OpticsViewer™

Improve your optical engineering to manufacturing workflow

Zemax

Access optical product design data on the manufacturing floor

OpticStudio® was built to give optical engineers everything they need to design optical systems; however, turning a tested optical system into a physical product requires optical engineers to share their optical designs with production engineers. Oftentimes, this process forces optical engineers to export their designs into restrictive file formats that remove vital information from the original file. As a result, production engineers lack the data they need to analyze if the optical system can meet manufacturing, budget, and time requirements.

For catalog lens companies, larger companies that receive significant amounts of subsystems from suppliers, and companies with in-house manufacturing, OpticsViewer™ improves communication, reduces costs, and lets manufacturing engineers troubleshoot designs with the full picture at their fingertips.

The perfect complement to OpticStudio

Each engineer owns their part of the product development process, and up until now, engineers that work with optical engineers have not had access to optical design data to troubleshoot the optical system designs on the manufacturing floor. OpticsViewer bridges the gap between optical design and the manufacturing process.

Improving how your engineers share optical design information can reduce miscommunication, speed up the product development process, and eliminate unnecessary iteration costs. Available for an annual subscription, OpticsViewer means teams don't need to use valuable OpticStudio licenses for validating optical systems.

Learn more at Zemax.com/OpticsViewer

Six ways OpticsViewer improves optical product manufacturing

1. Speak the same language
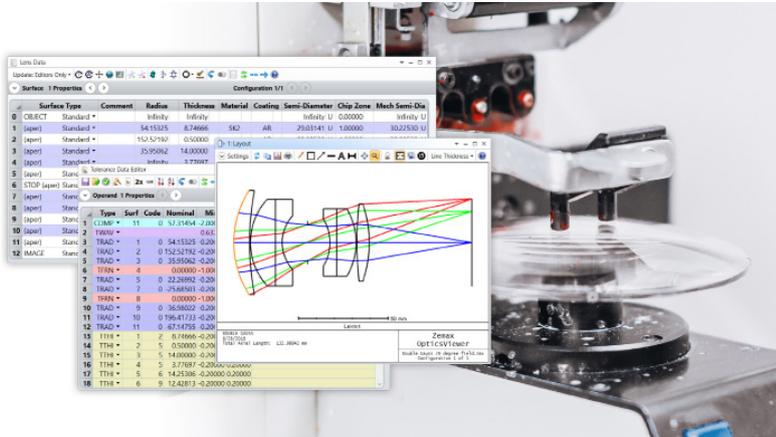
OpticsViewer gives manufacturing engineers the ability to load sequential OpticStudio design files and view without loss of precision or information. The design data is available, including design targets and tolerance ranges via the Viewer. Your engineering team can engage in more informed conversations and make better decisions using complete optical design data.

2. Share your optical designs

Export optical designs into CAD formats, including STEP, IGES, STL, or STAT for further optomechanical design and analysis.
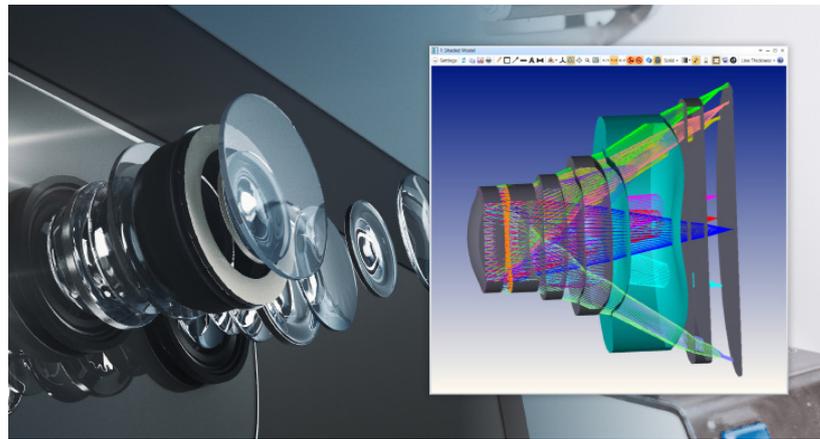

3. Avoid errors in manufacturing
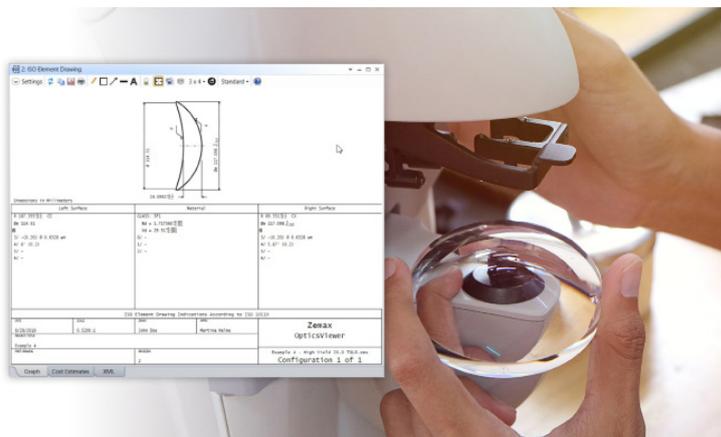
It is not uncommon for manufacturing engineers to receive incomplete or incorrectly implemented ISO 10110 drawings. With OpticsViewer, you can generate an accurate technical ISO 10110 drawing that meets the standard of geometric dimensioning and tolerancing of the optical design.

**Learn more at Zemax.com/OpticsViewer**

4. Ensure design meets manufacturing specs
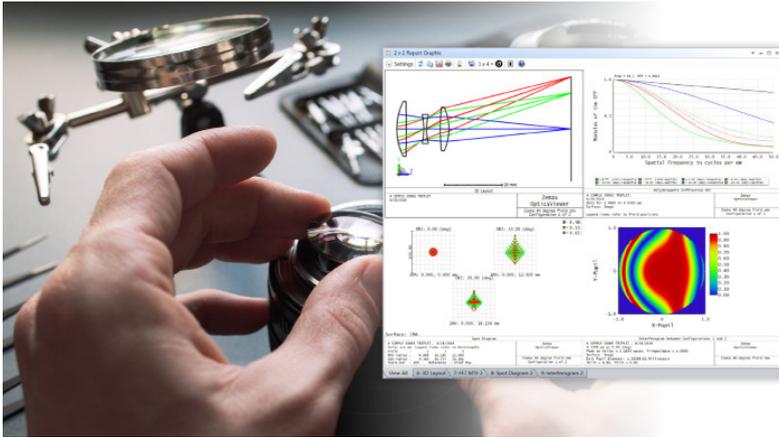
Use system viewers and analysis features, like performance check, to study the performance of an optical design . Manufacturing engineers can ensure that the optical performance is maintained throughout the manufacturing process.

5. Fine tune parameters to meet spec

Troubleshoot before you build a physical prototype with parameter visualization by adjusting parameters of the optical design to visualize the effect on optical performance. This empowers non-optical engineers to analyze the optical performance.
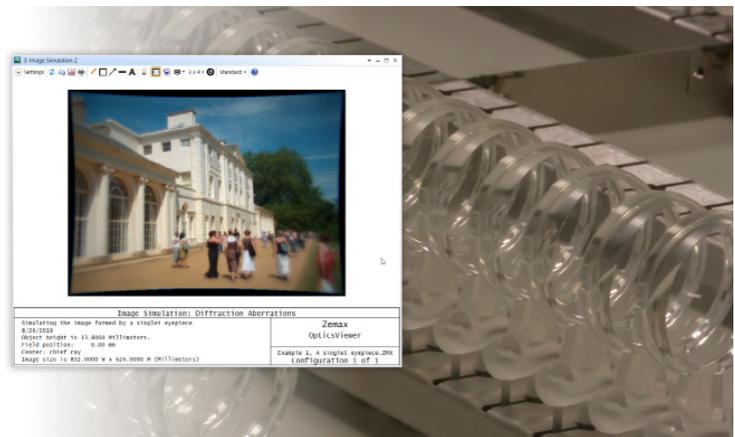
6. See the impact of changes on cost
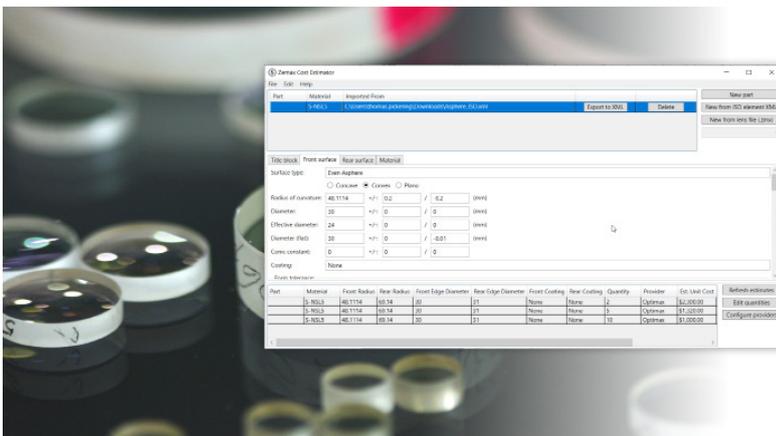
Access real-time cost estimates based upon lens data submitted to manufacturers. See the cost impact of lens shape, size, material, coatings, quality, and quantity.

More OpticsViewer features

Optical lab bench
Design simple, non-optimized optical systems using catalog lenses from vendors such as Thorlabs, Edmund Optics, and Newport.

Paraxial optics
Study optical concepts and bring back-of-the-envelope drawings to life.

## Learn more at Zemax.com/OpticsViewer

Why your team needs OpticsViewer

Improve communication

OpticsViewer improves communication by establishing a common language across the optical design and manufacturing process. Non-optical production engineers can have more informed conversations and make better decisions when they are given access to all the optical design information.

- The UI is designed for non-optical engineers to easily access data that is most relevant to their role.
- Production engineers have more information to assess optical design concepts and don't need to make assumptions.
- Avoid tedious back and forth between optical design and manufacturing that can result in inaccurate or incomplete data.
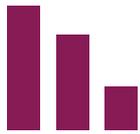
Reduce costs

Production engineers have easy access to the data they need to analyze and troubleshoot optical design specifications before manufacturing issues arise.

- Optimize manufacturing methods for cost-reduction, quality, and efficiency.
- Diagnose and resolve overly specific tolerances that increase costs.
- Decrease costs by speeding up manufacturing processes and reducing iterations.

Analyze and troubleshoot designs

The same file that is used by optical engineers to design, analyze, and optimize optical systems can be shared with non-optical engineering processes to improve manufacturability and ensure all design specifications.

- Manufacturing engineers can ensure that the optical performance is maintained throughout the manufacturing process.
- Adjust optical design parameters to analyze and visualize the effect on the optical performance.

Learn more at Zemax.com/OpticsViewer

System requirements

OPERATING SYSTEMS	
64-bit Windows operating system	Required*
Windows 10 (Anniversary update 1607 or newer recommended)	✓
Windows 8.1	✓
Windows 8.0	X
Windows 7 Service Pack 1	✓
.NET framework	4.6.2

*You can run OpticsViewer on Linux, Unix, and BSD-based operating systems (such as Mac OS) using a virtual machine with a Windows environment.

MINIMUM HARDWARE REQUIREMENTS	
Processor	64-bit Intel or AMD processor, multiple core processor recommended for optimal performance
Graphics card	Any graphics card that supports DirectX 11.0 and 512mb Video RAM
Disk space	2.2 GB required for the initial download/installation, 100 GB recommended for working files
System memory	2 GB, 2 GB per processor core recommended for optimal performance
Display resolution	1024 x 768 pixels (Full HD 1920x1080 recommended)
Two-button mouse with scroll wheel or equivalent trackpad	Required

OTHER	
Supplemental apps	Adobe Reader or compatible app for accessing OpticsViewer documentation
Internet/email access	Required for updates and support
TCP/IP network	Required

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About Zemax

Zemax's industry-leading optical product design software, OpticStudio®, LensMechanix®, and OpticsViewer™, helps engineering teams turn their optical product ideas into reality. Standardizing on Zemax software reduces design iterations and repeated prototypes, speeds time to market and reduces development costs.

We touch nearly every optical system manufactured today, including virtual reality systems, cell phone cameras, autonomous-vehicle sensor systems, and intraocular lenses—even imaging systems for the Mars Rover. By listening to our customers, we deliver unmatched value and have the largest, most passionate user base in the industry.

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