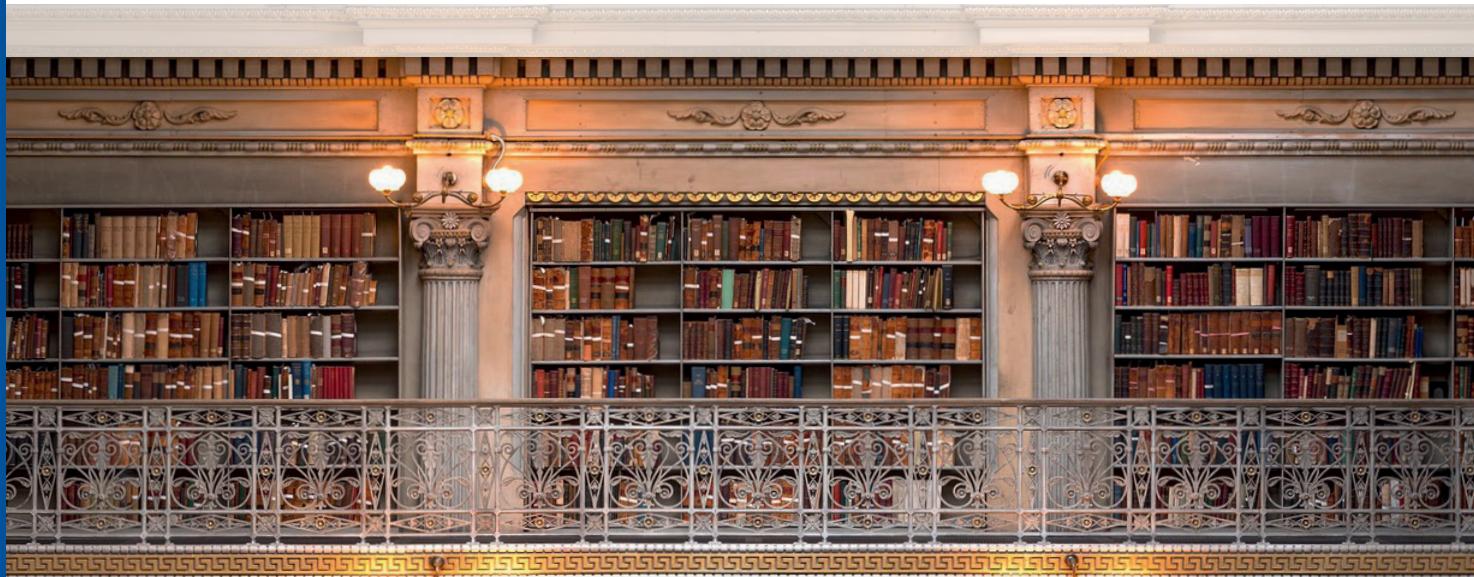




FRANÇAIS

# *SilverFast* **Glossaire**



*Professional Scanner & Digital Imaging Software*

# **SilverFast**

*Brilliant Images with SilverFast*



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# Glossary

## A

### **A/D Converter (Analog/Digital Converter)**

A module for converting analog data into digital data. Analog data is continuously variable, while digital data can only take certain steps

### **AACO (Auto Adaptive Contrast Optimization)**

The Auto Adaptive Contrast Optimization is a tool for correcting very dark image areas that are too contrasty while preserving the details in the highlights. It works automatically once it is activated, but still can be influenced manually.

### **ACR® (Adaptive Color Restoration)**

ACR is a SilverFast function for refreshing faded colors. A slider located within the Global Color Correction dialog is used to control ACR.

### **Additive Primary Colors**

Red, green and blue are the primary colors of additive color mixture. If they meet together in one place they add to white. Monitors and scanners work on the basis of this color model.

### **Aliasing**

Visibly jagged steps on angular lines or object edges due to sharp tone contrasts between pixels.

### **Analog**

Continuously variable signals or data.

### **Auto-IT8**

Please see: *IT8*

### **Auto Frame Alignment®**

With the automatic frame alignment in combination with the automatic frame detection many different originals on the flatbed scanner can be automatically found, framed and aligned at right angles with a single mouse click.

### **Auto Frame Detection**

The automatic frame detection for photos, slides, negatives and film strips is a tool to simplify and speed up the scanning of multiple images with a flatbed scanner. Several reflective or transparent originals can be simultaneously scanned and optimized automatically.

## B

### **Batch Scanning**

The automated scanning of multiple originals in succession with previously defined, individual settings for each original.

### **Bilevel Images**

Images containing only black and white pixels (also known as line art).

### **Bit**

Short for „binary digit“ - the smallest unit of information in a computer. A bit can only take two states. 8 bits are a byte, you can use it to describe  $2^8 = 256$  different states.

### **Bit Depth**

The number of bits used to describe each individual pixel in an image. It determines the number of possible gray or color gradations.

### **Bitmap**

A bitmap is an image consisting of a rectangular grid of square pixels. Depending on the type of image 1 bit (black and white) to 24 bit (color) are assigned to each pixel.

## Black Point

A variable reference point that defines the darkest area in an image, so that all other areas can be adjusted accordingly.

## C

### Calibration

The adjustment of devices and equipment to a standard value to obtain reliable results.

### Calibration Strip

A strip with color shades on a negative, proof or print to control print quality.

### CCD (Charge-Coupled Device)

An integrated, micro-electronic, light-sensitive component in imaging devices.

### CIE

Commission Internationale de l'Eclairage (french: International Commission for Illumination). An international commission, which has developed a set of standards for physical color definitions, such as the  $L^*a^*b^*$  color space in 1976. These were taken over by Adobe for PostScript Level 2.

### Clipping

If the contrast of an image increases excessively, brightness can not be displayed, because it leaves the possible value range. They get cut off and set to the greatest or smallest possible value. The result in an image could be something like a uniform white surface, in which previously were light details visible (for example a white house wall in which the stone structure was visible).

### Clone Tool

The Clone Tool is an image processing function for retouching that can copy whole image parts.

### CMS (Color Management System)

Such a system ensures consistent colors from import to output devices by creating a color profile for each participating unit, which allows the conversion between the colors of this device and an independent, physically defined color model (usually  $L^*a^*b^*$ ). The characteristics or profiles of devices are usually calculated using standardized IT8 color palettes.

### CMYK

Cyan, Magenta, Yellow, Black - the subtractive primary colors or process colors for four-color printing. Black is typically added to enhance the contrast and to display true black. The properties of the colors are well defined. Usually, in Europe the „Euro Scale“ is used, in North America such as the „SWOP Standard“.

### Color Angle (Hue)

One of the three quantities of some color spaces (such as HSL, HSV) that denotes the angle of a pure color. It may be varied in the other two quantities of saturation and brightness.

### Color Cast

A general color imbalance in an image, as if you would look at it through a colored filter.

### Color Correction

Changing the color values of an image to compensate for color casts, scanner errors or special characteristics of the output device.

### Color Pipette

The Color Pipette allows you to select colors of an image pixel-wise by simply clicking on a desired point of that image.

### Color Proof

A test sample for the final print. Resolution and quality of the different color proofing materials can vary greatly.

### Color Separation

Color separation means the calculation of the individual (separated) print colors, usually in pre-press. Before digitization, color separations were made with photographic color filters. The color separation is necessary because color information is usually not present in the form in which they are needed for printing.

## Color Space

All the colors of a color model, that can be actually outputted by a coloring method, form a quantized, three-dimensional color space. Each coloring method has its own color space, examples are RGB, L\*a\*b\*, CMYK, XYZ.

## Colorimeter

A light-sensitive device to measure colors. Therefore red, green and blue components are filtered as in the human eye. See also: *Spectrophotometer*

## ColorServer

ColorServer simplifies repetitive steps of color conversion, scaling, sharpening, color separation and optimization of image data through automation. The images are stored in folders, so-called Hot-Folders. For these Hot-Folders the desired processing parameters get set at first. In the second step, the optimization gets started, which then takes place fully automatically for all files.

## Compression

A reduction in size of image files. See also: *lossy* and *non-lossy*

## Contrast

Contrast is the difference between light and dark areas of an image.

## Core Size

The number of pixels grouped to a unit for methods of image processing and sharpening.

## Crop Marks

Print lines that show the dimensions of the finished printed page, they are used for trimming.

## D

### Decompression

The unpacking of compressed image files. See also *lossy* and *non-lossy*.

### Density

The degree of opacity of a light-absorbing filter, pigment or exposed photographic emulsion.

### Densitometer

Densitometers are devices for the quantitative measurement of color density or optical density of printed products, and particularly in photo technology for measuring the density in negatives, transparencies and paper images. The SilverFast densitometer shows selected tonal values of the scanned image before and after image optimization.

### Descreening

Eliminating the dot pattern from printed originals by defocusing the image during or after scanning. This prevents Moiré patterns and color shifts during subsequent screen reproduction. See also: *Moiré*

### Dichroic Mirror

A special type of interference filter that reflects a certain part of the spectrum and lets the rest pass. It is used in scanners to split a beam of light into its RGB components.

### Digital

Data or voltage signals, which consist of individual, distinct stages, as opposed to continuously varying analog data.

### Direct-to-plate

Direct exposure of image data onto printing plates or films, without any other films as intermediate steps.

### Direct-to-press

Skipping intermediate film and printing plates/ films by directly transferring image data to the printing cylinder in the press.

## Dithering

Dithering is a technique in computer graphics to create an illusion of a larger color depth in images with low color depth. Missing colors are created by a particular pixel arrangement modeled from available colors, thereby avoiding hard transitions between colors. The human eye perceives the dithering as a mixture of each color.

## Dot Gain

Also Tonal Value Increase. An effect when printing by which the halftone dots are printed larger than intended, resulting in darker colors or shades of gray.

## Downsampling

Reducing the resolution of an image. This is associated with a loss of detail.

## dpi (dots per inch)

A measure for the resolution of an output device. Incorrectly, the scanner resolution is often also specified with dpi instead with ppi. The crucial difference between input and output resolution is the color depth: a printer for example, can represent only up to 8 colors per dot, a scanner in contrast is able to differentiate up to several million colors. See also: *lpi*

## Drum Scanner

A high-resolution device for capturing images in which the templates are placed on a rotating drum. The first drum scanners dissected the scans into CMYK data that was directly recorded on a film that was on a second rotating drum.

## Dye Sublimation

A printing process using small heating elements to evaporate color pigments on a carrier film, which are continuously deposited on a film base.

## Dynamic Range

The dynamic range (also contrast range) is a value for the ability of a scanner to capture various shades of gray between black and white, its measurement is based on the ISO 21550 standard. The dynamic range is specified as the logarithm to base 10 of the number of distinguishable grayscale. The logarithmic notation can quickly lead to the impression that two scanners, whose dynamic ranges are similar in size, can also distinguish a similar number of contrasts. Considering the actual contrast ratios, the absolute differences are rather clear.

Example to illustrate the relationship between dynamic range (DR) to contrast ratio:

It is  $DR = \log_{10} (\text{grayscale})$

At  $DR = 3.15$  a number of  $10^{3.15} = 1415$  gray shades are distinguishable,

at  $DR = 3.95$  a number of  $10^{3.95} = 8920$  gray shades are distinguishable.

See also: *Multi-Exposure (SilverFast technology for increasing the dynamic range)*

## E

### Elliptic Point

A type of screen dot with an elliptical rather than circular shape. Using this better tonal gradations can be achieved in some cases.

### EPS (Encapsulated PostScript)

A file format for exchanging PostScript image files between different programs.

## F

### Film

Transparent material with a photosensitive coating.

### Film Negative

A piece of film with a reverse image in which dark areas appear light and light areas dark. Color negatives have an orange mask and its three color channels are compressed enormously.

## Flatbed Scanner

A flatbed scanner is a type of a scanner, in which the material to be scanned is put face down on a glass plate (usually A4 size). When scanning, an illumination and scanning unit in a „bed“ moves under this glass top, similar to the scanning unit in a digital photocopier.

## Four Color Process

The use of cyan, magenta, yellow and black in printing to produce a variety of colors.

# G

## Gamma

A measure of how much compression or extension is done to dark or bright colors of an image.

## Gamma Correction

The human eye perceives changes in brightness more steeply in dark image areas than in bright areas. Therefore, if the brightness signal of a linearly operating display device such as a monitor should be perceived linearly, it must be pre-distorted. This method is called gamma correction.

## Gamut

The gamut is that set of colors a device (such as a monitor, printer, scanner) can display or record. Formally, the gamut is that field in the color space that this device can describe with internal color mixture.

## Gamut Warning

Gamut warning is a functionality of many color management enabled applications. It shows that colors of a document, which cannot be colorimetrically transferred to the selected target color space. The consideration of gamut warning is only useful for relatively colorimetric or absolute colorimetric color space conversion. See also: *Rendering Intent*

## GANE® (Grain and Noise Elimination)

This tool is useful for reducing image noise and for smoothing film grain.

## GCC (Global Color Correction)

Global Color Correction is an intuitive tool for controlling the color balance of the whole picture. Color casts can be removed before scanning. In order to optimize color shifts in particularly bright or dark image areas, changes may be limited to half and quarter tones.

## GCR (Gray Component Replacement)

A method for reducing the amount of cyan, magenta and yellow in the neutral range and for replacing these colors with a corresponding component of black.

## Gigabyte

A byte is 8 bits, where a bit is a computer's smallest data unit. A gigabyte is  $2^{30}$  bytes, that is over one billion bytes, and is used as a measurement for the amount of data. GB is the common abbreviation.

## Gradation (Gradation Curve)

Depending on the technical language environment, the term „gradation“ is used quite differently. In the imaging and printing industry, it graphically describes the transformation of an input value into an output value. This is accompanied by a more or less pronounced change of contrast. The input values, like a software receives them from a scanner, are represented on a gradation diagram's abscissa (X axis). Usually, 256 tones (8 bits) are shown, starting on the left with 0 for black, ending on the right with 256 for white. The ordinate (Y-axis) has the same grading referring to the output values, from 0 to 256. The characteristics of the gradation curve now describe the conversion ratio. There is no change from input to output when the curve is a straight line of 45° through the origin. If the gradation curve is not linear, i.e. a curve, there is a change in contrast. There are input values to which the output values are lighter or darker.

## Gray Balance

The balance between the CMYK colors, which are required to produce neutral grays without a color cast.

## Grayscale

Discrete tonal levels in a halftone image, typical of digital data. Most of the halftone images have 256 gray levels per color.

# H

## Halo

A bright line along the edges of an image object that may appear when using USM technique (unsharp masking).

## HDRi (High Dynamic Range + infrared Channel)

In addition to the usual RAW scan data, the 64bit HDRi format also stores the infrared channel. Therewith, HDRi files include all information a scanner can provide, i.e. HDRi is the ideal archiving format. The HDRi raw data can be edited at any time later with SilverFast HDR.

## Highkey Image

A bright image that consciously lacks detail sharpness in the dark image areas.

## Highlight

A bright reflection from a light source that has little or no details.

## HiRePP® (High Resolution Picture Performance)

While scanning, this tool implements additional data into the image file that allow a very fast opening and editing later on. The difference is especially clear using image files with a size of several hundred megabytes.

## Histogram

A chart showing the frequency of occurring tonal values in an image as a series of vertical bars. The height of the bars (ordinate, Y axis) corresponds to the frequency of occurrence of a tone. The abscissa (X axis) indicates the tone. Of particular importance is a most complete filling of the abscissa. Gaps in the histogram quickly become visible in the image as an uneven or stage gradient.

## Hot-Folder

The Hot-Folder principle allows to set editing options such as scaling, sharpening, color separation and optimization for entire folders of images. For saving much time the image processing itself can be performed later automatically.

## HSL

A color model based on three coordinates: hue, saturation and lightness or luminance.

## HSV

A color model based on three coordinates: hue, saturation and value (intensity).

# I

## ICC (International Color Consortium)

The International Color Consortium was founded in 1993 by eight industrial companies in order to achieve uniformity of color management systems for all operating systems and software packages.

## ICC Printer Calibration

A printer calibration is required for a color-true and predictable reproduction of an image's color and tonal values using a printer. Therefore, the ICC printer calibration creates ICC profiles depending from printer, ink cartridges and paper. This requires an IT8-calibrated scanner.

## Image Automatics

The SilverFast Image Automatics permit an automated image optimization. A single mouse click starts the analysis of the scan or picture frame content and activates a complex chain reaction. The lights and shadows get examined for color casts and corrected if necessary; middle tones get adjusted; contrast gets corrected depending on scanner and original; also histogram and gradation get optimized.

## Image Sizes for Multimedia

Format	Width x Height	Aspect Ratio	Pixel Volume
VHS	240 lines x 576 rows	4:3	138.240
S-VHS	400 lines x 576 rows	4:3	230.400
DVD	720 x 576 pixels	4:3 or 16:9	414.720
HDTV („720p“)	1280 x 720 pixels	16:9	921.600
HDTV („1080p“)	1920 x 1080 pixels	16:9	2.073.600

## Imagesetter

A device for recording digital data (images and text) on monochrome film or offset printing film using one or more intermittent light rays. Data is recorded as a series of slightly overlapping points that either give solid areas for line images or halftone dots for printing halftone images.

## Interpolation

In the context of image processing interpolation means to increase resolution by adding new pixels throughout the image. For calculating the new pixels their neighboring pixels are used.

## IPTC (IPTC-NAA Standard)

The IPTC-NAA standard is used to store information about image content in a specific area of image files. IPTC allows to enclose information about image rights, author's name, title, or keywords. This way of storing metadata is widespread in stock photo agencies and image archives.

## ISO 21550 Norm

Please see: *Dynamic Range*

## iSRD® (Infrared Smart Removal of Defects)

SilverFast tool for infrared-based, precisely controllable removal of dust and scratches. Field of use are slides and film negatives. iSRD® is the only dust and scratch removal technology on the market that can be used when scanning Kodachrome slides. In connection with SRD®, even the processing of black and white images is possible.

## IT8 (IT8 Calibration)

LaserSoft Imaging has made scanner calibration a lot more simple and user-safe by introducing its „Auto IT8“ calibration. Thanks to the high-end IT8 targets with their embedded bar codes, the respective target is detected and the related individual table of measurements is fully automatically identified and processed. An ICC (Mac) or ICM (Windows) profile is created and automatically used by the operating system and activated immediately in the scanning software.

## J

### Jaggies

Please see: *Aliasing*

## JobManager®

Tool included in SilverFast full versions to increase the efficiency of image control and individual optimization of batch scans.

## JPEG (Joint Photographic Experts Group)

An organization that has defined various techniques for compressing data files. JPEG is also the common name for the 1992 presented norm ISO 10918-1, which describes various methods of image compression. Image files compressed with such a method often have file extension .jpeg or .jpg.

## K

### Kilobyte

One byte equals 8 bits, where a bit is a computer's smallest data unit. A kilobyte is  $2^{10}$  bits, that is 1024 bytes, and is used as a unit for the size of data files with the common abbreviation for k or kB.

## Kodachrome®

A very light- and age-resistant color slide film from Kodak that was manufactured from 1935 to 2009. Kodachrome was actually a three-layer black and white film, that got colored during the development in the K14 process. Due to its special structure, Kodachrome film is very difficult to scan. The SilverFast Kodachrome features and especially the Kodachrome IT8 target for calibration are very useful tools therefore.

## L

### L\*a\*b\* Color Space

The L\*a\*b\* color space is a metric space in which all perceivable colors are included. This color space is constructed based on the opponent color theory. One of the most important characteristic of the L\*a\*b\* color model is its device independence, that is, the colors are defined independently from mode of production and reproduction technology.

### Laser Printer

Although various devices are using laser technology for printing images, in general, black and white printer in the field of desktop publishing are meant, that work with dry toner and a xerographic printing process.

### Lights

The brightest parts of an image.

### Line Image

Image that contains only black and white pixels (1 bit). Also known as bilevel images.

### Lossy

Describes a method for compressing image files, where image data is lost.

### Lowkey Image

A dark image that consciously lacks detail sharpness in the bright image areas.

### Ipi (lines per inch)

A measure of screen width (usually between 55 and 200). Previously screens were generated by putting an etched glass plate over an image and exposing this to generate dots. The width of the screen is indicated by the number of horizontal and vertical lines per inch.

### LUT (Look-Up Table)

A table of colors that an individual computer can display. The computer uses this table to approximately select the desired color from the available color gamut.

### LZW (Lempel-Ziv-Welch-Algorithm)

The LZW algorithm describes a method for image compression that removes smaller tonal and/ or color variations. This can result in a visible loss of detail for high compression ratios.

## M

### Mask

The inactive part of a bitmap image, where no changes can be made.

### Matrix

In general, the term matrix means an arrangement of elements (often numbers) in the form of a table. Regarding scanners, often the two-dimensional CCD elements' arrangement is meant.

### Megabyte

A byte is 8 bits, where a bit is a computer's smallest data unit. A megabyte is  $2^{20}$  bytes, so more than one million bytes. It is used with the common abbreviation MB as a measurement for the amount of data.

### MidPip4

By setting up to four neutral points even complex color casts can be removed easily.

## Midtones

The range of the middle tones in an image.

## Moiré

An unwanted printing error resulting from coarse patterns, that are generated by overlaying color screens. This is often due to unfavorable screen angles.

## Monitor Calibration

Setting the color rendering of the monitor as part of color management in order to produce predictable prints.

## Monochrom

A black and white rendering with no shades of gray.

## Multi-Exposure®

A pioneering LaserSoft Imaging patent to increase the dynamic range for scanning film and slides. Scanning the original twice with very different exposures allows to capture more detail in the shadows while minimizing the natural image noise. In general, with SilverFast Multi-Exposure® the dynamic range of a scanner is more than doubled.

## Multi-Sampling

This tool is used to reduce the naturally occurring image noise that often appears in the darker image areas. Therefore, the original is scanned several, up to 16 times. An algorithm then calculates the denoised image.

## N

### NegaFix®

A technique developed by LaserSoft Imaging for a controlled conversion of film negatives into positives during the scanning process.

### Negative

Please see: *Film Negative*

### Noise

In connection with scanning, noise means randomly distributed, incorrectly read pixel values, normally due to electrical disturbances or instability of the devices.

### non-lossy

Describes a method for compressing image files, where no image data or quality is lost at all.

## O

### OCR (Optical Character Recognition)

The analysis of scanned images to detect characters and converting them into editable text.

### Offset Printing

Offset printing is a commonly used printing technique where the inked image is transferred from a plate to a rubber blanket, then to the printing surface.

### Optical Resolution

Also physical resolution. In connection with scanning the term optical resolution means the actual number of values, that are separately acquired from an original in an exactly specified range. A subsequent resolution increase by software interpolation cannot result in gaining more detail.

## P

### **PhotoProof®**

SilverFast PhotoProof® is used for color-consistent and obligatory processing and output of digital images. The image optimization is done media-neutral on RGB basis. The user receives a simulation of the CMYK reference color space by soft proofing on a calibrated monitor. A binding contract proof can be created with FOGRA media wedge and ICC-profiled printer.

### **Pigments**

Coloring substances that are insolubly incorporated in materials such as paints or plastics and that absorb some part of the light spectrum and reflect the other part. They also give printing ink its color.

### **Pixel**

Short for picture element. Digital images are composed of directly adjacent pixels, each having a specific color or tone. Viewed by the human eye, the different colored pixels blur into a continuous-tone image.

### **Pixel Skipping**

A method for reducing the image resolution by simply leaving out certain pixels in the entire image.

### **PMS (Pantone Matching System)**

A common system for identification of certain printing inks.

### **PMT (Photo Multiplier Tube)**

Term for light-sensitive tubes that are usually used in drum scanners.

### **Posterization**

Posterization means the photographic effect of tone separation (or tonal value separation) with tonal value reduction. The effect has been used as an instrument of artistic design.

### **ppi (pixel per inch)**

A measurement for the resolution of a scanner, pixels per inch. The more precise the optical system, the higher the scanning resolution and the detail sharpness can be.

### **Prescan Concept**

The result of each processing step in SilverFast 8 is immediately visible in the main preview window.

### **PrinTao®**

PrinTao® is an extended print dialog, which is included in all SilverFast versions. Secondly, LaserSoft Imaging offers a powerful software with this name as a stand-alone version for all printers.

### **Profile**

The color properties of an input or output device used by a color management system to ensure color fidelity.

### **Proof**

A reasonably accurate sample print that shows, how the end result should look like. Proofs can be made in black and white or color.

### **Process Color**

The four colors cyan, magenta, yellow and black that are combined to print a variety of different colors. Mixed together they can only reproduce a small part of natural color, but they can produce the maximum color gamut with the least number of printing inks. See also: CMYK

## Q

### **Quality Factor**

Also Screen Factor. A multiplication factor (between 1 and 2) in SilverFast that is applied to the output screen to calculate the scanning resolution for optimum quality output.

## Quarter Tones

The tonal values between shadows and midtones are known as three-quarter tones, those between highlights and midtones as one-quarter tones.

## R

### RAM (Random Access Memory)

The main memory of a computer, which stores the data that is actually processed. It is a non-permanent memory, whose contents are lost when power is switched off.

### RAW Data

Raw data is such data as digital camera or scanner data that was not optimized or somehow changed after it was captured. They are particularly suitable for archiving and can be adjusted later for different uses.

### Reflective Original

Item that reflects light and has to be illuminated from the top for the purpose of scanning. Everything printed on paper and all images on photo paper are included. Slides in contrast are transparent originals

### Register Marks

Small crosshairs on films which are used for alignment.

### Rendering Intent

The rendering intent of a color management system determines the method by which an image is converted into a different color space. The ICC differentiates four Rendering Intents: perceptual, relative colorimetric, absolute colorimetric and saturation-preserving.

### Resampling

An increase or decrease in the number of pixels of an image that is required to change the resolution without changing its size. See also: *Downsampling* and *Interpolation*

### Resolution

A measure of the accuracy with which an image is in- or outputted. It is specified in dpi/ppi (dots/points per inch) or dpcm/ppcm (dots/points per centimeter).

### RGB (Red, Green, Blue)

The additive primary colors used to display color on the computer monitor.

See also: *Additive Primary Colors*

### RIP (Raster Image Processor)

A Raster Image Processor is a special hardware or a combination of hardware and software, that converts the specific data of a higher-level page description language such as PostScript, PDF or PCL into a raster graphic, usually to output it on a printer. In prepress, this adapted data is sent to a CTP (Computer to Plate) system for directly producing a printing plate.

## S

### Sampling

The process of converting analog data into digital data, in which a sequence of samples or measurements is taken at equal time intervals.

### Saturation

The amount of gray in a color. The higher the amount of gray, the lower the saturation. The more balanced the RGB components are, the lower is the saturation and the more the color tends to gray or white.

### SC2G® (Selective Color to Gray)

SC2G® allows a controlled conversion of color images into high contrast, detailed grayscale images. Individual colors can be transformed to arbitrary grayscale with this tool.

## Scanner

A device for digitizing images, for processing, storing and printing these with a personal computer.

## Screen

A dot pattern of varying size to simulate a halftone photography in color or black and white.

### to screen sth.

The process of converting mathematical and digital data into a sequence of dots using an imagesetter to produce positive or negative films.

## Screen Angle

The angle at which the different films in process color separations are offset from one another. The correct screen angles are critical to minimize Moiré patterns.

## Screen Ruling

The number of lines or dots per inch or centimeter in a screen.

### SSC® (Selective Color Correction)

SilverFast's selective color correction of 6 or 12 colors, that can be carried out independently on up to four layers using masks.

## Shadows

The darkest areas of an image.

## Secondary Colors

A result of mixing two primary colors. Cyan, magenta and yellow are the secondary colors of light. E.g. Red plus green is yellow.

## Soft Point

A point in a screen whose edge is not perfectly circular and smooth. Soft points produce a slightly blurred image. In contrast, a hard point has very smooth edges.

## SoftProof

SoftProof refers to the colorimetrically correct output of digital print data to a monitor.

## Spectrophotometer

A very accurate colorimeter, which separates the light by a diffraction grating into its wavelength components, which are then measured, each by an individual light sensor.

### SRD® (Smart Removal of Defects)

SilverFast tool for a precisely controllable removal of dust, scratches and other defects. Works reliably without destroying any detail with all kind of images.

## Subtractive Primary Colors

The three printing colors (cyan, magenta and yellow) to produce various colors while printing. In contrast to the additive primary colors, they produce darker colors when mixed.

## Supersampling

The capture of more gray levels per color as is required for photo editing or output. With this additional data, for example, the shadow detail can be strengthened.

## T

## Targa

A file format for exchanging 24bit color files on PCs.

### TIFF (Tagged Image File Format)

A file format for exchanging bitmapped images (usually scans) between different applications.

## **Tone**

A point in the color space that represents a color.

## **Tone Curves**

Also known as Gamma Curves. These curves are used to continuously adjust an image's global tonal range or the individual tonal range of a single color channel.

## **Transparent Original**

Light transmitting originals like slides and film negatives are known as transparent originals. Photos, documents and other opaque originals on the contrary are called reflective originals.

## **Trapping**

A preparation for printing process to compensate for register differences while printing. In desktop publishing systems this is mainly done by adjusting the overlap of adjacent colors.

## **U**

### **UCR (Undercolor Removal)**

A method for reducing the share of magenta, yellow and cyan in neutral areas and their replacement by corresponding amounts of black.

### **USM (Unsharp Masking)**

A technique for sharpening images and scans. In SilverFast an innovative luminance-based calculation of brightness values is used for sharpening, without affecting the image's saturation and color values.

## **V**

### **Vector Graphic**

A vector graphic is a computer graphic that is composed of graphical primitives such as lines, circles or polygons and not of individual pixels. Vector graphics are characterized by free scalability and small file size, but are not suitable for complex images such as photographs.

### **VLT (Virtual Light Table)**

The Virtual Light Table as a software tool is inspired by the light table photographers are using. It is well suited for viewing, editing, sorting and organizing digital photos in the SilverFast DC and HDR versions.

## **W**

### **White Point**

A variable reference point that defines the lightest area in an image, so that all other areas can be adjusted accordingly.

### **WorkflowPilot**

The workflow pilot is the heart of SilverFast 8. After choosing the type of original to be scanned and the intended use, the workflow is automatically set. The user is then guided step by step and in the right order through all necessary processing steps.

### **Working space**

The working space is the color space in which an image file is processed. A general recommendation for the best working space can not be given. The optimum color space depends on the application and possibly even on the subject. In general, in pre-press ECI-RGB or ECI-RGB v2 are preferred. Photographers do often use these color spaces.