

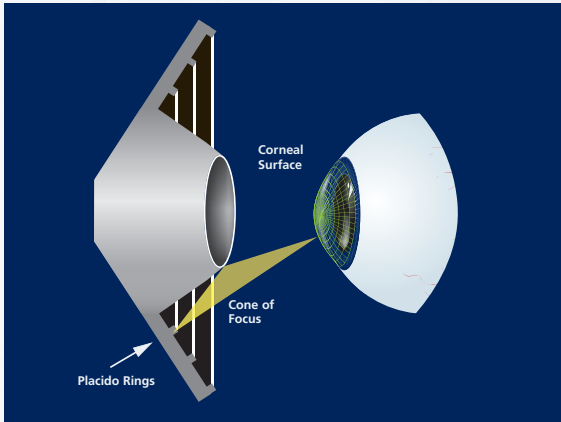
ATLAS Corneal Topography System

Simply accurate for maximum productivity



Superior Topography Performance and Efficiency

The ATLAS System has been proven to deliver the clinical accuracy and workflow efficiency that your practice requires. The all-in-one system combines a suite of unique technologies that is simple for virtually any operator to use. The result is a new level of confidence in every exam and for every patient.



Triangulation with the Cone-of-Focus, Placido rings, and corneal surface delivers superior accuracy



SmartCapture makes image acquisition easy



Proven Placido Disk Technology

- Patented Cone-of-Focus™ Alignment System and Arc-Step Algorithm deliver sub-micron elevation accuracy¹
- 22-ring Placido disk optimized to avoid ring crossover, which means reliable results for a wide range of patients
- Long, comfortable 70 mm working distance minimizes focusing error found in “small cone” systems

SmartCapture™ Image Analysis Helps Your Staff Get it Right the First Time

- SmartCapture analyzes 15 digital images per second during alignment and automatically selects the highest quality image
- Next-generation image processing provides more repeatable, reliable results, even in difficult cases
- Less dependence on operator technique means greater efficiency and fewer repeat exams

Workflow Flexibility with Review Software

- Dynamic remote access to all your corneal topography exam data and patient education tools, such as corneal wavefront simulation
- Equivalent analysis functionality as the ATLAS Model 9000²
- Compatible with ATLAS Models 993 and 995²

1- Data on file

2- Except for PathFinder II Corneal Analysis Software

Take your practice to the next level



With more than 15 years experience in corneal topography, Carl Zeiss Meditec now offers the next generation of the ATLAS® Model 9000. The ATLAS System delivers the clinical accuracy essential to today's eye care practice, in a powerful and easy to use platform. With applications including contact lens fitting, pathology detection and management, and selection of aspheric IOLs, the new ATLAS System is the right choice for reliable real-world results, every time, from virtually any operator.

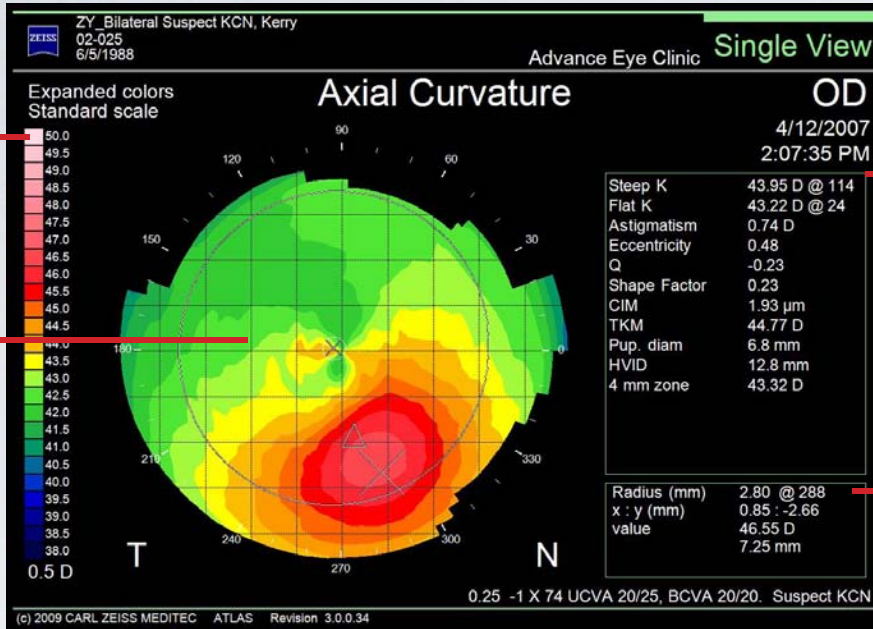
Superior Performance Designed for How You Practice

- Compact, all-in-one system, now easier to use and more efficient
- Improved repeatability and reliability
- Compatible with your existing ATLAS data
- Compatible with Visante® *omni* to generate posterior topography

Elevate Your Practice with ATLAS

The next-generation ATLAS System provides new tools and superior data acquisition and analysis to set your practice apart. From increasing patient satisfaction, to gaining greater clinical insight, to improving overall workflow, the ATLAS System can take your practice to new heights.

Intuitive Analysis and Reporting



Color Scale
Customize colors and scales for detailed corneal assessments

Topography Map
Display as curvature, elevation, corneal wavefront, even image simulations. Landmarks such as corneal apex Δ , pupil contour, and pupil center \otimes help explain the impact on visual acuity

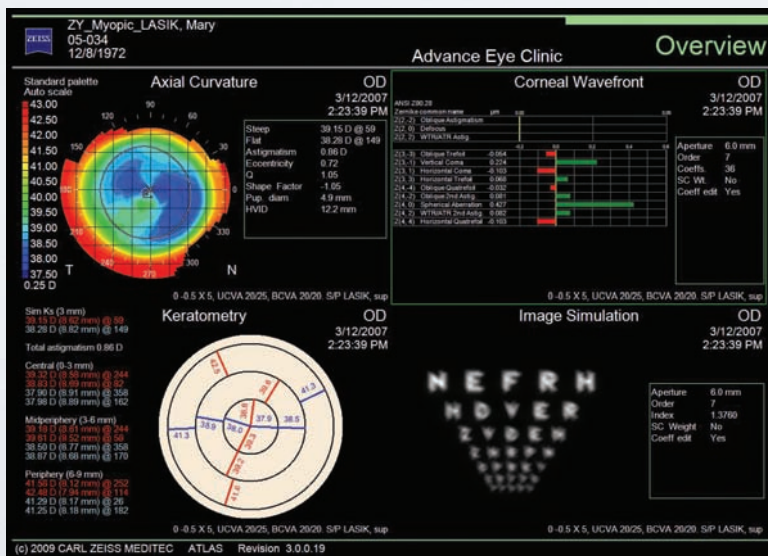
Data
Automatically display preferred parameters such as simulated keratometry, shape factor, eccentricity, and HVID (white to white)

Cursor Value
Obtain the exact value at any point on the map

Axial map reveals a displaced corneal apex and inferior steepening, which standard keratometry at 3mm would have missed.

Novel Applications for Cataract Care

Corneal Wavefront Analysis is a valuable tool guiding you to the suitable technologies which will correct visual distortion. The ATLAS provides all the key topographical information needed to enhance IOL power calculation and IOL selection as well as set appropriate patient expectations.



- Educate patients about higher-order aberrations and simulate visual acuity with various pupil sizes
- Assess corneal refraction with image simulation and point spread function
- Optimize aspheric IOL selection with corneal spherical aberration, Z(4,0), based on Placido disk technology^{3,4}
- Established IOL power formulas for myopic and hyperopic LASIK/PRK and RK^{5,6}
- Perioperative astigmatism management

3- M. Jeandervin and J. Barr, "Comparison of repeat videokeratography: repeatability and accuracy," *Optom. Vis. Sci.* 75, 663-669 (1998)
4- Evaluating data acquisition and smoothing functions of currently available videokeratoscopes. *J Cataract Refract Surg* 22 (1996);22:421-426

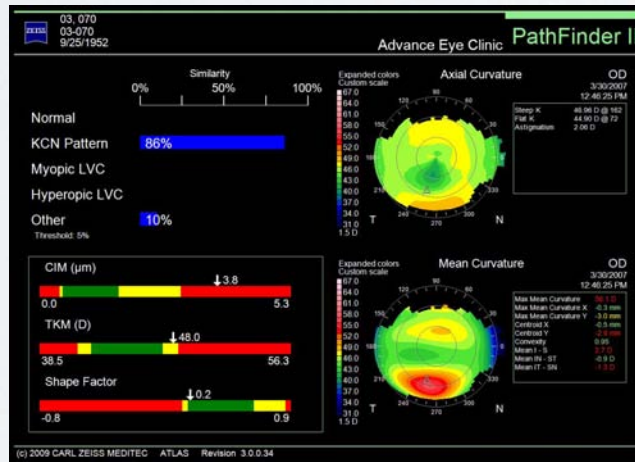
5- iol.ascrs.org (accessed 10/01/09)
6- <http://doctor-hill.com/iol-main/keratorefractive.htm> (accessed 10/01/09)

PathFinder II Corneal Analysis Software

Advancing traditional topography. PathFinder™ II Corneal Analysis Software is a comprehensive, easy to understand, and reliable anterior topographic screening module to assist with refractive surgery screening and to help identify abnormal corneal conditions.

1. PathFinder II provides probabilities for 5 different corneal conditions by comparing topography exams to an extensive clinical database. Validation of PathFinder II with an independent data set demonstrated greater than 90% sensitivity, specificity, and accuracy in detecting normal versus abnormal corneas ⁷.

2. Color-coding of PathFinder II parameters quickly indicates which parameters are beyond normal limits and may contribute to specific classifications.

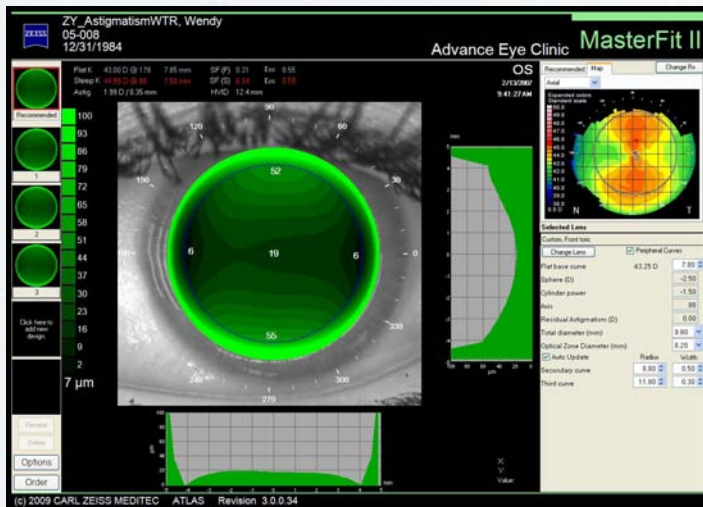


3. In this example, traditional axial curvature does not highlight the nature of the cornea as compared to mean curvature.

4. 3-dimensional mean curvature analysis eliminates corneal astigmatism to reveal underlying local curvature irregularities. The size and location of corneal irregularities, especially in the periphery, are better highlighted.

MasterFit II Contact Lens Software

Direct your fitting success. MasterFit™ II Contact Lens Software helps streamline fitting gas permeable (GP) lenses and guides you through challenging-to-fit patients. Simulated fluorescein patterns and tear film thickness profiles promote effective lens design to minimize chair-time and improve patient satisfaction.



- Simulate fluorescein patterns for custom and stock lenses, including spherical, toric, and aspheric designs
- Automatically design lenses to your preferences by customizing fitting options such as desired tear film clearance
- Improve trial lens fitting efficiency by adjusting lens parameters, such as peripheral curves, and simulating lens movement to compensate for lens-to-cornea relationship
- Email lens design and topography exam to your lab for efficient ordering and fulfillment

ATLAS Model 9000

Technical Specifications

Working Distance		70 mm
Field of View		17 mm X 14.5 mm
Placido Rings		22 (18 superiorly, 22 inferiorly)
Illumination Source		Non-visible infrared (950 nm) LED
Optics		Digital CMOS camera with 1280x1024 pixel resolution
Curvature	Measurement Range Accuracy Reproducibility	15 to 95 D (3.5 to 22.5 mm) ± 0.05 D (± 0.01 mm) ⁸ ± 0.10 D (± 0.02 mm) ⁸
HVID (white to white)	Measurement Range Resolution	10.0 to 14.0 mm 0.1 mm
Pupillometry	Acquired Images Measurement Range Resolution	Scotopic and photopic (700 nm) 0.5 to 11.0 mm 0.1 mm
Views		<ul style="list-style-type: none"> • Axial Curvature • Tangential Curvature • Elevation (Best-Fit Sphere) • Irregularity (Best-Fit Ellipsoid) • Videokeratoscopic (Rings, Scotopic, Photopic) • Keratometry • Refractive Power • Mean Curvature • Corneal Wavefront • Image Simulation • Point Spread Function (PSF) • Modulation Transfer Function (MTF)
Presentation Displays		<ul style="list-style-type: none"> • Single View • Overview • OD/OS Comparison • Difference • Trend with Time, Trend Analysis • Custom
Optional Software/Third Party Software		<ul style="list-style-type: none"> • PathFinder™ II Corneal Analysis Software • MasterFit™ II Contact Lens Software • ATLAS™ Review Software • DICOM Gateway • Wave Contact Lens Software
Computer		<ul style="list-style-type: none"> • Windows® XP Professional • Pentium® M Processor • Internal storage: up to 35,000 exams • CD-RW/DVD-ROM • 3 Ethernet, 2 USB 2.0 ports • Integrated 12.1" color flat panel display
Dimensions/Weight (Instrument only)		<ul style="list-style-type: none"> • 52 L x 37 W x 50 H (cm) • 39 lbs. (17.7 kg)
Electrical		<ul style="list-style-type: none"> • 100-240V~: 50/60Hz, 2-1A

NOTE: All technical specifications are subject to change without notice.
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⁸- To one standard deviation on a properly calibrated 42.51 D (7.94 mm) test object.

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