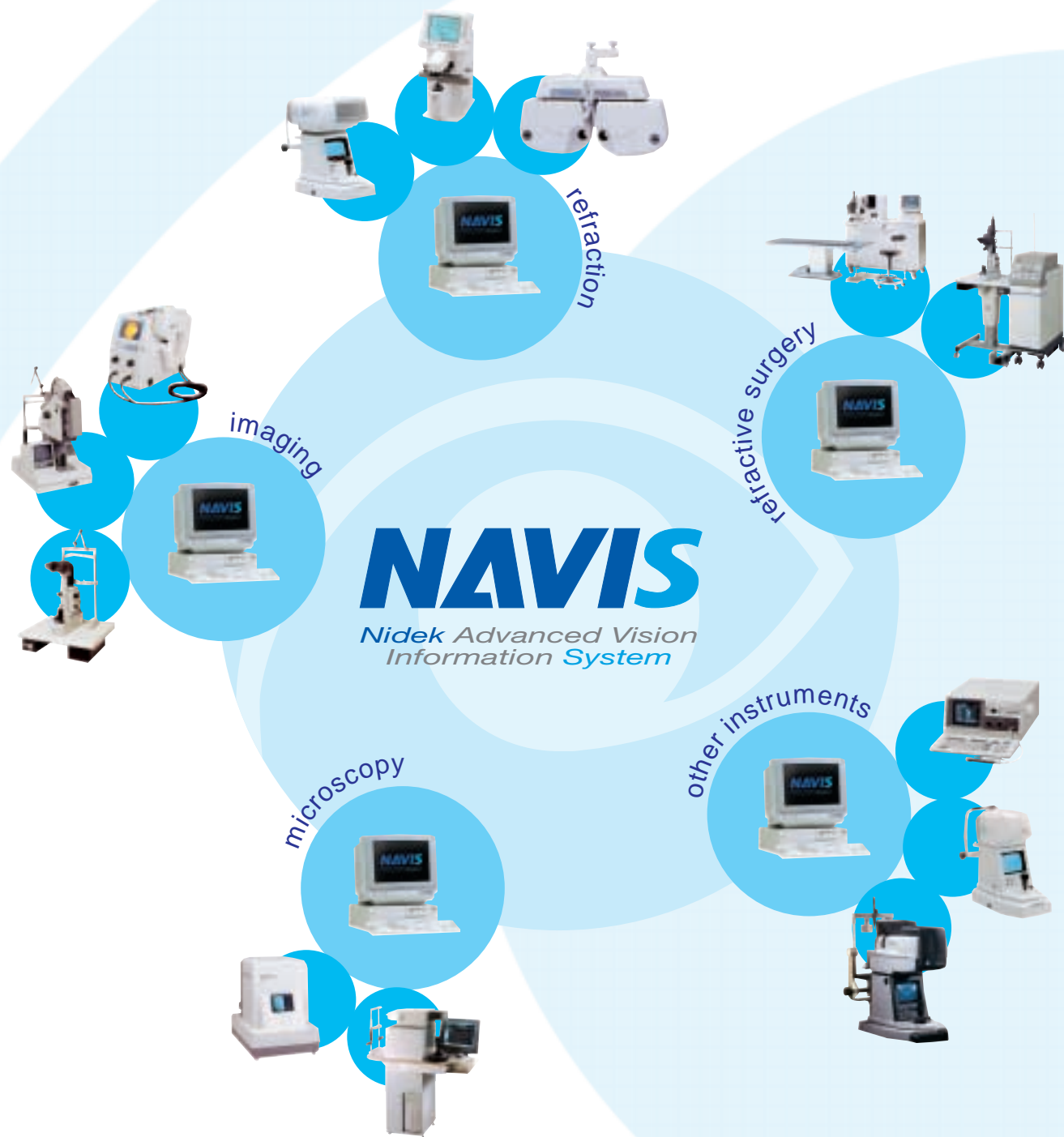




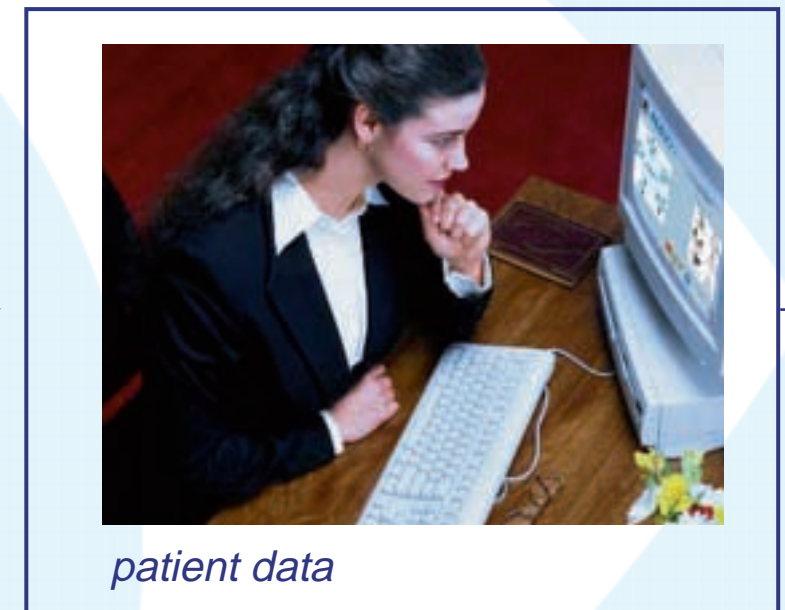
NAVIS
*Nidek Advanced Vision
Information System*





Introducing NAVIS

NAVIS provides real time review of diagnostic patient information from a multitude of ophthalmic instruments. Anything from simple lens meters to high-resolution fundus imagery is connectable. Data from these instruments is automatically saved to a patient's electronic chart, preventing loose bits of paper in the chart, transcription errors, decreasing examination time, and increasing patient throughput. As a practitioner, the data is immediately available to you from anywhere in your facility. You



can examine refractive data, tonometry, visual fields, fundus imagery, anterior segment photos, even confocal microscopy in your private office prior to consultation with your patient in the examination lane. Your technicians can instantly retrieve the data in the examination lane and have it ready for your analysis with the patient.

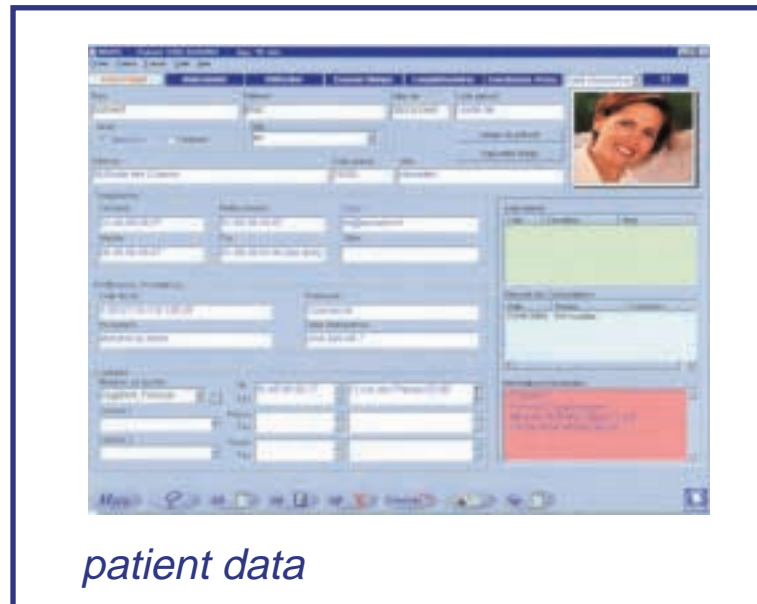
NAVIS is not only flexible in its functionality; its modular design enables NAVIS to be customized for your individual needs in practice. If you require just topographic, refractive and slit lamp imagery for your refractive surgery practice, digital retinal imagery for your retinal clinic, or a little of everything for your general practice, NAVIS will adapt to your needs. NAVIS increases your profitability by increasing efficiency in patient flow and synchronizing scheduling, insurance and billing procedures. More time is created to see additional patients, get administrative work completed (or to have dinner with your family). NAVIS can

truly improve the quality of your professional life.

Because NAVIS is based on an open architecture, third parties can connect their software to its database.

So your front office software vendor can integrate their software and your data with NAVIS. From Facilitating better doctor-patient communication to archiving important patient data, the system is highly flexible, yet simple to operate.

NAVIS is truly a comprehensive solution for eye care. NAVIS is the affordable way to bring your practice into the digital millennium. Contact your NAVIS representative today for a complementary practice analysis.



patient data

See how NAVIS can make practice a pleasure again, with happier better informed patients, better record keeping, increased patient flow, and higher profits. NAVIS, connecting you in ways you never imagined.

NAVIS core software

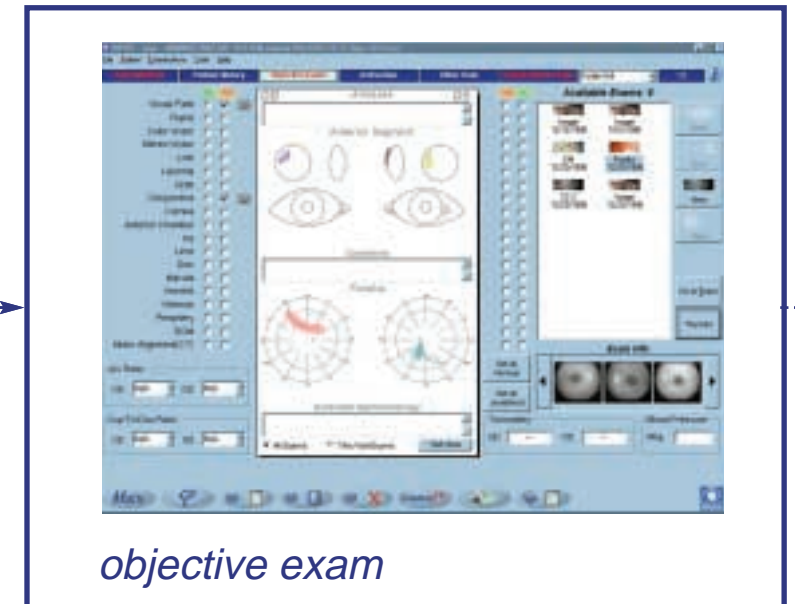
NAVIS Core Software is the operating system in which all NAVIS applications run. Like Windows, it contains many useful built in functions. NAVIS Core Software includes a patient database through which all the data from the applications passes. Also included are patient charting, scheduling, accounting, and much more.

Patient data can be easily accessed in a number of ways. It can be sorted by name, date, or type, for instance showing only

retinal imagery and confocal microscopy. All patient data can be accessed and examinations performed through the patient's Digital Chart.

The Digital Chart contains all of the examinations that have been performed on the patient, sorted by date, patient, or other code for easy reference. The patient's personal data, history, medical exam, refraction, diagnosis, and billing data are all easily accessible from the Digital Chart.

With a simple click of the mouse, drawings of anterior and posterior segment disorders can be made and saved. The drawings are color coded by diagnosis code. Simply placing the



objective exam

cursor over the drawn color will cause the diagnosis code and descriptor to be displayed.

Frequently used prescriptions or patient instructions can be easily written using doctor defined macros. The same is true for referral or consultation letters. Technicians can run all NAVIS applications from the patient's Digital Chart for quick and easy data gathering regardless of whether it is a simple auto-refraction, fluorescein angiography, or confocal microscopy.

NAVIS Core Software also has a patient scheduler and accounting software. The patient scheduler not only makes appointments, but also allows you to keep track of the patient's status as they pass through your clinic. NAVIS Core Software is a great value for efficiently organizing your practice.

NAVIS workstation

NAVIS Workstation provides affordable network connections to the NAVIS office. NAVIS Workstations have all of the features of NAVIS Core software in a networkable read only format.

Workstations can be placed in examination rooms, chart review areas, or your personal office, enabling instant access to all of your patient's examination data.

Workstations are an exceptional tool in the examination lane because they eliminate the need for printing imagery and allow



complete review of all examination results with the patient. Alphanumeric data can also be entered manually through NAVIS workstations.

The NAVIS Screen Capture application allows connection to any Win98 or higher PC based instrument. The NAVIS SC application runs in the background so it does not disturb or interfere with the instrument's operation.

Simply pressing the "PrtSC" button on your computer allows you to save the screen to a patient's Digital Chart. The area captured is customizable and programmable by the user. So if a certain area of the screen is all that is needed, NAVIS SC will automatically capture that area for reference later in the patient's chart. NAVIS workstations are the workhorses that power your practice.

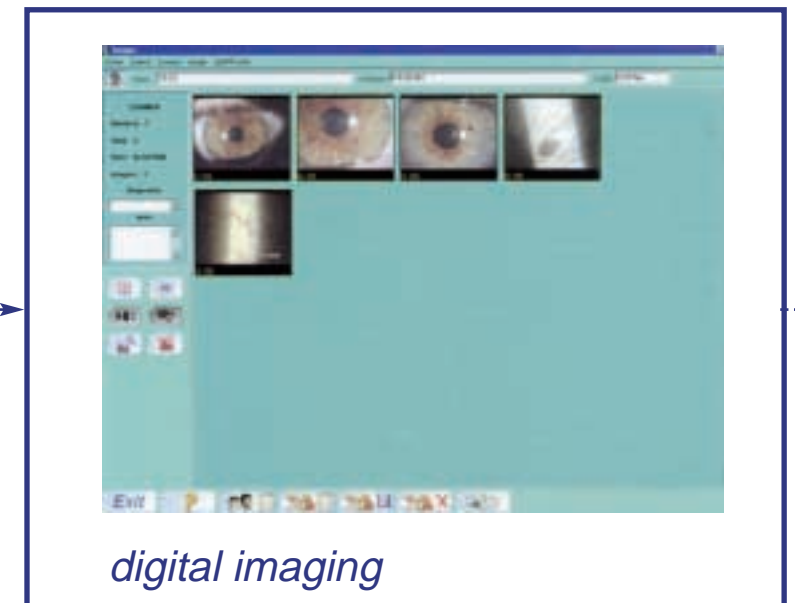
NAVIS connections

Navis can connect to scores of auto refractors, lens meters, refractors, tonometers, and other ophthalmic equipment with alphanumeric output.

Many of these use a simple connection with the serial port of your NAVIS computer.

These connections allow the data from the instrument to automatically load into the patient's Digital Chart.

No pieces of paper to staple to the chart or get lost. No tran-



scription errors. No time consuming chart notations. Just fast effective data management.

Digital imaging

By utilizing the Imager Exam section of Navis, you or your technicians can immediately capture images with a photo slit lamp of the anterior segment such as; Diffuse, Optical Section, Tangential, Sclerotic Scatter, or retro illuminated red reflex. When used with a 90 diopter lens, you can even acquire retinal imagery.

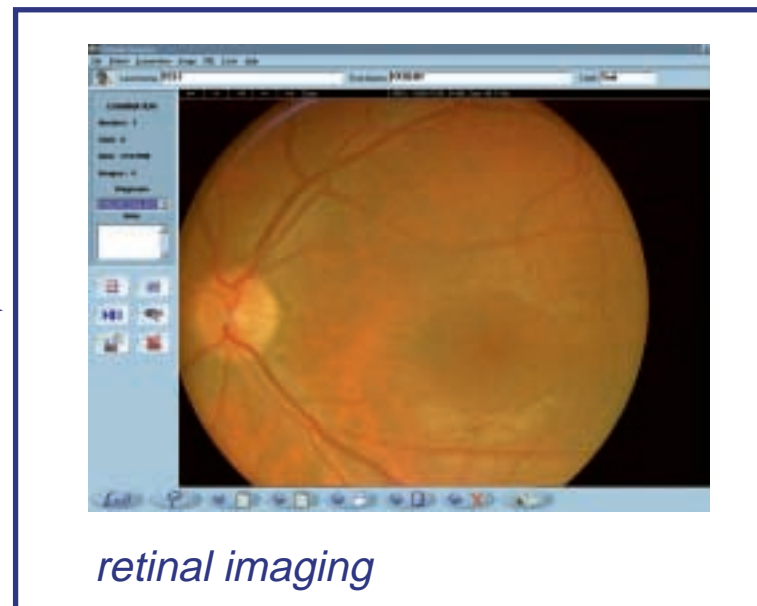
This allows the practitioner instantaneous assistance in diagnosing the patient's conditions. In addition to immediate capture and display of the images, you can review the images individually or sequentially with the integrated movie player.

The system allows you to manage how you view the images and manipulate the arrangement on your screen. Of course, the infor-

mation you save is automatically added into the patient's Digital Chart for future reference offering better patient management and treatment compliance.

Clinicians have also expressed delight that this module is a very useful tool for internal marketing. Patients are excited when they view the anterior segment of their own eyes

Retinal imaging

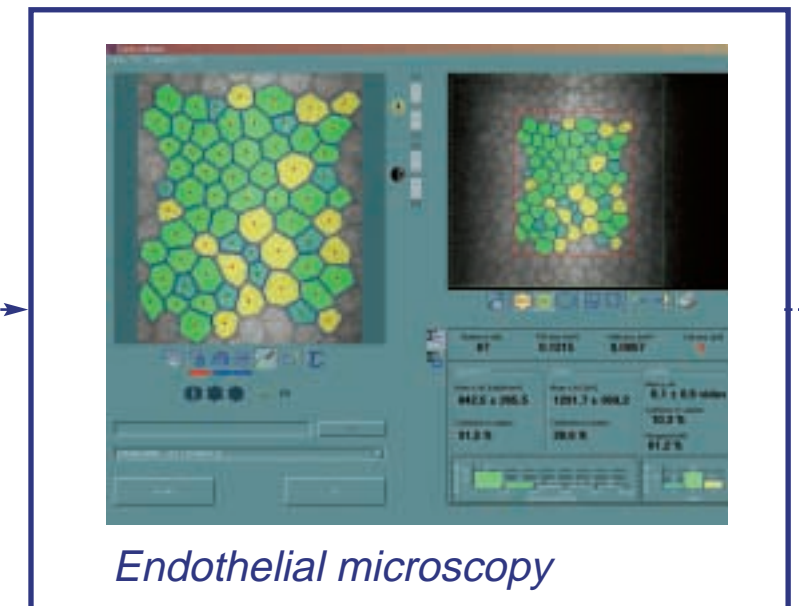


It has been said, "A picture is worth a thousand words", and it has never been more true.

This module connects with many manufacturers' cameras, so that anything from a simple non-mydratic color photo to fluorescein angiography can be performed without film and with instantaneous, and inexpensive archived digital images. Depending on the photographer's technique, it is possible to capture basic images, such as the posterior pole, to the standard seven, or the more complex nine fields necessary for example in diabetic retinopathy. The Retinal Imaging Exam section is user friendly and very easy to use. With just a few clicks of the mouse, you can create a new exam or review an existing exam that will give you all the details you need to know. All data is automatically updated into the patient master chart for future reference.

By using the scroll bars in the menus, locating a patient file or

image record is quickly achieved; saving you time and allowing you more time to spend with your patient or move on to the next patient. Patient images can be viewed individually or in the movie mode to assist with your diagnosis. The images may also be processed in the Image Wizard module, making adjustments to contrasts, brightness, apply a variety of filters, stretch the histogram, or apply other algorithms such as sharpening to your image. Once the images are manipulated with the Image Wizard, they are automatically tagged as 'Enhanced Image - Not for diagnosis.' This is a safeguard for you and your patient. The original images are always kept without any changes, as



they are medical records.

The image wizard and it's associated hardware will usually pay for themselves in film cost and processing savings. Retinal Imaging Module, the fastest, most cost effective and flexible way to view fundus imagery in your practice.

Endothelial microscopy

NAVIS Automatic Endothelial Cell Analysis software is unsurpassed in the ability to accurately count and categorize endothelial cells.

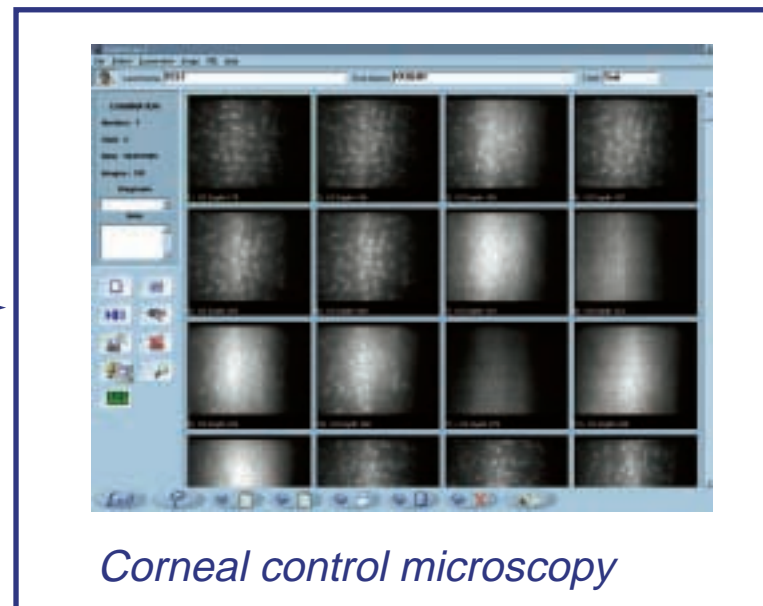
The software, based on specialized image restoration algorithms and neural network functionality, provides cellular statistics with histographic analysis by density or statistical factors such as size and shape.

NAVIS Automatic Endothelial Cell Analysis software frees your technician's time to gather data and eliminates inevitable variation in results that occur performing manual cell counts.

Corneal microscopy

NAVIS Specular Microscope software allows easy connection to most popular brands of specular microscopes. The imagery is automatically imported into the NAVIS database.

The images are easily saved and instantly accessible on the



Digital Chart. Manual endothelial cell count software is included. Upgrading to NAVIS automatic endothelial cell analysis software allows fast, accurate cell counting and cellular vital statistics.

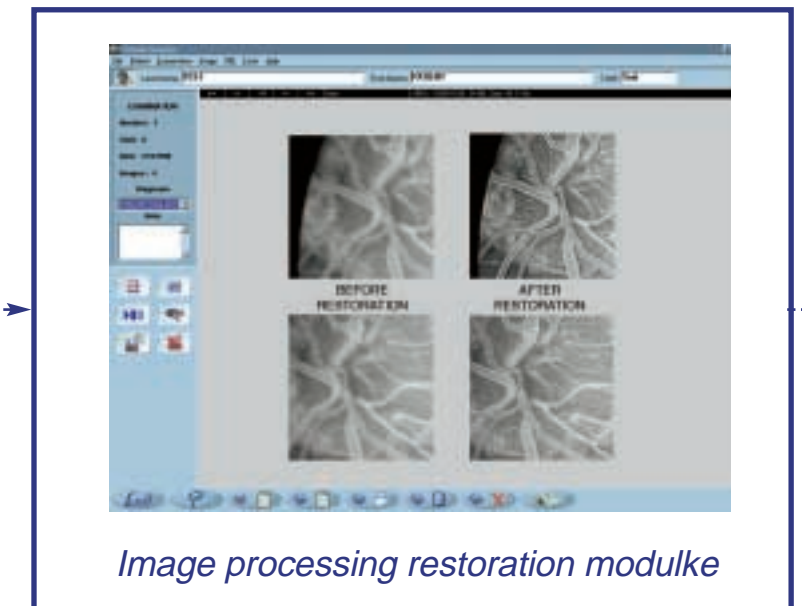
The image processing and restoration module uses advanced point spread function (PSF) analysis to create sharper images. Any optical system has a PSF. Basically any point of light focused by any optical system has a 3 dimensional blur associated with it.



Image Processing and Restoration Module

By determining the mathematical model of this blur, the PSF, and applying the inverse function, images can be restored that are blurred due to defocus, movement, or aberration. This advanced functionality is now available for clinical use in the Image Processing and Restoration module.

In addition, you can manipulate the image with tool bar buttons: Enhance details, smoothing, and advanced smoothing to



name a few.

The image can be rotated to any angle or use one of the pre-selected angles from the easy to use drop down menu choices. Re-sizing, edge enhancement, and color changes are also easily and quickly made.

Colors can quickly be separated into RGB, CMYK, HSV or HSL. This is important for viewing the different layers within for example the retina.

Because some ocular findings are layer specific, utilizing the color separation task (RGB for example) allows your diagnosis process to occur accurately and expeditiously.

Spatial filters are also included in the module along with drawing, text, contrast, brightness, width and height sizing capabilities.

The Image Processing and Restoration module is all you need to enhance your viewing of all imagery in your practice.

