

Chapter 3

3. Presets

This chapter explains the various options and presets you can use with *SilverFast*. Before you do a scan, please check important options such as setting the highlight / shadow presets for the auto-adjust.

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Macintosh Prefs



Windows Prefs

SilverFast Preferences ("Prefs")

Starting with version 5, all *SilverFast* plug-ins will create a folder called "*SilverFast*" in the picture editor directory. The folder is parallel to the actual "*SilverFast*" plug-in and contains additional sub-folders such as "Previews" (for all Preview files), "Prefs" (for all preference files), "PPCMYK profiles" (for separation tables) and "Help" (for PDF Help files).

SilverFast saves all relevant scan parameters in its Prefs files. These preference files are automatically created after *SilverFast*'s first start up. The following files are generated by *SilverFast*:

1. SilverFast Preference File ("Prefs" Folder)

The *SilverFast* prefs file resides inside the *SilverFast* folder where the plug-in is and is constantly updated according to the settings of the parameters of each scan frame.

2. SilverFast Application File ("Prefs" Folder)

Basic Settings for SilverFast.

3. SilverFast Preview File ("Previews" Folder)

There may be two *SilverFast* preview files: one for reflective and one for transparency. The file size will depend on the size of the preview window. The preview files will be automatically generated when the scanner creates the preview on the monitor.

4. SilverFast Zoom File ("Previews" Folder)

The *SilverFast* zoom file will be generated when a zoom is being performed inside the preview window, so you can toggle between normal preview and zoomed preview. The zoom file stays the same until you either initiate a new normal preview and then a zoomed preview or when you draw a substantially different sized zoom area. 5. SilverFast Unsharp Masking Preview File ("Previews" Folder)

The *SilverFast's* USM preview file will be generated when an unsharp masking preview is executed. The next time you open the dialogue the previous unsharp masking preview is still there.

6. *SilverFast* Descreening / Unsharp Masking Preview File ("Previews" Folder)

Some scanners allow for descreening and simultaneous unsharp masking. As for USM the process generates a preview file that is automatically stored.

7. SilverFast Calibration File ("SilverFast" Folder)

For IT8 target calibration (if available) there are two calibration files, one for reflective and one for transparency.

8. JobManager Files ("Job" Folder)

SilverFast's JobManager saves its files into the Job Folder.

Units of Measurement: cm, inch, Pica, Point, Pixel

Starting with version 5, all *SilverFast* plug-ins will come with supplementary measuring units. In addition to the prior "cm" and "inch", there are now also "pica", "point" and "pixel" that you can choose from in the frame file card. To switch, simply click on the icon of the measuring unit.



General Frame Densitometer Optionsoc Optionsoc P Prescan Scan RGB Quit

Before scanning with *SilverFast*, please enter the specific settings in the "General settings palette" under the "Options..." dialogue. These preferences are automatically incorporated into the next scan operation.

Options... Dialogue*

*Attention: The "default dialogue" windows differs from scanner to scanner and some features are only available for certain scanners or certain imaging softwares.

General Defaults

General Auto	CMS Special		Gener	al Auto	CMS	Special	
Colormodel	RGB	101	0	Color Model	RGB		1
Units of Measure	inch		Uni	ts of Measure	inch		-
Densitometer Radius	2 Pixel		Densito	meter Radius	2 Pb	el	
Default Setting	SilverFast Defaults		D	efault Setting	Silve	rFast Defaults	
Option Parameter	<\$ave>		Opti	on Parameter	<5a	ve>	
Interpolation	SilverFast Standard	0		Interpolation	Anti	Aliased	1
High resolution prescan	1x		High Resol	ution Preview	1x		
Scratch disk	Programme:AdoDR):SilverFast:			Scratch disk	Systemp	latte (8. ing/SilverFast:	
Gamma-Gradation	1.00		Game	na-Gradation	2.20	for HDR output	
Gamma in HDR data	1.00		Gamma expected	in 488it/HDR	1.00		
Q-Factor	1.0			Q-Factor	1.0		
Reopen SF after scan	0		Reopen SF Aft	er Processing	M		
Realtime Correction	•		Open V	LT at startup			
Mask Edge Size	0.00		Show Image Aft	er Processing			
			Realtin	ne Correction	-		
			M	ask Edge Size	0.00		

General defaults* left: SilverFastAi right: SilverFastDCPro

Colour Model RGB or CMY

Switching between RGB (0-255 values) and CMYK (0 to 100% measurement) may be done here. These settings only influence the display and calculation modes within the windows of Silver-Fast. The decision to scan in CMYK or in RGB files is made at a different stage (see: "Plug & Play CMYK").

Units of Measurement in cm or inch

Units of measurement can be switched between cm, inch, Pica, Point, Pixel.

Densitometer Radius

The area of the densitometer reading can be set to 1, $2x^2$ and $3x^3$ pixels.

Default Setting

Here previously defined default settings can be selected. These settings must have been allocated to a name under "Settings" in the "Frame" panel. With the "Apply" button the

General Fram	e Densitometer
Scan Type:	(48->24 Bit 🗘
Filter:	Frame_17
Setting:	✓ Studio_Light
Image Type:	Delete Save

new default settings can be instantly applied to the currently active frame. Any new frame will automatically have the allocated default settings.

Options Parameter

Saves (and loads) all settings of the "Options..." dialogue into a single output file. All settings of all other panels "Auto", "CMS" and "Special" are saved as well.

Settings for special production scenarios can now be easily reloaded at any time.

Interpolation of Scan Resolution

Selection of Interpolation method: "Standard" or "Anti-Aliased". With "Anti-Aliased" grid-structure artefacts will be effectively eliminated.

High-Resolution Prescan

In order to achieve a higher production rate, a preview with a resolution up to 8 times more than required can be selected.



The advantage of this is that *SilverFast* can display a zoomed part of the image without actually

having to perform a new scan. If a zoom is possible without a re-scan, the magnifier is displayed in green colour. The initial preview, however, is slightly slower than the regular preview. If the selected zoom still lies within the data parameters, the magnifying glass will turn green.

Scratch Volume

It is possible to allocate a special scratch volume (a special partition) to *SilverFast* so temporary files can be stored there. Such temporary files can occur by scanning in a batch mode, for example. After completion of the scan process, the files will automatically be deleted again.

Gamma Gradation

This adjusts the general brightness of the image for mid-tone and shadow. In general, a gamma of 1.6-1.8 is recommended. For transparency, the gamma is normally higher than for reflective (transparency 1.8-2). Check that your monitor is set to the correct gamma in order for the tonal values to be displayed evenly. For best results scan a grey calibration strip and adjust your gamma accordingly.

Gamma Gradation for HDR Output*

By clicking this check box the current gamma value will be applied to the 48 bit data during processing. A 48 bit scan will appear somewhat brighter in the image application.

Gamut Expected in 48bit/HDR

Here the expected gamut of the following images may be entered.

A value of "1" (preset) makes *SilverFast* operate linear. All scanned images are treated as if they have an embedded, linear gamut. No adjustments are made.

A value of more than "1" makes *SilverFast* display the images darker; a value of less than "1" makes the images look brighter.

Q-Factor

The Q-factor is the quality factor for an image. The range is from 1 to 2.5. Please refer to addendum ("Calculating the scan resolution").

*Attention



The "default dialogue" windows differ from scanner to scanner and some features are only available for certain scanners or certain imaging software. Reopen SilverFast after Scan* (only with SilverFastAi..., -SE)

Normally *SilverFast* (as Photoshop plug-in) will be closed after scan and has to be started again for next scan.

• Reopen SilverFast after Processing* (SilverFastDC..., -HDR...)

Normally, *SilverFast* (Photoshop plug-in) is closed after processing the image and must be reopened manually for the next image. This only applies when working in a mode of "normal" and "Batch".

When using the "...(File)" or "to Album" modes, *SilverFast* remains open after processing.

• Open VLT at Start Up*

If the *VLT* should be opened at each start of *SilverFastDC..., -HDR...,* check this box.

If active, the main windows of *SilverFast* will not open and the *VLT* will show. In case the *VLT* is then closed, the *SilverFast* main Dialogue window is opened immediately.

Displaying a Processed Image* (only with SilverFastDC, -DCPro, -HDR with SFLauncher

If this option is selected, the finished file will be opened by the finder. (Applicable if "Normal (File)" and "Batch mode (File)" are selected.

Realtime Correction

The normally present realtime correction can be turned off here for use with older and slower computers.



Mask Edge Size (Width of Soft Mask)

In *SilverFast 6*, you can define the border softness of masks being used with selective colour correction. Previously you had a sudden transition, you can now define a very smooth transition.

The example on the left shows the old function being represented by the value "0.00". On the right the transition is defined by the value "0.05"



By changing the value and clicking onto the button "Apply", the effect can be monitored in the preview window. If the result is satisfactory, close the "Options..." dialogue by clicking "OK".

Preserve Settings for a New Image*

Only available in *SilverFastDC, -DCPro,-HDR*.

Activating the check box enables *SilverFast* to preserve all settings and parameters after correction. Opening a new image hence means transferring these settings on to the new frame.

If the check box is deactivated, all settings and parameters are reset to their initial values.

Welcome Dialogue

Opens the welcome dialogue. The *LaserSoft Imaging* homepage can be reached by means of the respective buttons with the dialogue.

Auto Defaults*

Defaults		Def	iults
General Auto CMS	Special	General Auto	CMS Special
to Threshold Highlight	Levels	Auto Threshold Highlight	10 CLevels
uto Threshold Shadow	Elevels	Auto Threshold Shadow	10 CLevels
Highlight Officet		Highlight Offset	2
Chadran Officer (1		Shadow Offset	11
Shadow Onset		Color Cast Removal	100 . active
Color Cast Removal 100	5	Auto Frame Inset	10
Auto Frame Inset	0	AutoPip Middle Factor	0
AutoPip Middle Factor		Auto Contrast	Ø
Auto Contrast		ACR when Automatic	8
Automatic when ADF	15	MidPip Fixed Target	50 Cactive
MidPip Fixed Target 50	active		

"Auto" Palette* left: SilverFastAi right: SilverFastDCPro

Standard defaults in DC... and HDR... for camera RAW data: Auto-threshold for highlights: 6 Auto-threshold for shadows: 1

Standard defaults in Ai... for 48 Bit scanner RAW data:

Auto-threshold for highlights: 2 Auto-threshold for shadows: 2

Auto-threshold for Highlights and Shadows

Determines the sensitivity (0-30) for the auto-adjust. Smaller values = more sensitive. Recommended values are 2 to 12. You can use RGB levels instead of pixel ratio when moving into the histogram by selecting "Levels". This function is efficient if you wish to optimise an image by only using "auto-adjust" in order to remove base colour like a white or a black in the scanning image.

Attention! Please be aware that when changing thresholds, highlight or shadow details can get lost. This is due to possible clipping effects.



Highlight Offset (Brightest Point)

Minimum value for the brightest point in % (eg. 3%)



Shadow Offset (Darkest Point)

Maximum value for the darkest point in % (eg. 98%)

Colour Cast Removal*

Here you can determine how much of an existing colour cast is removed automatically. A value of "100" means that the colour cast will be completely removed.

The automation may be activated or deactivated by checking the "active" box respectively.



*Attention

Auto Pipette Middle Factor

The Auto Pipette Middle Factor influences how the gradation-automatic makes an image that is too dark, brighter and an image that is too bright, darker, by means of the automatic adjustment of gradation curves.

Both sliders generally limit the "range", the "strength" of the auto-adjust.

Both sliders do only determine how much the auto-adjust influences the mid-tones of an image. Highlights and shadows will not be effected.





The "upward bent" slider determines, how much the autoadjust may increase the mid-tones of an image, ie, how much a gradation curve may bend upwards.

Example: If the preset values -30/30 are changed to max values -100/100, the effect of the auto-adjust on the mid-tones of an image will be strongest. With such settings it may be likely, that the auto-adjust would react too strong and an image would most likely be "over-corrected".

If the preset values -30/30 be changed to minimum -0/0, the auto-adjust cannot perform any correction of the mid-tones. A gradation curve would be unchanged so to speak stay "linear".

Independent of that, the contrast-automatic could still generate a change of the gradation curve. In this case it would be necessary to check, whether the contrast-automatic has been activated under "Options..." \\ panel "Auto" \\ check box "Auto or not".

The numerical values of the sliders are values with no reference to any dimension. They reflect "Strength" of the influence of the automatic. A value of "0" represents "no influence", the value "100" represents "maximum influence".







Frame Inset

Determines how much of the current frame will be deducted for actual use of the image auto-adjust or *NegaFix* auto orange mask removal. A 10 would mean that 10% of the current frame will be deducted from the outside.

Auto-Contrast*

If this check box is checked, the image auto-adjust will evaluate the current contrast for the image and increase or decrease the contrast accordingly.

This function is integrated into many scanners, but not always active by default. With film scanners this function is usually not active. With flat bed scanners auto-contrast is active for reflective and not active for transparency.

In case your scanner exhibits too much contrast, please check whether Auto-Contrast is active and deactivate accordingly in this menu.

ACR with Auto-Adjust

If this box is checked, the image auto-adjust will evaluate the current saturation for the image and increase or decrease the saturation accordingly.

Automatic when ADF*

When doing a batch scan from an automatic document feeder, this function will perform an auto-adjust on each image while scanning. This option has the same effect as if the user would click on the shutter- symbol in the main *SilverFast* window for each scan.

This option is not available on all scanners.



CMS (Colour Management) Settings*

Defaults				Defaults	_
General	uto CMS Special		General	Nuto CMS Special	
Color Management			Color Management	2010 N. 199	
Scanner -> Internal	ColorSync	•	input -> internal	ColorSync	10
Internal -> Monitor	Automatic		internal -> Monitor	Automatic	10
Internal -> Output	РБР СМУК		Internal -> Output	RGB	1
Profiles for ColorSync			Profiles for Colorlync		
Scanner (Reflective)	EPSON Perfection2450	10	Input	SF, R (DCS) E5700	
Scanner (Transparent)	<none></none>	4	internal	AdobeRC81998.3cc	1
internal	Adobe RG8 (1998)		Cray	Generic Gray Profile.icc	
Gray	Generic Gray Profile.icc		Output/Printer	<none></none>	2
Output/Printer	<none></none>	4	Rendering Intern	perceptual	
Rendering Intent	perceptual		Embedded ICC profiles	*	
Embedded ICC profiles			Embedded profile	<none></none>	
Embed ICC profile	8		Embed KC profile	2	
Profile to arribed	EuroscaleCoated icc		Profile to embed	Adobe#C81998.kc	
Plug & Play CMYX	EuroscaleCoated.icc	(2)	Plug & Play Chirk	EuroscaleCoated.icc	4

"CMS" Palette* left: SilverFastAi right: SilverFastDCPro

Colour	Management
--------	------------

Here it is determined where and whether at all colour management will be used in the work flow.

CMS Scanner > Internal / CMS Input > Internal*

Here the preferred model for correcting the colour deviations of the current scanner can be selected. The choice is between "none", "use embedded profile" (only with *SilverFastHDR, -DC, -DCPro, -PhotoCD*), and "ColorSync" calibration (Windows: "ICM").

CMS Internal > Monitor*

Here the matching from the internal colour space of *SilverFast* to the current monitor is being defined. "None" is if the user does not want any matching. "Auto" indicates that Photoshop's internal colour space settings will be used collectively (Please check the internal ICC profile set in *SilverFast* should be the same as the one allocated in Photoshop's internal colour space). "ColorSync" (Windows: "ICM") is for those applications that do not supply matching from inside the application but the the user does want colour matching.

CMS Internal > Output*

The preferred system for defining the output colour space generation can be chosen here. Select "RGB" for no output matching. "ColorSync" (Windows: "ICM") if you want ColorSync to do the output matching. "Cie-Lab" if you want to generate device independent colour space. "P&P CMYK" for *SilverFast*'s own powerful separation to CMYK with Photoshop matching.

Loior Management		
Input -> Internal	ColorSync	;
Internal -> Monitor	Automatic	
Internal -> Output	RGB	4



Profiles for ColorSync		
Scanner (Reflective)	Scanner RGB Profile.icc	
Internal	Adobe RGB (1998)	-
Gray	Generic Gray Profile.icc	
Output/Printer	<pre><none></none></pre>	1
Rendering Intent	perceptual	

Profiles for ColorSync (ICM)

Here it is determined where in the colour management work flow which profiles will be used.

- Input* (SilverFastDC..., -HDR...)
 ColorSync profile for the input device, e.g. the digital camera.
- Scanner (Reflective)* (SilverFastAi..., -SE)
 ColorSync profile for the reflective unit of the scanner.
- Scanner (Transparency)* (*SilverFastAi..., -SE*)

ColorSync profile for the transparency unit of the scanner.

Internal

ColorSync profile for the internal colour space.

Profiles for ColorSync / Grey

Here you can select a Grey Profile for greyscale scans, which can also be embedded into the image file.

Output / Printer

ColorSync profile for the printer.

Rendering intent

Selection of the Rendering Intent: perceptional, relative colourimetric, saturational, absolute colourimetric.



Embed ICC profile	2	
Profile to embed	EuroscaleCoated.icc	
. Embedded ICC profiles		
Embedded profile	<none></none>	
Embed ICC profile		
	E 16.11	

Embed ICC profiles on top: SilverFastAi below: SilverFastHDR

Embed Profiles*

Embed ICC Profiles*

This option enables the user to pass the image data to an application which would do automatic matching with the embedded profile. When a TIFF-file is generated from *SilverFast* the ICC profile is embedded into the TIFF data.

With *SilverFastHDR...*, or *-DC...* an already existing and embedded profile is additionally displayed.

Calibration Profile*

The calibration profile from the IT8 target calibration. This is to calibrate the input device (scanner, digital camera). For *SilverFastHDR..., -DC...* it can be selected here.

Plug&Play CMYK*

The separation table or ICC-profile for Plug&Play CMYK separation is chosen here.

Plug & Play CMYK EuroscaleCoated.icc



Special Defaults*

Defe	aults	Defa	ults
General Auto	CMS Special	General Auto	CMS Special
Halftoning	No Dither	Color Filter	White
Color Filter	White	Prescan Monochrome	8
Prescan Monochrome	0	Limit Gamma Slope	8
Prescan Draft	2	Albums folder	Systemplatte (3man/Pctures:
Scan Draft	8	maximum Cache size	1000 M8
Limit Gamma Slope			
(Analy) (Cancel) (OK)	(a) (Analy) (Cancel) (OK

Special Defaults Palette* left: SilverFastAi right: SilverFastDCPro

Halftoning*

Dithering algorithms for scanning halftone images in line-art mode

Colour Filter (Blind Colour)*

Select the colour, which you wish the scanner to ignore during monochrome scans. You can choose between red, green or blue.

Prescan monochrome*

In case there is scanning in greyscale or black and white only, you can speed up the prescan considerably by selecting "Prescan monochrome" (filter has to be set to green or any colour except white).

Prescan, Scan Faster*

In both these modes, some of the scanner-specific hardware functions such as a faster tray movement across the CCDs (which results in a faster scans of lower quality) is activated. A precise, general statement about the expected results however, cannot be made.



Lamp Brightness*

This dialogue has a slider, "Exposure", as well as an RGB histogram of the current preview image.

It is now possible to simulate the increase or decrease of the lamp brightness of the scanner and monitor the effect on the histogram and the preview window.

With this "control", overexposing bright areas, which will show as clipping in the histogram, can now immediately be avoided.



You do not have to wait until the scan is done and then have to start all over!

Limit Gamma Slope*

May be checked if much noise is encountered in the shadows. The slope of the gamut curve which is especially steep in the shadows, will then be reduced to an almost linear function.

Albums Folder*

The location and the path fort he albums (only *SilverFastHDR..., -DC, -DCPro*) may be adjusted here.

Maximum Cache Size*

Adjustment for the cache memory size. This is mainly used by *SilverFastHDR, -DC* and *-DCPro* where, for example, the conversion of RAW data takes up much space while this data is only of temporary interest.

Full Screen Preview*

Only with *SilverFastDC...,* -HDR.... The full screen preview mode can be selected in the presets as full screen or 1:1 display. In the *VLT* these settings can be changed temporarily at any time.



Super Fine Scan*

Some scanners that use multiple CCD rows may deliver images with lines in the shadow parts. Activating the "Super Fine Scan" mode results in the scanner using only one CCD row; the others remain deactivated.

Prescan Without Auto Focus*

This function deactivates the auto focus <u>only</u> for the large prescan. The prescan will be significantly faster for some scanners.

The auto focus will be used only in the final scan (as long as the focus button is activated respectively).



The prescans that are generated within the filter dia-

logues (USM, De-screening, *SRD*, etc.) are independent of the "prescan without AF" function and are treated as final scans; if the focus is activated then the focusing will be done.

Automatic Orientation Detection*

Activating this option allows some film scanners to automatically detect the orientation of the film frame. This is especially helpful when performing batch scans – the software automatically detects if a scan frame is to be positioned vertically or horizontally and rotates the frame respectively. The function usually works with 35 mm slides. Smaller formats or square formats will not be detected.

If this function is de-activated, the current, active, manually drawn and positioned frame will be used for all film strips of the entire batch. All slides in the batch are hence optimized with the same frame; regardless of the orientation of the slide.

Adjusting Scan Parameters*

Before scanning, enter the desired parameters in the "General" and "Frame" Panel.

General Palette

SilverF	ast Ai		SilverF	ast HDR
General Fram	e Densitomet	er	General Fram	e Densitometer
Device:	USB Epson G		Image:	HDR Target
Scan Mode:	Normal		Process Mode:	Normal
Original:	Reflective		Pos./Neg.:	Positive
Pos./Neg.:	Positive		Frame-Set.:	Save
Frame-Set.:	Save			
	Ontion	0		Continue

"General" Palette* left: SilverFastAi right: SilverFastHDR

Device: V SU-Nikon LS-4000



• Device* (SilverFastAi...)

When two or more scanners of the same manufacturer are connected to your Macintosh or PC, it is required to select the desired scanner.

Otherwise you can via "Search Device" have the bus system of your computer search for the devices connected.

• Picture* (SilverFastHDR..., DCPro...)

The names of the current image, as well as the recent images are displayed here. By clicking "Open image" a new image in the directory can be searched for and opened.



Scan Mode:	✔ Normal
Pos /Neg :	Batch Mode
ros.,neg	Normal (File)
Frame-Set.:	Batch Mode (File)



The "default dialogue" windows differ from scanner to scanner and some features are only available for certain scanners or certain imaging software.

Scan Mode:	Reflective
Original:	✓ Transparency
Pos /Neg	Document Feeder

Pos./Neg.:	✓ Positiv
	Negativ

Scan Mode: Normal Import Pos./Neg.: Frame-Set.: Scan Mode: Import Delete... Scan Mode: Scan M

Scan Mode* / Process Mode

Under scan mode select between "Normal", "Batch Mode", "Normal (File)" and "Batch Mode (File)".

With **"Normal"** the current scan frame will be scanned and the image will directly appear in a window in the imaging application (e.g. Photoshop).

With **"Batch Mode"** all scan frames on the prescan will directly be scanned into separate windows in the imaging application.

"Normal (File)" will scan the active scan frame directly to the hard disk.

"Batch Mode (File)" will scan all scan frames on the preview to the hard disk.

"to album"* will save the current image after optimization back to album as a copy.

Original*

Three different types of originals can be selected from: **"Reflective"**, **"Transparency"** and **"ADF / Document Feeder"** "Transparency" and "ADF / Document Feeder" are only available with flat-bed scanners when the appropriate hardware addition is available (and connected).

Positive/Negative*

You select between "positive" and "negative" according to the film type used. Clicking **"Negative"** opens the dialogue window *"SilverFastNegaFix*".

Scanners that have a hardware solution for positive-to-negative

conversion, this can be reached by "Neg.Direct". *SilverFastNegaFix* will then be deactivated.

Original:	Positive
	Negative
Pos./Neg.:	✓ Neg.: Direct

Frame-Sets*

This menu enables to save all all scan frames on the preview including their individual positions and all individual parameters

under one name. Previously saved frame sets can here be loaded or deleted.

Name new frame se	tting:			
Frame_8715				
	Cancel	$) \subset$	ОК	\supset

Frame Palette*





Scan Type* (SilverFastAi) Image Mode* (SilverFastHDR..., -DC...)

In "Scan-Type" (*SilverFastAi...*) rsp. "Image Mode" (*SilverFast HDR..., -DC...*) you choose the colour depth (bit-depth) of the fine scan.

Image Mode:	✓ 48->24 Bit Color
Filter	16->8 Bit Grayscale
Theer.	1 Bit Line Art
Setting:	48 Bit Color
Image Type:	16 Bit Grayscale
	48 Bit HDR Color
Name	16 Bit HDR Grayscale

Based on the internal colour

depth of the hardware the selection in this combo box determines the colour depth of the output scan.

Most scanners produce internally more than 24 bit colour data depth, i.e. 30 bit (3x10 bit per channel R, G, B), 36 bit (3x12 bit) or 48 bit (3x16 bit), which is reduced for 24 bit output depth.

SilverFastAi reads the internal colour depth of your scanner and adapts the contents of this drop down menu accordingly. The entry "42->24 bit colour" shows that the scanner uses an internal colour depth of 42 bit. *SilverFast* will internally use 42 bit, incorporate your adjustments and create a standard 24 bit output.

The selection "...Greyscale" indicates the output of a black / white halftone image file with a correspondingly fine differentiation of grey tone levels.

The selection "...1 bit line art" indicates the scan with pixels of only pure white and pure black values.

Scan Type:	✓ 42->24 Bit Color
Filter:	14->8 Bit Grayscale
THET.	1 Bit Line Art
Setting:	48 Bit Color
Image Type:	16 Bit Grayscale
	48 Bit HDR Color
lame	16 Bit HDR Grayscale

"Frame"-Palette* left: SilverFastAi

right: SilverFastHDR



With some scanners *SilverFastAi* is able to deliver not only standard 24 bit of data. but also the entire internal information of the hardware's capable colour depth. This can be 36 bit, 42 bit or more depending on the hardware used.

However, as computer programs only understand 8 or 16 bit of data per colour channel the next higher output format must be chosen. If the hardware data (internal colour depth) is less than 48 bit, the gap is filled with zero values in order to meet the required 48 bit data depth.

NOTE that 48 bit files are twice the size of standard 24 bit files!

SilverFast offers the output of 48 bit files as pure, uncorrected **"raw data format".**

The corresponding selections for this kind of data are "48 bit HDR colour" and "16 bit HDR greyscale".

These two selections will deliver the "raw data" read by the hardware "as is" (unchanged) as RGB file in uncompressed TIFF format.

The only available software controls in the raw data scan mode are:

_ 🔍 🔄 🕍 📈 🥥 🏷 💋 🤰

output correction and output resolution. All other software tools will become unavailable as soon as the Image Mode is set to raw data scan mode.

In addition to the pure raw data output *SilverFast* version 5.5.2 and

higher features the **high-bit colour corrected output**. In this mode all image correction tools remain available. The corresponding selections are "48 bit colour" and "16 bit greyscale".

For more information about the advantages of high-bit data, please refer to chapter "Meaning and purpose of the *JobManager*".

Scan Type:	✓ 42->24 Bit Color
Filter:	14->8 Bit Grayscale
ritter.	1 Bit Line Art
Setting:	48 Bit Color
Image Type:	16 Bit Grayscale
	(48 Bit HDR Color
lame	16 Bit HDR Grayscale
ALL 1911 1 A	

Scan Type:	✓ 42->24 Bit Color
Filter:	14->8 Bit Grayscale
ritter.	1 Bit Line Art
Setting:	(48 Bit Color)
Image Type:	16 Bit Grayscale
	48 Bit HDR Color
lame	16 Bit HDR Grayscale
ALL ADD A ALL AND ALL	

Filter:	✓ None
Setting	More Auto Sharpen (+)
setting.	More Auto Sharpen
age Type:	Auto Sharpen
	Less Auto Sharpen
titled frame>	Less Auto Sharpen (-)
cicled in amex	Sharpen (USM)
inal Scale %	Descreening
100.0	USM & Descreening
100.0	GANE®

Filter*

Depending on scanner type* and requirements you can choose between different levels of Unsharp Masking (Sharpness) "None", "Less...", "Auto..." and "More ...".



Or you can directly bring up the USM dialogue. In addition you can select "descreening" or "USM + Descreening" or "GANE".



NOTE! Only one filter may be applied to the active scan frame at one time. The filters cannot be summed together.

Setting •

All settings concerning image manipulation (but not frame position, name and scan size) can be saved or imported.



Image	Type:	✓ Standard
		Landscape
Name		Skin tones
<untitled< td=""><td>frame></td><td>Gold tones</td></untitled<>	frame>	Gold tones
Original	Scale %	Technic
6.9	100.0	Evening
4.9	100.0	Snow
Q-Factor	Screen	Night
1.5	300	H-S-Cast
		Highlight Cast
		Shadow Cast
		<user defined=""></user>

Image Type

By selecting the correct image type you can influence the function of the auto-adjust tool to suit your requirements more precisely.

Standard: With colour cast removal. Highlights and shadows are optimized.

Landscape: Range (contrast) adjusted without colour cast removal.

Skin tones: Reduced range (contrast) without colour cast removal

Gold tones: Range (contrast) adjusted without colour cast removal.

Technic: Range (contrast) adjusted without colour cast removal.

Evening: Highlights are preserved, shadows are optimized. For images with predominant dark tones (i.e. at night).

Snow: Shadows are preserved, highlights are optimized. For images with predominant highlights.

Night: Highlights are preserved, shadows are optimized. For images with predominant shadows.

H-S-Cast: Highlights and shadows are fully optimized with colour cast removal.

Highlight Cast: Highlights and shadows are optimized – colour casts are removed in the highlights.

Shadow Cast: Highlights and shadows are optimized – colour casts will only be removed in the shadows.

User defined: for saving your own automatic adjustment.

Motive
Preserve Color Cast Preserve Highlight Color Cast Preserve Shadow Color Cast
<user defined=""></user>
Save Remove
Cancel OK



Size Adjustments / Scaling

The values in the input field for setting the image dimensions of width and height of an original are automatically set by drawing a scan frame on the prescan. Enter a quality factor (1.5 recommended) and the desired final size and *SilverFast* will calculate the optimal resolution and scaling factor for you.



Scan Resolution for Scaled Images

You can either scale the image by entering a scaling factor, or by entering the desired output size. *SilverFast* will calculate the missing factor and do the scan accordingly. For example, if you have a 35 mm image in the scanner, and wish to enlarge this to 4x6", you just set the output size to 4 x 6 inches in *SilverFast*, and set your dpi to the desired output resolution (for printing, we suggest a dpi between 200 and 300). *SilverFast* will then calculate the required scan dpi internally in order to perform the enlargement. So even thought the dpi is set to 300, the scanner internally scans at a much higher dpi (which can be monitored by pressing the "Control" key).



Uneven Scaling of Images

Images can be scaled with uneven horizontal and vertical proportions. In order to unevenly scale an image, click on the black line connecting the horizontal and vertical scaling input fields to unlock it. Type in the desired scaling into the appropriate field and click on the black line again to re-lock.



Showing scan resolution

By pressing the "Ctrl" key CONTROL SilverFast shows the hardware scan-resolution in the edit-field.

Showing interpolated resolution

"Ctrl" key <u>CONTROL</u> and "Shift" key <u>SHIFT</u> shows the resulting interpolated resolution for the actual scan.

In order to allow the proportion of width and height to be varied, simply click on the lock to open or close it.



Proportional Scaling

Proportional Scaling while Keeping Output Width and Height.

In order to keep output height and width (or both), for example in catalogue production, two locks were implemented into the scandialogue.

Normally the locks are open. By clicking on it, the lock closes and the entered width or height (or both) are fixed.



Fixing Output Width and Height

In order to keep the ratio of **height and width** (proportional scaling) the locks must be closed. Move the hand onto one corner of the scan frame and a crossed cursor appears.

Now you can freely adjust the frame size while keeping the aspect ratio.





Fixing Output Width or Height

In order to keep output **height or width**, one lock must be closed. Move the hand onto one side of the scan frame, and a horizontal cursor will appear.



Now the frame width can be changed without influencing the output height.

Do likewise to alter the height and maintain the output width.

Pixel Lock*



Pixel lock* makes sure that no interpolation is taking place with the original data.

When the lock is closed the original number of pixels of the original data will be preserved. The output size can still be altered but the file size and accordingly the number of pixels will not change. Only the output screen and the scaling values will change accordingly.

After opening an image in *SilverFastHDR..., -DC...* you can close the pixel-lock and change output size and scaling without any influence on the file size. The amount of pixels remains unchanged. Please note: dot screen and output resolution may not be altered!





The pixel-lock is only available in the scanner independent versions of SilverFast, such as HDR, DC and PhotoCD.

Drag & Drop

In *SilverFast* it is now possible to directly generate scans via "Drag & Drop".

You simply need to click-drag an optimized scan frame over the border of the prescan window and release it there.

If you release the mouse key after dragging it to a document opened in the background of a different application, i.e., a letter in *Microsoft Word*, the scan will fall right into the document. In a different situation, the scan can be written into a temporary file, for Mac, i.e., into "Scrapbook," or it will land on the "desktop" or "Finder."

If the amount of available RAM is insufficient, scanning with "Drag & Drop" will quickly run into limitations. It is therefore recommended more for scanning of smaller pictures (file size). In addition, drag & dropped scans are restricted to RGB-mode.



Switching Scanners

The "General" palette in the main dialogue of *SilverFast* contains an additional pop-up menu called "Device". It lists all devices found. This pop-up menu is the same menu that you may reach when you click the title line of the preview window, while keeping the "Ctrl" key pressed.

SCSI: The number of the buses and the SCSI IDs are indicated with SCSI devices. You can simply switch from one to the other when several devices are connected.

The entry "search devices" offers you the choice of using a scanner added after the computer was started and therefore not included in the list.

USB and FireWire: The entry "search devices" is missing here, because all devices are already recognized when *SilverFast* is started.