

Make every scan count with high-performance OCT.



NEW



ZEISS CIRRUS with PathFinder

OCT imaging with next-generation
AI-guided image assessment

www.zeiss.com/cirrus6000



Seeing beyond



High-Performance OCT

Advance your fast-paced practice

CIRRUS® with PathFinder™, the next-generation OCT from ZEISS, delivers high-speed image capture with HD imaging detail, a wider field of view and artificial intelligence-based (AI) decision support so you can make more informed decisions efficiently.

Performance OCT

Faster imaging with greater detail, at 100,000 scans per second and AI-guided image assessment illuminating pathologies for efficient decision-making.

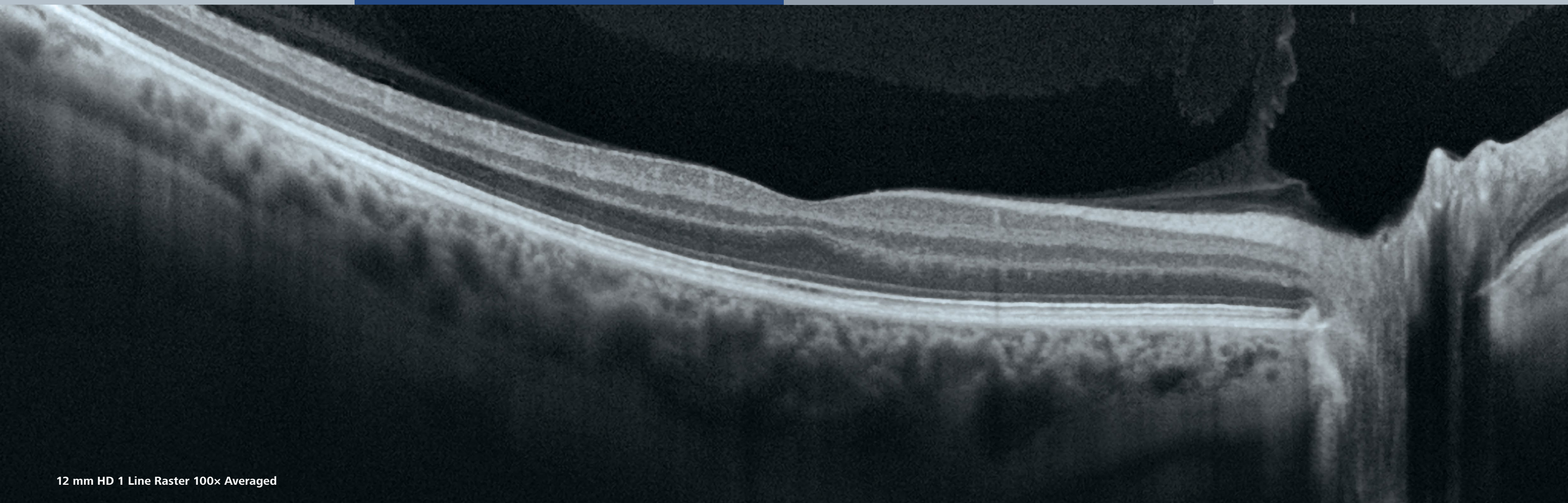
Proven analytics

Comprehensive, clinically validated tools to diagnose and manage a range of ophthalmic conditions.

Patient-first design

Enhanced security and seamless transfer of raw patient data from previous generations of CIRRUS for continuity of patient care.





12 mm HD 1 Line Raster 100x Averaged

The power of 100,000 scans per second

Faster imaging:

Reduce chair time and speed up your practice.

- 270% faster OCT scans and 43% faster OCTA scans.*
- OCT cube scans in as little as 0.4 seconds.
- High-speed imaging in combination with FastTrac™ eye tracking technology reduces the chance of motion artifacts such as those caused by blinks and saccades.

Greater detail:

See deeper instantly, with high-definition widefield imaging.

- 12x12 mm single-shot OCTA cube scan in addition to 8x8, 6x6 and 3x3 mm scans.
- High-Definition AngioPlex scans (8x8 and 6x6 mm) for even greater microvascular detail without limiting the field of view.
- 2.9 mm scan depth.

“The CIRRUS 6000 is all about its speed. With **increased speed** comes greatly **improved resolution** and detail on cube, raster and OCTA scans. The new faster CIRRUS enables me to incorporate these more reliable scans into my daily workflow and make **important treatment decisions** for my patients.”

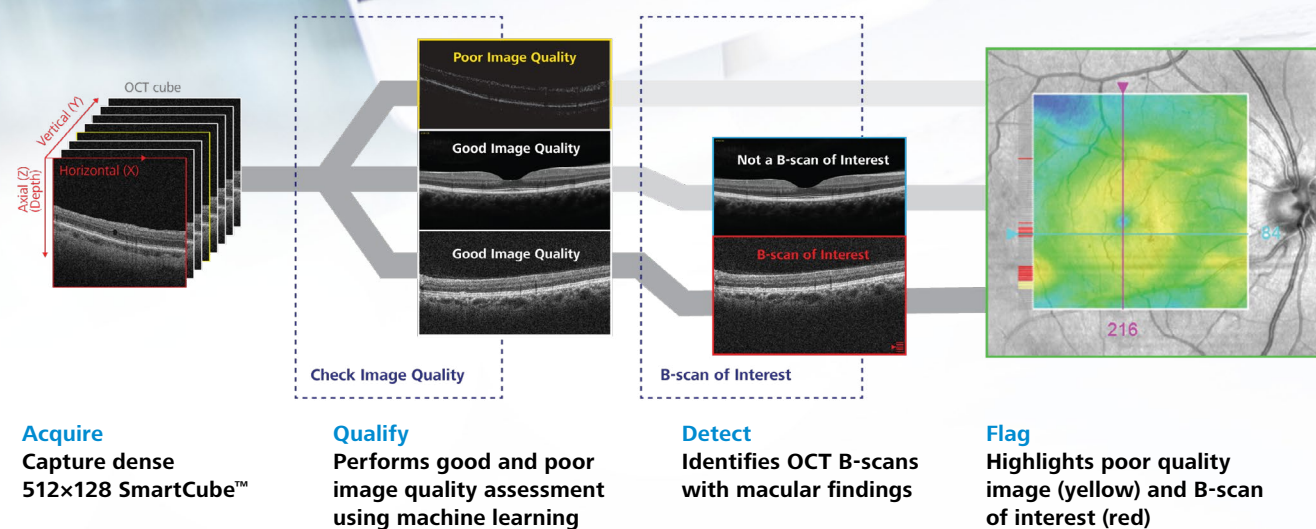
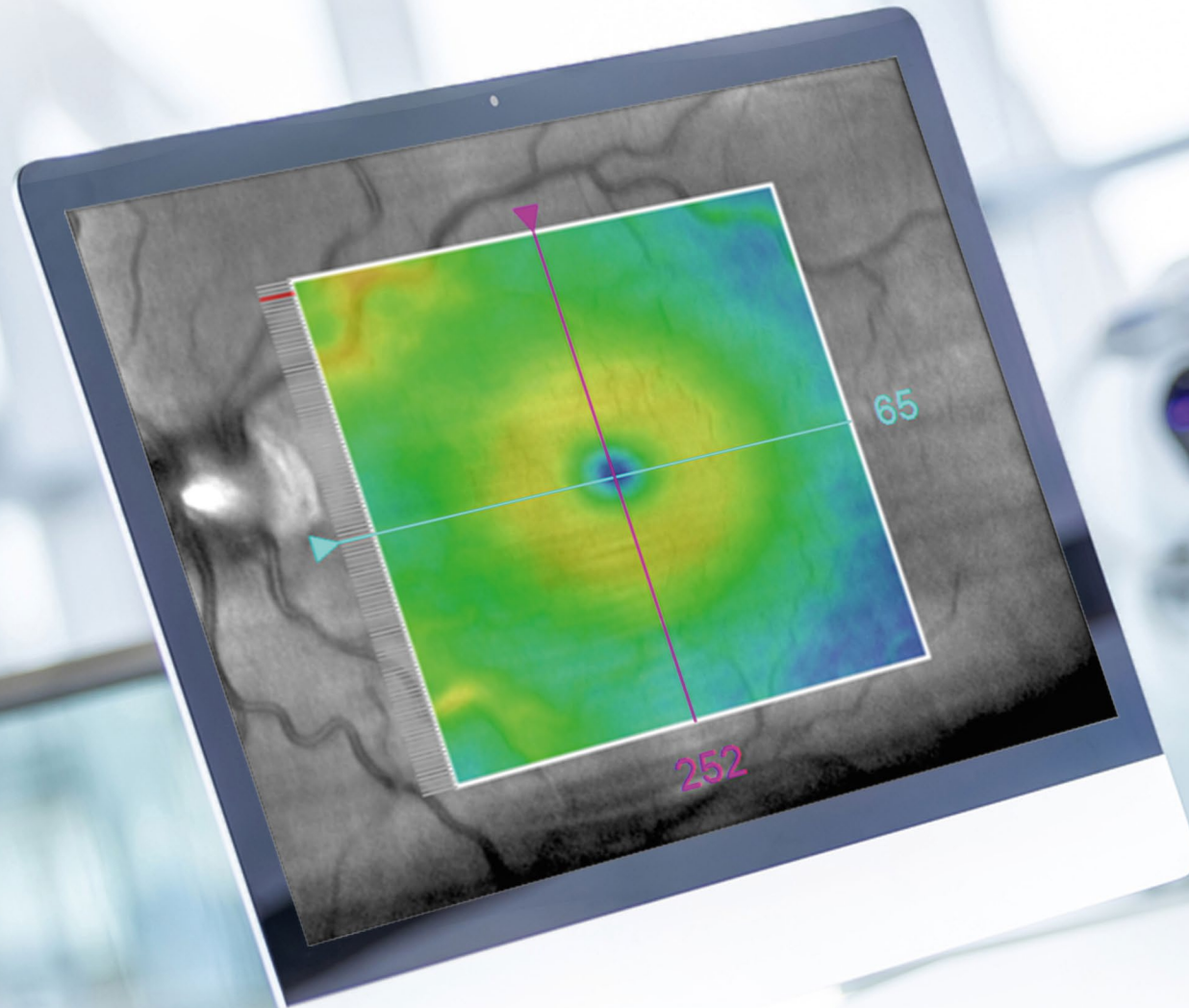
Theodore Leng, MD, FACS,
Byers Eye Institute at Stanford Healthcare, Palo Alto, CA, United States

* Compared to prior generations of CIRRUS.



Intelligently illuminating

AI-guided OCT image assessment with CIRRUS PathFinder



CIRRUS PathFinder* is a fully integrated deep learning decision support tool that enables more confident OCT interpretation. Designed to complement your clinical workflow, CIRRUS PathFinder streamlines the review of macular OCT scans by automatically identifying scans that may need closer review.

Integrated

- Embedded seamlessly within CIRRUS software
- Empowers imagers and clinicians to capture detailed scans in undiagnosed areas
- Can be switched on and off as required (e.g., for educational purposes)
- Provides an efficient solution for reviewing large amounts of detailed data

Intelligent

- Employs deep-learning algorithms for increased confidence and clinical support
- Fellow eye monitoring effortlessly tracks for changes
- Trained on more than 75,000 OCT B-scan images
- Validated by leading retina specialists to have 88% sensitivity and 93% specificity¹

Illuminating

- Enhanced OCT scan interpretation provides improved workflow efficiency
- Automatic image assessment highlights poor-quality scans
- AI-enabled detection identifies OCT B-scans with macular findings such as Subretinal fluid (SRF), intraretinal fluid, retinal pigment epithelium atrophy, retinal pigment epithelium elevation, disruption of inner retinal layers, disruption of the vitreoretinal interface, inner segment/outer segment disruption.

*PathFinder is available on ZEISS CIRRUS 500/5000/6000 devices.

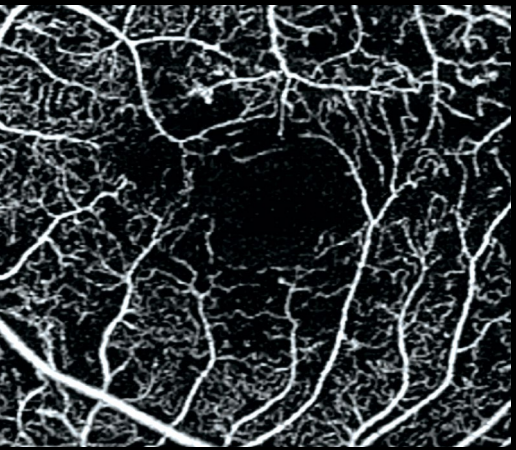
1. Talcott E, Valentim C, Perkins S, Ren H, Manivannan N, Zhang Q, Bagherinia H, Lee G, Yu S, D'Souza N, Jarugula H, Patel K, Singh R. Automated Detection of Abnormal Optical Coherence Tomography B-scans Using a Deep Learning Artificial Intelligence Neural Network Platform. *Int Ophthalmol Clin*. 2024 Jan;64(1):115-127.



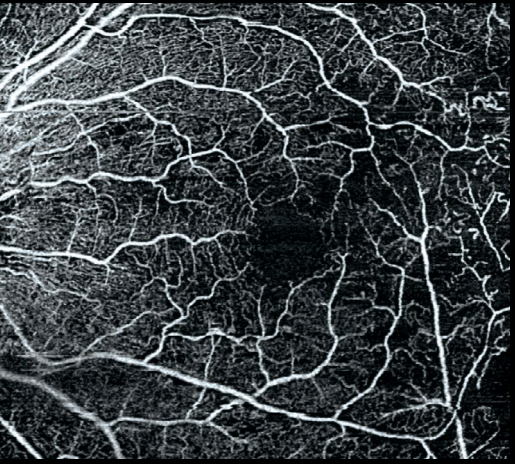
12x12 mm single-shot OCTA of branch retinal vein occlusion (BRVO).
Image courtesy of Jesse Jung, MD, East Bay Retina, United States

Performance OCT — faster, wider, with a new level of detail

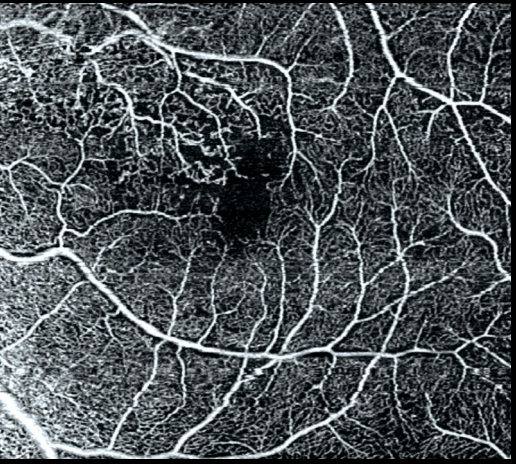
ZEISS CIRRUS 6000 empowers clinicians with a larger field of view in a single scan, and captures high-definition OCT/OCTA scans that reveal finer details of the retinal microvasculature – all of which provides more insight into the patient’s condition in less time.



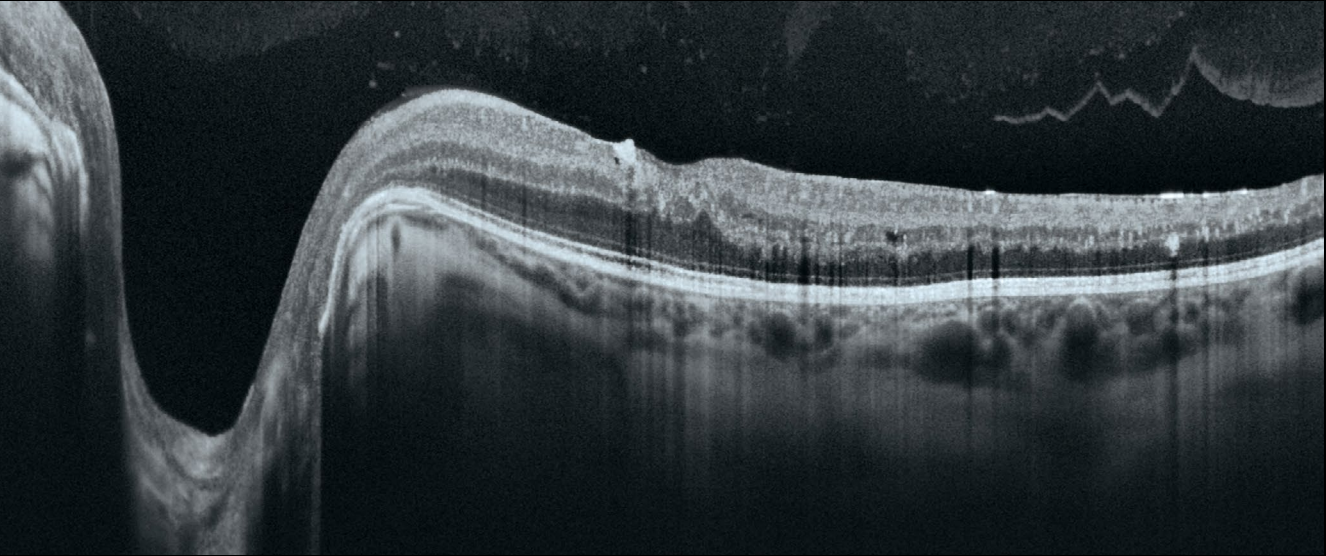
3x3 mm AngioPlex OCTA of proliferative diabetic retinopathy (PDR). Image courtesy of Roger Goldberg, MD, Bay Area Retina Associates, United States



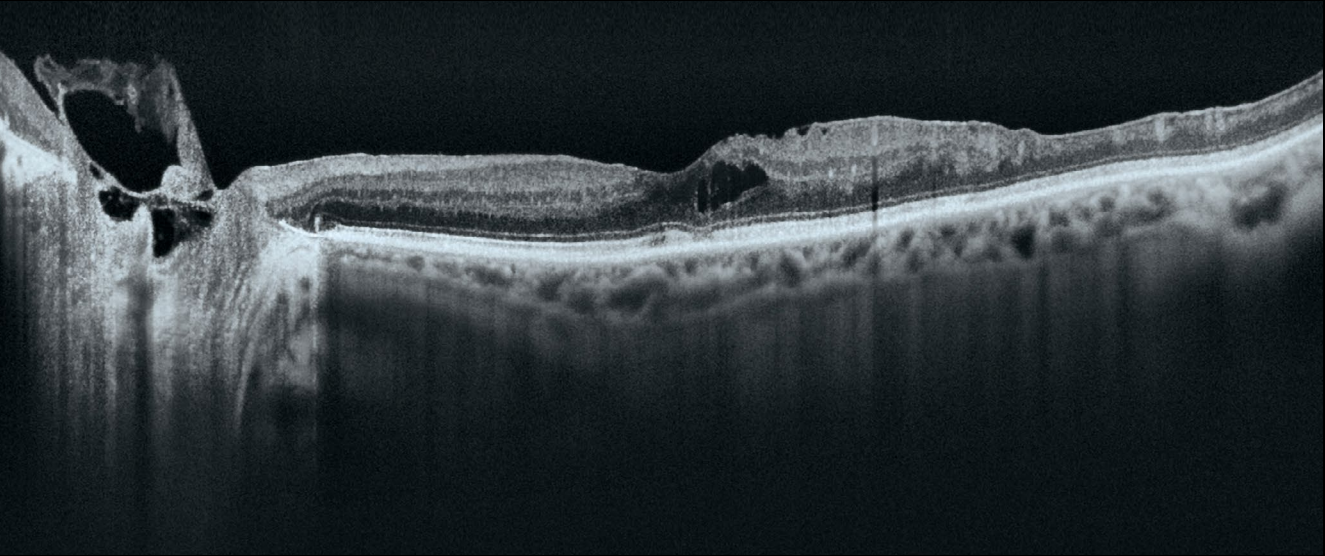
8x8 mm HD AngioPlex OCTA of BRVO.
Image courtesy of Roger Goldberg, MD, Bay Area Retina Associates, United States



6x6 mm HD AngioPlex OCTA of non-proliferative diabetic retinopathy (NPDR). Image courtesy of Roger Goldberg, MD, Bay Area Retina Associates, United States



12 mm HD 1 Line Raster 100x averaged. Image courtesy of Theodore Leng, MD, Byers Eye Institute, United States



12 mm HD 1 Line Raster 100x averaged. Image courtesy of Theodore Leng, MD, Byers Eye Institute, United States



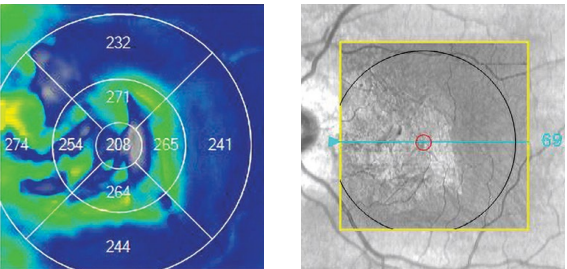
Proven analytics

CIRRUS-powered treatment decisions

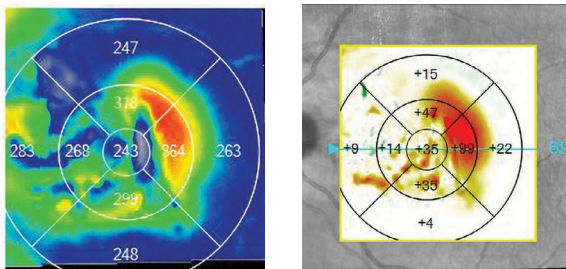
As the pioneering OCT technology, the CIRRUS platform offers clinicians extensive, clinically validated applications for retina, glaucoma and anterior segment. The result: precise analysis, faster throughput and smarter decision-making across a wide spectrum of clinical conditions and patient types.

Retina

Visit 1



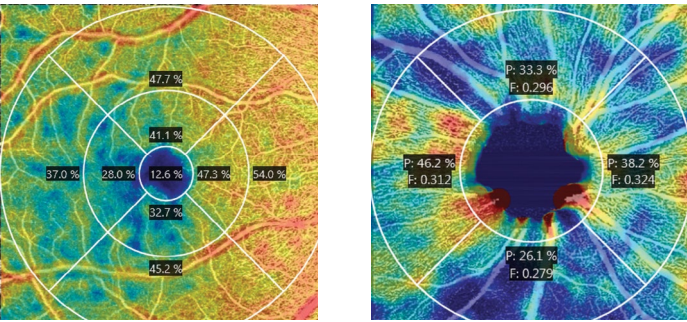
Visit 2



Macular Change Analysis

The CIRRUS data cube automatically stores and delivers each patient’s historical data to provide a variety of change assessments, including macular thickness change maps that help you understand your patient’s response to treatment. Because every CIRRUS cube is tracked and registered to OCT scans from prior visits using CIRRUS’ FastTrac™ Retinal Tracking Technology, you can confidently measure point-to-point changes in macular thickness.

AngioPlex Metrix OCTA Quantification



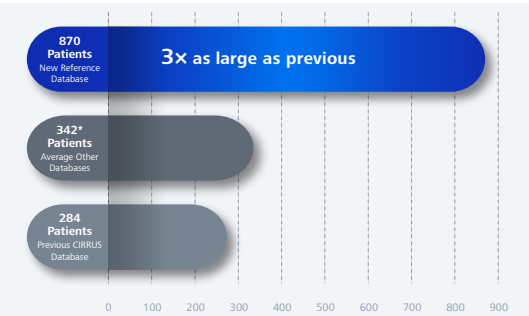
AngioPlex® Metrix™ for Macula and ONH

AngioPlex Metrix allows clinicians to objectively assess and track progressive eye diseases such as diabetic retinopathy and glaucoma with quantification tools such as Vessel Density, Perfusion Density, and Foveal Avascular Zone (FAZ) for the macula, and Capillary Flux Index for the optic nerve head.

Expanded Reference Database

ONH, RNFL and macular thickness

The continually advancing ZEISS CIRRUS reference database now includes 870 patients, more than triple that of previous versions, and with greater diversity, taking into account different optic disc sizes in addition to age. Comparing macular thickness, ganglion cell thickness, optic disc and RNFL measurements to a reference range for healthy eyes 18 to 88+ years, interpolated from quantile regressions using additional statistical models.



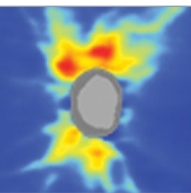
*Average values calculated from publicly available statistics as of April 2024.

Glaucoma

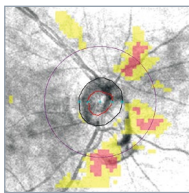
The CIRRUS suite of glaucoma analysis tools are designed to help you better visualize, detect, and manage all stages of glaucoma, from glaucoma suspects and mild glaucoma to severe glaucoma.

CIRRUS RNFL thickness deviation maps

have been shown to be superior for detecting localized RNFL defects, compared to traditional peripapillary RNFL thickness measurements.



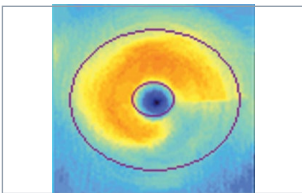
RNFL Thickness Analysis



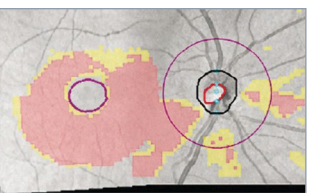
RNFL Deviation Map

Ganglion Cell Analysis

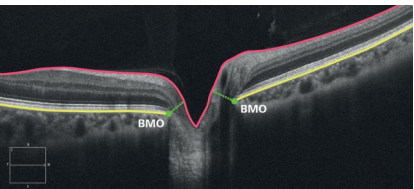
helps identify macular glaucomatous damage, which can be missed with RNFL analysis alone.



Combined GCL/IPL and RNFL thickness deviation maps provide a comprehensive widefield assessment.

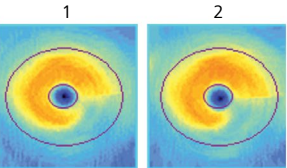


Combined GCA and RNFL Deviation Map

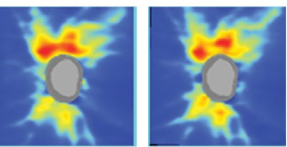


AutoCenter™ – ZEISS’ patented algorithm automatically identifies the optic nerve head using Bruch’s Membrane Opening (BMO) in 3-dimensions for more precise measurement of the neuro-retinal rim, accounting for tilted discs, disruptions to the RPE and other challenging pathology.

Baselines

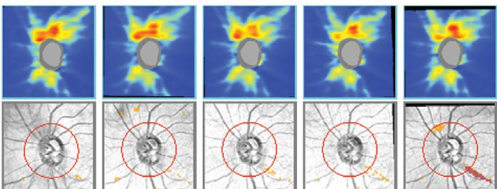
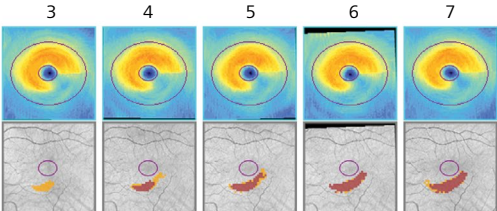


Ganglion Cell Analysis



RNFL Thickness Analysis

Exams



Unique to ZEISS, Guided Progression Analysis™ (GPA™)

provides both trend and event-based analyses that determine if change has occurred that exceeds test-retest variability and quantify rate of change for key RNFL, ONH, and GCL/IPL parameters.

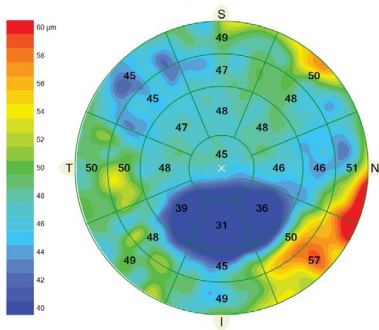




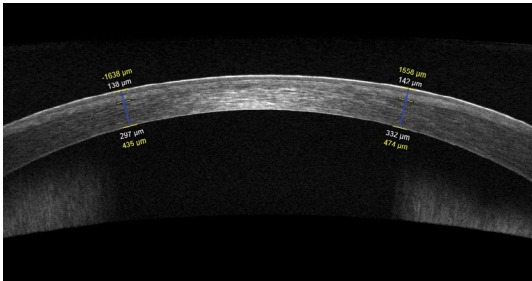
Anterior Segment

Anterior Segment Premier Module

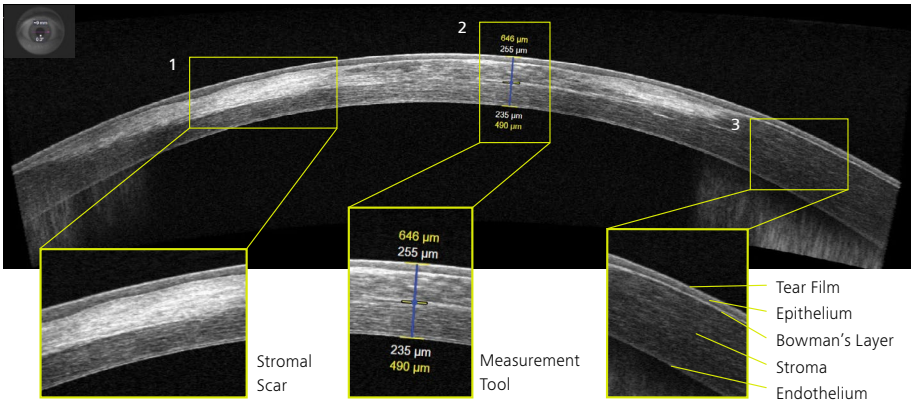
ZEISS CIRRUS also enables comprehensive imaging and quantification of the anterior segment for refractive surgery planning and follow-up, corneal evaluation and glaucoma assessment.



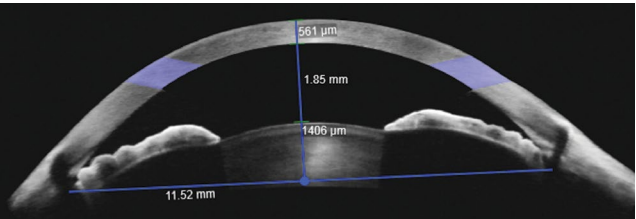
9 mm epithelial thickness map of keratoconus highlights localized epithelial thinning.



9 mm high-definition cornea imaging with semi-automated measurement tools for flap thickness and residual stromal bed.

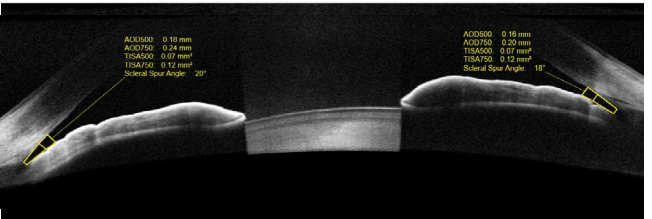


ChamberView — A patented 15.5 mm wide view of the entire anterior chamber with objective tools for measuring anterior segment ocular structures.



ChamberView image of narrow angles

Wide Angle to Angle Scan - Provides exquisite detail of the iridocorneal angle and includes measurement tools for Angle Opening Distance (AOD500/750) and Trabecular Iris Space Area (TISA500/750) to quantify and track degree of angle closure.



Wide Angle to Angle Scan of Narrow Angles



Patient-first design

Unique platform designed for the future

With ZEISS CIRRUS, your patient data is secure, protected against cyber threats and never left behind. The CIRRUS platform ensures the seamless review of legacy OCT data combined with other diagnostic modalities to further enhance your patient’s care. That means that even as OCT technology advances, your clinicians maintain continuity of patient care.

Enhanced cybersecurity

New enhanced cybersecurity features are designed to meet ever-evolving compliance and security needs. For the large institution IT requirements of today and tomorrow, ZEISS CIRRUS offers features such as enhanced password security, enterprise-scale security requirements and more.

- Whether at rest or in transit, your CIRRUS data is secured via data encryption and DICOM Transport Layer Secure (TLS) protocol.
- New InterBase ultra-fast embeddable database, offering data security and instant disaster recovery.
- Supports Windows 10 configuration to run in Federal Information Processing Standards (FIPS) mode.
- Share DICOM OP and OPT compressed data with ZEISS FORUM and electronic medical records (EMRs) using JPEG2000(J2K) or JPEGBaseline methods.
- CIRRUS Review Station supports installation on Windows 10, Windows 11, and Windows Server 2012R2, 2016R2, and 2019 operating systems.

Maximize the impact of your diagnostic data

FORUM® from ZEISS is a scalable and flexible eye care data management solution. It streamlines practice workflow by connecting to CIRRUS and other diagnostic instruments and providing access to all patient examination data for confident, at-a-glance decision-making.

Expand ZEISS FORUM with clinical workplaces

ZEISS Retina Workplace elevates your practice with integrated imaging data from multiple modalities that enables you to register ultra-widefield fundus images with OCT/OCTA images—all on one screen, in a matter of seconds—to help you capture the full breadth and depth of a pathology and generate qualitative and quantitative analysis results.

ZEISS Glaucoma Workplace lets you analyze longitudinal data from visual fields and OCT for progression analysis. As an intuitive, transparent tool, it integrates multiple individual datasets into a single visualization to help guide your assessments by spotlighting changes that could impact disease management.

Technical specifications

ZEISS CIRRUS 6000

Key Parameters	
Methodology:	Spectral domain OCT
Optical source:	Superluminescent diode (SLD), 840 nm
A-scan depth:	2.0 - 2.9 mm (in tissue)
Scan speed:	100,000 A-scans per second
Min. pupil diameter:	2.0 mm
Resolution:	■ Axial resolution 5 µm (in tissue), 1.95 µm (digital) ■ Transverse resolution 12 µm (in tissue)
Refractive error adjustment:	-20D to +20D (dopters)
Fundus Imaging:	■ Methodology Line Scanning Laser Ophthalmoscope (LSO) ■ Optical Source SLD 750 nm ■ Field of View (degrees) 36x30
Posterior Segment scans:	■ OCT Cube scan (Macula and Optic Disc) HD Raster (1, 5, 21-line, cross and radial); Raster scan length* 3-12 mm; image averaging up to 100x 3x3, 6x6,† 8x8,† 12x12 mm (Macula); 4.5x4.5 mm (Optic Nerve Head); ■ OCTA
Anterior Segment scans:	Cube, HD Cornea, Pachymetry, HD Angle, Wide Angle-to-Angle, Anterior Chamber, 5-Line Raster

Analytical applications	
Retina:	Glaucoma:
■ Macular Thickness Analysis with Reference Database (Diversified and Asian)	■ Guided Progression Analysis
■ Macular Change Analysis	■ Ganglion Cell/IPL Thickness with Reference Database (Diversified and Asian)
■ Advanced RPE Analysis	■ RNFL Thickness with Reference Database (Diversified and Asian)
■ 3D Visualization	■ ONH Parameters with Reference Database (Diversified and Asian)
■ En Face Analysis	■ Average cup-to-disc ratio
■ CIRRUS Wellness Exam	■ Average, Superior and Inferior RNFL Thickness
Anterior Segment:	■ CIRRUS Wellness Exam
■ 9 mm Epithelial Thickness and Pachymetry Mapping	AngioPlex Matrix OCT Angiography Quantification:
■ HD Cornea with Cornea Caliper Tool	■ Macular
■ ChamberView™ Full Anterior Chamber Imaging for phakic IOL sizing and safety distance measurements	■ Foveal Avascular Zone
■ Angle imaging and measurement tools for Glaucoma (AOD, TISA, SSA)	■ Perfusion Density (ETDRS grid)
	■ Vessel Density (ETDRS grid)
	■ Optic Nerve Head
	■ Capillary Perfusion Density
	■ Capillary Flux Index
	■ AngioPlex 2-visit comparison

Instrument Specifications	
Weight:	35 kg (77 lbs) (without monitor)
Dimensions (L × W × H):	62.2 × 42.5 × 29.2 cm (24.4 × 16.7 × 11.4 in) (without monitor)
Input Power:	
■ Voltage and Mains Frequency	230V, 100/120V, 50-60 Hz
■ Electrical Class	IEC 60601-1 Class I

Computer Specifications			
Monitor:	22" Widescreen HD	Resolution:	1920x1080
Internal storage:	2 TB with 128 GB SSD (> 80,000 scans)	USB Ports:	minimum 6
Input devices:	Wireless keyboard, Wireless mouse		
Processor:	Intel® Core i7 (7th Gen)		
Operating system (Instrument):	Windows® 10 Enterprise		
Supported operating systems (Review Station):	Windows® 11, Windows® 10, Windows® 8.1, Windows® 7 (64 bit)		

*Not all scan lengths available in HD.
† Montage capable for larger field of view





For information about the ZEISS CIRRUS 6000, visit
www.zeiss.com/cirrus6000



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