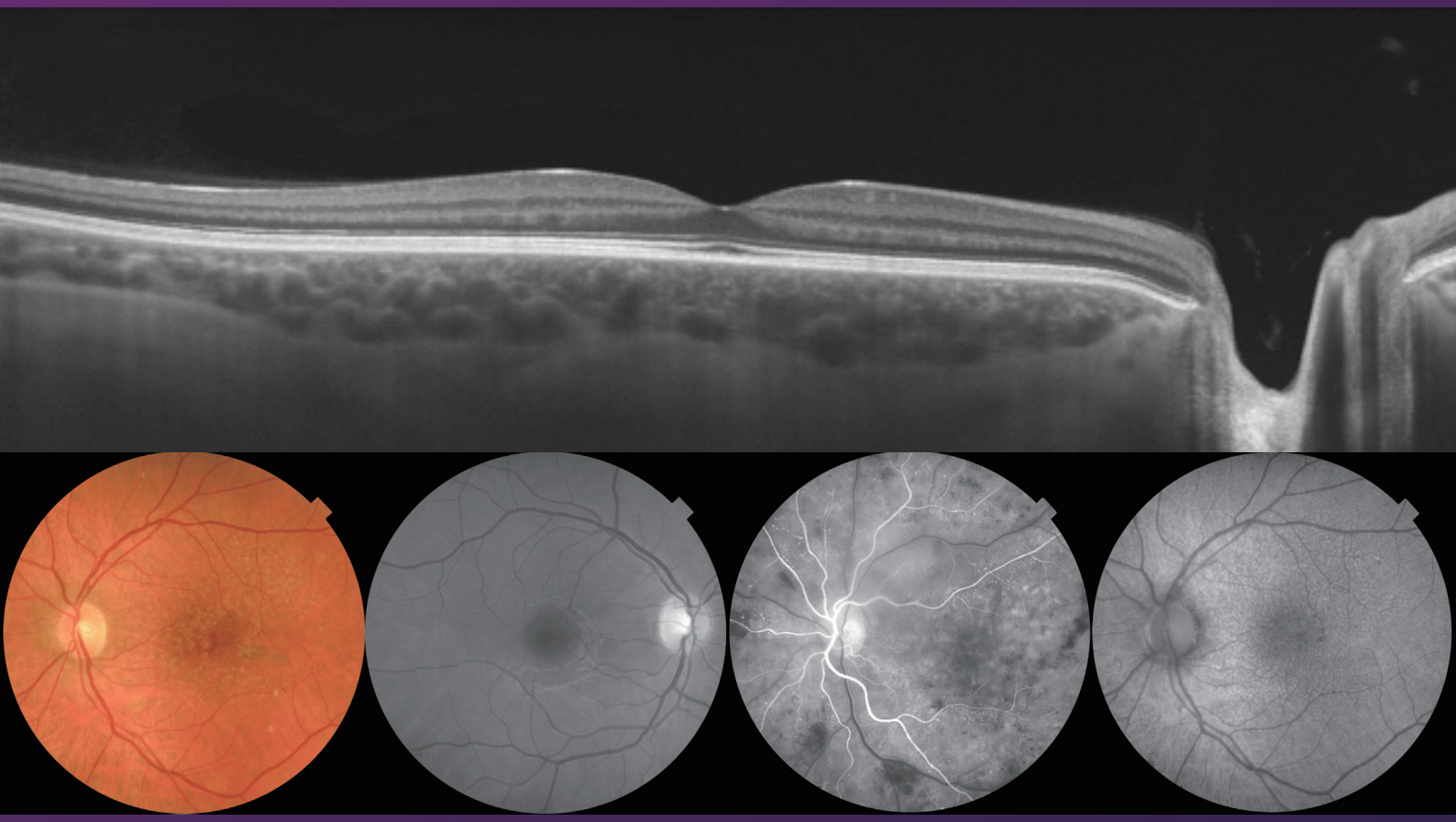
Triton series

Quick Operation Guide
-Standard Functions-



Preparation
OCT Capture
Follow-Up Capture
Fundus Photography

For further training and cleaning instructions, register for Topcon Healthcare University (THU) and access our comprehensive course.
https://learning.topcon.com/

TOPCON Healthcare

G000211G-1

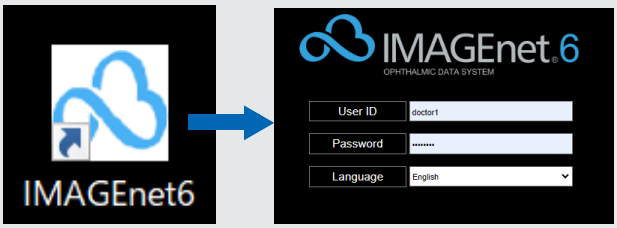
This document provides a high-level overview of how to capture OCT and colour fundus photos.
For correct and safe use, be sure to read the USER MANUAL before use. Check if the objective lens is clean before using the device. The lens should be cleaned following the instructions in the USER MANUAL or on THU.

Preparation

PC operation

1. Open IMAGEnet6™

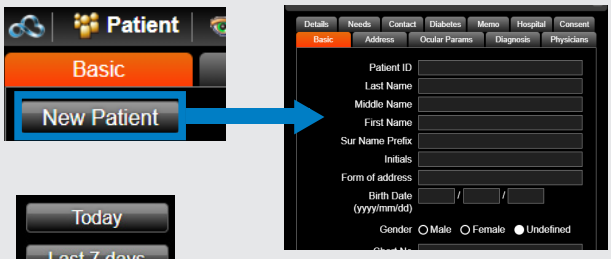
Select the icon and type ID/PW.



2. Select or add patient

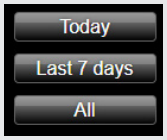
New patient

Select the New Patient button and type in the patient information.



Returning patient

Select the desired patient from the list or search by name or patient ID. Selecting 'Today', 'Last 7 days' or 'All' will display patients matching the entered search criteria.



Type ID and select search button.

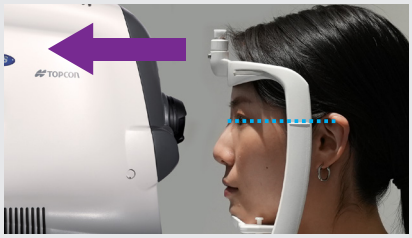
3. Launch the OCT capture SW

Select the DRI OCT icon to launch the capture software.

Device operation

4. Adjust the patient position

Align the patient's eye level with the canthus mark on the head support by pressing the chinrest up/down button.



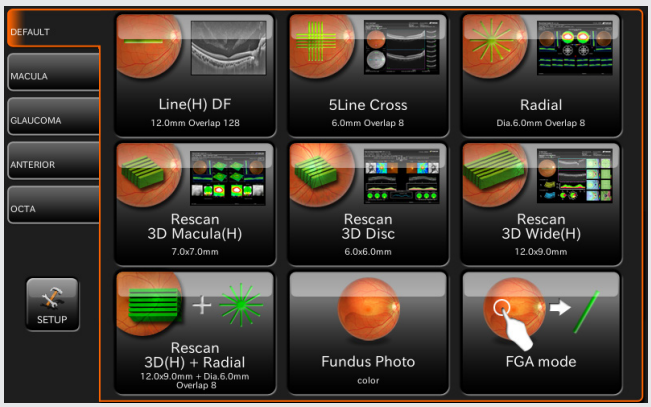
Pull the device back towards the operator before starting the capture process.

5. Select the required scan pattern

Select scan patterns from the following categories:

- 3D volumetric scans
- Line scans
- Fundus photo

For additional scan options, refer to see the Triton series Quick Operation Guide - Optional Functions.

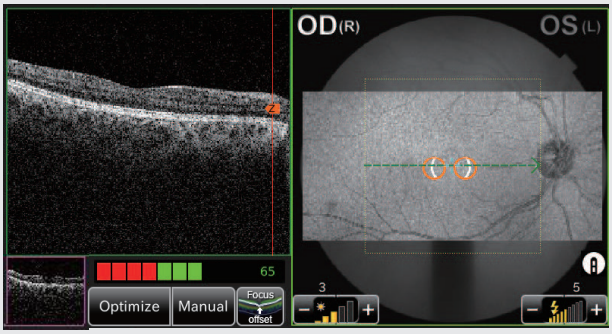


OCT Capture
(Posterior Segment)

Device operation

1. Alignment for capturing

With the patient looking straight ahead, move device in and use the control lever for fine adjustments to centre the eye. Move in further until the alignment spots become visible. Ask the patient to look at the green fixation target. The retinal position will be automatically detected and image optimised (do not move lever during optimisation).



The alignment spots change colour according to distance from the eye.

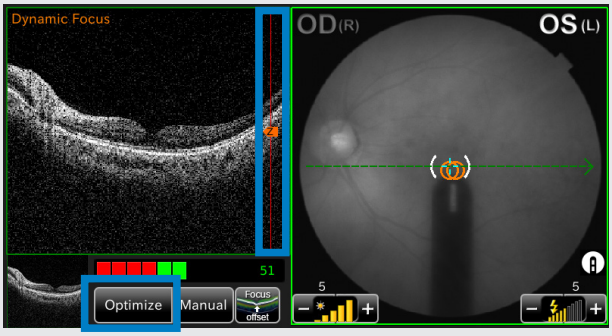
Too far OK Too close

If OCT image does not appear

Press Optimize button and the live OCT tomogram image will appear on the screen.

If OCT image is too high or too low in the live window

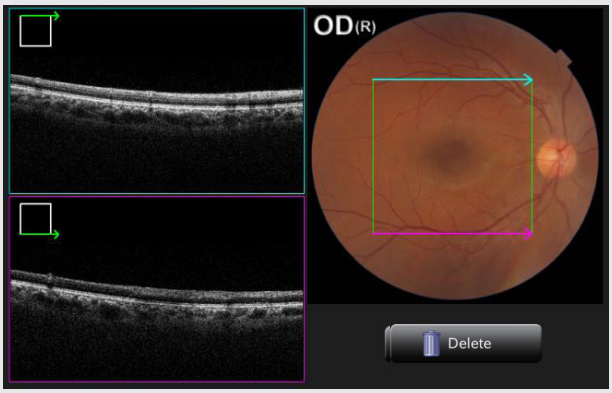
Adjust the Z-lock bar to move the OCT image to the centre position of the live window.



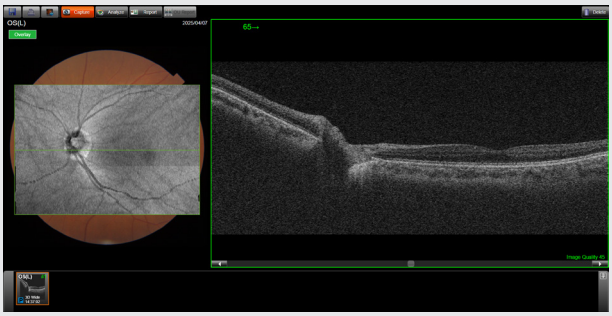
Capturing mode - OCT

2. Capture, review and save

Instruct the patient to take a big blink then do not blink or move while looking as the fixation target. Press the control lever button to capture. The patient can be told to relax as soon as the camera has flashed. Check the preview image to ensure it covers the area of interest and is free from artifacts. Press again on the control lever button and move to the next eye.

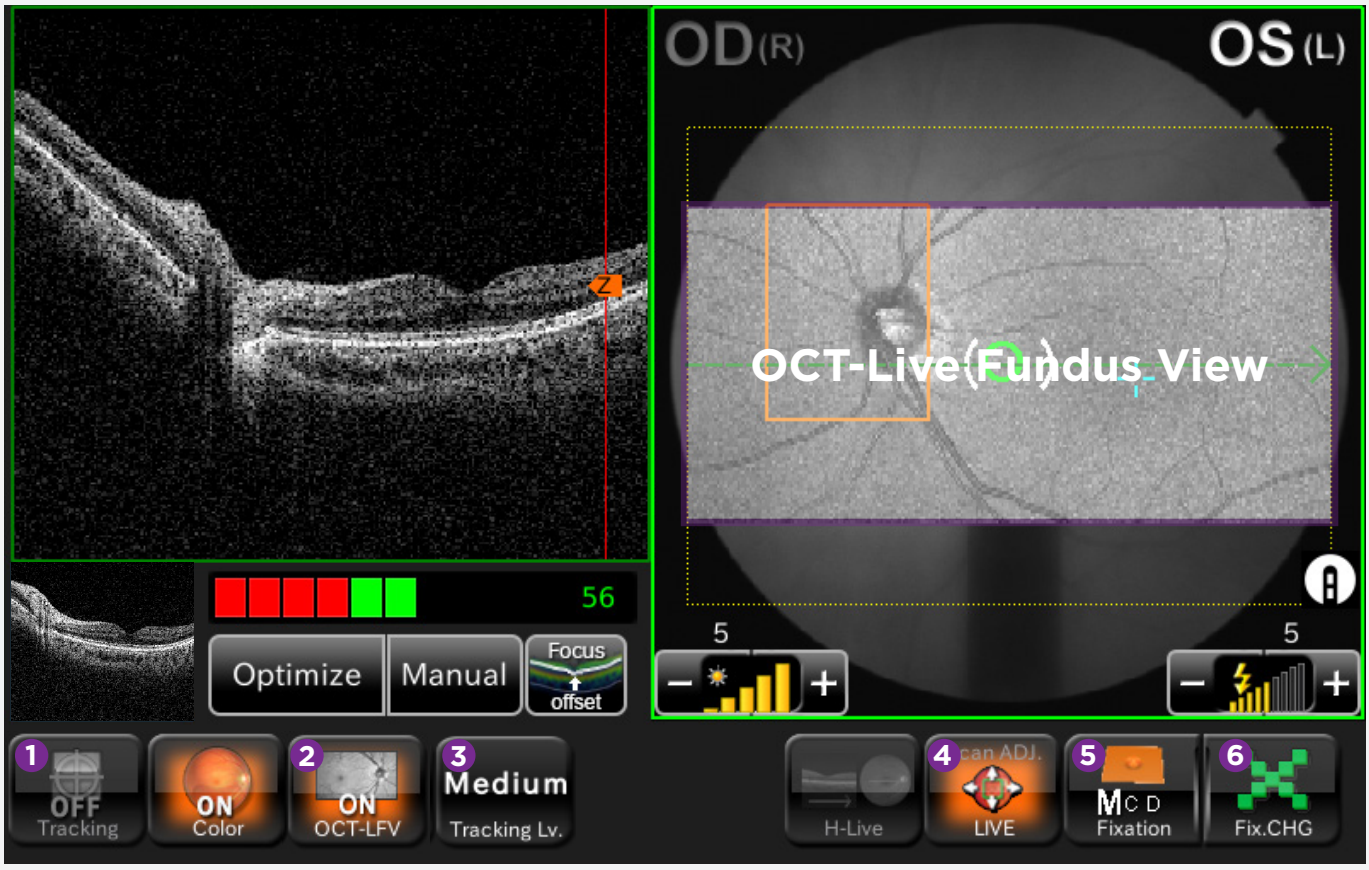


Preview image - OCT



Preview image - IMAGEnet6

Icon Descriptions of device screen



1 Tracking button*

Track the selected position based on the IR image.
Turn OFF tracking when OCT capturing doesn't proceed.
(Note that turning OFF the tracking doesn't stop the capture.)

2 OCT-LFV Image button

Change ON/OFF OCT-LFV (Live Fundus View).

3 Tracking Level button*

Select the tracking level when capturing using SMARTTrack.
(Also applicable for optional OCT Angiography capture)

4 Scan Adjustment button

Switch to the scan adjustment mode. Scan position, scannable area and scan pattern, etc. are displayed.

5 Internal Fixation Position button

M (Macula): Macula is centred
C (Centre): Centred position between the macula and the optic nerve head
D (Disc): Optic nerve head is centred

6 Select Internal Fixation Change button

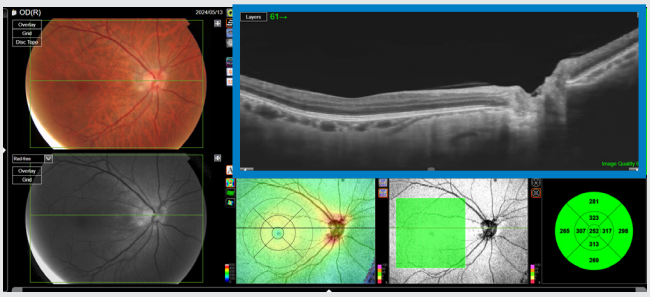
Switch between different internal fixation targets.

*Depending on the selected scan pattern, this button may not be enabled.

3. View the analysis results

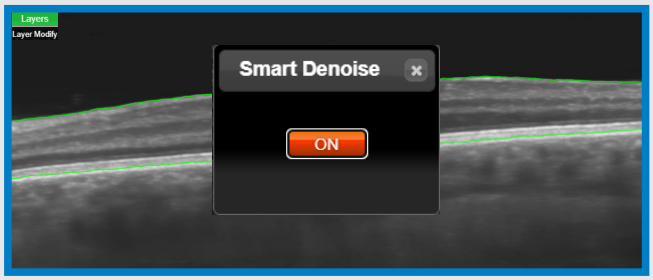
Select Analysis button 

to see the analysis results. The toolbar on the screen can be used to edit data and switch the display formats.



B-scan Smart Denoise*

High-quality OCT images with reduced noise are generated from volumetric B-scans. When Smart Denoise is enabled in the System Configuration, the option to switch on/off can be accessed by right-clicking the mouse.

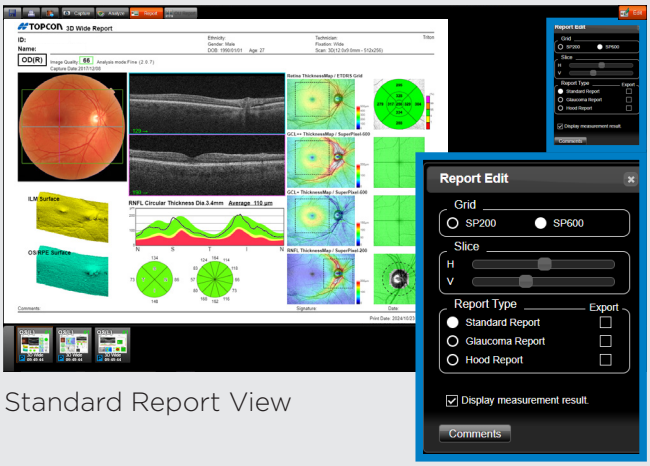


Applicable scan patterns:
3D Macula (H/V), 3D Disc, 3D Wide (H/V)

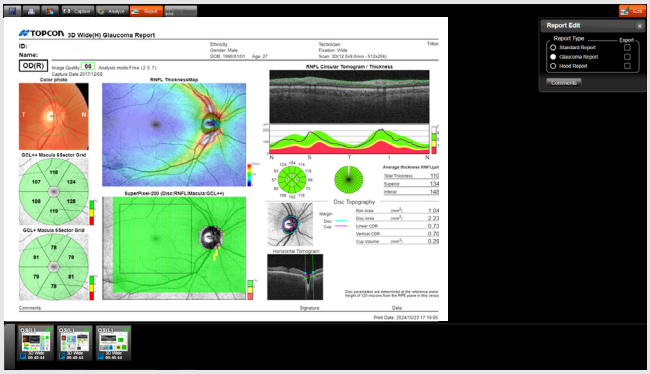
4. View the report

Select 'Report' to generate a report.
If identical scan types for both eyes have been saved, selecting 'OU Report' generates a bilateral report.

NOTE:
Certain scans offer multiple report formats. The report is shown at the bottom of the screen. The displayed report can be switched by clicking the thumbnail image.



Standard Report View


Glaucoma Report View

5. Print and Export

Press the Print button. 
When pressing the Export button, 
the report will be exported to the folder designated in the System configuration.

*Smart Denoise is optional.

OCT Data View in IMAGEnet6 (3D Wide (H) Scan)

1 Fundus photos area

Display the colour fundus and IR images. By selecting Overlay, Grid and Disc Topo menu buttons, images or analysis values are shown on the fundus images.

2 B-scan area

Display B-scan image. Selecting the buttons next to the B-scan image, the displayed image format changes. The available image formats vary depending on the scan pattern.

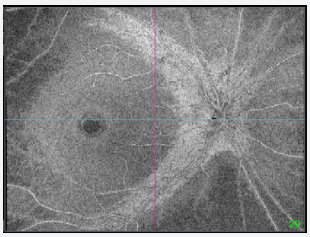
Circle

B-scan

Volume 2D

Volume 3D

En-face



En-Face image

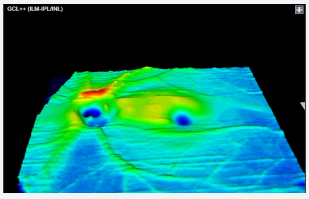
3 Map display

The screen display can be switched to show the thickness, layer surface or thickess surface map.

Thickness

Layer surface

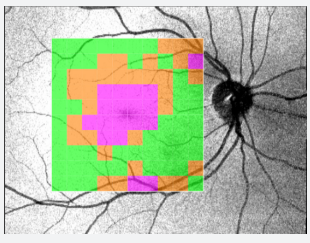
Thickness surface map



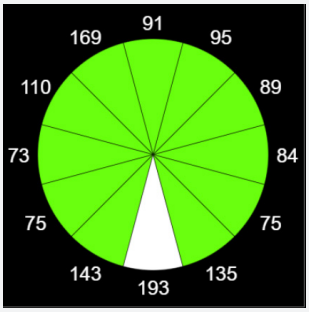
Thickness surface map (GCL++)

4 Grid display

The average thickness values for the selected layer are displayed in the grid area. The results compared with reference data can be shown as a colour map. The available grids vary depending on the scan pattern.



SuperPixel-600



RNFL-12

Top Toolbar Functions in IMAGEnet6

3D Wide - Dashboard view

1 Dashboard button

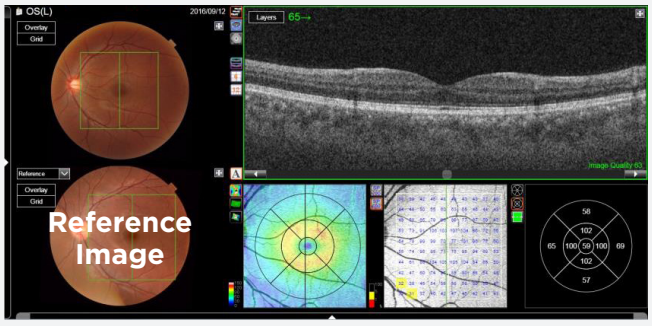
Display the 3D Wide dashboard view. it is availlabe only for 3D wide (H) scan data.

2 Capture button

Launch capture mode. When the selected data is available for follow-up capture, a choice of normal capture or follow-up capture is displayed.

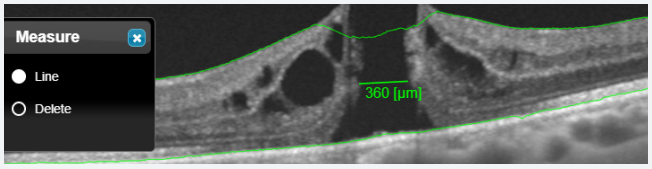
3 Reference button

A fundus image captured in the past can be selected as a reference image. The reference image can be displayed on the screen after importing the image.



4 Measure button

Measurement tools can be applied to the B-scan image.

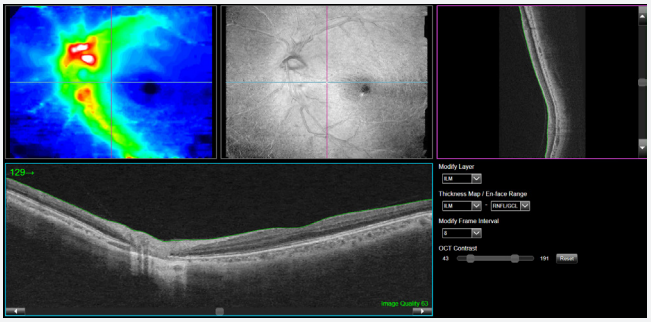


5 Profile button

Show the layer thickness graph of the selected B-scan.

6 Layer edit button

Enter editing screen for manual adjustment of layer segmentation.



Follow-up Capture

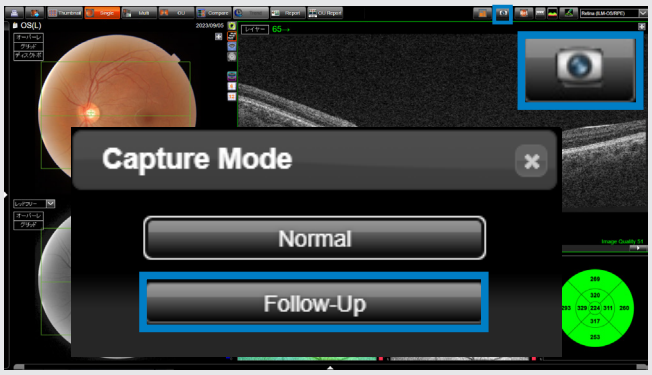
1. Select the baseline

From IMAGEnet6

From the reference scan, click on the capture icon on the toolbar and choose Follow-Up button.

Or the device screen

Select Follow-Up ON button at the top of the device screen. All available Follow-Up scan patterns are highlighted in orange. Select the desired scan. The latest captured data, if available, will be loaded as the baseline, then follow-up capture begins.



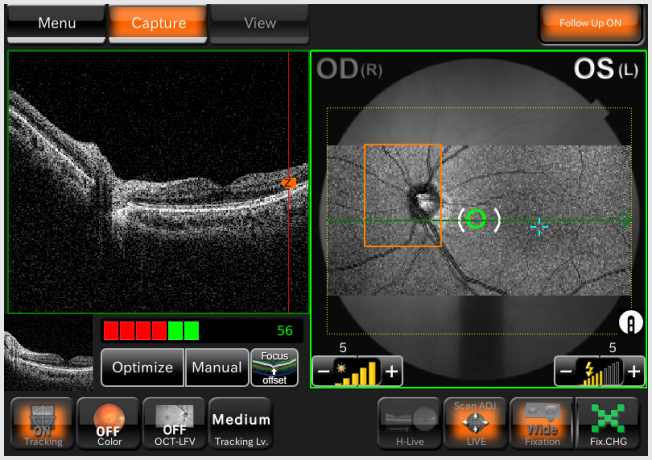
Device operation

2. Capture, review and save

The follow-up capture is based on the IR image from the reference data. SMARTTrack applied automatically applied during the process.

NOTE:

Follow-up capture may fail depending on the image quality of the reference data.



PC operation

3. Compare data

Once the captured data is exported, select the Follow-up button 

to show the comparrison view. B-scan images are synchronised between the reference and newly captured data.

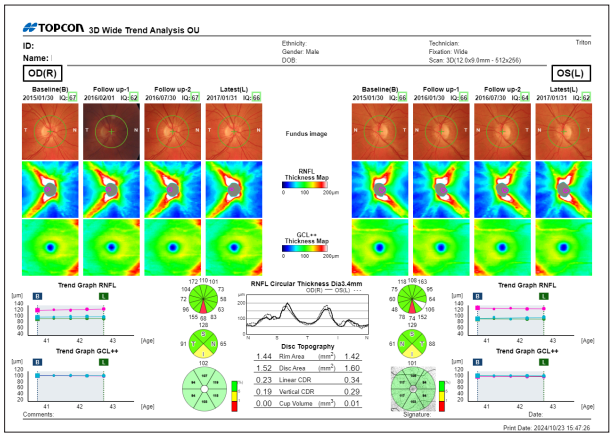
4. View the report

A comparison report can be generated and printed/exported.

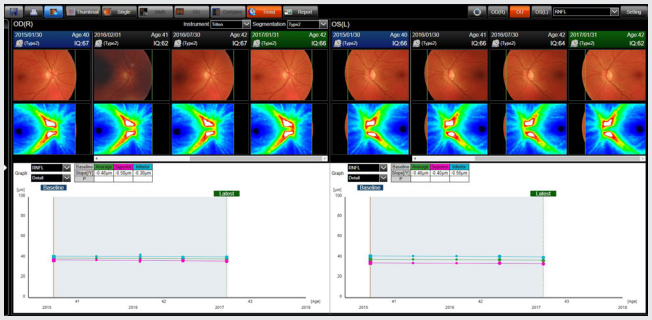
Comparison view

Trend Analysis

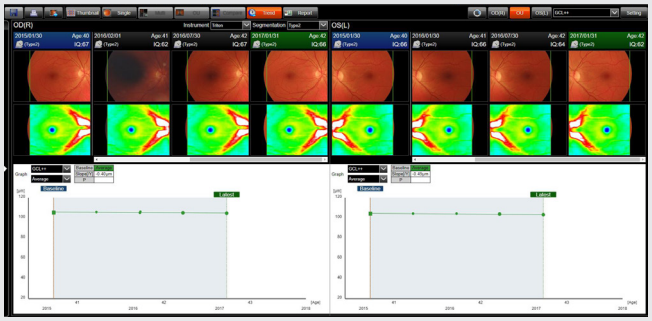
In trend view, 3D OCT data captured prior to the current date are displayed in a time series. Changes in certain metrics can be graphed over time, and the data can be switched between displaying changes in RNFL, Retina, GCL++ and GCL+ thickness. The trend analysis report also can be generated.



Binocular Trend Report



Trend Analysis - RNFL View



Trend Analysis - GCL+ View

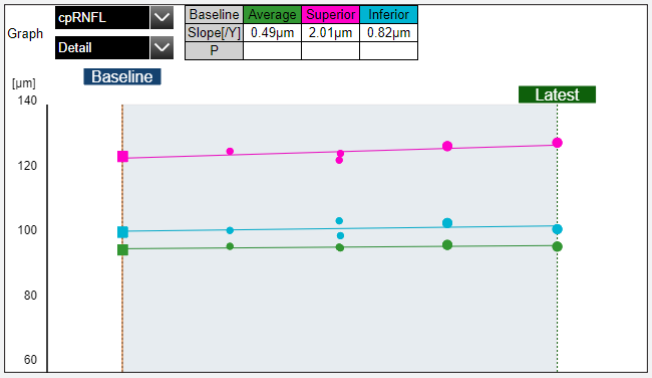
*Right click on an image or data point, to exclude from the trend analysis.

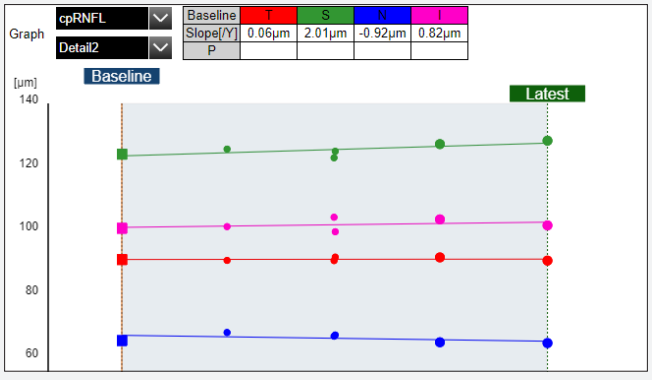
Graph Transition

In the graph area at the bottom half of the screen, you can select the following graph menu options: cpRNFL, RNFL, Retina, GCL+, GCL++, Subjective, and IOP.

For thickness measurements, the graph type can be chosen from the following options: “Average,” “Detail,” and “Detail2 (cpRNFL only).”

Detail: Average, Superior, and Inferior values
Detail2: T, S, N, I values



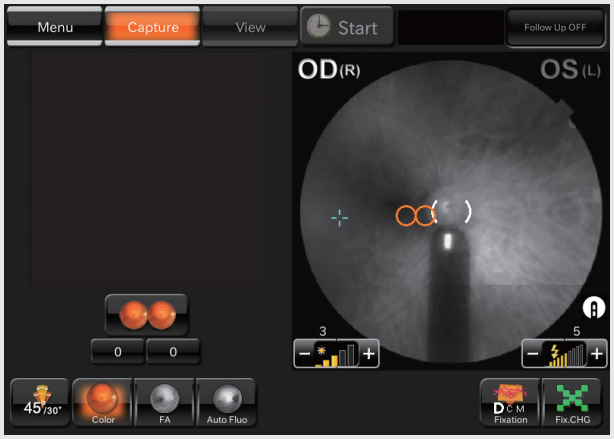


Fundus Photography

Device operation

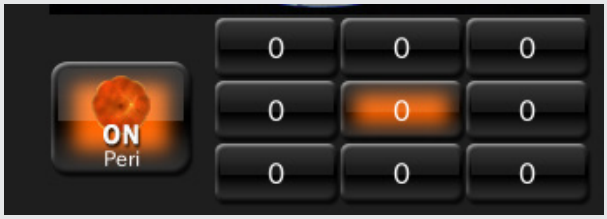
1. Alignment for capturing

With the patient looking straight ahead, adjust the device position and use the control lever for fine adjustments to centre the eye. Continue moving forward until the alignment spots become visible. Instruct the patient to focus on the green fixation target.



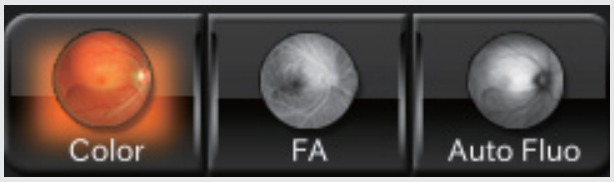
Peripheral imaging of the fundus

When peripheral imaging is switched on, you can select an area to be photographed from the nine fixation positions.



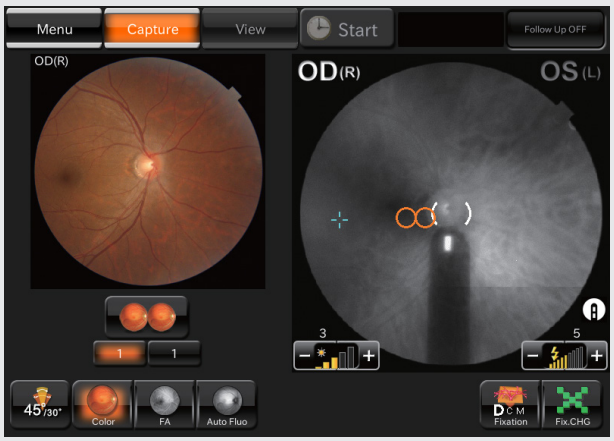
FA photography*

When switching to FA photography mode, the timer button Start is displayed. Touch it to start the timer, and the buzzer will sound every second while the timer is running, to indicate when the capture button should be pressed.



2. Capture the image

Press the control lever button to capture the image. The captured image is displayed in the preview area on the device. For FA photography*, after the timer has started, the elapsed time in seconds is displayed alongside the captured image.



PC operation

3. Save the images

The captured images are automatically exported to the PC and saved in the IMAGEnet6 database.

To delete a captured image

Select the thumbnail of the image you want to delete and click Delete.

*Triton plus only