



nik Sharpener **Pro!**



User Guide

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Quick Reference

Sharpener Pro!
Offset / Autoscan

Zoom in / Zoom out (+/-)

Preview Area (Image of palm trees)

Printing Size Sliders (Image Width: 8.3 inch, Image Height: 5 inch)

Printer Type (Printer: 75 lpi)

Printer Quality slider (Printer Quality: average)

Type of Printwork (Eye Distance: Large Poster)

Personal Profile Chooser (Personal Profile: Anna)

Save and Load Settings (Save, Load, Help)

Access Help Pages (Help)

Accelerated Mode On/Off (Accelerated Mode icon)

Abort / Confirm Dialog (Cancel, OK)

Advanced Information Field (Pro! RealResolution Index = 214, Sharpening Radius = 0.0165 = 0.84 Pixels, Image is printed at 160% of optimal size = sufficient details, 400 by 300 pixels, color Mode = RGB, Acceleration Off, Autoscan On, No Warnings)

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(Der Deutsche Teil des Handbuchs beginnt auf Seite 33)



1 Welcome

Thank you for purchasing nik Sharpener Pro!

In the past and even today, programs such as Photoshop® relied on an “Unsharp Mask” algorithm to create the illusion of a sharper, crisper image (see illustration below), a principle that comes from a traditional darkroom technique. While this technique provides a relatively effective method for creating a “sharper” image, to use it effectively and consistently, nevertheless, requires considerable experience to make these adjustments. Add to this the fact that the Unsharp Mask process provides neither added detail nor color protection; users are left with additional issues to address in optimizing and preparing an image for print. nik Sharpener Pro addresses many of the problems inherent in sharpening images optimally and provides an effective solution to easy and optimal image sharpening. The goal in creating nik Sharpener Pro was to provide users with a consistent tool for effective sharpening, while allowing users to match effective sharpening with their own creative style.



Since the development of computer image enhancement, photographers and graphic artists have searched for a program which will sharpen an image while maintaining the qualities that make each photo unique. If you look carefully at images in even the best magazines, you will notice varying degrees of sharpness as well as inconsistencies even on a single page. Many of these variations in sharpness result from discrepancies between the appearance of the image on the screen and the final print. The optimal degree of sharpening depends significantly on various factors, so no matter how sharp the image appears on the screen or in a test print, the degree of sharpness of the final printed image in most cases cannot be accurately predicted.

Through its features, nik Sharpener Pro provides an automatic, efficient, and accurate tool for sharpening images. Features in nik Sharpener Pro include an intelligent pre-scanning system and an eye distance setting. This innovative feature allows for sharpening images based on the “natural” distance from which the sharpened



image would be viewed. nik Sharpener Pro's most advanced features, however, incorporate automatic image analysis and adjustment capabilities. Using a number of artificial intelligence algorithms to analyze, prepare, and sharpen an image, nik Sharpener Pro is able to calculate appropriate adjustments and to sharpen images optimally. In its analysis, this component analyzes objects – buildings, trees, people, etc. – and sharpens them appropriately based on both detail and color, providing a much more uniform and precisely sharpened image.

1.1 Using nik Sharpener Pro!

A Note Before Getting Started: There are two distinct advantages in using nik Sharpener Pro: 1) you don't actually need any experience in sharpening images and 2) you don't need to use the Unsharp Mask interface or any other sharpening tools to optimally sharpen your image. In fact, to obtain optimal results make sure that any automatic sharpening options, software or tools that may be included with scanning programs are turned off. Running other sharpening options or programs with nik Sharpener Pro will likely result in incorrectly sharpened images.

1.2 Sharpening Theory 101

Sharpening images to varying degrees can leave a printed layout looking awkward or clumsy. It is often because of these inconsistencies that some professionals don't even attempt to sharpen images at all. Before considering the features of nik Sharpener Pro, however, a quick example using conventional sharpening methods will help in understanding the benefits of nik Sharpener Pro!

A Quick Example

In almost all sharpening applications available, users need to enter three variables for sharpening an image: 1) Threshold 2) Radius (in pixels) and 3) Percentage. Let's assume that you wanted to sharpen an image with 275 dpi, scanned from a small slide for use on the back of a breakfast cereal box in 3 inch by 4 inch dimensions on a 75 lpi offset printer. Unfortunately, from a mathematical standpoint, there is only one combination of these three values, that leads to an optimally sharpened image - using a Threshold = 33, Percentage = 120% and Radius = 1.61 pixels. Short of making calculations for this adjustment, arriving at these values can be difficult. Making adjustments to these parameters or using other

parameters can and will likely leave the image looking either over or under sharpened and not optimized.

nik Sharpener Pro, however, is designed to not only help you hit these target values each time but also to give you color and detail optimization processes which give truly professional results. Simply enter the variables you are certain of (printer type, print size, etc.) and trust nik Sharpener Pro to do the rest.

2 Installing nik Sharpener Pro!

1) Installing nik Sharpener Pro is simple. Place the nik Sharpener Pro CD in your CD-ROM drive and find the folder named "The Filters".



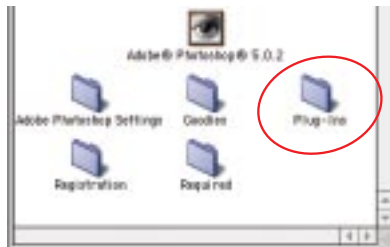
2) You will want to copy nik Sharpener Pro into the "Filters" folder (generally located in the Plug-Ins folder) for the version of Photoshop that you are using. If you are installing nik Sharpener Pro for use in another Adobe compatible program, please check the documentation of that program for instructions on properly installing Adobe compatible filters or check our

web site at www.tech-nik.com for updated compatibility information and instructions.

(Note: While we cannot provide support for host programs with which nik Sharpener Pro operates, we do our best to evaluate and provide updated information on compatibility.)

If you are not sure where your filters are installed within Photoshop:

a) Open Photoshop and from the file



menu, select Preferences "Plug-Ins & Scratch Disks..." The location of your plug-ins will appear.

b) Next, click the Choose button/option to locate the filters folder and scroll through the

folders checking for your folder named "Filters".

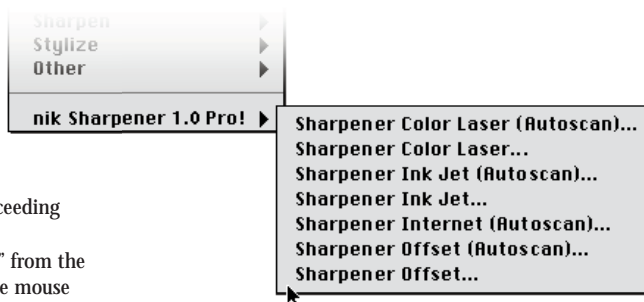
c) After determining the location of your filters folder, make a notation of this location and close the preferences dialog box by selecting "Cancel".

d) Close Photoshop before proceeding with installing nik Sharpener Pro

e) Copy the folder "The Filters" from the nik Sharpener Pro CD-ROM with one mouse drag into the "Filters" folder from the Photoshop folder you determined in step 3.

3) Launch Photoshop and select the Filter menu (in Photoshop). Click on it and locate "nik Sharpener Pro!" as shown and you are ready to Sharpen your image.

If nik Sharpener Pro does not appear in the Filters menu, you may have copied the filter folder from the CD to the wrong location on your hard drive. If this happens, check to see if you have more than one copy of Photoshop installed or if you selected a different folder location when installing Photoshop. Return to step 1 and



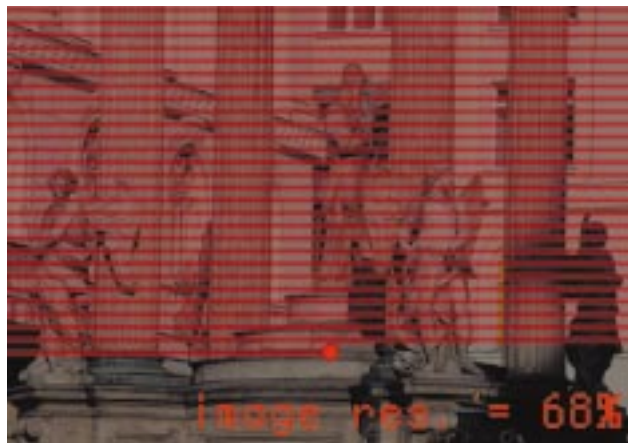
check the "Filters" folder location again and ensure that nik Sharpener Pro is installed in this folder. You may also want to check to be sure that you have not installed nik Sharpener Pro in the "Extensions" folder, often located one folder up from the "Filters" folder.

3 Features of nik Sharpener Pro!

3.1 The Autoscan Feature

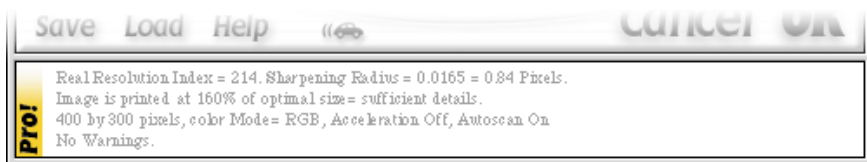
Among the many features of nik Sharpener Pro is the Autoscan Process. Before the dialog box opens, this automatic analysis feature, using artificial-intelligence algorithms, analyzes the image at various levels, providing the program with important information about the image. Just one of the added features of the professional version of nik Sharpener Pro, the Autoscan feature eliminates the need to enter the type of image source.

The Autoscan feature provides another important calculation. This process makes an analysis and determines the image's "Real Resolution". In this calculation the Autoscan process analyzes the resolution of the image, considering the detail within the image regardless of the image's dpi (dots per inch). To understand what "Real Resolution" is, it is first important to know that an image with a dpi of 300, for example, does not necessarily have sufficient resolution for an optimal print. If the image was scanned from a low quality slide using a consumer grade



scanner with interpolation turned on, and a resolution that allows for 300 dpi in 8 by 11 inch dimensions, the image will likely come out unsharp. The source image would likely not provide sufficient information in the scan to attain the desired print size and related resolution. The *Real Resolution* may have been enough for a 2 by 3 inch print, but not enough for a larger print of the same image.

In short, Real Resolution relates to detail within the image and *not* the dpi of the image.



Using the Autoscan process and Real Resolution calculation, nik Sharpener Pro will sharpen the image based on the quality of the image. Poor quality images will be sharpened differently than those of higher quality – *automatically*.

3.2 Real Resolution & Using Autoscan

The Autoscan feature also contains a component that advises the user if the Real Resolution is insufficient to print the image based on the image content, resolution, and the printer type. In making calculations, the software does a couple things:

1) The software assumes that the image contains no more than three scratches, hairs, or imperfections. If there are more than three, the software will assume that these apparent imperfections are a part of the image and sharpen these instead of the image itself. This is important since scratches and hairs are almost always sharper than the image.

2) The Autoscan feature only detects if the image contains sufficient *details* to print the image in a specific size. The software does *not* detect if the image quality is “good enough”. While image quality and image detail are often the same, there may be circumstances where an image's detail is sufficient but the quality is not.

The image above shows the text area portion of the nik Sharpener Pro interface which always displays the image's resolution. A 100% reading means that the image has sufficient Real Resolution (as well as physical resolution) needed for the specified print size. Most resolution readings, however, will fall between 100% and 250%. While this level is not optimal for the intended print size, images in this range do contain sufficient details for sharpening and thus no cause for concern. The Table on the next page displays possible ranges for the Real Resolution Indicator and the significance of each range.

If Line 2 of the Text Output Area Indicates:	Then:
Image is printing at 100% of optimal size	The image's resolution and detail are optimal for the current settings.
Below 100%	The image has a higher resolution than needed. There is no cause for concern.
Less than 50%	The image has higher resolution than needed. You can reduce the resolution of the image to save disk space. Up to 100% will still yield "optimal" results.
Above 100% but less than 250%	The image is not "optimally" detailed for the indicated print size, but still very good. No cause for concern. 80% of images fall in this range.
Above 250%	The image is below the recommended level based on a rating of the detail in the image. Consider rescanning or re-shooting the photo if possible.

3.3 Fence 'n Foliage Protection

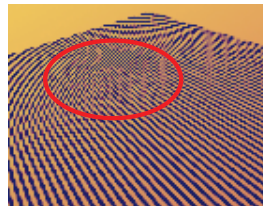
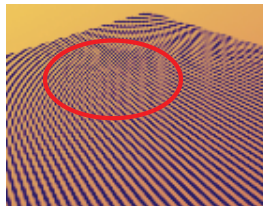
The Fence 'n Foliage Protection process in nik Sharpener Pro provides users with a new innovation. The Fence 'n Foliage Protection process incorporates an automatic selective-sharpening component. This feature automatically sharpens some areas less and some areas more. Details on rocks, as well as foliage on trees and shrubs, for example, often stand out because by their very nature they create high contrast details in a photo.

The result of over-sharpening foliage and similar objects in a photo is that the objects often lose their saturation and three-dimensional depth. The Fence 'n

Foliage Protection process actually guards areas such as this against over-sharpening, thereby preserving their optimal level of contrast.

Dominant patterns in photographs also tend to be over-sharpened with conventional sharpening tools. Motifs which should remain in the background – tiles, checkerboards, fences – tend to create a moiré effect as soon as they are sharpened. The top three images in the upper right show what happens to the original image (left) when sharpened with nik Sharpener Pro (middle) versus conventional sharpening tools (right).

Although nik Sharpener Pro cannot totally avoid a moiré effect, it does mitigate it to the extent that it does not distract from the photo.



left: original image

middle: sharpened with nik Sharpener Pro

right: sharpened normally



The image on the left was sharpened normally, i. e., to the same extent in all areas. While the water appears OK, the foliage is over-sharpened.

The image on the right was sharpened with nik Sharpener Pro! The water in this case is sharpened as much as in the left image, but the foliage was detected as a "critical area", and therefore, sharpened less. In the right image, the foliage contains less contrast but is more pleasing to the eye as it did not loose its depth.

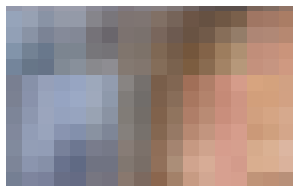
3.4 The Eye Distance Setting

nik Sharpener Pro is capable of sharpening an image appropriate to the distance it is intended to be viewed. Most artists know that the distance between the viewer and the object determines the nature and quality of the viewer's perception. nik Sharpener Pro gives the user a choice of five settings: Book (brochures, flyers, hand-held items), Small Box (food containers, software boxes), Large Box (cartons, large packaging), Small Poster, and Large Poster.

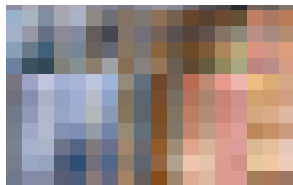
Using these settings gives you the flexibility to sharpen images appropriately for the intended perspective of the viewer.



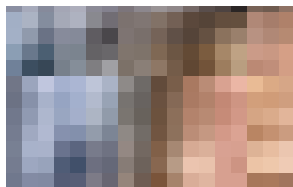
The original image



The same image if sharpened normally



The same image sharpened with nik Sharpener Pro and its Hue Protection Process



3.5 Hue Protection Process

Among the difficulties inherent in sharpening that keeps some professionals from sharpening images is color loss or alteration that occurs. Given an image with a high degree of contrast or an image with channels that don't fit exactly above each other, unwanted colors can appear at the margins of each color. Sharpening an image with these color variations using conventional methods often makes these colors more extreme. Images with higher contrasts and those of lower quality can also create unwanted colors when sharpening.

nik Sharpener Pro uses the Hue Protection process to protect color values during sharpening, (shown to the left) minimizing color loss and alteration that occurs with conventional sharpening methods.

To avoid a "washing out" effect nik Sharpener Pro combines the Hue Protection process with a conventional sharpening algorithm. This combination optimizes color protection without over-protecting or under-protecting color values.

3.6 Text Output Area

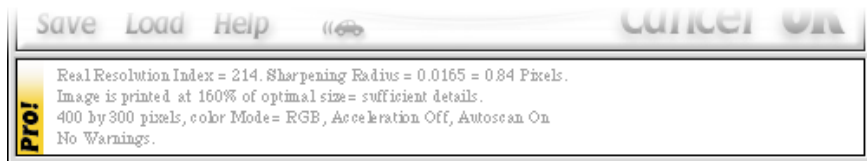
The Text Output dialog box at the bottom of nik Sharpener Pro's interface offers information about the image and the sharpening process. The table below summarizes the four lines contained in the Text Output Area.

Line One	Image dimensions & resolution
Line Two	Is the image size and quality compatible with the parameters set (e.g., printer, print quality, etc.) to optimally sharpen the image for the designated output?
Line Three	Image color mode & settings
Line Four	Warning Status

Line one of the Text Output dialog provides (see bottom graphic) the dimensions and the resolution of the image. If you are using one of the nik Sharpener Pro filters with Autoscans, the software will calculate the Real Resolution Index, a number between 1 and 500. (See Chapter 4.3 What does Autoscans do?) The Real Resolution Index is a new measurement system for defining detail in an image. The program takes into consideration the printer type, the number of pixels, and the Real Resolution Index in calculating the optimum size of the printed image.

Line two of the box is the Real Resolution Indicator which indicates if the image has enough detail for the specified print size.

An optimal level is 100%, indicating that the file contains the optimal resolution and detail for the print size you have specified. If line two reads "Image will be printed at 100% of optimal



size” then the image has an optimal Real Resolution Index rating.

Note that while 100% is optimal, ranges between 50 and 250 are common. See the table on page 10 for more information.

Line three of the Text Output area provides information about the image, its color mode, and the sharpening settings.

Line four of the Text Output area provides warnings related to the sharpening process. Warnings that appear in this line will advise you of factors that affect the quality of the image. It will also monitor the program to guarantee there is sufficient memory available for nik Sharpener Pro to operate. A “No Warnings” message means that nik Sharpener Pro has detected no warnings and that sufficient resources are available to sharpen the image. Other messages may provide you with warnings related to the Real Resolution index. Two of these warnings are:

“Warning: Please rescan this image!”
When this warning appears, the program has

determined that the image does not have sufficient resolution in pixels for the desired printing size, even though the image’s source (such as a slide or transparency) provides enough details. Rescanning the source at a higher resolution may help eliminate this error.

“Warning: Image will appear blurry!”
When this warning appears, the program has determined that the image has not provided enough details for the desired printing size. Although the image may have a “recommended” 300 dpi resolution, nik Sharpener Pro is advising you that the details, independent of the resolution, are insufficient for the desired print size. You may want to scale down the image to improve the quality.

3.7 The Acceleration Button

The Acceleration Button (represented by a small car) allows you to influence the speed at which nik Sharpener Pro operates. Switching between an accelerated mode, indicated by four speed bars behind the car icon in the interface, and two bars, indicating normal mode, will affect the speed at which the program operates.

This mode was created to accommodate users that sharpen many images at a time and where time is an issue. The accelerated mode will sharpen images quicker and in the process consider slightly less detail.

However, operating nik Sharpener Pro in accelerated mode will not result in a significant loss of sharpening quality.



radius = 0.0374mm = 0.84 Pixels.

lower optimal area - expanding radius

Options / Description...

The car with two speed bars indicates normal operating speed and increased quality.



radius = 0.0374mm = 0.84 Pixels.

lower optimal area - expanding radius

Options / Description...

The car icon with four speed bars indicates a faster processing speed, but normal quality.

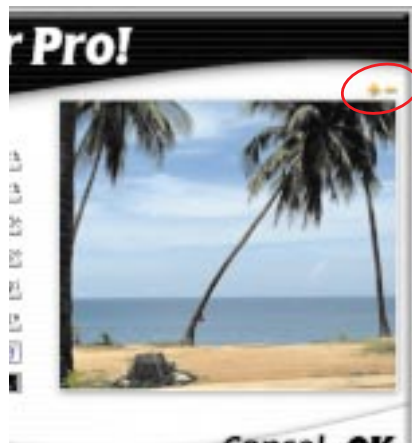
3.8 Zoomable Preview

The Zoomable Preview feature allows you to zoom in on the image in the preview area of the nik Sharpener Pro interface. This feature allows you to watch the effect of the alterations as they are being made on any part of the image. When opening the dialog box, the entire image will appear.

If you would like to zoom in and see the details of the image, simply click the + sign at the upper right corner of the preview area until you reach the desired scale. If you are observing changes in one portion of the image and wish to move to a different part, simply click on the image and drag the image to the desired position.

A Note From the Developer (Nils Kokemohr):

The placement of a preview window and even a zoomable preview window in a program such as nik Sharpener Pro is a bit of a contradiction. With the exception of the calculation engine designed for screen (i.e., Internet Image sharpening) and “non-printer specific” output, image sharpening is performed for the designated output process. It is for this precise reason that nik Sharpener Pro was created. Sharpening images based on how they appear on the screen is an



inaccurate approach. Image sharpening in most cases is *not* done for screen preview (the previous exception noted). nik Sharpener Pro sharpens the image automatically and *will* sharpen the image correctly given that the correct variables are inputted into the program. The preview window and zoom feature were developed merely to allow users to view some of the visible changes that occur. Please remember that this is not a wysiwyg program. What you see (on the screen), is *not* always what you get in print.

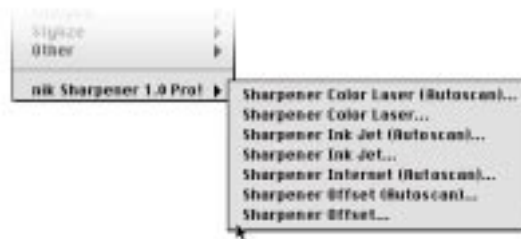
4 Getting Started

4.1 Which Sharpener to use When?

Unlike the regular version of nik Sharpener, nik Sharpener Pro is a collection of seven different calculation engines and filters that share the same basic interface, making it easy to sharpen images regardless of your output device. This approach uses a special filter for offset print, one for inkjet printers and another separate filter for color laser printers.

Additionally you will find that there are two calculation filters for each printer type: One with the Autoscans function, and a second one without it. Before you open nik Sharpener Pro you should first determine the output process that you will use. Determine whether you will use an offset printer, an inkjet or a color laser printer. This will allow you to select the appropriate sharpening process.

If you choose one of the Autoscans filters, nik Sharpener Pro will scan the image automatically before sharpening it. The Autoscans process does take some time to complete before the interface appears, but after it appears you don't have to



set up the image source slider. Once you have decided the type of printer to use, know its output resolution, and have decided whether to use Autoscans, it is very difficult to go wrong from here.

4.2 The "Sharpener Internet (Autoscans)"

The "Sharpener Internet (Autoscans)" is a new addition to nik Sharpener Pro and is a sharpening option that is suitable for Internet images as well as other images. The Sharpener Internet (Autoscans) uses a somewhat different approach, sharpening images depending on their

Real Resolution index, and not on printer resolution. In other words, the Internet Image option sharpens an image as optimally as possible in cases where the printer type and the printing size are unknown.

4.3 What does Autoscane do?

The Autoscane feature uses an algorithm that detects the Real Resolution of the image, calculating the level of detail contained in the entire image. As you can see on the three samples to the right side, images can vary in quality, as well as in pixel count, and can contain a lot or very little image data. The Autoscane internally calculates a value, typically ranging from 90 to 250, that represents the image quality. From this index the program detects how much the image should be sharpened. The main benefit of the Autoscane feature is that as a user you don't have to concern yourself with setting the image source slider or the image quality slider.

Another advantage of this process is that you can easily monitor whether the image has a sufficient resolution for print using the Text Output Area.



This image's Real Resolution index is 514, which is unusually high and optimal.

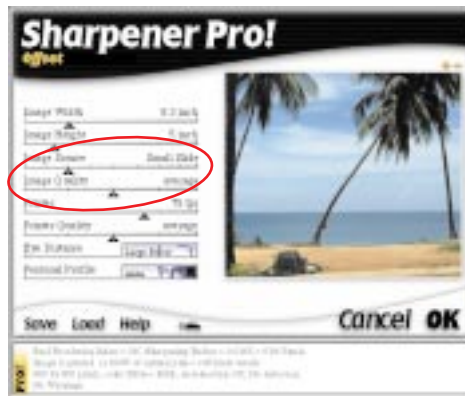


This image's Real Resolution index is 299, which is a very good, everyday standard.

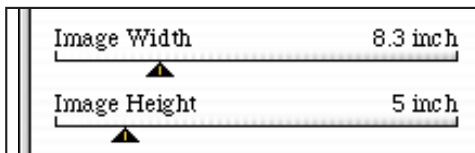


This blurry image would only achieve a Real Resolution index of 85 and would result in a warning in the Text Output Area.

When deciding whether or not to use the Autoscan option, you may want to consider a few things. Because the Autoscan option detects to what extent an image contains detail, a “bad” image, resulting from a dirty scan surface, a highly compressed JPEG, image source scratches or other imperfections can affect the sharpening process. While the software can detect up to three hairs (or other similar imperfections) and avoid these when calculating the Real Resolution, other imperfections in the scanned image may affect sharpening. If this is the case, you may want to consider using the nik Sharpener Pro option without the Autoscan feature and enter the necessary parameters. However, in most cases, as long as the image source and scan equipment are good, using the Autoscan option should bring optimal results.



above: nik Sharpener Pro with Autoscan
below: nik Sharpener Pro without Autoscan



The Image Width and Image Height sliders are the first and most important sliders in the Sharpener Pro dialog box.

4.4 The Image Size sliders

Here we address the age-old debate: Does size really matter? When it comes to sharpening, absolutely! The size of an image is very important, and thus the Image Size sliders are among the most important sliders used in this program (when available) to sharpen images. The basis for sharpening images for print within nik Sharpener Pro depends on the image's print size, *not* on pixels.

The result of this is that if you accidentally enter the wrong print size, for example half of the intended print size, the image would be sharpened twice as much as it should be. For added insurance, when the Sharpener Pro dialog box opens, the two sliders are automatically set on the current image's dimensions. So if you've already set the image size (under Photoshop's image menu - not to be confused with canvas size) there is no need to change these sliders once the Sharpener Pro dialog box opens.

Nevertheless, check the image size each time you open the dialog box and ensure the image size sliders are set correctly.

4.5 The Image Source Slider

The Image Source slider is a setting that appears in filters that don't use Autoscane. This slider defines the source of the image and provides you with the following options:

APS

Small Format Slide

Middle Format Slide

Large Transparency

Digital Camera (low range)

Digital Camera (mid range)

Digital Camera (high end)

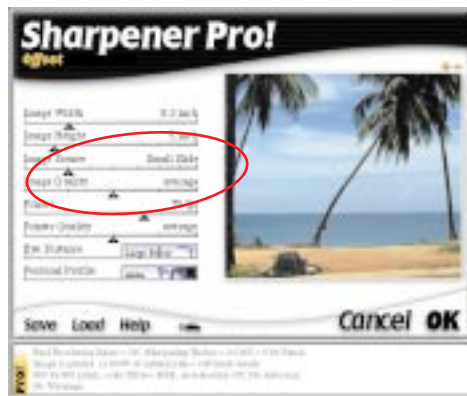
Scan (low range)

Scan (mid range)

Scan (high end)

The first four settings represent film from conventional, analog cameras: APS, Small Format Slide (35mm negative or slide), Middle Format Slide, and Large Format Slide or Transparency. If you are an amateur photographer, you will probably use only the first two settings.

The next three settings represent photos that come from a digital camera, identified by



The image source slider needs to be defined only in the interface of nik Sharpener Pro filters without the Autoscane feature

their resolution capabilities in pixels. *Professionals: If you are using a digital camera with a resolution of 4.2 million pixels or greater, an equivalent film size of either Middle or Large format slide/transparency will provide an equivalent setting.*

The last three settings identify images that were scanned with a flatbed scanner. This setting can be a little more difficult to determine, as the

APS	APS film
Small Slide	35mm & similar slides (positive or negative)
Middle Format Slide	Medium format slides (positive or negative)
Large Transparency	Large transparency of any format
Digital Camera (low range)	Digital cameras with pixel range less than 1 million pixels
Digital Camera (mid range)	Digital cameras with pixel range between 1 and 2 million pixels
Digital Camera (high end)	Digital cameras with pixel range greater than 2 million pixels. NOTE: For resolutions of 4.2 million pixels or more, use either the middle or large format slide/transparency setting.
Scan (low end)*	For images that may have a lower contrast, look awkward, or unclear on the screen.
Scan (mid range)*	For images of normal quality, clarity and contrast.
Scan (high end)*	For high quality images or professional prints.

**These settings provide varying degrees of compensating factors during sharpening based on the Scan process and image quality.*

quality of the scanner, its age, the quality of the image, the paper type, etc. all vary and can affect the final image. Adjust this setting based on your image and scan process quality. The “mid range” setting leaves this variable unaffected when

sharpening.

Important Note: Do not attempt to sharpen an image that was scanned from an offset print (e.g., a magazine, catalog page, etc.) or a blurry image. Doing so will often yield inaccurate results.

4.6 The Image Quality Slider

Images have varying degrees of quality. Because of this, nik Sharpener Pro needs to know the quality of the image that you intend to sharpen. Some images may be a bit blurry or contain less detail. These images need to be

sharpened differently than a higher quality image, which will be sharpened in a somewhat “finer” fashion. The Image Quality slider provides this additional compensating factor to adjust the sharpening process slightly, depending on the set-

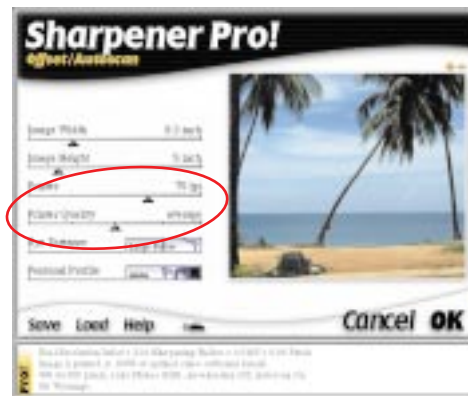
ting of this slider. The Image Quality slider consists of five settings:

bad
below average
average
above average
good

When setting the Image Quality slider it is important to be *honest* about the quality of the image and *not* optimistic. *Setting the Image Quality slider to "good" will **not** make your image a good one!!* This setting provides information to the program so that an additional adjustment can be made. If you are unsure about this setting, the average setting leaves this variable unaffected.

4.7 The Printer Slider

In each dialog box within nik Sharpener Pro, including those using Autoscanner, a printer selection slider appears to allow you to identify the type of output device that will be used to print the image. In each dialog box you will also find adjustments for the print process, allowing



The Printer slider is part of every interface (except the Internet Sharpener) whether or not Autoscanner is used.

you to set the dpi for inkjet printers, color laser printers, as well as the specific lpi for offset printing. Keep in mind that this setting is almost as important as the Image Height and Image Width settings in order to sharpen optimally. Consider the fact that the sharpening radius for a 360x360 dpi inkjet printer is roughly 10 times greater than that for a 600x600 dpi color laser printer.

4.8 The Printer Quality Slider

Similar to the Image Quality slider, the Printer Quality slider provides a compensating factor for the printer variable calculation that makes adjustments to the sharpening process depending on the quality of your printer. Settings on the Printer Quality slider include:

bad
below average
average
above average
good

One important note to keep in mind is that the Printer Quality slider has a more pronounced effect when using the inkjet printer sharpener interface. The variation in the ultimate quality of an inkjet print is often due not just to the printer quality, but also the paper, which together affect the quality of the final print. When using recycled or regular copy paper, a lower setting for the Print Quality slider is appropriate. On the other hand, when using glossy or photo paper with an inkjet printer, setting the slider above the “average” setting will yield more

accurate results. When adjusting the Printer Quality slider, remember that the “average” slider position is the default and leaves this variable unaffected in the sharpening process. When in doubt as to the quality, leave this slider at its default setting.

Comparable B/W Laser Settings

Within nik Sharpener Pro, there is not a specific sharpening interface for black and white laser printers. However, you can use other settings to sharpen images that are printed using a black and white laser printer. To sharpen black and white prints using a B/W laser printer use the following comparable nik Sharpener Pro interfaces.

B/W Laser Resolution	Use
300 dpi	Inkjet Sharpener 360x360 dpi
600 dpi	Inkjet Sharpener 720x720 dpi
Above 1000 dpi	Offset Print Interface with appropriate setting

4.9 The Eye Distance Popup-Menu

One unique feature of nik Sharpener Pro is that the software is able to sharpen an image for the type of object on which it will be printed, and thus the distance at which it will be viewed. The Eye Distance setting was developed because the distance between the viewer and the object determines the nature and quality of the viewer's perception. Adding an Eye Distance setting allows users to better control sharpening for images that are viewed differently, based on the perspective of the intended audience.

Because each person estimates the distance between the eye and an object differently, we have developed 5 pre-set Eye Distance settings.

Book
Small Box
Large Box
Small Poster
Large Poster

Determining when to use each setting is simple. The Book setting represents the distance for (you guessed it) a book or any object that would be held in the viewer's hands, such as catalogs, magazines, CD covers, etc..



Use the Eye Distance menu to define the type of object on which the image will be printed.

The Small Box setting is for objects with images and print for smaller objects, such as a breakfast cereal box or wine bottle, and objects that are meant to be viewed at “shelf sight” distance.

The Large Box setting is used for cartons bigger than a bread box - television, VCR, computer, and so forth.

The Small Poster setting is intended for small signs and posters that would be viewed at closer distances. The Large Poster setting on the other hand, is intended for objects viewed at further distances, usually larger posters, signs, or similar objects found outdoors. When the target object is considerably larger, using the Large Poster Eye Distance Setting is appropriate as the sharpening process will be further altered by the image size setting.

4.10 The Personal Profile Popup-Menu

nik Sharpener Pro combines conventional calculation adjustments with over a half dozen other detail protection algorithms (such as the Fence 'n Foliage Protection process) to automate the often tedious task of adjusting or re-sharpening an image.

Part of what makes nik Sharpener Pro both easy-to-use and effective is this ensemble of internal adjustments.

Each individual has their own style of sharpening that matches their design or creative

"signature". With this in mind, nik Sharpener Pro has incorporated three different "Personal



Profiles" for sharpening. Each of these Profiles makes slight adjustments to the sharpening process to match the described style of the Personal Profile. While the profiles are not radically different, you might want to select one to try. Consider adopting a profile that approximates your personal style. Use that profile consistently when sharpening images. To choose a style simply click on the profile menu.



Anna is a very cordial and polite person. She likes comfortable and non-aggressive layouts, and prefers Mozart to Metallica.

Her style is not forceful and her writing is almost always friendly. Although she does varying types of layouts, she prefers to do jobs related to fashion and haute couture.



John's tastes are conservative. His design style is slanted toward a broad market and he prefers conventional and restrained layouts. John's style is conventional (his setting is also the default profile) and provides a good style for those who want to sharpen in a more conventional fashion.



Zap is aggressive and progressive. The ad text he writes, as well as the images and colors he chooses, are cutting-edge and exciting! While Zap's profile is more progressive than the others, his sharpening attributes do not aggressively sharpen an image.

Keep in mind, while these profiles differ, their actual variations are only slightly different allowing for some small style choices for sharpening.

4.11 Batch Processing

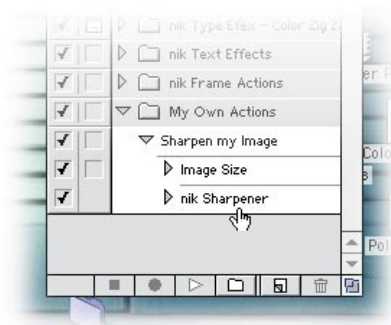
When using Adobe Photoshop or a host application that is compatible with the Adobe Plug-in Scripting standard, nik Sharpener Pro provides an option to batch process a group of images. If you are not familiar with recording Actions within Photoshop (or compatible host application), please read the related chapter covering this topic in your host application's manual.

In order to batch process a group of files, you first must record an action that contains one of the nik Sharpener Pro filters. Unless you are sharpening a group of images from the same source (providing the same consistent image quality), we highly recommend that you select one of the Autoscan filters. This aspect of batch processing is important, since the Autoscan feature automatically sharpens each image based on its own characteristics and quality.

To record such an action, please do the following:

- *Open an image.*
- *In the actions palette menu, select “New Action” and give the action a name.*
- *Select the “Start Recording” option under the actions palette menu or click on the Record button at the bottom of the palette.*
- *Use the Photoshop command “Image Size” to adjust the image to its desired settings, adjusting its size and resolution setting appropriately.*
- *Apply one of the nik Sharpener Pro filters.*
- *Select the “Stop Recording” option from the actions palette.*

Your actions palette should appear similar to the screenshot below after recording.



Because nik Sharpener Pro automatically adopts the image size from Photoshop's Image Size menu when batch processing via actions, each image will be sharpened based on its individual image size. As a result, it is important to remember that before preparing to sharpen an individual or group of images, ensure that the image(s) you prepare to sharpen are set to the correct image size.

If your images have various sizes and

dpi resolutions, you might want to select the small check box for the "Toggle dialog on/off" next to the Image Size command in your recorded action. Selecting this option will bring up the Image Size dialog box for each image, allowing you to set the image dimensions and resolution.

After you have recorded the sharpening action, you can use Photoshop's Batch processing option under the File/Automate menu to process an entire folder of images. For further information and detailed instructions, please refer to the Photoshop manual on using Photoshop's Batch option.



Batch Processing Hint: If you would like to maximize the automation process of sharpening a large group of images, you may want consider using the "nik Sharpener Autoscan Internet" option. This option uses the Autoscan process to analyze the image and the Internet Sharpener option sharpens the image based on the image's quality and not on the image's size. By using the Sharpener Autoscan Internet option, your action to sharpen will contain only one line executing the Sharpener Autoscan Internet filter.

As mentioned in section 4.2, the Internet Sharpener not only sharpens images for the internet, but also for print images. The Internet Sharpener sharpens images based on the image's contrast and independent of the output/prINTER type. Using this option does not always bring optimal sharpening to each image, but it does provide a relatively safe and effective option for sharpening hundreds of images with different sizes in just a few minutes.

5 A Final Plea & Things to Remember

nik Sharpener Pro is a tool that is designed to sharpen images optimally and consistently. Just as in any other approach to sharpening, the program's ability to sharpen an image is dependent on the image quality. Professionals and experts in the field of digital imaging have observed that most people have a tendency to overestimate the program's ability to sharpen an image. In his column *Giordan on Photoshop* in *Digital Camera* magazine, Dan Giordan aptly concludes that people often overestimate sharpening capabilities after seeing too many American FBI movies where a tourist's blurry photo of "the bad guy" is almost magically reconstructed (and apparently sharpened) in a matter of seconds. Remember, this happens only in the movies. Sharpening an image depends on the quality of the original, and in the case of nik Sharpener Pro, the information and detail that is provided to the program to prepare it to sharpen the image.

Please Remember:

• nik Sharpener Pro does **not** focus on maximizing the sharpness of an image. Rather, it maximizes the appearance of the image through sharpening the image optimally. There is a big difference between these two approaches.

• To obtain optimal results, we encourage you to enter the precise parameters for all of the settings in nik Sharpener Pro. Doing so will result in a better final image and provide consistent results.

• If you are arranging a layout and intend to sharpen your images (as you should), we advise that you complete your layout, determining each image's size and resolution **first**, and **then** sharpen all of your images.

• If you intend to use one image in different sizes in one or various layouts, we encourage you to keep a copy of the original image and sharpen **each individual** sized image, saving separate files for each image. Doing so will ensure accurately and consistently sharpened images for your layout.

• When using nik Sharpener Pro, make sure to **turn off all other automatic sharpening options** that may be contained in or integrated with your scanning software. Running other software in conjunction with nik Sharpener Pro will result in an inaccurately sharpened image.

• Finally, images should **never be sharpened twice**. However, if you accidentally sharpen an image more than once, nik Sharpener Pro will detect this and sharpen the image to a lesser degree in order to maintain optimal image sharpening.



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