MediWorks



Scansys TA517 Pro

3D Anterior Segment Analyzer

Scansys TA517 Pro 3D Anterior Segment Analyzer

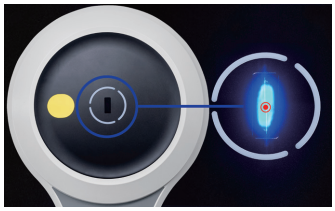
Provides a comprehensive measurement for the ocular anterior segment

Key Highlights

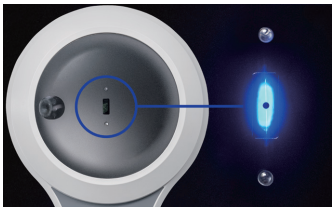
- Generate **28/60/100 ultra-high-definition Scheimpflug images** of the anterior segment in 1 Scan.
- A total of **185,472/397,440/662,400 data analysis points** are collected for more accurate measurement.
- Has a global database of approximately **20,000 cases** with a growing population.
- **Hardware upgrade and software optimization** enhance the scan efficiency and better meet the needs of multiple ophthalmic clinical scenarios.

What's New in Scansys TA517 Pro

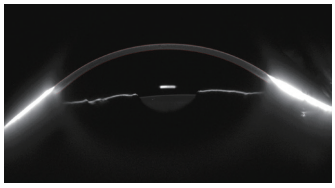
- **New red fixation point and ring with low-power blue slit light** facilitate high-quality scanning and imaging.
- **Up to 662,400 data analysis points** significantly improve the measurement accuracy.
- **18mm corneoscleral diameter coverage** comprehensively supports various scleral lens fitting.
- **Static and dynamic pupillometry** fully support planning for cataract and refractive surgery, as well as myopia management.
- **World's first Scheimpflug-based corneal epithelial and stromal thickness mapping** for diverse clinical scenarios.
- **Corneal curvature parameters for any region within a maximum diameter of 8.8mm** provide comprehensive data support for customized refractive and cataract surgery planning.
- **New Generation IOL calculation formulas: Pearl-DGS, Pearl-DGS Pro, Pearl-DGS Toric and EVO 2.0** enable precise prediction of IOL power for common cataract patients or cataract patients after refractive surgeries.



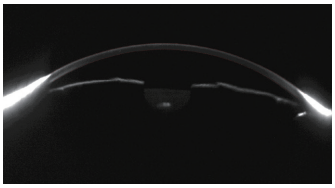
Scansys Pro



Scansys



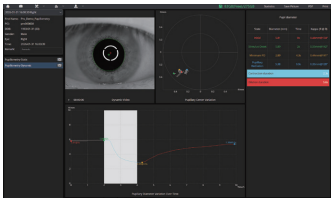
Scansys Pro
(18mm-diameter corneoscleral coverage)



Scansys
(16mm-diameter corneoscleral coverage)



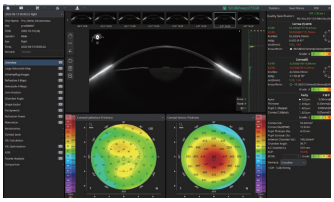
Scansys Pro Static Pupillometry



Scansys Pro Dynamic Pupillometry



Scansys Pro Refractive Power
(Ring & Zone)



Scansys Pro Epithelial and
Stromal Thickness Maps

Maps

Cornea Thickness Map

Corneal Epithelial Thickness Map NEW

Corneal Stromal Thickness Map NEW

Tangential Curvature Map (Corneal Anterior Surface)

Tangential Curvature Map (Corneal Posterior Surface)

Sagittal Curvature Map (Corneal Anterior Surface)

Sagittal Curvature Map (Corneal Posterior Surface)

Elevation Map (Corneal Anterior Surface)

Elevation Map (Corneal Posterior Surface)

Refractive Power Map (Corneal Anterior Surface)

Refractive Power Map (Corneal Posterior Surface)

True Net Power Map

Keratometric Power Deviation Map

Anterior Chamber Depth Map

Total Cornea Power Map (Gaussian)

Total Cornea Power Map (Ray Tracing)

Sagittal Height Map (Corneal Anterior Surface)

Sagittal Height Map (Corneal Posterior Surface)

Shape Factor Map (Corneal Anterior Surface) NEW

Shape Factor Map (Corneal Posterior Surface) NEW

Corneosclera Sagittal Height Map

Corneosclera Elevation Map

Functional Modules

Refractive Surgery

Refractive 4 Maps

Selectable 4 Maps

Pachymetric Module

Keratoconus Analysis & Progression POPULAR

Binocular Contrast of Refractive 4 Maps

Corneal Epithelial and Stromal Thickness Maps

Refractive Power Distribution (Ring & Zone)

ICL Recommendation & Postoperative Evaluation

Aberration & Visual Quality Analysis

Fourier Analysis

Cataract Surgery

IOL Optimization POPULAR

IOL Calculation

Refractive Power Distribution (Ring & Zone)

Crystalline Lens Density Analysis

Aberration & Visual Quality Analysis

Astigmatic Keratotomy Tool

Contact Lens Fitting

Scleral Lens Module POPULAR

Corneal Shape Factor

Contact Lens Simulated Fitting

Automatic Calculation of Contact Lens Fitting Parameters

Glaucoma Screening & Others

Anterior Chamber Angle Analysis

IOP Correction Formula

ICRS Implantation Surgery Recommendation

Static & Dynamic Pupillometry

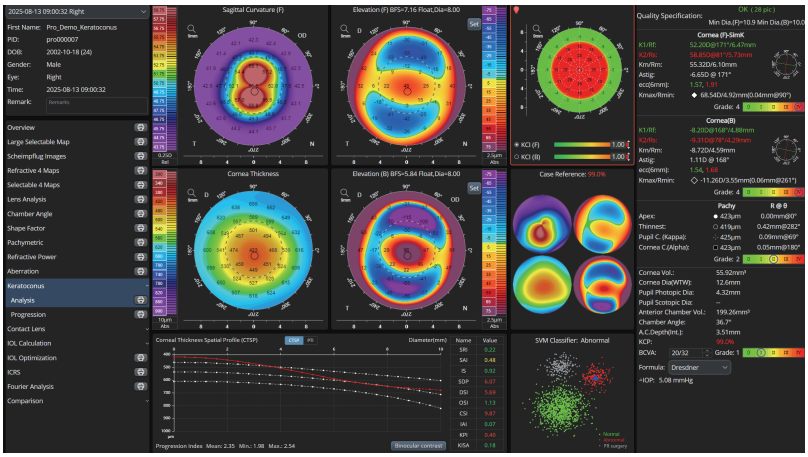
Comparison of 2 Examinations



Clinical Application in Refractive Surgery

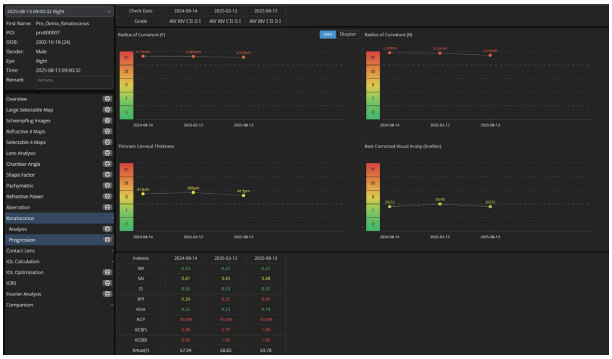
Keratoconus Analysis

POPULAR FUNCTION



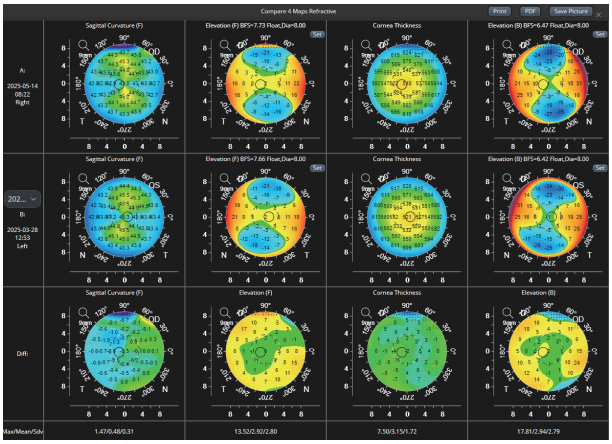
The various keratoconus related parameters provided by Scansys Pro, such as the Refractive 4 Maps, Corneal Thickness Distribution, Keratoconus Index (KCI), Case Reference, SVM Classifier, Keratoconus Probability (KCP), etc., can help eye-care professionals diagnose keratoconus effectively.

Keratoconus Progression



Monitoring changes in keratoconus grading and related indices during follow-up visit enables long-term chronic disease management for keratoconus patients.

Binocular Contrast of Refractive 4 Maps

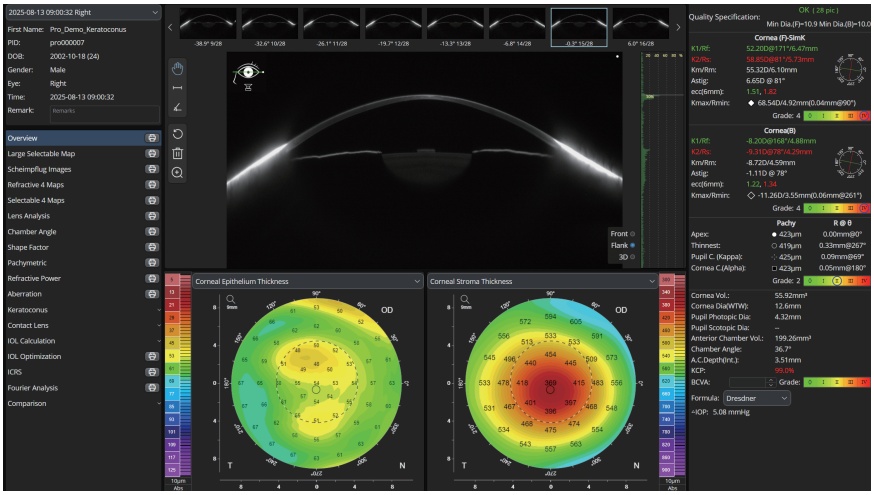


By comparing the differences of binocular refractive 4 maps, the screening efficiency for early keratoconus, especially subclinical keratoconus and forme fruste keratoconus, can be improved.



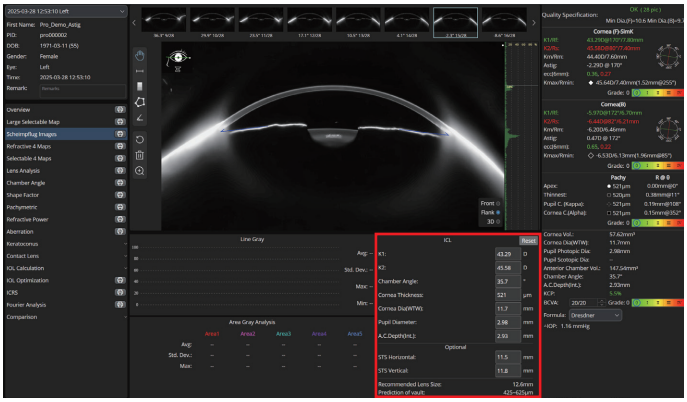


Coreanl Epithelai and Stromal Thickness



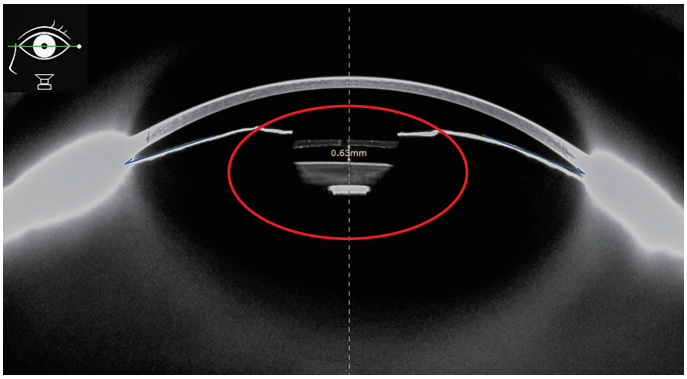
The corneal epithelial and stromal thickness maps of Scansys Pro facilitate the screening and diagnosis of early keratoconus as well as refractive surgery planning.

ICL Size Recommendation and Vault Prediction



Scansys Pro can, based on the analysis of data such as the corneal diameter, corneal curvature, corneal thickness, anterior chamber depth and anterior chamber angle of the patient, recommend the size of the ICL lenses and predict the range of postoperative vault.

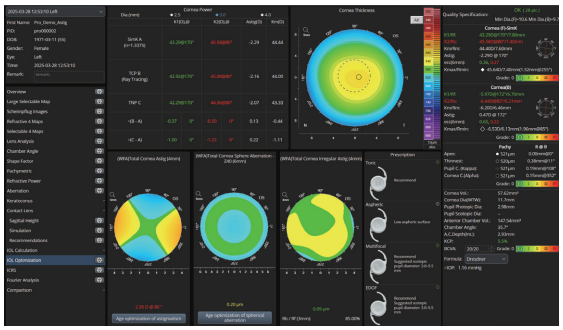
Post-Operative ICL Vault Measurement



Scansys Pro supports capturing high-definition Scheimpflug images at any angle after the ICL surgery to precisely measure the postoperative vault, thereby more objectively evaluating the effect and safety of the surgery.

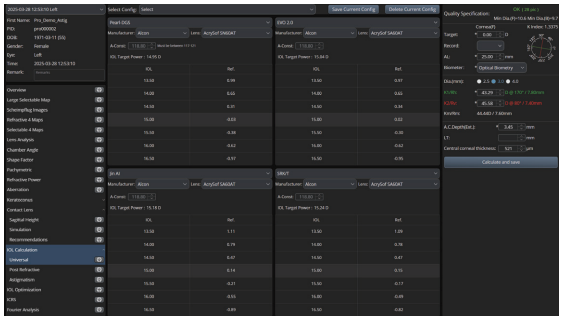

SCANSYS

Clinical Application in Cataract Surgery



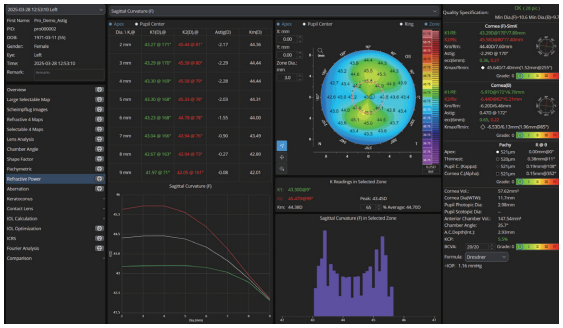
IOL Optimization POPULAR FUNCTION

Scansys Pro provides key parameters such as three types of corneal refractive power (Simk, Total Corneal Power and True Net Power), Total Corneal Astigmatism, Total Corneal Spherical Aberration, Total Corneal Higher-Order Aberration, the ratio of the curvature radius of the posterior corneal surface to that of the anterior corneal surface, Kappa Angle and Alpha Angle. Combined with the built-in calculators for age optimization of astigmatism and age optimization of spherical aberration, it can truly accomplish the optimization of advanced IOLs and help patients achieve the best visual quality after cataract surgery.



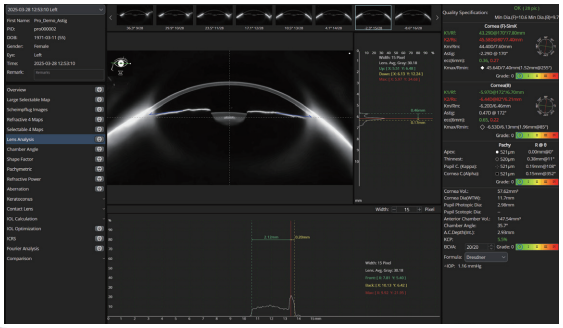
IOL Calculation

Scansys Pro has built-in multiple intraocular lens calculation formulas such as **Pearl-DGS, Pearl-DGS Pro, Pearl-DGS Toric, EVO 2.0, Jin,** SRK-T, Holladay 1, Hoffer Q, etc. and the IOL parameters provided by manufacturers. It can quickly provide the corresponding IOL power for routine cataract patients, cataract patients with prior refractive laser surgery, and those with astigmatism.



Refractive Power Distribution

Scansys Pro delivers corneal curvature parameters for any ring or zone ranging from 0.5 to 8.8 mm in diameter, supporting custom cataract surgical planning.



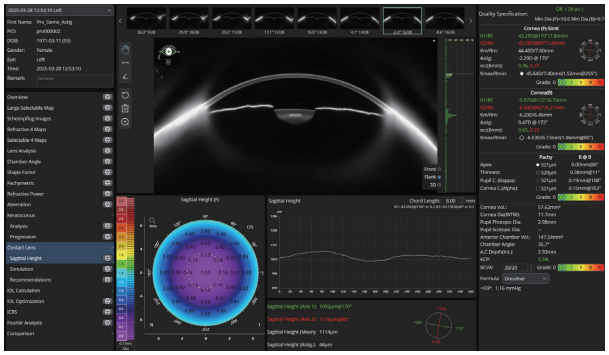
Crystalline Lens Density Analysis

By calculating the gray value in both the cross-sectional and longitudinal sections of the crystalline lens, Scansys Pro can assist eye-care professionals better design the cataract surgeries and the intraoperative operations.



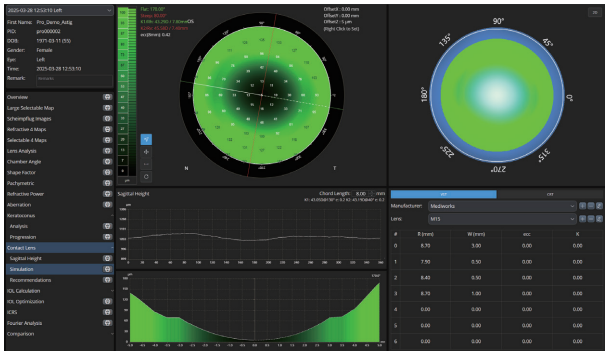
Clinical Application in Contact Lens Fitting

Orthokeratology Lens Fitting



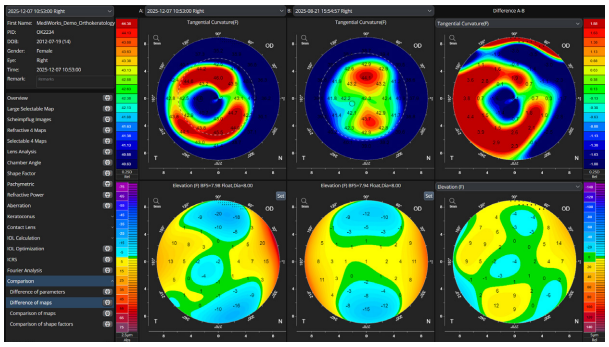
Trial Lens Selection

Scansys Pro provides orthokeratology lens fitting-related parameters, offering comprehensive data support for eye-care professionals to select orthokeratology trial lens.



Lens Simulated Fitting

Based on patient’s corneal parameters, Scansys Pro can simulate the fitting effect of orthokeratology lenses under the corneal fluorescence staining with slit lamp. This helps eye-care professionals improve the efficiency of orthokeratology lenses fitting.



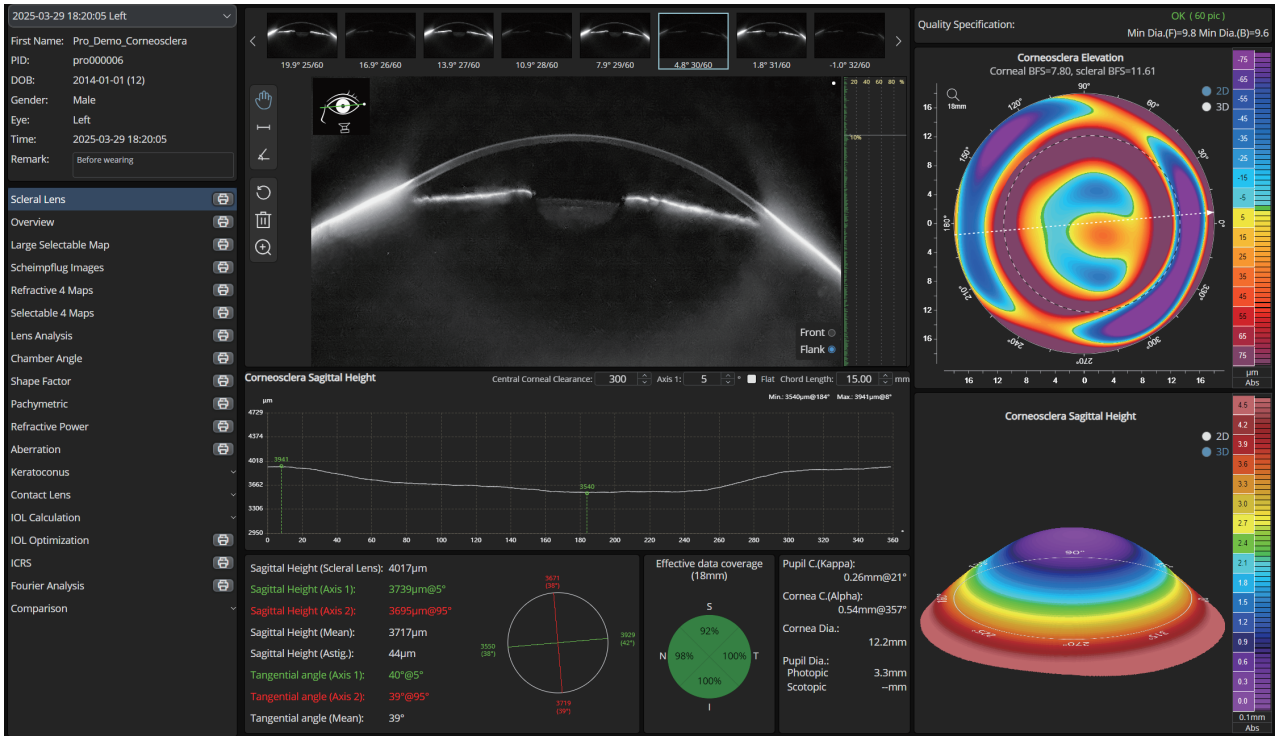
Lens Wearing Effect Evaluation

Scansys Pro provides tangential curvature difference map before and after lens wearing, which can assist eye-care professionals in evaluating the wearing effect of orthokeratology lenses during follow-up visits.



Scleral Lens Module

POPULAR FUNCTION

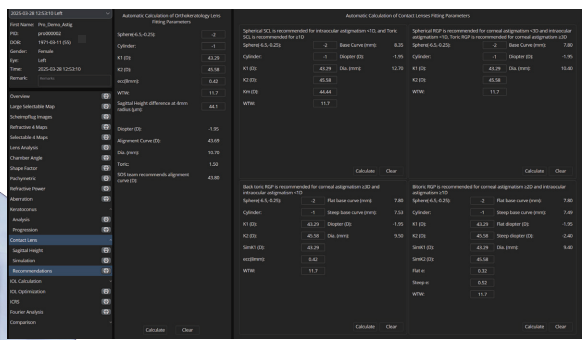


Scansys Pro can capture 60 high-definition Scheimpflug images of corneosclera in a single scan, covering a **18mm-diameter of corneoscleral area**. It can display the corneoscleral sagittal height in a 360° panoramic view without any multiple scans and image stitching, and provide 13 key parameters so as to offer comprehensive and accurate data support for scleral lens fitting.



Central Corneal Clearance Measurement for Scleral Lens Wear

Scansys Pro supports capturing high-definition Scheimpflug images at any angle after the scleral lens wear to precisely measure the corneal clearance.

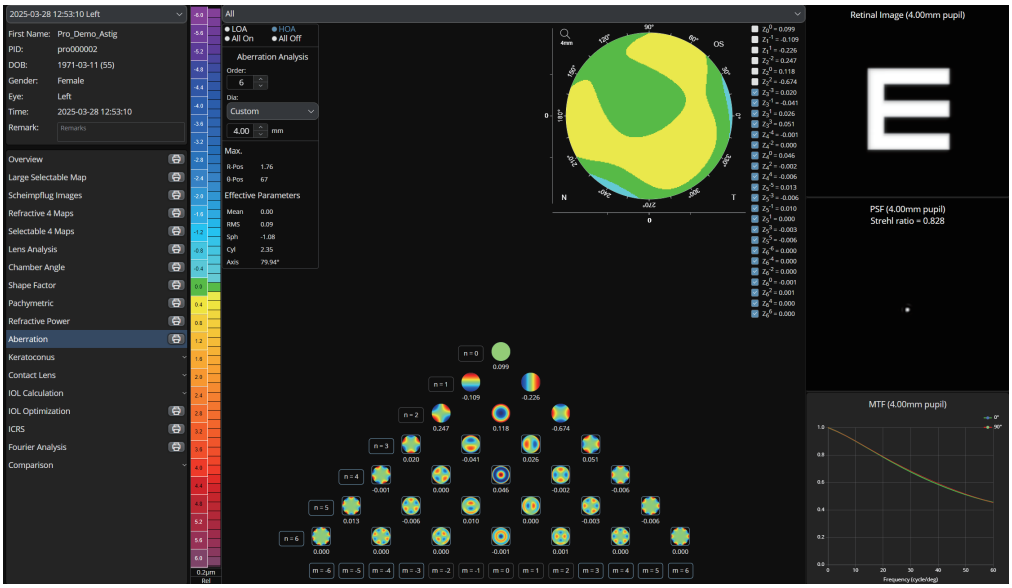


Automatic Calculation of Contact Lens Fitting Parameters

Scansys Pro has a built-in automatic calculation for contact lens fitting , which can help eye-care professionals quickly obtain the fitting parameters of orthokeratology lenses, soft contact lenses or RGP lenses based on the patients' corneal parameters.

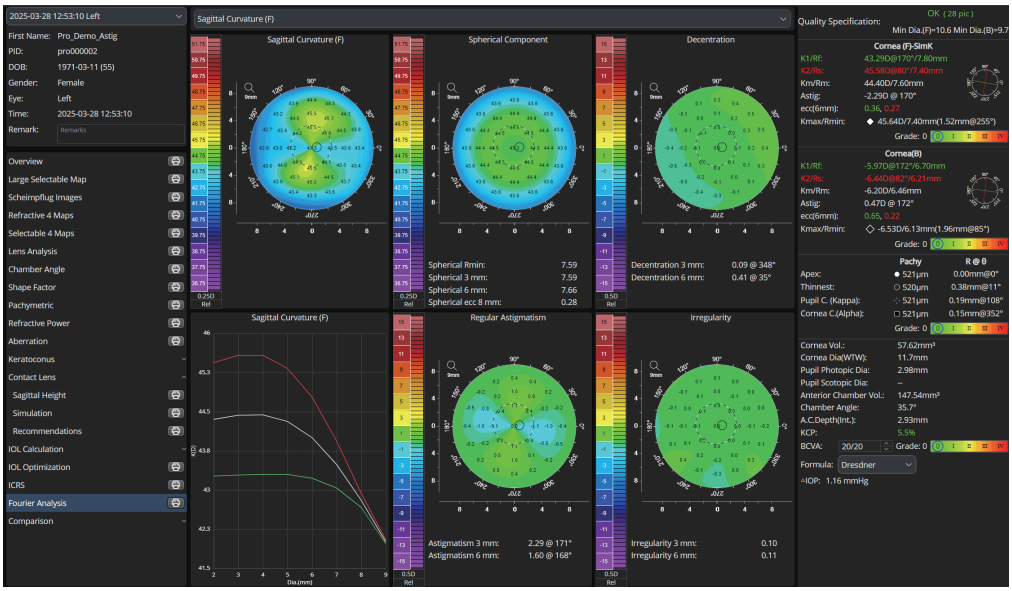
Clinical Application in Visual Quality Analysis

Wavefront Aberration Analysis



Scansys Pro provides up to 8-order Zernike wavefront aberration data of the corneal anterior and posterior surfaces and the entire cornea with a maximum diameter of 12mm. Meanwhile, it can also simulate the visual quality image in a more intuitive way through Retinal Imaging, Point Spread Function (PSF) and Modulation Transfer Function (MTF), etc., providing a crucial basis for the preoperative plan design and postoperative visual quality evaluation of refractive cataract surgery and customized corneal refractive surgery.

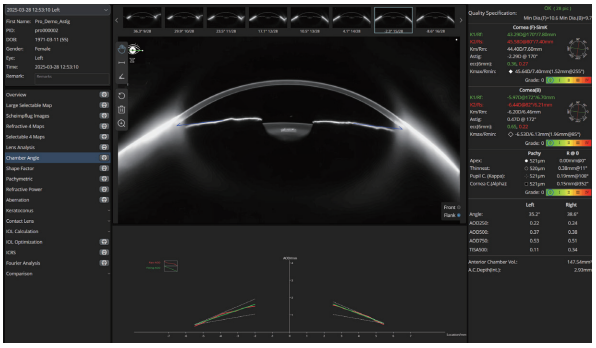
Fourier Analysis



Scansys Pro can decompose the complex corneal topography data of patients into quantitatively analyzable components such as Spherical Component, Decentration Component, Regular Astigmatism Component and Irregularity Component through Fourier Analysis, which can provide more scientific guidance basis for eye-care professionals to design refractive cataract surgery and personalized corneal refractive surgery plans.

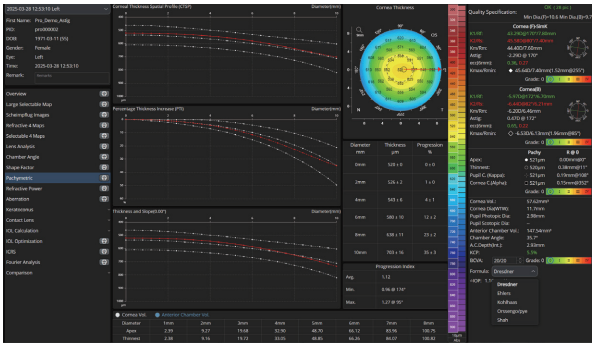
Clinical Application in Glaucoma Screening

Anterior Chamber Angle Analysis



By calculating the gray levels of the anterior chamber and the anterior chamber angle of patients, Scansys Pro can obtain parameters such as Angle Opening Distance (AOD) and Trabecular-Iris Space Area (TISA) and thereby present the distribution trend curve of the original AOD and the linearly fitted distribution trend on both sides of the corneal apex, as well as parameters such as Anterior Chamber Angle, Anterior Chamber Volume, and Anterior Chamber Depth. This is of certain enlightenment significance for the early screening of glaucoma and can also track the effect of laser peripheral iridectomy.

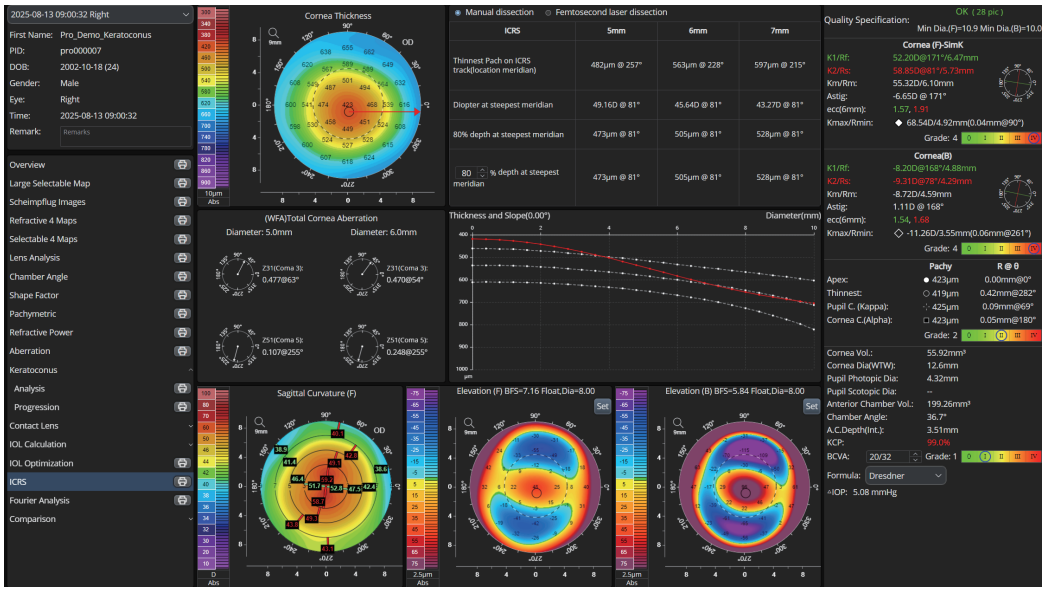
IOP Correction Formula



Scansys Pro has 5 built-in IOP correction formulas based on corneal thickness, which help eye-care professionals well understand the real IOP of patients.

Clinical Application in ICRS Surgery

ICRS Implantation Surgery Recommendation



Scansys Pro is capable of providing a comprehensive set of parameters necessary for creating corneal stromal ring tunnels both through manual dissection (utilizing a corneal stromal ring tunnel dissector) and femtosecond laser dissection based on the corneal morphology of patients, in order to improve the predictability of Intrastromal Corneal Ring Segments (ICRS) implantation and reduce surgical complications.

Specifications

Camera	Digital infrared camera + Scheimpflug digital CCD camera
Light source	LED slit
Scan mode	2D / 3D (28 pic / 60 pic / 100 pic / CS 60 pic)
Scanning speed	28 images within 1 second / 60 or 100 images within 2 seconds
Data analysis points	185,472 / 397,440 / 662,400
Operating distance	65 mm
Corneal topography diameter	9 mm / 12 mm
Corneoscleral topography diameter	18 mm
Keratometry	12 ~ 72 D
Corneal thickness	200 ~ 1200 μm
White to white	1 ~ 17 mm
Pupil diameter	1 ~ 13 mm
Anterior chamber depth	0.1 ~ 8 mm
Anterior chamber volume	20 ~ 600 mm^3
Anterior chamber angle	10 ~ 90°
Kappa / Alpha angle	R (0 ~ 3 mm), θ (0 ~ 360°)

Work Range

Front and back	115 mm
Left and right	100 mm
Up and down	30 mm

Power Supply

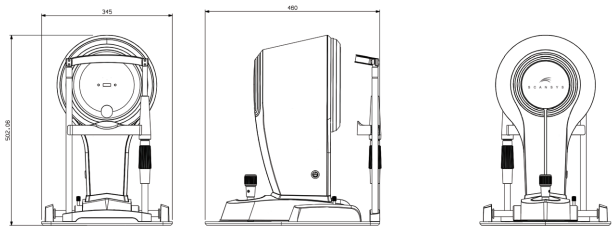
Input voltage	~ 100 - 240V
Input frequency	50 Hz / 60 Hz

Weight and Size

Device dimension	505 mm x 345 mm x 460 mm (L/W/H)
Device weight	12 kg
Package dimension	700 mm x 600 mm x 820 mm (L/W/H)
Package weigh	25 kg

System Specifications

PC configuration	i5 ~ 14500 32G DDR4 memory 1TB SSD + 1TB storage
Display	1920 × 1080 23.8 inch
PC system	Windows 10



CE NMPA FDA MDSAP ISO13485

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Details Make the **Difference**