NIDEK

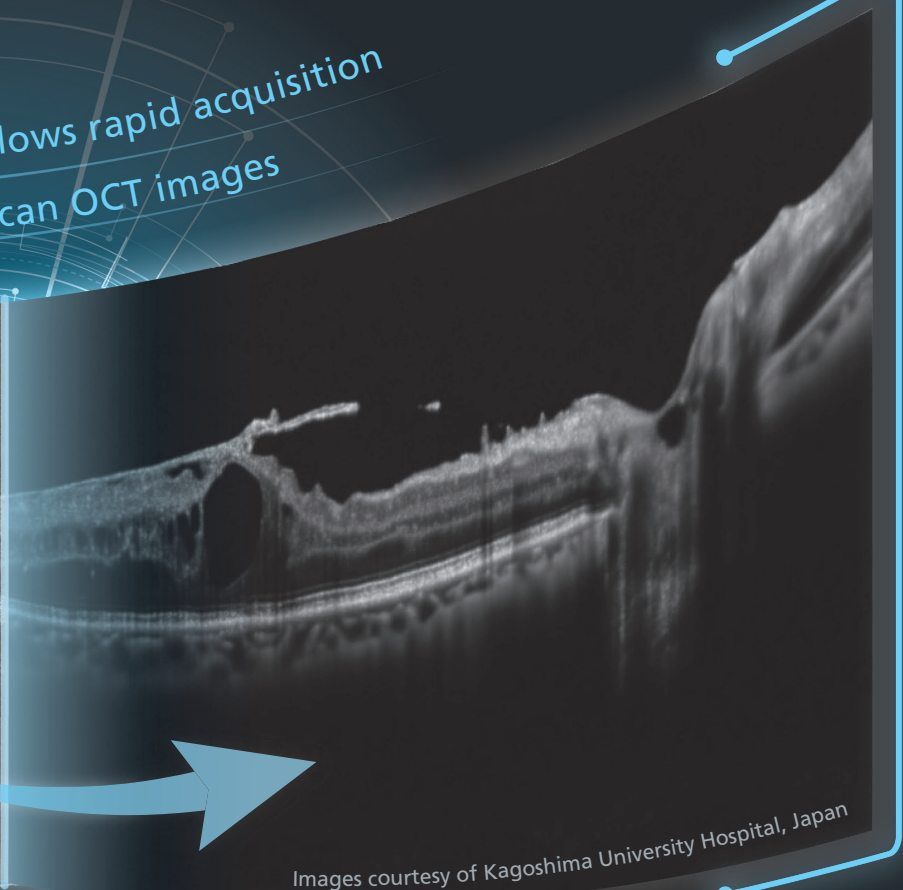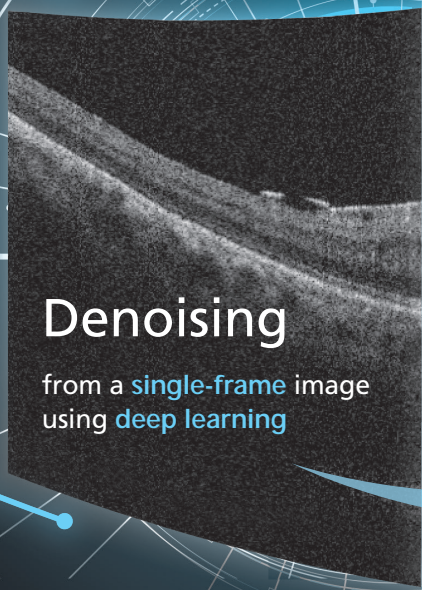# B-scan Denoising Software

for NIDEK OCT series

Mirante
FA/ICG/OCT

Deep learning allows rapid acquisition
of high definition B-scan OCT images

Denoising

from a **single-frame** image
using **deep learning**

Images courtesy of Kagoshima University Hospital, Japan

Denoising using deep learning technique

When a B-scan image is captured, a denoised image is automatically displayed by the denoising technique using deep learning. A large data set of images that are each averaged from 120 images were used as teaching data for deep learning in order to create clear images comparable to images generated by averaging 120 images. Generative adversarial network, which is reported as an effective approach to improve image clarity, was adopted as the deep learning method.

Faster acquisition of high definition B-scan images

## for better workflow and increased patient comfort

Applications for wide area scan

B-scan Denoising Software enhances the functionality of the wide area scan for screening. This software provides high definition images of each single-frame wide area B-scan image without acquiring multi-frame images.
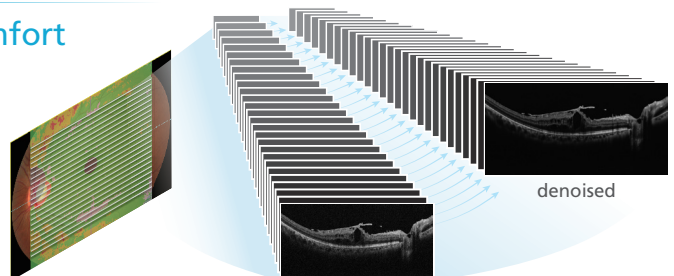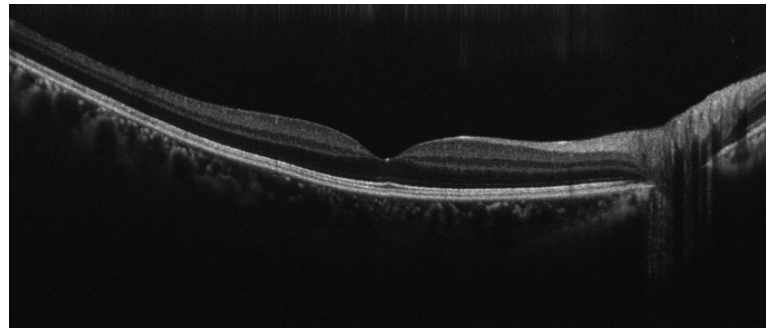
denoised

High definition images comparable to multiple image averaging

The B-scan Denoising Software removes speckle noise from a single scan, producing an image that is as clear as an image generated by averaging 120 images. The denoising technique allows easier image acquisition for obtaining high quality images.
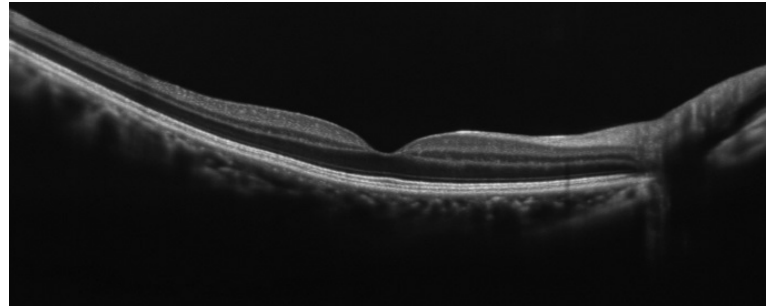
Denoised
from a single-frame image

Reference: Image generated by averaging multiple images
(The Mirante averages up to 120 images)

Averaged from 120 images

■ Operating specifications

The B-scan Denoising Software requires Windows OS* (64 bit) with NAVIS-EX (Ver. 1.10.0 or later) and is applicable for images acquired by the following NIDEK OCT models: Mirante SLO/OCT (model name: Mirante).

Denoised images are displayed only on the Viewer screen on NAVIS-EX. The NAVIS-EX Follow-up screen does not display denoised images.

*Microsoft and Windows are registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

Images that can be denoised:

Eligible image types
Macula line, Macula cross, Macula map X-Y/Y-X, Macula multi horizontal/vertical/cross, Macula radial 6/12, Disc circle, Disc map X-Y/Y-X, Disc radial 6/12, Macula map A X-Y/Y-X, Disc map A X-Y/Y-X

Ineligible image types
Cornea line, Cornea cross, Cornea radial 6/12, ACA line

The following OCT images are not captured by B-scan and are not denoised.

· For Macula and Disc map, Y direction (vertical) for X-Y, and X direction (horizontal) for Y-X
· OCT image of Disc circle for the Disc map

Product/model name: Image Filing Software NAVIS-EX
Specifications may vary depending on circumstances in each country.
Specifications and design are subject to change without notice.

Eye & Health Care
NIDEK INC.

July 24, 2024
2024-0039