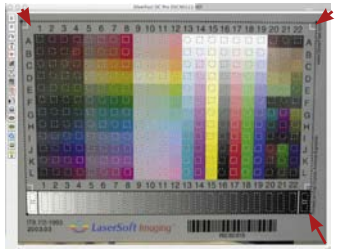


Open the IT8 dialogue by clicking the respective button in the vertical toll palette, located left of the preview window.

The grid will immediately appear in the preview window.

By means of one mouse click into the IT8 Image of the dialogue window, the frame is set bavck to the standard position





Position the grid exactly over the IT8 target.

SilverFastHiRePP

HiRePP (High Resolution Picture Performance) is an new technology designed to dramatically increase the **speed of loading** large image files (larger than 30 MB) in conjunction with *SilverFast Ai* and the scanner independent *SilverFast HDR* and *SilverFast DC*.
This is true for all *SilverFast* versions loading *HiRePP*-accelerated image files, such as 24 bit and 48 bit Tiff-files.
The function cannot be seen in the *SilverFast* interface, since it works totally invisible requiring no interaction from the user. Though its impact becomes more effective, the larger image file size becomes.
Loading or opening large image files (e.g. 500MB) depending on the software and computer CPU power, may last several minutes respectively. If these large files have been generated with a version of *SilverFast* with *HiRePP*, opening these files in *SilverFast HDR* or *-DC* will only be a matter of seconds.
Of course it is also possible to instill *HiRePP* into already existing non-*HiRePP* files with *SilverFast HDR* accordingly. That would be an ideal task e.g. for the *SilverFast JobManager*. Whole directories of old data can automatically become *HiRePP*-capable. All without any loss of quality!

How much Time will be Saved?

Test configuration: Macintosh G4, 450 MHz, 384 MB RAM, Adobe Photoshop 6 with 120 MB RAM allocated.

Image file with:	*100 MB* *without HiRePP*	*100 MB* *with HiRePP*	*500 MB* *without HiRePP*	*500 MB* *with HiRePP*
opens in				
SilverFastHDR with HiRePP in	*≈11 sec*	*≈2,5 sec*	*≈34 sec*	*≈2,5 sec*
Photoshop 6 in	*≈15 sec*	*≈15 sec*	*≈90 sec*	*≈90 sec*

How does *HiRePP* Function?

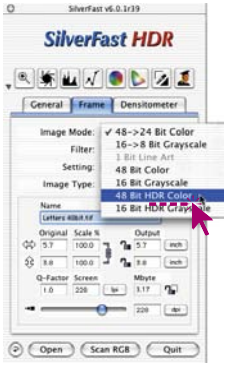
HiRePP functions as a two-step system:

- The first step is to make the image data *SilverFast HDR HiRePP* compatible, or to re-scan with a new *SilverFast Ai* software.
- Second step: All *HiRePP* capable image files can be loaded and edited in real-time with *SilverFast HDR*.

HiRePP is Especially Significant for Whom?

Large image files are generally generated on high end scanners, with high optical resolution, as well as with large format scanners. Since image files will have no loss of quality with *HiRePP*, but generate a large time-saving potential, *HiRePP* is recommended for those types of scanners. as mentioned above.
In addition all users having to process a large number of files: Publishing companies, Image data archives, photographers,...
The time saved will plainly increase with the number of images processed.

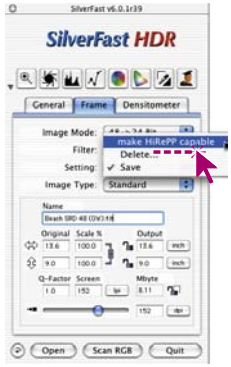
Furnishing existing Image Data with *HiRePP*



How do you make an existing stock of images *HiRePP* compatible without changing anything in the images?

First, deactivate *SilverFast SRD* and switch to “48 bit HDR colour” mode. All tools and filter are now de-activated.

Save the settings in the palette “Frames” under “Adjustments” with a suitable name; e.g. “make *HiRePP* capable”.

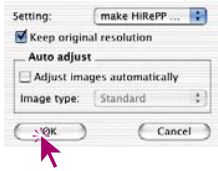


Start the integrated *JobManager*
It initially opens as an empty window.

Now open the *Virtual Light Table* (*VLT*)
Chose image data that is to be made *HiRePP* compatible: individual images from a directory or an album, complete directory contents or combinations of images from different directories.

Pull the selection by “Drag & Drop” into the *JobManager* window.

The window in which you just saved the “make HiRePP capable” will re-open.



Important:

Check the box “Keep original resolution” and de-activate “Adjust Images automatically”.

Only now will the image parameters remain unchanged.

By clicking “OK” the selected images are passed to the *JobManager*

Select all images (Mac: “Cmd + A” / Windows “Ctrl + A”).
A new directory is chosen in which the newly updated images are to be saved.
The job now only has to be launched by pressing the “Start” button.

6.12 *SilverFastJobManager*

Purpose of the *JobManager*

What is the *JobManager*?

SilverFastJobManager (from here on referred to as "*JM*") is a built-in function for the scan software *SilverFastAi...,* as well as for the Photoshop plug-ins which operate independently of a scanner and the Twain modules *SilverFastHDR..., SilverFastDCPro...*

What is the Purpose of the *JobManager*?

If a user wants to scan a whole row of images (for example, an entire film strip), he would normally proceed image by image. The user would sit at his work place with a calculator and scanner and proceed one after the other with image optimising (gradation, histogram, colour correction, focus, etc.) and the final scan, image by image.
This is a time and cost-consuming procedure if there are many images and optimum quality is desired. The time required for the hardware to make preview scans, fine scans and save files is dead and wasted time for the user. In terms of modern, fast work processing, it is really a dinosaur!
When using *JM*, there are additional advantages for using a flatbed or drum scanner. Thanks to *JM*, you can process transparent and reflective artwork and even mix slides and negatives. They can be processed in one pass, using *JM*.
Therefore, *JM* is a tool that will drastically increase the efficiency in the workflow process and is also a means for decreasing costs.

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What is a *Job*?

A *Job / Job entry* is a collection of settings, parameters and manipulations, which can be used

a) for an image to be scanned,

b) for an already existing image file or

c) for complete folders with image files.

A job or job entry can also be seen as an instruction list, from which images, image files* or image folders* can be processed automatically.

** Note!*
Only applicable when using JM with SilverFast HDR... or SilverFast DC...

How is *JobManager* Different from "Batch Scanning"?

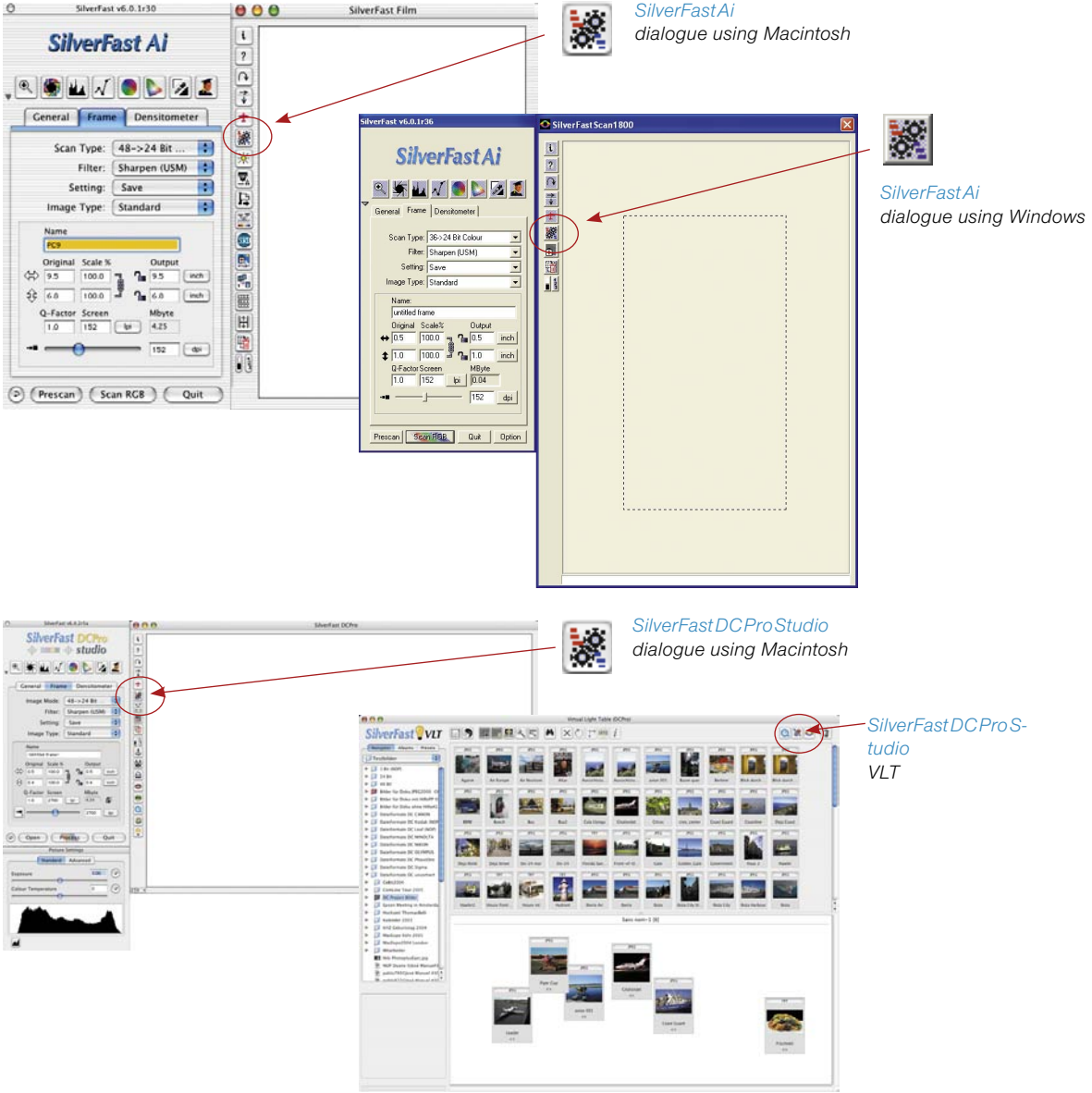
When using a **flatbed or drum scanner,** the automatic processing of image frame parameters in the preview window will be by batch scan. Thus, the batch scan is restricted to the preview window of the flatbed or the drum scanner.
With regard to film scanners, the batch scan is defined in a similar way. Only now you have the choice of scanning additional images in a filmstrip with the same or with individually modified parameters. You can also choose to scan selected images instead of all of them. Changing individual settings for subsequent images is generally not possible in a batch scan.

With ***SilverFast* versions that are independent of scanners**, such as *HDR...*, and *DC...*, *JM* accepts 48 bit** raw data from files*, directories* containing RGB image files, and disks over the network*, etc.
RGB scans of negative films, transparent material and reflective material can be processed simultaneously in any desired sequence.

*** What is RAW data?*
*A few scanners and digital cameras can also scan in a "raw data" or **HDR format** (high dynamic range) with **48 bit colour** or **16 bit greyscale** by means of the SilverFast Ai scan software.*
*In this manner, the raw data of the scanner is read as an **RGB file**. Here (with scan type "48 bit HDR colour"), the only means of adjustment during scanning is the output scale and the degree of resolution.*
SilverFast Ai can embed a scanner profile (which describes the deviation of the scanner) into the RGB data during the output of 48 bit data. The scanner deviations can then automatically be corrected during later processing with SilverFast HDR....

Overview

To activate the *JobManager*, click on “JobManager” button.



SilverFastJobManager Tools

Icons indicating the current corrections and the output format chosen:


Execute ***auto-adjust*** *before scan*


Gradation curve *changes in effect*


Selective colour correction *active*


RGB output format *selected*


Lab output format *selected*


CMYK output format *selected*

Icons representing actions with reference to the Job:


Add the active frame *from the preview*


Add all frames *from the preview*


Add images from image overview *dialogue window (filmscanners only)*


Activate VLT (SilverFastDC..., HDR... versions only)


Delete the job entries *selected*


Edit parameters *of the job entry selected*


Copy job-entry parameters

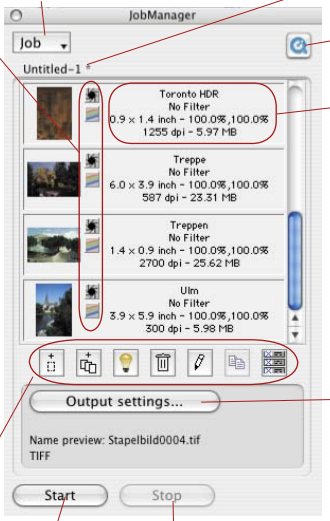

Select all job entries

SilverFastJobManager Menu
Referring to actions with relation to complete jobs (such as saving and loading)

Name of current job
A star (*) indicates, whether a job has been changed

QuickTime
Launch tutorial movie.

Image information
File name
Active filter
Output dimensions / scaling
Horizontal and vertical
Output resolution – file size



Output options
A menu for setting file formats, directories and file names.

Starting and stopping
of job execution

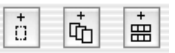
Differences in *JobManager* between SilverFastHDR..., -DC..., and SilverFastAi...

There are only two minor differences:

a) It's more easy to move images in the scanner independend *SilverFast* versions than in *SilverFastAi*...

In *SilverFastHDR...* and *-DC...* you can drag&drop images directely from *VLT* into the *JobManager*.

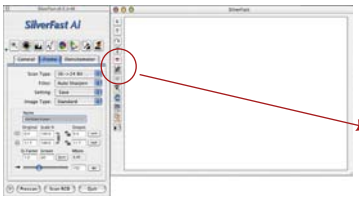
In *SilverFastAi...* you have to use the corresponding buttons.



b) In *SilverFastHDR..., -DC...* the button "add all frames" is not available.
You will find the *VLT* button instead.

Using the *SilverFastJobManager* with Film Scanners* and Film Strips*

Activating the *JobManager*



First, start *SilverFast Ai*. You do not need to do a preview scan after start-up, since an orientation regarding the total content of the inserted film strip has to be set first.
To activate *JM*, click on the “JobManager” button in the vertical list of buttons that are to the left of the large *SilverFast Ai* preview window.

The *JM* window will open.

The window will remain empty and carry the designation “Untitled-1”, as long as no images have been added to *JM*, or no saved jobs have been loaded.

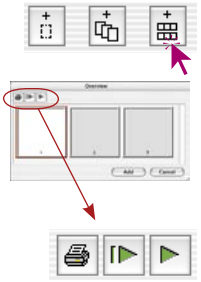
First, add the image files as individual job entries to *JM*. Each *job entry* will define the parameters for exactly one scan. All *job entries* within the window will be combined as one *job*.

There are Several Ways you can Produce *Job Entries*

There are three buttons in the tool list of the *JM* window, which control the addition of image files to a *job*:
The first buttons are used primarily for framed individual images. The first two buttons are mainly used for single images that are already visible in the preview window. The third button is used for unframed film strips* or complete films*.

Attention
Some functions are only found with certain types of scanners.

Image Overview of Inserted Film Strip (Index Scan)

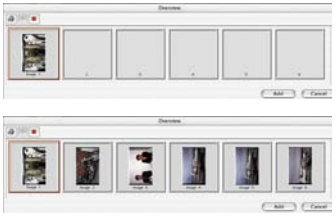


Click on the third button to get an overview of the inserted film strip contents.

The window “Image overview”, which may still be empty, will open. The size of the window, i.e. the number of thumbnails is restricted and depends on the scanner type and the length of the film strips.

You can print an overview by using the buttons at the top (1st button), refresh the overview (2nd button) if for example a new film strip has been inserted, or you can pause the refresh that has already begun. (3rd button)

Clicking on the 2nd button will tell the scanner to produce an overview of the whole film strip.



The overview progression will display on your monitor and can be stopped and started.

Selecting Desired Images

In the resulting image overview, you can select individual images by “Command + click” (Win: Control + click), or you can select a connected sequence of images with “Shift + click” SHIFT + (Win: SHIFT +) or select all images with “Command + A”. + A (Win: CTRL + A).
The activated images will have a wide white frame in the image overview. The frames of the non-activated images will remain grey.

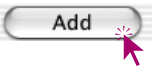
Selection of images:

Macintosh

+	*additional single images*
SHIFT +	*image sequence*
+ A	*all images*

Windows

CTRL +	*additional single images*
SHIFT +	*image sequence*
CTRL + A	*all images*

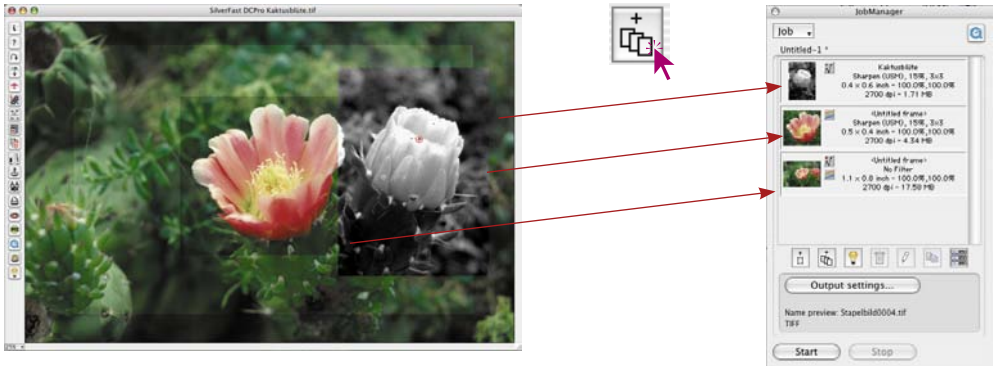


By clicking on the “Add” button, the images will be added to the *JM* window.

Since no parameters have been defined for these image files (in contrast to a scan frame in the preview window), a dialogue will appear after you click on the “Add” button, from which you can choose a previously saved presets (or the *SilverFast* basic setting) as a parameter substitute for the images.
In addition, you can designate if image auto-adjust should be applied before the processing of these images (job entries).
The images selected are only visible in the *JM* window.
If images without thumbnails are added to the *JM* a standard icon will be display, as done with the third image here.

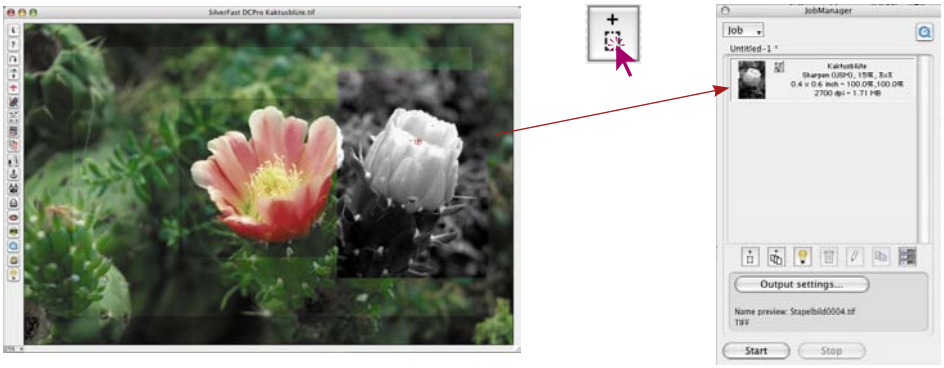
Adding All Frames of the Preview Window

By clicking on the 2nd button, all frames displayed in the preview window will be added to the *JM* window.
In the example below, 3 frames were displayed. Each frame encompasses a different image section and was optimised with different parameters. Each frame enfolds a different name, a different display window and contains different parameters for optimization.



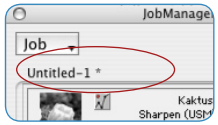
Adding a Single Frame

By clicking on the first button with the mouse, the currently activated frame of the preview window will be added to the *JM* window.



You can also mix the three types of *job* entries.

If you make changes in a *job* or *job* entry, and the job changes have not been saved yet, they will be designated with an asterisk * behind the job name.



Attention!

If an image overview appears above the *JobManager* button (in the margin to the left of the prescan window), the keyboard short cuts found there cannot be utilized. This overview appears only for the purpose of selecting a single, new image for the default preview scan. You cannot transfer an image from here to the *JM*.

Deleting *Job Entries*

Individual *job* entries can be deleted at any time. To do this, you must select the *job* entries to be deleted in the window of the *JM.* One click of the delete button will remove the marked entries.

Processing *Job Entries*

Switching to the Processing Mode

Processing button ***on / off***

processing button ***off***

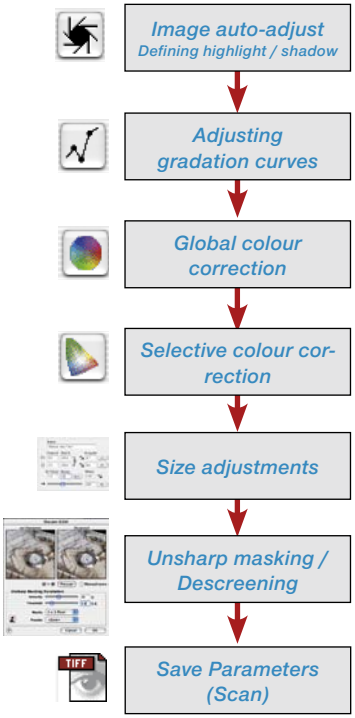
selected job entry

The *job* entry to be processed must be selected with a click of the mouse. *SilverFast JobManager* marks the default job entry found in processing with a frame in the selection colour.

Start the *JM* processing mode by clicking the mouse on the "Processing" button. When switching into the edit mode, a small preview window will appear. This "easy-edit" mode is very useful and time saving if parameters are to be altered quickly and a new preview is necessary (e.g. change of resolution or name, etc.)... if desired, a click on to the "prescan" button immediately launches a preview of the selected image.

Hold the "Processing" button down in order to signal the active processing mode (see screenshots at the left).

Workflow of optimising images



The Actual Image Processing

The next steps are easy. Now, all *SilverFast* tools needed for processing the selected image are available to you, just as in the processing of a normal scan procedure.

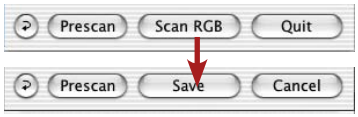
Of course it is important to retain order of the workflow steps of image correction.

The sequence for optimising images is shown in the margin.

The *SilverFast ScanPilot* is also available as an additional means of assistance.

The only difference is in the last processing point. The corrections applied will not be processed immediately, they are saved in *JM.*

The "Scan" button of the normal scan software has been changed to a "Save" button in *JM.*



When "Save" is pressed, a scan will not be initiated at this point!

You can immediately proceed to the next image and process it as well. Simply click on the *JM* window and it will automatically be loaded into the preview window.
Proceed with the next image optimising. By clicking on “Save”, the parameters will go back to *JM* and will again commit the operation. Using this method, you can optimise all desired images of the film strip in the shortest time.

Leaving the Processing Mode

After finishing the last image optimisation, you can leave the processing mode again by clicking on the “Processing” button. Now you can choose the job entries which are to be scanned. You can do this in the following way:

“Command click” ⌘ + (Win: CTRL +) for individual images.
“Shift click” SHIFT + (Win: SHIFT +) for a sequence of images.
“Command A” ⌘ + A (Win: CTRL + A) for all images of the jobs.

In the example, only three of the four entries have been selected.

Output Settings

This field consists of an extensive dialogue for selecting the path of the generated image data, setting the output formats and for handling the file names.

- **Choosing the Location for Scans**

  The browser, located in the upper part of the dialogue window, allows selection of the path of the scan and is freely selectable.

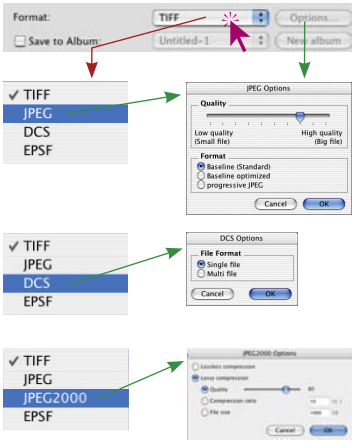
  A new directory may be created by clicking the “New folder“ button.

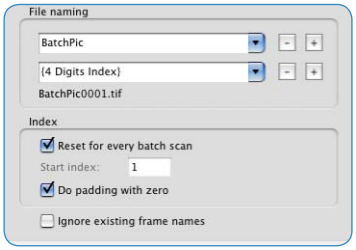
  If the check box “Save to album“ is activated, images may be saved into an existing or into a new album. This option is only available in the *SilverFastDC*... and *HDR*... Versions.

- **Selecting File Format**

  The format selection menu (bottom right) shows the available file formats in which images can be saved. The choice of format varies with the selection of the colour space used for digitalization (RGB or CMYK). Please refer to the table on page 219 for an overview of available file formats.

  Additional parameters (“Option” button) can be set in some file formats like “JPEG“ and “DCS“.



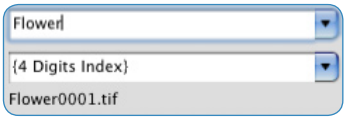


- **Usage of File Names**

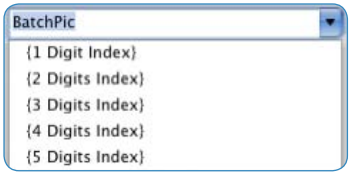
The lower part of the dialogue window is dedicated to file names.

The kind of name may be chosen from the “File naming” menu. For this, at least two input fields/popup menus are prepared:

The upper input field / popup menu shows the term “Batch Pic”. This name may be changed to any other term.

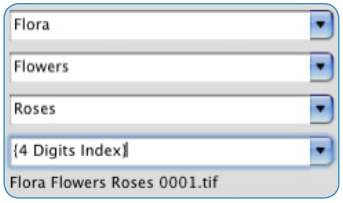


Alternatively, pre-defined index-elements may also be chosen from the input field / popup menu



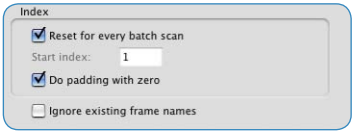
Since each file name is given a numerical value, the index, it will normally be named by means of the second popup menu.

For more complex image series, the names and the indexes may be extended by pressing the “plus” keys which in turn will show more input fields / popup menus.



The “minus” button deletes the respective input field / popup menu.

For clarification, an example of the currently selected combination of name and index is given below the last popup menu.



The “Index“ field allows the setting of further options, indicating how the Index is to be used:

Reset for every batch scan: With each launch of a batch scan, the index is reset to the initial settings.

Start index: The numeration of the index is freely selectable. Even a negative starting point may be chosen. This is commonly used with film strips, which already contain the film strip number of “1“ and have one or more exposures.

Do padding with zero: Image numbers that have less positions than the previously set index number are automatically filled with zeros in front of the number. An image numbered 13 will receive a 4 digit index number; i.e. 0013.

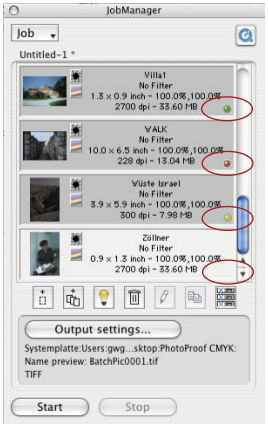
Ignore existing frame names: Current file names are completely ignored and are replaced with new names.

Use image number instead of sequence number: Only valid for film scanners. With the check box activated, the actual number of the scan frame is selected instead of the sequential number.

Starting the Real Scan Processing

A click on the “Start” button in the *JM* window will initiate the automatic processing of selected entries. This process can take more time depending on the intended settings for image optimisation, particularly when using maximum scans, high resolutions, large greyscale, or multisampling, etc.

The advantage is the user can now leave his workplace, take care of other things and allow the scanner and computer to processes the job by itself.



Job Status

An LED will show the status of each *job* entry during and after the *job* processing:

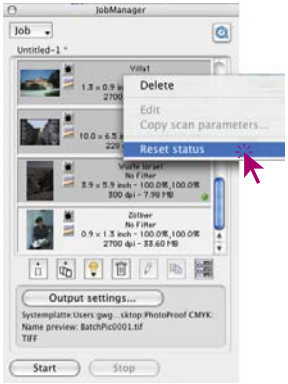
Yellow, when the entry is being processed

Green, when the entry has been successfully processed

Red, when the entry has been unsuccessfully processed

Grey/White when the entry has not been processed yet.

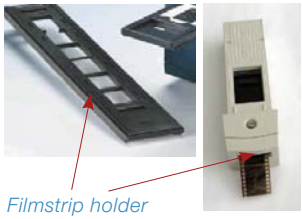
If no entries have been selected in the *JM* window, all *job* entries will be carried out, otherwise, only the selected entries will be processed.
Processing of *jobs* can be interrupted at any time by clicking on the “Cancel” button in the progress dialogue or by clicking on the “Stop” button in *JM*.
If you restart at a later time, processing will continue where you left off, however, only entries whose status is not green or red will be processed.



Changing Back a *Job*

If you want to carry out *job* entries again that have already been processed, their status has to be reset. First, the entries must be selected from the *JM* window.
“Ctrl click” (Win: right mouse button) will open a contextual menu, which in addition to the *job* entry command contains the instruction “Reset status”. It will change the selected entries back to “Unpro-cessed” and to the colour grey.
Now you can again start a new selection of *job* entries and processing.

APS-Adapter



Filmstrip holder

1. Start the film scanner and place the filmstrip in the scanner.

2. Start the image-processing program (i.e. Photoshop) or *SF Launcher*

3. Launch *SilverFast Ai* for your scanner.

4. Activate the *SilverFast JobManager*.

5. Produce an overview scan.

6. Select images and add to *JM*.

7. Optimise each picture and save it.

8. Set target directory, name and file format of the final scans.

9. Start processing the job.

X. Computer and scanner continue unassisted processing.

10. Close *JM* and *SilverFast Ai*.

The *SilverFastJobManager* with Flat bed Scanners*

The Difference to Working with Film Scanners

The *JobManager* of *SilverFast Ai...* is in general similar to all scanners. The possible differences arise from the constructional differences of the scanners* themselves:

- Flat bed scanners can usually be fitted with a transparency unit*. By this, reflective- and transparent images may be scanned with the same machine.
- By means of the transparency unit film positives and negatives may be processed. Even the film sizes do not matter, as all formats may be placed on the scanner.
- Flat bed scanners with an integrated drawer* for transparencies may utilize both a reflective and transparency unit for the same job at the same time. Both scan areas may be fully fitted with images. Even the combination of negatives and positives is possible.
- The scan area of flat bed scanners is huge in comparison with film scanners. The orientation of the different images does not matter. By using the *JobManager* is it easy to optimize the scan on the prescan itself and simultaneously bring the image to the desire output orientation.

In order to avoid triple repetitions, the descriptions of the individual *JobManager* functions are collected and thematically and are distributed among all areas of chapter 6.12. Is is highly recommended to read about the full functionality of the *JobManager*.

**** Attention***
Some functions are only found with certain types of scanners.

Differences in Working with Scanners

The *JobManager* provides the greatest advantage when used with the scanner independent plug-in *SilverFast HDR..., -DCPro...* In combination with these plug-in the user will find the greatest potential for saving time.

Normally, image files are digitalized in one step with a scanner. The user sits at a workstation with a computer and a scanner and optimizes the images (gradation, histogram, colour correction, sharpening etc.) and the final scans for each picture one at a time. If the volume of images is high and maximum image quality is desired, it is a time and cost intensive procedure. The time required for the hardware in order to carry out prescans, fine scans and saving the files is dead, wasted time for the user. In today's fast workflows, it is considered unacceptable.

JM is thus a tool, used to drastically increase the workflow efficiency and also a means of lowering costs.

Compare the normal workflow to the one made possible by *JM* (See next page).

The graphic representation shows the traditional work flow represented on the left and the new workflow controlled by *SilverFast JobManager* represented on the right.

In the traditional manner, the operator has to continuously remain at the scanner workstation, since the short wait does not make it practical to work at a second workstation. Each image is processed individually and made available to the network.

With *SilverFast JobManager*, there are long free periods, in which the operator can pursue additional activities at other workstations. As the computations show, scanning 72 slides can save 6 full hours of work.

Processing time - example:
Job order: 2 color slide films (each 36 slides) having different brands (A and F), which were exposed individually (thus do not represent a series) are to be scanned: including color and gradation correction: sharpening: scaling A: 900%, B: 200%: output A: at 228 dpi CMYK, B: at 72 dpi RGB.

Typical time requirement:	*Min*
prescan, zoom: each 30 sec.	*1*
optimising	*2*
USM prescan	*0,5*
Batch scan: A 1 and B 3 min	*4*

∑ = 7,5
x 72 slides
∑∑ = 540 min
∑∑ = 9 hours

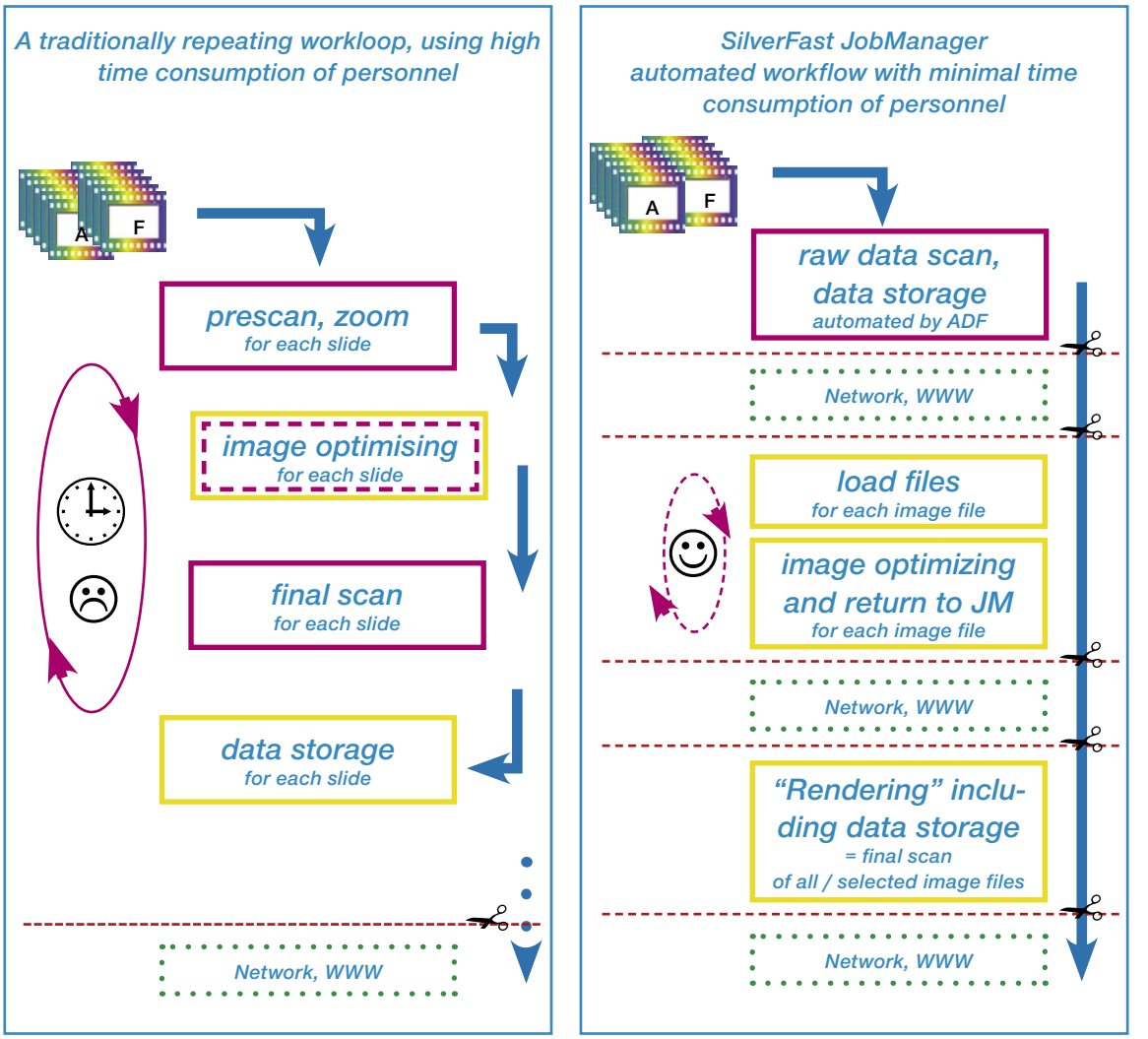
Time requirement with JM:	*Min*
raw data each 4 min	*4*
prescan, zoom: each 2 sec	*0,033*
optimising	*2*
USM prescan 1 sec	*0,0167*
rendering: A 5 sec., B 40 sec	*0,75*

∑ = 6,8
x 72 slides
∑∑ = 489,6 min

Less machine times:	*Min*
for raw scans: (72 x 4 min.) - 30 min	*258*
for rendering: (72 x 45 sec.) + 1 min	*55*

∑ = 313
∑∑∑ = 176,6
∑∑∑ < 3 hours

processing time saved: ***6 hours***



Comparison of the traditional workloop controlled by an operator to an automated workflow after installation of the *SilverFast JobManagers*.

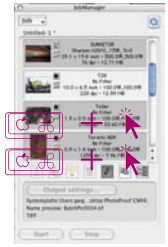
Legend:
magenta high expenditure of time, e.g., by being tied to a scanner
yellow the time requirement is only dependent on the computer system
green preparation of data and availability for all types of Networks
✂ possible interruption of the workflow, e.g., passing the job on to someone else.

Copying of *Job Entry* Parameters

Often the desire may arise the parameters of several *job entries* at the same time fairly often (e.g., changing the output conversion from RGB to CMYK for several entries), but this is not directly possible (what values would be indicated in regard to several *job entries* that would be processed at the same time?).
Yet still only one single job entry has to be done. Proceed as follows:

- First activate the edit mode and select an entry you wish to change. Now you can do the desired changes (for example to set the output conversion to CMYK). The normally saved gradation curves will be utilized while the changes are being saved. Automatic imaging will not be started.

- The *job entries* that are to be changed will also have been selected in the *JM* window:
as always with ”Command click” ⌘ + (Win: CTRL +) for individual images, with “Shift click” SHIFT + (Win: SHIFT +) for a sequence of images and with “Command A” ⌘ + A (Win: CTRL + A) for all images.



- By clicking on the now activated “Copy” button, all changes made in the current *job* can be copied into the other *jobs*.

  The user may define which parameters are to be copied

  (Please note: the last settings in this dialogue are active and will still be there during the next start of *JM*).

- By clicking the “OK” button, the highlighted parameters will be copied into the selected *job* entries -> done!

Copying of Complete *Job Entries*

It is also possible to copy individual, several or all *job* entries of a job into a newly created or already existing job. Just use the ”Copy & Save” commands:

- Exit ”processing mode”.
- Select the job entries or entry that you want to copy.
- Copy the job entry into the buffer with ”Command + C” ⌘ + **C** (Win: CTRL + **C**).
- Open or create the final job.
- Copy the buffer content to the final job with “Command + V” ⌘ + **V** (Win: CTRL + **V**) to the target job.

Managing Complete *Jobs*

After processing and saving individual *job entries*, you can turn to managing the completed *jobs*.
The entries of the *SilverFast JobManager* menus can be used with completed *jobs*. Here, all base operations can be used for completed *jobs*.
Specific menu points:

New: Creates, a new, empty *job*. If there is a job already in the *JobManager* which has not yet been saved, you will be asked whether you want to save that *job* first.

Open: Contains a list of all saved *jobs* in a submenu. The *job* will be loaded by selecting the appropriate entry from the menu. The currently loaded job is highlighted in the submenu.

Close: Closes the current *job*.

Save: Saves the current job. If the job is new (i.e. it has not been saved before), a dialogue pops up, which prompts you to input a name for the *job*. The location to save the *job* cannot be specified., instead, all *jobs* will be saved into the folder “Jobs” within the *SilverFast* folder.

Save as: Saves the current *job* under a new name (i.e. creates a copy of the *job*, if the job has already been saved before).

Delete: Contains a list of all *jobs* saved in a submenu. By selecting the desired entry from the menu, the *job* will be deleted. Additionally, there is a menu option “All Jobs” which will delete all saved *jobs*.

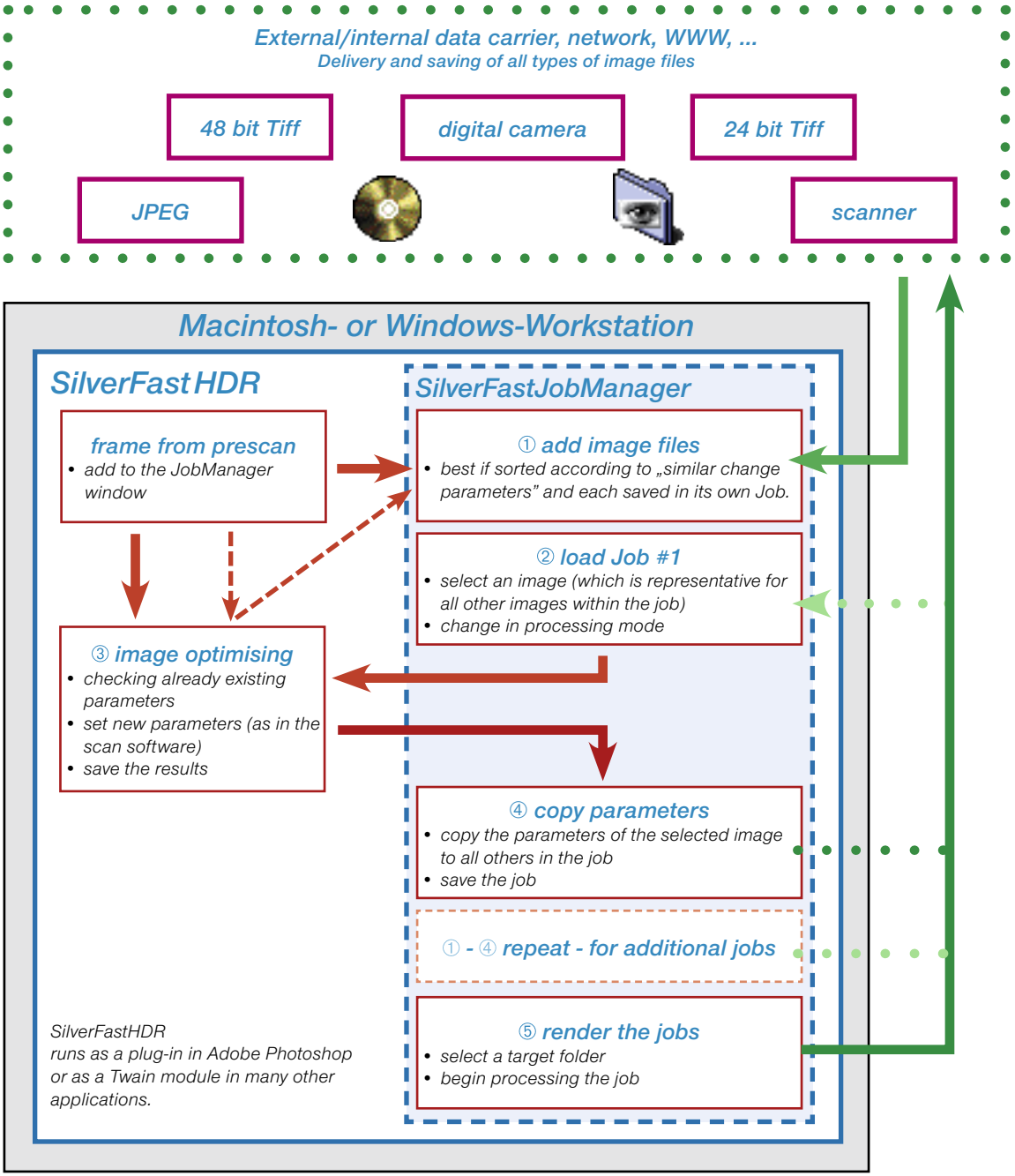
Mulit Job: Opens a window with a list of all saved *jobs*. Selecting of one (or more) *jobs* and clicking on “start”, launches processing of all selected jobs. The status of finished *jobs* can be reversed by clicking the checkbox “reset status before execution”.

Workflow of the Steps in *JobManager*

The following graphic representation shows a possible sequence of the steps in the

It starts with the addition ① of *job entries* to the *JM* window or the collecting of *job entries* for a *job*. The image files can be imported from outside or they can be taken over directly from the prescan window of *SilverFast HDR*.
Of course, you can also retrieve existing *jobs* directly (Step ②). Subsequently, an individual image representing all others in the *job*, or several, or all images of the *job* one after the other can be optimized (Step ② and ③).
If a selected image optimization is valid for additional image files, the parameters of the optimized image can be copied (Step ④) by means of many desirable additional files without any problems.
Finally, the *job* can then be rendered (Step ⑤). Several *jobs* can be combined and calculated.
The image files whose calculations have been finished are immediately available to the network.

Completed ”old” *jobs* can also be of additional interest. They can be edited at any time and can be recalculated with new parameters.


External/internal data carrier, network, WWW, ...
Delivery and saving of all types of image files
48 bit Tiff
digital camera
24 bit Tiff
JPEG
scanner
Macintosh- or Windows-Workstation
SilverFast HDR
frame from prescan
• add to the JobManager window
③ image optimising
• checking already existing parameters
• set new parameters (as in the scan software)
• save the results
SilverFastHDR
runs as a plug-in in Adobe Photoshop or as a Twain module in many other applications.
SilverFastJobManager
① add image files
• best if sorted according to „similar change parameters" and each saved in its own Job.
② load Job #1
• select an image (which is representative for all other images within the job)
• change in processing mode
④ copy parameters
• copy the parameters of the selected image to all others in the job
• save the job
① - ④ repeat - for additional jobs
⑤ render the jobs
• select a target folder
• begin processing the job

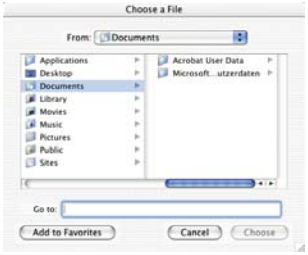
Error Messages

Source File is Missing

SilverFast JM checks for the existence of the necessary source file during the loading of *jobs*. If the files are not found in their original location, the following dialogue will appear:

You can delete the *job entry*, delete all *job entries*, or determine the location of the missing file.

You can search for the *job entry* and assign it by means of an additional window.



After the new relocation, you can transfer the path change to the *job entry* or to all respective *job entries*.

Keyboard Shortcuts in *SilverFastJobManager*

Macintosh

Selecting images in the *JobManager* image overview

add additional individual images	“Command click” ⌘ +
a sequence of images	“Shift click” SHIFT +
all images	“Ctrl A” ⌘ + A

Windows

Selecting images in the *JobManager* image overview

add additional individual images	“Ctrl-click” CTRL +
a sequence of images	“Shift-click” SHIFT +
all images	“Ctrl-A” CTRL + A

6.13 *SilverFastSRD* (Dust- and Scratch Removal)

Eliminating dust and scratches by standard means of retouching is an extremely time consuming “pleasure”. There have been quite a few approaches in software to solve this problem, but none has reached a professional level so far. Those software packages that have tried showed poor quality and did not solve the challenge of «How can Software differentiate between the true details and unwanted artifacts?»

How does *SilverFast* Recognise Dust and Scratches and How will they be Eliminated?

With *SilverFast SRD* (Version 6.x and above), even inexperienced „retouchers“ can obtain convincing results with just a few clicks of the mouse and a small number of masks. “SRD“ stands for „Smart Removal of Defects“. More than 95% of burdening retouchings can be saved by means of *SilverFast's integrated SRD™* (Smart Removal of Defects).

SilverFast SRD uses a multi-stage process based on masking and layer technology over which the user has complete control. (*SilverFast SE* can only use one layer with reduced controls).

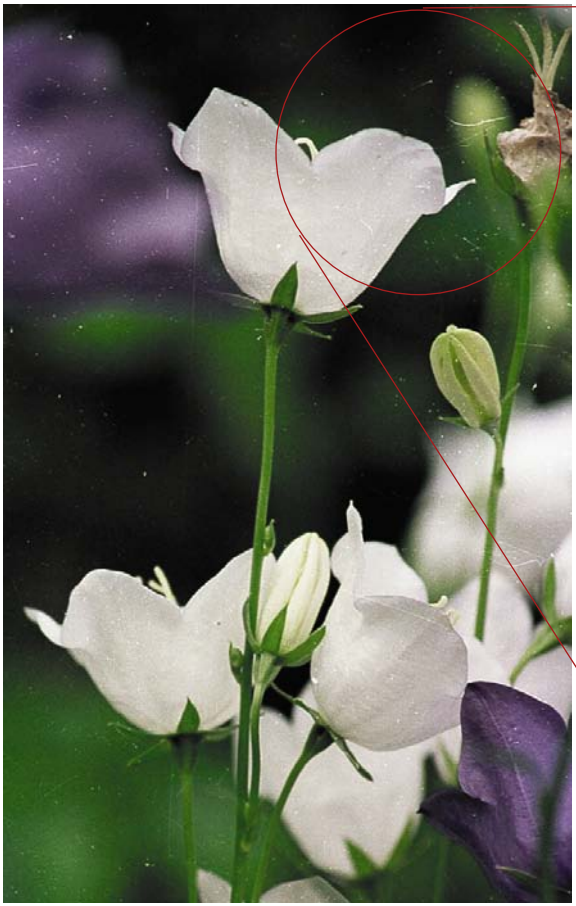
The starting point for this process is an intelligent automatic mechanism which achieves very good results for an average intensity of application and in most cases produces a successful outcome. It makes sense to start with fine, smaller defects and move up layer by layer and mask by mask to more pronounced scratches and artifacts.

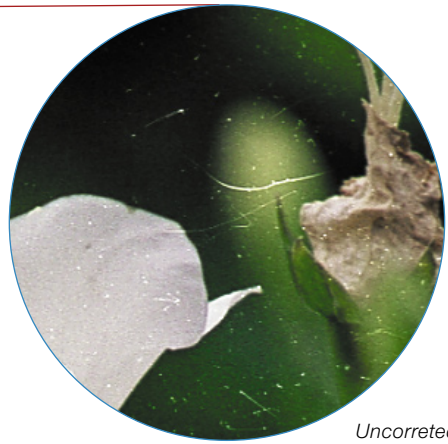
This elegant method enables to keep the image detail and leave a minimum (if at all) for removal with a clone tool.

Description of the special functions of iSRD can be found on page 389.

For optimum recognition of artifacts *SilverFast* uses two different methods: regular dust and scratch removal and the removal of linear artifacts. These work with parameters with similar names, yet have different effects on different artifacts.

Another advantage of *SilverFast SRD*: all processing uses the full dynamic range (bit depth) of the scanner involved! The better the scanner, the better will be the result of any processing.





Uncorreted silde

With SilverFast SRD corretced slide

Effect from SilverFast SRD
Left: uncorreted silde

Expert Mode

Allows usage of slider "Environment size" and opens menu "Longish scratch removal"

Administration of Layers

Add new layer

Delete active layer

Move layer in front of previous

Move layer behind following

Reset parameters

Creating Masks

Changing mask tools: Click button and hold mouse depressed, when pop-up comes up change to tool desired .

Brush

Polygon

Lasso

View of Artifacts

Realtime correction on / off

Original, without correction

Artifacts removed

Artifacts highlighted (red)

Help

Opens help, instructions and description of functionality

iSRD®
LaserSoft Imaging

Description of the special functions of iSRD can be found on page 389.

Activation of SilverFast Dust and Scratch Removal

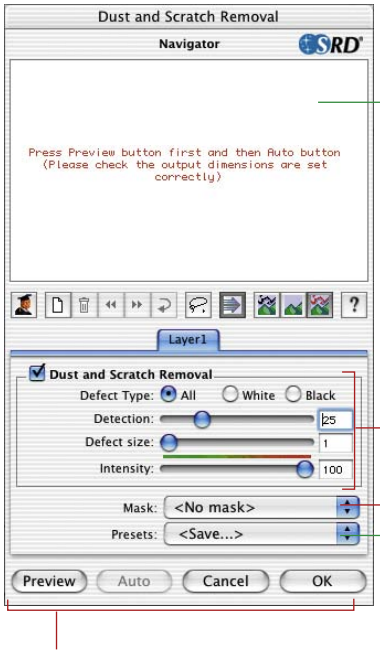
Depending on SilverFast version and scanner model different functionalities of dust and scratch removal are available. The corresponding buttons can be found in the vertical tools bar, left hand of the big preview window.

*SRD/iSRD is **deactivated**.*

*iSRD is active and running in **automatic mode**.*

*SRD/iSRD is active and running in **manual mode**. Clicking the bottom button opens the dialogue.*

SRD/iSRD is deactivated and ICE is active.



Navigator Window

***Areas with red frame**: available image area*

***Areas with yellow frame**: selection visible in preview window can be moved with mouse.*

Control Menu for Dust- and Scratch-Removal

***Defect Type**: All, white (bright) or black (dark) artifacts*

***Detection**: Recognition Sensitivity*

***Defect Size**: Artifact size*

***Intensity**: Differentiation of image detail and artifact*

Mask

Loading and Saving* of Masks*

Presets*

Loading and Saving of presets

Control Buttons

***Preview:** High resolution preview to monitor elimination of artifacts*

***Auto**: Activates intial slider setting*

***Cancel**: Leaves the D&S dialogue, without applying parameters*

***OK**: Applies current parameters and closes control window.*

** DIGITAL ICE technologies hardware based dust and scratch removal is not user-controlled and can only be switched on or off. Does not work with black & white nor Kodachromes.*

digital ICE technologies

Workflow of *SilverFastSRD*

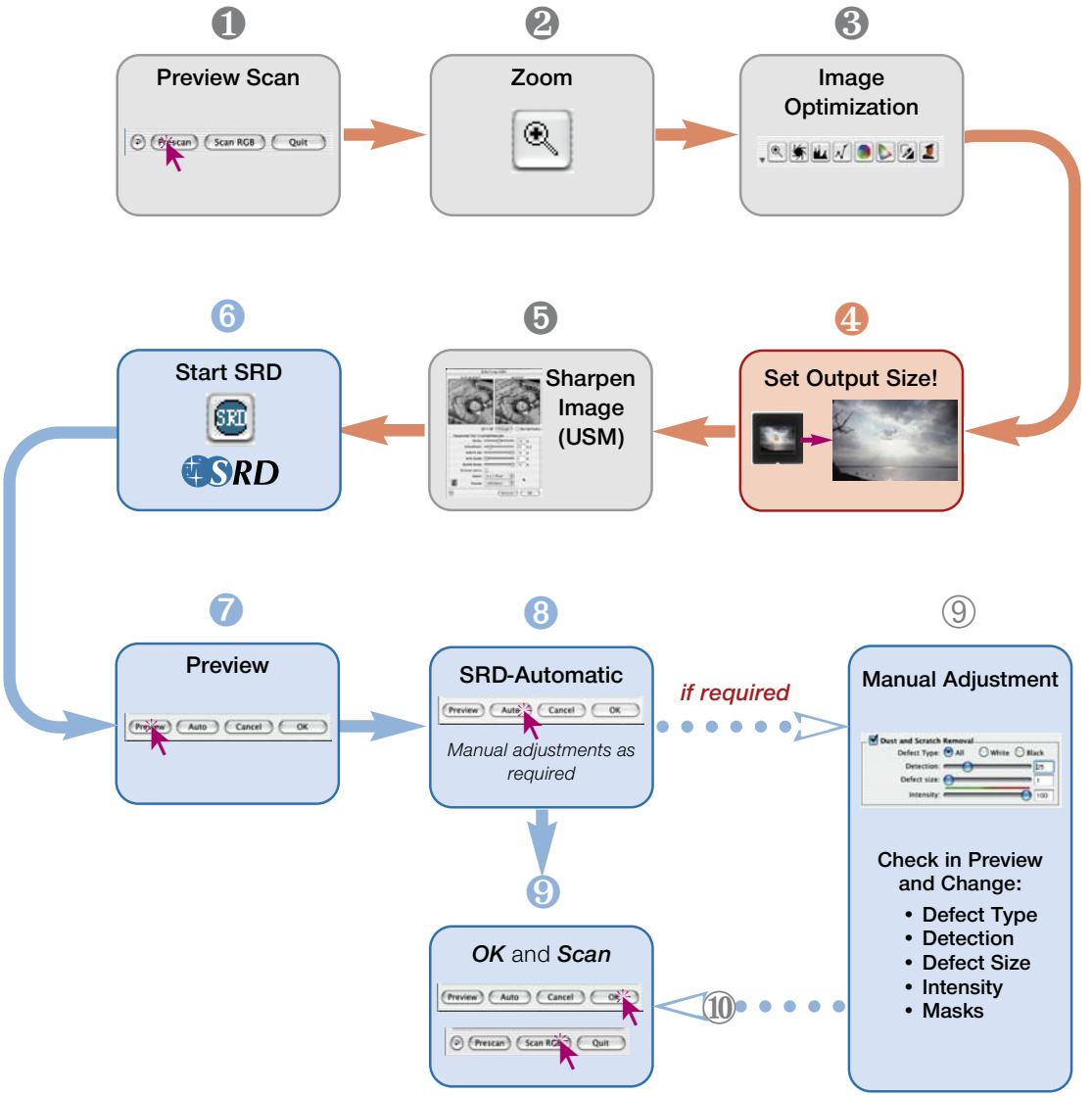


Image Optimization Workflow with *SilverFastSRD*

Briefly we will illustrate how an image will be optimized and *SilverFastSRD* (dust and scratch removal) be applied, on the following pages.

1. Preview scan

Start SilverFast and initiate a preview scan. Within the selected image position your scan frame.

2. Zoom

In order to see more image details (if required) start a zoom (click zoom tool).

3. Image Optimization

Start with *auto-adjust*, with different adjustments (if needed) such as *midtone* (top slider), *contrast* (bottom slider) or *global* or *selective colour correction*, all tools for image enhancement can be applied.

If you are not familiar with the best possible workflow the *ScanPilot* can help you effectively.

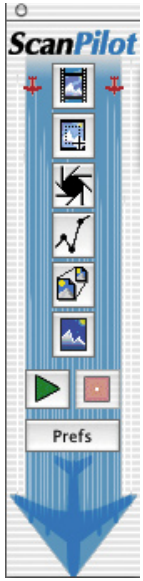
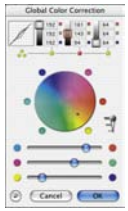
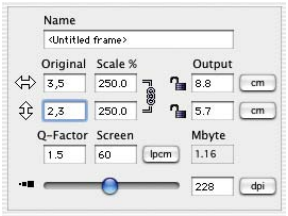


Image Optimization
Gradation, global- and selective colour correction in SilverFast Ai

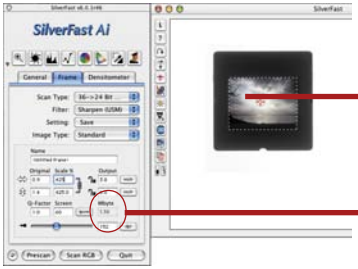


4. Output Resolution

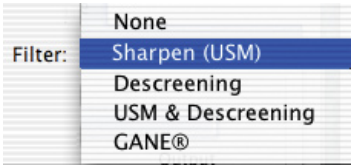


You have to set the required output parameters for your image: Scaling (or width and height) and output resolution.

It should be noted, that file size increases (MB!) with increased resolution, as well as recognition of image artifacts such as dust and scratches. Small resolutions will show less scratches than higher resolutions.



5. Sharpen Image (USM)



USM Dialogue
in SilverFast Ai

From version 6 *SilverFast...* will have a sharpen dialogue with »before« and »after« preview combined with automatic presets.

With »before« and »after« preview the final scan sharpness can be monitored and nicely adjusted in real-time.

The strength of the applied sharpness, as well as the quality of the scanner used, will have significant influence on the appearance of dust and scratches.

A high quality scanner, with good optical resolution, hence very good sharpness will clearly bring out every image detail and dust and scratches. Any additional sharpening might bring out exaggeration of the sharpness effect.

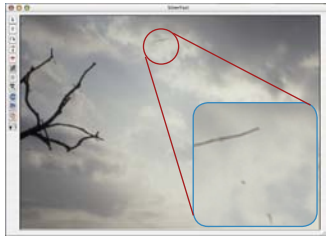
6. Activating *SilverFast SRD*

Click onto the *SRD* icon to open the *SilverFast SRD* dialogue. In case you have a scanner with hardware supported descratch function such as *DIGITAL ICE technologies*, you can switch between e.g. *DIGITAL ICE technologies* and *SilverFast SRD*. All other scanners will only have *SilverFast SRD*. The upper of the two buttons is intended to switch *SilverFast SRD off*.

SRD Dialogue in SilverFast Ai

When opening *SilverFast SRD* the first time you will see an empty Navigator window. Please follow the instruction inside the Navigator window:

a) Clicking on "**Preview**" initiates a preview scan, whose resolution is related to the output resolution that has been set.



b) Clicking on "**Auto**" analyses the image with *SRD* automatic. Artifacts will be recognized and highlighted with red.

After you have deactivated *SilverFast SRD* and then reactivate the function, the previous preview scan will come up again, with all previous settings inside the control window.
In case the previous preview is not the one you want, since you would like to work with another image which is already in the normal SilverFast preview window, you have to:

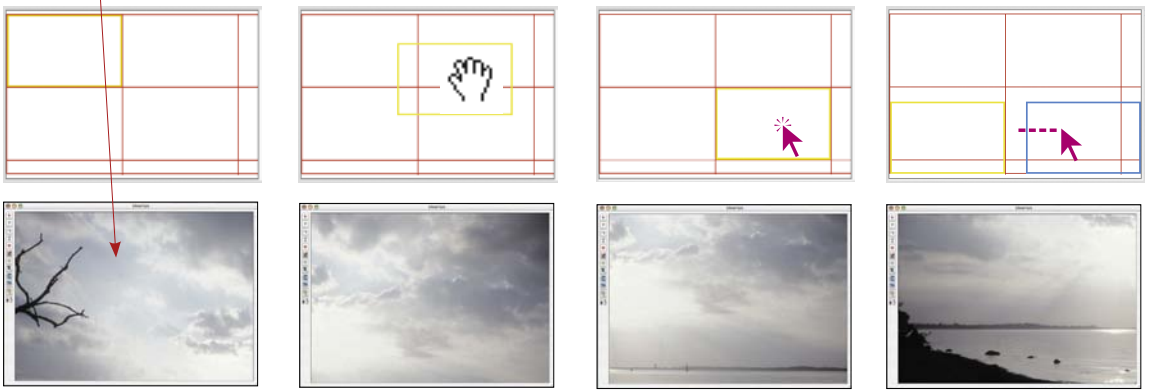
a) Click onto the *SRD* "**Preview**", and initiate a new preview scan and **b**) click on "**Auto**", to start an new *SRD* automatic.

a) and b)

7. Navigator • Working with the *SRD* preview dialogues

Most of the image artifacts have already been identified by the *SRD* automatic mechanism (step no. 6) but no differentiation has been made at this stage between subject details and actual artifacts, a process to be undertaken manually at a later stage.

In order to effectively monitor and check the results the whole image is divided into tiles in the Navigator window.
The **"Navigator" window** displays the position of each tile with regard to the image. The size and number of tiles depend on the image size and output resolution set.



Using the "Navigator"

The **yellow-framed** tile represents the image in the high resolution preview window. The yellow-framed tile can be freely moved to any position inside the Navigator window, while the high res window will be updated accordingly.

By clicking into a **red-framed** tile the image selection related will be displayed inside the high res window. The selected tile will then become yellow-framed.

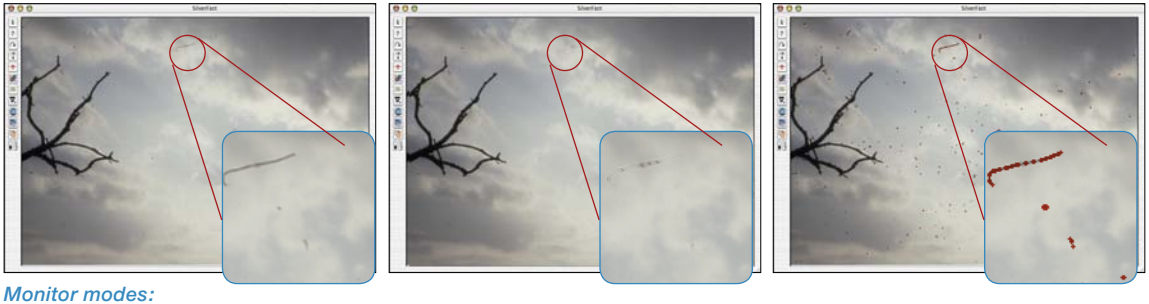
There are three **"Monitor modes"** available, which can be activated by clicking the appropriate button:

a) Original image, without correction,

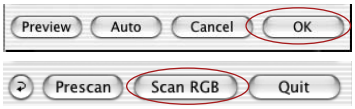
b) Corrected image, artifacts eliminated,

c) Original image with artifacts highlighted in red.

In modes b) and c) you can temporarily switch into mode a (original view) by clicking into the high res preview window. Keeping the mouse depressed will show mode a (original). Releasing the mouse the display will show b or c.



Monitor modes:
a) Original view *b) Corrected view* *c) Artifacts highlighted*



In case the result is satisfactory, the *SRD* dialogue can be closed with “OK” and the scan can be started from the *SilverFast* main dialogue. If it is not, further use needs to be made of the manual mask and layer technology.

Activate / Deactivate Real-Time Correction

Clicking onto the blue / red arrow will activate or deactivate the *SilverFast SRD* real-time correction.

If the arrow is blue any change will only be processed and displayed in the large preview after mouse has been released. This can take a moment depending on the processing power of your computer. The real-time correction bypasses this problem.

If the arrow has turned red, a small rectangular frame will appear on your image representing the area of real-time correction. This real-time frame can be freely moved around in the preview window. Any changes of *SRD* parameters will be displayed in close to real-time inside the real-time frame.

Manual Correction

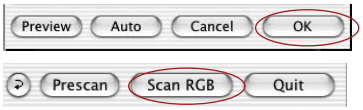
If the result of the *SRD* automatic is not sufficient and there are further corrections needed, a few points should be observed:

- Always start with bigger, clearly visible artifacts and step by step, while adding layers (if required), attack weaker less pronounced artifacts.

  For each layer only one set of parameters can be applied.

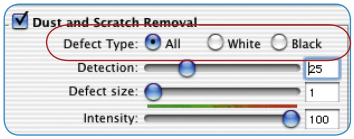
  Multi layers and masks are only available in *SilverFast Ai*. In *SilverFast SE* and *DCSE* only one set of parameters and only one mask can be applied.

- Initially use the first method of “Dust and Scratch Removal” and only when required with artifacts dominantly consisting of or resembling lines use the second method.

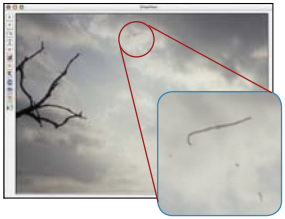


After all corrections have been completed click “OK“ acknowledge the parameters set and leave the dialogue. Now only the final scan has to be started from the *SilverFast* main dialogue.

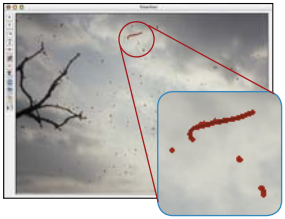
1. Changing Defect-Type



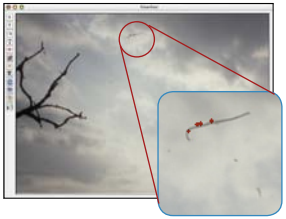
Before starting a manual correction, check whether a different "Defect Type" could produce better results.
Switch from the current Defect-Type, e.g. from "All" to "White" or "Black" and monitor the effects in the preview window.
Check the different monitor modes! Also check different tiles for more artifacts in other areas of the image!



uncorrected original



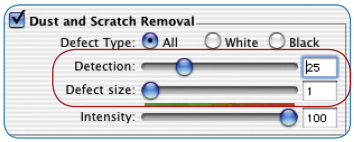
Defect-Type "All"



Defect-Type "White"

Defect-Type "Black"

2. Slider "Defect Recognition" and "Defect Size"

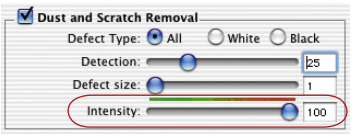


Both sliders have been preset by the *SRD* automatic.

"**Detection**" represents sensitivity of recognition. Optimum parameters will depend on the image character. With sharp or images that have been sharpened, detection will be mostly between 1 and 60. With unsharp or images that have been smoothened detection will most likely be between 60 and 100.

"**Defect Size**" equates to pixel size of the artefact. Values are small respectively and are mostly between 1 and 5.
Always monitor the effect of both sliders in the large preview window, if necessary check different tiles of the image.

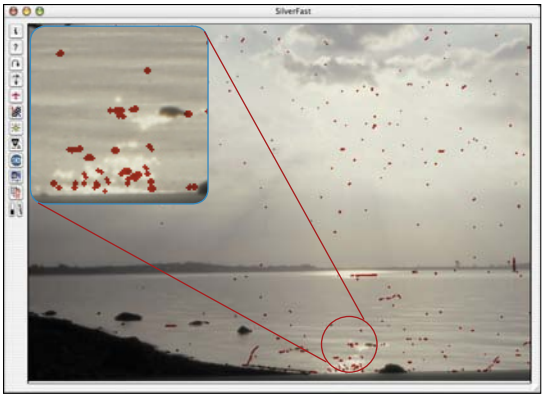
Recommended procedure: Start with defect size = 1 then adjust defect recognition. If the effect is still too small use defect size = 2 for further enhancement and approach the best possible result through small changes .
Important: At first leave the "Intensity" slider on its default value "100".

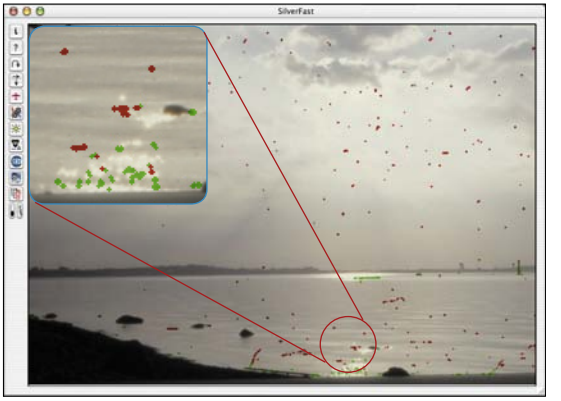


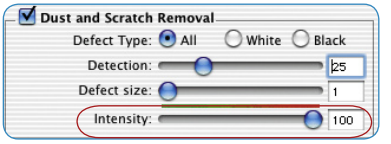
3. Slider “Intensity“

Only when the results of the previous two sliders do not yield the desired results, you can change “Intensity“ in small increments to values smaller than 100. This will predominately be the case with images with a lot of details.
This slider enables to reduce the amount of “erroneously“ recognised artifacts. This function controls the differentiation of which image details are recognised as true details and which are supposed to be recognised as artifacts.
Always monitor the effect of the slider in the large preview window, if appropriate also for different image tiles.

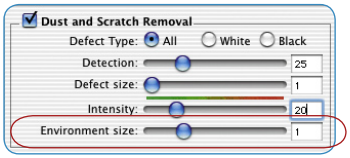
If the *Intensity* slider is at the very right, which is the “100” position, all recognised artifacts will be highlighted in red and will be eliminated in the final scan respectively.
The more a slider will be moved to the left, the more the amount of artifacts that will be highlighted in green colour. Green highlighted details will be preserved in the final scan.
The red-green colour bar above the slider indicates the relation of the function.



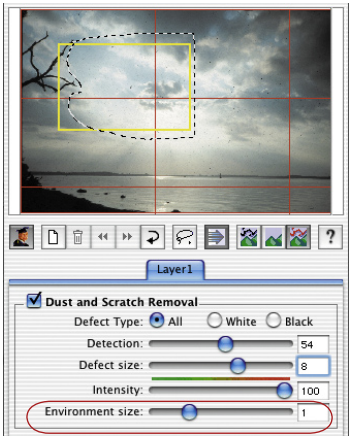


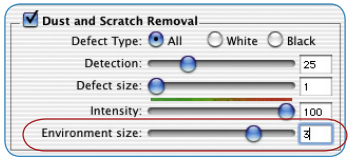


4. Slider “Environment Size”

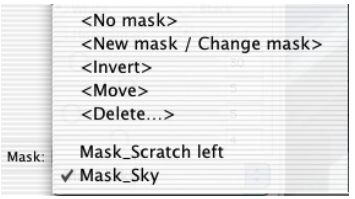


This slider is only available in full versions of *SilverFast* and become visible when activating the expert mode.
This slider is used to control the recognition of the defect border. Parameter values are small. Usually between 1 and 6.

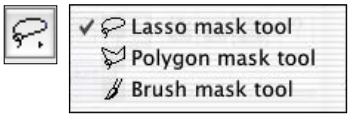




5. Using Masks

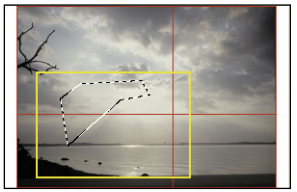


In general all parameters set in *SilverFast SRD* will be applied to the whole image.
However, mask technology should be used if an image has just a small number of very pronounced artifacts, there are defects only in certain parts of the image or the subject means that *SilverFast-SRD* is restricted to specific areas of the image.
A mask can be freely drawn with the mouse in the preview as well as in the Navigator window. Mask tools available are “Lasso”, “Polygon” and “Brush”:



Selection of mask tool: Clicking onto the mask tool and holding the mouse depressed will bring up a mask tool selection pop-up. With the mouse still depressed you can now move to the desired mask tool and release the mouse.

Drawing a mask: It is best to draw the mask in rough form in the navigator window and then add the finishing details in the large preview window.



With the **Lasso tool** you can freely encircle any area of the image inside the preview or navigator window you want to apply the dust and scratch removal to.

With the **Polygon tool** you can encircle any desired area with straight line segments by click-drag, click-drag, etc. until hitting the start point again.

With the **Brush tool** you can cover thin longish defects, by just drawing over it. Only these areas covered will be corrected by *SilverFast SRD*.

Drawing an inverted mask: Depressing the ”Alt“ key with any of the mask tools activated will invert the mask function. The mask will become kind of a negative mask. Now encircle the area with the mask tool you do not want get affected by the correction.

This function is similar to the invert mask function from the mask menu.

Adding and subtracting from an existing mask: After a mask has been drawn you can add or subtract from the existing mask.

Adding to mask: Press “Shift” and draw desired addition.

Subtracting from mask: Press “Alt” and draw desired subtraction.

Active Mask with marquee

Mask adapted with „Shift”- and „Alt“

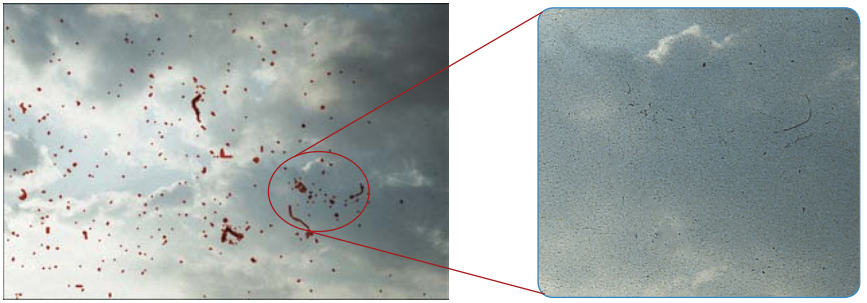
6. Working with multiple layers

When starting *SilverFast SRD* you will get the 1st layer automatically. On this layer you will perform the first corrections of coarser artifacts. If the settings only enable to get rid of some of the artifacts, the remaining artifacts should be treated on the next layer. Start with the larger distinct artifacts and proceed increasingly, layer bay layer to less distinct scratches and artifacts.

New layers can be added by clicking onto the “Add Layer” button. You can have a maximum of four layers.

Double arrow buttons allow to move layers between each other. Here you would change the order of stapling similar to the layer function in Photoshop. This is especially significant with overlapping mask areas.

Uncorrected original



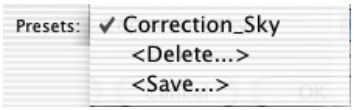
Layer 1

Correction of more subtle artifacts. On the right you can see that some of the artifacts are not recognized.

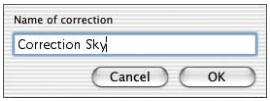
Layer2

Correction of more distinct artifacts with more aggressive setting. Remaining artifacts from layer 1 can now, one by one, with help of masking be eliminated without problems.

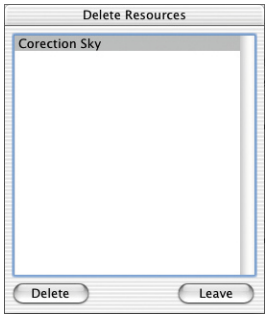
7. Save / Load Settings



Clicking onto the “Save” menu will save the current settings. In the “Save” dialogue you can input the desired name for your setting.

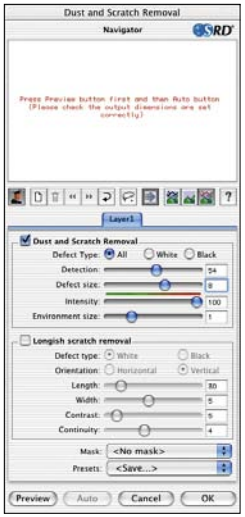


In order to delete previously saved settings highlight the settings you want to delete in the “Delete Resources” dialogue and click “Delete”.



Expert Mode

Activating the Expert Mode

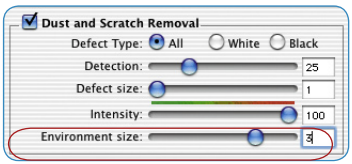


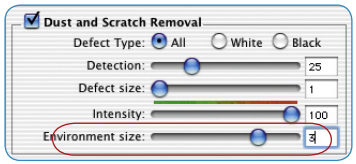
Clicking onto the Expert button will extend the *SRD* dialogue and show the second alternative method's settings to eliminate longish artifacts. In addition you will the slider "Extension".

Both alternative methods can be used either alone by themselves or in conjunction with each other. It is advised to allocate a separate layer for each of the different methods.

1. Slider "Environment Size"

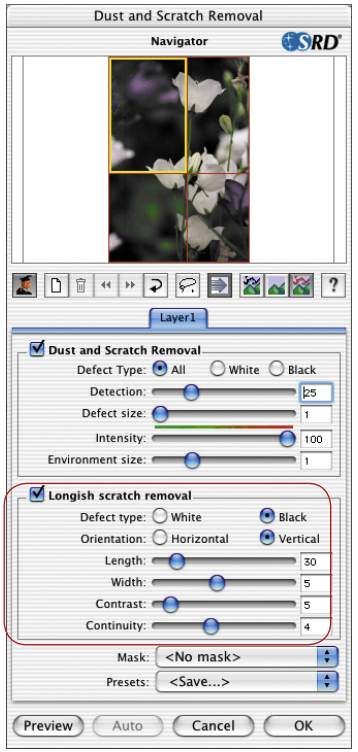
This slider is only available in *SilverFast* full versions and can only be seen after activating the expert dialogue.
With this slider you can precisely control the defect border. Parameter values are small and are usually between 1 and 5.





2. Longish Scratches

The following controls and options are in the menu “**Longish Scratches**”. This menu is only available in *SilverFast* full versions and will only be visible after clicking onto the Expert button.

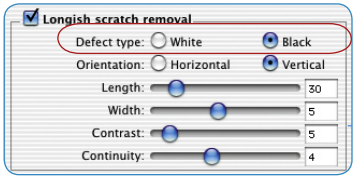


This alternative method can be applied to e.g. 35 mm film where the surface has been scratched while reversing the film by small dust or sand particles. Mostly these scratches proceed across several images, sometime even across the whole film. They are frequently always parallel to the edge of the film.

In order to eliminate longish scratches, the following controls are available: **Defect Type, Orientation, Length, Width, Contrast** and **Continuity**.

Usually using the first three controls (Defect Type, Orientation, Length) are sufficient to get adequate results. Other controls such as Width, Contrast and Continuity can remain at their default settings.

The order and position of the controls is related to the work flow.

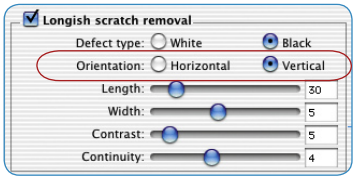


3. Selection ”Defect Type”

First you would select the colour of the defect type: white or black. Longish scratches most likely can be related to one or the other of the two defect types. depending on the original you will see a white or a black line.

This selection will be offered to the user since longish scratches can have different origins. It could for instance be a “real” scratch or sometimes also a faulty or dirty CCD cell in the scanner.

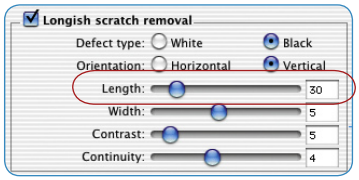
In case you have to consider both defect types, you can use another layer to treat the second type.



4. Selection “Orientation”

Depending on the orientation of the scratches on the scan original, you can switch between horizontal or vertical orientation.

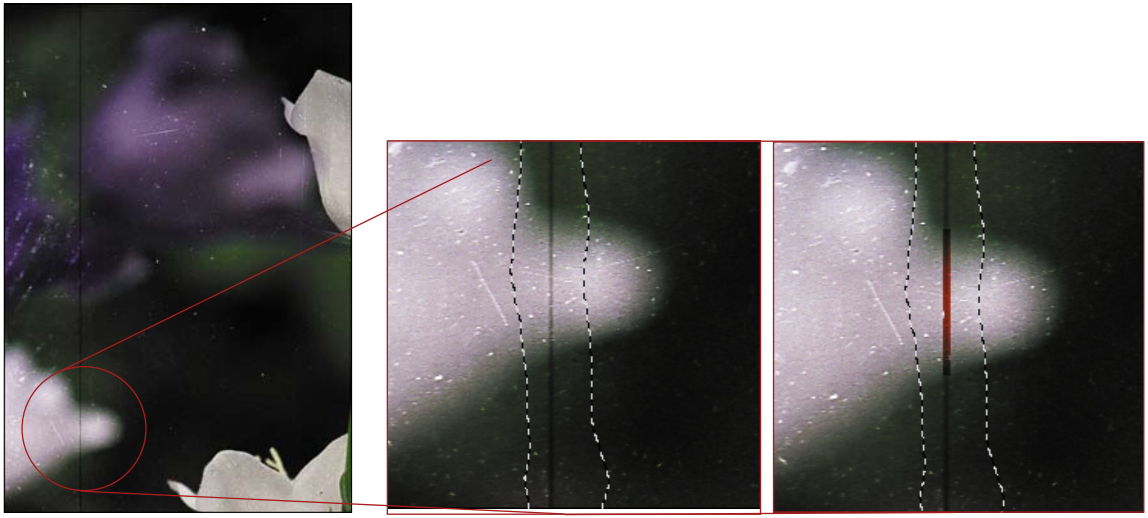
In case scratches are vertical and horizontal, you can create a second layer and get rid of both of them.



5. Slider “Length”

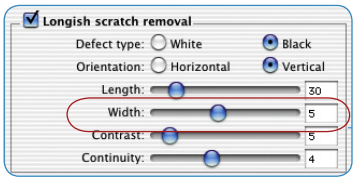
This slider determines the maximum length of a scratch. This parameter is the most important and has strongest effect on the recognition of artifacts with reference to other parameters. The default value is 30. Value range is between 5 and 200.

Smaller value recognize longer structures, larger values recognize smaller structures.



Original *Lenght = 100* *Length = 10*

In case parameter settings of this slider lead to results which could be further improved, use the other sliders.



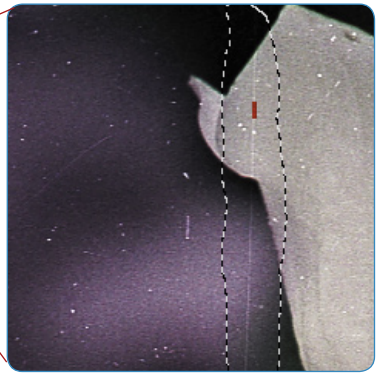
6. Slider “Width”

This slider determines the maximum width of a scratch.

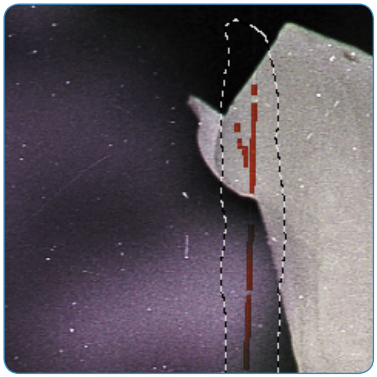
In most cases the range for optimum recognition is between 1 and 5. Larger values will have wider and longish artifacts recognized.

With very wide scratches (high resolution and wide artifact) it is sometimes necessary to enhance the image manually.

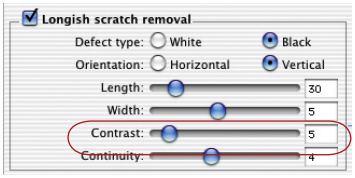
Original



Width = 1

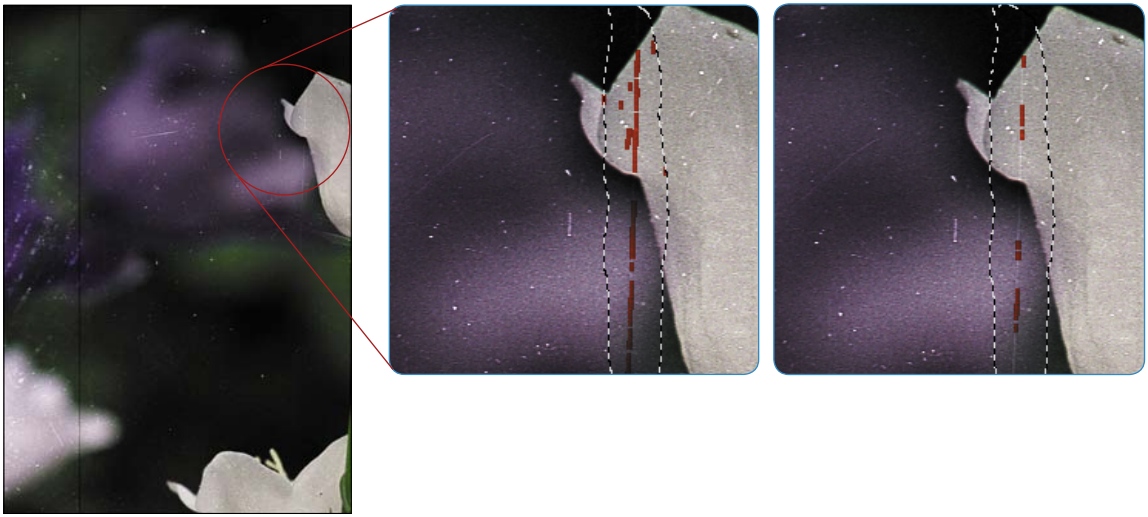


Width = 3



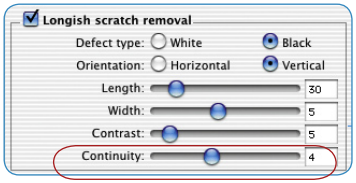
7. Slider “Contrast”

This slider relates to the local contrast of the scratch against its background. A very bright scratch on a dark background can be recognized with a high contrast value. In order to recognize a scratch that is barely visible against its background, the contrast value must be set to a low value. Smaller contrast values (1 to 5) in combination with small “Length” values (5 to 20) can lead to faulty recognition. This might recognize small image details. For this reason the contrast value should be greater than 5 if possible.



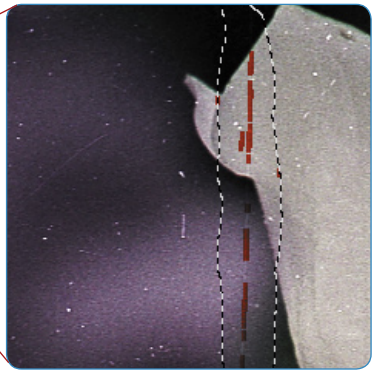
Original *Contrast = 2* *Contrast = 6*

8. Slider “Continuity”

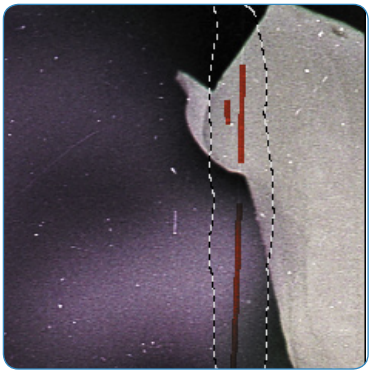


With noisy images or when the scratch is inside a part of the image with lots of details, the value of the Continuity slider should be readjusted (between 0 and 10). A greater value will enable a better recognition of scratches in a “difficult” environment (noisy or very detailed images).

Original



Continuity = 1



Continuity = 9

Remark: In some cases the longish scratches are slightly bent. Since this method is designed for horizontal or vertical scratches, it is required to watch the parameter settings more closely.
For instance: A horizontal scratch which is 120 long and 1 pixel of width and with a slight bent extends to 4 lines of the image, cannot be recognized with values of 120 and 1 for length and width. In stead a value of roughly 30 (120 divided by 4) would be needed.

*SilverFastiSRD**

Dust and Scratch Removal with Infrared Technology*

The latest development* in dust and scratch removal using *SilverFastSRD* is the addition of hardware* linked technologies which use infrared light.

This solves the problem faced by any software which has to both recognise and remove dust, scratches etc., differentiating between dust to be removed and image information to be retained.

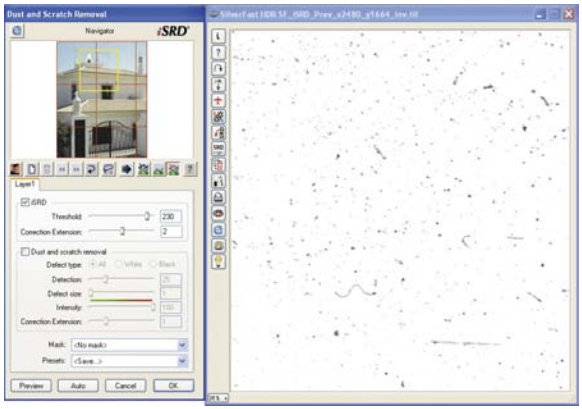
How does *iSRD* work?

Thanks to the long wavelength of infrared light, it can penetrate the colour emulsions of film negatives and slides virtually unhindered. There are only problems if it encounters scratches, dust particles, lint etc. which also cast shadows in infrared light.

iSRD exploits this characteristic by scanning the image in two passes. The first pass is the infrared scan and the second pass the normal RGB scan.

Once the software has completed both scans, an additional image channel created automatically from the infrared image is used for the dust and scratch removal calculation.

On completion of the calculation, the results can be displayed in the large preview window. The default display is the RGB scan but by pressing Ctrl + Shift and holding down the mouse button in the large preview scan, the infrared channel is displayed.



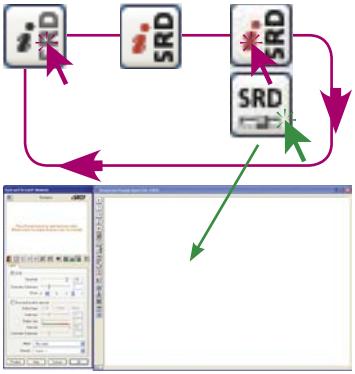
** Warning!*
SilverFastiSRD is only available for certain scanners.
In SilverFastSE versions, iSRD only works in automatic mode. Please see our website for the current situation and compatible scanners.

Which Films can *iSRD* be Used With?

iSRD can be used with conventional colour negatives (developed using the C41 process), colour slides (developed using the E6 process) and paper proofs. Due to the silver content in conventional black and white negatives and slides, these **CANNOT** be retouched using *iSRD*. However, special black and white negatives which have been developed using the C41 process behave like colour negatives and are *iSRD* compatible.

Activating *iSRD*

Since *iSRD* is an additional function within *SRD*, it is activated and deactivated in the same way, by clicking the relevant button on the vertical button bar to the left of the large *SilverFast Ai* preview window.



SRD/iSRD is **deactivated**.

SRD/iSRD is active and running in **automatic mode**.

SRD/iSRD is active and running in **manual mode**. Clicking the bottom button opens the dialogue.

iSRD Automatic Mode

In automatic mode, *iSRD* works completely autonomously and the *iSRD* automatic mechanism covers the entire content of the active scan frame. The user does not need to enter any settings but the effect of *iSRD* cannot be seen in advance in the large *SilverFast Ai* preview window. This is only possible in manual mode.

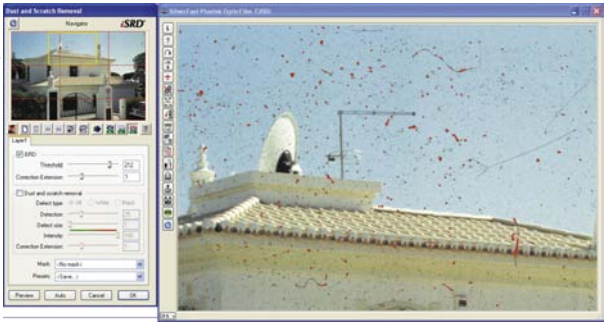
iSRD Manual Mode

In order to start *SRD/iSRD*, the final scan frame output resolution must always be set in advance!

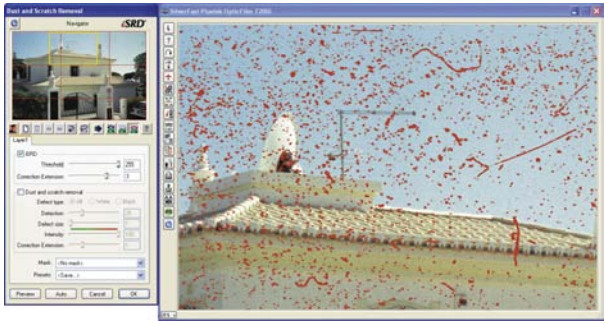
If manual mode is activated, it is possible to decide whether to work with *iSRD* or just with the normal *SRD* by checking the relevant box in the dialogue. The subsequent steps are the same as those described in the section on *SRD*: “Prescan“ button, “Auto“ button, select the area to be analysed in the navigation window and decide on the display mode. The correction process can then start.

The *iSRD* function has two sliders – Threshold value and Expansion correction.

Threshold value: This slider is used to set the level of recognition. The higher the value, the more sensitive the software reaction and the higher the number of probable defects recognised.



Expansion correction*: This slider is only available



** Warning!*
The “Expansion correction“ slider is only available in full versions of SilverFast Ai in expert mode.

Using *SRD* and *iSRD* Simultaneously (Layer Technology)*

iSRD and *SRD* can of course be used simultaneously. The built-in layer function can be used to maximise the positive effects of both technologies and rule out undesirable side-effects.

The *SRD/iSRD* default setting only shows the first layer „1“. For this first layer, the default setting is for *iSRD* to be activated. It can be deactivated and replaced by *SRD* at any time.

If a further layer is created (by clicking on the relevant toolbar button), the initial default setting for this layer is *SRD*. Here again, it is possible to switch to *iSRD* at any time.

With regard to the use of masks, the same applies to *SRD* as applies to *iSRD*! Mask technology can be used for any layer (see the previous section on *SRD*).

Examples:

- ***iSRD* in Several Layers*:**

  Since masks always work within their specific layer, it would be possible, for example, to create two layers which both use *iSRD* but work with different levels of correction on specific parts of the image.

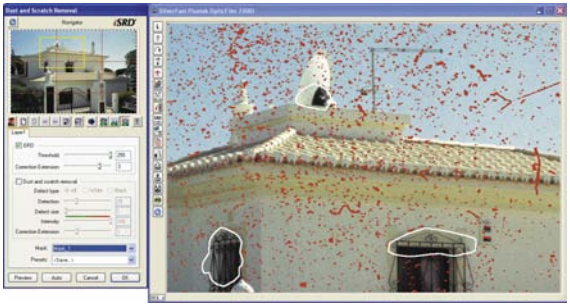
- **Combining *iSRD* and *SRD**:**

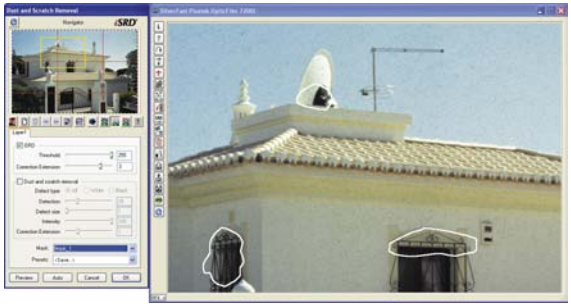
  The first layer uses *iSRD* in the entire image (for basic correction). A second layer uses *SRD* (possibly in combination with a mask) to remove residual artifacts which *iSRD* was not able to remove completely.

** Warning!*
Multiple layers and masks are only possible in the full versions, not the SE versions.

Use of Freehand Masks in *iSRD*

Freehand masks in all shapes and sizes can of course also be used in *iSRD* which then only works within the mask areas drawn. Please read the previous section on *SRD* for details of how to use the masks.

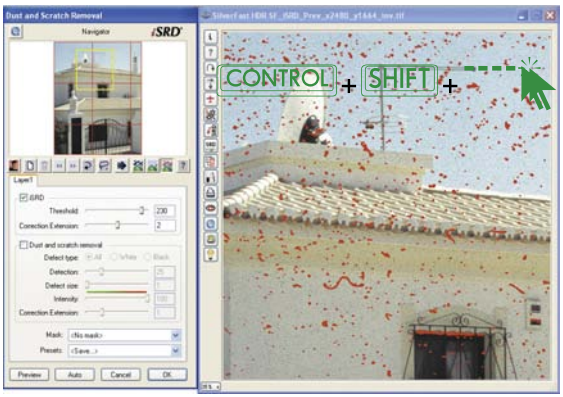


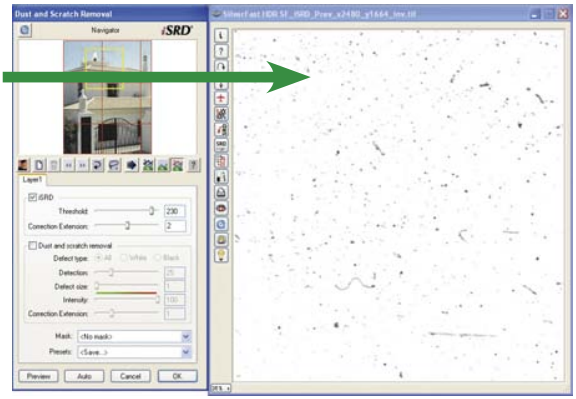


Infrared Channel Display

Once the software has completed the infrared and RGB scans, an additional image channel created automatically from the infrared image is used for the dust and scratch removal calculation.

On completion of the calculation, the results can be displayed in the large preview window. The default display is the RGB scan but by pressing Ctrl + Shift and holding down the mouse button in the large preview scan, the infrared channel is displayed.





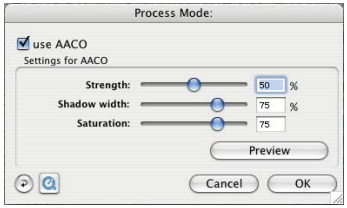
6.14 SilverFastAACO
Auto-Adaptive Contrast Optimization

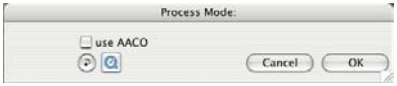
AACO button
left: not active
right: activated

SilverFast AACO is an excellent tool for the correction of dark, too much contrast bearing image parts while preserving the details in the highlights.

AACO is activated by clicking the respective button located in the vertical toolbar, left of the preview window.

A dialogue will open, and the therein set parameters are directly projected onto the current image.





For checking the before/after effect, *AACO* can be activated and de-activated by means of the checkbox.

Manual corrections can be done by means of the 3 parameter settings. After each change of a parameter, the preview is updated by pressing the “Preview” button.
Clicking the “Reset” buttons sets back the parameters to the original preset values.

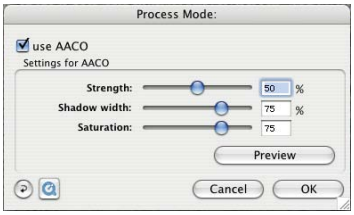
Strength: The upper slider regulates the intensity of the effect on the image.

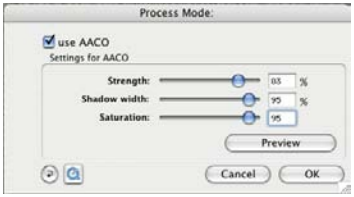
The values range from 0 to 100%. Default setting is 50%.

Shadow width: This regulates how deep the *AACO* is to interfere in the highlights; i.e. up to what brightness is will apply.

Smaller values only affect the very dark areas of the image. High values will also interfere with the mid-tones.

Saturation: The third parameter regulates the saturation of the colours, but only those which have been altered by “Intensity” and “Shadow-width” adjustments.



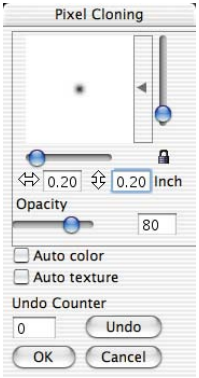


The example shows that even severe changes to the shadows will not affect the highlights, while the shadows have been corrected.

6.15 Clone Tool

The powerful clone tool in the new *Studio* versions now allows complete retouching of images. This 16bit based retouching tool is an excellent supplement to *SilverFast...* with its implemented *SRD* function. Major defects and severe scratches on the image may easily be removed or corrected. Furthermore, even entire areas of the image may be removed, retouched, altered, etc.

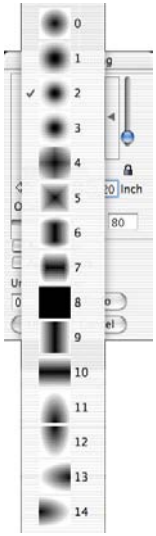
Clicking on the “Clone” button, left of the preview window opens the according dialogue. Size and shape of the clone tool may be adjusted in the upper part of this dialogue by means of vertical and horizontal sliders.



Clicking on the palette next to the preview of the tool will open a context menu that contains different preset tool tips. The selected tool tip appears in the preview window and may further be altered by means of the sliders.

An open lock enables asymmetric tool shapes. The lock should remain open while cloning, otherwise it will jump back into its previous, symmetrical shape.

The opacity of the clone tool can be changed by using the slider in the middle of the dialogue.



The correction id performed in three steps:

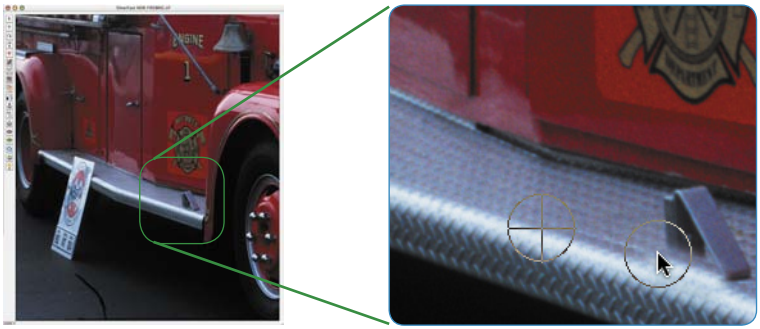
Select source
with Alt key pressed

Find target

Clone
with pressed mouse button

First, the image source is selected (click into the desired area of the image while keeping the “Alt” key pressed), then the target area is selected and then cloned by keeping the mouse key pressed. The marker of the source (circle with cross) follows the clone in a fixed distance.

The activated checkbox “Auto texture” allows *SilverFast* to detect patterns by which the clone tries to harmonically match the target area with that of the source area. By this method, the usual retouching-problem of having to try to exactly hit the edges or corners of the target area is solved. Here it is important that the texture of source and target almost run in parallel directions; a classic example of this is the retouching of hair and long edges, etc.



Retouching without “Auto-texture”

Objective: To remove the metal door stopper. Even a small difference between source and target area immediately results in a breach of the image and is clearly visible. Illustration left: Original. Illustration middle: Retouching attempt with incorrect source.

Retouching with “Auto-texture”

A slight mismatch between source and target is neatly evened out by the “Auto-texture”

Naturally, all clone steps may be undone. This can be done in the lower part of the dialogue. The field shows the current amount of performed retouching steps. By clicking the “Step back” button, all actions can be made undone. The preview window updates immediately.

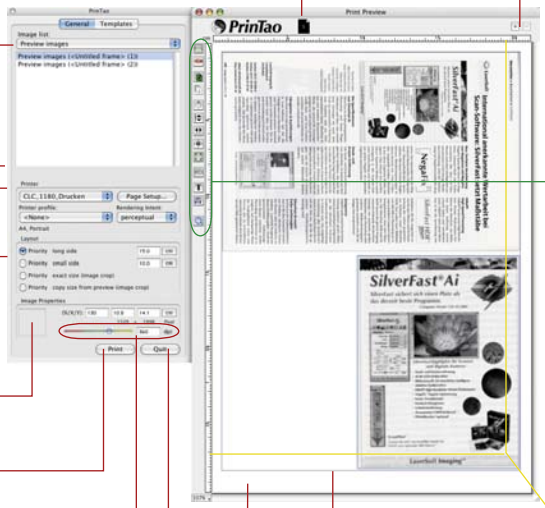
Retouching example: What was changed?
The left image is the original and the right image shows the result or retouching. The sign on the left jamb was copied to the right jamb and then deleted from its original position. The deletion can be seen on the previous page.
On the right jamb, the switch was completely removed – as was its shadow.

6.16 *PrinTao*

Extended Print Dialogue of *SilverFastAiStudio*

In the standard versions of *SilverFast Ai*, the “Print” button merely opens a simple printing dialogue. Only single scan frames may be printed out. The *Studio versions* use this button to open *PrinTao,* the extended print dialogue.

Contents of the Extended Print Dialogue *PrinTao*



Page ;umber
Page breaker

Page
Add or delete

Image List
Choosing scan frames in the preview window.

Printer Settings and Choice of ICC Printer Profile

Page and Layout Settings
Presets which size of the image should be considered in the print., and 1:1 copy function.

Thumbnail of chosen Image in the Image List

Start Printout

Print Resolution of Active Image in the Print Dialogue

Close Dialogue

Tools
- *Add*
- *Delete*
- *Rotate*
- *Reflect vertically*
- *Reflect horizontally*
- *Centre*
- *Adjust*
- *Cut*
- *Image text*

Window of Printed Page

Rulers
Measurement unit: cm

Printing Area
Marked by violet frame

Differences in the Print Dialogue in *SilverFast Studio Versions* as Compared to *DC*- and *HDR- Versions*

The basic functions are almost identical to extended print dialogue of the *VLT* (ref. *SilverFastDC*..., *HDR*...) of the *PrinTao* versions.
A more detailed description can be found in the respective sections of Chapter 6.11.
Some “logical” differences are derived from the nature *SilverFast Ai* as scanning software – it cannot handle previously saved image files. Hence several functions of the *Ai* versions such as templates, meta-data, etc. are unavailable.

The main difference, however, is the “1:1 copy function” which simulates the usage of a photocopier.

- **1:1 copy function**

  When switching from the scan dialogue to the *PrinTao* dialogue, all frames drawn within the preview window, including their exact positions and proportions are transferred 1:1 to the selected paper format.

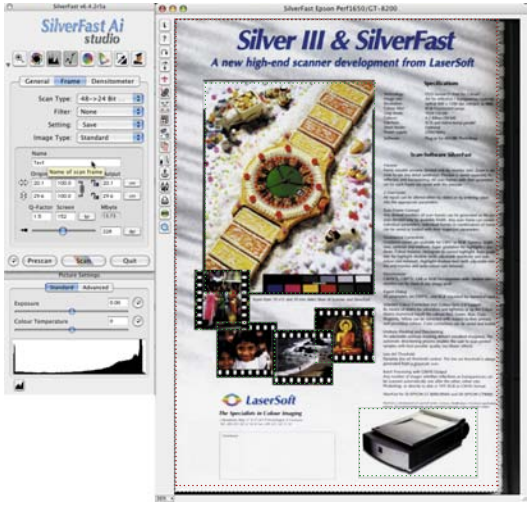
  The individually set frame parameters (e.g. filters) are also transferred.

  The new qualities will help users that, for example, have to scan newspapers for archiving purposes regularly. It is now easy to de-screen images of newspapers while merely sharpening the textures. Care should be taken with selecting the batch order in the *PrinTao* dialogue. The batch order depends on the order in which the scan frames have been drawn or modified. It is, however, still easy to select the correct order of the batch scans by means of the two batch buttons in *PrinTao* dialogue.

  An example of the workflow of an old brochure:

Preview Scan

In our example, 9 scan frames were drawn: One for textures (green frame) and eight for the images (red frames). The scan frame for the eight images all have identical parameters and were duplicated and positioned immediately after the first frame has been set.



PrinTao

Switching into the PrinTao dialogue activates the 1:1 copy function. All scan frames are automatically transferred to the print page.

Batch Order

If necessary, a different scanning order may be allocated to all images on the print page. To do this, click the scan frame and may be re-allocated forward or backward by use of the two batch buttons.

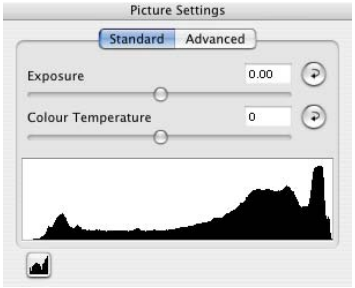
Text Function

For archiving purposes, a small text block is positioned on the page..

Result

The final result of the 1:1 copy function. The textures are clear and sharp and the images are descreened.

“Image settings” in *SilverFastAiStudio*



The dialogue window “Image settings” (known from the *SilverFast DC...*- and *–HDR...* versions) has now been modified and implemented into *SilverFast Ai Studio*. A real-time output histogram that shows the effects of all *SilverFast* settings on the final scan is shown.

The difference to a normal histogram is that this feature shows the target- or final histogram. This is the actual histogram that is also shown after the scan has been done. All parameters that have been set in *SilverFast* are hence shown here. A normal histogram that shows the source or input histogram which shows the image before scanning. By pressing the “Alt” key in the normal histogram, the display will show the target histogram.