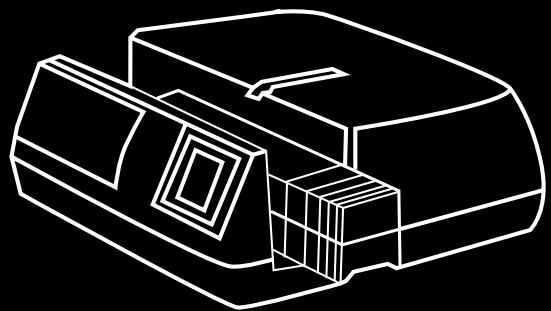
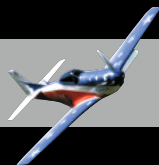


# SilverFast®

*Addendum for slide magazine scanner*



LaserSoft Imaging®



English

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### 9. Applicable Law

Applicable law is the German law; the United Convention of the International Sales of Goods (CISG) is hereby expressly excluded.

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# Content

<b>Preliminary considerations</b>	<b>4</b>
<b>Developing one's own scanning plan</b>	<b>6</b>
<b>Slide Magazine Scanner</b>	<b>9</b>
<b>Installation</b>	<b>10</b>
Software installation	10
Scanner firmware and original software	10
<b>Launching SilverFast</b>	<b>11</b>
<b>IT8-Profiling* and colour management</b>	<b>11</b>
<b>Magazine transport</b>	<b>11</b>
<b>Pre-sets in SilverFast</b>	<b>12</b>
"Auto" Palette	12
"CMS" Palette	13
"Special" Palette	14
<b>Operational procedure in SilverFast</b>	<b>15</b>
Prepare scanner	15
Resetting SilverFast	15
Setting batch mode	15
Set up of automatic frame finder*	16
Settings for slides to be scanned in the magazine	17
<b>Magazine scanner setting</b>	<b>17</b>
<b>Transport button and current position of the magazine</b>	<b>17</b>
Setting the operating procedure	19
<b>"Frame" palette</b>	<b>19</b>
<b>Additional special functions</b>	<b>20</b>
Starting batch mode	22
Selecting file name	22
Selecting file format	22
<b>Starting batch mode</b>	<b>23</b>
<b>Further operating procedures</b>	<b>23</b>
Identical settings for all slides	23
Practical examples with Reflecta DigiDia 5000	24
Check-list for batch mode	25

## Preliminary considerations

Two questions are asked again and again at trade fairs, training courses and product demonstrations: “I have x-thousand slides at home and would like to digitise them, how can I do it most quickly....?” and “Why isn’t the scanning process fully-automatic, the slides are all perfect and look fine projected....?”

*“.... I have x-thousand slides at home and would like to digitise them, how can I do it most quickly....?”*

The first question is easily answered: it will take longer than you think! Scanning takes time and the higher the quality, the more time you need. Depending on the hardware used and on the quality required, the overall time needed can easily reach 5 to 15 minutes per slide (or even longer!).

Here, magazine scanners are the optimal tool, at least because they drastically reduce the user’s time in front of the computer. The total time likely to be needed is easily calculated: here is a small overview:

	<b>2 Min./Pic.</b>	<b>4 Min./Pic.</b>	<b>6 Min./Pic.</b>	<b>8 Min./Pic.</b>	<b>16 Min./Pic.</b>	<b>30 Min./Pic.</b>
<b>100 Pictures</b>	3h 20m	6h 40m	10h	13h 20m	1d 2h 40m	2d 2h
<b>500 Pictures</b>	16h 40m	1d 9h 20m	1d 2h 2d	2d 18h 40m	5d 13h 20m	10d 10h
<b>1.000 Pictures</b>	1d 9h 20m	2d 18h 40m	4d 4h	5d 13h 20m	11d 2h 40m	20d 20h
<b>5.000 Pictures</b>	6d 22h 40m	3d 21h 20m	20d 20h	27d 18h 40m	55d 13h 20m	104d 4h
<b>10.000 Pic.</b>	13d 21h 20m	27d 18h 40m	41d 16h	55d 13h 20m	111d 2h 20m	208d 8h

*d = days á 24 hours, no breaks*

*h = hours*

*m = minutes*

Thus, in order to digitise an archive of only 1000 slides, at 2 minutes per slide, one needs approximately 1 day, 9 hours and 20 minutes and at 30 minutes per slide approximately 20 days and 20 hours.

And by the way: in the table one day is 24 hours with no breaks! Scanning a large archive can therefore turn into a time-consuming business.

But is every slide really worth digitising? Possibly not. Therefore the best way to save time is to select carefully the most beautiful, important or precious photographs.

*“Why isn’t the scanning process fully-automatic, the slides are all perfect and look fine projected....?”*

The second question is really based on a misconception. An automatic camera can only operate optimally if the picture is optically suitable for this particular apparatus.

Unfortunately, in general this only applies to things that are “average”, thus pictures showing neither too much nor too little light and shadow with good colour balance and medium contrast, etc.

These average characteristics of an automatic camera can apply for many, but not for all images. For example, if a picture has deliberately been over- or underexposed, it is critical whether the automatic camera “knows” that this result was actually wanted.

In general, the process of scanning is very similar to that of taking pictures! Here, light is also “measured”, parameters are set, the image is captured in the “view-finder”...

Scanning is the doorway to the “digital darkroom”!

So, just as the quality of a picture depends particularly on the skills of the photographer and less on the equipment used, then the quality of a scan depends primarily on the skills of the users handling the scanning software and only secondarily on the hardware. An expensive camera does not guarantee perfect pictures. A high-end scanner does not guarantee perfect scans.

An example: a camera set on the P-mode (program automatic) tends to produce only average pictures, the same applies to a scanner set to the fully automatic 1-key-control mode.

High-quality pictures and brilliant scans require careful consideration, experience, know-how, some manual work and only then good hardware.

## Developing one's own scanning plan

How can/should images be scanned? The answer is simple: appropriate to requirements and intended purpose!

In order to clarify individual requirements, the following table shows a comparative decision matrix for the five most common purposes and operating processes:

Scanning of slides and negatives	① Quick overview	② Archive-scans	③ TV, DVD, Projector	④ Ink-jet printer	⑤ Maximum quality
Scale, Print size	300%	100%	X * Y Pixel, according to TV-norm or projector	Printing format, A4, A3+, A2, ...	Exact using format
Output resolution	low, 96 dpi	very high, optical resolution !	low 96 dpi	medium, 150-250 dpi	high, ca. 300 dpi
Output colour depth /channel	8 Bit	16 Bit HDR	8 Bit	8 Bit / 16 Bit	8 Bit / 16 Bit
File format*	.jpg	.tif, .jpf	.jpg	.tif	.tif
RGB / CMYK*	RGB	RGB	RGB	RGB	CMYK / RGB
Image automatic (Auto adjust)	yes	nein	yes	yes	yes
Fine correction (tonal values, colours)	no	no	no	recommended	very important
USM	no	no	yes	yes	yes, individual
Multi-Exposure*	no	yes	no	recommended	yes
Effect:					
Resulting file size	very small	very high !	small	medium	high
Time needed per picture	small	small	medium	medium - high	high

\* If supported by hardware and software.

A more detailed table, with specific numbers and measurements can be found at the end of this manual under: „Practical examples with Reflecta DigiDia 5000“.

- ① A simple, quick and rough overview of a larger archive. No fine optimisation at low resolution, ...
- ② Archive scans. Recording the actual condition of slides. RAW-mode and *Multi-Exposure* form the optimal basis for subsequent quick optimisation with *SF DC Pro*, *SF HDR* and the *JobManager*.
- ③ Finalised scans for TV and projector presentations. Input size should correspond to the TVs and projectors used and should only be higher, if animations and zooms are built into the presentations.
- ④ Finalised scans for ink-jet printing. Output size is the maximum intended printing format.
- ⑤ Maximum quality in 2 steps: raw scans as for 2, followed by individual image optimisation in *SilverFast HDR* and its integrated *JobManager*. The silver bullet for maximum quality combined with minimal time consumption.

The scanning plan to be used should be based on the users' requirements.

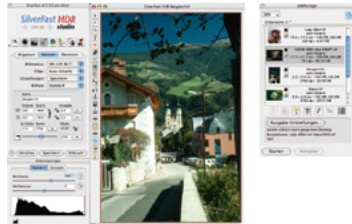
**Operating process in two steps: ② + ⑤**



Use SilverFast Ai to generate 48 bit raw data scans in batch mode, with no image corrections.



Saved raw data scans.



In SilverFast HDR, download raw scans into the JobManager, optimise individually and then allow the full job to be completed automatically.



Saved, individually optimised scans.

For the optimal combination of minimum personnel time and maximum image quality, the two-step process (② + ⑤) is considered the “silver bullet”. The purpose and the main advantage of this process are considerable savings in personnel time due to separating the operating processes “scanning” and “image optimisation”. The reason: the scanning itself takes a long time due to the hardware used, coupled with much “idle time” for the user in front of the apparatus.

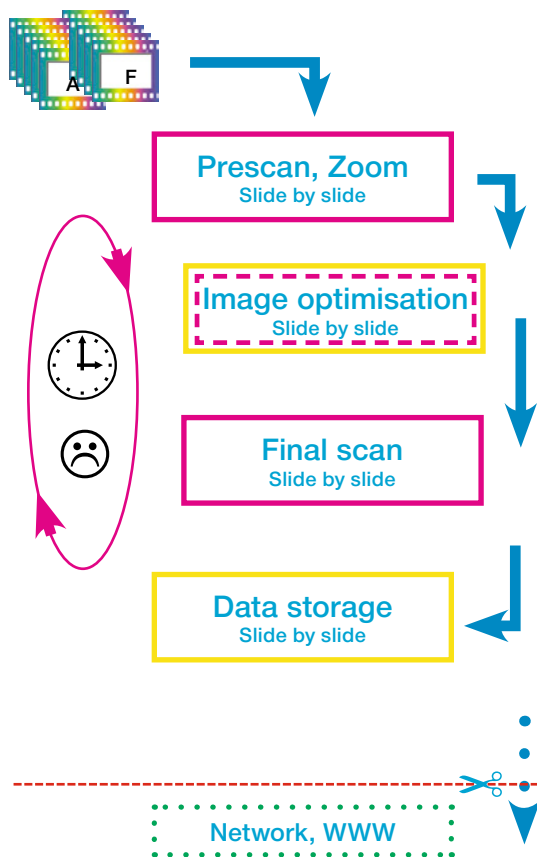
With the two-step process, the slides can be scanned as “raw”-data, fully automatically, magazine after magazine. The user has only occasionally to change the magazine or keep supplies coming.

The resulting 48 bit raw data are loaded on to a sufficiently large hard disk, server, etc.

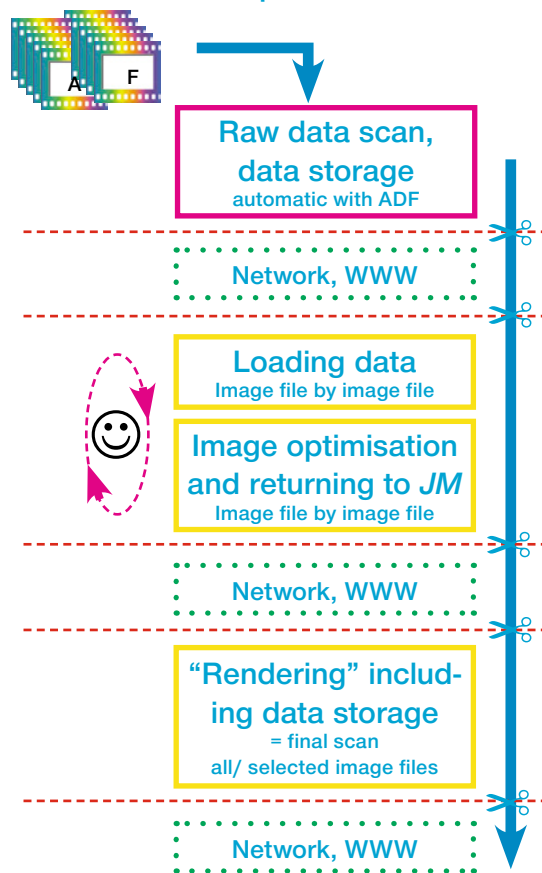
Optimisation of the images takes place during the second process. Here, a *SilverFast HDR* (or a *SilverFast DC Pro*) version comes into action. Only now must the user spend more time in front of the computer, but now with no “idle time”! With the *SilverFast HDR*, he can access the raw data directly and optimise image after image. And no waiting!

Even this process of image optimisation can be made to take less time with the integrated *JobManager* in *SilverFast HDR*. However, anyone working with large image files on an older and thus slower computer could still be faced with waiting times when “rendering” - applying optimisation parameters to individual image files. With the *JobManager*, the finalised “right” and ready to use scans might be delayed. The parameters for image optimisation are not calculated straight away into the image files in the *JobManager*, but instead are processed as a temporary “to-do list” as a sort of “package insert”. Only when the required number of images has been optimised, can the computing process start. Depending on the computer, this could take a while and might for example run overnight. The user can leave the computer and carry on with other things.


Classic, repetitive working cycle,  
high demand on personnel time



*SilverFast JobManager*  
Automatic workflow with minimal  
demand on personnel time



Comparison between the classic operator-controlled working cycle and the work flow using *SilverFast JobManager*, controlled automatically.

- Legend:
- Magenta** high demand on personnel time, for example operating the scanner
  - Yellow** time needed depends on the computer system used
  - Green** provision of data and availability over networks of all types
  -  possible interruption of work flow, for example by passing on jobs





# Slide Magazine Scanner

Reflecta DigitDia 5000

Reflecta DigitDia 4000

Reflecta DigitDia 3600

Braun Phototechnik Multimag SlideScan 4000

Braun Phototechnik Multimag SlideScan 3600

# Installation

## Software installation

The installation of *SilverFast* is menu-driven. The easy standard installation should store all drivers and files on your computer correctly. For some scanners, the original manufacturer's software must also be installed. *SilverFast* and the original software do not interfere with each other and it is always possible to install both.

### Scanner firmware and original software

*SilverFast* is continuously improved as are scanners. Therefore, it is possible that a version of *SilverFast* could encounter a scanner equipped with newer and unrecognised firmware. If *SilverFast* is not adapted to this newer firmware, conflicts could occur.

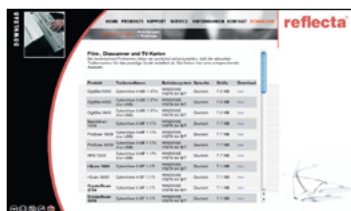
In such cases, not only must the most up-to-date version of *SilverFast* be installed, but also the latest version of the scanner manufacturer's scanning software!

First, go to the scanner producer's homepage and download the latest version. In general, you should find the most recent driver there - possibly more up-to-date than the one on the CD-ROM attached to your scanner.

Next, you should search for the most recent update from *SilverFast*. You can access the download area of *LaserSoft Imaging* using the following link:

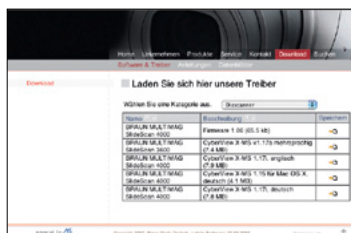
[https://www.silverfast.com/get\\_update/en.html](https://www.silverfast.com/get_update/en.html)

*LaserSoft Imaging* regularly provides maintenance updates.



[www.reflecta.de](http://www.reflecta.de)

Choose Language/ download/  
Software + driver



[www.braun-phototechnik.de](http://www.braun-phototechnik.de)

Choose language/ download

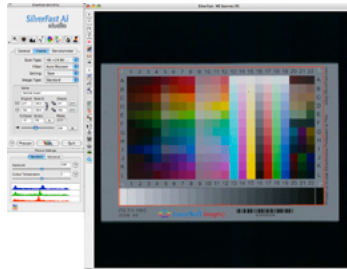
## Launching SilverFast



Start with *SF Launcher*: *SF Launcher* enables *SilverFast* to be operated as stand-alone software, so that no additional software is needed to operate the scanner. *SF Launcher* is started with a double-click. Click on the scanner tab the *SilverFast* version to be opened.

Start with Adobe®Photoshop®: Start Photoshop and open the “File”-menu (Windows: “File”-menu); at “Import” select your scanner “SilverFast...”.

## IT8-Profiling\* and colour management



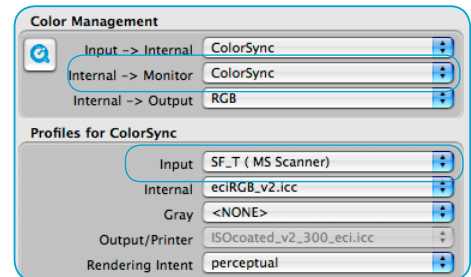
### \* Attention!

The availability of this function depends on the hardware and version of *SilverFast* used. The *IT8 calibration*, if not available, can be bought as an optional extra to every full version of *SilverFast*.

*IT8*-profiling (often *IT8 calibration*) of a scanner is generally recommended and depending on the number of scans produced, should be repeated regularly.

Thanks to the integrated automatic in *SilverFast*, as well as the recognition of the barcodes on the *IT8*-targets of *LaserSoft Imaging*, the profiling process is fully automatic and thus completely safe in its operation.

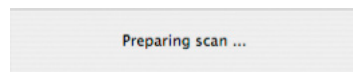
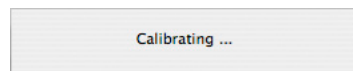
At the end of profiling, *SilverFast* carries out all the adjustments needed to save and store the scan profiles correctly.



## Magazine transport

After the scanner has finished its internal hardware calibration, it is normal that next it ejects the slide in working process and carries out a magazine transport before it returns to the target slide.

This one-off forward and backward transport is also carried out at start-up, or when the scanner lamp has not reached its operating temperature.

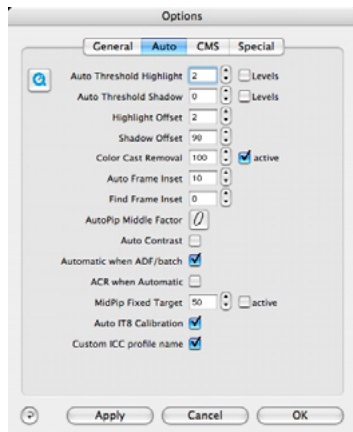


## Pre-sets in SilverFast

Options...

*SilverFast*'s pre-sets are opened with a click in "Options". The important menus for slide magazine scanners can be found in the following three palettes:

### "Auto" Palette

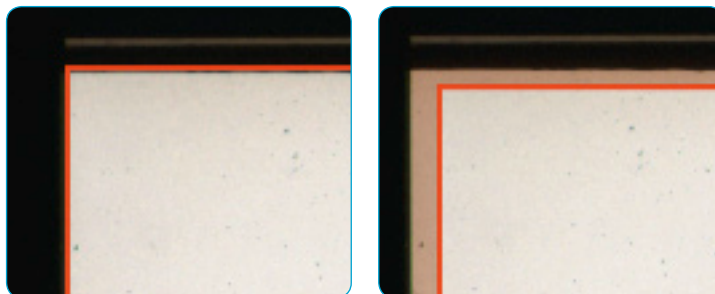


**Auto-frame reduction\***: The accuracy of the "Find frame inset" function is controlled by this value. At 0%, *SilverFast* tries to align the preview frame and the final scan frame to the exact margins of the slide. Negative values will enlarge the frame size while positive values reduce it and move the frame further into the image.

When using *iSRD*, a slightly smaller value, for example 1%, should be tested to see if better image margins result. If the *iSRD* calculation overlaps with the slide margin, the margin area of the scan could appear blurred.

Find Frame Inset 0

**Auto-frame reduction**  
Close-up of the *SilverFast* preview window with different values for the automatic frame reduction: left: 0%, right: 1%.



**Automatic when ADF/batch\***: If this function is activated, the auto-adjust is applied to each image in the batch. If this function is deactivated, the settings selected for the first scan frame are applied to all remaining images in the batch.

Automatic when ADF/batch

**Auto IT8-calibration\***: IT8-calibration in *SilverFast* is a fully automatic process. Should conflicts occur, the fully automatic mode can be deactivated and manual procedures activated instead.

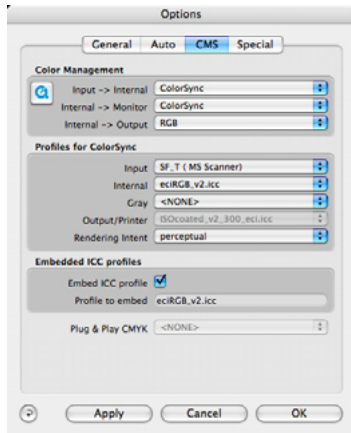
Custom ICC profile name



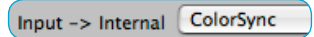
#### \* Attention!

The availability of this function depends on the hardware and version of *SilverFast* used.

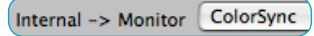
## “CMS” Palette



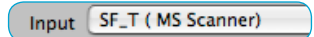
**Input > internal:** This menu is set to “ColorSync” (Mac) or “ICM” (Win), if an IT8-calibration profile has been generated for the scanner.



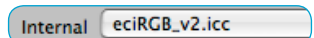
**Internal > monitor:** This menu is set to “ColorSync” (Mac) or “ICM” (Win) in order to determine a RGB working colour space.



**Input:** Here, the scanning profile is selected from the IT8-calibration.



**Internal:** Selected menu for the profile of the RGB working colour space.



The same profile must also be selected for subsequent image processing software (such as Photoshop). Frequently used RGB working colour spaces are “ECI-RGB” or “Adobe RGB 1998”.



### \* Attention!

The availability of this function depends on the hardware and version of SilverFast used.

## “Special” Palette



**Orientation Detection\***: This menu option activates the orientation sensor, if available, within the scanner. *SilverFast* identifies whether a slide in the magazine is in portrait or landscape format and automatically fits the scanning frame appropriately.

Orientation Detection



### \* Attention!

The availability of this function depends on the hardware and version of *SilverFast* used.

## Operational procedure in *SilverFast*

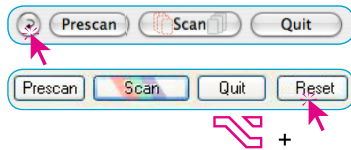
### Prepare scanner

First, insert the full slide magazine into the scanner and load the first slide manually.

### Resetting *SilverFast*

*SilverFast* can be reset with a click on the “Reset”-button, (Windows: with pressed “Alt”-key, the “Options...”-button becomes the “Reset”-button).

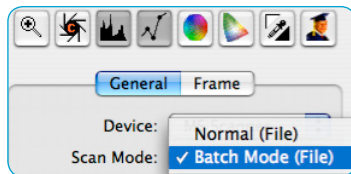
Resetting clears possible previous scan settings from the current scanning process.



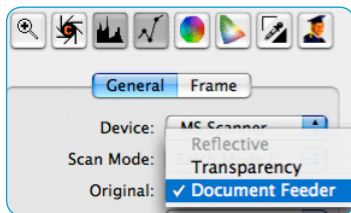
### Setting batch mode

Batch mode can be set through two menus in the "general" palette.

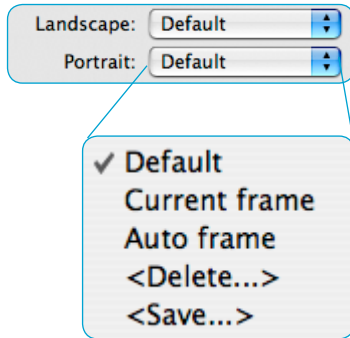
**Scan mode:** Here, the “Batch Mode (File)” option must be selected. All scans are saved directly to a directory, which must be specified.



**Original:** For slide magazine scanners, the “Document Feeder” option must be selected. Only now can *SilverFast* move the slide magazine independently.



## Set up of automatic frame finder\*



Some magazine scanners feature a sensor that identifies if the current slide is in portrait or landscape format.

Even though the scanning software can rotate the preview and final scan frames accordingly, it cannot align them precisely (portrait and landscape format, “Default” mode).

If the preview and final scan frames are to be precisely aligned automatically, possibly with individual fine rotation for slightly non-aligned slide frames, then the automatic “Auto frame” mode should be activated for portrait and landscape formats respectively.

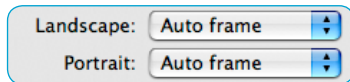


The “Auto frame” mode is only available in *SilverFast SE Plus* and *SilverFast Ai Studio*.

For automatic frame detection, the scanner generates a prescan for each slide, in order to align prescan and final scan frames correctly.



In the batch mode, this accordingly results in longer machine times.



If you wish to activate automatic frame detection in batch mode, then “Auto frame” should be activated for portrait and landscape formats.

In the “Current frame” mode, the actual prescan and final scan frame (manually altered using the mouse) is used for all slides in the batch.



If automatic frame detection\* is to be applied only to the current slide, click on the respective button\* on the vertical toolbar, left of the prescan window.



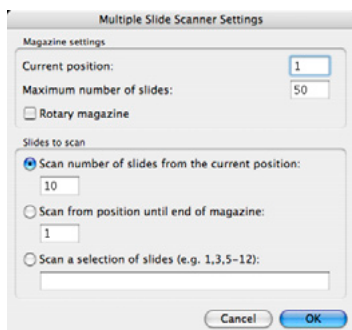
### \* Attention!

The availability of this function depends on the hardware and version of SilverFast used.



If, when using automatic search, the prescan or scan frame is located too close to the slide frame, it is generally possible to reduce the frame by percentage-steps using “Options / Auto / Find frame inset”.





## Settings for slides to be scanned in the magazine

Special buttons or displays that only appear with magazine scanners, can be found in the vertical tool bar, left of the large preview window.

### Magazine scanner setting

**Current position:** enter the current position number of the transport arm of the slide magazine.

**Maximum number of slides:** This value represents the maximum capacity of the slide magazine used. For example, if a 50-slide magazine is not completely filled, the value “50” still needs to be entered.

**Rotary magazine:** This field only needs to be activated if a round magazine is used. If normal, straight magazines are used, this field must be deactivated.

The number of slides to be scanned is specified with the following three menu points. Only one point can be active at one time.

**Scan number of slides from the current position:** Enter the number of slides that will follow after the current position of the transport arm.

**Scan from position until end of the magazine:** This is the position of the first slide to be scanned in batch mode.

**Scan a selection of slides:** Here, a selection of slides within the magazine can be made. For example, the entry “7-12,22-45,47” means that only the slides from position 7 to 12, from position 22 to 45 and the slide in position 47 shall be scanned.

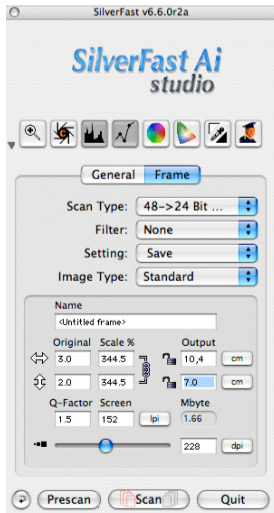
### Transport button and current position of the magazine



A new position for the slide magazine can be entered with both arrow buttons. The current position number appears under the arrow buttons as a number. Clicking on the right arrow increases the position number and the scanner immediately transports the magazine to the selected position. Once the transport is finished, a new prescan must be started.



## Setting the operating procedure

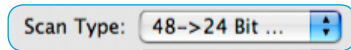


Depending on the operating procedure desired, the important parameters for image quality are set at this stage.

- ① Quick but rough overview of a larger archive
- ② Archive scans in RAW mode
- ③ Finalised scans for TV and projector presentations
- ④ Finalised scans for ink-jet prints
- ⑤ Quality scans, individually optimised

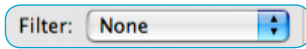
Quality scans, individually optimised ① to ③, and maybe also ④, can be started directly as classic, largely automatic batch processes. However, process ⑤ is particularly intended to achieve maximum image quality directly. Even though full automation is still acceptable in process ④ (with some limitations), maximum scan quality can only be achieved through individual image optimisation and accordingly this requires more manual work and time.

### “Frame” palette

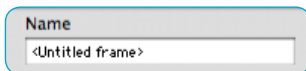


**Scan Type:** “48>24 bit colour” is best for standard scans (recommended for ①, ③, ④, ⑤).

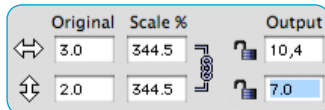
The setting “48 bit HDR colour” or “48 bit colour” is best for archive scans ②.



**Filter:** One of the “auto-sharpening”-modes is recommended for multi-media productions ③ and possibly also for ink-jet prints ④. Individually controlled sharpening using the “sharpening (USM)” dialogue should be considered for process ⑤ and for individual scans.

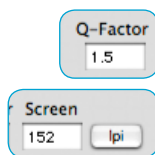


**Name:** the filename is applied automatically in batch mode. Individual names can be given for single scans.



**Scale %:** the scaling should be set to 100% for process ②.

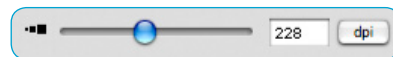
**Output:** For the sake of simplicity, the desired output size can be entered directly for processes ①, ③, ④ and ⑤. The value of the scaling changes accordingly.



**Q-Factor:** it should generally remain at the standard value of 1.5.

**Screen:** This value is only relevant when using process ⑤. Here, you can enter directly the screen width of the subsequent printing process; SilverFast independently calculates the relevant output resolution.

**Slider:** the output resolution can be set using this control. The control uses fixed steps, specified in the hardware. If required, interim values can be entered directly into the edit field.

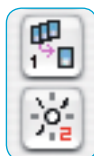


An output resolution of 72 or 96 is sufficient for multi-media projects ③ and quick overviews ①.

An output resolution of 150 to 250 dpi is generally sufficient for high-quality ink-jet prints ④ and FineArtPrints.

In offset print, the screen width controls output resolution: 228 dpi for 60-screen (60lpcm), 300 dpi for 80--(grid) screen (80 lpcm).

### Additional special functions



**Multi-Sampling\* / Multi-Exposure\*:** Either Multi-Sampling or Multi-Exposure can be used at any one time, but they do not work together. For scanners that are not equipped with Multi-Exposure, the use of Multi-Sampling is definitely recommended. Level 2 or 4 should be sufficient.



**iSRD\*:** This infrared-based technique to remove dust and scratches is strongly recommended in batch mode, as it can easily be switched to fully automatic.




#### \* Attention!


The availability of this function depends on the hardware and version of SilverFast used.




**JobManager:** *JobManager* is used to minimise the precious time of the user. In principle, it is possible to optimise each slide in the magazine individually, but ...

For an up-to date slide magazine scanner, the question quickly arises of whether it is possible and if it is really worth the effort. Due to the very slow transport speed of magazine scanners, combined with the quite awkward, slow transport handling (caused by the hardware), scanning is quite time consuming. The user spends a lot of time waiting at the computer without really being productive.

 However, for flat bed scanners, the direct application of *JobManager* definitely saves time.

 The following two-step procedure is recommended for the most up-to date slide magazine scanners: firstly, all pictures are scanned as raw data using process ② and then finalised using *SilverFast HDR* or *SilverFast DCPro* and their integrated *JobManager*. Although these are two working steps, the overall result can still be significant savings of personnel time.


This two-step procedure is recommended for all scans for which maximum quality and minimum user time are important. Another advantage: any communication problems that might occur between hardware and software can be elegantly overcome.

 For example, users with two computers available could use the older, slower computer to scan the pictures and the second, faster one to optimise the resulting raw scans with the *JobManager* in *SilverFast HDR*.

### Operating process in two steps:

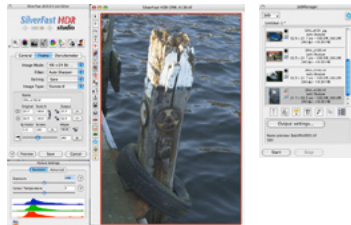
② + ⑤




②  Use *SilverFastAi* to generate 48 bit raw data scans in batch mode, with no image corrections.



Saved raw data scans.

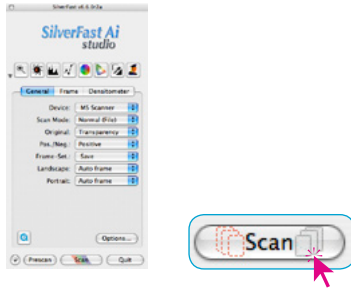


⑤  In *SilverFast HDR*, download raw scans into the *JobManager*, optimise individually and then allow the full job to be completed automatically.

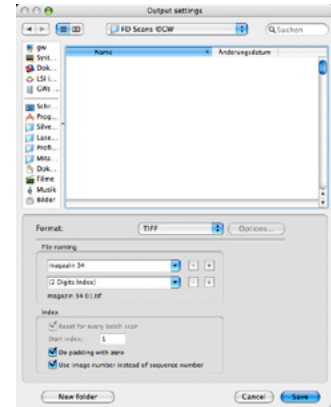


Saved, individually optimised scans.

## Starting batch mode

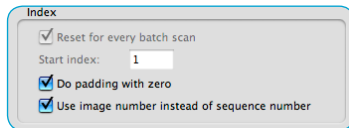
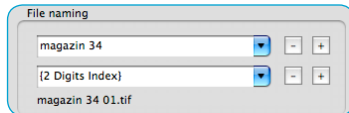


All remains to be done is to start batch mode. A click on the “Scan”-button opens the dialogue window for saving.



### Selecting file name

Normally, scans are automatically assigned consecutive numbers. In the “File naming” fields a string of text can be entered as a prefix for the numbers.

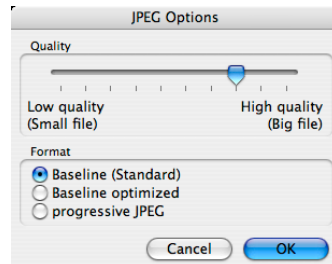
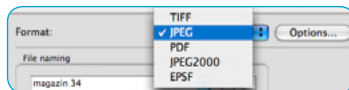


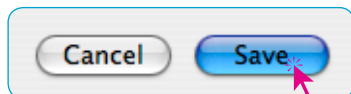
If it is wished to assign the current magazine position as the scan number, the “Use image number instead of the sequence number” field should be activated. The start number of the batch can also be set under “Start index”.

### Selecting file format

“File format” sets the format for saving scans: as TIFF, JPEG, or depending on the version, also JPEG2000.

In JPEG formats it is also possible to set the compressions level under “options”.





## Starting batch mode

Clicking “Save” will finally start processing the entire batch.

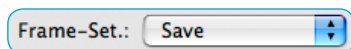


### Attention!

In order to guarantee trouble-free processing of the batch, it is advisable to leave the computer undisturbed throughout the scanning process and also to do NO other work on it until the batch has finished!

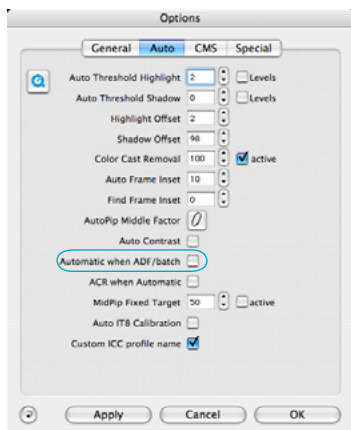
## Further operating procedures

### Identical settings for all slides

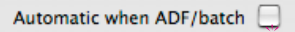


For a series of slides, all of which are to be optimised using identical settings, only the first one in the magazine needs to be set perfectly.

If these settings could be needed for future re-use, they can be saved to the “General” palette .



Then, under “Options...” / ”Auto”, deactivate the menu point “Automatic when ADF/batch” in order to prevent auto-adjust function accessing each new slide.



The whole magazine can then be finalised in batch mode, applying the saved set of parameters equally to all slides.

## Practical examples with Reflecta DigiDia 5000

The following table shows a realistic comparison of the time taken to scan 50 slides (1 magazine) in batch mode.

A Macintosh G5 Dual 2GHz with 1.5 GB RAM was used as the test computer.

	①	②	③	④	⑤	
Scanning of 1 magazine with 50 small image slides	Quick overview	Archive scans	TV, DVD, projector	Ink-jet printer	Maximum quality in two steps: Roh scan      Optimisation with <i>SF HDR</i>	
Scaling, output size (values fitted to aspect ratio of the slides)	300%	100%	HDTV 1080i 1920 × 1080 px (≈ 1920 × 1266 px)	A4 210 × 297 mm (≈ 210 × 316 mm)	as ②	A3+ 329 × 483 mm (≈ 329 × 506 mm)
Output resolution	96 dpi	optical resolution, 3600 dpi	96 dpi	250 dpi	as ②	300 dpi
Output colour depth/channel	8 Bit	16 Bit HDR Colour	8 Bit	8 Bit	as ②	8 Bit
File format	.jpg	.tif	.jpg	.tif	as ②	.tif
RGB	RGB	RGB	RGB	RGB	as ②	RGB
Image auto-adjust	ja	no	yes	yes	as ②	yes
Fine correction (tonal values, levels, colours )	no	no	no	no	as ②	yes, <i>JobManager</i>
USM	no	no	Auto-sharpening	Auto-sharpening	as ②	individual
iSRD	no	yes	yes	yes	as ②	–
Multi-Exposure	no	yes	no	yes	as ②	–
Multi-Sampling	no	no	no	no	as ②	–
Find frame 0% inset	no	yes	yes	yes	as ②	–
Effect:						
Resulting file sizes as Tiff / as JPEG (level 8)	≈ 300 kB ≈ 200 kB	≈ 104 MB –	≈ 6,8 MB ≈ 900 kB	≈ 18,7 MB ≈ 1,4 MB	as ②	≈ 66 MB ≈ 5,5 MB
Machine time for 50 slides	≈ 25 Min	≈ 640 Min	≈ 221 Min	≈ 513 Min	as ②	–
Personnel time for 50 slides	≈ 5 Min	≈ 5 Min	≈ 5 Min	≈ 5 Min	as ②	≈ 2-3 Min / slide ≈ 100-150 Min
Total time for 50 slides	≈ 30 Min.	≈ 645 Min (≈ 10h 45')	≈ 226 Min (≈ 3h 46')	≈ 518 Min (≈ 8h 38')	Total time ② + Pers. time ⑤ ≈ 10h45' + 1h40' bis 2h30'	
Additional image optimisation	n/a	Necessary, with <i>SFHDR</i>	n/a / as required	as required	Carried out with <i>SFHDR</i> and integrated <i>JobManager</i>	



## Check-list for batch mode

The following table gives a quick overview of the most important settings. Important steps are marked with a “!” and steps that depend on the operating process selected are marked with a “?”.

? / !	Check-list for batch mode	Page	OK
!!!	Developed one's own <i>scanning plan</i> ?	4-8	
?	Installed current SilverFast version and driver?		
?!	Renewed IT8 calibration?	11	
!	Insert magazine	11	
!	<i>Load first slide</i>		
!	<i>Reset SilverFast</i>	15	
!	General / Scan mode / <i>batch mode (file)</i>	15	
!	General / original / Document feeder	15	
?	General / portrait and landscape format / <i>find frame</i> *	16	
?	Options /auto / Find frame inset* / 1% ?	12	
!	Magazine scanner settings / <i>current position</i>	17	
!	Magazine scanner settings / <i>number of slides ... or ...</i>	17	
?	Magazine scanner settings / <i>selection of slides</i>	17	
?	Multi-Exposure* or Multi-Sampling*	20	
?	iSRD* automatic	20	
!	Frame / scan-type / 48>24 Bit... depending on workflow	19	
!	Frame /filter / auto-sharpening... depending on workflow	19	
!	Frame / scaling or <i>output size</i>	19	
!	Frame / <i>output resolution</i>	20	
!	Frame / <i>Scan</i>	22	
!	Output settings / location for saving, choosing <i>directory</i>	22	
!	Output settings / <i>format</i> (TIFF, JPEG,...)	22	
!	Output settings / <i>file name</i>	22	
!	<i>Output settings / index</i>	22	
😊	Output settings / <i>save</i>	23	
!!	<i>Leave computer to work alone, uninterrupted</i>	23	



### \* Attention!

The availability of this function depends on the hardware and version of SilverFast used.



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