ATLAS Corneal Topography System

Simply accurate for maximum productivity

Model 9000

ZEISS

The New ATLAS®

Take your practice to the next level

Carl Zeiss Meditec has taken the world's leading corneal topography system[1] and made it better. The ATLAS System delivers the clinical accuracy essential to today's eye care practice, now in a more powerful and easier 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
- From Carl Zeiss Meditec, with more than a decade of experience in corneal topography

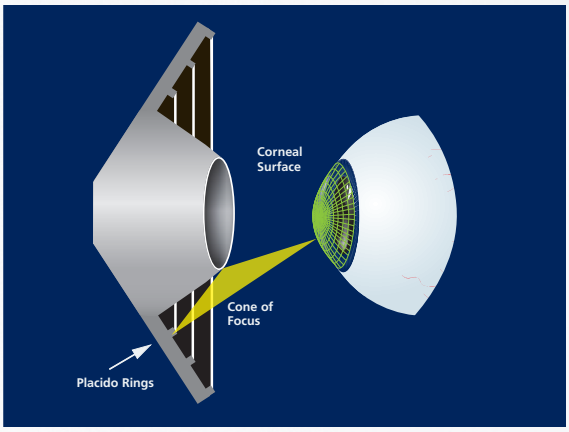
Elevate Your Practice with ATLAS

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.

1- Marketscope, *The Surgical and Office Based Diagnostic Equipment Market*, April 2006

Proprietary Technologies Deliver Superior Accuracy

The ATLAS System has been proven to deliver the clinical accuracy that your practice requires. The all-in-one system combines a suite of unique technologies and is simple and efficient 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

Proven Placido Disk Technology

- Patented Cone-of-Focus™ Alignment System and Arc-Step Algorithm deliver sub-micron elevation accuracy
- 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 makes image acquisition easy

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

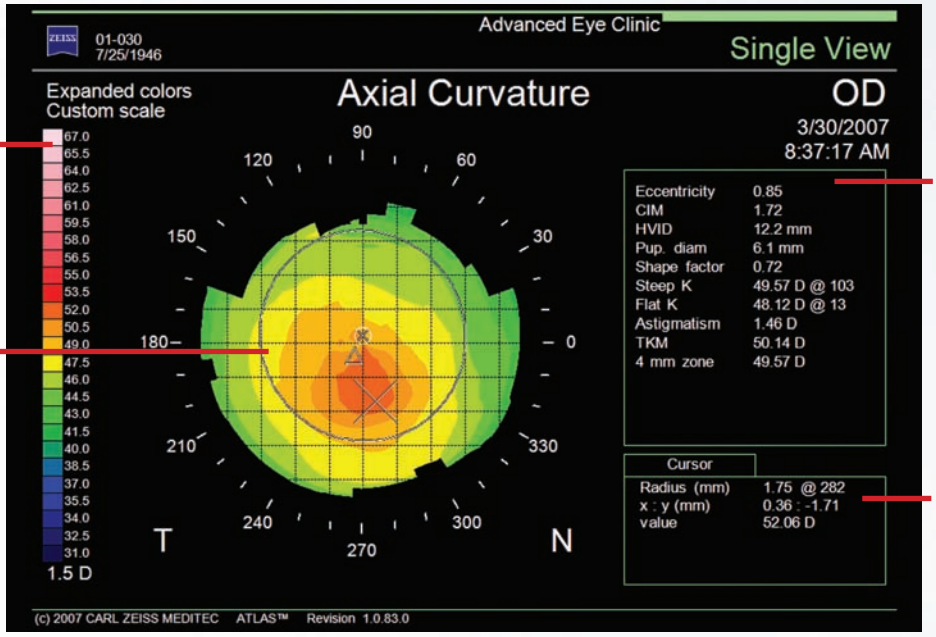
Ergonomic Design Ideally Suited for You and Your Patient

- Unique chinrest positions patient for easy image capture and wide peripheral coverage and automatically detects OD/OS
- Non-visible Placido ring illumination increases corneal coverage and patient comfort
- Compact system with integrated computer makes examination effortless

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 △, pupil contour, and pupil center ⊗ help explain the impact on visual acuity

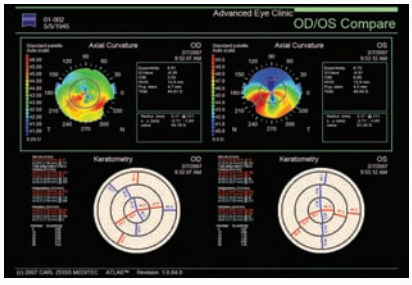


Data
Automatically display preferred parameters such as simulated keratometry, shape factor, eccentricity, and HVID (white to white)

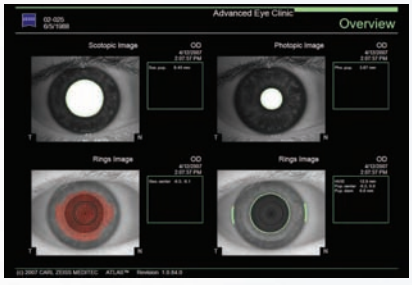
Cursor Value
Obtain the exact value at any point on the map

Versatility That Is Visible

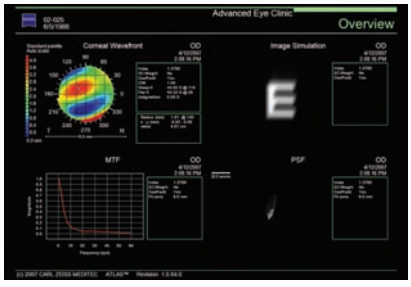
Flexible, customizable displays provide instant insight into corneal curvature, shape, and visual function for improved practice efficiency.



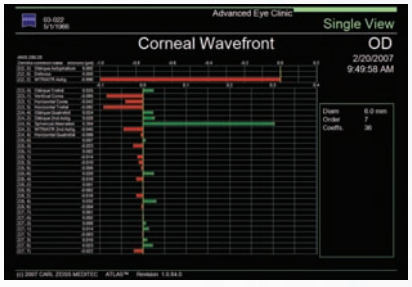
OD/OS Comparison
Quickly assess both eyes for corneal health and refraction.



Automatic Pupillometry and HVID Measurement
Enhance contact lens fitting and refractive surgery planning with scotopic and photopic pupil images and HVID.



Corneal Wavefront Overview
Educate patients about higher-order aberrations and simulate visual acuity.



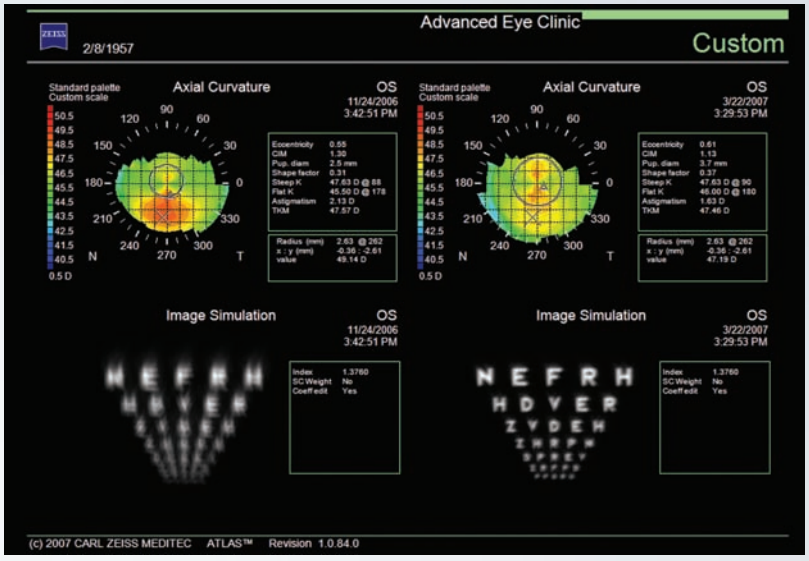
Corneal Wavefront Zernike Analysis
Measure corneal spherical aberration to optimize the selection of aspheric IOLs.

Gain Clinical Insight and Confidence

Track corneal health for improved patient care

1.
Axial map reveals inferior steepening and corneal warpage from years of wearing an improperly fit RGP contact lens with a highly aspheric back surface.

2.
Image simulation displays higher-order corneal aberrations and confirms patient's complaints of severe spectacle blur.



Case Example: Corneal Warpage Rehabilitation

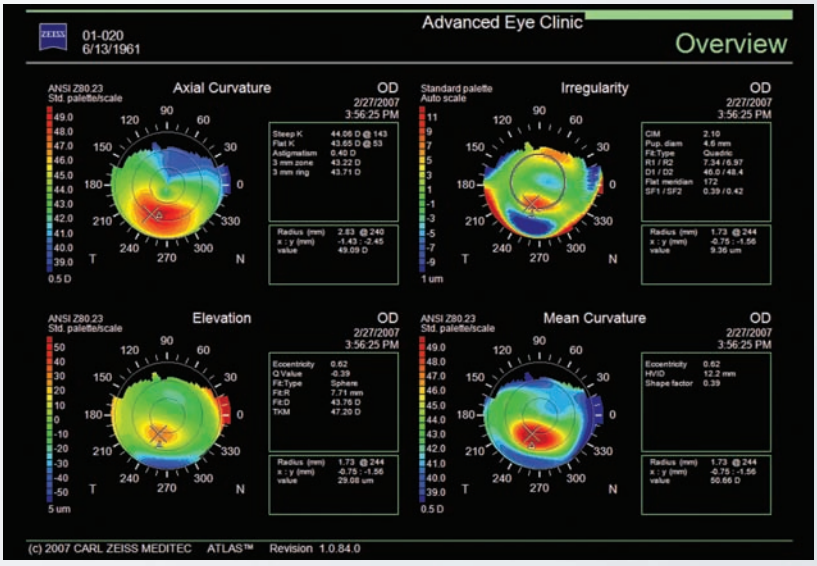
3.
The cornea was allowed to normalize over approximately 4 months and returned to a normal appearing astigmatic shape.

4.
Image simulation shows the improvement in visual acuity with a reduction in higher-order aberrations.

Screen for improved pathology detection and management

1.
Axial map reveals a displaced corneal apex and inferior steepening, which standard keratometry at 3 mm would have missed.

2.
Elevation map shows a 29 micron protrusion above a best-fit reference sphere.



Case Example: Suspect Keratoconus

3.
Irregularity map, relative to a best-fit ellipsoid, highlights surface irregularities that may limit best-corrected visual acuity.

4.
Mean Curvature map eliminates corneal astigmatism, highlighting underlying features, such as this cone peak.

ATLAS Model 9000

When patients entrust you with their eyesight, their vision and your expertise converge. ATLAS from Carl Zeiss Meditec empowers you with the most intuitive, advanced diagnostic solution. Along with our dedication to clinical and technical excellence, we offer world-class training, on-site support and ongoing educational opportunities. Partner with Zeiss for maximum productivity.

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)[1] ± 0.10 D (± 0.02 mm)[1]
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		• 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		• Single View • Overview • OD/OS Comparison • Difference • Trend with Time • Custom
Optional Software[2]		• PathFinder™ II Corneal Analysis Software • MasterFit™ II Contact Lens Software • ATLAS™ Review Software
Computer		• 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)		• 52 L x 37 W x 50 H (cm) • 39 lbs. (17.7 kg)
Electrical		100-240V~: 50/60Hz, 2-1A

NOTE: All technical specifications are subject to change without notice.

1- To one standard deviation on a properly calibrated 42.51 D (7.94 mm) test object.
2- Available with ATLAS Software version 2.0

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