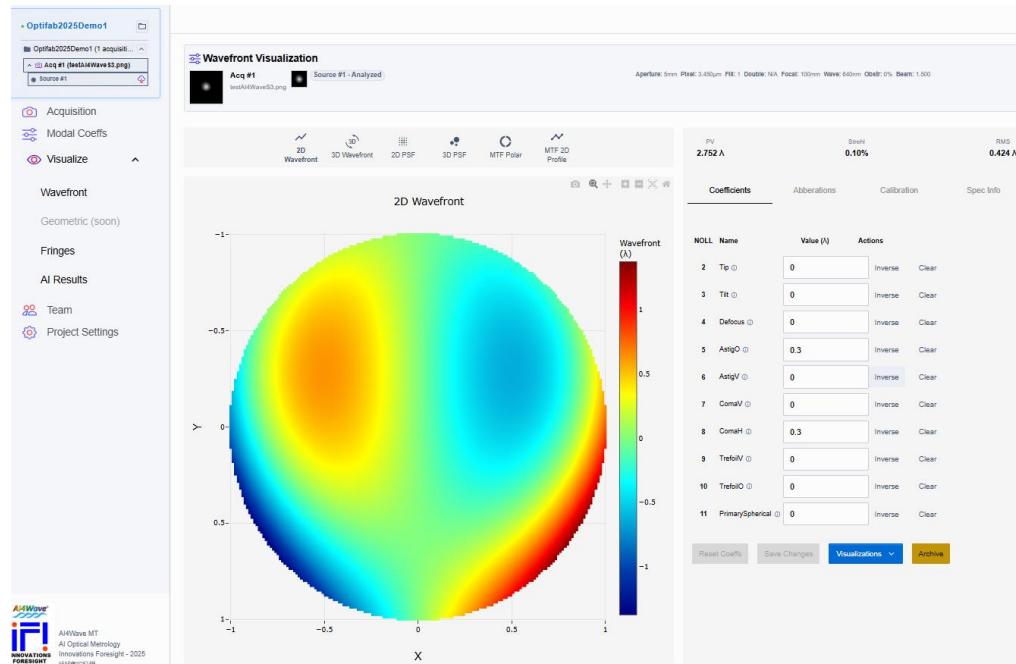


AI4Wave® MT



Wavefront Sensing with just one image- precision metrology made simple

- No dedicated wavefront sensor- a single image is all you need.
- High precision: <0.01 wave RMS sensitivity on Zernike coefficients.
- Output complete optical data: wavefront, aberrations, PSF, MTF, Zernike's coefficients and more.
- High dynamic range and operates effectively in real-time.
- Full-field aberration analysis in a single shot
- Robust under vibrations
- Integrate seamlessly into existing imaging setups
- Cost effective



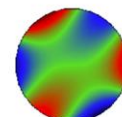
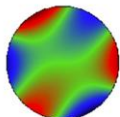
Ideal for

- Automation of quality control for lenses & mirrors
- Aspheric polishing feedback & inspection
- Optical alignment & calibration
- Wavefront diagnostics for R&D labs
- Laser beam profiling & optimization
- In-line process monitoring
- Remote optical diagnostics, no extra hardware required.

Contact us to schedule a demo:

customerservice@innovationsforesight.com





AI4Wave® Compared to Traditional Methods

Feature	AI4Wave Reliable high precision, Smart Simplicity	Shack-Hartmann Reliable Standard	Interferometer Ultimate precision,
Measurement Principle	AI phase retrieval (no reference beam)	Microlens array slope mapping	Coherent interference fringes
Accuracy	★★★★	★★★	★★★★★
Dynamic Range	🌐 Wide & Flexible	🔍 Moderate	📏 Narrow
Field Aberration Analysis	🌀 Yes - simultaneous, no scanning	🚫 No	🚫 No
Moving Parts	🚫 None	⚙️ Possible (for scanning)	🔄 Yes for phase shifting
Vibration Sensitivity	😊 Low	😊 Low	😞 High
Coherence Requirement	💡 Flexible	💡 Flexible	🔊 Strict coherence
Setup Complexity	⚡ Low	⚡⚡ Moderate	⚡⚡⚡ High
Production integration	➡️ Easy - software-driven, no extra hardware	🔧 Requires external sensor hardware	🔧 Requires complex optical setup
Speed / Throughput	⚡⚡⚡ Real-time	⚡⚡ Real-time	⚡ Slower
Maintenance	💻 Minimal (software-based)	🌿 Frequent alignment and recalibration	🌿 Frequent alignment and recalibration
Operation	💻 Automated and alignment-free	🔧 Sensitive to mechanical shifts and focus errors	🔧 Sensitive to mechanical shifts and focus errors
Field Use	🌍 Excellent	🌍 Good	🔧 Limited
Cost of Ownership	💰 Low	💰💰 Moderate	💰💰💰 High

Products			Services
AI4Wave & PSM	SkyWave Pro	AI4Wave DLL	AI4Wave Consulting service
An integrated solution merging PSM imaging and AI4WAVE to extend PSM beyond alignment into full wavefront analysis.	AI-powered solution for astronomers to extract wavefronts effortlessly from telescope images.	Easily integrate AI4WAVE's library and model (DLL) to enable wavefront extraction within your imaging system	Customers specify their optical design needs, and IF delivers a custom AI model enabling precise wavefront access and analysis.