

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.

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.

* Note!

Only applicable when using JM with SilverFastHDR... or SilverFastDC...

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.

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 SilverFastAi scan software.*

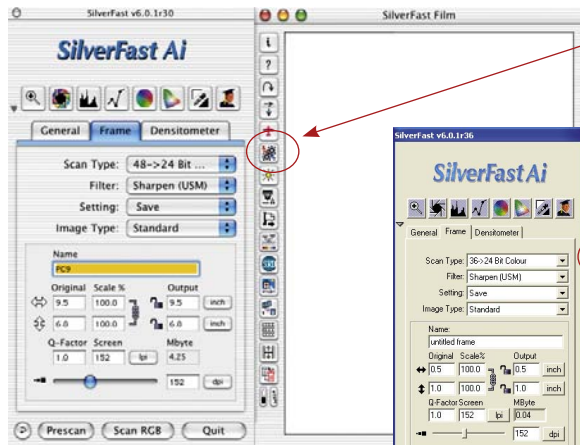
*In this manner, the raw data of the scanner is read as an **RGB file**. Here (with scan type “48 bit HDR colour”), the only means of adjustment during scanning is the output scale and the degree of resolution.*

SilverFastAi 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 SilverFastHDR....

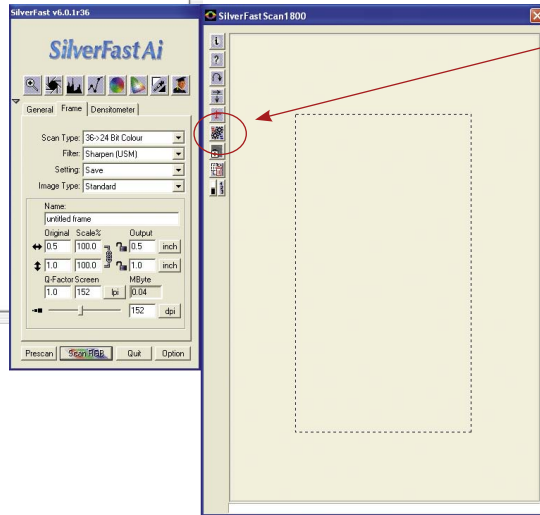
Overview



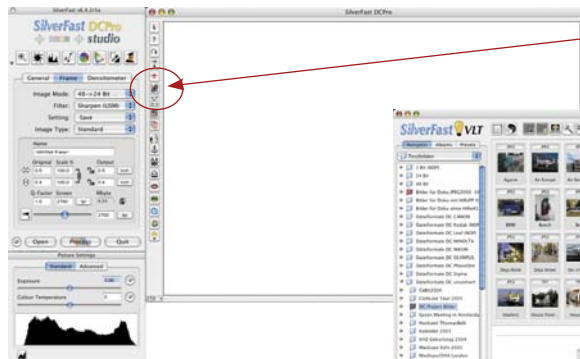
To activate the JobManager, click on “JobManager” button.



SilverFastAi
dialogue using Macintosh



SilverFastAi
dialogue using Windows



SilverFastDCProStudio
dialogue using Macintosh



SilverFastDCProStudio
VLT

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 dialog window (film scanners 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

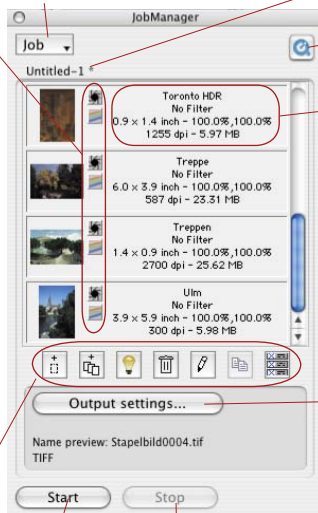
Output dimensions / scaling

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

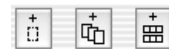
Differences in JobManager between SilverFastHDR..., -DC..., and SilverFastAi...

There are only two minor differences:

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

In SilverFastHDR... and -DC... you can drag&drop images directly 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.

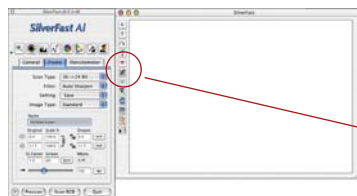


Using the *SilverFastJobManager* with Film Scanners* and Film Strips*

Activating the *JobManager*

First, start *SilverFastAi*. 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 *SilverFastAi* 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.



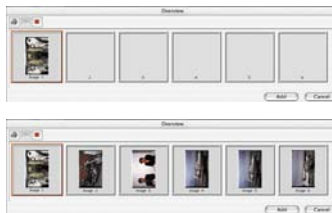
Image Overview of Inserted Film Strip (Index Scan)



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.





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

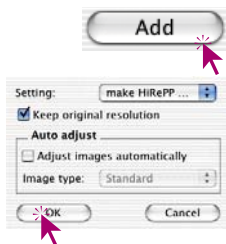
Selection of images:

Macintosh

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

Windows

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



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.

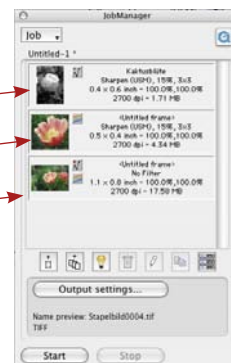


Adding All Frames of the Preview Window



By clicking on the 2nd button, all frames displayed in the preview window will be added to the *JM* window.

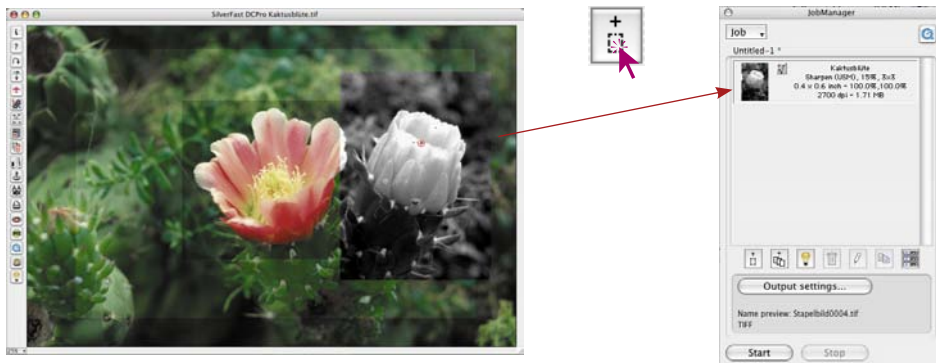
In the example below, 3 frames were displayed. Each frame encompasses a different image section and was optimised with different parameters. Each frame enfolds a different name, a different display window and contains different parameters for optimization.



Adding a Single Frame

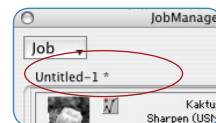


By clicking on the first button with the mouse, the currently activated frame of the preview window will be added to the *JM* window.



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



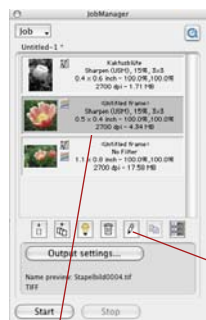
Individual *job* entries can be deleted at any time. To do this, you must select the *job* entries to be deleted in the window of the *JM*. One click of the delete button will remove the marked entries.

Processing Job Entries

Switching to the Processing Mode

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.



Processing
button
on / off

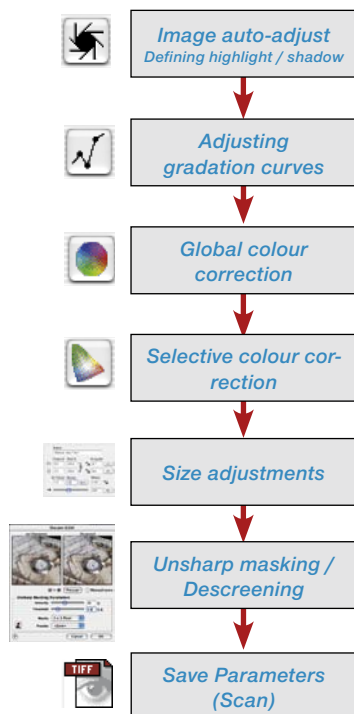
processing
button off

selected job entry

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.

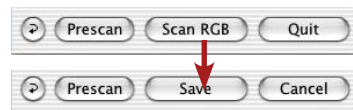
Of course it is important to retain order of the workflow steps of image correction.

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:  + ) for individual images.

“Shift click”  +  (Win:  + ) for a sequence of images.

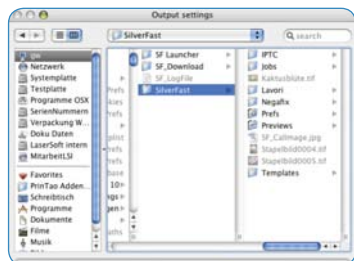
“Command A”  +  (Win:  + ) for all images of the jobs.

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.

New folder

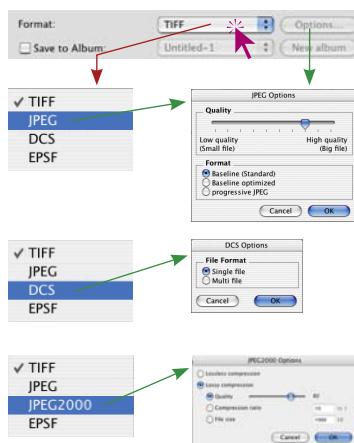
If the check box “Save to album“ is activated, images may be saved into an existing or into a new album. This option is only available in the *SilverFastDC...* and *HDR...* Versions.

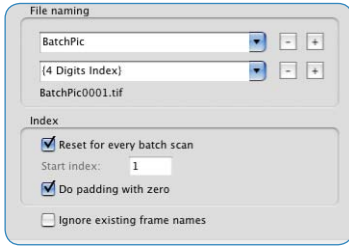
Save to Album

- **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“.



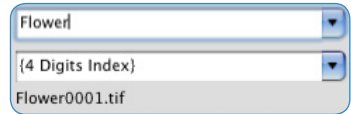


- **Usage of File Names**

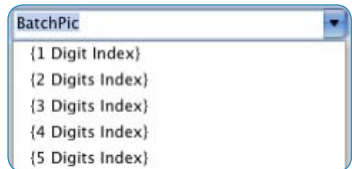
The lower part of the dialogue window is dedicated to file names.

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.



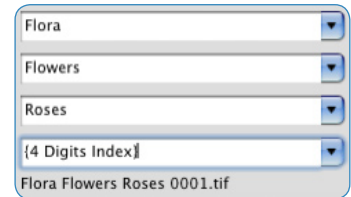
Alternatively, pre-defined index-elements may also be chosen from the input field / popup menu



Since each file name is given a numerical value, the index, it will normally be named by means of the second popup menu.

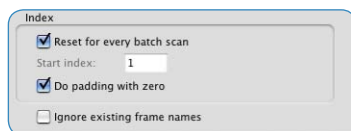


For more complex image series, the names and the indexes may be extended by pressing the “plus” keys which in turn will show more input fields / popup menus.



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:

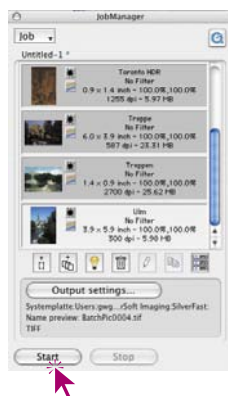
Reset for every batch scan: With each launch of a batch scan, the index is reset to the initial settings.

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.

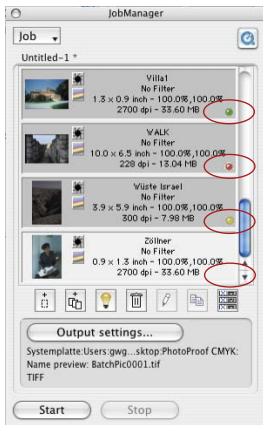
Use image number instead of sequence number: Only valid for film scanners. With the check box activated, the actual number of the scan frame is selected instead of the sequential number.



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 process 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

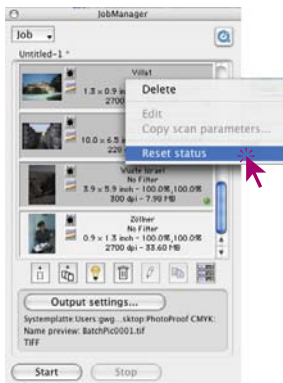
Red, when the entry has been unsuccessfully processed

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.

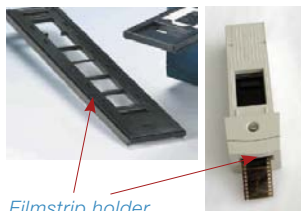
“Ctrl click” (Win: right mouse button) will open a contextual menu, which in addition to the *job* entry command contains the instruction “Reset status”. It will change the selected entries back to “Unpro-cessed” and to the colour grey.

Now you can again start a new selection of *job* entries and processing.

SilverFastJobManager Workflow with Film Scanners



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 *SFLauncher*



3. Launch *SilverFast Ai* for your scanner.



4. Activate the *SilverFastJobManager*.



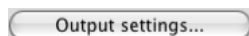
5. Produce an overview scan.



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 *SilverFastAi*.

The *SilverFastJobManager* with Flat bed Scanners*

The Difference to Working with Film Scanners

The *JobManager* of *SilverFastAi...* 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* it is easy to optimize the scan on the prescan itself and simultaneously bring the image to the desired 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. It is highly recommended to read about the full functionality of the *JobManager*.



* Attention

Some functions are only found with certain types of scanners.

The JobManager with SilverFastHDR..., -DCPro...

Differences in Working with Scanners

The *JobManager* provides the greatest advantage when used with the scanner independent plug-in *SilverFastHDR..., -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 *SilverFastJobManager* 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 *SilverFastJobManager*, 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

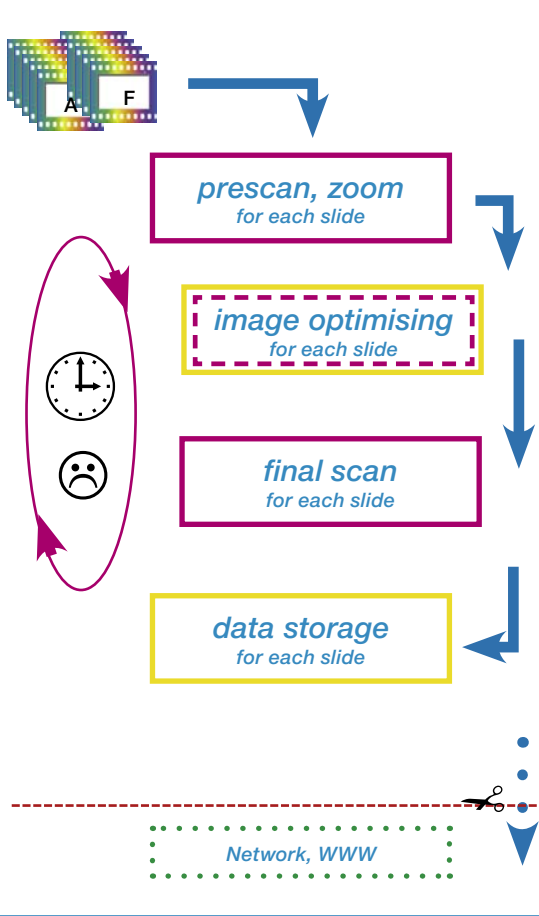
$$\begin{aligned}\Sigma &= 7,5 \\ &\times 72 \text{ slides} \\ \Sigma\Sigma &= 540 \text{ min} \\ \Sigma\Sigma &= 9 \text{ hours}\end{aligned}$$

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
	$\Sigma = 6,8$
	$\times 72 \text{ slides}$
	$\Sigma\Sigma = 489,6 \text{ min}$

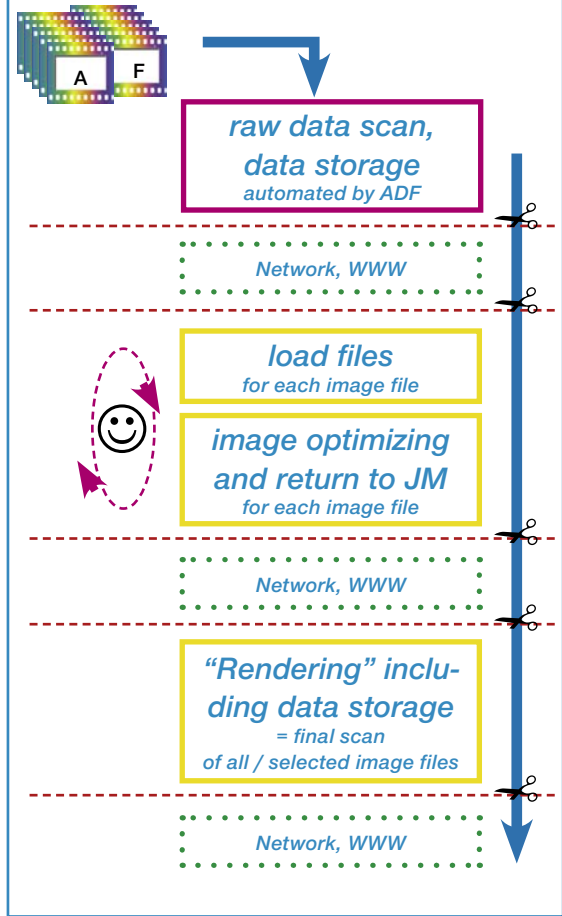
Less machine times:	Min
for raw scans: (72 x 4 min.) - 30 min	258
for rendering: (72 x 45 sec.) + 1 min 55	
	$\Sigma = 313$
	$\Sigma\Sigma\Sigma = 176,6$
	$\Sigma\Sigma\Sigma < 3 \text{ hours}$

processing time saved: 6 hours

A traditionally repeating workloop, using high time consumption of personnel



SilverFast JobManager automated workflow with minimal time consumption of personnel



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"  + $\left\langle \right\rangle$ (Win: $\left\langle \text{CTRL} \right\rangle$ + $\left\langle \right\rangle$) for individual images, with "Shift click" $\left\langle \text{SHIFT} \right\rangle$ + $\left\langle \right\rangle$ (Win: $\left\langle \text{SHIFT} \right\rangle$ + $\left\langle \right\rangle$) for a sequence of images and with "Command A"  + $\left\langle \text{A} \right\rangle$ (Win: $\left\langle \text{CTRL} \right\rangle$ + $\left\langle \text{A} \right\rangle$) for all images.

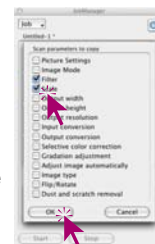


- By clicking on the now activated "Copy" button, all changes made in the current *job* can be copied into the other *jobs*.



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:  + **C**).
- Open or create the final job.
- Copy the buffer content to the final job with "Command + V"
 + **V** (Win:  + **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 *SilverFastJobManager* 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 *SilverFastHDR*.

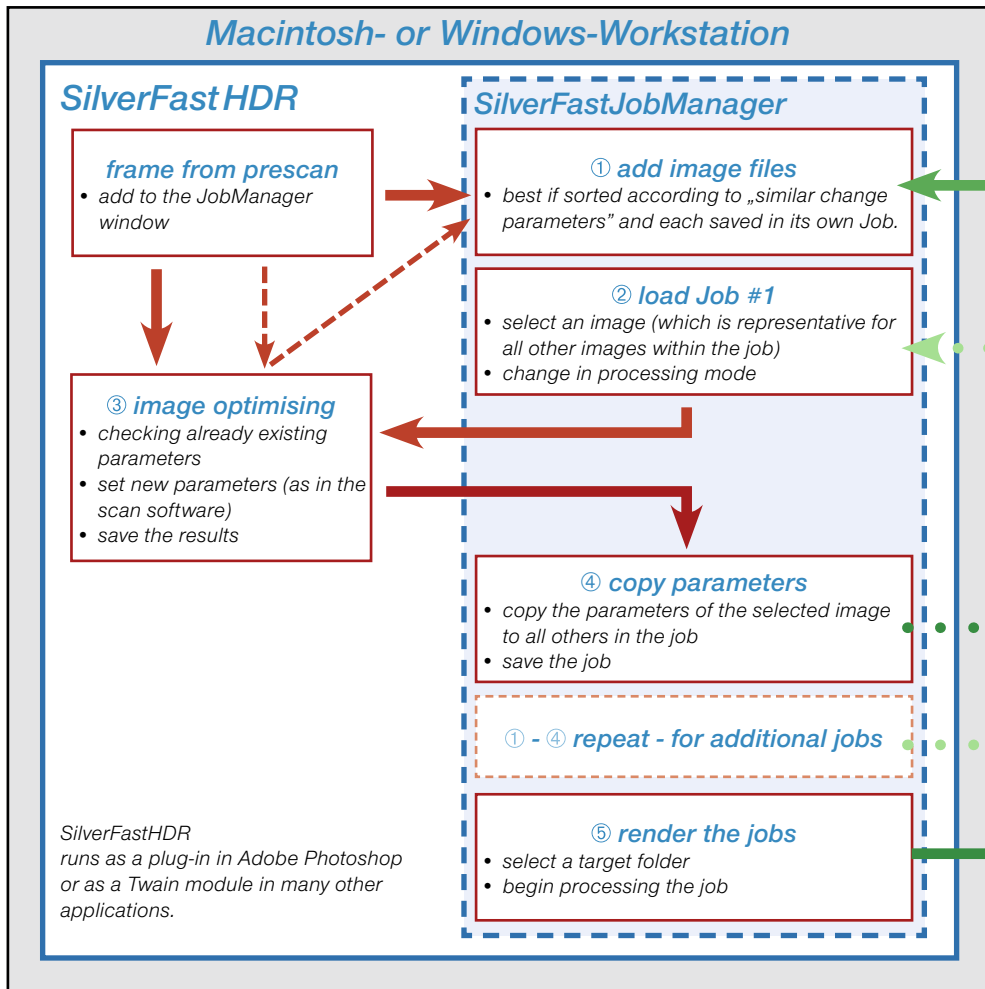
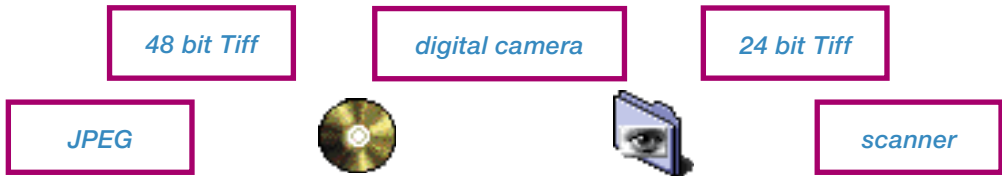
Of course, you can also retrieve existing *jobs* directly (Step ②). Subsequently, an individual image representing all others in the *job*, or several, or all images of the *job* one after the other can be optimized (Step ② and ③).

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



Error Messages

Source File is Missing

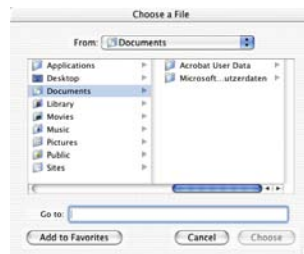
SilverFast JM checks for the existence of the necessary source file during the loading of *jobs*. If the files are not found in their original location, the following dialogue will appear:

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”	 + 
all images	“Ctrl A”	 + 

Windows

Selecting images in the *JobManager* image overview

add additional individual images	“Ctrl-click”	 + 
a sequence of images	“Shift-click”	 + 
all images	“Ctrl-A”	 + 