Fovea-to-Disc (FoDi™) Alignment Technology

SPECTRALIS®

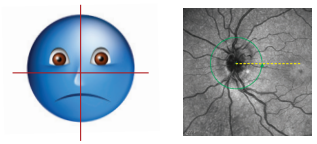
The SPECTRALIS® platform features a unique fovea-to-disc (FoDi) alignment technology that automatically tracks and anatomically aligns circle scans, improving accuracy and reproducibility of RNFL measurements. FoDi alignment technology helps overcome measurement errors due to changing head/eye position during scanning.

1. Patient Position Can Influence RNFL Measurements

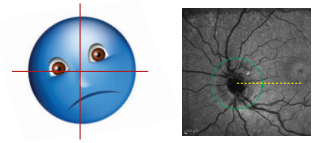
Without Alignment

Head tilt and eye rotation affect the anatomical alignment of the scan

Exam 1 Head Position



Exam 2 Head Position



With FoDi Alignment

Fovea-to-Disc alignment corrects for unwanted rotation and follows the anatomy of the eye

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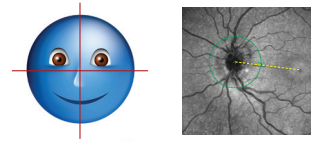
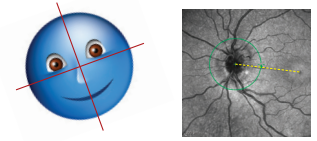
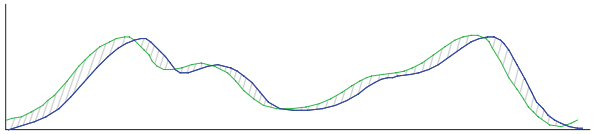


Exam 2 Head Position



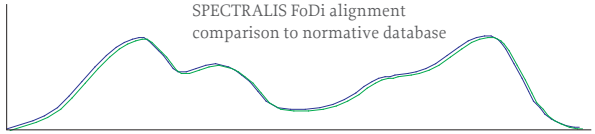
2. Attain Higher Confidence When Comparing to Normative Data

Databases without alignment have wider confidence intervals



Even a slight head tilt can shift the start/stop point of the circle scan, adding alignment error to normative databases.

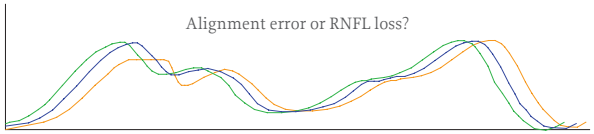
Using FoDi narrows the database confidence interval



FoDi technology ensures all circle scans start/stop at the same anatomical point, providing point-to-point accuracy between scans and eliminating alignment error in the database.

3. Improve Accuracy to Detect Individual Change

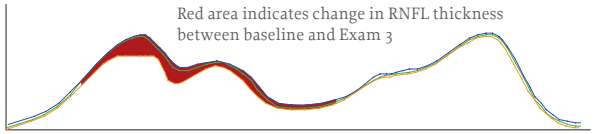
Test-Retest variability is greater without alignment



In this example, RNFL loss cannot be distinguished from alignment error.

Baseline — Exam 2 — Exam 3

FoDi alignment reduces noise caused by misalignment of scans



Change over time can clearly be identified as RNFL loss.

Baseline — Exam 2 — Exam 3

The exclusive SPECTRALIS FoDi alignment technology improves data integrity of the normative database. Using TruTrack™ technology, all scans in the SPECTRALIS database are aligned along the fovea-to-disc axis ensuring point-to-point thickness comparisons so you can be confident in the accuracy of the results.

HEIDELBERG ENGINEERING

www.HeidelbergEngineering.com

Headquarters
Heidelberg Engineering GmbH
Tiergartenstr. 15
69121 Heidelberg · Germany
Tel + 49 6221 6463-0

UK
Heidelberg Engineering Ltd.
Breakspear Park Suite F
Breakspear Way
Hemel Hempstead
Hertfordshire HP2 4TZ
Tel +44 1442 345 370

USA
Heidelberg Engineering, Inc.
1808 Aston Avenue, Suite 130
Carlsbad, CA 92008
Tel. +1 760-536-7000

Interpreting the Axonal OU Report with FoDi™ Technology

HEIDELBERG ENGINEERING

Patient Information – Displays name, diagnosis, and information entered into the "Patient Comment" field.

Fundus Image information – The string above each fundus image notes the settings used for that image. In this example:
- "IR" is imaging modality (IR, FAF, FA, ICGA, RF)
- "30x" is the field of view
- "ART" indicates that the automatic real time function was active during image capture
- "[HR]" is resolution setting (High Speed/High Res.)

OCT Image Information – The string above each OCT image notes the settings used for that image. In this example:
- "ART" indicates that the automatic real time function was active during image capture.
- "(16)" is the number of averaged frames.
- "Q:37" is the Quality score on a scale of 1–50.
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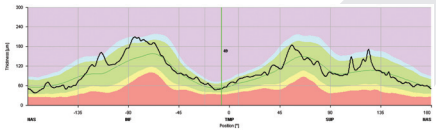
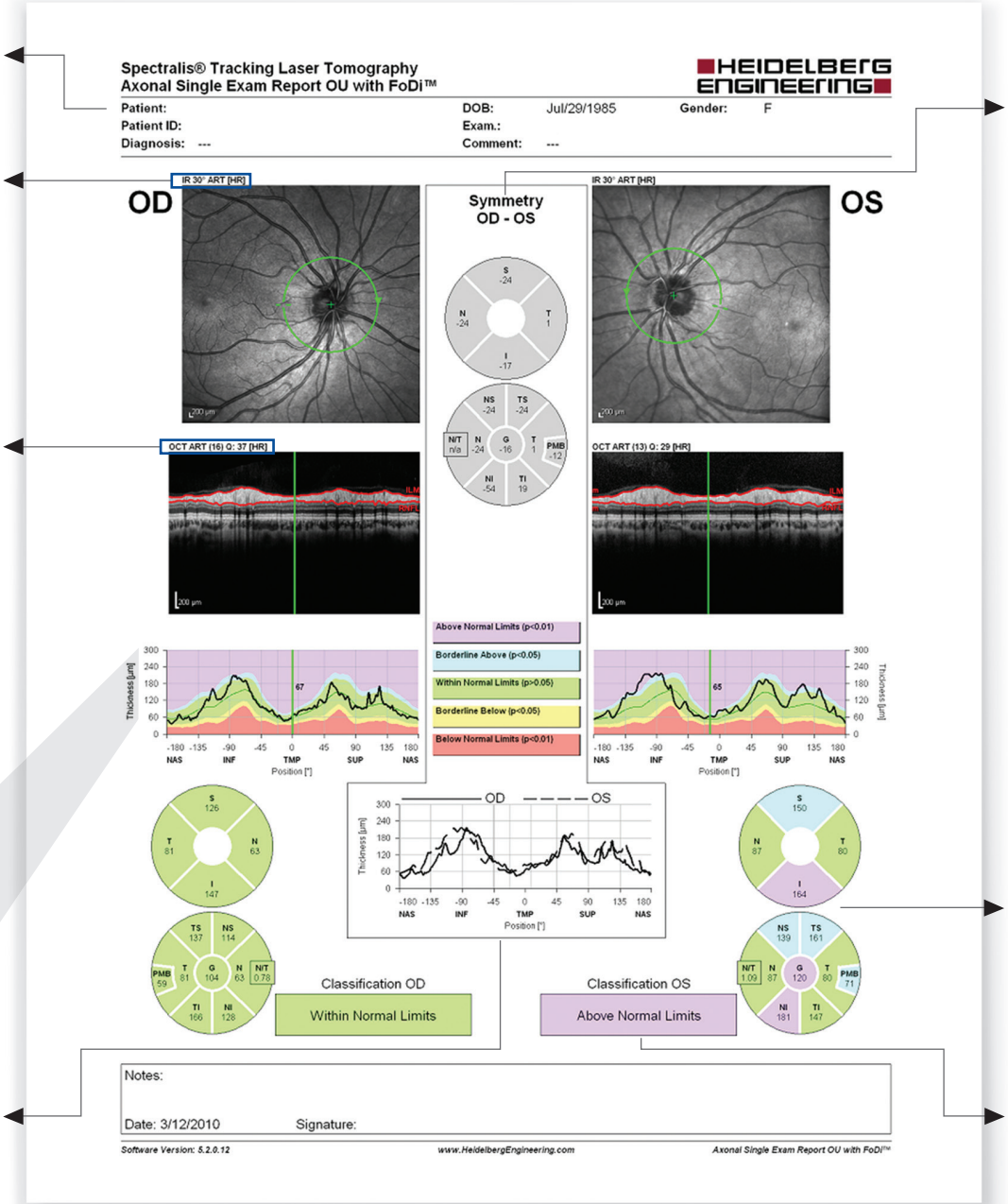
RNFL NiTSN Profile – The black line indicates the thickness values of the patient's scan around the optic disc from nasal, inferior, temporal, superior to nasal (NITSN). Colors indicate normative data ranges (see Classification Colors). The dark green line plots the average thickness values from the normative database.



Combined RNFL Profile – Plots the RNFL thickness graph of both eyes. If the corresponding values between eyes are alike, the lines on the graph will be similar.



Symmetry – Displays the difference (in microns) between the thickness of corresponding quadrants of right and left eyes. If the value between eyes is similar, the value will be close to zero.

Fovea-Disc Tracking – All patient images track the fovea-to-disc alignment to ensure anatomically accurate start/stop of the NITSN data. This helps minimize variability due to patient head orientation for both follow-up exams and comparison to the normative data.

Classification Colors – Indicate comparison versus normative database.

- Purple: Above Normal Limits, with values outside the 99% confidence interval of the normal distribution.
- Blue: Borderline Above, with values outside the 95% but within the 99% confidence interval of the normal distribution.
- Green: Within Normal Limits, with values inside the 95% normal range.
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Classification Pie Chart – Shows average RNFL thickness (microns) for each sector of each eye. Global (G) average is shown in the center. Sector color indicates classification versus normative database. The pappillomacular bundle (PMB) thickness is in the temporal sector, and the symmetry ratio of nasal compared to temporal (N/T) is in the nasal sector.

Classification Bar – Displays the thickest or thinnest sector as one bar. If there is an overly thick and thin sector in one scan, the classification bar will be split into two sections. The uppermost bar displays the thickest sector, and the lowermost bar displays the thinnest sector of the circle scan.

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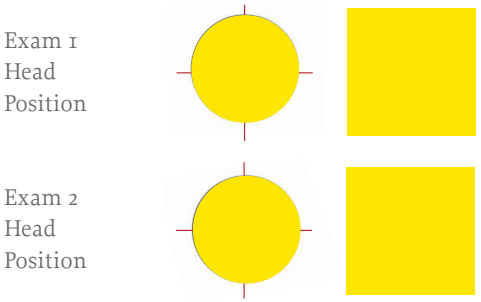

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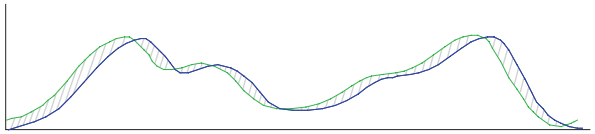

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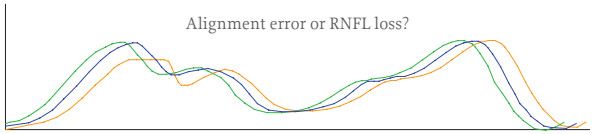

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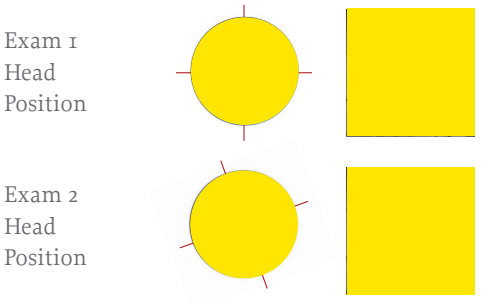

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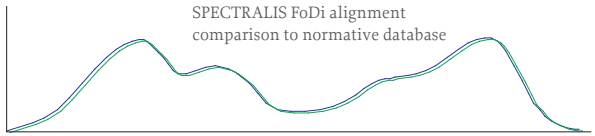

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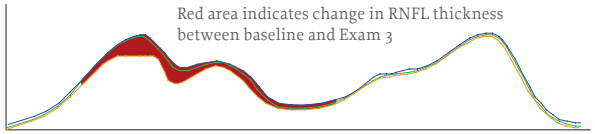

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www.HeidelbergEngineering.com

Headquarters
Heidelberg Engineering GmbH
Tiergartenstr. 15
69121 Heidelberg · Germany
Tel + 49 6221 6463-0

UK
Heidelberg Engineering Ltd.
Breakspear Park Suite F
Breakspear Way
Hemel Hempstead
Hertfordshire HP2 4TZ
Tel +44 1442 345 370

USA
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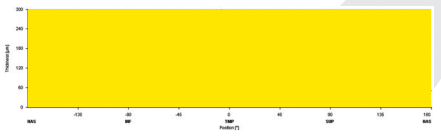

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